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Defense Logistics Agency

Defense Supply Center Richmond

ADMINISTRATIVE RECORD COVER SHEET

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FINAL

FISCAL YEAR 2024 ANNUAL REPORT
OPERABLE UNIT 6
DEFENSE SUPPLY CENTER RICHMOND

Prepared For

Defense Logistics Agency

And

United States Army Corps of Engineers
Baltimore District

Prepared by

AECOM Technical Services, Inc. and Meadows CMPG, Inc.

June 2025

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EXECUTIVE SUMMARY

Remedy monitoring and actions performed at Operable Unit 6 (OU 6) in Fiscal Year 2024 (FY 2024) included: annual groundwater monitoring at 69 locations in the surficial aquifer and 46 locations in the confined aquifer, operations, maintenance, and monitoring (OM&M) of the sub-slab depressurization system (SSDS) at Building 151, in situ bioremediation (ISB) performance monitoring at 15 locations in the OU 1 area (Figure 3-1). Annual monitoring included long-term monitoring (LTM) for potential leaching of non-volatile organic compound (VOC) constituents from soil to groundwater from OUs 1, 2, and 3 and surface water sampling at three established stations at No Name Creek (Section 3).

The new optimized monitoring network for groundwater implemented at OU 6 in 2021-2024 has refined delineations of plume areas and allows for enhanced monitoring of bioremediation progress and assessment of stability of plume areas in the surficial and confined aquifers.

VOC Plume Characterization

VOC plumes occur in the surficial aquifer (Eastover) and confined aquifer (Aquia-Potomac) within the northern and southern areas of OU 6. Primary constituent of concern (COC) plumes that have concentrations ≥ MCLs include tetrachloroethene (PCE), trichloroethene (TCE), cis-1,2-dichloroethene (cDCE), and vinyl chloride (VC). The lateral extent of the VOC plumes in the surficial aquifer is within the installation area except in an isolated area around a single well in the area between the installation fence line at OU 3 and No Name Creek. For the confined aquifer, discontinuous plume areas of PCE and TCE occur in the northern area of OU 1 and OU 2. In the southern area of OU 6, a VOC plume consisting of PCE, TCE, cDCE, and VC extends from the central OU 3 area into the undeveloped offsite area east of the installation (Section 4.7). The installation has an environmental easement in the offsite area of OU 6 that includes a network of monitoring wells and surface water stations in No Name Creek.

Bioremediation Assessment

Anaerobic biodegradation screening performed of the monitored plume areas for 2022-2024 found strong evidence for these processes (Table 5-1). For the established 2021 ISB treatment area in the northern area (surficial aquifer), the presence of microbial communities in groundwater combined with observed generation of ethene and ethane confirms a complete degradation pathway from PCE to ethane. Mean total organic carbon (TOC) concentrations in the ISB treatment areas for 2022-2024 exceeded the threshold of 20 milligrams per liter (mg/L) that provides an enhanced energy source for microbial degradation processes (EPA 1998, 29). In the southern area, the screening process identified reductive geochemical conditions and the presence of degradation by products along the complete reaction pathway from PCE to ethane (Section 5.3).

Northern Area VOC Plume Trends

For the northern area, ISB actions performed in Oct-Nov 2021 targeted a residual source zone in the surficial aquifer beneath the northern OU 1 area (Figure 5-1). Performance monitoring has indicated a reduction of contaminant mass in this source zone from pre-injection baseline levels in October 2021. Maximum concentrations reported for the surficial aquifer in the northern area have decreased by 88 percent (%) for PCE/TCE and decreased by 42% for cDCE. VC maximum concentrations detected have increased by 42% from baseline levels. Plume area reductions from 2021 to 2024 have occurred for TCE (-11%) and cDCE (-32%) with increases for PCE (3%) and VC (15%). As of May 2024, trend tests show decreasing trends for COCs at 6 of 8 wells for treatment area TA-1 and at 3 of 3 locations in treatment TA-2 with concentrations > MCLs. COC concentrations at the monitoring location in treatment area TA-3 are < MCLs (Sections 5.4 and 5.5).

For the northern area, limited vertical migration of PCE and TCE from the surficial aquifer to the confined aquifer has occurred compared to the southern area. A disaggregated and diffuse plume is present beneath OU 1 with a limited plume area around a single well in the OU 2 area (Section 4.11).

Southern Area VOC Plume Trends

For the southern area, ISB actions consisting of injections in fixed-based injection wells occurred in the surficial and confined aquifers in Jul-Aug 2015. For the surficial aquifer, VOC plume distribution metrics evaluated for 2018-2024 indicate transition to VC predominance over time as measured by percentage of

detects, maximum concentrations, measures of central tendency (mean/median), and number of detections greater than the MCL. Trend tests indicated a decreasing trend for maximum concentrations of cDCE. For 2021-2024, plume areas in the surficial aquifer decreased for PCE (-70%), TCE (-41%), and cDCE (13%). The VC plume area increased by 8% from 2021 to 2024. Plume metrics for the surficial aquifer in the southern area indicate continued plume degradation with the plume area remaining within the installation area (Section 5.4 and 5.5).

For the confined aquifer, VOC plume distribution metrics evaluated for 2018-2024 indicate cDCE predominance over time as measured by percentage of detects, maximum concentrations, measures of central tendency (mean/median), number of distribution outliers. For 2021-2024, the plume areas in the confined aquifer decreased for PCE (-38%) and increased for TCE (20%), cDCE (46%), and VC (41%) with the VC plume area predominating. The new monitoring network has detected apparent TCE, cDCE, and VC plume expansion/movement for the period 2021-2024 with an increase in concentrations and plume area in the offsite area (Section 5.4 and 5.5).

Long-Term Monitoring

Annual LTM performed in 2024 at OU 6 evaluated potential leaching of non-VOC constituents from soil to groundwater in the OU 1, 2, and 3 areas. Constituents detected in 2024 included 19 metals, eight (8) PAHs, and one SVOC (1,4-dioxane). No LTM locations had constituent concentrations > MCLs. The number of detections reported for 2024 is lower than the previous three years that reported detections of 16 PAHs, five SVOCs, and five pesticides. The low detection frequency of organic constituents and lower concentrations of metals < MCLs does not indicate significant potential leaching of non-VOCs from soil to groundwater at OUs 1, 2, and 3 (Sections 4.8 and 5.7).

The annual LTM surface water results at No Name Creek had low-level VOCs detections in the surface water samples with detected concentrations < MCLs and ecological screening benchmarks. Surface water sampling performed in 2024 confirmed continued remedy protectiveness with respect to surface water at No Name Creek (Sections 4.9 and 5.8).

Operation of the SSDS and air monitoring at Building 151 has indicated continued remedy protectiveness for workers in Building 151. Five-year air and subsurface vapor sampling performed at Buildings 54, 85, and 150 in 2023 indicated continued remedy protectiveness for workers in these building and did not indicate vapor intrusion into these buildings (Sections 4.10 and 5.9).

Planned Actions

DLA will continue implementing adaptive remedial strategies and optimizations at OU 6 based on the data collected for annual monitoring, supplemental ISB performance monitoring, LTM, and corresponding updates to the CSM.

Planned activities for FY2025 will include additional ISB actions for groundwater at OU 6 and completion of a site optimization evaluation with report. A remedial action work plan (addendum) will identify areas targeted for additional ISB actions and describe planned activities.

ACRONYMS AND ABBREVATIONS

11DCE	1,1-Dichloroethene
1,4-DCB	1,4-dichlorobenzene
3D	three dimensional
AEHA	United States Army Environmental Health Agency
BTAG	Biological Technical Assistance Group
BVC	BAV1 vinyl chloride
CB	chlorobenzene
cDCE	cis-1,2-dichloroethene
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
COC	constituent of concern
CPT	cone penetrometer test
CSM	conceptual site model
CV	coefficient of variation
DCE	dichloroethene
DEQ	Virginia Department of Environmental Quality
DHC	*Dehalococcoides*
DLA	Defense Logistics Agency
DO	dissolved oxygen
DoD	Department of Defense
DPE	dual phase extraction
DPT	direct push technology
DSCR	Defense Supply Center Richmond
ELAP	Environmental Laboratory Accreditation Program
≥	greater than or equal to
EPA	United States Environmental Protection Agency
ESV	ecological screening value
EVO	emulsified vegetable oil
EVS	Earth Volumetric Studio
FFA	Federal Facility Agreement
FFS	focused feasibility study
ft.	feet
FY 2023	fiscal year 2023
>	greater than
HHRA	human health risk assessment
HRSC	high resolution site characterization
IC	institutional control
IDM	investigative derived material
ISB	in situ bioremediation
<	less than
≤	less than or equal to
LOD	limit of detection
LOQ	limit of quantitation
LTM	long term monitoring
Meadows	Meadows CMPG, Inc.
MCL	maximum contaminant level
µg/L	micrograms per liter
mg/L	milligrams per Liter
mg/m^3	milligrams per meter cubed
MIP	membrane interface probe
M-K	Mann Kendall
MNA	monitored natural attenuation
mS/cm	millisiemens per centimeter
NELAP	National Environmental Laboratory Accredition Program
NGA	National Guard Area
NAVD88	North American Vertical Datum of 1988

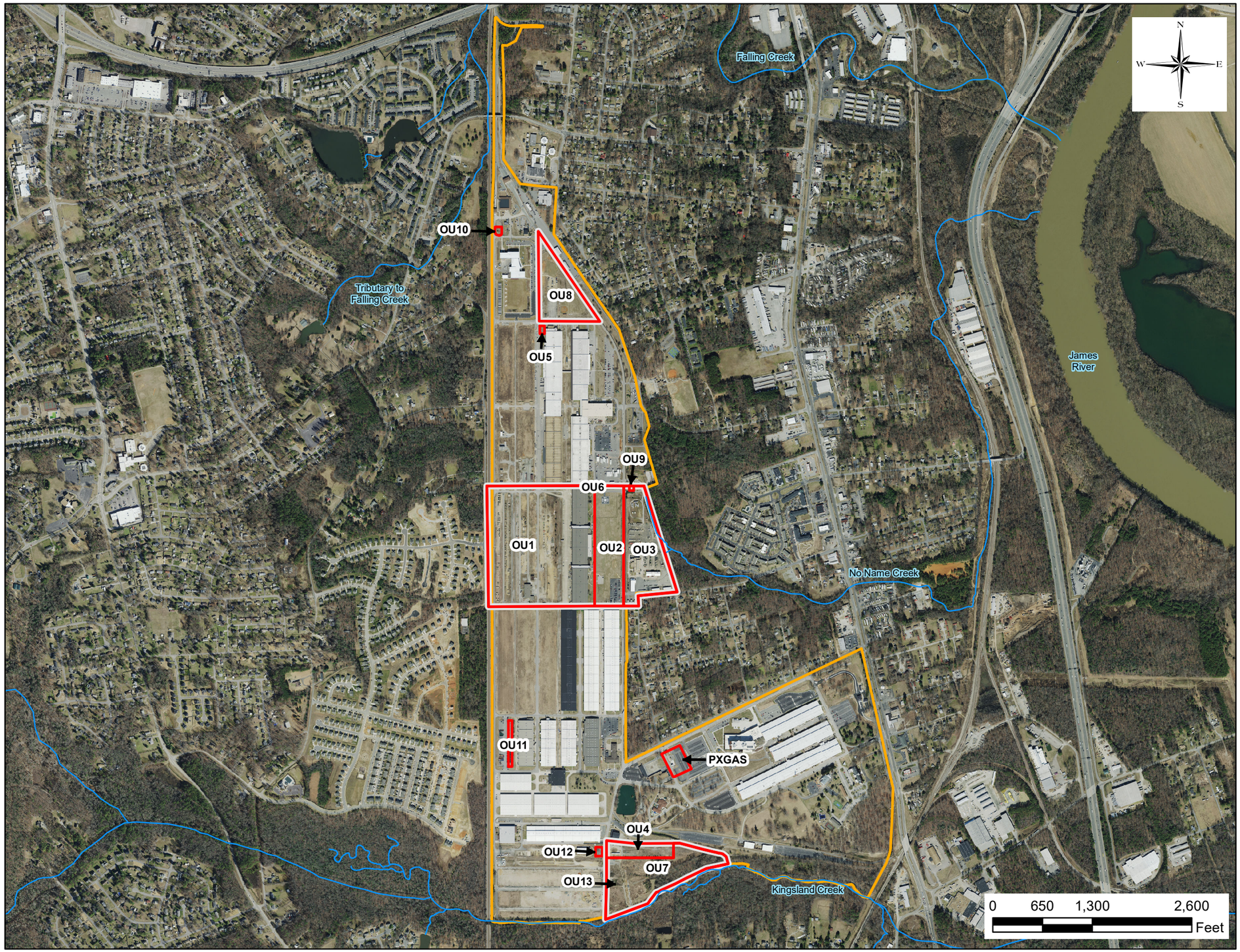
ORP	oxidation reduction potential
OSA	Open Storage Area
OU	operable unit
PAH	polycyclic aromatic aydrocarbon
PCB	polychlorinated biphenyls
PCE	tetrachloroethene
PSI	pounds per square inch
p-value	probability value
qPCR	quantitative polymerase chain reaction
QSM	Quality Systems Manual
RA	remedial action
RAO	remedial action objective
RAWP	remedial action work plan
RD	remedial design
RI	remedial investigation
ROD	Record of Decision
RSL	regional screening level
SC	specific conductance
SOP	standard operating procedure
SS	statistically significant
SSA	singular spectrum analysis
SSDS	sub-slab depressurizaton system
SVOC	semi-volatile organic compound
tceA	tceA reductase
TCE	trichloroethene
tDCE	trans-1,2-dichloroethene
TOC	total organic carbon
TWS	TWS Environmental
USACE	United States Army Corps of Engineers
USDA	United States Department of Agriculture
USGS	United States Geological Survey
VC	vinyl chloride
VCR	vinyl chloride reductase
VELAP	Virginia Environmenal Laboratory Accreditation Program
VISL	vapor intrusion screening level
VMP	vapor monitoring point
VOC	volatile organic compound
WBU	water bearing unit
yr.	year

1. Introduction

This document is the Fiscal Year 2024 (FY 2024) Annual Report for Operable Unit 6 (OU 6) at Defense Supply Center Richmond (DSCR) prepared under Contract W912DR22C0045 awarded by the United States Army Corps of Engineers (USACE) Baltimore District on September 19, 2022, to Meadows CMPG, Inc. (Meadows). Meadows and teaming partner AECOM have prepared this Annual Report in accordance with the contract Performance Work Statement and requirements of Contract Line-Item Number 0011.

DSCR is the headquarters for Defense Logistics Agency (DLA) Aviation and home to a variety of other DLA, Department of Defense, and other federal organizations. The installation is eight miles south of the City of Richmond in Chesterfield County, Virginia. The United States Environmental Protection Agency (EPA) placed DSCR on the National Priorities List (NPL) in 1987. Since 1990, DLA has implemented an environmental restoration program at DSCR under a Federal Facility Agreement (FFA) with the United States Environmental Protection Agency (EPA) Region 3 and the Virginia Department of Environmental Quality (DEQ). OU 6 designation is the impacted groundwater beneath and downgradient of OU 1 (Open Storage Area), OU 2 (Area 50 Landfill), and OU 3 (National Guard Area, NGA) in the central portion of the Installation.

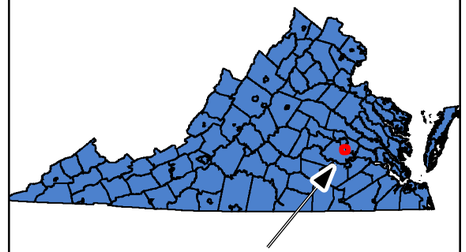
Figure 1-1 has the layout of DSCR and OU locations. This report presents the results for site monitoring for FY 2023 (October 2022 through September 2023) and uses the monitoring data to evaluate site conditions and remedy performance. DSCR has implemented a remedy at OU 6 to address volatile organic compounds (VOCs) in groundwater.



Legend

- Operable Unit Boundaries
- OU 6; OU 7; OU 8 Boundaries
- Installation Boundary

Notes:
OU6 Includes Groundwater Impacts Beneath OU's 1, 2, & 3
OU7 Includes Groundwater Impacts Beneath OU 4
OU8 Includes Groundwater Impacts Beneath OU 5
Orthoimagery Source: VGIN (2021)



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AECOM

Figure 1-1
DSCR Operable Units

Defense Supply Center Richmond
Richmond, VA

Prepared By: DBC	Reviewed By: KL
Scale: 1" = 1,300'	Date: August 06, 2024

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2. Background

Section 2 has background information for OU 6 including a site description, site history, and environmental setting.

2.1 OU 6 Description

OU 6 consists of impacted groundwater beneath and downgradient of OU 1 (OSA), OU 2 (Area 50 Landfill), and OU 3 (NGA) in the central portion of the Installation. Figure 2-1 (page 2-2) shows the location and the layout and features of the OU 6 area, which has large open areas bisected by Building 54 with several buildings in the developed NGA. OU 6 extends offsite to the east into an undeveloped woodland area where a VOC plume mostly occurs in the confined aquifer. No Name Creek begins at the northeast corner of OU 6 and flows south parallel to the Installation boundary and then southeast into the offsite area.

2.2 OU 6 Site History

The OSA is a 43-acre fenced area and formerly consisted of an unpaved storage area for bulk drummed chemicals (primarily petroleum, oil, and lubricants), the recouping of liquids from leaking drums, and the repair/replacement of damaged containers. Storage activities in the OSA began in 1942 and drum recoupment activities occurred between the early 1960s and late 1970s (Dames & Moore 1989).

Area 50 Landfill consisted of a disposal site for waste, contaminated and outdated chemicals, and construction debris from the late 1950s until the early 1970s. The area landfill originally consisted of a ravine approximately 200 feet x 300 feet x10 feet that contained wet soils and vegetative cover. Dumping occurred in various areas of the ravine and by 1975 previously used areas had been graded to current elevations and revegetated (Dames & Moore 1989). A fence surrounds the former landfill area separating it from the OSA and NGA.

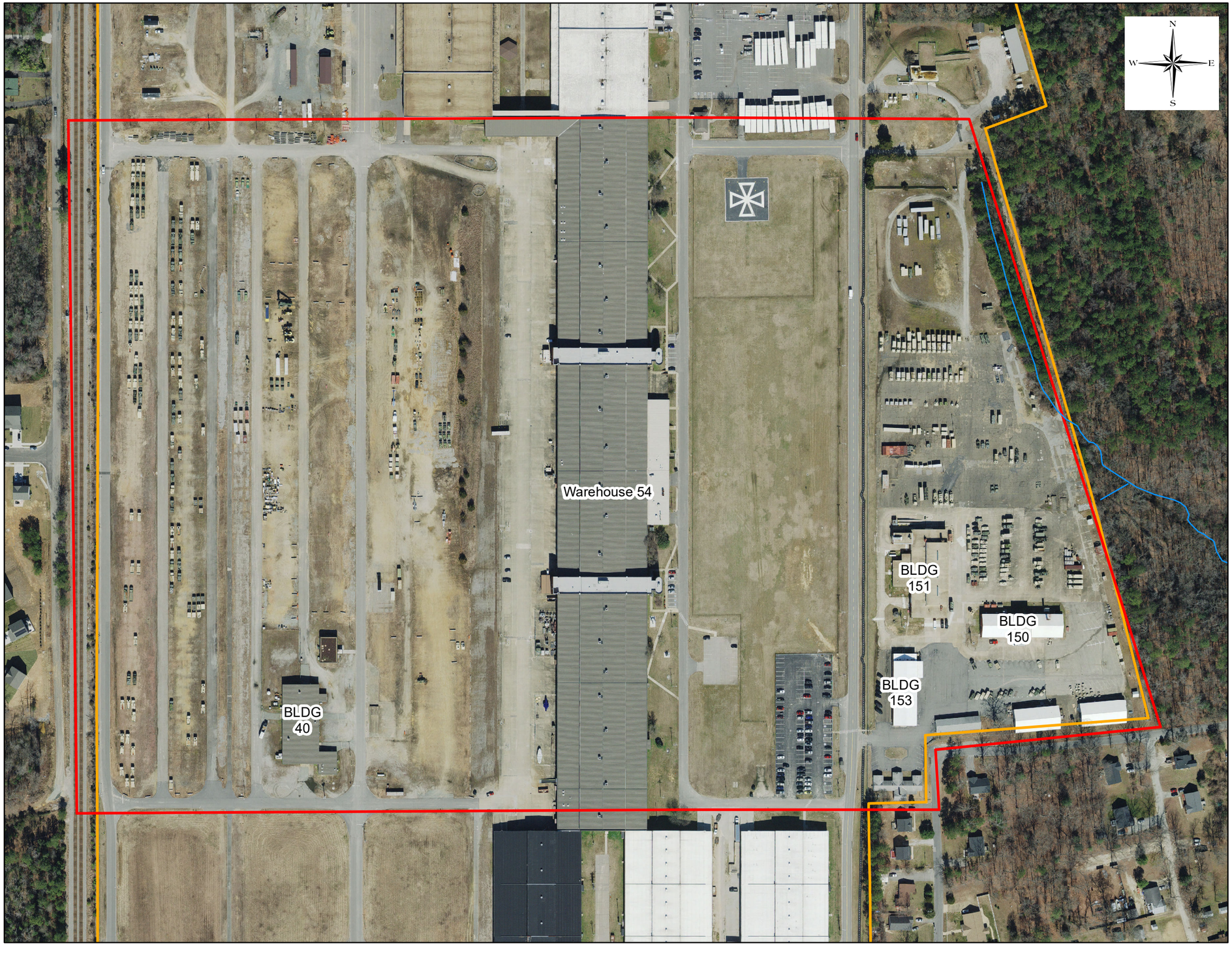
The NGA is located on a 15-acre area leased from DSCR and contains a number of maintenance shops and administrative buildings. Since the late 1940s, the primary function at the NGA is vehicle maintenance operations. In the past, underground and aboveground tanks contained fuels, oil, and solvents, and reportedly disposal of some waste solvents occurred in the site's storm sewer system or on an unpaved area.

2.2.1 1981 Installation Assessment

The United States Army Toxic and Hazardous Materials Agency completed the first environmental assessment at DSCR and their installation assessment report indicated possible groundwater impacts from the Area 50 Landfill and the NGA (CSL 1981).

2.2.2 U.S. Army and USGS Investigations

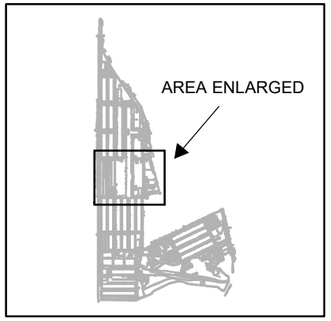
Remedial investigations began in the OU 6 area before the DSCR final listing on the NPL in 1987. Initial investigations completed by the United States Army Environmental Health Agency (AEHA) occurred in and around the Area 50 Landfill and NGA in 1982 and 1983 (AEHA 1982, 1983). These investigations detected VOCs in the upper and lower aquifers beneath the site. The United States Geology Survey (USGS) completed investigations east of the NGA in 1984 to delineate the extent of offsite migration of VOCs in the upper and lower aquifers. USGS found that No Name Creek acted as groundwater flow boundary for the upper aquifer preventing further VOC migration beyond the creek. Groundwater monitoring conducted by USGS indicated VOC impacts throughout the bulk matrix of the lower aquifer (Potomac Formation) with detected trichloroethene (TCE) concentrations as high as 1,700 micrograms per liter (µg/L) (USGS 1987, 1990).



Legend

- Streams
- Operable Unit 6 Boundary
- Installation Boundary

Note: Orthoimagery Source: VGIN (2021)



0 112.5 225 450
Feet

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Figure 2-1
Operable Unit 6

Defense Supply Center Richmond
Richmond, VA

Prepared By: DBC	Reviewed By: JOS
Scale: 1 " = 225 '	Date: September 03, 2024

C:\Users\david.copen\AECOM\DSCR FY2024 Annual Reports - General\OU6 FY2024 Annual Report\Figures\Figure 2-1 OU6.mxd

2.2.3 1989 Remedial Investigation

Dames & Moore completed a remedial investigation (RI) for OUs 1, 2, and 3 from 1985 to 1988 that included completion of soil borings, installation of monitoring wells, and sampling of soil, groundwater, sediment, and surface water. A 1989 RI Report (Dames & Moore 1989) summarized the results of these investigations along with a benthic macroinvertebrate survey, and human health risk assessment (HHRA). RI findings indicated impacts to groundwater within the OUs 1, 2, and 3 source areas and downgradient of the installation east of the NGA. Primary constituents included VOCs with semi-volatile organic compounds (SVOCs) also detected in OU 2 soil. RI sampling of No Name Creek indicated low levels of VOCs present in surface water potentially from contaminated surface water runoff and/or contaminated groundwater discharge. HHRA results identified off-installation groundwater users, recreational users of No Name Creek, and onsite workers conducting excavation in the Area 50 Landfill as potential receptors. The RI recommended remediation of impacted groundwater in the upper and lower water bearing units (WBUs) and remediation of contaminated soil within OU 2 (Dames & Moore 1989).

2.2.4 1993 Focused Feasibility Study

A Draft Focused Feasibility Study (FFS) issued in 1993 incorporated the results of a revised baseline HHRA and established remedial action objectives to prevent potential exposure to impacted groundwater and surface water of No Name Creek, and to prevent migration of groundwater to surface water of No Name Creek at concentrations exceeding ambient water quality criteria. The FFS identified in situ bioremediation as the preferred remedial alternative for OU 6 groundwater (Law 1993).

2.2.5 OU 9 Interim Remedial Action

Implementation of an interim remedial action occurred in 1996 (identified as OU 9) with the installation of a groundwater extraction and treatment system at the installation boundary in the NGA. Stated objectives of this remedial measure included reducing the migration of contaminated groundwater, reduction of toxicity, mobility, and volume of contaminants in groundwater, and collection of data related to aquifer and contaminant responses to remedial measures to support design of a final remedy for OU 6.

This system included 17 extraction wells in the surficial aquifer and 5 extraction wells in the confined aquifer with a treatment system designed for 100 gallon per minute flow. Performance evaluations of the system after startup indicated that the system did not achieve the stated objectives because of low well yields and mass removal rates, limited lateral influence of the system, operational issues, and cost (Earth Tech 2007). Operations of the system ceased in January 2006 and decommissioning occurred by December 31, 2008. Decommissioning included conversion of system extraction wells to monitoring wells (Earth Tech 2009).

2.2.6 1999 Pilot Tests at OU 3

Law performed pilot tests in 1999 in the NGA to determine the feasibility and effectiveness of using dual phase extraction (DPE) as a groundwater remedy for OU 6. Separate test locations in the NGA evaluated areas of elevated VOCs in the surficial aquifer and confined aquifer. The results indicated low well yields, low air flows, and minimal mass removal with the pilot test report recommending no further consideration of the DPE technology for groundwater at OU 6 (Law 2000b).

2.2.7 2000 MNA Evaluation Report

Law issued a Final Natural Attenuation Studies Report for OU 6 in June 2000. This report included an analysis of natural attenuation processes for the “lower aquifer” using data collected in 1997 from onsite and offsite monitoring wells. The analysis followed the 1998 EPA technical protocol for evaluating natural attenuation of chlorinated solvents in groundwater and used the EPA BIOCHLOR attenuation modeling tool to evaluate USGS data from 1985 to 1992. The study used six onsite AEHA wells screened across the Aquia and Potomac Formations, three ‘lower aquifer’ extraction wells screened across the entire thickness of the Potomac Formation, and seven offsite USGS wells screened at various discrete depth intervals within the Potomac Formation. The report also included a performance evaluation of the OU 9 interim action groundwater extraction and treatment system (Law 2000a).

The report indicated that analysis of the USGS data from 1985 to 1992 combined with BIOCHLOR modeling demonstrated destruction of contaminant mass by biodegradation prior to operation of the OU 9 system. Another conclusion reached by the report indicated a favorable geochemical environment with the 'lower aquifer' for biodegradation and also cited the presence of degradation products such as cis-1,2-dichloroethene (cDCE), chloride, and carbon dioxide as evidence of biodegradation. The report recommended further consideration of monitored natural attenuation (MNA) as a viable remedy for the 'lower aquifer' at OU 6 and also recommended implementation of a monitoring program to collect additional data (Law 2000a).

2.2.8 Creeks Monitoring Program

MACTEC implemented a three-year creek monitoring program that included an assessment of No Name Creek. This included performance of a HHRA in 2006 that concluded no further action required for No Name Creek for human health-based risks (MACTEC 2006c). A screening level ecological risk assessment completed in 2001 for No Name Creek indicated risks low in magnitude and limited in spatial scale.

2.2.9 2006 Supplemental Feasibility Study

MACTEC issued a Final Supplemental Feasibility Study in 2006 that presented results for geophysical surveys, membrane interface probe (MIP) screening with cone penetrometer testing (CPT), soil and groundwater sampling, piezometer installation, meteorological and soil moisture monitoring, No Name Creek discharge evaluations, and slug testing (MACTEC 2006a,b). The installation-wide, conceptual site model (CSM) completed by MACTEC in 2006 incorporated the FFS data (MACTEC 2006d).

2.2.10 2011 Revised HHRA and Focused Feasibility Study

A HHRA completed as part of the Revised FFS in 2011 evaluated risks from potential exposures to contaminated groundwater at OU 6. The FFS evaluated remedial alternatives based on the results of the revised HHRA supported by an in-situ bioremediation treatability test conducted in September 2007. This treatability study evaluated the effectiveness of enhanced in situ bioremediation (ISB) using organic substrates for degradation of chlorinated VOCs in OU 6 groundwater (AECOM 2011).

The bioremediation treatability tests involved injection of 1,000 gallons of six percent edible oil emulsions in each injection location including two injection wells in the surficial aquifer and monitoring well AEHA-30B screened across the Aquia Formation and uppermost interval of the Potomac Formation. Injections occurred into monitoring well AEHA-30B after determining that the injection well installed in the Potomac Formation would not accept injectate.

Treatability results indicated favorable conditions for ISB targeting reductive dechlorination of chlorinated solvents in the upper aquifer and lower aquifer. Pre-injection and post-injection samples analyzed for microbes indicated an increase in microbial populations following injections. An identified constraint included optimizing substrate distribution in the surficial aquifer to address variable subsurface conditions including increasing injection pressures and appropriate screening of wells (AECOM 2011).

2.2.11 ROD

The Record of Decision (ROD) document for OU 6 finalized in September 2013 identifies OU 6 as groundwater underlying and downgradient from the OSA (OU 1), Area 50 Landfill (OU 2), and NGA (OU 3). It also identifies discharge of surficial aquifer groundwater to No Name Creek as a component of OU 6. Separate remedial actions have addressed OUs 1, 2, and 3 identified as the source materials that impacted OU 6 groundwater (DSCR 2013).

The selected remedy in the ROD consists of the following elements:

- ISB to treat constituents of concern (COC) in the upper aquifer and lower aquifer source areas and downgradient portions of the groundwater plumes.
- MNA that involves monitoring of COCs and geochemical conditions in the upper aquifer and lower aquifer to document that MNA is reducing chemical mass and concentrations over time.

- Annual long-term monitoring (LTM) of the upper aquifer for a minimum of five years to monitor for potential leaching of SVOCs, polycyclic aromatic hydrocarbons (PAHs), polychlorinated biphenyls (PCBs), pesticides, and metals from OUs 1, 2, and 3 soils to groundwater and also includes annual monitoring of surface water of No Name Creek until COCs in the surficial aquifer have reached cleanup levels established in the ROD.
- Institutional controls (ICs) described in the ROD included groundwater use restrictions, land use restrictions, control exposure to contaminated groundwater and implementation of institutional controls for future buildings within groundwater plume areas.
- Air sampling (indoor air and subsurface vapor monitoring) every three and five years for Building 151 and every five years for other buildings over the OU 6 surficial aquifer plume.

Table 2-1 presents the cleanup levels established in the ROD for the COCs in OU 6 groundwater. As described in the ROD, the selected remedy satisfies the statutory requirements of CERCLA. Since this remedy will result in hazardous substances, pollutants, or contaminants remaining on site above levels that allow for unlimited use and unrestricted exposure, a statutory review will occur within 5 years after initiation of the remedial action, and at a subsequent frequency of at least once every 5 years, to ensure that the remedy is, or will be protective of human health and the environment. Protectiveness reviews will continue until site conditions enable unlimited use and unrestricted exposure.

Table 2-1 OU 6 COCs and Cleanup Levels

Contaminants of Concern	Maximum Contaminant Level (MCL) (micrograms per liter, µg/L)
Upper Aquifer	
Bromochloromethane	(1)
Carbon Tetrachloride	5
Chlorobenzene	100
Dibromomethane	(1)
1,2-Dichloroethane	5
Dichlorodifluoromethane	(1)
1,4-Dichlorobenzene	75
1,1-Dichloroethene	7
cis-1,2-Dichloroethene	70
Methylene chloride	5
Naphthalene	(1)
Tetrachloroethene	5
Toluene	1000
1,2,4-Trichlorobenzene	70
1,1,2-Trichloroethane	5
Trichloroethene	5
1,2,4-Trimethylbenzene	(1)
Vinyl Chloride	2
Chloroform (2)	80
Lower Aquifer	
1,2-Dichloroethane	5
cis-1,2-Dichloroethene	70
1,4-Dioxane	(1)
bis(2-Ethylhexyl)phthalate	6
3-& 4-Methylphenol	(1)
Tetrachloroethene	5
Trichloroethene	5
Vinyl Chloride	2

Notes: (1) There is no Federal MCL for drinking water for this constituent. For groundwater COCs that do not have MCLs, the remedy will continue until the concentrations have reached acceptable risk levels (non-carcinogenic hazard index of 1 and carcinogenic risk of 1E-04 for on-installation and 1E-06 for off-installation receptors). The risk levels will be confirmed via a future risk assessment, which shall assume that people, both on- and off-site, will use the Upper and Lower WBUs for potable water. The goal is to restore both WBUs to their potential beneficial use as potable water sources. This risk assessment is recommended to be performed after groundwater COCs (that have MCLs) have reached their cleanup levels. (2) Chloroform was identified as a risk driver in the OU 6 HHRA. Based on communication with EPA Region III, the trihalomethane MCL was applied to chloroform and chloroform was added as a COC for OU 6.

2.2.12 2015 Remedial Action

AECOM implemented remedial actions for the selected remedy at OU 6 in 2015, as generally detailed in in the OU 6 Injection Technical Memorandum that documented completed activities (AECOM 2016). A Final Revised Remedial Design/Remedial Action Work Plan (RD/RAWP) for OU 6 detailed the proposed remedial actions (AECOM 2015).

ISB treatment areas targeted higher concentration areas and mid plume areas at OUs 1, 2, and 3. ISB actions focused on the surficial aquifer at OU 1 and both the surficial aquifer and confined aquifer at OUs 2 and 3. The ISB process options implemented included emulsified vegetable oil (EVO) as the carbon substrate pressure injected into injection wells designed for the specific treatment areas. Adaptation of the injection processes occurred in the field based on observed injection rates relative to design, where some wells received greater injection volumes to compensate for other wells in the treatment area that did not accept design injection volumes. Injection wells in area No. 6 located in OU 3 across the fence line (targeting Eastover) and near the fence line (targeting Potomac) accepted approximately 50 percent of the design volumes. Additional injection occurred at monitoring wells AEHA-27B and AEHA-31B screened across the Aquia and the uppermost portion of the Potomac to reach 50 percent of the design volume. Gravity feed injections occurred in monitoring wells in the surficial aquifer and confined aquifer in the OU 3 and offsite area to use available EVO for treatment of targeted zones (AECOM 2016).

Remedy verification performed as part of the remedial actions included quarterly remedy verification monitoring of groundwater for two years beginning three months after initial injections followed by semi-annual monitoring of treatment areas for ISB effectiveness. Since 2015, annual MNA monitoring of the surficial aquifer and confined aquifer has occurred with annual LTM for leachability at select wells in the surficial aquifer and annual LTM surface water monitoring of No Name Creek in accordance with the ROD. Post-injection monitoring of soil vapor occurred around Buildings 54 and 151 and indoor air sampling occurred at site buildings at the frequency specified by the ROD. ICs implemented at OU 6 are in accordance with the site-wide land use control remedial design.

2.2.13 2018 Building 151 Sub Slab Depressurization System

Arcadis implemented engineered measures at Building 151 located within the NGA in OU 6 in 2018 as detailed in the Operation, Maintenance, and Monitoring Plan, Building 151 Sub Slab Depressurization System (Arcadis 2018b). This building houses vehicle maintenance bays, sub-grade service pits, offices, a breakroom, tool room, and other facilities.

Installation and startup of a sub slab depressurization system (SSDS) occurred in 2018 with the objective of addressing the presence or potential presence of VOCs beneath the building floor slab. The SSDS has two vapor extraction points including one in the tool room and the other in the break room. Quarterly field monitoring of the SSDS is performed to verify effectiveness of the engineered control measure.

2.2.14 2019 Pre-Design Investigations

Pre-design data collection activities occurred at OU 6 in 2019 to update the CSM and obtain data to support remedy optimization, as detailed in the 2019 Annual Report for OU 6 (AECOM-Meadows 2021a). The scope of these activities included:

- Expansion of the 2019 annual sampling event from 91 to 162 monitoring well locations.
- Completion of vertical profile sampling at six stations in No Name Creek to evaluate the groundwater to surface water migration pathway including VOC sampling of surface water, sediment porewater, and groundwater beneath the creek.
- Completion of high-resolution site characterization (HRSC) investigations at OU 1, OU 2, OU 3, and the offsite area east of OU 3 (OU 6).

The 2019 Annual Report presents a detailed update of the CSM that includes a digital 3D model of the OU 6 site area.

2.2.15 Remedial Action Work Plan Addendum

A RAWP Addendum prepared in 2021 described proposed remedy optimizations for OU 6 (AECOM-Meadows 2021c). The RAWP contained the following proposed actions:

- Targeted ISB injections in the residual source zone beneath OU 1.
- Implementation of an optimized monitoring well network at OU 6 including the installation of 61 new monitoring wells.
- Remedy performance monitoring and MNA actions.
- Planned future abandonment of wells no longer used or needed for monitoring.

2.2.16 Monitoring Well Installation and Optimized Monitoring Network

Implementation of the RAWP Addendum included the installation of 61 new monitoring wells in August and September 2021. Implementation of a new optimized network for remedy performance monitoring, MNA, and LTM occurred in December 2021 and included 66 monitoring wells screened in the surficial aquifer, 44 monitoring wells screened in the confined aquifer, and 3 surface water stations at No Name Creek. The optimized monitoring network excluded wells used for gravity feed EVO injections in 2015 and 2016.

The annual monitoring network for OU 6 in 2022 added existing well DMW-8A to refine plume delineations in the surficial aquifer in the OU 1 area. In December 2022, EPA and DEQ approved the installation of four additional monitoring wells (MW-298, MW-299, MW-300, and MW-301) for incorporation into the 2023 annual monitoring network for remedy performance and MNA evaluations. These well installations occurred in the first quarter of 2023.

2.2.17 ISB actions and Performance Monitoring

Implementation of the RAWP Addendum included optimized ISB injections targeting the residual source zone beneath OU 1. Field implementation of the injections occurred from October 25 through November 17, 2021. ISB injections used direct push technology (DPT) with EVO as the carbon amendment with bioaugmentation and included three treatment areas with 80 injection points injecting more than 5,160 gallons of EVO.

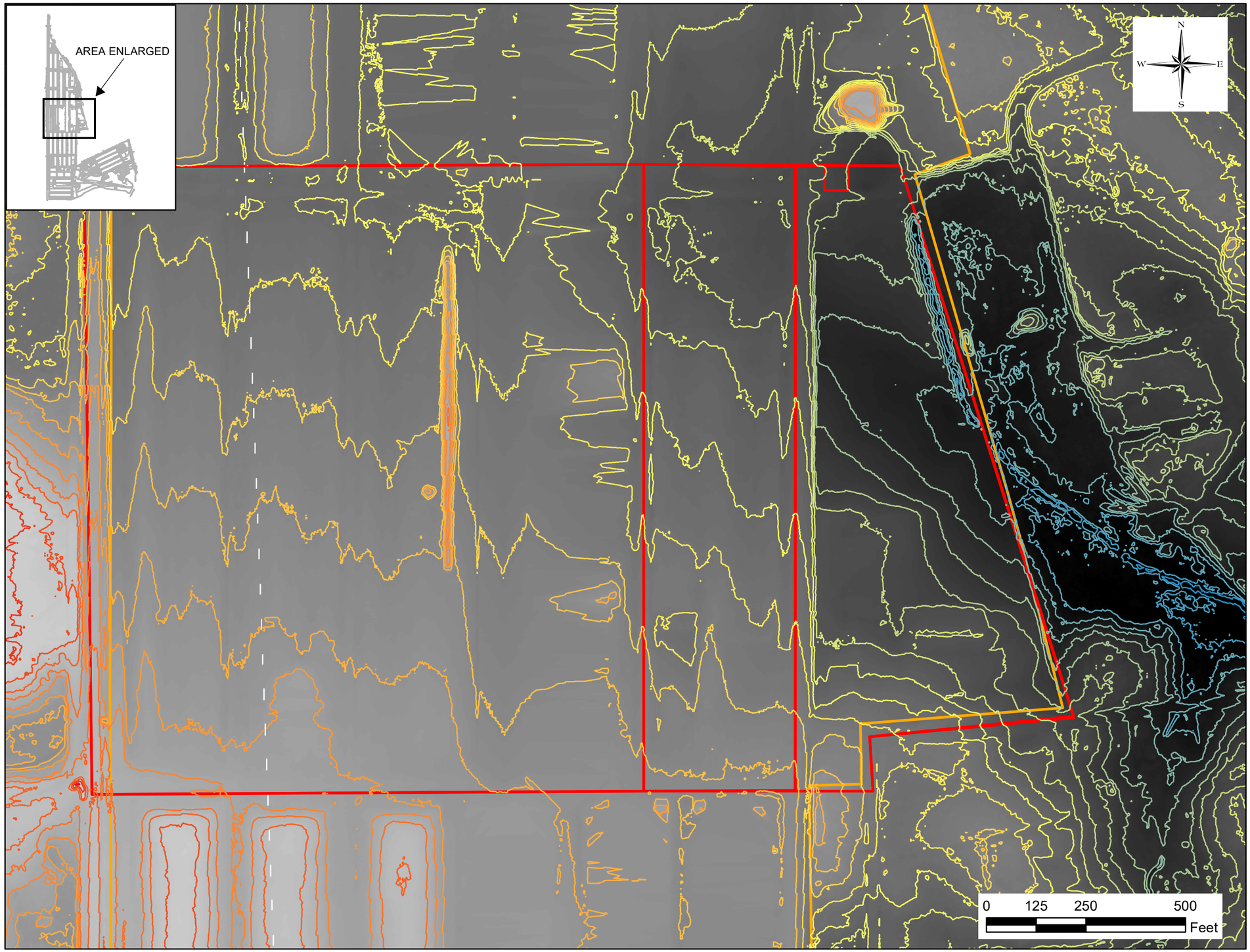
A pre-injection baseline monitoring event for groundwater occurred at 15 monitoring wells in the OU 1 area in October 2021. One year of quarterly ISB performance monitoring of groundwater occurred at 15 monitoring wells in the OU 1 area followed by semi-annual monitoring to evaluate injection performance and treatment progress. The analytical parameters for performance monitoring included VOCs, geochemical parameters, field water quality parameters, and select samples for microbial analysis.

2.3 Environmental Setting

Section 2.3 describes the environmental setting for OU 6.

2.3.1 Site Topography

Historical site activities and development have altered the land surface and topography of the OU 6 area. A former ravine existed in the OU 2 area before landfilling and realignment of No Name Creek to the eastern installation boundary occurred as part of the initial development of DSCR. Figure 2-2 (page 2-8) has a digital elevation model (DEM) for OU 6 showing site topography. Overall topographic slope is toward the northeast with elevations ranging from a maximum of approximately 134 feet (ft.) North American Vertical Datum of 1988 (NAVD88) in OU 1 to a minimum of approximately 106 ft. NAVD88 in the OU 3.



Legend

- Operable Units
- DSCR Boundary

Topographic Contour (2 ft interval)

- 98 ft
- 100 ft
- 102 ft
- 104 ft
- 106 ft
- 108 ft
- 110 ft
- 112 ft
- 114 ft
- 116 ft
- 118 ft
- 120 ft
- 122 ft
- 124 ft
- 126 ft
- 128 ft
- 130 ft
- 132 ft
- 134 ft
- 136 ft
- 138 ft
- 140 ft
- 142 ft

OU 6 Digital Elevation Model (ft NAVD88)

Value

High Elevation: 142.468 ft

Low Elevation: 96.1081 ft

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Figure 2-2
OU 6 Topographic Map

Defense Supply Center Richmond
Richmond, VA

Prepared By: DBC	Reviewed By: JOS
Scale: 1" = 250'	Date: September 03, 2024

C:\Users\david.copen\AECOM\DSCR FY2024 Annual Reports - General\OU6 FY2024 Annual Report\Figures\Figure 2-2 OU6 Topo Map.mxd

The open area of OU 1 has gravel and soil ground cover with Building 85 located between OUs 1 and 2. Grass covers most of the former landfill area at OU 2 except for two parking areas and a heliport located at the southern and northern ends of OU 2, respectively. Tarmac (concrete and asphalt) covers the southern two thirds of OU 3 with the remaining area covered by gravel and grassland vegetation. Building development in the southern portion of OU 3 includes eight buildings associated with NGA operations (Figure 2-1).

2.3.2 Surface Water and Wetlands

No Name Creek originates near the northeast corner of OU 3 and flows south along the eastern boundary of the installation turning southeast into off installation area and flowing in a southeasterly direction away from the installation. The former creek alignment passed through the northern end of OU 2, north of the helipad and the Area 50 landfill. Creek realignment of up to 450 ft. east occurred in the northern portion of OU 3 as part of DSCR development. This involved placement of up to 15 ft. of fill in the creek valley to attain current surface grades at OU 3 (MACTEC 2006d).

Surface water in the OU 6 area drains through a storm sewer drainage system with outfalls into No Name Creek. The southern portion of OU 3 including the areas of Buildings 150 and 151 drains through a storm sewer that extends to an undesignated outfall at a ditch that flows east to No Name Creek outside of the installation boundary.

There are no wetlands located within the installation area comprising OU 6. A freshwater forested/shrub wetland area (6.07 acre) is mapped in the undeveloped No Name Creek area located east of the installation according to the United States Fish and Wildlife Service's National Wetlands Inventory wetlands mapper included as Figure 2-3 (page 2-10).

2.3.3 Soils

The United States Department of Agriculture (USDA) web survey accessed at https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx identifies the soil mapping unit at OU 6 as made land reflecting disturbance and development of the area. USDA defines made land as areas where soil material has been removed or reworked by machinery, varies in consistency, and ranges from loamy sand to clay. East of the installation at OU 6 the USDA survey identifies sandy loam, loam, and loamy sands derived from marine terraces and flood plan soils in the No Name Creek area.

2.3.4 Site Geology

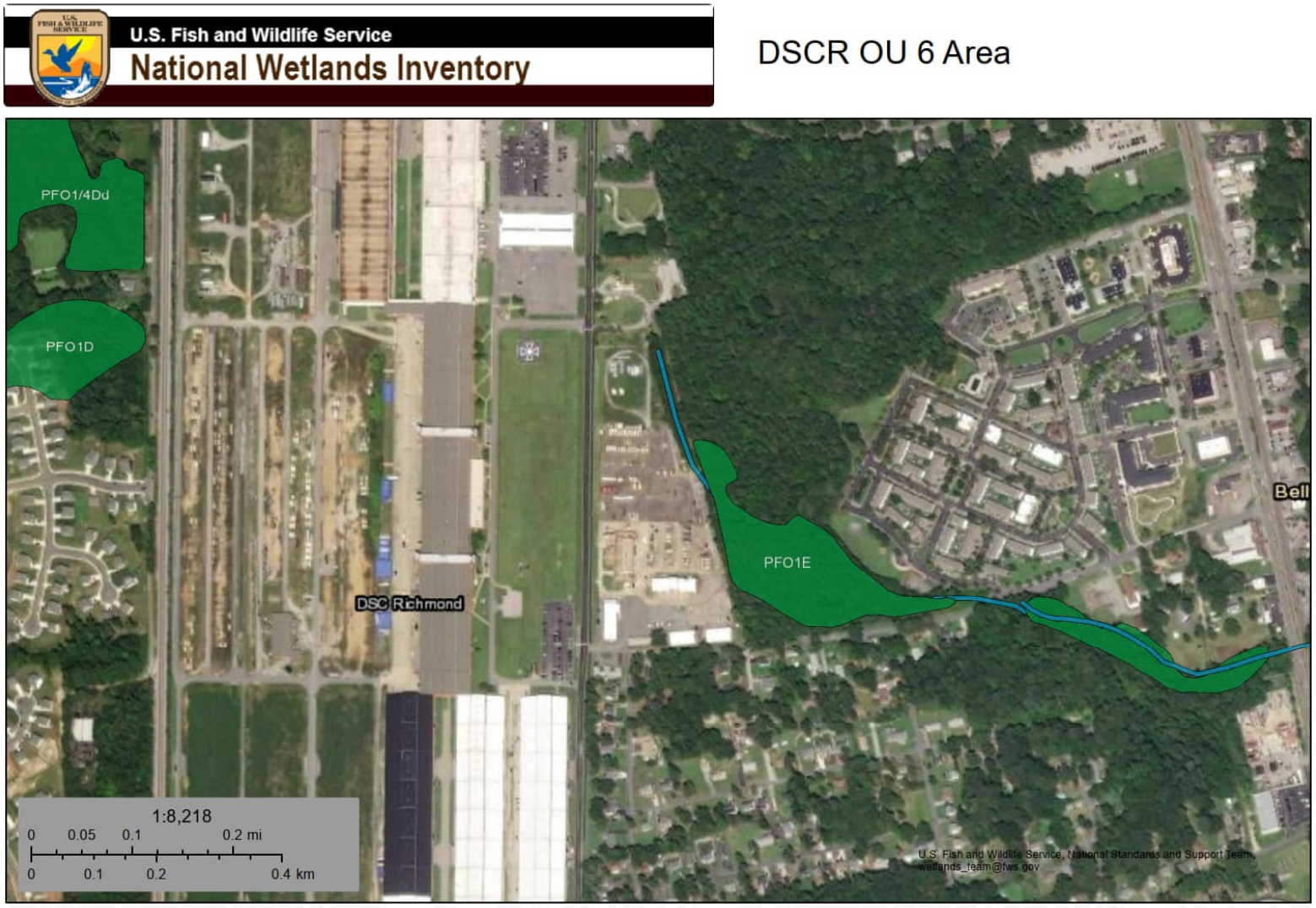
DSCR lies near the western edge of the Virginia Coastal Plain. General stratigraphy found beneath OU 6 includes four coastal plain formations present above bedrock from top down: the Eastover Formation, Calvert Formation, Aquia Formation, and Potomac Formation. A weathered saprolite zone is typically present above competent bedrock. Table 2-2 provides general stratigraphy information for the OU 6 area.

Table 2-2 OU 6 Stratigraphy

Geologic Formation	Age	Origin	Approx. THK (ft.)	Primary Lithology Types
Eastover	Pliocene	Alluvial	6-32	(a) Clay (CL), clayey sand, and silty sand (SM) (b) Poorly graded sand with gravel (SP) (c) Clay (CL)
Calvert	Miocene	Marine	6-10	Clay (CH) and organic sand silt (OL)
Aquia	Paleocene Early Eocene	Marine	6-12	Silty sand (SM)
Potomac	Cretaceous	Alluvial	20-30	(a) Clayey sand with gravel (SC) (b) Clayey sand with gravel, elastic silt with sand (MH), clayey sand with gravel (SC)
Petersburg Granite	Mississippian	Bedrock	--	(a) Saprolite (b) Granite to Granodiorite Bedrock

Notes: ft. = feet.

Figure 2-3 Wetlands Mapper in OU 6 Area



The digital 3D CSM developed for the OU 6 area has a geologic model developed using multiple lines of data and geostatistical methods (kriging) in Earth Volumetric Studio (EVS). This involved review of original data sources collected for the period 1982-2019 and selection of the highest resolution/data quality available for model development. Data types reviewed for model inputs included geological and hydrogeological publications, site boring data, lithologic logs, geophysical logs and surveys, physical test data from soil cores, CPT data, and HRSC hydraulic profile tool (HPT) and sonic coring data collected in 2019.

Figure 2-4 (page 2-12) has a site-wide geologic cross-section (A-A') from west to east across the OU 6 area extending east of the installation area at the NGA. Figure 2-5 (page 2-13) has a geologic cross-section (B-B') across the fence-line area at the NGA.

Eastover Formation

The lithology and thickness of the Eastover Formation varies across the OU 6 area (approximately 6 to 32 ft.) as illustrated in Figures 2-4 and 2-5. In general, the Eastover has three distinct lithologic zones from top down:

- Clay with variable mottling and interbeds, clayey sand, and silty sand
- Poorly graded sand with variable gravel
- Soft clay with laminations

At OU 1, HRSC boring data indicate 3D variability in the thickness of the poorly graded sand with gravel zone (0 to 10 ft.) within the OU 1 groundwater source zone. Substantial fill overlies the Eastover in OU 2 in the former ravine area containing the Area 50 landfill. The clay zone beneath the fill material includes an organic rich clay layer and mottled clay and silt. The poorly graded sand with gravel zone is thinner and discontinuous across the OU 2 area where the lithologic zone consists of a variable clay and sand with some gravel. The thickness of the Eastover decreases toward the east and No Name Creek where elevations are lower than in the western portion of OU 6. A soft clay with laminations occurs at the base of the Eastover Formation and generally ranges from 1 to 4 ft. thick.

Calvert Formation

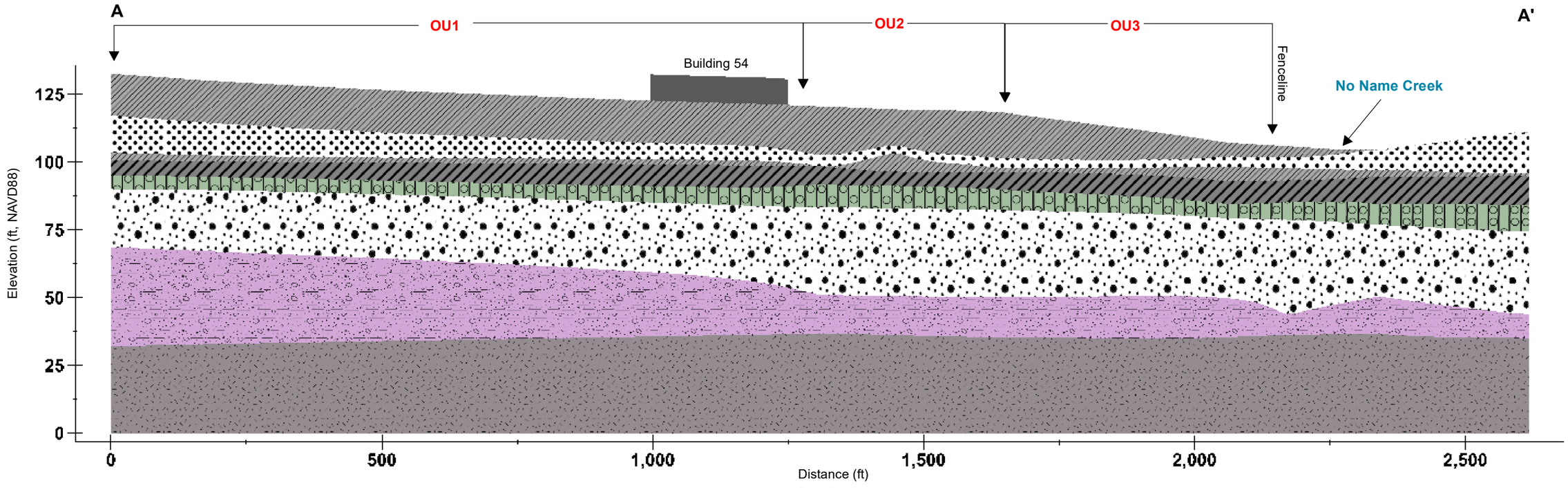
The Calvert Formation is a dark gray highly plastic clay and organic sandy silt with a dry consistency. The Calvert Formation generally ranges from 5 to 10 ft. thick with the top of the formation elevation generally sloping toward the northeast and east (Figures 2-4 and 2-5). A core sample tested by the USGS indicated a total organic carbon content of 32,700 milligrams per kilogram (mg/kg) with a sieve analysis indicating 57 percent finer by weight for the No. 200 sieve (USGS 1987). Physical testing analysis contained in the RI Report for two core samples of the Calvert Formation indicated a fat clay (CH) classification with No. 200 sieve analysis showing 69 and 86 percent finer by weight (Dames & Moore 1989).

Aquia Formation

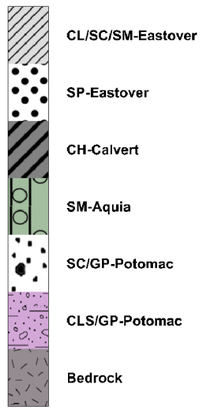
The Aquia Formation is a fining-upward, well sorted, dark green, glauconitic silty sand with a basal gravel stratum. This formation thickness generally ranges from 6 to 12 ft. with an average thickness of 10 ft. in the study area. A core sample tested by the USGS indicated a classification of silty sand (SM) with sieve analysis results indicating 16.42 percent fines by weight for the No. 200 sieve (USGS 1987). Physical testing analysis contained in the RI Report for a core sample of the Aquia Formation indicated the same classification with No. 200 sieve analysis showing 19 percent fines by weight (Dames & Moore 1989).

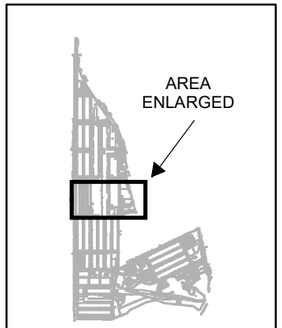
Potomac Formation

Potomac Formation sediments generally consist of an upper lithologic zone of greyish-green clayey sand with gravel (SC) ranging in thickness from approximately 20 to 35 ft. and a lower lithologic zone of grayish-green, clayey sand with gravel (SC) with a texturally finer basal layer varying from elastic silt with sand (MH) to clayey sand (SC). The thickness of the lower lithologic zone ranges from approximately 25 ft. in the western portion of OU 6 to 12 ft. or less at the installation fence line at OU 3. The top of the Potomac Formation elevation generally slopes toward the east (Figure 2-4).









Legend

- Cross-Section Transect
- Streams
- Operable Units
- DSCR Boundary

Notes:
Orthoimagery Source: VGIN (2021)

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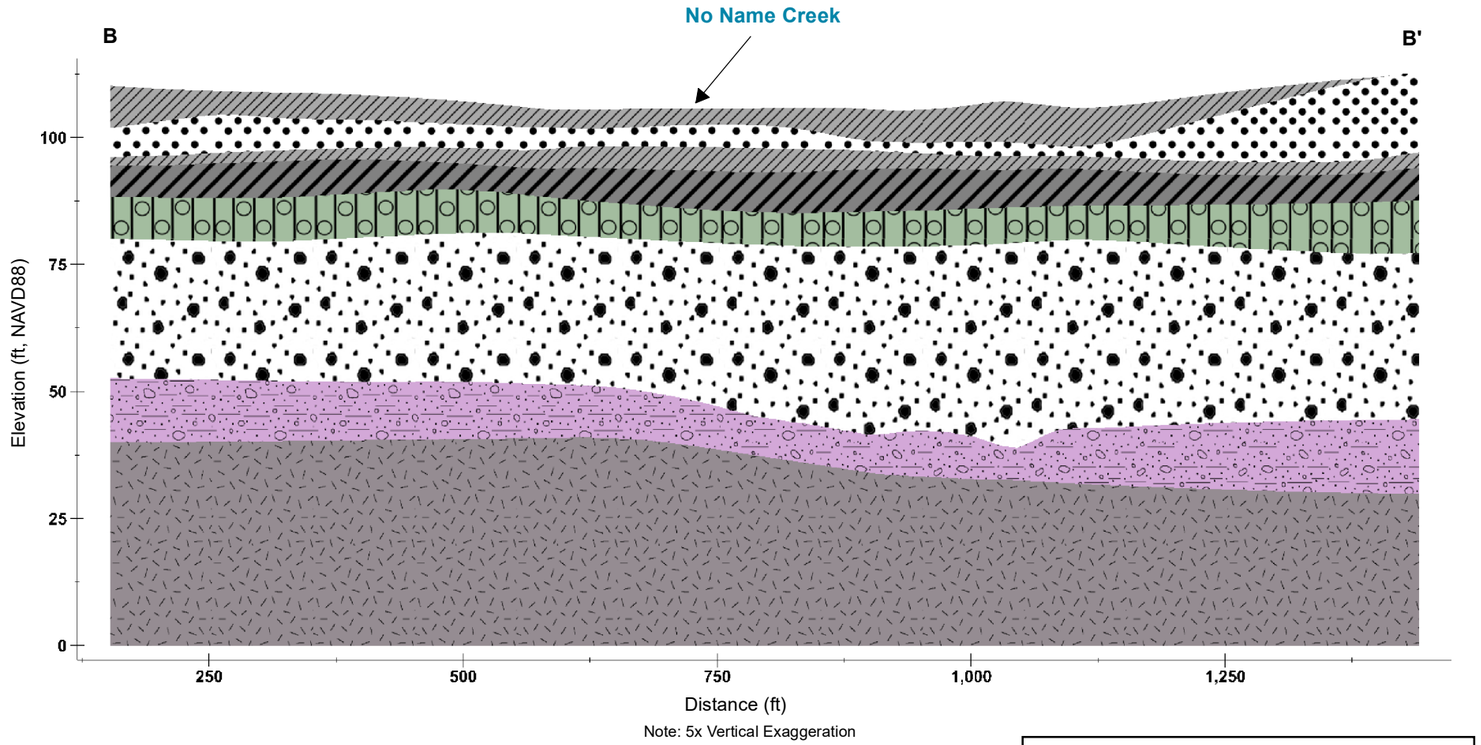
Figure 2-4
OU 6 Geologic Cross-Section A-A'

Defense Supply Center Richmond
Richmond, VA

Prepared By: DBC	Reviewed By: JOS
Scale: As Shown	Date: September 03, 2024

C:\Users\david.copen\AECOM\DSCR FY2024 Annual Reports - General\OU6 FY2024 Annual Report\Figures\Figure 2-4 OU6 CSM X-Section.mxd





Note: 5x Vertical Exaggeration

CL/SC/SM-Eastover

SP-Eastover

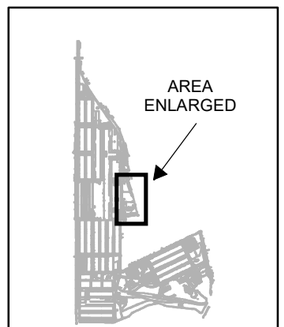
CH-Calvert

SM-Aquia

SC/GP-Potomac

CLS/GP-Potomac

Bedrock



Legend

- Cross-Section Transect
- Streams
- Operable Units
- DSCR Boundary

Notes:
Orthoimagery Source: VGIN (2021)

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Figure 2-5
OU 6 Fenceline Geologic
Cross-Section B-B'

Defense Supply Center Richmond
Richmond, VA

Prepared By: DBC	Reviewed By: JOS
Scale: As Shown	Date: September 03, 2024

C:\Users\david.copen\AECOM\DSCR FY2024 Annual Reports - General\OU6 FY2024 Annual Report\Figures\Figure 2-5 OU6 CSM X-Section Fenceline.mxd

The above lithologic descriptions and associated Unified Soil Classification System classifications are based on physical testing of core samples collected from discrete intervals of the Potomac Formation at PDI-14 and PDI-18 boring locations at the OU 3 fence line.

Petersburg Granite

Bedrock in the study area is the Petersburg Granite described by the USGS as chlorite rich granodiorite that has a weathered saprolite of variable thickness that grades into unweathered rock (USGS 1987). A boring BR-1 completed by the USGS near No Name Creek encountered saprolite, decomposed rock at a depth of 67 to 71 ft. and penetrated hard bedrock from 71 to 96 ft. below ground surface (BGS).

2.3.5 Hydrostratigraphy

The digital 3D CSM developed for the OU 6 area includes a refined hydrostratigraphy model developed by integrating the geologic model with existing hydrogeologic data and HRSC data obtained in 2019. A key aspect of the refined hydrostratigraphy is the semi-continuous measurement of hydraulic properties of the four unconsolidated geologic formations and integrated this data with other lines of data such as laboratory testing for physical properties. Table 2-3 summaries the refined hydrostratigraphy for OU 6 and associated hydraulic properties defined in the 3D model.

The HRSC HPT used to characterize hydrostratigraphy at OU 6 is a logging tool that measures the pressure required to inject a flow of water into the soil as the probe is advanced into the subsurface. This injection pressure log is an indicator of formation permeability. HPT generally has an inverse relationship to permeability with HPT maximum pressure data that scales up to 110 pounds per square inch (PSI). The HPT can measure hydrostatic pressure under the zero flow condition, which allows for the development of an absolute piezometric pressure profile for the log and prediction of the position of the water table. The piezometric profile can be used to calculate the corrected HPT pressure. This data along with the flow rate can then be used to calculate an estimate of the horizontal hydraulic conductivity (K_h) in the saturated formation. Estimates can be provided in the 1 to 100 feet per day (ft./day) range.

Table 2-3 OU 6 Hydrostratigraphy

Hydrostratigraphic Unit	Type	Description	Relative Permeability	Estimated K (cm/sec)
Eastover	Aquifer	Unconfined, discrete zones, highly variable, perched water	Low-High	<1.0E-04 to 3.5E-02[2] 1.52E03 to 9.12E-03[4]
Calvert	Confining Zone	Leaky unit	Very Low	4.8E-08 to 1.8E-06[1]
Aquia	Aquifer	Semi-confined, bulk matrix of formation	Low-High	<1.0E-04 to 3.5E-02[2] 1.76E-06 to 1.55E-05[1]
Potomac	Aquifer	Semi-confined, bulk matrix of formation	Very Low-Moderate	4.9E-03[5] 2.3E-07 to 3.5E-05[3]
Bedrock	Aquifer	Confined in fractures	Not determined	

Notes [1] Laboratory core testing (vertical), [2] Field testing with HPT, [3] Laboratory core testing (horizontal), K= hydraulic conductivity, cm/sec = centimeters per second, [4] Field slug tests at wells at OU 6.,[5] USGS pumping test at OU 8 (USGS 1987)

Eastover

This hydrostratigraphic unit corresponds to the Eastover Formation and groundwater within this unit is an unconfined water table. Some localized discontinuous perched water zones exist within the Eastover including the OU 2 area. Depth to groundwater is greater than (>) 10 ft. in the western portion of OU 6 and < 5 ft. at the OU 3 fence line. The thickness of the Eastover saturated zone decreases toward the east corresponding to the lower surface elevations and reduced thickness of the Eastover Formation. Because of the textural variation of the Eastover saturated zone, the hydraulic conductivity can vary by more than two orders of magnitude as illustrated in Table 2-3 and is highest in the poorly graded sand containing variable gravel. HPT data within this lithologic zone at OUs 1 and 2 indicated estimated K_h values in the 1.0E-02 to 3.5E-02 cm/sec range.

Calvert

This hydrostratigraphic unit corresponds to the Calvert Formation and is a leaky confining zone that ranges from approximately 5 to 10 ft. thick. It has a low vertical hydraulic conductivity (K_v) based on

laboratory testing (Table 2-3) and high HPT pressures (100-110 PSI). The Calvert separates the overlying Eastover hydrostratigraphic unit from the underlying Aquia and Potomac hydrostratigraphic units. Some vertical groundwater flow through the Calvert is implied by the apparent vertical migration of site COCs from source zones present in the Eastover to the underlying Aquia and Potomac hydrostratigraphic units that exist under semi-confining conditions.

Aquia

This hydrostratigraphic unit corresponds to the Aquia Formation and is a semi-confined zone of groundwater that averages 10 ft. thick. HPT profiling indicates that the K_h of the Aquia varies by more than two magnitudes (Table 2-3) with discrete zones having K_h values > 1.0E-02 cm/sec. K_v determined for the USGS and RI are 3 to 4 orders of magnitude lower. Horizontal groundwater flow patterns and hydraulic gradient within the Aquia are likely similar to the underlying Potomac. Some vertical groundwater flow from the Aquia into the Potomac is implied by the apparent vertical migration of site COCs from the source zones in the Eastover to the Potomac.

Potomac

This hydrostratigraphic unit corresponds to the Potomac Formation and is a semi-confined zone of groundwater with moderate to very low permeability and high density. The thickness of this unit varies as described in Section 2.3.4. HPT profiling and testing indicates consistent maximum pressure responses of 110 PSI. Clean water injection testing in the northern and southern areas of the OU 3 fence line confirmed these pressure profiles and indicated zero flow into the bulk matrix. Table 2-3 shows the range of laboratory tested K_h results for a series of vertical profile cores completed at two locations along the OU 3 fence line that provides an additional confirming line of evidence on bulk matrix characteristics.

USGS in their 1986 study investigated temporal changes in water levels in the USGS B well cluster (Eastover and Potomac wells) in response to precipitation (USGS 1987). The data collected demonstrated response of each hydrostratigraphic unit to recharge by precipitation and provided evidence of hydraulic interconnection of these units. Responses of water levels to precipitation differed between the Eastover (immediate) and Potomac (more subdued).

Bedrock

This hydrostratigraphic unit corresponds to the Petersburg Granite with an expected confined or semi-confined condition based on the overlying stratigraphy. Groundwater within unweathered bedrock will occur primarily in fractures.

3. Field Activities

Section 3 describes the scope of field activities performed at OU 6 in FY 2024.

3.1 Annual Monitoring

A component of remedy implementation at OU 6 is site-wide monitoring of groundwater to evaluate the effectiveness of active remedies and to monitor the progress of MNA. The RD/RAWP finalized in May 2013 specified annual groundwater monitoring at OU 6 for the near term (5 years) with potential adjustments made to the monitoring frequency based on the COC concentration reductions observed (AECOM 2015).

The scope of FY 2024 annual monitoring completed at OU 6 includes 69 monitoring wells screened in the surficial aquifer, 46 monitoring wells screened in the confined aquifer, and 3 surface water stations at No Name Creek (Table 3-1).

Table 3-1 OU 6 FY 2024 Annual Groundwater and Surface Water Monitoring Program

Schedule	Surficial Aquifer[5]	Confined Aquifer[6]	No Name Creek SW	VOCs[1]	Field WQP[2]	Geochemical[3]	Microbial qPCR[7]	Leachability[4]
May 2024	69	46	3	118	118	85	8	10

Notes: SW = surface water, [1]VOCs = Target analyte list volatile organic compounds, [2]field WQP = field water quality parameters pH, temperature, specific conductance, dissolved oxygen, oxidation-reduction potential, and turbidity, [3]Geochemical parameters, include total organic carbon, chloride, sulfate, nitrite, nitrate, total alkalinity, ferrous iron, manganese, sulfide, dissolved gases ethane, ethene, methane, and carbon dioxide, [4]leachability parameters include target analyte list semi-volatile organic compounds, target analyte list metals, polycyclic aromatic hydrocarbons, target analyte list polychlorinated biphenyls, and target analyte list pesticides,. [5]Surficial aquifer = Eastover, [6]Confined aquifer = Aquia-Potomac Formation.[7]qPCR = quantitative polymerase chain reaction Dehalococcoides (DHC), Trichloroethene Reductase (tceA), Vinyl Chloride Reductase (BVC), Vinyl Chloride Reductase (VCR), Quantities listed under VOCs, field WQP, geochemical, leachability are number of normal samples collected per sampling event.

Figure 3-1 (page 3-2) shows the monitored locations at OU 6 for FY 2024. Table 3-2 (page 3-3) has a detailed summary of the groundwater and surface monitoring program implemented in FY 2024. The scope of sampling and analysis of site monitoring included VOCs by SW-846 Method 8260D and field water quality parameters at each monitored location and MNA geochemical parameters at monitoring well locations where constituent concentrations exceed MCLs. MNA parameters monitored at OU 6 included:

- Total organic carbon (TOC) by SW-846 Method 8260D.
- Inorganic anions by SW-846 Method 9056A - chloride, sulfate, nitrate, and nitrite.
- Dissolved gases by RSK Method 175 – ethene, ethane, and methane.
- Carbon dioxide by Standard Method SM4500-CO2 D.
- Sulfide by Standard Method SM4500-S2 F-2011.
- Sulfide as Hydrogen Sulfide (H2S) by Standard Method SM4500-S2 F-2011.
- Alkalinity by Standard Method SM2320B-2011 – alkalinity as calcium carbonate (CaCO3), bicarbonate alkalinity as CaCO3, carbonate alkalinity as CaCO3.
- Manganese by SW-846 Method 6020A.
- Ferrous Iron by Method 8146 (field).

Field water parameters measured for each sample included pH, temperature, dissolved oxygen (DO), oxidation reduction potential (ORP), specific conductance (SC), and turbidity.

The monitoring network has 10 monitoring well locations to evaluate potential leaching of non-VOC constituents from OU 1, OU 2, and OU 3 soils to the surficial aquifer including:

- Target analyte list SVOCs by SW-846 8270D.
- PAHs by SW-846 Method 8270ESIM.



Notes:
OU 6 Includes Groundwater Impacts Beneath OU's 1, 2, & 3
NNC = No Name Creek
Orthoimagery Source: VGIN (2021)

Legend

- Confined Aquifer Monitoring
- Upper Aquifer Monitoring
- Long-term Monitoring Well
- NNC Surface Water Sample Location
- EISB Performance Monitoring Well
- Stream
- Operable Units
- DSCR Boundary

N
W E
S

0 70 140 280
Feet

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Figure 3-1
OU 6 2024 Groundwater and Surface Water Monitoring Locations

Defense Supply Center Richmond
Richmond, VA

Prepared By: DBC	Reviewed By: JOS
Scale: 1 in = 140 ft	Date: September 18, 2024

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Table 3-2 OU 6 Groundwater and Surface Water Sampling Locations

Sample Identification and Nomenclature

Type	Sample Type	Sample ID	Depth Interval
Groundwater	Normal	[Loc ID]-[yyyy-mm-dd]	Mid-point of saturated screen
Groundwater	Field Duplicate	DUP[a]-[yyyy-mm-dd]	Mid-point of saturated screen
Groundwater	Matrix Spike/Matrix Spike Duplicate	[Loc ID]-[yyyy-mm-dd] MS/MSD	Mid-point of saturated screen
Groundwater	Equipment Blank	EB[a]-GW-[yyyy-mm-dd]	Bladder Pump

Northern Area

Location ID	Area	Hydrogeologic Unit	Monitoring Elements	SDG	Field QC Sample	Sample Frequency	VOCs SW8260D	TOC SW9060A	Anions SW9056A	DG RSK 175	CO2 SM4500	Sulfide SM4500	Alkalinity SM2320B	Mn SW6020A	Fe+2 Hach 8146	Field WQP	Microbial qPCR	SVOCS SW8270E	PAHs SW8270ESIM	Pesticides SW8081B	PCBs SW8082A	Metals SW6020A/ SW7470A
CSMPZ-3	OU 2	Eastover	MNA	1		A	•									•						
CSMPZ-7	OU 2	Eastover	LTM for Leaching: OU 2	1		A	•									•		•	•	•	•	•
DMW-8A	OU 2	Eastover	MNA	2		A	•									•						
DMW-9A	OU 2	Eastover	MNA	1		A	•	•	•	•	•	•	•	•	•	•						
DMW-9B	OU 2	Potomac	MNA	6		A	•									•						
DMW-16B	OU 1	Potomac	MNA	1		A	•									•						
DMW-17A	OU 1	Eastover	MNA	2		A	•									•						
DMW-34B	OU 2	Potomac	MNA	3		A	•	•	•	•	•	•	•	•	•	•						
OU6-MW-88	OU 1	Eastover	MNA	5		A	•	•	•	•	•	•	•	•	•	•						
OU6-MW-89	OU 1	Eastover	MNA	6		A	•	•	•	•	•	•	•	•	•	•						
OU6-MW-124	OU 1	Eastover	MNA	1		A	•	•	•	•	•	•	•	•	•	•						
OU6-MW-126	OU 1	Eastover	ISB PM	6		S	•	•	•	•	•	•	•	•	•	•	•					
OU6-MW-129	OU 1	Eastover	ISB PM	6		S	•	•	•	•	•	•	•	•	•	•						
OU6-MW-130	OU 1	Eastover	ISB PM	5		S	•	•	•	•	•	•	•	•	•	•						
OU6-MW-131	OU 1	Eastover	ISB PM	6		S	•	•	•	•	•	•	•	•	•	•						
OU6-MW-159	OU 1	Potomac	MNA	3		A	•	•	•	•	•	•	•	•	•	•						
OU6-MW-160	OU 1	Potomac	MNA	3	MS/MSD	A	•	•	•	•	•	•	•	•	•	•						
OU6-MW-165	OU 1	Potomac	MNA	3		A	•	•	•	•	•	•	•	•	•	•						
OU6-MW-166	OU 1	Potomac	MNA	3		A	•	•	•	•	•	•	•	•	•	•						
OU6-MW-167	OU 1	Potomac	MNA	3		A	•	•	•	•	•	•	•	•	•	•						
OU6-MW-168	OU 1	Potomac	MNA	1		A	•	•	•	•	•	•	•	•	•	•						
OU6-MW-169	OU 3	Eastover	MNA, LTM Leaching OU 3	1		A	•	•	•	•	•	•	•	•	•	•		•	•	•	•	•
OU6-MW-170	OU 1	Potomac	MNA	5		A	•	•	•	•	•	•	•	•	•	•						
OU6-MW-171	OU 1	Potomac	MNA	3		A	•	•	•	•	•	•	•	•	•	•						
OU6-MW-180	OU 2	Potomac	MNA	1	DUP	A	•									•						
OU6-MW-182	North of OU 2	Eastover	MNA	2		A	•									•						
OU6-MW-222	OU 1	Eastover	MNA	4		A	•	•	•	•	•	•	•	•	•	•						
OU6-MW-223	OU 1	Eastover	MNA	4		A	•	•	•	•	•	•	•	•	•	•						
OU6-MW-237	OU 1	Eastover	ISB PM	4		S	•	•	•	•	•	•	•	•	•	•						
OU6-MW-238	OU 1	Eastover	ISB PM	5		S	•	•	•	•	•	•	•	•	•	•						
OU6-MW-239	OU 1	Eastover	ISB PM	4		S	•	•	•	•	•	•	•	•	•	•						
OU6-MW-240	OU 1	Eastover	ISB PM	5		S	•	•	•	•	•	•	•	•	•	•						
OU6-MW-241	OU 1	Eastover	ISB PM	5		S	•	•	•	•	•	•	•	•	•	•	•					
OU6-MW-242	OU 1	Eastover	ISB PM	6		S	•	•	•	•	•	•	•	•	•	•	•					
OU6-MW-243	OU 1	Eastover	ISB PM, LTM Leaching OU 1	6		S, A[1]	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
OU6-MW-244	OU 1	Eastover	ISB PM	4		S	•	•	•	•	•	•	•	•	•	•						
OU6-MW-245	OU 1	Eastover	ISB PM	6		S	•	•	•	•	•	•	•	•	•	•						
OU6-MW-246	OU 1	Eastover	ISB PM	2		S	•	•	•	•	•	•	•	•	•	•						
OU6-MW-247	OU 1	Eastover	ISB PM	5		S	•	•	•	•	•	•	•	•	•	•						
OU6-MW-248	OU 1	Eastover	MNA	3		A	•	•	•	•	•	•	•	•	•	•						
OU6-MW-249	OU 1	Eastover	MNA	3		A	•									•						
OU6-MW-250	OU 1	Eastover	MNA	5		A	•	•	•	•	•	•	•	•	•	•						
OU6-MW-251	OU 1	Eastover	MNA	5		A	•	•	•	•	•	•	•	•	•	•						
OU6-MW-252	OU 1	Eastover	MNA	4		A	•	•	•	•	•	•	•	•	•	•						
OU6-MW-253	OU 1	Eastover	MNA	4		A	•	•	•	•	•	•	•	•	•	•						
OU6-MW-254	OU 1	Eastover	MNA	4		A	•	•	•	•	•	•	•	•	•	•						
OU6-MW-255	OU 1	Eastover	MNA	5		A	•	•	•	•	•	•	•	•	•	•						
OU6-MW-256	OU 1	Eastover	MNA	4		A	•	•	•	•	•	•	•	•	•	•						
OU6-MW-257	OU 1	Eastover	MNA	2		A	•									•						
OU6-MW-258	OU 1	Eastover	MNA	3		A	•	•	•	•	•	•	•	•	•	•						
OU6-MW-298	OU 1	Eastover	MNA	2		A	•	•	•	•	•	•	•	•	•	•						

Southern Area

Location ID	Area	Hydrogeologic Unit	Monitoring Elements	SDG	Field QC Sample	Sample Frequency	VOCs SW8260D	TOC SW9060A	Anions SW9056A	DG RSK 175	CO2 SM4500	Sulfide SM4500	Alkalinity SM2320B	Mn SW6020A	Fe+2 Hach 8146	Field WQP	Microbial qPCR	SVOCS SW8270E	PAHs SW8270ESIM	Pesticides SW8081B	PCBs SW8082A	Metals SW6020A/ SW7470A	1,4-Dioxane DEPH SW8270E
DMW-28B	OU 2	Potomac	MNA	5		A	•	•	•	•	•	•	•	•	•	•							
EBF-08D	OU 3	Potomac	MNA	5		A	•	•	•	•	•	•	•	•	•	•							
LAWMWQ	Offsite	Potomac	MNA	2		A	•									•							
MWNGA-8	OU 3	Potomac	MNA	2		A	•									•							•
MWNGA-10	OU 3	Potomac	MNA	2		A	•									•							•
OU6-MW-92	OU 3	Potomac	MNA	2		A	•									•							
OU6-MW-93	OU 3	Potomac	MNA	2		A	•									•							•
OU6-MW-94	OU 3	Aquia/Potomac	MNA	3		A	•	•	•	•	•	•	•	•	•	•							
OU6-MW-95	OU 3	Potomac	MNA	5		A	•	•	•	•	•	•	•	•	•	•							•
OU6-MW-96	OU 2	Aquia/Potomac	MNA	1		A	•									•							
OU6-MW-141	Offsite	Potomac	MNA	1		A	•									•							
OU6-MW-142	Offsite	Potomac	MNA	2		A	•	•	•	•	•	•	•	•	•	•							
OU6-MW-144	Offsite	Eastover	MNA	1		A	•									•							
OU6-MW-145	Offsite	Potomac	MNA	3	DUP	A	•	•	•	•	•	•	•	•	•	•							
OU6-MW-149	Offsite	Eastover	MNA	1		A	•									•							
OU6-MW-155	Offsite	Eastover	MNA	1		A	•									•							
OU6-MW-156	Offsite	Eastover	MNA	2		A	•									•							
OU6-MW-157	Offsite	Potomac	MNA	6	DUP	A	•	•	•	•	•	•	•	•	•	•							
OU6-MW-158	Offsite	Eastover	MNA	2		A	•									•							
OU6-MW-217	OU 2	Potomac	MNA	6		A	•	•	•	•	•	•	•	•	•	•							
OU6-MW-225	Offsite	Potomac	MNA	1		A	•									•							
OU6-MW-236	OU 3	Potomac	MNA	5	MS/MSD	A	•	•	•	•	•	•	•	•	•	•							
OU6-MW-259	OU 2	Eastover	MNA, LTM Leaching OU 2	2		A	•	•	•	•	•	•	•	•	•	•		•	•	•	•	•	
OU6-MW-260	OU 2	Eastover	MNA	6		A	•	•	•	•	•	•	•	•	•	•							
OU6-MW-261	OU 2	Eastover	MNA	3		A	•	•	•	•	•	•	•	•	•	•							
OU6-MW-262	OU 2	Eastover	MNA	4		A	•	•	•	•	•	•	•	•	•	•							
OU6-MW-263	OU 2	Eastover	MNA, LTM Leaching OU 2	4	MS/MSD	A	•	•	•	•	•	•	•	•	•	•		•	•	•	•	•	
OU6-MW-264	OU 3	Eastover	MNA	6	MS/MSD	A	•	•	•	•	•	•	•	•	•	•							
OU6-MW-265	OU 3	Eastover	MNA	1		A	•	•	•	•	•	•	•	•	•	•							
OU6-MW-266	OU 3	Eastover	MNA	5		A	•	•	•	•	•	•	•	•	•	•							
OU6-MW-267	OU 3	Eastover	MNA	1		A	•	•	•	•	•	•	•	•	•	•							
OU6-MW-268	OU 3	Eastover	MNA	5		A	•	•	•	•	•	•	•	•	•	•							
OU6-MW-269	OU 3	Eastover	MNA, LTM Leaching OU 3	4		A	•	•	•	•	•	•	•	•	•	•		•	•	•	•	•	
OU6-MW-270	OU 3	Eastover	MNA	3		A	•	•	•	•	•	•	•	•	•	•							
OU6-MW-271	OU 3	Eastover	MNA	5		A	•	•	•	•	•	•	•	•	•	•							
OU6-MW-272	OU 3	Eastover	MNA, LTM Leaching OU 3	5	DUP	A	•	•	•	•	•	•	•	•	•	•		•	•	•	•	•	
OU6-MW-273	OU 3	Eastover	MNA	3		A	•	•	•	•	•	•	•	•	•	•							
OU6-MW-274	OU 3	Eastover	MNA	4		A	•	•	•	•	•	•	•	•	•	•							
OU6-MW-275	OU 3	Eastover	MNA	4		A	•	•	•	•	•	•	•	•	•	•							
OU6-MW-276	OU 3	Eastover	MNA	4		A	•	•	•	•	•	•	•	•	•	•							
OU6-MW-277	OU 3	Eastover	MNA, LTM Leaching OU 3	2		A	•	•	•	•	•	•	•	•	•	•		•	•	•	•	•	
OU6-MW-278	OU 3	Eastover	MNA	2		A	•	•	•	•	•	•	•	•	•	•							
OU6-MW-279	OU 3	Eastover	MNA, LTM Leaching OU 3	3		A	•	•	•	•	•	•	•	•	•	•		•	•	•	•	•	
OU6-MW-280	OU 3	Eastover	MNA, LTM Leaching OU 3	2		A	•	•	•	•	•	•	•	•	•	•		•	•	•	•	•	
OU6-MW-281	OU 3	Eastover	MNA	2		A	•	•	•	•	•	•	•	•	•	•							
OU6-MW-282	Offsite	Eastover	MNA	4		A	•	•	•	•	•	•	•	•	•	•							
OU6-MW-283	OU 3	Potomac	MNA	4		A	•	•	•	•	•	•	•	•	•	•							
OU6-MW-284	OU 3	Potomac	MNA	1	MS/MSD	A	•									•							•
OU6-MW-285	OU 3	Potomac	MNA	6		A	•	•	•	•	•	•	•	•	•	•	•						•
OU6-MW-286	OU 3	Potomac	MNA	3		A	•	•	•	•	•	•	•	•	•	•							•
OU6-MW-287	OU 3	Potomac	MNA	5		A	•	•	•	•	•	•	•	•	•	•	•						•
OU6-MW-288	OU 3	Potomac	MNA	3		A	•	•	•	•	•	•	•	•	•	•	•						
OU6-MW-289	Offsite	Potomac	MNA	6		A	•	•	•	•	•	•	•	•	•	•							
OU6-MW-290	Offsite	Potomac	MNA	4	EB	A	•	•	•	•	•	•	•	•	•	•							
OU6-MW-291	Offsite	Potomac	MNA	6		A	•	•	•	•	•	•	•	•	•	•							
OU6-MW-292	Offsite	Potomac	MNA	4	DUP	A	•	•	•	•	•	•	•	•	•	•							
OU6-MW-293	Offsite	Potomac	MNA	4		A	•	•	•	•	•	•	•	•	•	•	•						
OU6-MW-294	Offsite	Potomac	MNA	5		A	•	•	•	•	•	•	•	•	•	•							
OU6-MW-295	Offsite	Potomac	MNA	3		A	•									•							
OU6-MW-296	Offsite	Potomac	MNA	1		A	•									•							
OU6-MW-297	Offsite	Potomac	MNA	2		A	•									•							
OU6-MW-299	OU 3	Eastover	MNA	3		A	•									•							
OU6-MW-300	OU 3	Potomac	MNA	1		A	•									•							
OU6-MW-301	Offsite	Potomac	MNA	1		A	•									•							
NNC-1	NNC, Offsite Downstream	Surface Water	LTM	7	MS/MSD	A	•									•							
NNC-2	NNC, Offsite Midpoint	Surface Water	LTM	7	DUP	A	•									•							
NNC-3	NNC, Onsite Upstream	Surface Water	LTM	7		A	•									•							

Notes: NNC = No Name Creek, MNA = monitored natural attenuation, OU 1 = Open Storage Area, OU 2 = Area 50 Source Area, OU 3 = National Guard Source Area, A = Annual Monitoring, LTM = long-term monitoring, VOCs = volatile organic compounds, Anions = chloride, sulfate, nitrate, and nitrate, DG = dissolved gases including ethene, ethane, and methane, CO_2 = carbon dioxide, Mn = manganese, $Fe+^2$ = ferrous iron (field), WQP = water quality parameters: temperature, pH, dissolved oxygen, oxidation reduction potential, specific conductance, and turbidity, qPCR = quantitative polymerase chain reaction Dehalococcoides (DHc), Trichloroethene Reductase (tceA), Vinyl Chloride Reductase (BVC), Vinyl Chloride Reductase (VCR), PAHs = polycyclic aromatic hydrocarbons, PCBs = polychlorinated biphenyls

- Pesticides by SW-846 Method 8181B.
- PCBs by SW-846 Method 8280A.
- Target analyte list metals by SW-846 Methods 6020A and 7470A.

Meadows performed the annual monitoring event from May 13 to 29, 2024 with resampling of wells MW-168, MW-287, and MW-291 on June 12, 2024 for field water quality measurements. Resampling occurred because of an electronic record keeping error that resulted in loss of field water quality measurement data. Appendix A.2 has field forms and documentation from the May 2024 annual monitoring event and June resampling event. Eurofins Savannah Laboratory (Savannah Georgia) provided analytical services following the Department of Defense (DoD) Quality Systems Manual 5.4. The laboratory maintains the following certifications: DoD Environmental Laboratory Accreditation Program (ELAP) in accordance with the requirements of QSM 5.4, National Environmental Laboratory Accreditation Program (NELAP), and Virginia Environmental Laboratory Accreditation Program (VELAP).

3.2 ISB Performance Monitoring

ISB injections completed in the northern area of OU 6 surficial aquifer in October-November 2021 targeted a residual chlorinated VOC source zone in the surficial aquifer beneath OU 1. ISB performance monitoring occurred in FY 2024 at 15 monitoring locations in and around the injection areas. Table 3-3 identifies the 15 performance monitoring locations and analytical parameters. Table 3-3 has an overall summary of the ISB performance monitoring performed on November 20 and 21, 2023. Figure 3-1 has a location map of monitoring wells sampled for FY 2024 including performance monitoring locations. Microbial analysis completed by Microbial Insights, Inc. (Knoxville, Tennessee) for four monitoring locations included quantitative polymerase chain reaction (qPCR) for dechlorinating bacteria: *Dehalococcoides* (DHC) and functional genes tceA Reductase, BAV1 Vinyl Chloride (BVC), and Vinyl Chloride Reductase (VCR).

Table 3-3 OU 6 ISB Performance Monitoring Program (November 2023)

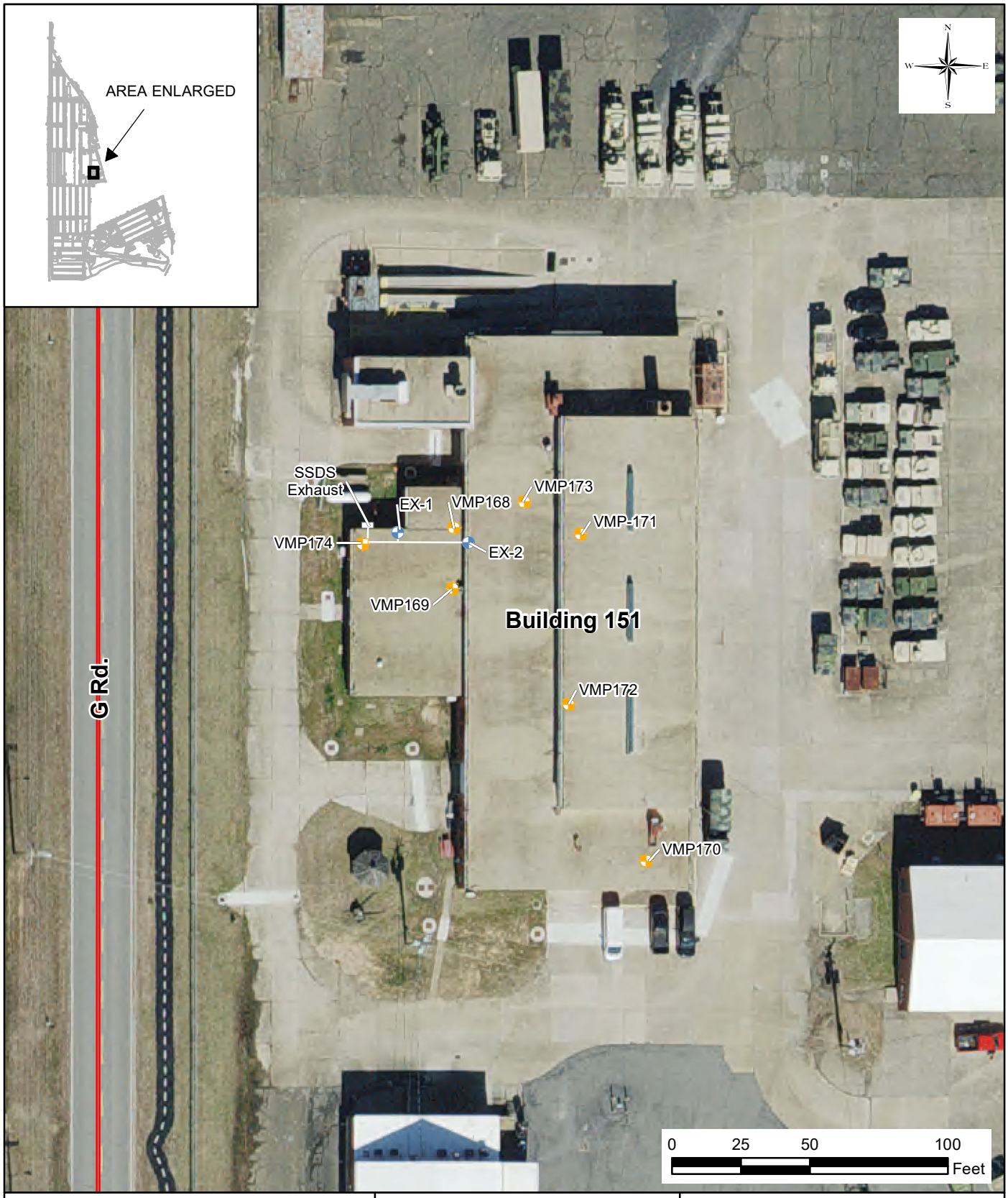
Schedule	Surficial Aquifer[4]	VOCs[1]	Field WQP[2]	Geochemical[3]	Microbial qPCR[5]
November 2023	15	15	15	15	4

Notes: [1]VOCs = Target analyte list volatile organic compounds, [2]field WQP = field water quality parameters pH, temperature, specific conductance, dissolved oxygen, oxidation-reduction potential, and turbidity, [3]Geochemical parameters, include total organic carbon, chloride, sulfate, nitrite, nitrate, total alkalinity, ferrous iron, manganese, sulfide, dissolved gases ethane, ethene, methane, and carbon dioxide, [4]Surficial aquifer = Eastover, [5]qPCR = quantitative polymerase chain reaction Dehalococcoides (DHC), Trichloroethene Reductase (tceA), Vinyl Chloride Reductase (BVC), Vinyl Chloride Reductase (VCR), Quantities listed under VOCs, field WQP, geochemical, are number of normal samples collected per sampling event.

Meadows performed ISB performance groundwater monitoring at 15 monitoring wells on November 20 and 21, 2023. Appendix A.1 has the field forms and documentation.

3.3 Building 151 SSDS OM&M

Installation and startup of an SSDS occurred at Building 151 in 2018 with the objective of reducing vapor beneath the building slab and reducing the potential for VI into the building (Arcadis 2018b). The SSDS has two vapor extraction points including one in the tool room and the other in the break room. Seven VMPs in Building 151 allow for monitoring of the SSDS depressurization field and sub-slab vapor conditions. Figure 3-2 (page 3-6) has the SSDS layout and monitoring locations. For FY 2024, Meadows performed operations, maintenance, and monitoring events on October 10, 2023, January 16, 2024, April 16, 2024, July 1, 2024, August 19, 2024, and August 28, 2024. Appendix A.3 has field forms and documentation for the OM&M performed in FY 2024. Table 3-7 (page 3-7) has the scope of OM&M activities performed in FY 2024 including field inspections, measurement, and maintenance.



Legend

- Bldg 151 VMP
- Bldg 151 SSDS Extraction Point
- Operable Unit Boundary

Notes:
Orthoimagery Source: VGIN (2021)

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Prepared By:	Reviewed By:
DBC	JOS
Scale: 1" = 50'	Date: September 03, 2024

Figure 3-2
Building 151 SSDS Layout and Monitoring Locations

Defense Supply Center Richmond
Richmond, VA

C:\Users\david.copen\AECOM\DSCR FY2024 Annual Reports - General\OU6 FY2024 Annual Report\Figures\Figure 3-2 Building 151 SSDS.mxd

Table 3-4 OU 6 Building 151 SSDS Operations, Maintenance, and Monitoring

Measurement Identification and Nomenclature

Type	Sample Type	Sample ID	Reading Type
System Differential Pressure	Field	[Loc ID]-[yyyy-mm-dd]	Gauge Pressure
VMP Differential Pressure	Field	[Loc ID]-[yyyy-mm-dd]	Manometer Pressure
VMP Sub-Slab Vapor	Field	[Loc ID]-[yyyy-mm-dd]	Direct reading instrument

Field Inspection, Tests, and Measurements

Task	Frequency/Schedule	Locations
Differential Pressure Gauge Measurements (inches of water column)	Quarterly Oct, Jan, Apr, Jul	Exhaust Fan (OU6-BLDG-151-Exhaust), Extraction Point 1 (OU6-BLDG-151-EX1), Extraction Point 2 (OU6-BLDG-151-EX2)
Sub-Slab Differential Pressure Micromanometer (in w.c.)	Quarterly Oct, Jan, Apr, Jul	OU6-VMP-168, OU6-VMP-169, OU6-VMP-170, OU6-VMP-171, OU6-VMP-172, OU6-VMP-173, OU6-VMP-174
Field Parameter Measurements PID 10.6 eV; VOCs (ppmV) Gas analyzer: Carbon dioxide (%), Methane (%), Oxygen (%)	Quarterly Oct, Jan, Apr, Jul	OU6-VMP-168, OU6-VMP-169, OU6-VMP-170, OU6-VMP-171, OU6-VMP-172, OU6-VMP-173, OU6-VMP-174
System Components Inspection	Quarterly Oct, Jan, Apr, Jul	Exhaust fan operation, operating lights for extraction points 1 and 2, exterior piping, extraction point risers, interior piping, fan conditions (unusual noises, vibrations, or odors), condition of fittings, piping, and sample ports (damage check)
Low Vacuum Alarm Test	Annually Apr.	Turn off exhaust fan and verify function of alarms at Extraction Point 1 and Extraction Point 2

Notes: PID = photoionization detector, ppmV = parts per million by volume, % percent by volume, in w.c. = inches water column

3.4 Variances and Non-Conformances

The discrepancies for the FY 2024 OU6 sampling events are detailed below.

2023 ISB Performance Monitoring

The following variances occurred for sampling of 15 ISB performance groundwater monitoring in November 2023:

- Insufficient well recharge and water volume at monitoring well OU6-MW-126 to collect and analyze for microbial and geochemical parameters. The project team collected a microbial sample from nearby location OU6-MW-245 for microbial analysis as a substitute location and used geochemical data from surrounding wells in the ISB treatment zone to evaluate geochemical conditions for this performance monitoring event.
- The project team used microbial data from the May 2023 sampling event to evaluate microbial and bioremediation conditions at location OU6-MW-126.

2024 Annual Monitoring

The following variances occurred for annual monitoring performed in May 2024:

- An electronic record keeping error resulted in the loss of field water quality measurement data for wells MW-168, MW-287, and MW-291. Resampling of these wells occurred on June 12, 2024 to obtain field water quality measurements for these locations.
- The samples collected from DMW-9A, OU6-MW-126, OU6-MW-239, OU6-MW-244, OU6-MW-286, OU6-MW-259 did not have a ferrous iron measurement in the field because of a field sampling error. The assessments performed at OU 6 used group and area distribution data for geochemical and biodegradation assessments thereby attaining assessment objectives.
- At OU6-MW-272, field sampling error resulted in the duplicate sample analysis omitting non-VOC parameters for leachability assessment.
- Sample measurements for the following locations had a negative turbidity reading after initial positive readings: CSMPZ-3, DMW-8A, DMW-9A, OU6-MW-169, OU6-MW-223, OU6-MW-242, OU6-MW-243, OU6-MW-244, OU6-MW-245, OU6-MW-247, OU6-MW-251, OU6-MW-266, and OU6-MW-276. These samples had a clear appearance with no sediment indicating attainment of sample quality objectives.

4. Monitoring Results

Section 4 presents and summarizes monitoring results for FY 2024. Data groupings for the results are by monitoring area and by monitoring zones of groundwater. The northern monitoring area includes the OU 1 area and the north portions of OU 2 and OU 3. Monitored groundwater zones at OU 6 include the surficial aquifer corresponding to the Eastover Formation and the confined aquifer corresponding to the Aquia and Potomac Formations. Section 5 has a detailed assessment of the results and remedy performance.

4.1 Potentiometric Surface Evaluation and Groundwater Flow

Appendix A.2 has a table summarizing depth to groundwater measurements and calculated groundwater elevations for site-wide measurements obtained on May 13, 2024, before annual groundwater sampling.

4.1.1 Surficial Aquifer

Figure 4-1 (page 4-2) has a potentiometric surface elevation contour map (May 13, 2024) for the surficial aquifer developed by geostatistical analysis (kriging) in Earth Volumetric Studio (EVS) using site-wide groundwater elevation data for wells screened in the surficial aquifer (Eastover). Groundwater flow direction is generally toward the east-northeast and No Name Creek. This creek represents a flow boundary for the surficial aquifer in the off-installation area. Equation 1 calculates the approximate horizontal velocity range of groundwater flow within the surficial aquifer using a form of Darcy's velocity equation:

(1) $$V = Ki / n_e$$

Where:

V = groundwater flow velocity (ft./yr)
K = hydraulic conductivity (feet per day [ft/day])
i = hydraulic gradient (ft/ft)
n_e = effective porosity (unitless)

Input values for Equation 1 for the surficial aquifer include:

- K of 15.56 ft/day (average for RI slug tests from Dames & Moore 1989)
- Assumed effective porosity of 0.30 for wells screened interval in the poorly graded sand
- Average hydraulic gradient of 0.0056 for the May 2024 sampling event across OU 1/OU 2 (Figure 4-1).
- Average hydraulic gradient of 0.010 for the May 2024 sampling event across OU 2/OU 3 (Figure 4-1).

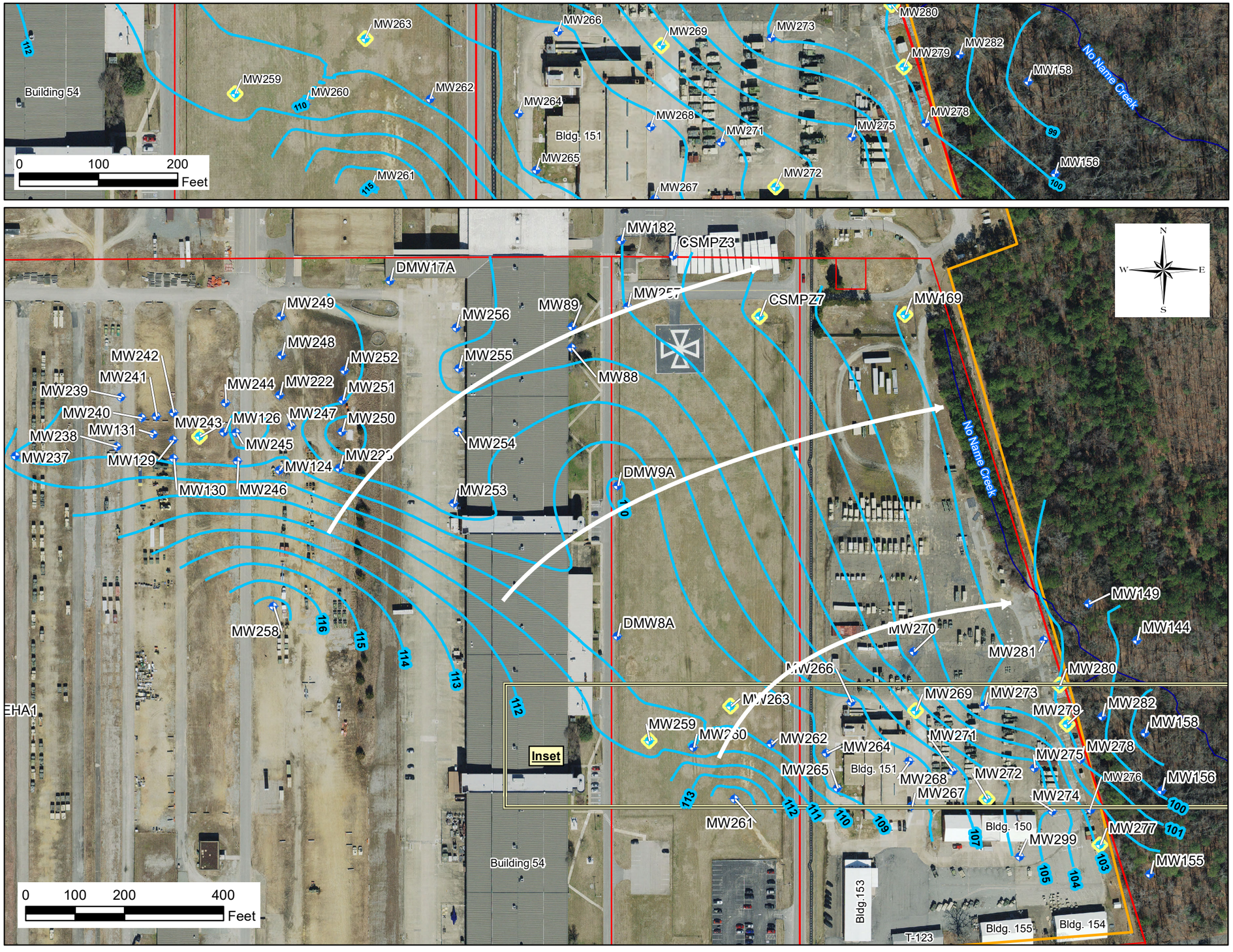
The estimated horizontal groundwater flow velocity calculated for the surficial aquifer using the above input values is 2.9E-01 ft./day (106 ft./yr.) for OU 1/2 flow path and 5.2E-01 ft./day (189 ft./yr.) for OU 2/OU3 flow path.

4.1.2 Confined Aquifer

Figure 4-2 (page 4-3) has a potentiometric surface contour map (May 15, 2023) for the Potomac that occurs under confined conditions. Groundwater flow direction is generally toward the east-southeast.

Input values for the confined aquifer include:

- K of 14.0 ft./day (average for pumping test from USGS 1987).
- Estimated effective porosity of 0.22 (estimated from OU 6 physical data from the Potomac).
- Average hydraulic gradient of 0.01 for the May 2024 sampling event across OU 1 (Figure 4-2).
- Average hydraulic gradient of 0.0079 for the May 2024 sampling event across OU 2/OU 3 (Figure 4-2).



Legend

- Surficial Aquifer Monitoring Well
- Surficial Aquifer Long-term Monitoring Well
- Surficial Aquifer Potentiometric Surface Contour Line
- Streams
- Operable Units
- DSCR_Boundary
- Groundwater Flow Direction
- 102 Potentiometric Surface Elevation (ft NAVD88)

Notes:
Orthoimagery Source: VGIN (2021)

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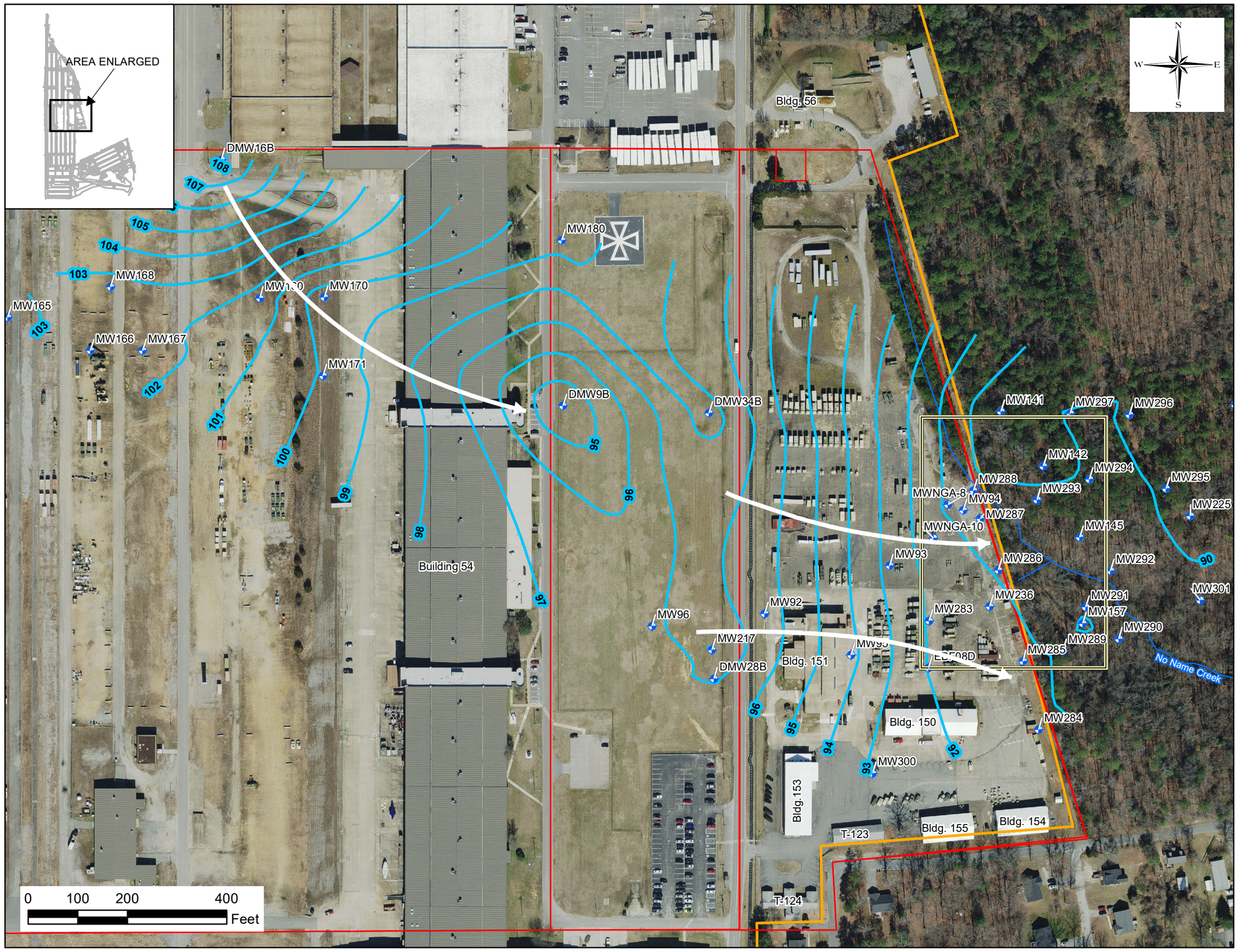
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Figure 4-1
OU 6 Surficial Aquifer Potentiometric Surface (May 2024)

2024 Annual Monitoring Report - OU 6
Defense Supply Center Richmond
Richmond, VA

Prepared By: JLD	Reviewed By: JOS
Scale: 1 " = 200 '	Date: September 12, 2024

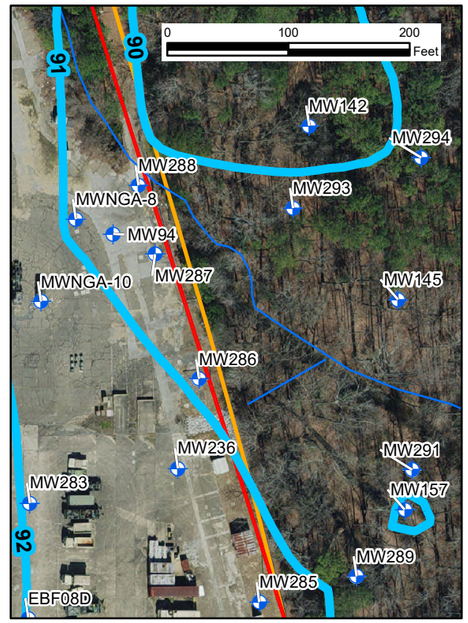
L:\Legacy\USGNA2FP002\Data\projects\0_GIS\DLA\OU8\Annual Report Figures\2024\Figure 4-1 OU6 Eastover Pot Map (May 2024)



Legend

- Confined Aquifer Monitoring Well
- Confined Aquifer Potentiometric Surface Contour Line
- Stream
- Operable Units
- DSCR Boundary
- Groundwater Flow Direction
- 102 Potentiometric Surface Elevation (ft NAVD88)

Notes:
Orthoimagery Source: VGIN (2021)



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Figure 4-2
OU 6 Confined Aquifer Potentiometric Surface (May 2024)

2024 Annual Monitoring Report - OU 6
Defense Supply Center Richmond
Richmond, VA

Prepared By: JLD	Reviewed By: JOS
Scale: 1 " = 200 '	Date: September 12, 2024

L:\Legacy\USGNA2FP002\Data\projects\0_GIS\DLA\OU8\Annual Report Figures\2024\Figure 4-2 OU6 Potomac Pot Map (May 2024)

The estimated horizontal groundwater flow velocity calculated for the confined aquifer using the above input values is 6.4E-01 ft./day (232 ft./yr.) for OU 1 flow path and 5.0E-01 ft./day (184 ft./yr.) for OU 2/OU3 flow path.

4.2 Geochemical Environment

This report uses a combination of VOC, water quality, and MNA parameter data to characterize general geochemical environments of plume areas and monitored zones as summarized in Table 4-1.

Table 4-1 Plume Area Geochemical Environments

Geochemical Environment	Parameter Criteria in Plume Area
Anaerobic	Average DO concentration < ~ 1 mg/L + Sulfate concentration < ~ 50 mg/L (general for most sites) + Nitrate < ~ 1 mg/L + Methane or ferrous iron or sulfide detected in most wells + Dechlorination products present
Partially oxidizing or reducing	Average DO concentration <2 mg/L + Plume area does not meet all anaerobic criteria
Aerobic	Average DO concentration >2 mg/L + Plume area does not meet any anaerobic criteria

Source: Modified from Washington Savannah River Company Savannah River National Laboratory, 2007. Scenarios Evaluation Tool for Chlorinated Solvent MNA, WSRC-STI-2006-00096, Rev. 2, Prepared for the Department of Energy, February 7, mg/L – milligrams per liter, [1] the upper range value used is 1.1 mg/L (+10 percent of 1 mg/L), [2] the upper range used is 55 mg/L (+10 percent of 50 mg/L),

4.3 Overview for Groundwater Monitoring

OU 6 has dissolved phase VOC plume areas in groundwater in the surficial and confined aquifers. Primary constituents of concern (COCs) that spatially occur and exceed EPA MCLs for monitored plume areas include chlorinated VOCs, PCE, TCE, cis-1,2-dichloroethene (cDCE), and vinyl chloride, 1,1-dichloroethene (1,1-DCE), 1,2-dichloroethane (1,2-DCA), 1,4-dichlorobenzene (1,4-DCB), and chlorobenzene (CB). Appendix B has complete analytical results summarized in tables for groundwater monitoring including:

- Appendix B.1 –November 2023 ISB performance monitoring
- Appendix B.2 – May 2024 annual groundwater monitoring event for VOCs and WQP
- Appendix B.3 – May 2024 annual groundwater monitoring event for geochemical parameters and microbial analysis
- Appendix B.4 – May 2023 annual groundwater monitoring event for leachability analysis
- Appendix B.5 – May 2024 annual surface water monitoring event at No Name Creek

Appendix C has laboratory reports and data validation reports for November 2023 ISB performance monitoring (C.1) and May 2024 annual monitoring (C.2).

4.4 ISB Performance Monitoring Results (November 2023)

Section 4.4 has a summary of performance monitoring results for the sampling event completed in November 2023. Appendix B.1 has complete result tables for this monitoring event including VOCs, water quality parameters, geochemical parameters, and microbial parameters. The VOC table has comparisons of the data to OU 6 cleanup levels (MCLs), EPA regional screening levels (RSLs) with a target risk (TR) of 1E-06 and target hazard quotient (THQ) of 0.1, and EPA Region 3 Biological Technical Assistance Group

(BTAG) screening benchmarks for surface water (freshwater). Appendix E.1 has data distribution analysis presented in Section 4.4 for ISB performance monitoring completed in November 2023.

4.4.1 Water Quality Parameters

Exhibit 4-1 (page 4-6) has box plots and tabular information displaying data distributions for pH, DO, ORP, and SC for the November 2023 monitoring event for ISB performance monitoring in the OU 1 subarea of OU 6.

4.4.1.1 pH

For November 2023, the distribution range for pH is 1.99 with a mean of 6.37 and median of 6.07. The distribution 25th and 75th percentiles are 5.27 and 6.35, respectively. Three of 14 data observations have a pH < 5 with no data outliers.

4.4.1.2 Dissolved Oxygen

For November 2023, the distribution range for DO is 4.89 mg/L with a mean of 1.49 mg/L and median of 1.21 mg/L. The distribution 25th and 75th percentiles are 0.64 mg/L and 1.51 mg/L, respectively. Five of 14 data observations have a DO ≤ 1 mg/L with one distribution outlier.

4.4.1.3 Oxidation-Reduction Potential

For November 2023, the distribution range for ORP is 534.2 mV with a mean of -83.2 mV and median of -94.7 mV. The distribution 25th and 75th percentiles are -243 mV and -33.1 mV, respectively. Nine of 14 data observations have an ORP < 50 mV with no data outliers.

4.4.1.4 Specific Conductivity

For November 2023, the distribution range for SC is 2.14 mS with a mean of 0.536 mS and median of 0.434 mS. The distribution 25th and 75th percentiles are 0.192 mS and 1.00 mS, respectively. For July 2024, the distribution range for SC is 1.295 mS with a mean of 0.536 mS and median of 0.407 mS with one data outlier.

4.4.2 VOC Results

Table 4-2 (page 4-7) has a statistical summary of VOC constituents detected in one or more samples collected for the November 2023 ISB performance monitoring. This table has descriptive statistics, identifies the location of the maximum detected concentrations, and presents screening comparisons to remedy cleanup levels (MCLs), EPA RSLs, and ecological screening benchmarks. Exhibit 4-2 (page 4-8) has box plots and tabular information displaying data distributions for primary VOC constituents detected for the November ISB sampling event in the OU 1 area.

4.4.2.1 COCs

VOCs detected in groundwater for the performance monitoring events at levels > MCLs include: PCE, TCE, cDCE, VC, and 1,1-DCE. For constituents without MCLs, VOCs detected at concentrations > RSLs include: 1,1-dichloroethane, 2-hexanone, and naphthalene. Ketone constituents such as 2-hexanone typically form as a temporary by-product of engineered bioremediation actions.

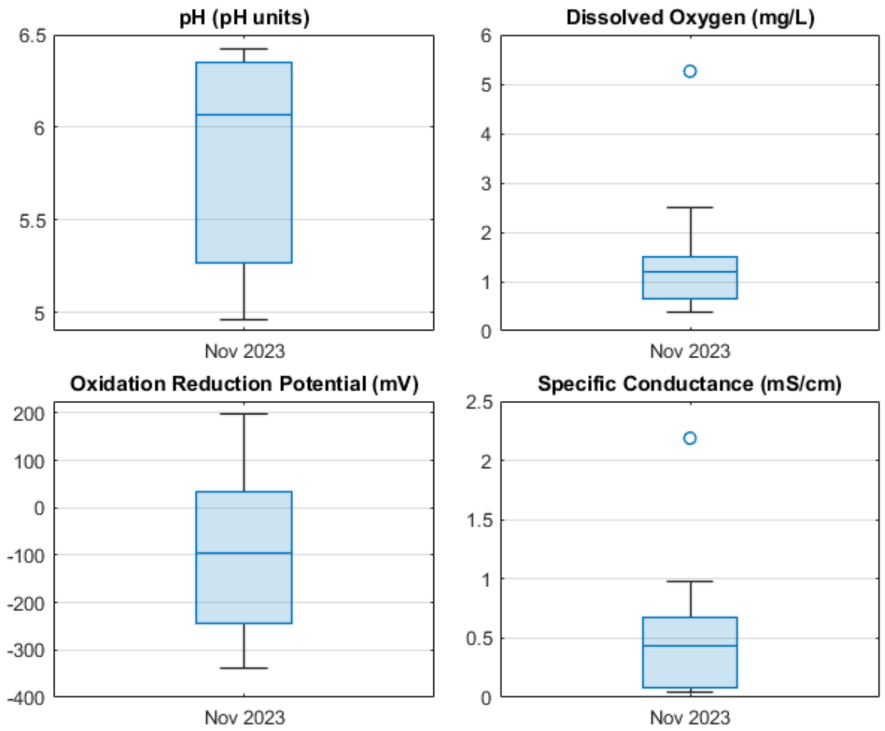
4.4.2.2 PCE

For November 2023, 12 of 15 samples had detections of PCE and detected concentrations ranging from 2.5 µg/L to 6,900 µg/L. Mean and median concentrations for PCE are 1,070 µg/L and 65 µg/L, respectively, with 10 samples having concentrations greater than the MCL of 5 µg/L. Distribution 25th and 75th percentiles for PCE are 37 µg/L and 150 µg/L, respectively. The distribution has two data outliers.

4.4.2.3 TCE

For November 2023, 15 of 15 samples had detections of TCE and detected concentrations ranging from 1.6 µg/L to 6,200 µg/L. Mean and median concentrations for TCE are 1,080 µg/L and 75 µg/L, respectively, with 12 samples having concentrations greater than the MCL of 5 µg/L. Distribution 25th and 75th percentiles for TCE are 10.2 µg/L and 1,080 µg/L, respectively. The distribution has two data outliers.

Exhibit 4-1 Water Quality Parameter Distribution for ISB Performance Monitoring (Nov 2023)



pH (pH units)

Event	N	D	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL25	PCTL75	pH< 5
Nov 23	14	14	4.96	6.42	1.46	5.83	6.07	0.597	0.357	-0.3733	1.4423	0	5.27	6.35	2

Dissolved Oxygen (milligrams per liter)

Event	N	D	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL25	PCTL75	DO<=1
Nov 23	14	14	0.37	5.26	4.89	1.49	1.21	1.251	1.564	2.085	6.986	1	0.64	1.51	5

Oxidation-Reduction Potential (millivolts)

Event	N	D	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL25	PCTL75	ORP<-50
Nov 23	14	14	-337	197.2	534.2	-83.2	-94.7	168.0	2.8E+04	0.1008	2.0935	0	-243	33.1	9

Specific Conductance (millisiemens per ohm)

Event	N	D	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL25	PCTL75
Nov 23	14	14	0.048	2.188	2.14	0.536	0.434	0.573	3.3E-01	1.7431	5.9466	1	0.192	1.00

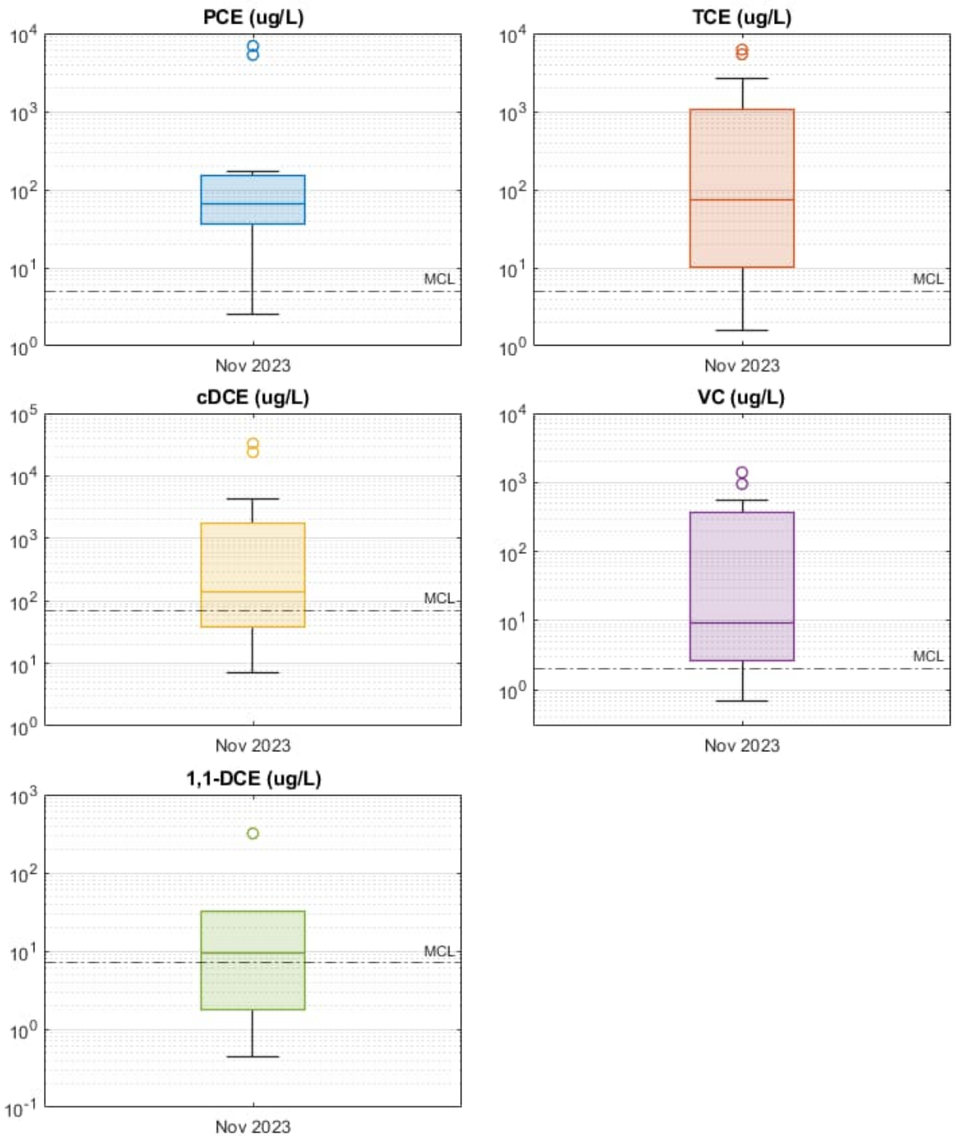
Notes: N = number of normal samples, D = number of detected results, Min = minimum detected result, max = maximum detected result, Std. Dev. = standard deviation, Var = variance, PCTL25 = 25th percentile, PCTL75. = 75th percentile, pH <5 = number of results with pH less than 5, DO <= 1 = number of results with dissolved oxygen level less than or equal to 1 milligram per liter, ORP<-50 = number of results with oxidation-reduction potential less than -50 millivolts.

Table 4-2 Statistical Summary for VOCs: OU 6 ISB Performance Monitoring Nov 2023 (Detects)

Chemical	Matrix	No. of Results	Unit	Min	Max	Mean	Median	95th Percentile	No. > LOD	% > LOD	Location of Max	Federal MCL[1]			EPA RSL[2] (May 2024)			BTAG FWSB[3] (2006)		
												No. > MCL	% > MCL	Federal MCL	No. > RSL	% > RSL	EPA RSL[2]	No. > BTAG	% > BTAG	BTAG FWSB[3]
1,1-Dichloroethane	WG	15	ug/L	<0.33	61	--	--	57.97	2	13	OU6-MW-242	-	-	-	2	13	2.75E+00	1	7	4.70E+01
1,1-Dichloroethene	WG	15	ug/L	<0.33	320	50.7	4.2	320	10	67	OU6-MW-242, OU6-MW-243	7	47	7.00E+00	4	27	2.85E+01	4	27	2.50E+01
1,2-Dichloroethane	WG	15	ug/L	<0.25	1.9	--	--	1.9	1	7	OU6-MW-126	0	0	5.00E+00	1	7	1.71E-01	0	0	1.00E+02
1,2-Dichloroethene, Total	WG	15	ug/L	7	33000	4362	140	26700	15	100	OU6-MW-129	-	-	-	-	-	-	6	40	5.90E+02
2-Butanone (MEK)	WG	15	ug/L	<6.4	450	--	--	428.35	2	13	OU6-MW-247	-	-	-	0	0	5.57E+02	0	0	1.40E+04
2-Hexanone	WG	15	ug/L	<3.2	19	--	--	18.36	2	13	OU6-MW-247	-	-	-	2	13	3.80E+00	2	13	9.90E+01
4-Methyl-2-pentanone (MIBK)	WG	15	ug/L	<2.7	2.7	--	--	-	1	7	OU6-MW-241	-	-	-	0	0	6.26E+02	0	0	1.70E+02
Acetone	WG	15	ug/L	<3.7	600	91.7	n.d.	532.5	4	27	OU6-MW-247	-	-	-	0	0	1.80E+03	0	0	1.50E+03
Carbon disulfide	WG	15	ug/L	<0.43	1.4	--	--	1.4	1	7	OU6-MW-247	-	-	-	0	0	8.11E+01	1	7	9.20E-01
Chloroform	WG	15	ug/L	<0.27	4.5	--	--	4.2915	2	13	OU6-MW-131	0	0	8.00E+01	2	13	2.21E-01	2	13	1.80E+00
cis-1,2-Dichloroethene	WG	15	ug/L	7	33000	4362	140	26700	15	100	OU6-MW-129	10	67	7.00E+01	15	100	2.52E+00	-	-	-
Naphthalene	WG	15	ug/L	<2.4	3	--	--	3	1	7	OU6-MW-245	-	-	-	1	7	1.17E-01	1	7	1.10E+00
o-Xylene	WG	15	ug/L	<0.26	0.56	--	--	0.56	1	7	OU6-MW-245	-	-	-	0	0	1.93E+01	-	-	-
Tetrachloroethene (PCE)	WG	15	ug/L	<0.35	6900	856	41	6020	12	80	OU6-MW-129	10	67	5.00E+00	12	80	4.06E+00	4	27	1.11E+02
trans-1,2-Dichloroethene	WG	15	ug/L	<0.34	79	8.30	--	62.25	6	40	OU6-MW-129	0	0	1.00E+02	3	20	6.78E+00	0	0	9.70E+02
Trichloroethene (TCE)	WG	15	ug/L	1.6	6200	1076.2	75	5640	15	100	OU6-MW-129	12	80	5.00E+00	15	100	2.83E-01	10	67	2.10E+01
Vinyl chloride	WG	15	ug/L	<0.8	1400	218	5	1130	13	87	OU6-MW-243	12	80	2.00E+00	13	87	1.88E-02	2	13	9.30E+02
Xylene (Total)	WG	15	ug/L	<0.49	0.56	--	--	0.56	1	7	OU6-MW-245	0	0	1.00E+04	1	7	1.93E+01	1	7	1.30E+01

Notes: Descriptive statistics minimum, maximum, mean, median, 95% percentile for distribution of detected results, WG = groundwater, ug/L = micrograms per liter, Min = minimum, Max = maximum, No. > = number greater, LOD = limit of detection, % = percent, , [1]Subpart G—National Primary Drinking Water Regulations: Maximum Contaminant Levels and Maximum Residual Disinfectant Levels, § 141.61 Maximum contaminant levels for organic contaminants.> LOD = percent of detected results greater than laboratory limit of detection, [2] EPA Regional Screening Level for Resident Tap Water with a target cancer risk (TR) of 1E-06 and target hazard quotient (THQ) of 0.1, May 2024 at https://www.epa.gov/risk/regional-screening-levels-rsls-generic-tables. [3]EPA Region III BTAG Freshwater Screening Benchmarks, 7/2006. https://www.epa.gov/risk/freshwater-screening-benchmarks, Number of results with concentrations greater than the MCL, Number of results with concentration greater than the RSL, Number of results with concentrations greater than the BTAG FWSB

Exhibit 4-2 VOC Distribution for ISB Performance Monitoring (Nov 2023)



Tetrachloroethene (micrograms per liter)

Event	N	D	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL25	PCTL75	PCE>5
Nov 23	15	12	2.5	6900	6897.5	1070	65	2.37E+03	5.64E+06	1.8691	4.6341	2	37	150	10

Trichloroethene (micrograms per liter)

Event	N	D	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL25	PCTL75	TCE>5
Nov 23	15	15	1.6	6200	6198.4	1080	75	2.05E+03	4.21E+06	1.7687	4.5532	2	10.2	1080	12

Cis,1,2-dichloroethene (micrograms per liter)

Event	N	D	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL25	PCTL75	cDCE>70
Nov 23	15	15	7	33000	32993	4360	140	1.00E+04	1.00E+08	2.2273	6.2804	2	38.3	1765	10

Vinyl chloride (micrograms per liter)

Event	N	D	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL25	PCTL75	VC>2
Nov 23	15	13	0.69	1400	1399.31	251.4	9.1	450.4	2.03E+05	1.6629	4.4274	2	2.6	362.5	11

1,1-Dichloroethene (micrograms per liter)

Event	N	D	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL25	PCTL75	12-DCA>5
Nov 23	15	10	0.44	320	319.56	71.3	9.6	131.4	1.73E+04	1.4813	3.2234	2	1.8	32	6

Notes: N = number of normal samples, D = number of detected results, Min = minimum detected result, max = maximum detected result, Std. Dev. = standard deviation, Var = variance, PCTL25 = 25th percentile, PCTL75. = 75th percentile,

4.4.2.4 cDCE

For November 2023, 15 of 15 samples had detections of cDCE and detected concentrations ranging from 7 µg/L to 33,000 µg/L. Mean and median concentrations for cDCE are 4,360 µg/L and 140 µg/L, respectively, with 12 samples having concentrations greater than the MCL of 70 µg/L. Distribution 25th and 75th percentiles for cDCE are 38.3 µg/L and 1,765 µg/L, respectively. The distribution has two data outliers.

4.4.2.5 VC

For November 2023, 15 of 15 samples had detections of VC and detected concentrations ranging from 7 µg/L to 33,000 µg/L. Mean and median concentrations for VC for November 2023 are 4,360 µg/L and 140 µg/L, respectively, with 12 samples having concentrations greater than the MCL of 2 µg/L. Distribution 25th and 75th percentiles for VC are 38.3 µg/L and 1,765 µg/L, respectively. The distribution has two data outliers.

4.4.2.6 1,1 DCE

For November 2023, 13 of 15 samples had detections of 1,2-DCA and detected concentrations ranging from 0.69 µg/L to 1,400 µg/L. Mean and median concentrations for 1,2-DCA are 251.4 µg/L and 9.1 µg/L, respectively, with 11 samples having concentrations greater than the MCL of 5 µg/L. Distribution 25th and 75th percentiles for 1,2-DCA are 2.6 µg/L and 362.5 µg/L, respectively. The distribution has two data outliers.

4.4.3 Geochemical Parameter Results

Exhibit 4-3 (page 4-10) has box plots and tabular information displaying data distributions for geochemical parameters for the November 2023 performance monitoring event (ISB) in the OU 1 area.

4.4.3.1 Chloride

For November 2023, chloride concentrations ranged from 5.5 mg/L to 51 mg/L with mean and median concentrations of 15.6 mg/L and 11 mg/L, respectively. Distribution 25th and 75th percentiles for chloride are 8.8 mg/L and 19 mg/L, respectively. The chloride data distribution has one outlier.

4.4.3.2 Nitrate

For November 2023, nitrate had detections in 4 of 14 samples with detected concentrations ranging from 0.11 mg/L to 1.2 mg/L. Three of the four detections had levels of nitrate < 1 mg/L.

4.4.3.3 Sulfate

For November 2023, nine of 14 samples had detections of sulfate and detected concentrations ranged from 0.59 mg/L to 2.4 mg/L. Distribution 25th and 75th percentiles for sulfate are 0.67 mg/L and 1.85 mg/L, respectively.

4.4.3.4 Sulfide

For November 2023, 2 of 14 samples had detections of sulfide with concentrations of 1.7 mg/L and 3.6 mg/L.

4.4.3.5 Sulfide as Hydrogen Sulfide

For November 2023, 2 of 14 samples had detections of sulfide as hydrogen sulfide with concentrations of 1.8 mg/L and 3.8 mg/L.

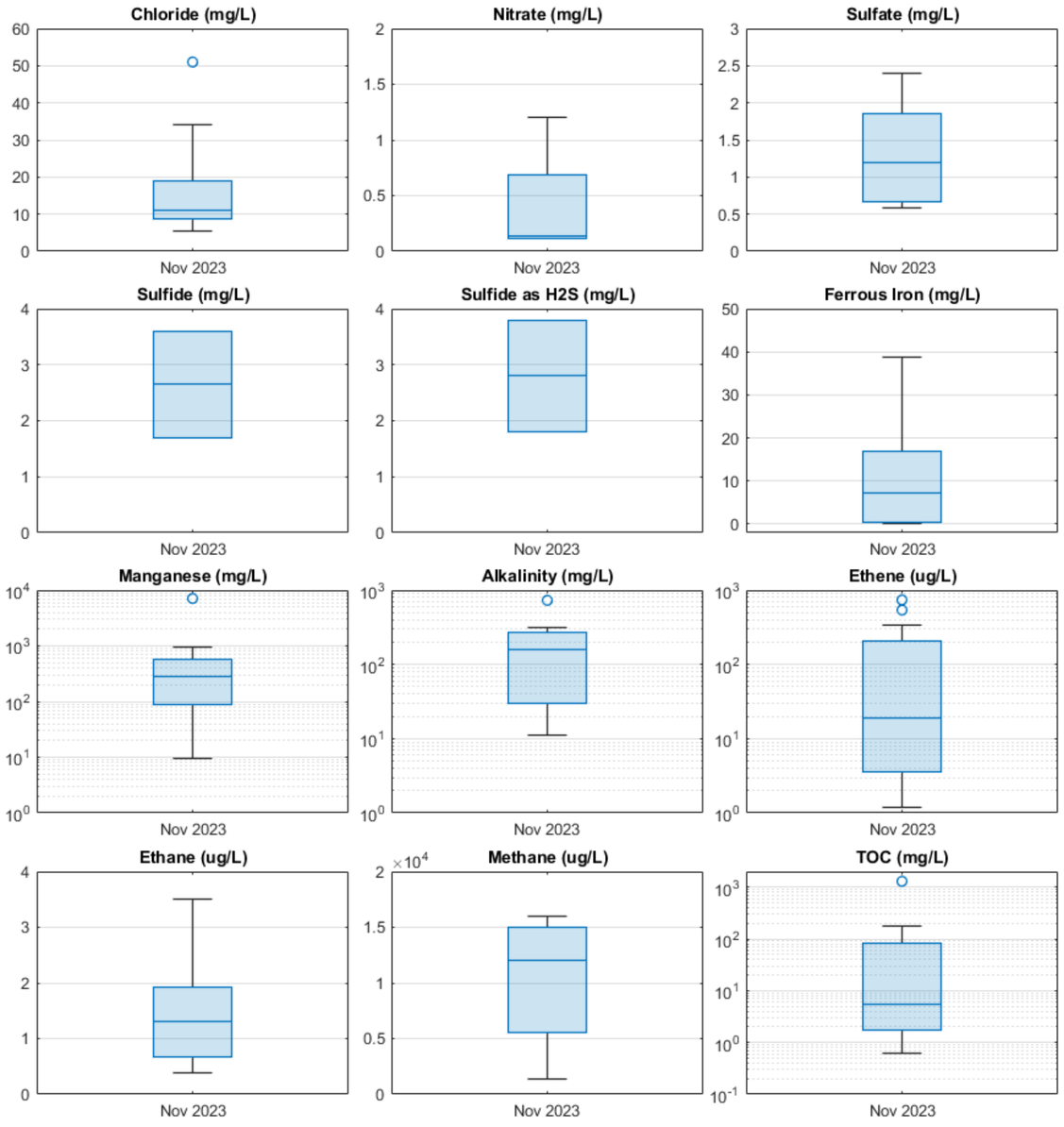
4.4.3.6 Ferrous Iron

For November 2023, ferrous iron concentrations ranged from 0.22 mg/L to 38.88 mg/L with mean and median concentrations of 9.96 mg/L and 7.2 mg/L, respectively, with 10 samples having concentrations > 1 mg/L. Distribution 25th and 75th percentiles for ferrous iron are 0.51 mg/L and 16.9 mg/L, respectively.

4.4.3.7 Manganese

For November 2023, manganese concentrations ranged from 9.4 µg/L to 7,100 µg/L with mean and median concentrations of 801.5µg/L and 280 µg/L, respectively. Distribution 25th and 75th percentiles for manganese are 86 µg/L and 580 µg/L, respectively.

Exhibit 4-3 Geochemical Parameter Distribution for ISB Performance Monitoring (Nov 2023)



Chloride (milligrams per liter)

Event	N	D	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL25	PCTL75
Nov 2023	14	14	5.5	51	45.5	15.6	11	12.4	156	1.9583	5.8446	1	8.8	19

Nitrate (milligrams per liter)

Event	N	D	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL25	PCTL75	NO3<1
Nov 2023	14	4	0.11	1.2	1.09	0.40	0.14	0.54	0.29	1.1452	2.3256	0	0.11	0.685	3

Sulfate (milligrams per liter)

Event	N	D	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL25	PCTL75	SO4=<50
Nov 2023	14	9	0.59	2.4	1.81	1.26	1.2	0.67	0.45	0.5002	1.8231	0	0.67	1.85	9

Sulfide (milligrams per liter)

Event	N	D	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL25	PCTL75	S2>1
Nov 2023	14	2	1.7	3.6	1.9	2.65	2.65	1.34	1.8	3.24E-16	1	0	1.7	3.6	2

Sulfide as Hydrogen Sulfide (milligrams per liter)

Event	N	D	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL25	PCTL75	S2>1
Nov 2023	14	2	1.8	3.8	2	2.8	2.8	1.4	2.0	3.33E-16	1	0	1.8	3.8	2

Ferrous Iron (milligrams per liter)

Event	N	D	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL25	PCTL75	Fe2>1
Nov 2023	14	14	0.22	38.88	38.66	9.96	7.2	10.8	117	1.3237	4.5365	0	0.51	16.9	10

Manganese (micrograms per liter)

Event	N	D	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL25	PCTL75
Nov 2023	14	14	9.4	7100	7109.4	801.5	280	1.83E+03	3.36E+06	3.2067	11.5703	1	86	580

Alkalinity (milligrams per liter)

Event	N	D	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL25	PCTL75
Nov 2023	14	14	11	730	719	189.9	160	191.9	3.68E+04	1.5588	5.4821	1	30	270

Ethene (micrograms per liter)

Event	N	D	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL25	PCTL75	Ethene>10
Nov 2023	14	13	1.2	740	738.8	152.8	19	240.6	5.79E+04	1.5143	3.9304	2	3.58	205	8

Ethane (micrograms per liter)

Event	N	D	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL25	PCTL75	Ethane>10
Nov 2023	14	5	0.39	3.5	3.11	1.47	1.3	1.20	1.4528	1.0731	2.7436	0	0.68	1.9	0

Methane (micrograms per liter)

Event	N	D	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL25	PCTL75	CH4>500
Nov 2023	14	14	1400	16000	14600	10400	12000	5.59E+03	3.13E+07	-0.5942	1.8141	0	5600	15000	14

Total Organic Carbon (milligram per liter)

Event	N	D	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL25	PCTL75	TOC>20
Nov 2023	14	14	0.61	1300	1300.61	122.6	5.55	342.8	1.18E+05	3.2035	11.5411	1	1.7	82	5

Notes: N = number of normal samples, D = number of detected results, Min = minimum detected result, max = maximum detected result, Std. Dev. = standard deviation, Var = variance, PCTL25 = 25th percentile, PCTL75. = 75th percentile, > greater than

4.4.3.8 Alkalinity

For November 2023, alkalinity levels ranged from 11 mg/L to 730 mg/L with mean and median concentrations of 204 mg/L and 109 mg/L, respectively. Distribution 25th and 75th percentiles for alkalinity are 30 mg/L and 270 mg/L, respectively. The data distribution has one outlier.

4.4.3.9 Ethene

For November 2023, 13 of 14 samples had ethene detections with concentrations ranging from 1.2 µg/L to 740 µg/L with mean and median concentrations of 152.8 µg/L and 19 µg/L, respectively. Distribution 25th and 75th percentiles for ethene are 3.58 µg/L and 205 µg/L, respectively. The data distribution has one outlier with 8 samples having concentrations > 10 µg/L.

4.4.3.10 Ethane

For November 2023, five of 14 samples had ethane detections with concentrations ranging from 0.39 µg/L to 3.5 µg/L with mean and median concentrations of 1.47 µg/L and 1.3 µg/L, respectively. Distribution 25th and 75th percentiles for ethene are 0.68 µg/L and 1.9 µg/L, respectively.

4.4.3.11 Methane

For January 2023, detected levels of methane ranged from 1,400 µg/L to 16,000 µg/L with mean and median concentrations of 10,400 µg/L and 12,000 µg/L, respectively. Distribution 25th and 75th percentiles for methane are 5,600 µg/L and 15,000 µg/L, respectively. The data distribution did not have outliers.

4.4.3.12 Total Organic Carbon

For November 2023, detected levels of TOC ranged from 0.61 mg/L to 1,300 mg/L with mean and median concentrations of 122.6 mg/L and 5.55 mg/L, respectively. The data distribution had one outlier with five of 14 samples having TOC concentrations > 20 mg/L.

4.5 Annual Water Quality Parameter Results (May 2024)

Section 4.5 has a summary of water quality parameter results for the annual sampling event completed in May 2024. Appendix E.2 has data distribution analysis presented in Section 4.5 for water quality parameter results.

4.5.1 Surficial Aquifer

Section 4.5.1 has a summary of water quality parameter results for the surficial aquifer with data distributions grouped by the northern and southern areas monitored at OU 6.

4.5.1.1 pH

For the northern monitored area, the distribution range for pH is 2.61 with a mean of 5.54 and median of 5.47. The distribution 25th and 75th percentiles are 5.00 and 6.11, respectively. Nine of 39 data observations have a pH < 5. For the southern area, the distribution range for pH is 7.89 with a mean of 5.59 and median of 4.97. The distribution 25th and 75th percentiles are 4.52 and 5.95, respectively with three data outliers. Fifteen of 30 data observations have a pH < 5.

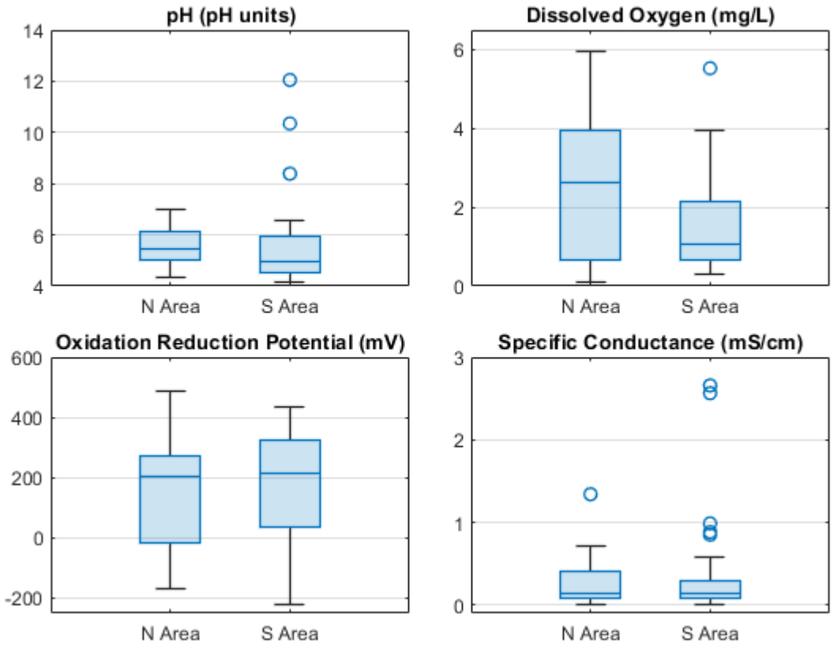
4.5.1.2 Dissolved Oxygen

The data distribution for DO plots with a larger data range for the northern monitored area compared to the southern area. For the northern area, the distribution range for DO is 5.83 mg/L with a mean of 2.59 mg/L and median of 2.61 mg/L. The distribution 25th and 75th percentiles are 0.675 mg/L and 3.95 mg/L, respectively. Thirteen of 39 data observations have a DO ≤ 1 mg/L. For the southern area, the distribution range for DO is 5.21 mg/L with a mean of 1.61 mg/L and median of 1.05 mg/L. The distribution 25th and 75th percentiles are 0.65 mg/L and 2.15 mg/L, respectively. Fifteen of 30 data observations have a DO level ≤ 1 mg/L.

4.5.1.3 Oxidation-Reduction Potential

For the northern monitored area, the distribution range for ORP is 660.0 mV with a mean of 154.5 mV and median of 206.3 mV. The distribution 25th and 75th percentiles are -16.0 mV and 273.5 mV, respectively. Eight of 39 data observations have an ORP < 50 mV. For the southern area, the distribution range for ORP is 654.5 mV with a mean of 188.7 mV and median of 212.4 mV. The distribution 25th and 75th percentiles are 35.9 mV and 327.1 mV, respectively. Three of 30 data observations have an ORP level < 50 mV.

Exhibit 4-4 Water Quality Parameter Distribution: Annual Monitoring May 2024



pH (pH units)

Event	N	D	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL25	PCTL75	pH< 5
N Area	39	39	4.36	6.97	2.61	5.54	5.47	0.6494	0.4218	0.0835	2.0924	0	5.00	6.11	9
S Area	30	30	4.16	12.05	7.89	5.59	4.97	1.7936	3.2168	2.3077	8.0829	3	4.52	5.95	15

Dissolved Oxygen (milligrams per liter)

Event	N	D	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL25	PCTL75	DO<=1
N Area	39	39	0.12	5.95	5.83	2.59	2.61	1.8018	3.2464	0.2569	1.8779	0	0.675	3.95	13
S Area	30	30	0.32	5.53	5.21	1.61	1.05	1.3247	1.7549	1.2778	3.8395	1	0.65	2.15	15

Oxidation-Reduction Potential (millivolts)

Event	N	D	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL25	PCTL75	ORP<-50
N Area	39	39	-171.2	488.8	660.0	154.5	206.3	168.5	2.84E+04	-0.3746	2.0620	0	-16.0	273.5	8
S Area	30	30	-221.7	432.8	654.5	188.7	212.4	170.8	2.92E+04	-0.3749	2.3868	0	35.9	327.1	3

Specific Conductance (millisiemens per ohm)

Event	N	D	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL25	PCTL75
N Area	39	38	0.0079	1.341	1.333	0.268	0.142	0.277	0.077	1.8850	7.0533	1	0.083	0.399
S Area	30	30	0.0147	2.658	2.643	0.404	0.137	0.653	0.427	2.6879	9.3944	5	0.073	0.296

Notes: N Area = northern OU 6 monitoring area includes OU 1 wells, OU 2 wells DMW-8A, DMW-9A, MW-257, CSMPZ-3, and CMPZ-, OU 3 well MW-169, and OU 6 well MW-182 S Area = southern OU 6 monitoring area (includes OU 2 wells except those included in northern area grouping, OU 3 wells except for MW-169, and offsite OU 6 wells, N = number of normal samples, D = number of detected results, Min = minimum detected result, max = maximum detected result, Std. Dev. = standard deviation, Var = variance, PCTL25 = 25th percentile, PCTL75. = 75th percentile, pH <5 = number of results with pH less than 5, DO <= 1 = number of results with dissolved oxygen level less than or equal to 1 milligram per liter, ORP<-50 = number of results with oxidation-reduction potential less than -50 millivolts.

4.5.1.4 Specific Conductivity

The data distributions for SC plots with a lower range for the northern area compared to the southern area. For the northern monitored area, the distribution range for SC is 1.333 mS with a mean of 0.268 mS and median of 0.142 mS. The distribution 25th and 75th percentiles are 0.083 mS and 0.399 mS, respectively. For the southern area, the distribution range for SC is 2.643 mS with a mean of 0.404 mS and median of 0.137 mS. The distribution 25th and 75th percentiles are 0.073 mS and 0.296 mS, respectively.

4.5.2 Confined Aquifer

Section 4.5.2 has a summary of water quality parameter results for the confined aquifer with data distributions grouped by the northern and southern areas monitored at OU 6.

4.5.2.1 pH

For the northern area, the distribution range pH is 4.53 with a mean of 5.98 and median of 5.52. The distribution 25th and 75th percentiles are 5.20 and 6.50, respectively. One of the 12 data observations have a pH < 5. For the southern area, the distribution range for pH is 6.80 with a mean of 6.24 and median of 5.80. The distribution 25th and 75th percentiles are 5.65 and 6.06, respectively. None of the data observations have a pH < 5.

4.5.2.2 Dissolved Oxygen

The data distribution for DO plots with a lower data range for the northern area compared to the southern area. For the northern monitored area, the distribution range for DO is 6.04 mg/L with a mean of 2.51 mg/L and median of 2.65 mg/L. The distribution 25th and 75th percentiles are 0.615 mg/L and 3.32 mg/L, respectively. Four of 12 data observations have a DO ≤ 1 mg/L. For the southern area, the distribution range for DO is 9.94 mg/L with a mean of 1.73 mg/L and median of 1.03 mg/L. The distribution 25th and 75th percentiles are 0.49 mg/L and 1.63 mg/L, respectively. 17 of 33 data observations have a DO level ≤ 1 mg/L.

4.5.2.3 Oxidation-Reduction Potential

The data distribution for ORP plots with a lower data range for the northern area compared to the southern area. For the northern monitored area, the distribution range for ORP 391.7 mV with a mean of -216.3 mV and median of 174.2 mV. The distribution 25th and 75th percentiles are 102.2 mV and 350.0 mV, respectively. None of the data observations have an ORP < 50 mV. For the southern area, the distribution range for ORP is 434.8 mV with a mean of 97.3 mV and median of 77.3 mV. The distribution 25th and 75th percentiles are 23.0 mV and 178.1 mV, respectively. One of 33 data observations have an ORP level < 50 mV.

4.5.2.4 Specific Conductivity

The data distributions for SC plots at a higher range for the northern area compared to the southern area. For the northern monitored area, the distribution range for SC is 4.588 mS with a mean of 0.569 mS and median of 0.076 mS. The distribution 25th and 75th percentiles are 0.054 mS and 0.121 mS, respectively. For the southern area, the distribution range for SC is 1.268 mS with a mean of 0.234 mS and median of 0.168 mS. The distribution 25th and 75th percentiles are 0.104 mS and 0.276 mS, respectively.

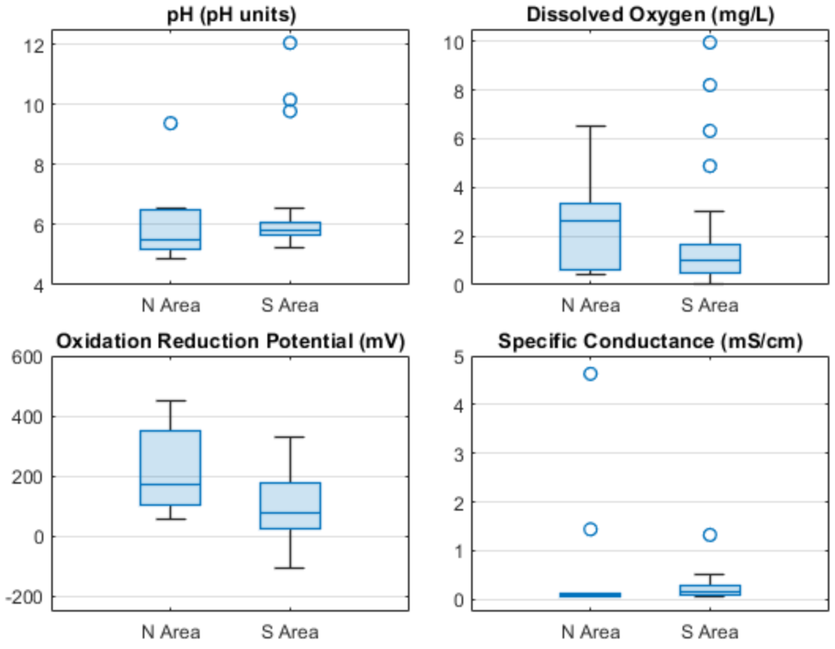
4.6 Annual VOC Results (May 2024)

Section 4.6 has a summary of VOC parameter results for the annual sampling event completed in May 2024.

4.6.1 Surficial Aquifer

Section 4.6.1 has a summary of VOC results for the surficial aquifer with data distributions grouped by the northern and southern areas monitored at OU 6.

Exhibit 4-5 Water Quality Parameter Distribution: Confined Aquifer (May 2024)



pH (pH units)

Event	N	D	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL25	PCTL75	pH< 5
N Area	12	12	4.84	9.37	4.53	5.98	5.52	1.232	1.517	1.8154	5.8492	1	5.20	6.50	1
S Area	34	34	5.24	12.04	6.80	6.24	5.80	1.454	2.114	2.9398	10.6606	3	5.65	6.06	0

Dissolved Oxygen (milligrams per liter)

Event	N	D	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL25	PCTL75	DO<=1
N Area	12	12	0.45	6.49	6.04	2.51	2.65	1.894	3.587	0.6211	2.6330	0	0.62	3.32	4
S Area	34	34	0.01	9.95	9.94	1.73	1.03	2.279	5.195	2.3874	8.0153	4	0.49	1.63	17

Oxidation-Reduction Potential (millivolts)

Event	N	D	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL25	PCTL75	ORP<-50
N Area	12	12	58.2	449.9	391.7	216.3	174.2	145.3	2.11E+04	0.6708	1.8798	0	102.2	350.0	0
S Area	34	34	-107.3	327.5	434.8	97.3	77.3	98.29	9.66E+03	0.4956	2.6963	0	23.0	178.1	1

Specific Conductance (millisiemens per ohm)

Event	N	D	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL25	PCTL75
N Area	12	12	0.044	4.632	4.588	0.569	0.076	1.3386	1.792	2.6340	8.4568	2	0.054	0.121
S Area	34	34	0.056	1.324	1.268	0.234	0.168	0.2311	0.053	3.2869	15.6741	1	0.104	0.276

Notes: N Area = northern OU 6 monitoring area includes OU 1 wells, OU 2 wells DMW-9B, and DMW-34B. S Area = southern OU 6 monitoring area (includes OU 2 wells except those included in northern area grouping, OU 3 wells and offsite OU 6 wells, N = number of normal samples, D = number of detected results, Min = minimum detected result, max = maximum detected result, Std. Dev. = standard deviation, Var = variance, PCTL25 = 25th percentile, PCTL75. = 75th percentile, pH <5 = number of results with pH less than 5, DO <= 1 = number of results with dissolved oxygen level less than or equal to 1 milligram per liter, ORP<-50 = number of results with oxidation-reduction potential less than -50 millivolts.

4.6.1.1 COCs

For the surficial aquifer, Table 4-3 (page 4-16) has a statistical summary of VOC constituents detected in one or more samples collected for annual groundwater monitoring. This table has descriptive statistics, identifies the location of the maximum detected concentrations, and presents screening comparisons to remedy cleanup levels (MCLs), EPA RSLs, and ecological screening benchmarks. VOCs detected in groundwater for the annual monitoring event at levels > MCLs include: PCE, TCE, cDCE, VC, 1,1-DCE, 1,2-DCA, carbon tetrachloride, 1,4-DCB, and CB. For constituents without MCLs, VOCs detected at concentrations > RSLs include: 1,1,1,2-trichloroethane, 1,1-dichloroethane, 1,2,4-trichlorobenzene, 1,2,3-trichloropropane, 1,3,5-trimethylbenzene, chloromethane, and naphthalene.

Exhibit 4-6 (page 4-18) has box plots and tabular information displaying data distributions for VOC constituents detected at concentrations greater than remedy cleanup levels (MCLs).

4.6.1.2 PCE

The PCE data distribution for the northern area plots at a higher concentration range than the southern area. For the northern area, 27 of 39 samples had detections of PCE and detected concentrations ranging from 0.47 µg/L to 4,300 µg/L. Mean and median concentrations for PCE in the northern area are 170.8 µg/L and 8.6 µg/L, respectively. Distribution 25th and 75th percentiles for PCE in the northern area are 1.14 µg/L and 16 µg/L, respectively, with three distribution outliers. In the northern area, 15 samples had PCE concentrations greater than the MCL of 5 µg/L.

For the southern area, 13 of 30 samples had detections of PCE and detected concentrations ranging from 0.77 µg/L to 14 µg/L. Mean and median concentrations for PCE in the southern area are 3.71 µg/L and 1.7 µg/L, respectively. Distribution 25th and 75th percentiles for PCE in the southern area are 1.18 µg/L and 4.13 µg/L, respectively, with two distribution outliers. In the southern area, two samples had PCE concentrations greater than the MCL of 5 µg/L.

4.6.1.3 TCE

The TCE data distribution for the northern area plots at a higher concentration range than the southern area. For the northern area, 30 of 39 samples had detections of TCE and detected concentrations ranging from 0.34 µg/L to 3,900 µg/L. Mean and median concentrations for TCE in the northern area are 333.9 µg/L and 15.0 µg/L, respectively. Distribution 25th and 75th percentiles for TCE in the northern area are 2.20 µg/L and 76 µg/L, respectively, with four distribution outliers. In the northern area, 21 samples had TCE concentrations greater than the MCL of 5 µg/L.

For the southern area, 16 of 30 samples had detections of TCE and detected concentrations ranging from 0.32 µg/L to 190 µg/L. Mean and median concentrations for TCE in the southern area are 27.72 µg/L and 12.5 µg/L, respectively. Distribution 25th and 75th percentiles for TCE in the southern area are 3.95 µg/L and 26.5 µg/L, respectively, with two distribution outliers. In the southern area, 12 samples had TCE concentrations greater than the MCL of 5 µg/L.

4.6.1.4 cDCE

The cDCE data distribution for the northern area plots at a higher concentration range than the southern area. For the northern area, 32 of 39 samples had detections of cDCE and detected concentrations ranging from 0.47 µg/L to 14,000 µg/L. Mean and median concentrations for cDCE in the northern area are 825 µg/L and 41 µg/L, respectively. Distribution 25th and 75th percentiles for cDCE in the northern area are 4.75 µg/L and 180 µg/L, respectively, with four distribution outliers. In the northern area, 13 samples had cDCE concentrations greater than the MCL of 70 µg/L.

For the southern area, 20 of 30 samples had detections of cDCE and detected concentrations ranging from 0.51 µg/L to 530 µg/L. Mean and median concentrations for cDCE in the southern area are 86 µg/L and 35 µg/L, respectively. Distribution 25th and 75th percentiles for cDCE in the southern area are 1.30 µg/L and 115 µg/L, respectively, with two distribution outliers. In the southern area, seven samples had cDCE concentrations greater than the MCL of 70 µg/L.

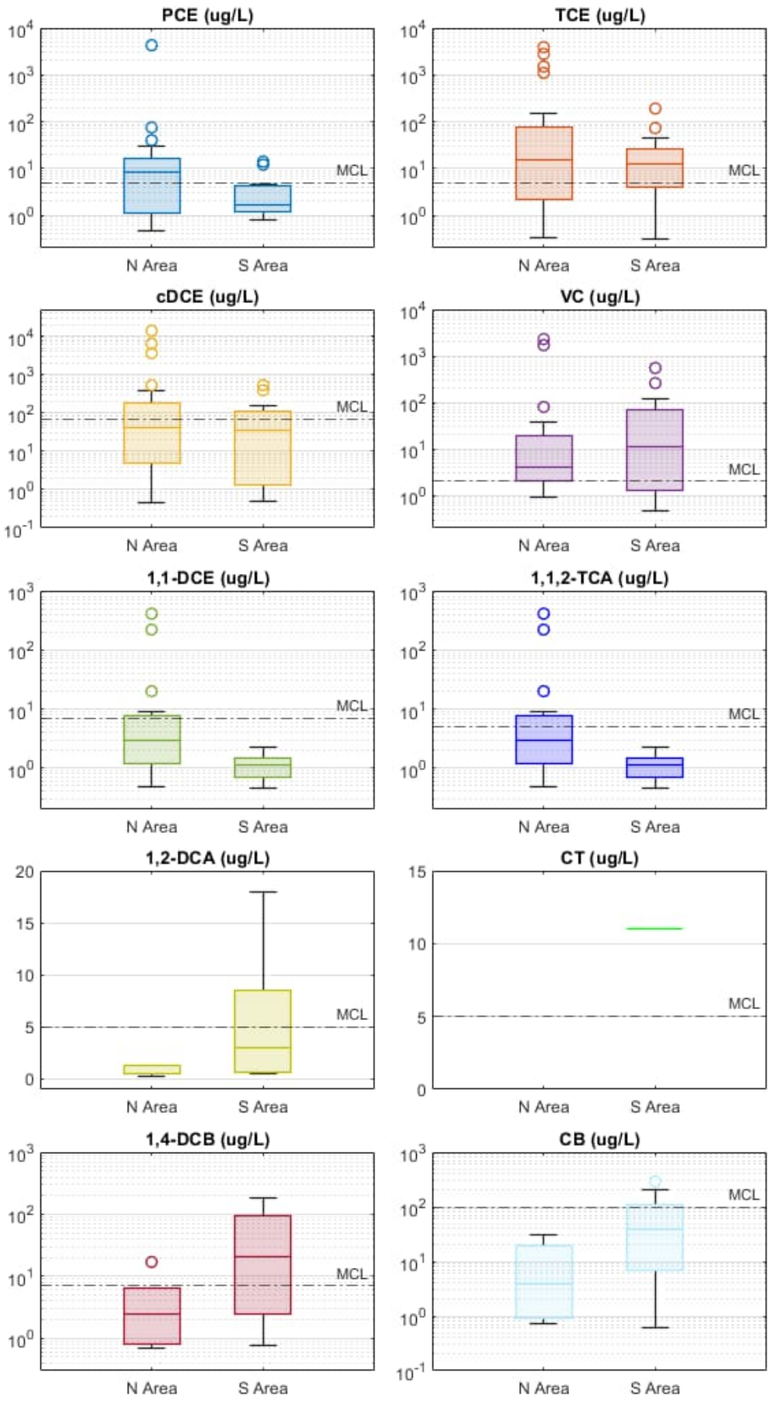
Table 4-3 Statistical Summary for VOCs: Surficial Aquifer May 2024 (Detects)

Chemical	Matrix	No. of Results	Unit	Min	Max	Mean	Median	95th Percentile	No. > LOD	% > LOD	Location of Max	Federal MCL[1]			EPA RSL[2] (May 2024)			BTAG FWSB[3] (2006)		
												No. > MCL	% > MCL	Federal MCL	No. > RSL	% > RSL	EPA RSL[2]	No. > BTAG	% > BTAG	BTAG FWSB[3]
1,1,1,2-Tetrachloroethane	WG	69	ug/L	<0.36	0.92	-	-	-	1	1	OU6-MW-260	-	-	-	5	7	5.74E-01	-	-	-
1,1,2-Trichloroethane	WG	69	ug/L	<0.32	6.3	-	-	3	7	10	OU6-MW-260	1	1	5.00E+00	7	10	4.15E-02	0	0	1.20E+03
1,1-Dichloroethane	WG	69	ug/L	<0.33	36	2.781	-	14.2	27	39	OU6-MW-260	-	-	-	13	19	2.75E+00	0	0	4.70E+01
1,1-Dichloroethene	WG	69	ug/L	<0.33	410	10.40	-	8.92	23	33	OU6-MW-243	4	6	7.00E+00	2	3	2.85E+01	2	3	2.50E+01
1,2,3-Trichloropropane	WG	69	ug/L	<0.48	0.93	-	-	-	1	1	OU6-MW-260	-	-	-	1	1	7.49E-04	-	-	-
1,2,4-Trichlorobenzene	WG	69	ug/L	<0.53	0.54	-	-	-	1	1	OU6-MW-260	0	0	7.00E+01	1	1	3.99E-01	1	1	2.40E+01
1,2-Dichlorobenzene	WG	69	ug/L	<0.31	58	3.964	-	21.4	18	26	OU6-MW-260	0	0	6.00E+02	3	4	3.04E+01	18	26	7.00E-01
1,2-Dichloroethane	WG	69	ug/L	<0.25	18	1.277	-	7.7	16	23	OU6-MW-260	4	6	5.00E+00	16	23	1.71E-01	0	0	1.00E+02
1,2-Dichloroethene, Total	WG	69	ug/L	<0.37	14000	408	9.9	530	52	75	OU6-MW-243	-	-	-	-	-	-	3	4	5.90E+02
1,2-Dichloropropane	WG	69	ug/L	<0.22	0.31	-	-	-	2	3	OU6-MW-260	0	0	5.00E+00	0	0	8.25E-01	-	-	-
1,3,5-Trimethylbenzene	WG	69	ug/L	<0.28	46	-	-	-	3	4	OU6-MW-243	-	-	-	2	3	6.03E+00	0	0	7.10E+01
1,3-Dichlorobenzene	WG	69	ug/L	<0.31	11	1.228	-	8.48	11	16	OU6-MW-260, OU6-MW-268	-	-	-	-	-	-	0	0	1.50E+02
1,4-Dichlorobenzene	WG	69	ug/L	<0.31	180	11.41	-	81	20	29	OU6-MW-260	4	6	7.50E+01	20	29	4.82E-01	7	10	2.60E+01
2-Butanone (MEK)	WG	69	ug/L	<6.4	93	-	-	-	2	3	OU6-MW-247	-	-	-	0	0	5.57E+02	0	0	1.40E+04
4-Isopropyltoluene	WG	69	ug/L	<0.44	0.67	-	-	-	3	4	OU6-MW-263	-	-	-	-	-	-	0	0	8.50E+01
4-Methyl-2-pentanone (MIBK)	WG	69	ug/L	<2.7	8.6	-	-	-	3	4	OU6-MW-260	-	-	-	0	0	6.26E+02	0	0	1.70E+02
Acetone	WG	69	ug/L	<3.7	200	-	-	38.2	8	12	OU6-MW-247	-	-	-	0	0	1.80E+03	0	0	1.50E+03
Benzene	WG	69	ug/L	<0.27	3.9	0.7051	-	2.96	13	19	OU6-MW-260	0	0	5.00E+00	11	16	4.55E-01	0	0	3.70E+02
Carbon disulfide	WG	69	ug/L	<0.43	12	1.131	-	4.62	11	16	OU6-MW-149	-	-	-	0	0	8.11E+01	11	16	9.20E-01
Carbon tetrachloride	WG	69	ug/L	<0.3	11	-	-	-	1	1	OU6-MW-260	1	1	5.00E+00	5	7	4.55E-01	1	1	1.33E+01
Chlorobenzene	WG	69	ug/L	<0.15	290	16.13	-	102.4	21	30	OU6-MW-260	4	6	1.00E+02	13	19	7.77E+00	20	29	1.30E+00
Chloroethane	WG	69	ug/L	<4.6	24	-	-	-	3	4	OU6-MW-245	-	-	-	0	0	8.34E+02	-	-	-
Chloroform	WG	69	ug/L	<0.27	19	1.127	-	5.92	11	16	OU6-MW-260	0	0	8.00E+01	11	16	2.21E-01	8	12	1.80E+00
Chloromethane (Methyl chloride)	WG	69	ug/L	<0.54	0.57	-	-	-	1	1	OU6-MW-245	-	-	-	1	1	1.88E+01	-	-	-
cis-1,2-Dichloroethene	WG	69	ug/L	<0.25	14000	408	8.7	530	52	75	OU6-MW-243	20	29	7.00E+01	38	55	2.52E+00	-	-	-
Dichlorodifluoromethane	WG	69	ug/L	<0.36	17	-	-	-	3	4	OU6-MW-266	-	-	-	0	0	1.97E+01	-	-	-
Ethylbenzene	WG	69	ug/L	<0.2	24	-	-	1.4	5	7	OU6-MW-243	0	0	7.00E+02	3	4	1.50E+00	0	0	9.00E+01
Isopropylbenzene (Cumene)	WG	69	ug/L	<0.26	0.46	-	-	0.65	4	6	OU6-MW-129	-	-	-	0	0	4.51E+01	3	4	2.60E+00
m+p-Xylenes	WG	69	ug/L	<0.49	110	-	-	-	3	4	OU6-MW-243	-	-	-	-	-	-	-	-	-
Naphthalene	WG	79	ug/L	<0.014	55	-	-	29.1	9	11	OU6-MW-129	-	-	-	9	11	1.17E-01	9	11	1.10E+00
n-Butylbenzene	WG	69	ug/L	<0.52	1.3	-	-	-	2	3	OU6-MW-129	-	-	-	0	0	1.00E+02	-	-	-
n-Propylbenzene	WG	69	ug/L	<0.41	0.78	-	-	-	2	3	OU6-MW-260	-	-	-	0	0	6.56E+01	0	0	1.28E+02
o-Xylene	WG	69	ug/L	<0.26	41	-	-	2.9	7	10	OU6-MW-243	-	-	-	1	1	1.93E+01	-	-	-
tert-Butyl methyl ether (MTBE)	WG	69	ug/L	<0.81	2.8	-	-	-	2	3	OU6-MW-259	-	-	-	2	3	1.43E+01	0	0	1.11E+04
Tetrachloroethene (PCE)	WG	69	ug/L	<0.35	4300	67.61	0.78	29.6	40	58	OU6-MW-243	17	25	5.00E+00	18	26	4.06E+00	1	1	1.11E+02
Toluene	WG	69	ug/L	<0.25	17	-	-	3.92	6	9	OU6-MW-260	0	0	1.00E+03	0	0	1.10E+02	5	7	2.00E+00

Chemical	Matrix	No. of Results	Unit	Min	Max	Mean	Median	95th Percentile	No. > LOD	% > LOD	Location of Max	Federal MCL[1]			EPA RSL[2] (May 2024)			BTAG FWSB[3] (2006)		
												No. > MCL	% > MCL	Federal MCL	No. > RSL	% > RSL	EPA RSL[2]	No. > BTAG	% > BTAG	BTAG FWSB[3]
trans-1,2-Dichloroethene	WG	69	ug/L	<0.34	31	1.76	-	7.54	26	38	OU6-MW-129	0	0	1.00E+02	4	6	6.78E+00	0	0	9.70E+02
Trichloroethene (TCE)	WG	69	ug/L	<0.2	3900	152	2.5	736	46	67	OU6-MW-243	33	48	5.00E+00	46	67	2.83E-01	17	25	2.10E+01
Vinyl chloride	WG	69	ug/L	<0.4	2300	80.35	1.2	204	36	52	OU6-MW-129	27	45	2.00E+00	36	52	1.88E-02	2	3	9.30E+02
Xylene (Total)	WG	69	ug/L	<0.49	150	-	-	4.62	5	7	OU6-MW-243	0	0	1.00E+04	1	1	1.93E+01	1	1	1.30E+01

Notes: Descriptive statistics minimum, maximum, mean, median, 95% percentile for distribution of detected results, WG = groundwater, ug/L = micrograms per liter, Min = minimum, Max = maximum, No. > = number greater, LOD = limit of detection, % = percent, , [1]Subpart G—National Primary Drinking Water Regulations: Maximum Contaminant Levels and Maximum Residual Disinfectant Levels, § 141.61 Maximum contaminant levels for organic contaminants.> LOD = percent of detected results greater than laboratory limit of detection, 2 EPA Regional Screening Level for Resident Tap Water with a target cancer risk (TR) of 1E-06 and target hazard quotient (THQ) of 0.1, May 2024 at https://www.epa.gov/risk/regional-screening-levels-rsls-generic-tables. [3]EPA Region III BTAG Freshwater Screening Benchmarks, 7/2006. https://www.epa.gov/risk/freshwater-screening-benchmarks, Number of results with concentrations greater than the MCL, Number of results with concentration greater than the RSL, Number of results with concentrations greater than the BTAG FWSB.

Exhibit 4-6 Data Distribution for Primary VOCs Surficial Aquifer (May 2024)



Tetrachloroethene (micrograms per liter)

Event	N	D	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL25	PCTL75	PCE>5
N Area	39	27	0.47	4300	4299.53	170.80	8.6	825.4	6.81E+05	4.8998	25.0191	3	1.14	16	15
S Area	30	13	0.77	14	13.23	3.71	1.7	4.31	18.55	1.6711	4.2590	2	1.18	4.13	2

Trichloroethene (micrograms per liter)

Event	N	D	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL25	PCTL75	TCE>5
N Area	39	30	0.34	3900	3899.66	333.9	15.0	894.9	8.01E+05	3.0148	11.1887	4	2.20	76.0	21
S Area	30	16	0.32	190	189.68	27.72	12.5	47.40	2.25E+03	2.7522	9.8730	2	3.95	26.5	12

cis,1,2-dichloroethene (micrograms per liter)

Event	N	D	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL25	PCTL75	cDCE>70
N Area	39	32	0.47	14000	13999.53	825	41	2.72E+03	7.38E+06	4.0365	19.0572	4	4.75	180	13
S Area	30	20	0.51	530	529.49	86	35	138.8	1.93E+04	2.2282	7.1304	2	1.30	115	7

Vinyl chloride (micrograms per liter)

Event	N	D	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL25	PCTL75	VC>2
N Area	39	19	0.94	2300	2299.06	221.1	4.1	635.1	4.03E+05	2.6873	8.4698	3	2.12	18.8	15
S Area	30	17	0.48	550	549.52	70.7	11	140.4	1.97E+04	2.6559	9.2875	2	1.28	70.2	12

1,1-Dichloroethene (micrograms per liter)

Event	N	D	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL25	PCTL75	11DCE>7
N Area	39	16	0.47	410	409.53	43.0	2.9	111.8043	1.25E+04	2.6661	8.718	3	1.2	7.8	4
S Area	30	7	0.46	2.2	1.74	1.19	1.1	0.5966	0.356	0.4248	2.2281	0	0.70	1.5	0

1,1,2 -Trichloroethane (micrograms per liter)

Event	N	D	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL25	PCTL75	12-DCA>5
N Area	39	2	0.52	0.82	0.30	0.67	0.67	0.2121	0.045	1.09E-15	1.0000	0	0.52	0.82	0
S Area	30	5	0.39	6.3	5.91	2.06	1.1	2.4044	5.7813	1.3966	3.1203	1	0.85	2.7	1

1,2-Dichloroethane (micrograms per liter)

Event	N	D	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL25	PCTL75	12DCA>5
N Area	39	6	0.27	1.3	1.03	0.7383	0.545	0.4475	0.2002	0.5271	1.5329	0	0.47	1.3	0
S Area	30	10	0.56	18	17.44	5.422	3	5.8679	34.432	1.0824	3.0166	0	0.68	8.5	4

Carbon Tetrachloride (micrograms per liter)

Event	N	D	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL25	PCTL75	12DCA>5
N Area	39	0	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	0	NaN	NaN	0
S Area	30	1	11	11	0	11	11	0	0	NaN	NaN	0	11	11	1

1,4-Dichlorobenzene (micrograms per liter)

Event	N	D	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL25	PCTL75	14DCB>75
N Area	39	6	0.68	17	16.32	4.98	2.4	6.29	39.617	1.3548	3.3177	1	0.79	6.6	0
S Area	30	14	0.77	180	179.23	51.57	20.5	64.8	4.21E+03	0.9639	2.3398	0	2.5	93	4

Chlorobenzene (micrograms per liter)

Event	N	D	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL25	PCTL75	CB>100
N Area	39	6	0.71	31	30.29	9.89	3.85	12.5	155.5	0.9073	2.2261	0	0.9	19	0
S Area	30	15	0.62	290	289.38	69.6	38	87.0	7.57E+03	1.3433	3.7906	1	6.7	109	4

Notes: N = number of normal samples, D = number of detected results, Min = minimum detected result, max = maximum detected result, Std. Dev. = standard deviation, Var = variance, PCTL25 = 25th percentile, PCTL75. = 75th percentile,

4.6.1.5 VC

The VC data distribution for the northern area plots at a higher concentration range than the southern area. For the northern area, 19 of 39 samples had detections of VC and detected concentrations ranging from 0.94 µg/L to 2,300 µg/L. Mean and median concentrations for VC in the northern area are 221.1 µg/L and 4.1 µg/L, respectively. Distribution 25th and 75th percentiles for VC in the northern area are 2.12 µg/L and 18.8 µg/L, respectively, with three distribution outliers. In the northern area, 15 samples had VC concentrations greater than the MCL of 2 µg/L.

For the southern area, 17 of 30 samples had detections of VC and detected concentrations ranging from 0.48 µg/L to 500 µg/L. Mean and median concentrations for VC in the southern area are 70.7 µg/L and 11 µg/L, respectively. Distribution 25th and 75th percentiles for VC in the southern area are 1.28 µg/L and 70.2 µg/L, respectively, with two distribution outliers. In the southern area, 12 samples had VC concentrations greater than the MCL of 2 µg/L.

4.6.1.6 1,1-DCE

The 1,1-DCE data distribution for the northern area plots at a higher concentration range than the southern area. For the northern area, 16 of 39 samples had detections of 1,1-DCE and detected concentrations ranging from 0.47 µg/L to 410 µg/L. Mean and median concentrations for 1,1-DCE in the northern area are 43.0 µg/L and 2.9 µg/L, respectively. Distribution 25th and 75th percentiles for 1,1-DCE in the northern area are 1.2 µg/L and 7.8 µg/L, respectively, with three distribution outliers. In the northern area, four samples had 1,1-DCE concentrations greater than the MCL of 7 µg/L.

For the southern area, seven of 30 samples had detections of 1,1-DCE and detected concentrations ranging from 0.46 µg/L to 2.2 µg/L. Mean and median concentrations for 1,1-DCE in the southern area are 1.19 µg/L and 1.1 µg/L, respectively. Distribution 25th and 75th percentiles for 1,1-DCE in the southern area are 0.70 µg/L and 1.5 µg/L, respectively, with no distribution outliers. In the southern area, none of the samples had 1,1-DCE concentrations greater than the MCL of 7 µg/L.

4.6.1.7 1,1,2-TCA

The 1,1,2-TCA data distribution for the northern area plots at a lower concentration range than the southern area. For the northern area, two of 39 samples had detections of 1,1,2-TCA and detected concentrations ranging from 0.52 µg/L to 0.82 µg/L. In the northern area, none of the samples had 1,1,2-TCA concentrations greater than the MCL of 5 µg/L.

For the southern area, five of 30 samples had detections of 1,1,2-TCA and detected concentrations ranging from 0.39 µg/L to 6.3 µg/L. Mean and median concentrations for 1,1,2-TCA in the southern area are 2.1 µg/L and 1.1 µg/L, respectively. Distribution 25th and 75th percentiles for 1,1,2-TCA in the southern area are 0.85 µg/L and 2.7 µg/L, respectively, with one distribution outlier. In the southern area, one sample had 1,1,2-TCA concentrations greater than the MCL of 5 µg/L.

4.6.1.8 1,2-DCA

The 1,2-DCA data distribution for the northern area plots at a lower concentration range than the southern area. For the northern area, six of 39 samples had detections of 1,2-DCA and detected concentrations ranging from 0.27 µg/L to 1.3 µg/L. Mean and median concentrations for 1,2-DCA in the northern area are 0.7383 µg/L and 0.545 µg/L, respectively. Distribution 25th and 75th percentiles for 1,2-DCA in the northern area are 0.47 µg/L and 1.3 µg/L, respectively, with no distribution outliers. In the northern area, none of the samples had 1,2-DCA concentrations greater than the MCL of 5 µg/L.

For the southern area, 10 of 30 samples had detections of 1,2-DCA and detected concentrations ranging from 0.56 µg/L to 18 µg/L. Mean and median concentrations for 1,2-DCA in the southern area are 5.422 µg/L and 3 µg/L, respectively. Distribution 25th and 75th percentiles for 1,2-DCA in the southern area are 0.68 µg/L and 8.5 µg/L, respectively, with no distribution outliers. In the southern area, four samples had 1,2-DCA concentrations greater than the MCL of 5 µg/L.

4.6.1.9 Carbon Tetrachloride

Samples collected from the northern area did not have detections of carbon tetrachloride. One of 30 samples in the southern area had a detection of carbon tetrachloride with a reported concentration of 11 µg/L greater than the MCL of 5 µg/L.

4.6.1.10 1,4-DCB

The 1,4-DCB data distribution for the northern area plots at a lower concentration range than the southern area. For the northern area, six of 39 samples had detections of 1,4-DCB and detected concentrations ranging from 0.68 µg/L to 17 µg/L. Mean and median concentrations for 1,4-DCB in the northern area are 4.98 µg/L and 2.4 µg/L, respectively. Distribution 25th and 75th percentiles for 1,4-DCB in the northern area are 0.79 µg/L and 6.6 µg/L, respectively, with one distribution outliers. In the northern area, none of the samples had 1,4-DCB concentrations greater than the MCL of 75 µg/L.

For the southern area, 14 of 30 samples had detections of 1,4-DCB and detected concentrations ranging from 0.77 µg/L to 180 µg/L. Mean and median concentrations for 1,4-DCB in the southern area are 51.57 µg/L and 20.5 µg/L, respectively. Distribution 25th and 75th percentiles for 1,4-DCB in the southern area are 2.5 µg/L and 93 µg/L, respectively, with no distribution outliers. In the southern area, four samples had 1,4-DCB concentrations greater than the MCL of 75 µg/L.

4.6.1.11 CB

The CB data distribution for the northern area plots at a lower concentration range than the southern area. For the northern area, six of 39 samples had detections of CB and detected concentrations ranging from 0.71 µg/L to 31 µg/L. Mean and median concentrations for CB in the northern area are 9.89 µg/L and 3.85 µg/L, respectively. Distribution 25th and 75th percentiles for CB in the northern area are 0.9 µg/L and 19 µg/L, respectively, with no distribution outliers. In the northern area, none of the samples had CB concentrations greater than the MCL of 100 µg/L.

For the southern area, 15 of 30 samples had detections of CB and detected concentrations ranging from 0.62 µg/L to 290 µg/L. Mean and median concentrations for CB in the southern area are 69.6 µg/L and 38 µg/L, respectively. Distribution 25th and 75th percentiles for CB in the southern area are 6.7 µg/L and 109 µg/L, respectively, with one distribution outlier. In the southern area, four samples had CB concentrations greater than the MCL of 100 µg/L.

4.6.2 Confined Aquifer

Section 4.6.2 has a summary of VOC results for the confined aquifer with data distributions grouped by the northern and southern areas monitored at OU 6.

4.6.2.1 COCs

For the confined aquifer, Table 4-4 (page 4-21) has a statistical summary of VOC constituents detected in one or more samples collected for annual groundwater monitoring. This table has descriptive statistics, identifies the location of the maximum detected concentrations, and presents screening comparisons to remedy cleanup levels (MCLs), EPA RSLs, and ecological screening benchmarks. VOCs detected in groundwater for the annual monitoring event at levels greater than MCLs include: PCE, TCE, cDCE, VC, and 1,1-DCE. For constituents without MCLs, VOCs detected at concentrations > RSLs include:1,1-dichloroethane, 2-butanone, acetone, and hexachlorobutadiene. Exhibit 4-7 (page 4-22) has box plots and tabular information displaying data distributions for VOC constituents detected at concentrations > remedy cleanup levels (MCLs).

4.6.2.2 PCE

For the northern area, four of 12 samples had detections of PCE and detected concentrations ranging from 0.84 µg/L to 32 µg/L. Mean and median concentrations for PCE in the northern area are 11.3 µg/L and 6.1 µg/L, respectively. Distribution 25th and 75th percentiles for PCE in the northern area are 1.0 µg/L and 21.5 µg/L, respectively, with two samples having PCE concentrations greater than the MCL of 5 µg/L.

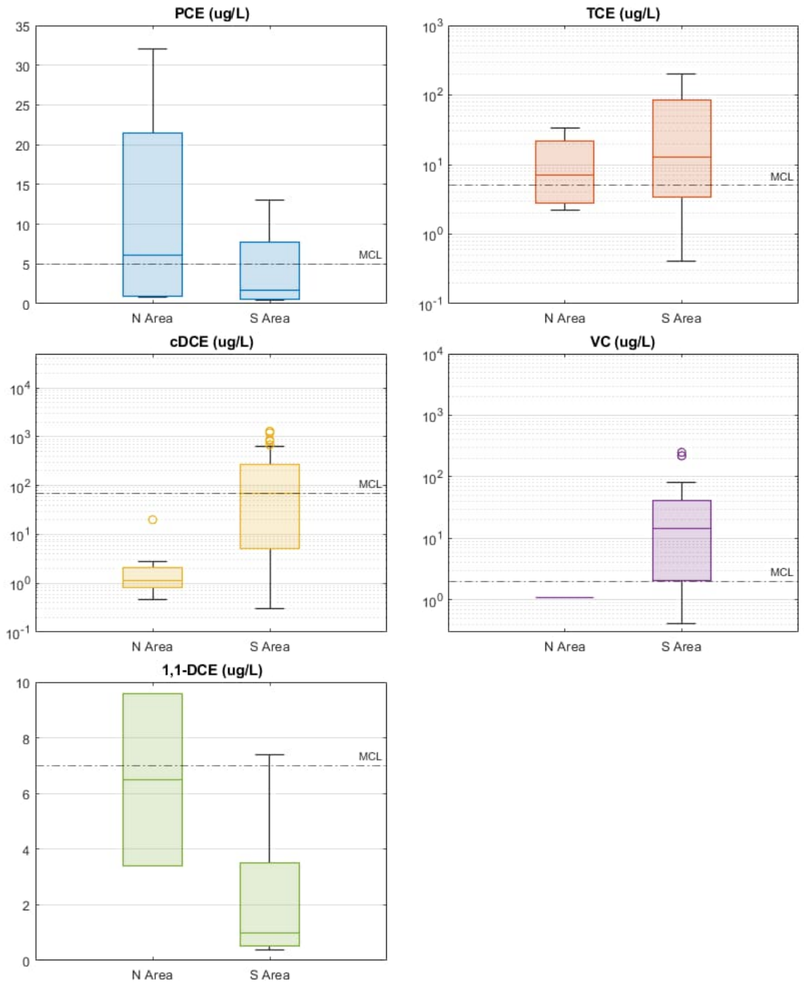
For the southern area, eight of 34 samples had detections of PCE and detected concentrations ranging from 0.42 µg/L to 13 µg/L. Mean and median concentrations for PCE in the southern area are 4.2 µg/L and 1.7 µg/L, respectively, with three samples having concentrations greater than the MCL of 5 µg/L. Distribution 25th and 75th percentiles for PCE in the southern area are 0.54 µg/L and 7.7 µg/L, respectively.

Table 4-4 Statistical Summary for VOCs: Statistical Summary for VOCs: Confined Aquifer May 2024 (Detects)

Chemical	Matrix	No. of Results	Unit	Min	Max	Mean	Median	95th Percentile	No. > LOD	% > LOD	Location of Max	Federal MCL[1]			EPA RSL[2] (May 2024)			BTAG FWSB[3] (2006)		
												No. > MCL	% > MCL	Federal MCL	No. > RSL	% > RSL	EPA RSL[2]	No. > BTAG	% > BTAG	BTAG FWSB[3]
1,1-Dichloroethane	WG	46	ug/L	<0.33	13	-	-	11.65	4	9	OU6-MW-95	-	-	-	3	7	2.75E+00	0	0	4.70E+01
1,1-Dichloroethene	WG	46	ug/L	<0.33	9.6	1.30	-	7.95	16	35	OU6-MW-171	2	4	7.00E+00	0	0	2.85E+01	0	0	2.50E+01
1,2-Dichlorobenzene	WG	46	ug/L	<0.31	6.7	-	-	5.85	6	13	OU6-MW-285	0	0	6.00E+02	0	0	3.04E+01	6	13	7.00E-01
1,2-Dichloroethane	WG	46	ug/L	<0.25	3.2	-	-	3.19	3	7	OU6-MW-291	0	0	5.00E+00	3	7	1.71E-01	0	0	1.00E+02
1,2-Dichloroethene, Total	WG	46	ug/L	<0.37	1300	147	3.4	1002	34	74	OU6-MW-291	-	-	-	-	-	-	6	13	5.90E+02
1,3-Dichlorobenzene	WG	46	ug/L	<0.31	0.31	-	-	-	1	2	OU6-MW-287	-	-	-	-	-	-	0	0	1.50E+02
1,4-Dichlorobenzene	WG	46	ug/L	<0.31	14	1.20	-	12	11	24	OU6-MW-95	0	0	7.50E+01	11	24	4.82E-01	0	0	2.60E+01
2-Butanone (MEK)	WG	46	ug/L	<6.4	5900	-	-	5103.5	4	9	DMW-9B	-	-	-	2	4	5.57E+02	0	0	1.40E+04
4-Methyl-2-pentanone (MIBK)	WG	46	ug/L	<2.7	9.5	-	-	-	1	2	OU6-MW-170	-	-	-	0	0	6.26E+02	0	0	1.70E+02
Acetone	WG	46	ug/L	<3.7	3300	123	-	2850	7	15	DMW-9B	-	-	-	2	4	1.80E+03	2	4	1.50E+03
Chlorobenzene	WG	46	ug/L	<0.15	30	2.05	-	24.6	10	22	OU6-MW-291	0	0	1.00E+02	4	9	7.77E+00	9	20	1.30E+00
Chloroform	WG	46	ug/L	<0.27	0.35	-	-	-	1	2	OU6-MW-165	0	0	8.00E+01	1	2	2.21E-01	1	2	1.80E+00
cis-1,2-Dichloroethene	WG	46	ug/L	<0.25	1300	147	3.4	969	35	76	OU6-MW-291	13	28	7.00E+01	24	52	2.52E+00	-	-	-
Dichlorodifluoromethane	WG	46	ug/L	<0.36	11	-	-	10.06	3	7	OU6-MW-289	-	-	-	0	0	1.97E+01	-	-	-
Hexachlorobutadiene	WG	46	ug/L	<0.22	0.47	-	-	-	1	2	OU6-MW-287	-	-	-	1	2	1.39E-01	1	2	1.30E+00
Tetrachloroethene (PCE)	WG	46	ug/L	<0.35	32	2.05	-	21.55	12	26	OU6-MW-171	5	11	5.00E+00	6	13	4.06E+00	0	0	1.11E+02
Toluene	WG	46	ug/L	<0.25	0.42	-	-	-	2	4	OU6-MW-168	0	0	1.00E+03	0	0	1.10E+02	1	2	2.00E+00
trans-1,2-Dichloroethene	WG	46	ug/L	<0.34	3.9	-	-	3.294	5	11	OU6-MW-294	0	0	1.00E+02	0	0	6.78E+00	0	0	9.70E+02
Trichloroethene (TCE)	WG	46	ug/L	<0.2	200	28.9	4.7	150	35	76	OU6-MW-157	22	48	5.00E+00	36	78	2.83E-01	13	28	2.10E+01
Vinyl chloride	WG	46	ug/L	<0.4	250	18.4	0.55	206	23	50	OU6-MW-291	18	39	2.00E+00	46	100	1.88E-02	0	0	9.30E+02

Notes: Descriptive statistics minimum, maximum, mean, median, 95% percentile for distribution of detected results, WG = groundwater, ug/L = micrograms per liter, Min = minimum, Max = maximum, No. > = number greater, LOD = limit of detection, % = percent, , [1]Subpart G—National Primary Drinking Water Regulations: Maximum Contaminant Levels and Maximum Residual Disinfectant Levels, § 141.61 Maximum contaminant levels for organic contaminants.> LOD = percent of detected results greater than laboratory limit of detection, 2 EPA Regional Screening Level for Resident Tap Water with a target cancer risk (TR) of 1E-06 and target hazard quotient (THQ) of 0.1, May 2024 at https://www.epa.gov/risk/regional-screening-levels-rsls-generic-tables. [3]EPA Region III BTAG Freshwater Screening Benchmarks, 7/2006. https://www.epa.gov/risk/freshwater-screening-benchmarks, Number of results with concentrations greater than the MCL, Number of results with concentration greater than the RSL, Number of results with concentrations greater than the BTAG FWSB.

Exhibit 4-7 Data Distribution for Primary VOCs Confined Aquifer (May 2024)



Tetrachloroethene (micrograms per liter)

Event	N	D	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL25	PCTL75	PCE>5
N Area	12	4	0.8	32	31.20	11.3	6.1	14.6	2.14E+02	0.8356	2.0212	0	1.0	22	2
S Area	34	8	0.42	13	12.58	4.2	1.7	4.7	2.23E+01	0.8632	2.3113	0	0.54	7.7	3

Trichloroethene (micrograms per liter)

Event	N	D	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL25	PCTL75	TCE>5
N Area	12	9	2.2	34	31.80	12.7	7.0	12.7	1.61E+02	0.8454	2.1169	0	2.8	22	5
S Area	34	26	0.41	200	199.59	46.6	13.0	60.0	3.60E+03	1.1556	3.0060	0	3.4	84	17

cis,1,2-dichloroethene (micrograms per liter)

Event	N	D	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL25	PCTL75	cDCE>70
N Area	12	8	0.47	20	19.53	3.6	1.14	6.7	4.46E+01	2.2183	6.012	1	0.8	2.1	0
S Area	34	27	0.31	1300	1299.70	248.9	68	388.0	1.51E+05	1.5966	4.2053	5	5.13	267.5	13

Vinyl chloride (micrograms per liter)

Event	N	D	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL25	PCTL75	VC>2
N Area	12	1	1.1	1.1	0.00	1.1	1.1	0.0	0.00E+00	NaN	NaN	0	1.1	1.1	0
S Area	34	22	0.41	250	249.59	38.1	14.5	67.2	4.52E+03	2.4301	7.6655	2	2.1	41	17

1,1-Dichloroethene (micrograms per liter)

Event	N	D	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL25	PCTL75	11DCE>7
N Area	12	2	3.4	9.6	6.20	6.5	6.5	4.4	19.22	0.0000	1.0000	0	3.4	9.6	1
S Area	34	14	0.37	7.4	7.03	2.2	0.98	2.4	5.94	1.1968	2.8166	0	0.53	3.5	1

Notes: N = number of normal samples, D = number of detected results, Min = minimum detected result, max = maximum detected result, Std. Dev. = standard deviation, Var = variance, PCTL25 = 25th percentile, PCTL75. = 75th percentile,

4.6.2.3 TCE

The TCE data distribution for the northern area plots at a lower concentration range than the southern area. For the northern area, nine of 12 samples had detections of TCE and detected concentrations ranging from 2.2 µg/L to 34 µg/L. Mean and median concentrations for TCE in the northern area are 12.7 µg/L and 7.0 µg/L, respectively. Distribution 25th and 75th percentiles for TCE in the northern area are 2.8 µg/L and 22 µg/L, respectively, with five samples having TCE concentrations greater than the MCL of 5 µg/L.

For the southern area, 26 of 34 samples had detections of TCE and detected concentrations ranging from 0.41 µg/L to 200 µg/L. Mean and median concentrations for TCE in the southern area are 46.6 µg/L and 13.0 µg/L, respectively. Distribution 25th and 75th percentiles for TCE in the southern area are 3.4 µg/L and 84 µg/L, respectively, with 17 samples having concentrations greater than the MCL of 5 µg/L.

4.6.2.4 cDCE

The cDCE data distribution for the northern area plots at a lower concentration range than the southern area. For the northern area, eight of 12 samples had detections of cDCE and detected concentrations ranging from 0.47 µg/L to 20 µg/L. Mean and median concentrations for cDCE in the northern area are 3.5 µg/L and 1.14 µg/L, respectively. Distribution 25th and 75th percentiles for cDCE in the northern area are 0.8 µg/L and 2.1 µg/L, respectively, with one distribution outlier. In the northern area, none of the samples had cDCE concentrations greater than the MCL of 70 µg/L.

For the southern area, 27 of 34 samples had detections of cDCE and detected concentrations ranging from 0.31 µg/L to 1300 µg/L. Mean and median concentrations for cDCE in the southern area are 248.9 µg/L and 68 µg/L, respectively. Distribution 25th and 75th percentiles for cDCE in the southern area are 5.13 µg/L and 267.5 µg/L, respectively, with five distribution outliers. In the southern area, 13 samples had concentrations greater than the MCL of 70 µg/L.

4.6.2.5 VC

The VC data distribution for the northern area plots at a lower concentration range than the southern area. For the northern area, one of 12 samples had detections of VC and detected at 1.1 µg/L, which is less than the MCL of 2 µg/L.

For the southern area, 22 of 34 samples had detections of VC and detected concentrations ranging from 0.41 µg/L to 250 µg/L. Mean and median concentrations for VC in the southern area are 38.1 µg/L and 14.5 µg/L, respectively. Distribution 25th and 75th percentiles for VC in the southern area are 2.1 µg/L and 41 µg/L, respectively, with two distribution outliers. In the southern area, 17 samples had concentrations greater than the MCL of 2 µg/L.

4.6.2.6 1,1-DCE

For the northern area, two of 12 samples had detections of 1,1-DCE and detected concentrations ranging from 3.4 µg/L to 9.6 µg/L. Mean and median concentrations for 1,1-DCE in the northern area are 6.5 µg/L and 6.5 µg/L, respectively. Distribution 25th and 75th percentiles for 1,1-DCE in the northern area are 3.4 µg/L and 9.6 µg/L, respectively, with no distribution outliers. In the northern area, one of the samples had 1,1-DCE concentrations greater than the MCL of 7 µg/L.

For the southern area, 14 of 34 samples had detections of 1,1-DCE and detected concentrations ranging from 0.37 µg/L to 7.4 µg/L. Mean and median concentrations for 1,1-DCE in the southern area are 2.2 µg/L and 0.98 µg/L, respectively. Distribution 25th and 75th percentiles for 1,1-DCE in the southern area are 0.53 µg/L and 3.5 µg/L, respectively, with no distribution outliers. In the southern area, one sample had concentrations greater than the MCL of 7 µg/L.

4.7 Annual Geochemical Parameter Results (May 2024)

Section 4.7 has a summary of geochemical parameter results for the annual sampling event completed in May 2024.

4.7.1 Surficial Aquifer

Exhibit 4-8 (page 4-25) has box plots and tabular information displaying data distributions for geochemical parameters detected in surficial aquifer samples collected from the northern and southern monitoring areas at OU 6.

4.7.1.1 Chloride

For the northern area, the data distribution for chloride plots at a lower concentration range than the southern area with concentrations ranging 1.1 mg/L to 56 mg/L. Mean and median concentrations for chloride in the northern area are 14.37 mg/L and 11 mg/L, respectively. Distribution 25th and 75th percentiles for chloride in the northern area are 8.53 mg/L and 14.75 mg/L, respectively, with four data outliers.

For the southern area, chloride concentrations ranged from 1.3 mg/L to 870 mg/L. Mean and median concentrations for chloride in the southern area are 77.9 mg/L and 28 mg/, respectively L. Distribution 25th and 75th percentiles for chloride in the southern area are 15 mg/L and 66 mg/L, respectively, with three data outliers.

4.7.1.2 Nitrate

For the northern area, the data distribution for nitrate plots at a higher concentration range than the southern area with concentrations ranging 0.025 mg/L to 3 mg/L. Mean and median concentrations for nitrate in the northern area are 0.68 mg/L and 0.47 mg/L, respectively. Distribution 25th and 75th percentiles for nitrate in the northern area are 0.13 mg/L and 0.91 mg/L, respectively, with one data outlier.

For the southern area, nitrate concentrations ranged from 0.026 mg/L to 0.92 mg/L. Mean and median concentrations for nitrate in the southern area are 0.23 mg/L and 0.16 mg/L, respectively. Distribution 25th and 75th percentiles for nitrate in the southern area are 0.11 mg/L and 60.2 mg/L, respectively, with one data outlier. In the southern area, eight of the samples had nitrate concentrations > 1 mg/L.

4.7.1.3 Sulfate

For the northern area, the data distribution for sulfate plots at a lower concentration range than the southern area with concentrations ranging 0.49 mg/L to 10 mg/L. Mean and median concentrations for sulfate in the northern area are 2.49 mg/L and 1.6 mg/L, respectively. Distribution 25th and 75th percentiles for sulfate in the northern area are 0.79 mg/L and 3.85 mg/L, respectively, with one data outlier. In the northern area, 31 of the samples had sulfate concentrations greater than the MCL of 50 mg/L.

For the southern area, sulfate concentrations ranged from 0.99 mg/L to 150 mg/L. Mean and median concentrations for sulfate in the southern area are 14.42 mg/L and 3.50 mg/L, respectively. Distribution 25th and 75th percentiles for sulfate in the southern area are 1.65 mg/L and 13 mg/L, respectively, with three data outliers. In the southern area, 23 of the samples had sulfate concentrations > 50 mg/L.

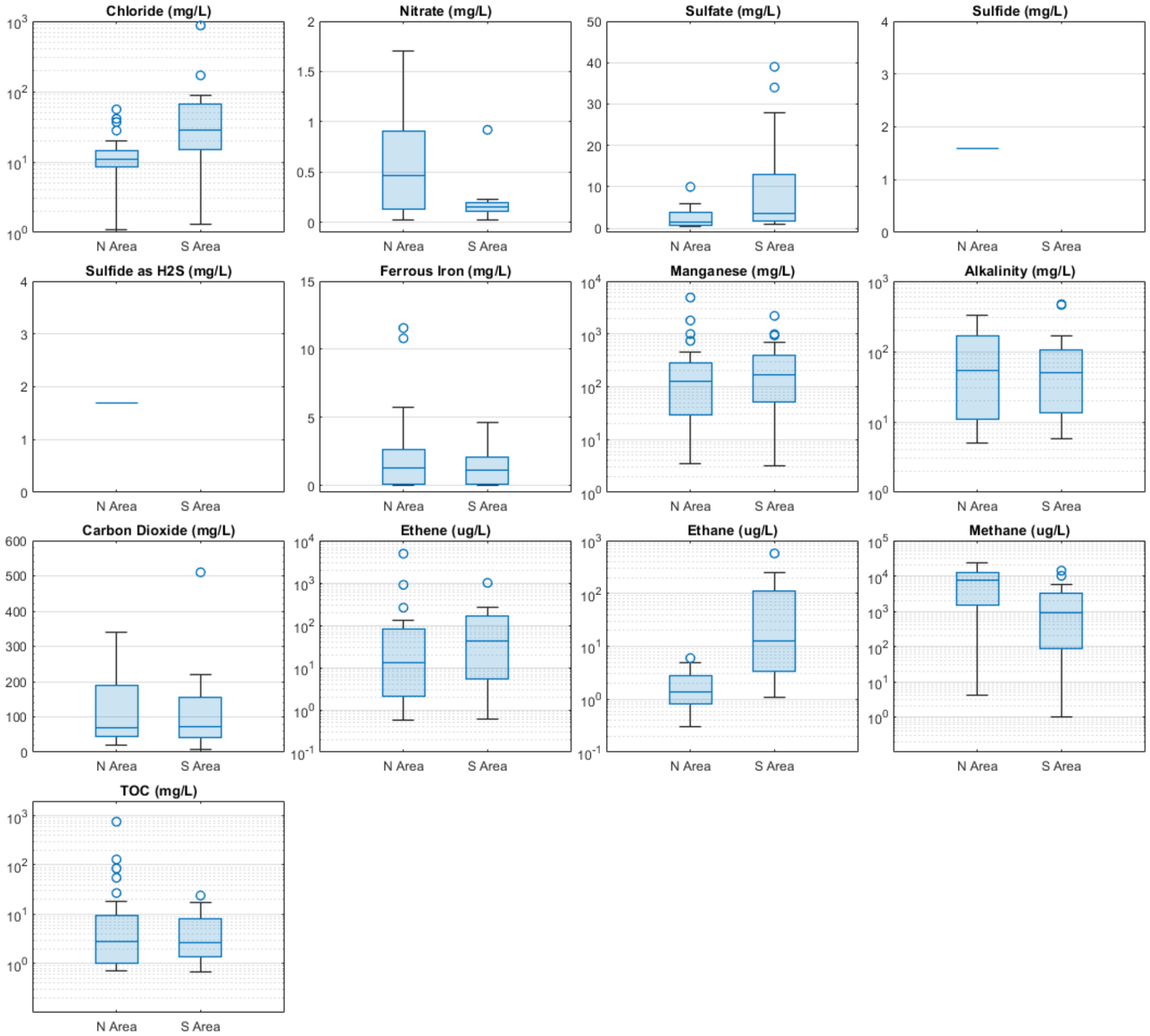
4.7.1.4 Sulfide

For the northern area, one of 31 samples had a detection of sulfide at a concentration of 1.6 mg/L. No samples collected in the southern area had detections of sulfide.

4.7.1.5 Sulfide as Hydrogen Sulfide

For the northern area, one of 31 samples had detections of sulfide as hydrogen sulfide at a concentration of 1.7 mg/L. No samples collected in the southern area had detections of sulfide as hydrogen sulfide.

Exhibit 4-8 Geochemical Parameter Distribution: Surficial Aquifer (May 2024)



Chloride (milligrams per liter)

Event	N	D	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL25	PCTL75
N Area	31	31	1.1	56	54.9	14.37	11	11.5	133.1	2.1870	7.5247	4	8.52	14.75
S Area	24	24	1.3	870	868.7	77.9	28	174.6	3.05E+04	4.1272	19.2152	3	15	66

Nitrate (milligrams per liter)

Event	N	D	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL25	PCTL75	NO3<1
N Area	31	16	0.025	3	2.975	0.68	0.47	0.8	0.6	1.8254	6.1308	1	0.13	0.91	14
S Area	24	8	0.026	0.92	0.894	0.23	0.16	0.3	8.02E-02	2.0684	5.6629	1	0.11	0.2	8

Sulfate (milligrams per liter)

Event	N	D	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL25	PCTL75	SO4=<50
N Area	31	31	0.49	10	9.51	2.49	1.6	2.3	5.1	1.4762	5.0198	1	0.79	3.85	31
S Area	24	24	0.99	150	149.01	14.42	3.50	30.9	9.52E+02	3.7653	16.9681	3	1.65	13	23

Sulfide (milligrams per liter)

Event	N	D	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL25	PCTL75	S2>1
N Area	31	1	1.6	1.6	0	1.60	1.6	0.0	0.0	NaN	NaN	0	1.6	1.6	1
S Area	24	0	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	0	NaN	NaN	0

Sulfide as Hydrogen Sulfide (milligrams per liter)

Event	N	D	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL25	PCTL75	S2>1
N Area	31	1	1.7	1.7	0	1.70	1.7	0.0	0.0	NaN	NaN	0	1.7	1.7	1
S Area	24	0	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	0	NaN	NaN	0

Ferrous Iron (milligrams per liter)

Event	N	D	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL25	PCTL75	Fe2>1
N Area	28	28	0.01	11.56	11.55	2.17	1.26	3.0	8.9	2.0663	6.6778	2	0.13	2.62	16
S Area	23	23	0.03	4.6	4.57	1.30	1.15	1.3	1.61E+00	1.0015	3.2985	0	0.11	2.08	12

Manganese (micrograms per liter)

Event	N	D	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL25	PCTL75
N Area	32	32	3.5	4900	4.90E+03	381.69	125	899.9	809820	4.2575	21.3880	4	29.5	285
S Area	24	24	3.2	2200	2.20E+03	335.18	170.00	486.0	2.36E+05	2.617	10.1729	3	50.5	400

Alkalinity (milligrams per liter)

Event	N	D	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL25	PCTL75
N Area	31	30	5	330	3.25E+02	98.0	53	99.3	9.85E+03	0.8363	2.3656	0	11.0	170
S Area	24	17	5.7	470	4.64E+02	103.4	50	143.9	2.07E+04	1.9338	5.3799	2	13.5	106

Carbon Dioxide (milligram per liter)

Event	N	D	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL25	PCTL75
N Area	31	29	19	340	321	119.2	69	99.3	9.06E+03	0.8153	2,4311	0	43.8	190
S Area	24	21	6.2	510	503.8	115.5	71	143.9	1.25E+04	2.1914	8.3609	1	42.8	155

Ethene (micrograms per liter)

Event	N	D	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL25	PCTL75	C2H4>10
N Area	32	23	0.57	4900	4.90E+03	288.58	13	1022.8	1046200	4.2530	19.6442	3	2.1	81.25	12
S Area	24	12	0.62	1000	9.99E+02	147.13	42.5	282.7	7.99E+04	2.5405	8.2524	1	5.5	165	7

Ethane (micrograms per liter)

Event	N	D	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL25	PCTL75	C2H6>10
N Area	32	13	0.31	6	5.69E+00	2.08	1.4	1.8	3	1.1414	3.0660	1	0.8125	2.825	0
S Area	24	14	1.1	570	5.69E+02	89.14	12.45	157.5	2.48E+04	2.2627	7.3438	1	3.3	110	7

Methane (micrograms per liter)

Event	N	D	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL25	PCTL75	CH4>500
N Area	32	27	4	23000	2.30E+04	8000	7400	6664.2	44411000	0.5111	2.4129	0	1525	12750	22
S Area	24	23	0.98	14000	1.40E+04	2331	920	3496.3	1.22E+07	2.1307	7.1273	2	88.5	3175	12

Total Organic Carbon (milligram per liter)

Event	N	D	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL25	PCTL75	TOC>20
N Area	31	30	0.7	760	7.59E+02	38.24	2.85	139.3	19392	4.8808	25.7544	5	1	9.6	5
S Area	24	24	0.66	24	2.33E+01	5.61	2.70	6.2	3.79E+01	1.5242	4.6121	1	1.35	8.05	1

Notes: N = number of normal samples, D = number of detected results, Min = minimum detected result, max = maximum detected result, Std. Dev. = standard deviation, Var = variance, PCTL25 = 25th percentile, PCTL75. = 75th percentile, > greater than

4.7.1.6 Ferrous Iron

For the northern area, the data distribution for ferrous iron plots at a higher concentration range than the southern area with concentrations ranging 0.01 mg/L to 11.56 mg/L. Mean and median concentrations for ferrous iron in the northern area are 2.17 mg/L and 1.26 mg/L, respectively. Distribution 25th and 75th percentiles for ferrous iron in the northern area are 0.13 mg/L and 2.62 mg/L, respectively, with two data outliers. In the northern area, 16 of the samples had ferrous iron concentrations greater than the MCL of 1 mg/L.

For the southern area, ferrous iron concentrations ranged from 0.03 mg/L to 4.6 mg/L. Mean and median concentrations for ferrous iron in the southern area are 1.30 mg/L and 1.15 mg/L, respectively. Distribution 25th and 75th percentiles for ferrous iron in the southern area are 0.11 mg/L and 2.08 mg/L, respectively, with no data outliers. In the southern area, 12 of the samples had ferrous iron concentrations greater than the MCL of 1 mg/L.

4.7.1.7 Manganese

For the northern area, the data distribution for manganese plots at a higher concentration range than the southern area with concentrations ranging 3.5 µg/L to 4,900 µg/L. Mean and median concentrations for manganese in the northern area are 381.69 µg/L and 125 µg/L, respectively. Distribution 25th and 75th percentiles for manganese in the northern area are 29.5 µg/L and 285 µg/L, respectively, with four data outliers.

For the southern area, manganese concentrations ranged from 3.2 µg/L to 2,200 µg/L. Mean and median concentrations for manganese in the southern area are 335.18 µg/L and 170 µg/L, respectively. Distribution 25th and 75th percentiles for manganese in the southern area are 50.5 µg/L and 400 µg/L, respectively, with three data outliers.

4.7.1.8 Alkalinity

For the northern area, the data distribution for alkalinity plots at a lower concentration range than the southern area with concentrations ranging 5 mg/L to 330 mg/L. Mean and median concentrations for alkalinity in the northern area are 98.0 mg/L and 53 mg/L, respectively. Distribution 25th and 75th percentiles for alkalinity in the northern area are 11 mg/L and 170 mg/L, respectively, with no data outliers.

For the southern area, alkalinity concentrations ranged from 5.7 mg/L to 470 mg/L. Mean and median concentrations for alkalinity in the southern area are 103.4 mg/L and 50 mg/L, respectively. Distribution 25th and 75th percentiles for alkalinity in the southern area are 13.5 mg/L and 106 mg/L, respectively, with two data outliers.

4.7.1.9 Carbon Dioxide

For the northern area, the data distribution for carbon dioxide plots at a lower concentration range than the southern area with concentrations ranging 19 mg/L to 340 mg/L. Mean and median concentrations for carbon dioxide in the northern area are 119.20 mg/L and 69 mg/L, respectively. Distribution 25th and 75th percentiles for carbon dioxide in the northern area are 43.8 mg/L and 190 mg/L, respectively, with no data outliers.

For the southern area, carbon dioxide concentrations ranged from 6.2 mg/L to 510 mg/L. Mean and median concentrations for carbon dioxide in the southern area are 115.5 mg/L and 71 mg/L, respectively. Distribution 25th and 75th percentiles for carbon dioxide in the southern area are 42.8 mg/L and 155 mg/L, respectively, with two data outliers.

4.7.1.10 Ethene

For the northern area, the data distribution for ethene plots at a higher concentration range than the southern area with concentrations ranging 0.57 µg/L to 4,900 µg/L. Mean and median concentrations for ethene in the northern area are 288 µg/L and 13 µg/L, respectively. Distribution 25th and 75th percentiles for ethene in the northern area are 2.1 µg/L and 81.2 µg/L, respectively, with three data outliers. In the northern area, 12 of the samples had ethene concentrations > 10 µg/L.

For the southern area, ethene concentrations ranged from 0.62 µg/L to 1,000 µg/L. Mean and median concentrations for ethene in the southern area are 147 µg/L and 42.5 µg/L, respectively. Distribution 25th

and 75th percentiles for ethene in the southern area are 5.5 µg/L and 165 µg/L, respectively, with one data outlier. In the southern area, seven of the samples had ethene concentrations > 10 µg/L.

4.7.1.11 Ethane

For the northern area, the data distribution for ethane plots at a lower concentration range than the southern area with concentrations ranging 0.31 µg/L to 6 µg/L. Mean and median concentrations for ethane in the northern area are 2.08 µg/L and 1.4 µg/L, respectively. Distribution 25th and 75th percentiles for ethane in the northern area are 0.81 µg/L and 2.82 µg/L, respectively, with one data outlier. In the northern area, none of the samples had ethane concentrations > 10 µg/L.

For the southern area, ethane concentrations ranged from 1.1 µg/L to 570 µg/L. Mean and median concentrations for ethane in the southern area are 89.14 µg/L and 12.45 µg/L, respectively. Distribution 25th and 75th percentiles for ethane in the southern area are 3.3 µg/L and 110 µg/L, respectively, with one data outlier. In the southern area, seven of the samples had ethane concentrations > 10 µg/L.

4.7.1.12 Methane

For the northern area, the data distribution for methane plots at a higher concentration range than the southern area with concentrations ranging 4 µg/L to 23,000 µg/L. Mean and median concentrations for methane in the northern area are 8,000 µg/L and 7,400 µg/L, respectively. Distribution 25th and 75th percentiles for methane in the northern area are 1,525 µg/L and 12,750 µg/L, respectively, with no data outliers. In the northern area, 22 of the samples had methane concentrations > 500 µg/L.

For the southern area, methane concentrations ranged from 0.98 µg/L to 14,000 µg/L. Mean and median concentrations for methane in the southern area are 2,331 µg/L and 920 µg/L, respectively. Distribution 25th and 75th percentiles for methane in the southern area are 88.5 µg/L and 3,175 µg/L, respectively, with two data outliers. In the southern area, 12 of the samples had methane concentrations > 500 µg/L.

4.7.1.13 Total Organic Carbon

For the northern area, the data distribution for total organic carbon plots at a higher concentration range than the southern area with concentrations ranging 0.7 mg/L to 760 mg/L. Mean and median concentrations for total organic carbon in the northern area are 38.24 mg/L and 2.85 mg/L, respectively. Distribution 25th and 75th percentiles for total organic carbon in the northern area are 1 mg/L and 9.6 mg/L, respectively, with five data outliers. In the northern area, five of the samples had total organic carbon concentrations > 20 mg/L.

For the southern area, total organic carbon concentrations ranged from 0.66 mg/L to 24 mg/L. Mean and median concentrations for total organic carbon in the southern area are 5.61 mg/L and 2.70 mg/L, respectively. Distribution 25th and 75th percentiles for total organic carbon in the southern area are 1.35 mg/L and 8.05 mg/L, respectively, with one data outlier. In the southern area, one of the samples had total organic carbon concentrations > 20 mg/L.

4.7.2 Confined Aquifer

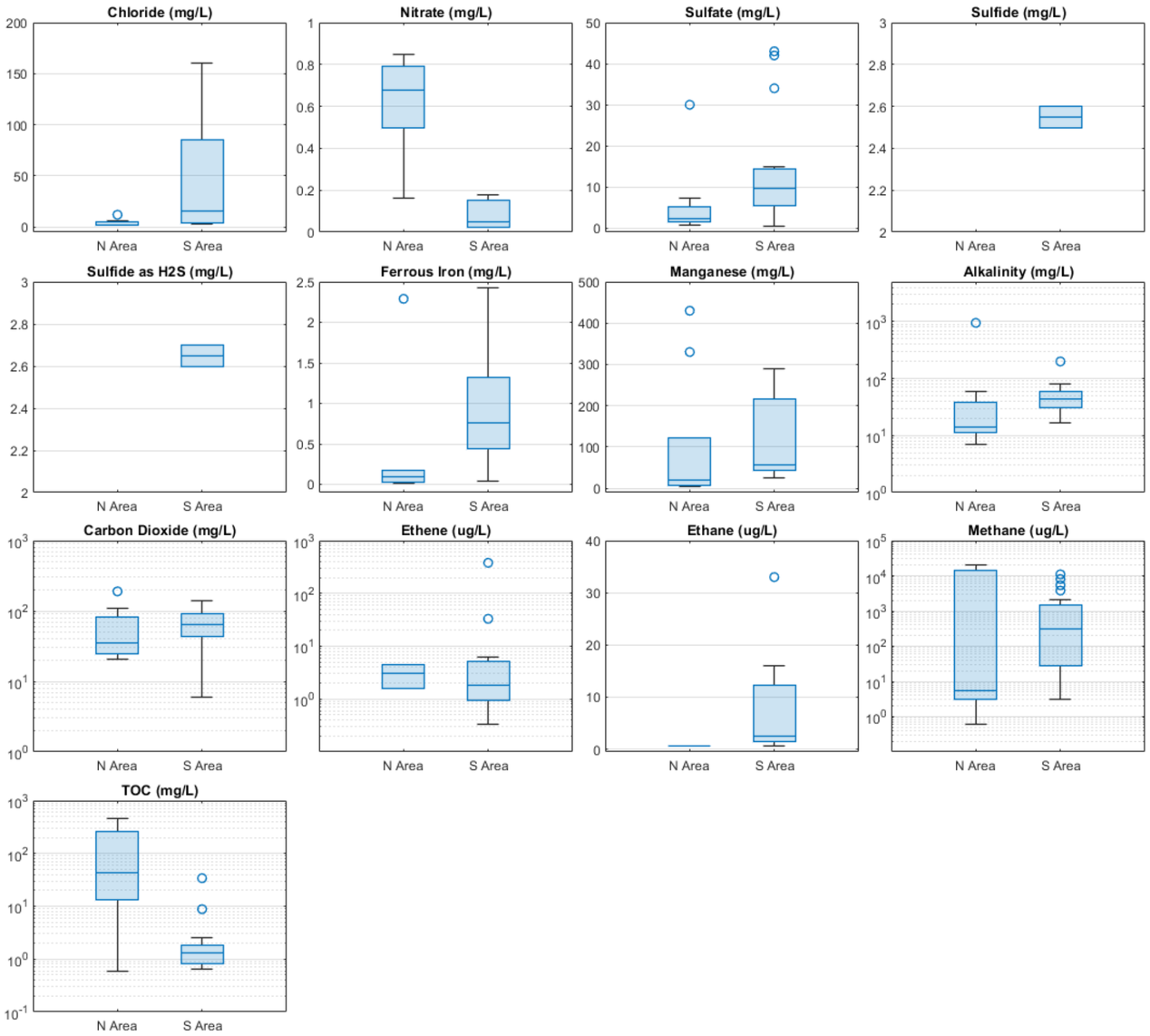
Exhibit 4-9 (page 4-28) has box plots and tabular information displaying data distributions for geochemical parameters detected in surficial aquifer samples collected from the northern and southern monitoring areas at OU 6.

4.7.2.1 Chloride

For the northern area, the data distribution for chloride plots at a lower concentration range than the southern area with concentrations ranging 1.7 mg/L to 12 mg/L. Mean and median concentrations for chloride in the northern area are 4.9 mg/L and 5.0 mg/L, respectively. Distribution 25th and 75th percentiles for chloride in the northern area are 2.2 mg/L and 5.6 mg/L, respectively, with one data outlier.

For the southern area, chloride concentrations ranged from 2.4 mg/L to 160 mg/L. Mean and median concentrations for chloride in the southern area are 33.9 mg/L and 16.0 mg/L, respectively. Distribution 25th and 75th percentiles for chloride in the southern area are 3.4 mg/L and 86 mg/L, respectively, with no data outliers.

Exhibit 4-9 Geochemical Parameter Distribution: Confined Aquifer (May 2024)



Chloride (milligrams per liter)

Event	N	D	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL25	PCTL75
N Area	9	8	1.7	12	10.3	4.9	5.0	3.3	11	1.2053	3.7706	1	2.2	5.6
S Area	20	20	2.4	160	157.6	39.9	16.0	46.99	2.21E+03	1.1182	3.1004	0	3.4	86

Nitrate (milligrams per liter)

Event	N	D	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL25	PCTL75	NO3<1
N Area	9	6	0.16	0.85	0.69	0.61	0.68	0.2511	0.063	-0.9959	2.7534	0	0.5	0.79	6
S Area	20	5	0.023	0.18	0.157	0.1	0.05	0.07	5.20E-03	0.4668	1.4297	0	0.02	0.15	5

Sulfate (milligrams per liter)

Event	N	D	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL25	PCTL75	SO4=<50
N Area	9	8	0.76	30	29.24	6.1	2.4	9.8701	97.4183	2.0882	5.6488	1	1.44	5.2	8
S Area	20	20	0.48	43	42.52	13.1	9.8	12.38	1.53E+02	1.4865	4.1371	3	5.35	14.5	20

Sulfide (milligrams per liter)

Event	N	D	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL25	PCTL75	S2>1
N Area	9	0	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	0	NaN	NaN	0
S Area	20	2	2.5	2.6	0.1	2.6	2.55	0.07	5.00E-03	1.33E-14	1	0	2.5	2.6	2

Sulfide as Hydrogen Sulfide (milligrams per liter)

Event	N	D	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL25	PCTL75	S2H2S>1
N Area	9	0	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	0	NaN	NaN	0
S Area	19	2	2.6	2.7	0.1	2.65	2.65	0.1	5.00E-03	-1.33E-14	1	0	2.6	2.7	2

Ferrous Iron (milligrams per liter)

Event	N	D	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL25	PCTL75	Fe2>1
N Area	10	10	0.01	2.29	2.28	0.31	0.095	0.7	0	2.6229	7.9747	1	0.03	0.17	1
S Area	21	21	0.04	2.42	2.38	1.0	0.76	0.74	5.41E-01	0.6809	2.6304	0	0.44	1.3	10

Manganese (micrograms per liter)

Event	N	D	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL25	PCTL75
N Area	9	9	3.6	430	4.26E+02	100	20	161.5	26097	1.3910	3.1085	2	8.1	123
S Area	20	20	25	290	2.65E+02	114	57	93.89	8815	0.7325	1.8734	0	44	215

Alkalinity (milligrams per liter)

Event	N	D	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL25	PCTL75
N Area	9	9	6.9	950	9.43E+02	124	14	310.0	96112	2.4618	7.0872	1	12	38
S Area	20	19	17	200	1.83E+02	53	44	39.9	1592	2.7475	10.9719	1	31	60

Carbon Dioxide (milligram per liter)

Event	N	D	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL25	PCTL75
N Area	9	9	21	190	1.69E+02	60	35	56.9	3238	1.4951	3.9636	1	25	84
S Area	20	18	6	140	1.34E+02	66	65	32.5	1056	0.3147	2.8509	0	43	100

Ethene (micrograms per liter)

Event	N	D	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL25	PCTL75	C2H4>10
N Area	9	2	1.6	4.5	2.9	3.0	3.0	2.1	4	0.0000	1.0000	0	1.6	4.5	0
S Area	20	13	0.34	380	379.66	34	1.8	104.5	10914	3.1381	10.9319	2	0.93	5.0	2

Ethane (micrograms per liter)

Event	N	D	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL25	PCTL75	C2H6>10
N Area	9	1	0.66	0.66	0	0.66	0.66	0.0	0	NaN	NaN	0	0.66	0.66	0
S Area	20	13	0.65	33	32.35	7.78	2.6	9.3	86	1.6168	5.1039	1	1.4	12.25	4

Methane (micrograms per liter)

Event	N	D	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL25	PCTL75	CH4>500
N Area	9	7	0.63	21000	2.10E+04	7144	5.3	9171.3	8.41E+07	0.4690	1.4641	0	3.3	14750	3
S Area	20	20	3.2	11000	1.10E+04	1705	300	3066.5	9.40E+06	2.0076	5.9035	4	29	1455	9

Total Organic Carbon (milligram per liter)

Event	N	D	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL25	PCTL75	TOC>20
N Area	9	4	0.6	450	4.49E+02	135	44	211.7	4.48E+04	1.1063	2.2951	0	13	256	3
S Area	20	15	0.64	34	3.34E+01	4.0	1.3	8.6	7.32E+01	3.1863	11.6789	2	0.82	1.8	1

Notes: N = number of normal samples, D = number of detected results, Min = minimum detected result, max = maximum detected result, Std. Dev. = standard deviation, Var = variance, PCTL25 = 25th percentile, PCTL75. = 75th percentile, > greater than, NaN = not a number.

4.7.2.2 Nitrate

For the northern area, the data distribution for nitrate plots at a higher concentration range than the southern area with concentrations ranging 0.16 mg/L to 0.85 mg/L. Mean and median concentrations for nitrate in the northern area are 0.61 mg/L and 0.68 mg/L, respectively. Distribution 25th and 75th percentiles for nitrate in the northern area are 0.5 mg/L and 0.79 mg/L, respectively, with no data outliers. In the northern area, six of the samples had nitrate concentrations > 1 mg/L.

For the southern area, nitrate ranged from 0.023 mg/L to 0.18 mg/L. Mean and median concentrations for nitrate in the southern area are 0.1 mg/L and 0.05 mg/L, respectively. Distribution 25th and 75th percentiles for nitrate in the southern area are 0.02 mg/L and 0.15 mg/L, respectively, with no data outliers. In the southern area, five of the samples had nitrate concentrations > 1 mg/L.

4.7.2.3 Sulfate

For the northern area, the data distribution for sulfate plots at a lower concentration range than the southern area with concentrations ranging 0.76 mg/L to 30 mg/L. Mean and median concentrations for sulfate in the northern area are 6.1 mg/L and 2.4 mg/L, respectively. Distribution 25th and 75th percentiles for sulfate in the northern area are 1.44 mg/L and 5.2 mg/L, respectively, with one data outlier. In the northern area, eight of the samples had sulfate concentrations > 50 mg/L.

For the southern area, sulfate ranged from 0.48 mg/L to 43 mg/L. Mean and median concentrations for sulfate in the southern area are 13.1 mg/L and 9.8 mg/L, respectively. Distribution 25th and 75th percentiles for sulfate in the southern area are 6.425 mg/L and 14.75 mg/L, respectively, with three data outliers. In the southern area, 19 of the samples had sulfate concentrations > 50 mg/L.

4.7.2.4 Sulfide

For the northern area, none of the samples collected had detections of sulfide. Two of 20 samples in the southern area had detections of sulfide (2.5 mg/L and 2.6 mg/L).

4.7.2.5 Sulfide as Hydrogen Sulfide

For the northern area, none of the samples collected had detections of sulfide as hydrogen sulfide. Two of 20 samples in the southern area had detections of sulfide as hydrogen sulfide (2.6 mg/L and 2.7 mg/L).

4.7.2.6 Ferrous Iron

For the northern area ferrous iron concentrations ranged from 0.01 mg/L to 2.29 mg/L. Mean and median concentrations for ferrous iron in the northern area are 0.31 mg/L and 0.095 mg/L, respectively. Distribution 25th and 75th percentiles for ferrous iron in the northern area are 0.03 mg/L and 0.17 mg/L, respectively, with one data outlier. In the northern area, one of the samples had ferrous iron concentrations > 1 mg/L.

For the southern area, ferrous iron ranged from 0.04 mg/L to 2.42 mg/L. Mean and median concentrations for ferrous iron in the southern area are 1.0 mg/L and 0.76 mg/L, respectively. Distribution 25th and 75th percentiles for ferrous iron in the southern area are 0.44 mg/L and 1.3 mg/L, respectively, with no data outliers. In the southern area, 10 of the samples had ferrous iron concentrations > 1 mg/L.

4.7.2.7 Manganese

For the northern area, the data distribution for manganese plots at a higher concentration range than the southern area with concentrations ranging 3.6 mg/L to 430 mg/L. Mean and median concentrations for manganese in the northern area are 100 mg/L and 20 mg/L, respectively. Distribution 25th and 75th percentiles for manganese in the northern area are 8.1 mg/L and 123 mg/L, respectively, with two data outliers.

For the southern area, manganese ranged from 25 mg/L to 290 mg/L. Mean and median concentrations for manganese in the southern area are 114 mg/L and 57 mg/L, respectively. Distribution 25th and 75th percentiles for manganese in the southern area are 44 mg/L and 215 mg/L, respectively, with no data outliers.

4.7.2.8 Alkalinity

For the northern area, the data distribution for alkalinity plots at a higher concentration range than the southern area with concentrations ranging 6.9 mg/L to 950 mg/L. Mean and median concentrations for

alkalinity in the northern area are 124 mg/L and 14 mg/L, respectively. Distribution 25th and 75th percentiles for alkalinity in the northern area are 12 mg/L and 38 mg/L, respectively, with one data outlier.

For the southern area, alkalinity ranged from 217 mg/L to 200 mg/L. Mean and median concentrations for alkalinity in the southern area are 41.50 mg/L and 41.1 mg/L, respectively. Distribution 25th and 75th percentiles for alkalinity in the southern area are 31 mg/L and 60 mg/L, respectively, with one data outlier.

4.7.2.9 Carbon Dioxide

For the northern area, the data distribution for carbon dioxide plots at a higher concentration range than the southern area with concentrations ranging 21 mg/L to 190 mg/L. Mean and median concentrations for carbon dioxide in the northern area are 60 mg/L and 35 mg/L, respectively. Distribution 25th and 75th percentiles for carbon dioxide in the northern area are 25 mg/L and 84 mg/L, respectively, with one data outlier.

For the southern area, carbon dioxide ranged from 6 mg/L to 100 mg/L. Mean and median concentrations for carbon dioxide in the southern area are 66 mg/L and 65 mg/L, respectively. Distribution 25th and 75th percentiles for carbon dioxide in the southern area are 31 mg/L and 60 mg/L, respectively, with no data outliers.

4.7.2.10 Ethene

For the northern area, two of nine samples had ethene detections (1.6 µg/L to 4.5 µg/L). For the southern area, 13 of 23 samples had detections of ethene ranging from 0.34 µg/L to 380 µg/L. Mean and median concentrations for ethene in the southern area are 34 µg/L and 1.8 µg/L, respectively. Distribution 25th and 75th percentiles for ethene in the southern area are 0.93 µg/L and 5.0 µg/L, respectively, with two data outliers. In the southern area, one of the samples had ethene concentrations > 10 µg/L.

4.7.2.11 Ethane

For the northern area, one of nine samples had an ethane detection (0.66 µg/L). For the southern area, 13 of 23 samples had detections of ethene ranging from 0.65 µg/L to 33 µg/L. Mean and median concentrations for ethene in the southern area are 7.8 µg/L and 2.6 µg/L, respectively. Distribution 25th and 75th percentiles for ethene in the southern area are 1.4 µg/L and 12 µg/L, respectively, with one data outliers. In the southern area, four of the samples had ethane concentrations > 10 µg/L.

4.7.2.12 Methane

For the northern area, the data distribution for methane plots at a higher concentration range than the southern area with concentrations ranging 0.63 µg/L to 21,000 µg/L. Mean and median concentrations for methane in the northern area are 7,144 µg/L and 5.3 µg/L, respectively. Distribution 25th and 75th percentiles for methane in the northern area are 3.2 µg/L and 14,750 µg/L, respectively, with four data outliers. In the northern area, three of the samples had methane concentrations > 500 µg/L.

For the southern area, methane ranged from 3.2 µg /L to 11,000 µg /L. Mean and median concentrations for methane in the southern area are 1,705 µg/L and 300 µg/L, respectively. Distribution 25th and 75th percentiles for methane in the southern area are 29 µg/L and 1,780 µg/L, respectively, with four data outliers. In the southern area, nine of the samples had methane concentrations > 500 µg/L.

4.7.2.13 Total Organic Carbon

For the northern area, the data distribution for total organic carbon plots at a higher concentration range than the southern area with concentrations ranging 0.6 mg/L to 450 mg/L. Mean and median concentrations for total organic carbon in the northern area are 135 mg/L and 44 mg/L, respectively. Distribution 25th and 75th percentiles for total organic carbon in the northern area are 13 mg/L and 256 mg/L, respectively, with no data outliers. In the northern area, three of the samples had total organic carbon concentrations > 20 mg/L.

For the southern area, total organic carbon ranged from 0.64 mg/L to 34 mg/L. Mean and median concentrations for total organic carbon in the southern area are 4.0 mg/L and 1.3 mg/L, respectively. Distribution 25th and 75th percentiles for total organic carbon in the southern area are 0.82 mg/L and 1.8 mg/L, respectively, with two data outliers. In the southern area, one of the samples had total organic carbon concentrations > 20 mg/L.

4.7.2.14 Geochemical Conditions Summary

Geochemical conditions in the 2021 ISB injection area (northern area) range from anaerobic to partially anaerobic conditions based on DO levels, lower nitrate and sulfate levels, presence of methane and ferrous iron, detections of sulfide, and presence of PCE degradation by-products. Conditions in the surficial aquifer in the northern area at monitored locations outside of the ISB area generally fall under aerobic conditions. Conditions in the underlying confined aquifer in the northern area range from partially anaerobic to aerobic conditions. Geochemical conditions in the surficial aquifer in the southern area range from anaerobic to partially anaerobic conditions based on DO levels, lower nitrate and sulfate levels, presence of methane and ferrous iron, and presence of PCE degradation by-products. Conditions in the underlying confined aquifer within plume areas range from anaerobic to partially anaerobic conditions.

4.8 Leachability Results

Table 4-5 (page 4-32) has a statistical summary (detects) for annual LTM for leaching and screening of results to MCLs, EPA RSLs, and ecological benchmarks. Appendix B.4 has complete tabulated sample results. Figure 3-1 identifies these LTM locations. Constituents detected in one or more of the samples include 1,4-dioxane, metals, and PAHs. Constituents not detected in samples include SVOCs, PCBs, and pesticides.

4.8.1 SVOCs

One of 10 samples had a detection of 1,4-dioxane with a result of 27 µg/L at well MW-243 in the OU 1 area where a chlorinated VOC source zone exists in groundwater. No other detections of SVOCs occurred for leachability sampling of the 10 well locations in the northern and southern monitoring areas of OU 6.

4.8.2 Metals

Leachability sampling indicated the detection of 19 of 23 metals in one or more samples collected from the northern and southern monitoring areas. Metals concentrations detected did not exceed MCLs or action levels for lead or copper. RSL screening for analytes without an MCL or action limit indicates that cobalt, iron, manganese, and zinc have concentrations > RSLs for one or more samples. Ecological benchmark screening for analytes without an MCL or action limit indicates that aluminum, cobalt, iron, manganese, and zinc have concentrations greater than these benchmarks for one or more samples.

4.8.3 PAHs

Sample results indicated two detections of 1-methylnaphthalene (MW-243 and MW-279) at concentrations greater than the RSL with the detection at MW-279 reported as estimated less than the method LOQ. Ecological benchmark screening for analytes without an MCL or action limit indicates that anthracene (two samples), fluoranthene (one sample), and pyrene (one samples).

4.9 Surface Water Results

A component of annual LTM at OU 6 is the collection of surface water samples from No Name Creek at established stations NNC-1, NNC-2, and NNC-3 for field WQP measurement and laboratory analysis of VOCs. Figure 3-1 shows the location of sample stations for surface water. Appendix B.5 has complete WQP and VOC data table results for surface water samples. Table 4-6 (page 4-33) has a statistical summary of VOC constituents detected in one or more samples collected for annual surface water monitoring. This table has descriptive statistics, identifies the location of the maximum detected concentrations, and presents screening comparisons to remedy groundwater cleanup levels (MCLs), EPA RSLs, and ecological screening benchmarks.

Table 4-5 Statistical Summary: Annual LTM for Potential Leaching (Detects)

Analyte Group	Chemical	Matrix	No. of Results	Unit	Min	Max	Mean	Median	95th Percentile	No. > LOD	% > LOD	Location of Max	Federal MCL[1]			EPA RSL[2] (May 2024)			BTAG FWSB[3] (2006)		
													No. > MCL	% > MCL	MCL	No. > RSL	% > RSL	EPA RSL[2]	No. > BTAG	% > BTAG	BTAG FWSB[3]
SVOC	1,4-Dioxane	WG	10	ug/L	<4.4	27	-	-	16.11	1	10	OU6-MW-243	-	-	-	1	10	4.59E-01	-	-	-
Metals	Aluminum	WG	10	ug/L	<35	240	104.2	56.5	222	8	80	OU6-MW-277	-	-	-	0	0	2.00E+03	4	40	8.70E+01
Metals	Arsenic	WG	10	ug/L	<0.86	9.2	2.96	0.965	8.525	5	50	OU6-MW-279	0	0	1.00E+01	5	50	5.17E-02	3	30	5.00E+00
Metals	Barium	WG	10	ug/L	22	150	74	70.5	132	10	100	OU6-MW-169	0	0	2.00E+03	0	0	3.77E+02	10	100	4.00E+00
Metals	Beryllium	WG	10	ug/L	<0.2	0.41	0.154	-	0.374	2	20	OU6-MW-272	0	0	4.00E+00	0	0	2.46E+00	0	0	6.60E-01
Metals	Cadmium	WG	10	ug/L	<0.078	0.09	-	-	0.06705	1	10	OU6-MW-277	0	0	5.00E+00	0	0	1.84E-01	0	0	2.50E-01
Metals	Calcium	WG	10	ug/L	1500	68000	17150	3750	59900	10	100	CSMPZ-7	-	-	-	-	-	-	0	0	1.16E+05
Metals	Chromium	WG	10	ug/L	<0.81	1.1	0.577	-	1.028	3	30	OU6-MW-279	0	0	1.00E+02	-	-	-	0	0	8.50E+01
Metals	Cobalt	WG	10	ug/L	0.85	36	7.94	2.75	27.45	10	100	OU6-MW-243	-	-	-	10	100	6.01E-01	1	10	2.30E+01
Metals	Copper	WG	10	ug/L	<1.1	5.4	1.14	-	3.69	2	20	OU6-MW-279	0	0	1.30E+03	0	0	7.99E+01	0	0	9.00E+00
Metals	Iron	WG	10	ug/L	27	70000	23874	7200	68650	10	100	OU6-MW-279	-	-	-	6	60	1.40E+03	6	60	3.00E+02
Metals	Lead[4]	WG	10	ug/L	<0.21	0.88	0.397	0.265	0.8755	6	60	OU6-MW-269	0	0	1.00E+01	0	0	1.50E+01	0	0	2.50E+00
Metals	Magnesium	WG	10	ug/L	900	75000	10550	2200	45435	10	100	OU6-MW-263	-	-	-	-	-	-	0	0	8.20E+04
Metals	Manganese	WG	10	ug/L	10	1800	417	265	1296	10	100	OU6-MW-243	-	-	-	9	90	4.34E+01	7	70	1.20E+02
Metals	Mercury	WG	10	ug/L	<0.08	0.12	-	-	0.084	1	10	OU6-MW-259	0	0	2.00E+00	1	10	6.26E-02	1	10	2.60E-02
Metals	Nickel	WG	10	ug/L	<0.42	9.4	2.40	1.55	6.43	9	90	OU6-MW-243	-	-	-	0	0	3.92E+01	0	0	5.20E+01
Metals	Potassium	WG	10	ug/L	1600	7900	2780	2000	6145	10	100	OU6-MW-279	-	-	-	-	-	-	-	-	-
Metals	Sodium	WG	10	ug/L	6800	93000	30050	20000	88500	10	100	OU6-MW-263	-	-	-	-	-	-	0	0	6.80E+05
Metals	Vanadium	WG	10	ug/L	<0.63	0.77	-	-	0.5675	1	10	OU6-MW-280	-	-	-	0	0	8.64E+00	0	0	2.00E+01
Metals	Zinc	WG	10	ug/L	<2.8	740	103.3	9.3	497	9	90	OU6-MW-279	-	-	-	1	10	6.00E+02	2	20	1.20E+02
PAHs	1-Methylnaphthalene	WG	10	ug/L	<0.018	0.37	0.0613	-	0.2755	2	20	OU6-MW-243	-	-	-	2	20	6.26E-04	0	0	2.10E+00
PAHs	2-Methylnaphthalene	WG	10	ug/L	<0.011	0.65	0.099	-	0.488	2	20	OU6-MW-243	-	-	-	0	0	3.59E+00	0	0	4.70E+00
PAHs	Acenaphthene	WG	10	ug/L	<0.041	0.38	0.0645	-	0.245	2	20	OU6-MW-263	-	-	-	0	0	5.35E+01	0	0	5.80E+00
PAHs	Anthracene	WG	10	ug/L	<0.018	0.42	0.0525	-	0.24225	2	20	OU6-MW-263	-	-	-	0	0	1.77E+02	2	20	1.20E-02
PAHs	Fluoranthene	WG	10	ug/L	<0.027	0.97	-	-	0.5407	1	10	OU6-MW-263	-	-	-	0	0	8.02E+01	1	10	4.00E-02
PAHs	Fluorene	WG	10	ug/L	<0.025	0.34	0.0555	-	0.2194	3	30	OU6-MW-263	-	-	-	0	0	2.94E+01	0	0	3.00E+00
PAHs	Phenanthrene	WG	10	ug/L	<0.054	0.1	0.0435	-	0.09505	2	20	OU6-MW-279	-	-	-	-	-	-	0	0	4.00E-01
PAHs	Pyrene	WG	10	ug/L	<0.027	0.68	-	-	0.3812	1	10	OU6-MW-263	-	-	-	0	0	1.21E+01	1	10	2.50E-02

Notes: PAHs = polycyclic aromatic hydrocarbons, SVOCs = semi-volatile organic compounds, WG = groundwater, ug/L = micrograms per liter, Min = minimum, Max = maximum, No. > = number greater, LOD = limit of detection, % = percent, , [1]Subpart G—National Primary Drinking Water Regulations: Maximum Contaminant Levels and Maximum Residual Disinfectant Levels, § 141.61 Maximum contaminant levels for organic contaminants.> LOD = percent of detected results greater than laboratory limit of detection, [2]EPA Regional Screening Level for Resident Tap Water with a target cancer risk (TR) of 1E-06 and target hazard quotient (THQ) of 0.1, May 2024 at https://www.epa.gov/risk/regional-screening-levels-rsls-generic-tables. [3]EPA Region III BTAG Freshwater Screening Benchmarks, 7/2006. https://www.epa.gov/risk/freshwater-screening-benchmarks,[4]updated lead action level of 10 micrograms per liter is incorporated into November 2024 Regional Screening Level is used for screening, Number of results with concentrations greater than the MCL, Number of results with concentration greater than the RSL, Number of results with concentrations greater than the BTAG FWSB.

Table 4-6 Statistical Summary for VOCs: LTM No Name Creek May 2024 (Detects)

Chemical	Matrix	No. of Results	Unit	Min	Max	Mean	Median	95th Percentile	No. > LOD	% > LOD	Location of Max	Federal MCL[1]			EPA RSL[2] (May 2024)			BTAG FWSB[3] (2006)		
												No. > MCL	% > MCL	Federal MCL	No. > RSL	% > RSL	EPA RSL[2]	No. > BTAG	% > BTAG	BTAG FWSB[3]
1,2-Dichloroethene, Total	WS	3	ug/L	0.81 J	1.2 J	1	0.99	1.179	3	100	NNC-3	-	-	-	-	-	-	0	0	5.90E+02
Chloromethane (Methyl chloride)	WS	3	ug/L	<0.54	0.64 J	0.393	-	0.603	1	33	NNC-2	-	-	-	0	0	1.88E+01	-	-	-
cis-1,2-Dichloroethene	WS	3	ug/L	0.81 J	1.2 J	1	0.99	1.179	3	100	NNC-3	0	0	7.00E+01	0	0	2.52E+00	-	-	-
Tetrachloroethene (PCE)	WS	3	ug/L	<0.35	0.41 J	0.257	-	0.387	1	33	NNC-3	0	0	5.00E+00	0	0	4.06E+00	0	0	1.11E+02
Trichloroethene (TCE)	WS	3	ug/L	0.55 J	1.3	0.907	0.87	1.257	3	100	NNC-3	0	0	5.00E+00	3	100	2.83E-01	0	0	2.10E+01
Trichlorotrifluoroethane (Freon 113)	WS	3	ug/L	<0.23	0.32 J	0.197	-	0.30	1	33	NNC-3	-	-	-	0	0-	1.02E+03	-	-	-

Notes: J = the reported result is an estimated value with an unknown bias. Descriptive statistics minimum, maximum, mean, median, 95% percentile for distribution of detected results, WG = groundwater, ug/L = micrograms per liter, Min = minimum, Max = maximum, No. > = number greater, LOD = limit of detection, % = percent, , [1]Subpart G—National Primary Drinking Water Regulations: Maximum Contaminant Levels and Maximum Residual Disinfectant Levels, § 141.61 Maximum contaminant levels for organic contaminants.> LOD = percent of detected results greater than laboratory limit of detection, [2] EPA Regional Screening Level for Resident Tap Water with a target cancer risk (TR) of 1E-06 and target hazard quotient (THQ) of 0.1, May 2024 at https://www.epa.gov/risk/regional-screening-levels-rsls-generic-tables. [3]EPA Region III BTAG Freshwater Screening Benchmarks, 7/2006. https://www.epa.gov/risk/freshwater-screening-benchmarks, Number of results with concentrations greater than the MCL, Number of results with concentration greater than the RSL, Number of results with concentrations greater than the BTAG FWSB.

VOCs detected in surface water included chloromethane, PCE, TCE, cDCE, 1,2-dichloroethene (total), and Trichlorotrifluoroethane (Freon 113). Detected results for chloromethane, PCE, cDCE, 1,2-dichloroethene (total), and Trichlorotrifluoroethane (Freon 113) are reported as estimated concentrations (flagged "J") less than the laboratory LOQ, RSLs, and the ecological screening benchmarks, as applicable. TCE results for downstream and mid-point sample locations NNC-1 and NNC-2 are less than the laboratory LOQ and ecological screening benchmark with the reported estimated concentration greater than the RSL. The result for the upstream sample NNC-3 (1.2 µg/L) is greater than the RSL and less than the MCL (5 µg/L) and ecological screening benchmark (21 µg/L).

It is noted that chemical substance Trichlorotrifluoroethane (Freon 113) is a category 2 toxicant this is toxic to aquatic organisms and may cause long-term adverse effects to the aquatic environment (ThermoFisher Scientific 2023). The presence of dissolved Trichlorotrifluoroethane in surface water at location NNC-3 is not quantifiable and therefore, it is not considered a potential risk to aquatic organisms.

4.10 Building 151 SSDS

Section 4.10 has field monitoring results for the Building 151 SSDS that includes and quarterly system readings and field measurements at extraction points and VMPs. Appendix A.3 has quarterly forms and documentation for OM&M field measurements and activities for the Building 51 SSDS. Table 4-7 (page 4-35) has a summary of vent well and VMP differential pressure measurements for monitoring conducted in FY 2024. The target depressurization area for the SSDS is below the tool and break rooms with a targeted differential pressure of -0.004 inches of water column (Arcadis 2018a).

Vent well measurements show attainment of minimum targeted negative differential pressures for the four VMPs in the tool room and break room except for the July 1, 2024 measurement event. The SSDS fan required replacement based on alarm conditions found during the July 1 quarterly measurement event. Meadows installed a replacement SSDS fan unit on August 19, 2024 and confirmed system operation and induced differential pressure measurements. Meadows performed follow-up system measurements on August 28, 2024 to confirm system operations and obtained measurements at all monitoring locations.

Field measurement for gases did not indicate accumulation of methane beneath the slab at Building 151. Photoionization detector readings at the VMPs indicated response measurements in the range of 0 to 2 parts per million by volume (ppmV) with detectable levels generally occurring within the VMPs within the target depressurization area.

4.11 VOC Distribution in Groundwater

VOC plumes occur in the surficial aquifer (Eastover) and confined aquifer (Aquia-Potomac) within the northern and southern areas of OU 6. Figure 4-3 (page 4-36) and Figure 4-4 (page 4-37) depict the lateral extent of PCE, TCE, cDCE, and VC plume areas within the surficial aquifer and confined aquifer, respectively, at concentrations greater than or equal to (≥) MCLs. These are the primary COCs in groundwater at OU 6 that have the most extensive plume areas and highest number of detections > cleanup levels (MCLs).

The lateral extent of the VOC plumes in the surficial aquifer is within the installation area except in an isolated area around MW-282 in the area between the installation fence line at OU 3 and No Name Creek. For the confined aquifer, discontinuous plume areas of PCE and TCE occur in the northern area of OU 1 and OU 2. In the southern area of OU 6, a VOC plume consisting of PCE, TCE, cDCE, and VC extends from the central OU 3 area into the undeveloped offsite area east of the installation.

4.11.1 Surficial Aquifer

This section describes the distribution of VOCs in the surficial aquifer for VOCs that have concentrations > cleanup levels (MCLs) in one or more samples. The lateral extent of VOCs plumes in the surficial aquifer is within the installation area except for an isolated detection of VC at well MW-282 in the offsite monitored area as shown on Figure 4-3. Well MW-282 is located between the installation fence line and No Name Creek. Surface water samples collected from No Name Creek did not have detections of VC.

Figure 4-5 through Figure 4-12 (pages 4-38 through 4-45) show the distribution of PCE, TCE, cDCE, VC, 1,1-DCE, 1,2-DCA, 1,4-DCB, and CB within the surficial aquifer.

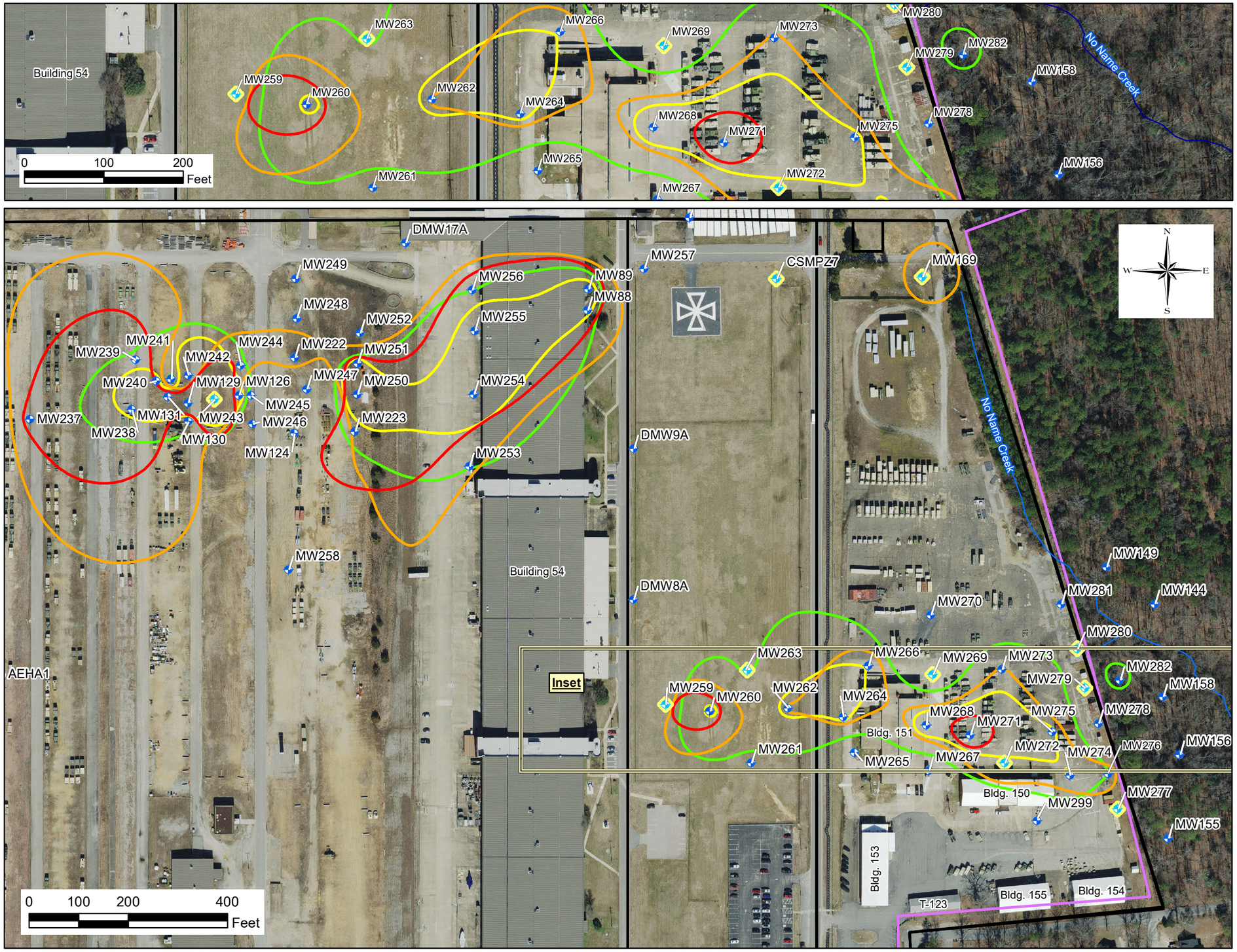
4.11.1.1 PCE

For the surficial aquifer, plume renderings in Figure 4-5 (page 4-38) show the extent of PCE at concentrations ≥ MCL (5 µg/L). Isoconcentration lines for PCE in Figure 4-5 are based a logarithmic scale from 5 µg/L to 500 µg/L.

Table 4-7 SSDS Vent Well Differential Pressure Measurements

Parameter	Unit	Date	Event	EX-1	EX-2	Exhaust	VMP-168	VMP-169	VMP-170	VMP-171	VMP-172	VMP-173	VMP-174
				Tool Room	Break Room	System	Tool Room	Tool Room	Vehicle Maintenance Bay			Break Room	Tool Room
Differential Pressure	In. WC	October 10, 2023	FY2024 1st Quarter OM&M	-3.8	-3.8	4.0	-0.004	-0.015	0.000	-0.001	0.000	-0.006	-0.009
Differential Pressure	In. WC	January 16, 2024	FY2024 2nd Quarter OM&M	-4.0	-4.0	4.0	-0.003	-0.003	-0.002	0.000	-0.001	-0.004	-0.008
Differential Pressure	In. WC	April 16, 2024	FY2024 3rd Quarter OM&M	-4.0	-4.0	4.0	-0.01	-0.003	-0.001	0.000	-0.002	-0.004	-0.008
Differential Pressure	In. WC	July 1, 2024	FY2024 4th Quarter OM&M	0.0	0.0	0.0	0.00	0	0.000	0.000	0.000	0	0
Differential Pressure	In WC	August 19, 2024	SSDS Fan Replacement	-4.2	-4.2	4.2	-0.15	-0.07	-0.001	-0.001	-0.001	-0.04	-0.13
Differential Pressure	In. WC	August 29, 2024	Post Fan Replacement Measurements	-4.2	-4.2	4.2	-0.015	-0.008	0.000	-0.007	-0.002	-0.006	-0.01
Total VOCs	ppmV	October 10, 2023	FY2024 1st Quarter OM&M	0.8	0.7	0.8	1.8	0.9	0.6	0.8	0.6	0.7	0.9
Total VOCs	ppmV	January 16, 2024	FY2024 2nd Quarter OM&M	0.4	0.6	0.4	1.6	0.7	0.4	0.6	0.6	0.7	0.5
Total VOCs	ppmV	April 16, 2024	FY2024 3rd Quarter OM&M	0.2	0.3	0.2	1.3	0.5	0.3	0.3	0.3	0.3	0.2
Total VOCs	ppmV	July 1, 2024	FY2024 4th Quarter OM&M	0.6	0.6	0.5	1.0	0.8	0.6	0.6	0.5	0.7	0.7
Total VOCs	ppmV	August 19, 2024	SSDS Fan Replacement	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Total VOCs	ppmV	August 28, 2024	Post Fan Replacement Measurements	0.0	0.1	0.0	0.4	0.1	0.0	0.1	0.2	0.1	0.0
Carbon Dioxide	%	October 10, 2023	FY2024 1st Quarter OM&M	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1
Carbon Dioxide	%	January 16, 2024	FY2024 2nd Quarter OM&M	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Carbon Dioxide	%	April 16, 2024	FY2024 3rd Quarter OM&M	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Carbon Dioxide	%	July 1, 2024	FY2024 4th Quarter OM&M	0.1	0.1	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2
Carbon Dioxide	%	August 19, 2024	SSDS Fan Replacement	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Carbon Dioxide	%	August 28, 2024	Post Fan Replacement Measurements	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.0
Methane	%	October 10, 2023	FY2024 1st Quarter OM&M	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Methane	%	January 16, 2024	FY2024 2nd Quarter OM&M	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Methane	%	April 16, 2024	FY2024 3rd Quarter OM&M	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Methane	%	July 1, 2024	FY2024 4th Quarter OM&M	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Methane	%	August 19, 2024	SSDS Fan Replacement	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Methane	%	August 28, 2024	Post Fan Replacement Measurements	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Oxygen	%	October 10, 2023	FY2024 1st Quarter OM&M	20.9	20.9	20.9	21.0	20.9	21.0	21.0	21.0	21.0	20.9
Oxygen	%	January 16, 2024	FY2024 2nd Quarter OM&M	21.2	21.2	21.1	21.1	21.2	21	20.9	21	21.3	21.4
Oxygen	%	April 16, 2024	FY2024 3rd Quarter OM&M	20.7	20.7	20.7	20.7	20.7	20.7	20.7	20.7	20.7	20.7
Oxygen	%	July 1, 2024	FY2024 4th Quarter OM&M	21.3	21.3	21.3	21.4	21.4	21.4	21.2	21.4	21.3	21.2
Oxygen	%	August 19, 2024	SSDS Fan Replacement	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Oxygen	%	August 28, 2024	Post Fan Replacement Measurements	19.8	19.7	19.8	19.7	19.8	19.7	19.7	19.7	19.8	19.8

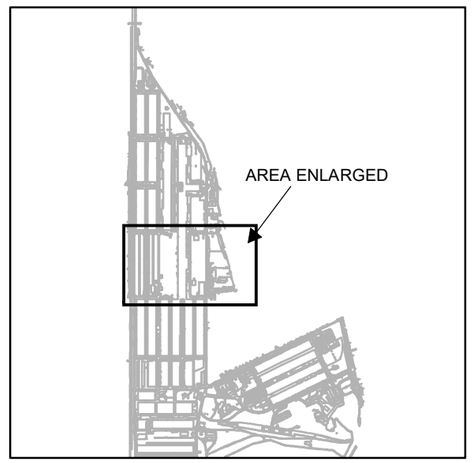
Notes: NR = reading not recorded, In. WC = differential pressure in inches water column. ppmV = parts per million by volume, % = percent, Target depressurization of -0.004 inches water column differential pressure attained at vapor monitoring point with target area including the break room and tool room.



Legend

- Surficial Aquifer Monitoring Well
- Surficial Aquifer Long-term Monitoring Well
- Lateral Extent of PCE above the MCL
- Lateral Extent of TCE above the MCL
- Lateral Extent of cDCE above the MCL
- Lateral Extent of VC above the MCL
- Stream
- Operable Units
- DSCR Boundary

Notes:
Orthoimagery Source: VGIN (2021)
UWBU = Upper Water Bearing Unit
PCE EPA MCL = 5 ug/L
TCE EPA MCL = 5 ug/L
cDCE EPA MCL = 70 ug/L
VC EPA MCL = 2 ug/L
Interior Isoconcentration Lines Represent Logarithmic Increase in MCL



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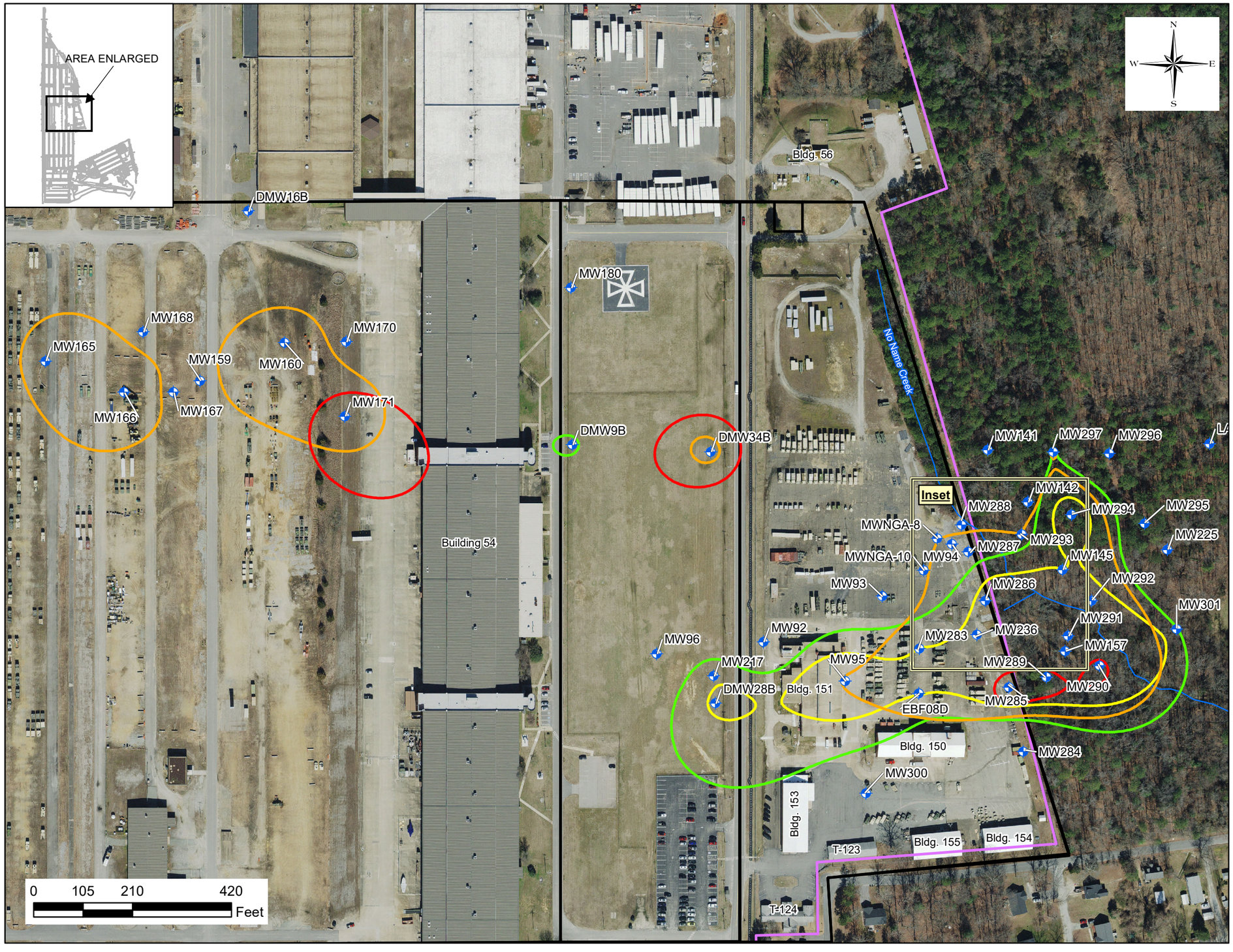
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Figure 4-3
OU 6 Surficial Aquifer
2024 Lateral Extent of MCL
Exceedances in Groundwater

2024 Annual Monitoring Report - OU 6
Defense Supply Center Richmond
Richmond, VA

Prepared By:	Reviewed By:
JLD	JOS
Scale: 1 " = 200 '	Date: September 12, 2024

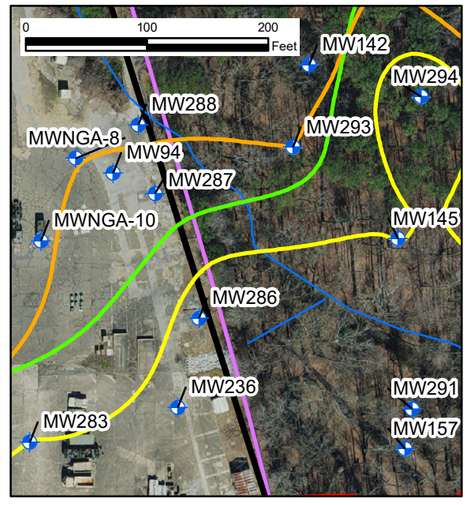
L:\Legacy\USGNA2FP002\Data\projects\0_GIS\DLA\OU8\Annual Report Figures\2024\Figure 4-3 OU6 Eastover MCL Exceedances 2024



Legend

- Confined Aquifer Monitoring Well
- Lateral Extent of PCE above the MCL
- Lateral Extent of TCE above the MCL
- Lateral Extent of cDCE above the MCL
- Lateral Extent of VC above the MCL
- Stream
- Operable Units
- DSCR Boundary

Notes:
Orthoimagery Source: VGIN (2021)
PCE EPA MCL = 5 ug/L
TCE EPA MCL = 5 ug/L
cDCE EPA MCL = 70 ug/L
VC EPA MCL = 2 ug/L



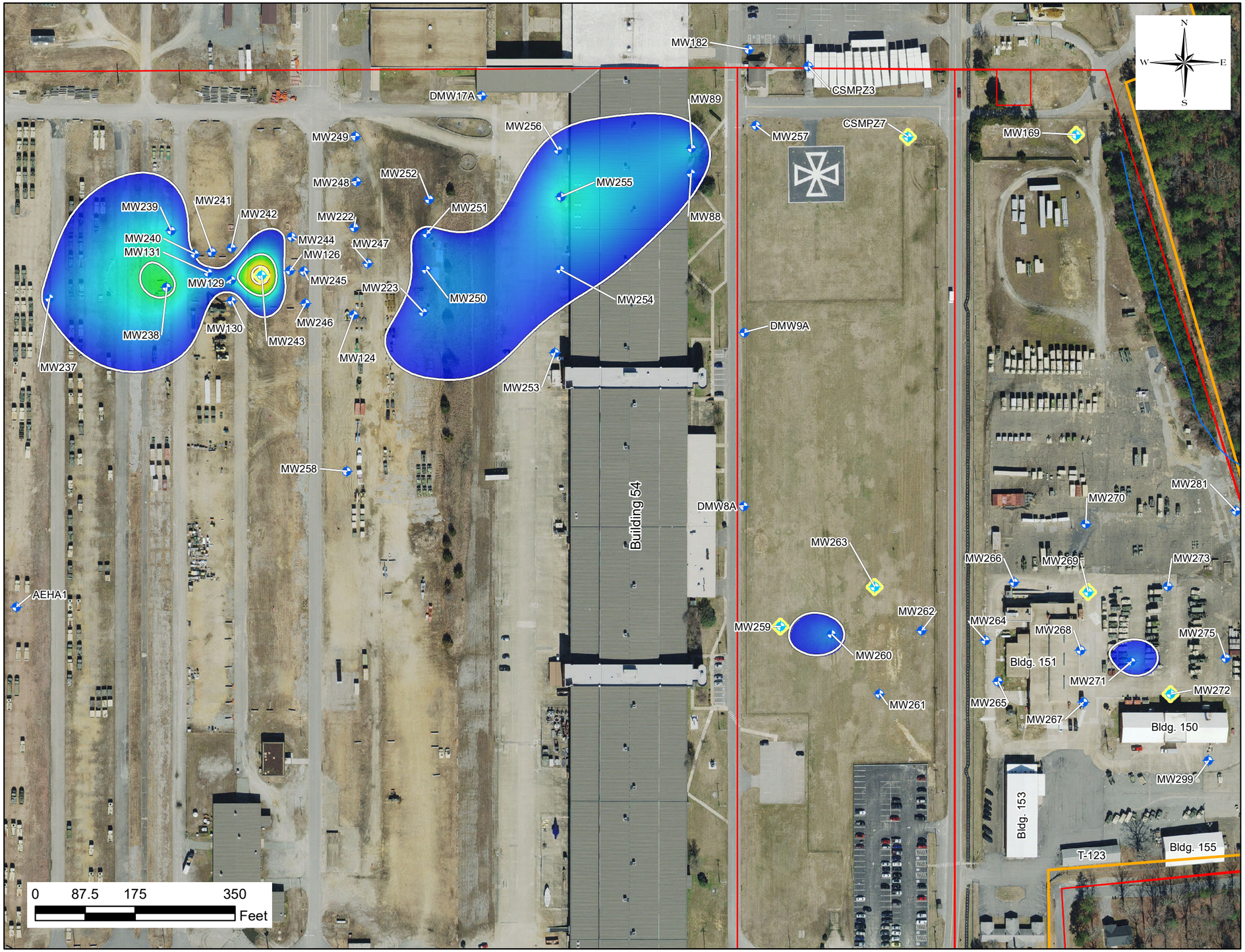
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Figure 4-4
OU 6 Confined Aquifer
2024 Lateral Extent of MCL
Exceedances in Groundwater

2024 Annual Monitoring Report - OU 6
Defense Supply Center Richmond
Richmond, VA

Prepared By: JLD	Reviewed By: JOS
Scale: 1 " = 210 '	Date: September 12, 2024

L:\Legacy\USGNA2FP002\Data\projects\0_GIS\DLA\OU8\Annual Report Figures\2024\Figure 4-4 OU6 Potomac MCL Exceedances 2024



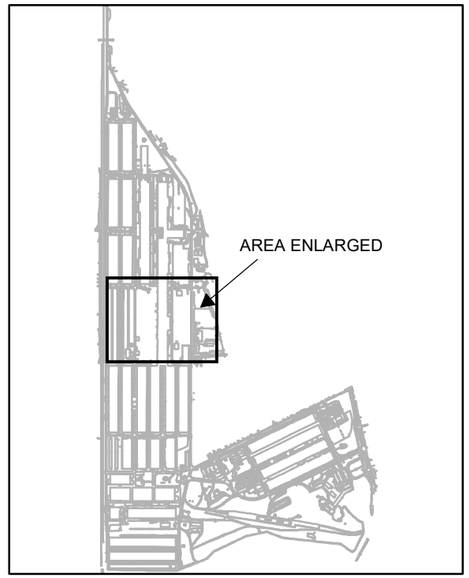
Legend

- Surficial Aquifer Monitoring Well
- Surficial Aquifer Long-term Monitoring Well
- Isoconcentration Contours
- Stream
- Operable Units
- Installation Boundary

PCE Concentration (ug/L)

5 10 30 100 300 1,000 3,000

Notes:
Orthoimagery Source: VGIN (2021)



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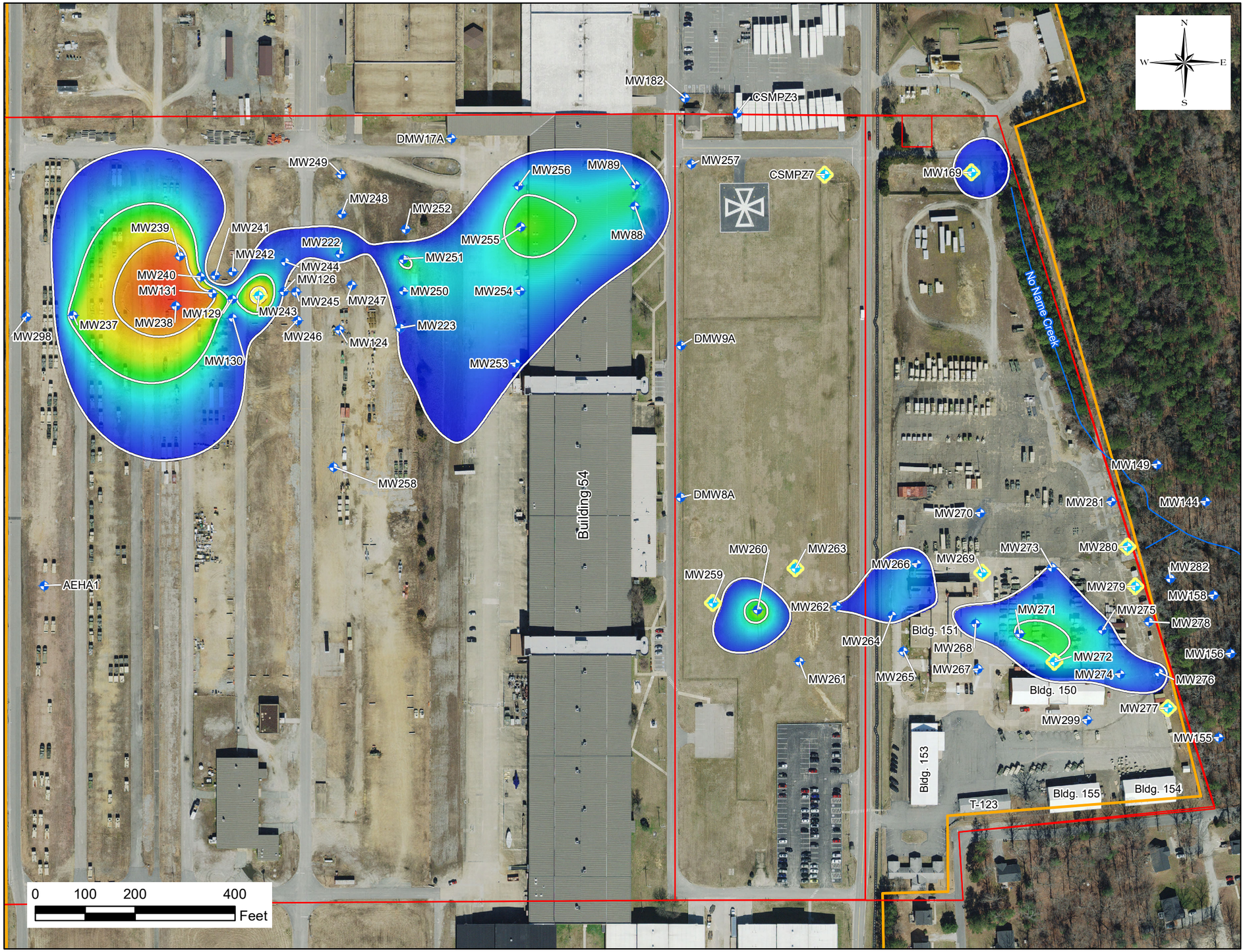
AECOM

Figure 4-5
2024 Lateral Distribution of PCE in the Surficial Aquifer

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Defense Supply Center Richmond
Richmond, VA

Prepared By: JLD	Reviewed By: JOS
Scale: 1 " = 175 '	Date: September 12, 2024

L:\Legacy\USGNA2FP002\Data\projects\0_GIS\DLA\OU8\Annual Report Figures\2024\Figure 4-5 Eastover Lateral Distribution of PCE 2024



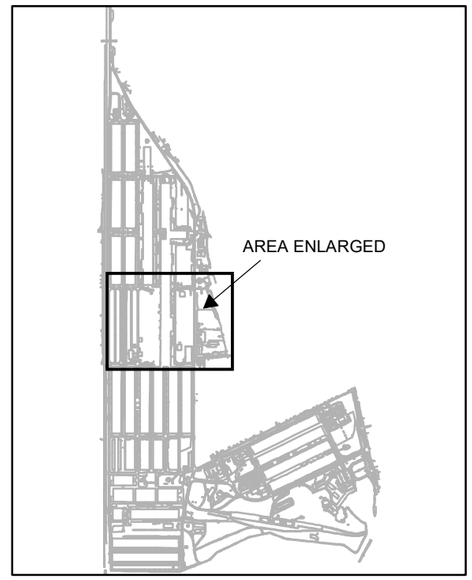
Legend

- Surficial Aquifer Monitoring Well
- Surficial Aquifer Long-term Monitoring Well
- Isoconcentration Contours
- Stream
- Operable Units
- Installation Boundary

TCE Concentration (ug/L)

5 | 10 | 30 | 100 | 300 | 1,000 | 3,000

Notes:
Orthoimagery Source: VGIN (2021)



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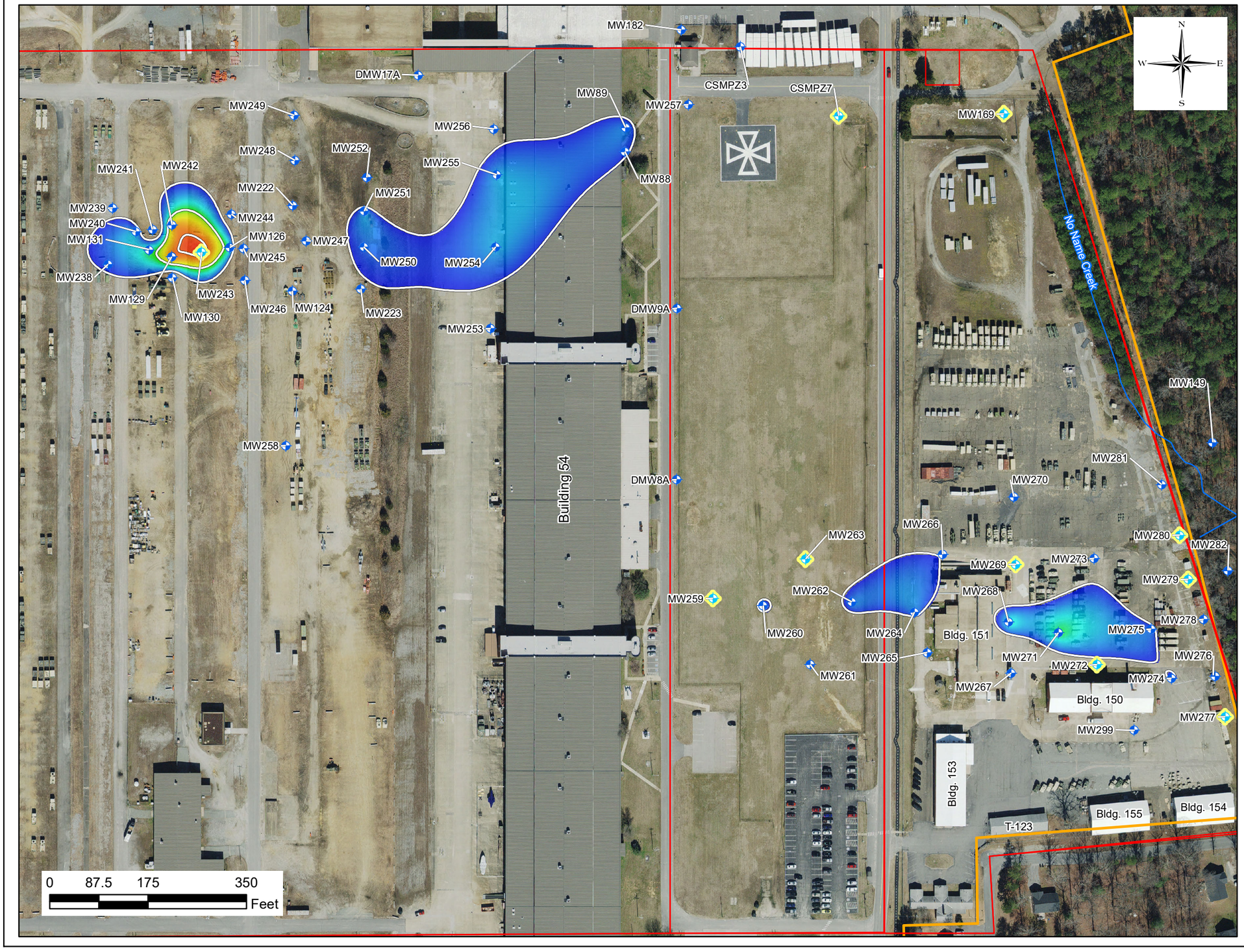
AECOM

Figure 4-6
2024 Lateral Distribution of TCE in the Surficial Aquifer

2024 Annual Monitoring Report - OU 6
Defense Supply Center Richmond
Richmond, VA

Prepared By: JLD	Reviewed By: JOS
Scale: 1 " = 200 '	Date: September 12, 2024

L:\Legacy\USGNA2FP002\Data\projects\0_GIS\DLA\OU8\Annual Report Figures\2024\Figure 4-6 Eastover Lateral Distribution of TCE 2024



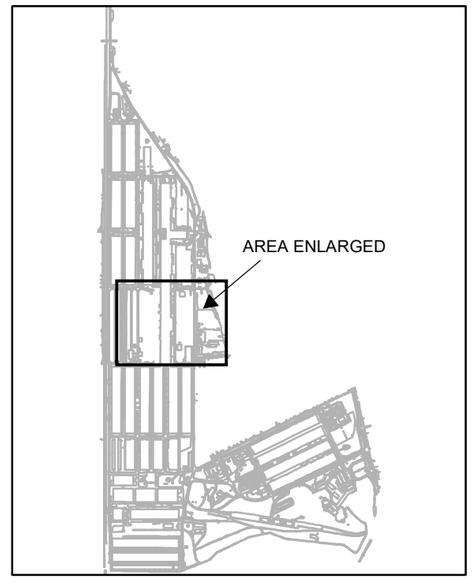
Legend

- Surficial Aquifer Monitoring Well
- Surficial Aquifer Long-term Monitoring Well
- Isoconcentration Contours
- Stream
- Operable Units
- Installation Boundary

cDCE Concentration (ug/L)

70 | 100 | 300 | 1,000 | 3,000 | 10,000

Notes:
Orthoimagery Source: VGIN (2021)



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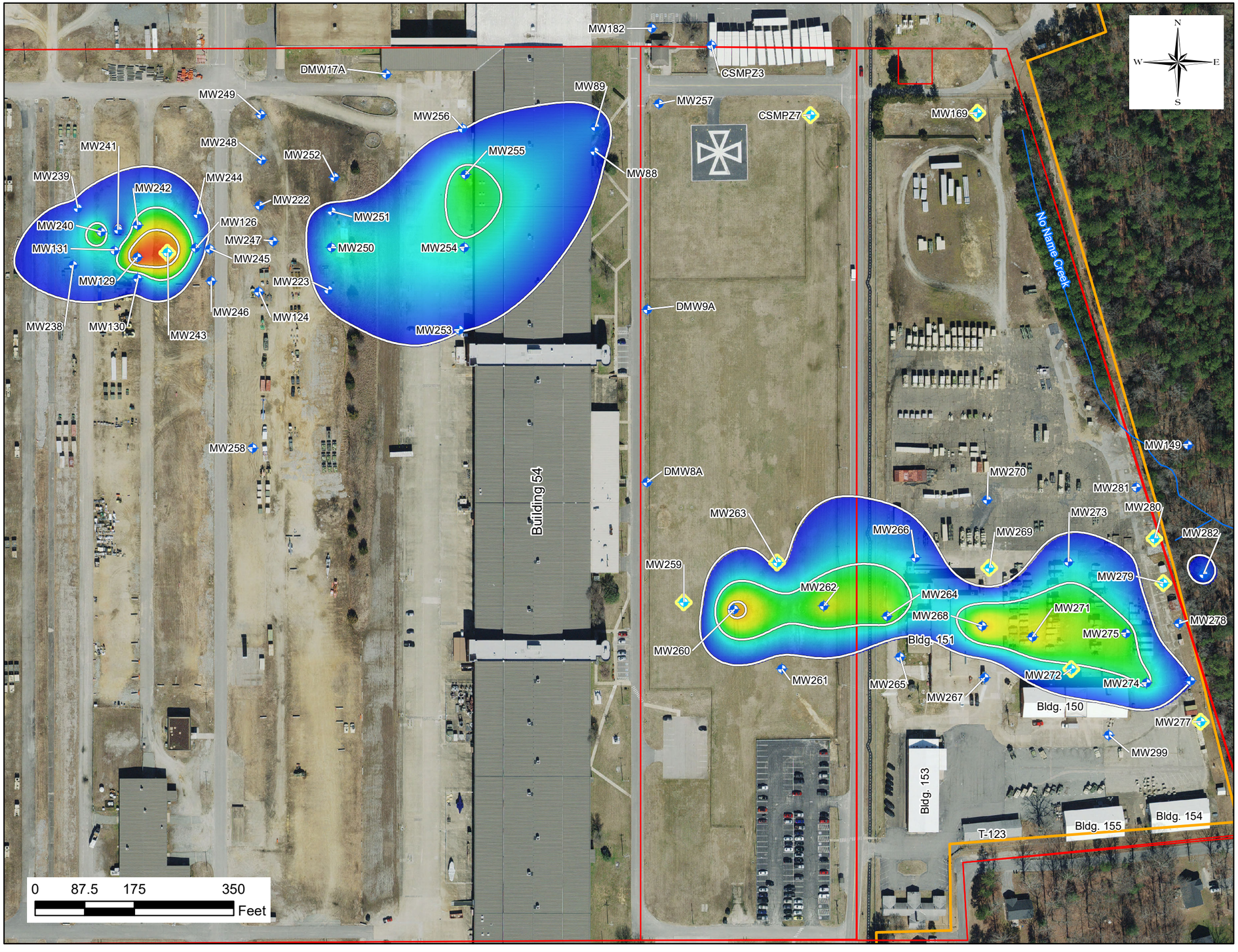
AECOM

Figure 4-7
2024 Lateral Distribution of cDCE in the Surficial Aquifer

2024 Annual Monitoring Report - OU 6
Defense Supply Center Richmond
Richmond, VA

Prepared By: JLD	Reviewed By: JOS
Scale: 1 " = 175 '	Date: September 12, 2024

L:\Legacy\USGNA2FP002\Data\projects\0_GIS\DLA\OU8\Annual Report Figures\2024\Figure 4-7 Eastover Lateral Distribution of cDCE 2024



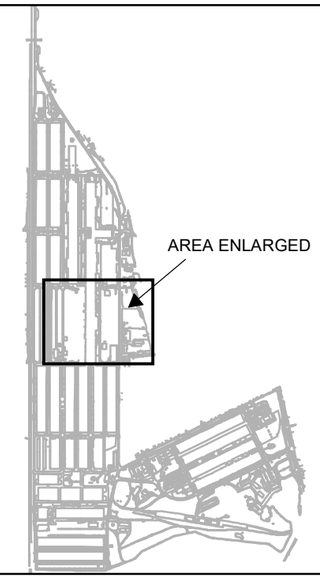
Legend

- Surficial Aquifer Monitoring Well
- Surficial Aquifer Long-term Monitoring Well
- Isoconcentration Contours
- Stream
- Operable Units
- Installation Boundary

VC Concentration (ug/L)

2 | 3 | 10 | 30 | 100 | 300 | 1,000

Notes:
Orthoimagery Source: VGIN (2021)



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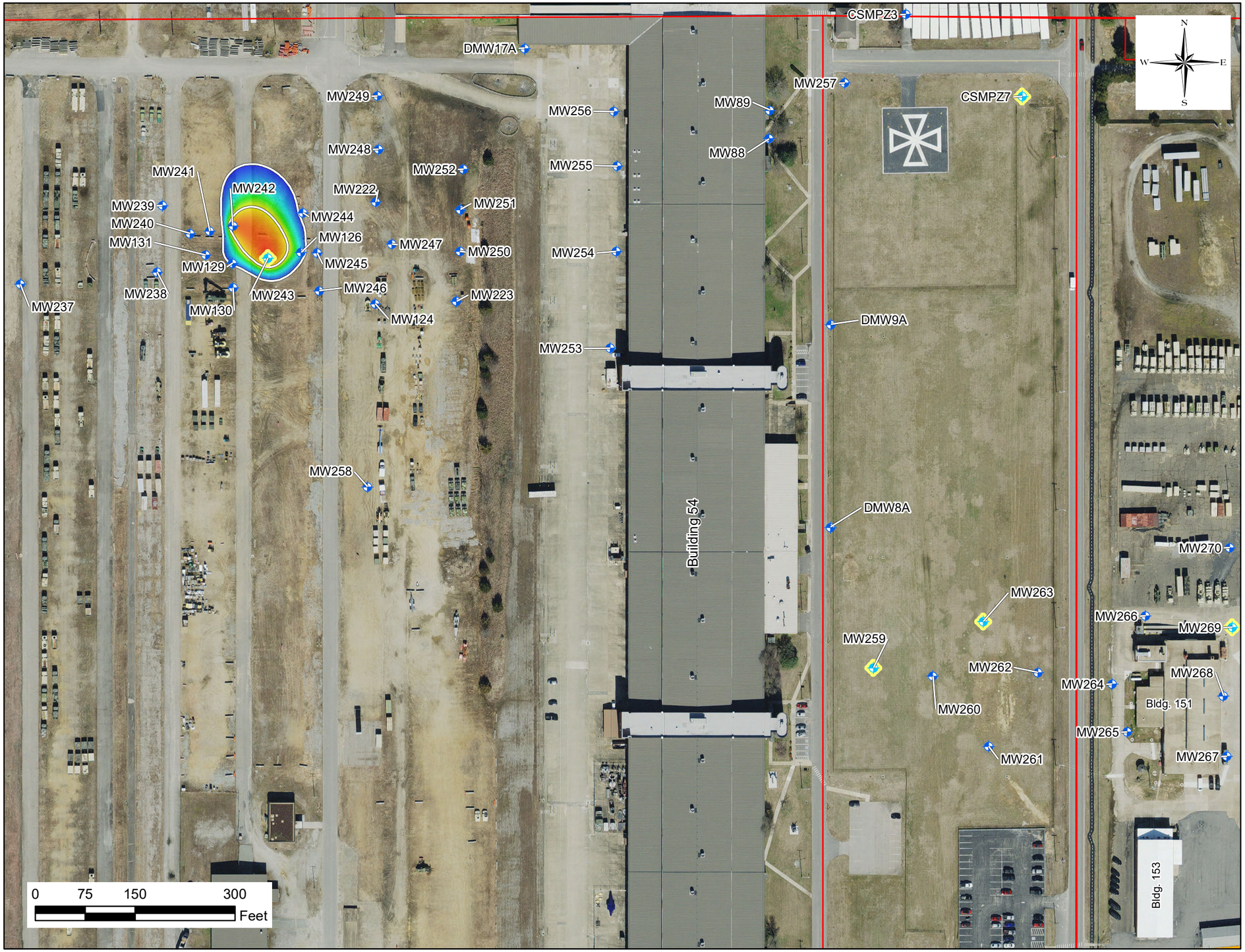
AECOM

Figure 4-8
2024 Lateral Distribution of VC in the Surficial Aquifer

2024 Annual Monitoring Report - OU 6
Defense Supply Center Richmond
Richmond, VA

Prepared By: JLD	Reviewed By: JOS
Scale: 1 " = 175 '	Date: September 12, 2024

L:\Legacy\USGNA2FP002\Data\projects\0_GIS\DLA\OU8\Annual Report Figures\2024\Figure 4-8 Eastover Lateral Distribution of VC 2024



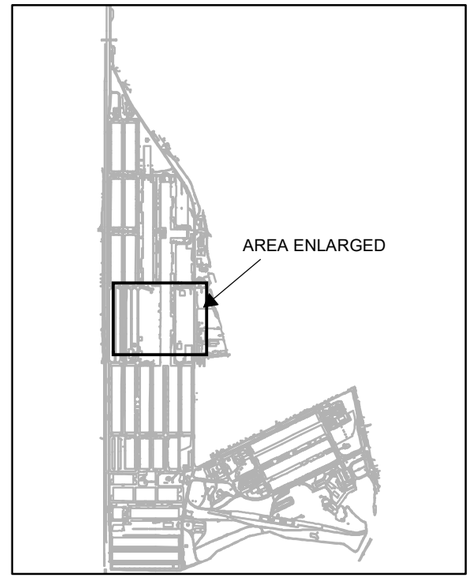
Legend

- Surficial Aquifer Monitoring Well
- Surficial Aquifer Long-term Monitoring Well
- Isoconcentration Contours
- Stream
- Operable Units
- Installation Boundary

1,1-DCE Concentration (ug/L)

7 | 10 | 30 | 100 | 300

Notes:
Orthoimagery Source: VGIN (2021)



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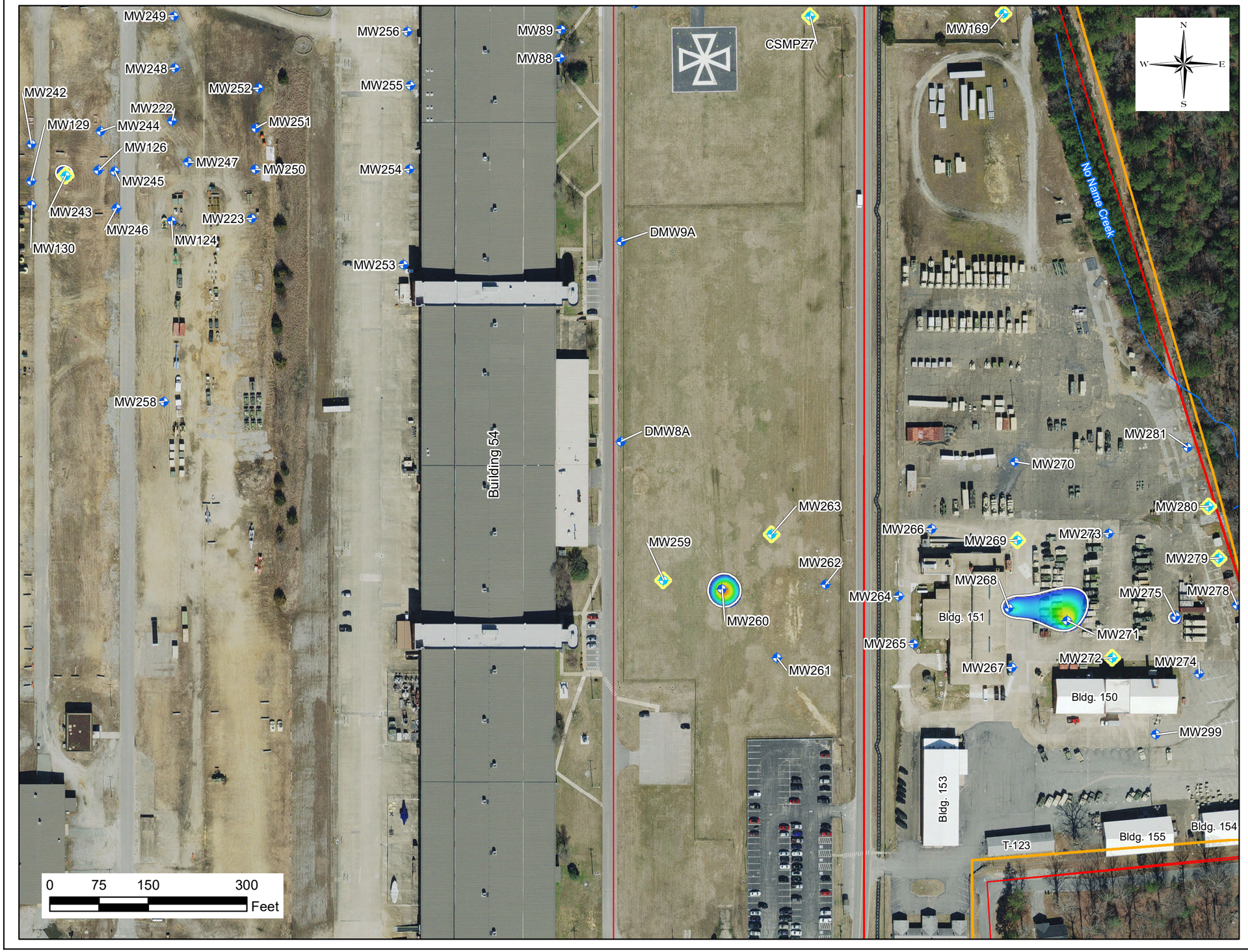
AECOM

Figure 4-9
2024 Lateral Distribution of
1,1-DCE in the Surficial Aquifer

2024 Annual Monitoring Report - OU 6
Defense Supply Center Richmond
Richmond, VA

Prepared By: JLD	Reviewed By: JOS
Scale: 1 " = 150 '	Date: September 12, 2024

L:\Legacy\USGNA2FP002\Data\projects\0_GIS\DLA\OU8\Annual Report Figures\2024\Figure 4-9 Eastover Lateral Distribution of 11DCE 2024



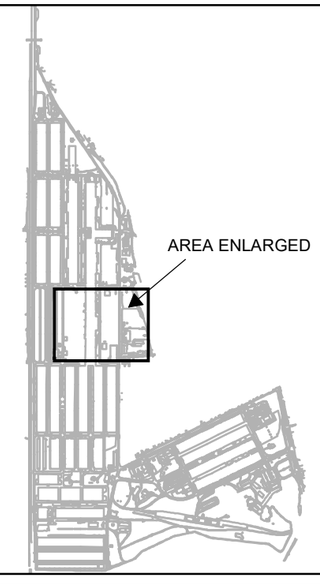
Legend

- Surficial Aquifer Monitoring Well
- Surficial Aquifer Long-term Monitoring Well
- Isoconcentration Contours
- Stream
- Operable Units
- Installation Boundary

1,2-DCA Concentration (ug/L)

5 — 18

Notes:
Orthoimagery Source: VGIN (2021)



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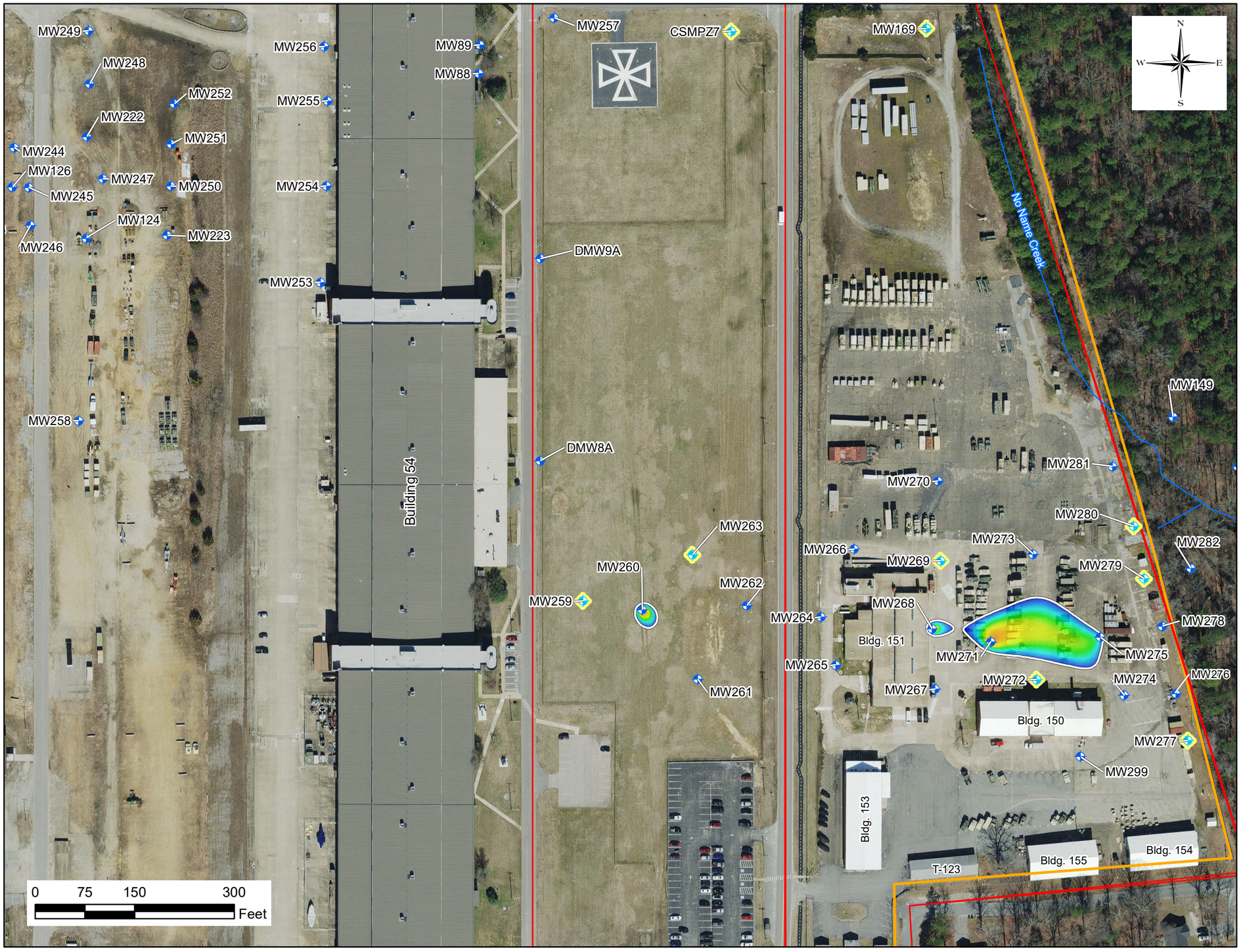
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Figure 4-10
2024 Lateral Distribution of
1,2-DCA in the Surficial Aquifer

2024 Annual Monitoring Report - OU 6
Defense Supply Center Richmond
Richmond, VA

Prepared By: JLD	Reviewed By: JOS
Scale: 1 " = 150 '	Date: September 12, 2024

L:\Legacy\USGNA2FP002\Data\projects\0_GIS\DLA\OU8\Annual Report Figures\2024\Figure 4-10 Eastover Lateral Distribution of 12DCA 2024



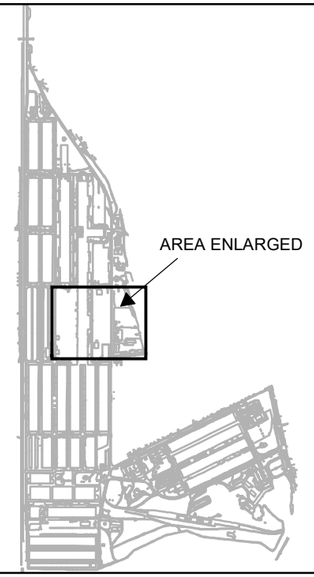
Legend

- Surficial Aquifer Monitoring Well
- Surficial Aquifer Long-term Monitoring Well
- Isoconcentration Contours
- Stream
- Operable Units
- Installation Boundary

1,4-DCB Concentration (ug/L)

75 — 100 — 180

Notes:
Orthoimagery Source: VGIN (2021)



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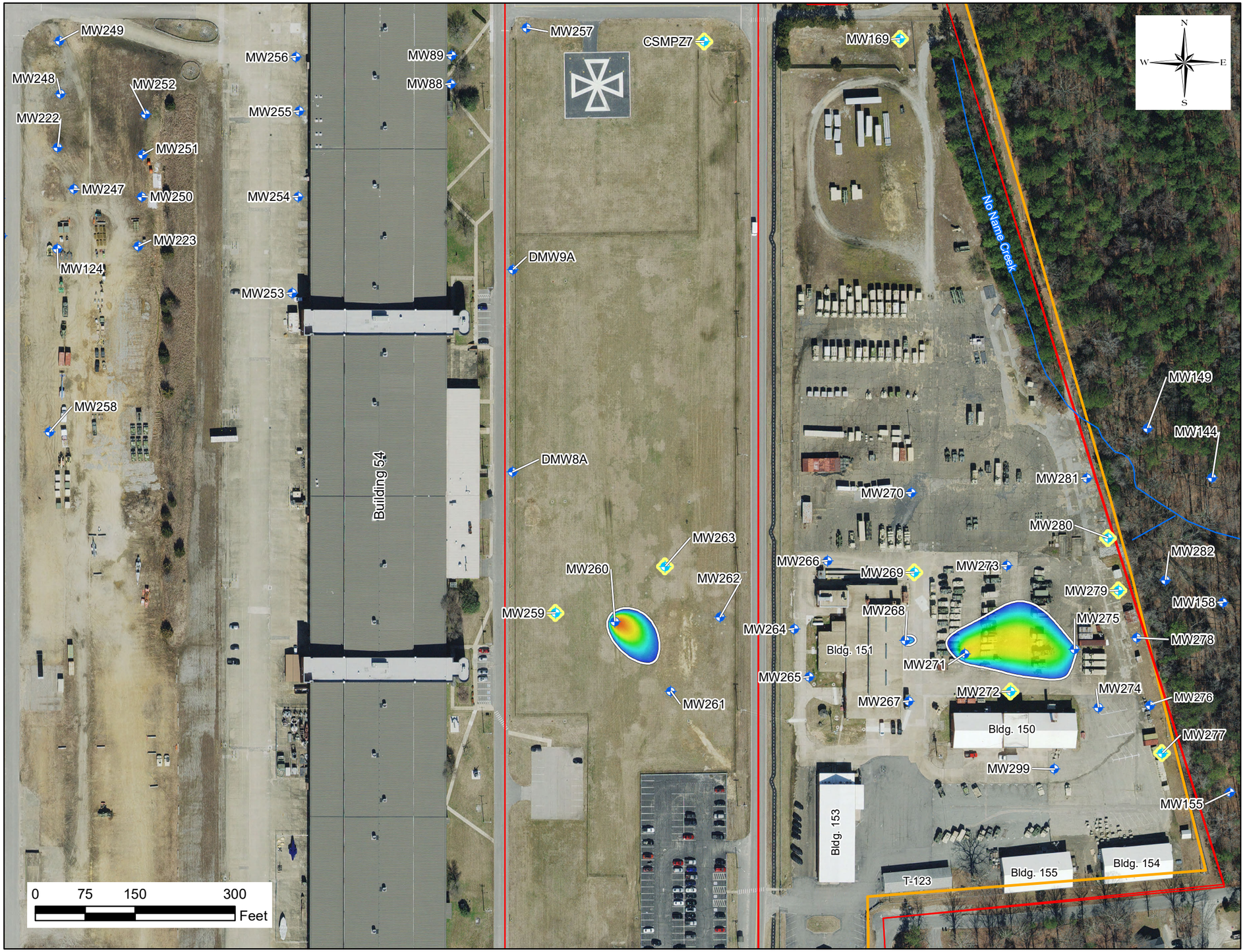
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Figure 4-11
2024 Lateral Distribution of
1,4-DCB in the Surficial Aquifer

2024 Annual Monitoring Report - OU 6
Defense Supply Center Richmond
Richmond, VA

Prepared By: JLD	Reviewed By: JOS
Scale: 1 " = 150 '	Date: September 12, 2024

L:\Legacy\USGNA2FP002\Data\projects\0_GIS\DLA\OU8\Annual Report Figures\2024\Figure 4-11 Eastover Lateral Distribution of 14DCB 2024



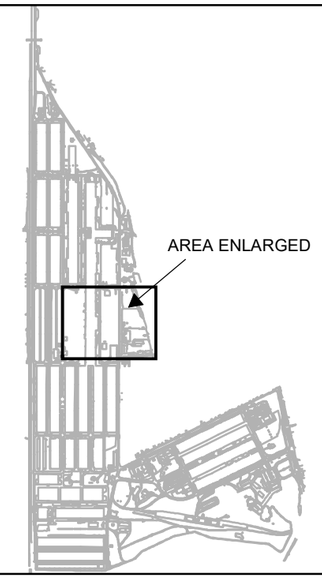
Legend

- Surficial Aquifer Monitoring Well
- Surficial Aquifer Long-term Monitoring Well
- Isoconcentration Contours
- Stream
- Operable Units
- Installation Boundary

Chlorobenzene Concentration (ug/L)

100 — 290

Notes:
Orthoimagery Source: VGIN (2021)



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Figure 4-12
2024 Lateral Distribution of Chlorobenzene in the Surficial Aquifer

2024 Annual Monitoring Report - OU 6
Defense Supply Center Richmond
Richmond, VA

Prepared By: JLD	Reviewed By: JOS
Scale: 1 " = 150 '	Date: September 12, 2024

L:\Legacy\USGNA2FP002\Data\projects\0_GIS\DLA\OU8\Annual Report Figures\2024\Figure 4-12 Eastover Lateral Distribution of Chlorobenzene 2024

PCE plume areas primarily occur in the northern area within OU 1 where a residual source zone exists in groundwater centered in the area of well MW-243. ISB actions in the OU 1 area have reduced the PCE plume into two areas with the maximum reported concentration of 4,400 µg/L at well MW-243. The northern plume area near and beneath Building 54 has a maximum PCE concentration of 40 µg/L at well MW-255.

In the southern area, PCE occurrence consists of limited plume areas around well MW-260 (14 µg/L) in OU 2 and around well MW-271 (12 µg/L) in OU 3.

4.11.1.2 TCE

For the surficial aquifer, plume renderings in Figure 4-6 (page 4-39) show the extent of TCE at concentrations ≥ MCL (5 µg/L). Isoconcentration lines for TCE in Figure 4-6 are based a logarithmic scale from 5 µg/L to 500 µg/L.

The northern area has a TCE plume area that extends east to west across the OU 1 area and beneath Building 54 to a downgradient extent near the OU 2 area. The highest concentration areas are at wells MW-238 (2,800 µg/L) and MW-243 (3,900 µg/L) in the open storage area. In the Building 54 area, well MW-255 (100 µg/L) has the highest TCE concentration. In the northern area of OU 3, an isolated detection of PCE (11 µg/L) at a concentrations greater than the MCL occurred at well MW-169.

In the southern area, the TCE plume has disaggregated into three areas with one area centered at well MW-260 (190 µg/L) in the OU 2 area, a second area extending from the OU 2 into the Building 151 area, and a third area in OU 3 extending from Building 151 east to the fence line area (see Figure 4-6). The maximum concentration in the plume area within OU 3 is at well MW-271 (71 µg/L).

4.11.1.3 cDCE

For the surficial aquifer, plume renderings in Figure 4-7 (page 4-40) show the extent of cDCE at concentrations ≥ MCL (70 µg/L). Isoconcentration lines for cDCE in Figure 4-6 are based a logarithmic scale from 70 µg/L to 7,000 µg/L.

The northern area has two cDCE plumes within OU 1 with one plume area centered around well MW-243 (14,000 µg/L) and the other plume area extending beneath Building 54. The maximum concentration of cDCE detected in the Building 54 area is 180 µg/L at wells MW-254 and MW-255.

In the southern area, two cDCE plume areas occur with one area extending from OU 2 into the Building 151 area and second area in OU 3 extending from Building 151 east to the fence line area (see Figure 4-7). The maximum concentration in the plume area within OU 3 is at well MW-271 (530 µg/L).

4.11.1.4 VC

For the surficial aquifer, plume renderings in Figure 4-8 (page 4-41) show the extent of VC at concentrations ≥ MCL (2 µg/L). Isoconcentration lines for VC in Figure 4-8 are based a logarithmic scale from 2 µg/L to 200 µg/L.

The northern area has two VC plumes within OU 1 with one plume area centered around wells MW-129 (2,300 µg/L) and MW-243 (1,700 µg/L). The other plume area extends beneath Building 54. The maximum concentration of VC detected in the Building 54 area is 38 µg/L at well MW-255.

In the southern area, a VC plume areas extends from OU 2 across the OU 3 area toward the fence line area. The highest VC concentration is at well MW-260 (550 µg/L) in the OU 2 area with the highest concentration in the OU 3 area at well MW-268 (260 µg/L). An isolated detection of VC occurs in the offsite area at well MW-282 (11 µg/L) between the installation fence line and No Name Creek. The VC plume defines the extent of overall VOC plume area in the southern area.

4.11.1.5 1,1-DCE

For the surficial aquifer, plume renderings in Figure 4-9 (page 4-42) show the extent of 1,1-DCE at concentrations ≥ MCL (7 µg/L). Isoconcentration lines for 1,1-DCE in Figure 4-9 are based a logarithmic scale from 7 µg/L to 70 µg/L. The northern area has a limited 1,1-DCE plume within the residual VOC source zone in groundwater centered at well MW-243. The maximum concentration of 1,1-DCE for this

plume area is 410 µg/L at well MW-243. 1,1-DCE concentrations detected in the southern area are ≤ 2.2 µg/L compared to the MCL of 7 µg/L.

4.11.1.6 1,2-DCA

For the surficial aquifer, plume renderings in Figure 4-10 (page 4-41) show the extent of 1,2-DCA at concentrations ≥ MCL (5 µg/L). The northern area has detections of 1,2-DCA at levels less than the MCL. In the southern area, 1,2-DCA has a detection greater than the MCL at well MW-260 (18 µg/L) and a localized plume in the OU 3 area with a maximum concentration of 12 µg/L at well MW-271.

4.11.1.7 DCB

For the surficial aquifer, plume renderings in Figure 4-11 (page 4-42) show the extent of 1,4-DCB at concentrations ≥ MCL (75 µg/L). The northern area does not have detections of 1,4-DCB. In the southern area, 1,4-DCB has a detection greater than the MCL at well MW-260 (180 µg/L) in OU 2 and at well MW-268 (150 µg/L) in OU 3. A localized plume also occurs in OU 3 encompassing wells MW-271 and MW-275 with a maximum concentration of 150 µg/L at MW-271.

4.11.1.8 CB

For the surficial aquifer, plume renderings in Figure 4-12 (page 4-43) show the extent of CB at concentrations ≥ MCL (100 µg/L). The northern area does not have detections of CB. In the southern area, CB has a detection greater than the MCL at well MW-260 (290 µg/L) in OU 2 and at well MW-268 (160 µg/L) in OU 3. A localized plume also occurs in OU 3 encompassing wells MW-271 and MW-275 with a maximum concentration of 200 µg/L at MW-271.

4.11.2 Confined Aquifer

This section describes the distribution of VOCs in the confined aquifer for VOCs that have concentrations greater than cleanup levels (MCLs) in one or more samples. For the northern monitoring area, the lateral extent of VOCs plumes in the confined aquifer is within the installation area. For the southern monitoring area, the VOC plume in the confined aquifer extends from the OU 2 area across OU 3 approximately 380 ft. into the offsite area. The lateral extent of the VOC plume in the southern area is defined by VC. Figure 4-13 through Figure 4-16 (pages 4-48 through 4-51) show the distribution of PCE, TCE, cDCE, and VC within the confined aquifer.

4.11.2.1 PCE

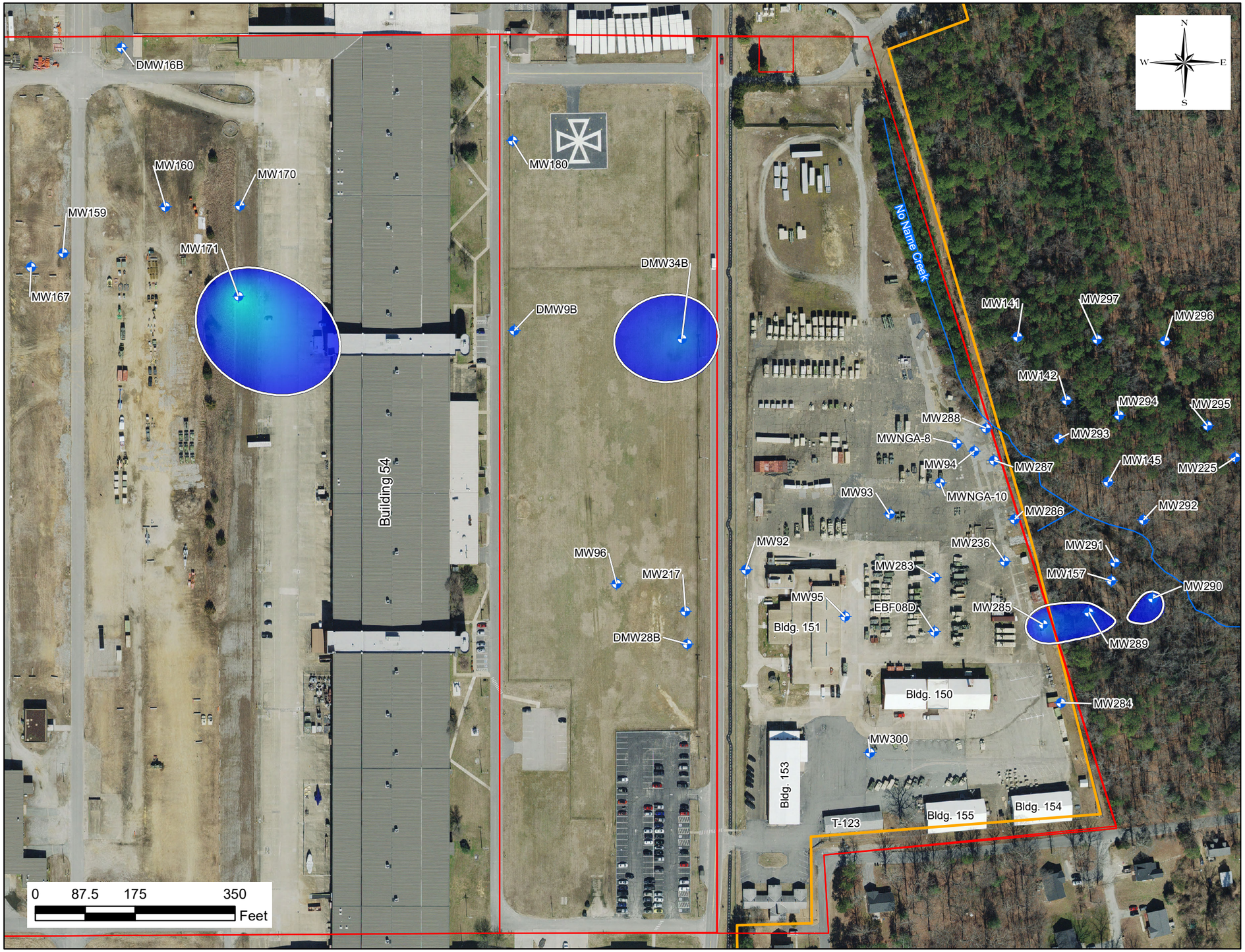
For the confined aquifer, plume renderings in Figure 4-13 (page 4-48) show the extent of PCE at concentrations ≥ MCL (5 µg/L). In the northern area, limited plume areas occur around wells MW-171 (32 µg/L) in OU 1 and around DMW-34B (11 µg/L) in OU 2.

Limited PCE plume areas are located along the fence line in OU 3 extending into the offsite area between the installation fence line and No Name Creek. The maximum PCE concentration detected in the southern area is 13 µg/L at well MW-285 at the fence line.

4.11.2.2 TCE

For the confined aquifer, plume renderings in Figure 4-14 (page 4-49) show the extent of TCE at concentrations ≥ MCL (5 µg/L). Isoconcentration lines for TCE in Figure 4-14 are based a logarithmic scale from 5 µg/L to 50 µg/L.

The northern area has two limited TCE plume areas in the OU 1 area east of Building 54 with a maximum concentration of 34 µg/L at well MW-160. A TCE plume in the southern area extends from the Building 151 area across the OU 3 area into the offsite site approximately 320 ft. beyond the installation fence line. The maximum concentration of TCE in the southern area is 200 µg/L at well MW-157 in the offsite area between the installation fence line and No Name Creek. The approximate area of the TCE plume is 4.88 acres.



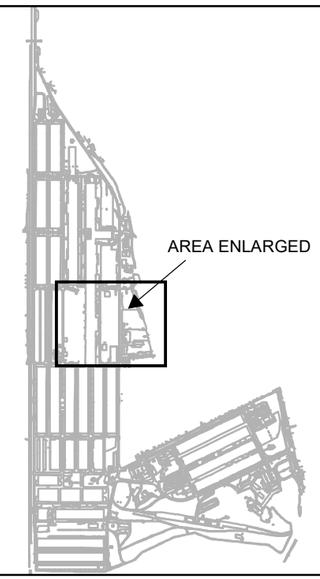
Legend

- Confined Aquifer Monitoring
- Isoconcentration Contours
- Stream
- Operable Units
- Installation Boundary

PCE Concentration (ug/L)

5 | 10 | 30 | 100 | 300 | 1,000 | 3,000

Notes:
Orthoimagery Source: VGIN (2021)



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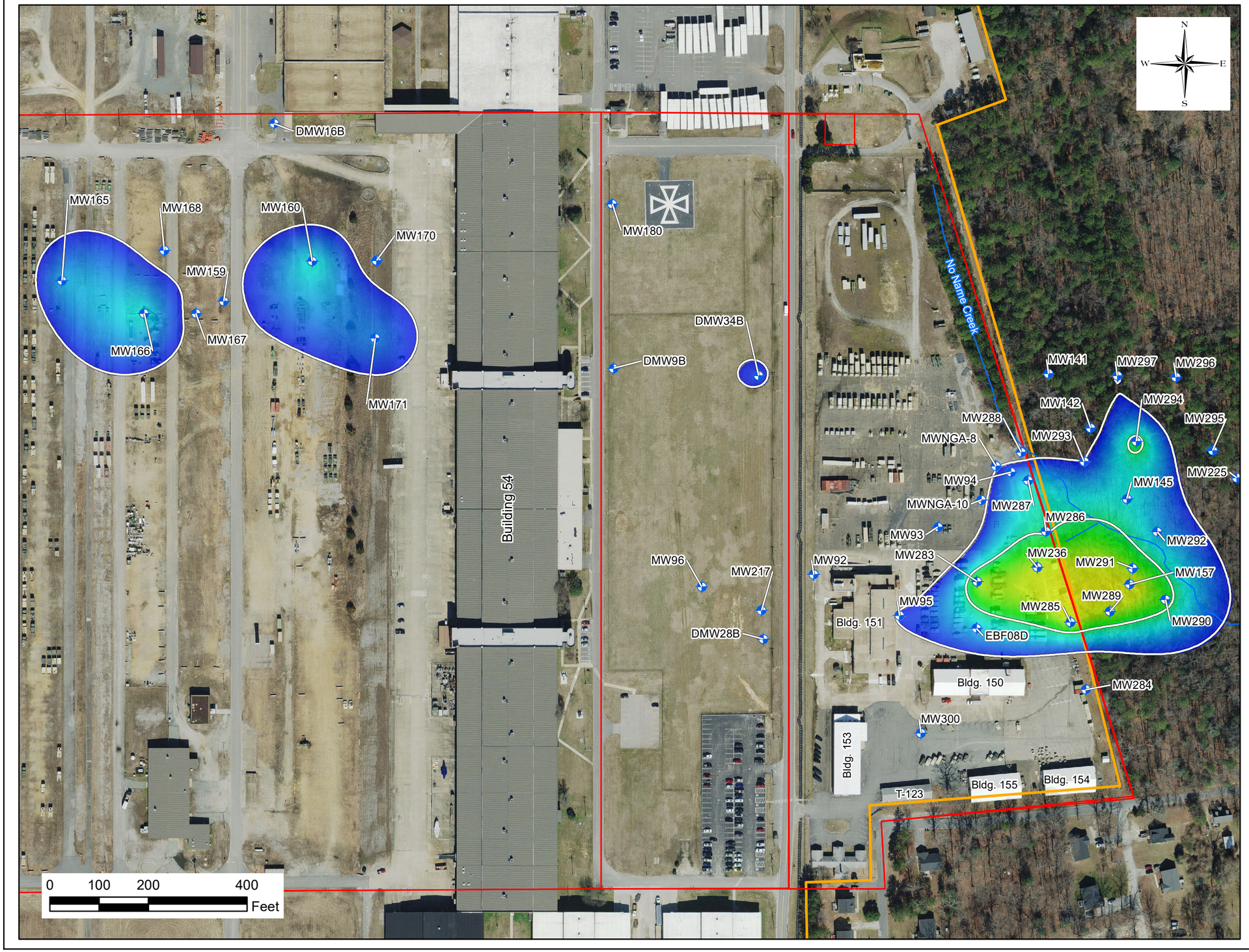
AECOM

Figure 4-13
2024 Lateral Distribution of
PCE in the Confined Aquifer

2024 Annual Monitoring Report - OU 6
Defense Supply Center Richmond
Richmond, VA

Prepared By: JLD	Reviewed By: JOS
Scale: 1 " = 175 '	Date: September 12, 2024

L:\Legacy\USGNA2FP002\Data\projects\0_GIS\DLA\OU8\Annual Report Figures\2024\Figure 4-13 Potomac Lateral Distribution of PCE 2024



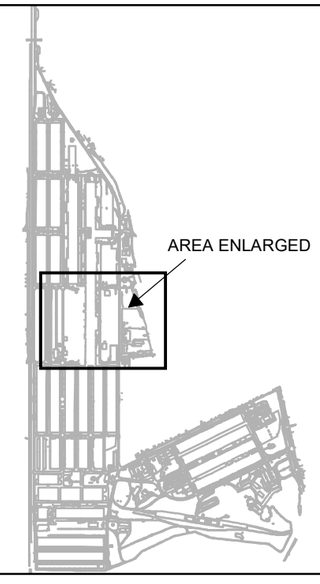
Legend

- Confined Aquifer Monitoring
- Isoconcentration Contours
- Stream
- Operable Units
- Installation Boundary

TCE Concentration (ug/L)

5 | 10 | 30 | 100 | 300 | 1,000 | 3,000

Notes:
Orthoimagery Source: VGIN (2021)



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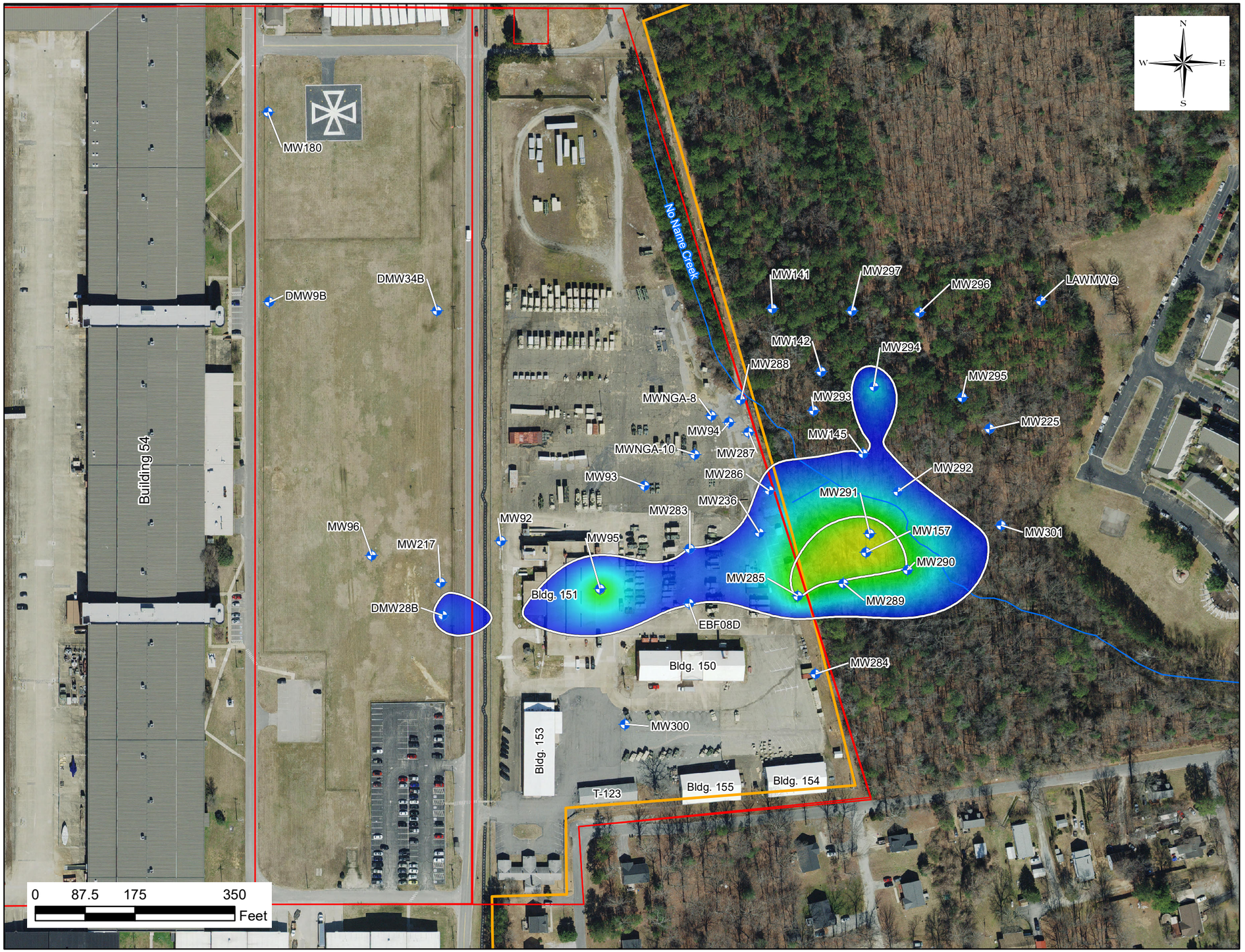
AECOM

Figure 4-14
2024 Lateral Distribution of TCE in the Confined Aquifer

2024 Annual Monitoring Report - OU 6
Defense Supply Center Richmond
Richmond, VA

Prepared By: JLD	Reviewed By: JOS
Scale: 1 " = 200 '	Date: September 12, 2024

L:\Legacy\USGNA2FP002\Data\projects\0_GIS\DLA\OU8\Annual Report Figures\2024\Figure 4-14 Potomac Lateral Distribution of TCE 2024



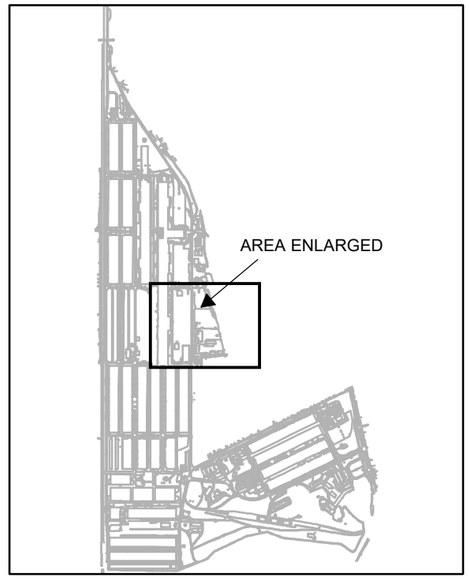
Legend

- Confined Aquifer Monitoring
- Isoconcentration Contours
- Stream
- Operable Units
- Installation Boundary

cDCE Concentration (ug/L)

70 | 100 | 300 | 1,000 | 3,000 | 10,000

Notes:
Orthoimagery Source: VGIN (2021)



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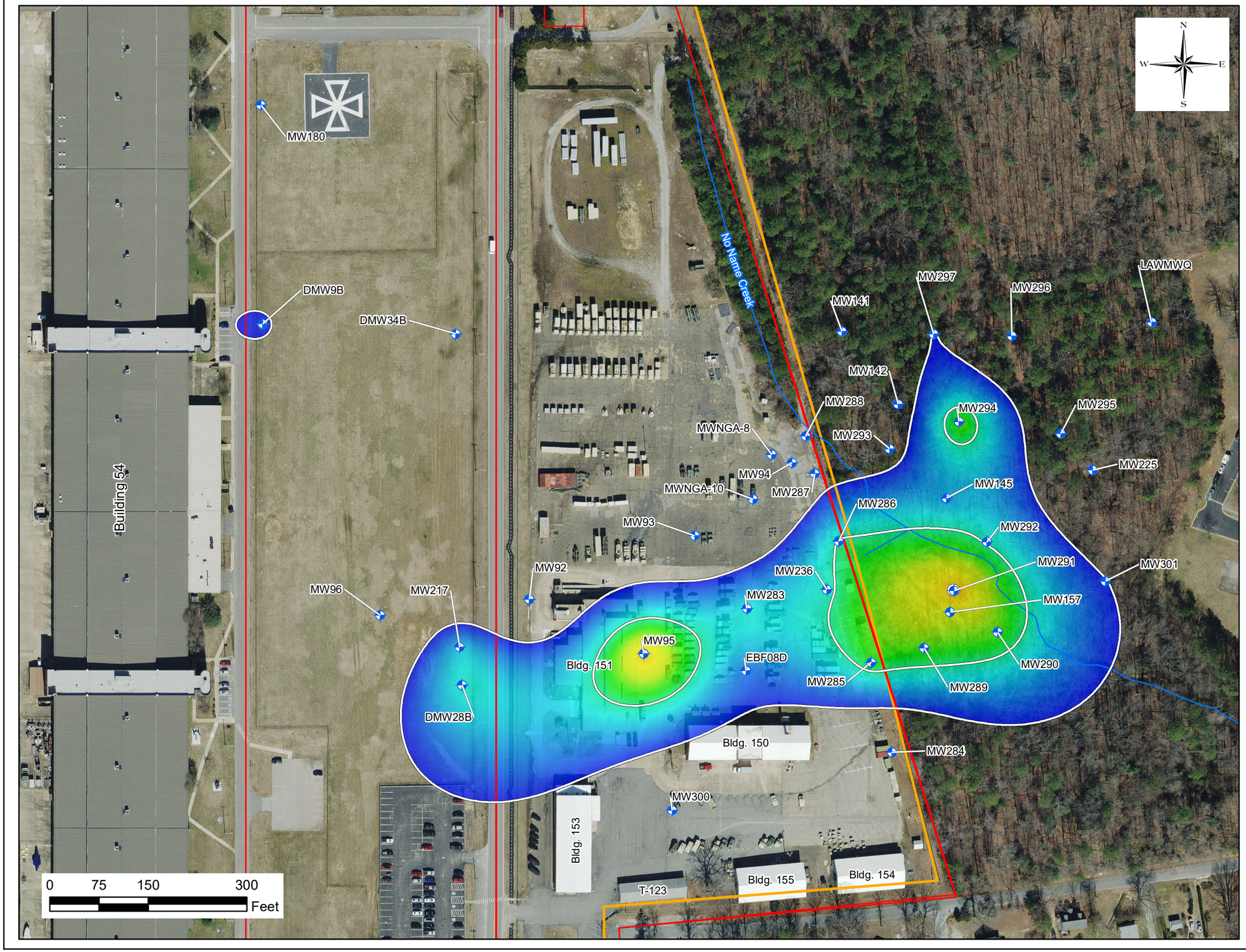
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Figure 4-15
2024 Lateral Distribution of cDCE in the Confined Aquifer

2024 Annual Monitoring Report - OU 6
Defense Supply Center Richmond
Richmond, VA

Prepared By: JLD	Reviewed By: JOS
Scale: 1 " = 175 '	Date: March 19, 2025

L:\Legacy\USGNA2FP002\Data\projects\0_GIS\DLA\OU8\Annual Report Figures\2024\Figure 4-15 Potomac Lateral Distribution of cDCE 2024



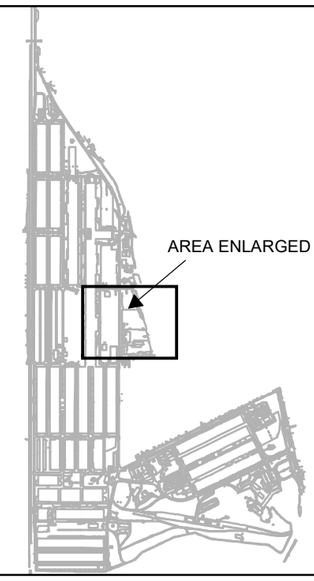
Legend

- Confined Aquifer Monitoring Well
- Isoconcentration Contours
- Stream
- Operable Units
- Installation Boundary

VC Concentration (ug/L)

2 | 3 | 10 | 30 | 100 | 300 | 1,000

Notes:
Orthoimagery Source: VGIN (2021)



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Figure 4-16
2024 Lateral Distribution of VC in the Confined Aquifer

2024 Annual Monitoring Report - OU 6
Defense Supply Center Richmond
Richmond, VA

Prepared By: JLD	Reviewed By: JOS
Scale: 1 " = 150 '	Date: September 12, 2024

L:\Legacy\USGNA2FP002\Data\projects\0_GIS\DLA\OU8\Annual Report Figures\2024\Figure 4-16 Potomac Lateral Distribution of VC 2024

4.11.2.3 cDCE

For the confined aquifer, plume renderings in Figure 4-15 (page 4-50) show the extent of cDCE at concentrations ≥ MCL (70 µg/L). Isoconcentration lines for cDCE in Figure 4-15 are based a logarithmic scale from 7 µg/L to 70 µg/L.

The northern area has detected cDCE concentrations less than the MCL. A cDCE plume in the southern area extends across the OU 3 area into the offsite site approximately 330 ft. beyond the installation fence line. The maximum concentration of cDCE in the southern area is 1,300 µg/L at well MW-291 in the offsite area between the installation fence line and No Name Creek. The approximate area of the VC plume is 3.68 acres.

4.11.2.4 VC

For the confined aquifer, plume renderings in Figure 4-16 (page 4-51) show the extent of VC at concentrations equal to and greater than the MCL of 2 µg/L. Isoconcentration lines for VC in Figure 4-16 are based a logarithmic scale from 2 µg/L to 20 µg/L.

The northern area has one location (DMW-9A) with a detected VC concentration (result is > MCL). A VC plume in the southern area extends from the OU 2 area across the OU 3 area into the offsite site approximately 370 ft. beyond the installation fence line. The maximum concentration of VC in the southern area is 250 µg/L at well MW-291 in the offsite area between the installation fence line and No Name Creek. The approximate area of the VC plume is 7.74 acres.

4.12 Dissolved Gases Distribution in Groundwater

Section 4.12 describes the distribution of dissolved gases for the surficial aquifer and confined aquifers at OU 6.

4.12.1 Surficial Aquifer

This section describes the distribution of carbon dioxide, methane, ethene, and ethane for the northern and southern monitored areas of the surficial aquifer.

4.12.1.1 Carbon Dioxide

In the northern area, two well locations (MW-247 and MW-252) outside of the VOC plume area (concentrations < MCLs) did not have detections of carbon dioxide (<5 mg/L). Upgradient well MW-298 in OU 1 had a detected carbon dioxide concentration of 38 mg/L. Carbon dioxide levels in the 2021 ISB area generally are > 100 mg/L with a mean concentration of 119.1 mg/L in the northern monitored area. The interquartile concentrations for carbon dioxide in the northern area are 43.75 mg/L (25^{th} percentile) and 190 mg/L (75^{th} percentile).

In the southern area, two well locations (MW-265 and MW-271) monitored outside of the plume area (concentrations < MCLs) did not have detections of carbon dioxide (< 5 mg/L). A third sample in the plume area in OU 3 (MW-271) did not have detectable levels of carbon dioxide. Carbon dioxide levels in the 2021 ISB area generally are > 100 mg/L with a mean concentration of 119.1 mg/L in the northern monitored area. The interquartile concentrations in the southern area are 42.75 mg/L (25^{th} percentile) and 155 mg/L (75^{th} percentile). In the southern area, the highest concentration of carbon dioxide is 510 mg/L at well MW-260 in the OU 2 area where ISB actions occurred in 2015.

4.12.1.2 Methane

In the northern area, methane levels outside of the VOC plume (concentrations < MCLs) generally are in the range of not detectable to 10 µg/L. Methane levels in the ISB area are > 500 µg/L with a mean concentration of 8,000 µg/L in the northern monitoring area. The interquartile concentrations for methane in the northern area are 1,525 µg/L (25^{th} percentile) and 12,750 µg/L (75^{th} percentile).

In the southern area, methane levels outside of the VOC plume (concentrations < MCLs) generally are in the range of not detectable to 50 µg/L. Methane in the southern monitoring area has a mean concentration of 2,332 µg/L for southern monitoring area. The interquartile concentrations for methane in the southern area are 88.5 µg/L (25^{th} percentile) and 3,175 µg/L (75^{th} percentile).

4.12.1.3 Ethene

Figure 4-17 (page 4-54) shows the distribution of ethene in groundwater within the surficial aquifer. Plume renderings show the extent of ethene at concentrations ≥ 1 µg/L. Isoconcentration lines for ethene in Figure 4-17 are based a logarithmic scale from 1 µg/L to 1,000 µg/L.

In the northern area, the ethene plume extends across the OU 1 area and beneath Building 54.Three areas within this plume have ethene concentrations > 10 µg/L principally in, around, and downgradient of ISB injections completed in October-November 2021. The maximum concentration of ethene is 4,900 µg/L at well MW-129 with a mean concentration of 289 µg/L in the northern monitored area. The interquartile concentrations for ethene in the northern area are 2.1 µg/L (25th percentile) and 81 µg/L (75th percentile).

In the southern area, the ethene plume extends from the OU 2 area across the OU 3 area with a downgradient extent near the installation fence line. The contiguous plume has ethene concentrations ≥ 10 µg/L. The maximum concentration of ethene is 1,000 µg/L at well MW-260 (OU 2) with a mean concentration of 147 µg/L in the southern monitored area. The interquartile concentrations for ethene in the southern area are 5.5 µg/L (25th percentile) and 165 µg/L (75th percentile).

4.12.1.4 Ethane

Figure 4-18 (page 4-55) shows the distribution of ethane in groundwater within the surficial aquifer. Plume renderings show the extent of ethane at concentrations ≥1 µg/L. Isoconcentration lines for ethane in Figure 4-18 are based a logarithmic scale from 1 µg/L to 100 µg/L. Limited ethane plume areas occur In the northern area with a maximum concentration of 6 µg/L detected at well MW-241 in the 2021 ISB area. Thirteen of 32 samples in the northern area had detections of ethane with a distribution mean of 2.1 µg/L for detected results.

In the southern area, the ethane plume extends from the OU 2 area across the OU 3 area into the offsite monitored area. The ethane plume with concentrations ≥ 10 µg/L extends from the OU 2 area across the OU 3 area with a downgradient extent near the installation fence line. The maximum concentration of ethene is 570 µg/L at well MW-260 (OU 2) with a mean concentration of 89 µg/L in the southern monitored area. The interquartile concentrations for ethane in the southern area are 3.3 µg/L (25th percentile) and 110 µg/L (75th percentile).

4.12.2 Confined Aquifer

This section describes the distribution of carbon dioxide, methane, ethene, and ethane for the northern and southern monitored areas of the confined aquifer.

4.12.2.1 Carbon Dioxide

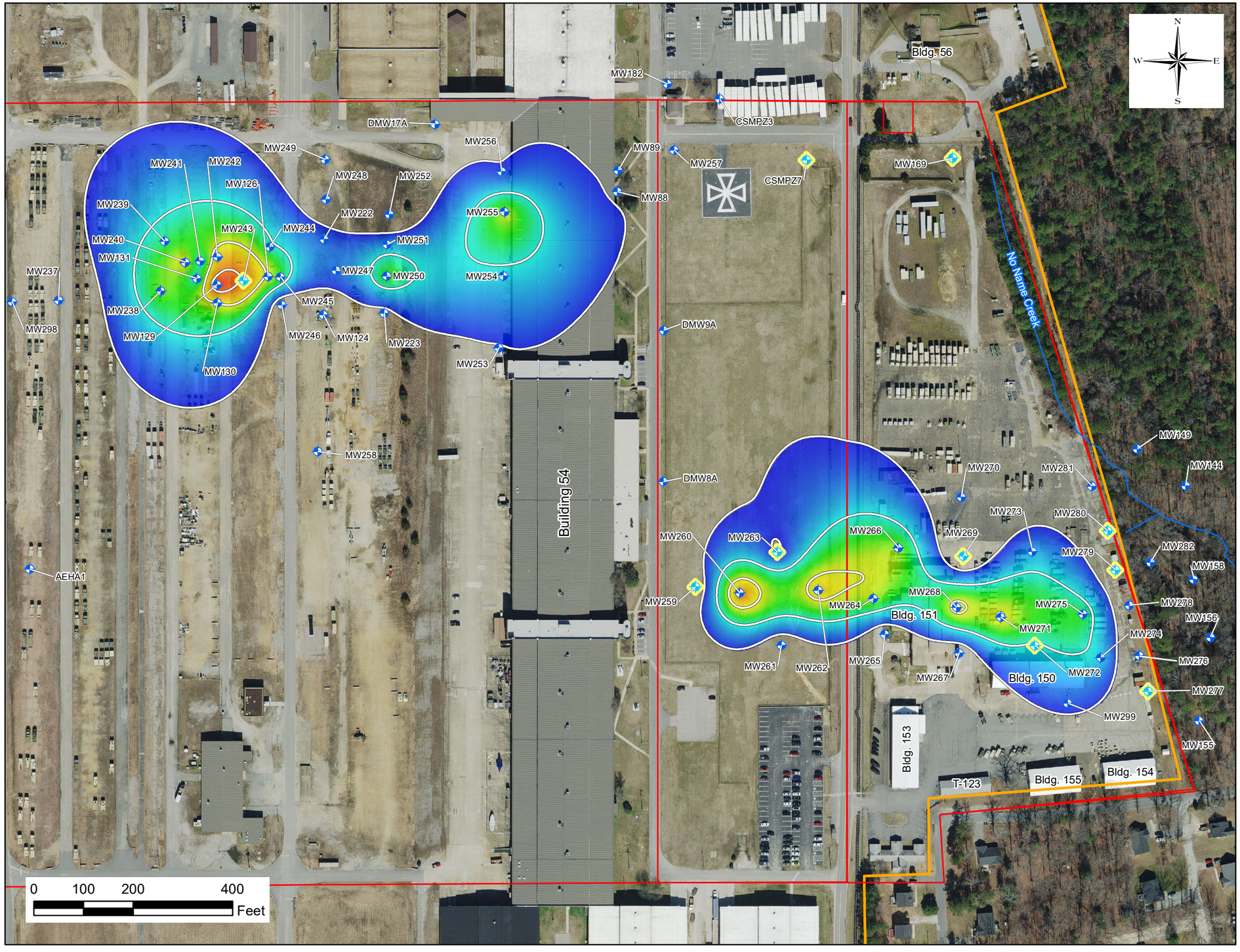
In the northern monitoring area, the levels of carbon dioxide at the nine (9) monitored locations ranged from 21 mg/L (MW-160) to 190 mg/L (MW-170) with a mean concentration of 60 mg/L. The southern area had detectable levels of carbon dioxide in 17 of 19 samples with detected concentrations ranging from 6 mg/L (MW-288) to 100 mg/L (MW-291). The highest levels of carbon dioxide occurred in OU 2 and along the fence line/offsite area where VOC concentrations are highest.

4.12.2.2 Methane

In the northern area, methane levels are highest in OU 1 beneath the groundwater source zone in the surficial aquifer with the highest concentrations in the range of 14,000 µg/L to 21,000 µg/L and concentration < 10 µg/L at other locations. In the southern area, methane in the monitored area has a mean concentration of 1,100 µg/L with the highest concentration (11,000 µg/L) at the fence line in OU 3. Monitoring wells outside of the MCL exceedance area generally have methane concentrations < 50 µg/L.

4.12.2.3 Ethene

Figure 4-19 (page 4-56) shows the distribution of ethene in groundwater within the confined aquifer. Plume renderings show the extent of ethene at concentrations equal to and > 1 µg/L. Isoconcentration lines for ethene in Figure 4-19 are based a logarithmic scale from 1 µg/L to 100 µg/L. A limited area of ethene in groundwater occurs in the northern monitoring area around well MW-170 in OU 1.



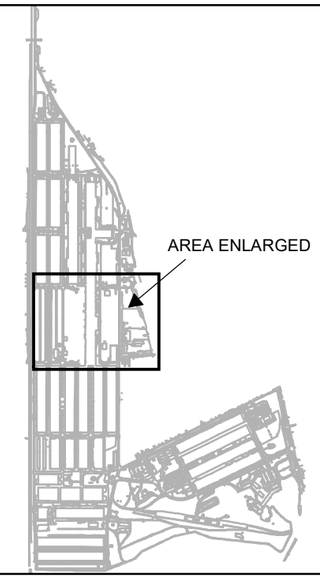
Legend

- Surficial Aquifer Monitoring Well
- Surficial Aquifer Long-term Monitoring Well
- Isoconcentration Contours
- Stream
- Operable Units
- Installation Boundary

Ethene Concentration (ug/L)

1 | 3 | 10 | 30 | 100 | 300 | 1,000 | 3,000

Notes:
Orthoimagery Source: VGIN (2021)



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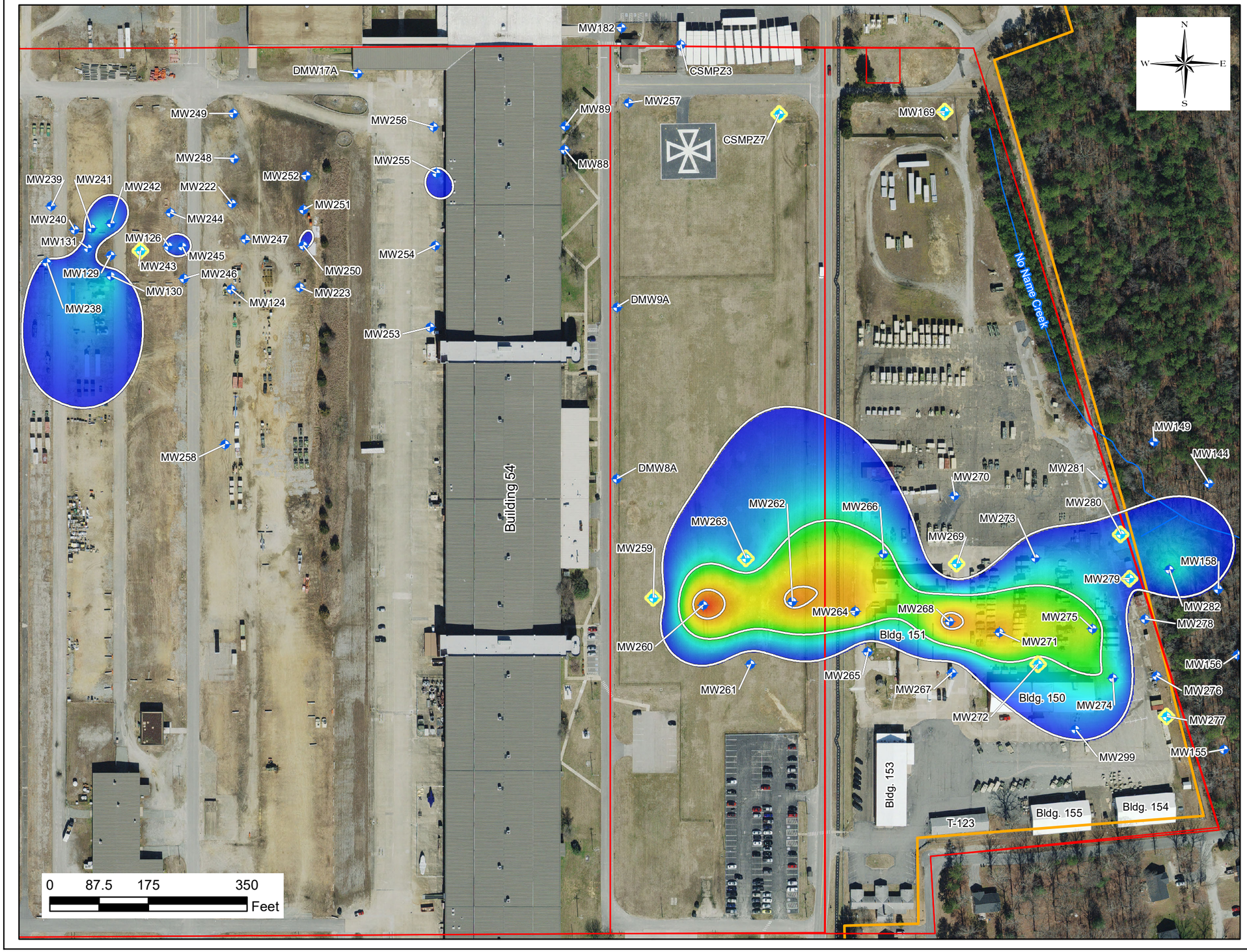
AECOM

Figure 4-17
2024 Lateral Distribution of Ethene in the Surficial Aquifer

2024 Annual Monitoring Report - OU 6
Defense Supply Center Richmond
Richmond, VA

Prepared By: JLD	Reviewed By: JOS
Scale: 1 " = 200 '	Date: September 12, 2024

L:\Legacy\USGNA2FP002\Data\projects\0_GIS\DLA\OU8\Annual Report Figures\2024\Figure 4-17 Eastover Lateral Distribution of Ethene 2024



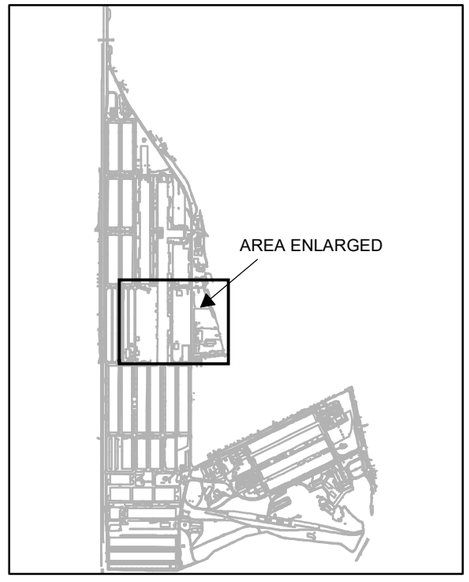
Legend

- Surficial Aquifer Monitoring Well
- Surficial Aquifer Long-term Monitoring Well
- Isoconcentration Contours
- Stream
- Operable Units
- Installation Boundary

Ethane Concentration (ug/L)

1 | 3 | 10 | 30 | 100 | 300

Notes:
Orthoimagery Source: VGIN (2021)



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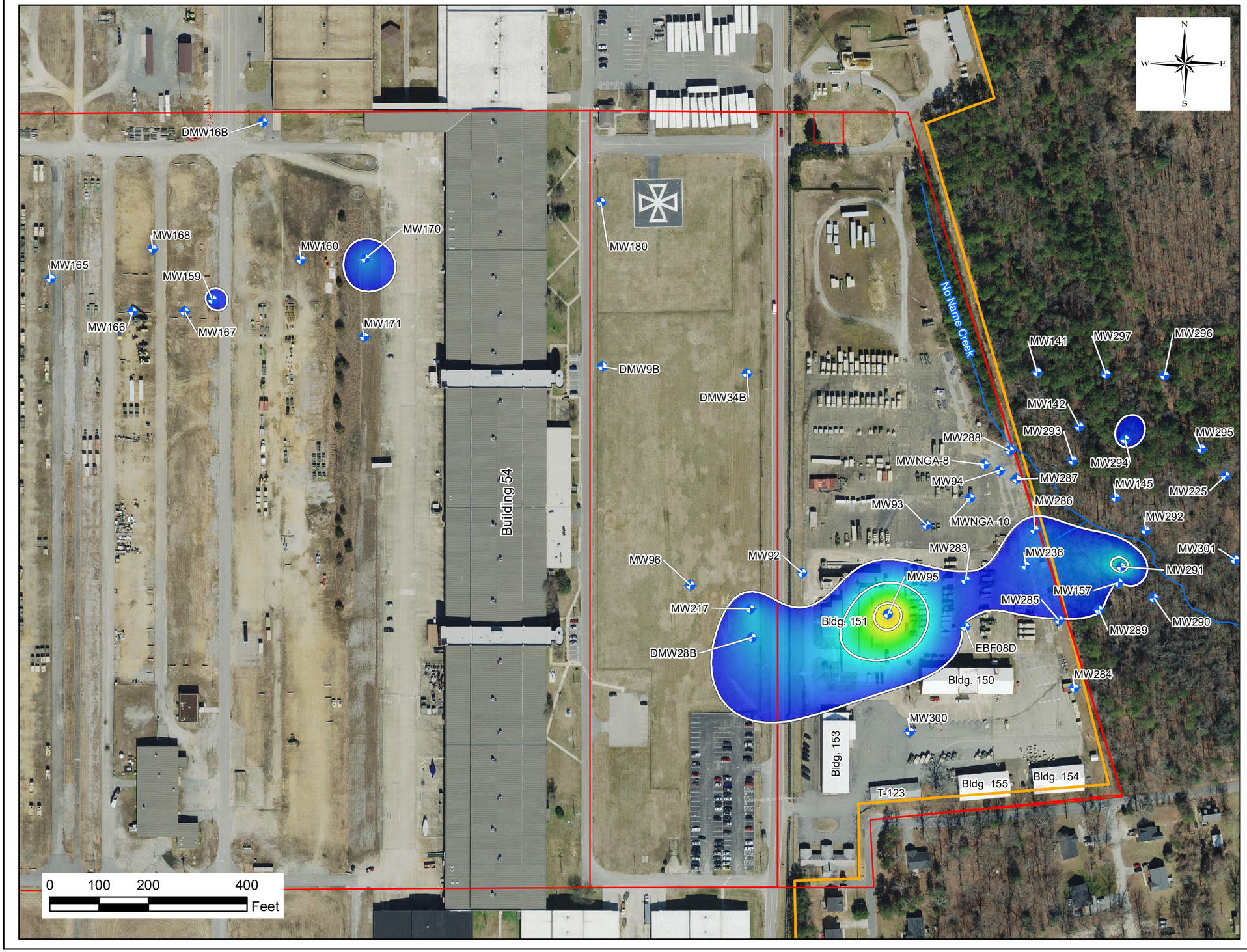
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Figure 4-18
2024 Lateral Distribution of Ethane in the Surficial Aquifer

2024 Annual Monitoring Report - OU 6
Defense Supply Center Richmond
Richmond, VA

Prepared By: JLD	Reviewed By: JOS
Scale: 1 " = 175 '	Date: September 12, 2024

L:\Legacy\USGNA2FP002\Data\projects\0_GIS\DLA\OU8\Annual Report Figures\2024\Figure 4-18 Eastover Lateral Distribution of Ethane 2024



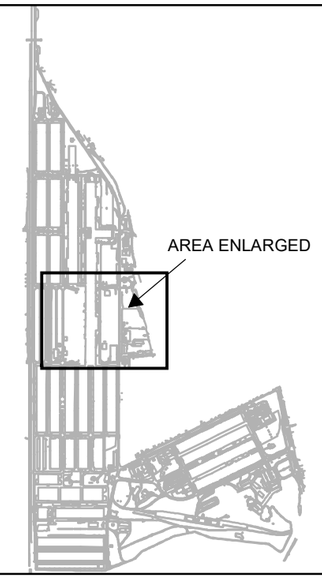
Legend

- Confined Aquifer Monitoring
- Isoconcentration Contours
- Stream
- Operable Units
- Installation Boundary

Ethene Concentration (ug/L)

1 | 3 | 10 | 30 | 100 | 300 | 1,000 | 3,000

Notes:
Orthoimagery Source: VGIN (2021)



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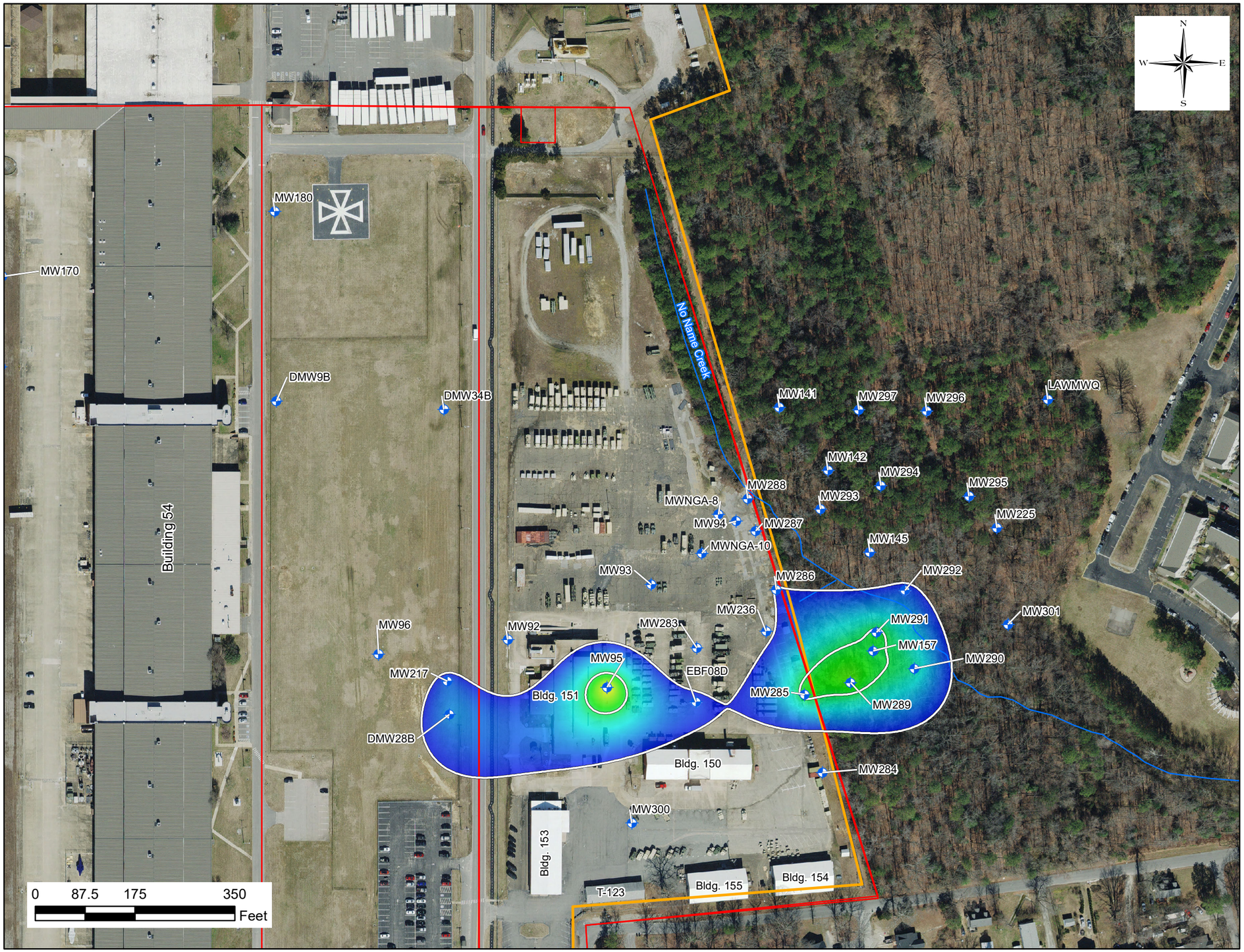
AECOM

Figure 4-19
2024 Lateral Distribution of Ethene in the Confined Aquifer

2024 Annual Monitoring Report - OU 6
Defense Supply Center Richmond
Richmond, VA

Prepared By: JLD	Reviewed By: JOS
Scale: 1 " = 200 '	Date: September 12, 2024

L:\Legacy\USGNA2FP002\Data\projects\0_GIS\DLA\OU8\Annual Report Figures\2024\Figure 4-19 Potomac Lateral Distribution of Ethene 2024



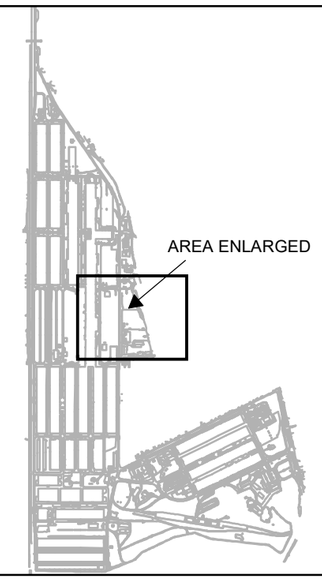
Legend

- Confined Aquifer Monitoring Well
- Isoconcentration Contours
- Stream
- Operable Units
- Installation Boundary

Ethane Concentration (ug/L)

1 3 10 30 100 300

Notes:
Orthoimagery Source: VGIN (2021)



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Figure 4-20
2024 Lateral Distribution of
Ethane in the Confined Aquifer

2024 Annual Monitoring Report - OU 6
Defense Supply Center Richmond
Richmond, VA

Prepared By: JLD	Reviewed By: JOS
Scale: 1 " = 175 '	Date: September 12, 2024

L:\Legacy\USGNA2FP002\Data\projects\0_GIS\DLA\OU8\Annual Report Figures\2024\Figure 4-20 Potomac Lateral Distribution of Ethane 2024

In the southern area, an ethene plume extends from OU 2 across OU 3 and approximately 180 ft. beyond the installation fence line. Well MW-95 near the eastern edge of Building 151 has the highest ethene concentration (380 µg/L) in the southern area.

4.12.2.4 Ethane

Figure 4-20 (page 4-57) shows the distribution of ethane in groundwater within the confined aquifer. Plume renderings show the extent of ethene ≥ 1 µg/L. Isoconcentration lines for ethane in Figure 4-20 are based a logarithmic scale from 1 µg/L to 100 µg/L.

Monitored locations in the northern area did not have detections of ethane. In the southern area, an ethane plume extends from OU 2 across OU 3 and approximately 300 ft. beyond the installation fence line. Well MW-95 near the eastern edge of Building 151 has the highest ethene concentration (33 µg/L) in the southern area.

4.13 Distribution of TOC in Groundwater

Section 4.13 describes the distribution of TOC for the surficial aquifer and confined aquifers at OU 6.

4.13.1 Surficial Aquifer

Figure 4-21 (page 4-60) shows the distribution of TOC in groundwater within the surficial aquifer. Plume renderings show the extent of TOC at concentrations ≥ 10 mg/L associated with ISB injections performed at OU 6. Isoconcentration lines for TOC in Figure 4-21 are based a logarithmic scale from 10 mg/L to 100 mg/L. In the northern monitoring area, the area with TOC ≥ 10 mg/L encompasses the 2021 ISB area in OU 1 with concentrations > 20 mg/L at wells MW-265 (24 mg/L), MW-241 (27 mg/L), MW-245 (27 mg/L), MW-240 (85 mg/L), MW-243 (130 mg/L), and MW-247 (260 mg/L).The southern area has areas of TOC concentrations > 10 mg/L in OU 2 encompassing wells MW-260 and MW-263, in OU 3 around well MW-265, and along the installation fence line around well MW-281.

4.13.2 Confined Aquifer

In the northern area, TOC concentrations in groundwater at monitored locations are < 1 mg/L except at wells MW-259 (26 mg/L), MW-167 (62 mg/L), and MW-170 (450 mg/L) within an ISB injection area in the confined aquifer within OU 1. In the southern area, TOC concentration in groundwater at monitoring locations are < 5 mg/L except at well MW-289 (8.8 mg/L) in the offsite monitored area and at well MW-217 in the OU 2 area.

4.14 Data Validation

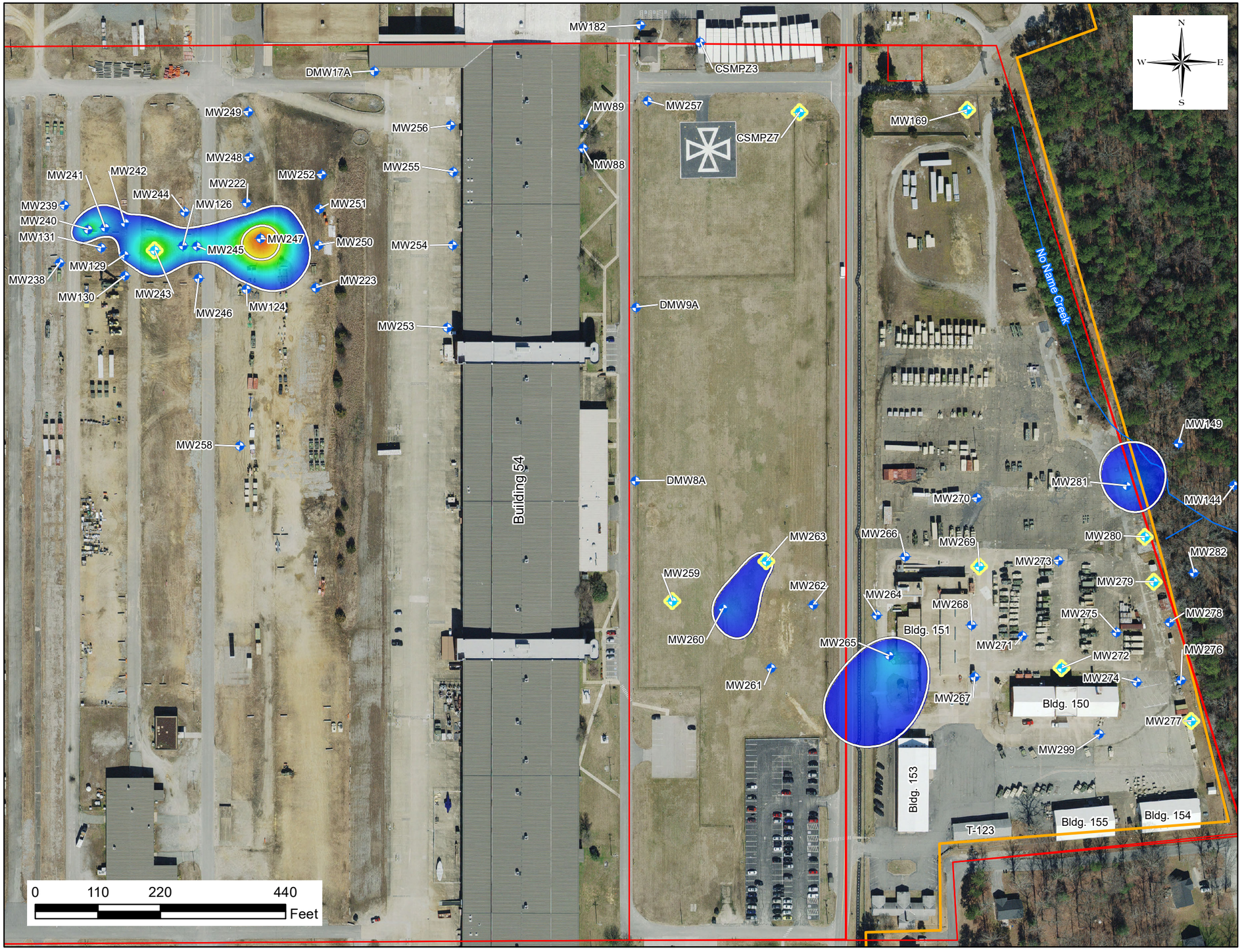
Appendices C.1 and C.2 have laboratory and data validation reports for monitoring conducted at OU 6 for FY 2024. AECOM used the Earthsoft EQuIS Data Qualification Module (DQM) using Stage 2a electronic data deliverables to perform data validation on 100% of the data obtained for site monitoring. Measured performance criteria consist of the DoD Quality Systems Manual 5.4 Worksheets #12 and #28. Validation procedures followed included:

- DoD General Data Validation Guidelines, November 2019.
- National Functional Guidelines for Organic Superfund Methods Data Review, EPA 540-R-20-005, November 2020.
- National Functional Guidelines for Inorganic Superfund Methods Data Review, EPA 540-R-20-006, November 2020.
- The Quality Assurance Project Plan for the project.

The data review included the following elements:

Sample preservation and technical hold times	Temperature	Method and field blanks
Surrogate/tracer spikes	Matrix spike/matrix spike duplicates	Laboratory duplicates
Laboratory replicates	Laboratory control samples	Relative percent difference checks
Verification of sample units		

Table 4-8 (page 4-61) has a summary of the data validation results for FY2024 monitoring at OU 6. For each monitoring task, this table identifies sample type and quantities, data validation qualifiers, and data usability results. All data, as qualified, are usable for the intended purpose of contamination and remedy performance assessment.



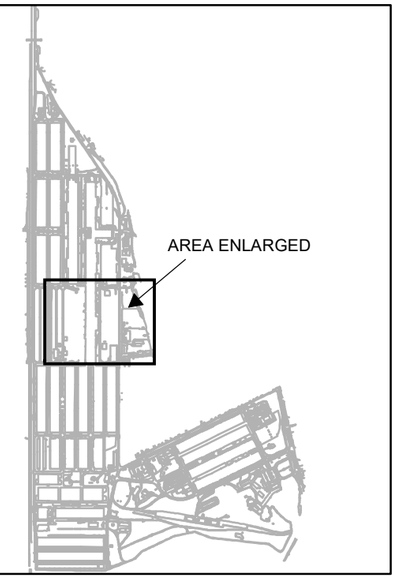
Legend

- Surficial Aquifer Monitoring Well
- Surficial Aquifer Long-term Monitoring Well
- Isoconcentration Contours
- Stream
- Operable Units
- Installation Boundary

TOC Concentration (mg/L)

1 — 30 — 100 — 300 — 760

Notes:
Orthoimagery Source: VGIN (2021)



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Figure 4-21
2024 Lateral Distribution of TOC in the Surficial Aquifer

2024 Annual Monitoring Report - OU 6
Defense Supply Center Richmond
Richmond, VA

Prepared By: JLD	Reviewed By: JOS
Scale: 1 " = 175 '	Date: September 12, 2024

L:\Legacy\USGNA2FP002\Data\projects\0_GIS\DLA\OU8\Annual Report Figures\2024\Figure 4-21 Eastover Lateral Distribution of TOC 2024

Table 4-8 Data Validation Summary for FY2024 Monitoring at OU 6

Monitoring Event(s)	Matrix	No. of Analysis	Sample Type							Data Qualifier											Rejected Data						Sample % Usability[1]	Notes
			N	DUP	LCS	LCSD	EB	MB	TB	B	J	J+	J-	J-J+	J+B	UJ	UJR	R	X	VOC	MNA	Metals	SVOCs	Pest.	PCBs		
November 2023 ISB Performance Monitoring	Aqueous	2731	1581	87	330	328	0	327	75	1	31	5	4	0	0	2	0	0	0	0	0	0	0	0	0	100%	No sample “B” qualification
May 2024 Annual	Aqueous	22223		708	2677	2356	695	2706	79	32	315	235	197	3	0	226	0	0	0	0	0	0	0	0	0	0	100%	No sample “B” qualification

Notes:
N = normal sample, DUP = duplicate sample, LCS = laboratory control sample, LCSD = laboratory control sample duplicate, EB = equipment blank, MB = method blank, TB = trip blank
B = blank contamination detected in an associated quality control blank at a concentration greater than the laboratory quantitation limit (method blank, trip blank, equipment blank),
J = the reported result was an estimated value with an unknown bias, J+ = the result was an estimated quantity, but the result may be biased high, J- = the result was an estimated quantity, but the result may be biased low,
UJ = the analyte was not detected and was reported as less than the LOD or as defined by the customer. However, the associated numerical value is approximate,
R = Rejected. this datum has been deemed by the project team, due to deficiencies in meeting quality control criteria and/or data quality objectives, as unusable for use in making project decisions.
X = the sample results (including non-detects) were affected by serious deficiencies in the ability to analyze the sample and to meet published method and project quality control criteria. The presence or absence of the analyte cannot be substantiated by the data provided. Acceptance or rejection of the data should be decided by the project team (which should include a project chemist), but exclusion of the data is recommended.

1 $\%\ \text{Usability} = \frac{No.of\ Rejected\ Results}{No.of\ Normal\ Samples + No.of\ Duplicate\ Samples} \times 100$

5. Remedy Performance Assessment

Section 5.0 has a remedy performance assessment for OU 6. Initial ISB remedial actions occurred at OU 6 in 2015 as part of post-ROD remedy implementation with follow-up ISB actions in October-November 2021. The 2015 ISB actions included EVO injections at injection well transects in the northern area (surficial aquifer) and southern area (surficial and confined aquifers). The ISB actions completed in October-November 2021 included targeted source zone treatment of groundwater beneath OU 1 using semi-soluble substrate EVO with bioaugmentation. The injection design used three grid treatment areas with 80 injection points (DPT, see Figure 5-1, page 5-2).

5.1 Evaluation Methods

The remedy performance assessment uses exploratory data analysis and trend analysis to evaluate remedy performance.

5.1.1 Data Distribution

Data distribution has an influence on the approaches used for analyzing data and remediation processes and selection of parametric and non-parametric methods of analysis. This evaluation used distribution visualizations and the Lilliefors test, which is a hypothesis test that evaluates whether the data distribution comes from a distribution in the normal family, against the alternative that it does not come from a normal distribution.

5.1.2 Outlier Detection

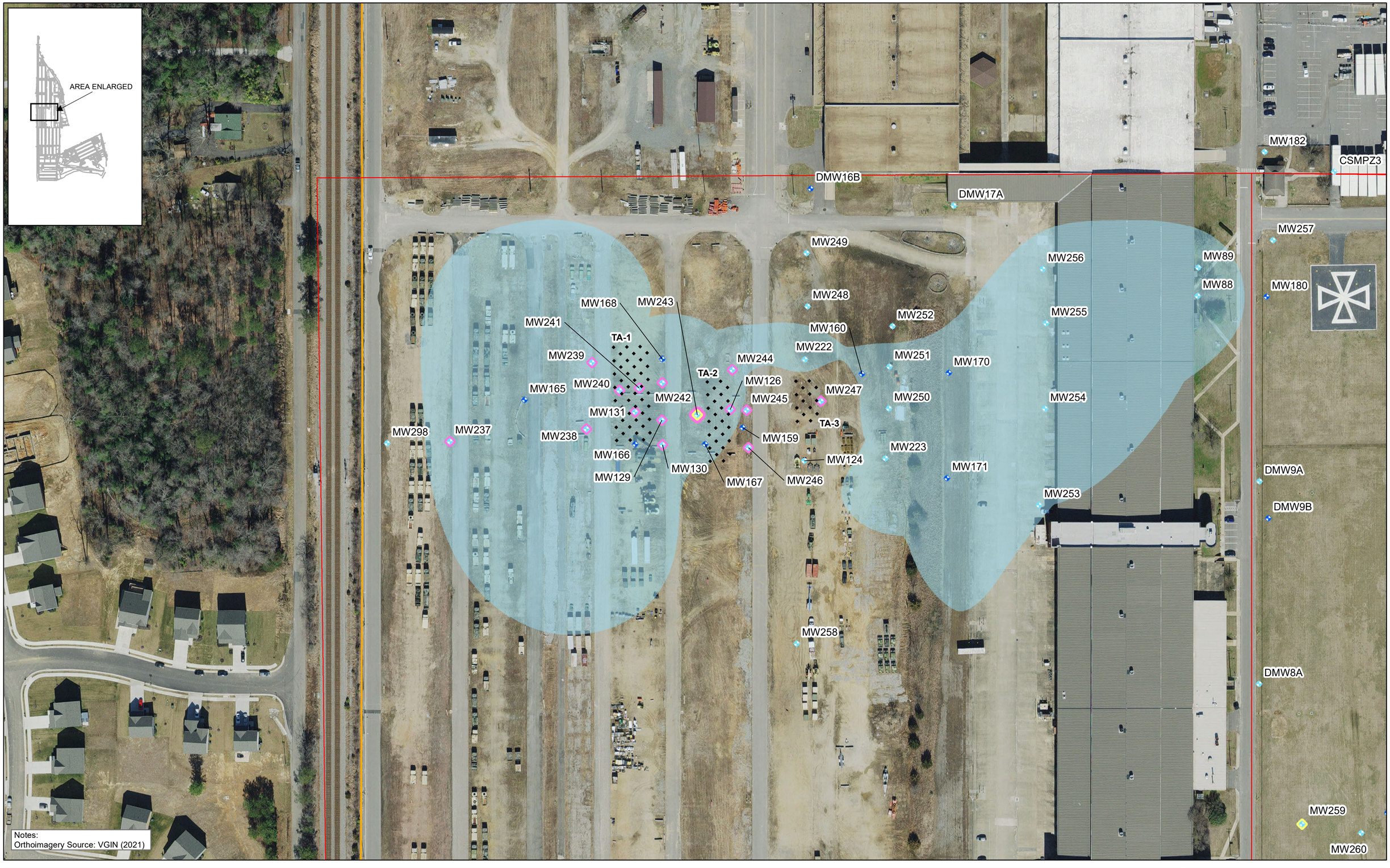
Methods of outlier detection used for this evaluation included box plots and outlier tests (quartile method). The quartile method identifies an outlier locationally more than 1.5 interquartile ranges above the upper quartile (75%) or below the lower quartile (25%). This method can evaluate both normal and non-normal distributions.

5.1.3 Coefficient of Variation

Coefficient of variation (CV) of a time series data set is the ratio of standard deviation and mean. CV provides a measure of variability of intra-well and inter-well time series data. Generally, a data distribution with CV>1 has a higher relative variation contrasting with a CV<1 that has a lower relative variation. The CV in combination with correlation and trend analysis can evaluate the relative stability of site conditions and intrinsic processes.

5.1.4 Linear Correlation

Correlation quantifies the strength of a linear relationship between two variables. When there is no correlation between two variables, then there is no tendency for the values of the variables to increase or decrease together. This assessment uses Pearson's linear correlation coefficient to evaluate one parameter versus (vs.) time or a comparison matrix of multiple parameters over time. Values of the correlation coefficient can range from –1 to +1. A value of –1 indicates perfect negative correlation, while a value of +1 indicates perfect positive correlation. A value of 0 indicates no correlation between the sets of data observations. The analysis also tests the null hypothesis of no correlation against an alternative hypothesis for positive, negative, or nonzero correlation at a significance of 5 percent (%) or alpha (α) of 0.05. A calculated probability value (p-value) <0.05 rejects the null hypothesis of no correlation indicating the correlation is significantly positive, negative, or different than 0.



Legend

- Confined Aquifer Monitoring Well
- Upper Aquifer Monitoring Well
- Long-term Monitoring Well
- NNC Surface Water Sample Location
- EISB Performance Monitoring Well
- Injection Wells
- Surficial Aquifer Plume
- Stream
- Operable Units
- DSCR Boundary

N
W E
S

0 50 100 200 Feet

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Figure 5-1
OU 6 2021 EISB Treatment Area

Defense Supply Center Richmond
Richmond, VA

Prepared By:	Reviewed By:
DBC	JOS
Scale: 1 in = 100 ft	Date: October 24, 2024

C:\Users\david.copen\AECOM\DSCR FY2024 Annual Reports - General\OU6 FY2024 Annual Report\Figures\Figure 5-1 2021 EISB Treatment.mxd

Local Extrema

Local extrema analysis of a time series data set identifies local maxima and local minima for the LTM period evaluated for each site. The frequency, location, and prominence of local extrema can provide insights on time series data patterns and variation, and intrinsic processes in groundwater at the sites. The prominence of a local maximum (or peak) measures how the peak stands out with respect to its height and location relative to other peaks. Conversely, the prominence of a local minimum (or valley) measures how the valley stands out with respect to its depth and location relative to other valleys.

5.2 Trend Evaluations

This remedy performance assessment uses various methods to evaluate changes or trends in data over time. Time series data can vary over time due to a combination of factors including long-term trend, oscillatory or seasonal variation, or random (unassignable) causes.

5.2.1 Mann-Kendall Tests

Forms of the non-parametric Mann-Kendall (M-K) test for trend used for data evaluations include original, cumulative, and sequential. The M-K tests detect monotonic trends in data. M-K tests allow for missing values, do not require a particular distribution assumption, and can accommodate trace reported values and left censored data (non-detect).

The original form of the M-K test (two-way) evaluates the null hypothesis of no trend (H_0) vs. an alternative hypothesis (H_A) of trend at a significance level of 5% (0.05).[1] A test result of H=0 indicates no trend with a result of H =1 indicate a trend. In null hypothesis statistical testing, the probability value (p-value) of statistical test is the probability, under the null hypothesis, of obtaining a value of the test statistic as extreme or more extreme than the value computed from the sample. Typically, a p-value quantifies the statistical significance of the result is less than or equal to the significant level. In a significance test, the null hypothesis H_0 is rejected if the p-value is less than or equal to a predefined threshold value of significance (alpha).

A cumulative form of the M-K test used in the evaluation consists of one-way test that can evaluate an alternative hypothesis of trend greater than zero or less than zero.[2] A sequential version of the M-K test used in the LTM evaluation allows for detection of the approximate beginning of a developing trend.[3] When the progressive series (original time series) and retrograde (backward sequential time series) curves are plotted, the intersection of the curves locates an approximate potential trend turning point. If the intersection of the curves occurs within +/- 1.96 (5% level) of the standardized statistic, a detectable change at that point in the time series can be inferred.

5.2.2 Singular Spectrum Analysis (SSA)

SSA is a spectrum estimation method (non-parametric) to analyze time series data for trend and forecasting. SSA assumes the additive decomposition of the data into long-term trend, oscillatory or seasonal trend or trends, and remainder or random. The SSA function[4] used for the LTM evaluation solves for long-term trend without decomposition of seasonal or remainder components given the variable or annual frequency of sampling. Calculated long-term trend as tabular and plotted data allows for further analysis of rates of change and degree of trend.

5.2.3 Regression

Regression models describe the relationship between a response (output) variable, and one or more predictor (input) variables. For trend evaluation of data, the predictor variable is time. Regression models

[1] Mann, H. B. (1945), Nonparametric tests against trend, Econometrica, 13, 245– 259. Kendall, M. G. (1975), Rank Correlation Methods, Griffin, London. MATLAB Code written by: Simone Fatichi -- simonef@dicea.unifi.it Copyright 2009, Date: 2009/10/03
[2] Thorvaldsen, S. , Flå, T. and Willassen, N.P. (2010) DeltaProt: a software toolbox for comparative genomics. BMC Bioinformatics 2010, Vol 11:573. See http://www.biomedcentral.com/1471-2105/11/573
[3] Chatterjee, S., Bisai, D. and Khan, A., 2014. Detection of approximate potential trend turning points in temperature time series (1941–2010) for Asansol Weather Observation Station, West Bengal, India., Atmospheric and Climate Sciences, 4, pp.64-69.
[4] Singular Spectrum Analysis function using MATLAB 2022a.

can use linear and non-linear forms depending on the linearity of the relationship between the response and predictor variables. The regression analysis has a t-test to evaluate the statistical significance of regression slope with a calculated t-statistic and p-value. A statistically significant regression slope (not zero) can reveal the direction and relative magnitude of trend.

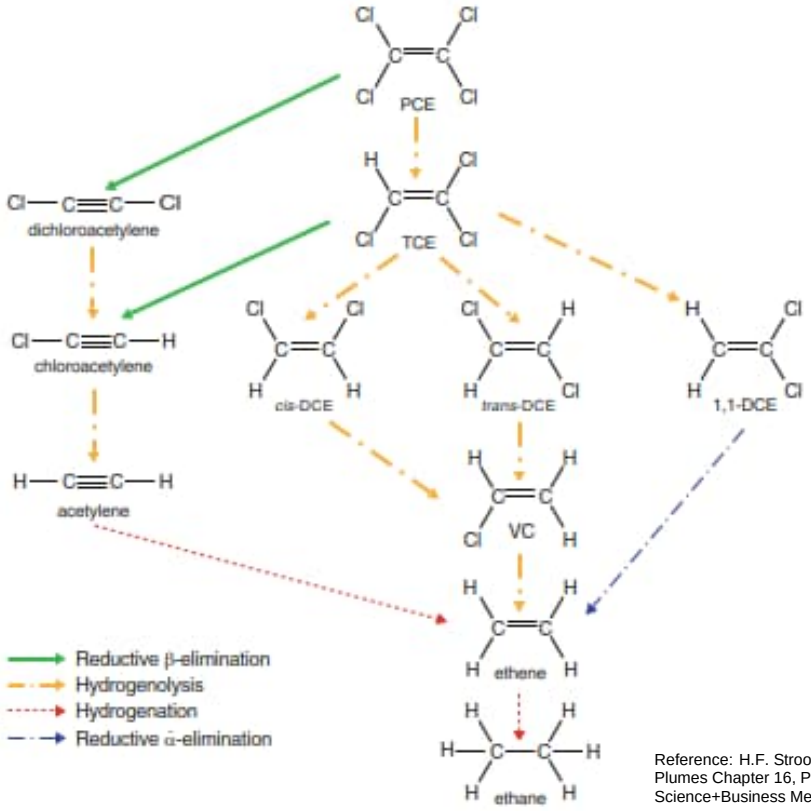
5.3 Bioremediation Assessment

Section 5.3 has a bioremediation assessment for OU 6 evaluating site conditions for 2022-2024 in response to ISB actions and intrinsic degradation processes.

5.3.1 Dechlorination Reactions

The remedy designs at OU 6 have used engineered processes targeting complete dechlorination of chlorinated ethenes and ethanes. Exhibit 5-1 shows the reaction pathways for chlorinated ethenes, the primary COCs at OU 6.

Exhibit 5-1 Pathways for Dechlorination of Chlorinated Ethenes



Reference: H.F. Stroo and C.H. Ward (eds.), In Situ Remediation of Chlorinated Solvent Plumes Chapter 16, Page 541, doi: 10.1007/978-1-4419-1401-9_16, #Springer Science+Business Media, LLC 2010

ISB designs have used slow-release substrates (EVO) for bioremediation at OU 6 that by design follow the hydrogenolysis pathway for dechlorination shown in Exhibit 5-1. Ethene generated from the various reaction pathways cab degrade to ethane by hydrogenation. Ethane is generated by a combination of dechlorination of chlorinated ethanes and by hydrogenation processes from ethene. In an oxidizing geochemical environment, ethene degrades to carbon dioxide and water.

2021

2024

DMW17A
MW256
MW249
MW257
CSMPZ7
MW169
MW89
MW252
MW248
MW242
MW255
MW241
MW243
MW244
MW222
MW88
MW239
MW251
MW240
MW247
MW237
MW254
MW131
MW245
MW250
MW298
MW246
MW238
MW129
MW223
DMW9A
MW126
MW124
MW130
MW253
MW258
DMW8A
MW263
MW149
MW144
MW281
MW270
MW273
MW280
MW266
MW282
MW269
MW262
MW259
MW279
MW158
AEHA1
MW264
MW271
MW278
MW268
MW260
MW265
Bldg. 151
MW275
Building 54
No Name Creek

N
W
E
S

0 112.5 225 450
Feet

Legend

- Surficial Aquifer Monitoring Well
- Surficial Aquifer Long-term Monitoring Well
- PCE Isoconcentration Line
- Stream
- Operable Units
- Installation Boundary

PCE Concentration (ug/L)

5 10 30 100 300 1,000 3,000

Notes:
Orthoimagery Source: VGIN (2021)

AREA ENLARGED

MEADOWS CONSULTING | MANAGEMENT | PLANNING
AECOM

Figure 5-2
Changes in Lateral Distribution of PCE in Surficial Aquifer (2021-2024)

2024 Annual Monitoring Report - OU 6
Defense Supply Center Richmond
Richmond, VA

Prepared By: JLD	Reviewed By: JOS
Scale: 1 " = 225 '	Date: September 12, 2024

L:\Legacy\USGNA2FP002\Data\projects\0_GIS\DLA\OU8\Annual Report Figures\2024\Figure 5-1 Changes in Lateral Distribution of PCE in Eastover

5.3.2 Anaerobic Biodegradation Screening

Tables 5-1 and 5-2 (pages 5-7 and 5-8) have anaerobic biodegradation screening of monitored plume areas for the surficial and confined aquifers, respectively, for 2022-2024 using annual site-wide monitoring data. The EPA (1998) bioattenuation screening process (EPA 1998) is used for these evaluations. This screening process uses chemical and geochemical data to determine if biodegradation is occurring at the time of the monitoring. The scoring process results in interpretations on evidence for anaerobic biodegradation of chlorinated VOCs (reductive dechlorination) based on the total score as follows: 0 to 5 is inadequate evidence, 6 to 14 is limited evidence, 15 to 20 is adequate evidence, and > 20 is strong evidence. Scores of ≥ 15 indicate probable occurrence of biodegradation processes.

5.3.2.1 2022 Screening Results

Section 5.3.2.1 discusses the anaerobic biodegradation screening results for 2022 Annual Monitoring completed in April-May 2022.

Surficial Aquifer Northern Area

In Table 5-1, the screening results for the surficial aquifer for April-May 2022 in the northern area represent data collected approximately six (6) months after the 2021 injections. The screening score is 27 indicating strong evidence of anaerobic biodegradation processes. These results are driven by reductive geochemical conditions and presence of degradation by products along the complete reaction pathway from PCE to ethane. Geochemical conditions indicate overall reductive pathways including the presence of ferrous iron > 1 mg/L, low sulfate concentrations < 3 mg/L, sulfide concentrations > 1 mg/L, TOC concentrations > 20 mg/L, presence of methane > 1 mg/L, and carbon dioxide and alkalinity levels more than 10 times higher than background. Chloride levels are more than two (2) times higher than background providing evidence of daughter production from the reduction of organic chlorine.

Surficial Aquifer Southern Area

In Table 5-1, the screening score for the surficial aquifer (southern area) for April-May 2022 is 26 indicating strong evidence of anaerobic biodegradation processes. These results are driven by reductive geochemical conditions and presence of degradation by products along the complete reaction pathway from PCE to ethane. Geochemical conditions indicate overall reductive pathways including the presence of ferrous iron > 1 mg/L, lower sulfate concentrations < 12 mg/L, sulfide concentrations > 1 mg/L, presence of methane > 1 mg/L, and carbon dioxide and alkalinity levels 10 times or more higher than background. Chloride levels are more than six (6) times higher than background providing evidence of daughter production from the reduction of organic chlorine.

Confined Aquifer Northern Area

In Table 5-2, the screening score for the confined aquifer (northern area) for April-May 2022 is 15 indicating adequate evidence of anaerobic biodegradation processes. These results are driven by lower concentrations of PCE and TCE with limited detections of cDCE (<MCL) and absence of VC. Geochemical conditions providing evidence of reducing conditions include the presence of methane > 1 mg/L, and carbon dioxide and alkalinity levels 10 or more times higher than background. Chloride levels are more than two (2) times higher than background providing evidence of daughter production from the reduction of organic chlorine.

Confined Aquifer Southern Area

In Table 5-2, the screening score for the confined aquifer (southern area) for April-May 2022 is 22 indicating strong evidence of anaerobic biodegradation processes. These results are driven by reductive geochemical conditions and presence of degradation by products along the complete reaction pathway from PCE to ethane. Geochemical conditions indicate overall reductive pathways including the presence of ferrous iron > 1 mg/L, lower sulfate concentrations < 14 mg/L, presence of methane > 0.5 mg/L, and carbon dioxide and alkalinity levels 10 times higher than background. Chloride levels are more than 10 times higher than background providing evidence of daughter production from the reduction of organic chlorine.

Table 5-1 Anaerobic Biodegradation Screening: Surficial Aquifer Monitored Plume Areas (2022-2024)

Parameter	Screening Metric	Unit	Score	Parameter Interpretation	Background	2022 Northern Monitoring Area OU 1, OU -2, OU -3			2022 Southern Monitoring Area OU 2 and OU 3			2023 Northern Monitoring Area OU 1, OU -2, OU -3			2023 Southern Monitoring Area OU 2 and OU 3			2024 Northern Monitoring Area OU 1, OU -2, OU -3			2024 Southern Monitoring Area OU 2 and OU 3		
						Value	MCT	Score	Value	MCT	Score	Value	MCT	Score	Value	MCT	Score	Value	MCT	Score	Value	MCT	Score
Dissolved oxygen	<0.5 >5	mg/L	3 -3	Tolerated suppresses the reductive pathway at higher concentrations Not tolerated, however, vinyl chloride may be oxidized aerobically	--	0.82	Mean	0	1.04	Mean	0	1.32	Mean	0	1.25	Mean	0	2.59	Mean	0	1.61	Mean	0
Nitrate	<1	mg/L	2	At higher concentrations may compete with reductive pathway	<LOD	0.67	Mean	2	0.38	Mean	2	0.67	Mean	2	0.68	Mean	2	0.68	Mean	2	0.23	Mean	2
Ferrous Iron	>1	mg/L	3	Reductive pathway possible; VC may be oxidized under ferric iron reducing conditions.	0.01[2]	1.18	Mean	3	1.37	Median	3	5.91	Mean	3	3.84	Mean	3	2.17	Mean	3	1.30	Mean	3
Sulfate	<20	mg/L	2	At higher concentrations may compete with reductive pathway	5.8[2]	2.7	Mean	2	11.9	Mean	2	2.3	Mean	2	3.6	Median	2	2.49	Mean	2	14.4	Mean	2
Sulfide	>1	mg/L	3	Reductive pathway possible	<LOD	1.3	Mean	3	1.3	Mean	3	<1	1 Detect	0	< 1	FOD 5	0	<1	1 Detect	0	<LOD	ND	0
Methane	<0.5 >0.5	mg/L	0 3	Vinyl chloride oxidizes Ultimate reductive daughter product, vinyl chloride accumulates	<LOD[2]	3.7	Mean	3	1.8	Mean	3	5.1.	Mean	3	2.7	Mean	3	8.0	Mean	3	2.3	Mean	3
Oxidation Reduction Potential	<50 <-100	mV	1 2	Reductive pathway possible Reductive pathway likely	332[1]	124	Mean	0	147	Median	0	62	Median	0	80	Median	0	154	Mean	0	189	Mean	0
pH	5 to 9 < 5 or >9	pH	0 -2	Optimal range for reductive pathway Outside of optimal range for reductive pathway	--	5.46	Mean	0	5.58	Median	0	5.37	Mean	0	5.46	Mean	0	5.54	Mean	0	5.59	Mean	0
Total organic carbon	>20	mg/L	2	Carbon and energy source; drives dechlorination; natural or anthropogenic	<:1	160	Mean	2	3.3	Mean	0	93.0	Mean	2	9.0	Mean	0	38	Mean	2	5.6	Mean	0
Temperature	>20	°C	1	At T >20°C biochemical process is accelerated	--	17.7	Mean	0	16.8	Mean	0	18.0	Mean	0	17.9	Mean	0	18.7	Mean	0	17.8	Mean	0
Carbon dioxide	>2x bkg.	mg/L	1	Ultimate oxidative daughter product	<5	612	Mean	1	152	Mean	1	125	Mean	1	64.8	Mean	1	119	Mean	1	115	Mean	1
Alkalinity	>2x bkg.	mg/L	1	Results from interaction between carbon dioxide and aquifer minerals	10[2]	141	Mean	1	103	Mean	1	143	Mean	1	129	Mean	1	98	Mean	1	464	Mean	1
Chloride	>2x bkg.	mg/L	2	Daughter product of organic chlorine	7.1[2]	16.5	Mean	2	49.8	Mean	2	13.6	Mean	0	28.6	Mean	2	14.3	Mean	2	77.9	Mean	2
Volatile fatty acids	>0.1	mg/L	2	Intermediates resulting from biodegradation of more complex compounds; carbon and energy source	NT	NT	--	--	NT	--	--	NT	--	--	NT	--	--	NT	--	--	NT	--	--
Tetrachloroethene	Knowledge or Presence	µg/L	0	Material released	ND	958	Mean	0	9.5	Mean	0	975	Mean	0	2.4	Mean	--	170.8	Mean	0	3.7	Mean	0
Trichloroethene	>LOQ	µg/L	0 2	Material released Daughter product of tetrachloroethene	ND	808	Mean	2	34.5	Mean	2	707	Mean	2	70.2	Mean	2	333.9	Mean	2	27.7	Mean	2
Dichloroethene[1]	>LOQ	µg/L	0 2	Material released daughter product of trichloroethene	ND	921	Mean	2	67.3	Mean	2	1832	Mean	2	61.1	Mean	2	824.8	Mean	2	86.1	Mean	2
Vinyl chloride	>LOQ	µg/L	0 2	Material released Daughter product of dichloroethane	ND	50.6	Mean	2	42.1	Mean	2	163.7	Mean	2	20.1	Mean	2	221.1	Mean	2	70.7	Mean	2
Ethene/Ethane	>0.01 >0.1	mg/L	2 3	Daughter product of vinyl chloride/ethene	ND	0.057	Mean	2	0.183	Mean	3	0.094	Mean	2	0.042	Mean	2	0.291	Mean	3	0.236	Mean	3
				Screening Total				27			26			22			22			25			23
				Interpretation (evidence for anaerobic biodegradation)		Strong Evidence			Strong Evidence			Strong Evidence			Strong Evidence			Strong Evidence			Strong Evidence		

Notes: [1]daughter product of trichloroethene, if cis > 80% of total dichloroethene is likely daughter product, mg/L = milligrams per liter, C° = degrees Celsius, µg/L = micrograms per liter, mV = millivolts, LOQ = laboratory limit of quantitation, MCT = measures of central tendency (mean or median), <LOD = less than laboratory limit of detection, ND = parameter or analyte not detected in samples, NT = not tested.

Interpretation of Screening

Score	Interpretation
0 to 5	Inadequate evidence for anaerobic biodegradation* of chlorinated organics
6 to 14	Limited evidence for anaerobic biodegradation of chlorinated organics
15 to 20	Adequate evidence for anaerobic biodegradation* of chlorinated organics
>20	Strong evidence for anaerobic biodegradation of chlorinated organics

Table 5-2 Anaerobic Biodegradation Screening: Confined Aquifer Monitored Plume Areas (2022-2024)

Parameter	Screening Metric	Unit	Score	Parameter Interpretation	Background	2022 Northern Monitoring Area OU 1, OU-2			2022 Southern Monitoring Area OU 2 and OU 3			2023 Northern Monitoring Area OU 1, OU-2			2023 Southern Monitoring Area OU 2 and OU 3			2024 Northern Monitoring Area OU 1, OU-2			2024 Southern Monitoring Area OU 2 and OU 3		
						Value	MCT	Score	Value	MCT	Score	Value	MCT	Score	Value	MCT	Score	Value	MCT	Score	Value	MCT	Score
Dissolved oxygen	<0.5 >5	mg/L	3 -3	Tolerated suppresses the reductive pathway at higher concentrations Not tolerated, however, vinyl chloride may be oxidized aerobically	--	1.60	Mean	0	1.29	Mean	0	2.61	Mean	0	1.76	Mean	0	2.65	Median	0	1.72	Mean	0
Nitrate	<1	mg/L	2	At higher concentrations may compete with reductive pathway	<LOD	0.33	Mean	2	0.07	Mean	2	0.58	Mean	2	0.03	Mean	2	0.61	Mean	2	0.08	Mean	2
Ferrous Iron	>1	mg/L	3	Reductive pathway possible; VC may be oxidized under ferric iron reducing conditions.	0.01[2]	0.84	Mean	0	1.24	Median	3	0.60	Mean	0	0.31	Mean	0	0.97	Mean	0	1.30	Mean	3
Sulfate	<20	mg/L	2	At higher concentrations may compete with reductive pathway	5.8[2]	2.4	Mean	2	13.5	Mean	2	2.3	Mean	2	9.5	Mean	2	6.1	Mean	2	13.1	Mean	2
Sulfide	>1	mg/L	3	Reductive pathway possible	<LOD	<1	Mean	0	<1	Mean	0	1.3	Mean	3	2.5	Mean	3	2.6	1 Detect	3	<LOD	ND	0
Methane	<0.5 >0.5	mg/L	0 3	Vinyl chloride oxidizes Ultimate reductive daughter product, vinyl chloride accumulates	<LOD[2]	6.8	Mean	3	0.81	Mean	3	4.3	Mean	3	1.9	Mean	3	7.1	Mean	3	1.7	Mean	3
Oxidation Reduction Potential	<50 <-100	mV	1 2	Reductive pathway possible Reductive pathway likely	332[1]	155	Mean	0	91	Median	0	81	Mean	0	65	Mean	0	216	Mean	0	97	Mean	0
pH	5 to 9 < 5 or >9	pH	0 -2	Optimal range for reductive pathway Outside of optimal range for reductive pathway	--	5.67	Mean	0	6.29	Median	0	5.48	Mean	0	5.93	Mean	0	5.98	Mean	0	6.24	Mean	0
Total organic carbon	>20	mg/L	2	Carbon and energy source; drives dechlorination; natural or anthropogenic	<:1	971	Mean	2	6.1	Mean	0	241	Mean	2	7.8	Mean	0	134	Mean	2	4.0	Mean	0
Temperature	>20	°C	1	At T >20°C biochemical process is accelerated	--	19.0	Mean	0	18.0	Mean	0	19.1	Mean	0	17.5	Mean	0	18.5	Mean	0	17.7	Mean	0
Carbon dioxide	>2x bkg.	mg/L	1	Ultimate oxidative daughter product	<6	120	Mean	1	71	Mean	1	49.9	Mean	1	30.5	Mean	1	60	Mean	1	65	Mean	1
Alkalinity	>2x bkg.	mg/L	1	Results from interaction between carbon dioxide and aquifer minerals	10[2]	104	Mean	1	103	Mean	1	116	Mean	1	69	Mean	1	124	Mean	1	53	Mean	1
Chloride	>2x bkg.	mg/L	2	Daughter product of organic chlorine	2.4	3.2	Mean	0	29.6	Mean	2	3.2	Mean	0	38.4	Mean	2	4.9	Median	0	39.9	Mean	2
Volatile fatty acids	>0.1	mg/L	2	Intermediates resulting from biodegradation of more complex compounds; carbon and energy source	NT	NT	--	--	NT	--	--	NT	--	--	NT	--	--	NT	--	--	NT	--	--
Tetrachloroethene	Knowledge or Presence	µg/L	0	Material released	ND	7.4	Mean	0	5.6	Mean	0	7.2	Mean	0	8.2	Mean	--	11.3	Mean	0	4.2	Mean	0
Trichloroethene	>LOQ	µg/L	0 2	Material released Daughter product of tetrachloroethene	ND	9.8	Mean	2	45.6	Mean	2	11.2	Mean	2	70.6	Mean	2	12.7	Mean	2	46.6	Mean	2
Dichloroethene[1]	>LOQ	µg/L	0 2	Material released daughter product of trichloroethene	ND	1.2	Mean	2	256	Mean	2	1.07	Mean	2	326	Mean	2	3.6	Mean	2	249	Mean	2
Vinyl chloride	>LOQ	µg/L	0 2	Material released Daughter product of dichloroethane	ND	<1	Mean	0	25.7	Mean	2	0.49	Mean	2	30.7	Mean	2	1.1	Mean	2	38	Mean	2
Ethene/Ethane	>0.01 >0.1	mg/L	2 3	Daughter product of vinyl chloride/ethene	ND	0.006	Mean	0	0.024	Mean	2	0.005	Mean	0	0.038	Mean	2	0.004	Mean	0	0.041	Mean	2
				Screening Total				15			22			20			22			20			22
				Interpretation (evidence for anaerobic biodegradation)		Adequate Evidence			Strong Evidence			Adequate Evidence			Strong Evidence			Adequate Evidence			Strong Evidence		

Notes: [1]daughter product of trichloroethene, if cis > 80% of total dichloroethene is likely daughter product, mg/L = milligrams per liter, C° = degrees Celsius, µg/L = micrograms per liter, mV = millivolts, LOQ = laboratory limit of quantitation, MCT = measures of central tendency (mean or median), <LOD = less than laboratory limit of detection, ND = parameter or analyte not detected in samples, NT = not tested.

Interpretation of Screening

Score	Interpretation
0 to 5	Inadequate evidence for anaerobic biodegradation* of chlorinated organics
6 to 14	Limited evidence for anaerobic biodegradation of chlorinated organics
15 to 20	Adequate evidence for anaerobic biodegradation* of chlorinated organics
>20	Strong evidence for anaerobic biodegradation of chlorinated organics

5.3.2.2 2023 Screening Results

Section 5.3.2.2 discusses the anaerobic biodegradation screening results for 2023 Annual Monitoring completed in May 2023.

Surficial Aquifer Northern Area

In Table 5-1, the screening results for the surficial aquifer for May 2023 in the northern area represent data collected approximately 18 months after the 2021 injections, which at the mid-point of the injection design treatment period. The screening score is 22 indicating strong evidence of anaerobic biodegradation processes. These results are driven by reductive geochemical conditions and presence of degradation by products along the complete reaction pathway from PCE to ethane. Geochemical conditions indicate overall reductive pathways including the presence of ferrous iron > 1 mg/L, low sulfate concentrations < 3 mg/L, TOC concentrations > 20 mg/L, presence of methane > 1 mg/L, and carbon dioxide and alkalinity levels 10 times or more higher than background. Chloride levels are slightly less than two (2) times higher than background levels. The difference in the screening results between 2022 and 2023 is higher mean sulfide and chloride levels in the monitored area for 2022 compared to 2023 results.

Surficial Aquifer Southern Area

In Table 5-1, the screening score for the surficial aquifer (southern area) for May 2023 is 22 indicating strong evidence of anaerobic biodegradation processes. These results are driven by reductive geochemical conditions and presence of degradation by products along the complete reaction pathway from PCE to ethane. Geochemical conditions indicate overall reductive pathways including the presence of ferrous iron > 1 mg/L, lower sulfate concentrations < 4 mg/L, presence of methane > 1 mg/L, and carbon dioxide and alkalinity levels 10 times or more higher than background. Chloride levels are four (5) times higher than background providing evidence of daughter production from the reduction of organic chlorine. The difference in the screening results between 2022 and 2023 is higher mean sulfide and ethene/ethane levels in the monitored area for 2022 compared to 2023 results.

Confined Aquifer Northern Area

In Table 5-2, the screening score for the confined aquifer (northern area) for May 2023 is 20 indicating adequate evidence of anaerobic biodegradation processes. These results are driven by overall lower concentrations of PCE and TCE with limited detections of cDCE and VC (<MCL). Geochemical conditions providing evidence of reducing conditions include the presence of methane > 1 mg/L, and carbon dioxide and alkalinity levels 10 or more times higher than background. Chloride levels are more than two (2) times higher than background providing evidence of daughter production from the reduction of organic chlorine. Combined ethene/ethane levels are < 0.01 µg/L. The screening results for 2023 and 2024 are 20.

Confined Aquifer Southern Area

In Table 5-2, the screening score for the confined aquifer (southern area) for May 2023 is 22 indicating strong evidence of anaerobic biodegradation processes. These results are driven by reductive geochemical conditions and presence of degradation by products along the complete reaction pathway from PCE to ethane. Geochemical conditions indicate overall reductive pathways including the presence of ferrous iron > 1 mg/L, lower sulfate concentrations < 10 mg/L, presence of methane > 1 mg/L, and carbon dioxide and alkalinity levels five (5) times higher than background. Chloride levels are more than 10 times higher than background providing evidence of daughter production from the reduction of organic chlorine. Both 2022 and 2023 have screening scores of 22.

5.3.2.3 2024 Screening Results

Section 5.3.2.3 discusses the anaerobic biodegradation screening results for 2024 Annual Monitoring completed in May 2024.

Surficial Aquifer Northern Area

In Table 5-1, the screening results for the surficial aquifer for May 2024 in the northern area represent data collected approximately 30 months after the 2021 injections, which is approximately 83% through the

injection design treatment period. The screening score is 25 indicating strong evidence of anaerobic biodegradation processes. These results are driven by reductive geochemical conditions and presence of degradation by products along the complete reaction pathway from PCE to ethane. Geochemical conditions indicate overall reductive pathways including the presence of ferrous iron > 1 mg/L, low sulfate concentrations < 3 mg/L, TOC concentrations > 20 mg/L, presence of methane > 1 mg/L, and carbon dioxide and alkalinity levels 10 times or more higher than background. Chloride levels are slightly more than two (2) times higher than background levels. The difference in the screening results between 2022 and 2023 is higher chloride and ethene/ethane levels in the monitored area for 2024 compared to 2023 results.

Surficial Aquifer Southern Area

In Table 5-1, the screening score for the surficial aquifer (southern area) for May 2024 is 23 indicating strong evidence of anaerobic biodegradation processes. These results are driven by reductive geochemical conditions and presence of degradation by products along the complete reaction pathway from PCE to ethane. Geochemical conditions indicate overall reductive pathways including the presence of ferrous iron > 1 mg/L, lower sulfate concentrations < 15 mg/L, presence of methane > 1 mg/L, and carbon dioxide and alkalinity levels five (5) times higher than background. Chloride levels are 10 times higher than background providing evidence of daughter production from the reduction of organic chlorine. The difference in the screening results between 2024 and 2023 is higher ethene/ethane levels in the monitored area for 2024 compared to 2023 results.

Confined Aquifer Northern Area

In Table 5-2, the screening score for the confined aquifer (northern area) for May 2024 is 20 indicating adequate evidence of anaerobic biodegradation processes. These results are driven by overall lower concentrations of PCE and TCE with limited detections of cDCE and VC (<MCL). Geochemical conditions providing evidence of reducing conditions include the presence of methane > 1 mg/L, and carbon dioxide and alkalinity levels five (5) times higher than background. Chloride levels are more than two (2) times higher than background providing evidence of daughter production from the reduction of organic chlorine. Combined ethene/ethane levels are < 0.01 µg/L. The screening results for 2023 and 2024 are 20 compared to a result of 15 for 2022.

Confined Aquifer Southern Area

In Table 5-2, the screening score for the confined aquifer (southern area) for May 2024 is 22 indicating strong evidence of anaerobic biodegradation processes. These results are driven by reductive geochemical conditions and presence of degradation by products along the complete reaction pathway from PCE to ethane. Geochemical conditions indicate overall reductive pathways including the presence of ferrous iron > 1 mg/L, lower sulfate concentrations < 14 mg/L, presence of methane > 1 mg/L, and carbon dioxide and alkalinity levels five (5) times higher than background. Chloride levels are 15 times higher than background providing evidence of daughter production from the reduction of organic chlorine.

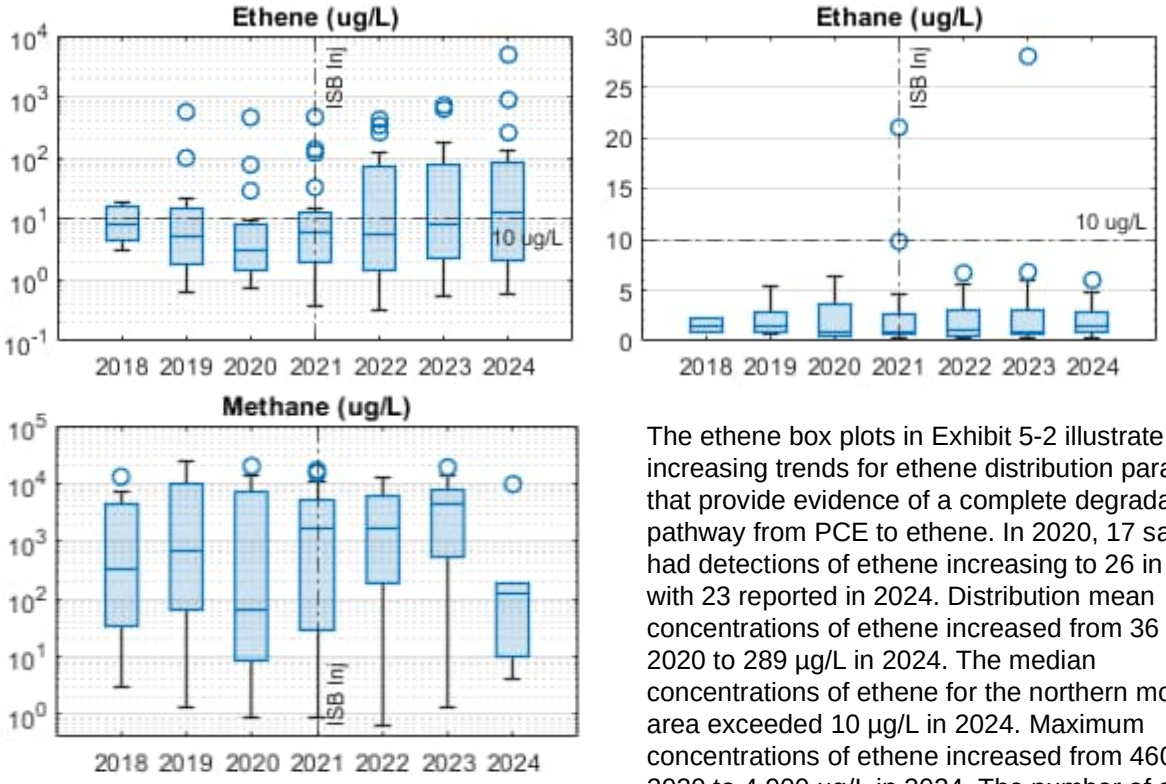
5.3.3 Dissolved Gases Evaluation

Section 5.3.3 discusses data distribution and trends for ethene, ethane, and methane that relate to biodegradation processes at OU 6. This evaluation focuses on monitoring completed for the period April 2018 through April 2024. The sampling frequency for dissolved gases included all collected samples for 2018-2022 ranging from 90 to 93 samples decreasing in 2023-2024 to 54 to 55 locations in and around plume areas with concentrations > MCLs. This assessment evaluates the surficial aquifer and confined aquifer in the northern and southern monitored areas at OU 6.

5.3.3.1 Surficial Aquifer: Northern Area

For the surficial aquifer in the northern area, Exhibit 5-2 (page 5-11) has a time series plots of data distributions (box plots) for ethene, ethane, and methane (2018-2024). This exhibit has reference lines for ISB injections completed in October-November 2021 (OU 1 area) and reference lines for ethene and ethane concentration thresholds of 10 µg/L used in the screening assessment presented in Table 5-1.

Exhibit 5-2 Dissolved Gas Distribution for Surficial Aquifer: Northern Area (2018-2024)



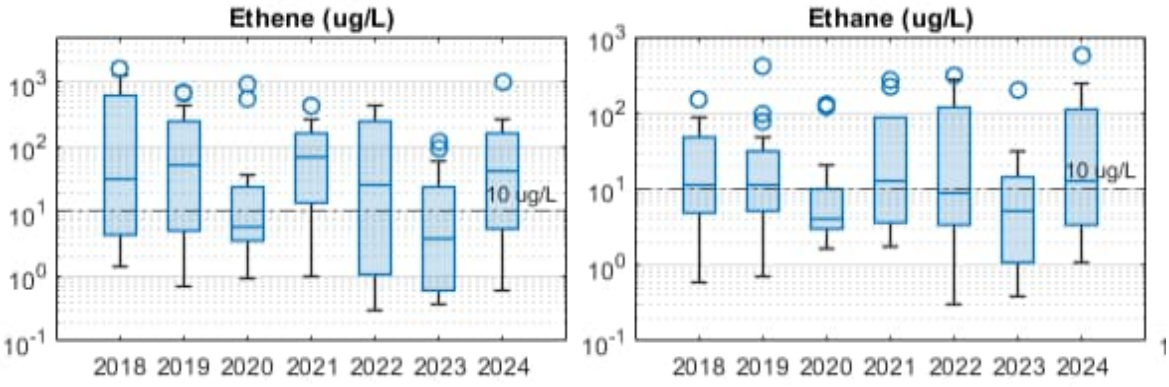
The ethene box plots in Exhibit 5-2 illustrate increasing trends for ethene distribution parameters that provide evidence of a complete degradation pathway from PCE to ethene. In 2020, 17 samples had detections of ethene increasing to 26 in 2022 with 23 reported in 2024. Distribution mean concentrations of ethene increased from 36 µg/L in 2020 to 289 µg/L in 2024. The median concentrations of ethene for the northern monitoring area exceeded 10 µg/L in 2024. Maximum concentrations of ethene increased from 460 µg/L in 2020 to 4,900 µg/L in 2024. The number of samples with ethene concentrations > 10 µg/L increased from three (3) in 2020 to 12 in 2023 and 2024. For 2018-2024, maximum concentrations for ethane peaked at 28 µg/L in 2023 in the ISB area.

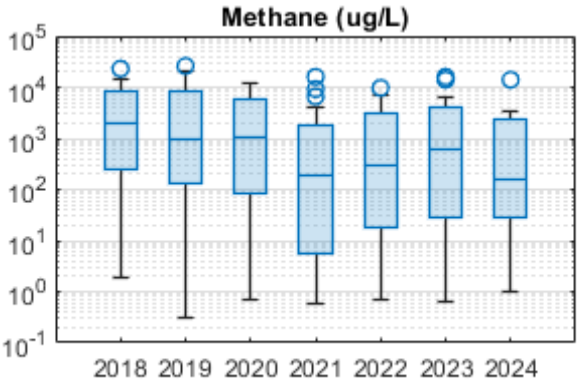
Ethane generation in the northern area increased after completion of the ISB injections in October-November 2021. The number of ethane detections increased from 6 in 2020 to a local maximum of 20 in 2022 with 13 detections reported for 2024. Mean concentrations for methane in the northern monitored area have exceeded 1 mg/L for 2018-2024 indicating highly reductive conditions that support anaerobic biodegradation processes for chlorinated VOCs.

5.3.3.2 Surficial Aquifer: Southern Area

For the surficial aquifer in the southern area, Exhibit 5-3 has a time series plots of data distributions (box plots) for ethene, ethane, and methane (2018-2024). This exhibit has reference lines for an ethene and ethane concentration threshold of 10 µg/L used in the screening assessment presented in Table 5-1. For 2018-2024, mean ethene concentrations in the southern monitoring area exceeded 110 µg/L except for 2023, which had a reported mean of 22 µg/L. The maximum concentrations of ethene reported for 2024 (1,000 µg/L) is the highest reported since 2018 (1,600 µg/L).

Exhibit 5-3 Dissolved Gas Distribution for Surficial Aquifer: Southern Area (2018-2024)



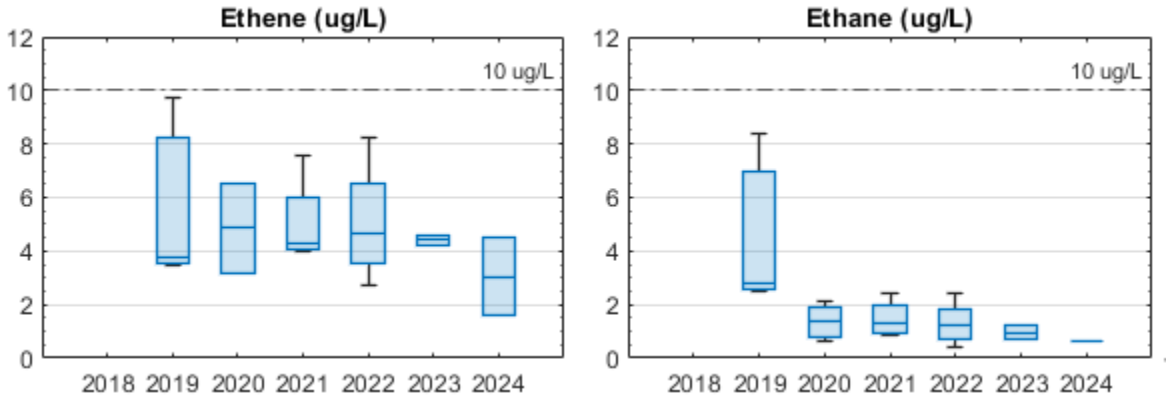


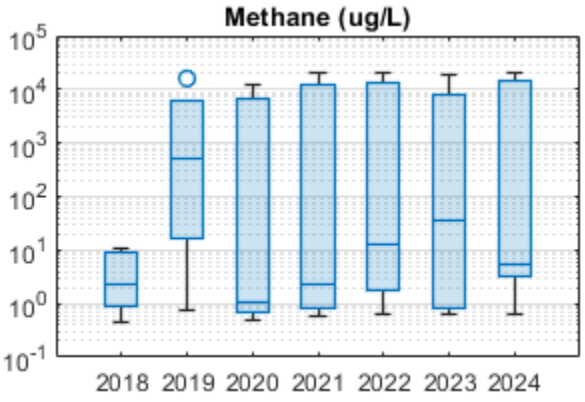
Mean concentrations for ethane have exceeded 20 µg/L for 2018-2024 with maximum concentrations ranging from 130 µg/L in 2020 to 570 µg/L in 2024. The levels of ethane and ethane present in VOC plume areas in the southern area indicate an active and complete pathway for anaerobic degradation of chlorinated VOCs from parent compounds to ethene and end product ethane. Mean concentrations for methane in the northern monitored area have exceeded 1 mg/L for 2018-2024 with maximum concentrations in the range of 10 mg/L to 26 mg/L. These levels of methane indicate highly reductive conditions that support anaerobic biodegradation processes for chlorinated VOCs.

5.3.3.3 Confined Aquifer: Northern Area

For the confined aquifer in the northern area, Exhibit 5-4 has a time series plots of data distributions (box plots) for ethene, ethane, and methane (2018-2024). This exhibit has reference lines for ethene and ethane concentration thresholds of 10 µg/L used in the screening assessment presented in Table 5-2.

Exhibit 5-4 Dissolved Gas Distribution for Confined: Northern Area (2018-2024)





For 2019-2024, detectable levels of ethene in the northern area ranged from 1.6 µg/L to 9.7 µg/L with two detections reported for 2023 and 2024. For ethene, the box plots show decreasing trends for frequency of detection and concentration metrics including maximum, median, and median concentrations.

For 2019-2024, detectable levels of ethane in the northern area ranged from 0.39 µg/L to 8.4 µg/L with two detections reported for 2023 and one detection reported for 2024. For ethane, the box plots show decreasing trends for frequency of detection and concentration metrics including maximum, median, and median concentrations.

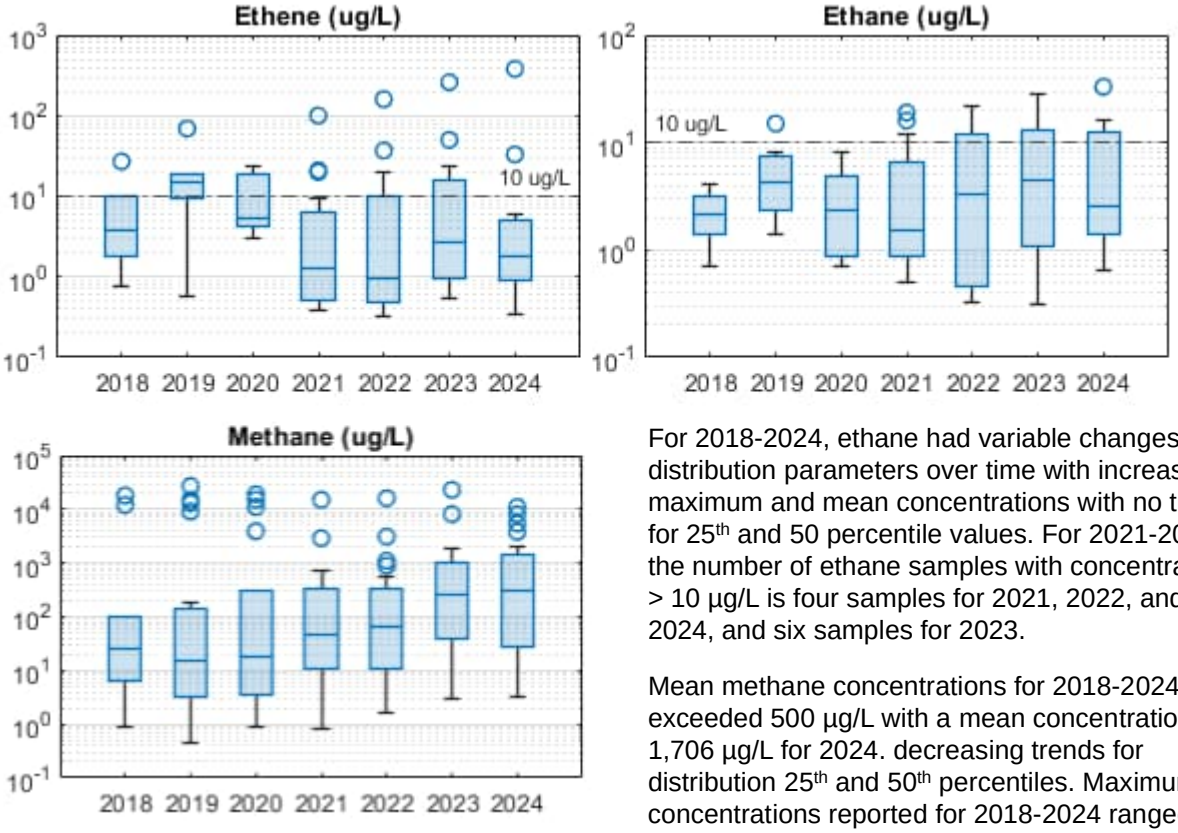
For 2019-2024 in the northern area, mean methane concentrations ranged from 2.6 mg/L to 7.1 mg/L. The detection of ethene, ethane, and higher concentrations of methane indicate reducing conditions that support anaerobic biodegradation process for chlorinated VOCs in the confined aquifer within the northern area of OU 6.

5.3.3.4 Confined Aquifer: Southern Area

For the confined aquifer in the southern area, Exhibit 5-5 (page 5-13) has a time series plots of data distributions (box plots) for ethene, ethane, and methane (2018-2024). This exhibit has reference lines for

an ethene and ethane concentration threshold of 10 µg/L used in the screening assessment presented in Table 5-2. For 2018-2024, ethene had variable changes in distribution parameters over time with increasing maximum and mean concentrations with decreasing trends for distribution 25th and 50th percentiles. The number of samples with ethene concentrations > 10 µg/L had a local maximum of four in 2022 with two samples having concentrations > 10 µg/L in 2024.

Exhibit 5-5 Dissolved Gas Distribution for Confined: Southern Area (2018-2024)



For 2018-2024, ethane had variable changes in distribution parameters over time with increasing maximum and mean concentrations with no trend for 25th and 50 percentile values. For 2021-2024, the number of ethane samples with concentrations > 10 µg/L is four samples for 2021, 2022, and 2024, and six samples for 2023.

Mean methane concentrations for 2018-2024 exceeded 500 µg/L with a mean concentration of 1,706 µg/L for 2024. decreasing trends for distribution 25th and 50th percentiles. Maximum concentrations reported for 2018-2024 ranged from 11,000 µg/L (2024) to 27,000 µg/L in 2019. The detection of ethene, ethane, and higher concentrations of methane indicate reducing conditions that support anaerobic biodegradation process for chlorinated VOCs in the confined aquifer within the southern area of OU 6.

5.3.4 Microbial Evaluation

Section 5.3.4 evaluates microbial data as a line of evidence for biodegradation processes in ISB treatment areas at OU 6. Table 5-3 has a microbial evaluation of census data obtained from wells MW-241, MW-242, MW-243, and MW-245 after completion of injections in October-November 2021.

Table 5-3 Microbial Evaluation for ISB Treatment (2022-2024 Data in cells per milliliter)

Location	x̄ DHC	x̄ tceA	x̄ VCR	x̄ Ethene	Microbial Assessment
MW-241	2.90E+04	5.55E+03	3.68E+03	1.82E+01	High DHC[2], tceA, VCR, and ethene presence, microbial/chemical indicate a pathway for dechlorination from PCE to ethene.
MW-242	2.40E+04	1.11E+01	1.71E+03	1.31E+02	High DHC[2], tceA, VCR, and ethene presence, microbial/chemical indicate a pathway for dechlorination from PCE to ethene.
MW-243	9.67E+04	1.47E+02	8.87E+03	6.27E+02	High DHC[2], tceA, VCR, and ethene presence, microbial/chemical indicate a pathway for dechlorination from PCE to ethene.
MW-245	1.94E+02	ND	2.22E+01	1.37E+02	Moderate DHC[1], VCR and ethene presence, microbial/chemical indicate a pathway for dechlorination from PCE to ethene.

Source: x̄ = mean for January 2022-May 2024 sample data, microbial census units = cells per milliliter, ethene units = micrograms per liter, [1]Moderate DHC levels x̄ 1E+01 to <1E+04 cells/mL, [2]High DHC levels x̄ ≥1E+04 cells/mL.

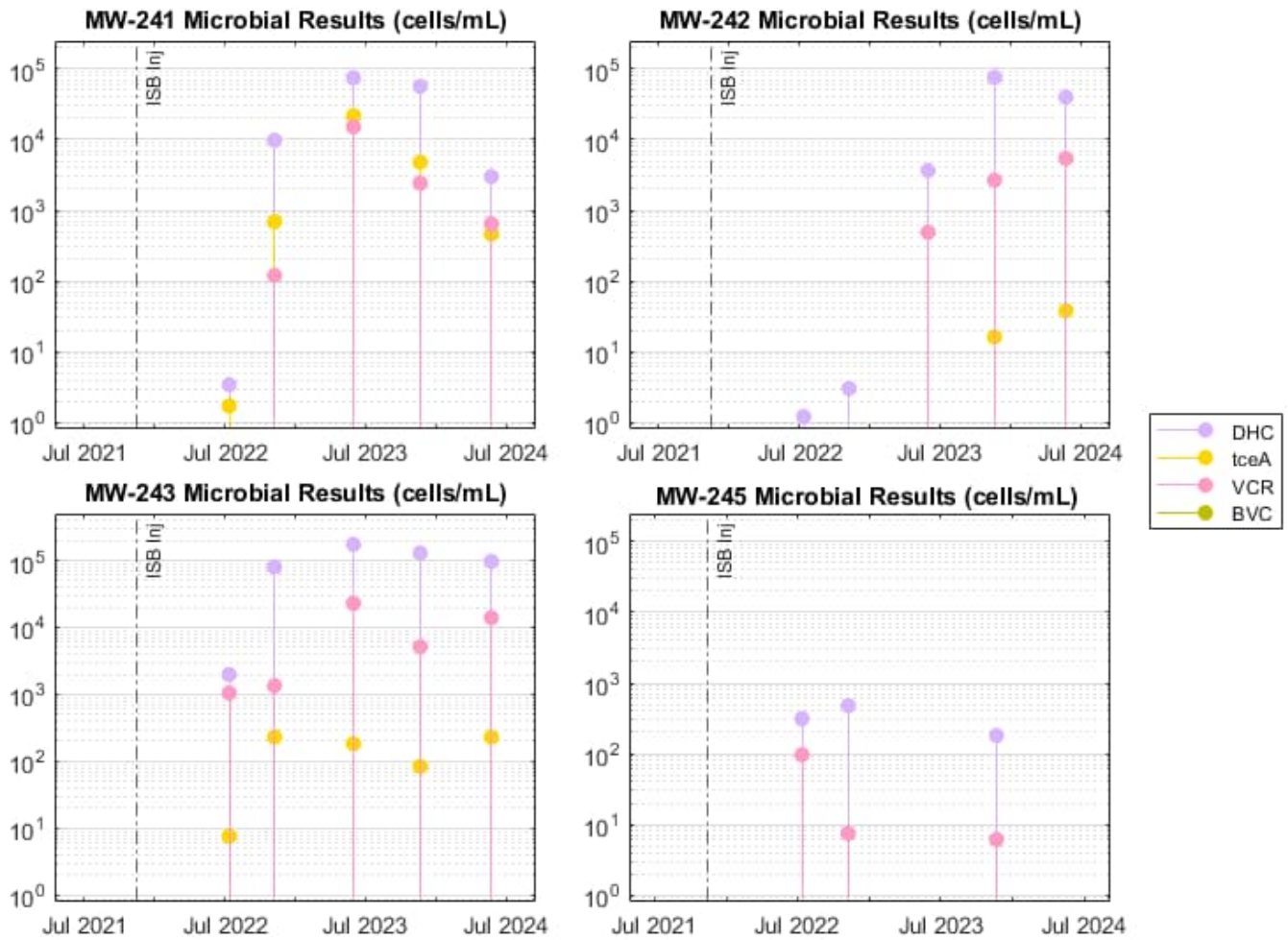
Five microbial sampling events occurred from July 2022 through May 2024. Exhibit 5-6 has microbial stem plots for wells MW-241, MW-242, MW-243, and MW-245 in the ISB treatment area beneath OU 1. Each plot has a reference line for the ISB injections completed in October-November 2021. Exhibit 5-6 shows post-ISB injection increases in DHC and microbial populations at each well exhibited the expected response with injection of the EVO substrate with bioaugmentation (DHC cultures).

A higher threshold for DHC populations is considered ≥ 1E+04 cells per milliliter (mL) that will yield functional biodegradation rates capable of degrading PCE to ethene. When moderate levels of DHC (1E+01 to ≤1E+03 cells/mL) are present with vinyl chloride reductase genes (VCR), complete dechlorination of PCE and TCE to ethene may still occur. Complete dechlorination of PCE and TCE to ethene is unlikely to occur under conditions when DHC levels < 1E+01 cells/mL.

The evaluations in Table 5-3 indicate mean DHC levels > 1E+04 cells/mL at wells MW-241, MW-242, and MW-243 and the presence of tceA and VC genes with mean ethene concentrations ranging from 1.83E+01 to 6.27E+02 µg/L. The microbial/chemical data for these wells indicate a pathway for dechlorination from PCE and TCE to ethene. Well MW-245 has moderate levels of DHC with tceA and VCR genes present with a mean ethene concentration of 1.37E+02 µg/L. These indicate a pathway for dechlorination of PCE and TCE to ethene.

As of May 2024, the concentrations of PCE, TCE, cDCE, and VC are < MCLs at wells MW-241, MW-242, and MW-245. At well MW-243, the percent decreases in PCE and TCE concentrations from pre-injection baseline to May 2024 are 88% with a 42% decrease for cDCE.

Exhibit 5-6 OU 1 ISB Treatment Area Microbial Data (2021-2024)



5.3.5 TOC Evaluation

TOC is a parameter measured in groundwater that is related to the EVO substrate used for ISB injections and treatment of groundwater. EVO used for the injection contains 60% vegetable oil with the injection designs having effective TOC concentrations[5] of 821 mg/L for treatment area TA-1, 816 mg/L for treatment area TA-2, and 788 mg/L for treatment area TA-3 (see Figure 5-1). The ISB performance monitoring program has included 15 monitoring wells in the northern area of OU 1 west of Building 54 (see Figure 3-1). Baseline monitoring performed on October 13-14, 2021 characterized groundwater conditions in and around the treatment area prior to the ISB injections performed from October 25-November 17, 2021.

5.3.5.1 TOC Data Distribution Changes

Table 5-4 has a data summary that characterizes changes in data distributions for TOC in groundwater after completion of the ISB injections. A green to red color gradient displays patterns and trends for the following distribution parameters for TOC: maximum concentration, mean concentration, median concentration, 75th percentile, and number of samples with TOC concentrations > 20 mg/L. The color gradient progresses from minimum (green) to median (yellow) to maximum (red). Distribution maxima for concentrations expressed as maximum, mean, median, and 75th percentile occurred between December 2021 and July 2022. The number of samples with TOC concentrations > 20 mg/L increased from one for baseline to seven for 2022 monitoring events, decreasing to five in November 2023 and May 2024. As of May 2024, the distribution mean concentration for TOC is 78.5 mg/L with a 75th percentile value of 48 mg/L.

Table 5-4 TOC Distribution Changes for OU 1 ISB Area (2021-2024, mg/L)

Event	Date	#D	Min	Max	Mean	Median	25th PCTL	75th PCTL	# Outliers	#>20 mg/L
ISB Baseline[1]	Oct 21	12	0.63	41	4.74	1.25	0.82	1.75	1	1
2021 Annual	Dec 21	14	0.86	3300	430	6	1.3	405	2	6
2022 Annual	Apr-May 22	14	0.58	3400	372.1	71	1.18	312	1	7
ISB Performance	Jul 2022	14	0.72	3600	359	20.5	1.6	250	1	7
ISB Performance	Nov 2022	14	0.59	3300	307.5	25.5	2.15	140	2	7
2023 Annual	May 23	13	0.78	2000	205	20	4.4	69.0	2	6
ISB Performance	Nov 23	14	0.61	1300	122.5	5.55	1.72	69.2	1	5
2024 Annual	May 24	14	0.72	760	78.5	8.05	1.3	48.0	1	5

Notes: mg/L = milligrams per liter., #D = number of detections, Min = minimum, Max = maximum, 25th PCTL = 25th percentile, 75th PCTL = 75th percentile, # = number, # outliers = number of distribution outliers. [1]ISB baseline performed on October 12-13, 2021 before ISB injections performed from 10/25/2021-11/17/2021.

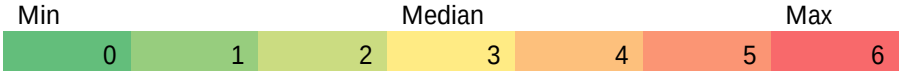


Table 5-5 (page 5-16) has ISB performance monitoring data expressed as mean concentrations of TOC by treatment area and for the overall combined treatment area. Additional columns in the table identify the design concentration for each treatment area, maximum TOC concentration detected in each treatment area, and treatment timeline relative to the 36-month ISB treatment design period.

A green to red color gradient displays patterns and trends for mean concentrations of TOC by treatment area for the monitoring period December 2021-May 2024. The color gradient progresses from minimum (green) to median (yellow) to maximum (red). Mean concentration peaks occurred in December 2021 for TA-1 and TA-2 and in July 2022 for TA-3. Table 5-5 shows sustainment of mean TOC levels > 20 mg/L

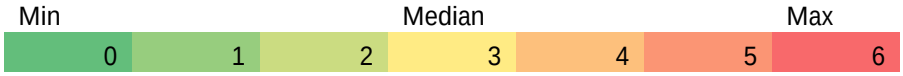
[5]Design concentration from treatment area design corresponding to the effective concentration for total volume of groundwater treated from AECOM-Meadows, 2021c. Final Operable Unit 6 Remedial Action Work Plan Addendum, Prepared for Defense Logistics Agency and U.S. Army Corps of Engineers, Baltimore, September 2021.

threshold in the treatment areas through 30 months of the 36 month design period, which corresponds to 83% of the 36 month design period.

Table 5-5 Mean TOC Concentrations in ISB Treatment Areas

Treatment Area	Design Conc.[1]	Max Conc.[2]	Mean TOC Concentration (mg/L)						
			Dec 21	Apr-May 22	Jul 22	Nov 22	May 23	Nov 23	May 24
TA-1	821	1300	366	223	179	136	112	57.5	28.7
TA-2	816	430	254	170	53.2	53.2	33.3	38.1	62
TA-3	788	3600	3300	3400	3600	3300	1310	1300	760
Area Wide	808	--	655	558	616	460	219	189	121
3 Yr. Design: Elapsed Months			1	5	8	12	18	24	30
Percent of 3 Yr. Design Period			3%	15%	22%	33%	50%	67%	83%

Notes: mg/L = milligrams per liter, [1]Design concentration from treatment area design corresponding to the effective concentration for total volume of groundwater treated from AECOM-Meadows, 2021c. Final Operable Unit 6 Remedial Action Work Plan Addendum, Prepared for Defense Logistics Agency and U.S. Army Corps of Engineers, Baltimore, September 2021. 2maximum concentration for the subset of monitoring wells associated with each treatment area for post-baseline monitoring period of December 2021-May 2024.



5.3.5.2 TOC and VOC Distribution (2024)

Exhibit 5-7 (page 5-17) has scatter plots for TOC vs. primary COC concentrations (May 2024) with reference lines for cleanup level (MCLs) and a TOC threshold of 20 mg/L, which provides an energy source for enhanced bioremediation (EPA 1998, 29). These plots evaluate the correlation between these variables supplemented by linear correlation analysis (Pearson's linear correlation coefficient) to quantify the degree and statistical significance of correlation.

TOC vs. PCE

The plot for TOC vs. PCE shows 20 sample locations have detectable levels of these constituents. Nine locations have PCE concentrations < MCLs and TOC concentrations < 20 mg/L. Eight locations have PCE concentrations > MCLs with TOC concentrations < 20 mg/L with a maximum concentration of 75 µg/L reported for PCE. The remaining PCE hotspot at well MW-243 (4,300 µg/L) has a TOC concentration of 130 mg/L.

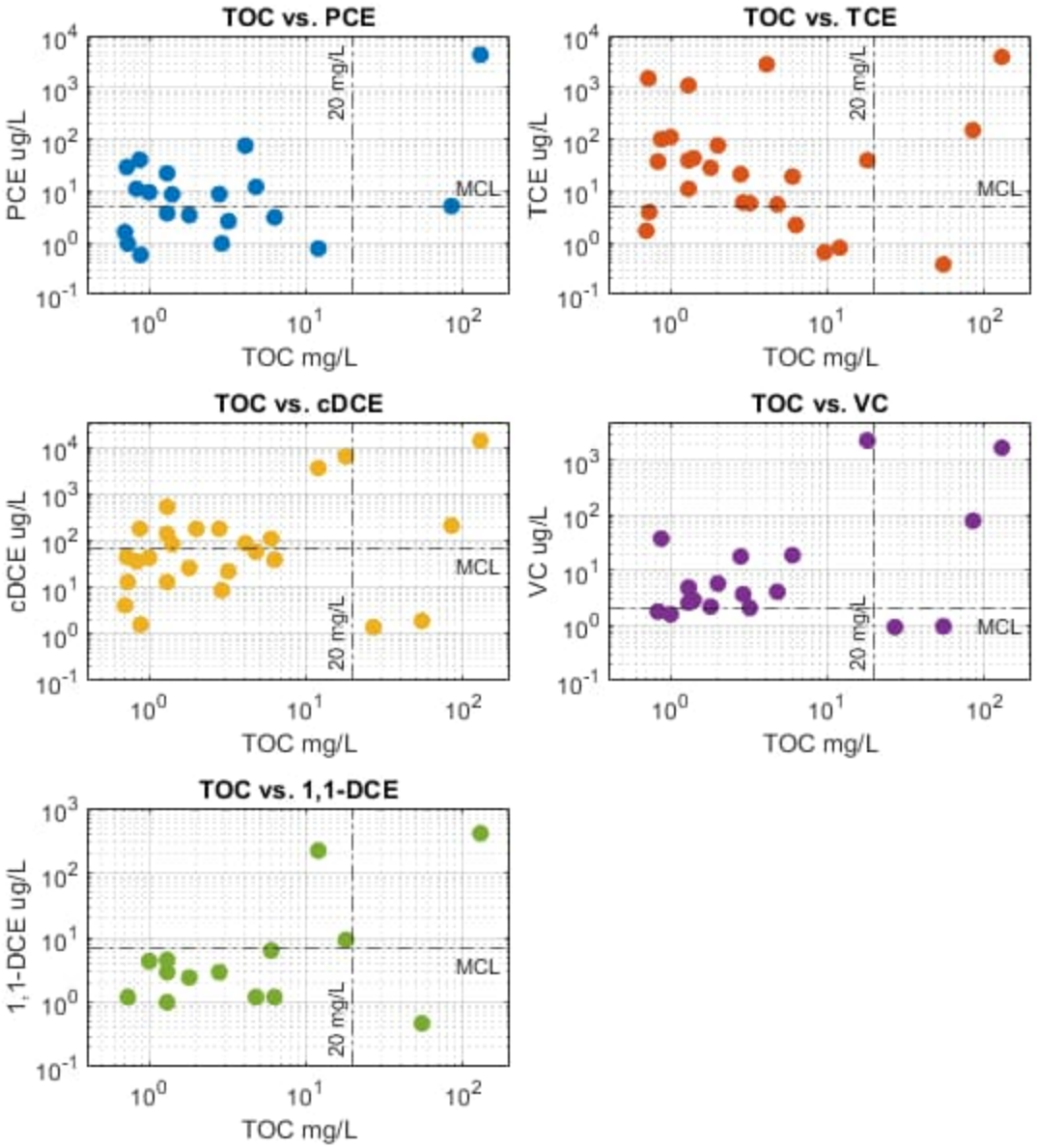
The calculated correlation coefficient for TOC vs. PCE is 0.8253 with a p-value of 6.93E-07 at a significance level of 0.05 (5%). This result indicates statistically significant, positive correlation between TOC and PCE.

TOC vs. TCE

The plot for TOC vs. TCE shows 25 sample locations have detectable levels of these constituents. Five locations have TCE concentrations < MCLs and TOC concentrations < 20 mg/L. Seventeen locations have TCE concentrations > MCLs with TOC concentrations < 20 mg/L with a maximum concentration of 2,800 µg/L reported for TCE. The remaining TCE hotspot at well MW-243 (3,800 µg/L) has a TOC concentration of 130 mg/L with one additional sample location having TCE concentration of 150 µg/L and a TOC concentration of 85 mg/L.

The calculated correlation coefficient for TOC vs. TCE is 0.5484 with a p-value of 4.63E-03 at a significance level of 0.05 (5%). This result indicates statistically significant, positive correlation between TOC and TCE.

Exhibit 5-7 TOC vs. VOCs Northern Monitoring Area: Surficial Aquifer (May 2024)



TOC vs. cDCE

The plot for TOC vs. cDCE shows 26 sample locations have detectable levels of these constituents. Twelve locations have cDCE concentrations < MCLs and TOC concentrations < 20 mg/L. Nine locations have cDCE concentrations > MCLs with TOC concentrations < 20 mg/L with a maximum concentration of 6,400 µg/L reported for cDCE. A second well (MW-243) in the remaining VC hotspot (14,000 µg/L) has a TOC concentration of 130 mg/L with one additional sample location having a cDCE concentration of 210 µg/L and a TOC concentration of 150 mg/L.

The calculated correlation coefficient for TOC vs. cDCE is 0.0814 with a p-value of 6.83E-01 at a significance level of 0.05 (5%). This result does not indicate linear correlation between TOC and cDCE.

TOC vs. VC

The plot for TOC vs.VC shows 18 sample locations have detectable levels of these constituents. Two locations have VC concentrations < MCLs and TOC concentrations < 20 mg/L. Twelve locations have VC concentrations > MCLs with TOC concentrations < 20 mg/L with a maximum concentration of 2,300 µg/L reported for VC. A second well (MW-243) in the remaining VC hotspot (1,700 µg/L) has a TOC

concentration of 130 mg/L with one additional sample location having a VC concentration of 80 µg/L and a TOC concentration of 150 mg/L.

The calculated correlation coefficient for TOC vs. VC is 0.4784 with a p-value of 4.46E-02 at a significance level of 0.05 (5%). This result indicates statistically significant, positive correlation between TOC and VC.

TOC vs. 1,1-DCE

The plot for TOC vs.1,1-DCE shows 14 sample locations have detectable levels of these constituents. Ten locations have 1,1-DCE concentrations < MCLs and TOC concentrations < 20 mg/L. Two locations have 1,1-DCE concentrations > MCLs with TOC concentrations < 20 mg/L with a maximum concentration of 220 µg/L reported for 1,1-DCE. Well MW-243 has a 1,1-DCE concentration (410 µg/L) greater than the MCL with a TOC concentration (130 mg/L) > 20 mg/L.

The calculated correlation coefficient for TOC vs. 1,1-DCE is 0.8131 with a p-value of 4.05E-04 at a significance level of 0.05 (5%). This result indicates statistically significant, positive correlation between TOC and 1,1-DCE.

Summary

TOC has statistically significant, positive correlation with PCE, TCE, VC, and 1,1-DCE where both constituents are detected in samples collected from the northern monitoring area principally within OU 1 The degree of correlation decreases along the reaction pathway from PCE to VC with cDCE having no linear correlation with TOC. The decreases in correlation is an expected result given that bioremediation processes first reduce PCE and then sequentially reduce less chlorinated VOCs. Treatment of the hotspots found in the OU 1 area have generated higher concentrations of cDCE and VC that have reduced TOC concentrations relative to the remaining concentrations of these constituents.

5.4 VOC Plume Distribution Trends

Section 5.4 discusses VOC plume conditions for the remedy performance assessment. Appendix E.3 has statistical evaluations for VOC plumes. The data sets used for the evaluations are annual monitoring events for 2018-2024.

5.4.1 Plume Distribution Trends: Surficial Aquifer

Section 5.4.1 uses time-series plots (box plots and line plots) to evaluate plume distribution for primary COCs in the surficial aquifer.

5.4.1.1 Northern Area

COCs in the northern area include PCE, TCE, cDCE, VC, and 1,1-DCE. Exhibit 5-8 (page 5-19) has tiled box plots and line plots. These plots have x-axis reference lines for the ISB injections performed in 2021 and the box plots have y-axis reference lines for cleanup levels (MCLs).

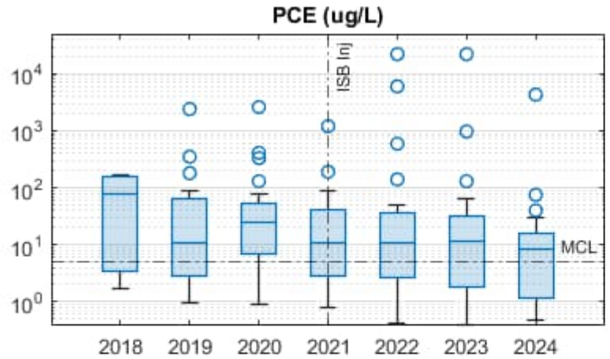
Number of Detections

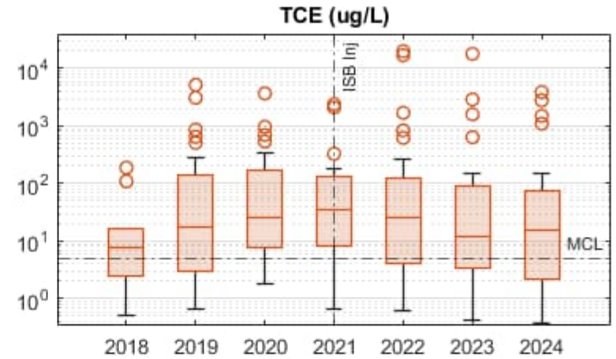
cDCE has the greatest number of detections slighter more frequent than TCE followed by PCE, 1,1-DCE, and VC. Following the sequential degradation pathway shown in Exhibit 5-1, the parent and immediate daughter products have a high correlation (positive) for the number of detections over time that is statistically significant with p-values ≤2.22E-03.

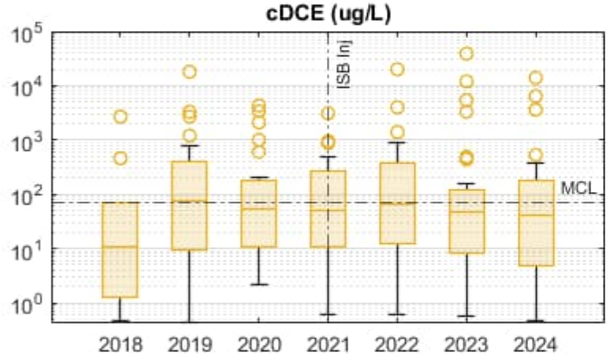
Concentrations

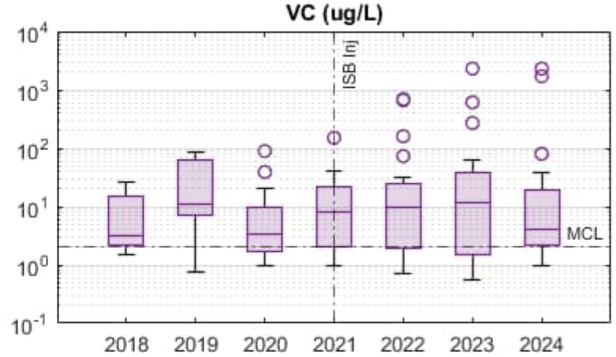
For 2018-2024, data distributions for PCE, TCE, cDCE, and 1,1-DCE had a similar pattern of an increase in mean and maximum concentrations with sequential peaking concentrations observed for PCE and TCE in 2022 followed by cDCE and 1,1-DCE in 2023. VC had an increasing trend for mean and maximum concentrations for 2018-2024. Upper quartile concentrations had decreasing trends for PCE (2018-2024) and TCE (2020-2024) with generally sinusoidal variation for cDCE, 1,1-DCE, and VC.

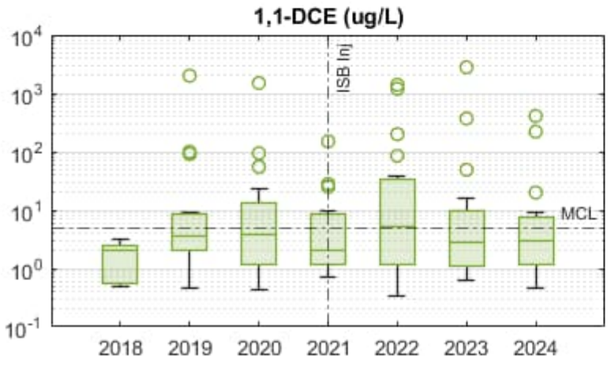
Exhibit 5-8 VOC Distribution Trends for Surficial Aquifer: Northern Area (2018-2024)

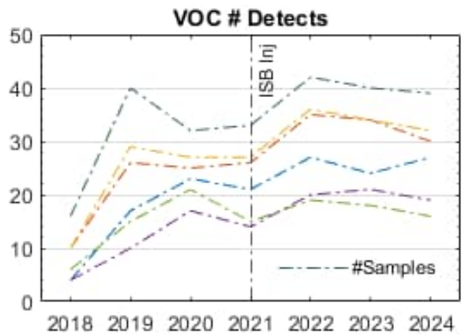


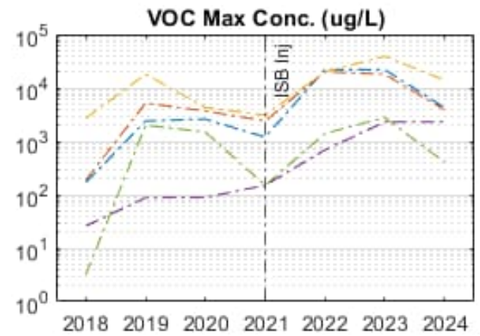


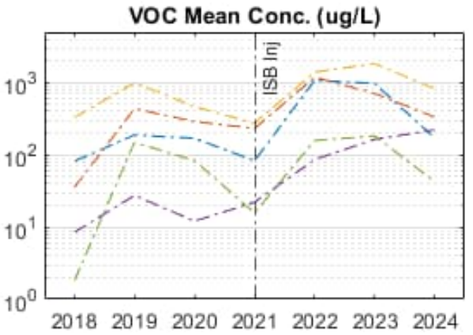


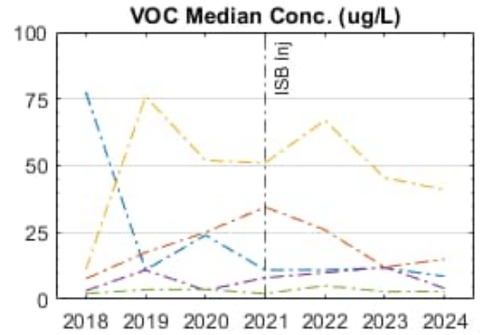


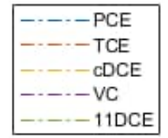


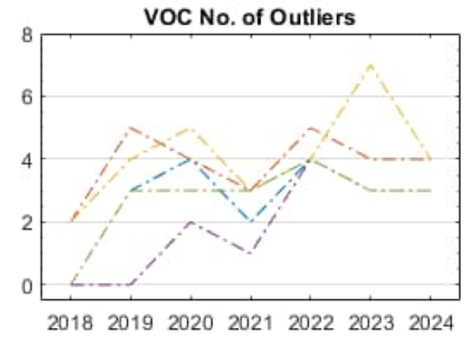


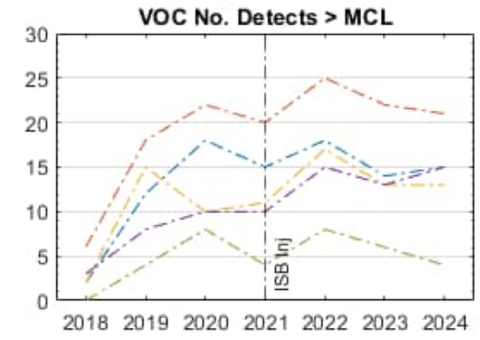












Median concentrations had a decreasing trend for PCE with an increasing trend for TCE that peaked in 2021 (34.5 µg/L) decreasing to 15 µg/L in 2024. Median concentrations for cDCE, 1,1-DCE, and VC generally had sinusoidal variation with concentrations < MCLs for cDCE and 1,1-DCE in 2023 and 2024. The maxima for sinusoidal variation occurred in 2019 for cDCE, in 2022 for 1,1-DCE, and in 2023 for VC.

Distribution Outliers

For 2018-2024, PCE had local maxima for the number of distribution outliers (five) in 2019 and 2022 decreasing to four outliers in 2023 and 2024. In 2019 and 2022, TCE had local maxima (five) for distribution outliers decreasing to four outliers in 2023 and 2024. cDCE had a peak number of outliers (seven) in 2023 decreasing to four outliers in 2024. VC and 1,1-DCE had a peak number of outliers (four) in 2022 decreasing to three in 2023 and 2024.

No. of Detections > MCLs

For 2018-2024, COCs had a peak number of detections > MCLs in 2022 with 25 of 42 samples exceeding the MCL for TCE followed by 18 samples for PCE, 17 samples for cDCE, 15 samples for VC, and 8 samples for 1,1-DCE. As of 2024, 21 of 39 samples had exceedances of the TCE MCL followed by 15 samples for PCE, 13 samples for cDCE, 15 samples for VC, and 4 samples for 1,1-DCE.

5.4.1.2 Southern Area

COCs in the southern area include PCE, TCE, cDCE, VC, 1,2-DCA, 1,4-DCB, and CB. Exhibit 5-9 (page 5-12) has tiled box plots and line plots. Box plots include all of these COCs with line plots displaying primary COCs PCE, TCE, cDCE, and VC. The box plots have y-axis reference lines for cleanup levels (MCLs).

Number of Detections

cDCE has the greatest number of detections for the surficial aquifer in the southern area followed by TCE, VC, CB, 1,4-DCB, PCE, and 1,2-DCA. Following the sequential degradation pathway shown in Exhibit 5-1, the parent and immediate daughter products for PCE vs. TCE and TCE vs. cDCE have a high positive correlation for the number of detections over time that is statistically significant with p-values ≤6.80E-03. cDCE vs. VC had moderate positive correlation (0.6452) with a p-value of 1.18E-01.

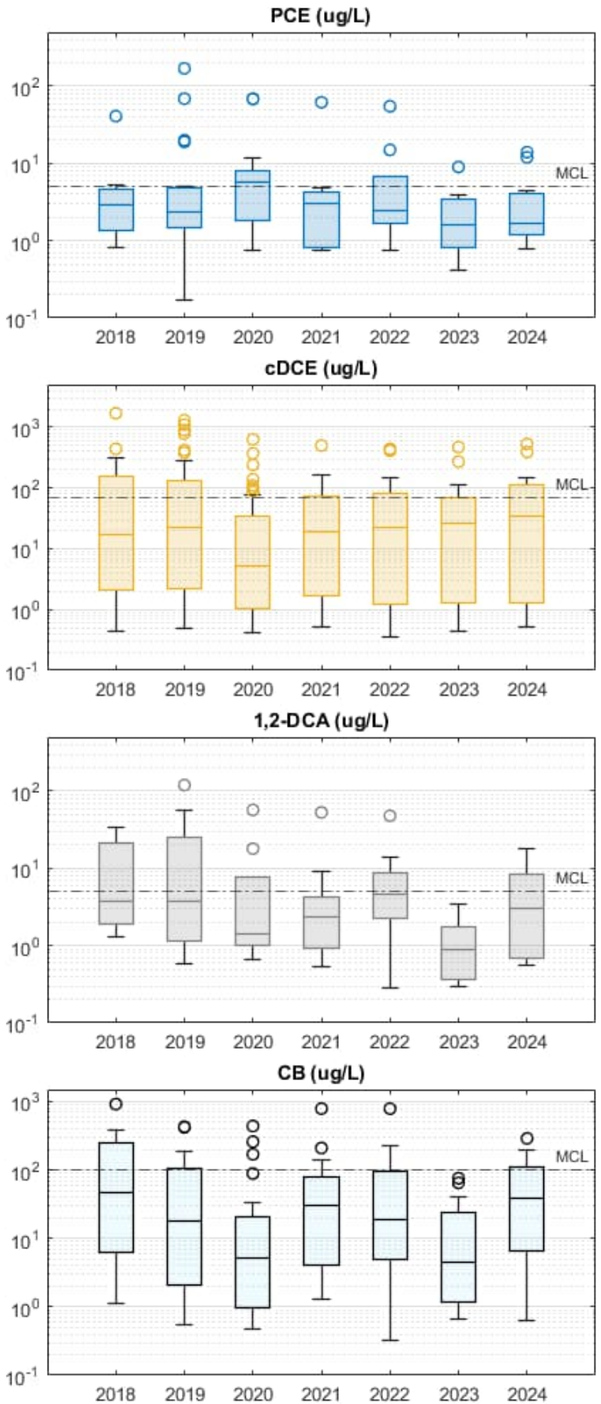
Concentrations

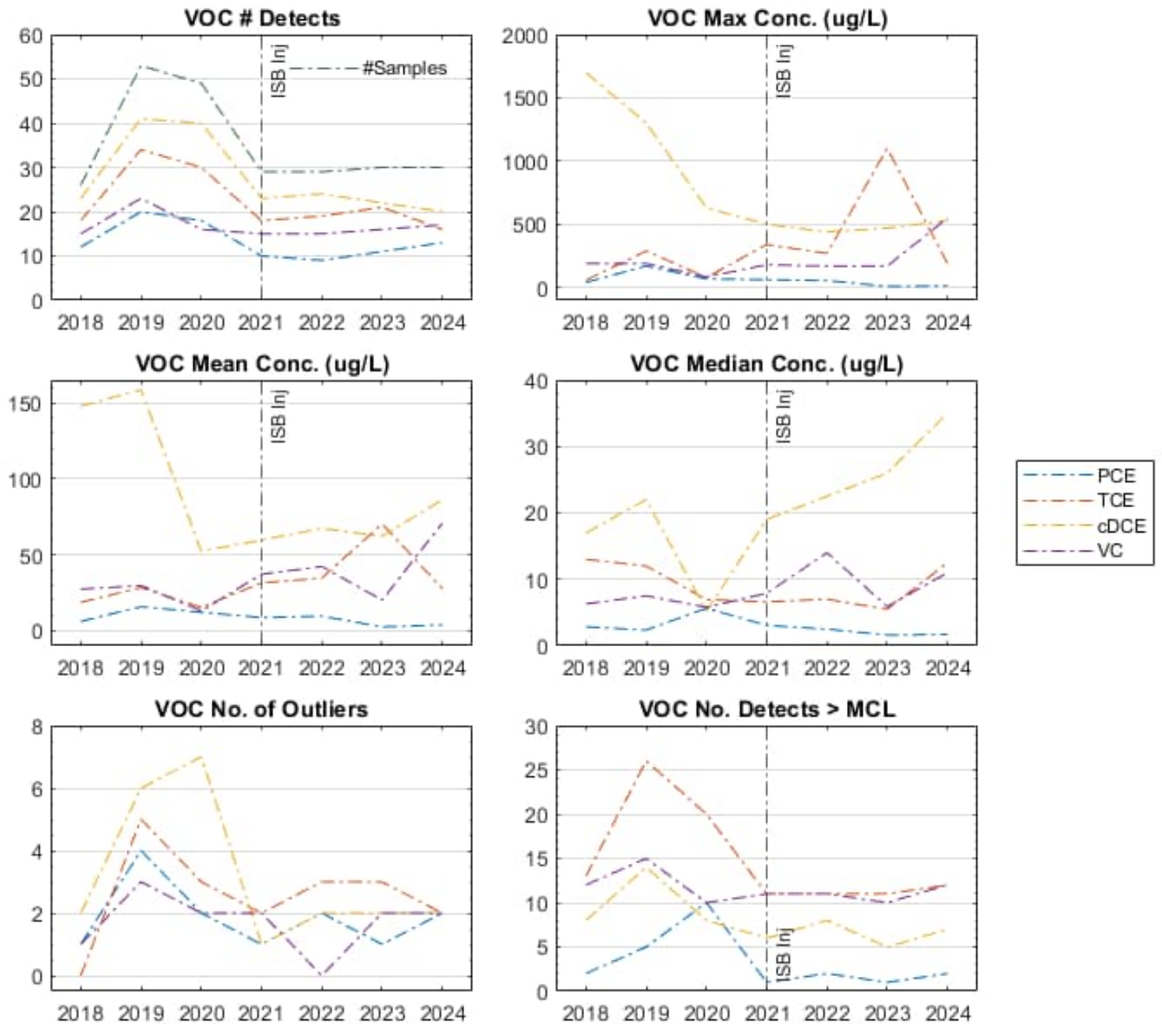
For 2018-2024, PCE had upper quartile concentrations < MCL for 5 of 7 events including 2023 and 2024 with 2020 and 2022 slightly > MCL. Maximum concentrations of PCE peaked in 2019 (170 µg/L) decreasing to 14 µg/L in 2024. TCE had upper quartile concentrations generally with sinusoidal variation ranging 32 µg/L in 2018 to 16 µg/L in 2022 and 2023 with a reported concentration of 26.6 µg/L in 2024. TCE maximum concentrations for 2018-2024 consisted of outliers peaking in 2023 at 1,100 µg/L with a reported maximum concentration of 190 µg/L in 2024.

For 2018-2024, cDCE had peak concentration for maximum and upper quartile in 2018 with the median peaking in 2024. The distribution parameters did not have linear decreasing values from the observed peaks. VC had peak concentrations for the maximum and mean in 2024 with peaks for the upper quartile and median occurring in 2022. and upper quartile distribution values in 2018 with mean peaking in 2020 and median peaking in 2024. These distribution parameters did not have linear decreasing values from the observed peaks.

For 2018-2024, 1,2-DCA had peak concentrations for maximum, mean, and upper quartile in 2019 with the median peak in 2022. These distribution parameters did not have linear decreasing values from the observed peaks. 1,4-DCB had peak concentrations for maximum, mean, median in 2022 with the peak for the upper quartile occurring in 2018. CB had peak maximum concentrations in 2019 with maxima for mean, median, and upper quartile occurring in 2018.

Exhibit 5-9 VOC Distribution Trends Surficial Aquifer: Southern Area (2018-2024)





Distribution Outliers

For 2018-2024, the number of distribution outliers peaked for PCE (4), TCE (5) and VC (2) in 2019 with a local maxima for cDCE (7) in 2020 with the number of outliers decreasing to two (2) in 2024.

No. of Detections > MCLs

For 2018-2024, COCs had a peak number of detections > MCLs in 2019 with 26 of 53 samples exceeding the MCL for TCE followed by 15 samples for VC, 14 samples for cDCE, 7 for 1,2-DCA, 6 for CB, and 5 for 1,4-DCB. In 2020, PCE had 10 of 49 samples exceeding the MCL. In 2024, sampling included 30 locations with 12 MCL exceedances for TCE and VC, 7 MCL exceedances for cDCE, 4 MCL exceedances for 1,2-DCA, 1,4-DCB, and CB with 2 MCL exceedances for PCE.

5.4.2 Plume Distribution Trends Confined Aquifer

Section 5.4.2 uses time-series plots (box plots and line plots) to evaluate plume distribution for primary COCs in the confined aquifer.

5.4.2.1 Northern Area

COCs in the northern area include PCE, TCE, and 1,1-DCE with cDCE and VC detected at concentrations < MCLs. Exhibit 5-10 (page 5-23) has tiled box plots and line plots. Box plots have y-axis reference lines for cleanup levels (MCLs).

Number of Detections

TCE has the greatest number of detections in the confined aquifer for the northern area followed by cDCE, PCE, 1,1-DCE with single detections of VC reported in 2023 and 2024. Following the sequential degradation pathway shown in Exhibit 5-1, the parent and immediate daughter products through the pathway have positive correlation that is statistically significant for PCE vs. TCE.

Concentrations

For 2018-2024, PCE and 1,1-DCE had increasing trends for maximum, mean, and median concentrations with no overall trends for TCE, cDCE, and VC concentrations.

Distribution Outliers

For 2018-2024, cDCE had a single distribution outlier for 2019 and 2024.

No. of Detections > MCLs

For 2018-2024, TCE and PCE have statistically significant correlation (positive) for the number of detections > MCLs. TCE for the period had 4 to 6 samples with concentrations > MCL with four samples in 2024 having concentrations > MCL. PCE for the period had 1 to 2 samples with concentrations > MCL. 1,1-DCE for the period had a reported concentration > MCL in 2024.

5.4.2.2 Southern Area

COCs in the southern area include PCE, TCE, cDCE, and VC. Exhibit 5-11 (page 5-24) has tiled box plots and line plots. Box plots have y-axis reference lines for cleanup levels (MCLs).

Number of Detections

cDCE and TCE had the most detections for the confined aquifer in the southern area followed by VC and PCE. Following the sequential degradation pathway shown in Exhibit 5-1, the parent and immediate daughter products through the pathway have moderate correlation (positive) for number of detections.

Concentrations

For 2018-2024, PCE had a M-K increasing trend for maximum concentrations with an overall increase in the distribution mean. 1,1-DCE had increasing trends for maximum, mean, and median concentrations with no overall trends for TCE, cDCE, and VC concentrations.

Exhibit 5-10 VOC Distribution Trends Confined Aquifer: Northern Area (2018-2024)

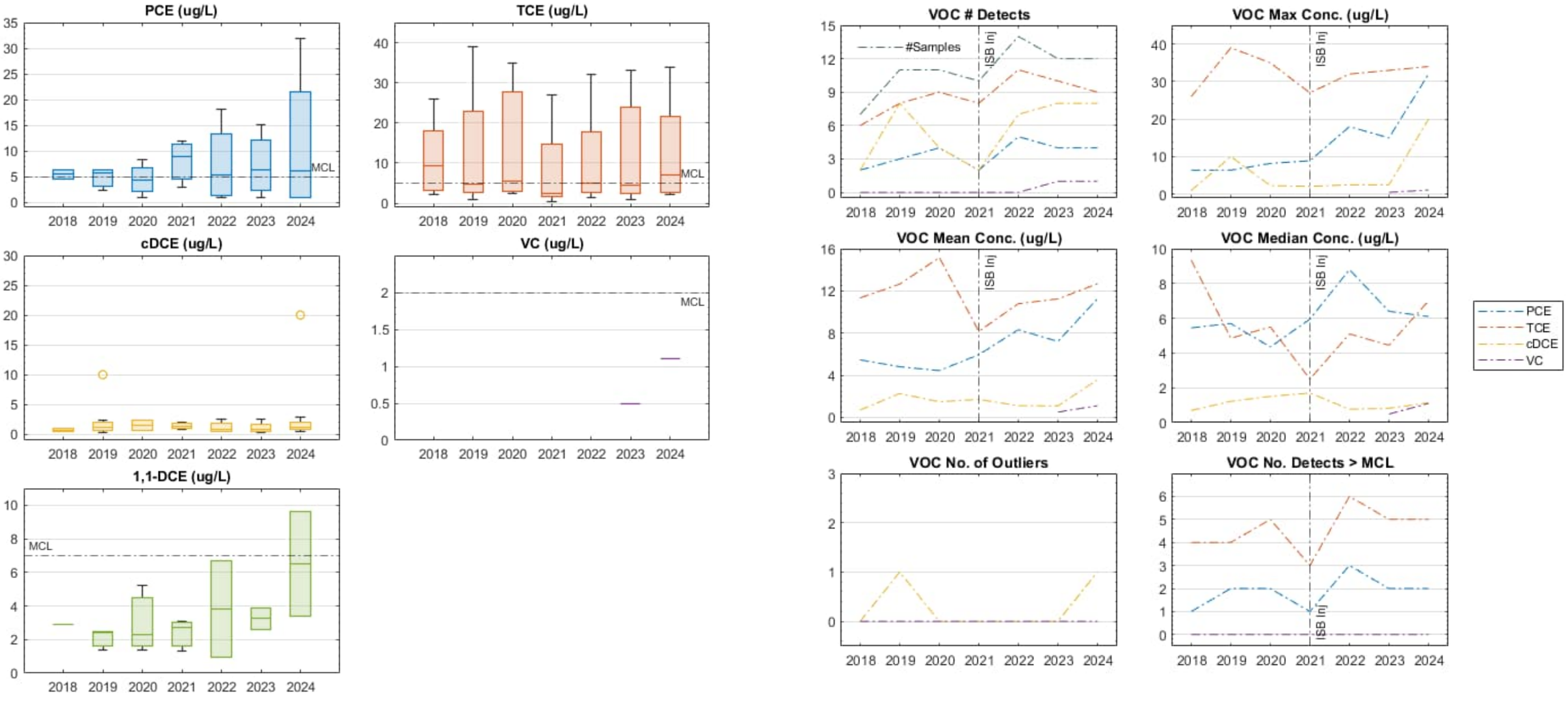
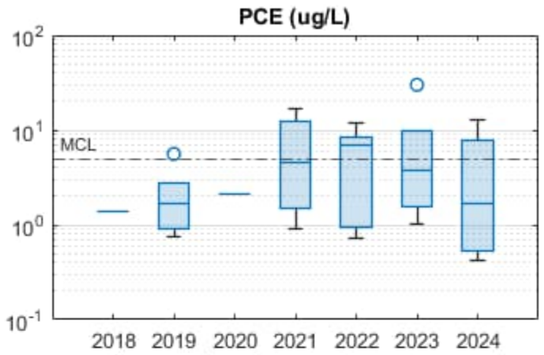
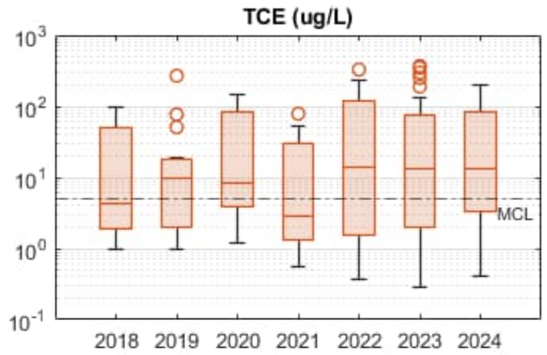
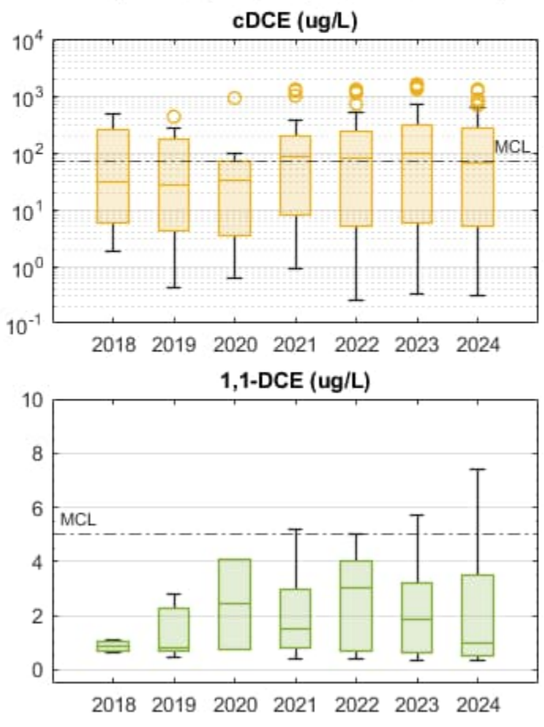
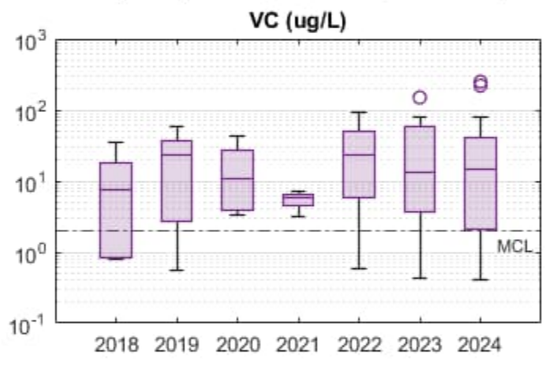


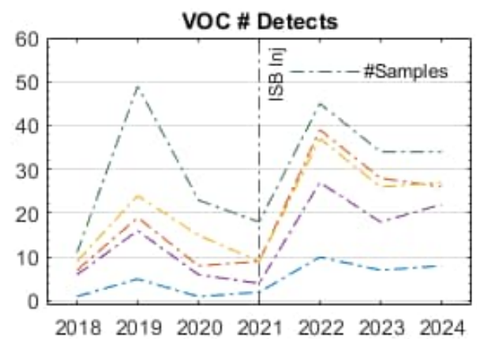
Exhibit 5-11 VOC Distribution Trends Confined Aquifer: Southern Area (2018-2024)

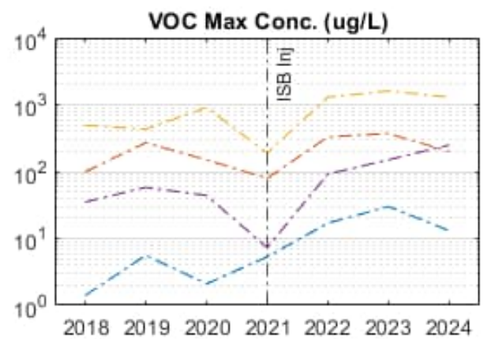


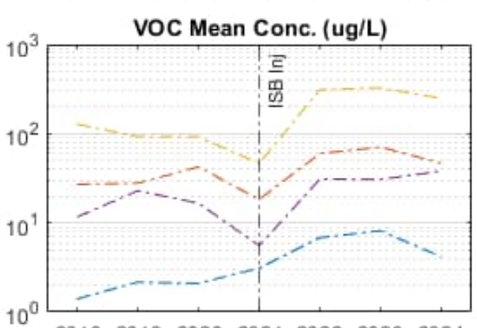


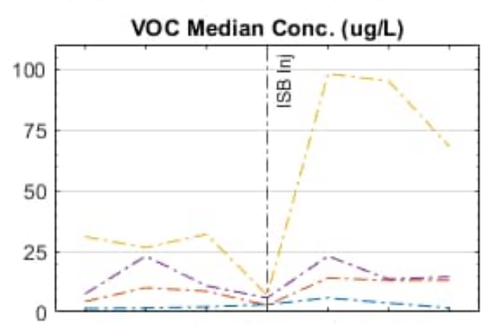


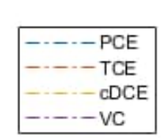


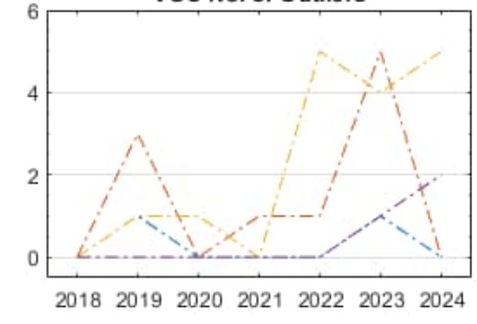


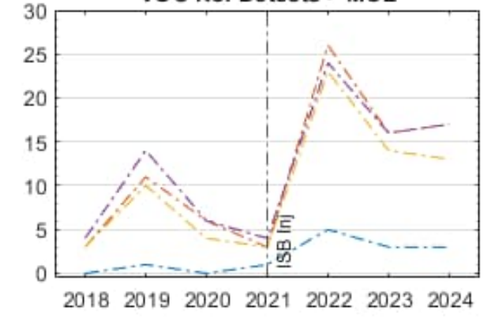












Distribution Outliers

For 2018-2024, the number of distribution outliers for PCE (1) and TCE (5) peaked in 2023 with an increasing trend for cDCE with no outliers reported for 2018 and five outliers reported for 2022 and 2024. VC had one distribution outlier reported for 2023 and two distribution outliers reported for 2024.

No. of Detections > MCLs

For 2018-2024, a peak for the number samples with concentrations > MCLs occurred in 2022 with the most exceedances for TCE (26) followed by VC (24), cDCE (23), and PCE (5). As of 2024, TCE and VC each 17 samples with concentrations > MCLs with 13 for cDCE and three (3) for PCE. Parent and daughter products have positive correlation (moderate) for the number of detections > MCLs.

5.5 Bulk Plume Area Trends

One objective of groundwater remedial actions at OU 6 is to reduce the extent of bulk plume areas. This remedy performance assessment evaluates changes in bulk plume areas (acres) using data from the new monitoring network for 2021-2024. Descriptive statistics used to evaluate changes in bulk plume areas include percent change[6], linear correlation (correlation)[7] for plume area vs. times and between parent and daughter plume areas over time, and Mann-Kendall[8] trend tests for plume area vs. time. Appendix E.4 has statistical evaluations for bulk plume trends for OU 6.

5.5.1 VOC Bulk Plume Areas: Surficial Aquifer

Section 5.5.1 discusses VOC bulk plume trends for the surficial aquifer at OU 6. Exhibits 5-12 (page 5-26) and 5-13 (page 5-27) have stem plots that visualize the timeseries data for the surficial aquifer in the northern and southern areas, respectively. Figures 5-3 through 5-6 (pages 5-28-5-31) display the differences in PCE, TCE, cDCE, and VC plumes for 2021 and 2024.

5.5.1.1 Northern Area

Table 5-6 has summary statistics for bulk plume areas for the surficial aquifer in the northern monitoring area. PCE, TCE, cDCE, and VC plume areas did not have statistically significant correlation or M-K trends for plume areas vs. time. PCE and TCE bulk plumes had moderate correlation (negative) with PCE having a slight increase in plume area from 5.11 acres in 2021 to 5.27 acres in 2024 (3.1% change) contrasted by TCE that had a decrease of 11.2% in plume area from 11.0 acres in 2021 to 9.77 acres in 2024. TCE and cDCE plume areas had moderate correlation (positive).

Table 5-6 Bulk Plume Area Metrics: Northern Area Surficial Aquifer

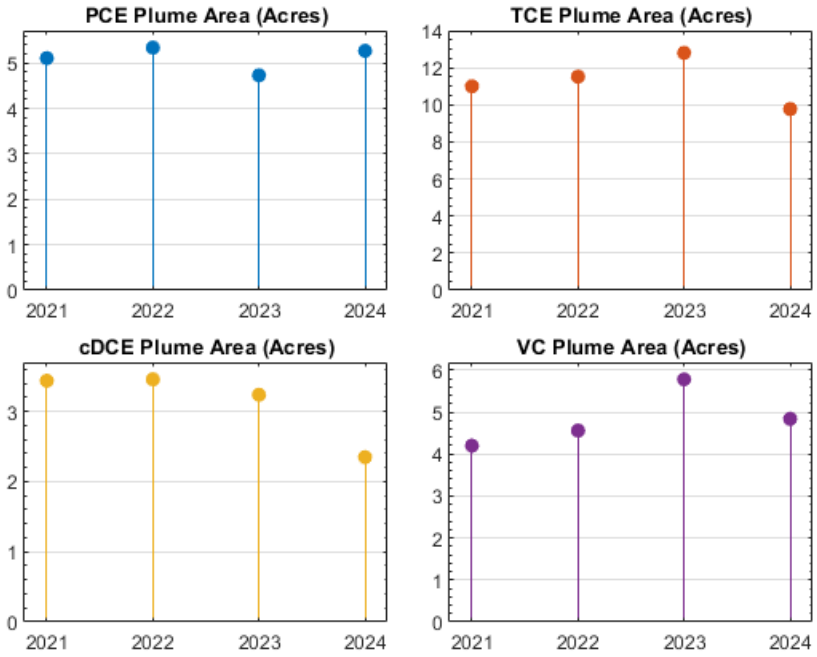
	Plume Area (Acres)					Linear Correlation			M-K One Way Trend		
Plume	2021	2022	2023	2024	Δ%	r	p-value (α=0.05)	Corr	H	p-value (α=0.05)	SS Trend
PCE	5.11	5.34	4.73	5.27	3.1	-6.16E-02	9.38E-01	No	0	0	No
TCE	11.0	11.5	12.8	9.77	-11.2	-2.48E-01	7.52E-01	Low (-)	0	0	No
cDCE	3.44	3.46	3.24	2.35	-31.7	-8.59E-01	1.41E-01	High (-)	0	-1.54E-01	No
VC	4.20	4.56	5.78	4.84	15.2	6.00E-01	4.00E-01	Mod (+)	0	1.54E-01	No
PCE vs TCE						-7.44E-01	2.56E-01	Mod (-)			
TCE vs cDCE						6.77E-01	3.23E-01	Mod (+)			
cDCE vs VC						-1.76E-01	8.24E-01	Low (-)			

Notes: : PCE = tetrachloroethene, TCE = trichloroethene, cDCE = cis-1,2-dichloroethene, VC = vinyl chloride, Δ% = percent change in bulk plume area from 2021 to 2024, % reduction in plume area from 2021 to 2024, r = Pearson's linear correlation coefficient, p-value = probability value, Corr. = correlation: negative (-), positive correlation (+), M-K = Mann-Kendall, SS Trend = statistically significant trend at a significance level of 0.05 (5 percent).

[6] Percent change of bulk plume area from 2021 to 2024.
[7] Pearson's linear correlation coefficient at a significance level (alpha) of 0.05 or 5 percent.
[8] Mann-Trend test for monotonic trend with a one-way test that evaluate an alternative hypothesis of trend greater than zero or less than zero.

Figure 5-3 (page 5-28) for PCE in 2024 shows a reduction of the hotspot around wells MW-243 and MW-130 with overall lower concentrations compared to 2021. Figure 5-4 for TCE in 2024 (page 5-29) shows a shift of the hotspot area to the west of well MW-243 with a reduced plume area toward the east and Building 54 compared to 2021. cDCE had a 31.7% decrease in plume area from 2021 to 2024 with high linear correlation (negative) vs. time. Figure 5-5 (page 5-30) for cDCE in 2024 shows two plume areas of reduced area compared to 2021.

Exhibit 5-12 VOC Plume Area Changes for Surficial Aquifer: Northern Area



The stem plot for VC shows an increase in plume area from 4.2 acres in 2021 to a local maximum of 5.78 acres in 2023 decreasing to 4.84 acres in 2024. The percent change in VC plume area from 2021 to 2024 is 15.2%. cDCE and VC bulk plumes had low linear correlation (negative). Figure 5-6 (page 5-31) for VC shows break up of a single plume area in 2021 to two separate areas in 2024.

5.5.1.2 Southern Area

Table 5-7 has summary statistics for bulk plume areas for the surficial aquifer in the southern monitoring area. Exhibit 5-13 (page 5-27) has stem plots that visualize the timeseries data for the plume areas. PCE, TCE, cDCE, and VC plume areas did not have statistically significant correlation or M-K trends for plume areas vs. time.

Table 5-7 Bulk Plume Area Metrics: Southern Area Surficial Aquifer

	Plume Area (Acres)					Linear Correlation			M-K One Way Trend		
Plume	2021	2022	2023	2024	Δ%	r	p-value (α=0.05)	Corr	H	p-value (α=0.05)	SS Trend
PCE	0.70	0.35	0.05	0.21	-70.0	-8.25E-01	1.75E-01	High (-)	0	-1.54E-01	No
TCE	3.56	3.02	2.44	2.09	-41.3	-9.95E-01	5.00E-03	SS (-)	1	-4.47E-02	Yes
cDCE	1.02	1.23	1.08	0.89	-12.7	-4.94E-01	5.06E-01	Mod (-)	0	-3.67E-01	No
VC	3.87	3.94	3.33	4.17	7.8	1.05E-01	8.95E-01	Low (+)	0	-3.67E-01	No
PCE vs TCE						8.76E-01	1.24E-01	High (+)			
TCE vs cDCE						4.38E-01	5.62E-01	Low (+)			
cDCE vs VC						-3.37E-01	6.62E-01	Low (-)			

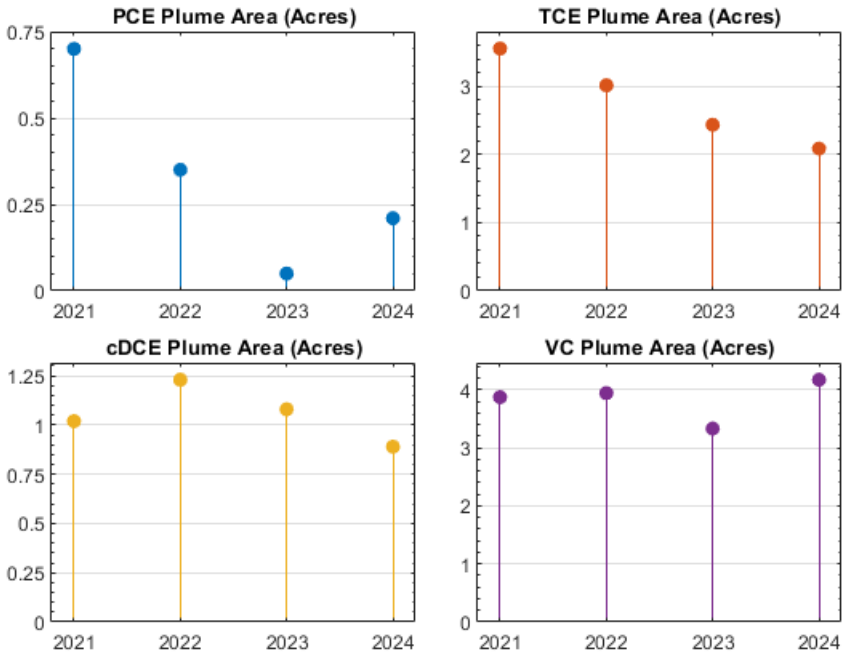
Notes: : PCE = tetrachloroethene, TCE = trichloroethene, cDCE = cis-1,2-dichloroethene, VC = vinyl chloride, Δ% = percent change in bulk plume area from 2021 to 2024, % reduction in plume area from 2021 to 2024, r = Pearson's linear correlation coefficient, p-value = probability value, Corr. = correlation: negative (-), positive correlation (+), M-K = Mann-Kendall, SS Trend = statistically significant trend at a significance level of 0.05 (5 percent).

PCE had a 70% decrease in plume area from 0.70 acres in 2021 to 0.21 acres in 2024 with high correlation (negative). Figure 5-3 (page 5-28) shows limited PCE plume areas in the fence line area OU 3 extending into the offsite area. TCE had a 41.3% decrease in plume area from 3.56 acres in 2021 to 2.09 acres in 2024. PCE and TCE plume areas had high correlation (positive) for 2021-2024. Figure 5-4 (page

5-29) shows reduction of a contiguous plume in the OU 2/OU 3 area in 2021 to disaggregated TCE plumes across this area in 2024.

TCE and cDCE plume areas have low positive correlation for 2021-2024. cDCE had a 12.7% decrease in plume area from 1.02 acres in 2021 to 0.89 acres in 2024. Figure 5-5 (page 5-30) shows two limited plume areas for cDCE in the OU 2 and OU 3 area (2021 and 2024) upgradient of the fence line area. VC had a 7.8% increase in plume area from 3.87 acres in 2021 to 4.17 acres in 2024. Figure 5-6 (page 5-31) shows a contiguous plume for VC extending from OU 2 across the OU 3 area (2021 and 2024) upgradient of the fence line area. cDCE and VC plume areas have low negative correlation for 2021-2024.

Exhibit 5-13 VOC Plume Area Changes for Surficial Aquifer: Southern Area



5.5.2 VOC Bulk Plume Areas: Confined Aquifer

Section 5.5.2 discusses VOC bulk plume trends for the confined aquifer at OU 6. Figures 5-7 through 5-10 (pages 5-34-5-37) display the differences in PCE, TCE, cDCE, and VC plumes for 2021 and 2024.

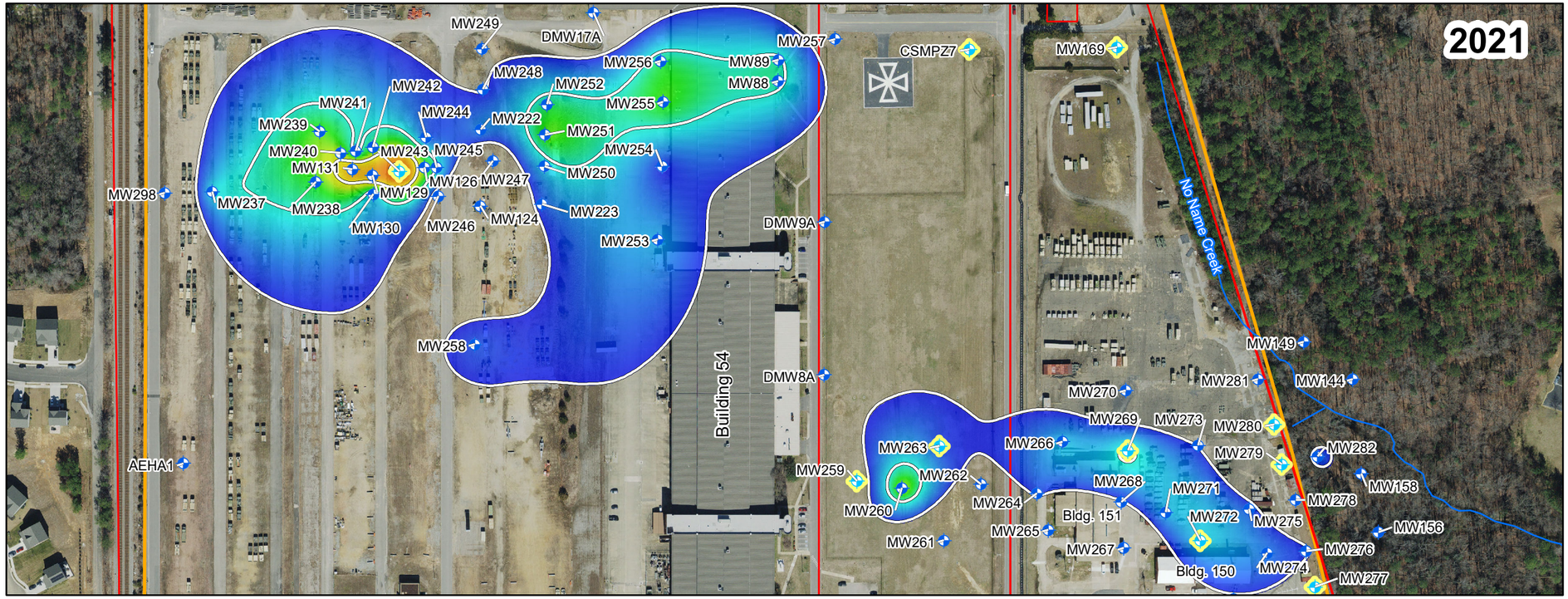
5.5.2.1 Northern Area: Confined Aquifer

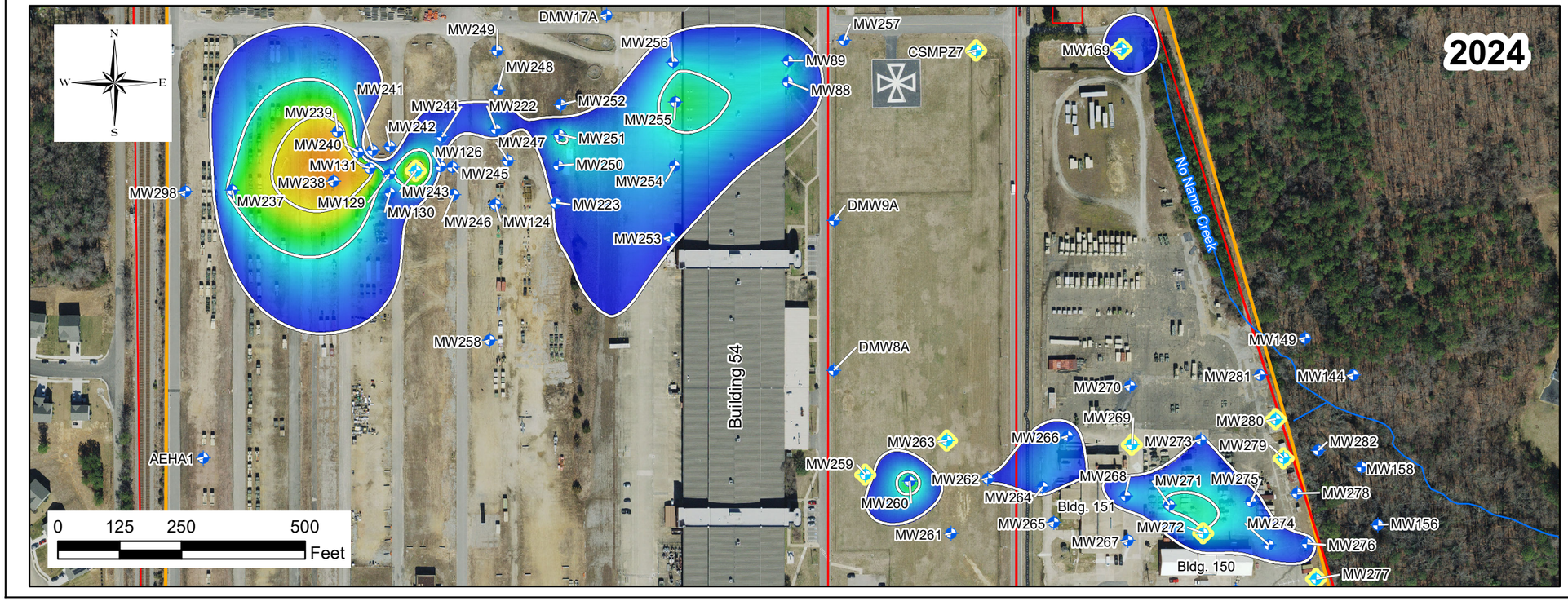
Table 5-8 has summary statistics for bulk plume areas for the confined aquifer in the northern monitoring area. Exhibit 5-14 (page 5-32) has stem plots that visualize the timeseries data for the plume areas. PCE and TCE plume areas did not have statistically significant correlation or M-K trends for plume areas vs. time. PCE had a 101% increase in plume area from 0.74 acres in 2021 to 1.49 acres in 2024 with low correlation (positive). Figure 5-7 (page 5-34) shows the two plume areas for PCE centered around wells MW-171 (OU 1) and DMW-34B (OU 2). TCE had a 48.2% decrease in plume area from 2.18 acres in 2021 to 3.23 acres in 2024 with low correlation (negative). Figure 5-8 (page 5-35) shows two plume areas for TCE in the OU 1 area centered around wells beneath the higher concentration VOC plume in the surficial aquifer. For 2021-2024, PCE and TCE did not have correlation for plume areas over time.

Table 5-8 Bulk Plume Area Metrics: Northern Area Confined Aquifer

	Plume Area (Acres)					Linear Correlation			M-K One Way Trend		
Plume	2021	2022	2023	2024	Δ%	r	p-value (α=0.05)	Corr	H	p-value (α=0.05)	SS Trend
PCE	0.74	2.27	2.55	1.49	101	3.98E-01	6.02E-01	Low (+)	0	3.67E-01	No
TCE	2.18	3.54	3.88	3.23	48.2	6.11E-01	3.89E-01	Mod (+)	0	3.67E-01	No
PCE vs TCE						7,11E-02	9.29E-01	No			

Notes: : PCE = tetrachloroethene, TCE = trichloroethene, cDCE = cis-1,2-dichloroethene, VC = vinyl chloride, Δ% = percent change in bulk plume area from 2021 to 2024, r = Pearson's linear correlation coefficient, p-value = probability value, Corr. = correlation: negative (-), positive correlation (+), M-K = Mann-Kendall, SS Trend = statistically significant trend at a significance level of 0.05 (5 percent).





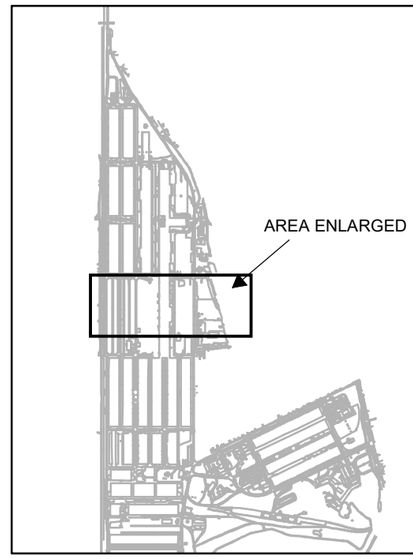
Legend

- Surficial Aquifer Monitoring Well
- Surficial Aquifer Long-term Monitoring Well
- TCE Isoconcentration Line
- Stream
- Operable Units
- Installation Boundary

TCE Concentration (ug/L)

5 | 10 | 30 | 100 | 300 | 1,000 | 3,000 | 10,000

Notes:
Orthoimagery Source: VGIN (2021)



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AECOM

Figure 5-3
Changes in Lateral Distribution of TCE in Surficial Aquifer (2021-2024)

2024 Annual Monitoring Report - OU 6
Defense Supply Center Richmond
Richmond, VA

Prepared By: JLD	Reviewed By: JOS
Scale: 1 " = 250 '	Date: September 12, 2024

L:\Legacy\USGNA2FP002\Data\projects\0_GIS\DLA\OU8\Annual Report Figures\2024\Figure 5-3 Changes in Lateral Distribution of TCE in Eastover

2021

2024

Building 54

Bldg. 151

Bldg. 150

No Name Creek

MW237 MW298 MW239 MW241 MW242 MW244 MW240 MW126 MW245 MW247 MW131 MW243 MW246 MW238 MW129 MW130 MW124 MW249 MW248 MW252 MW222 MW251 MW223 MW256 MW255 MW254 MW250 MW89 MW88 MW253 MW258 AEHA1 DMW9A DMW8A MW257 CSMPZ7 MW169 MW149 MW144 MW270 MW281 MW269 MW273 MW280 MW282 MW263 MW266 MW259 MW262 MW264 MW268 MW271 MW275 MW279 MW158 MW260 MW278 MW274 MW261 MW265 MW267 MW272 MW276

N

W E

S

0 112.5 225 450

Feet

Legend

- Surficial Aquifer Monitoring Well
- Surficial Aquifer Long-term Monitoring Well
- cDCE Isoconcentration Line
- Stream
- Operable Units
- Installation Boundary

cDCE Concentration (ug/L)

70 100 300 1,000 3,000 10,000

Notes:
Orthoimagery Source: VGIN (2021)

AREA ENLARGED

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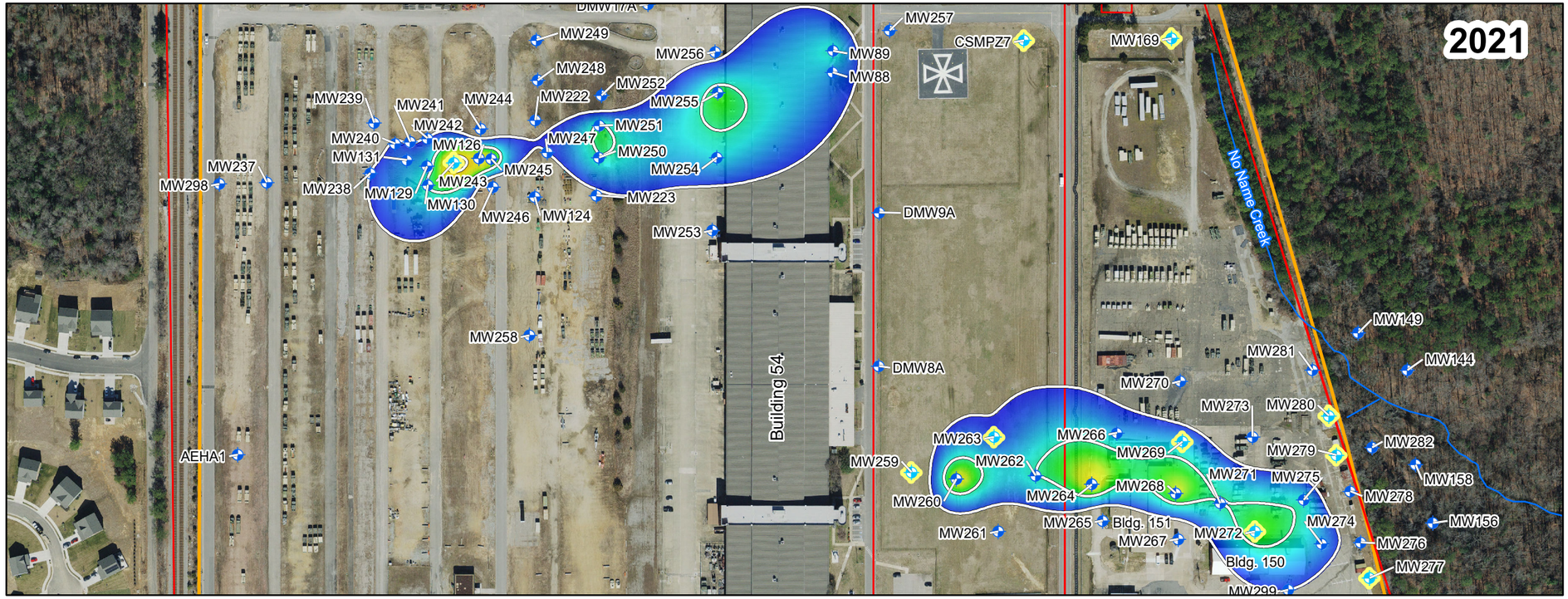
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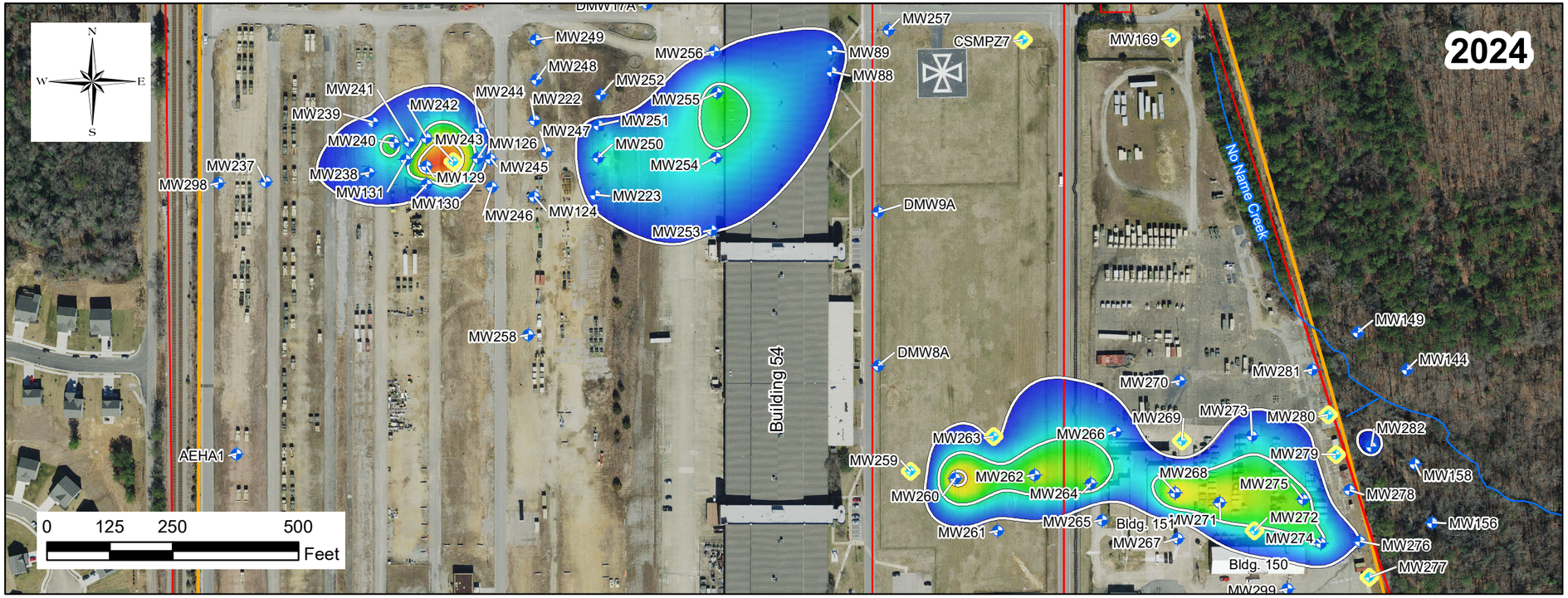
Figure 5-4
Changes in Lateral Distribution of cDCE in Surficial Aquifer (2021-2024)

2024 Annual Monitoring Report - OU 6
Defense Supply Center Richmond
Richmond, VA

Prepared By: JLD	Reviewed By: JOS
Scale: 1 " = 225 '	Date: September 12, 2024

L:\Legacy\USGNA2FP002\Data\projects\0_GIS\DLA\OU8\Annual Report Figures\2024\Figure 5-4 Changes in Lateral Distribution of cDCE in Eastover





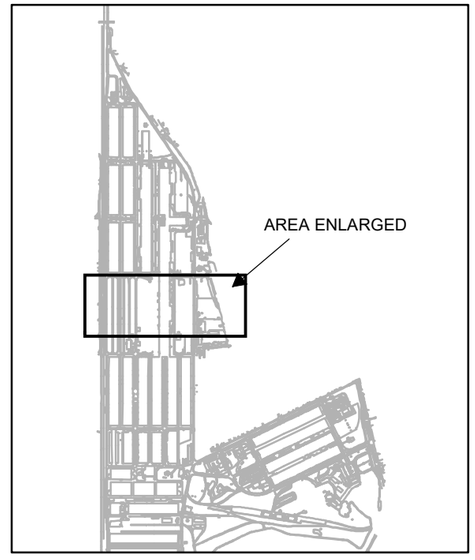
Legend

- Surficial Aquifer Monitoring Well
- Surficial Aquifer Long-term Monitoring Well
- VC Isoconcentration Line
- Stream
- Operable Units
- Installation Boundary

VC Concentration (ug/L)

2 3 10 30 100 300 1,000

Notes:
Orthoimagery Source: VGIN (2021)



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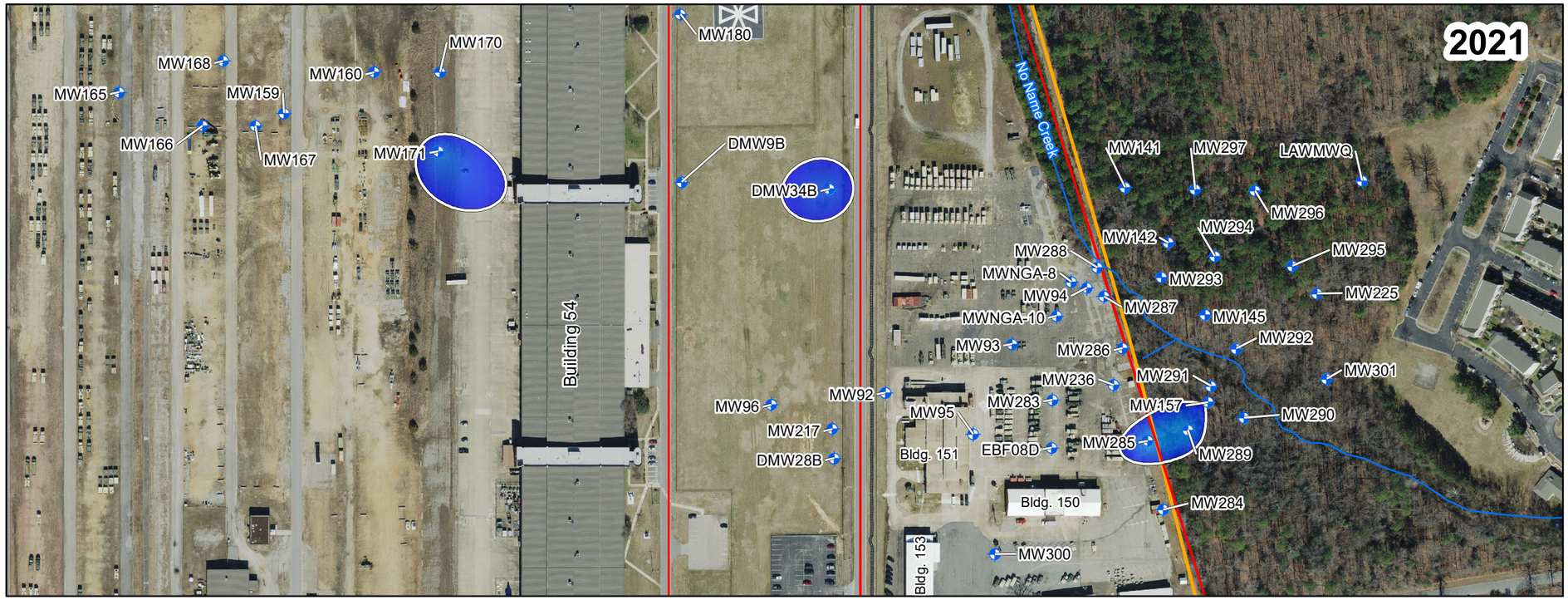
AECOM

Figure 5-5
Changes in Lateral Distribution of VC in Surficial Aquifer (2021-2024)

2024 Annual Monitoring Report - OU 6
Defense Supply Center Richmond
Richmond, VA

Prepared By: JLD	Reviewed By: JOS
Scale: 1 " = 250 '	Date: September 12, 2024

L:\Legacy\USGNA2FP002\Data\projects\0_GIS\DLA\OU8\Annual Report Figures\2024\Figure 5-5 Changes in Lateral Distribution of VC in Eastover



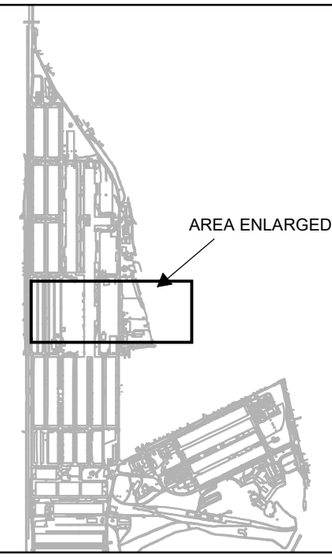
Legend

- Confined Aquifer Monitoring Well
- PCE Isoconcentration Line
- Stream
- Operable Units
- Installation Boundary

PCE Concentration (ug/L)

5 10 30 100 300 1,000 3,000

Notes:
Orthoimagery Source: VGIN (2021)



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Figure 5-6
Changes in Lateral Distribution of PCE in Confined Aquifer (2021-2024)

2024 Annual Monitoring Report - OU 6
Defense Supply Center Richmond
Richmond, VA

Prepared By: JLD	Reviewed By: JOS
Scale: 1 " = 250 '	Date: September 12, 2024

L:\Legacy\USGNA2FP002\Data\projects\0_GIS\DLA\OU8\Annual Report Figures\2024\Figure 5-6 Changes in Lateral Distribution of PCE in Potomac

5.5.2.2 Southern Area: Confined Aquifer

Table 5-9 has summary statistics for bulk plume areas for the confined aquifer in the southern monitoring area. Exhibit 5-14 has stem plots that visualize the timeseries data for the plume areas.

PCE, TCE, cDCE, and VC plume areas did not have statistically significant correlation or M-K trends for plume areas vs. time. PCE had a 38.5% decrease in plume area from 0.39 acres in 2021 to 0.24 acres in 2024 with moderate correlation (negative). Figure 5-7 (page 5-34) shows limited PCE plume areas in the fence line area (OU 3) extending into the offsite area.

TCE had a 19.6% increase in plume area from 4.08 acres in 2021 to 4.88 acres in 2024. PCE and TCE plume areas had no correlation for 2021-2024. Figure 5-8 (page 5-35) shows a contiguous TCE plume area extending from the Building 151 area into the offsite area with the 2024 plume extending farther into the offsite area.

Exhibit 5-14 VOC Plume Area Changes in Confined Aquifer: Northern Area

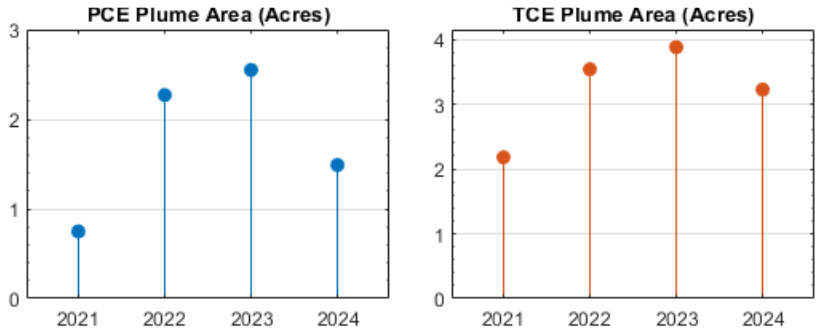


Exhibit 5-15 VOC Plume Area Changes in Confined Aquifer: Southern Area

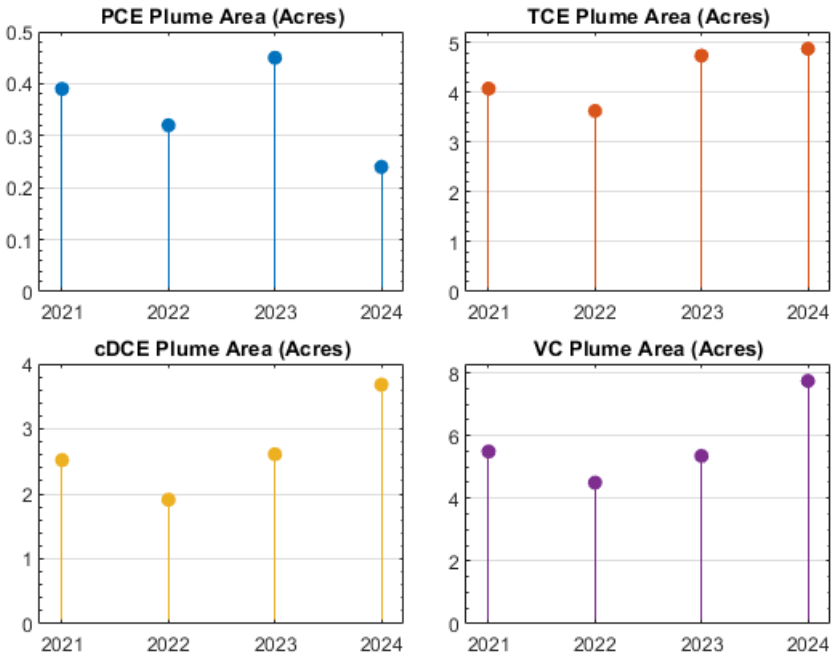


Table 5-9 Bulk Plume Area Metrics: Southern Area Confined Aquifer

Plume	Plume Area (Acres) 2021	2022	2023	2024	Δ%	Linear Correlation r	p-value (α=0.05)	Corr	M-K One Way Trend H	p-value (α=0.05)	SS Trend
PCE	0.39	0.32	0.45	0.24	-38.5	-4.56E-01	5.44E-01	Mod (-)	0	-3.67E-01	No
TCE	4.08	3.63	4.74	4.88	19.6	7.76E-01	2.24E-01	Mod (+)	0	1.54E-01	No
cDCE	2.52	1.91	2.61	3.68	46.0	7.34E-01	2.66E-01	Mod (+)	0	1.54E-01	No
VC	5.49	4.50	5.35	7.74	41.0	7.09E-01	2.91E-01	Mod (+)	0	3.67E-01	No
PCE vs TCE						-5.36E-02	9.46E-01	No			
TCE vs cDCE						8.54E-01	1.46E-01	High (+)			
cDCE vs VC						9.89E-01	1.07E-02	SS (+)			

Notes: : PCE = tetrachloroethene, TCE = trichloroethene, cDCE = cis-1,2-dichloroethene, VC = vinyl chloride, Δ% = percent change in bulk plume area from 2021 to 2024, % reduction in plume area from 2021 to 2024, r = Pearson's linear correlation coefficient, p-value = probability value, Corr. = correlation: negative (-), positive correlation (+), M-K = Mann-Kendall, SS Trend = statistically significant trend at a significance level of 0.05 (5 percent).

cDCE had a 46% percent increase in plume area from 2.52 acres in 2021 to 3.68 acres in 2024. Figure 5-9 (page 5-36) shows a cDCE plume area extending from OU 2 across OU 3 into the offsite area with the 2024 plume extending farther into the offsite area. TCE and cDCE had statistically significant correlation (positive) for 2021-2024. VC had a 41% increase in plume area from 5.49 acres in 2021 to 7.74 acres in 2024. Figure 5-10 (page 5-37) shows a VC plume area extending from OU 2 across OU 3 into the offsite area with the 2024 plume extending farther into the offsite site area. cDCE and VC had statistically significant correlation (positive) for 2021-2024.

5.5.3 Plume Area Concentration vs. Distance Plots

This assessment uses monitoring well transects in monitored areas to evaluate plume changes and attenuation with distance. Exhibit 5-16 (page 5-38) has time series plots of the plume center of mass (molar) along the transects shown in Exhibits 5-16, 5-17, and 5-18. Exhibits 5-17, 5-18, and 5-19 (page 5-39) have concentration vs. distance plots (2024) for the surficial aquifer in the northern area, surficial aquifer in the southern area, and confined aquifer in the southern area, respectively. The transect plots are along plume centerlines with the left plots of each exhibit using concentrations reported in micrograms per liter and the right plots of each exhibit using molar concentrations expressed as micromoles.

5.5.3.1 Surficial Aquifer in Northern Area

The transect in Exhibit 5-17 (page 5-39) extends from well MW-238 upgradient of the current hotspot source zone in OU 1 downgradient to well MW-182 over a distance of 1,190 ft. VOC concentrations along the plume transect peak at 169 ft. at hotspot well MW-243 in OU 1 with concentrations decreasing to levels < MCLs before reaching 1,075 ft. at well MW-257 in OU 2. cDCE has the highest molar percentage from the hotspot well (MW-243) to the farthest downgradient well (MW-257) with constituent detections. TCE has the second highest molar percentage along the plume transect except the well upgradient of the hotspot (MW-23*) where TCE has the highest molar percentage.

5.5.3.2 Surficial Aquifer in Southern Area

The transect in Exhibit 5-18 (page 5-40) extends from well MW-260 in OU 2 across OU 3 to offsite well MW-156 over a distance of 949 ft. PCE, TCE, cDCE, and VC along the plume transect have the highest concentration at well MW-260 in OU 2 with secondary peaks at downgradient well MW-268 (near Building 151) for PCE, cDCE, and VC and at farther downgradient well MW-272 in OU 3 (near Building 150) for TCE. VOC concentrations decrease to levels < MCLs before reaching offsite well MW-156 located downgradient of the installation fence line. PCE and cDCE are less than their MCLs at well MW-276 located upgradient of the fence line area in OU 3.

Degradation by-products cDCE and VC have the greatest molar percentages along the plume transect with VC predominating at well MW-260 in OU 2 (75%) with cDCE predominating at other locations except near Building 151 (MW-260) where VC slightly exceeds cDCE as a molar percentage. cDCE comprises approximately 60% to 75% of the molar percentage in the downgradient portion of surficial aquifer plume.

Exhibit 5-19 (page 5-41) shows the plume center of mass (molar) for 2021, 2022, and 2024 at a distance of 256 ft to 270 ft from well MW-260 west of Building 151 near the upgradient edge of OU 3.

5.5.3.3 Confined Aquifer in Southern Area

The transect in Exhibit 5-19 (page 5-41) extends from well DMW-28B in OU 2 across OU 3 to offsite well MW-295 over a distance of 1,054 ft. TCE, cDCE, and VC along the plume transect have the highest concentrations in the offsite area at well MW-289 (TCE and cDCE) and well MW-291 (VC). The peak concentration from PCE (17 µg/L) occurred at fence line well MW-285. PCE, TCE, and cDCE concentrations decrease to levels < MCL at well MW-292 located 215 ft. downgradient of the installation fence line. VC concentrations decreased to a level < MCL at well MW-295 located 350 ft. downgradient of the installation fence line.





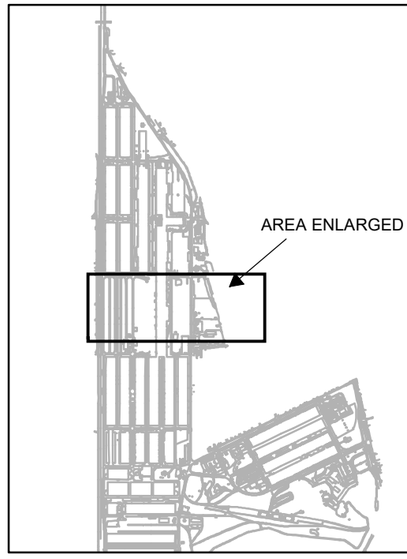
Legend

- Confined Aquifer Monitoring Well
- TCE Isoconcentration Line
- Stream
- Operable Units
- Installation Boundary

TCE Concentration (ug/L)

5 | 10 | 30 | 100 | 300 | 1,000 | 3,000 | 10,000

Notes:
Orthoimagery Source: VGIN (2021)



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Figure 5-7
Changes in Lateral Distribution of TCE in Confined Aquifer (2021-2024)

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Defense Supply Center Richmond
Richmond, VA

Prepared By: JLD	Reviewed By: JOS
Scale: 1 " = 275 '	Date: September 12, 2024

L:\Legacy\USGNA2FP002\Data\projects\0_GIS\DLA\OU8\Annual Report Figures\2024\Figure 5-7 Changes in Lateral Distribution of TCE in Potomac

2021

2024

MW159
MW171
W166
MW167
DMW9B
DMW34B
No Name Creek
MW141
MW297
LAWMWQ
MW296
MW294
MW288
MW142
MW295
MWNGA-8
MW293
MW94
MW287
MWNGA-10
MW145
MW225
MW93
MW286
MW292
MW291
MW96
MW92
MW236
MW157
MW301
MW283
MW95
MW289
MW217
EBF08D
MW285
MW290
DMW28B
Bldg. 151
Bldg. 150
MW284
MW300
Bldg. 153
Bldg. 155
Bldg. 154
T-123
Building 54

N
W
E
S

0 112.5 225 450
Feet

Legend

- Confined Aquifer Monitoring Well
- cDCE Isoconcentration Line
- Stream
- Operable Units
- Installation Boundary

cDCE Concentration (ug/L)

70 100 300 1,000 3,000 10,000

Notes:
Orthoimagery Source: VGIN (2021)

AREA ENLARGED

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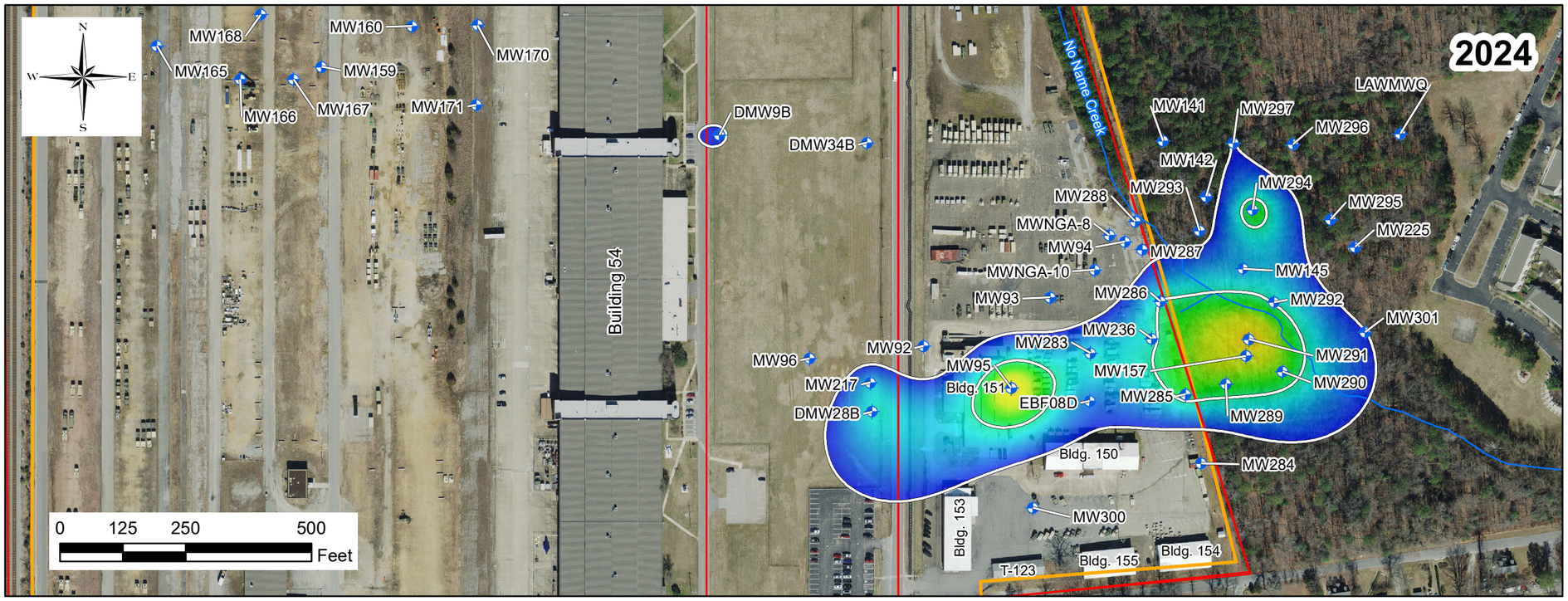
Figure 5-8
Changes in Lateral Distribution of cDCE in Confined Aquifer (2021-2024)

2024 Annual Monitoring Report - OU 6
Defense Supply Center Richmond
Richmond, VA

Prepared By: JLD	Reviewed By: JOS
Scale: 1 " = 225 '	Date: September 12, 2024

L:\Legacy\USGNA2FP002\Data\projects\0_GIS\DLA\OU8\Annual Report Figures\2024\Figure 5-8 Changes in Lateral Distribution of cDCE in Potomac





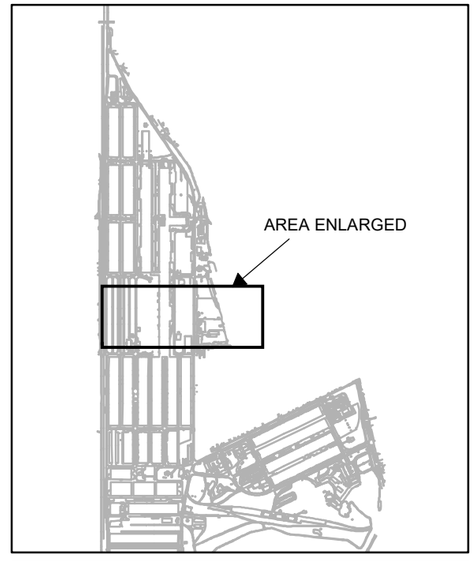
Legend

- Confined Aquifer Monitoring Well
- VC Isoconcentration Line
- Stream
- Operable Units
- Installation Boundary
- Confined Aquifer Monitoring Well

VC Concentration (ug/L)

2 | 3 | 10 | 30 | 100 | 300 | 1,000

Notes:
Orthoimagery Source: VGIN (2021)



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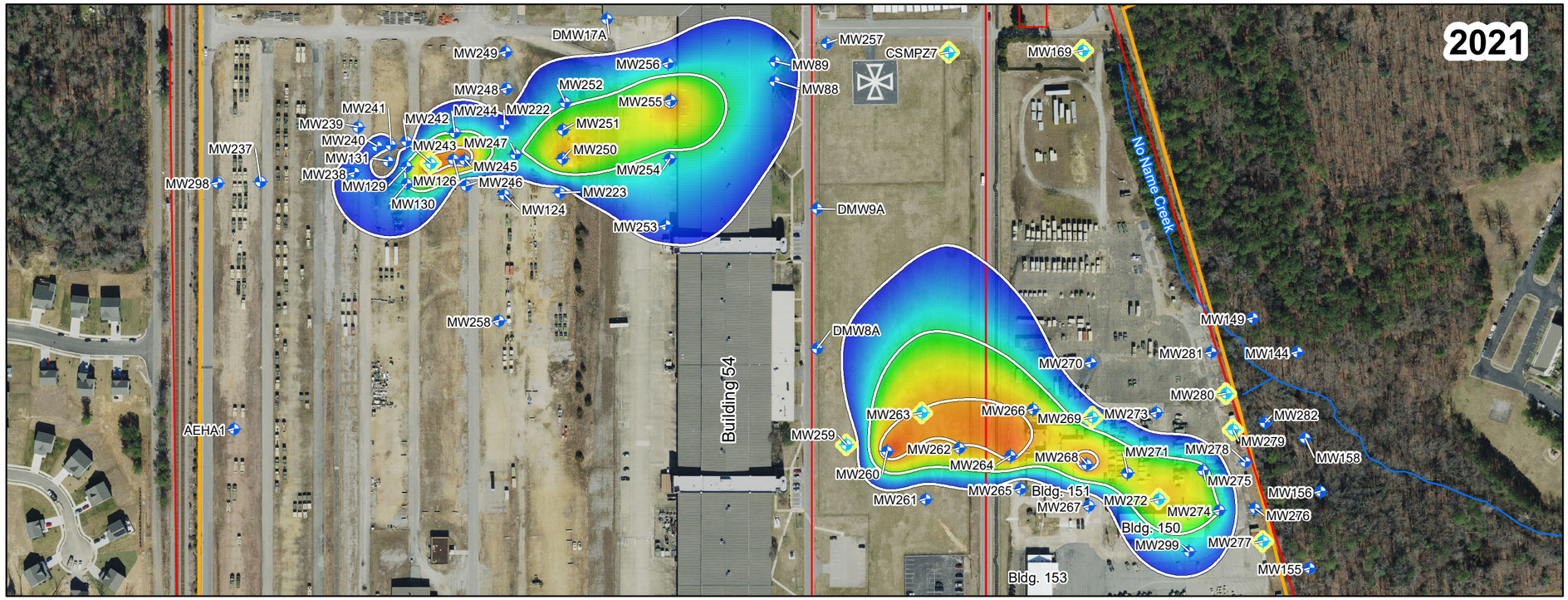
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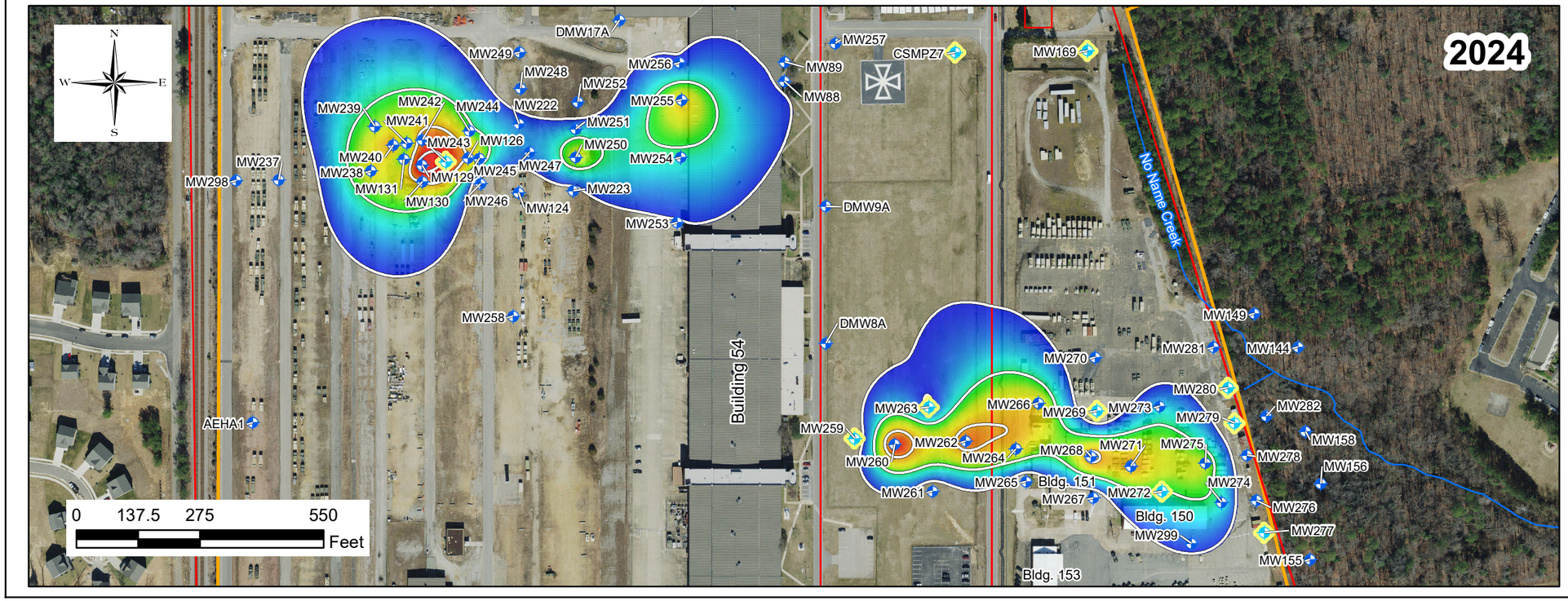
Figure 5-9
Changes in Lateral Distribution of VC in Confined Aquifer (2021-2024)

2024 Annual Monitoring Report - OU 6
Defense Supply Center Richmond
Richmond, VA

Prepared By: JLD	Reviewed By: JOS
Scale: 1 " = 250 '	Date: September 12, 2024

L:\Legacy\USGNA2FP002\Data\projects\0_GIS\DLA\OU8\Annual Report Figures\2024\Figure 5-9 Changes in Lateral Distribution of VC in Potomac





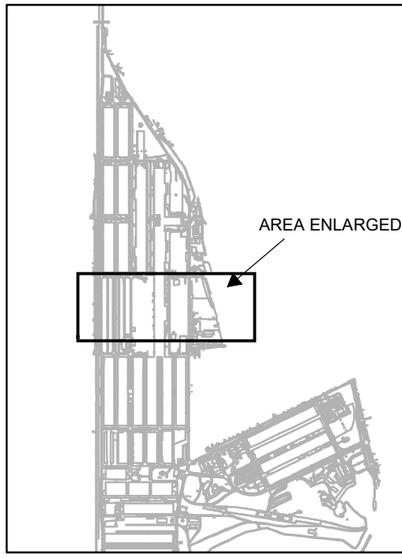
Legend

- Surficial Aquifer Monitoring Well
- Surficial Aquifer Long-term Monitoring Well
- Ethene Isoconcentration Line
- Stream
- Operable Units
- Installation Boundary

Ethene Concentration (ug/L)

1 3 10 30 100 300 1,000 3,000

Notes:
Orthoimagery Source: VGIN (2021)



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Figure 5-10
Changes in Lateral Distribution of Ethene in Surficial Aquifer (2021-2024)

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Defense Supply Center Richmond
Richmond, VA

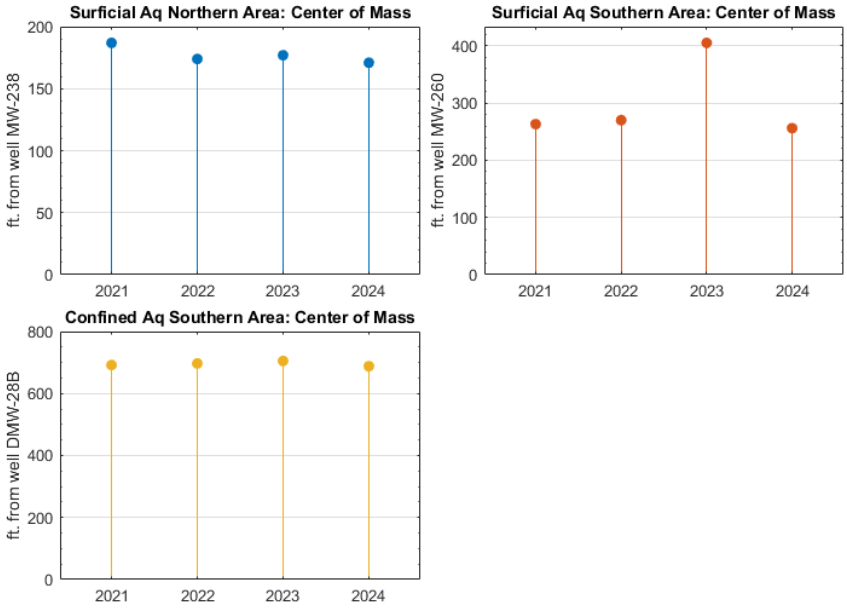
Prepared By: JLD	Reviewed By: JOS
Scale: 1 " = 275 '	Date: September 12, 2024

L:\Legacy\USGNA2FP002\Data\projects\0_GIS\DLA\OU8\Annual Report Figures\2024\Figure 5-10 Changes in Lateral Distribution of Ethene in Eastover

As a molar percentage of CVOCs, cDCE predominates (78% to 87%) along the plume transect (confined aquifer in southern area) where constituents have concentrations > MCLs. TCE has the next highest molar percentage in the transect segment from the center of OU 3 extending into the offsite area 120 ft. to well MW-157. VC had the second highest molar percentage at well DMW-28B in OU 2 and in the offsite area downgradient of MW-157 at wells MW-291 and MW-292.

Exhibit 5-16 shows the plume center of mass (molar) in the range of 688 ft (2024) and 705 ft. (2023) near well MW-289 in the offsite area approximately 70 ft downgradient of the installation fence line.

Exhibit 5-16 Plume Center of Mass



5.6 Well Trends

Section 5.6 evaluates COC concentration trends at monitoring well locations in the northern and southern monitoring areas of OU 6.

5.6.1 Surficial Aquifer: Northern Area

The trend assessment for the surficial aquifer in the northern area evaluates 18 wells monitored for performance assessment of the ISB injections (Oct-Nov 2021) completed in the OU 1 area (Figure 5-1). The data evaluated has eight (8) sampling events including a pre-ISB baseline sampling event (October 2021) and seven sampling events performed from December 2021 to May 2024. The well network includes 14 monitoring wells installed in 2021 prior to baseline monitoring and four (4) existing monitoring wells. Appendix E.5 has statistical and trend analysis documentation for the surficial aquifer in the northern area

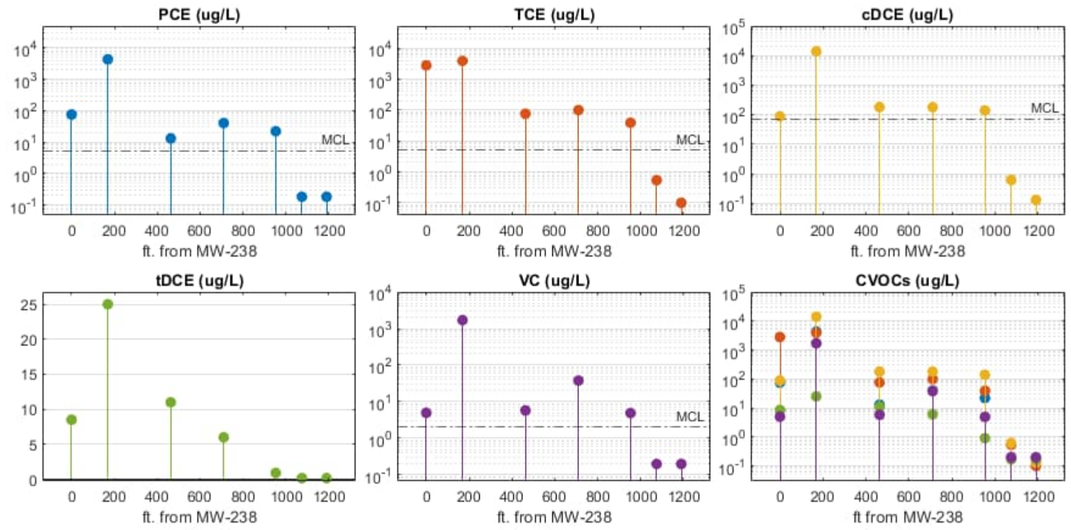
5.6.1.1 Upgradient Well MW-237

Well MW-237 is located 250 ft. upgradient of the ISB injection area. Exhibit 5-20 (page 5-41) has time series plots for MW-237 with x-axis reference lines for cleanup levels (MCLs) and y-axis reference lines for ISB injections performed in Oct-Nov 2021. The plots have SSA lines for long-term trend. The table in Exhibit 5-20 has a summary of statistical and trend evaluations for MW-237 for October 2021-May 2024. The data plot shows a greater than order of magnitude change in concentrations for TCE for May 2023 from previous events. A verification sampling event occurred in July 2023 that did not confirm the higher concentration reported for May 2023.

The coefficients of variation for COCs show moderate variance except for TCE (high related to the detection in May 2023). COCs have positive linear correlation for concentrations vs. time with M-K trend tests indicating increasing trends for TCE, cDCE, and 1,1-DCE. SSA indicating COC trend changes to decreasing in May 2024.

Exhibit 5-17 Plume Distance vs. Concentration: Northern Area Surficial Aquifer

MW-238→MW-243→MW-251→MW-255→MW-89→MW-257→MW-182



MW-238→MW-243→MW-251→MW-255→MW-89→MW-257→MW-182

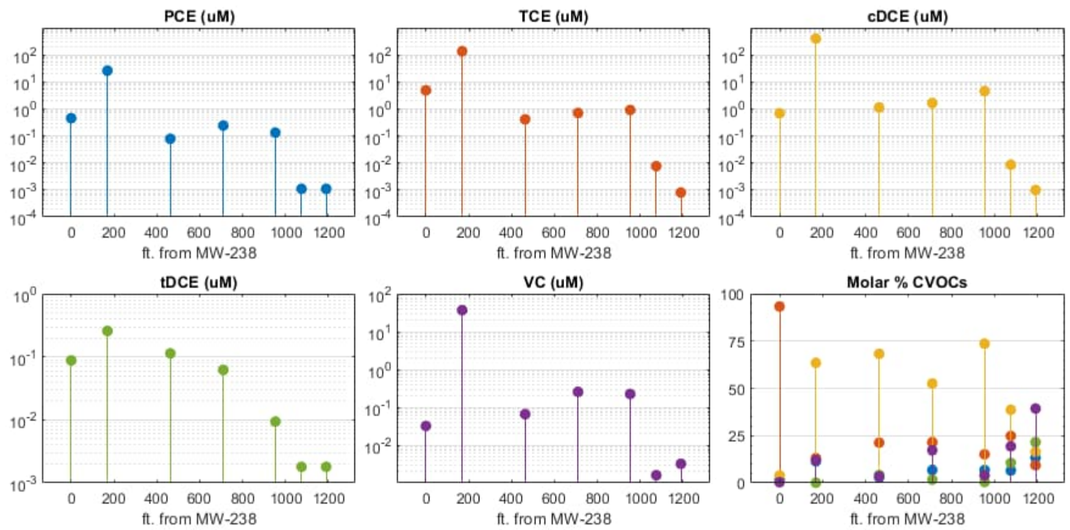
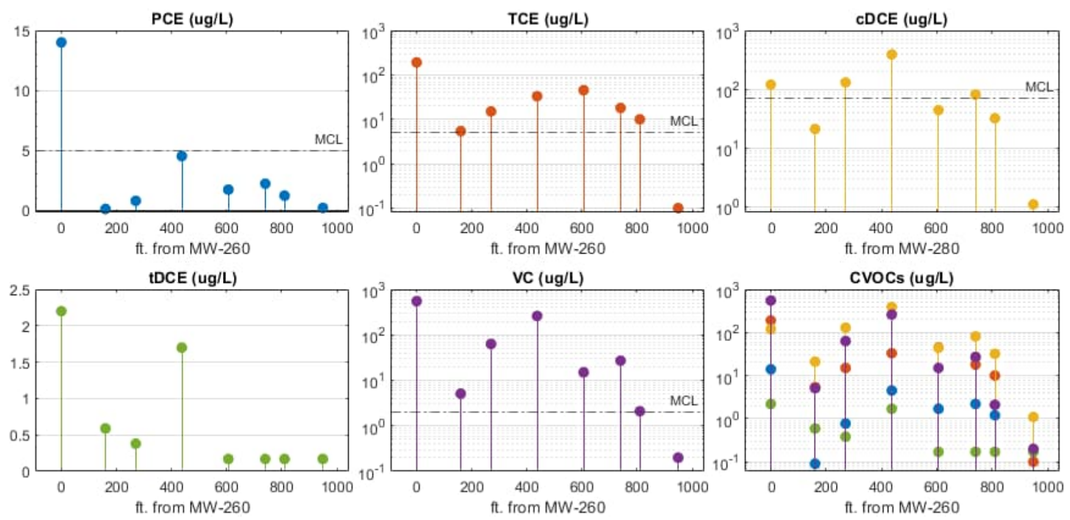


Exhibit 5-18 Plume Distance vs. Concentration: Southern Area Surficial Aquifer

MW-260→MW-262→MW-264→MW-268→MW-272→MW-274→MW-276→MW-156



MW-260→MW-262→MW-264→MW-268→MW-272→MW-274→MW-276→MW-156

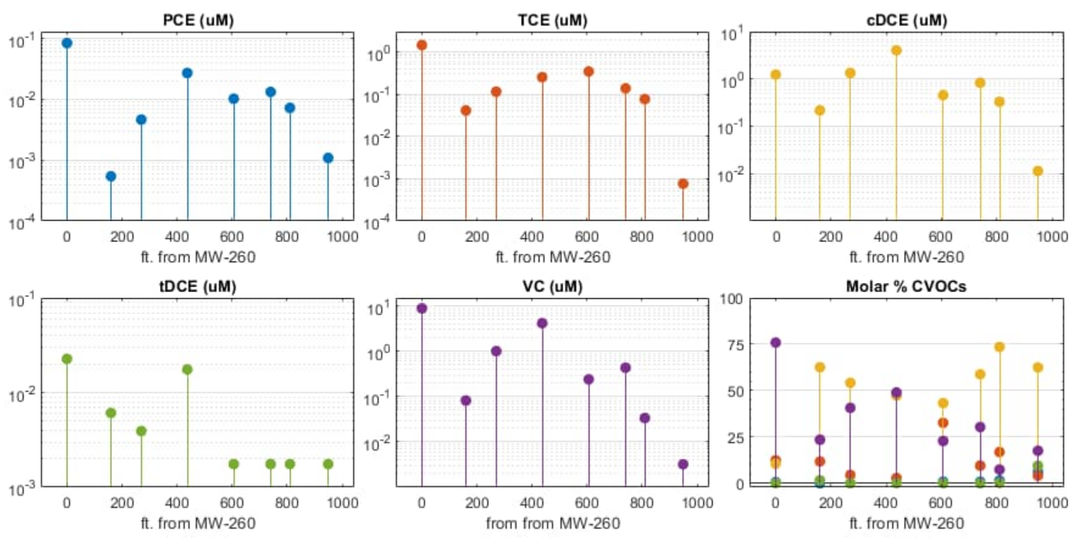
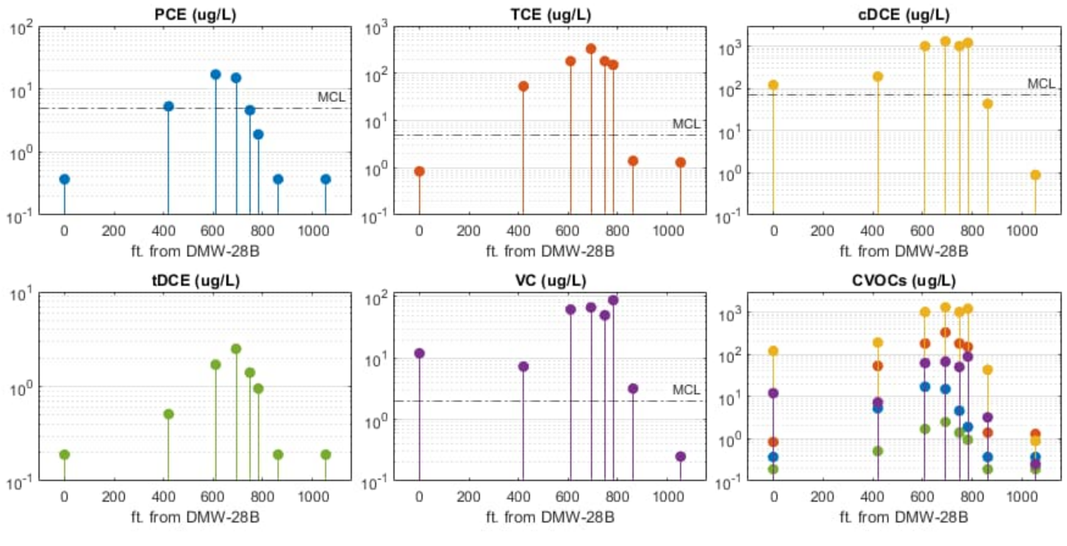
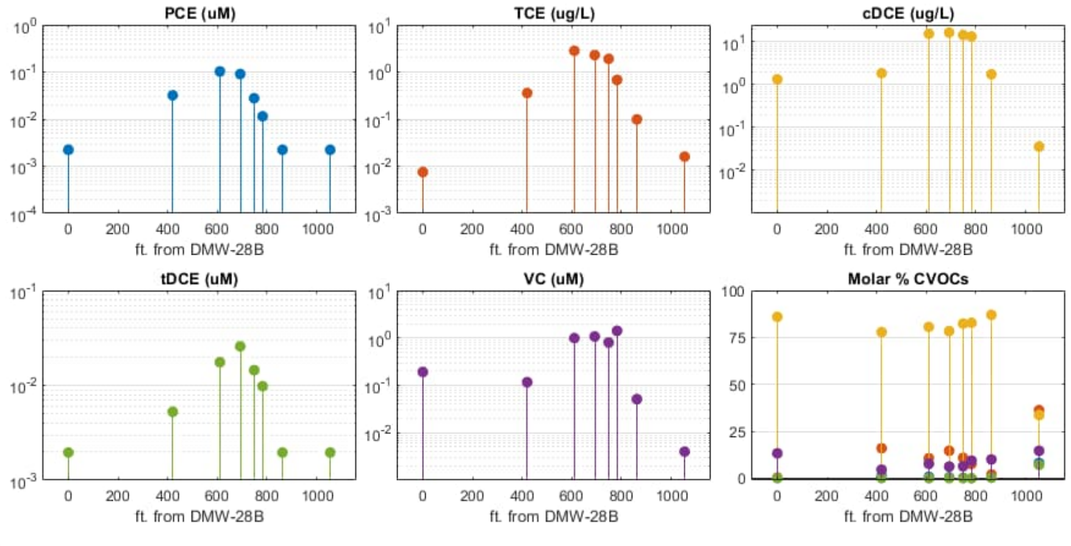


Exhibit 5-19 Plume Distance vs. Concentration: Southern Area Confined Aquifer

DMW-28B→EBF-08D→MW-285→MW-289→MW-157→MW-291→MW-292→MW-295



DMW-28B→EBF-08D→MW-285→MW-289→MW-157→MW-291→MW-292→MW-295



5.6.1.2 Treatment Area: TA-1

ISB performance monitoring in and around treatment area TA-1 included eight locations: MW-129, MW-130, MW-131, MW-238, MW-239, MW-240, MW-241, and MW-242 (Figure 5-1). Table 5-10 (page 5-42) has a summary of the statistical and trend analysis for these wells. Exhibit 5-21 (pages 5-43, 5-44) for wells in the TA-1 area have time series data plots with x-axis reference lines for cleanup levels (MCLs) and y-axis reference lines for ISB injections performed in Oct-Nov 2021. The plots have SSA lines for long-term trend.

Well MW-129

Well MW-129 is located < 20 ft. downgradient of ISB injection area for TA-1 (Figure 5-1). Exhibit 5-21 has time series plots of data for MW-129. The baseline sample from the well had progressively higher concentrations for PCE, TCE, and cDCE. The coefficients of variation for COCs show high variance except for 1,1-DCE that had lower frequency of detection (3 of 8). COCs have positive linear correlation for concentrations vs. time. M-K tests indicate an increasing trend for cDCE with no trends identified for other COCs. ISB injections at this location mostly have reduced PCE and TCE to cDCE and VC.

Well MW-130

Well MW-130 is 20 ft. downgradient of ISB injection area for TA-1 (Figure 5-1). Exhibit 5-21 has time series plots of data for MW-130. The baseline sample from MW-130 had progressively higher concentrations for PCE, TCE, and cDCE. The coefficients of variation for COCs show high variance for PCE, TCE, and VC with moderate variance for cDCE and 1,1-DCE. For concentration vs. time correlation, PCE has positive correlation, TCE has no correlation, and cDCE, 1,1-DCE, and VC have negative correlation.

M-K tests indicate an increasing trend for PCE with no trends detected for other COCs. SSA shows apparent COC trend changes to decreasing in May 2024. ISB injections at this location mostly have reduced PCE and TCE to cDCE and VC. As of May 2024, concentrations for PCE, cDCE, and 1,1-DCE at MW-130 are < MCLs with TCE and VC slightly > MCLs.

Well MW-131

Well MW-131 is located in the ISB injection area for TA-1 (Figure 5-1). Exhibit 5-21 has time series plots of data for MW-131. TCE in the baseline sample from MW-131 had the highest concentration followed by cDCE and PCE. The coefficients of variation for COCs show moderate variance for PCE, TCE, and cDCE with lower detection frequencies for 1,1-DCE (4 of 8 samples) and VC (2 of 8 samples). For concentration vs. time correlation, PCE, TCE, cDCE, and 1,1-DCE have negative correlation.

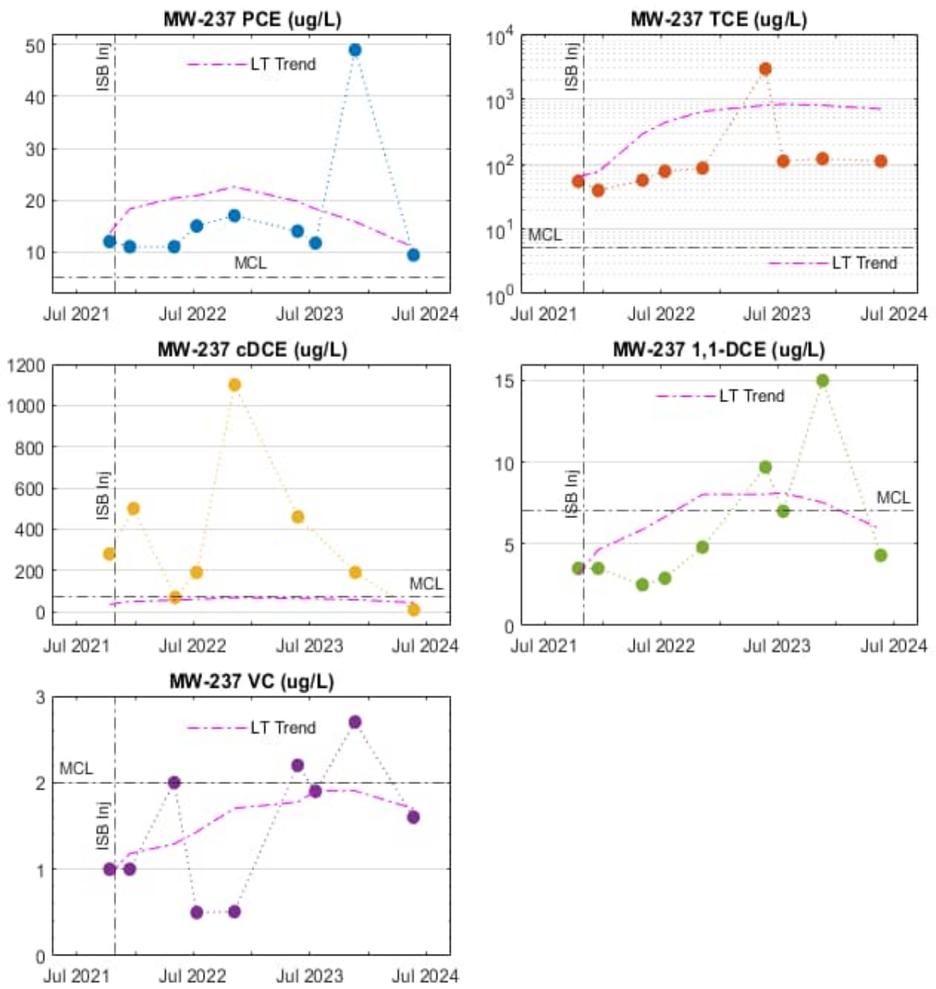
M-K tests did not indicate statistical evidence of trends at a significance level of 0.05 (5%) with a decreasing trend for TCE at significance level of 0.10 (10%). SSA generally indicated no long term trends for COCs. As of May 2024, concentration reductions from baseline levels are 39% for PCE, 35% for TCE, and 22% for cDCE.

Well MW 238

Well MW-238 is located 45 ft. upgradient (west) of the ISB injection area for TA-1 (Figure 5-1). Exhibit 5-21 has time series plots for MW-238. TCE in the baseline sample from MW-238 had the highest concentration followed by cDCE with other COCs near or < MCLs. The coefficients of variation for COCs show moderate variance for PCE, TCE, and cDCE with lower detection frequencies for 1,1-DCE and VC (2 of 8 samples). For concentration vs. time correlation, PCE and TCE have positive correlation with negative correlation for cDCE.

M-K tests indicated statistical evidence of increasing trends for PCE and TCE at a significance level of 0.05 (5%). SSA indicates increasing trends for PCE and TCE and decreasing trend for cDCE. As of May 2024, concentration reductions from baseline levels are 62% for cDCE.

Exhibit 5-20 Upgradient Well MW-237: Time Series Plots and Statistical Summary



Summary of Statistical and Trend Analysis: MW-237

Location	Analyte	No. Samples	Concentration (ug/L)		Variance		Pearson's Linear Correlation			Mann-Kendall Trend One Way			Singular Spectrum Analysis (SSA)	
			Baseline Oct 2021	May 2024	CV	Variance	r	p-value (α=0.05)	Corr	H	p-value (α=0.05)	Trend	Trend	Change Point
MW-237	PCE	9	12	9.4	0.7401	Moderate	0.3497	3.56E-01	(+)	0	4.17E-01	No	↓	May 2024
	TCE	9	34	110	2.3816	High	0.2078	5.92E-01	(+)	1	5.90E-03	SS↑	↓	May 2024
	cDCE	9	28	43	0.6651	Moderate	0.4991	1.71E-01	(+)	1	4.67E-02	SS↑	↓	May 2024
	11DCE	9	3.5	4.3	0.6932	Moderate	0.5865	9.69E-02	(+)	1	4.67E-02	SS↑	↓	May 2024
	VC	9	1.0	1.6	0.5214	Moderate	0.5589	1.18E-01	(+)	0	1.47E-01	No	→	May 2024

Notes: PCE = tetrachloroethene, TCE = trichloroethene, cDCE = cis-1,2-dichloroethene, VC = vinyl chloride, CV = coefficient variation, r = correlation coefficient, p-value = probability value, Corr. = correlation: negative (-) and positive (+), SS = statistically significant at an alpha significance level of 0.05 (5 percent), [2]decreasing trend at alpha significance level of 0.10 (10 percent), Constituent concentration is less than MCL., decreasing trend

Table 5-10 ISB Treatment Area TA-1 Wells: Summary of Statistical and Trends Analysis

Location	Analyte	No. Samples	Concentration (ug/L)		Variance		Pearson's Linear Correlation			Mann-Kendall Trend One Way			Singular Spectrum Analysis (SSA)	
			Baseline Oct 2021	May 2024	CV	Variance	r	p-value (α=0.05)	Corr	H	p-value (α=0.05)	Trend	Trend	Change Point
MW-129	PCE	8	970	30	1.4793	High	0.3278	4.28E-01	(+)	0	-4.02E-01	No	→	May 2024
	TCE	8	1700	39	1.0987	High	0.2119	6.14E-01	(+)	0	-3.55E-01	No	↑	--
	cDCE	8	2900	6400	1.1176	High	0.5793	1.32E-01	(+)	1	2.80E-03	SS↑	↑	--
	11DCE	8	11	9.2	--	--	--	--	--	--	--	--	--	--
	VC	8	11	2300	1.4630	High	0.8874	3.30E-03.	SS(+)	1	2.20E-03	SS↑	↑	--
MW-130	PCE	8	4.6	0.97	1.4007	High	0.4468	2.67E-01	SS (+)	0	2.27E-01	No	↓	May 2024
	TCE	8	100	6.0	1.0488	High	0.0092	9.83E-01	None	0	5.00E-01	No	↓	May 2024
	cDCE	8	280	8.7	0.9956	Moderate	-0.2172	6.05E-01	(-)	0	-2.27E-01	No	↓	Nov 2023
	11DCE	8	1.3	1.0	0.6168	Moderate	-0.2656	5.25E-01	(-)	0	-2.81-01	No	↓	May 2023
	VC	8	2.2	3.7	1.3669	High	-0.0416	9.22E-01	None	0	1.47E-01	No	↓	Nov 2023
MW-131	PCE	8	28	17	0.9103	Moderate	-0.1165	7.83E-01	(-)	0	-1.01E-03	No	→	--
	TCE	8	1700	1100	0.5218	Moderate	-0.5815	1.31E-01	(-)	0	-6.73E-02	↓[1]	→	--
	cDCE	8	680	530	0.4556	Moderate	-0.4162	3.05E-01	(-)	0	-1.93E-01	No	→	--
	11DCE	8	3.3	2.9	0.0756	Low	-0.4561	5.44E-01	(-)	0	0	No	→	--
	VC	8	ND	ND	--	--	--	--	--	--	--	--	--	--
MW-238	PCE	8	4.1	75	0.9010	Moderate	0.9010	1.64E-01	(+)	1	9.40E-03	SS↑	↑	
	TCE	8	420	2800	0.8813	Moderate	0.8813	3.77E-01	(+)	1	1.77E-02	SS↑	↑	
	cDCE	8	230	88	0.7022	Moderate	-0.442	4.50E-02	SS(-)	0	-2.27E-01	No	↓	
	11DCE	8	1.3	ND	--	--	--	--	--	--	--	--	--	--
	VC	8	0.54	ND	--	--	--	--	--	--	--	--	--	--
MW-239	PCE	8	2	29	1.8430	High	0.6421	8.60E-02	(+)	0	1.76E-01	No	↑	
	TCE	8	25	1500	1.7805	High	0.6552	7.78E-02	(+)	0	1.74E-01	No	↑	
	cDCE	8	0.91	45	1.7752	High	0.1846	6.62E-02	(+)	0	8.68E-01	No	↑	
	11DCE	8	ND	ND	--	--	--	--	--	--	--	--	--	--
	VC	8	ND	ND	--	--	--	--	--	--	--	--	--	--
MW-240	PCE	8	1000	5.1	2.1125	High	-0.4118	3.11E-01	(-)	0	-2.67E-01	No	↓	
	TCE	8	7500	150	2.3916	High	-0.5136	1.93E-01	(-)	0	-5.39E-01	↓[1]	↓	
	cDCE	8	610	210	1.0762	High	0.2865	4.91E-01	(+)	0	1.93E-01	No	↓	May 2024
	11DCE	8	3.7	ND	--	--	--	--	--	--	--	--	--	--
	VC	8	1.0	80	1.5050	High	0.6701	6.90E-02	(+)	1	9.91E-04	SS↑	↓	May 2024
MW-241	PCE	8	47	1.0	1.7290	High	-0.4151	3.06E-01	(-)	0	-8.68E-02	↓[1]	↓	
	TCE	8	1200	0.50	2.6829	High	-0.5166	1.90E-01	(-)	1	-9.40E-02	SS↓	↓	
	cDCE	8	93	1.4	1.2327	High	0.2848	4.94E-01	(+)	0	1.33E-01	No	↓	May 2024
	11DCE	8	0.59	ND	--	--	--	--	--	--	--	--	--	--
	VC	8	1.0	0.94	0.9847	Moderate	0.6698	6.92E-01	(+)	0	3.55E-01	No	↓	May 2024
MW-242	PCE	8	ND	0.77	--	--	--	--	--	--	--	--	--	--
	TCE	8	290	0.80	1.3133	High	-0.4144	3.07E-01	(-)	0	6.73E-02	↓[1]	→	
	cDCE	8	690	3600	0.5485	Moderate	0.9130	1.50E-03	SS(+)	1	2.20E-03	SS↑	↑	
	11DCE	8	11	220	0.8504	Moderate	0.5758	1.35E-01	(+)	1	3.17E-02	SS↑	→	May 2024
	VC	8	ND	ND	--	--	--	--	--	--	--	--	--	--

Notes: PCE = tetrachloroethene, TCE = trichloroethene, cDCE = cis-1,2-dichloroethene, VC = vinyl chloride, CV = coefficient variation, r = correlation coefficient, p-value = probability value, Corr. = correlation: negative (-) and positive (+), SS = statistically significant at an alpha significance level of 0.05 (5 percent), [2]decreasing trend at alpha significance level of 0.10 (10 percent), Constituent concentration is less than MCL., decreasing trend

Exhibit 5-21 Time Series Plots for TA-2

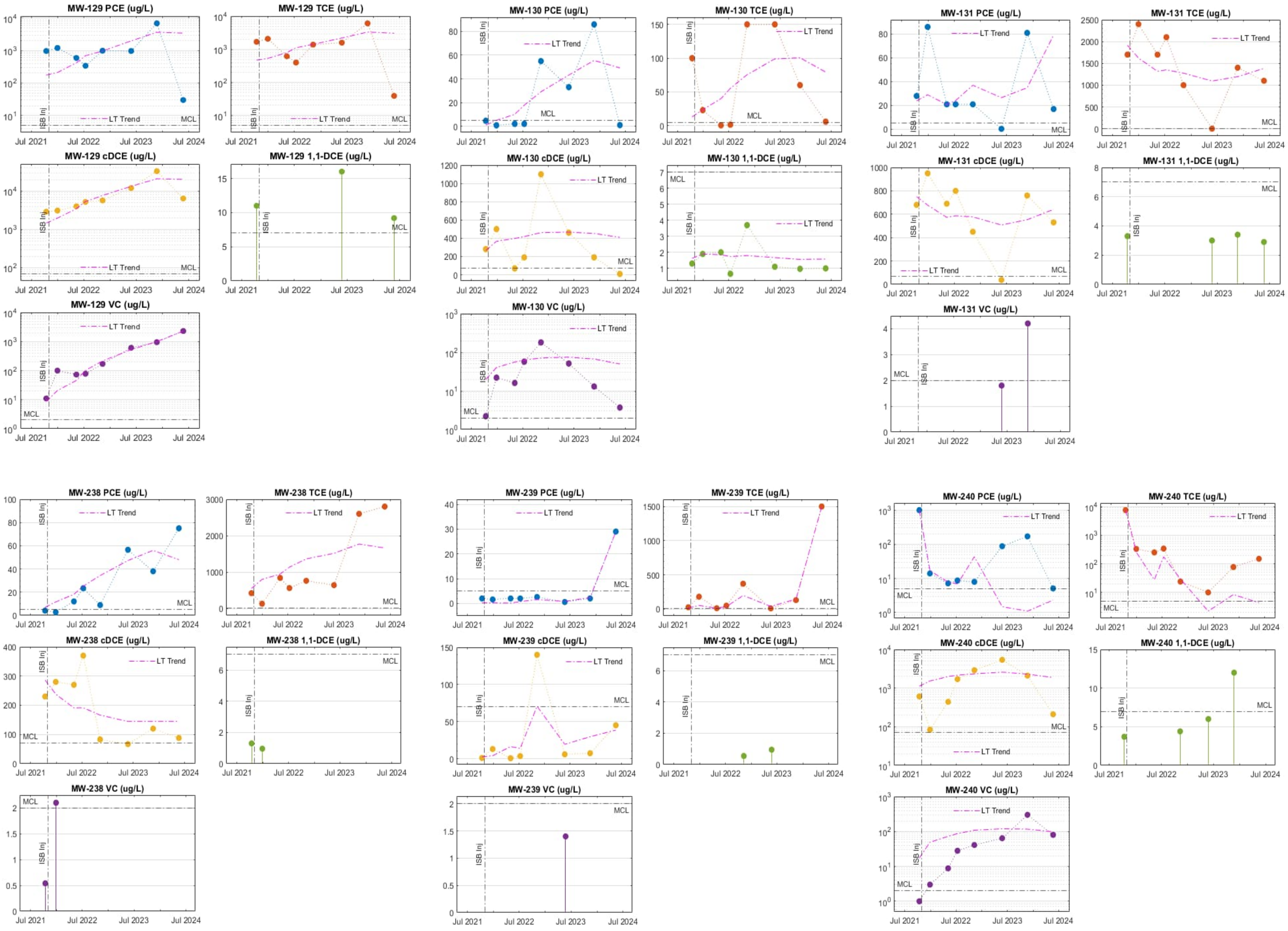
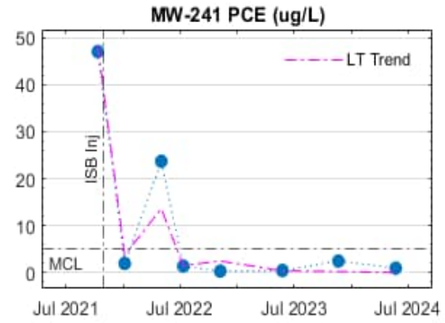
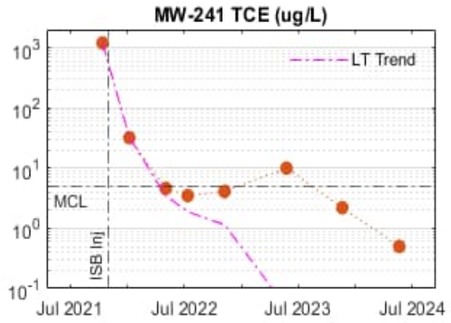
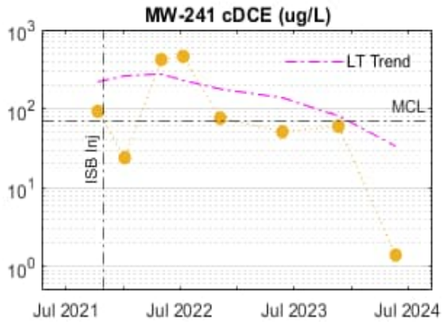
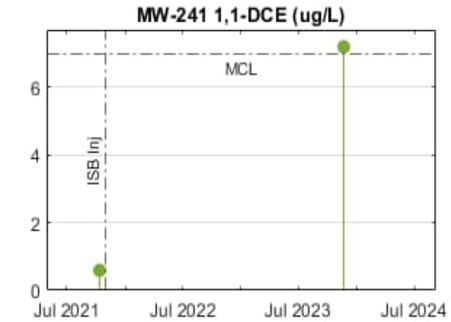


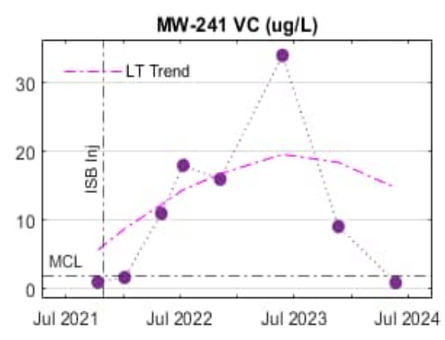
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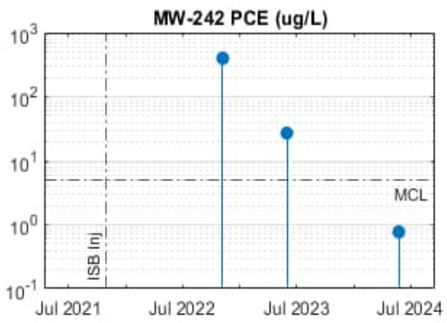


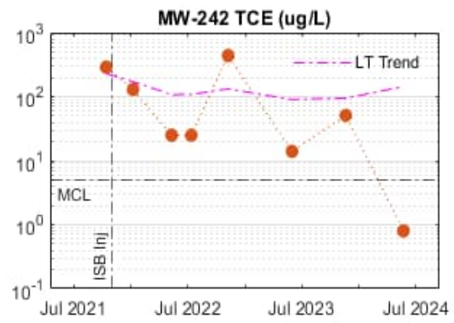


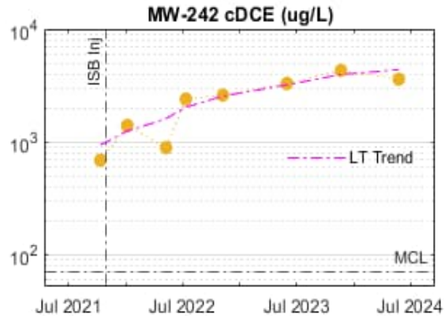


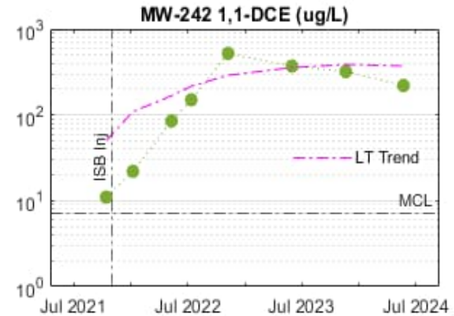


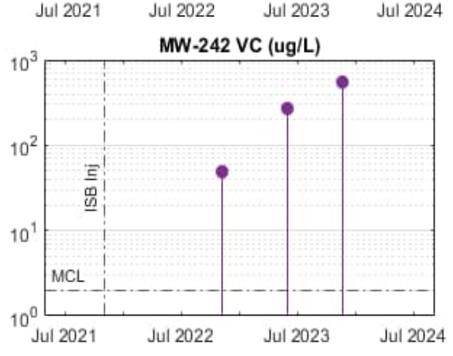












Well MW-129

Well MW-129 is located < 20 ft. downgradient of ISB injection area for TA-1 (Figure 5-1). Exhibit 5-21 has time series plots of data for MW-129. The baseline sample from the well had progressively higher concentrations for PCE, TCE, and cDCE. The coefficients of variation for COCs show high variance except for 1,1-DCE that had lower frequency of detection (3 of 8). COCs have positive linear correlation for concentrations vs. time. M-K tests indicate an increasing trend for cDCE with no trends identified for other COCs. ISB injections at this location mostly have reduced PCE and TCE to cDCE and VC.

Well MW-130

Well MW-130 is 20 ft. downgradient of ISB injection area for TA-1 (Figure 5-1). Exhibit 5-21 has time series plots of data for MW-130. The baseline sample from MW-130 had progressively higher concentrations for PCE, TCE, and cDCE. The coefficients of variation for COCs show high variance for PCE, TCE, and VC with moderate variance for cDCE and 1,1-DCE. For concentration vs. time correlation, PCE has positive correlation, TCE has no correlation, and cDCE, 1,1-DCE, and VC have negative correlation.

M-K tests indicate an increasing trend for PCE with no trends detected for other COCs. SSA shows apparent COC trend changes to decreasing in May 2024. ISB injections at this location mostly have reduced PCE and TCE to cDCE and VC. As of May 2024, concentrations for PCE, cDCE, and 1,1-DCE at MW-130 are < MCLs with TCE and VC slightly > MCLs.

Well MW-131

Well MW-131 is located in the ISB injection area for TA-1 (Figure 5-1). Exhibit 5-21 has time series plots of data for MW-131. TCE in the baseline sample from MW-131 had the highest concentration followed by cDCE and PCE. The coefficients of variation for COCs show moderate variance for PCE, TCE, and cDCE with lower detection frequencies for 1,1-DCE (4 of 8 samples) and VC (2 of 8 samples). For concentration vs. time correlation, PCE, TCE, cDCE, and 1,1-DCE have negative correlation.

M-K tests did not indicate statistical evidence of trends at a significance level of 0.05 (5%) with a decreasing trend for TCE at significance level of 0.10 (10%). SSA generally indicated no long term trends for COCs. As of May 2024, concentration reductions from baseline levels are 39% for PCE, 35% for TCE, and 22% for cDCE.

Well MW 238

Well MW-238 is located 45 ft. upgradient (west) of the ISB injection area for TA-1 (Figure 5-1). Exhibit 5-21 has time series plots for MW-238. TCE in the baseline sample from MW-238 had the highest concentration followed by cDCE with other COCs near or < MCLs. The coefficients of variation for COCs show moderate variance for PCE, TCE, and cDCE with lower detection frequencies for 1,1-DCE and VC (2 of 8 samples). For concentration vs. time correlation, PCE and TCE have positive correlation with negative correlation for cDCE.

M-K tests indicated statistical evidence of increasing trends for PCE and TCE at a significance level of 0.05 (5%). SSA indicates increasing trends for PCE and TCE and decreasing trend for cDCE. As of May 2024, concentration reductions from baseline levels are 62% for cDCE.

Well MW-239

Well MW-239 is located 33 ft. upgradient (west) of the ISB injection area for TA-1 (Figure 5-1). Exhibit 5-21 has time series plots for MW-239. TCE in the baseline sample from MW-239 had a concentration greater than the MCL with other COCs < the MCL. The coefficients of variation for COCs show high variance for PCE, TCE, and cDCE with lower detection frequencies for 1,1-DCE (2 of 8 samples) and VC (1 of 8 samples). For concentration vs. time correlation, PCE, TCE, and cDCE have positive correlation.

M-K tests did not indicate statistical evidence of trends for COCs at a significance level of 0.05 (5%). SSA indicates increasing trends for PCE, TCE, and cDCE. As of May 2024, MW-239 had PCE and TCE concentrations > MCLs and pre-injection baseline levels.

Well MW-240

Well MW-240 is located within the ISB injection area for TA-1 (Figure 5-1). Exhibit 5-21 has time series plots for MW-240. TCE in the baseline sample from MW-240 had the highest concentration followed by PCE and cDCE. The coefficients of variation for COCs show high variance except for 1,1-DCE that has a lower detection frequency (4 of 8 samples). For concentration vs. time correlation, PCE and TCE have negative correlation with cDCE and VC having positive correlation.

M-K tests indicate statistical evidence of an increasing trend for VC at a significance level of 0.05 (5%). SSA indicates an increasing trend for VC, decreasing trends for PCE and TCE, and a trend change to decreasing for cDCE in May 2024. As of May 2024, the PCE concentration at MW-240 had decreasing more than 99% from baseline approaching the MCL.

Well MW-241

Well MW-241 is located within the ISB injection area for TA-1 (Figure 5-1). Exhibit 5-21 has time series plots for MW-241. TCE in the baseline sample from MW-240 had the highest concentration followed by cDCE and PCE. The coefficients of variation for PCE, TCE, and cDCE show high variance with moderate variance for VC. 1,1-DCE has a low detection frequency (2 of 8 samples). For concentration vs. time correlation, PCE and TCE have negative correlation with cDCE and VC having positive correlation.

M-K tests indicate statistical evidence of a decreasing trend for TCE at a significance level of 0.05 (5%) with a decreasing trend for PCE at a significance level of 0.10 (10%). SSA indicates decreasing trends for PCE, TCE, and cDCE with a trend change to decreasing for VC in May 2024. As of May 2024, COCs had concentrations < MCLs at well MW-241.

Well MW-242

Well MW-242 is located < 20 ft. downgradient of the ISB injection area for TA-1 (Figure 5-1). Exhibit 5-21 has time series plots for MW-241. cDCE in the baseline sample from MW-241 had the highest concentration followed by TCE and 1,1-DCE. The coefficients of variation show high variance for TCE and moderate variance for cDCE and 1,1-DCE. PCE and VC have a lower detection frequency (3 of 8 samples). For concentration vs. time correlation, TCE has negative correlation with cDCE having statistically significant, positive correlation at a significance level of 0.05 (5%). 1,1-DCE has positive correlation.

M-K tests indicate statistical evidence of increasing trends for cDCE and 1,1-DCE at a significance level of 0.05 (5%). SSA indicates an increasing trend for cDCE and a leveling trend for TCE and 1,1-DCE. As of May 2024, PCE and TCE had detected concentrations < MCLs at well MW-242.

Summary of Trend Analysis for TA-1

Table 5-11 (page 5-47) has a summary of the statistical and trend analysis for TA-1. M-K trend trends indicated statistical evidence of decreasing trends (significance level of 0.05) for 1 of 30 tests performed. Four (4) M-K tests for PCE and TCE indicated decreasing trends at a significance level of 0.10. Seven (7) M-K tests indicated statistical evidence of increasing trends (significance level of 0.05) with 5 of 7 tests for daughter products cDCE, 1,1-DCE, and VC. SSA trend tests for the 31 month monitoring period identified trends prevalent through this period and changes in trends within the monitoring period. SAA identified increasing trends for 9 of 30 tests with 7 of 9 tests for daughter products cDCE, 1,1-DCE, and VC. SSA identified decreasing trends for 5 of 30 tests, changes to no trend for 2 of 30 tests, and changes to deceasing trend for 9 of 30 tests.

5.6.1.3 Treatment Area: TA-2

ISB performance monitoring in and around treatment area TA-2 included four locations: MW-126, MW-243, MW-245, and MW-246. (Figure 5-1). Table 5-12 (page 5-48) has a summary of the statistical and trend analysis for these wells. Exhibit 5-22 (page 5-49) has time series data plots for wells in TA-2 with x-axis reference lines for cleanup levels (MCLs) and y-axis reference lines for ISB injections performed in Oct-Nov 2021. The plots have SSA lines for long-term trend.

Table 5-11 Summary of Statistical and Trend Analysis: TA-1

Parameter	Samples for Trend Evaluation	Mann-Kendall Trend (M-K, One Way)				Singular Spectrum Analysis (SSA)			
		No Trend	Decreasing (α - 0.10)	Decreasing (α - 0.05)	Increasing (α - 0.05)	Decreasing	Increasing	Change to No Trend	Change to Decreasing
Total	30	18	4	1	7	5	9	2	9
PCE	7	5	1	--	1	1	2	1	1
TCE	8	3	3	1	1	2	3	--	1
cDCE	8	6	--	--	2	2	3	--	3
11DCE	3	2	--	--	1	--	--	1	1
VC	4	2	--	--	2	--	1	--	3

Notes: : PCE = tetrachloroethene, TCE = trichloroethene, cDCE = cis-1,2-dichloroethene, VC = vinyl chloride, α – 0.05 = alpha significance level of 0.05 (5 percent), α – 0.10 = alpha significance level of 0.10 (10 percent).

Well MW-126

Well MW-126 is located within the ISB injection area for TA-2 (Figure 5-1). Exhibit 5-22 (page 5-49) has time series plots of data for MW-126. The baseline sample from MW-126 had the following concentration progression: TCE > PCE > cDCE with a concentration range of 400 µg/L. The coefficients of variation for COCs show high variance except for 1,1-DCE that had a lower frequency of detection (3 of 8 samples).

COCs have positive linear correlation for concentrations vs. time with M-K trend tests indicating an increasing trend for cDCE. SSA indicated COC trend changes to decreasing in May 2024. The baseline sample from MW-126 had the following concentration progression: TCE > PCE > cDCE with a concentration range of 400 µg/L. The coefficients of variation for COCs show high variance except for 1,1-DCE that lower frequency of detection (3 of 8). COCs have positive linear correlation for concentrations vs. time with M-K trend tests. ISB injections at this location mostly have reduced PCE and TCE to cDCE and VC.

Well MW-243

Well MW-243 is located 15 ft. upgradient of the ISB injection area for TA-2 (Figure 5-1). Exhibit 5-22 (page 5-49) has time series plots of data for MW-243. This well is a hotspot within the OU 1 area with the highest baseline concentrations for PCE, TCE, and cDCE ≥24,000 µg/L. The coefficients of variation for COCs show low variance for cDCE and moderate variance for other COCs. PCE, TCE, and 1,1-DCE have negative linear correlation for concentrations vs. time. cDCE has no linear correlation and VC has positive linear correlation.

M-K tests indicate decreasing trends for PCE and TCE, no trend for cDCE and 1,1-DCE, and an increasing trend for VC. SSA indicates decreasing trends for PCE, TCE, and 1,1-DCE with an apparent change to a decreasing trend for cDCE in May 2024. M-K tests indicate an increasing trend for VC.

Well MW-245

Well MW-245 is located 35 ft. downgradient of the ISB injection area for TA-2 (Figure 5-1). Exhibit 5-22 (page 5-49) has time series plots of data for MW-245. cDCE had the highest concentration for the baseline sample followed by TCE, 1,1-DCE, PCE, and VC. The coefficients of variation for COCs show high variance. cDCE and VC have statistically significant, negative linear correlation for concentrations vs. time. Other COCs have negative correlation.

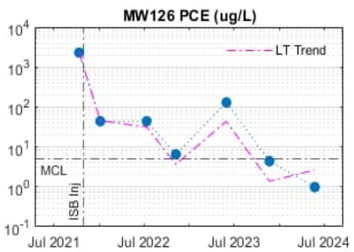
M-K tests and SSA indicate decreasing COCs concentrations. As of May 2024, detected concentrations of COCs at well MW-245 did not exceed MCLs.

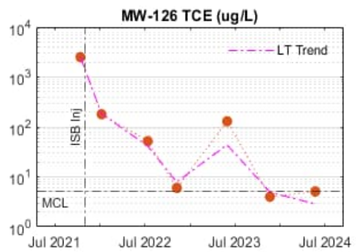
Table 5-12 ISB Treatment Area TA-2 Wells: Summary of Statistical and Trends Analysis

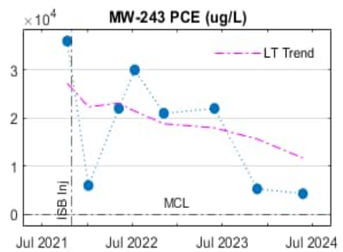
Location	Analyte	No. Samples	Concentration (ug/L)		Variance		Pearson's Linear Correlation			Mann-Kendall Trend One Way			Singular Spectrum Analysis (SSA)	
			Baseline Oct 2021	May 2024	CV	Variance	r	p-value (α=0.05)	Corr	H	p-value (α=0.05)	Trend	Trend	Change Point
MW-126	PCE	7	2300	0.99	2.3685	High	-0.5573	1.94E-01	(-)	1	-2.41E-02	SS↓	↓	--
	TCE	7	2500	5.1	2.2474	High	-0.6105	1.67E-01	(-)	1	-1.77E-02	SS↓	↓	--
	cDCE	7	2100	370	0.7414	Moderate	-0.6105	1.45E-01	(-)	0	-6.66E-02	↓[1]	↓	--
	11DCE	7	1300	20	1.7337	High	-0.6596	1.07E-01	(-)	1	1.30E-03	SS↓	↓	--
	VC	7	150	13	0.7652	Moderate	-0.9530	8.99E-04	SS(-)	1	8.10E-02	SS↓	↓	--
MW-243	PCE	8	36000	4300	0.6526	Moderate	-0.6129	1.06E-01	(-)	1	-4.05E-02	SS↓	↓	
	TCE	8	33000	3900	0.5469	Moderate	-0.8635	5.70E-01	(-)	1	-2.30E-02	SS↓	↓	
	cDCE	8	24000	14000	0.2998	Low	-0.0589	8.90E-01	No	0	5.00E-01	No	↓	May 2024
	11DCE	8	3500	410	0.6854	Moderate	-0.5936	1.21E-01	(-)	0	1.06E-02	No	↓	
	VC	8	410	1700	0.5374	Moderate	0.7944	1.85E-02	SS(+)	1	6.30E-03	SS↑	↑	
MW-245	PCE	8	560	ND	2.6003	High	-0.5570	1.99E-01	(-)	1	-4.20E-03	SS↓	↓	
	TCE	8	710	0.38	2.5537	High	-0.5269	1.80E-01	(-)	1	-1.25E-02	SS↓	↓	
	cDCE	8	1400	1.9	1.4469	High	-0.7662	2.66E-02	SS(-)	1	-4.70E-03	SS↓	↓	
	11DCE	8	580	0.47	1.9866	High	-0.6285	9.51E-02	(-)	1	2.20E-03	SS↓	↓	
	VC	8	150	0.97	1.5782	High	-0.7289	4.02E-02	SS(-)	1	-5.94E-04	SS↓	↓	
MW-246	PCE	8	0.90	0.58	2.0492	High	0.4231	2.96E-01	(+)	0	3.34E-01	No	→	
	TCE	8	0.75	ND	1.4960	High	0.3577	3.84E-01	(+)	0	-3.04E-01	No	→	
	cDCE	8	0.49	1.6	0.9993	Moderate	0.4484	2.65E-01	(+)	0	1.59E-01	No	→	
	11DCE	8	ND	ND	--	--	--	--	--	--	--	--	--	--
	VC	8	ND	ND	--	--	--	--	--	--	--	--	--	--

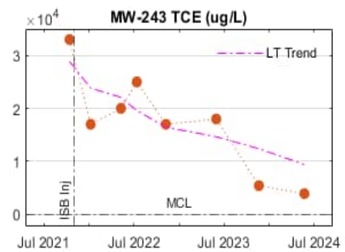
Notes: PCE = tetrachloroethene, TCE = trichloroethene, cDCE = cis-1,2-dichloroethene, VC = vinyl chloride, CV = coefficient variation, r = correlation coefficient, p-value = probability value, Corr. = correlation: negative (-) and positive (+), SS = statistically significant at an alpha significance level of 0.05 (5 percent), [1]decreasing trend at alpha significance level of 0.10 (10 percent), Constituent concentration is less than the MCL., decreasing trend

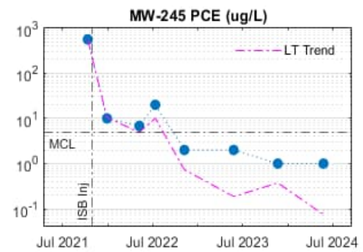
Exhibit 5-22 Time Series Plots for TA-2

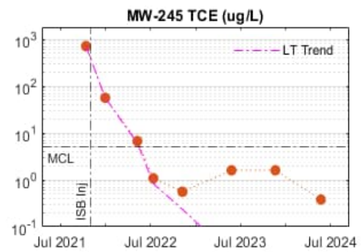


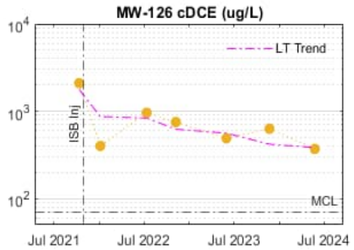


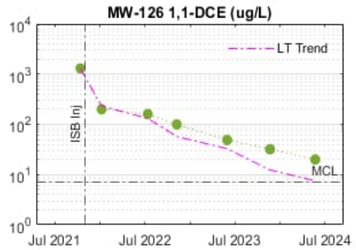


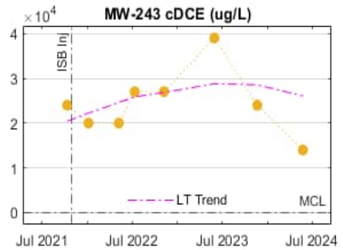


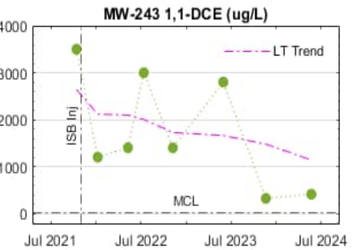


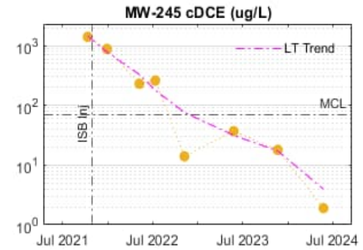


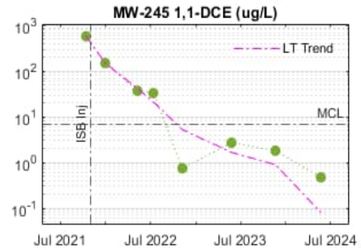


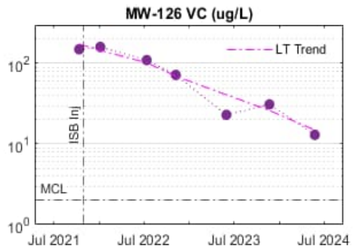


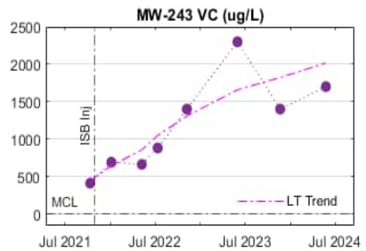


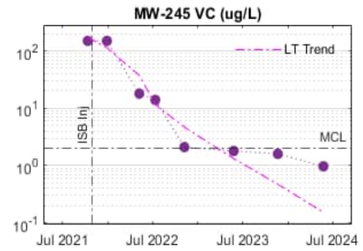


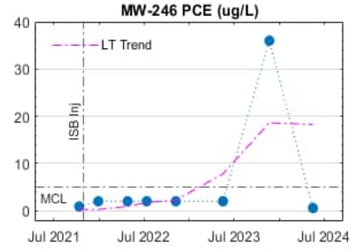


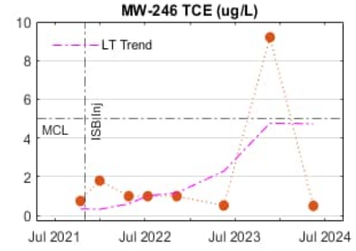


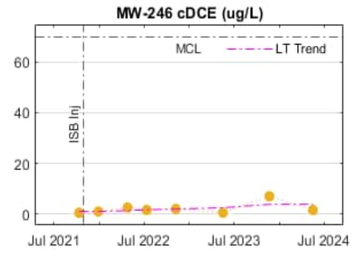


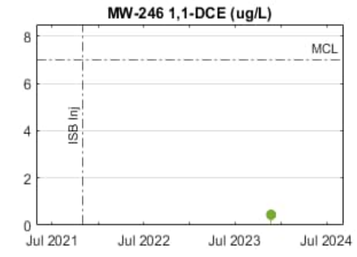


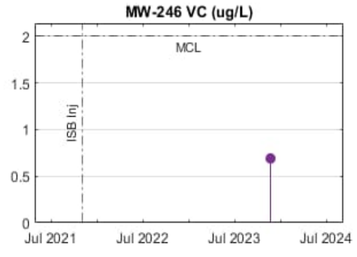












Well MW-245

Well MW-245 is located 35 ft. downgradient of the ISB injection area for TA-2 (Figure 5-1). Exhibit 5-22 (page 5-49) has time series plots of data for MW-245. cDCE had the highest concentration for the baseline sample followed by TCE, 1,1-DCE, PCE, and VC. The coefficients of variation for COCs show high variance. cDCE and VC have statistically significant, negative linear correlation for concentrations vs. time. Other COCs have negative correlation.

M-K tests and SSA indicate decreasing COCs concentrations. As of May 2024, detected concentrations of COCs at well MW-245 did not exceed MCLs.

Well MW-246

Well MW-246 is located 20 ft. downgradient of the ISB injection area for TA-2 (Figure 5-1). Exhibit 5-22 (page 5-49) has time series plots of data for MW-246. cDCE had the highest concentration for the baseline sample followed by TCE, 1,1-DCE, PCE, and VC. The coefficients of variation for COCs show high variance for PCE and TCE with moderate variance for cDCE. 1,1-DCE and VC have detections in 1 of 8 samples. PCE, TCE, and cDCE have positive linear correlation for concentrations vs. time. Other COCs have negative correlation.

M-K tests and SSA do not indicate trends for PCE, TCE, and cDCE. As of May 2024, detected concentrations of COCs at well MW-246 did not exceed MCLs.

Summary of Trend Analysis for TA-2

Table 5-13 has a summary of the statistical and trend analysis for TA-2. M-K trend trends indicated statistical evidence of decreasing trends (significance level of 0.05) for 11 of 18 tests performed. One M-K test for cDCE indicated a decreasing trend at a significance level of 0.10. One M-K test for VC indicated statistical evidence of an increasing trend (significance level of 0.05). SSA trend tests for the 31 month monitoring period identified decreasing trends prevalent through this period and one change in trend to decreasing (cDCE) within the monitoring period. SAA identified an increasing trend for 1 of 18 tests (VC), decreasing trends for 13 of 18 tests, and changes to decreasing trend for 1 of 18 tests.

Table 5-13 Summary of Statistical and Trend Analysis: TA-2

		Mann-Kendall Trend (M-K, One Way)				Singular Spectrum Analysis (SSA)			
Parameter	Samples for Trend Evaluation	No Trend	Decreasing (α - 0.10)	Decreasing (α - 0.05)	Increasing (α - 0.05)	Decreasing	Increasing	Change to No Trend	Change to Decreasing
Total	18	5	1	11	1	13	1	--	1
PCE	4	1	--	3	--	3	--	--	--
TCE	4	1	--	3	--	3	--	--	--
cDCE	4	2	1	1	--	2	--	--	1
11DCE	3	1	--	2	--	3	--	--	--
VC	3	--	--	2	1	2	1	--	--

Notes: : PCE = tetrachloroethene, TCE = trichloroethene, cDCE = cis-1,2-dichloroethene, VC = vinyl chloride, α – 0.05 = alpha significance level of 0.05 (5 percent), α – 0.10 = alpha significance level of 0.10 (10 percent).

5.6.1.4 Treatment Area: TA-3

ISB performance monitoring in and around treatment area TA-3 included well MW-247 located < 10 ft. downgradient of the ISB injection area for TA-3 (Figure 5-1). Table 5-14 (page 5-51) has a summary of the statistical and trend analysis for these wells. Exhibit 5-23 (page 5-51) has a time series data plot for well MW-247 with x-axis reference lines for cleanup levels (MCLs) and y-axis reference lines for ISB injections performed in Oct-Nov 2021. The plots have SSA lines for long-term trend.

MW-247 had baseline concentrations for cDCE, 1,1-DCE, and VC at levels > MCLs with PCE and TCE < MCLs. The coefficients of variation for COCs show high variance for PCE, TCE, and VC. 1,1-DCE had detections in 2 of 8 samples in 2021-2022. PCE and TCE have positive linear correlation for concentrations vs. time with cDCE and VC having negative correlation.

Table 5-14 ISB Treatment Area TA-3 Wells: Summary of Statistical and Trend Analysis

Location	Analyte	No. Samples	Concentration (ug/L)		Variance		Pearson's Linear Correlation			Mann-Kendall Trend One Way			Singular Spectrum Analysis (SSA)	
			Baseline Oct 2021	May 2024	CV	Variance	r	p-value (α=0.05)	Corr	H	p-value (α=0.05)	Trend	Trend	Change Point
MW-247	PCE	8	2.6	ND	2.0702	High	0.4177	3.03E-01	(+)	0	6.06E-01	No	→	--
	TCE	8	3.5	ND	1.6941	High	0.3021	4.67E-01	(+)	0	-2.68E-01	No	→	--
	cDCE	8	90	5.4	0.9061	Moderate	-0.5819	1.30E-01	(-)	1	-3.17E-02	SS↓	↓	--
	11DCE	8	8	ND	--	--	--	--	--	--	--	--	--	--
	VC	8	27	ND	1.7643	High	-0.5171	1.89E-01	(-)	1	-2.30E-02	SS↓	↓	--

Notes: PCE = tetrachloroethene, TCE = trichloroethene, cDCE = cis-1,2-dichloroethene, VC = vinyl chloride, CV = coefficient variation, r = correlation coefficient, p-value = probability value, Corr. = correlation: negative (-) and positive (+), SS = statistically significant at an alpha significance level of 0.05 (5 percent), [2]decreasing trend at alpha significance level of 0.10 (10 percent), Constituent concentration is less than the MCL., decreasing trend

Table 5-15 Cross-gradient Well MW-244: Summary of Statistical and Trend Analysis

Location	Analyte	No. Samples	Concentration (ug/L)		Variance		Pearson's Linear Correlation			Mann-Kendall Trend One Way			Singular Spectrum Analysis (SSA)	
			Baseline Oct 2021	May 2024	CV	Variance	r	p-value (α=0.05)	Corr	H	p-value (α=0.05)	Trend	Trend	Change Point
MW-244	PCE	8	1.3	3.7	2.1144	High	0.4440	2.70E-01	(+)	0	1.54E-01	No	→	--
	TCE	8	11	11	1.1458	High	0.3745	3.61E-01	(+)	0	5.00E-01	No	→	--
	cDCE	8	4.5	13	1.6732	High	0.5237	1.83E-01	(+)	0	8.68E-02	No	↑	--
	11DCE	8	ND	4.5	--	--	--	--	--	--	--	--	--	--
	VC	8	0.68	2.6	0.6884	Moderate	0.8423	1.58E-01	(+)	0	1.54E-01	No	--	--

Notes: PCE = tetrachloroethene, TCE = trichloroethene, cDCE = cis-1,2-dichloroethene, VC = vinyl chloride, CV = coefficient variation, r = correlation coefficient, p-value = probability value, Corr. = correlation: negative (-) and positive (+), SS = statistically significant at an alpha significance level of 0.05 (5 percent), [2]decreasing trend at alpha significance level of 0.10 (10 percent), Constituent concentration is less than the MCL., decreasing trend

Exhibit 5-23 Time Series Plots for TA-3

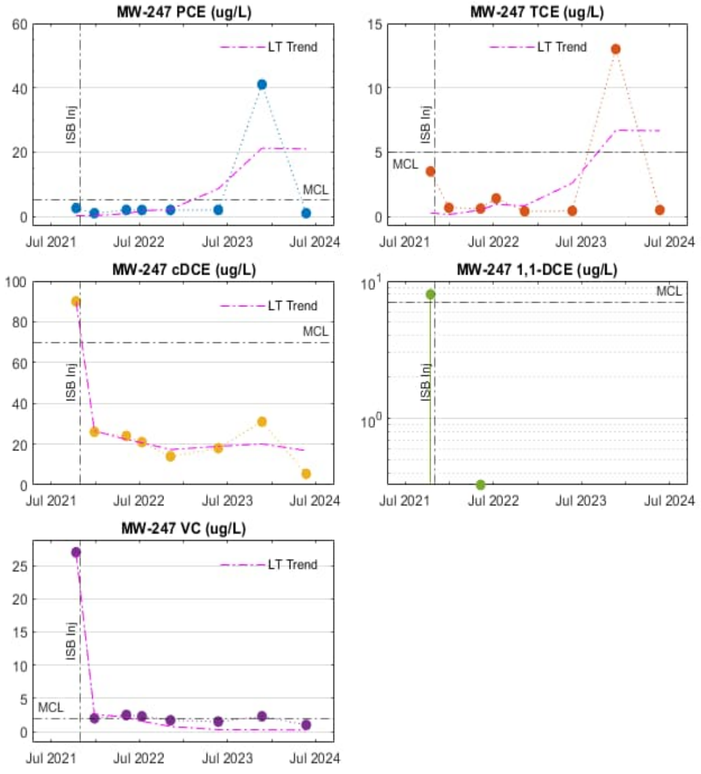
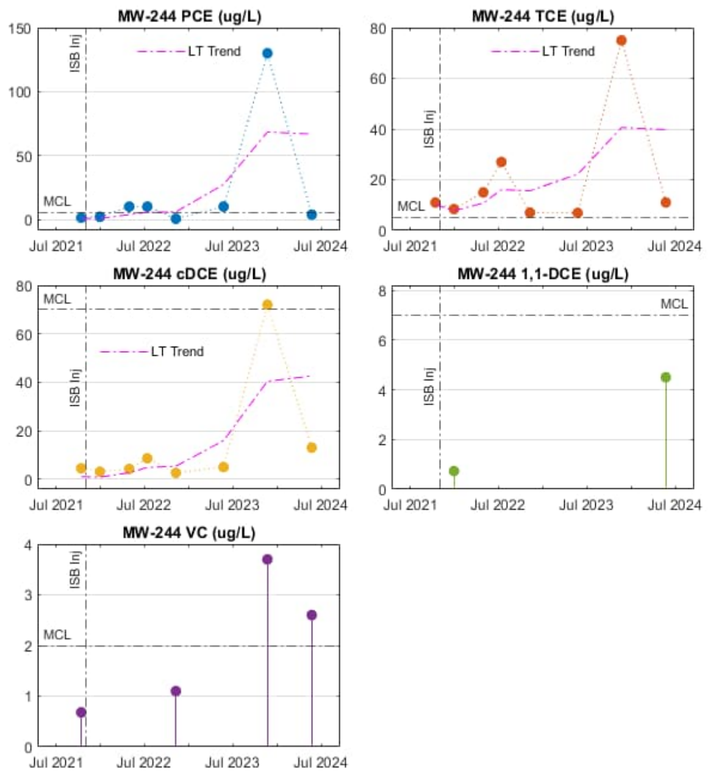


Exhibit 5-24 Time Series Plots for Well MW-244



5.6.1.5 Well MW-244

ISB performance monitoring well MW-244 is 25 ft. north and cross gradient of ISB injection area for TA-2 (Figure 5-1). Table 5-15 (page 5-51) has a summary of the statistical and trend analysis for well MW-244. Exhibit 5-24 (page 5-51) has a time series data plot for well MW-244 with x-axis reference lines for cleanup levels (MCLs) and y-axis reference lines for ISB injections performed in Oct-Nov 2021. The plots have SSA lines for long-term trend.

MW-244 had baseline concentrations < MCL for COCs except for TCE (11 µg/L). The coefficients of variation for COCs show high variance for PCE, TCE, and cDCE and moderate variance for VC. 1,1-DCE had detections in 2 of 8 samples. PCE, TCE, cDCE and VC have positive linear correlation for concentrations vs. time. M-K tests did not indicate trends for COCs. SSA indicated an increasing trend for cDCE with no trends for PCE and TCE.

5.6.2 Surficial Aquifer for Southern Area

The trend assessment for the surficial aquifer in the southern area evaluates 11 wells monitored in the OU 2 and OU 3 areas of OU 6 for the monitoring period 2021 through 2024. These wells are located in the remaining plume area in the surficial aquifer where COCs for the monitoring period had concentrations > cleanup levels (MCLs) for one or more samples. For 2021-2024, PCE, TCE, cDCE, VC, 1,2-DCA, 1,4-DCB, and CB had detected concentrations > MCLs. Each monitoring well has four (4) data observations. Criteria used for performing trend evaluations of COCs for each location includes detections in 4 of 4 samples. M-K tests require a minimum of four detected observations with a determination of statistical evidence of trend generally requiring a monotonic increase or decrease for the four observations. Appendix E.6 has statistical and trend analysis documentation for the surficial aquifer in the southern area.

Exhibit 5-25 (pages 5-53, 5-54) has COC data plots for the 11 wells evaluated for trends. The stem plots have y-axis reference lines for cleanup levels (MCLs).

5.6.2.1 Operable Unit 2 Area

Trend analysis for the OU 2 area includes monitoring wells MW-260 and MW-262 (Figure 3-1). Table 5-16 has a summary of the statistical and trend analysis for these wells. Exhibit 5-25 has data plots for wells MW-260 and MW-262. M-K tests did not indicate statistical evidence of trends for MW-260 or MW-262.

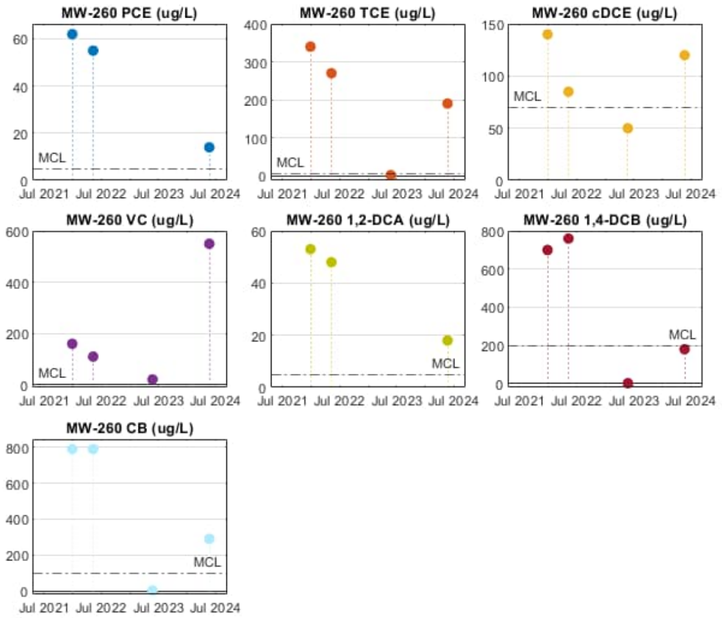
Table 5-16 OU 2 Wells: Summary of Statistical and Trend Analysis

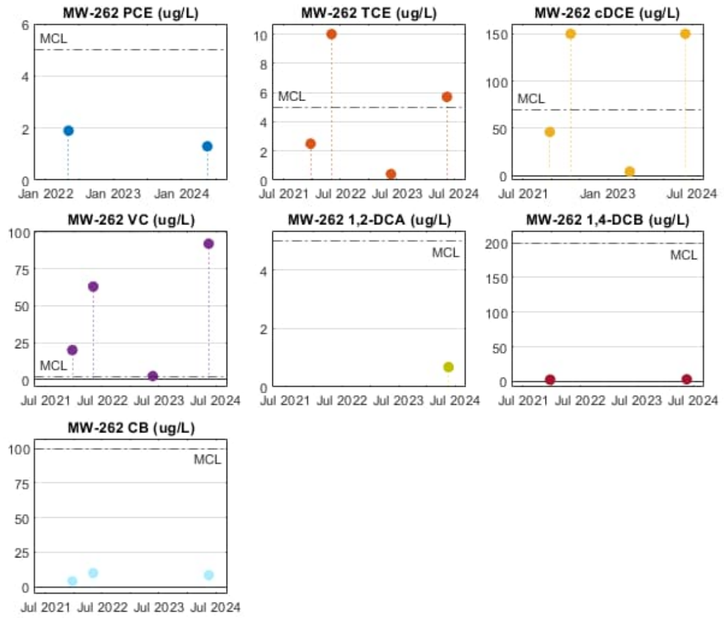
Location	Analyte	Concentration (µg/L)		Pearson's Linear Correlation			Mann-Kendall Trend One Way		
		2021	2024	r	p-value (α=0.05)	Corr	H	p-value (α=0.05)	Trend
MW-260	TCE	340	190	-0.5877	4.12E-01	(-)	0	-1.15E-01	None
	cDCE	140	120	-0.1752	8,25E-01	(-)	0	-3.67E-01	None
	VC	160	550	0.6751	3.25E-01	(+)	0	0	None
	1,4-DCB	700	180	-0.8164	1.84E-01	(-)	0	3.67E-01	None
	CB	790	290	-0.7608	2.39E-01	(-)	0	-2.35E-01	None
MW-262	TCE	1.3	5.7	-0.1118	8.88E-01	(-)	0	5.00E-01	None
	cDCE	46	150	0.2280	2.28E-01	(+)	0	5.00E-01	None
	VC	20	92	0.4675	5.33E-01	(+)	0	3.67E-01	None

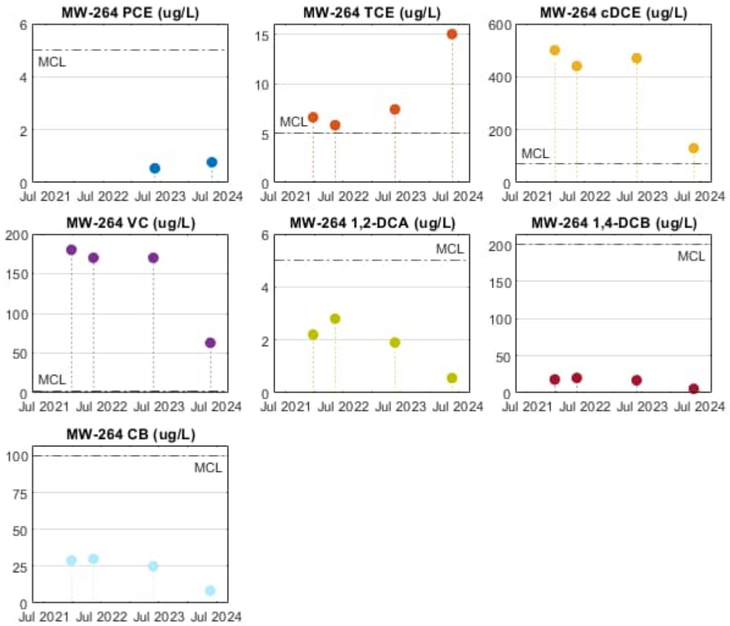
Notes: < Notes: PCE = tetrachloroethene, TCE = trichloroethene, cDCE = cis-1,2-dichloroethene, VC = vinyl chloride, 1,4-DCB = 1,4-dichlorobenzene, CB = chlorobenzene, CV = coefficient variation, r = correlation coefficient, p-value = probability value, Corr. = correlation: negative (-) and positive (+), SS = statistically significant at an alpha significance level of 0.05 (5 percent), 2decreasing trend at alpha significance level of 0.10 (10 percent), Constituent concentration is less than the MCL., decreasing trend

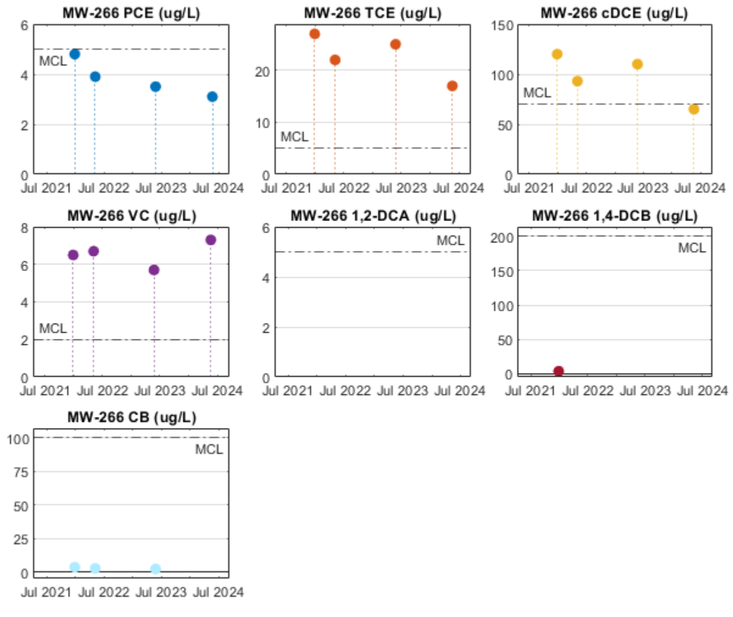
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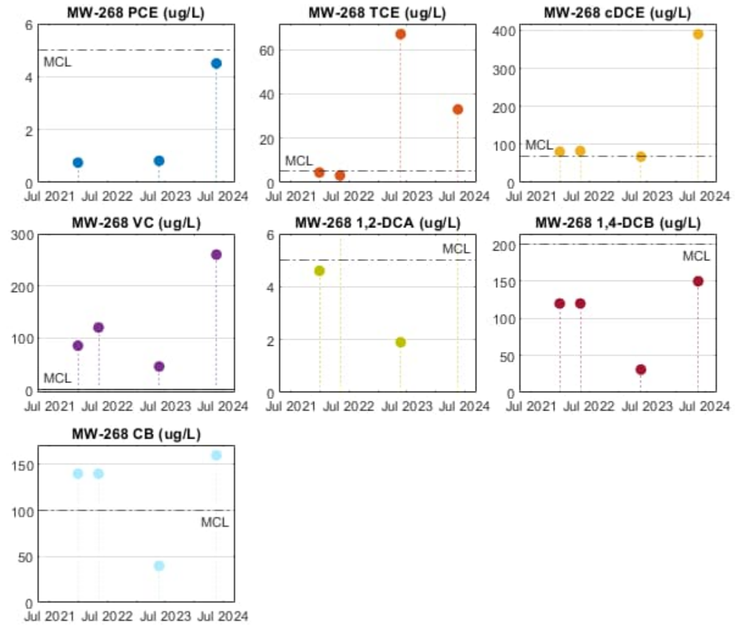
Exhibit 5-25 Surficial Aquifer Well Data Plots: Southern Area











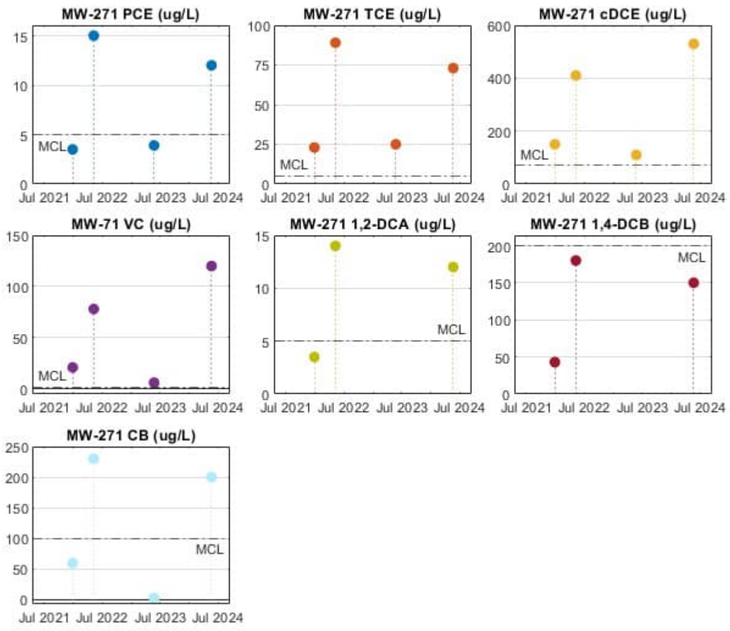
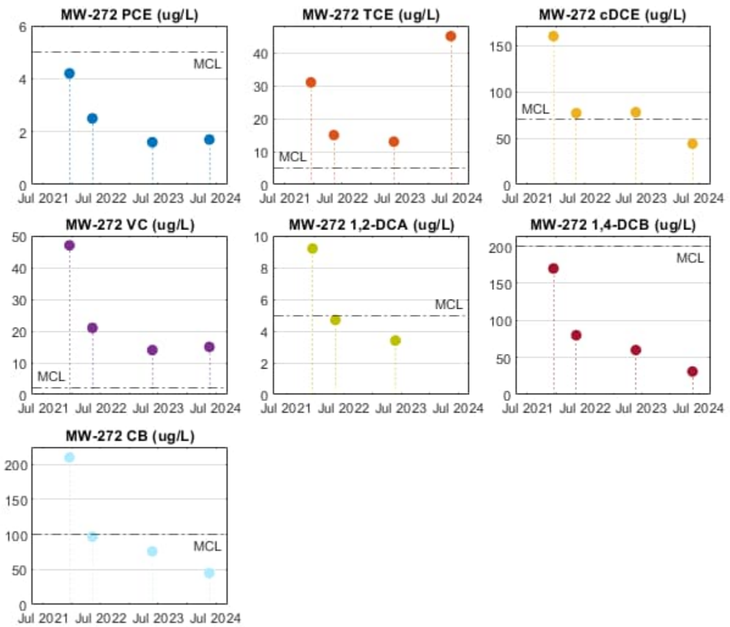
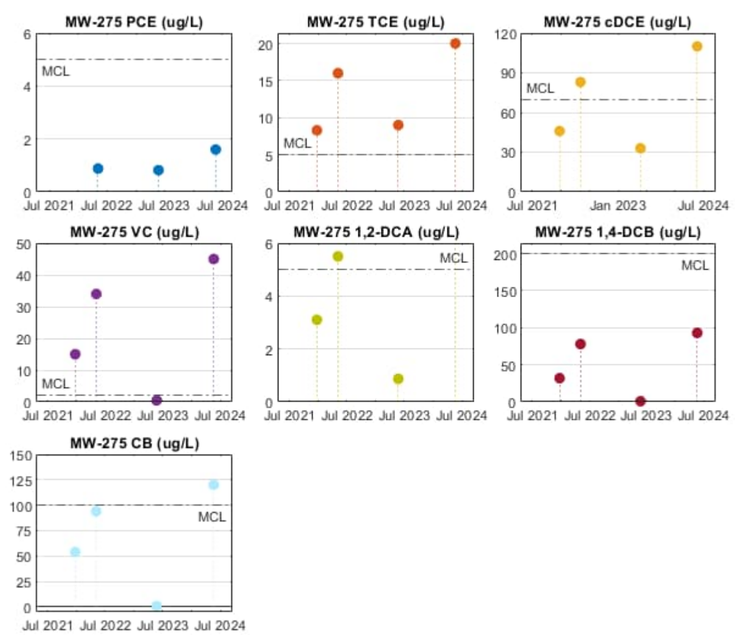
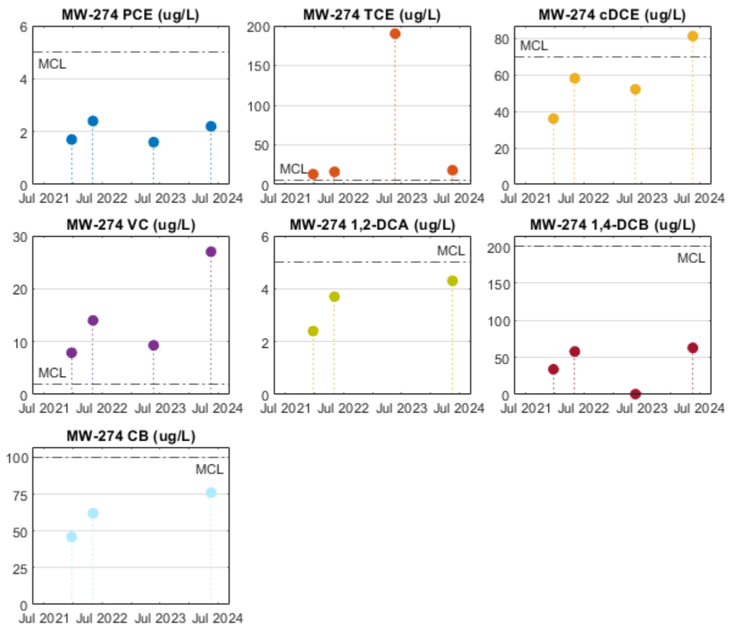
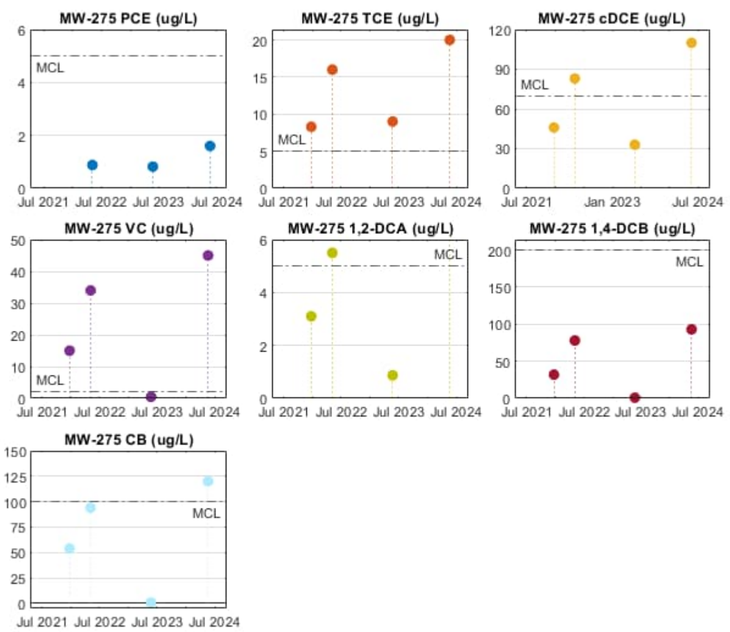


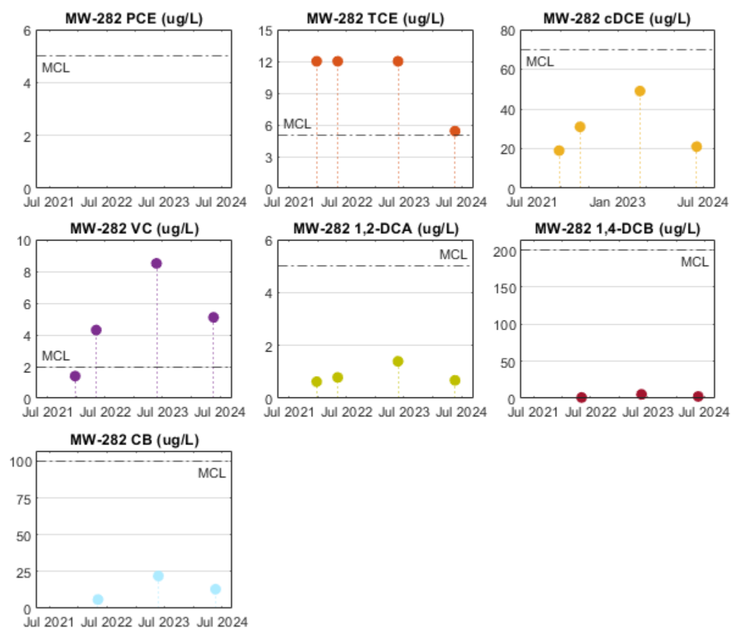
Exhibit 5-26 (Cont'd)











5.6.2.2 Operable Unit 3 Area

Trend analysis for the OU 3 area includes nine monitoring wells: MW-264, MW-266, MW-268, MW-271, MW-272, MW-273, MW-274, MW-275, and MW-282 (see Figure 3-1). Table 5-17 has a summary of the statistical and trend analysis for COCs at these wells that have detections in 4 of 4 samples.

Table 5-17 OU 3 Wells for Surficial Aquifer: Summary of Statistical and Trend Analysis

Location	Analyte	Concentration (µg/L)		Pearson's Linear Correlation			Mann-Kendall Trend One Way		
		2021	2024	R	p-value (α=0.05)	Corr	H	p-value (α=0.05)	Trend
MW-264	TCE	340	190	0.8835	1.16E-01	(+)	0	-1.15E-01	None
	cDCE	140	120	-0.8454	1.55E-01	(-)	0	-1.54E-01	None
	VC	160	550	-0.8637	1.36E-01	(-)	0	7.43E-02	↓[1]
	1,4-DCB	700	180	-0.8771	1.12E-01	(-)	0	-1.54E-01	None
	CB	790	290	-0.9212	7.88E-02	(-)	0	-1.54E-01	None
MW-266	PCE	4.8	3.1	-0.9166	8.34E-02	(-)	1	4.47E-02	SS↓
	TCE	27	17	-0.7692	2.30E-01	(-)	0	-1.54E-01	None
	cDCE	120	65	-0.7641	2.36E-01	(-)	0	-1.54E-01	None
	VC	6,5	7.3	0.3043	6.96E-01	(+)	0	3.67E-01	None
MW-268	TCE	4.5	33	0.8215	3.86E-01	(+)	0	3.67E-01	None
	cDCE	81	390	0.6392	3.61E-01	(+)	0	3.67E-01	None
	VC	85	260	0.6544	3.46E-01	(+)	0	3.67E-01	None
	1,2-DCA	4,6	8.5	0.2747	7.25E-01	(+)	0	3.67E-01	None
	1,4-DCB	120	150	0.0486	9.51E-01	None	0	5.00E-01	None
	CB	140	160	-0.0537	0.9463	None	0	5.00E-01	None
MW-271	PCE	3.5	12	0.2058	7.94E-01	(+)	0	3.67E-01	None
	TCE	23	73	0.2180	7.82E-01	(+)	0	3.67E-01	None
	cDCE	150	530	0.4920	5.00E-01	(+)	0	3.67E-01	None
	VC	21	120	0.5279	4.72E-01	(+)	0	3.67E-01	None
	CB	59	200	0.1530	8.47E-01	(+)	0	0	None
MW-272	PCE	4.2	1.7	-0.8216	1.78E-01	(-)	0	-1.54E-01	None
	TCE	31	45	0.4689	5.31E-01	(+)	0	0	None
	cDCE	160	44	-0.8218	1.78E-01	(-)	0	-1.54E-01	None
	VC	47	15	-0.7593	2,41E-01	(-)	0	-1.54E-01	None
	1,4-DCB	170	31	-0.8653	1.55E-01	(-)	1	-4.47E-02	SS↓
	CB	210	45	-0.8453	1,55E-01	(-)	1	-4.47E-02	SS↓

Location	Analyte	Concentration (µg/L)		Pearson's Linear Correlation			Mann-Kendall Trend One Way		
		2021	2024	R	p-value (α=0.05)	Corr	H	p-value (α=0.05)	Trend
MW-273	TCE	4.9	6.2	0.8561	1.44E-01	(+)	0	1.54E-01	None
	cDCE	12	38	0.9419	5,81E-02	(+)	1	4.47E-02	SS↑
MW-274	PCE	1.7	2.2	0.1329	8.67E-01	(+)	0	0	None
	TCE	13	18	0.2459	7.54E-01	(+)	0	1.54E-01	None
	cDCE	36	81	0.8574	1.43E-01	(+)	0	1.54E-01	None
	VC	7.9	27	0.8307	3,76E-01	(+)	0	1.54E-01	None
	1,4-DCB	34	63	0.1167	8.83E-01	(+)	0	3.67E-01	None
MW-275	TCE	8.3	20	0.5934	4.17E-01	(+)	0	1.54E-01	None
	cDCE	46	110	0.4985	5.02E-01	(+)	0	3.67E-01	None
	VC	15	45	0.3487	6.51E-01	(+)	0	3.67E-01	None
	1,2-DCA	3.1	6.2	0.2226	7.78E-01	(+)	0	3.67E-01	None
	1,4-DCB	32	93	0.2916	7.01E-01	(+)	0	3.67E-01	None
	CB	54	120	0.2535	7.47E-01	(+)	0	3.67E-01	None
MW-282	TCE	12	5.4	0.5934	4.17E-01	(+)	0	1.54E-01	None
	cDCE	19	21	0.4985	5.02E-01	(+)	0	3.67E-01	None
	VC	1.4	5.1	0.3487	6,51E-01	(+)	0	3.67E-01	None
	1,2-DCA	0.63	0.68	0.2226	7.78E-01	(+)	0	3.67E-01	None

Notes: < Notes: PCE = tetrachloroethene, TCE = trichloroethene, cDCE = cis-1,2-dichloroethene, VC = vinyl chloride, 1,4-DCB = 1,4-dichlorobenzene, CB = chlorobenzene, CV = coefficient variation, r = correlation coefficient, p-value = probability value, Corr. = correlation: negative (-) and positive (+), SS = statistically significant at an alpha significance level of 0.05 (5 percent), [1]decreasing trend at alpha significance level of 0.10 (10 percent), Constituent concentration is less than the MCL., decreasing trend , ↓decreasing trend, ↑ increasing trend

M-K tests for OU 3 wells indicating decreasing trends for VC at MW-264, PCE at MW-266, and for 1,4-DCB and CB at MW-274. M-K test indicated an increasing trend for cDCE at MW-273.

5.6.2.3 Summary of Trend Analysis for Surficial Aquifer: Southern Area

Table 5-18 has a summary of the statistical and trend analysis for the surficial aquifer in the southern area of OU 6. M-K trend trends indicated 4 of 52 tests had a decreasing trend with 1 of 52 tests having an increasing trend. Because of the limited observations at each well (4), M-K tests generally will indicate a trend only if there is a monotonic increase or decrease for the four observations at each location with no left censored results for the well evaluated (non-detect).

Maximum concentrations occurrence at the 11 well locations indicated 18 of 77 results had the maximum concentration occur at the beginning of the monitored period (2021). Thirty-seven of 77 results had the maximum concentration occur at the end of the monitored period (2024). Ten of 77 locations had the minimum occur at the end of the monitored period (2024).

Table 5-18 Summary of Statistical and Trend Analysis for Surficial Aquifer: Southern Area

Parameter	No of Well Locations	No. of Maxima Locations		No. of Minima Locations	Samples for Trend Evaluation	Mann-Kendall Trend (M-K, One Way)			
		2021	2024	2024		No Trend	Decreasing (α - 0.10)	Decreasing (α - 0.05)	Increasing (α - 0.05)
Total	11	18	37	10	52	5	4	3	1
PCE	11	3	4	2	4	3	1	1	--

Parameter	No of Well Locations	No. of Maxima Locations		No. of Minima Locations	Samples for Trend Evaluation	Mann-Kendall Trend (M-K, One Way)			
		2021	2024	2024		No Trend	Decreasing (α - 0.10)	Decreasing (α - 0.05)	Increasing (α - 0.05)
TCE	11	2	4	1	11	11	--	--	--
cDCE	11	4	6	2	11	10	--	--	1
VC	11	1	8	0	11	--	1	--	--
1,2-DCA	11	2	4	1	3	3	--	--	--
1,4-DCB	11	3	6	2	6	5	1	1	--
CB	11	3	5	2	6	5	1	1	--

Notes: : PCE = tetrachloroethene, TCE = trichloroethene, cDCE = cis-1,2-dichloroethene, VC = vinyl chloride, α – 0.05 = alpha significance level of 0.05 (5 percent), α – 0.10 = alpha significance level of 0.10 (10 percent).

5.6.3 Confined Aquifer for Northern Area

The trend assessment for the confined aquifer in the northern area evaluates five (5) wells monitored that have currently have concentrations > MCLs for PCE and/or TCE. Appendix E.7 has statistical and trend analysis documentation for the confined aquifer in the northern area.

5.6.3.1 OU 1 Area

Wells evaluated for the OU 1 area include MW-160, MW-165, MW-165, and MW-171 near or beneath the source zone within the surficial aquifer (Figure 3-1). Exhibit 5-26 (page 5-58) has time series plots with x-axis reference lines for injections performed in 2015 and 2021 and y-axis reference lines for cleanup levels (MCLs).

Table 5-19 (page 5-59) has a summary of the statistical and trend analysis for PCE and/or TCE at these wells in the OU 1 area. The coefficients of variation for COCs show moderate variance except for TCE MW-165 that has low variance. For concentration vs. time correlation, TCE at well MW-160 has no correlation with positive correlation for TCE at MW-165 and for PCE and TCE at MW-171. For well MW-166, TCE has negative correlation for concentration vs. time. M-K tests indicate an increasing trend for TCE at well MW-166, an increasing trend for PCE and TCE at well MW-171 with no trends for other well locations. SSA detected trend changes for TCE at wells MW-160 (decreasing to increasing in 2023), MW-165 (increasing to no trend in 2024), and MW-166 (decreasing to increasing in 2022). At well MW-171, SSA showed increasing trends for PCE and TCE.

5.6.3.2 OU 2 Area

The trend evaluation for the OU 2 area included well DMW-34B (Figure 3-1). Exhibit 5-27 (page 5-58) has time series plots for DMW-34B with x-axis reference lines for injections performed in 2015 and 2021 and y-axis reference lines for cleanup levels (MCLs). Table 5-19 (page 5-59) has a summary of the statistical and trend analysis for PCE and TCE at DMW-34B.

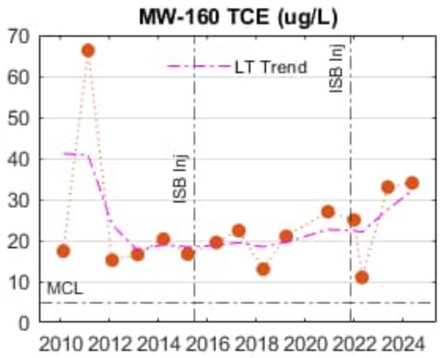
The wells evaluated include: DMW-34B in the OU 2 area and wells MW-160, MW-165, MW-166, and MW-171 in the OU 1 area beneath or near the groundwater source zone in the surficial aquifer (Figure 3-1). PCE and TCE have moderate variance at DMW-34B with coefficients of variation > 0.40 and < 0.70. PCE and TCE have positive linear correlation for concentrations vs. time with M-K trend tests indicating an increasing trend for PCE and no trend for TCE at a significance level of 0.05 (5 percent). SSA indicated a trend change for TCE at DMW-34B from an increasing trend to no trend in 2023.

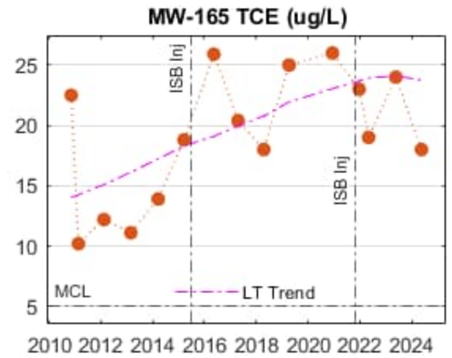
5.6.4 Confined Aquifer for Southern Area

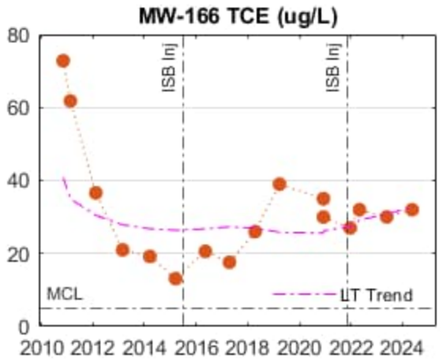
The trend assessment for the confined aquifer in the southern area evaluates two (2) wells monitored in OU 2, seven (7) wells monitored in the OU3 area, and eight (8) wells monitored in the offsite OU 6 area. These wells are located in the plume area in the confined aquifer where COCs for the monitoring period 2021-2024 had concentrations > cleanup levels (MCLs) for one or more samples. For 2021-2024, PCE, TCE, cDCE, and VC had detected concentrations > MCLs. Each monitoring well has a minimum of four

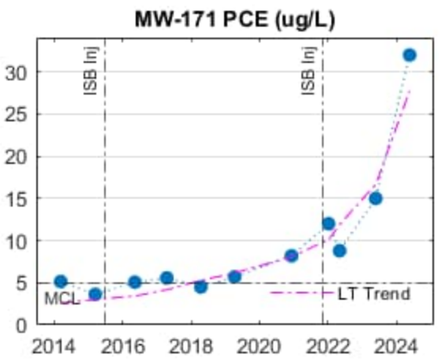
(4) data observations. Appendix E.8 has statistical and trend analysis documentation for the confined aquifer in the southern area.

Exhibit 5-27 Time Series Plots: OU 1 Area









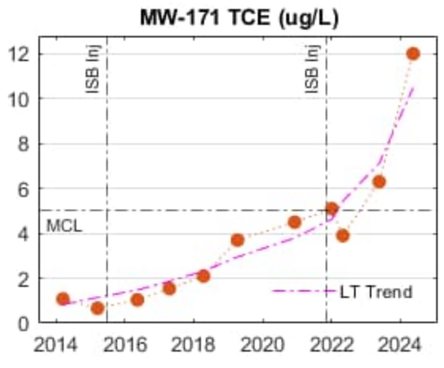
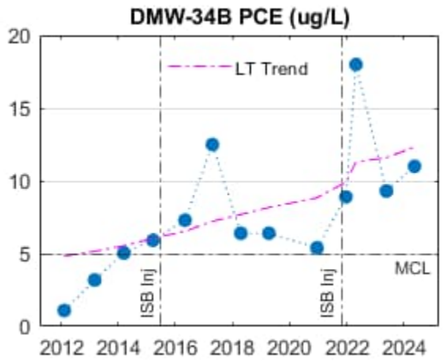


Exhibit 5-26 Time Series Plots: DMW-34B (OU 2)



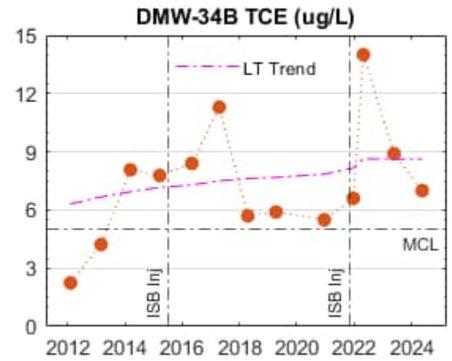


Table 5-19 Confined Aquifer Wells for Northern Area: Summary of Statistical and Trend Analysis

Location	Analyte	Monitoring Period	No of Samples	Concentration (µg/L)		Variance		Pearson's Linear Correlation			Mann-Kendall Trend One Way			Singular Spectrum Analysis (SSA)	
				Start	2024	CV	Variance	R	p-value (α=0.05)	Corr	H	p-value (α=0.05)	Trend	Trend	Change Point
DM-34B	PCE	2012-2024	13	1.09	11	0.5631	Moderate	0.6777	1.09E-02	(+)	1	1.070E-03	SS↑	↑	
	TCE			2.24	1	0.4096	Moderate	0.4162	1.57E-01	(+)	0	8.03E-02	None	2023	→
MW-160	TCE	2010-2024	15	17.4	34	0.5643	Moderate	-0.0538	8.49E-01	None	0	8.29E-02	None	2023	↑
MW-165	TCE	2010-2024	15	22.5	18	0.2789	Low	0.5487	3.42E-02	(+)	1	4.14E-02	SS↑	2024	→
MW-166	TCE	2010-2024	15	72.8	32	0.5643	Moderate	-0.3414	1.96E-01	(-)	0	-4.46E-01	None	2022	↑
MW-171	PCE	2014-2024	11	5.15	32	0.8542	Moderate	0.7503	7.80E-03	(+)	1	5.37E-04	SS↑	↑	
	TCE	2014-2024	11	1.08	12	0.8643	Moderate	0.8649	5.88E-04	(+)	1	1.71E-04	SS↑	↑	

Notes: < Notes: PCE = tetrachloroethene, TCE = trichloroethene, cDCE = cis-1,2-dichloroethene, VC = vinyl chloride, CV = coefficient variation, r = correlation coefficient, p-value = probability value, Corr. = correlation: negative (-) and positive (+), SS = statistically significant at an alpha significance level of 0.05 (5 percent), [1]decreasing trend at alpha significance level of 0.10 (10 percent), Constituent concentration is less than the MCL., decreasing trend , ↓decreasing trend, ↑ increasing trend, → SSA no trend

Table 5-20 Confined Aquifer Wells for OU 2 in Southern Area: Summary of Statistical and Trend Analysis

Location	Analyte	Monitoring Period	No of Samples	Concentration (µg/L)		Variance		Pearson's Linear Correlation			Mann-Kendall Trend One Way			Singular Spectrum Analysis (SSA)	
				Start	2024	CV	Variance	R	p-value (α=0.05)	Corr	H	p-value (α=0.05)	Trend	Trend	Change Point
DM-28B	TCE	2012-2024	14	124	1.3	1.8611	High	-0.6865	6,70E-03	(-)	1	-6.35E-05	SS↓	↓	--
	cDCE			1980	110	1.2590	High	0.4162	1.10E-03	(-)	1	-2.20E-03	SS↓	↓	--
	VC			302	15	1.2848	High	-0.0538	6.93E-04	(-)	1	-1.51E-04	SS↓	↓	--
MW-217	cDCE	2019-2024	6	64	51	0.4223	Moderate	0.0573	9.14E-01	None	0	-5.00E-01	None	2022	↓
	VC			29	10	0.4212	Moderate	-0.4706	3.45E-01	(-)	0	-1.30E-01	None	↓	↑

Notes: < Notes: PCE = tetrachloroethene, TCE = trichloroethene, cDCE = cis-1,2-dichloroethene, VC = vinyl chloride, CV = coefficient variation, r = correlation coefficient, p-value = probability value, Corr. = correlation: negative (-) and positive (+), SS = statistically significant at an alpha significance level of 0.05 (5 percent), [1]decreasing trend at alpha significance level of 0.10 (10 percent), Constituent concentration is less than the MCL., decreasing trend , ↓decreasing trend, ↑ increasing trend, → SSA no trend

5.6.4.1 OU 2 Area

Wells evaluated for the OU 2 area include DMW-28B and MW-217 with a former higher concentration source zone in the confined aquifer (Figure 3-1). Exhibit 5-28 (page 5-61) has time series plots with x-axis reference lines for injections performed in 2015 and y-axis reference lines for cleanup levels (MCLs). Table 5-20 (page 5-59) has a summary of the statistical and trend analysis performed for wells DMW-28B and MW-217.

The coefficients of variation for DMW-28B and MW-217 indicate high and moderate variation, respectively. COCs have negative linear correlation for concentrations vs. time, except for cDCE at MW-217 with no correlation. M-K trend tests indicated decreasing trends for TCE, cDCE, and VC at DMW-28B with no trends for MW-217. SSA indicated decreasing trends for TCE, cDCE, and VC at DMW-28B and VC at MW-217. SSA detected a trend change for cDCE at MW-217 from increasing to decreasing in 2022.

5.6.4.2 OU 3 Area

Wells evaluated for the OU 3 area include: MW-95 (Building 151 area), EBF-08D, MW-283, fence line wells MW-285, MW-286, MW-287, and MW-288, and well MW-236 located 50 ft. upgradient of the fence line (Figure 3-1). Exhibit 5-29 (page 5-62) has time series plots with x-axis reference lines for injections performed in 2015 (as applicable) and y-axis reference lines for cleanup levels (MCLs). Table 5-21 (page 5-63) has a summary of the statistical and trend analysis performed for the wells.

Central Area of OU 3

The central OU 3 area includes wells MW-95, EBF-8D, and MW-283 downgradient of Building 151 (Figure 3-1). Closest to Building 151 at MW-95, M-K tests indicate increasing trends for cDCE and VC with an overall decrease in TCE concentrations for the period 2019-2024. M-K tests at EBF-08D indicate a decreasing trend for TCE with no other COC trends detected for this well. At well MW-283, M-K tests did not indicate trends for PCE, TCE, cDCE, and VC.

Northern Fence Line Area

The northern fence line area at OU 3 includes wells MW-287, MW-288, and MW-94 (Figure 3-1). Each of these wells had overall decreasing concentrations for COCs for the monitoring periods evaluated. M-K tests at MW-287 indicated decreasing trends for PCE and VC with no trends identified for TCE and cDCE. At MW-288, M-K tests indicated a decreasing trend for TCE and no trend for cDCE detected at levels less than the MCL. M-K and SSA tests for MW-94 indicated decreasing trends for PCE, TCE, cDCE, and VC.

Central Fence Line Area

The central fence line area of OU 3 includes wells MW-285 and MW-286 with well MW-236 located 50 ft upgradient of the fence line. M-K tests did not identify COC trends for these wells. SSA tests for MW-236 did not show a consistent trend over the 2019-2024 monitoring period.

Southern Fence Line Area

Well MW-284 is located in the southern fence line area. Monitoring results for 2021-2024 did not report detections of VOCs.

5.6.4.3 Offsite Area

Wells evaluated for the offsite area at OU 6 include: MW-145, MW-157, MW-289, MW-290, MW-291, MW-292, MW-294, MW-297, and LAWMW-Q (Figure 3-1). Table 5-22 (page 5-64) has a summary of the statistical and trend analysis performed for the wells. Exhibit 5-30 (page 5-65) has time series plots with x-axis reference lines for injections performed in 2015 (as applicable) and y-axis reference lines for cleanup levels (MCLs).

Exhibit 5-28 Data Plots for OU 2 Area: Confined Aquifer Southern Area

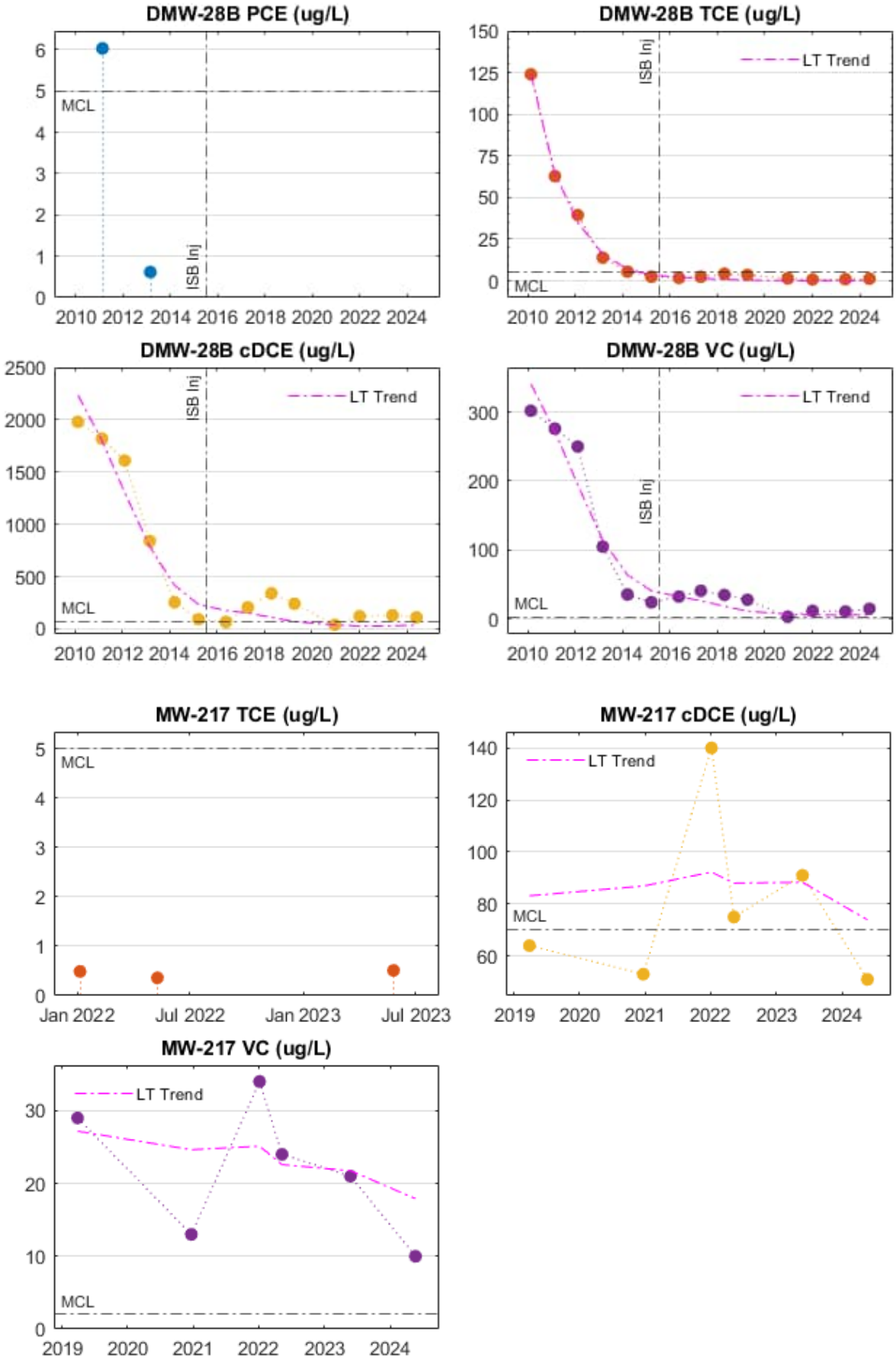
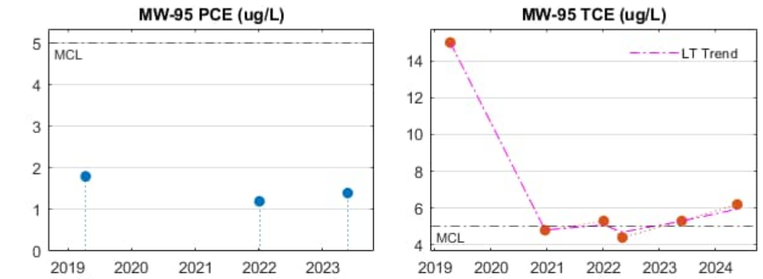
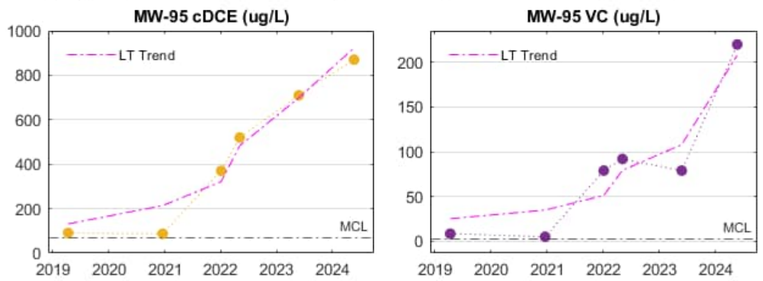
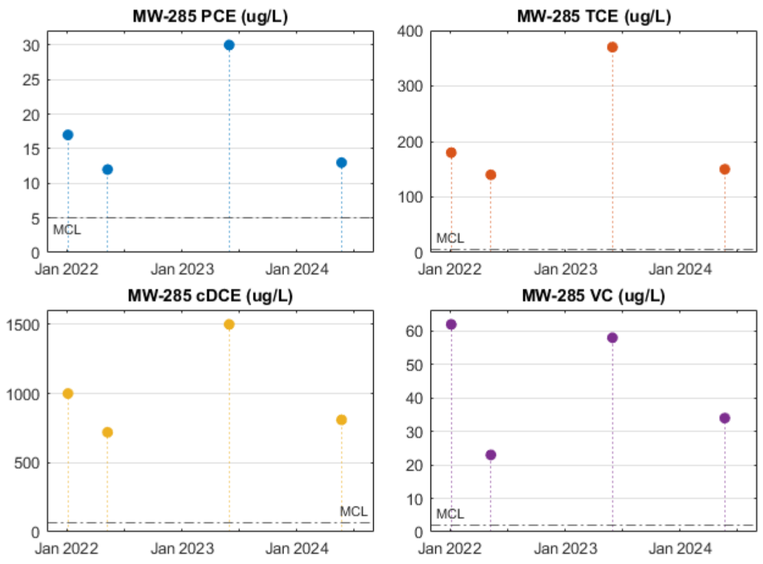
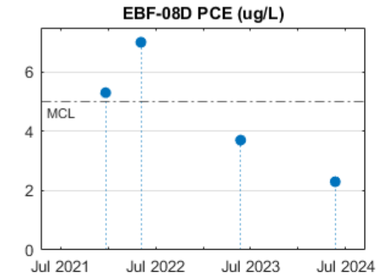


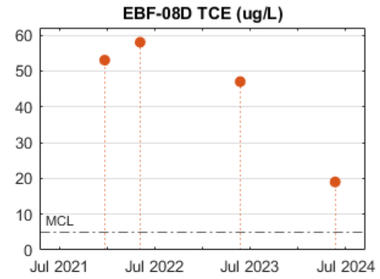
Exhibit 5-29 Data Plots for OU 3 Area: Confined Aquifer Southern Area

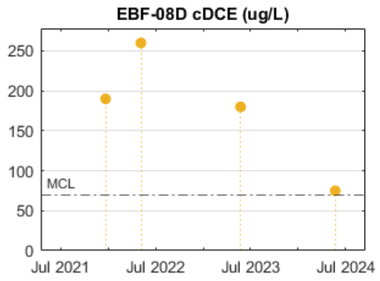


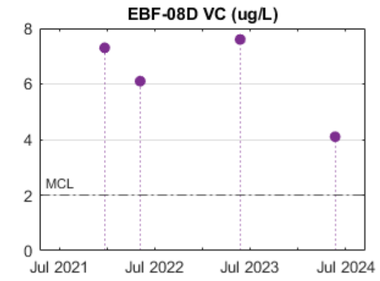


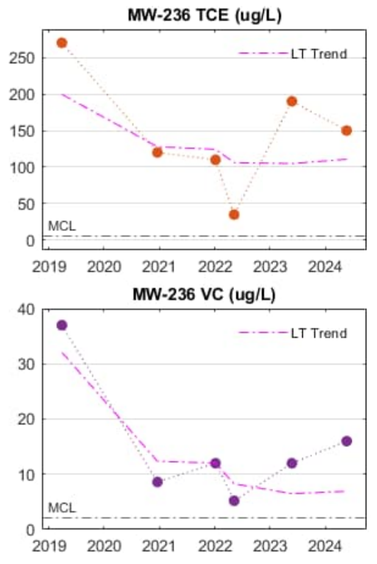


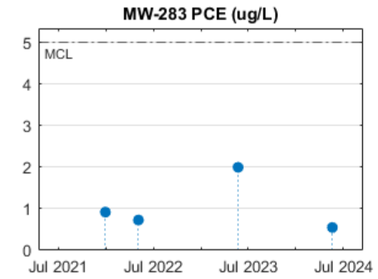


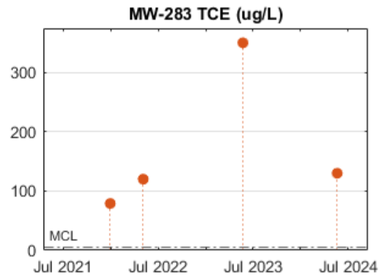


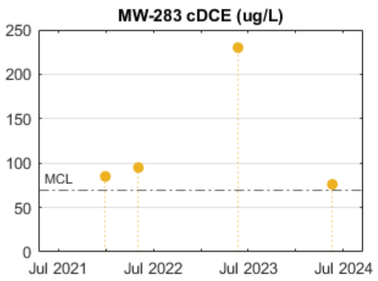


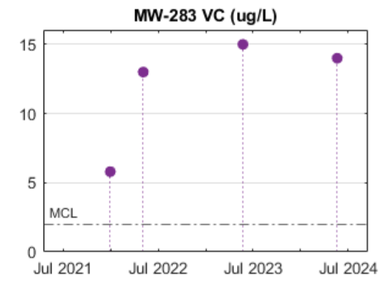


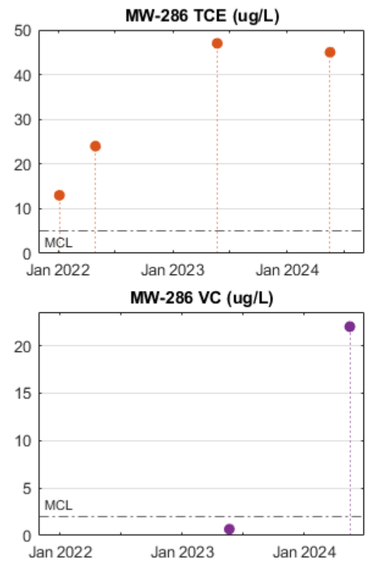


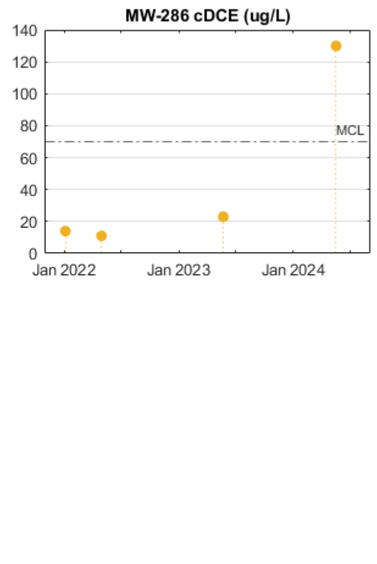


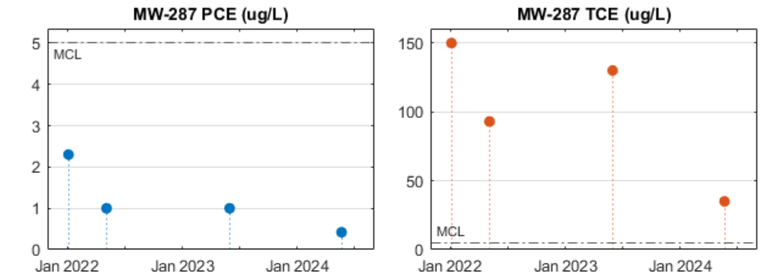


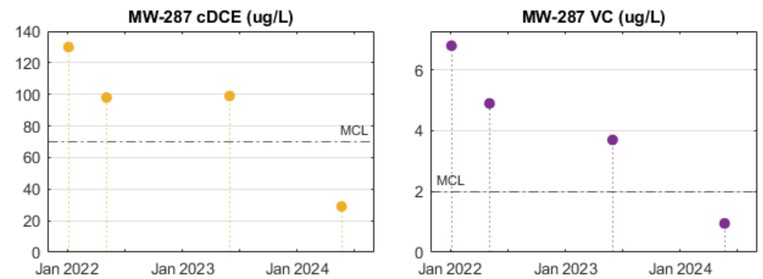


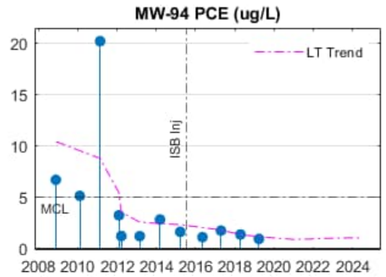


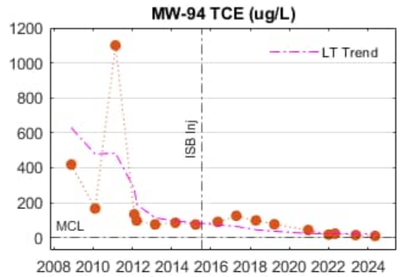


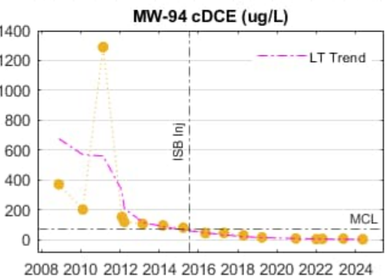


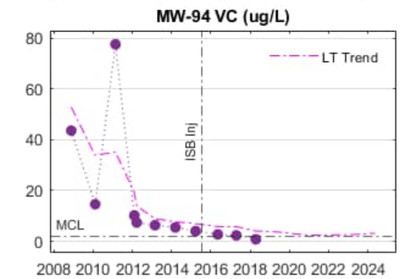


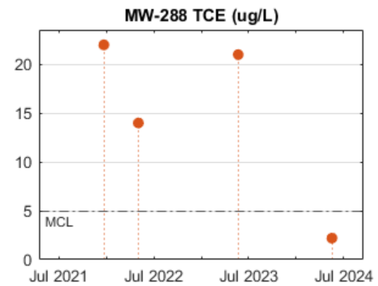












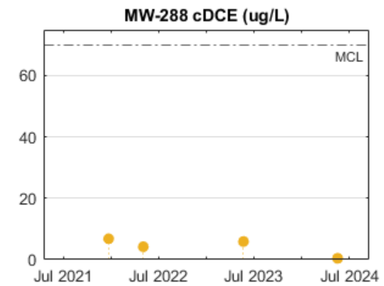


Table 5-21 OU 3 Confined Aquifer Wells for Southern Area: Summary of Statistical and Trend Analysis

Location	Analyte	Monitoring Period	No of Samples	Concentration (µg/L)		Variance		Pearson's Linear Correlation			Mann-Kendall Trend One Way			Singular Spectrum Analysis (SSA)	
				Start	2024	CV	Variance	R	p-value (α=0.05)	Corr	H	p-value (α=0.05)	Trend	Trend	Change Point
MW-95	TCE	2019-2024	6	15	16.2	0.5921	Moderate	0.0092	9.83E-01	(-)	0	0	None	2024	→
	cDCE			91	870	0.7275	Moderate	0.9491	3.80E-02	(+)	1	1.21E-02	SS↑	↑	
	VC			8.4	220	0.9693	Moderate	0.8659	2.58E-02	(-)	1	4.26E-02	SS↑	↑	
EBF-08D	PCE	2021-2024	4	5.3	2.3	--	--	-0.8798	1.20E-01	(-)	0	1.01E-01	None	--	--
	TCE			53	19	--	--	-0.9122	8.78E-02	(-)	0	-6.73E-02	↓[1]	--	--
	cDCE			190	75	--	--	-0.8340	1.67E-01	(-)	0	-1.54E-01	None	--	--
	VC			7.3	4.1	--	--	-0.6618	3.38E-01	(-)	0	-3.67E-01	None	--	--
MW-283	PCE	2021-2024	4	0.92	0.55	--	--	0.0099	9.90E-01	None	0	-3.67E-01	None	--	--
	TCE			79	130	--	--	0.3510	6.48E-01	(+)	0	1.54E-01	None	--	--
	cDCE			85	76	--	--	0.1424	8.58E-01	(+)	0	0	None	--	--
	VC			5.8	14	--	--	0.7021	2.98E-01	(+)	0	1.54E-01	None	--	--
MW-285	PCE	2021-2024	4	17	12	--	--	0.1068	8.93E-01	(+)	1	9.40E-03	SS↑	--	--
	TCE			180	150	--	--	0.1645	8.36E-01	(+)	1	1.77E-02	SS↑	--	--
	cDCE			1000	810	--	--	0.1079	8.92E-01	(+)	0	0	None	--	--
	VC			62	34	--	--	-0.2043	7.96E_01	(-)	0	3.67E-01	None	--	--
MW-236	TCE	2019-2024	6	270	150	0.5453	Moderate	-0.3940	4.40E-01	(-)	0	-3.54E-01	None	↓	
	cDCE			180	130	0.3479	Low	-0.0750	8.82E-01	None	0	4.24E-01	None	→	
	VC			37	16	0.7475	Moderate	-0.5798	2.28E-01	(-)	0	0	None	↓	
MW-286	TCE	2021-2024	4	13	45	--	--	0.8979	1.02E-01	(+)	0	1.54E-01	None	--	--
	cDCE			14	130	--	--	0.8768	1.23E-01	(+)	0	1.54E-01	None	--	--
	VC			ND	22	--	--	--	--	--	--	--	--	--	--
MW-287	PCE	2021-2024	4	2.3	0.42	--	--	-0.8220	1.78E-01	(-)	0	-7.43E-02	↓[1]	--	--
	TCE			150	35	--	--	-0.7508	2.49E-01	(-)	0	-1.54E-01	None	--	--
	cDCE			130	29	--	--	-0.9082	9.18E_02	(-)	0	-1.54E-01	None	--	--
	VC			6.8	0.95	--	--	-0.9735	2.65E-02	(-)	1	4.47E-02	SS↓	--	--
MW-94	PCE	2008-2024	17	6.7	ND	1.3636	High	-0.5081	9.17E-02	(-)	1	-3.70E-03	SS↓	↓	
	TCE			419	10	1.6685	High	-0.5228	3.13E-02	(-)	1	-3.22E-05	SS↓	↓	
	cDCE			372	4.7	2.0094	High	-0.5236	3.10E-02	(-)	1	-2.02E-07	SS↓	↓	
	VC			43.6	ND	1.4883	High	-0.6100	4.63E-01	(-)	1	-4.96E-05	SS↓	↓	
MW-288	TCE	2021-2024	4	22	2.2	--	--	-0.7333	2.67E-01	(-)	1	-2.30E-02	SS↓	--	--
	cDCE			6.8	0.43	--	--	-0.7856	2.14E-01	(-)	0	-1.54E-01	None	--	--

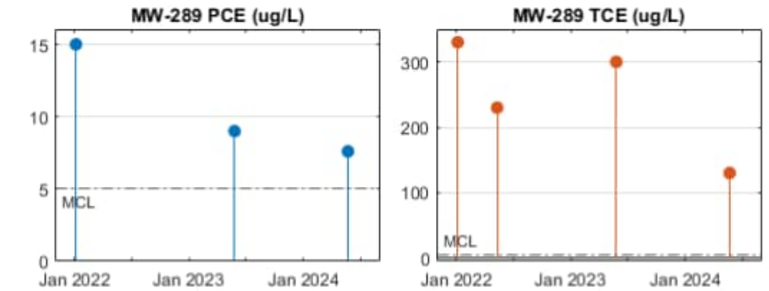
Notes: < Notes: PCE = tetrachloroethene, TCE = trichloroethene, cDCE = cis-1,2-dichloroethene, VC = vinyl chloride, CV = coefficient variation, r = correlation coefficient, p-value = probability value, Corr. = correlation: negative (-) and positive (+), SS = statistically significant at an alpha significance level of 0.05 (5 percent), [1]decreasing trend at alpha significance level of 0.10 (10 percent), Constituent concentration is less than the MCL., decreasing trend , ↓decreasing trend, ↑ increasing trend, → SSA no trend

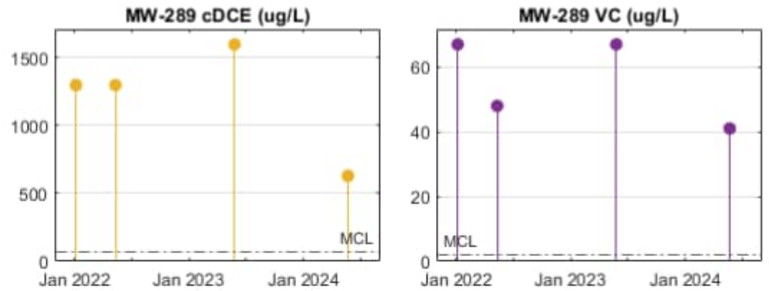
Table 5-22 OU 6 Confined Aquifer Wells for Offsite Area: Summary of Statistical and Trend Analysis

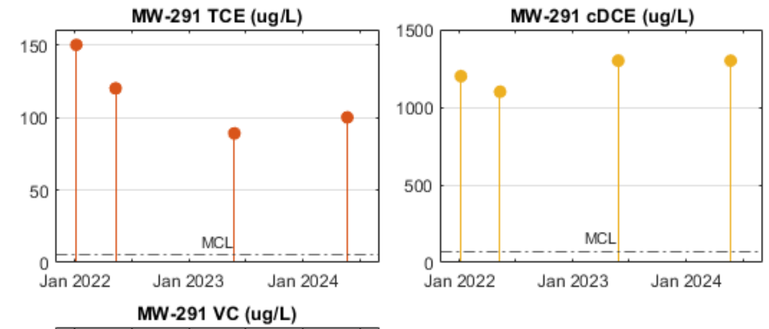
Location	Analyte	Monitoring Period	No of Samples	Concentration (µg/L)		Variance		Pearson's Linear Correlation			Mann-Kendall Trend One Way			Singular Spectrum Analysis (SSA)		Sequential Mann-Kendall Trend Changes	
				Start	2024	CV	Variance	R	p-value (α=0.05)	Corr	H	p-value (α=0.05)	Trend	Trend	Change Point	Trend Change	Change Point
MW-289	PCE	2021-2024	4	15	7.6	--	--	--	--	--	--	--	--	--	--	--	--
	TCE			330	130	--	--	-0.7415	2.58E-01	(-)	0	1.54E-01	None	--	--		
	cDCE			1300	630	--	--	-0.6021	3.98E-01	(-)	0	-5.00E-01	None	--	--		
	VC			67	41	--	--	-0.5139	4.84E-01	(-)	0	-2.35E-01	None	--	--		
MW-157	PCE	2015-2024	10	ND	ND	--	--	--	--	--	--	--	--	--	--		
	TCE			0.19	200	0.9506	Moderate	0.9474	3.15E-05	(+)	1	1.73E-04	SS↑	↑	--		
	cDCE			0.15	1200	0.8615	Moderate	0.9686	4.11E-06	(+)	1	1.16E-04	SS↑	↑	--		
	VC			0.1	80	0.8894	Moderate	0.9780	1.00E-06	(+)	1	5.63E-05	SS↑	↑	--		
MW-290	PCE	2021-2024	4	ND	7.8	--	--	--	--	--	--	--	--	--	--		
	TCE			3.3	75	--	--	0.9917	8.30E-03	(+)	1	4.47E-02	SS↑	--	--		
	cDCE			82	680	--	--	0.9955	4.50E-03	(+)	1	4.47E-02	SS↑	--	--		
	VC			5.9	42	--	--	0.9885	1.15E-02	(+)	1	4.47E-02	SS↑	--	--		
MW-291	TCE	2021-2024	4	150	100	--	--	-0.7979	2.02E-01	(-)	0	-1.54E-01	None	--	--		
	cDCE			1200	1300	--	--	0.7739	2.26E-01	(+)	0	2.35E-01	None	--	--		
	VC			88	250	--	--	0.9721	2,79E-02	(+)	0	1.54E-01	None	--	--		
MW-292	TCE	2021-2024	4	1.4	16	--	--	0.9954	4.6E-03	(+)	1	4.47E-02	SS↑	--	--		
	cDCE			43	140	--	--	0.9105	8.95E-01	(+)	0	7.43E-02	↑[1]	--	--		
	VC			3.2	18	--	--	0.9969	3.1E-03	(+)	0	4.47E-02	SS↑	--	--		
MW-145	TCE	2019-2024	6	9.27	29	0.7551	Moderate	0.2754	3.20E-01	(+)	0	4.60E-01	None	↑	2022	↑	2022
	cDCE			1.13	68	1.5344	High	0.7536	1.20E-03	(+)	1	1.54E-05	SS↑	↑			
	VC			ND	6.7	0.8413	Moderate	0.8258	8.49E-02	(+)	1	1.37E-02	SS↑	↑			
MW-294	TCE	382021-2024	4	37	84	--	--	0.9892	1.08E-02	(+)	0	1.54E-01	None	--	--		
	cDCE			200	310	--	--	0.8831	1.17E-01	(+)	0	2.35E-01	None	--	--		
	VC			38	56	--	--	0.5441	4.56E-01	(+)	0	0	None	--	--		
MW-297	PCE	2008-2024	4	ND	0.52	--	--	--	--	--	--	--	--	--	--		
	TCE			1.3	5.7	--	--	0.9402	5.98E-02	(+)	0	1.54E-01	None	--	--		
	cDCE			3.4	37	--	--	0.9943	5.70E-03	(+)	1	4.47E-02	SS↑	--	--		
	VC			ND	2.1	--	--	--	--	--	--	--	--	--	--		
LAWMW-Q	TCE	2020-2024	5	1.2	4.8	0.7810	Moderate	0.9833	2.60E-03	(+)	1	2.16E-02	SS↑	--	--		
	cDCE			ND	0.99	--	--	--	--	--	--	--	--	--	--	--	--
	VC			ND	1.3	--	--	--	--	--	--	--	--	--	--	--	--

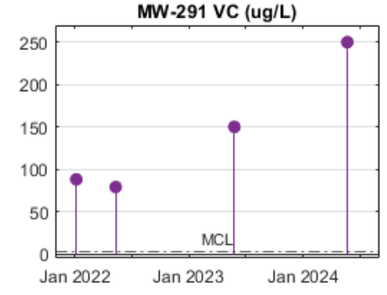
Notes: < Notes: PCE = tetrachloroethene, TCE = trichloroethene, cDCE = cis-1,2-dichloroethene, VC = vinyl chloride, CV = coefficient variation, r = correlation coefficient, p-value = probability value, Corr. = correlation: negative (-) and positive (+), SS = statistically significant at an alpha significance level of 0.05 (5 percent), [1]decreasing trend at alpha significance level of 0.10 (10 percent), Constituent concentration is less than the MCL., decreasing trend , ↓decreasing trend, ↑ increasing trend, → SSA no trend

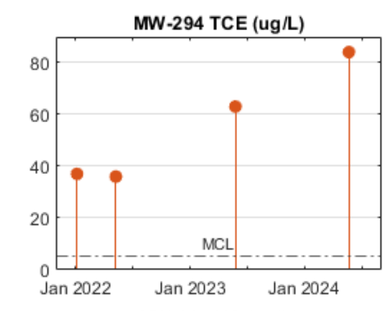
Exhibit 5-30 Data Plots for Offsite OU 6 Area: Confined Aquifer Southern Area

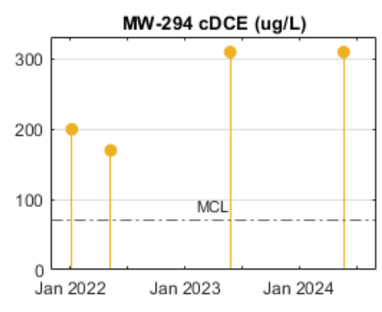


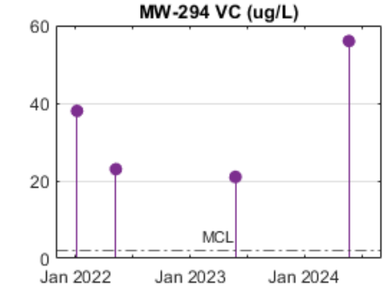


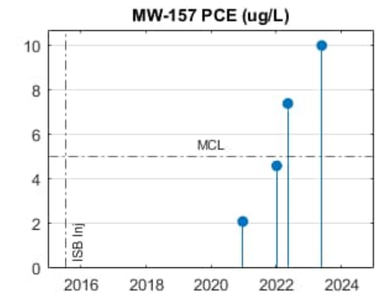


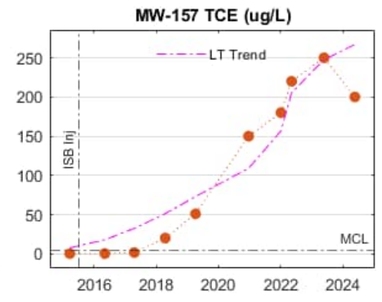


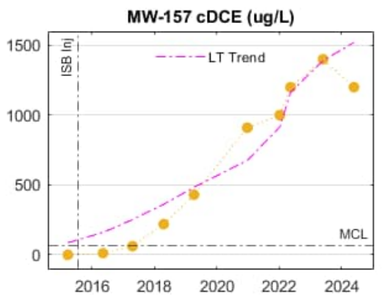


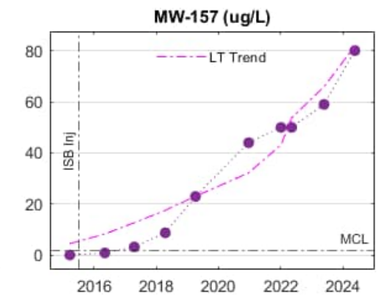


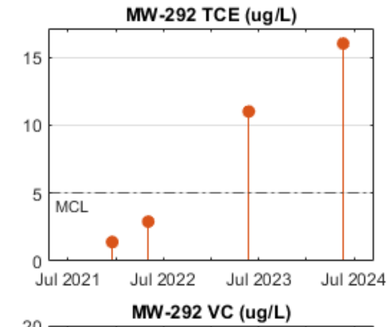


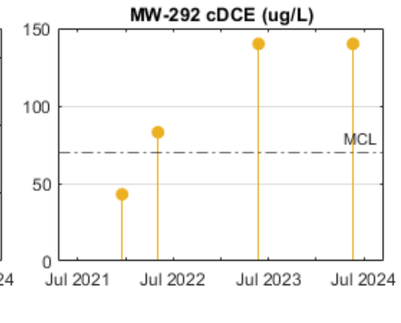


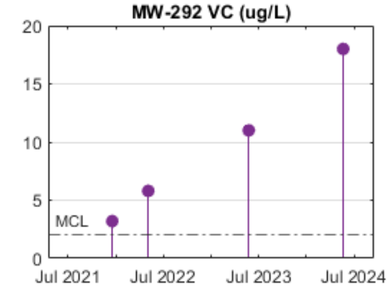


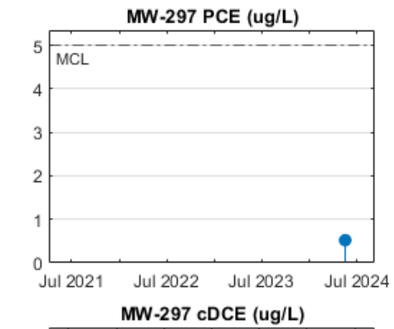


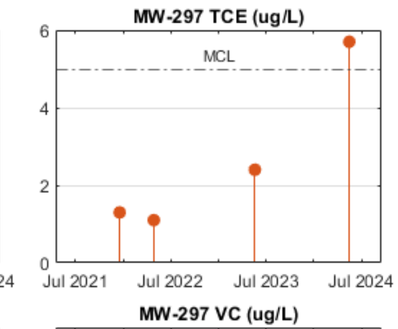


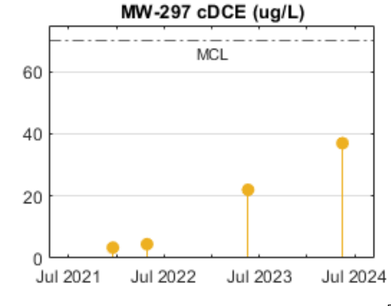


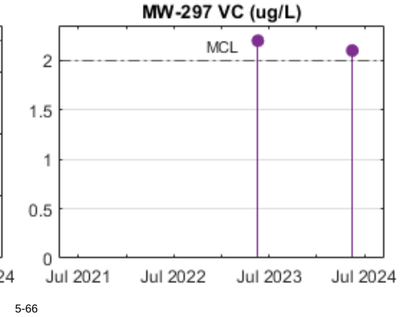


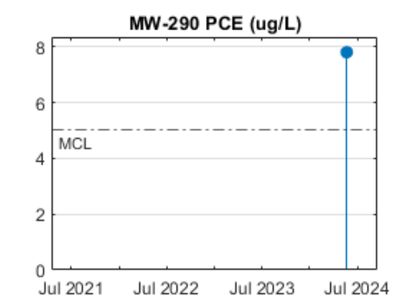


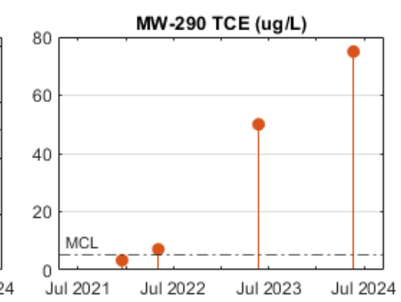


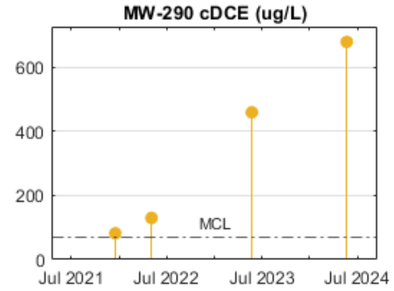


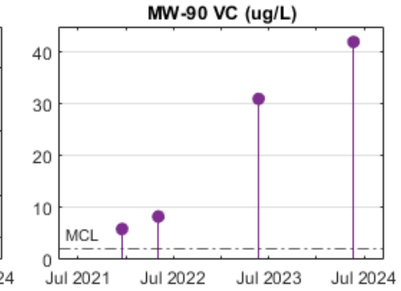


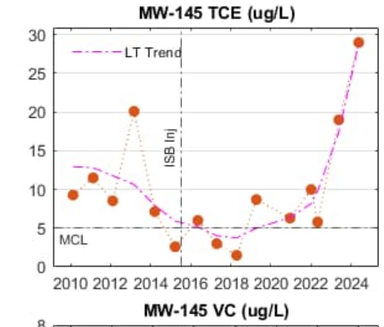


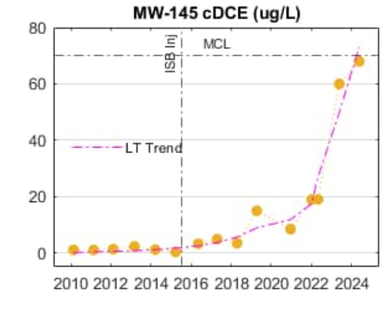


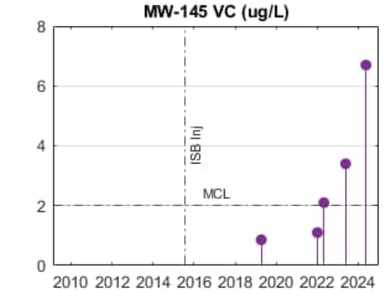


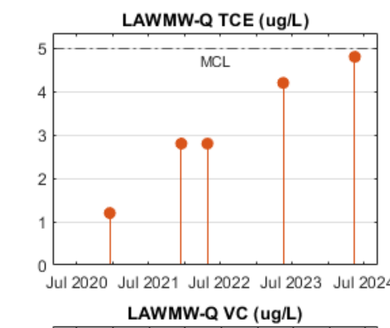


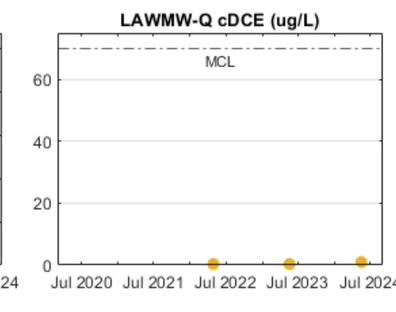


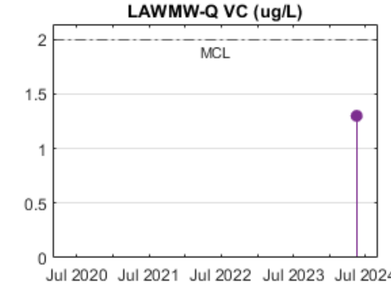












MW-289

Well MW-289 installed in 2021 is located 65 ft. into the offsite area between the fence line and No Name Creek (Figure 3-1). This well is in the southern portion of the offsite area monitoring the confined aquifer. Overall, concentrations for PCE, TCE, cDCE, and VC decreased from 2021 to 2024. M-K tests did not indicate trends for these COCs.

MW-157

Well MW-157 installed in 2010 is located 120 ft. into the offsite area between the installation fence line and No Name Creek (Figure 3-1). This well did not have COC detections for 2010-2014. Trend evaluations use monitoring data from 2015-2024. Coefficient of variation tests indicate moderate variance for TCE, cDCE, and VC. M-K and SSA tests indicate increasing trends for TCE, cDCE, and VC at well MW-157.

MW-290

Well MW-290 installed in 2021 is located 180 ft. into the offsite area between the fence line and No Name Creek (Figure 3-1). This well is in the southern portion of the offsite area monitoring the confined aquifer. Overall, concentrations for PCE, TCE, cDCE, and VC have increased from 2021 to 2024. M-K tests indicate increasing trends for TCE, cDCE, and VC.

MW-291

Well MW-291 installed in 2021 is located 130 ft. into the offsite area between the fence line and No Name Creek (Figure 3-1). This well is 36 ft. north of well MW-157. Overall, concentrations for PCE and TCE decreased from 2021 and 2024 with cDCE and VC having overall concentration increases from 2021 to 2024. M-K tests did not indicate trends for TCE, cDCE, and VC with insufficient data to evaluate PCE trends.

MW-292

Well MW-290 installed in 2021 is located 200 ft. into the offsite area and east of No Name Creek (Figure 3-1). This well is in the central portion of the offsite area monitoring the confined aquifer. Overall, concentrations for TCE, cDCE, and VC have increased from 2021 to 2024. No samples collected from well MW-292 had PCE detections. M-K tests indicate increasing trends for TCE, cDCE, and VC.

MW-145

Well MW-145 installed in 2010 is located 160 ft. into the offsite area and east of No Name Creek (Figure 3-1). MW-145 is 175 ft. north of MW-157. Trend evaluations use monitoring data from 2010-2024. Coefficient of variation tests indicate high variance for cDCE and moderate variance for TCE and VC. M-K tests indicate increasing trends for cDCE and VC with the sequential M-K and SSA tests indicating a change to an increasing trend for TCE in 2022. SSA tests indicate an increasing trend for TCE with insufficient data to evaluate trends for VC.

MW-294

Well MW-294 installed in 2021 is located 210 ft. into the offsite area and east of No Name Creek (Figure 3-1). This well is in the northern portion of the offsite area monitoring the confined aquifer. Overall, concentrations for TCE, cDCE, and VC have increased from 2021 to 2024. No samples collected from well MW-292 had PCE detections. M-K tests did not indicate trends for TCE, cDCE, and VC.

MW-297

Well MW-294 installed in 2021 is located 210 ft. into the offsite area and east of No Name Creek (Figure 3-1). This well is 135 ft. north of MW-294 within the northern portion of the offsite area monitoring the confined aquifer. Overall, concentrations for PCE, TCE, cDCE, and VC have increased from 2021 to 2024. No samples collected from well MW-292 had PCE detections. M-K tests indicate an increasing trend for cDCE with no trend detected for TCE. PCE and VC had insufficient detected results to evaluate trend.

LAWMW-Q

Well LAWMW-Q installed in 1996 is located 535 ft. into the offsite area and east of No Name Creek (Figure 3-1). LAWMW-Q is the farthest downgradient monitoring well in the offsite area. Monitoring at this well initially occurred in 1997 to support completion of a natural attenuation study for OU 6 (Law 2000a). Samples collected from this well in 1997 and 1999 had detections of TCE at levels less than the laboratory LOQ with a sample collected in 2012 having a TCE concentration of 1.2 µg/L. No VOC sampling for this well occurred from 2013-2019. The trend assessment uses data from 2020-2024. The tiled plot in Exhibit 5-30 (page 5-65) shows one three detections for cDCE at levels less than the laboratory LOQ with one detection of VC in 2024. M-K testing for TCE indicate an increasing trend for 2020-2024.

5.6.4.4 Summary of Trend Analysis for Confined Aquifer: Offsite OU 6 Area

Table 5-23 has a summary of the statistical and trend analysis for the confined aquifer in the offsite area of OU 6. M-K trend trends indicated 13 of 24 tests had an increasing trend with no tests having a decreasing trend. Because of the limited observations (4) at 6 of 9 wells, M-K tests at these wells generally will indicate a trend only if there is a monotonic increase or decrease for the four observations at each location with no left censored results for the well evaluated (non-detect). Twenty-five of 31 results presented in Table 5-22 have higher COC concentrations in 2024 than the initial results for the evaluation period.

Table 5-23 Summary of Statistical and Trend Analysis for Confined Aquifer: Southern Area

Parameter	No of Well Locations	Samples for Mann-Kendall Trend Evaluation	Mann-Kendall Trend (M-K, One Way)			Seq Mann-Kendall Trend	Singular Spectrum Analysis (SSA) of Trend	
			No Trend	Increasing (α - 0.05)	Increasing (α - 0.10)	Change to Increasing	Samples for Trend Evaluation	Increasing as of 2024
Total	9	24	11	12	1	--	--	--
PCE	0	--	--	--	--	--	--	--
TCE	9	9	5	4	--	1	2	2
cDCE	9	8	3	4	1	--	2	2
VC	11	7	3	4	--	--	1	1

Notes: : PCE = tetrachloroethene, TCE = trichloroethene, cDCE = cis-1,2-dichloroethene, VC = vinyl chloride, α – 0.05 = alpha significance level of 0.05 (5 percent), α – 0.10 = alpha significance level of 0.10 (10 percent).

5.7 Leaching Assessment

The LTM program for OU 6 has included annual sampling for SVOCs, PAHs, pesticides, PCBs, and metals at 10 monitoring wells to evaluate potential leaching of these constituents from soil in the areas of OU 1, OU 2, and OU 3. Table 5-24 (page 5-68) has a statistical summary of detected analyte results for the LTM sampling for 2021-2024 and compares the results to MCLs, RSLs, and ecological screening values for surface water. Detected analyte groups included metals, PAHs, pesticides, and SVOCs. Two LTM locations prior to 2024 (two samples) had arsenic concentrations greater than the MCL within active ISB injection areas where arsenic can temporarily and locally solubilize from injection processes rather than natural soil leaching processes (He, Fitzmaurice, et. al 2010).

Samples collected from well MW-243 (OU 1) for 2021-2024 annual sampling events had detections of 1,4-dioxane at concentrations greater than the RSL with one sample collected from MW-279 (2021) also having a concentration greater than the RSL.

LTM sampling indicated potential low-level leaching of PAHs and SVOCs from soil to groundwater and infrequent or isolated detections of select pesticides most reported as estimated concentrations less than the LOQ. One normal sample collected from well MW-272 (OU 3) in 2022 had a bis(2-ethylhexl)phthalate concentration slightly greater than the MCL and RSL; the duplicate sample and average of the normal and duplicate sample have a concentration less than the MCL and RSL.

Table 5-24 Statistical Summary: Annual LTM for Potential Leaching (2021-2024 Detects)

Analyte Group	Chemical	Matrix	No. of Results	Unit	Min	Max	Mean	Median	95th Percentile	No. > LOD	% > LOD	Location of Max	Federal MCL[1]			EPA RSL[2] (May 2024)			BTAG FWSB[3] (2006)		
													No. > MCL	No. > MCL	MCL	No. > RSL	%> RSL	EPA RSL[2]	No. > BTAG	% > BTAG	BTAG FWSB[3]
Metals	Aluminum	WG	20	ug/L	<35	240	97	62	232	17	85	OU6-MW-277	-	-	-	0	0	2.00E+04	8	40	8.70E+01
Metals	Antimony	WG	20	ug/L	<0.34	0.58	0.21	-	0.57	3	15	OU6-MW-263	0	0	6.00E+00	0	0	7.79E+00	0	0	3.00E+01
Metals	Arsenic	WG	45	ug/L	<0.86	21	3.0	-	11.5	20	44	AEHA-14A	2	4	1.00E+01	20	44	5.17E-02	13	29	5.00E+00
Metals	Barium	WG	45	ug/L	7.4	260	75	62	174	45	100	OU6-MW-62	0	0	2.00E+03	0	0	3.77E+03	45	100	4.00E+00
Metals	Beryllium	WG	20	ug/L	<0.2	0.45	0.15	-	0.44	4	20	OU6-MW-169	0	0	4.00E+00	0	0	2.46E+01	0	0	6.60E-01
Metals	Cadmium	WG	45	ug/L	<0.078	2.7	-	-	2.4	5	11	AEHA-27A	0	0	5.00E+00	1	2	1.84E+00	2	4	2.50E-01
Metals	Calcium	WG	45	ug/L	1200	80000	18142	3900	72000	45	100	CSMPZ-7	-	-	-	-	-	-	0	0	1.16E+05
Metals	Chromium	WG	45	ug/L	<0.81	2.2	0.9	-	2.1	9	20	AEHA-27A	0	0	1.00E+02	-	-	-	0	0	8.50E+01
Metals	Cobalt	WG	20	ug/L	0.85	36	7.1	3.0	24.6	20	100	OU6-MW-243	-	-	-	6	30	6.01E+00	2	10	2.30E+01
Metals	Copper	WG	20	ug/L	<1.1	5.9	1.3	-	5.8	6	30	OU6-MW-269	0	0	1.30E+03	0	0	7.99E+02	0	0	9.00E+00
Metals	Iron	WG	45	ug/L	<25	98000	19506	3200	69850	42	93	AEHA-14A	-	-	-	16	36	1.40E+04	29	64	3.00E+02
Metals	Lead[4]	WG	45	ug/L	<0.21	4	0.82	0.49	3.0	30	67	OU6-MW-279	0	0	1.00E+01	0	0	1.50E+01	3	7	2.50E+00
Metals	Magnesium	WG	45	ug/L	280	110000	11016	2200	76600	45	100	OU6-MW-263	-	-	-	-	-	-	2	4	8.20E+04
Metals	Manganese	WG	52	ug/L	10	2600	435	265	1690	52	100	AEHA-18A	-	-	-	18	35	4.34E+02	36	69	1.20E+02
Metals	Mercury	WG	45	ug/L	<0.08	0.12	-	-	-	2	4	OU6-MW-259	0	0	2.00E+00	0	0	6.26E-01	2	4	2.60E-02
Metals	Nickel	WG	20	ug/L	<0.42	9.6	2.3	1.5	9.4	17	85	OU6-MW-243	-	-	-	0	0	3.92E+02	0	0	5.20E+01
Metals	Potassium	WG	10	ug/L	1600	7900	2780	2000	6145	10	100	OU6-MW-279	-	-	-	-	-	-	-	-	-
Metals	Selenium	WG	45	ug/L	<0.99	2.2	-	-	-	2	4	AEHA-14A	0	0	5.00E+01	0	0	9.98E+01	2	4	1.00E+00
Metals	Sodium	WG	20	ug/L	6800	93000	29070	17500	92050	20	100	OU6-MW-263	-	-	-	-	-	-	0	0	6.80E+05
Metals	Vanadium	WG	20	ug/L	<0.63	0.86	-	-	0.86	2	10	OU6-MW-279	-	-	-	0	0	8.64E+01	0	0	2.00E+01
Metals	Zinc	WG	20	ug/L	<2.8	740	101	12.5	677	19	95	OU6-MW-279	-	-	-	0	0	6.00E+03	4	20	1.20E+02
PAHs	1-Methylnaphthalene	WG	45	ug/L	<0.018	0.61	0.14	-	0.49	11	24	OU6-MW-263	-	-	-	11	24	6.26E-03	0	0	2.10E+00
PAHs	2-Methylnaphthalene	WG	45	ug/L	<0.011	0.65	0.08	-	0.61	11	24	OU6-MW-243	-	-	-	0	0	3.59E+01	0	0	4.70E+00
PAHs	Acenaphthene	WG	45	ug/L	<0.041	4.7	0.16	-	3.40	7	16	OU6-MW-263	-	-	-	0	0	5.35E+02	0	0	5.80E+00
PAHs	Acenaphthylene	WG	45	ug/L	<0.017	0.072	-	-	0.0667	3	7	OU6-MW-277	-	-	-	-	-	-	-	-	-
PAHs	Anthracene	WG	10	ug/L	<0.018	0.42	0.0525	-	0.24225	2	20	OU6-MW-263	-	-	-	0	0	1.77E+02	2	20	1.20E-02
PAHs	Anthracene	WG	45	ug/L	<0.017	3.2	0.12	-	2.5	7	16	OU6-MW-263	-	-	-	0	0	1.77E+03	7	16	1.20E-02
PAHs	Benzo(a)anthracene	WG	45	ug/L	<0.026	0.44	-	-	0.40	5	11	OU6-MW-263	-	-	-	5	11	2.98E-02	5	11	1.80E-02
PAHs	Benzo(a)pyrene	WG	45	ug/L	<0.026	0.17	-	-	-	2	4	OU6-MW-263	0	0	2.00E-01	2	4	2.51E-02	2	4	1.50E-02
PAHs	Benzo(b)fluoranthene	WG	45	ug/L	<0.026	0.24	-	-	-	2	4	OU6-MW-263	-	-	-	1	2	2.51E-01	-	-	-
PAHs	Benzo(g,h,i)perylene	WG	45	ug/L	<0.026	0.064	-	-	-	1	2	OU6-MW-263	-	-	-	-	-	-	-	-	-
PAHs	Benzo(k)fluoranthene	WG	45	ug/L	<0.029	0.11	-	-	-	2	4	OU6-MW-263	-	-	-	0	0	2.51E+00	-	-	-
PAH	Chrysene	WG	45	ug/L	<0.023	0.45	-	-	0.43	4	9	OU6-MW-263	-	-	-	0	0	2.51E+01	-	-	-
PAHs	Fluoranthene	WG	45	ug/L	<0.027	6.2	-	-	5.0	6	13	OU6-MW-263	-	-	-	0	0	8.02E+02	6	13	4.00E-02
PAHs	Fluorene	WG	45	ug/L	<0.025	3.4	0.13	-	2.02	10	22	OU6-MW-263	-	-	-	0	0	2.94E+02	1	2	3.00E+00
PAHs	Indeno(1,2,3-cd)pyrene	WG	45	ug/L	<0.028	0.065	-	-	--	1	2	OU6-MW-263	-	-	-	0	0	2.51E-01	-	-	-

Analyte Group	Chemical	Matrix	No. of Results	Unit	Min	Max	Mean	Median	95th Percentile	No. > LOD	% > LOD	Location of Max	Federal MCL[1]			EPA RSL[2] (May 2024)			BTAG FWSB[3] (2006)		
													No. > MCL	No. > MCL	MCL	No. > RSL	%> RSL	EPA RSL[2]	No. > BTAG	% > BTAG	BTAG FWSB[3]
PAHs	Phenanthrene	WG	45	ug/L	<0.054	0.1	0.0435	-	0.09505	2	20	OU6-MW-279	-	-	-	-	-	-	0	0	4.00E-01
PAHs	Pyrene	WG	45	ug/L	<0.027	0.68	-	-	0.3812	1	10	OU6-MW-263	-	-	-	0	0	1.21E+01	1	10	2.50E-02
Pesticides	4,4'-DDT	WG	45	ug/L	<0.00097	0.0063	-	-	-	1	2	OU6-MW-269	-	-	-	0	0	2.29E-01	1	2	5.00E-04
Pesticides	Aldrin	WG	45	ug/L	<0.0019	0.074	-	-	-	1	2	OU6-MW-243	-	-	-	1	2	9.17E-04	0	0	3.00E+00
Pesticides	alpha-BHC	WG	45	ug/L	<0.00097	0.012	-	-	0.0111	4	9	AEHA-14A	-	-	-	1	2	7.25E-03	-	-	-
Pesticides	beta-BHC	WG	45	ug/L	<0.0019	0.045	-	-	0.0434	3	7	OU6-MW-269	-	-	-	2	4	2.54E-02	-	-	-
Pesticides	gamma-BHC (Lindane)	WG	45	ug/L	<0.00097	0.053	-	-	-	2	4	OU6-MW-269	0	0	2.00E-01	1	2	4.15E-02	1	2	1.00E-02
SVOC	1,4-Dioxane	WG	46	ug/L	<3.2	46	6.0	-	44	8	18	OU6-MW-243	-	-	-	8	18	4.59E-01	-	-	-
SVOC	Bis(2-Ethylhexyl)phthalate	WG	45	ug/L	<1.5	6.6	-	-	-	2	4	OU6-MW-272	1	2	6.00E+00	1	2	5.56E+00	0	0	1.60E+01
SVOC	Caprolactam	WG	45	ug/L	<0.75	3.5	-	-	-	1	2	MWA50-35	-	-	-	0	0	9.92E+03	-	-	-
SVOC	Carbazole	WG	45	ug/L	<0.68	6.5	-	-	-	1	2	OU6-MW-263	-	-	-	-	-	-	-	-	-
SVOC	Dibenzofuran	WG	45	ug/L	<0.75	2.3	-	-	-	1	2	OU6-MW-263	-	-	-	0	0	7.86E+00	0	0	3.70E+00
SVOC	Diethyl phthalate	WG	45	ug/L	<0.84	110	-	-	-	1	2	OU6-MW-243	-	-	-	0	0	1.48E+04	0	0	2.10E+02

Notes: PAHs = polycyclic aromatic hydrocarbons, SVOCs = semi-volatile organic compounds, WG = groundwater, ug/L = micrograms per liter, Min = minimum, Max = maximum, No. > = number greater, LOD = limit of detection, % = percent, , [1]Subpart G—National Primary Drinking Water Regulations: Maximum Contaminant Levels and Maximum Residual Disinfectant Levels, § 141.61 Maximum contaminant levels for organic contaminants.> LOD = percent of detected results greater than laboratory limit of detection, [2]EPA Regional Screening Level for Resident Tap Water with a target cancer risk (TR) of 1E-06 and target hazard quotient (THQ) of 0.1, May 2024 at https://www.epa.gov/risk/regional-screening-levels-rsls-generic-tables. [3]EPA Region III BTAG Freshwater Screening Benchmarks, 7/2006. https://www.epa.gov/risk/freshwater-screening-benchmarks, [4]updated lead action level of 10 micrograms per liter is incorporated into November 2024 Regional Screening Level is used for screening, Number of results with concentrations greater than the MCL, Number of results with concentration greater than the RSL, Number of results with concentrations greater than the BTAG FWSB

5.8 Surface Water

Table 5-25 (page 5-71) has summary statistics for detected VOC results for surface water in No Name Creek for the monitoring period 2020-2024 and compares the results to MCLs and BTAG screening benchmarks for surface water. VOCs detected in surface water samples collected for this five-year period include cDCE, chloroform, chloromethane, ethylbenzene, PCE, TCE, and trichlorotrifluoroethane (Freon 113). No samples had detected concentrations > MCLs or BTAG screening benchmarks.

Table 5-26 (page 5-71) has a summary of trend analysis performed for PCE and TCE for surface water monitoring at No Name Creek. M-K and SSA tests indicate decreasing trends for TCE at NNC-2 (off installation mid-point) and NNC-3 (on-installation location).

Exhibit 5-31 (page 5-71) has data plots (line) for PCE and TCE for 2007-2024 with SSA trend lines as applicable. The plots show synchronous variation for PCE between the locations with maximum concentrations for PCE occurring in 2020 followed by minimum concentrations less than the laboratory limit of detection (LOD) in 2024. TCE also had minimum concentrations near or less than the LOQ in 2024. At NNC-2 in the off-installation area where the VOC plume previously had reached No Name Creek at concentrations > MCLs, TCE concentrations peaked in 2008 with local maxima in 2015 and 2020. The maxima for TCE in 2008 and 2015 had concentrations slightly greater than the MCL of 5 µg/L. At NNC-3 in the on-installation area, TCE concentrations peaked in 2013 with the most prominent local maxima occurring in 2018. SSA plots showed decreasing trends for TCE at NNC-2 and NNC-3. Surface water sampling performed in 2024 confirmed continued remedy protectiveness with respect to surface water at No Name Creek.

5.9 Building 151 SSDS and Indoor Air

A SSDS continues to operate at Building 151 as a preventative measure for potential vapor intrusion of subsurface vapor into the tool room and break room of Building 151. Field measurements obtained in 2024 indicate continued attainment of targeted differential pressures beneath the building floor slab in the tool room and break room to mitigate potential vapor intrusion of VOCs into these building areas.

Indoor air sampling completed in Building 151 in January 2023 did not indicate VOC detections in indoor air at concentrations greater than EPA composite worker RSLs for ambient air. These air sampling results indicated continued remedy protectiveness for workers in Building 151 with the SSDS mitigation measure operating as designed at Building 151.

Table 5-25 OU 6 VOC Summary Statistics for No Name Creek Surface Water (2020-2024)

Volatile Organic Compound	Matrix	No. of Results	Unit	Min	Max	Max Date	# > LOD	% > LOD	Location of Max	Federal MCL Screening[1]			BTAG SW Screening[2]		
										No. Exceeding	% Exceeding	MCL	No. Exceeding	% Exceeding	EPA BTAG R3 SW
1,2-Dichloroethene, Total	WS	15	µg/L	<0.37	1.8	Dec 2020	11	73.3	NNC-3	-	-	-	0	0	5.90E+02
Chloroform	WS	15	µg/L	<0.27	0.39 J	May 2023	1	6.7	NNC-3	0	0	8.00E+01	0	0	1.80E+00
Chloromethane (Methyl chloride)	WS	15	µg/L	<0.54	0.64 J	May 2024	1	6.7	NNC-2	-	-	-	-	-	-
cis-1,2-Dichloroethene	WS	15	µg/L	<0.25	1.8	Dec 2020	13	86.7	NNC-3	0	0	7.00E+01	-	-	-
Ethylbenzene	WS	15	µg/L	<0.2	0.38 J	Dec 2020	3	20.0	NNC-2	0	0	7.00E+02	0	0	9.00E+01
Tetrachloroethene (PCE)	WS	15	µg/L	<0.35	3.8	Dec 2020	5	33.3	NNC-3	0	0	5.00E+00	0	0	1.11E+02
Trichloroethene (TCE)	WS	15	µg/L	<0.48	4.6	Dec 2020	14	93.3	NNC-1	0	0	5.00E+00	0	0	2.10E+01
Trichlorotrifluoroethane	WS	15	µg/L	<0.23	0.53	Apr 2022	2	13.3	NNC-3	-	-	-	-	-	-

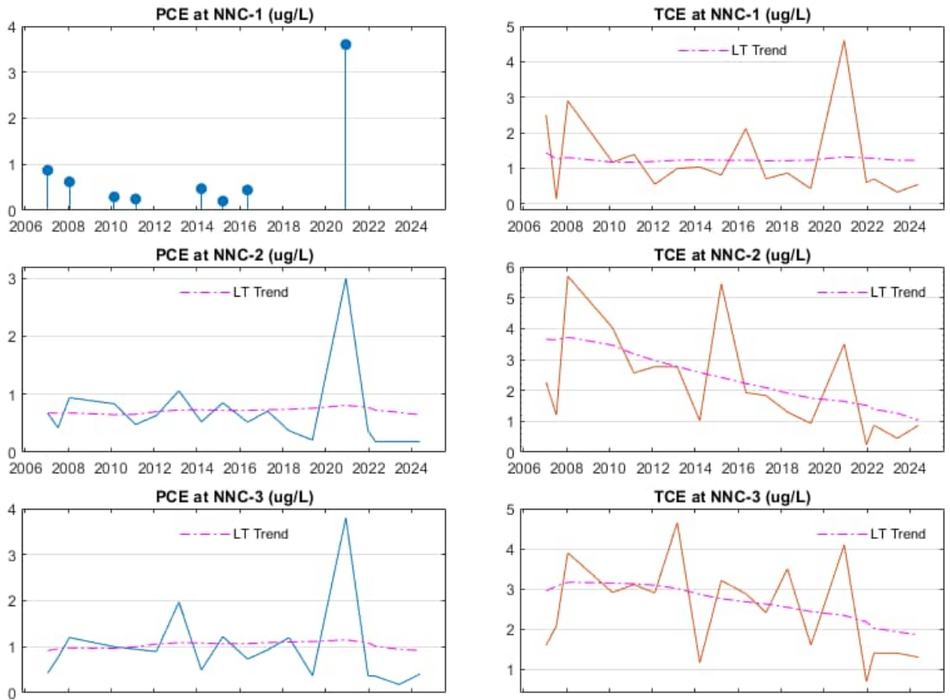
Notes: WS = surface water matrix, µg/L = micrograms per liter, Min = minimum, Max = maximum, LOD = limit of detection, No. = number, J = the reported result is an estimated value with an unknown bias at a level less than the laboratory limit of quantitation, MCL = maximum contaminant level, BTAG = EPA Region 3 Biological Technical Assistance Group (BTAG) Freshwater Screening Benchmarks for surface water (July 2006), MCL = Maximum Contaminant Level contained in the National Primary Drinking Water Regulations in 40 CFR Part 141.

Table 5-26 OU 6 Trend Analysis for PCE and TCE for No Name Creek Surface Water (2007-2023)

Volatile Organic Compound	NNC-1 (Off-Installation, Downstream)						NNC-2 (Off-Installation, Midpoint)						NNC-3 (Onsite)					
			M-K Trend (One Way)			SSA Trend			M-K Trend (One Way)			SSA Trend			M-K Trend (One Way)			SSA Trend
	N	CV	H_o	p-value (α=0.05)	Result	Result	N	CV	H_o	p-value (α=0.05)	Result	Result	N	CV	H_o	p-value (α=0.05)	Result	Result
Tetrachloroethene (PCE)	8 of 18	1.3472	0	-3.55E-01	No Trend	No Trend	12 of 18	0.9505	1	-9.20E-03	No Trend	No Trend	15 of 18	0.8693	0	-6.46E02	Decreasing[1]	No Trend
Trichloroethene (TCE)	16 of 18	0.9044	0	-2.91E-02	Decreasing	No Trend	17 of 18	0.7304	1	-2.80E-03	Decreasing	Decreasing	18 of 18	0.4597	0	-8.04E-02	Decreasing[1]	Decreasing

Notes: N = number of detected observations of total observations, H_o = null hypothesis of no trend at significance level of 5%, α=0.05 = alpha significance of 0.05 or 5%. H_o = 0 indicates no statistical evidence of trend, H_o = 1 indicates statistical evidence of trend at significance level of 0.05 (5%), [1]decreasing trend at a significance level of 0.10 (10%), CV = coefficient of variation., SSA = Singular spectrum analysis, LT = long-term trend line from singular spectrum analysis.

Exhibit 5-31 OU 6 Time Series Data Plots for PCE and TCE for No Name Creek



6. Summary and Planned Actions

Section 6 has a summary of the activities performed at OU 6 in fiscal year 2024 and general findings of site monitoring and assessments. This section also identifies planned actions at OU 6.

6.1 Summary

Remedy monitoring and actions performed at OU 6 in FY 2024 included: annual groundwater monitoring at 69 locations in the surficial aquifer and 46 locations in the confined aquifer, OM&M of the SSDS at Building 151, ISB performance monitoring at 15 locations in the OU 1 area. Annual monitoring included LTM for potential leaching of non-VOC constituents from soil to groundwater from OUs 1, 2, and 3 and surface water sampling at three established stations at No Name Creek.

6.1.1 Monitoring Network

The new optimized monitoring network for groundwater implemented at OU 6 in 2021-2024 has refined delineations of plume areas and allows for enhanced monitoring of bioremediation progress and assessment of stability of plume areas in the surficial and confined aquifers.

6.1.2 VOC Plume Characterization

VOC plumes occur in the surficial aquifer (Eastover) and confined aquifer (Aquia-Potomac) within the northern and southern areas of OU 6. Primary COC plumes that have concentrations ≥ MCLs include PCE, TCE, cDCE, and VC. The lateral extent of the VOC plumes in the surficial aquifer is within the installation area except in an isolated area around well MW-282 in the area between the installation fence line at OU 3 and No Name Creek. For the confined aquifer, discontinuous plume areas of PCE and TCE occur in the northern area of OU 1 and OU 2. In the southern area of OU 6, a VOC plume consisting of PCE, TCE, cDCE, and VC extends from the central OU 3 area into the undeveloped offsite area east of the installation. The installation has an environmental easement in the offsite area of OU 6 that includes a network of monitoring wells and surface water stations in No Name Creek.

6.1.3 Bioremediation Assessment

Anaerobic biodegradation screening performed of the monitored plume areas for 2022-2024 found strong evidence for these processes. For the established 2021 ISB treatment area in the northern area (surficial aquifer), the presence of microbial communities for DHC, tceA, BVC, and VCR in groundwater combined with observed generation of ethene and ethane confirms a complete degradation pathway from PCE to ethane. Mean TOC concentrations in the ISB treatment areas for 2022-2024 exceeded the threshold of 20 mg/L that provides an enhanced energy source for microbial degradation processes (EPA 1998, 29). In the southern area, the screening process identified reductive geochemical conditions and the presence of degradation by products along the complete reaction pathway from PCE to ethane.

6.1.4 Northern Area VOC Plume Trends

For the northern area, ISB actions performed in Oct-Nov 2021 targeted a residual source zone in the surficial aquifer beneath the northern OU 1 area. Performance monitoring has indicated a reduction of contaminant mass in this source zone from pre-injection baseline levels in October 2021. Maximum concentrations reported for the surficial aquifer in the northern area have decreased by 88% for PCE/TCE and decreased by 42% for cDCE. VC maximum concentrations detected have increased by 42% from baseline levels. Plume area reductions from 2021 to 2024 have occurred for TCE (-11%) and cDCE (-32%) with increases for PCE (3%) and VC (15%). As of May 2024, M-K and/or SSA tests show decreasing trends for COCs at 6 of 8 wells for treatment area TA-1 and at 3 of 3 locations in treatment TA-2 with concentrations > MCLs. COC concentrations at the monitoring location in treatment area TA-3 are < MCLs.

For the northern area, limited vertical migration of PCE and TCE from the surficial aquifer to the confined aquifer has occurred compared to the southern area. A disaggregated and diffuse plume is present beneath OU 1 with a limited plume area around a single well in the OU 2 area.

6.1.5 Southern Area VOC Plume Trends

For the southern area, ISB actions consisting of injections in fixed-based injection wells occurred in the surficial and confined aquifers in Jul-Aug 2015.

For the surficial aquifer, VOC plume distribution metrics evaluated for 2018-2024 indicate transition to VC predominance over time as measured by percentage of detects, maximum concentrations, measures of central tendency (mean/median), and number of detections greater than the MCL. M-K tests indicated a decreasing trend for maximum concentrations of cDCE. For 2021-2024, plume areas in the surficial aquifer decreased for PCE (-70%), TCE (-41%), and cDCE (13%). The VC plume area increased by 8% from 2021 to 2024. Plume metrics for the surficial aquifer in the southern area indicate continued plume degradation with the plume area remaining within the installation area.

For the confined aquifer, VOC plume distribution metrics evaluated for 2018-2024 indicate cDCE predominance over time as measured by percentage of detects, maximum concentrations, measures of central tendency (mean/median), number of distribution outliers, For 2021-2024, the plume areas in the confined aquifer decreased for PCE (-38%) and increased for TCE (20%), cDCE (46%), and VC (41%) with the VC plume area predominating. The new monitoring network has detected apparent TCE, cDCE, and VC plume expansion/movement for the period 2021-2024 with an increase in concentrations and plume area in the offsite area.

6.1.6 Long-Term Monitoring

Annual LTM performed in 2024 at OU 6 evaluated potential leaching of non-VOC constituents from soil to groundwater in the OU 1, 2, and 3 areas. Constituents detected in 2024 included 19 metals, eight (8) PAHs, and one SVOC (1,4-dioxane). No LTM locations had constituent concentrations > MCLs. The number of detections reported for 2024 is less than the previous three years that reported detections of 16 PAHs, five SVOCs, and five pesticides. The low detection frequency of organic constituents and lower concentrations of metals < MCLs does not indicate significant potential leaching of non-VOCs from soil to groundwater at OUs 1, 2, and 3.

The annual LTM surface water results at No Name Creek had low-level VOCs detections in the surface water samples with detected concentrations < MCLs and ecological screening benchmarks. Surface water sampling performed in 2024 confirmed continued remedy protectiveness with respect to surface water at No Name Creek.

Operation of the SSDS and air monitoring at Building 151 has indicated continued remedy protectiveness for workers in Building 151. Five-year air and subsurface vapor sampling performed at Buildings 54, 85, and 150 in 2023 indicated continued remedy protectiveness for workers in these building and did not indicate vapor intrusion into these buildings.

6.2 Planned Actions

DLA will continue implementing adaptive remedial strategies and optimizations at OU 6 based on the data collected for annual monitoring, supplemental ISB performance monitoring, LTM, and corresponding updates to the CSM.

Planned activities for FY2025 will include additional ISB actions for groundwater at OU 6 and completion of a site optimization evaluation with report. A remedial action work plan (addendum) will identify areas targeted for additional ISB actions and describe planned activities.

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Appendix A Field Forms and Documentation

A.1 ISB Performance Monitoring November 2023

OU8 Synoptic Water Levels - January 2024 (1/16/2024)
Defense Supply Center Richmond

Measurement Date	1/16/2024				
Location	Surface Elevation[1] (ft)	TOC Elevation[1] (ft)	Water Level Depth from TOC[2] (ft)	Depth to Bottom from TOC[2] (ft)	Calculated Groundwater Elevation[3] (ft)
OU8-MW-163	124.06	123.56	17.28	25.55	106.28
OU8-MW-164	124.05	123.52	17.27	25.55	106.25
OU8-MW-165	124.07	123.62	17.35	25.65	106.27
OU8-MW-50	121.53	121.09	14.6	16.25	106.49
OU8-MW-67	121.48	121.24	15.1	19.6	106.14
OU8-MW-68	121.47	121.08	14.92	19.4	106.16
OU8-MW-72	121.4	121.06	14.9	19.3	106.16
OU8-MW-75	120.79	120.43	14.3	19.4	106.13

Notes:
ft = feet
TOC = top of casing
[1] = Vertical elevations are surveyed, measured in feet based on the NAVD 1988.
[2] = Depths are measured in the field using a water level sensor.
[3] = Calculated groundwater elevation using TOC elevation and water level depth.

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Chain of Custody Record

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Client Information	Sampler: Tim Brown, Bruce Diggs	Lab PM: Lanier, Jerry	Carrier Tracking No(s):	COC No: 680-14494952555.1
Client Contact: Andrew VanBuesking	Phone: 757-589-5825	E-Mail: Jerry.Lanier@et.eurofinsus.com	State of Origin:	Page: Page 1 of 1
Company: Meadows CMPG	PWSID:	**Analysis Requested**		Job #:
Address: 2618 Colley Ave	**Due Date Requested:**			**Preservation Codes:**
City: Norfolk	**TAT Requested (days):** Standard			A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
State, Zip: VA, 23517	**Compliance Project:** Δ Yes Δ No			
Phone:	PO #: 0045-0006			**Other:**
Email: avanbuesking@meadowscmpg.com	WO #:			
Project Name: OU8 Performance Sampling	Project #: 68020891			
Site: Operable Unit 8, DSC Richmond	SSOW#:			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260D_DOD5 - (MOD) Volatiles		RSK_175_DDO5 - Ethane, Ethene, Methane	9060A - Local Method - TOC			6020A_DOD5 - Manganese	SM4500_S2_F - Local Method - Sulfide	9056A_OF_28D_D5, 9056A_OF_48H_D5 - Anions	SM4500_CO2_D - CO2, 2320B Alkalinity				Total Number of containers	Special Instructions/Note:
			Preservation Code:				A		A	S			D	CB	N	N					
OU8-MW-50-20240117	1/17/24	1030	G	W			3		3	2			1	2	1	1				13	
OU8-MW-67-20240117	1/17/24	0910	G	W			3		3	2			1	2	1	1				13	
OU8-MW-68-20240117	1/17/24	1055	G	W			3		3	2			1	2	1	1				13	
OU8-MW-72-20240116	1/16/24	1135	G	W			3		3	2			1	2	1	1				13	
OU8-MW-75-20240116	1/16/24	1025	G	W			3		3	2			1	2	1	1				13	
OU8-MW-163-20240116	1/16/24	1330	G	W		Y	9		9	6			3	6	3	3				39	
OU8-MW-164-20240116	1/16/24	1115	G	W			3		3	2			1	2	1	1				13	
OU8-MW-165-20240117	1/17/24	0938	G	W			3		3	2			1	2	1	1				13	
DUP01-20240116	1/16/24		G	W			3		3	2			1	2	1	1				13	
TripBlank-20240117	1/17/24		G	W			2													2	
																				0	

Possible Hazard Identification
☐ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* ☐ *Poison B* ■ *Unknown* ☐ *Radiological*

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ■ *Disposal By Lab* ☐ *Archive For _____ Months*

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date: 1-17-2024	Time: 1600	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
		Meadows	FedEx		
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

GROUNDWATER SAMPLING DATA FORM

MEADOWS CONSULTING | MANAGEMENT | PLANNING — AECOM Imagine it. Delivered.

Project Number:	0045-0013	Well ID:	OU8-MW-50
Project/Site Name:	OU8 Performance	Sample ID:	OU8-MW-50-20240117
Date:	1-17-2024	Well Condition:	GOOD
Weather:	SUNNY/COLD 17 DEGREES		

WATER LEVEL AND WELL SPECIFICATION DETAILS			SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	3/4		Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	14.6		Purging/Sampling Device:	Peristaltic Pump
Total Depth (ft btoc):	16.25	COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI/556
Water Column (ft):	1.65			
Water Column Multipliers (gal/ft):	Enter Multiplier		Start Purge Date/Time:	1-17-24/0955
1/4": **0.0025**, 3/4": **0.024**, 1": **0.04**	0.0240		End Purge Date/Time:	1-17-24/1025
2": **0.162**, 4": **0.653**, 6": **1.469**			Total Volume Purged (gal):	1.75
One Well Volume (gal):	0.04		Sample Date/Time:	1-17-24/1030
Screened Interval (ft bgs):	11.25 - 16.25		Sampler Name:	BRUCE DIGGS

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
0955	150	0.25	16.25	7.56	0.209	15.25	4.63	25.10	-20.10	
1000	150	0.50	16.25	7.56	0.189	15.26	5.39	25.40	-19.90	
1005	150	0.75	16.25	7.42	0.189	15.90	5.96	17.20	-12.30	
1010	150	1.00	16.25	7.36	0.189	15.90	7.84	15.20	14.80	
1015	150	1.25	16.25	7.26	0.169	15.90	8.10	11.10	16.40	
1020	150	1.50	16.25	7.45	0.157	15.90	8.33	10.20	17.00	
1025	150	1.75	16.25	7.45	0.156	15.90	8.54	10.10	17.40	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	☑	Manganese (6020 A)	☑
TOC (9060 A)	☑	LLPAHs (8270 E SIM)	☐
Methane Ethane Ethene (RSK-175)	☑	SVOCS (8270 D)	☐
Anions (9056 A)	☑	Pesticides & PCBS (8081 B & 8082 A)	☐
Alkalinity (2320 B)	☑	2,3,7,8 TCDD (8290 A)	☐
Metals (6020 A/6010 C/7470 A)	☐	QPCR	☐
CO2 (SM4500)	☑		☐
Sulfide (SM4500)	☑		☐

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L): 0.17

Dilution: 1 Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result: 0.34

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? No If Yes, List ID and Analyses

COMMENTS/NOTES

GROUNDWATER SAMPLING DATA FORM

MEADOWS CONSULTING | MANAGEMENT | PLANNING — AECOM Imagine it. Delivered.

Project Number:	0045-0013	Well ID:	OU8-MW-67
Project/Site Name:	OU8 Performance	Sample ID:	OU8-MW-67-20240117
Date:	1-17-2024	Well Condition:	GOOD
Weather:	SUNNY/COLD 17 DEGREES		

WATER LEVEL AND WELL SPECIFICATION DETAILS			SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	3/4		Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	15.1		Purging/Sampling Device:	Peristaltic Pump
Total Depth (ft btoc):	19.6	COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI/556
Water Column (ft):	4.50			
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier: 0.0240		Start Purge Date/Time:	1-17-24 - 0830
			End Purge Date/Time:	1-17-24/0905
			Total Volume Purged (gal):	1.75
One Well Volume (gal):	0.11		Sample Date/Time:	1-17-24 - 0910
Screened Interval (ft bgs):	14.6 - 19.6		Sampler Name:	BRUCE DIGGS

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
0835	150	0.25	19.10	5.31	0.303	17.47	1.01	56.20	-85.10	
0840	150	0.50	19.10	5.34	0.303	17.47	1.01	25.40	-85.90	
0845	150	0.75	19.10	5.37	0.303	17.50	1.07	10.20	-86.60	
0850	150	1.00	19.10	5.40	0.303	17.50	1.02	8.98	-87.40	
0855	150	1.25	19.10	5.42	0.308	17.50	1.02	6.66	-88.00	
0900	150	1.50	19.10	5.44	0.308	17.63	1.02	4.56	-88.50	
0905	150	1.75	19.10	5.46	0.313	17.65	1.02	2.28	-89.00	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	☑	Manganese (6020 A)	☑
TOC (9060 A)	☑	LLPAHs (8270 E SIM)	☐
Methane Ethane Ethene (RSK-175)	☑	SVOCS (8270 D)	☐
Anions (9056 A)	☑	Pesticides & PCBS (8081 B & 8082 A)	☐
Alkalinity (2320 B)	☑	2,3,7,8 TCDD (8290 A)	☐
Metals (6020 A/6010 C/7470 A)	☐	QPCR	☐
CO2 (SM4500)	☑		☐
Sulfide (SM4500)	☑		☐

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L): 1.58

Dilution: 3 Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result: 12.64

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? No If Yes, List ID and Analyses

COMMENTS/NOTES

GROUNDWATER SAMPLING DATA FORM

MEADOWS CONSULTING | MANAGEMENT | PLANNING — AECOM Imagine it. Delivered.

Project Number:	0045-0013	Well ID:	OU8-MW-68
Project/Site Name:	OU8 Performance	Sample ID:	OU8-MW-68-20240117
Date:	20240117	Well Condition:	GOOD
Weather:	24 SUNNY		

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	.75	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	14.92	Purging/Sampling Device:	Peristaltic Pump
Total Depth (ft btoc):	19.40 COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI 556 MPS/ HACH 2100Q
Water Column (ft):	4.48		
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier 0.0240	Start Purge Date/Time:	24/01/17 1030
		End Purge Date/Time:	24/01/17 1055
		Total Volume Purged (gal):	1.25
One Well Volume (gal):	0.11	Sample Date/Time:	24/01/17 1055
Screened Interval (ft bgs):	15-20	Sampler Name:	TIM BROWN

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
1035	250	0.25	15.31	6.55	0.127	15.97	0.36	31.90	-7.00	WATER CLEAR/ NO ODOR
1040	250	0.50	15.35	6.71	0.143	16.29	0.32	7.65	-73.90	
1045	250	0.75	15.35	6.73	0.153	16.41	0.26	5.82	-85.70	
1050	250	1.00	15.35	6.75	0.154	16.40	0.27	5.04	-90.60	
1055	250	1.25	15.35	6.79	0.161	16.42	0.30	3.02	-114.60	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	☑	Manganese (6020 A)	☑
TOC (9060 A)	☑	LLPAHs (8270 E SIM)	☐
Methane Ethane Ethene (RSK-175)	☑	SVOCS (8270 D)	☐
Anions (9056 A)	☑	Pesticides & PCBS (8081 B & 8082 A)	☐
Alkalinity (2320 B)	☑	2,3,7,8 TCDD (8290 A)	☐
Metals (6020 A/6010 C/7470 A)	☐	QPCR	☐
CO2 (SM4500)	☑		☐
Sulfide (SM4500)	☑		☐

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L): 1.17

Dilution: 2 Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result: 4.68

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? No If Yes, List ID and Analyses

COMMENTS/NOTES

GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0013	Well ID:	OU8-MW-72
Project/Site Name:	OU8 Performance	Sample ID:	OU8-MW-72-20240116
Date:	1-16-2024	Well Condition:	GOOD
Weather:	RAIN/SNOW/MIX 34		

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	3/4	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	14.9	Purging/Sampling Device:	Peristaltic Pump
Total Depth (ft btoc): 19.3	COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	
Water Column (ft):	4.40		YSI/556
Water Column Multipliers (gal/ft):	Enter Multiplier	Start Purge Date/Time:	1-16-24 - 1100
1/4": **0.0025**, 3/4": **0.024**, 1": **0.04**	0.0240	End Purge Date/Time:	1-16-24 - 1130
2": **0.162**, 4": **0.653**, 6": **1.469**		Total Volume Purged (gal):	1.5
One Well Volume (gal):	0.11	Sample Date/Time:	1-16-24 - 1135
Screened Interval (ft bgs):	14.3 - 19.3	Sampler Name:	BRUCE DIGGS

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
1105	150	0.25	14.90	6.79	0.209	15.77	1.49	98.20	-12.60	
1110	150	0.50	14.90	6.79	0.211	15.84	1.45	77.10	-15.80	
1115	150	0.75	14.90	6.79	0.212	15.82	1.44	25.60	-17.30	
1120	150	1.00	14.90	6.79	0.214	15.83	1.51	11.20	-19.20	
1125	150	1.25	14.90	6.78	0.216	15.89	1.44	10.50	-20.40	
1130	150	1.50	14.90	6.78	0.217	15.98	1.42	10.11	-22.00	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	☑	Manganese (6020 A)	☑
TOC (9060 A)	☑	LLPAHs (8270 E SIM)	☐
Methane Ethane Ethene (RSK-175)	☑	SVOCS (8270 D)	☐
Anions (9056 A)	☑	Pesticides & PCBS (8081 B & 8082 A)	☐
Alkalinity (2320 B)	☐	2,3,7,8 TCDD (8290 A)	☐
Metals (6020 A/6010 C/7470 A)	☑	QPCR	☑
CO2 (SM4500)	☑		☐
Sulfide (SM4500)	☑		☐

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L): 0.93

Dilution: 4 Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result: 14.88

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? No If Yes, List ID and Analyses

COMMENTS/NOTES

GROUNDWATER SAMPLING DATA FORM

MEADOWS CONSULTING | MANAGEMENT | PLANNING — AECOM Imagine it. Delivered.

Project Number:	0045-0013	Well ID:	OU8-MW-75
Project/Site Name:	OU8 Performance	Sample ID:	OU8-MW-75-20240116
Date:	1-16-2024	Well Condition:	GOOD
Weather:	RAIN/SNOW/MIX 34		

WATER LEVEL AND WELL SPECIFICATION DETAILS			SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	3/4		Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	14.3		Purging/Sampling Device:	Peristaltic Pump
Total Depth (ft btoc):	19.4	COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI/556
Water Column (ft):	5.10			
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier 0.0240		Start Purge Date/Time:	1-16-24/0945
			End Purge Date/Time:	1-16-24/1020
			Total Volume Purged (gal):	1.75
One Well Volume (gal):	0.12		Sample Date/Time:	1-16-24/1025
Screened Interval (ft bgs):	14.4 - 19.4		Sampler Name:	BRUCE DIGGS

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
0945	150	0.25	14.30	5.30	0.194	18.35	1.22	98.20	44.60	
0950	150	0.50	14.30	5.34	0.194	18.35	1.21	77.10	44.60	
1000	150	0.75	14.30	5.37	0.194	18.28	1.27	56.20	44.90	
1005	150	1.00	14.30	5.40	0.193	18.26	1.29	25.60	44.90	
1010	150	1.25	14.30	5.42	0.193	18.26	1.31	15.20	45.30	
1015	150	1.50	14.30	5.44	0.193	18.27	1.33	11.20	45.50	
1020	150	1.75	14.30	5.46	0.192	18.27	1.35	10.50	45.70	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	☑	Manganese (6020 A)	☑
TOC (9060 A)	☑	LLPAHs (8270 E SIM)	☐
Methane Ethane Ethene (RSK-175)	☑	SVOCS (8270 D)	☐
Anions (9056 A)	☑	Pesticides & PCBS (8081 B & 8082 A)	☐
Alkalinity (2320 B)	☑	2,3,7,8 TCDD (8290 A)	☐
Metals (6020 A/6010 C/7470 A)	☐	QPCR	☐
CO2 (SM4500)	☑		☐
Sulfide (SM4500)	☑		☐

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L): 1.07

Dilution: 0 Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result: 1.07

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? No If Yes, List ID and Analyses

COMMENTS/NOTES

GROUNDWATER SAMPLING DATA FORM

MEADOWS CONSULTING | MANAGEMENT | PLANNING — AECOM Imagine it. Delivered.

Project Number:	0045-0013	Well ID:	OU8-MW-163
Project/Site Name:	OU8 Performance	Sample ID:	OU8-MW-163-20240116
Date:	20240116	Well Condition:	GOOD
Weather:	30 RAIN		

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	2.00	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	17.28	Purging/Sampling Device:	Peristaltic Pump
Total Depth (ft btoc): 25.55	COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI 556 MPS/ HACH 2100Q
Water Column (ft):	8.27		
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier 0.1620	Start Purge Date/Time:	24/01/16 1225
		End Purge Date/Time:	24/01/16 1330
		Total Volume Purged (gal):	3.25
One Well Volume (gal):	1.34	Sample Date/Time:	24/01/16 1330
Screened Interval (ft bgs):	20-25	Sampler Name:	TIM BROWN

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
1230	250	0.25	17.60	6.70	0.777	19.30	0.31	195.00	-127.50	WATER CLOUDY/ SLIGHT ODOR
1235	250	0.50	17.60	6.67	0.731	19.36	0.19	150.00	-137.60	
1240	250	0.75	17.60	6.62	0.685	19.51	0.13	113.00	-140.50	
1245	250	1.00	17.63	6.60	0.674	19.72	0.12	73.10	141.70	
1250	250	1.25	17.65	6.59	0.670	19.82	0.09	63.90	142.90	
1255	250	1.50	17.65	6.58	0.665	19.93	0.09	51.20	-143.50	
1300	250	1.75	17.70	6.56	0.663	20.02	0.08	40.30	-142.30	
1305	250	2.00	17.72	6.55	0.665	20.16	0.08	49.40	-139.20	
1310	250	2.25	17.75	6.54	0.664	20.13	0.08	30.40	-140.40	
1315	250	2.50	17.75	6.55	0.665	20.17	0.08	33.10	-138.10	
1320	250	2.75	17.75	6.54	0.667	20.16	0.08	26.40	-138.60	
1325	250	3.00	17.75	6.55	0.666	20.15	0.08	27.40	-139.40	
1330	250	3.25	17.75	6.55	0.667	20.12	0.09	28.30	-136.70	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	☑	Manganese (6020 A)	☑
TOC (9060 A)	☑	LLPAHs (8270 E SIM)	☐
Methane Ethane Ethene (RSK-175)	☑	SVOCS (8270 D)	☐
Anions (9056 A)	☑	Pesticides & PCBS (8081 B & 8082 A)	☐
Alkalinity (2320 B)	☑	2,3,7,8 TCDD (8290 A)	☐
Metals (6020 A/6010 C/7470 A)	☐	QPCR	☐
CO2 (SM4500)	☑		☐
Sulfide (SM4500)	☑		☐

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L): 2.12

Dilution: 4 Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result: 33.92

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? Yes If Yes, List ID and Analyses

MS/MSD

COMMENTS/NOTES

GROUNDWATER SAMPLING DATA FORM

MEADOWS CONSULTING | MANAGEMENT | PLANNING — AECOM Imagine it. Delivered.

Project Number:	0045-0013	Well ID:	OU8-MW-164
Project/Site Name:	OU8 Performance	Sample ID:	OU8-MW-164-20240116
Date:	20240116	Well Condition:	GOOD
Weather:	31 RAIN		

WATER LEVEL AND WELL SPECIFICATION DETAILS			SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	2.00		Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	17.27		Purging/Sampling Device:	Peristaltic Pump
Total Depth (ft btoc):	25.55	COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI 556 MPS/ HACH 2100Q
Water Column (ft):	8.28			
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier	0.1620	Start Purge Date/Time:	24/01/16 1010
			End Purge Date/Time:	24/01/16 1115
			Total Volume Purged (gal):	3.25
One Well Volume (gal):	1.34		Sample Date/Time:	24/01/16 115
Screened Interval (ft bgs):	20-25		Sampler Name:	TIM BROWN

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
1015	250	0.25	18.80	6.62	0.937	19.48	0.31	100.00	-103.20	WATER CLOUDY/ SLIGHT ODOR
1020	250	0.50	18.85	6.61	0.921	19.65	0.24	105.00	-106.60	
1025	250	0.75	18.85	6.58	0.902	19.70	0.19	98.00	-112.90	
1030	250	1.00	18.85	6.64	0.878	19.80	0.17	47.00	111.80	
1035	250	1.25	18.85	6.51	0.865	19.78	0.17	41.00	-113.00	
1040	250	1.50	18.85	6.49	0.868	19.89	0.21	30.30	-115.70	
1045	250	1.75	18.85	6.48	0.880	19.89	0.17	24.90	-114.50	
1050	250	2.00	18.85	6.47	0.898	19.88	0.17	18.40	-115.70	
1055	250	2.25	18.85	6.45	0.915	19.90	0.19	15.00	-116.80	
1100	250	2.50	18.85	6.62	0.938	19.91	0.19	13.60	-116.50	
1105	250	2.75	18.85	6.42	0.962	19.96	0.17	10.50	-117.70	
1110	250	3.00	18.85	6.40	0.989	19.89	0.20	8.37	-116.80	
1115	250	3.25	18.85	6.39	0.998	19.95	0.22	6.72	-115.90	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply				HACH Ferrous Iron Field Test Kit Results (If Applicable)
Volatiles - VOCs (8260 D)	☑	Manganese (6020 A)	☑	Ferrous Iron Result (mg/L): 1.56
TOC (9060 A)	☑	LLPAHs (8270 E SIM)	☐	Dilution: 4 Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)
Methane Ethane Ethene (RSK-175)	☑	SVOCS (8270 D)	☐	Reportable Result: 24.96
Anions (9056 A)	☑	Pesticides & PCBS (8081 B & 8082 A)	☐	**Samples Field Filtered?** No **If Yes, Which Analyses?**
Alkalinity (2320 B)	☑	2,3,7,8 TCDD (8290 A)	☐	
Metals (6020 A/6010 C/7470 A)	☐	QPCR	☐	QA/QC Samples Collected? No If Yes, List ID and Analyses
CO2 (SM4500)	☑		☐	
Sulfide (SM4500)	☑		☐	

COMMENTS/NOTES

GROUNDWATER SAMPLING DATA FORM

MEADOWS CONSULTING | MANAGEMENT | PLANNING — AECOM Imagine it. Delivered.

Project Number:	0045-0013	Well ID:	OU8-MW-165
Project/Site Name:	OU8 Performance	Sample ID:	OU8-MW-165-20240117
Date:	20240117	Well Condition:	GOOD
Weather:	17 SUNNY		

WATER LEVEL AND WELL SPECIFICATION DETAILS			SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	2.00		Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	17.35		Purging/Sampling Device:	Peristaltic Pump
Total Depth (ft btoc):	25.65	COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI 556 MPS/ HACH 2100Q
Water Column (ft):	8.30			
Water Column Multipliers (gal/ft):	Enter Multiplier		Start Purge Date/Time:	24/01/17 0838
1/4": **0.0025**, 3/4": **0.024**, 1": **0.04**	0.1620		End Purge Date/Time:	24/01/17 0938
2": **0.162**, 4": **0.653**, 6": **1.469**			Total Volume Purged (gal):	3.00
One Well Volume (gal):	1.34		Sample Date/Time:	24/01/17 0938
Screened Interval (ft bgs):	21-26		Sampler Name:	TIM BROWN

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
0843	250	0.25	17.42	6.60	1.689	19.18	0.47	269.00	-148.00	WATER CLOUDY/ SLIGHT ODOR
0848	250	0.50	17.42	6.58	1.736	19.83	0.30	138.00	-171.50	
0853	250	0.75	17.42	6.58	1.736	20.16	0.19	104.00	-181.80	
0858	250	1.00	17.42	6.58	1.736	20.21	0.15	80.00	-188.30	
0903	250	1.25	17.42	6.58	1.803	20.14	0.12	63.90	-194.20	
0908	250	1.50	17.42	6.58	1.823	20.35	0.11	45.40	-198.80	
0913	250	1.75	17.42	6.68	1.835	20.42	0.10	34.10	-201.90	
0918	250	2.00	17.42	6.57	1.845	20.55	0.09	29.30	-203.10	
0923	250	2.25	17.42	6.57	1.852	20.59	0.08	19.90	-206.60	
0928	250	2.50	17.42	6.57	1.861	20.66	0.08	19.50	-203.30	
0933	250	2.75	17.42	6.58	1.870	20.58	0.08	13.20	-206.90	
0938	250	3.00	17.42	6.58	1.879	20.59	0.08	13.30	-211.40	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	☑	Manganese (6020 A)	☑
TOC (9060 A)	☑	LLPAHs (8270 E SIM)	☐
Methane Ethane Ethene (RSK-175)	☑	SVOCS (8270 D)	☐
Anions (9056 A)	☑	Pesticides & PCBS (8081 B & 8082 A)	☐
Alkalinity (2320 B)	☑	2,3,7,8 TCDD (8290 A)	☐
Metals (6020 A/6010 C/7470 A)	☐	QPCR	☐
CO2 (SM4500)	☑		☐
Sulfide (SM4500)	☑		☐

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L): 0.58

Dilution: 4 Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result: 9.28

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? No If Yes, List ID and Analyses

COMMENTS/NOTES

Well_ID	Date	DTW	DTB	Comments/ repairs needed
OU8-MW-163	1/16/24	17.28	25.55	
OU8-MW-164		17.27	25.55	
OU8-MW-165		17.35	25.65	
OU8-MW-50		14.6	16.25	
OU8-MW-67		15.1	19.6	
OU8-MW-68		14.92	19.4	
OU8-MW-72		14.9	19.3	
OU8-MW-75		14.3	19.41	

OU#	Well#	Sample ID	Date	Time Sampled	Time Hach	# of Dilutions	Iron Result	reportable result	Notes
OU8	OU8-MW-163	OU8-MW-163-20240116	1/16/24	1330	1521	0	>3.5		
OU8	"				1526	4	2.12	33.92	
OU8	OU8-MW-72	OU8-MW-72-20240116		1135	1533	0	6.18		
OU8	"				1540	4	0.93	14.28	
OU8	OU8-MW-75	OU8-MW-75-20240116		1025	1545	0	1.07	1.07	
OU8	OU8-MW-164	OU8-MW164-20240116		1115	1531	0	>3.5		
OU8	"				1537	4	1.56	24.96	
OU8	DUP01	DUP01-20240116			1603	0	>3.5		
OU8	"				1608	4	1.74		
OU8	OU8-MW-68	OU8-MW-68-20240117	1/17/24	1055	1201	0	41.66		
OU8	"				1208	2	1.17	4.68	
OU8	OU8-MW-67	OU8-MW-67-20240117		0910	1215	0	6.46		
OU8	"				1220	3	1.58	12.64	
OU8	OU8-MW-50	OU8-MW-50-20240117		1030	1228	0	3.98		
OU8	"				1234	1	0.17	0.34	
OU8	OU8-MW-165	OU8-MW-165-20240117		0938	1239	0	>3.5		
OU8	"				1245	4	0.58	9.28	
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AECOM

DAILY FIELD INSTRUMENT CALIBRATION/ CALIBRATION CHECK FORM

Site Name: DSCR

Project/Client: MEADOWS Project Number: 0045-0013

Location: RICHMOND

Field Analyst(s): BMW W. DIGGS

Date: 1-12-2024 Start Time: 0700 Finish Time: 0731

Instrument Information

Parameter	Make	Model	Meter Serial #	Probe Serial #
DO	YSI	556	4314	21L06
pH				
Specific Conductance				
ORP				
Temperature				
Turbidity				

Pre-Field Calibration and Quality Control Requirements

Prior to using instrument(s) in the field, field analysts must ensure that certain quality control procedures and calibrations have been completed for the instruments listed above. Records of the following, completed either by AECOM or the vendor, must be retained:

- ♦Weekly DO Winkler Titration ☐
- ♦5-Point Conductivity Curve ☐
- ♦Annual Conductivity Cell Constant ☐
- ♦Quarterly NIST Traceable Thermometer ☐
- ♦Solution Records ☐

Field Calibration/Calibration Check

DO (Method SM 4500 O.G)

100% Saturation	
Barometric Pressure (mmHg)	760.9
Temperature (°C)	~3.787
Initial Reading	10.94
Reset Reading	10.92

0% Saturation	
Solution Temperature (°C)	
Solution Manufacturer & Lot #	
Reading	
*Requires Recalibration	Y / N
Reset Reading	

Note: DO must be calibrated to 100% saturation. DO may only be calibration checked to 0% saturation (zero oxygen solution standard). Calibration methods may differ between DO meters, and some fields listed may not be applicable. Refer to instrument manual for calibration instructions.

pH (Method SM 4500-H B)

Buffer Solution	Solution Manufacturer & Lot #	Solution Expiration Date	Solution Temperature	Reading	*Requires Recalibration	Reset Reading
7	3660021	JUL 25	19.43	7.06	(Y) / N	6.99
4	3CC916	MAR 25	17.86	4.23	(Y) / N	3.93
10	30D200	APR 25	18.70	9.99	Y / (N)	10.00
					Y / N	

Note: A calibration check against one standard buffer must be performed and recorded in the field book every 3-hours of use after daily calibration/calibration check.

AECOM

DAILY FIELD INSTRUMENT CALIBRATION/ CALIBRATION CHECK FORM

Specific Conductance (Method 2510 B)

Standard Solution	Solution Manufacturer & Lot #	Solution Expiration Date	Solution Temperature	Reading ($\mu S \cdot cm^{-1}$)	*Requires Recalibration	Reset Reading ($\mu S \cdot cm^{-1}$)
1.413	3GP 1571	Jan 24	19.71	1204	Y / N	1.413

ORP

Standard Solution	Solution Manufacturer & Lot #	Solution Expiration Date	Solution Temperature	Reading (mV)	*Requires Recalibration	Reset Reading (mV)
240.0	3GD 1P	Jan 24	19.63	232.4	Y / N	240.0

Turbidity (Method 2130 B)

Standard Solution (NTU)	Solution Manufacturer & Lot #	Solution Expiration Date	Reading (NTU)	*Requires Recalibration	Reset Reading (NTU)
				Y / N	
				Y / N	
				Y / N	
				Y / N	

*Field check readings should be within the accuracy listed by the manufacturer's specifications or per New Jersey regulations (NJAC 7:18), whichever is more stringent. Otherwise, the instrument must be recalibrated for that parameter. Refer to instrument manual for accuracy. Values provided below for instruments typically used by AECOM:

YSI 6-Series:		Horriba U-20XD Series:	
Dissolved Oxygen	± 0.1 % or ± 0.1 mg/L, whichever is greater	Dissolved Oxygen	± 0.2 mg/L
pH **	± 0.2 units	pH **	± 0.1 units
	**NJAC 7:18 requires that calibration values be accurate to ±0.05, and accuracy within ±0.1 units for the initial calibration check and ±0.2 units for 3-hour checks		
Specific Conductivity	± 0.5% + 0.001 mS/cm	Specific Conductivity	± 3%
ORP	± 20 mV	ORP	± 15 mV
Turbidity	± 2%	Turbidity	± 5%

LaMotte 2020e/i Turbidity Meter:
±0.05 or ±2%, below 100 NTU
±3%, above 100 NTU

AECOM

DAILY FIELD INSTRUMENT CALIBRATION/ CALIBRATION CHECK FORM

Site Name: QU8
Project/Client: USACE Project Number: 0045 - 0013
Location: DSCR RICHMOND, VA

Field Analyst(s): Tim Beaud
Date: 24/01/17 Start Time: 0650 Finish Time: 0735

Instrument Information

Parameter	Make	Model	Meter Serial #	Probe Serial #
DO	YSI	556 MPS	18953	600336
pH	↓	↓	↓	↓
Specific Conductance				
ORP				
Temperature				
Turbidity				

Pre-Field Calibration and Quality Control Requirements

Prior to using instrument(s) in the field, field analysts must ensure that certain quality control procedures and calibrations have been completed for the instruments listed above. Records of the following, completed either by AECOM or the vendor, must be retained:

- ♦Weekly DO Winkler Titration ☐
- ♦5-Point Conductivity Curve ☐
- ♦Annual Conductivity Cell Constant ☐
- ♦Quarterly NIST Traceable Thermometer ☐
- ♦Solution Records ☐

Field Calibration/Calibration Check

DO (Method SM 4500 O.G)

100% Saturation	
Barometric Pressure (mmHg)	760.0
Temperature (°C)	20.04
Initial Reading	8.10
Reset Reading	9.00

0% Saturation	
Solution Temperature (°C)	
Solution Manufacturer & Lot #	
Reading	
*Requires Recalibration	Y / N
Reset Reading	

Note: DO must be calibrated to 100% saturation. DO may only be calibration checked to 0% saturation (zero oxygen solution standard). Calibration methods may differ between DO meters, and some fields listed may not be applicable. Refer to instrument manual for calibration instructions.

pH (Method SM 4500-H B)

Buffer Solution	Solution Manufacturer & Lot #	Solution Expiration Date	Solution Temperature	Reading	*Requires Recalibration	Reset Reading
10	3660538	7/25	20.46	10.08	Y / N	
7	36K1332	11/25	20.15	7.08	Y / N	
4	3660023	7/25	20.17	4.00	Y / N	
					Y / N	

Note: A calibration check against one standard buffer must be performed and recorded in the field book every 3-hours of use after daily calibration/calibration check.

AECOM

DAILY FIELD INSTRUMENT CALIBRATION/ CALIBRATION CHECK FORM

Specific Conductance (Method 2510 B)

Standard Solution	Solution Manufacturer & Lot #	Solution Expiration Date	Solution Temperature	Reading ($\mu S \cdot cm^{-1}$)	*Requires Recalibration	Reset Reading ($\mu S \cdot cm^{-1}$)
1.413	36F1521	6/24	20.06	1.274	Y / N	1.413

ORP

Standard Solution	Solution Manufacturer & Lot #	Solution Expiration Date	Solution Temperature	Reading (mV)	*Requires Recalibration	Reset Reading (mV)
240.0	36H0632	5/24	19.93	257.0	Y / N	240.0

Turbidity (Method 2130 B)

Standard Solution (NTU)	Solution Manufacturer & Lot #	Solution Expiration Date	Reading (NTU)	*Requires Recalibration	Reset Reading (NTU)
10	A3034	5/24	9.50	Y / N	
20	A3011	4/24	20.10	Y / N	
100	A3026	4/24	97.6	Y / N	
200	A3035	6/24	202.0	Y / N	

*Field check readings should be within the accuracy listed by the manufacturer's specifications or per New Jersey regulations (NJAC 7:18), whichever is more stringent. Otherwise, the instrument must be recalibrated for that parameter. Refer to instrument manual for accuracy. Values provided below for instruments typically used by AECOM:

YSI 6-Series:

Dissolved Oxygen	± 0.1 % or ± 0.1 mg/L, whichever is greater
pH **	± 0.2 units
	**NJAC 7:18 requires that calibration values be accurate to ±0.05, and accuracy within ±0.1 units for the initial calibration check and ±0.2 units for 3-hour checks
Specific Conductivity	± 0.5% + 0.001 mS/cm
ORP	± 20 mV
Turbidity	± 2%

Horriba U-20XD Series:

Dissolved Oxygen	± 0.2 mg/L
pH **	± 0.1 units
Specific Conductivity	± 3%
ORP	± 15 mV
Turbidity	± 5%

LaMotte 2020e/i Turbidity Meter:

±0.05 or ±2%, below 100 NTU

±3%, above 100 NTU

REPORT TO (only people listed here will receive a copy of reports and access to the database)

Name:	Andrew VanBuesking
Company:	Meadows CMPG
Address:	2107 Granby St
	Norfolk, VA 23517
email:	avanbuesking@meadowscmpg.com
Phone:	757-589-5825
Fax:	

INVOICE TO (For Invoices paid by a third party it is imperative that all information be provided)

Name:	Kandyce Keller
Company:	Meadows CMPG
Address:	2107 Granby St
	Norfolk, VA 23517
email:	kkeller@meadowscmpg.com
Phone:	757-623-3107
Fax:	757-319-4119

10515 Research Dr **

Knoxville, TN 37932

865-573-8188

www.microbe.com

Project Manager:	Andrew VanBuesking
Project Name:	OU8 Performance
Project No.:	0045-0013
Purchase Order No.	
Subcontract No.	
MI Quote No.	

Please Check One:*

[ ] More samples to follow

[X] No Additional Samples

Report Type: [X] Standard (default) [ ] Microbial Insights Level III Report (15% surcharge) [ ] Microbial Insights Level IV (25% surcharge) [ ] Comprehensive Interpretive(15%) [ ] Historical Interpretive (35%)

EDD type: [X] Microbial Insights Standard EDD (default) [ ] Specialty EDD (5% surcharge) Specify EDD Format:

Please contact us with any questions about the analyses or filling out the COC at (865) 573-8188 (9:00 am to 5:00 pm EST, M-F). After hours email: customerservice@microbe.com

Sample Information						Analyses						CENSUS qPCR Targets: Please select the target organism/gene																			
MI ID (Laboratory Use Only)	Sample Name	Date Sampled	Time Sampled	Matrix	Total Number of Containers	PLFA	NGS	QuantArray Chlor	QuantArray Petro	QuantArray NSZD	QuantArray BGC	DHC (Dehalococcoides)	DHC Functional genes (bvc, tce, vcr)	DHBt (Dehalobacter)	DHG (Dehalogenimonas)	DSM (Desulfuromonas)	DSB (Desulfitobacterium)	EBAC (Total Eubacteria)	SRB (Sulfate Reducing Bacteria-APS)	MGN (Methanogens)	MOB (Methanotrophs)	SMMO (Soluble Methane Monooxi)	DNF (Dentrifiers-nirS and nirK)	AMO (ammonia oxidizing bacteria)	PM1 (MTBE aerobic)	RMO (Toluene Monooxygenase)	RDEG (Toluene Monooxygenase)	PHE (Phenol Hydroxylase)	NAH (Napthalene-aerobic)	BSSA (Toluene/Xylene-Anaerobic)	add. qPCR:	RNA (Expression Option)*	Other:
	OU8-MW-164-20240130	1/30/2024	11:37	W	1							X	X																		X		
	OU8-MW-72-20240130	1/30/2024	9:57	W	1							X	X																		X		
	DUP01-20240130			W	1							X	X																		X		

Relinquished by: (name/signature) **Date:**

Received by: (lab use only) **Date:**

It is vital that chain of custody is filled out correctly & that all relative information is provided.

*Failure to provide sufficient and/or correct information regarding reporting, invoicing & analyses requested information may result in delays for which MI will not be liable.

***additional cost and sample preservation are associated with RNA samples.**

****Saturday delivery: See sampling protocol for alternate shipping address.**

GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0013	Well ID:	OU8-MW-164
Project/Site Name:	OU8 Performance	Sample ID:	OU8-MW-164-20240130
Date:	20240130	Well Condition:	GOOD
Weather:	MOSTLY SUNNY 43		

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	2.00	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	16.87	Purging/Sampling Device:	Peristaltic Pump
Total Depth (ft btoc): 25.70	COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI 556 MPS/ HACH 2100Q
Water Column (ft):	8.83		
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier 0.1620	Start Purge Date/Time:	24/01/30 1037
		End Purge Date/Time:	24/01/30 1137
		Total Volume Purged (gal):	3.00
One Well Volume (gal):	1.43	Sample Date/Time:	6.24/01/30 1137
Screened Interval (ft bgs):	21-26	Sampler Name:	TIM BROWN

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
1042	250	0.25	17.95	6.38	1.156	18.95	0.29	282.00	-257.60	WATER CLOUDY/ SLIGHT ODOR
1047	250	0.50	18.00	6.37	1.143	19.17	0.17	241.00	-288.50	
1052	250	0.75	18.00	6.35	1.121	19.29	0.20	220.00	-339.90	
1057	250	1.00	18.00	6.34	1.113	19.35	0.13	160.00	-281.20	
1102	250	1.25	18.00	6.33	1.105	19.43	0.10	136.00	-341.60	
1107	250	1.50	18.00	6.32	1.100	19.43	0.12	113.00	-281.40	
1112	250	1.75	18.00	6.31	1.094	19.59	0.11	117.00	-278.10	
1117	250	2.00	18.00	6.30	1.100	19.74	0.12	86.80	-334.10	
1122	250	2.25	18.00	6.29	1.104	19.76	0.11	84.40	-315.00	
1127	250	2.50	18.00	6.27	1.123	19.78	0.11	75.00	316.40	
1132	250	2.75	18.00	6.26	1.142	19.81	0.12	53.90	-333.20	
1137	250	3.00	18.00	6.26	1.150	19.82	0.12	48.00	-344.10	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply				HACH Ferrous Iron Field Test Kit Results (If Applicable)
Volatiles - VOCs (8260 D)	☐	Manganese (6020 A)	☐	Ferrous Iron Result (mg/L):
TOC (9060 A)	☐	LLPAHs (8270 E SIM)	☐	Dilution: Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)
Methane Ethane Ethene (RSK-175)	☐	SVOCS (8270 D)	☐	Reportable Result:
Anions (9056 A)	☐	Pesticides & PCBS (8081 B & 8082 A)	☐	**Samples Field Filtered?** No **If Yes, Which Analyses?**
Alkalinity (2320 B)	☐	2,3,7,8 TCDD (8290 A)	☐	
Metals (6020 A/6010 C/7470 A)	☐	QPCR	☑	QA/QC Samples Collected? Yes If Yes, List ID and Analyses
CO2 (SM4500)	☐		☐	DUP-01
Sulfide (SM4500)	☐		☐	

COMMENTS/NOTES

GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0013	Well ID:	OU8-MW-72
Project/Site Name:	OU8 Performance	Sample ID:	OU8-MW-72-20240130
Date:	20240130	Well Condition:	GOOD
Weather:	MOSTLY SUNNY 38		

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	.75	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	14.50	Purging/Sampling Device:	Peristaltic Pump
Total Depth (ft btoc): 19.25	COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	
Water Column (ft):	4.75		YSI 556 MPS/ HACH 2100Q
Water Column Multipliers (gal/ft):	Enter Multiplier	Start Purge Date/Time:	24/01/30 0932
1/4": **0.0025**, 3/4": **0.024**, 1": **0.04**	0.0240	End Purge Date/Time:	24/01/30 0957
2": **0.162**, 4": **0.653**, 6": **1.469**		Total Volume Purged (gal):	1.25
One Well Volume (gal):	0.11	Sample Date/Time:	24/01/30 0957
Screened Interval (ft bgs):	15-20	Sampler Name:	TIM BROWN

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
0937	250	0.25	14.87	6.09	0.305	16.27	0.70	58.60	-140.90	WATER CLEAR/ NO ODOR
0942	250	0.50	14.87	6.01	0.360	15.99	0.46	20.40	-134.40	
0947	250	0.75	14.87	5.97	0.390	16.05	0.60	9.33	-147.50	
0952	250	1.00	14.87	5.95	0.407	15.93	0.35	4.99	-129.40	
0957	250	1.25	14.87	5.93	0.421	16.03	0.56	4.07	-141.00	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply				HACH Ferrous Iron Field Test Kit Results (If Applicable)
Volatiles - VOCs (8260 D)	☐	Manganese (6020 A)	☐	Ferrous Iron Result (mg/L):
TOC (9060 A)	☐	LLPAHs (8270 E SIM)	☐	Dilution: Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)
Methane Ethane Ethene (RSK-175)	☐	SVOCS (8270 D)	☐	Reportable Result:
Anions (9056 A)	☐	Pesticides & PCBS (8081 B & 8082 A)	☐	**Samples Field Filtered?** No **If Yes, Which Analyses?**
Alkalinity (2320 B)	☐	2,3,7,8 TCDD (8290 A)	☐	
Metals (6020 A/6010 C/7470 A)	☐	QPCR	☑	QA/QC Samples Collected? No If Yes, List ID and Analyses
CO2 (SM4500)	☐		☐	
Sulfide (SM4500)	☐		☐	

COMMENTS/NOTES

INSTRUMENT CALIBRATION REPORT

Pine Environmental Services LLC

2225 Tomlynn Street
Richmond, Va. 23230
Toll-frcc: (866) 801-PINE (7463)

Pine Environmental Services, Inc.

Instrument ID 5254
Description YSI 556
Calibrated 1/26/2024 12:18:55PM

Manufacturer YSI
Model Number 556
Serial Number/ Lot Number 03J0271AF
Location Virginia
Department

State Certified
Status Pass
Temp °C 23.2
Humidity % 66.3

Calibration Specifications

Group # 1
Group Name PH
Stated Accy Pct of Reading
Range Acc % 0.0000
Reading Acc % 3.0000
Plus/Minus 0.00

Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev%	Pass/Fail
7.00 / 7.00	PH	7.00	PH	7.23	7.00	0.00%	Pass
4.00 / 4.00	PH	4.00	PH	4.33	4.00	0.00%	Pass
10.00 / 10.00	PH	10.00	PH	9.88	10.00	0.00%	Pass

Group # 2
Group Name Conductivity
Stated Accy Pct of Reading
Range Acc % 0.0000
Reading Acc % 3.0000
Plus/Minus 0.000

Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev%	Pass/Fail
1.413 / 1.413	ms/cm	1.413	ms/cm	1.586	1.413	0.00%	Pass

Group # 3
Group Name Redox (ORP)
Stated Accy Pct of Reading
Range Acc % 0.0000
Reading Acc % 3.0000
Plus/Minus 0.0

Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev%	Pass/Fail
240.0 / 240.0	mv	240.0	mv	220.0	240.0	0.00%	Pass

Group # 4
Group Name Disolved Oxygen Span
Stated Accy Pct of Reading
Range Acc % 0.0000
Reading Acc % 3.0000
Plus/Minus 0.0

Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev%	Pass/Fail
100.0 / 100.0	%	100.0	%	109.0	100.0	0.00%	Pass

A.2 Annual Monitoring May 2024

Name

OU1

Location ID	Inspection Date	Well Diameter	ID?	Water in Casing? (Inches)	Water over Cap?	Veg in Casing?	Dirt in Casing?	Cap Close tightly?	Missing Bolts?	Sheared Bolts?	Stripped Threads?	Bolts tighten fully?	Broken lid?	Broken Casing?
DMW-16B		4	✓					✓		✓				
DMW-17A		4	✓					✓	✓			✓		
OU6-MW-124		.75	✓					✓						
OU6-MW-126		.75	✓					✓						
OU6-MW-129	.75	~~2~~	✓					✓						
OU6-MW-130	.75	~~2~~	✓					✓						
OU6-MW-131		.75	✓					✓						
OU6-MW-159		2	✓	5.0	✓	✓		✓					✓	
OU6-MW-160		2	✓					✓	✓					
OU6-MW-165		2	✓					✓	✓					
OU6-MW-166		2	✓									✓		
OU6-MW-167		2	✓	1.5				✓						
OU6-MW-168		2	✓	1.5				✓				✓		
OU6-MW-170		2	✓						✓					
OU6-MW-171		2	✓	5.0	✓	✓				✓				
OU6-MW-222		2	✓	1.5		✓		✓				✓		
OU6-MW-223		2	✓					✓				✓		
OU6-MW-237		2	✓											
OU6-MW-238		2	✓	5.0	✓			✓				✓		
OU6-MW-239		2	✓					✓				✓		
OU6-MW-240		2	✓					✓				✓		
OU6-MW-241		2	✓					✓				✓		
OU6-MW-242		2	✓					✓				✓		
OU6-MW-243		2	✓					✓				✓		
OU6-MW-244		2	✓					✓				✓		
OU6-MW-245		2	✓	5.0	✓			✓				✓		
OU6-MW-246		2	✓	4.0	✓									
OU6-MW-247		2	✓	2.0				✓				✓		
OU6-MW-248		2	✓	2.0	✓			✓				✓		
OU6-MW-249		2	✓					✓				✓		
OU6-MW-250		2	✓	1.0				✓				✓		
OU6-MW-251		2	✓	1.0				✓				✓		
OU6-MW-252		2	✓	4.0	✓			✓				✓		
OU6-MW-253		2	✓	7.0	✓			✓				✓		
OU6-MW-254		2	✓	2.5				✓				✓		
OU6-MW-255		2	✓					✓				✓		
OU6-MW-256		2	✓					✓				✓		
OU6-MW-258		2	✓	5.0	✓			✓				✓		✓
OU6-MW-298		2												

Name

OU2

Location ID	Inspection Date	Well Diameter	ID?	Water in Casing? (Inches)	Water over Cap?	Veg in Casing?	Dirt in Casing?	Cap Close tightly?	Missing Bolts?	Sheared Bolts?	Stripped Threads?	Bolts tighten fully?	Broken lid?	Broken Casing?
CSMPZ-3		2	✓	5.0	✓			✓	✓	✓				
CSMPZ-7		2	✓	4.0	✓	✓		✓	✓	✓				
DMW-28B		2	✓	4.0	✓			✓	✓	✓				
DMW-34B		2	✓	4.0	✓	✓		✓				✓		
DMW-8A		4	✓					✓				✓		
DMW-9A		4	✓					✓				✓		
DMW-9B		2	✓					✓				✓		
OU6-MW-180		2	✓					✓				✓		
OU6-MW-182		2	✓					✓				✓		
OU6-MW-217		2	✓				✓	✓				✓		
OU6-MW-257		2	✓					✓				✓		
OU6-MW-259		2	✓					✓	✓					
OU6-MW-260		2	✓					✓				✓		
OU6-MW-261		2	✓					✓						
OU6-MW-262		2	✓					✓				✓		
OU6-MW-263		2	✓					✓				✓		
OU6-MW-88		.75	✓					✓						
OU6-MW-89		.75	✓					✓						
OU6-MW-96		2	✓	2.0				✓	✓	✓				

Name

OU3

Location ID	Inspection Date	Well Diameter	ID?	Water in Casing? (Inches)	Water over Cap?	Veg in Casing?	Dirt in Casing?	Cap Close tightly?	Missing Bolts?	Sheared Bolts?	Stripped Threads?	Bolts tighten fully?	Broken lid?	Broken Casing?
EBF-08D		4					✓	✓	✓	✓				
MWNGA-10		2	✓					✓				✓		
MWNGA-8		2	✓					✓	✓					
OU6-MW-169		2	✓	.5				✓				✓		
OU6-MW-236		2	✓	4.5				✓	✓					
OU6-MW-264		2	✓	6.5				✓				✓		
OU6-MW-265		2	✓					✓				✓		
OU6-MW-266		2	✓	7.5	✓			✓				✓		
OU6-MW-267		2		4.0				✓				✓		
OU6-MW-268		2						✓				✓		
OU6-MW-269		2	✓	7.5	✓			✓				✓		
OU6-MW-270		2		.5				✓				✓		
OU6-MW-271		2	✓					✓				✓		
OU6-MW-272		2						✓				✓		
OU6-MW-273		2	✓					✓				✓		
OU6-MW-274		2	✓	2.0				✓				✓		
OU6-MW-275		2	✓					✓				✓		
OU6-MW-276		2	✓					✓				✓		
OU6-MW-277		2	✓					✓				✓		
OU6-MW-278		2	✓					✓				✓		
OU6-MW-279		2	✓	5.0	✓			✓				✓		
OU6-MW-280		2	✓					✓				✓		
OU6-MW-281		2	✓					✓				✓		
OU6-MW-283		2	✓					✓				✓		
OU6-MW-284		2	✓					✓				✓		
OU6-MW-285		2	✓					✓				✓		
OU6-MW-286		2	✓					✓				✓		
OU6-MW-287		2	✓					✓				✓		
OU6-MW-288		2	✓					✓				✓		
OU6-MW-299		2	✓					✓				✓		
OU6-MW-300		2	✓					✓				✓		
OU6-MW-92		2	✓					✓	✓	✓				
OU6-MW-93		2	✓					✓				✓		
OU6-MW-94		2	✓	2.5				✓	✓					
OU6-MW-95		2					✓	✓	✓					

274 - PAD BUSTED

Name

Offsite

Location ID	Maintenance Date	Other definciencies and Maintenance Performed
LAWMW-Q		GOOD
OU6-MW-141		5.0 inches WATER IN WELL / MISSING Bolts
OU6-MW-142		4.5 inches WATER IN WELL
OU6-MW-144		5.0 inches WATER IN WELL
OU6-MW-145		4.5 inches WATER IN WELL
OU6-MW-149		5.0 inches WATER IN WELL
OU6-MW-155		MISSING 2 bolts / 1 Bolt Sheared off
OU6-MW-156		3 inch water IN well / Missing Bolts
OU6-MW-157		3 inch WATER IN WELL
OU6-MW-158		3 inch WATER IN well / MISSING Bolts
OU6-MW-225		GOOD
OU6-MW-282		GOOD / BOLT TIGHTEN
OU6-MW-289		GOOD / BOLTS TIGHTEN
OU6-MW-290		6 inches WATER IN WELL / MISSING Bolts
OU6-MW-291		8 inches WATER IN WELL / MISSING 1 Bolt
OU6-MW-292		GOOD
OU6-MW-293		GOOD
OU6-MW-294		GOOD / BOLTS TIGHTEN
OU6-MW-295		GOOD
OU6-MW-296		GOOD
OU6-MW-297		GOOD / Bolts TIGHTEN
OU6-MW-301		GOOD

OU6 Synoptic Water Levels - May 2024 (5/13/2024)
Defense Supply Center Richmond

Measurement Date	5/13/2024				
Location	**Surface Elevation[1] (ft)**	**TOC Elevation[1] (ft)**	**Water Level Depth from TOC[2] (ft)**	**Depth to Bottom from TOC[2] (ft)**	**Calculated Groundwater Elevation[3] (ft)**
CSMPZ-3	114.93	114.93	9.96	19.06	104.97
CSMPZ-7	114.29	114.29	10.6	19.84	103.69
DMW-16B	119.35	119.35	11.1	24	108.25
DMW-17A	119.66	119.66	11.9	24.4	107.76
DMW-28B	121.2	121.2	24.09	52.5	97.11
DMW-34B	116.84	116.84	18.34	49	98.5
DMW-8A	119.57	119.57	10.23	25.65	109.34
DMW-9A	117.39	117.39	7.17	20	110.22
DMW-9B	118.75	118.75	24.75	50.3	94
EBF-08D	110.88	110.88	18.93	50.3	91.95
LAWMW-Q	114.74	114.74	25.4	52.55	89.34
MWNGA-10	107.01	107.01	15.52	45.85	91.49
MWNGA-8	105.48	105.48	14.68	43.1	90.8
OU6-MW-124	121.56	121.56	12.1	19.7	109.46
OU6-MW-126	121.71	121.71	12.6	19.95	109.11
OU6-MW-129	122.08	122.08	13.05	20.73	109.03
OU6-MW-130	122.29	122.29	13.65	22.73	108.64
OU6-MW-131	122.05	122.05	13.67	21.83	108.38
OU6-MW-141	103.9	103.9	14.9	44.6	89
OU6-MW-142	103.77	103.77	14.3	50.2	89.47
OU6-MW-144	104.01	104.01	4.25	8	99.76
OU6-MW-145	104.2	104.2	13.95	46.95	90.25
OU6-MW-149	103.79	103.79	3.7	6.5	100.09
OU6-MW-155	109.76	109.76	7.03	17.25	102.73
OU6-MW-156	100.91	100.91	1.1	8.7	99.81
OU6-MW-157	101.1	101.1	11.55	40.95	89.55
OU6-MW-158	101.31	101.31	2.95	8.15	98.36
OU6-MW-159	121.67	121.67	19.55	48.5	102.12
OU6-MW-160	120.89	120.89	19.35	48.8	101.54
OU6-MW-165	122.59	122.59	19.35	50.75	103.24
OU6-MW-166	122.95	122.95	20.33	50.9	102.62
OU6-MW-167	122.35	122.35	19.6	50.25	102.75

OU6 Synoptic Water Levels - May 2024 (5/13/2024)
Defense Supply Center Richmond

Measurement Date	5/13/2024				
Location	**Surface Elevation[1] (ft)**	**TOC Elevation[1] (ft)**	**Water Level Depth from TOC[2] (ft)**	**Depth to Bottom from TOC[2] (ft)**	**Calculated Groundwater Elevation[3] (ft)**
OU6-MW-168	121.76	121.76	19.25	50.5	102.51
OU6-MW-169	110.48	110.48	8.62	21.22	101.86
OU6-MW-170	120.13	120.13	20.8	51.4	99.33
OU6-MW-171	121.51	121.51	21.6	51.7	99.91
OU6-MW-180	115.36	115.36	15.98	50.57	99.38
OU6-MW-182	116.22	116.22	10.2	19.77	106.02
OU6-MW-217	121.01	122.37	24.25	65.42	98.12
OU6-MW-222	120.26	120.26	11.4	24.9	108.86
OU6-MW-223	122.09	122.09	14.3	25.8	107.79
OU6-MW-225	112.21	112.21	22.45	51.5	89.76
OU6-MW-236	106.23	106.23	14.93	55.55	91.3
OU6-MW-237	122.72	122.72	14.22	24.68	108.5
OU6-MW-238	121.8	121.8	13.2	24.8	108.6
OU6-MW-239	121.53	121.53	12.65	25.1	108.88
OU6-MW-240	122.11	122.11	13.2	23.6	108.91
OU6-MW-241	122.08	122.08	13.4	24.5	108.68
OU6-MW-242	122.8	121.8	13.13	25.7	108.67
OU6-MW-243	122.29	122.29	13.68	25.6	108.61
OU6-MW-244	121.54	121.54	12.92	27.1	108.62
OU6-MW-245	121.36	121.36	14.6	25.4	106.76
OU6-MW-246	121.72	121.72	13.1	25.15	108.62
OU6-MW-247	120.66	120.66	12.3	25.2	108.36
OU6-MW-248	119.96	119.96	11.6	25.4	108.36
OU6-MW-249	119.19	119.19	11	25.4	108.19
OU6-MW-250	121.36	121.36	15.6	26.9	105.76
OU6-MW-251	121.03	121.03	12.8	27.2	108.23
OU6-MW-252	120.37	120.37	12.15	25.25	108.22
OU6-MW-253	121.38	121.38	14.05	25.2	107.33
OU6-MW-254	120.7	120.7	13	25.45	107.7
OU6-MW-255	119.99	119.99	13.5	25.4	106.49
OU6-MW-256	119.49	119.49	12.1	22.1	107.39
OU6-MW-257	116.38	116.38	10.4	20.2	105.98

OU6 Synoptic Water Levels - May 2024 (5/13/2024)
Defense Supply Center Richmond

Measurement Date	5/13/2024				
Location	**Surface Elevation[1] (ft)**	**TOC Elevation[1] (ft)**	**Water Level Depth from TOC[2] (ft)**	**Depth to Bottom from TOC[2] (ft)**	**Calculated Groundwater Elevation[3] (ft)**
OU6-MW-258	123.51	123.51	5.95	25.4	117.56
OU6-MW-259	122.16	122.16	11.77	26.16	110.39
OU6-MW-260	121.93	121.93	11.99	26.05	109.94
OU6-MW-261	121.59	121.59	6.4	22.35	115.19
OU6-MW-262	121.09	121.03	11.35	25.18	109.68
OU6-MW-263	120.22	120.22	10.24	24.61	109.98
OU6-MW-264	115.3	115.3	6.5	21	108.8
OU6-MW-265	115.47	115.47	7	20.81	108.47
OU6-MW-266	114.74	114.74	6.25	17.24	108.49
OU6-MW-267	113.66	113.66	5.27	18.31	108.39
OU6-MW-268	113.59	113.59	5.1	18.8	108.49
OU6-MW-269	113.48	113.48	7.91	19.25	105.57
OU6-MW-270	109.18	109.18	5.8	11.65	103.38
OU6-MW-271	112.54	112.54	5.02	18.9	107.52
OU6-MW-272	112.07	112.07	5.68	18.61	106.39
OU6-MW-273	108.9	108.9	7.05	13.65	101.85
OU6-MW-274	111.33	111.33	6.32	17.08	105.01
OU6-MW-275	109.3	109.3	3.64	14.08	105.66
OU6-MW-276	110.32	110.32	7.8	14.78	102.52
OU6-MW-277	110.95	110.95	8.18	16.65	102.77
OU6-MW-278	108.1	108.1	7.24	18.5	100.86
OU6-MW-279	106.65	106.65	5.85	11.85	100.8
OU6-MW-280	105.6	105.6	4.64	9.89	100.96
OU6-MW-281	104.66	104.66	3.11	7.65	101.55
OU6-MW-282	101.49	101.49	1.2	8.25	100.29
OU6-MW-283	109.45	109.45	17.57	41.55	91.88

OU6 Synoptic Water Levels - May 2024 (5/13/2024)
Defense Supply Center Richmond

Measurement Date	5/13/2024				
Location	**Surface Elevation[1] (ft)**	**TOC Elevation[1] (ft)**	**Water Level Depth from TOC[2] (ft)**	**Depth to Bottom from TOC[2] (ft)**	**Calculated Groundwater Elevation[3] (ft)**
OU6-MW-284	110.94	110.94	19.82	40.64	91.12
OU6-MW-285	108.23	108.23	17	41	91.23
OU6-MW-286	105.5	105.5	14.6	41.5	90.9
OU6-MW-287	104.92	104.92	14.49	41.5	90.43
OU6-MW-288	104.9	104.9	14.66	39.67	90.24
OU6-MW-289	101.15	101.15	10.25	41.45	90.9
OU6-MW-290	101.23	101.23	10.75	42	90.48
OU6-MW-291	101.02	101.02	10.55	40.6	90.47
OU6-MW-292	102.86	102.86	12.4	40.2	90.46
OU6-MW-293	104.31	104.31	13.9	32.2	90.41
OU6-MW-294	104.53	104.53	14.4	32.45	90.13
OU6-MW-295	106.91	106.91	16.95	33.6	89.96
OU6-MW-296	113.65	113.65	23.7	32.9	89.95
OU6-MW-297	105.83	105.83	15.7	33.1	90.13
OU6-MW-298	122.03	122.03	7.6	23.6	114.43
OU6-MW-299	114.83	114.83	20.91	25.23	93.92
OU6-MW-300	116.34	116.34	23.53	44.88	92.81
OU6-MW-301	103.74	103.74	13.57	40.55	90.17
OU6-MW-88	117.46	117.46	10.85	21.02	106.61
OU6-MW-89	117.16	117.16	10.85	19.84	106.31
OU6-MW-92	115.08	115.08	5.7	17.3	109.38
OU6-MW-93	109.41	109.41	16.7	40.98	92.71
OU6-MW-94	105.41	105.41	14.67	35.66	90.74
OU6-MW-95	113.58	113.58	19.34	40.1	94.24
OU6-MW-96	120.85	120.85	24.2	47.1	96.65

Notes:
ft = feet
TOC = top of casing
[1] = Vertical elevations are surveyed, measured in feet based on the NAVD 1988.
[2] = Depths are measured in the field using a water level sensor.
[3] = Calculated groundwater elevation using TOC elevation and water level depth.

	A	B	C	D	E	F
1	**Location ID**	**Measurment Date**	**Well Diameter**	**DTW (ft)**	**TD (ft)**	**Notes**
2	CSMPZ-3		2	9.96	19.06	
3	CSMPZ-7		2	10.60	19.84	
4	DMW-16B		4	11.10	24.00	
5	DMW-17A		4	11.90	24.40	
6	DMW-28B		2	24.09	52.50	
7	DMW-34B		2	18.34	49.00	
8	DMW-8A		4	10.23	25.65	
9	DMW-9A		4	7.17	20.00	
10	DMW-9B		2	24.75	50.30	
11	EBF-08D		4	~~25.40~~	~~52.55~~	18.93 50.30
12	LAWMW-Q		2	25.40	52.55	
13	MWNGA-10		2	15.52	45.85	
14	MWNGA-8		2	14.68	43.10	
15	OU6-MW-124		.75	12.10	19.70	
16	OU6-MW-126		.75	12.60	19.95	
17	OU6-MW-129		2	13.05	20.73	
18	OU6-MW-130		2	13.65	22.73	
19	OU6-MW-131		.75	13.67	21.83	
20	OU6-MW-141		2	14.90	44.60	
21	OU6-MW-142		2	14.30	50.20	
22	OU6-MW-144		2	4.25	8.00	
23	OU6-MW-145		2	13.95	46.95	
24	OU6-MW-149		2	3.70	6.50	
25	OU6-MW-155		2	7.03	17.25	
26	OU6-MW-156		2	1.10	8.70	
27	OU6-MW-157		2	11.55	40.95	
28	OU6-MW-158		2	2.95	8.15	
29	OU6-MW-159		2	19.55	48.50	
30	OU6-MW-160		2	19.35	48.80	
31	OU6-MW-165		2	19.35	50.75	
32	OU6-MW-166		2	20.33	50.90	
33	OU6-MW-167		2	19.60	50.25	
34	OU6-MW-168		2	19.25	50.50	
35	OU6-MW-169		2	8.62	21.22	
36	OU6-MW-170		2	20.80	51.40	
37	OU6-MW-171		2	21.60	51.70	
38	OU6-MW-180		2	15.98	50.57	
39	OU6-MW-182		2	10.20	19.77	
40	OU6-MW-217		2	24.25	65.42	
41	OU6-MW-222		2	11.40	24.96	
42	OU6-MW-223		2	14.38	25.80	
43	OU6-MW-225		2	22.45	51.50	
44	OU6-MW-236		2	14.93	55.55	
45	OU6-MW-237		2	14.22	24.68	

	A	B	C	D	E	F
46	OU6-MW-238		2	13.20	24.80	
47	OU6-MW-239		2	12.65	25.10	
48	OU6-MW-240		2	13.20	23.60	
49	OU6-MW-241		2	13.40	24.50	
50	OU6-MW-242		2	13.13	25.70	
51	OU6-MW-243		2	13.68	25.60	
52	OU6-MW-244		2	12.92	27.10	
53	OU6-MW-245		2	14.60	25.40	
54	OU6-MW-246		2	13.10	25.15	
55	OU6-MW-247		2	12.30	25.20	
56	OU6-MW-248		2	11.60	25.40	
57	OU6-MW-249		2	11.00	25.40	
58	OU6-MW-250		2	15.60	26.90	
59	OU6-MW-251		2	12.80	27.20	
60	OU6-MW-252		2	12.15	25.25	
61	OU6-MW-253		2	14.05	25.20	
62	OU6-MW-254		2	13.00	25.45	
63	OU6-MW-255		2	13.50	25.40	
64	OU6-MW-256		2	12.10	22.10	
65	OU6-MW-257		2	10.40	20.20	
66	OU6-MW-258		2	5.95	25.40	
67	OU6-MW-259		2	11.77	26.16	
68	OU6-MW-260		2	11.99	26.05	
69	OU6-MW-261		2	6.40	22.35	
70	OU6-MW-262		2	11.35	25.18	
71	OU6-MW-263		2	10.24	24.61	
72	OU6-MW-264		2	6.50	21.00	
73	OU6-MW-265		2	7.00	20.81	
74	OU6-MW-266		2	6.25	17.24	
75	OU6-MW-267		2	5.27	18.31	
76	OU6-MW-268		2	5.10	18.80	
77	OU6-MW-269		2	7.91	19.25	
78	OU6-MW-270		2	5.80	11.65	
79	OU6-MW-271		2	5.02	18.90	
80	OU6-MW-272		2	5.68	18.61	
81	OU6-MW-273		2	7.05	13.65	
82	OU6-MW-274		2	6.32	17.08	
83	OU6-MW-275		2	3.64	14.08	
84	OU6-MW-276		2	7.80	14.78	
85	OU6-MW-277		2	8.18	16.65	
86	OU6-MW-278		2	7.24	18.50	
87	OU6-MW-279		2	5.85	11.85	
88	OU6-MW-280		2	4.64	9.89	
89	OU6-MW-281		2	3.11	7.65	
90	OU6-MW-282		2	1.20	8.25	
91	OU6-MW-283		2	17.57	41.55	

	A	B	C	D	E	F
92	OU6-MW-284		2	19.82	40.64	
93	OU6-MW-285		2	17.00	41.00	
94	OU6-MW-286		2	14.60	41.50	
95	OU6-MW-287		2	14.49	41.50	
96	OU6-MW-288		2	14.66	39.67	
97	OU6-MW-289		2	10.25	41.45	
98	OU6-MW-290		2	10.75	42.00	
99	OU6-MW-291		2	10.55	40.60	
100	OU6-MW-292		2	12.40	40.20	
101	OU6-MW-293		2	13.90	32.20	
102	OU6-MW-294		2	14.40	32.45	
103	OU6-MW-295		2	16.95	33.60	
104	OU6-MW-296		2	23.70	32.90	
105	OU6-MW-297		2	15.70	33.10	
106	OU6-MW-298		2	7.60	23.60	
107	OU6-MW-299		2	20.91	25.23	
108	OU6-MW-300		2	23.53	44.88	
109	OU6-MW-301		2	13.52	40.55	
110	OU6-MW-88		.75	10.85	21.02	
111	OU6-MW-89		.75	10.85	19.84	
112	OU6-MW-92		2	5.70	17.30	
113	OU6-MW-93		2	16.70	40.98	
114	OU6-MW-94		2	14.67	35.66	
115	OU6-MW-95		2	19.31	40.10	
116	OU6-MW-96		2	24.20	47.10	

Eurofins Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Phone (912) 354-7858 Phone (912) 352-0165

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: Tim, TJ, Quin and Bruce	Lab PM: Lanier, Jerry	Carrier Tracking No(s):	COC No:
Client Contact: Andrew VanBuesking	Phone: 757-589-5825	E-Mail: Jerry.Lanier@et.eurofinsus.com	State of Origin: VA	Page: Page 1 of 2
Company: Meadows CMPG	PWSID:			Job #:

Address: 2107 Granby St	Due Date Requested:
City: Norfolk	TAT Requested (days): STD
State, Zip: VA	Compliance Project: Δ Yes Δ No
Phone: 757-623-3107	PO #: 0045-0011
Email: avanbuesking@meadowscmpg	WO #:
Project Name: OU6 Annual	Project #: 68020891
Site: DSCR, OU6	SSOW#:

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Analysis Requested

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260D_DOD5 - (MOD) Volatiles		RSK_175_DOD5 - Ethane, Ethene, Methane	9060A - TOC	9056A_OF28D_D5 - Chloride & Sulfate 9056A_OF_48H_D5 - Local Method	SM4500_S2_F - Sulfide, Total	6020A_DOD5 - Manganese	SM4500_CO2_D - Carbon Dioxide	2320B - Alkalinity		8270E_DOD5 - (MOD) Semivolatiles (without PAHs)	8270E_SIM_DOD5 - Routine PAH	8081B_8082A_D5 - Routine Pesticides & PCBs	7470A_DOD5 - Mercury 6020A_DOD5- (MOD) TAL Metals	8270E_SIM_ID_D5 Local Method - Dioxane	Total Number of containers	Special Instructions/Note:
			Preservation Code:		X	X	A		A	S	N	CB	D	N	N		N	N	N	D	N	X	
OU6-CSMPZ-7-20240514	5/14/24	1050	G	W			3										2	2	2	1	2	12	Should not receive 2 bottles for Dioxane, Sample ID CSMPZ-7-20240514
OU6-MW-267-20240524	5/14/24	1310	G	W			3		3	3	1	2	1	1	1							15	
OU6-MW-265-20240514	5/14/24	1155	G	W			3		3	3	1	2	1	1	1							15	
OU6-MW-155-20240514	5/14/24	1035	G	W			3															3	
OU6-MW-144-20240514	5/14/24	0925	G	W			3															3	
OU6-MW-149-20240514	5/14/24	0840	G	W			3															3	
OU6-MW-141-20240514	5/14/24	1217	G	W			3															3	
OU6-MW-296-20240514	5/14/24	1030	G	W			3															3	
OU6-MW-300-20240514	5/14/24	1405	G	W			3															3	
OU6-MW-225-20240514	5/14/24	0902	G	W			3															3	
OU6-MW-180-20240514	5/14/24	1155	G	W			3															3	

Possible Hazard Identification
☐ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* ☐ *Poison B* ■ *Unknown* ☐ *Radiological*

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ■ *Disposal By Lab* ☐ *Archive For _____ Months*

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:

Method of Shipment:

BRUCE DIGGS	5-14-2024/1600	Company	Received by:		Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:		Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:		Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No

Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

Eurofins Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Phone (912) 354-7858 Phone (912) 352-0165

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler:	Lab PM: Lanier, Jerry	Carrier Tracking No(s):	COC No:
Client Contact: Andrew VanBuesking	Phone: 757-589-5825	E-Mail: Jerry.Lanier@et.eurofinsus.com	State of Origin: VA	Page: Page 2 of 2
Company: Meadows CMPG	PWSID:			Job #:
Address: 2107 Granby St	Due Date Requested:			
City: Norfolk	TAT Requested (days): STD			
State, Zip: VA	Compliance Project: Δ Yes Δ No			
Phone: 757-623-3107	PO #: 0045-0011			
Email: avanbuesking@meadowscmpg	WO #:			
Project Name: OU6 Annual	Project #: 68020891			
Site: DSCR, OU6	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260D_DOD5 - (MOD) Volatiles		RSK_175_DOD5 - Ethane, Ethene, Methane	9060A - TOC	9056A_OF28D_D5 - Chloride & Sulfate 9056A_OF_48H_D5 - Local Method	SM4500_S2_F - Sulfide, Total	6020A_DOD5 - Manganese	SM4500_CO2_D - Carbon Dioxide	2320B - Alkalinity		8270E_DOD5 - (MOD) Semivolatiles (without PAHs)	8270E_SIM_DOD5 - Routine PAH	8081B_8082A_D5 - Routine Pesticides & PCBs	7470A_DOD5 - Mercury 6020A_DOD5- (MOD) TAL Metals	8270E_SIM_ID_D5 Local Method - Dioxane	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A		A	S	N	CB	D	N	N		N	N	N	D	N		
OU6-MW-169-20240514	5/14/24	1415	G	W			3		3	2	1	2	1	1	1		2	2	2	1	2	23	
DUP-1-20240514	5/14/24		G	W			3															3	
OU6-DMW-20240514	5/14/24	0835	G	W			3															3	Sample ID - DMW-16B-20250514
OU6-MW-196-20240514	5/14/24	1000	G	W			3		3	3	1	2	1	1	1							15	Sample ID - OU6-MW-168-20240514
OU6-DMW-9A-20240514	5/14/24	1215	G	W			3		3	3	1	2	1	1	1							15	
OU6-CSMPZ-3-20240514	5/14/24	0905	G	W			3															3	Sample ID - CSMPZ-3-20240514
																						0	
																						0	
																						0	
																						0	
																						0	

Possible Hazard Identification
☐ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* ☐ *Poison B* ■ *Unknown* ☐ *Radiological*

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ■ *Disposal By Lab* ☐ *Archive For _____ Months*

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

MEADOWS CONSULTING | MANAGEMENT | PLANNING AECOM Imagine it. Delivered.

GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	CSMPZ-7
Project/Site Name:	OU6 Annual	Sample ID:	CSMPZ-7-20240514
Date:	5/14/2024	Well Condition:	2 of 2 bolts missing
Weather:	cloudy, mild		

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	2	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	10.47	Purging/Sampling Device:	Peristaltic Pump
Total Depth (ft btoc):	19.92 COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI
Water Column (ft):	9.45		
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier 0.1620	Start Purge Date/Time:	5/14/2024 - 0935
		End Purge Date/Time:	5/14/2024 - 1050
		Total Volume Purged (gal):	6
One Well Volume (gal):	1.53	Sample Date/Time:	5/14/2024 - 1050
Screened Interval (ft bgs):	14.92 - 19.92	Sampler Name:	TJ Skora

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
0940	250	0.50	10.60	6.25	0.408	16.70	2.85	5.02	165.50	clear, no odor
0945	250	0.75	10.60	6.21	0.392	16.00	2.60	3.22	72.10	
0950	250	1.25	10.60	6.23	0.195	15.90	2.95	0.50	48.90	
0955	250	1.50	10.60	6.25	0.193	15.60	2.88	-0.26	35.70	
1000	250	1.75	10.60	6.23	0.190	15.50	2.90	-0.84	30.40	
1005	250	2.25	10.60	6.24	0.406	15.50	3.11	-0.88	23.50	
1010	250	2.50	10.60	6.24	0.193	15.70	2.38	-1.21	20.30	
1015	250	3.00	10.60	6.27	0.192	15.80	2.57	-1.40	23.60	
1020	250	3.75	10.60	6.23	0.202	15.50	2.90	-1.33	14.50	
1025	250	4.00	10.60	6.26	0.411	15.50	2.90	-1.38	14.50	
1030	250	4.25	10.60	6.24	0.212	15.40	2.91	-1.39	18.10	
1035	250	4.50	10.60	6.25	0.261	15.50	2.91	-1.04	-19.40	
1040	250	5.00	10.60	6.26	0.425	15.70	3.00	-1.07	-9.00	
1045	250	5.50	10.62	6.28	0.427	15.60	3.56	-1.40	-4.50	
1050	250	6.00	10.62	6.25	0.414	15.60	3.06	0.45	3.30	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	✓	Manganese (6020 A)	
TOC (9060 A)		LLPAHs (8270 E SIM)	✓
Methane Ethane Ethene (RSK-175)		SVOCS (8270 D)	✓
Anions (9056 A)		Pesticides & PCBS (8081 B & 8082 A)	✓
Alkalinity (2320 B)		2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)	✓	QPCR	
CO2 (SM4500)			
Sulfide (SM4500)			

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L):

Dilution: Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result:

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? No If Yes, List ID and Analyses

COMMENTS/NOTES

MEADOWS CONSULTING | MANAGEMENT | PLANNING AECOM Imagine it. Delivered.

GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	OU6-MW-267
Project/Site Name:	OU6 Annual	Sample ID:	OU6-MW-267-2040514
Date:	5-14-2024	Well Condition:	GOOD
Weather:	PARTLY CLOUDY 68		

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	2	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	5.5	Purging/Sampling Device:	Peristaltic Pump
Total Depth (ft btoc):	8.6 COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI DSS 218046
Water Column (ft):	3.10		
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier 0.1620	Start Purge Date/Time:	5-14-24/1220
		End Purge Date/Time:	5-14-24/1305
		Total Volume Purged (gal):	1 GAL
One Well Volume (gal):	0.50	Sample Date/Time:	5-14-24/1310
Screened Interval (ft bgs):	3.6 - 8.6	Sampler Name:	BRUCE DIGGS

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
1220	150	0.25	5.50	5.08	0.144	19.70	1.08	248.00	148.00	
1225	150	0.50	5.70	4.86	0.136	19.50	0.93	171.00	176.00	
1230	150	0.75	5.85	4.74	0.132	19.50	0.82	147.00	190.00	
1235	150	1.00	5.90	4.67	0.127	19.50	0.72	124.00	200.00	
1240	150	1.25	6.00	4.62	0.125	19.50	0.66	111.00	206.00	
1245	150	1.50	6.15	4.58	0.123	19.50	0.63	92.00	210.00	
1250	150	1.75	6.35	4.55	0.121	19.40	0.58	84.00	215.00	
1255	150	2.00	6.55	4.52	0.117	19.40	0.54	56.00	221.00	
1300	150	2.25	6.86	4.48	0.144	19.40	0.48	45.00	230.00	
1305	150	2.50	6.90	4.45	0.111	19.40	0.45	25.00	236.00	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	✓	Manganese (6020 A)	✓
TOC (9060 A)	✓	LLPAHs (8270 E SIM)	
Methane Ethane Ethene (RSK-175)	✓	SVOCS (8270 D)	
Anions (9056 A)	✓	Pesticides & PCBS (8081 B & 8082 A)	
Alkalinity (2320 B)	✓	2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)		QPCR	
CO2 (SM4500)	✓		
Sulfide (SM4500)	✓		

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L): 1.15

Dilution: 0 Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result: 1.15

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? No If Yes, List ID and Analyses

COMMENTS/NOTES

MEADOWS CONSULTING | MANAGEMENT | PLANNING AECOM Imagine it. Delivered.

GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	OU6-MW-265
Project/Site Name:	OU6 Annual	Sample ID:	OU6-MW-265-20240514
Date:	5-14-2024	Well Condition:	GOOD
Weather:	PARTLY CLOUDY 68		

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	2	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	7	Purging/Sampling Device:	Peristaltic Pump
Total Depth (ft btoc):	19.8 COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI DSS 218046
Water Column (ft):	12.80		
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier 0.1620	Start Purge Date/Time:	5-14-24/1100
		End Purge Date/Time:	5-14-24/1145
		Total Volume Purged (gal):	1 GAL
One Well Volume (gal):	2.07	Sample Date/Time:	5-14-24/1155
Screened Interval (ft bgs):	14.8 - 19.8	Sampler Name:	BRUCE DIGGS

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
1100	150	0.25	7.00	12.20	6.436	17.70	7.47	51.00	26.00	
1105	150	0.50	7.15	12.20	6.339	17.70	7.38	99.20	26.60	
1110	150	0.75	7.20	12.19	5.987	17.70	7.16	85.00	27.40	
1115	150	1.00	7.55	12.16	4.777	17.70	6.04	77.00	28.10	
1120	150	1.25	7.90	12.14	3.950	17.70	5.67	56.00	27.40	
1125	150	1.50	8.15	12.11	3.666	17.80	4.99	45.00	27.10	
1130	150	1.75	8.25	12.09	3.233	17.80	4.48	56.30	26.90	
1135	150	2.00	8.55	12.08	2.895	17.80	4.21	70.00	26.50	
11.40	150	2.25	8.90	12.06	2.682	17.90	3.97	75.00	26.30	
11.45	150	2.50	9.11	12.05	2.564	18.00	3.84	99.20	26.20	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	✓	Manganese (6020 A)	✓
TOC (9060 A)	✓	LLPAHs (8270 E SIM)	
Methane Ethane Ethene (RSK-175)	✓	SVOCS (8270 D)	
Anions (9056 A)	✓	Pesticides & PCBS (8081 B & 8082 A)	
Alkalinity (2320 B)	✓	2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)		QPCR	
CO2 (SM4500)	✓		
Sulfide (SM4500)	✓		

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L): 1.13

Dilution: 2 Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result: 4.60

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? No If Yes, List ID and Analyses

COMMENTS/NOTES

MEADOWS CONSULTING | MANAGEMENT | PLANNING AECOM Imagine it. Delivered.

GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	OU6-MW-155
Project/Site Name:	OU6 Annual	Sample ID:	OU6-MW-155-20240514
Date:	5-14-2024	Well Condition:	GOOD
Weather:	PARTLY CLOUDY 68		

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	2	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	7.5	Purging/Sampling Device:	Peristaltic Pump
Total Depth (ft btoc):	17 COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI PRO DDS 218046
Water Column (ft):	9.50		
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier 0.1620	Start Purge Date/Time:	5-14-24/1000
		End Purge Date/Time:	5-14-24/1030
		Total Volume Purged (gal):	1 GAL
One Well Volume (gal):	1.54	Sample Date/Time:	5-14-24/1035
Screened Interval (ft bgs):	12 - 17	Sampler Name:	BRUCE DIGGS

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
1000	150	0.15	7.50	4.21	0.038	14.90	4.11	26.45	418.60	
1005	150	0.30	7.85	4.21	0.038	14.90	4.05	24.74	421.60	
1010	150	0.45	7.90	4.21	0.038	14.90	4.03	24.00	424.50	
1015	150	0.60	8.10	4.20	0.039	14.90	4.00	25.66	427.10	
1020	150	0.75	8.25	4.20	0.039	14.90	3.99	25.00	428.00	
1025	150	0.90	8.30	4.20	0.039	14.90	3.97	25.30	430.00	
1030	150	1.05	8.45	4.19	0.039	14.90	3.96	24.60	432.80	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	✓	Manganese (6020 A)	
TOC (9060 A)		LLPAHs (8270 E SIM)	
Methane Ethane Ethene (RSK-175)		SVOCS (8270 D)	
Anions (9056 A)		Pesticides & PCBS (8081 B & 8082 A)	
Alkalinity (2320 B)		2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)		QPCR	
CO2 (SM4500)			
Sulfide (SM4500)			

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L):

Dilution: Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result:

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? No If Yes, List ID and Analyses

COMMENTS/NOTES

MEADOWS CONSULTING | MANAGEMENT | PLANNING AECOM Imagine it. Delivered.

GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	OU6-MW-144
Project/Site Name:	OU6 Annual	Sample ID:	OU6-MW-144-20240514
Date:	5-14-2024	Well Condition:	GOOD
Weather:	PARTLY CLOUDY 66		

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	2	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	4.3	Purging/Sampling Device:	Peristaltic Pump
Total Depth (ft btoc):	8.6 COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI DDS 218046
Water Column (ft):	4.30		
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier 0.1620	Start Purge Date/Time:	5-14-24/0850
		End Purge Date/Time:	5-14-24/0920
		Total Volume Purged (gal):	1 GAL
One Well Volume (gal):	0.70	Sample Date/Time:	5-14-24/0925
Screened Interval (ft bgs):	3.6 - 8.6	Sampler Name:	BRUCE DIGGS

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
0850	150	0.15	4.30	4.43	0.043	15.00	1.92	46.62	394.00	
0855	150	0.30	4.45	4.37	0.042	15.00	1.59	41.20	394.60	
0900	150	0.45	4.50	4.34	0.042	15.10	1.52	39.10	395.80	
0905	150	0.60	4.75	4.32	0.041	15.10	1.44	40.20	397.10	
0910	150	0.15	4.95	4.31	0.041	15.10	1.34	39.30	398.30	
0915	150	0.90	5.10	4.30	0.041	15.10	1.30	40.05	398.30	
0920	150	1.05	5.25	4.29	0.041	15.20	1.31	39.89	399.80	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	✓	Manganese (6020 A)	
TOC (9060 A)		LLPAHs (8270 E SIM)	
Methane Ethane Ethene (RSK-175)		SVOCS (8270 D)	
Anions (9056 A)		Pesticides & PCBS (8081 B & 8082 A)	
Alkalinity (2320 B)		2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)		QPCR	
CO2 (SM4500)			
Sulfide (SM4500)			

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L):

Dilution: Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result:

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? No If Yes, List ID and Analyses

COMMENTS/NOTES

MEADOWS CONSULTING | MANAGEMENT | PLANNING AECOM Imagine it. Delivered.

GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	OU6-MW-149
Project/Site Name:	OU6 Annual	Sample ID:	OU6-MW-149-20240514
Date:	5-14-2024	Well Condition:	GOOD
Weather:	PARTLY CLOUDY 65		

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	2	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	3.9	Purging/Sampling Device:	Peristaltic Pump
Total Depth (ft btoc):	7.5 COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI PRO DDS 218046
Water Column (ft):	3.60		
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier 0.1620	Start Purge Date/Time:	5-14-24/0750
		End Purge Date/Time:	5-14-24/0835
		Total Volume Purged (gal):	1 GAL
One Well Volume (gal):	0.58	Sample Date/Time:	5-14-24/0840
Screened Interval (ft bgs):	2.5 - 7.5	Sampler Name:	BRUCE DIGGS

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
0750	150	0.15	3.90	4.70	0.065	15.70	2.41	254.00	278.00	
0755	150	0.30	3.90	4.60	0.065	15.60	1.96	162.00	276.00	
0800	150	0.45	4.10	4.60	0.063	15.60	1.84	131.07	270.60	
0805	150	0.60	4.25	4.59	0.063	15.60	1.75	107.00	270.50	
0810	150	0.75	4.30	4.59	0.062	15.40	1.73	96.50	262.70	
0815	150	0.90	4.55	4.52	0.061	15.30	1.74	50.20	262.50	
0820	150	1.05	4.60	4.52	0.061	15.30	1.75	45.70	260.20	
0825	150	1.20	4.85	4.52	0.061	15.30	1.78	35.90	261.30	
0830	150	1.35	4.90	4.52	0.061	15.30	1.79	25.20	261.30	
0835	150	150.00	5.25	4.52	0.061	15.30	1.79	15.20	259.20	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	✓	Manganese (6020 A)	
TOC (9060 A)		LLPAHs (8270 E SIM)	
Methane Ethane Ethene (RSK-175)		SVOCS (8270 D)	
Anions (9056 A)		Pesticides & PCBS (8081 B & 8082 A)	
Alkalinity (2320 B)		2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)		QPCR	
CO2 (SM4500)			
Sulfide (SM4500)			

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L):

Dilution: Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result:

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? No If Yes, List ID and Analyses

COMMENTS/NOTES

MEADOWS CONSULTING | MANAGEMENT | PLANNING AECOM Imagine it. Delivered.

GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	OU6-MW-141
Project/Site Name:	OU6 Annual	Sample ID:	OU6-MW-141-20240514
Date:	20240514	Well Condition:	GOOD
Weather:	CLOUDY 67		

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	2.00	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	14.90	Purging/Sampling Device:	Peristaltic Pump
Total Depth (ft btoc):	44.60 COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI
Water Column (ft):	29.70		
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier 0.1620	Start Purge Date/Time:	24/5/14 1117
		End Purge Date/Time:	24/5/14 1217
		Total Volume Purged (gal):	3.00
One Well Volume (gal):	4.81	Sample Date/Time:	24/5/14 1217
Screened Interval (ft bgs):	39-44	Sampler Name:	TIM BROWN

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^C)	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
1122	250	0.25	15.24	5.71	0.144	15.80	2.52	169.00	407.20	WATER CLOUDY/ NO ODOR
1127	250	0.50	15.24	5.70	0.144	15.70	2.25	290.00	407.30	
1132	250	0.75	15.24	5.71	0.144	15.70	1.87	414.00	398.40	
1137	250	1.00	15.24	5.73	0.146	15.80	1.29	313.00	377.20	
1142	250	1.25	15.24	5.73	0.148	15.70	1.47	218.00	362.80	
1147	250	1.50	15.24	5.73	0.151	15.70	1.69	163.00	353.80	
1152	250	1.75	15.24	5.73	0.153	15.80	2.03	122.70	350.40	
1157	250	2.00	15.24	5.73	0.155	15.80	2.22	80.35	346.30	
1202	250	2.25	15.24	5.72	0.157	15.80	1.76	51.75	341.60	
1207	250	2.50	15.24	5.72	0.159	15.80	1.68	36.10	336.40	
1212	250	2.75	15.24	5.71	0.162	15.80	1.51	35.10	331.40	
1217	250	3.00	15.24	5.71	0.161	15.80	1.63	30.53	327.50	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	✓	Manganese (6020 A)	
TOC (9060 A)		LLPAHs (8270 E SIM)	
Methane Ethane Ethene (RSK-175)		SVOCS (8270 D)	
Anions (9056 A)		Pesticides & PCBS (8081 B & 8082 A)	
Alkalinity (2320 B)		2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)		QPCR	
CO2 (SM4500)			
Sulfide (SM4500)			

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L):

Dilution: Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result:

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? No If Yes, List ID and Analyses

COMMENTS/NOTES

MEADOWS CONSULTING | MANAGEMENT | PLANNING AECOM Imagine it. Delivered.

GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	OU6-MW-296
Project/Site Name:	OU6 Annual	Sample ID:	OU6-MW-296-20240514
Date:	20240514	Well Condition:	GOOD
Weather:	CLOUDY 65		

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	2.00	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	23.70	Purging/Sampling Device:	Bladder Pump
Total Depth (ft btoc):	32.90 COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI PRO DDS
Water Column (ft):	9.20		
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier 0.1620	Start Purge Date/Time:	24/5/14 0940
		End Purge Date/Time:	24/5/14 1030
		Total Volume Purged (gal):	2.50
One Well Volume (gal):	1.49	Sample Date/Time:	24/5/14 1030
Screened Interval (ft bgs):	27-32	Sampler Name:	TIM BROWN

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^C)	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
0945	250	0.25	25.70	6.31	0.191	15.50	4.03	79.00	304.30	WATER CLEAR / NO ODOR
0950	250	0.50	27.35	6.25	0.187	15.50	3.62	37.40	307.00	
0955	250	0.75	28.15	6.22	0.184	15.40	3.29	31.42	290.00	
1000	250	1.00	28.75	6.16	0.183	15.40	2.50	36.55	254.80	
1005	250	1.25	29.00	6.19	0.189	15.40	2.26	41.58	249.70	
1010	250	1.50	29.60	6.23	0.191	15.40	1.68	37.22	220.90	
1015	250	1.75	30.00	6.26	0.194	15.40	1.34	43.52	165.70	
1020	250	2.00	30.20	6.29	0.195	15.40	1.19	49.33	112.70	
1025	250	2.25	31.00	6.32	0.195	15.40	0.64	50.00	50.30	
1030	250	2.50	31.00	6.30	0.196	15.40	0.50	35.60	49.30	WELL WENT DRY

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	✓	Manganese (6020 A)	
TOC (9060 A)		LLPAHs (8270 E SIM)	
Methane Ethane Ethene (RSK-175)		SVOCS (8270 D)	
Anions (9056 A)		Pesticides & PCBS (8081 B & 8082 A)	
Alkalinity (2320 B)		2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)		QPCR	
CO2 (SM4500)			
Sulfide (SM4500)			

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L):

Dilution: Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result:

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? No If Yes, List ID and Analyses

COMMENTS/NOTES

MEADOWS CONSULTING | MANAGEMENT | PLANNING AECOM Imagine it. Delivered.

GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	OU6-MW-300
Project/Site Name:	OU6 Annual	Sample ID:	OU6-MW-300-20240514
Date:	20240514	Well Condition:	GOOD
Weather:	CLOUDY 67		

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	2.00	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	23.45	Purging/Sampling Device:	Bladder Pump
Total Depth (ft btoc):	44.88 COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI PRO DDS
Water Column (ft):	21.43		
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier 0.1620	Start Purge Date/Time:	24/5/14 1320
		End Purge Date/Time:	24/5/14 1405
		Total Volume Purged (gal):	2.25
One Well Volume (gal):	3.47	Sample Date/Time:	24/5/14 1405
Screened Interval (ft bgs):	39-44	Sampler Name:	TIM BROWN

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
1325	250	0.25	23.70	6.22	0.134	20.40	1.35	147.00	181.20	WATER FOGGY/ NO ODOR
1330	250	0.50	23.75	6.23	0.134	20.30	0.65	91.50	94.00	
1335	250	0.75	23.70	6.23	0.133	20.30	0.40	46.51	55.50	
1340	250	1.00	23.70	6.24	0.133	20.30	0.26	23.33	37.10	
1345	250	1.25	23.75	6.24	0.133	20.30	0.22	15.66	29.10	
1350	250	1.50	23.75	6.24	0.133	20.30	0.18	12.66	24.80	
1355	250	1.75	23.80	6.24	0.134	20.30	0.16	10.98	20.00	
1400	250	2.00	23.70	6.25	0.134	20.30	0.14	10.76	20.70	
1405	250	2.25	23.70	6.24	0.134	20.30	0.13	10.51	19.75	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	✓	Manganese (6020 A)	
TOC (9060 A)		LLPAHs (8270 E SIM)	
Methane Ethane Ethene (RSK-175)		SVOCS (8270 D)	
Anions (9056 A)		Pesticides & PCBS (8081 B & 8082 A)	
Alkalinity (2320 B)		2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)		QPCR	
CO2 (SM4500)			
Sulfide (SM4500)			

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L):

Dilution: Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result:

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? No If Yes, List ID and Analyses

COMMENTS/NOTES

MEADOWS CONSULTING | MANAGEMENT | PLANNING AECOM Imagine it. Delivered.

GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	OU6-MW-225
Project/Site Name:	OU6 Annual	Sample ID:	OU6-MW-225-20240514
Date:	202040514	Well Condition:	GOOD
Weather:	CLOUDY 63		

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	2.00	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	22.45	Purging/Sampling Device:	Bladder Pump
Total Depth (ft btoc):	51.50 COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI DDS
Water Column (ft):	29.05		
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier 0.1620	Start Purge Date/Time:	24/5/14 0812
		End Purge Date/Time:	24/5/14 0902
		Total Volume Purged (gal):	2.50
One Well Volume (gal):	4.71	Sample Date/Time:	24/5/14 0902
Screened Interval (ft bgs):	46-51	Sampler Name:	TIM BROWN

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
0817	250	0.25	23.00	5.77	0.104	15.20	1.21	55.10	124.80	WATER CLEAR/ NO ODOR
0822	250	0.50	23.05	5.71	0.107	15.20	0.78	65.96	115.00	
0827	250	0.75	23.00	5.71	0.106	15.20	0.55	57.00	106.60	
0832	250	1.00	23.00	5.69	0.105	15.20	0.43	37.74	102.60	
0837	250	1.25	23.00	5.69	0.105	15.20	0.31	23.43	100.20	
0842	250	1.50	23.00	5.67	0.104	15.20	0.22	12.44	99.20	
0847	250	1.75	23.00	5.67	0.104	15.20	0.20	11.28	98.20	
0852	250	2.00	23.00	5.66	0.104	15.20	0.15	7.42	97.20	
0857	250	2.25	23.07	5.65	0.104	15.20	0.13	5.13	96.30	
0902	250	2.50	23.00	5.65	0.104	15.20	0.12	4.69	95.10	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	✓	Manganese (6020 A)	
TOC (9060 A)		LLPAHs (8270 E SIM)	
Methane Ethane Ethene (RSK-175)		SVOCS (8270 D)	
Anions (9056 A)		Pesticides & PCBS (8081 B & 8082 A)	
Alkalinity (2320 B)		2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)		QPCR	
CO2 (SM4500)			
Sulfide (SM4500)			

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L):

Dilution: Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result:

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? No If Yes, List ID and Analyses

COMMENTS/NOTES

MEADOWS CONSULTING | MANAGEMENT | PLANNING AECOM Imagine it. Delivered.

GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	OU6-MW-180
Project/Site Name:	OU6 Annual	Sample ID:	OU6-MW-180-20240514
Date:	5/14/2024	Well Condition:	Good
Weather:	Mid 60's, Cloudy and raining		

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	2	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	16.14	Purging/Sampling Device:	Bladder Pump
Total Depth (ft btoc):	50.57 COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI Pro DSS
Water Column (ft):	34.43		
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier 0.1620	Start Purge Date/Time:	05/14/2024 1108
		End Purge Date/Time:	05/14/2024 1150
		Total Volume Purged (gal):	3.5
One Well Volume (gal):	5.58	Sample Date/Time:	05/14/2024 1150
Screened Interval (ft bgs):	45.57 - 50.57	Sampler Name:	QR

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
1110	250	0.25	16.14	6.88	0.140	17.80	1.90	204.64	6.40	Light brown, no odor
1115	250	0.50	16.25	6.62	0.123	17.60	0.81	123.80	20.00	"
1120	250	1.00	16.25	6.56	0.118	17.60	0.66	70.19	30.80	"
1125	250	1.25	16.25	6.53	0.115	17.60	0.59	47.70	37.70	"
1130	250	1.75	16.25	6.50	0.113	17.70	0.59	32.48	43.20	"
1135	250	2.00	16.25	6.48	0.111	17.60	0.54	22.32	47.70	"
1140	250	2.50	16.25	6.45	0.109	17.60	0.49	13.22	52.20	"
1145	250	3.00	16.25	6.44	0.109	17.60	0.47	12.75	56.30	"
1150	250	3.50	16.25	6.44	0.108	17.60	0.45	12.88	58.20	"

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	✓	Manganese (6020 A)	
TOC (9060 A)		LLPAHs (8270 E SIM)	
Methane Ethane Ethene (RSK-175)		SVOCS (8270 D)	
Anions (9056 A)		Pesticides & PCBS (8081 B & 8082 A)	
Alkalinity (2320 B)		2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)		QPCR	
CO2 (SM4500)			
Sulfide (SM4500)			

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L):

Dilution: Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result:

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? Yes If Yes, List ID and Analyses

DUP01 collected

COMMENTS/NOTES

12/3 60 PSI Dup

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GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	OU6-MW-169
Project/Site Name:	OU6 Annual	Sample ID:	OU6-MW-169-20240514
Date:	5/14/2024	Well Condition:	Good
Weather:	cloudy, mild		

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	2	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	8.70	Purging/Sampling Device:	Peristaltic Pump
Total Depth (ft btoc):	21.22 COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI
Water Column (ft):	12.52		
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier 0.1620	Start Purge Date/Time:	5/14/2024 - 1350
		End Purge Date/Time:	5/14/2024 - 1415
		Total Volume Purged (gal):	2.25
One Well Volume (gal):	2.03	Sample Date/Time:	5/14/2024 - 1415
Screened Interval (ft bgs):	16.22 - 21.22	Sampler Name:	TJ Skora

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
1350	200	0.25	8.80	4.68	0.092	18.30	4.22	2.03	466.50	clear, no odor
1355	200	0.50	8.80	4.59	0.088	17.60	3.79	2.24	477.30	
1400	200	1.00	8.80	4.54	0.084	17.60	3.59	0.90	481.10	
1405	200	1.25	8.80	4.53	0.085	17.50	3.84	-1.43	484.30	
1410	200	1.75	8.80	4.50	0.084	17.20	3.88	-1.55	487.70	
1415	200	2.25	8.80	4.52	0.083	17.40	3.86	-1.60	488.80	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	✓	Manganese (6020 A)	✓
TOC (9060 A)	✓	LLPAHs (8270 E SIM)	✓
Methane Ethane Ethene (RSK-175)	✓	SVOCS (8270 D)	✓
Anions (9056 A)	✓	Pesticides & PCBS (8081 B & 8082 A)	✓
Alkalinity (2320 B)	✓	2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)	✓	QPCR	
CO2 (SM4500)	✓		
Sulfide (SM4500)	✓		

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L): 0.01

Dilution: 0 Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result: 0.01

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? No If Yes, List ID and Analyses

COMMENTS/NOTES

MEADOWS CONSULTING | MANAGEMENT | PLANNING AECOM Imagine it. Delivered.

GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	DMW-16B
Project/Site Name:	OU6 Annual	Sample ID:	DMW-16B-20240514
Date:	05/14/2024	Well Condition:	Good
Weather:	Mid 60's, Cloudy and raining		

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	4	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	11.1	Purging/Sampling Device:	Bladder Pump
Total Depth (ft btoc):	24.0 COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI Pro DSS
Water Column (ft):	12.90		
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier 0.6530	Start Purge Date/Time:	05/14/2024 0751
		End Purge Date/Time:	05/14/2024 0830
		Total Volume Purged (gal):	3.5
One Well Volume (gal):	8.42	Sample Date/Time:	05/14/2024 0835
Screened Interval (ft bgs):	19.0 - 24.0	Sampler Name:	QR

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
0755	250	0.25	11.25	6.32	0.110	17.30	3.93	174.41	124.40	Light brown, no odor
0800	250	0.50	11.23	6.34	0.108	17.10	4.23	159.24	129.00	"
0805	250	1.00	11.25	6.35	0.107	17.10	5.00	144.32	122.10	"
0810	250	1.25	11.29	6.31	0.107	17.20	5.35	127.57	112.40	"
0815	250	2.00	11.25	6.29	0.105	17.20	5.80	123.80	101.60	"
0820	250	2.50	11.25	6.23	0.102	17.20	6.42	108.13	98.50	"
0825	250	3.00	11.25	6.23	0.100	17.20	6.45	101.76	96.50	"
0830	250	3.50	11.25	6.23	0.100	17.20	6.49	103.29	95.50	"

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	✓	Manganese (6020 A)	
TOC (9060 A)		LLPAHs (8270 E SIM)	
Methane Ethane Ethene (RSK-175)		SVOCS (8270 D)	
Anions (9056 A)		Pesticides & PCBS (8081 B & 8082 A)	
Alkalinity (2320 B)		2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)		QPCR	
CO2 (SM4500)			
Sulfide (SM4500)			

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L):

Dilution: Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result:

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? No If Yes, List ID and Analyses

COMMENTS/NOTES

3/12 40 PSI

MEADOWS CONSULTING | MANAGEMENT | PLANNING AECOM Imagine it. Delivered.

GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	DMW-9A
Project/Site Name:	OU6 Annual	Sample ID:	DMW-9A-20240514
Date:	5/14/2024	Well Condition:	Good
Weather:	Cloudy, mild		

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	4	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	10.15	Purging/Sampling Device:	Peristaltic Pump
Total Depth (ft btoc):	19.82 COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI
Water Column (ft):	9.67		
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier 0.6530	Start Purge Date/Time:	5/14/2024 - 1150
		End Purge Date/Time:	5/14/2024 - 1215
		Total Volume Purged (gal):	3
One Well Volume (gal):	6.31	Sample Date/Time:	5/14/2024 - 1215
Screened Interval (ft bgs):	14.82 - 19.82	Sampler Name:	TJ Skora

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
1150	250	0.25	10.20	5.34	0.167	17.40	5.29	-1.45	292.50	clear, no odor
1155	250	0.50	10.22	5.03	0.075	17.00	5.15	-1.83	344.20	
1200	250	1.25	10.22	4.93	0.079	16.90	5.10	-2.35	373.00	
1205	250	1.75	10.22	4.95	0.079	16.80	5.15	-2.22	388.50	
1210	250	2.50	10.22	4.94	0.079	16.80	5.15	-2.03	397.50	
1215	250	3.00	10.23	4.90	0.076	16.90	5.09	-2.04	406.10	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	✓	Manganese (6020 A)	✓
TOC (9060 A)	✓	LLPAHs (8270 E SIM)	
Methane Ethane Ethene (RSK-175)	✓	SVOCS (8270 D)	
Anions (9056 A)	✓	Pesticides & PCBS (8081 B & 8082 A)	
Alkalinity (2320 B)	✓	2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)		QPCR	
CO2 (SM4500)	✓		
Sulfide (SM4500)	✓		

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L):

Dilution: Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result:

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? No If Yes, List ID and Analyses

COMMENTS/NOTES

MEADOWS CONSULTING | MANAGEMENT | PLANNING AECOM Imagine it. Delivered.

GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	CSMPZ-3
Project/Site Name:	OU6 Annual	Sample ID:	CSMPZ-3-20240514
Date:	5/14/2024	Well Condition:	missing 3 of 3 bolts
Weather:	Cloudy, mild		

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	2	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	9.96	Purging/Sampling Device:	Peristaltic Pump
Total Depth (ft btoc):	19.06 COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI
Water Column (ft):	9.10		
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier 0.1620	Start Purge Date/Time:	5/14/2024 - 0815
		End Purge Date/Time:	5/14/2024 - 0905
		Total Volume Purged (gal):	4.5
One Well Volume (gal):	1.47	Sample Date/Time:	5/14/2024 - 0905
Screened Interval (ft bgs):	14.06 - 19.06	Sampler Name:	TJ Skora

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
0815	250	0.25	10.07	6.13	0.043	17.40	3.37	45.63	-10.00	clear, no odor
0820	250	0.50	10.04	6.03	0.224	17.20	2.83	3.36	-5.50	
0825	250	1.00	10.08	6.04	0.208	17.00	3.35	2.16	-5.30	
0830	250	1.75	10.10	6.06	0.114	17.00	3.54	2.14	3.00	
0835	250	2.25	10.08	6.05	0.184	17.00	2.94	0.13	3.10	
0840	250	2.50	10.08	6.03	0.168	17.00	3.79	-0.70	16.70	
0845	250	3.00	10.09	5.99	0.336	16.90	3.13	-1.17	21.30	
0850	250	3.50	10.09	5.93	0.329	17.00	3.53	-1.29	16.50	
0855	250	4.00	10.09	5.90	0.147	17.00	3.01	-1.08	30.30	
0900	250	4.25	10.09	5.91	0.146	17.00	3.00	-1.03	34.00	
0905	250	4.50	10.09	5.94	0.138	17.00	3.04	-0.80	43.30	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	✓	Manganese (6020 A)	
TOC (9060 A)		LLPAHs (8270 E SIM)	
Methane Ethane Ethene (RSK-175)		SVOCS (8270 D)	
Anions (9056 A)		Pesticides & PCBS (8081 B & 8082 A)	
Alkalinity (2320 B)		2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)		QPCR	
CO2 (SM4500)			
Sulfide (SM4500)			

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L):

Dilution: Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result:

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? No If Yes, List ID and Analyses

COMMENTS/NOTES

MEADOWS CONSULTING | MANAGEMENT | PLANNING AECOM Imagine it. Delivered.

GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	OU6-MW-96
Project/Site Name:	OU6 Annual	Sample ID:	OU6-MW-96-20240514
Date:	5/14/2024	Well Condition:	Well casing is too high and won't allow lid to close
Weather:	Mid 60's, Cloudy and Raining		

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	2	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	24.0	Purging/Sampling Device:	Bladder Pump
Total Depth (ft btoc):	47.10 COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI Pro DSS
Water Column (ft):	23.10		
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier 0.1620	Start Purge Date/Time:	1348 05/14/2024
		End Purge Date/Time:	1425 05/14/2024
		Total Volume Purged (gal):	3.5
One Well Volume (gal):	3.74	Sample Date/Time:	05/14/2024
Screened Interval (ft bgs):	42.10 - 47.10	Sampler Name:	QR

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
1350	250	0.25	24.93	5.56	0.247	17.40	0.95	319.20	-41.70	Light brown, no odor
1355	250	0.50	24.76	5.58	0.248	17.40	0.73	371.19	-60.80	
1400	250	1.00	24.75	5.62	0.241	17.30	0.59	223.53	-79.80	
1405	250	1.25	24.75	5.64	0.231	17.40	0.51	150.20	-91.30	
1410	250	2.00	24.75	5.66	0.218	17.30	0.48	95.02	-98.80	
1415	250	2.50	24.75	5.68	0.195	17.20	0.44	65.72	-103.50	
1420	250	3.00	24.75	5.69	0.194	17.20	0.43	54.20	-105.80	
1425	250	3.50	24.75	5.69	0.194	17.30	0.41	55.42	-107.30	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	✓	Manganese (6020 A)	
TOC (9060 A)		LLPAHs (8270 E SIM)	
Methane Ethane Ethene (RSK-175)		SVOCS (8270 D)	
Anions (9056 A)		Pesticides & PCBS (8081 B & 8082 A)	
Alkalinity (2320 B)		2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)		QPCR	
CO2 (SM4500)			
Sulfide (SM4500)			

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L):

Dilution: Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result:

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? No If Yes, List ID and Analyses

COMMENTS/NOTES

143 40 PSI 1425

Eurofins Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Phone (912) 354-7858 Phone (912) 352-0165

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: Tim, TJ, Quin and Bruce	Lab PM: Lanier, Jerry	Carrier Tracking No(s):	COC No:
Client Contact: Andrew VanBuesking	Phone: 757-589-5825	E-Mail: Jerry.Lanier@et.eurofinsus.com	State of Origin: VA	Page: Page 1 of 2
Company: Meadows CMPG	PWSID:			Job #:

Address: 2107 Granby St	Due Date Requested:
City: Norfolk	TAT Requested (days): STD
State, Zip: VA	Compliance Project: Δ Yes Δ No
Phone: 757-623-3107	PO #: 0045-0011
Email: avanbuesking@meadowscmpg	WO #:
Project Name: OU6 Annual	Project #:
Site: DSCR, OU6	SSOW#:

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260D_DOD5 - (MOD) Volatiles		RSK_175_DOD5 - Ethane, Ethene, Methane	9060A - TOC	9056A_OF28D_D5 - Chloride & Sulfate 9056A_OF_48H_D5 - Local Method	SM4500_S2_F - Sulfide, Total	6020A_DOD5 - Manganese	SM4500_CO2_D - Carbon Dioxide	2320B - Alkalinity	DIOX 8270E ID D5	8270E_DOD5 - (MOD) Semivolatiles (without PAHs)	8270E_SIM_DOD5 - Routine PAH	8081B_8082A_D5 - Routine Pesticides & PCBs	7470A_DOD5 - Mercury 6020A_DOD5- (MOD) TAL Metals	8270E_SIM_ID_D5 Local Method - Dioxane	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A		A	S	N	CB	D	N	N		N	N	N	D	N		
OU6-MW-277-20240515	5/15/24	0935	G	W			3		3	3	1	2	1	1	1		2	2	2	1		22	
OU6-MW-259-20240515	5/15/24	0820	G	W			3		3	3	1	2	1	1	1		2	2	2	1		22	
OU6-MW-280-20240515	5/15/24	1250	G	W			3		3	3	1	2	1	1	1		2	2	2	1		22	
OU6-MW-156-20240515	5/15/24	1145	G	W			3															3	
OU6-MW-158-20240515	5/15/24	1050	G	W			3															3	
OU6-MW-284-20240515	5/15/24	0850	G	W		Y	9														6	15	
OU6-MWNGA-8-20240515	5/15/24	1225	G	W			3														2	5	
OU6-MWNGA-10-20240515	5/15/24	1015	G	W		Y	9														6	15	
OU6-MW-142-20240515	5/15/24	1032	G	W			3		3	3	1	2	1	1	1							15	
OU6-MW-297-20240515	5/15/24	1210	G	W			3															3	
OU6-MW-301-20240515	5/15/24	1335	G	W			3															3	

Possible Hazard Identification
☐ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* ☐ *Poison B* ■ *Unknown* ☐ *Radiological*

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ■ *Disposal By Lab* ☐ *Archive For _____ Months*

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:

Method of Shipment:

BRUCE DIGGS	5-15-2024/1600	Company	Received by:		Date/Time:	Company	
Relinquished by:	Date/Time:	Company	Received by:		Date/Time:	Company	
Relinquished by:	Date/Time:	Company	Received by:		Date/Time:	Company	

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

Eurofins Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Phone (912) 354-7858 Phone (912) 352-0165

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler:	Lab PM: Lanier, Jerry	Carrier Tracking No(s):	COC No:
Client Contact: Andrew VanBuesking	Phone: 757-589-5825	E-Mail: Jerry.Lanier@et.eurofinsus.com	State of Origin: VA	Page: Page 2 of 2
Company: Meadows CMPG	PWSID:			Job #:
Address: 2107 Granby St	Due Date Requested:			
City: Norfolk	TAT Requested (days): STD			
State, Zip: VA	Compliance Project: Δ Yes Δ No			
Phone: 757-623-3107	PO #: 0045-0011			
Email: avanbuesking@meadowscmpg	WO #:			
Project Name: OU6 Annual	Project #:			
Site: DSCR, OU6	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260D_DOD5 - (MOD) Volatiles		RSK_175_DOD5 - Ethane, Ethene, Methane	9060A - TOC	9056A_OF28D_D5 - Chloride & Sulfate 9056A_OF_48H_D5 - Local Method	SM4500_S2_F - Sulfide, Total	6020A_DOD5 - Manganese	SM4500_CO2_D - Carbon Dioxide	2320B - Alkalinity		8270E_DOD5 - (MOD) Semivolatiles (without PAHs)	8270E_SIM_DOD5 - Routine PAH	8081B_8082A_D5 - Routine Pesticides & PCBs	7470A_DOD5 - Mercury 6020A_DOD5- (MOD) TAL Metals	8270E_SIM_ID_D5 Local Method - Dioxane	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A		A	S	N	CB	D	N	N		N	N	N	D	N		
OU6-MW-246-20240515	5/15/24	1505	G	W			3		3	2	1	2	1	1	1							14	
OU6-MW-182-20240515	5/15/24	1255	G	W			3															3	
OU6-DMW-17A-20240515	5/15/24	1135	G	W			3															3	
OU6-MW-124-20240515	5/15/24	0915	G	W			3		3	3	1	2	1	1	1							15	
OU6-MW-8A-20240515	5/15/24	1035	G	W			3															3	
TRIP-BLANK-20240515	5/15/24		G	W			3															3	
																						0	
																						0	
																						0	
																						0	
																						0	

Possible Hazard Identification
☐ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* ☐ *Poison B* ■ *Unknown* ☐ *Radiological*

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ■ *Disposal By Lab* ☐ *Archive For _____ Months*

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:		Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

MEADOWS CONSULTING | MANAGEMENT | PLANNING AECOM Imagine it. Delivered.

GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	OU6-MW-92
Project/Site Name:	OU6 Annual	Sample ID:	OU6-MW-92-20240515
Date:	5/15/2024	Well Condition:	
Weather:	Mid 60's, cloudy & raining		

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	2	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	18.25	Purging/Sampling Device:	Bladder Pump
Total Depth (ft btoc):	40.67 COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI
Water Column (ft):	22.42		
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier 0.1620	Start Purge Date/Time:	05/15/2024 - 1310
		End Purge Date/Time:	05/15/2024 - 1345
		Total Volume Purged (gal):	2.5
One Well Volume (gal):	3.63	Sample Date/Time:	5/15/2024 - 1350
Screened Interval (ft bgs):	30 - 40	Sampler Name:	QR

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
1315	200	0.10	19.32	6.33	0.113	19.20	5.08	70.50	73.00	Clear, no odor
1320	200	0.25	20.10	6.03	0.113	18.80	1.33	36.50	44.90	
1325	200	0.50	20.35	6.05	0.114	18.80	1.17	37.45	35.80	
1320	200	0.75	20.40	6.07	0.119	18.80	1.18	43.46	28.30	
1325	200	1.00	20.36	6.09	0.118	18.90	1.32	50.55	15.90	
1330	200	1.25	20.32	6.09	0.117	18.90	1.22	49.69	11.40	
1335	200	1.50	20.30	6.09	0.115	19.00	1.26	39.46	12.30	
1340	200	2.00	20.30	6.08	0.114	19.00	1.26	36.20	14.30	
1345	200	2.50	20.30	6.08	0.114	19.00	1.24	31.88	17.20	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	✓	Manganese (6020 A)	
TOC (9060 A)		LLPAHs (8270 E SIM)	
Methane Ethane Ethene (RSK-175)		SVOCS (8270 D)	
Anions (9056 A)		Pesticides & PCBS (8081 B & 8082 A)	
Alkalinity (2320 B)		2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)		QPCR	
CO2 (SM4500)			
Sulfide (SM4500)			

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L):

Dilution: Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result:

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? No If Yes, List ID and Analyses

COMMENTS/NOTES

MEADOWS CONSULTING | MANAGEMENT | PLANNING AECOM Imagine it. Delivered.

GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	OU6-MW-277
Project/Site Name:	OU6 Annual	Sample ID:	OU6-MW-277-2-240515
Date:	5-15-2024	Well Condition:	GOOD
Weather:	DRIZZLE 61		

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	2	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	6.3	Purging/Sampling Device:	Peristaltic Pump
Total Depth (ft btoc):	16.7 COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI DSS PRO218046
Water Column (ft):	10.40		
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier 0.1620	Start Purge Date/Time:	5-15-24/0850
		End Purge Date/Time:	5-15-24/0930
		Total Volume Purged (gal):	1 GAL
One Well Volume (gal):	1.68	Sample Date/Time:	5-15-24/0935
Screened Interval (ft bgs):	11.7 - 16.7	Sampler Name:	BRUCE DIGGS

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
0855	150	0.15	6.30	4.88	0.078	17.20	3.22	124.00	340.70	
0900	150	0.30	6.35	4.81	0.076	17.30	2.76	110.00	344.70	
0905	150	0.45	6.50	4.79	0.074	17.30	2.48	98.00	346.90	
0910	150	0.60	6.78	4.78	0.074	17.30	2.36	88.20	348.00	
0915	150	0.75	6.90	4.78	0.074	17.30	2.25	77.50	350.00	
0925	150	0.90	7.00	4.77	0.074	17.30	2.15	66.20	351.00	
0925	150	1.05	7.25	4.77	0.074	17.30	2.07	56.00	353.00	
0930	150	1.20	7.45	4.75	0.073	17.30	2.03	45.00	354.80	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	✓	Manganese (6020 A)	✓
TOC (9060 A)	✓	LLPAHs (8270 E SIM)	✓
Methane Ethane Ethene (RSK-175)	✓	SVOCS (8270 D)	✓
Anions (9056 A)	✓	Pesticides & PCBS (8081 B & 8082 A)	✓
Alkalinity (2320 B)	✓	2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)	✓	QPCR	
CO2 (SM4500)	✓		
Sulfide (SM4500)	✓		

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L): 0.06

Dilution: 0 Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result: 0.06

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? No If Yes, List ID and Analyses

COMMENTS/NOTES

TURBIDITY NOT CALIBRATING

MEADOWS CONSULTING | MANAGEMENT | PLANNING AECOM Imagine it. Delivered.

GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	OU6-MW-259
Project/Site Name:	OU6 Annual	Sample ID:	OU6-MW-259-20240515
Date:	5-15-2024	Well Condition:	GOOD
Weather:	DRIZZLE 61		

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	2	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	11.4	Purging/Sampling Device:	Peristaltic Pump
Total Depth (ft btoc):	26.6 COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI PRO DSS 218046
Water Column (ft):	15.20		
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier 0.1620	Start Purge Date/Time:	5-15-24/0740
		End Purge Date/Time:	5-15-24/0815
		Total Volume Purged (gal):	1 GAL
One Well Volume (gal):	2.46	Sample Date/Time:	5-15-24/0820
Screened Interval (ft bgs):	21.6 - 26.6	Sampler Name:	BRUCE DIGGS

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
0740	150	0.15	11.40	4.85	0.133	16.00	3.14	98.60	275.60	
0745	150	0.30	11.45	4.77	0.132	15.90	2.26	89.20	276.70	
0750	150	0.45	11.50	4.73	0.131	15.90	1.87	76.20	277.50	
0755	150	0.60	11.75	4.71	0.131	15.80	1.50	66.50	278.00	
0800	150	0.75	11.87	4.68	0.129	15.80	1.27	55.20	280.60	
0805	150	0.90	11.95	4.66	0.129	15.80	1.28	50.10	282.20	
0810	150	1.05	12.40	4.65	0.128	15.80	1.28	45.20	283.00	
0815	150	1.20	12.55	4.64	0.128	15.80	0.89	40.00	284.00	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	✓	Manganese (6020 A)	✓
TOC (9060 A)	✓	LLPAHs (8270 E SIM)	✓
Methane Ethane Ethene (RSK-175)	✓	SVOCS (8270 D)	✓
Anions (9056 A)	✓	Pesticides & PCBS (8081 B & 8082 A)	✓
Alkalinity (2320 B)	✓	2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)	✓	QPCR	
CO2 (SM4500)	✓		
Sulfide (SM4500)	✓		

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L): 0.03

Dilution: 0 Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result: 0.03

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? No If Yes, List ID and Analyses

COMMENTS/NOTES

MEADOWS CONSULTING | MANAGEMENT | PLANNING AECOM Imagine it. Delivered.

GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	OU6-MW-280
Project/Site Name:	OU6 Annual	Sample ID:	OU6-MW-280-20240415
Date:	5-15-2024	Well Condition:	GOOD
Weather:	PARTLYCLOUDY 66		

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	2	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	3.5	Purging/Sampling Device:	Peristaltic Pump
Total Depth (ft btoc):	9.9 COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI PRO DSS 218046
Water Column (ft):	6.40		
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier 0.1620	Start Purge Date/Time:	5-15-24/1215
		End Purge Date/Time:	5-15-24/1245
		Total Volume Purged (gal):	1 GAL
One Well Volume (gal):	1.04	Sample Date/Time:	5-15-24/1250
Screened Interval (ft bgs):	4.9 - 9.9	Sampler Name:	BRUCE DIGGS

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
1215	150	0.15	3.50	5.67	0.251	17.70	2.20	120.00	50.90	
1220	150	0.30	3.95	5.67	0.251	17.70	1.95	111.00	44.90	
1225	150	0.45	4.05	5.67	0.251	17.70	1.79	102.00	40.90	
1230	150	0.60	4.25	5.66	0.252	17.80	1.63	87.00	37.70	
1235	150	0.75	4.86	5.66	0.253	17.80	1.54	65.00	35.60	
1240	150	0.90	5.00	5.65	0.253	17.80	1.44	56.30	34.50	
1245	150	1.05	5.25	5.65	0.253	17.80	1.39	45.00	33.40	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	✓	Manganese (6020 A)	✓
TOC (9060 A)	✓	LLPAHs (8270 E SIM)	✓
Methane Ethane Ethene (RSK-175)	✓	SVOCS (8270 D)	✓
Anions (9056 A)	✓	Pesticides & PCBS (8081 B & 8082 A)	✓
Alkalinity (2320 B)	✓	2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)	✓	QPCR	
CO2 (SM4500)	✓		
Sulfide (SM4500)	✓		

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L): 2.45

Dilution: 0 Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result: 2.45

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? No If Yes, List ID and Analyses

COMMENTS/NOTES

TURBIDITY NOT CALCULATING

MEADOWS CONSULTING | MANAGEMENT | PLANNING AECOM Imagine it. Delivered.

GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	OU6-MW-156
Project/Site Name:	OU6 Annual	Sample ID:	OU6-MW-156-20240515
Date:	5-15-2024	Well Condition:	GOOD
Weather:	DRIZZLE 66		

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	2	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	1.2	Purging/Sampling Device:	Peristaltic Pump
Total Depth (ft btoc):	8.7 COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI DSS
Water Column (ft):	7.50		
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier 0.1620	Start Purge Date/Time:	5-15-24/1110
		End Purge Date/Time:	5-15-24/1140
		Total Volume Purged (gal):	1 GAL
One Well Volume (gal):	1.22	Sample Date/Time:	5-15-24/1145
Screened Interval (ft bgs):	3.7 - 8.7	Sampler Name:	BRUCE DIGGS

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
1110	150	0.15	1.20	4.79	0.061	15.20	1.87	100.00	215.70	
1115	150	0.30	1.45	4.69	0.060	15.30	1.37	97.20	219.10	
1120	150	0.45	1.67	4.65	0.060	15.30	1.07	88.30	219.90	
1125	150	0.60	1.89	4.63	0.060	15.30	0.91	76.00	220.70	
1130	150	0.75	2.25	4.61	0.059	15.30	0.79	65.00	221.70	
1135	150	0.90	2.55	4.59	0.059	15.30	0.79	25.00	222.50	
1140	150	1.05	2.75	4.58	0.059	15.30	0.65	15.00	223.90	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	✓	Manganese (6020 A)	
TOC (9060 A)		LLPAHs (8270 E SIM)	
Methane Ethane Ethene (RSK-175)		SVOCS (8270 D)	
Anions (9056 A)		Pesticides & PCBS (8081 B & 8082 A)	
Alkalinity (2320 B)		2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)		QPCR	
CO2 (SM4500)			
Sulfide (SM4500)			

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L):

Dilution: Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result:

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? No If Yes, List ID and Analyses

COMMENTS/NOTES

TURBIDITY NOT CALIBRATING

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GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	OU6-MW-158
Project/Site Name:	OU6 Annual	Sample ID:	OU6-MW-158-20240515
Date:	5-15-2024	Well Condition:	GOOD
Weather:	DRIZZLE 65		

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	2	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	2.2	Purging/Sampling Device:	Peristaltic Pump
Total Depth (ft btoc):	8.2 COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI DSS 218046
Water Column (ft):	6.00		
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier 0.1620	Start Purge Date/Time:	5-15-24/1015
		End Purge Date/Time:	5-15-24/1045
		Total Volume Purged (gal):	1 GAL
One Well Volume (gal):	0.97	Sample Date/Time:	5-15-24/1050
Screened Interval (ft bgs):	3.2 - 8.2	Sampler Name:	BRUCE DIGGS

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
1015	150	0.15	2.20	5.34	0.120	15.40	2.53	211.00	127.40	
1020	150	0.30	2.40	5.23	0.120	15.40	1.60	185.00	122.70	
1025	150	0.45	2.65	5.20	0.120	15.40	1.24	109.00	120.40	
1030	150	0.60	2.70	5.18	0.120	15.40	0.99	98.20	117.80	
1035	150	0.75	2.95	5.18	0.120	15.40	0.89	32.00	116.10	
1040	150	0.90	3.00	5.17	0.120	15.40	0.81	25.00	114.60	
1045	150	1.05	3.25	5.16	0.120	15.50	0.76	11.20	113.20	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	✓	Manganese (6020 A)	
TOC (9060 A)		LLPAHs (8270 E SIM)	
Methane Ethane Ethene (RSK-175)		SVOCS (8270 D)	
Anions (9056 A)		Pesticides & PCBS (8081 B & 8082 A)	
Alkalinity (2320 B)		2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)		QPCR	
CO2 (SM4500)			
Sulfide (SM4500)			

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L):

Dilution: Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result:

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? No If Yes, List ID and Analyses

COMMENTS/NOTES

TURBIDITY NOT CALIBRATING

MEADOWS CONSULTING | MANAGEMENT | PLANNING AECOM Imagine it. Delivered.

GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	OU6-MW-284
Project/Site Name:	OU6 Annual	Sample ID:	OU6-MW-284-20240515
Date:	5/15/2024	Well Condition:	New Well
Weather:	Mid 60's. cloudy and raining		

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	2	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	19.54	Purging/Sampling Device:	Bladder Pump
Total Depth (ft btoc):	40.64 COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI Pro DSS
Water Column (ft):	21.10		
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier 0.1620	Start Purge Date/Time:	05/15/2024 0813
		End Purge Date/Time:	05/15/2024 0850
		Total Volume Purged (gal):	3.0
One Well Volume (gal):	3.42	Sample Date/Time:	05/15/2024 0850
Screened Interval (ft bgs):	35.64 - 40.64	Sampler Name:	QR

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
0815	200	0.25	19.54	6.40	0.199	18.10	4.13	349.54	74.10	
0820	200	0.50	19.63	6.40	0.143	18.20	1.22	105.67	24.60	
0825	200	1.00	14.63	6.42	0.191	18.20	0.96	72.36	12.20	
0830	200	1.50	19.63	6.44	0.196	18.30	0.81	48.14	4.50	
0835	200	2.00	19.63	6.45	0.196	18.20	0.69	26.89	-0.40	
0840	200	2.50	19.63	6.45	0.196	18.20	0.64	28.51	-4.00	
0845	200	3.00	19.63	6.45	0.196	18.20	0.61	26.25	-5.90	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	✓	Manganese (6020 A)	
TOC (9060 A)		LLPAHs (8270 E SIM)	
Methane Ethane Ethene (RSK-175)		SVOCS (8270 D)	
Anions (9056 A)		Pesticides & PCBS (8081 B & 8082 A)	
Alkalinity (2320 B)		2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)		QPCR	
CO2 (SM4500)		Dioxane	✓
Sulfide (SM4500)			

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L):

Dilution: Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result:

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? Yes If Yes, List ID and Analyses

MS/MSD

COMMENTS/NOTES

MEADOWS CONSULTING | MANAGEMENT | PLANNING AECOM Imagine it. Delivered.

GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	MWNGA-8
Project/Site Name:	OU6 Annual	Sample ID:	MWNGA-8-20240515
Date:	5/15/2024	Well Condition:	Good
Weather:	Mid 60's, cloudy, raining		

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	2	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	14.3	Purging/Sampling Device:	Bladder Pump
Total Depth (ft btoc):	43.10 COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI
Water Column (ft):	28.80		
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier 0.1620	Start Purge Date/Time:	5/15/2024 - 1122
		End Purge Date/Time:	5/15/2024 - 1220
		Total Volume Purged (gal):	4
One Well Volume (gal):	4.67	Sample Date/Time:	5/15/2024 - 1225
Screened Interval (ft bgs):	38.1 - 43.1	Sampler Name:	QR

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
1125	200	0.25	14.36	6.05	0.079	20.50	1.21	367.64	66.30	Light brown, no odor
1130	200	0.50	14.35	6.09	0.082	20.30	0.82	325.96	53.70	
1135	200	0.75	14.35	6.09	0.086	20.20	0.67	202.11	49.30	
1140	200	1.00	14.35	6.06	0.084	20.30	0.60	155.15	52.20	
1145	200	1.25	14.35	5.99	0.079	20.50	0.53	107.60	59.20	
1150	200	1.50	14.35	5.95	0.076	20.30	0.51	94.62	63.50	
1155	200	2.00	14.35	5.90	0.073	20.20	0.48	66.23	72.00	
1200	200	2.25	14.35	5.88	0.072	20.20	0.46	59.23	74.60	
1205	200	2.75	14.35	5.86	0.070	20.20	0.45	45.78	80.60	
1210	200	3.00	14.35	5.84	0.069	20.30	0.44	33.55	84.90	
1215	200	3.50	14.35	5.84	0.069	20.20	0.43	34.80	87.80	
1220	200	4.00	14.35	5.83	0.069	20.30	0.43	32.45	89.40	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	✓	Manganese (6020 A)	
TOC (9060 A)		LLPAHs (8270 E SIM)	
Methane Ethane Ethene (RSK-175)		SVOCS (8270 D)	
Anions (9056 A)		Pesticides & PCBS (8081 B & 8082 A)	
Alkalinity (2320 B)		2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)		QPCR	
CO2 (SM4500)		Dioxane	✓
Sulfide (SM4500)			

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L):

Dilution: Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result:

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? No If Yes, List ID and Analyses

COMMENTS/NOTES

MEADOWS CONSULTING | MANAGEMENT | PLANNING AECOM Imagine it. Delivered.

GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	MWNGA-10
Project/Site Name:	OU6 Annual	Sample ID:	MWNGA-10-20240515
Date:	5/15/2024	Well Condition:	
Weather:	Mid 60's, cloudy & raining		

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	2	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	15.11	Purging/Sampling Device:	Bladder Pump
Total Depth (ft btoc):	45.85 COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI
Water Column (ft):	30.74		
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier 0.1620	Start Purge Date/Time:	5/15/2024 - 0933
		End Purge Date/Time:	5/15/2024 - 1010
		Total Volume Purged (gal):	3
One Well Volume (gal):	4.98	Sample Date/Time:	5/15/2024 - 1015
Screened Interval (ft bgs):	40.85 - 45.85	Sampler Name:	

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
0935	200	0.25	15.30	5.68	0.057	20.00	2.17	299.80	57.20	
0940	200	0.25	15.26	5.64	0.055	20.00	1.33	182.20	67.80	
0945	200	0.50	15.25	5.60	0.054	20.10	0.96	91.81	71.50	
0955	200	1.00	15.25	5.58	0.056	20.00	0.70	63.93	71.20	
1000	200	2.00	15.25	5.57	0.056	19.80	0.54	56.45	72.10	
1005	200	2.50	15.25	5.56	0.056	19.80	0.51	49.52	73.00	
1010	200	3.00	15.25	5.56	0.056	19.90	0.49	42.71	74.50	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	✓	Manganese (6020 A)	
TOC (9060 A)		LLPAHs (8270 E SIM)	
Methane Ethane Ethene (RSK-175)		SVOCS (8270 D)	
Anions (9056 A)		Pesticides & PCBS (8081 B & 8082 A)	
Alkalinity (2320 B)		2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)		QPCR	
CO2 (SM4500)		Dioxane	✓
Sulfide (SM4500)			

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L):

Dilution: Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result:

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? Yes If Yes, List ID and Analyses

MS/MSD

COMMENTS/NOTES

MEADOWS CONSULTING | MANAGEMENT | PLANNING AECOM Imagine it. Delivered.

GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	OU6-MW-142
Project/Site Name:	OU6 Annual	Sample ID:	OU6-MW-142-20240515
Date:	20240515	Well Condition:	GOOD
Weather:	HAZE 62		

WATER LEVEL AND WELL SPECIFICATION DETAILS

Well Casing Diameter (inches):	2.00
Initial Depth to Water (ft btoc):	13.27
Total Depth (ft btoc):	50.20 COLLECT AFTER WELL IS SAMPLED
Water Column (ft):	36.93
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier 0.1620
One Well Volume (gal):	5.98
Screened Interval (ft bgs):	45-50

SAMPLE COLLECTION INFORMATION

Purging/Sampling Method:	Low Flow
Purging/Sampling Device:	Bladder Pump
Field Parameter Measuring Devices:	YSI PRO DSS
Start Purge Date/Time:	24/5/15 0927
End Purge Date/Time:	24/5/15 1032
Total Volume Purged (gal):	3.25
Sample Date/Time:	24/5/15 1032
Sampler Name:	TIM BROWN

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
0932	250	0.25	13.65	5.91	0.097	15.70	1.89	140.86	246.20	WATER CLOUDY/ NO ODOR
0937	250	0.50	13.62	5.84	0.098	15.70	0.89	131.00	219.20	
0942	250	0.75	13.50	5.91	0.099	15.60	1.58	163.00	191.80	
0947	250	1.00	13.52	5.96	0.099	15.60	2.15	120.00	202.00	
0952	250	1.25	13.56	5.96	0.099	15.60	1.78	103.00	226.10	
0957	250	1.50	13.60	5.97	0.099	15.60	1.58	79.00	204.80	
1002	250	1.75	13.55	5.97	0.099	15.60	1.56	62.00	202.30	
1007	250	2.00	13.62	5.97	0.099	15.60	1.83	58.00	202.30	
1012	250	2.25	13.55	5.97	0.099	15.60	1.64	67.00	208.10	
1017	250	2.50	13.50	5.98	0.100	15.60	2.15	65.00	217.50	
1022	250	2.75	13.55	5.97	0.100	15.60	1.58	62.00	225.60	
1027	250	3.00	13.53	5.98	0.100	15.60	1.81	29.00	227.50	
1032	250	3.25	13.55	5.98	0.100	15.60	2.00	19.65	231.70	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply

Volatiles - VOCs (8260 D)	✓	Manganese (6020 A)	✓
TOC (9060 A)	✓	LLPAHs (8270 E SIM)	
Methane Ethane Ethene (RSK-175)	✓	SVOCS (8270 D)	
Anions (9056 A)	✓	Pesticides & PCBS (8081 B & 8082 A)	
Alkalinity (2320 B)	✓	2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)		QPCR	
CO2 (SM4500)	✓		
Sulfide (SM4500)	✓		

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L): 0.66

Dilution: 0 Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result: 0.66

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? No If Yes, List ID and Analyses

COMMENTS/NOTES

MEADOWS CONSULTING | MANAGEMENT | PLANNING AECOM Imagine it. Delivered.

GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	OU6-MW-297
Project/Site Name:	OU6 Annual	Sample ID:	OU6-MW-297-20240515
Date:	20240515	Well Condition:	GOOD
Weather:	HAZE 64		

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	2.00	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	15.38	Purging/Sampling Device:	Peristaltic Pump
Total Depth (ft btoc):	33.10 COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI PRO DSS
Water Column (ft):	17.72		
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier 0.1620	Start Purge Date/Time:	24/5/15 1110
		End Purge Date/Time:	24/5/15 1210
		Total Volume Purged (gal):	3.00
One Well Volume (gal):	2.87	Sample Date/Time:	24/5/15 1210
Screened Interval (ft bgs):	28-33	Sampler Name:	TIM BROWN

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^C)	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
1115	250	0.25	15.65	6.00	0.277	15.50	3.64	239.00	379.50	WATER CLOUDY/ NO ODOR
1120	250	0.50	15.65	5.82	0.286	15.40	1.32	115.60	274.00	
1125	250	0.75	15.67	5.87	0.284	15.40	0.83	64.00	184.70	
1130	250	1.00	15.60	5.81	0.279	15.40	0.66	47.00	145.10	
1135	250	1.25	15.65	5.80	0.279	15.40	0.88	61.00	133.80	
1140	250	1.50	15.67	5.81	0.279	15.40	1.21	74.00	117.90	
1145	250	1.75	15.70	5.80	0.278	15.40	1.43	122.00	107.90	
1150	250	2.00	15.65	5.81	0.278	15.40	1.35	147.00	98.20	
1155	250	2.25	15.70	5.79	0.278	15.40	1.13	170.00	90.00	
1200	250	2.50	15.63	5.79	0.277	15.40	1.16	200.00	85.30	
1205	250	2.75	15.65	5.79	0.276	15.40	1.28	175.00	81.90	
1210	250	3.00	15.70	5.77	0.276	15.40	1.18	170.00	81.10	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	✓	Manganese (6020 A)	
TOC (9060 A)		LLPAHs (8270 E SIM)	
Methane Ethane Ethene (RSK-175)		SVOCS (8270 D)	
Anions (9056 A)		Pesticides & PCBS (8081 B & 8082 A)	
Alkalinity (2320 B)		2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)		QPCR	
CO2 (SM4500)			
Sulfide (SM4500)			

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L):

Dilution: Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result:

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? No If Yes, List ID and Analyses

COMMENTS/NOTES

MEADOWS CONSULTING | MANAGEMENT | PLANNING AECOM Imagine it. Delivered.

GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	OU6-MW-301
Project/Site Name:	OU6 Annual	Sample ID:	OU6-MW-301-20240515
Date:	20240515	Well Condition:	GOOD
Weather:	CLOUDY 67		

WATER LEVEL AND WELL SPECIFICATION DETAILS

Well Casing Diameter (inches):	2.00		
Initial Depth to Water (ft btoc):	13.57		
Total Depth (ft btoc):	40.55	COLLECT AFTER WELL IS SAMPLED	
Water Column (ft):	26.98		
Water Column Multipliers (gal/ft):	Enter Multiplier		
1/4": **0.0025**, 3/4": **0.024**, 1": **0.04**	0.1620		
2": **0.162**, 4": **0.653**, 6": **1.469**			
One Well Volume (gal):	4.37		
Screened Interval (ft bgs):	35-40		

SAMPLE COLLECTION INFORMATION

Purging/Sampling Method:	Low Flow
Purging/Sampling Device:	Bladder Pump
Field Parameter Measuring Devices:	
Start Purge Date/Time:	24/5/15 1240
End Purge Date/Time:	24/5/15 1335
Total Volume Purged (gal):	2.75
Sample Date/Time:	24/5/15 1335
Sampler Name:	TIM BROWN

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
1245	250	0.25	13.90	6.27	0.087	15.20	6.93	94.00	386.30	WATER CLOUDY/ NO ODOR
1250	250	0.50	14.00	6.09	0.105	15.20	4.18	84.00	387.40	
1255	250	0.75	13.97	5.97	0.117	15.10	2.54	66.00	367.00	
1300	250	1.00	13.95	5.95	0.126	15.10	1.81	51.00	346.20	
1305	250	1.25	14.00	5.99	0.133	15.10	1.37	45.00	327.90	
1310	250	1.50	14.00	5.98	0.139	15.10	1.68	51.00	314.00	
1315	250	1.75	13.95	5.97	0.144	15.10	1.53	48.00	299.80	
1320	250	2.00	13.90	5.95	0.149	15.10	0.76	15.37	289.70	
1325	250	2.25	13.95	5.94	0.151	15.10	0.89	19.38	283.90	
1330	250	2.50	14.00	5.92	0.157	15.10	0.71	14.95	270.00	
1335	250	2.75	13.97	5.91	0.158	15.10	0.72	20.00	260.40	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	✓	Manganese (6020 A)	
TOC (9060 A)		LLPAHs (8270 E SIM)	
Methane Ethane Ethene (RSK-175)		SVOCS (8270 D)	
Anions (9056 A)		Pesticides & PCBS (8081 B & 8082 A)	
Alkalinity (2320 B)		2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)		QPCR	
CO2 (SM4500)			
Sulfide (SM4500)			

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L):

Dilution: Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result:

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? No If Yes, List ID and Analyses

COMMENTS/NOTES

MEADOWS CONSULTING | MANAGEMENT | PLANNING AECOM Imagine it. Delivered.

GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	OU6-MW-246
Project/Site Name:	OU6 Annual	Sample ID:	OU6-MW-246-20240515
Date:	5/15/2024	Well Condition:	Good
Weather:	cloudy, mild		

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	2	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	12.58	Purging/Sampling Device:	Peristaltic Pump
Total Depth (ft btoc):	25.45 COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI
Water Column (ft):	12.87		
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier 0.1620	Start Purge Date/Time:	5/15/2024 - 1430
		End Purge Date/Time:	5/15/2024 - 1500
		Total Volume Purged (gal):	2.25
One Well Volume (gal):	2.08	Sample Date/Time:	5/15/2024 - 1505
Screened Interval (ft bgs):	20.45 - 25.45	Sampler Name:	TJ Skora

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
1435	200	0.25	12.65	4.80	0.059	19.20	4.00	3.77	146.70	clear, no odor
1440	200	0.50	12.65	4.74	0.057	18.60	3.73	2.39	221.60	
1445	200	1.00	12.65	4.76	0.057	18.30	3.19	1.18	240.30	
1450	200	1.50	12.65	4.76	0.058	18.20	3.15	0.67	253.00	
1455	200	1.75	12.65	4.78	0.057	18.20	3.21	0.62	262.50	
1500	200	2.25	12.65	4.79	0.058	18.20	3.23	0.59	264.10	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	✓	Manganese (6020 A)	✓
TOC (9060 A)	✓	LLPAHs (8270 E SIM)	
Methane Ethane Ethene (RSK-175)	✓	SVOCS (8270 D)	
Anions (9056 A)	✓	Pesticides & PCBS (8081 B & 8082 A)	
Alkalinity (2320 B)	✓	2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)		QPCR	
CO2 (SM4500)	✓		
Sulfide (SM4500)	✓		

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L): 0.26

Dilution: 0 Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result: 0.26

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? No If Yes, List ID and Analyses

COMMENTS/NOTES

MEADOWS CONSULTING | MANAGEMENT | PLANNING AECOM Imagine it. Delivered.

GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	OU6-MW-182
Project/Site Name:	OU6 Annual	Sample ID:	OU6-MW-182-20240515
Date:	05/15/2024	Well Condition:	Good
Weather:	cloudy, mild		

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	2	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	10.20	Purging/Sampling Device:	Peristaltic Pump
Total Depth (ft btoc):	19.77 COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI
Water Column (ft):	9.57		
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier 0.1620	Start Purge Date/Time:	05/15/2024 - 1155
		End Purge Date/Time:	05/15/2024 - 1250
		Total Volume Purged (gal):	4.25
One Well Volume (gal):	1.55	Sample Date/Time:	5/15/2024 - 1255
Screened Interval (ft bgs):	14.77 - 19.77	Sampler Name:	TJ Skora

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
1200	250	0.25	10.28	5.48	0.148	18.50	3.66	3.55	189.50	clear, no odor
1205	250	0.50	10.28	5.48	0.148	18.40	2.57	1.79	107.40	
1210	250	0.75	10.28	5.42	0.064	18.30	2.73	2.47	96.60	
1215	250	1.00	10.28	5.41	0.130	18.30	2.62	1.55	101.30	
1220	250	1.25	10.28	5.36	0.121	18.40	2.69	1.45	125.40	
1225	250	2.00	10.28	5.35	0.122	18.40	2.70	2.12	132.40	
1230	250	2.50	10.28	5.29	0.114	18.40	2.71	0.85	140.50	
1235	250	3.25	10.28	5.36	0.115	18.30	3.33	1.13	171.20	
1240	250	3.50	10.28	5.34	0.111	18.40	3.51	0.75	176.60	
1245	250	3.75	10.28	5.26	0.106	18.30	3.36	0.82	185.90	
1250	250	4.25	10.28	5.22	0.106	18.30	3.30	0.83	192.70	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	✓	Manganese (6020 A)	
TOC (9060 A)		LLPAHs (8270 E SIM)	
Methane Ethane Ethene (RSK-175)		SVOCS (8270 D)	
Anions (9056 A)		Pesticides & PCBS (8081 B & 8082 A)	
Alkalinity (2320 B)		2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)		QPCR	
CO2 (SM4500)			
Sulfide (SM4500)			

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L):

Dilution: Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result:

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? No If Yes, List ID and Analyses

COMMENTS/NOTES

MEADOWS CONSULTING | MANAGEMENT | PLANNING AECOM Imagine it. Delivered.

GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	DMW-17A
Project/Site Name:	OU6 Annual	Sample ID:	DMW-17A-20240515
Date:	5/15/2024	Well Condition:	1 of 3 bolts missing
Weather:	cloudy, mild		

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	4	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	11.45	Purging/Sampling Device:	Peristaltic Pump
Total Depth (ft btoc):	24.41 COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI
Water Column (ft):	12.96		
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier 0.6530	Start Purge Date/Time:	05/15/2024 - 1100
		End Purge Date/Time:	5/15/2024 - 1130
		Total Volume Purged (gal):	1.75
One Well Volume (gal):	8.46	Sample Date/Time:	5/15/2024 - 1135
Screened Interval (ft bgs):	19.41 - 24.41	Sampler Name:	TJ Skora

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
1105	250	0.25	11.50	5.24	0.059	18.40	5.11	2.27	215.80	
1110	250	0.50	11.50	5.26	0.054	18.40	5.22	1.80	232.10	
1115	250	0.75	11.50	5.33	0.053	18.50	5.84	1.87	248.80	
1120	250	1.00	11.50	5.26	0.053	18.50	5.14	2.12	260.30	
1125	250	1.50	11.50	5.24	0.053	18.50	5.15	2.12	268.20	
1130	250	1.75	11.50	5.26	0.053	18.50	5.45	2.15	271.90	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	✓	Manganese (6020 A)	
TOC (9060 A)		LLPAHs (8270 E SIM)	
Methane Ethane Ethene (RSK-175)		SVOCS (8270 D)	
Anions (9056 A)		Pesticides & PCBS (8081 B & 8082 A)	
Alkalinity (2320 B)		2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)		QPCR	
CO2 (SM4500)			
Sulfide (SM4500)			

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L):

Dilution: Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result:

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? No If Yes, List ID and Analyses

COMMENTS/NOTES

MEADOWS CONSULTING | MANAGEMENT | PLANNING AECOM Imagine it. Delivered.

GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	OU6-MW-124
Project/Site Name:	OU6 Annual	Sample ID:	OU6-MW-124-20240515
Date:	5/15/2024	Well Condition:	Good
Weather:	cloudy, coool		

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	.75	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	11.54	Purging/Sampling Device:	Peristaltic Pump
Total Depth (ft btoc):	19.65 COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI
Water Column (ft):	8.11		
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier 0.0240	Start Purge Date/Time:	5/15/24 - 0830
		End Purge Date/Time:	5/15/24 - 0910
		Total Volume Purged (gal):	2.00
One Well Volume (gal):	0.19	Sample Date/Time:	5/15/2024 - 0915
Screened Interval (ft bgs):	14.65 - 19.65	Sampler Name:	TJ Skora

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
0835	200	0.25	12.65	6.50	0.057	18.10	6.66	67.20	60.90	clear, no odor
0840	200	0.50	13.00	5.86	0.041	17.70	6.20	32.10	163.10	
1845	200	0.75	13.30	5.73	0.038	17.60	5.97	26.91	207.90	
0850	200	1.00	13.74	5.64	0.077	17.50	5.88	24.48	235.90	
0855	200	1.25	13.85	5.56	0.072	17.50	6.03	22.80	250.90	
0900	200	1.50	14.14	5.49	0.034	17.50	5.55	22.94	266.20	
0905	200	1.75	14.39	5.42	0.000	17.50	5.12	20.17	276.50	
0910	200	2.00	14.30	5.40	0.000	17.50	5.53	18.98	272.90	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	✓	Manganese (6020 A)	✓
TOC (9060 A)	✓	LLPAHs (8270 E SIM)	
Methane Ethane Ethene (RSK-175)	✓	SVOCS (8270 D)	
Anions (9056 A)	✓	Pesticides & PCBS (8081 B & 8082 A)	
Alkalinity (2320 B)	✓	2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)		QPCR	
CO2 (SM4500)	✓		
Sulfide (SM4500)	✓		

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L): 0.07

Dilution: 0 Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result: 0.07

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? No If Yes, List ID and Analyses

COMMENTS/NOTES

MEADOWS CONSULTING | MANAGEMENT | PLANNING AECOM Imagine it. Delivered.

GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	DMW-8A
Project/Site Name:	OU6 Annual	Sample ID:	DMW-8A-20240515
Date:	5/15/2024	Well Condition:	Good
Weather:	cloudy, cool		

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	4	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	9.84	Purging/Sampling Device:	Peristaltic Pump
Total Depth (ft btoc):	25.35 COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI
Water Column (ft):	15.51		
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier 0.6530	Start Purge Date/Time:	5/15/2024 - 1000
		End Purge Date/Time:	5/15/2024 - 1030
		Total Volume Purged (gal):	1.75
One Well Volume (gal):	10.13	Sample Date/Time:	5/15/2024 - 10.35
Screened Interval (ft bgs):	20.35 - 25.35	Sampler Name:	TJ Skora

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
1005	250	0.25	9.89	4.58	0.062	17.20	3.90	0.60	178.30	
1010	250	0.50	9.90	4.41	0.064	17.20	3.52	-0.07	227.30	
1015	250	0.75	9.90	4.39	0.065	17.30	3.55	-0.03	245.90	
1020	250	1.00	9.90	4.37	0.135	17.40	3.48	-0.10	260.00	
1025	250	1.50	9.90	4.40	0.134	17.50	3.56	-0.08	270.00	
1030	250	1.75	9.90	4.36	0.133	17.40	3.56	-0.09	277.50	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	✓	Manganese (6020 A)	
TOC (9060 A)		LLPAHs (8270 E SIM)	
Methane Ethane Ethene (RSK-175)		SVOCS (8270 D)	
Anions (9056 A)		Pesticides & PCBS (8081 B & 8082 A)	
Alkalinity (2320 B)		2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)		QPCR	
CO2 (SM4500)			
Sulfide (SM4500)			

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L):

Dilution: Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result:

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? No If Yes, List ID and Analyses

COMMENTS/NOTES

OU#	Well#	Sample ID	Date	Time Sampled	Time Hach	# of Dilutions	Iron Result	reportable result	Notes
Final Result Calculation, Dilution 1 Result X 2, Dilution 2 Result x 4, Dilution 3 Result x 8, Dilution 4 Result x 16, Dilution 5 Result x 32									
OU6	MW-168	OU6-MW-168-20240514	24/5/14	1000	1500	Ø	0.17	0.17	
OU6	MW-169	OU6-MW-169-20240514	24/5/14	1415	1525	Ø	0.01	0.01	
OU6	MW-265	OU6-MW-265-20240514	24/5/14	1155	1533	Ø	4.65	—	
OU6	11	11	11	—	1540	2	1.13	4.60	
OU6	MW-267	OU6-MW-267-20240514	24/5/14	1310	1547	Ø	1.15	1.15	
OU6									
OU6	MW-142	OU6-MW-142-20240515	24/5/15	1032	1500	Ø	0.66	0.66	
OU6	MW-277	OU6-MW-277-20240515	24/5/15	0935	1506	Ø	0.06	0.06	
OU6	MW-280	OU6-MW-280-20240515	24/5/15	1250	1512	Ø	2.45	2.45	
OU6	MW-259	OU6-MW-259-20240515	24/5/15	0820	1520	Ø	0.03	0.03	
OU6	MW-246	OU6-MW-246-20240515	24/5/15	1505	1538	Ø	0.26	0.26	
OU6	MW-124	OU6-MW-124-20240515	24/5/15	0915	1545	Ø	0.07	0.07	
OU6									
OU6	MW-298	OU6-MW-298-20240516	24/5/16	1010					
OU6	MW-								
OU6									
OU6									
OU6									
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AECOM

DAILY FIELD INSTRUMENT CALIBRATION/ CALIBRATION CHECK FORM

Site Name: Richmond DCR

Project/Client: MSA0045 Project Number: 0045-011

Location: Richmond DCA

Field Analyst(s): Bruce W. DT665

Date: 5-15-2024 Start Time: 0630 Finish Time: 1150

Instrument Information

Parameter	Make	Model	Meter Serial #	Probe Serial #
DO	YSI	PRO PLUS	21B046	21B077
pH	↓	PDS		
Specific Conductance		↓	↓	↓
ORP		↓		
Temperature	↓			
Turbidity				

Pre-Field Calibration and Quality Control Requirements

Prior to using instrument(s) in the field, field analysts must ensure that certain quality control procedures and calibrations have been completed for the instruments listed above. Records of the following, completed either by AECOM or the vendor, must be retained:

- ♦Weekly DO Winkler Titration ☐
- ♦5-Point Conductivity Curve ☐
- ♦Annual Conductivity Cell Constant ☐
- ♦Quarterly NIST Traceable Thermometer ☐
- ♦Solution Records ☐

Field Calibration/Calibration Check

DO (Method SM 4500 O.G)

100% Saturation	
Barometric Pressure (mmHg)	750.2
Temperature (°C)	21.5
Initial Reading	8.86
Reset Reading	8.60

0% Saturation	
Solution Temperature (°C)	
Solution Manufacturer & Lot #	
Reading	
*Requires Recalibration	Y / N
Reset Reading	

Note: DO must be calibrated to 100% saturation. DO may only be calibration checked to 0% saturation (zero oxygen solution standard). Calibration methods may differ between DO meters, and some fields listed may not be applicable. Refer to instrument manual for calibration instructions.

pH (Method SM 4500-H B)

Buffer Solution	Solution Manufacturer & Lot #	Solution Expiration Date	Solution Temperature	Reading	*Requires Recalibration	Reset Reading
4	3660023	JUL 25	22.3	3.79	Y / N	4.00
7	36K1332	11/25	22.4	7.01	Y / N	7.00
10	36K6004	11/25	22.4	10.03	Y / N	10.00
126	23J-7400J3	4/24	22.4	141.0	Y / N	124.0

Note: A calibration check against one standard buffer must be performed and recorded in the field book every 3-hours of use after daily calibration/calibration check.

AECOM

DAILY FIELD INSTRUMENT CALIBRATION/ CALIBRATION CHECK FORM

Specific Conductance (Method 2510 B)

Standard Solution	Solution Manufacturer & Lot #	Solution Expiration Date	Solution Temperature	Reading ($\mu S \cdot cm^{-1}$)	*Requires Recalibration	Reset Reading ($\mu S \cdot cm^{-1}$)
1.413	36T0310	10/24	22.4	1.321	Y / N	1.413

ORP

Standard Solution	Solution Manufacturer & Lot #	Solution Expiration Date	Solution Temperature	Reading (mV)	*Requires Recalibration	Reset Reading (mV)
240.0	36J0094	7/24	22.4	226.2	Y / N	238.8

Turbidity (Method 2130 B)

Standard Solution (NTU)	Solution Manufacturer & Lot #	Solution Expiration Date	Reading (NTU)	*Requires Recalibration	Reset Reading (NTU)
				Y / N	
				Y / N	
				Y / N	
				Y / N	

*Field check readings should be within the accuracy listed by the manufacturer's specifications or per New Jersey regulations (NJAC 7:18), whichever is more stringent. Otherwise, the instrument must be recalibrated for that parameter. Refer to instrument manual for accuracy. Values provided below for instruments typically used by AECOM:

YSI 6-Series:

Dissolved Oxygen	± 0.1 % or ± 0.1 mg/L, whichever is greater
pH **	± 0.2 units
	**NJAC 7:18 requires that calibration values be accurate to ±0.05, and accuracy within ±0.1 units for the initial calibration check and ±0.2 units for 3-hour checks
Specific Conductivity	± 0.5% + 0.001 mS/cm
ORP	± 20 mV
Turbidity	± 2%

Horriba U-20XD Series:

Dissolved Oxygen	± 0.2 mg/L
pH **	± 0.1 units
Specific Conductivity	± 3%
ORP	± 15 mV
Turbidity	± 5%

LaMotte 2020e/i Turbidity Meter:

±0.05 or ±2%, below 100 NTU
±3%, above 100 NTU

AECOM

DAILY FIELD INSTRUMENT CALIBRATION/ CALIBRATION CHECK FORM

Site Name: DSCR

Project/Client: OMC Annual Project Number: 0045-0011

Location: OU6

Field Analyst(s): TJ Skora

Date: 5/15/24 Start Time: 0715 Finish Time: 0750

Instrument Information

Parameter	Make	Model	Meter Serial #	Probe Serial #
DO	Pro DSS	YSI	42061	23F102676
pH				
Specific Conductance				
ORP				
Temperature				
Turbidity				

Pre-Field Calibration and Quality Control Requirements

Prior to using instrument(s) in the field, field analysts must ensure that certain quality control procedures and calibrations have been completed for the instruments listed above. Records of the following, completed either by AECOM or the vendor, must be retained:

- ♦Weekly DO Winkler Titration ☐
- ♦5-Point Conductivity Curve ☐
- ♦Annual Conductivity Cell Constant ☐
- ♦Quarterly NIST Traceable Thermometer ☐
- ♦Solution Records ☐

Field Calibration/Calibration Check

DO (Method SM 4500 O.G)

100% Saturation	
Barometric Pressure (mmHg)	751.5
Temperature (°C)	21.1
Initial Reading	100.2
Reset Reading	100.0

0% Saturation	
Solution Temperature (°C)	
Solution Manufacturer & Lot #	
Reading	
*Requires Recalibration	Y / N
Reset Reading	

Note: DO must be calibrated to 100% saturation. DO may only be calibration checked to 0% saturation (zero oxygen solution standard). Calibration methods may differ between DO meters, and some fields listed may not be applicable. Refer to instrument manual for calibration instructions.

pH (Method SM 4500-H B)

Buffer Solution	Solution Manufacturer & Lot #	Solution Expiration Date	Solution Temperature	Reading	*Requires Recalibration	Reset Reading
4	Pine 4GB0637	2/26	21.8	4.10	Y / N	4.00
7	" 4GB1040	2/26	21.5	7.18	Y / N	7.01
10	" 3GF1088	6/25	22.0	10.11	Y / N	10.04
					Y / N	

Note: A calibration check against one standard buffer must be performed and recorded in the field book every 3-hours of use after daily calibration/calibration check.

AECOM

DAILY FIELD INSTRUMENT CALIBRATION/ CALIBRATION CHECK FORM

Specific Conductance (Method 2510 B) — wrong units. Unable to change

Standard Solution	Solution Manufacturer & Lot #	Solution Expiration Date	Solution Temperature	Reading ($\mu S \cdot cm^{-1}$)	*Requires Recalibration	Reset Reading ($\mu S \cdot cm^{-1}$)
1.413	PINE 4GA0218	2025-1	22.0	586	Y / N	537

ORP

Standard Solution	Solution Manufacturer & Lot #	Solution Expiration Date	Solution Temperature	Reading (mV)	*Requires Recalibration	Reset Reading (mV)
240.0	Pine 3GH0038	5/24	22.0	380.0	Y / N	218.5

Turbidity (Method 2130 B)

Standard Solution (NTU)	Solution Manufacturer & Lot #	Solution Expiration Date	Reading (NTU)	*Requires Recalibration	Reset Reading (NTU)
0	Pine 24007124	1/25	0.1	Y / N	0.0
126.0	Pine 23D2400164	4/24	127.75	Y / N	124.0
				Y / N	
				Y / N	

*Field check readings should be within the accuracy listed by the manufacturer's specifications or per New Jersey regulations (NJAC 7:18), whichever is more stringent. Otherwise, the instrument must be recalibrated for that parameter. Refer to instrument manual for accuracy. Values provided below for instruments typically used by AECOM:

YSI 6-Series:		Horriba U-20XD Series:	
Dissolved Oxygen	± 0.1 % or ± 0.1 mg/L, whichever is greater	Dissolved Oxygen	± 0.2 mg/L
pH **	± 0.2 units	pH **	± 0.1 units
	**NJAC 7:18 requires that calibration values be accurate to ±0.05, and accuracy within ±0.1 units for the initial calibration check and ±0.2 units for 3-hour checks		
Specific Conductivity	± 0.5% + 0.001 mS/cm	Specific Conductivity	± 3%
ORP	± 20 mV	ORP	± 15 mV
Turbidity	± 2%	Turbidity	± 5%

LaMotte 2020e/i Turbidity Meter:
±0.05 or ±2%, below 100 NTU
±3%, above 100 NTU

AECOM

DAILY FIELD INSTRUMENT CALIBRATION/ CALIBRATION CHECK FORM

Site Name: 006

Project/Client: Project Number: 0045-001

Location: DSCR - Richmond

Field Analyst(s): Quin Roberts

Date: 2/15/24 Start Time: 0700 Finish Time: 0730

Instrument Information

Parameter	Make	Model	Meter Serial #	Probe Serial #
DO	PRO DSS	YSI	211370	46982
pH	↓	↓	↓	↓
Specific Conductance	↓	↓	↓	↓
ORP	↓	↓	↓	↓
Temperature	↓	↓	↓	↓
Turbidity	↓	↓	↓	↓

Pre-Field Calibration and Quality Control Requirements

Prior to using instrument(s) in the field, field analysts must ensure that certain quality control procedures and calibrations have been completed for the instruments listed above. Records of the following, completed either by AECOM or the vendor, must be retained:

- ♦Weekly DO Winkler Titration ☐
- ♦5-Point Conductivity Curve ☐
- ♦Annual Conductivity Cell Constant ☐
- ♦Quarterly NIST Traceable Thermometer ☐
- ♦Solution Records ☐

Field Calibration/Calibration Check

DO (Method SM 4500 O.G)

100% Saturation	
Barometric Pressure (mmHg)	
Temperature (°C)	21.3
Initial Reading	8.69
Reset Reading	9.08

0% Saturation	
Solution Temperature (°C)	
Solution Manufacturer & Lot #	
Reading	
*Requires Recalibration	Y / N
Reset Reading	

Note: DO must be calibrated to 100% saturation. DO may only be calibration checked to 0% saturation (zero oxygen solution standard). Calibration methods may differ between DO meters, and some fields listed may not be applicable. Refer to instrument manual for calibration instructions.

pH (Method SM 4500-H B)

Buffer Solution	Solution Manufacturer & Lot #	Solution Expiration Date	Solution Temperature	Reading	*Requires Recalibration	Reset Reading
7	46B1040	2/26	22.1	7.16	Y / N	7
4	46B0637	2/26	22.1	3.97	Y / N	4
10	36F1086	6/25	22.1	9.95	Y / N	10
					Y / N	

Note: A calibration check against one standard buffer must be performed and recorded in the field book every 3-hours of use after daily calibration/calibration check.

AECOM

DAILY FIELD INSTRUMENT CALIBRATION/ CALIBRATION CHECK FORM

Specific Conductance (Method 2510 B)

Standard Solution	Solution Manufacturer & Lot #	Solution Expiration Date	Solution Temperature	Reading ($\mu S \cdot cm^{-1}$)	*Requires Recalibration	Reset Reading ($\mu S \cdot cm^{-1}$)
1,413	36K0855	11/24	22.1	1,256	Y / (N)	1,415

ORP

Standard Solution	Solution Manufacturer & Lot #	Solution Expiration Date	Solution Temperature	Reading (mV)	*Requires Recalibration	Reset Reading (mV)
240	3GH0036	5/24	22.1	243.4	Y / (N)	240

Turbidity (Method 2130 B)

Standard Solution (NTU)	Solution Manufacturer & Lot #	Solution Expiration Date	Reading (NTU)	*Requires Recalibration	Reset Reading (NTU)
0	24007124	1125	16.27	(Y) / N	0
120	23J2005648	4/24	164.68	Y / N	126
				Y / N	
				Y / N	

*Field check readings should be within the accuracy listed by the manufacturer's specifications or per New Jersey regulations (NJAC 7:18), whichever is more stringent. Otherwise, the instrument must be recalibrated for that parameter. Refer to instrument manual for accuracy. Values provided below for instruments typically used by AECOM:

YSI 6-Series:		Horriba U-20XD Series:	
Dissolved Oxygen	± 0.1 % or ± 0.1 mg/L, whichever is greater	Dissolved Oxygen	± 0.2 mg/L
pH **	± 0.2 units	pH **	± 0.1 units
	**NJAC 7:18 requires that calibration values be accurate to ±0.05, and accuracy within ±0.1 units for the initial calibration check and ±0.2 units for 3-hour checks		
Specific Conductivity	± 0.5% + 0.001 mS/cm	Specific Conductivity	± 3%
ORP	± 20 mV	ORP	± 15 mV
Turbidity	± 2%	Turbidity	± 5%

LaMotte 2020e/i Turbidity Meter:
±0.05 or ±2%, below 100 NTU
±3%, above 100 NTU

AECOM

DAILY FIELD INSTRUMENT CALIBRATION/ CALIBRATION CHECK FORM

Site Name: QU6

Project/Client: Project Number: 0045-0011

Location: DSCR - RICHMOND

Field Analyst(s): T.M BROWN

Date: 24/5/15 Start Time: 0715 Finish Time: 0830

Instrument Information

Parameter	Make	Model	Meter Serial #	Probe Serial #
DO	YSI	PRO QSS	16855	218078
pH	↓	↓	↓	↓
Specific Conductance				
ORP				
Temperature				
Turbidity				

Pre-Field Calibration and Quality Control Requirements

Prior to using instrument(s) in the field, field analysts must ensure that certain quality control procedures and calibrations have been completed for the instruments listed above. Records of the following, completed either by AECOM or the vendor, must be retained:

- ♦Weekly DO Winkler Titration ☐
- ♦5-Point Conductivity Curve ☐
- ♦Annual Conductivity Cell Constant ☐
- ♦Quarterly NIST Traceable Thermometer ☐
- ♦Solution Records ☐

Field Calibration/Calibration Check

DO (Method SM 4500 O.G)

100% Saturation	
Barometric Pressure (mmHg)	750.7
Temperature (°C)	20.3
Initial Reading	8.94
Reset Reading	8.92

0% Saturation	
Solution Temperature (°C)	X
Solution Manufacturer & Lot #	
Reading	
*Requires Recalibration	Y / N
Reset Reading	

Note: DO must be calibrated to 100% saturation. DO may only be calibration checked to 0% saturation (zero oxygen solution standard). Calibration methods may differ between DO meters, and some fields listed may not be applicable. Refer to instrument manual for calibration instructions.

pH (Method SM 4500-H B)

Buffer Solution	Solution Manufacturer & Lot #	Solution Expiration Date	Solution Temperature	Reading	*Requires Recalibration	Reset Reading
10	36F1088	6/25	21.8	10.07	Y / N	
7	46B1040	2/26	21.6	7.05	Y / N	
4	32017	12/25	22.0	3.92	Y / N	
					Y / N	

Note: A calibration check against one standard buffer must be performed and recorded in the field book every 3-hours of use after daily calibration/calibration check.

AECOM

DAILY FIELD INSTRUMENT CALIBRATION/ CALIBRATION CHECK FORM

Specific Conductance (Method 2510 B)

Standard Solution	Solution Manufacturer & Lot #	Solution Expiration Date	Solution Temperature	Reading ($\mu S \cdot cm^{-1}$)	*Requires Recalibration	Reset Reading ($\mu S \cdot cm^{-1}$)
1.413	36E0678	5/24	21.7	1.412	Y / N	

ORP

Standard Solution	Solution Manufacturer & Lot #	Solution Expiration Date	Solution Temperature	Reading (mV)	*Requires Recalibration	Reset Reading (mV)
240.0	36H0038	5/24	21.8	237.1	Y / N	

Turbidity (Method 2130 B)

Standard Solution (NTU)	Solution Manufacturer & Lot #	Solution Expiration Date	Reading (NTU)	*Requires Recalibration	Reset Reading (NTU)
126.0	23J2405648	9/24	126.02	Y / N	
				Y / N	
				Y / N	
				Y / N	

*Field check readings should be within the accuracy listed by the manufacturer's specifications or per New Jersey regulations (NJAC 7:18), whichever is more stringent. Otherwise, the instrument must be recalibrated for that parameter. Refer to instrument manual for accuracy. Values provided below for instruments typically used by AECOM:

YSI 6-Series:		Horriba U-20XD Series:	
Dissolved Oxygen	± 0.1 % or ± 0.1 mg/L, whichever is greater	Dissolved Oxygen	± 0.2 mg/L
pH **	± 0.2 units	pH **	± 0.1 units
	**NJAC 7:18 requires that calibration values be accurate to ±0.05, and accuracy within ±0.1 units for the initial calibration check and ±0.2 units for 3-hour checks		
Specific Conductivity	± 0.5% + 0.001 mS/cm	Specific Conductivity	± 3%
ORP	± 20 mV	ORP	± 15 mV
Turbidity	± 2%	Turbidity	± 5%

LaMotte 2020e/i Turbidity Meter:
±0.05 or ±2%, below 100 NTU
±3%, above 100 NTU

Eurofins Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Phone (912) 354-7858 Phone (912) 352-0165

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: Tim, TJ, Quin and Bruce	Lab PM: Lanier, Jerry	Carrier Tracking No(s):	COC No:
Client Contact: Andrew VanBuesking	Phone: 757-589-5825	E-Mail: Jerry.Lanier@et.eurofinsus.com	State of Origin: VA	Page: Page 1 of 3
Company: Meadows CMPG	PWSID:			Job #:

Address: 2107 Granby St	Due Date Requested:
City: Norfolk	TAT Requested (days): STD
State, Zip: VA	Compliance Project: Δ Yes Δ No
Phone: 757-623-3107	PO #: 0045-0011
Email: avanbuesking@meadowscmpg	WO #:
Project Name: OU6 Annual	Project #: 68020891
Site: DSCR, OU6	SSOW#:

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260D_DOD5 - (MOD) Volatiles		RSK_175_DOD5 - Ethane, Ethene, Methane	9060A - TOC	9056A_OF28D_D5 - Chloride & Sulfate 9056A_OF_48H_D5 - Local Method	SM4500_S2_F - Sulfide, Total	6020A_DOD5 - Manganese	SM4500_CO2_D - Carbon Dioxide	2320B - Alkalinity		8270E_DOD5 - (MOD) Semivolatiles (without PAHs)	8270E_SIM_DOD5 - Routine PAH	8081B_8082A_D5 - Routine Pesticides & PCBs	7470A_DOD5 - Mercury 6020A_DOD5- (MOD) TAL Metals	8270E_SIM_ID_D5 Local Method - Dioxane	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A		A	S	N	CB	D	N	N		N	N	N	D	N		
OU6-MW-277-20240515	5/15/24	0935	G	W							1	2	1	1	1							6	Sample from yesterday
OU6-MW-259-20240515	5/15/24	0820	G	W							1	2	1	1	1							6	Sample from yesterday
OU6-MW-280-20240515	5/15/24	1250	G	W							1	2	1	1	1							6	Sample from yesterday
OU6-MW-279-20240516	5/16/24	0800	G	W			3		3	3	1	2	1	1	1		2	2	2	1		22	
OU6-MW-270-20240516	5/16/24	0910	G	W			3		3	3	1	2	1	1	1							15	
OU6-MW-273-20240516	5/16/24	1010	G	W			3		3	3	1	2	1	1	1							15	
OU6-MW-281-20240516	5/16/24	1315	G	W			3		3	3	1	2	1	1	1							15	
OU6-MW-261-20240516	5/16/24	1115	G	W			3		3	3	1	2	1	1	1							15	
OU6-MW-142-20240515	5/15/24	1032	G	W			3		3	3	1	2	1	1	1							15	Sample from yesterday
OU6-MW-278-20240516	5/15/24	1215	G	W			3		3	3	1	2	1	1	1							15	
OU6-MW-166-20240516	5/16/24	0858	G	W			3		3	3	1	2	1	1	1							15	

Possible Hazard Identification
☐ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* ☐ *Poison B* ■ *Unknown* ☐ *Radiological*

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ■ *Disposal By Lab* ☐ *Archive For _____ Months*

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by: BRUCE DIGGS	Date/Time: 5-16-2024/1600	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Eurofins Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Phone (912) 354-7858 Phone (912) 352-0165

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: Tim, TJ, Quin and Bruce	Lab PM: Lanier, Jerry	Carrier Tracking No(s):	COC No:
Client Contact: Andrew VanBuesking	Phone: 757-589-5825	E-Mail: Jerry.Lanier@et.eurofinsus.com	State of Origin: VA	Page: Page 2 of 3
Company: Meadows CMPG	PWSID:			Job #:

Address: 2107 Granby St	Due Date Requested:
City: Norfolk	TAT Requested (days): STD
State, Zip: VA	Compliance Project: Δ Yes Δ No
Phone: 757-623-3107	PO #: 0045-0011
Email: avanbuesking@meadowscmpg	WO #:
Project Name: OU6 Annual	Project #: 68020891
Site: DSCR, OU6	SSOW#:

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Analysis Requested

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260D_DOD5 - (MOD) Volatiles		RSK_175_DOD5 - Ethane, Ethene, Methane	9060A - TOC	9056A_OF28D_D5 - Chloride & Sulfate 9056A_OF_48H_D5 - Local Method	SM4500_S2_F - Sulfide, Total	6020A_DOD5 - Manganese	SM4500_CO2_D - Carbon Dioxide	2320B - Alkalinity		8270E_DOD5 - (MOD) Semivolatiles (without PAHs)	8270E_SIM_DOD5 - Routine PAH	8081B_8082A_D5 - Routine Pesticides & PCBs	7470A_DOD5 - Mercury 6020A_DOD5- (MOD) TAL Metals	8270E_SIM_ID_D5 Local Method - Dioxane	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A		A	S	N	CB	D	N	N		N	N	N	D	N		
OU6-MW-167-20240516	5/16/24	1035	G	W			3		3	3	1	2	1	1	1							15	
OU6-MW-249-20240516	5/16/24	1345	G	W			3		3	3	1	2	1	1	1							15	VOC analysis only
OU6-MW-248-20240516	5/16/24	1105	G	W			3		3	3	1	2	1	1	1							15	
OU6-MW-298-20240516	5/16/24	1010	G	W			3		3	3	1	2	1	1	1							15	
OU6-MW-257-20240516	5/16/24	0910	G	W			3															3	
OU6-LAWMNQ-20240516	5/16/24	1240	G	W			3															3	Sample ID - LAWMWQ-20240516
OU6-MW-299-20240516	5/16/24	1410	G	W			3															3	
OU6-MW-286-20240516	5/16/24	1200	G	W			3		3	3	1	2	1	1	1						2	17	
OU6-DMW-34B-20240516	5/16/24	1355	G	W			3		3	3	1	2	1	1	1							15	Sampled - DMW-34B-20240516
OU6-MW-94-20240516	5/16/24	1020	G	W			3		3	3	1	2	1	1	1							15	
OU6-MW-93-20240516	5/16/24	0945	G	W			3														2	5	

Possible Hazard Identification
☐ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* ☐ *Poison B* ■ *Unknown* ☐ *Radiological*

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ■ *Disposal By Lab* ☐ *Archive For _____ Months*

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:		Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Eurofins Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Phone (912) 354-7858 Phone (912) 352-0165

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: Tim, TJ, Quin and Bruce	Lab PM: Lanier, Jerry	Carrier Tracking No(s):	COC No:
Client Contact: Andrew VanBuesking	Phone: 757-589-5825	E-Mail: Jerry.Lanier@et.eurofinsus.com	State of Origin: VA	Page: Page 3 of 3
Company: Meadows CMPG	PWSID:			Job #:

Address: 2107 Granby St	Due Date Requested:
City: Norfolk	TAT Requested (days): STD
State, Zip: VA	Compliance Project: Δ Yes Δ No
Phone: 757-623-3107	PO #: 0045-0011
Email: avanbuesking@meadowscmpg	WO #:
Project Name: OU6 Annual	Project #: 68020891
Site: DSCR, OU6	SSOW#:

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260D_DOD5 - (MOD) Volatiles		RSK_175_DOD5 - Ethane, Ethene, Methane	9060A - TOC	9056A_OF28D_D5 - Chloride & Sulfate 9056A_OF_48H_D5 - Local Method	SM4500_S2_F - Sulfide, Total	6020A_DOD5 - Manganese	SM4500_CO2_D - Carbon Dioxide	2320B - Alkalinity		8270E_DOD5 - (MOD) Semivolatiles (without PAHs)	8270E_SIM_DOD5 - Routine PAH	8081B_8082A_D5 - Routine Pesticides & PCBs	7470A_DOD5 - Mercury 6020A_DOD5- (MOD) TAL Metals	8270E_SIM_ID_D5 Local Method - Dioxane	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A		A	S	N	CB	D	N	N		N	N	N	D	N		
DUP-2-20240516	5/16/24		G	W			3														2	5	Dioxane should be in here
TRIP-BLANK-20240516	5/16/24		G	W			2															2	
																						0	
																						0	
																						0	
																						0	
																						0	
																						0	
																						0	
																						0	
																						0	

Possible Hazard Identification
☐ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* ☐ *Poison B* ■ *Unknown* ☐ *Radiological*

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ■ *Disposal By Lab* ☐ *Archive For _____ Months*

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by: | Date: | Time: | Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

MEADOWS CONSULTING | MANAGEMENT | PLANNING AECOM Imagine it. Delivered.

GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	OU6-MW-279
Project/Site Name:	OU6 Annual	Sample ID:	OU6-MW-279-20240516
Date:	5-16-2024	Well Condition:	GOOD
Weather:	SUNNY 56		

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	2	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	4.25	Purging/Sampling Device:	Peristaltic Pump
Total Depth (ft btoc):	11.9 COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI DSS PRO 218046
Water Column (ft):	7.65		
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier 0.1620	Start Purge Date/Time:	5-16-24/0720
		End Purge Date/Time:	5-16-24/0750
		Total Volume Purged (gal):	1 GAL
One Well Volume (gal):	1.24	Sample Date/Time:	5-16-24/0800
Screened Interval (ft bgs):	6.9 - 11.9	Sampler Name:	BRUCE DIGGS

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^C)	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
0720	150	0.15	4.25	6.11	0.598	18.50	1.10	44.25	-65.30	
0725	150	0.30	4.35	6.11	0.597	18.50	0.94	43.45	-68.80	
0730	150	0.45	4.55	6.10	0.594	18.60	0.82	33.60	-70.50	
0735	150	0.60	4.85	6.10	0.591	18.70	0.75	30.30	-72.60	
0740	150	0.75	4.90	6.10	0.588	18.70	0.69	29.50	-73.70	
0745	150	0.90	5.25	6.10	0.584	18.70	0.65	28.30	-74.60	
0750	150	1.05	5.55	6.10	0.580	18.70	0.63	25.20	-74.90	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	✓	Manganese (6020 A)	✓
TOC (9060 A)	✓	LLPAHs (8270 E SIM)	✓
Methane Ethane Ethene (RSK-175)	✓	SVOCS (8270 D)	✓
Anions (9056 A)	✓	Pesticides & PCBS (8081 B & 8082 A)	✓
Alkalinity (2320 B)	✓	2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)	✓	QPCR	
CO2 (SM4500)	✓		
Sulfide (SM4500)	✓		

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L): 0.33

Dilution: 2 Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result: 1.32

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? No If Yes, List ID and Analyses

COMMENTS/NOTES

MEADOWS CONSULTING | MANAGEMENT | PLANNING AECOM Imagine it. Delivered.

GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	OU6-MW-270
Project/Site Name:	OU6 Annual	Sample ID:	OU6-MW-270-20240516
Date:	5-16-2024	Well Condition:	GOOD
Weather:	SUNNY 64		

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	2	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	5.55	Purging/Sampling Device:	Peristaltic Pump
Total Depth (ft btoc):	11.8 COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI DSS PRO 218046
Water Column (ft):	6.25		
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier 0.1620	Start Purge Date/Time:	5-16-24/0830
		End Purge Date/Time:	5-16-24/0900
		Total Volume Purged (gal):	1 GAL
One Well Volume (gal):	1.01	Sample Date/Time:	5-16-24/0910
Screened Interval (ft bgs):	6.8 - 11.8	Sampler Name:	BRUCE DIGGS

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
0830	150	0.15	5.55	9.22	0.148	21.90	3.32	223.00	95.20	
0835	150	0.30	5.95	9.39	0.145	21.80	2.56	402.00	73.40	
0840	150	0.45	6.00	9.53	0.145	21.90	2.12	378.00	63.30	
0845	150	0.60	6.25	9.76	0.148	21.90	2.08	598.00	50.70	
0850	150	0.75	6.45	10.09	0.155	22.00	2.27	196.00	42.70	
0855	150	0.90	6.55	10.26	0.161	22.10	2.43	158.00	37.10	
0900	150	1.05	7.00	10.35	0.166	22.10	2.76	64.00	35.90	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	✓	Manganese (6020 A)	✓
TOC (9060 A)	✓	LLPAHs (8270 E SIM)	
Methane Ethane Ethene (RSK-175)	✓	SVOCS (8270 D)	
Anions (9056 A)	✓	Pesticides & PCBS (8081 B & 8082 A)	
Alkalinity (2320 B)	✓	2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)		QPCR	
CO2 (SM4500)	✓		
Sulfide (SM4500)	✓		

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L): 0.03

Dilution: 0 Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result: 0.03

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? No If Yes, List ID and Analyses

COMMENTS/NOTES

MEADOWS CONSULTING | MANAGEMENT | PLANNING AECOM Imagine it. Delivered.

GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	OU6-MW-273
Project/Site Name:	OU6 Annual	Sample ID:	OU6-MW-273-20240516
Date:	5-16-2024	Well Condition:	GOOD
Weather:	SUNNY 66		

WATER LEVEL AND WELL SPECIFICATION DETAILS

Well Casing Diameter (inches):	2		
Initial Depth to Water (ft btoc):	4.7		
Total Depth (ft btoc):	18.7	COLLECT AFTER WELL IS SAMPLED	
Water Column (ft):	14.00		
Water Column Multipliers (gal/ft):	Enter Multiplier		
1/4": **0.0025**, 3/4": **0.024**, 1": **0.04**	0.1620		
2": **0.162**, 4": **0.653**, 6": **1.469**			
One Well Volume (gal):	2.27		
Screened Interval (ft bgs):	13.7 - 18.7		

SAMPLE COLLECTION INFORMATION

Purging/Sampling Method:	Low Flow
Purging/Sampling Device:	Peristaltic Pump
Field Parameter Measuring Devices:	YSI PRO DDS 218046
Start Purge Date/Time:	5-16-24/0925
End Purge Date/Time:	5-16-24/1000
Total Volume Purged (gal):	1 GAL
Sample Date/Time:	5-16-24/1010
Sampler Name:	BRUCE DIGGS

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
0925	150	0.15	4.70	5.16	0.086	18.60	2.12	6.46	173.10	
0930	150	0.30	4.95	4.97	0.081	18.70	1.87	5.57	212.20	
0935	150	0.45	5.15	4.83	0.073	18.50	1.41	5.34	230.00	
0940	150	0.60	5.25	4.81	0.070	18.50	1.22	6.56	244.20	
0945	150	0.75	5.55	4.78	0.070	18.40	1.12	4.56	256.40	
0950	150	0.90	5.75	4.75	0.070	18.50	1.05	6.23	263.60	
0955	150	1.05	5.95	4.71	0.073	18.50	0.97	7.21	272.30	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply

Volatiles - VOCs (8260 D)	☑	Manganese (6020 A)	☑
TOC (9060 A)	☑	LLPAHs (8270 E SIM)	☐
Methane Ethane Ethene (RSK-175)	☑	SVOCS (8270 D)	☐
Anions (9056 A)	☑	Pesticides & PCBS (8081 B & 8082 A)	☐
Alkalinity (2320 B)	☑	2,3,7,8 TCDD (8290 A)	☐
Metals (6020 A/6010 C/7470 A)	☐	QPCR	☐
CO2 (SM4500)	☑		☐
Sulfide (SM4500)	☑		☐

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L): 0.10

Dilution: 0 Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result: 0.10

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? No If Yes, List ID and Analyses

COMMENTS/NOTES

MEADOWS CONSULTING | MANAGEMENT | PLANNING AECOM Imagine it. Delivered.

GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	OU6-MW-281
Project/Site Name:	OU6 Annual	Sample ID:	OU6-MW-281-20240516
Date:	5-16-2024	Well Condition:	GOOD
Weather:	SUNNY 74		

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	2	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	2.5	Purging/Sampling Device:	Peristaltic Pump
Total Depth (ft btoc):	7.8 COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI PRO DSS 218046
Water Column (ft):	5.30		
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier 0.1620	Start Purge Date/Time:	5-16-24/1235
		End Purge Date/Time:	5-16-24/1305
		Total Volume Purged (gal):	1 GAL
One Well Volume (gal):	0.86	Sample Date/Time:	5-16-24/1315
Screened Interval (ft bgs):	2.8 - 7.8	Sampler Name:	BRUCE DIGGS

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
1235	150	0.15	6.49	6.49	0.188	20.70	1.01	97.00	-70.70	
1240	150	0.30		6.61	0.179	20.60	0.78	87.50	-84.90	
1245	150	0.45		7.36	0.143	19.90	0.64	76.40	-159.60	
1250	150	0.60		8.03	0.134	19.80	0.56	66.80	-180.50	
1255	150	0.75		8.22	0.131	19.80	0.54	59.30	-197.20	
1300	150	0.90		8.30	0.130	19.80	0.49	45.00	-211.80	
1305	150	1.05		8.39	0.128	19.80	0.46	37.20	-221.70	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	✓	Manganese (6020 A)	✓
TOC (9060 A)	✓	LLPAHs (8270 E SIM)	
Methane Ethane Ethene (RSK-175)	✓	SVOCS (8270 D)	
Anions (9056 A)	✓	Pesticides & PCBS (8081 B & 8082 A)	
Alkalinity (2320 B)	✓	2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)		QPCR	
CO2 (SM4500)	✓		
Sulfide (SM4500)	✓		

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L): 1.26

Dilution: 0 Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result: 1.26

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? No If Yes, List ID and Analyses

COMMENTS/NOTES

MEADOWS CONSULTING | MANAGEMENT | PLANNING AECOM Imagine it. Delivered.

GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	OU6-MW-261
Project/Site Name:	OU6 Annual	Sample ID:	OU6-MW-261-20240516
Date:	5-16-2024	Well Condition:	GOOD
Weather:	SUNNY 70		

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	2	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	5.2	Purging/Sampling Device:	Peristaltic Pump
Total Depth (ft btoc):	22.6 COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI PRO DSS 218046
Water Column (ft):	17.40		
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier 0.1620	Start Purge Date/Time:	5-16-24/1040
		End Purge Date/Time:	5-16-24/1110
		Total Volume Purged (gal):	1 GAL
One Well Volume (gal):	2.82	Sample Date/Time:	5-16-24/1115
Screened Interval (ft bgs):	17.6 - 22.6	Sampler Name:	BRUCE DIGGS

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
1040	150	0.15	5.20	6.02	0.874	16.20	2.65	8.86	44.20	
1045	150	0.30	5.55	6.01	0.879	16.00	2.21	7.66	36.90	
1050	150	0.45	5.95	6.01	0.880	16.00	1.97	6.87	33.10	
1055	150	0.60	6.00	6.01	0.881	16.00	1.82	7.87	30.40	
1100	150	0.75	6.25	6.01	0.880	16.10	1.67	6.55	28.50	
1105	150	0.90	6.55	6.02	0.881	16.10	1.56	6.44	26.70	
1110	150	1.05	6.85	6.02	0.883	16.10	1.42	5.66	25.30	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	✓	Manganese (6020 A)	✓
TOC (9060 A)	✓	LLPAHs (8270 E SIM)	
Methane Ethane Ethene (RSK-175)	✓	SVOCS (8270 D)	
Anions (9056 A)	✓	Pesticides & PCBS (8081 B & 8082 A)	
Alkalinity (2320 B)	✓	2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)		QPCR	
CO2 (SM4500)	✓		
Sulfide (SM4500)	✓		

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L): 2.11

Dilution: 0 Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result: 2.11

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? No If Yes, List ID and Analyses

COMMENTS/NOTES

MEADOWS CONSULTING | MANAGEMENT | PLANNING AECOM Imagine it. Delivered.

GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	OU6-MW-278
Project/Site Name:	OU6 Annual	Sample ID:	OU6-MW-278-20240516
Date:	5-16-2024	Well Condition:	GOOD
Weather:	SUNNY 68		

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	2	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	5.3	Purging/Sampling Device:	Peristaltic Pump
Total Depth (ft btoc):	13.1 COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI PRO DSS 218046
Water Column (ft):	7.80		
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier 0.1620	Start Purge Date/Time:	5-16-24/1140
		End Purge Date/Time:	5-16-24/1210
		Total Volume Purged (gal):	1 GAL
One Well Volume (gal):	1.26	Sample Date/Time:	5-16-24/1215
Screened Interval (ft bgs):	8.1 - 13.1	Sampler Name:	BRUCE DIGGS

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
1140	150	0.15	5.30	5.87	0.156	18.10	2.24	45.60	-40.10	
1145	150	0.30	5.45	5.79	0.153	18.10	1.95	33.80	-16.60	
1150	150	0.45	5.75	5.75	0.148	18.00	1.63	42.10	-4.70	
1155	150	0.60	5.90	5.71	0.143	18.00	1.45	36.50	5.90	
1200	150	0.75	6.05	5.70	0.141	18.00	1.33	40.20	15.30	
1205	150	0.90	6.35	5.69	0.137	18.00	1.23	33.30	21.50	
1210	150	1.05	6.55	5.68	0.134	18.00	1.12	27.30	29.30	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	✓	Manganese (6020 A)	✓
TOC (9060 A)	✓	LLPAHs (8270 E SIM)	
Methane Ethane Ethene (RSK-175)	✓	SVOCS (8270 D)	
Anions (9056 A)	✓	Pesticides & PCBS (8081 B & 8082 A)	
Alkalinity (2320 B)	✓	2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)		QPCR	
CO2 (SM4500)	✓		
Sulfide (SM4500)	✓		

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L): 1.42

Dilution: 0 Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result: 1.42

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? No If Yes, List ID and Analyses

COMMENTS/NOTES

MEADOWS CONSULTING | MANAGEMENT | PLANNING AECOM Imagine it. Delivered.

GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	OU6-MW-166
Project/Site Name:	OU6 Annual	Sample ID:	OU6-MW-166-20240516
Date:	20240516	Well Condition:	OOD
Weather:	MOSTLY SUNNY 66		

WATER LEVEL AND WELL SPECIFICATION DETAILS

Well Casing Diameter (inches):	2.00		
Initial Depth to Water (ft btoc):	20.23		
Total Depth (ft btoc):	50.90	COLLECT AFTER WELL IS SAMPLED	
Water Column (ft):	30.67		
Water Column Multipliers (gal/ft):	Enter Multiplier		
1/4": **0.0025**, 3/4": **0.024**, 1": **0.04**	0.1620		
2": **0.162**, 4": **0.653**, 6": **1.469**			
One Well Volume (gal):	4.97		
Screened Interval (ft bgs):	40-50		

SAMPLE COLLECTION INFORMATION

Purging/Sampling Method:	Low Flow
Purging/Sampling Device:	Bladder Pump
Field Parameter Measuring Devices:	YSI PRO DSS
Start Purge Date/Time:	24/5/16 0803
End Purge Date/Time:	24/5/16 0858
Total Volume Purged (gal):	2.75
Sample Date/Time:	24/5/16 0858
Sampler Name:	TIM BROWN

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
0808	250	0.25	20.47	5.72	0.097	18.10	3.78	147.00	385.20	WATER CLOUDY/ NO ODOR
0813	250	0.50	20.52	5.66	0.091	18.10	3.39	117.00	382.40	
0818	250	0.75	20.55	5.52	0.085	18.10	2.97	95.00	379.50	
0823	250	1.00	20.45	5.38	0.078	18.10	2.60	70.00	375.30	
0828	250	1.25	20.45	5.31	0.074	18.10	2.42	48.00	373.00	
0833	250	1.50	20.50	5.25	0.070	18.10	2.27	28.75	377.10	
0838	250	1.75	20.50	5.23	0.069	18.20	2.21	24.78	381.50	
0843	250	2.00	20.45	5.20	0.068	18.20	2.14	17.30	386.50	
0848	250	2.25	20.47	5.21	0.069	18.20	2.10	14.50	390.60	
0853	250	2.50	20.50	5.20	0.069	18.20	2.04	13.00	395.10	
0858	250	2.75	20.47	5.20	0.070	18.20	2.61	12.75	399.50	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	✓	Manganese (6020 A)	✓
TOC (9060 A)	✓	LLPAHs (8270 E SIM)	
Methane Ethane Ethene (RSK-175)	✓	SVOCS (8270 D)	
Anions (9056 A)	✓	Pesticides & PCBS (8081 B & 8082 A)	
Alkalinity (2320 B)	✓	2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)		QPCR	
CO2 (SM4500)	✓		
Sulfide (SM4500)	✓		

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L): 0.12

Dilution: 0 Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result: 0.12

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? No If Yes, List ID and Analyses

COMMENTS/NOTES

MEADOWS CONSULTING | MANAGEMENT | PLANNING AECOM Imagine it. Delivered.

GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	OU6-MW-167
Project/Site Name:	OU6 Annual	Sample ID:	OU6-MW-167-20240516
Date:	20240516	Well Condition:	GOOD
Weather:	MOSTLY SUNNY 66		

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	2.00	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	18.82	Purging/Sampling Device:	Bladder Pump
Total Depth (ft btoc):	50.25 COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI PRO DSS
Water Column (ft):	31.43		
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier 0.1620	Start Purge Date/Time:	24/5/16 0935
		End Purge Date/Time:	24/5/16 1035
		Total Volume Purged (gal):	3.00
One Well Volume (gal):	5.09	Sample Date/Time:	24/5/16 1035
Screened Interval (ft bgs):	39-49	Sampler Name:	TIM BROWN

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^C)	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
0940	250	0.25	23.50	5.26	0.130	18.30	0.38	45.00	280.10	WATER CLEAR/ NO ODOR
0945	250	0.50	27.10	5.28	0.130	18.10	0.16	37.00	246.00	ACIDIC BUBBLES IN CYLINDER
0950	250	0.75	29.00	5.31	0.128	18.20	2.90	34.00	245.80	
0955	250	1.00	31.20	5.32	0.128	18.30	2.78	44.00	258.90	
1000	250	1.25	34.40	5.37	0.128	18.00	6.07	37.00	267.00	
1005	250	1.50	37.20	5.38	0.128	18.00	5.82	39.00	276.90	
1010	250	1.75	39.60	5.39	0.129	18.40	4.43	53.00	274.80	
1015	250	2.00	41.00	5.39	0.131	18.40	4.12	56.00	283.90	
1020	250	2.25	42.00	5.39	0.132	18.60	4.14	57.00	291.00	
1025	250	2.50	43.00	5.41	0.135	19.20	4.82	79.00	293.40	
1030	250	2.75	43.70	5.41	0.133	21.00	4.85	62.00	298.60	
1035	250	3.00	44.00	5.41	0.133	21.10	48.00	65.00	300.40	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	✓	Manganese (6020 A)	✓
TOC (9060 A)	✓	LLPAHs (8270 E SIM)	
Methane Ethane Ethene (RSK-175)	✓	SVOCS (8270 D)	
Anions (9056 A)	✓	Pesticides & PCBS (8081 B & 8082 A)	
Alkalinity (2320 B)	✓	2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)		QPCR	
CO2 (SM4500)	✓		
Sulfide (SM4500)	✓		

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L): 0.03

Dilution: 0 Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result: 0.03

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? No If Yes, List ID and Analyses

COMMENTS/NOTES

EVO PRESENCE IN WELL

MEADOWS CONSULTING | MANAGEMENT | PLANNING AECOM Imagine it. Delivered.

GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	OU6-MW-249
Project/Site Name:	OU6 Annual	Sample ID:	OU6-MW-249-20240516
Date:	5/16/2024	Well Condition:	Good
Weather:	sunny, warm		

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	2	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	10.46	Purging/Sampling Device:	Peristaltic Pump
Total Depth (ft btoc):	25.20 COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI
Water Column (ft):	14.74		
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier 0.1620	Start Purge Date/Time:	5/16/2024 - 1255
		End Purge Date/Time:	5/16/2024 - 1340
		Total Volume Purged (gal):	2.25
One Well Volume (gal):	2.39	Sample Date/Time:	5/16/2024 - 1345
Screened Interval (ft bgs):	20.20 - 25.20	Sampler Name:	TJ Skora

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
1300	250	0.25	11.28	6.97	0.188	20.10	8.55	23.00	119.60	
1305	250	0.50	12.05	8.12	0.195	19.30	8.54	28.02	136.00	
1310	200	0.75	12.18	7.18	0.195	19.60	8.11	22.48	167.90	
1315	200	1.00	12.38	7.10	0.183	19.80	7.38	23.96	172.30	
1320	200	1.25	12.40	6.87	0.168	19.40	6.53	36.81	175.20	
1325	200	1.50	12.40	6.64	0.146	19.10	5.67	47.38	180.80	
1330	200	1.75	12.40	6.55	0.146	19.20	5.68	45.61	196.80	
1335	200	2.00	12.40	6.54	0.147	19.50	5.25	44.41	200.40	
1340	200	2.25	12.40	6.45	0.146	19.20	5.95	48.71	206.30	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	✓	Manganese (6020 A)	
TOC (9060 A)		LLPAHs (8270 E SIM)	
Methane Ethane Ethene (RSK-175)		SVOCS (8270 D)	
Anions (9056 A)		Pesticides & PCBS (8081 B & 8082 A)	
Alkalinity (2320 B)		2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)		QPCR	
CO2 (SM4500)			
Sulfide (SM4500)			

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L):

Dilution: Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result:

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? No If Yes, List ID and Analyses

COMMENTS/NOTES

MEADOWS CONSULTING | MANAGEMENT | PLANNING AECOM Imagine it. Delivered.

GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	OU6-MW-248
Project/Site Name:	OU6 Annual	Sample ID:	OU6-MW-248-20240516
Date:	5/16/2024	Well Condition:	accidentally dropped 1 of 2 bolts in well
Weather:	partly cloudy, warm		

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	2	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	11.53	Purging/Sampling Device:	Peristaltic Pump
Total Depth (ft btoc):	25.25 COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI
Water Column (ft):	13.72		
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier 0.1620	Start Purge Date/Time:	5/16/2024 - 1040
		End Purge Date/Time:	5/16/2024 - 1100
		Total Volume Purged (gal):	1.0
One Well Volume (gal):	2.22	Sample Date/Time:	5/16/2024 - 1105
Screened Interval (ft bgs):	20.25 - 25.25	Sampler Name:	TJ Skora

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
1045	250	0.25	11.52	5.07	0.066	19.50	5.36	8.63	220.60	clear, no odor
1050	200	0.50	11.60	4.96	0.063	19.20	4.37	12.26	254.40	
1055	200	0.75	11.60	5.04	0.062	19.00	4.41	12.13	264.60	
1100	200	1.00	11.60	5.01	0.062	19.00	4.39	11.98	273.70	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	✓	Manganese (6020 A)	✓
TOC (9060 A)	✓	LLPAHs (8270 E SIM)	
Methane Ethane Ethene (RSK-175)	✓	SVOCS (8270 D)	
Anions (9056 A)	✓	Pesticides & PCBS (8081 B & 8082 A)	
Alkalinity (2320 B)	✓	2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)		QPCR	
CO2 (SM4500)	✓		
Sulfide (SM4500)	✓		

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L): 1.37

Dilution: 0 Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result: 1.37

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? No If Yes, List ID and Analyses

COMMENTS/NOTES

MEADOWS CONSULTING | MANAGEMENT | PLANNING AECOM Imagine it. Delivered.

GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	OU6-MW-298
Project/Site Name:	OU6 Annual	Sample ID:	OU6-MW-298-20240516
Date:	5/16/2024	Well Condition:	good
Weather:	sunny, warm		

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	2	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	7.44	Purging/Sampling Device:	Peristaltic Pump
Total Depth (ft btoc):	23.50 COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI
Water Column (ft):	16.06		
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier 0.1620	Start Purge Date/Time:	5/16/2024 - 0935
		End Purge Date/Time:	5/16/2024 - 1005
		Total Volume Purged (gal):	1.5
One Well Volume (gal):	2.60	Sample Date/Time:	5/16/2024 - 1010
Screened Interval (ft bgs):	18.5 - 23.5	Sampler Name:	TJ Skora

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
0940	250	0.25	7.69	5.53	0.052	20.00	3.64	2.43	95.90	clear, no odor
0945	250	0.50	9.05	5.56	0.039	19.00	3.75	2.49	152.00	
0950	200	0.75	9.23	5.59	0.080	18.70	3.76	1.70	201.00	
0955	200	1.00	9.69	5.68	0.089	18.80	4.03	2.40	219.50	
1000	200	1.25	9.81	5.75	0.090	18.40	4.13	2.31	228.70	
1005	200	1.50	10.02	5.77	0.091	18.60	4.11	2.30	237.10	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	✓	Manganese (6020 A)	✓
TOC (9060 A)	✓	LLPAHs (8270 E SIM)	
Methane Ethane Ethene (RSK-175)	✓	SVOCS (8270 D)	
Anions (9056 A)	✓	Pesticides & PCBS (8081 B & 8082 A)	
Alkalinity (2320 B)	✓	2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)		QPCR	
CO2 (SM4500)	✓		
Sulfide (SM4500)	✓		

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L): 0.01

Dilution: 0 Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result: 0.01

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? No If Yes, List ID and Analyses

COMMENTS/NOTES

MEADOWS CONSULTING | MANAGEMENT | PLANNING AECOM Imagine it. Delivered.

GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	OU6-MW-257
Project/Site Name:	OU6 Annual	Sample ID:	OU6-MW-257-20240516
Date:	5/16/2024	Well Condition:	Good
Weather:	sunny, warm		

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	2	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	10.15	Purging/Sampling Device:	Peristaltic Pump
Total Depth (ft btoc):	20.00 COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI
Water Column (ft):	9.85		
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier 0.1620	Start Purge Date/Time:	5/16/2024 - 0820
		End Purge Date/Time:	5/16/2024 - 0905
		Total Volume Purged (gal):	4.5
One Well Volume (gal):	1.60	Sample Date/Time:	5/16/2024 - 0910
Screened Interval (ft bgs):	15.00 - 20.00	Sampler Name:	TJ Skora

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
0825	200	0.25	10.28	4.93	0.168	19.50	3.07	75.33	216.70	clear, no odor
0830	200	0.75	10.28	4.87	0.138	18.30	2.61	32.56	235.40	
0835	200	1.25	10.28	4.90	0.122	18.50	3.35	13.10	243.30	
0840	200	2.00	10.28	4.88	0.116	17.80	2.48	5.36	249.90	
0845	200	2.50	10.28	4.90	0.114	17.80	2.50	4.60	253.80	
0850	200	3.25	10.28	4.91	0.054	18.20	2.94	2.68	256.80	
0855	200	3.75	10.28	4.91	0.113	18.10	2.87	1.67	256.50	
0900	200	4.25	10.28	4.91	0.115	18.40	3.04	1.54	256.50	
0905	200	4.50	10.28	4.89	0.112	18.30	2.95	1.55	261.20	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	✓	Manganese (6020 A)	
TOC (9060 A)		LLPAHs (8270 E SIM)	
Methane Ethane Ethene (RSK-175)		SVOCS (8270 D)	
Anions (9056 A)		Pesticides & PCBS (8081 B & 8082 A)	
Alkalinity (2320 B)		2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)		QPCR	
CO2 (SM4500)			
Sulfide (SM4500)			

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L):

Dilution: Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result:

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? No If Yes, List ID and Analyses

COMMENTS/NOTES

MEADOWS CONSULTING | MANAGEMENT | PLANNING AECOM Imagine it. Delivered.

GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	LAWMWQ
Project/Site Name:	OU6 Annual	Sample ID:	LAWMWQ-20240516
Date:	20240516	Well Condition:	GOOD
Weather:	MOSTLY CLOUDY 72		

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	2.00	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	25.20	Purging/Sampling Device:	Bladder Pump
Total Depth (ft btoc):	52.55 COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI PRO DSS
Water Column (ft):	27.35		
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier 0.1620	Start Purge Date/Time:	24/5/16 1145
		End Purge Date/Time:	24/5/16 1240
		Total Volume Purged (gal):	2.75
One Well Volume (gal):	4.43	Sample Date/Time:	24/5/16 1240
Screened Interval (ft bgs):	47-52	Sampler Name:	TIM BROWN

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^C)	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
1150	250	0.25	25.30	5.76	0.155	16.00	1.23	219.00	392.10	WATER FOGGY/ NO ODOR
1155	250	0.50	25.35	5.72	0.156	16.00	0.86	143.00	354.70	
1200	250	0.75	25.33	5.61	0.157	16.00	0.65	101.00	322.40	
1205	250	1.00	25.40	5.59	0.156	15.90	0.86	78.00	302.10	
1210	250	1.25	25.40	5.59	0.155	15.90	0.52	70.00	279.00	
1215	250	1.50	25.40	5.58	0.153	15.90	0.56	65.50	262.80	
1220	250	1.75	25.40	5.57	0.152	16.20	0.42	63.00	240.20	
1225	250	2.00	25.40	5.58	0.151	16.00	0.25	56.00	218.70	
1230	250	2.25	25.40	5.58	0.150	16.40	0.30	60.00	208.70	
1235	250	2.50	25.40	5.58	0.149	16.50	0.23	58.00	200.00	
1240	250	2.75	25.40	5.56	0.150	16.40	0.23	52.00	197.80	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	✓	Manganese (6020 A)	
TOC (9060 A)		LLPAHs (8270 E SIM)	
Methane Ethane Ethene (RSK-175)		SVOCS (8270 D)	
Anions (9056 A)		Pesticides & PCBS (8081 B & 8082 A)	
Alkalinity (2320 B)		2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)		QPCR	
CO2 (SM4500)			
Sulfide (SM4500)			

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L):

Dilution: Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result:

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? No If Yes, List ID and Analyses

COMMENTS/NOTES

MEADOWS CONSULTING | MANAGEMENT | PLANNING AECOM Imagine it. Delivered.

GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	OU6-MW-299
Project/Site Name:	OU6 Annual	Sample ID:	OU6-MW-299-20240516
Date:	20240516	Well Condition:	GOOD
Weather:	PARTLY SUNNY 74		

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	2.00	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	7.14	Purging/Sampling Device:	Peristaltic Pump
Total Depth (ft btoc):	25.70 COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI PRO DSS
Water Column (ft):	18.56		
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier 0.1620	Start Purge Date/Time:	25/5/16 1325
		End Purge Date/Time:	25/5/16 1410
		Total Volume Purged (gal):	2.25
One Well Volume (gal):	3.01	Sample Date/Time:	25/5/16 1410
Screened Interval (ft bgs):	20-25	Sampler Name:	TIM BROWN

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
1330	250	0.25	9.39	4.58	0.047	20.30	0.40	22.00	445.50	WATER CLEAR/ NO ODOR
1335	250	0.50	10.42	4.59	0.046	20.30	0.30	31.00	436.90	ACIDIC BUBBLES IN CLYINDER
1340	250	0.75	11.52	4.60	0.046	20.50	0.26	39.00	429.70	
1345	250	1.00	12.32	4.60	0.046	20.50	0.25	69.00	424.10	
1350	250	1.25	13.25	4.60	0.046	20.40	0.23	100.00	420.00	
1355	250	1.50	14.70	4.60	0.046	20.50	0.22	182.00	411.10	
1400	250	1.75	16.10	4.59	0.046	20.40	0.23	172.00	407.40	
1405	250	2.00	17.35	4.59	0.047	20.50	0.30	235.00	405.90	
1410	250	2.25	18.00	4.58	0.048	20.20	0.32	243.00	407.50	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	✓	Manganese (6020 A)	
TOC (9060 A)		LLPAHs (8270 E SIM)	
Methane Ethane Ethene (RSK-175)		SVOCS (8270 D)	
Anions (9056 A)		Pesticides & PCBS (8081 B & 8082 A)	
Alkalinity (2320 B)		2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)		QPCR	
CO2 (SM4500)			
Sulfide (SM4500)			

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L):

Dilution: Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result:

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? No If Yes, List ID and Analyses

COMMENTS/NOTES

MEADOWS CONSULTING | MANAGEMENT | PLANNING AECOM Imagine it. Delivered.

GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	OU6-MW-286
Project/Site Name:	OU6 Annual	Sample ID:	OU6-MW-286- 2024-05-16
Date:	5/16/2024	Well Condition:	
Weather:	Mid 60's, Sunny		

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	2	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	14.17	Purging/Sampling Device:	Bladder Pump
Total Depth (ft btoc):	41.50 COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI
Water Column (ft):	27.33		
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier 0.1620	Start Purge Date/Time:	5/16/2024 1057
		End Purge Date/Time:	5/16/2024 1200
		Total Volume Purged (gal):	2
One Well Volume (gal):	4.43	Sample Date/Time:	5/16/2024 1205
Screened Interval (ft bgs):	36.5 - 41.5	Sampler Name:	QR

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
1100	200	0.25	14.62	6.99	0.164	18.90	6.10	73.06	11.00	
1105	200	0.50	14.72	6.48	0.169	19.10	3.22	37.90	22.60	
1110	200	0.75	14.73	6.17	0.191	19.20	1.72	24.47	36.50	
1115	200	1.00	14.64	6.04	0.205	19.60	1.22	15.54	43.80	
1120	200	1.25	14.65	5.94	0.214	19.80	0.95	10.47	51.10	
1125	200	1.50	14.65	5.92	0.219	20.10	0.78	11.80	52.60	
1130	200	1.75	14.65	5.89	0.221	20.60	0.78	11.80	53.10	
1135	200	2.00	14.65	5.86	0.224	20.50	0.72	8.77	55.10	
1140	200	2.25	14.65	5.83	0.226	21.10	0.66	10.31	56.10	
1145	200	2.50	14.65	5.82	0.232	22.50	0.59	62.53	56.20	
1150	200	2.75	14.65	5.81	0.232	22.50	0.58	60.53	55.20	
1200	200	3.00	14.65	5.80	0.233	22.50	0.54	65.42	54.40	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	✓	Manganese (6020 A)	✓
TOC (9060 A)	✓	LLPAHs (8270 E SIM)	
Methane Ethane Ethene (RSK-175)	✓	SVOCS (8270 D)	
Anions (9056 A)	✓	Pesticides & PCBS (8081 B & 8082 A)	
Alkalinity (2320 B)	✓	2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)		QPCR	
CO2 (SM4500)	✓	Dioxane	✓
Sulfide (SM4500)	✓		

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L):

Dilution: Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result:

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? No If Yes, List ID and Analyses

COMMENTS/NOTES

12/3 25 PSI

MEADOWS CONSULTING | MANAGEMENT | PLANNING AECOM Imagine it. Delivered.

GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	OU6-MW-94
Project/Site Name:	OU6 Annual	Sample ID:	OU6-MW-94-20240516
Date:	5/16/2024	Well Condition:	
Weather:	mid 60's, sunny		

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	2	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	14.19	Purging/Sampling Device:	Peristaltic Pump
Total Depth (ft btoc):	35.66 COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI
Water Column (ft):	21.47		
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier 0.1620	Start Purge Date/Time:	5/16/2024 - 0924
		End Purge Date/Time:	5/16/2024 - 1015
		Total Volume Purged (gal):	3
One Well Volume (gal):	3.48	Sample Date/Time:	5/16/2024 - 1020
Screened Interval (ft bgs):	30.66 - 35.66	Sampler Name:	QR

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
0925	200	0.10	14.65	7.06	0.097	20.00	3.22	241.70	-12.00	light brown, no odor
0930	200	0.50	14.70	6.42	0.113	19.70	1.77	237.60	-17.90	
0.935	200	0.75	14.65	6.26	0.112	19.70	0.93	181.12	-9.40	
0940	200	1.00	14.60	6.20	0.122	19.80	0.74	145.27	-3.30	
0945	200	1.25	14.65	6.17	0.117	20.00	0.67	147.20	0.10	
0950	200	1.50	14.65	6.13	0.113	20.00	0.60	134.20	3.50	
0955	200	1.75	14.65	6.11	0.111	20.20	0.56	145.60	6.70	
1000	200	2.00	14.65	6.10	0.109	20.70	0.53	153.10	9.10	
1005	200	2.50	14.65	6.07	0.103	20.80	0.52	192.10	12.90	
1010	200	2.75	14.65	6.07	0.103	20.80	0.49	197.30	16.20	
1015	200	3.00	14.65	6.06	0.103	20.80	0.48	202.10	17.60	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	✓	Manganese (6020 A)	✓
TOC (9060 A)	✓	LLPAHs (8270 E SIM)	
Methane Ethane Ethene (RSK-175)	✓	SVOCS (8270 D)	
Anions (9056 A)	✓	Pesticides & PCBS (8081 B & 8082 A)	
Alkalinity (2320 B)	✓	2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)		QPCR	
CO2 (SM4500)	✓		
Sulfide (SM4500)	✓		

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L): 1.07

Dilution: 0 Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result: 1.07

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? No If Yes, List ID and Analyses

COMMENTS/NOTES

MEADOWS CONSULTING | MANAGEMENT | PLANNING AECOM Imagine it. Delivered.

GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	OU6-MW-93
Project/Site Name:	OU6 Annual	Sample ID:	OU6-MW-93 - 20240516
Date:	5/16/2024	Well Condition:	Needs new cap
Weather:	Mid 60's, Sunny		

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	2	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	15.40	Purging/Sampling Device:	Bladder Pump
Total Depth (ft btoc):	40.98 COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI
Water Column (ft):	25.58		
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier 0.1620	Start Purge Date/Time:	5/16/2024 0758
		End Purge Date/Time:	5/16/2024 0840
		Total Volume Purged (gal):	2
One Well Volume (gal):	4.14	Sample Date/Time:	5/16/2024 0945
Screened Interval (ft bgs):	35.98 - 40.98	Sampler Name:	QR

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
0800	225	0.25	16.60	9.65	0.067	20.70	7.18	67.04	43.00	Clear, No order
	200	0.25	17.07	9.80	0.066	20.80	6.69	43.26	26.90	Turn psi down to 30
0810	200	0.50	18.01	9.93	0.071	21.00	6.80	20.42	20.00	
0815	175	0.75	18.20	9.89	0.072	21.10	6.64	2.91	19.90	Turn psi down to 25
0820	175	1.00	17.83	9.85	0.068	21.10	6.56	0.04	21.60	
0825	175	1.25	17.49	9.80	0.067	21.10	6.50	0.95	24.00	
0830	175	1.50	17.25	9.77	0.067	21.10	6.38	0.50	19.60	
0835	175	1.75	17.05	9.77	0.067	21.10	6.36	1.54	18.90	
0840	175	2.00	16.95	9.77	0.067	21.10	6.32	1.18	20.00	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	✓	Manganese (6020 A)	
TOC (9060 A)		LLPAHs (8270 E SIM)	
Methane Ethane Ethene (RSK-175)		SVOCS (8270 D)	
Anions (9056 A)		Pesticides & PCBS (8081 B & 8082 A)	
Alkalinity (2320 B)		2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)		QPCR	
CO2 (SM4500)		Dioxane	✓
Sulfide (SM4500)			

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L):

Dilution: Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result:

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? No If Yes, List ID and Analyses

DUP02 collected

COMMENTS/NOTES

12/3 25 PSI

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GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	DMW-34B
Project/Site Name:	OU6 Annual	Sample ID:	DMW-34B-2024-05-16
Date:	5/16/24	Well Condition:	
Weather:	mid 60's, Sunny		

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	2	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	17.62	Purging/Sampling Device:	~~Peristaltic Pump~~ Bladder Pump
Total Depth (ft btoc):	COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI
Water Column (ft):	0		
Water Column Multipliers (gal/ft):	Enter Multiplier	Start Purge Date/Time:	1313 5/16/24
1/4": **0.0025**, 3/4": **0.024**, 1": **0.04**		End Purge Date/Time:	1355 5/16/24
2": **0.162**, 4": **0.653**, 6": **1.469**		Total Volume Purged (gal):	
One Well Volume (gal):	0	Sample Date/Time:	05/16/2024 1355
Screened Interval (ft bgs):		Sampler Name:	GR

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^C)	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
1315	200	0.25	18.25	6.25	0.063	19.8	3.63	0.19	79.3	Clear. No odor
1320	200	.75	18.50	5.79	0.057	18.2	1.76	2.11	124.5	
1325	175	1	18.57	5.71	0.059	18.0	1.52	0.11	138.9	Change to 35 psi
1330	200	1.5	18.45	5.67	0.060	18.5	1.54	0.25	147.7	
1335	200	2.25	18.45	5.65	0.061	19.0	1.58	2.77	153.7	
1340	200	2.5	18.45	5.63	0.061	19.0	1.60	1.86	159.7	
1345	200	2.75	18.45	5.62	0.061	19.0	1.59	1.32	163.2	
1350	200	3	18.45	5.62	0.061	19.0	1.58	1.58	167.2	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	X	Manganese (6020 A)	
TOC (9060 A)		LLPAHs (8270 E SIM)	
Methane Ethane Ethene (RSK-175)		SVOCS (8270 D)	
Anions (9056 A)		Pesticides & PCBS (8081 B & 8082 A)	
Alkalinity (2320 B)		2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)		QPCR	
CO2 (SM4500)			
Sulfide (SM4500)			

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L):

Dilution: Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result:

Samples Field Filtered? (No) **If Yes, Which Analyses?**

QA/QC Samples Collected? (No) If Yes, List ID and Analyses

COMMENTS/NOTES

12/3 25 PSI

OU#	Well#	Sample ID	Date	Time Sampled	Time Hach	# of Dilutions	Iron Result	reportable result	Notes
Final Result Calculation, Dilution 1 Result X 2, Dilution 2 Result x 4, Dilution 3 Result x 8, Dilution 4 Result x 16, Dilution 5 Result x 32									
OU6	MW-298	OU6-MW-298-20240516	24/5/16	1010	1430	Ø	0.01	0.01	
OU6	MW-261	OU6-MW-261-20240516	24/5/16	1115	1436	Ø	2.11	2.11	
OU6	MW-273	OU6-MW-273-20240516	24/5/16	1010	1441	Ø	0.10	0.10	
OU6	MW-94	OU6-MW-94-20240516	24/5/16	1022	1447	Ø	1.07	1.07	
OU6	MW-270	OU6-MW-270-20240516	24/5/16	0910	1452	Ø	0.03	0.03	
OU6	MW-248	OU6-MW-248-20240516	24/5/16	1105	1458	Ø	1.37	1.37	
OU6	MW-166	OU6-MW-166-20240516	24/5/16	0858	1503	Ø	0.12	0.12	
OU6	MW-281	OU6-MW-281-20240516	24/5/16	1315	1509	Ø	1.26	1.26	
OU6	MW-167	OU6-MW-167-20240516	24/5/16	1035	1515	Ø	0.03	0.03	
OU6	MW-278	OU6-MW-278-20240516	24/5/16	1215	1520	Ø	1.42	1.42	
OU6	MW-280	OU6-MW-280-20240516	24/5/16	1200	1528	Ø	2.34	2.34	
OU6	MW-279	OU6-MW-279-20240516	24/5/16	0800	1536	Ø	4.20	—	
OU6	〃	〃	〃	〃	1542	2	0.33	1.32	
OU6	DMW-34B	DMW-34B-20240516	25/5/16		1550	Ø	0.03	0.03	
OU6									
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AECOM

DAILY FIELD INSTRUMENT CALIBRATION/ CALIBRATION CHECK FORM

Site Name: Richmond DSCR

Project/Client: METHOWS Project Number: 0045-0011

Location: Richmond VA / DCA

Field Analyst(s): BRUCE W. DT665

Date: 5-16-2024 Start Time: 0630 Finish Time: 0650

Instrument Information

Parameter	Make	Model	Meter Serial #	Probe Serial #
DO	YSI	Pro Plus	18046	21802?
pH		DSS		
Specific Conductance				
ORP				
Temperature				
Turbidity				

Pre-Field Calibration and Quality Control Requirements

Prior to using instrument(s) in the field, field analysts must ensure that certain quality control procedures and calibrations have been completed for the instruments listed above. Records of the following, completed either by AECOM or the vendor, must be retained:

- ♦Weekly DO Winkler Titration ☐
- ♦5-Point Conductivity Curve ☐
- ♦Annual Conductivity Cell Constant ☐
- ♦Quarterly NIST Traceable Thermometer ☐
- ♦Solution Records ☐

Field Calibration/Calibration Check

DO (Method SM 4500 O.G)

100% Saturation	
Barometric Pressure (mmHg)	765.5
Temperature (°C)	22.9
Initial Reading	8.03
Reset Reading	8.11

0% Saturation	
Solution Temperature (°C)	
Solution Manufacturer & Lot #	
Reading	
*Requires Recalibration	Y / N
Reset Reading	

Note: DO must be calibrated to 100% saturation. DO may only be calibration checked to 0% saturation (zero oxygen solution standard). Calibration methods may differ between DO meters, and some fields listed may not be applicable. Refer to instrument manual for calibration instructions.

pH (Method SM 4500-H B)

Buffer Solution	Solution Manufacturer & Lot #	Solution Expiration Date	Solution Temperature	Reading	*Requires Recalibration	Reset Reading
4	3660023	7/25	22.5	3.88	Y / N	4.00
7	36K1332	11/25	22.5	7.15	Y / N	7.01
10	36K004	11/25	22.4	10.05	Y / N	10.00
12.6	af24003259	6/24	22.4	12.6	Y / N	12.60

Note: A calibration check against one standard buffer must be performed and recorded in the field book every 3-hours of use after daily calibration/calibration check.

AECOM

DAILY FIELD INSTRUMENT CALIBRATION/ CALIBRATION CHECK FORM

Specific Conductance (Method 2510 B)

Standard Solution	Solution Manufacturer & Lot #	Solution Expiration Date	Solution Temperature	Reading ($\mu S \cdot cm^{-1}$)	*Requires Recalibration	Reset Reading ($\mu S \cdot cm^{-1}$)
1.413	3GT0310	10/28	22.5	0.759	Y / N	1.413

ORP

Standard Solution	Solution Manufacturer & Lot #	Solution Expiration Date	Solution Temperature	Reading (mV)	*Requires Recalibration	Reset Reading (mV)
240.0	3GJ3894	7/24	22.4	1	Y / N	240.0

Turbidity (Method 2130 B)

Standard Solution (NTU)	Solution Manufacturer & Lot #	Solution Expiration Date	Reading (NTU)	*Requires Recalibration	Reset Reading (NTU)
				Y / N	
				Y / N	
				Y / N	
				Y / N	
126. NTU	23F24003259	6-24	130.9		126.2

*Field check readings should be within the accuracy listed by the manufacturer's specifications or per New Jersey regulations (NJAC 7:18), whichever is more stringent. Otherwise, the instrument must be recalibrated for that parameter. Refer to instrument manual for accuracy. Values provided below for instruments typically used by AECOM:

YSI 6-Series:		Horriba U-20XD Series:	
Dissolved Oxygen	± 0.1 % or ± 0.1 mg/L, whichever is greater	Dissolved Oxygen	± 0.2 mg/L
pH **	± 0.2 units	pH **	± 0.1 units
	**NJAC 7:18 requires that calibration values be accurate to ±0.05, and accuracy within ±0.1 units for the initial calibration check and ±0.2 units for 3-hour checks		
Specific Conductivity	± 0.5% + 0.001 mS/cm	Specific Conductivity	± 3%
ORP	± 20 mV	ORP	± 15 mV
Turbidity	± 2%	Turbidity	± 5%

LaMotte 2020e/i Turbidity Meter:
±0.05 or ±2%, below 100 NTU
±3%, above 100 NTU

AECOM

DAILY FIELD INSTRUMENT CALIBRATION/ CALIBRATION CHECK FORM

Site Name: DSCR

Project/Client: OMC Annual Project Number: 0045-0011

Location: OMC

Field Analyst(s): TJ Skora

Date: 5/18/24 Start Time: 0715 Finish Time: 0730

Instrument Information

Parameter	Make	Model	Meter Serial #	Probe Serial #
DO	Pro DSS	YSI	42061	23F102676
pH				
Specific Conductance				
ORP				
Temperature				
Turbidity				

Pre-Field Calibration and Quality Control Requirements

Prior to using instrument(s) in the field, field analysts must ensure that certain quality control procedures and calibrations have been completed for the instruments listed above. Records of the following, completed either by AECOM or the vendor, must be retained:

- ♦Weekly DO Winkler Titration ☐
- ♦5-Point Conductivity Curve ☐
- ♦Annual Conductivity Cell Constant ☐
- ♦Quarterly NIST Traceable Thermometer ☐
- ♦Solution Records ☐

Field Calibration/Calibration Check

DO (Method SM 4500 O.G)

100% Saturation	
Barometric Pressure (mmHg)	753.1
Temperature (°C)	20.3
Initial Reading	100.6
Reset Reading	100.0

0% Saturation	
Solution Temperature (°C)	
Solution Manufacturer & Lot #	
Reading	
*Requires Recalibration	Y / N
Reset Reading	

Note: DO must be calibrated to 100% saturation. DO may only be calibration checked to 0% saturation (zero oxygen solution standard). Calibration methods may differ between DO meters, and some fields listed may not be applicable. Refer to instrument manual for calibration instructions.

pH (Method SM 4500-H B)

Buffer Solution	Solution Manufacturer & Lot #	Solution Expiration Date	Solution Temperature	Reading	*Requires Recalibration	Reset Reading
4	Pine 4GB0637	2/26	21.9	3.83	Y / N	4.00
7	" 4GB1040	2/26	22.3	7.03	Y / N	7.01
10	" 3GF1088	6/25	22.1	9.97	Y / N	10.03
					Y / N	

Note: A calibration check against one standard buffer must be performed and recorded in the field book every 3-hours of use after daily calibration/calibration check.

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DAILY FIELD INSTRUMENT CALIBRATION/ CALIBRATION CHECK FORM

Specific Conductance (Method 2510 B)

Standard Solution	Solution Manufacturer & Lot #	Solution Expiration Date	Solution Temperature	Reading ($\mu S \cdot cm^{-1}$)	*Requires Recalibration	Reset Reading ($\mu S \cdot cm^{-1}$)
1.413	PINE 4GA0218	2025-1	22.0	0.505	Y / N	0.516

ORP

Standard Solution	Solution Manufacturer & Lot #	Solution Expiration Date	Solution Temperature	Reading (mV)	*Requires Recalibration	Reset Reading (mV)
240.0	Pine 3GH0038	5/24	22.0	~~218.~~ 203.4	Y / N	218.6

Turbidity (Method 2130 B)

Standard Solution (NTU)	Solution Manufacturer & Lot #	Solution Expiration Date	Reading (NTU)	*Requires Recalibration	Reset Reading (NTU)
0	Pine 24007124	1/25	0.09	Y / N	0.00
126.0	Pine 23024001164	4/24	116.17	Y / N	124.00
				Y / N	
				Y / N	

*Field check readings should be within the accuracy listed by the manufacturer's specifications or per New Jersey regulations (NJAC 7:18), whichever is more stringent. Otherwise, the instrument must be recalibrated for that parameter. Refer to instrument manual for accuracy. Values provided below for instruments typically used by AECOM:

YSI 6-Series:		Horriba U-20XD Series:	
Dissolved Oxygen	± 0.1 % or ± 0.1 mg/L, whichever is greater	Dissolved Oxygen	± 0.2 mg/L
pH **	± 0.2 units	pH **	± 0.1 units
	**NJAC 7:18 requires that calibration values be accurate to ±0.05, and accuracy within ±0.1 units for the initial calibration check and ±0.2 units for 3-hour checks		
Specific Conductivity	± 0.5% + 0.001 mS/cm	Specific Conductivity	± 3%
ORP	± 20 mV	ORP	± 15 mV
Turbidity	± 2%	Turbidity	± 5%

LaMotte 2020e/i Turbidity Meter:
±0.05 or ±2%, below 100 NTU
±3%, above 100 NTU

AECOM

DAILY FIELD INSTRUMENT CALIBRATION/ CALIBRATION CHECK FORM

Site Name: OU6

Project/Client:

Project Number: 0045-0011

Location: DSCR - RICHMOND

Field Analyst(s): T.M BROWN

Date: 24/5/16

Start Time: 0648 Finish Time: 0715

Instrument Information

Parameter	Make	Model	Meter Serial #	Probe Serial #
DO	YSI	PRO QSS	16855	218078
pH	↓	↓	↓	↓
Specific Conductance				
ORP				
Temperature				
Turbidity				

Pre-Field Calibration and Quality Control Requirements

Prior to using instrument(s) in the field, field analysts must ensure that certain quality control procedures and calibrations have been completed for the instruments listed above. Records of the following, completed either by AECOM or the vendor, must be retained:

- ♦Weekly DO Winkler Titration ☐
- ♦5-Point Conductivity Curve ☐
- ♦Annual Conductivity Cell Constant ☐
- ♦Quarterly NIST Traceable Thermometer ☐
- ♦Solution Records ☐

Field Calibration/Calibration Check

DO (Method SM 4500 O.G)

100% Saturation	
Barometric Pressure (mmHg)	752 ϕ
Temperature (°C)	21.2
Initial Reading	8.75
Reset Reading	8.81

0% Saturation	
Solution Temperature (°C)	X
Solution Manufacturer & Lot #	
Reading	
*Requires Recalibration	Y / N
Reset Reading	

Note: DO must be calibrated to 100% saturation. DO may only be calibration checked to 0% saturation (zero oxygen solution standard). Calibration methods may differ between DO meters, and some fields listed may not be applicable. Refer to instrument manual for calibration instructions.

pH (Method SM 4500-H B)

Buffer Solution	Solution Manufacturer & Lot #	Solution Expiration Date	Solution Temperature	Reading	*Requires Recalibration	Reset Reading
10	36F1088	6/25	21.1	10.07	Y / N	
7	46B1040	2/26	21.6	7.06	Y / N	
4	32017	12/25	21.4	3.98	Y / N	
					Y / N	

Note: A calibration check against one standard buffer must be performed and recorded in the field book every 3-hours of use after daily calibration/calibration check.

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DAILY FIELD INSTRUMENT CALIBRATION/ CALIBRATION CHECK FORM

Specific Conductance (Method 2510 B)

Standard Solution	Solution Manufacturer & Lot #	Solution Expiration Date	Solution Temperature	Reading ($\mu S \cdot cm^{-1}$)	*Requires Recalibration	Reset Reading ($\mu S \cdot cm^{-1}$)
1.413	36E0678	5/24	21.4	1.425	Y / N	

ORP

Standard Solution	Solution Manufacturer & Lot #	Solution Expiration Date	Solution Temperature	Reading (mV)	*Requires Recalibration	Reset Reading (mV)
240.0	36H0038	5/24	21.5	236.6	Y / N	

Turbidity (Method 2130 B)

Standard Solution (NTU)	Solution Manufacturer & Lot #	Solution Expiration Date	Reading (NTU)	*Requires Recalibration	Reset Reading (NTU)
126.0	23J2405648	9/24	120.2	Y / N	126.0
0	24063824	7/24	-0.68	Y / N	00
				Y / N	
				Y / N	

*Field check readings should be within the accuracy listed by the manufacturer's specifications or per New Jersey regulations (NJAC 7:18), whichever is more stringent. Otherwise, the instrument must be recalibrated for that parameter. Refer to instrument manual for accuracy. Values provided below for instruments typically used by AECOM:

YSI 6-Series:

Dissolved Oxygen	± 0.1 % or ± 0.1 mg/L, whichever is greater
pH **	± 0.2 units
	**NJAC 7:18 requires that calibration values be accurate to ±0.05, and accuracy within ±0.1 units for the initial calibration check and ±0.2 units for 3-hour checks
Specific Conductivity	± 0.5% + 0.001 mS/cm
ORP	± 20 mV
Turbidity	± 2%

Horriba U-20XD Series:

Dissolved Oxygen	± 0.2 mg/L
pH **	± 0.1 units
Specific Conductivity	± 3%
ORP	± 15 mV
Turbidity	± 5%

LaMotte 2020e/i Turbidity Meter:

±0.05 or ±2%, below 100 NTU

±3%, above 100 NTU

AECOM

DAILY FIELD INSTRUMENT CALIBRATION/ CALIBRATION CHECK FORM

Site Name: OUG
Project/Client:
Project Number: 0043-ecll
Location: DSCR - Richmond
Field Analyst(s): Quin Rebrcky
Date: 5/16/24
Start Time: 0700 Finish Time: 0730

Instrument Information

Parameter	Make	Model	Meter Serial #	Probe Serial #
DO	PRO DSS	YSI	21137 0	469 82
pH	↓	↓	↓	↓
Specific Conductance	↓	↓	↓	↓
ORP	↓	↓	↓	↓
Temperature	↓	↓	↓	↓
Turbidity	↓	↓	↓	↓

Pre-Field Calibration and Quality Control Requirements

Prior to using instrument(s) in the field, field analysts must ensure that certain quality control procedures and calibrations have been completed for the instruments listed above. Records of the following, completed either by AECOM or the vendor, must be retained:

- •Weekly DO Winkler Titration ☐
- •5-Point Conductivity Curve ☐
- •Annual Conductivity Cell Constant ☐
- •Quarterly NIST Traceable Thermometer ☐
- •Solution Records ☐

Field Calibration/Calibration Check

DO (Method SM 4500 O G)

100% Saturation	
Barometric Pressure (mmHg)	
Temperature (°C)	21.3
Initial Reading	9.69
Reset Reading	9.48

0% Saturation	
Solution Temperature (°C)	
Solution Manufacturer & Lot #	
Reading	
*Requires Recalibration	Y / N
Reset Reading	

Note: DO must be calibrated to 100% saturation. DO may only be calibration checked to 0% saturation (zero oxygen solution standard). Calibration methods may differ between DO meters, and some fields listed may not be applicable. Refer to instrument manual for calibration instructions.

pH (Method SM 4500-H B)

Buffer Solution	Solution Manufacturer & Lot #	Solution Expiration Date	Solution Temperature	Reading	*Requires Recalibration	Reset Reading
7	460 1040	2/26	22.2	7.09	Y / N	7
4	46B0637	2/26	22.2	4.02	Y / N	4
10	3G Fields	6/25	22.2	9.93	Y / N	10
					Y / N	

Note: A calibration check against one standard buffer must be performed and recorded in the field book every 3-hours of use after daily calibration/calibration check.

AECOM

DAILY FIELD INSTRUMENT CALIBRATION/ CALIBRATION CHECK FORM

Specific Conductance (Method 2510 B)

Standard Solution	Solution Manufacturer & Lot #	Solution Expiration Date	Solution Temperature	Reading ($\mu S\ cm^{-1}$)	*Requires Recalibration	Reset Reading ($\mu S\ cm^{-1}$)
1.413	16K0355	11/24	23.1	1.440	Y / (N)	1.413

ORP

Standard Solution	Solution Manufacturer & Lot #	Solution Expiration Date	Solution Temperature	Reading (mV)	*Requires Recalibration	Reset Reading (mV)
240	20H0038	3/24	22.2	238.4	Y / (N)	240

Turbidity (Method 2130 B)

Standard Solution (NTU)	Solution Manufacturer & Lot #	Solution Expiration Date	Reading (NTU)	*Requires Recalibration	Reset Reading (NTU)
0	24007124	1/25	5.06	(Y) / N	0
126	23J2704364B	9/24	131.07	(Y) / N	126
				Y / N	
				Y / N	

*Field check readings should be within the accuracy listed by the manufacturer's specifications or per New Jersey regulations (NJAC 7:18), whichever is more stringent. Otherwise, the instrument must be recalibrated for that parameter. Refer to instrument manual for accuracy. Values provided below for instruments typically used by AECOM

YSI 6-Series

Dissolved Oxygen	± 0.1 % or ± 0.1 mg/L, whichever is greater
pH **	± 0.2 units
	**NJAC 7:18 requires that calibration values be accurate to ±0.05, and accuracy within ±0.1 units for the initial calibration check and ±0.2 units for 3-hour checks
Specific Conductivity	± 0.5% + 0.001 mS/cm
ORP	± 20 mV
Turbidity	± 2%

Horiba U-20XD Series

Dissolved Oxygen	± 0.2 mg/L
pH **	± 0.1 units
Specific Conductivity	± 3%
ORP	± 15 mV
Turbidity	± 5%

LaMotte 2020wi Turbidity Meter

±0.05 or ±2% below 100 NTU

±3% above 100 NTU

Eurofins Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Phone (912) 354-7858 Phone (912) 352-0165

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: Tim, TJ, Quin and Bruce	Lab PM: Lanier, Jerry	Carrier Tracking No(s):	COC No:
Client Contact: Andrew VanBuesking	Phone: 757-589-5825	E-Mail: Jerry.Lanier@et.eurofinsus.com	State of Origin: VA	Page: Page 1 of 1
Company: Meadows CMPG	PWSID:	**Analysis Requested**		Job #:
Address: 2107 Granby St	**Due Date Requested:**			**Preservation Codes:**
City: Norfolk	**TAT Requested (days):** STD			A - HCL; B - NaOH; C - Zn Acetate; D - Nitric Acid; E - NaHSO4; F - MeOH; G - Amchlor; H - Ascorbic Acid; I - Ice; J - DI Water; K - EDTA; L - EDA; M - Hexane; N - None; O - AsNaO2; P - Na2O4S; Q - Na2SO3; R - Na2S2O3; S - H2SO4; T - TSP Dodecahydrate; U - Acetone; V - MCAA; W - pH 4-5; Z - other (specify)
State, Zip: VA	**Compliance Project:** Δ Yes Δ No			
Phone: 757-623-3107	PO #: 0045-0011			**Other:**
Email: avanbuesking@meadowscmpg	WO #:			
Project Name: OU6 Annual	Project #: 68020891			
Site: DSCR, OU6	SSOW#:			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260D_DOD5 - (MOD) Volatiles		RSK_175_DOD5 - Ethane, Ethene, Methane	9060A - TOC	9056A_OF28D_D5 - Chloride & Sulfate 9056A_OF_48H_D5 - Local Method	SM4500_S2_F - Sulfide, Total	6020A_DOD5 - Manganese	SM4500_CO2_D - Carbon Dioxide	2320B - Alkalinity	DIOX 8270E ID D5	8270E_DOD5 - (MOD) Semivolatiles (without PAHs)	8270E_SIM_DOD5 - Routine PAH	8081B_8082A_D5 - Routine Pesticides & PCBs	7470A_DOD5 - Mercury 6020A_DOD5- (MOD) TAL Metals	8270E_SIM_ID_D5 Local Method - Dioxane	Total Number of containers	Special Instructions/Note:
			Preservation Code:		X	X	A		A	S	N	CB	D	N	N		N	N	N	D	N	X	
OU6-MW-288-20240517	5/17/24	0835	G	W			3		3	3	1	2	1	1	1							0	
OU6-MW-159-20240517	5/17/24	1000	G	W			3		3	3	1	2	1	1	1							0	
OU6-MW-258-20240517	5/17/24	0850	G	W			3		3	3	1	2	1	1	1							0	
OU6-MW-262-20240517	5/17/24	1000	G	W			3		3	3	1	2	1	1	1							0	
OU6-MW-171-20240517	5/17/24	0910	G	W			3		3	3	1	2	1	1	1							15	
OU6-MW-165-20240517	5/17/24	1045	G	W			3		3	3	1	2	1	1	1							15	
TRIP-BLANK-20240517	5/17/24		G	W			2															2	
																						0	
																						0	
																						0	
																						0	

Possible Hazard Identification
☐ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* ☐ *Poison B* ■ *Unknown* ☐ *Radiological*

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ■ *Disposal By Lab* ☐ *Archive For _____ Months*

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:			Method of Shipment:		
BRUCE DIGGS	5-17-2024/1600	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

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GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	OU6-MW-288
Project/Site Name:	OU6 Annual	Sample ID:	OU6-MW-288-20240516
Date:	5/17/2024	Well Condition:	
Weather:	mid 60's, sunny		

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	2	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	14.22	Purging/Sampling Device:	Bladder Pump
Total Depth (ft btoc):	39.67 COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI
Water Column (ft):	25.45		
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier 0.1620	Start Purge Date/Time:	5/17/2024 - 0758
		End Purge Date/Time:	5/17/2024 - 0830
		Total Volume Purged (gal):	1..0
One Well Volume (gal):	4.12	Sample Date/Time:	5/17/2024 - 0835
Screened Interval (ft bgs):	34.67 - 39.67	Sampler Name:	QR

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
0800	200	0.10	14.40	5.75	0.080	17.60	6.54	9.75	157.40	clear, no odor
0805	100	0.15	15.20	5.73	0.070	17.20	5.49	11.12	163.50	water level is below pump
0810	100	0.25	15.20	5.76	0.068	17.20	5.19	12.30	168.30	
0815	100	0.50	15.20	5.77	0.069	17.20	5.07	13.87	171.80	
0820	100	0.67	15.20	5.78	0.070	17.20	5.00	14.22	174.50	
0825	100	0.75	15.20	5.79	0.070	17.20	4.94	14.74	176.40	
1830	100	1.00	15.20	5.79	0.069	17.20	4.88	14.67	178.10	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	✓	Manganese (6020 A)	✓
TOC (9060 A)	✓	LLPAHs (8270 E SIM)	
Methane Ethane Ethene (RSK-175)	✓	SVOCS (8270 D)	
Anions (9056 A)	✓	Pesticides & PCBS (8081 B & 8082 A)	
Alkalinity (2320 B)	✓	2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)		QPCR	✓
CO2 (SM4500)	✓		
Sulfide (SM4500)	✓		

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L): 0.07

Dilution: 0 Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result: 0.07

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? No If Yes, List ID and Analyses

COMMENTS/NOTES

Microbial sample collected 5/23/2024

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GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	OU6-MW-159
Project/Site Name:	OU6 Annual	Sample ID:	OU6-MW-159-20240517
Date:	5/17/2024	Well Condition:	
Weather:	mid 60's, sunny		

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	2	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	17.78	Purging/Sampling Device:	Bladder Pump
Total Depth (ft btoc):	48.50 COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI
Water Column (ft):	30.72		
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier 0.1620	Start Purge Date/Time:	5/17/2024 - 0925
		End Purge Date/Time:	5/17/2024 - 0955
		Total Volume Purged (gal):	1.25
One Well Volume (gal):	4.98	Sample Date/Time:	5/17/2024 - 1000
Screened Interval (ft bgs):	43.5 - 48.5	Sampler Name:	QR

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
0930	200	0.10	18.75	5.36	0.079	18.10	1.21	6.33	110.50	light brown, no odor
0935	200	0.25	20.22	5.35	0.078	18.10	0.77	8.75	107.20	lower to 40 psi
0940	200	0.50	20.20	5.36	0.078	18.20	0.66	10.00	105.70	
0945	200	0.75	21.80	5.37	0.081	18.40	0.64	9.27	106.20	
0950	200	1.00	21.90	5.37	0.082	18.50	0.66	2.01	107.70	
0955	200	1.25	22.10	9.37	0.082	18.50	0.64	0.85	108.90	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	✓	Manganese (6020 A)	✓
TOC (9060 A)	✓	LLPAHs (8270 E SIM)	
Methane Ethane Ethene (RSK-175)	✓	SVOCS (8270 D)	
Anions (9056 A)	✓	Pesticides & PCBS (8081 B & 8082 A)	
Alkalinity (2320 B)	✓	2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)		QPCR	
CO2 (SM4500)	✓		
Sulfide (SM4500)	✓		

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L): 2.29

Dilution: 0 Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result: 2.29

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? No If Yes, List ID and Analyses

COMMENTS/NOTES

MEADOWS CONSULTING | MANAGEMENT | PLANNING AECOM Imagine it. Delivered.

GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	OU6-MW-258
Project/Site Name:	OU6 Annual	Sample ID:	OU6-MW-258-20240517
Date:	5/17/2024	Well Condition:	good
Weather:			

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	2	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	5.65	Purging/Sampling Device:	Peristaltic Pump
Total Depth (ft btoc):	25.25 COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI
Water Column (ft):	19.60		
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier 0.1620	Start Purge Date/Time:	5/17/2024 - 0820
		End Purge Date/Time:	5/17/2024 - 0845
		Total Volume Purged (gal):	1.25
One Well Volume (gal):	3.18	Sample Date/Time:	5/17/2024 - 0850
Screened Interval (ft bgs):	20.25 - 25.25	Sampler Name:	TJ Skora

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
0815	250	0.25	5.30	4.97	0.009	19.80	4.66	9.91	232.80	clear, no odor
0820	200	0.25	6.98	4.92	0.008	18.70	4.46	10.19	267.90	
0825	200	0.50	7.56	4.92	0.008	18.40	4.16	9.20	290.90	
0830	200	0.75	8.53	4.95	0.004	18.50	3.73	6.32	308.40	
0835	200	0.75	8.85	4.91	0.008	18.30	3.72	6.61	315.30	
0840	200	1.00	8.97	4.90	0.008	18.30	3.85	5.99	323.30	
0845	200	1.25	9.27	4.97	0.008	18.20	3.98	5.85	319.90	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	✓	Manganese (6020 A)	✓
TOC (9060 A)	✓	LLPAHs (8270 E SIM)	
Methane Ethane Ethene (RSK-175)	✓	SVOCS (8270 D)	
Anions (9056 A)	✓	Pesticides & PCBS (8081 B & 8082 A)	
Alkalinity (2320 B)	✓	2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)		QPCR	
CO2 (SM4500)	✓		
Sulfide (SM4500)	✓		

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L): 0.07

Dilution: 0 Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result: 0.07

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? No If Yes, List ID and Analyses

COMMENTS/NOTES

MEADOWS CONSULTING | MANAGEMENT | PLANNING AECOM Imagine it. Delivered.

GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	OU6-MW-262
Project/Site Name:	OU6 Annual	Sample ID:	OU6-MW-262-20240517
Date:	5/17/2024	Well Condition:	good
Weather:	partly cloudy, mild		

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	2	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	10.79	Purging/Sampling Device:	Peristaltic Pump
Total Depth (ft btoc):	25.20 COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI
Water Column (ft):	14.41		
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier 0.1620	Start Purge Date/Time:	5/17/2024 - 0925
		End Purge Date/Time:	5/17/2024 - 0955
		Total Volume Purged (gal):	1.5
One Well Volume (gal):	2.33	Sample Date/Time:	05/17/2024 - 1000
Screened Interval (ft bgs):	20.20 - 25.20	Sampler Name:	TJ Skora

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
0930	250	0.25	10.91	4.40	0.014	17.70	4.32	23.51	271.50	clear, no odor
0935	250	0.50	10.95	4.36	0.014	17.10	3.58	7.71	301.50	
0940	250	0.75	10.95	4.30	0.018	16.60	3.03	8.98	313.40	
0945	250	1.00	10.95	4.33	0.015	16.60	3.00	9.72	319.60	
0950	250	1.25	10.95	4.32	0.015	16.50	3.09	8.98	320.00	
0955	250	1.50	10.95	4.35	0.015	16.40	3.15	8.48	327.10	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	✓	Manganese (6020 A)	✓
TOC (9060 A)	✓	LLPAHs (8270 E SIM)	
Methane Ethane Ethene (RSK-175)	✓	SVOCS (8270 D)	
Anions (9056 A)	✓	Pesticides & PCBS (8081 B & 8082 A)	
Alkalinity (2320 B)	✓	2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)		QPCR	
CO2 (SM4500)	✓		
Sulfide (SM4500)	✓		

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L): 2.28

Dilution: 0 Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result: 2.28

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? No If Yes, List ID and Analyses

COMMENTS/NOTES

MEADOWS CONSULTING | MANAGEMENT | PLANNING AECOM Imagine it. Delivered.

GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	OU6-MW-171
Project/Site Name:	OU6 Annual	Sample ID:	OU6-MW-171-20240517
Date:	20240517	Well Condition:	GOOD
Weather:	SUNNY 61		

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	2.00	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	20.65	Purging/Sampling Device:	Bladder Pump
Total Depth (ft btoc):	51.70 COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI PRO DSS
Water Column (ft):	31.05		
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier 0.1620	Start Purge Date/Time:	24/5/17 0810
		End Purge Date/Time:	24/5/17 0910
		Total Volume Purged (gal):	3.00
One Well Volume (gal):	5.03	Sample Date/Time:	24/5/17 0910
Screened Interval (ft bgs):	40-50	Sampler Name:	TIM BROWN

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^C)	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
0815	250	0.25	21.00	4.98	0.045	17.70	3.03	96.00	425.00	WATER FOGGY/ NO ODOR
0820	250	0.50	21.02	4.99	0.044	17.70	3.42	83.00	427.10	
0825	250	0.75	21.05	4.97	0.044	17.70	3.60	70.00	428.30	
0830	250	1.00	21.05	4.96	0.044	17.70	3.41	52.00	429.70	
0835	250	1.25	21.05	4.90	0.044	17.70	3.41	42.00	433.80	
0840	250	1.50	21.05	4.83	0.044	17.80	3.60	26.75	440.10	
0845	250	1.75	21.05	4.85	0.044	17.80	3.36	18.00	439.00	
0850	250	2.00	21.05	4.88	0.044	17.70	3.54	15.00	439.50	
0855	250	2.25	21.05	4.89	0.044	17.70	3.48	11.21	440.50	
0900	250	2.50	21.05	4.86	0.044	17.70	3.65	8.95	443.80	
0905	250	2.75	21.05	4.88	0.044	17.80	3.24	7.80	443.80	
0910	250	3.00	21.05	4.84	0.044	17.80	3.35	6.77	449.90	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	✓	Manganese (6020 A)	✓
TOC (9060 A)	✓	LLPAHs (8270 E SIM)	
Methane Ethane Ethene (RSK-175)	✓	SVOCS (8270 D)	
Anions (9056 A)	✓	Pesticides & PCBS (8081 B & 8082 A)	
Alkalinity (2320 B)	✓	2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)		QPCR	
CO2 (SM4500)	✓		
Sulfide (SM4500)	✓		

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L): 0.07

Dilution: 0 Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result: 0.07

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? No If Yes, List ID and Analyses

COMMENTS/NOTES

MEADOWS CONSULTING | MANAGEMENT | PLANNING AECOM Imagine it. Delivered.

GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	OU6-MW-165
Project/Site Name:	OU6 Annual	Sample ID:	OU6-MW-165-20240517
Date:	20240517	Well Condition:	GOOD
Weather:	SUNNY 68		

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	2.00	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	19.15	Purging/Sampling Device:	Bladder Pump
Total Depth (ft btoc):	50.75 COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI PRO DSS
Water Column (ft):	31.60		
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier 0.1620	Start Purge Date/Time:	24/5/17 0950
		End Purge Date/Time:	24/5/17 1045
		Total Volume Purged (gal):	2.75
One Well Volume (gal):	5.12	Sample Date/Time:	24/5/17 1045
Screened Interval (ft bgs):	40-50	Sampler Name:	TIM BROWN

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^C)	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
0955	250	0.25	19.45	5.49	0.081	18.70	4.04	63.88	455.30	WATER CLEAR/ NO ODOR
1000	250	0.50	19.50	5.36	0.077	18.60	3.74	75.00	452.10	
1005	250	0.75	19.50	5.43	0.072	18.70	3.49	70.00	450.10	
1010	250	1.00	19.45	5.36	0.066	18.70	3.24	72.00	449.10	
1015	250	1.25	19.42	5.33	0.064	18.70	3.10	73.00	447.10	
1020	250	1.50	19.47	5.30	0.061	18.60	2.99	78.00	446.70	
1025	250	1.75	19.45	5.28	0.060	18.70	2.90	82.00	445.50	
1030	250	2.00	19.42	5.26	0.059	18.70	2.86	86.00	447.20	
1035	250	2.25	19.47	5.23	0.057	18.70	2.77	56.00	443.30	
1040	250	2.50	19.45	5.25	0.057	18.70	2.75	58.00	448.30	
1045	250	2.75	19.40	5.23	0.057	18.70	2.70	61.00	448.80	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	✓	Manganese (6020 A)	✓
TOC (9060 A)	✓	LLPAHs (8270 E SIM)	
Methane Ethane Ethene (RSK-175)	✓	SVOCS (8270 D)	
Anions (9056 A)	✓	Pesticides & PCBS (8081 B & 8082 A)	
Alkalinity (2320 B)	✓	2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)		QPCR	
CO2 (SM4500)	✓		
Sulfide (SM4500)	✓		

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L): 0.01

Dilution: 0 Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result: 0.01

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? No If Yes, List ID and Analyses

COMMENTS/NOTES

OU#	Well#	Sample ID	Date	Time Sampled	Time Hach	# of Dilutions	Iron Result	reportable result	Notes
Final Result Calculation, Dilution 1 Result X 2, Dilution 2 Result x 4, Dilution 3 Result x 8, Dilution 4 Result x 16, Dilution 5 Result x 32									
OU6	MW-165	OU6-MW-165-20240517	24/5/17	1045	1223	Ø	0.01	0.01	
OU6	MW-171	OU6-MW-171-20240517	24/5/17	0910	1232	Ø	0.07	0.07	
OU6	MW-288	OU6-MW-288-20240517	24/5/17	0835	1238	Ø	0.07	0.07	
OU6	MW-159	OU6-MW-159-20240517	24/5/17	1000	1245	Ø	2.29	2.29	
OU6	MW-262	OU6-MW-262-20240517	24/5/17	1000	1251	Ø	2.28	2.28	
OU6	MW-258	OU6-MW-258-20240517	24/5/17	0850	1258	Ø	0.07	0.07	
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AECOM

DAILY FIELD INSTRUMENT CALIBRATION/ CALIBRATION CHECK FORM

Site Name: OU6

Project/Client: Project Number: 0045-0011

Location: DSCR - RICHMOND

Field Analyst(s): T.M BROWN

Date: 24/5/17 Start Time: 0650 Finish Time: 0715

Instrument Information

Parameter	Make	Model	Meter Serial #	Probe Serial #
DO	YSI	PRO QSS	16855	218078
pH	↓	↓	↓	↓
Specific Conductance				
ORP				
Temperature				
Turbidity				

Pre-Field Calibration and Quality Control Requirements

Prior to using instrument(s) in the field, field analysts must ensure that certain quality control procedures and calibrations have been completed for the instruments listed above. Records of the following, completed either by AECOM or the vendor, must be retained:

- ♦Weekly DO Winkler Titration ☐
- ♦5-Point Conductivity Curve ☐
- ♦Annual Conductivity Cell Constant ☐
- ♦Quarterly NIST Traceable Thermometer ☐
- ♦Solution Records ☐

Field Calibration/Calibration Check

DO (Method SM 4500 O.G)

100% Saturation	
Barometric Pressure (mmHg)	755.9
Temperature (°C)	22.0
Initial Reading	8.65
Reset Reading	8.66

0% Saturation	
Solution Temperature (°C)	X
Solution Manufacturer & Lot #	
Reading	
*Requires Recalibration	Y / N
Reset Reading	

Note: DO must be calibrated to 100% saturation. DO may only be calibration checked to 0% saturation (zero oxygen solution standard). Calibration methods may differ between DO meters, and some fields listed may not be applicable. Refer to instrument manual for calibration instructions.

pH (Method SM 4500-H B)

Buffer Solution	Solution Manufacturer & Lot #	Solution Expiration Date	Solution Temperature	Reading	*Requires Recalibration	Reset Reading
10	36F1088	6/25	22.8	10.0	Y / N	
7	46B1040	2/26	22.9	7.08	Y / N	
4	32017	12/25	22.9	3.95	Y / N	
					Y / N	

Note: A calibration check against one standard buffer must be performed and recorded in the field book every 3-hours of use after daily calibration/calibration check.

AECOM

DAILY FIELD INSTRUMENT CALIBRATION/ CALIBRATION CHECK FORM

Specific Conductance (Method 2510 B)

Standard Solution	Solution Manufacturer & Lot #	Solution Expiration Date	Solution Temperature	Reading ($\mu S \cdot cm^{-1}$)	*Requires Recalibration	Reset Reading ($\mu S \cdot cm^{-1}$)
1.413	36E0678	5/24	22.8	1.406	Y / N	

ORP

Standard Solution	Solution Manufacturer & Lot #	Solution Expiration Date	Solution Temperature	Reading (mV)	*Requires Recalibration	Reset Reading (mV)
240.0	36H0038	5/24	22.5	232.8	Y / N	240

Turbidity (Method 2130 B)

Standard Solution (NTU)	Solution Manufacturer & Lot #	Solution Expiration Date	Reading (NTU)	*Requires Recalibration	Reset Reading (NTU)
126.0	23J2405648	9/24	118.61	Y / N	126
0	2400 3824	7/24	0.09	Y / N	0
				Y / N	
				Y / N	

*Field check readings should be within the accuracy listed by the manufacturer's specifications or per New Jersey regulations (NJAC 7:18), whichever is more stringent. Otherwise, the instrument must be recalibrated for that parameter. Refer to instrument manual for accuracy. Values provided below for instruments typically used by AECOM:

YSI 6-Series:		Horriba U-20XD Series:	
Dissolved Oxygen	± 0.1 % or ± 0.1 mg/L, whichever is greater	Dissolved Oxygen	± 0.2 mg/L
pH **,	± 0.2 units	pH **	± 0.1 units
	**NJAC 7:18 requires that calibration values be accurate to ±0.05, and accuracy within ±0.1 units for the initial calibration check and ±0.2 units for 3-hour checks		
Specific Conductivity	± 0.5% + 0.001 mS/cm	Specific Conductivity	± 3%
ORP	± 20 mV	ORP	± 15 mV
Turbidity	± 2%	Turbidity	± 5%

LaMotte 2020e/i Turbidity Meter:
±0.05 or ±2%, below 100 NTU
±3%, above 100 NTU

AECOM

DAILY FIELD INSTRUMENT CALIBRATION/ CALIBRATION CHECK FORM

Site Name: DSCR

Project/Client: OMC Annual Project Number: 0045-0011

Location: OU6

Field Analyst(s): TJ Skora

Date: 5/17/24 Start Time: 0715 Finish Time:

Instrument Information

Parameter	Make	Model	Meter Serial #	Probe Serial #
DO	Pro DSS	YSI	42061	23F102676
pH				
Specific Conductance				
ORP				
Temperature				
Turbidity				

Pre-Field Calibration and Quality Control Requirements

Prior to using instrument(s) in the field, field analysts must ensure that certain quality control procedures and calibrations have been completed for the instruments listed above. Records of the following, completed either by AECOM or the vendor, must be retained:

- ♦Weekly DO Winkler Titration ☐
- ♦5-Point Conductivity Curve ☐
- ♦Annual Conductivity Cell Constant ☐
- ♦Quarterly NIST Traceable Thermometer ☐
- ♦Solution Records ☐

Field Calibration/Calibration Check

DO (Method SM 4500 O.G)

100% Saturation	
Barometric Pressure (mmHg)	756.9
Temperature (°C)	21.5
Initial Reading	98.9
Reset Reading	100.0

0% Saturation	
Solution Temperature (°C)	
Solution Manufacturer & Lot #	
Reading	
*Requires Recalibration	Y / N
Reset Reading	

Note: DO must be calibrated to 100% saturation. DO may only be calibration checked to 0% saturation (zero oxygen solution standard). Calibration methods may differ between DO meters, and some fields listed may not be applicable. Refer to instrument manual for calibration instructions.

pH (Method SM 4500-H B)

Buffer Solution	Solution Manufacturer & Lot #	Solution Expiration Date	Solution Temperature	Reading	*Requires Recalibration	Reset Reading
4	Pine 4GB0637	2/26	23.1	4.10	Y / N	4.00
7	" 4GB1040	2/26	23.6	7.16	Y / N	7.01
10	" 3GF1088	6/25	21.6	9.99	Y / N	10.04
					Y / N	

Note: A calibration check against one standard buffer must be performed and recorded in the field book every 3-hours of use after daily calibration/calibration check.

AECOM

DAILY FIELD INSTRUMENT CALIBRATION/ CALIBRATION CHECK FORM

Specific Conductance (Method 2510 B)

Standard Solution	Solution Manufacturer & Lot #	Solution Expiration Date	Solution Temperature	Reading ($\mu S \cdot cm^{-1}$)	*Requires Recalibration	Reset Reading ($\mu S \cdot cm^{-1}$)
1.413	PINE 4GA0218	2025-1	~~22.7~~ 22.7	~~0.004~~ 0.010	Y / N	~~0.026~~ 1.413

ORP

Standard Solution	Solution Manufacturer & Lot #	Solution Expiration Date	Solution Temperature	Reading (mV)	*Requires Recalibration	Reset Reading (mV)
240.0	Pine 3GH0038	5/24	22.8	159.6	Y / N	219.8

Turbidity (Method 2130 B)

Standard Solution (NTU)	Solution Manufacturer & Lot #	Solution Expiration Date	Reading (NTU)	*Requires Recalibration	Reset Reading (NTU)
0	Pine 24007124	1/25	1.01	Y / N	0.00
126.0	Pine 23024001164	4/24	126.15	Y / N	124.60
				Y / N	
				Y / N	

*Field check readings should be within the accuracy listed by the manufacturer's specifications or per New Jersey regulations (NJAC 7:18), whichever is more stringent. Otherwise, the instrument must be recalibrated for that parameter. Refer to instrument manual for accuracy. Values provided below for instruments typically used by AECOM:

YSI 6-Series:

Dissolved Oxygen	± 0.1 % or ± 0.1 mg/L, whichever is greater
pH **	± 0.2 units
	**NJAC 7:18 requires that calibration values be accurate to ±0.05, and accuracy within ±0.1 units for the initial calibration check and ±0.2 units for 3-hour checks
Specific Conductivity	± 0.5% + 0.001 mS/cm
ORP	± 20 mV
Turbidity	± 2%

Horriba U-20XD Series:

Dissolved Oxygen	± 0.2 mg/L
pH **	± 0.1 units
Specific Conductivity	± 3%
ORP	± 15 mV
Turbidity	± 5%

LaMotte 2020e/i Turbidity Meter:

±0.05 or ±2%, below 100 NTU
±3%, above 100 NTU

AECOM

DAILY FIELD INSTRUMENT CALIBRATION/ CALIBRATION CHECK FORM

Site Name: CO6

Project/Client: Project Number: 0045-0011

Location: DSCR - RICHMOND

Field Analyst(s): T.M. BROWN

Date: 24/5/17 Start Time: 1400 Finish Time: 1419

Instrument Information

Parameter	Make	Model	Meter Serial #	Probe Serial #
DO	YSI	PRO DSS	16855	218078
pH	↓	↓	↓	↓
Specific Conductance				
ORP				
Temperature				
Turbidity				

Pre-Field Calibration and Quality Control Requirements

Prior to using instrument(s) in the field, field analysts must ensure that certain quality control procedures and calibrations have been completed for the instruments listed above. Records of the following, completed either by AECOM or the vendor, must be retained:

- ♦Weekly DO Winkler Titration ☐
- ♦5-Point Conductivity Curve ☐
- ♦Annual Conductivity Cell Constant ☐
- ♦Quarterly NIST Traceable Thermometer ☐
- ♦Solution Records ☐

Field Calibration/Calibration Check

DO (Method SM 4500 O.G)

100% Saturation	
Barometric Pressure (mmHg)	766.5
Temperature (°C)	24.9
Initial Reading	8.32
Reset Reading	8.32

0% Saturation	
Solution Temperature (°C)	X
Solution Manufacturer & Lot #	
Reading	
*Requires Recalibration	Y / N
Reset Reading	

Note: DO must be calibrated to 100% saturation. DO may only be calibration checked to 0% saturation (zero oxygen solution standard). Calibration methods may differ between DO meters, and some fields listed may not be applicable. Refer to instrument manual for calibration instructions.

pH (Method SM 4500-H B)

Buffer Solution	Solution Manufacturer & Lot #	Solution Expiration Date	Solution Temperature	Reading	*Requires Recalibration	Reset Reading
10	36F1088	6/25	24.06	10.06	Y / N	
7	46B1040	2/26	24.0	7.07	Y / N	
4	32017	12/25	24.3	3.94	Y / N	
					Y / N	

Note: A calibration check against one standard buffer must be performed and recorded in the field book every 3-hours of use after daily calibration/calibration check.

AECOM

DAILY FIELD INSTRUMENT CALIBRATION/ CALIBRATION CHECK FORM

Specific Conductance (Method 2510 B)

Standard Solution	Solution Manufacturer & Lot #	Solution Expiration Date	Solution Temperature	Reading ($\mu S \cdot cm^{-1}$)	*Requires Recalibration	Reset Reading ($\mu S \cdot cm^{-1}$)
1.413	36E0678	5/24	23.8	1.422	Y / N	

ORP

Standard Solution	Solution Manufacturer & Lot #	Solution Expiration Date	Solution Temperature	Reading (mV)	*Requires Recalibration	Reset Reading (mV)
240.0	36H0038	5/24	23.9	249.2	Y / N	239.2

Turbidity (Method 2130 B)

Standard Solution (NTU)	Solution Manufacturer & Lot #	Solution Expiration Date	Reading (NTU)	*Requires Recalibration	Reset Reading (NTU)
126.0	23524005648	9/24	119.87	Y / N	125.8
0	24003824	7/24	0.95	Y / N	0
				Y / N	
				Y / N	

*Field check readings should be within the accuracy listed by the manufacturer's specifications or per New Jersey regulations (NJAC 7:18), whichever is more stringent. Otherwise, the instrument must be recalibrated for that parameter. Refer to instrument manual for accuracy. Values provided below for instruments typically used by AECOM:

YSI 6-Series:		Horriba U-20XD Series:	
Dissolved Oxygen	± 0.1 % or ± 0.1 mg/L, whichever is greater	Dissolved Oxygen	± 0.2 mg/L
pH **	± 0.2 units	pH **	± 0.1 units
	**NJAC 7:18 requires that calibration values be accurate to ±0.05, and accuracy within ±0.1 units for the initial calibration check and ±0.2 units for 3-hour checks		
Specific Conductivity	± 0.5% + 0.001 mS/cm	Specific Conductivity	± 3%
ORP	± 20 mV	ORP	± 15 mV
Turbidity	± 2%	Turbidity	± 5%

LaMotte 2020e/i Turbidity Meter:
±0.05 or ±2%, below 100 NTU
±3%, above 100 NTU

AECOM

DAILY FIELD INSTRUMENT CALIBRATION/ CALIBRATION CHECK FORM

Site Name: OUG
Project/Client:
Project Number: 0043-ecll
Location: DSCR - Richmond
Field Analyst(s): Quin Rebrcky
Date: 5/17/24 Start Time: 0700 Finish Time: 0730

Instrument Information

Parameter	Make	Model	Meter Serial #	Probe Serial #
DO	PRO DSS	YSI	21137 0	469 82
pH	↓	↓	↓	↓
Specific Conductance	↓	↓	↓	↓
ORP	↓	↓	↓	↓
Temperature	↓	↓	↓	↓
Turbidity	↓	↓	↓	↓

Pre-Field Calibration and Quality Control Requirements

Prior to using instrument(s) in the field, field analysts must ensure that certain quality control procedures and calibrations have been completed for the instruments listed above. Records of the following, completed either by AECOM or the vendor, must be retained:

- •Weekly DO Winkler Titration ☐
- •5-Point Conductivity Curve ☐
- •Annual Conductivity Cell Constant ☐
- •Quarterly NIST Traceable Thermometer ☐
- •Solution Records ☐

Field Calibration/Calibration Check

DO (Method SM 4500 O G)

100% Saturation	
Barometric Pressure (mmHg)	
Temperature (°C)	22.1
Initial Reading	8.98
Reset Reading	8.98

0% Saturation	
Solution Temperature (°C)	
Solution Manufacturer & Lot #	
Reading	
*Requires Recalibration	Y / N
Reset Reading	

Note: DO must be calibrated to 100% saturation. DO may only be calibration checked to 0% saturation (zero oxygen solution standard). Calibration methods may differ between DO meters, and some fields listed may not be applicable. Refer to instrument manual for calibration instructions.

pH (Method SM 4500-H B)

Buffer Solution	Solution Manufacturer & Lot #	Solution Expiration Date	Solution Temperature	Reading	*Requires Recalibration	Reset Reading
7	460 1040	2/26	23	7.06	Y / N	7
4	46B0637	2/26	23	4	Y / N	4
10	3G Fields	6/25	23	9.92	Y / N	10
					Y / N	

Note: A calibration check against one standard buffer must be performed and recorded in the field book every 3-hours of use after daily calibration/calibration check.

AECOM

DAILY FIELD INSTRUMENT CALIBRATION/ CALIBRATION CHECK FORM

Specific Conductance (Method 2510 B)

Standard Solution	Solution Manufacturer & Lot #	Solution Expiration Date	Solution Temperature	Reading ($\mu S\ cm^{-1}$)	*Requires Recalibration	Reset Reading ($\mu S\ cm^{-1}$)
1.413	16K0355	11/24	22.2	1.347	Y / (N)	1.413

ORP

Standard Solution	Solution Manufacturer & Lot #	Solution Expiration Date	Solution Temperature	Reading (mV)	*Requires Recalibration	Reset Reading (mV)
240	20H0038	3/24	22.2	239.4	Y / (N)	240

Turbidity (Method 2130 B)

Standard Solution (NTU)	Solution Manufacturer & Lot #	Solution Expiration Date	Reading (NTU)	*Requires Recalibration	Reset Reading (NTU)
0	24007124	1/25	15.75	(Y) / N	0
126	23J2704364B	9/24	149.56	Y / N	126
				Y / N	
				Y / N	

*Field check readings should be within the accuracy listed by the manufacturer's specifications or per New Jersey regulations (NJAC 7:18), whichever is more stringent. Otherwise, the instrument must be recalibrated for that parameter. Refer to instrument manual for accuracy. Values provided below for instruments typically used by AECOM

YSI 6-Series

Dissolved Oxygen	± 0.1 % or ± 0.1 mg/L, whichever is greater
pH **	± 0.2 units
	**NJAC 7:18 requires that calibration values be accurate to ±0.05, and accuracy within ±0.1 units for the initial calibration check and ±0.2 units for 3-hour checks
Specific Conductivity	± 0.5% + 0.001 mS/cm
ORP	± 20 mV
Turbidity	± 2%

Horiba U-20XD Series

Dissolved Oxygen	± 0.2 mg/L
pH **	± 0.1 units
Specific Conductivity	± 3%
ORP	± 15 mV
Turbidity	± 5%

LaMotte 2020e/i Turbidity Meter

±0.05 or ±2% below 100 NTU

±3% above 100 NTU

Eurofins Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Phone (912) 354-7858 Phone (912) 352-0165

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: Tim, TJ, Quin and Bruce	Lab PM: Lanier, Jerry	Carrier Tracking No(s):	COC No:
Client Contact: Andrew VanBuesking	Phone: 757-589-5825	E-Mail: Jerry.Lanier@et.eurofinsus.com	State of Origin: VA	Page: Page 1 of 2
Company: Meadows CMPG	PWSID:			Job #:

Address: 2107 Granby St	Due Date Requested:
City: Norfolk	TAT Requested (days): STD
State, Zip: VA	Compliance Project: Δ Yes Δ No
Phone: 757-623-3107	PO #: 0045-0011
Email: avanbuesking@meadowscmpg	WO #:
Project Name: OU6 Annual	Project #:
Site: DSCR, OU6	SSOW#:

Analysis Requested

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260D_DOD5 - (MOD) Volatiles		RSK_175_DOD5 - Ethane, Ethene, Methane	9060A - TOC	9056A_OF28D_D5 - Chloride & Sulfate 9056A_OF_48H_D5 - Local Method	SM4500_S2_F - Sulfide, Total	6020A_DOD5 - Manganese	SM4500_CO2_D - Carbon Dioxide	2320B - Alkalinity	DIOX 8270E ID D5	8270E_DOD5 - (MOD) Semivolatiles (without PAHs)	8270E_SIM_DOD5 - Routine PAH	8081B_8082A_D5 - Routine Pesticides & PCBs	7470A_DOD5 - Mercury 6020A_DOD5- (MOD) TAL Metals	8270E_SIM_ID_D5 Local Method - Dioxane	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A		A	S	N	CB	D	N	N		N	N	N	D	N		
OU6-MW-263-20240520	5/20/24	0735	G	W			9		9	9	3	6	3	3	3		6	6	6	3		66	MS/MSD
OU6-MW-269-20240520	5/20/24	0920	G	W			3		3	3	1	2	1	1	1		2	2	2	1		22	
OU6-MW-274-20240520	5/20/24	1035	G	W			3		3	3	1	2	1	1	1							15	
OU6-MW-275-20240520	5/20/24	1140	G	W			3		3	3	1	2	1	1	1							15	
OU6-MW-222-20240520	5/20/24	1315	G	W			3		3	3	1	2	1	1	1							15	
OU6-MW-283-20240520	5/20/24	0910	G	W			3		3	3	1	2	1	1	1							15	
OU6-MW-160-20240520	5/20/24	1035	G	W			9		9	9	3	6	3	3	3							45	MS/MSD
OU6-MW-95-20240520	5/20/24	1305	G	W			3		3	3	1	2	1	1	1						2	17	
OU6-MW-292-20240520	5/20/24	1415	G	W			3		3	3	1	2	1	1	1							15	
OU6-MW-295-20240520	5/20/24	1105	G	W			3															3	
OU6-MW-145-20240520	5/20/24	1235	G	W			3		3	3	1	2	1	1	1							15	

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ■ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ■ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:

Method of Shipment:

BRUCE DIGGS	5-16-2024/1600	Company	Received by:		Date/Time:	Company	
Relinquished by:	Date/Time:	Company	Received by:		Date/Time:	Company	
Relinquished by:	Date/Time:	Company	Received by:		Date/Time:	Company	

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Eurofins Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Phone (912) 354-7858 Phone (912) 352-0165

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler:	Lab PM: Lanier, Jerry	Carrier Tracking No(s):	COC No:
Client Contact: Andrew VanBuesking	Phone: 757-589-5825	E-Mail: Jerry.Lanier@et.eurofinsus.com	State of Origin: VA	Page: Page 2 of 2
Company: Meadows CMPG	PWSID:			Job #:
Address: 2107 Granby St	Due Date Requested:			
City: Norfolk	TAT Requested (days): STD			
State, Zip: VA	Compliance Project: Δ Yes Δ No			
Phone: 757-623-3107	PO #: 0045-0011			
Email: avanbuesking@meadowscmpg	WO #:			
Project Name: OU6 Annual	Project #:			
Site: DSCR, OU6	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260D_DOD5 - (MOD) Volatiles		RSK_175_DOD5 - Ethane, Ethene, Methane	9060A - TOC	9056A_OF28D_D5 - Chloride & Sulfate 9056A_OF_48H_D5 - Local Method	SM4500_S2_F - Sulfide, Total	6020A_DOD5 - Manganese	SM4500_CO2_D - Carbon Dioxide	2320B - Alkalinity		8270E_DOD5 - (MOD) Semivolatiles (without PAHs)	8270E_SIM_DOD5 - Routine PAH	8081B_8082A_D5 - Routine Pesticides & PCBs	7470A_DOD5 - Mercury 6020A_DOD5- (MOD) TAL Metals	8270E_SIM_ID_D5 Local Method - Dioxane	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A		A	S	N	CB	D	N	N		N	N	N	D	N		
DUP-3-20240520	5/20/24	0000	G	W			3		3	3	1	2	1	1	1							15	
DUP-4-20240520	5/20/24	0000	G	W			3		3	3	1	2	1	1	1							15	
TRIP-BLANK-20240520	5/20/24		G	W			2															2	
OU6-MW-276-20240520	5/20/24	0815	G	W			3		3	3	1	2	1	1	1							15	
OU6-MW-266-20240520	5/20/24	1015	G	W			3		3	3	1	2	1	1	1							15	
OU6-MW-282-20240520	5/20/24	1155	G	W			3		3	3	1	2	1	1	1							15	
OU6-MW-268-20240520	5/20/24	1430	G	W			3		3	3	1	2	1	1	1							15	
			G	W																		0	
			G	W																		0	
			G	W																		0	
			G	W																		0	

Possible Hazard Identification
☐ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* ☐ *Poison B* ■ *Unknown* ☐ *Radiological*

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ■ *Disposal By Lab* ☐ *Archive For _____ Months*

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

MEADOWS CONSULTING | MANAGEMENT | PLANNING AECOM Imagine it. Delivered.

GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	OU6-MW-263
Project/Site Name:	OU6 Annual	Sample ID:	OU6-MW-263-20240520
Date:	5-20-2024	Well Condition:	GOOD
Weather:	PARTLY CLOUDY 58		

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	2	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	9.6	Purging/Sampling Device:	Peristaltic Pump
Total Depth (ft btoc):	24.9 COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI PRO DSS/218-46
Water Column (ft):	15.30	Start Purge Date/Time:	5-20-24/070
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier 0.1620	End Purge Date/Time:	5-20-24/0730
		Total Volume Purged (gal):	1 GAL
One Well Volume (gal):	2.48	Sample Date/Time:	5-20-24/0735
Screened Interval (ft bgs):	19.9 - 24.9	Sampler Name:	BRUCE DIGGS

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
0700	150	0.15	9.60	6.41	0.979	15.40	1.74	73.20	-81.90	
0705	150	0.30	9.75	6.31	0.985	15.40	1.20	56.20	-75.10	
0710	150	0.45	10.00	6.29	0.987	15.30	0.96	45.20	-72.60	
0715	150	0.60	10.25	6.27	0.987	15.30	0.83	35.20	-70.90	
0720	150	0.75	10.30	6.27	0.987	15.30	0.75	24.20	-69.70	
0725	150	0.90	10.35	6.26	0.988	15.30	0.70	15.30	-69.00	
0730	150	1.05	10.50	6.26	0.988	15.40	0.66	10.20	-68.00	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	✓	Manganese (6020 A)	✓
TOC (9060 A)	✓	LLPAHs (8270 E SIM)	✓
Methane Ethane Ethene (RSK-175)	✓	SVOCS (8270 D)	✓
Anions (9056 A)	✓	Pesticides & PCBS (8081 B & 8082 A)	✓
Alkalinity (2320 B)	✓	2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)	✓	QPCR	
CO2 (SM4500)	✓		
Sulfide (SM4500)	✓		

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L): 1.78

Dilution: 1 Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result: 3.56

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? Yes If Yes, List ID and Analyses

MS/MSD collected

COMMENTS/NOTES

MEADOWS CONSULTING | MANAGEMENT | PLANNING AECOM Imagine it. Delivered.

GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	MW-269
Project/Site Name:	OU6 Annual	Sample ID:	OU6-MW-269-20240520
Date:	5-20-2024	Well Condition:	GOOD
Weather:	PARTLY CLOUDY 64		

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	2	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	4.7	Purging/Sampling Device:	Peristaltic Pump
Total Depth (ft btoc):	18.3 COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI PRO DSS 218046
Water Column (ft):	13.60		
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier 0.1620	Start Purge Date/Time:	5-20-24/0845
		End Purge Date/Time:	5-20-24/0915
		Total Volume Purged (gal):	1 GAL
One Well Volume (gal):	2.20	Sample Date/Time:	5-20-24/0920
Screened Interval (ft bgs):	13.3 - 18.3	Sampler Name:	BRUCE DIGGS

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
0845	150	0.15	4.70	5.03	0.172	19.30	1.77	55.20	95.60	
0850	150	0.30	4.95	4.75	0.155	19.30	1.33	45.60	125.60	
0855	150	0.45	5.00	4.61	0.145	19.30	1.08	40.20	138.10	
0900	150	0.60	5.25	4.56	0.140	19.30	0.90	30.20	147.20	
0905	150	0.75	5.45	4.52	0.134	19.30	0.79	25.20	153.20	
0910	150	0.90	5.60	4.50	0.130	19.30	0.72	15.20	156.90	
0915	150	1.05	5.95	4.48	0.127	19.40	0.67	10.20	161.10	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	✓	Manganese (6020 A)	✓
TOC (9060 A)	✓	LLPAHs (8270 E SIM)	✓
Methane Ethane Ethene (RSK-175)	✓	SVOCS (8270 D)	✓
Anions (9056 A)	✓	Pesticides & PCBS (8081 B & 8082 A)	✓
Alkalinity (2320 B)	✓	2,3,7,8 TCDD (8290 A)	✓
Metals (6020 A/6010 C/7470 A)	✓	QPCR	✓
CO2 (SM4500)	✓		☐
Sulfide (SM4500)	✓		☐

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L): 0.90

Dilution: 0 Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result: 0.90

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? No If Yes, List ID and Analyses

COMMENTS/NOTES

MEADOWS CONSULTING | MANAGEMENT | PLANNING AECOM Imagine it. Delivered.

GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	OU6-MW-274
Project/Site Name:	OU6 Annual	Sample ID:	OU6-MW-274-20240520
Date:	5-20-2024	Well Condition:	GOOD
Weather:	PARTLY CLOUDY 67		

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	2	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	4.85	Purging/Sampling Device:	Peristaltic Pump
Total Depth (ft btoc):	17.05 COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI DSS PRO 218046
Water Column (ft):	12.20		
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier 0.1620	Start Purge Date/Time:	5-20-24/1000
		End Purge Date/Time:	5-20-24/1030
		Total Volume Purged (gal):	1 GAL
One Well Volume (gal):	1.98	Sample Date/Time:	5-20-24/1035
Screened Interval (ft bgs):	12.05 - 17.05	Sampler Name:	BRUCE DIGGS

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
1000	150	0.15	4.85	5.09	0.203	19.10	1.98	20.10	190.00	
1005	150	0.30	5.00	4.88	0.202	19.20	1.30	19.70	191.70	
1010	150	0.45	5.15	4.84	0.202	19.40	0.95	19.30	197.00	
1015	150	0.60	5.35	4.83	0.201	19.20	0.85	15.20	201.70	
1020	150	0.75	5.55	4.81	0.200	19.20	0.72	11.20	206.20	
1025	150	0.90	5.95	4.79	0.199	19.20	0.67	10.20	209.70	
1030	150	1.05	6.05	4.77	0.198	192.00	0.60	10.00	212.50	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	✓	Manganese (6020 A)	✓
TOC (9060 A)	✓	LLPAHs (8270 E SIM)	
Methane Ethane Ethene (RSK-175)	✓	SVOCS (8270 D)	
Anions (9056 A)	✓	Pesticides & PCBS (8081 B & 8082 A)	
Alkalinity (2320 B)	✓	2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)		QPCR	
CO2 (SM4500)	✓		
Sulfide (SM4500)	✓		

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L): 0.04

Dilution: 0 Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result: 0.04

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? No If Yes, List ID and Analyses

COMMENTS/NOTES

MEADOWS CONSULTING | MANAGEMENT | PLANNING AECOM Imagine it. Delivered.

GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	OU6-MW-275
Project/Site Name:	OU6 Annual	Sample ID:	OU6-MW-275-20240520
Date:	5-20-2024	Well Condition:	GOOD
Weather:	PARTLY SUNNY 67		

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	2	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	6	Purging/Sampling Device:	Peristaltic Pump
Total Depth (ft btoc):	14.2 COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI PRO DSS 218046
Water Column (ft):	8.20		
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier 0.1620	Start Purge Date/Time:	5-20-24/1055
		End Purge Date/Time:	5-20-24/1125
		Total Volume Purged (gal):	1 GAL
One Well Volume (gal):	1.33	Sample Date/Time:	5-20-24/1140
Screened Interval (ft bgs):	9.2 - 14.2	Sampler Name:	BRUCE DIGGS

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^C)	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
1055	150	0.15	6.00	5.28	0.300	19.70	1.49	56.20	54.20	
1100	150	0.30	6.25	5.22	0.298	19.80	1.08	45.20	60.40	
1105	150	0.45	6.45	5.19	0.297	19.80	0.88	40.20	64.00	
1110	150	0.60	6.75	5.18	0.297	19.90	0.77	38.20	65.90	
1115	150	0.75	7.10	5.17	0.296	19.90	0.70	30.20	66.80	
1120	150	0.90	7.35	5.16	0.296	20.00	0.65	25.00	67.50	
1125	150	1.05	7.55	5.16	0.296	19.90	0.62	15.20	67.90	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	✓	Manganese (6020 A)	✓
TOC (9060 A)	✓	LLPAHs (8270 E SIM)	
Methane Ethane Ethene (RSK-175)	✓	SVOCS (8270 D)	
Anions (9056 A)	✓	Pesticides & PCBS (8081 B & 8082 A)	
Alkalinity (2320 B)	✓	2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)		QPCR	
CO2 (SM4500)	✓		
Sulfide (SM4500)	✓		

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L): 1.20

Dilution: 0 Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result: 1.20

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? No If Yes, List ID and Analyses

COMMENTS/NOTES

MEADOWS CONSULTING | MANAGEMENT | PLANNING AECOM Imagine it. Delivered.

GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	OU6-MW-222
Project/Site Name:	OU6 Annual	Sample ID:	OU6-MW-222-20240520
Date:	5-20-2024	Well Condition:	GOOD
Weather:	SUNNY 74		

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	2	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	11.4	Purging/Sampling Device:	Peristaltic Pump
Total Depth (ft btoc):	24.9 COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI-PRO DSS 218046
Water Column (ft):	13.50		
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier 0.1620	Start Purge Date/Time:	5-20-24/1230
		End Purge Date/Time:	5-20-24/1300
		Total Volume Purged (gal):	1 GAL
One Well Volume (gal):	2.19	Sample Date/Time:	5-20-24/1315
Screened Interval (ft bgs):	19.9 - 24.9	Sampler Name:	BRUCE DIGGS

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
1230	150	0.15	11.40	5.22	0.089	18.30	1.59	45.20	95.40	
1235	150	0.30	11.55	5.15	0.088	18.30	1.25	36.30	108.20	
1240	150	0.45	11.85	5.12	0.087	18.10	1.07	30.20	122.00	
1245	150	0.60	12.00	5.08	0.087	18.10	0.92	25.60	145.00	
1250	150	0.90	12.10	5.03	0.088	18.10	0.82	15.20	160.00	
1255	150	1.05	12.25	5.02	0.088	18.10	0.77	10.80	178.90	
1300	150	1.50	12.45	5.02	0.091	18.10	0.70	10.20	191.60	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	✓	Manganese (6020 A)	✓
TOC (9060 A)	✓	LLPAHs (8270 E SIM)	
Methane Ethane Ethene (RSK-175)	✓	SVOCS (8270 D)	
Anions (9056 A)	✓	Pesticides & PCBS (8081 B & 8082 A)	
Alkalinity (2320 B)	✓	2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)		QPCR	
CO2 (SM4500)	✓		
Sulfide (SM4500)	✓		

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L): 1.15

Dilution: 0 Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result: 1.15

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? No If Yes, List ID and Analyses

COMMENTS/NOTES

MEADOWS CONSULTING | MANAGEMENT | PLANNING AECOM Imagine it. Delivered.

GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	OU6-MW-283
Project/Site Name:	OU6 Annual	Sample ID:	OU6-MW-283-20240520
Date:	5/20/2024	Well Condition:	good
Weather:	mid 60's, cloudy		

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	2	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	16.83	Purging/Sampling Device:	Bladder Pump
Total Depth (ft btoc):	41.55 COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI
Water Column (ft):	24.72		
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier 0.1620	Start Purge Date/Time:	5/20/2024 - 0758
		End Purge Date/Time:	5/20/2024 - 0910
		Total Volume Purged (gal):	3.25
One Well Volume (gal):	4.00	Sample Date/Time:	5/20/2024 - 0910
Screened Interval (ft bgs):	36.52 - 41.52	Sampler Name:	QR

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
0755	200	0.10	18.05	11.96	0.643	19.10	6.76	83.11	-18.50	clear, no odor
0800	150	0.50	18.65	11.98	0.670	19.10	6.60	27.01	-29.70	reduce to 50 psi
0805	100	0.75	19.05	11.97	0.604	19.20	5.81	18.53	-37.20	reduce to 40 psi
0810	100	1.00	19.01	11.90	0.500	19.10	4.76	15.41	-38.40	
0815	100	1.25	19.00	11.75	0.379	19.10	3.90	12.22	-36.10	
0820	100	1.50	18.95	11.50	0.280	19.10	2.97	3.55	-27.40	
0825	100	1.75	19.05	11.35	0.256	19.10	2.70	0.95	-21.70	
0830	100	2.00	19.07	11.23	0.238	19.20	2.57	1.83	-18.00	
0835	100	2.25	19.07	10.93	0.204	19.20	2.22	4.22	-7.00	
0840	100	2.50	19.05	10.78	0.195	19.20	2.11	6.27	-0.40	
0845	100	2.75	18.95	10.38	0.175	19.20	1.71	7.22	11.90	
0850	100	3.00	18.90	10.22	0.172	19.30	1.56	9.10	18.40	
0855	100	3.25	18.98	10.29	0.177	19.40	1.62	10.38	16.10	
0900	100	3.50	19.60	10.29	0.179	19.40	1.70	9.98	18.80	
0905	100	3.75	19.01	10.15	0.176	19.30	1.61	9.87	23.00	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	✓	Manganese (6020 A)	✓
TOC (9060 A)	✓	LLPAHs (8270 E SIM)	
Methane Ethane Ethene (RSK-175)	✓	SVOCS (8270 D)	
Anions (9056 A)	✓	Pesticides & PCBS (8081 B & 8082 A)	
Alkalinity (2320 B)	✓	2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)		QPCR	
CO2 (SM4500)	✓		
Sulfide (SM4500)	✓		

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L): 0.04

Dilution: 0 Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result: 0.04

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? No If Yes, List ID and Analyses

COMMENTS/NOTES

MEADOWS CONSULTING | MANAGEMENT | PLANNING AECOM Imagine it. Delivered.

GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	OU6-MW-160
Project/Site Name:	OU6 Annual	Sample ID:	OU6-MW-160-20240520
Date:	5/20/2024	Well Condition:	good
Weather:	mid 60's, cloudy		

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	2	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	19.03	Purging/Sampling Device:	Bladder Pump
Total Depth (ft btoc):	48.80 COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI
Water Column (ft):	29.77		
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier 0.1620	Start Purge Date/Time:	5/20/2024 - 0953
		End Purge Date/Time:	5/20/2024 - 1030
		Total Volume Purged (gal):	3.75
One Well Volume (gal):	4.82	Sample Date/Time:	5/20/2024 - 1035
Screened Interval (ft bgs):	43.8 - 48.8	Sampler Name:	QR

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
0955	200	0.10	19.62	7.52	0.064	18.40	6.71	502.30	46.90	light brown, no odor
1000	200	0.50	19.65	5.44	0.050	17.90	4.07	205.67	140.80	
1005	200	1.00	19.65	5.31	0.050	17.90	3.70	189.51	160.80	
1010	200	1.75	19.65	5.24	0.052	17.90	3.50	160.52	168.50	
1015	200	2.00	19.65	5.21	0.052	17.90	3.40	132.12	171.90	
1020	200	2.50	19.65	5.19	0.052	18.00	3.33	105.32	176.80	
1025	200	3.00	19.65	5.19	0.052	18.00	3.29	99.65	180.00	
1030	200	3.50	19.65	5.19	0.051	18.00	3.20	95.87	181.20	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	✓	Manganese (6020 A)	✓
TOC (9060 A)	✓	LLPAHs (8270 E SIM)	
Methane Ethane Ethene (RSK-175)	✓	SVOCS (8270 D)	
Anions (9056 A)	✓	Pesticides & PCBS (8081 B & 8082 A)	
Alkalinity (2320 B)	✓	2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)		QPCR	
CO2 (SM4500)	✓		
Sulfide (SM4500)	✓		

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L): 0.16

Dilution: 0 Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result: 0.16

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? No If Yes, List ID and Analyses

ms/msd collected

COMMENTS/NOTES

MEADOWS CONSULTING | MANAGEMENT | PLANNING AECOM Imagine it. Delivered.

GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	OU6-MW-95
Project/Site Name:	OU6 Annual	Sample ID:	OU6-MW-95-20240520
Date:	5/20/2024	Well Condition:	good
Weather:	mid 60's, cloudy		

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	2	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	18.48	Purging/Sampling Device:	Bladder Pump
Total Depth (ft btoc):	40.10 COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI
Water Column (ft):	21.62		
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier 0.1620	Start Purge Date/Time:	5/20/2024 - 1227
		End Purge Date/Time:	5/20/2024 - 1310
		Total Volume Purged (gal):	2
One Well Volume (gal):	3.50	Sample Date/Time:	5/20/2024 - 1310
Screened Interval (ft bgs):	35.10 - 40.10	Sampler Name:	QR

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
1230	200	0.10	20.15	5.30	0.492	20.80	2.00	111.95	74.20	light brown, no odor
1235	150	0.25	20.25	5.36	0.405	20.70	1.18	170.93	49.90	turn psi down to 20
1240	150	0.50	20.50	5.36	0.484	21.20	1.17	162.20	45.10	
1245	150	0.75	20.23	5.37	0.480	21.40	1.51	153.73	38.00	
1250	150	1.00	20.10	5.37	0.477	22.10	1.16	126.30	34.70	
1255	150	1.25	20.00	5.37	0.473	22.20	1.36	84.62	32.80	turning clear
1300	150	1.75	19.99	5.37	0.480	22.20	1.32	83.82	31.30	
1305	150	2.00	19.99	5.37	0.480	22.20	1.42	78.04	30.90	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	✓	Manganese (6020 A)	✓
TOC (9060 A)	✓	LLPAHs (8270 E SIM)	
Methane Ethane Ethene (RSK-175)	✓	SVOCS (8270 D)	
Anions (9056 A)	✓	Pesticides & PCBS (8081 B & 8082 A)	
Alkalinity (2320 B)	✓	2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)		QPCR	
CO2 (SM4500)	✓	Dioxane	✓
Sulfide (SM4500)	✓		

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L): 1.06

Dilution: 0 Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result: 1.06

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? No If Yes, List ID and Analyses

COMMENTS/NOTES

MEADOWS CONSULTING | MANAGEMENT | PLANNING AECOM Imagine it. Delivered.

GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	OU6-MW-295
Project/Site Name:	OU6 Annual	Sample ID:	OU6-MW-295-20240520
Date:	20240520	Well Condition:	GOOD
Weather:	CLOUDY 64		

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	2.00	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	16.85	Purging/Sampling Device:	Bladder Pump
Total Depth (ft btoc):	33.60 COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI PRO DSS
Water Column (ft):	16.75		
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier 0.1620	Start Purge Date/Time:	24/5/20 1005
		End Purge Date/Time:	24/5/20 1105
		Total Volume Purged (gal):	3.00
One Well Volume (gal):	2.71	Sample Date/Time:	24/5/20 1105
Screened Interval (ft bgs):	28-33	Sampler Name:	TIM BROWN

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^C)	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
1010	250	0.25	19.20	6.78	0.199	15.20	2.96	156.00	95.20	WATER CLOUDY/ NO ODOR
1015	250	0.50	20.95	6.75	0.203	15.10	2.21	166.00	16.00	
1020	250	0.75	20.90	6.69	0.211	15.10	1.81	125.00	-30.10	
1025	250	1.00	20.62	6.68	0.206	15.10	1.59	81.00	-31.20	
1030	250	1.25	20.60	6.65	0.204	15.10	2.32	82.00	-17.20	
1035	250	1.50	20.65	6.64	0.203	15.10	1.66	51.00	-17.20	
1040	250	1.75	20.55	6.62	0.202	15.10	2.59	44.00	-23.20	
1045	250	2.00	20.65	6.61	0.200	15.10	1.89	53.00	-24.50	
1050	250	2.25	20.65	6.60	0.201	15.10	1.29	59.00	-24.50	
1055	250	2.50	20.60	6.59	0.201	15.10	1.77	46.00	-21.40	
1100	250	2.75	20.55	6.58	0.199	15.10	1.74	32.00	-23.20	
1105	250	3.00	20.50	6.57	0.199	15.10	1.75	43.00	-22.80	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	✓	Manganese (6020 A)	
TOC (9060 A)		LLPAHs (8270 E SIM)	
Methane Ethane Ethene (RSK-175)		SVOCS (8270 D)	
Anions (9056 A)		Pesticides & PCBS (8081 B & 8082 A)	
Alkalinity (2320 B)		2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)		QPCR	
CO2 (SM4500)			
Sulfide (SM4500)			

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L):

Dilution: Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result:

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? No If Yes, List ID and Analyses

COMMENTS/NOTES

MEADOWS CONSULTING | MANAGEMENT | PLANNING AECOM Imagine it. Delivered.

GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	OU6-MW-292
Project/Site Name:	OU6 Annual	Sample ID:	OU6-MW-292-20240520
Date:	20240520	Well Condition:	GOOD
Weather:	MOSTLY CLOUDY 73		

WATER LEVEL AND WELL SPECIFICATION DETAILS

Well Casing Diameter (inches):	2.00
Initial Depth to Water (ft btoc):	12.40
Total Depth (ft btoc):	40.20 COLLECT AFTER WELL IS SAMPLED
Water Column (ft):	27.80
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier 0.1620
One Well Volume (gal):	4.50
Screened Interval (ft bgs):	35-40

SAMPLE COLLECTION INFORMATION

Purging/Sampling Method:	Low Flow
Purging/Sampling Device:	Bladder Pump
Field Parameter Measuring Devices:	YSI PRO DSS
Start Purge Date/Time:	24/5/20 1320
End Purge Date/Time:	24/5/20 1415
Total Volume Purged (gal):	2.75
Sample Date/Time:	24/5/20 1415
Sampler Name:	TIM BROWN

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
1325	250	0.25	12.60	12.48	6.158	15.70	8.02	37.00	77.20	WATER CLEAR/ NO ODOR
1330	250	0.50	12.70	12.50	4.996	15.80	6.15	30.20	66.80	
1335	250	0.75	12.60	12.46	3.895	15.70	4.41	23.00	62.30	
1340	250	1.00	12.70	12.40	3.142	15.60	3.31	20.00	58.60	
1345	250	1.25	12.70	12.33	2.651	15.80	2.63	18.49	53.40	
1350	250	1.50	12.55	12.26	2.217	15.70	1.93	15.71	47.50	
1355	250	1.75	12.65	12.20	1.857	15.70	1.64	13.76	45.80	
1400	250	2.00	12.67	12.18	1.692	15.70	1.50	13.13	43.60	
1405	250	2.25	12.67	12.10	1.473	15.70	1.27	12.35	42.60	
1410	250	2.50	12.67	12.08	1.475	15.60	1.31	11.87	40.80	
1415	250	2.75	12.67	12.04	1.324	15.60	1.20	12.34	40.10	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	✓	Manganese (6020 A)	✓
TOC (9060 A)	✓	LLPAHs (8270 E SIM)	
Methane Ethane Ethene (RSK-175)	✓	SVOCS (8270 D)	
Anions (9056 A)	✓	Pesticides & PCBS (8081 B & 8082 A)	
Alkalinity (2320 B)	✓	2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)		QPCR	
CO2 (SM4500)	✓		
Sulfide (SM4500)	✓		

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L): 1.36

Dilution: 0 Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result: 1.36

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? Yes If Yes, List ID and Analyses

DUP04 COLLECTED

COMMENTS/NOTES

MEADOWS CONSULTING | MANAGEMENT | PLANNING AECOM Imagine it. Delivered.

GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	OU6-MW-145
Project/Site Name:	OU6 Annual	Sample ID:	OU6-MW-145-20240520
Date:	20240520	Well Condition:	GOOD
Weather:			

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	2.00	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	13.80	Purging/Sampling Device:	Bladder Pump
Total Depth (ft btoc):	46.95 COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	
Water Column (ft):	33.15		
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier 0.1620	Start Purge Date/Time:	24/5/20 1145
		End Purge Date/Time:	24/5/20 1235
		Total Volume Purged (gal):	2.50
One Well Volume (gal):	5.37	Sample Date/Time:	24/5/20 1235
Screened Interval (ft bgs):	40-50	Sampler Name:	TIM BROWN

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^C)	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
1150	250	0.25	14.95	5.84	0.137	15.90	2.92	37.00	376.50	WATER CLEAR/ NO ODOR
1155	250	0.50	14.65	5.83	0.139	15.90	2.55	74.00	367.10	
1200	250	0.75	15.00	5.85	0.141	15.80	2.03	113.00	320.20	
1205	250	1.00	14.90	5.86	0.140	15.80	1.32	72.00	292.00	
1210	250	1.25	14.95	5.87	0.137	15.80	1.40	55.00	281.50	
1215	250	1.50	14.90	5.87	0.137	15.80	1.40	36.00	280.80	
1220	250	1.75	14.92	5.85	0.132	15.80	1.71	27.00	289.10	
1225	250	2.00	14.90	5.87	0.129	15.80	1.36	21.00	284.10	
1230	250	2.25	14.90	5.88	0.128	15.80	1.60	18.00	280.20	
1235	250	2.50	14.90	5.85	0.125	15.80	1.62	14.00	278.80	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	✓	Manganese (6020 A)	✓
TOC (9060 A)	✓	LLPAHs (8270 E SIM)	
Methane Ethane Ethene (RSK-175)	✓	SVOCS (8270 D)	
Anions (9056 A)	✓	Pesticides & PCBS (8081 B & 8082 A)	
Alkalinity (2320 B)	✓	2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)		QPCR	
CO2 (SM4500)	✓		
Sulfide (SM4500)	✓		

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L): 0.75

Dilution: 0 Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result: 0.75

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? Yes If Yes, List ID and Analyses

DUP-03 COLLECTED

COMMENTS/NOTES

MEADOWS CONSULTING | MANAGEMENT | PLANNING AECOM Imagine it. Delivered.

GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	OU6-MW-276
Project/Site Name:	OU6 Annual	Sample ID:	OU6-MW-276-20240520
Date:	5/20/2024	Well Condition:	Good
Weather:	cloudy, cool		

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	2	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	5.20	Purging/Sampling Device:	Peristaltic Pump
Total Depth (ft btoc):	14.80 COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI
Water Column (ft):	9.60		
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier 0.1620	Start Purge Date/Time:	5/20/2024 - 0750
		End Purge Date/Time:	5/20/2024 - 0810
		Total Volume Purged (gal):	0.75
One Well Volume (gal):	1.56	Sample Date/Time:	5/20/2024 - 0815
Screened Interval (ft bgs):	9.8 - 14.8	Sampler Name:	TJ Skora

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
0755	200	0.25	6.13	4.58	0.151	18.50	5.33	-10.12	330.80	clear, no odor
0800	200	0.25	7.85	4.53	0.145	18.10	5.17	-12.36	363.30	
0805	200	0.50	8.00	4.49	0.142	17.90	5.14	-13.67	377.80	
0810	200	0.75	8.22	4.53	0.140	17.50	5.53	-13.63	386.50	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	✓	Manganese (6020 A)	✓
TOC (9060 A)	✓	LLPAHs (8270 E SIM)	
Methane Ethane Ethene (RSK-175)	✓	SVOCS (8270 D)	
Anions (9056 A)	✓	Pesticides & PCBS (8081 B & 8082 A)	
Alkalinity (2320 B)	✓	2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)		QPCR	
CO2 (SM4500)	✓		
Sulfide (SM4500)	✓		

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L): 0.08

Dilution: 0 Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result: 0.08

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? No If Yes, List ID and Analyses

COMMENTS/NOTES

MEADOWS CONSULTING | MANAGEMENT | PLANNING AECOM Imagine it. Delivered.

GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	OU6-MW-266
Project/Site Name:	OU6 Annual	Sample ID:	OU6-MW-266-20240520
Date:	5/20/2024	Well Condition:	good
Weather:	cloudy, cool		

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	2	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	5.78	Purging/Sampling Device:	Peristaltic Pump
Total Depth (ft btoc):	17.22 COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI
Water Column (ft):	11.44		
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier 0.1620	Start Purge Date/Time:	5/20/2024 - 0940
		End Purge Date/Time:	5/20/2024 - 1010
		Total Volume Purged (gal):	1.5
One Well Volume (gal):	1.85	Sample Date/Time:	5/20/2024 - 1015
Screened Interval (ft bgs):	12.22 - 17.22	Sampler Name:	TJ Skora

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
0945	250	0.25	5.65	4.44	0.256	19.10	3.09	-12.29	380.10	clear, no odor
0950	250	0.50	5.72	4.41	0.268	19.00	3.04	6.57	389.00	
0955	250	0.75	5.76	4.40	0.270	18.80	3.10	-6.83	396.40	
1000	250	1.00	5.79	4.38	0.273	18.80	3.15	-8.30	402.00	
1005	250	1.25	5.82	4.40	0.273	18.80	3.18	-8.82	408.50	
1010	250	1.50	5.85	4.40	0.277	18.70	3.20	-9.88	410.90	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	✓	Manganese (6020 A)	✓
TOC (9060 A)	✓	LLPAHs (8270 E SIM)	
Methane Ethane Ethene (RSK-175)	✓	SVOCS (8270 D)	
Anions (9056 A)	✓	Pesticides & PCBS (8081 B & 8082 A)	
Alkalinity (2320 B)	✓	2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)		QPCR	
CO2 (SM4500)	✓		
Sulfide (SM4500)	✓		

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L): 0.69

Dilution: 0 Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result: 0.69

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? No If Yes, List ID and Analyses

COMMENTS/NOTES

MEADOWS CONSULTING | MANAGEMENT | PLANNING AECOM Imagine it. Delivered.

GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	OU6-MW-282
Project/Site Name:	OU6 Annual	Sample ID:	OU6-MW-282-20240520
Date:	5/20/2024	Well Condition:	good
Weather:	cloudy, cool		

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	2	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	0.30	Purging/Sampling Device:	Peristaltic Pump
Total Depth (ft btoc):	8.21 COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI
Water Column (ft):	7.91		
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier 0.1620	Start Purge Date/Time:	5/20/2024 - 1115
		End Purge Date/Time:	5/20/2024 - 1150
		Total Volume Purged (gal):	1.75
One Well Volume (gal):	1.28	Sample Date/Time:	5/20/2024 - 1155
Screened Interval (ft bgs):	3.21 - 8.21	Sampler Name:	TJ Skora

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
1120	200	0.25	1.61	4.22	0.269	17.40	4.01	8.25	368.10	clear, no odor
1125	200	0.50	2.82	4.09	0.277	17.10	1.91	-3.60	386.20	
1130	200	0.75	3.31	4.03	0.275	17.20	3.30	-8.59	399.90	
1135	200	1.00	3.42	3.94	0.194	17.00	3.15	-10.81	411.40	
1140	200	1.25	3.71	3.97	0.276	17.10	3.33	-12.61	414.60	
1145	200	1.50	3.88	4.07	0.274	17.00	3.57	-12.41	413.60	
1150	200	1.75	3.99	4.16	0.273	17.10	3.47	11.95	412.00	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	✓	Manganese (6020 A)	✓
TOC (9060 A)	✓	LLPAHs (8270 E SIM)	
Methane Ethane Ethene (RSK-175)	✓	SVOCS (8270 D)	
Anions (9056 A)	✓	Pesticides & PCBS (8081 B & 8082 A)	
Alkalinity (2320 B)	✓	2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)		QPCR	
CO2 (SM4500)	✓		
Sulfide (SM4500)	✓		

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L): 1.58

Dilution: 0 Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result: 1.58

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? No If Yes, List ID and Analyses

COMMENTS/NOTES

MEADOWS CONSULTING | MANAGEMENT | PLANNING AECOM Imagine it. Delivered.

GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	OU6-MW-268
Project/Site Name:	OU6 Annual	Sample ID:	OU6-MW-268-20240520
Date:	5/20/2024	Well Condition:	good
Weather:	cloudy, cool		

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	2	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	4.64	Purging/Sampling Device:	Peristaltic Pump
Total Depth (ft btoc):	18.80 COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI
Water Column (ft):	14.16		
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier 0.1620	Start Purge Date/Time:	5/20/2024 - 1330
		End Purge Date/Time:	5/20/2024 - 1425
		Total Volume Purged (gal):	4.25
One Well Volume (gal):	2.29	Sample Date/Time:	5/20/2024 - 1430
Screened Interval (ft bgs):	13.8 - 18.8	Sampler Name:	TJ Skora

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
1335	200	0.25	5.31	5.74	0.945	21.80	2.77	5.24	253.10	clear, slight odor
1340	200	0.50	5.61	5.45	0.870	21.30	2.36	-5.76	121.50	
1345	200	0.75	5.72	5.45	0.869	20.70	2.18	-11.93	134.50	
1350	200	1.00	5.79	5.45	0.861	20.80	2.27	-10.58	155.70	
1355	200	1.25	5.82	5.42	0.850	20.70	2.08	-9.08	141.40	
1400	200	1.75	5.85	5.44	0.848	20.70	2.17	-9.93	136.90	
1405	200	2.50	5.85	5.43	0.846	20.70	2.66	-8.65	163.40	
1410	200	3.25	5.85	5.41	0.847	20.80	2.68	-11.06	149.11	
1415	200	3.75	5.85	5.42	0.845	20.70	2.28	-10.94	139.10	
1420	200	4.00	5.85	5.40	0.851	20.70	2.22	-11.80	135.20	
1425	200	4.25	5.85	5.43	0.851	20.60	2.15	-10.85	130.00	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	✓	Manganese (6020 A)	✓
TOC (9060 A)	✓	LLPAHs (8270 E SIM)	
Methane Ethane Ethene (RSK-175)	✓	SVOCS (8270 D)	
Anions (9056 A)	✓	Pesticides & PCBS (8081 B & 8082 A)	
Alkalinity (2320 B)	✓	2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)		QPCR	
CO2 (SM4500)	✓		
Sulfide (SM4500)	✓		

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L): 1.98

Dilution: 0 Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result: 1.98

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? No If Yes, List ID and Analyses

COMMENTS/NOTES

OU#	Well#	Sample ID	Date	Time Sampled	Time Hach	# of Dilutions	Iron Result	reportable result	Notes
Final Result Calculation, Dilution 1 Result X 2, Dilution 2 Result x 4, Dilution 3 Result x 8, Dilution 4 Result x 16, Dilution 5 Result x 32									
OU6	MW-275	OU6-MW-275-20240520	24/5/20	1140	1507	Ø	1.20	1.20	
OU6	MW-122	OU6-MW-122-20240520	24/5/20	1315	1513	Ø	1.15	1.15	
OU6	MW-269	OU6-MW-269-20240520	24/5/20	0920	1518	Ø	0.90	0.90	
OU6	MW-292	OU6-MW-292-20240520	24/5/20	1415	1524	Ø	1.36	1.36	
OU6	MW-274	OU6-MW-274-20240520	24/5/20	1035	1530	Ø	0.04	0.04	
OU6	DUP-04	DUP-04-20240520	24/5/20	—	1535	Ø	1.43	1.43	
OU6	MW-160	OU6-MW-160-20240520	24/5/20	1035	1541	Ø	0.16	0.16	
OU6	MW-266	OU6-MW-266-20240520	24/5/20	1015	1547	Ø	0.69	0.69	
OU6	MW-282	OU6-MW-282-20240520	24/5/20	1155	1553	Ø	1.58	1.58	
OU6	MW-276	OU6-MW-276-20240520	24/5/20	0815	1600	Ø	0.08	0.08	
OU6	MW-295	OU6-MW-295-20240520	24/5/20	1105	1605	Ø	0.75	0.75	
OU6	MW-283	OU6-MW-283-20240520	24/5/20	0910	1612	Ø	0.04	0.04	
OU6	MW-95	OU6-MW-95-20240520	24/5/20	1305	1617	Ø	1.06	1.06	
OU6	MW-268	OU6-MW-268-20240520	24/5/20	1430	1623	Ø	1.98	1.98	
OU6	MW-263	OU6-MW-263-20240520	24/5/20	0735	1628	Ø	3.18	—	
OU6	〃	〃	〃	〃	1634	1	1.78	3.56	
OU6	DUP-03	DUP-03-20240520	24/5/20	—	1640	Ø	0.62	0.62	
OU6	MW-145	OU6-MW-145-20240520	24/5/20	1235	1647	Ø	0.75	0.75	
OU6									
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AECOM

DAILY FIELD INSTRUMENT CALIBRATION/ CALIBRATION CHECK FORM

Site Name: OUG
Project/Client:
Project Number: 0043-ecll
Location: DSCR - Richmond
Field Analyst(s): Quin Rebrcky
Date: 5/20/14 Start Time: 0700 Finish Time: 0730

Instrument Information

Parameter	Make	Model	Meter Serial #	Probe Serial #
DO	PRO DSS	YSI	211370	469 82
pH	↓	↓	↓	↓
Specific Conductance	↓	↓	↓	↓
ORP	↓	↓	↓	↓
Temperature	↓	↓	↓	↓
Turbidity	↓	↓	↓	↓

Pre-Field Calibration and Quality Control Requirements

Prior to using instrument(s) in the field, field analysts must ensure that certain quality control procedures and calibrations have been completed for the instruments listed above. Records of the following, completed either by AECOM or the vendor, must be retained:

- •Weekly DO Winkler Titration ☐
- •5-Point Conductivity Curve ☐
- •Annual Conductivity Cell Constant ☐
- •Quarterly NIST Traceable Thermometer ☐
- •Solution Records ☐

Field Calibration/Calibration Check

DO (Method SM 4500 O G)

100% Saturation	
Barometric Pressure (mmHg)	
Temperature (°C)	22.1
Initial Reading	9.50
Reset Reading	9.48

0% Saturation	
Solution Temperature (°C)	
Solution Manufacturer & Lot #	
Reading	
*Requires Recalibration	Y / N
Reset Reading	

Note: DO must be calibrated to 100% saturation. DO may only be calibration checked to 0% saturation (zero oxygen solution standard). Calibration methods may differ between DO meters, and some fields listed may not be applicable. Refer to instrument manual for calibration instructions.

pH (Method SM 4500-H B)

Buffer Solution	Solution Manufacturer & Lot #	Solution Expiration Date	Solution Temperature	Reading	*Requires Recalibration	Reset Reading
7	46B1040	2/26	21.9	7.21	Y / N	7
4	46B0637	2/26	21.9	4.12	Y / N	4
10	JG Fields	6/25	21.9	10.19	Y / N	10
					Y / N	

Note: A calibration check against one standard buffer must be performed and recorded in the field book every 3-hours of use after daily calibration/calibration check.

AECOM

DAILY FIELD INSTRUMENT CALIBRATION/ CALIBRATION CHECK FORM

Specific Conductance (Method 2510 B)

Standard Solution	Solution Manufacturer & Lot #	Solution Expiration Date	Solution Temperature	Reading ($\mu S\ cm^{-1}$)	*Requires Recalibration	Reset Reading ($\mu S\ cm^{-1}$)
1.413	16Ec855	11/24	22.2	1.428	Y / (N)	1.413

ORP

Standard Solution	Solution Manufacturer & Lot #	Solution Expiration Date	Solution Temperature	Reading (mV)	*Requires Recalibration	Reset Reading (mV)
240	20H0038	3/24	22.2	243.1	Y / (N)	240

Turbidity (Method 2130 B)

Standard Solution (NTU)	Solution Manufacturer & Lot #	Solution Expiration Date	Reading (NTU)	*Requires Recalibration	Reset Reading (NTU)
0	24067124	1/25	2.66	(Y) / N	0
126	23J2704364B	9/24	102.05	(Y) / N	126
				Y / N	
				Y / N	

*Field check readings should be within the accuracy listed by the manufacturer's specifications or per New Jersey regulations (NJAC 7:18), whichever is more stringent. Otherwise, the instrument must be recalibrated for that parameter. Refer to instrument manual for accuracy. Values provided below for instruments typically used by AECOM

YSI 6-Series

Dissolved Oxygen	± 0.1 % or ± 0.1 mg/L, whichever is greater
pH **	± 0.2 units
	**NJAC 7:18 requires that calibration values be accurate to ±0.05, and accuracy within ±0.1 units for the initial calibration check and ±0.2 units for 3-hour checks
Specific Conductivity	± 0.5% + 0.001 mS/cm
ORP	± 20 mV
Turbidity	± 2%

Horiba U-20XD Series

Dissolved Oxygen	± 0.2 mg/L
pH **	± 0.1 units
Specific Conductivity	± 3%
ORP	± 15 mV
Turbidity	± 5%

LaMotte 2020wi Turbidity Meter

±0.05 or ±2% below 100 NTU

±3% above 100 NTU

AECOM

DAILY FIELD INSTRUMENT CALIBRATION/ CALIBRATION CHECK FORM

Site Name: DSCR

Project/Client: OMC Annual Project Number: 0045-0011

Location: 046

Field Analyst(s): TJ Skora

Date: 5/20/24 Start Time: 0715 Finish Time: 0730

Instrument Information

Parameter	Make	Model	Meter Serial #	Probe Serial #
DO	Pro DSS	YSI	42061	23F102676
pH				
Specific Conductance				
ORP				
Temperature				
Turbidity				

Pre-Field Calibration and Quality Control Requirements

Prior to using instrument(s) in the field, field analysts must ensure that certain quality control procedures and calibrations have been completed for the instruments listed above. Records of the following, completed either by AECOM or the vendor, must be retained:

- ♦Weekly DO Winkler Titration ☐
- ♦5-Point Conductivity Curve ☐
- ♦Annual Conductivity Cell Constant ☐
- ♦Quarterly NIST Traceable Thermometer ☐
- ♦Solution Records ☐

Field Calibration/Calibration Check

DO (Method SM 4500 O.G)

100% Saturation	
Barometric Pressure (mmHg)	21.2
Temperature (°C)	
Initial Reading	8.84
Reset Reading	9.08

0% Saturation	
Solution Temperature (°C)	
Solution Manufacturer & Lot #	
Reading	
*Requires Recalibration	Y / N
Reset Reading	

Note: DO must be calibrated to 100% saturation. DO may only be calibration checked to 0% saturation (zero oxygen solution standard). Calibration methods may differ between DO meters, and some fields listed may not be applicable. Refer to instrument manual for calibration instructions.

pH (Method SM 4500-H B)

Buffer Solution	Solution Manufacturer & Lot #	Solution Expiration Date	Solution Temperature	Reading	*Requires Recalibration	Reset Reading
4	Pine 4GB0637	2/26	22.7	3.83	Y / N	4.06
7	" 4GB1040	2/26	22.5	7.05	Y / N	7.01
10	" 3GF1088	6/25	22.5	9.89	Y / N	10.03
					Y / N	

Note: A calibration check against one standard buffer must be performed and recorded in the field book every 3-hours of use after daily calibration/calibration check.

AECOM

DAILY FIELD INSTRUMENT CALIBRATION/ CALIBRATION CHECK FORM

Specific Conductance (Method 2510 B)

Standard Solution	Solution Manufacturer & Lot #	Solution Expiration Date	Solution Temperature	Reading ($\mu S \cdot cm^{-1}$)	*Requires Recalibration	Reset Reading ($\mu S \cdot cm^{-1}$)
1.413	PINE 4GA0218	2025-1	22.6	154.944	Y / N	1.413

ORP

Standard Solution	Solution Manufacturer & Lot #	Solution Expiration Date	Solution Temperature	Reading (mV)	*Requires Recalibration	Reset Reading (mV)
240.0	Pine 3GH0038	5/24	22.5	201.1	Y / N	240.0

Turbidity (Method 2130 B)

Standard Solution (NTU)	Solution Manufacturer & Lot #	Solution Expiration Date	Reading (NTU)	*Requires Recalibration	Reset Reading (NTU)
0	Pine 24007124	1/25	12.02	Y / N	0.00
126.0	Pine 23024001164	4/24	123.50	Y / N	126.00
				Y / N	
				Y / N	

*Field check readings should be within the accuracy listed by the manufacturer's specifications or per New Jersey regulations (NJAC 7:18), whichever is more stringent. Otherwise, the instrument must be recalibrated for that parameter. Refer to instrument manual for accuracy. Values provided below for instruments typically used by AECOM:

YSI 6-Series:

Dissolved Oxygen	± 0.1 % or ± 0.1 mg/L, whichever is greater
pH **	± 0.2 units
	**NJAC 7:18 requires that calibration values be accurate to ±0.05, and accuracy within ±0.1 units for the initial calibration check and ±0.2 units for 3-hour checks
Specific Conductivity	± 0.5% + 0.001 mS/cm
ORP	± 20 mV
Turbidity	± 2%

Horriba U-20XD Series:

Dissolved Oxygen	± 0.2 mg/L
pH **	± 0.1 units
Specific Conductivity	± 3%
ORP	± 15 mV
Turbidity	± 5%

LaMotte 2020e/i Turbidity Meter:

±0.05 or ±2%, below 100 NTU

±3%, above 100 NTU

Eurofins Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Phone (912) 354-7858 Phone (912) 352-0165

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: Tim, TJ, Quin and Bruce	Lab PM: Lanier, Jerry	Carrier Tracking No(s):	COC No:
Client Contact: Andrew VanBuesking	Phone: 757-589-5825	E-Mail: Jerry.Lanier@et.eurofinsus.com	State of Origin: VA	Page: Page 1 of 2
Company: Meadows CMPG	PWSID:			Job #:
Address: 2107 Granby St	Due Date Requested:			
City: Norfolk	TAT Requested (days): STD			
State, Zip: VA	Compliance Project: Δ Yes Δ No			
Phone: 757-623-3107	PO #: 0045-0011			
Email: avanbuesking@meadowscmpg	WO #:			
Project Name: OU6 Annual	Project #:			
Site: DSCR, OU6	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260D_DOD5 - (MOD) Volatiles		RSK_175_DOD5 - Ethane, Ethene, Methane	9060A - TOC	9056A_OF28D_D5 - Chloride & Sulfate 9056A_OF_48H_D5 - Local Method	SM4500_S2_F - Sulfide, Total	6020A_DOD5 - Manganese	SM4500_CO2_D - Carbon Dioxide	2320B - Alkalinity		8270E_DOD5 - (MOD) Semivolatiles (without PAHs)	8270E_SIM_DOD5 - Routine PAH	8081B_8082A_D5 - Routine Pesticides & PCBs	7470A_DOD5 - Mercury 6020A_DOD5- (MOD) TAL Metals	8270E_SIM_ID_D5 Local Method - Dioxane	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A		A	S	N	CB	D	N	N		N	N	N	D	N		
OU6-MW-223-20240521	5/21/24	0850	G	W			3		3	3	1	2	1	1	1							15	
OU6-MW-237-20240521	5/21/24	1000	G	W			3		3	3	1	2	1	1	1							15	
OU6-MW-254-20240521	5/21/24	0900	G	W			3		3	3	1	2	1	1	1							15	
OU6-MW-253-20240521	5/21/24	1005	G	W			3		3	3	1	2	1	1	1							15	
OU6-MW-256-20240521	5/21/24	0755	G	W			3		3	3	1	2	1	1	1							15	
OU6-MW-252-20240521	5/21/24	1110	G	W			3		3	3	1	2	1	1	1							15	
OU6-MW-240-20240521	5/21/24	1310	G	W			3		3	3	1	2	1	1	1							15	
OU6-MW-238-20240521	5/21/24	1210	G	W			3		3	3	1	2	1	1	1							15	
OU6-MW-290-20240521	5/21/24	1200	G	W			3		3	3	1	2	1	1	1							15	
OU6-MW-294-20240521	5/21/24	1027	G	W			3		3	3	1	2	1	1	1							15	
OU6-MW-293-20240521	5/21/24	0850	G	W			3		3	3	1	2	1	1	1							15	

Possible Hazard Identification
☐ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* ☐ *Poison B* ■ *Unknown* ☐ *Radiological*

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ■ *Disposal By Lab* ☐ *Archive For _____ Months*

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:

Method of Shipment:

BRUCE DIGGS	5-21-2024/1600	Company	Received by:		Date/Time:	Company	
Relinquished by:	Date/Time:	Company	Received by:		Date/Time:	Company	
Relinquished by:	Date/Time:	Company	Received by:		Date/Time:	Company	

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Eurofins Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Phone (912) 354-7858 Phone (912) 352-0165

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler:	Lab PM: Lanier, Jerry	Carrier Tracking No(s):	COC No:
Client Contact: Andrew VanBuesking	Phone: 757-589-5825	E-Mail: Jerry.Lanier@et.eurofinsus.com	State of Origin: VA	Page: Page 2 of 2
Company: Meadows CMPG	PWSID:			Job #:
Address: 2107 Granby St	Due Date Requested:			
City: Norfolk	TAT Requested (days): STD			
State, Zip: VA	Compliance Project: Δ Yes Δ No			
Phone: 757-623-3107	PO #: 0045-0011			
Email: avanbuesking@meadowscmpg	WO #:			
Project Name: OU6 Annual	Project #:			
Site: DSCR, OU6	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260D_DOD5 - (MOD) Volatiles		RSK_175_DOD5 - Ethane, Ethene, Methane	9060A - TOC	9056A_OF28D_D5 - Chloride & Sulfate 9056A_OF_48H_D5 - Local Method	SM4500_S2_F - Sulfide, Total	6020A_DOD5 - Manganese	SM4500_CO2_D - Carbon Dioxide	2320B - Alkalinity		8270E_DOD5 - (MOD) Semivolatiles (without PAHs)	8270E_SIM_DOD5 - Routine PAH	8081B_8082A_D5 - Routine Pesticides & PCBs	7470A_DOD5 - Mercury 6020A_DOD5- (MOD) TAL Metals	8270E_SIM_ID_D5 Local Method - Dioxane	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A		A	S	N	CB	D	N	N		N	N	N	D	N		
EB-20240521	5/21/24	0000	G	W			3															3	
TRIP-BLANK-20240521	5/21/24		G	W			2															0	
OU6-MW-236-20240521	5/21/24	1015	G	W			9		9	9	3	6	3	3	3							45	MS/MSD
OU6-MW-287-20240521	5/21/24	1315	G	W			3		3	3	1	2	1	1	1						2	17	
OU6-MW-170-20240521	5/21/24	0830	G	W			3		3	3	1	2	1	1	1							15	
OU6-MW-241-20240521	5/21/24	1345	G	W			3		3	3	1	2	1	1	1							15	
OU6-MW-239-20240521	5/21/24	1130	G	W			3		3	3	1	2	1	1	1							0	
OU6-MW-244-20240521	5/21/24	1430	G	W			3		3	3	1	2	1	1	1							15	
																						0	
																						0	
																						0	

Possible Hazard Identification
☐ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* ☐ *Poison B* ■ *Unknown* ☐ *Radiological*

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ■ *Disposal By Lab* ☐ *Archive For _____ Months*

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:
BRUCE DIGGS	5-21-2024/1600	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

MEADOWS CONSULTING | MANAGEMENT | PLANNING AECOM Imagine it. Delivered.

GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	OU6-MW-223
Project/Site Name:	OU6 Annual	Sample ID:	OU6-MW-223-20240521
Date:	5/21/2024	Well Condition:	Good
Weather:	cloudy, mild		

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	2	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	13.32	Purging/Sampling Device:	Peristaltic Pump
Total Depth (ft btoc):	25.85 COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI
Water Column (ft):	12.53		
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier 0.1620	Start Purge Date/Time:	5/21/2024 - 0810
		End Purge Date/Time:	5/21/2024 - 0845
		Total Volume Purged (gal):	1.5
One Well Volume (gal):	2.03	Sample Date/Time:	5/21/2024 - 0850
Screened Interval (ft bgs):	20.85 - 25.85	Sampler Name:	TJ Skora

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
0815	200	0.25	13.35	5.93	0.273	19.40	6.10	90.24	285.60	clear, no odor
0820	200	0.50	13.35	5.89	0.264	19.00	5.34	8.78	295.40	
0825	200	0.75	13.35	5.86	0.254	18.80	5.46	-0.94	298.90	
0830	200	0.75	13.35	5.87	0.241	18.70	4.99	-2.64	290.20	
0835	200	1.00	13.35	5.80	0.234	18.50	5.24	-2.71	194.20	
0840	200	1.25	13.35	5.68	0.222	18.70	4.85	-2.60	195.00	
0845	200	1.50	13.35	5.68	0.221	18.60	5.11	-2.76	204.20	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	✓	Manganese (6020 A)	✓
TOC (9060 A)	✓	LLPAHs (8270 E SIM)	
Methane Ethane Ethene (RSK-175)	✓	SVOCS (8270 D)	
Anions (9056 A)	✓	Pesticides & PCBS (8081 B & 8082 A)	
Alkalinity (2320 B)	✓	2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)		QPCR	
CO2 (SM4500)	✓		
Sulfide (SM4500)	✓		

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L): 0.94

Dilution: 0 Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result: 0.94

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? No If Yes, List ID and Analyses

COMMENTS/NOTES

MEADOWS CONSULTING | MANAGEMENT | PLANNING AECOM Imagine it. Delivered.

GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	OU6-MW-237
Project/Site Name:	OU6 Annual	Sample ID:	OU6-MW-237-20240521
Date:	5/21/2024	Well Condition:	Good
Weather:	clear, warm		

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	2	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	13.74	Purging/Sampling Device:	Peristaltic Pump
Total Depth (ft btoc):	24.20 COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI
Water Column (ft):	10.46		
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier 0.1620	Start Purge Date/Time:	5/21/2024 - 0930
		End Purge Date/Time:	5/21/2024 - 0955
		Total Volume Purged (gal):	1.25
One Well Volume (gal):	1.69	Sample Date/Time:	5/21/2024 - 1000
Screened Interval (ft bgs):	19.2 - 24.20	Sampler Name:	TJ Skora

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
0935	200	0.25	13.75	5.67	0.059	21.60	4.84	-17.54	180.80	clear, no odor
0940	200	0.50	13.75	5.16	0.027	21.30	4.03	-17.60	240.10	
0945	200	0.75	13.75	5.01	0.055	21.20	4.24	-17.50	282.30	
0950	200	1.00	13.75	5.01	0.053	19.80	4.22	-17.85	289.80	
0955	200	1.25	13.75	5.03	0.053	19.70	4.15	-18.01	296.30	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	✓	Manganese (6020 A)	✓
TOC (9060 A)	✓	LLPAHs (8270 E SIM)	
Methane Ethane Ethene (RSK-175)	✓	SVOCS (8270 D)	
Anions (9056 A)	✓	Pesticides & PCBS (8081 B & 8082 A)	
Alkalinity (2320 B)	✓	2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)		QPCR	
CO2 (SM4500)	✓		
Sulfide (SM4500)	✓		

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L): 0.07

Dilution: 0 Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result: 0.07

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? No If Yes, List ID and Analyses

COMMENTS/NOTES

MEADOWS CONSULTING | MANAGEMENT | PLANNING AECOM Imagine it. Delivered.

GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	OU6-MW-254
Project/Site Name:	OU6 Annual	Sample ID:	OU6-MW-254-20240521
Date:	5-21-2024	Well Condition:	GOOD
Weather:	SUNNY 61		

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	2	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	12.6	Purging/Sampling Device:	Peristaltic Pump
Total Depth (ft btoc):	25.4 COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI PRO DSS/218046
Water Column (ft):	12.80		
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier 0.1620	Start Purge Date/Time:	5-21-24/0820
		End Purge Date/Time:	5-21-24/0855
		Total Volume Purged (gal):	1 GAL
One Well Volume (gal):	2.07	Sample Date/Time:	5-21-24/0900
Screened Interval (ft bgs):	20.4 - 25.4	Sampler Name:	BRUCE DIGGS

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
0820	150	0.15	12.60	5.47	0.314	19.10	1.29	14.20	46.30	
0825	150	0.30	12.75	5.45	0.301	19.10	1.06	13.21	40.20	
0830	150	0.45	12.90	5.45	0.290	19.10	0.92	10.20	36.40	
0835	150	0.60	12.95	5.45	0.290	19.10	0.85	9.10	32.40	
0840	150	0.75	13.10	5.45	0.298	19.20	0.79	8.78	28.30	
0845	150	0.90	13.25	5.47	0.298	19.20	0.75	8.34	26.50	
0850	150	1.05	13.50	5.47	0.295	19.20	0.72	7.66	26.30	
0855	150	1.20	13.75	5.47	0.289	19.20	0.69	6.87	26.00	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	✓	Manganese (6020 A)	✓
TOC (9060 A)	✓	LLPAHs (8270 E SIM)	
Methane Ethane Ethene (RSK-175)	✓	SVOCS (8270 D)	
Anions (9056 A)	✓	Pesticides & PCBS (8081 B & 8082 A)	
Alkalinity (2320 B)	✓	2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)		QPCR	
CO2 (SM4500)	✓		
Sulfide (SM4500)	✓		

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L): 1.03

Dilution: 0 Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result: 1.03

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? No If Yes, List ID and Analyses

COMMENTS/NOTES

MEADOWS CONSULTING | MANAGEMENT | PLANNING AECOM Imagine it. Delivered.

GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	OU6-MW-253
Project/Site Name:	OU6 Annual	Sample ID:	OU6-MW-253-20240521
Date:	5-21-2024	Well Condition:	GOOD
Weather:	SUNNY 68		

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	2	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	12.8	Purging/Sampling Device:	Peristaltic Pump
Total Depth (ft btoc):	25.5 COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI PRO/DSS 218046
Water Column (ft):	12.70		
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier 0.1620	Start Purge Date/Time:	5-21-24/0920
		End Purge Date/Time:	5-21/24/0955
		Total Volume Purged (gal):	1 GAL
One Well Volume (gal):	2.06	Sample Date/Time:	5-21-24/1005
Screened Interval (ft bgs):	20.5 25.5	Sampler Name:	BRUCE DIGGS

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
0920	150	0.15	12.80	5.04	0.144	19.00	1.40	41.00	184.00	
0925	150	0.30	12.95	5.04	0.147	19.00	0.99	35.00	180.20	
0930	150	0.45	13.10	5.03	0.150	19.00	0.78	30.20	175.50	
0935	150	0.60	13.15	5.03	0.153	19.00	0.70	25.30	172.70	
0940	150	0.75	13.50	5.03	0.155	19.00	0.65	15.30	170.40	
0945	150	0.90	13.65	5.03	0.157	19.00	0.59	12.20	167.50	
0950	150	1.05	13.75	5.03	0.160	19.00	0.57	10.00	164.40	
0955	150	1.20	13.95	5.03	0.163	19.00	0.54	9.99	161.70	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	✓	Manganese (6020 A)	✓
TOC (9060 A)	✓	LLPAHs (8270 E SIM)	
Methane Ethane Ethene (RSK-175)	✓	SVOCS (8270 D)	
Anions (9056 A)	✓	Pesticides & PCBS (8081 B & 8082 A)	
Alkalinity (2320 B)	✓	2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)		QPCR	
CO2 (SM4500)	✓		
Sulfide (SM4500)	✓		

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L): 1.90

Dilution: 0 Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result: 1.90

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? No If Yes, List ID and Analyses

COMMENTS/NOTES

MEADOWS CONSULTING | MANAGEMENT | PLANNING AECOM Imagine it. Delivered.

GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	OU6-MW-256
Project/Site Name:	OU6 Annual	Sample ID:	OU6-MW-256-20240521
Date:	5-21-2024	Well Condition:	GOOD
Weather:	SUNNY 59		

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	2	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	11.6	Purging/Sampling Device:	Peristaltic Pump
Total Depth (ft btoc):	22.2 COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI PRO DSS 218046
Water Column (ft):	10.60		
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier 0.1620	Start Purge Date/Time:	5-21-24/0720
		End Purge Date/Time:	5-21-24/0750
		Total Volume Purged (gal):	1 GAL
One Well Volume (gal):	1.72	Sample Date/Time:	5-21-24/0755
Screened Interval (ft bgs):	17.2 - 22.2	Sampler Name:	BRUCE DIGGS

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
0720	150	0.15	11.60	4.60	0.079	18.70	1.44	46.20	262.90	
0725	150	0.45	11.85	4.46	0.066	18.70	1.06	36.20	269.30	
0730	150	0.60	11.90	4.43	0.062	18.70	0.93	25.20	271.60	
0735	150	0.75	12.00	4.42	0.060	18.70	0.83	15.20	274.20	
0740	150	0.90	12.15	4.40	0.059	18.70	0.75	10.20	275.80	
0745	150	1.05	12.35	4.40	0.058	18.70	0.71	9.76	277.10	
0750	150	1.20	12.55	4.39	0.680	18.70	0.67	8.76	278.10	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	✓	Manganese (6020 A)	✓
TOC (9060 A)	✓	LLPAHs (8270 E SIM)	
Methane Ethane Ethene (RSK-175)	✓	SVOCS (8270 D)	
Anions (9056 A)	✓	Pesticides & PCBS (8081 B & 8082 A)	
Alkalinity (2320 B)	✓	2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)		QPCR	
CO2 (SM4500)	✓		
Sulfide (SM4500)	✓		

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L): 0.08

Dilution: 0 Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result: 0.08

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? No If Yes, List ID and Analyses

COMMENTS/NOTES

MEADOWS CONSULTING | MANAGEMENT | PLANNING AECOM Imagine it. Delivered.

GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	OU6-MW-252
Project/Site Name:	OU6 Annual	Sample ID:	OU6-MW-252-20240521
Date:	5-21-2024	Well Condition:	GOOD
Weather:	SUNNY 71		

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	2	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	11.8	Purging/Sampling Device:	Peristaltic Pump
Total Depth (ft btoc):	25.7 COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI PRO/DSS/218046
Water Column (ft):	13.90		
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier 0.1620	Start Purge Date/Time:	5-21-24/1020
		End Purge Date/Time:	5-21-24/1055
		Total Volume Purged (gal):	1 GAL
One Well Volume (gal):	2.25	Sample Date/Time:	5-21-24/1110
Screened Interval (ft bgs):	20.7 - 25.7	Sampler Name:	BRUCE DIGGS

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
1020	150	0.15	11.80	6.88	0.290	17.40	6.13	32.60	84.60	
1025	150	0.30	11.95	6.91	0.290	17.40	6.06	25.70	85.50	
1030	150	0.45	12.20	6.94	0.290	17.40	6.01	27.20	87.60	
1035	150	0.60	12.55	6.95	0.290	17.40	5.97	26.20	90.00	
1040	150	0.75	12.75	6.96	0.290	17.40	5.95	17.20	91.50	
1045	150	0.90	12.95	6.96	0.290	17.40	5.92	15.20	93.30	
1050	150	1.05	13.00	6.97	0.290	17.40	5.88	12.20	95.30	
1055	150	1.20	13.15	6.97	0.289	17.30	5.84	10.20	97.20	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	✓	Manganese (6020 A)	✓
TOC (9060 A)	✓	LLPAHs (8270 E SIM)	
Methane Ethane Ethene (RSK-175)	✓	SVOCS (8270 D)	
Anions (9056 A)	✓	Pesticides & PCBS (8081 B & 8082 A)	
Alkalinity (2320 B)	✓	2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)		QPCR	
CO2 (SM4500)	✓		
Sulfide (SM4500)	✓		

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L): 0.12

Dilution: 0 Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result: 0.12

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? No If Yes, List ID and Analyses

COMMENTS/NOTES

MEADOWS CONSULTING | MANAGEMENT | PLANNING AECOM Imagine it. Delivered.

GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	OU6-MW-240
Project/Site Name:	OU6 Annual	Sample ID:	OU6-MW-240-20240521
Date:	5-21-2024	Well Condition:	GOOD
Weather:	SUNNY 77		

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	2	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	12.5	Purging/Sampling Device:	Peristaltic Pump
Total Depth (ft btoc):	23.6 COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI PRO/DSS/218046
Water Column (ft):	11.10		
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier 0.1620	Start Purge Date/Time:	5-21-24/1230
		End Purge Date/Time:	5-21-24/1305
		Total Volume Purged (gal):	1 GAL
One Well Volume (gal):	1.80	Sample Date/Time:	5-21-24/1310
Screened Interval (ft bgs):	18.6 - 23.6	Sampler Name:	BRUCE DIGGS

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
1230	150	0.15	12.50	6.00	0.681	19.10	0.87	124.00	-41.00	
1235	150	0.30	12.70	6.00	0.686	19.00	0.76	100.00	-46.00	
1240	150	0.45	12.95	6.01	0.686	18.30	0.66	81.20	-48.70	
1245	150	0.60	13.05	6.01	0.689	18.30	0.57	75.00	-50.90	
1250	150	0.75	13.25	6.02	0.687	18.30	0.50	56.20	-53.30	
1255	150	0.90	13.50	6.02	0.689	18.30	0.46	45.60	-55.20	
1300	150	1.05	13.75	6.03	0.692	18.30	0.44	35.00	-56.80	
1305	150	1.20	13.90	6.03	0.693	18.30	0.42	25.70	-58.00	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	✓	Manganese (6020 A)	✓
TOC (9060 A)	✓	LLPAHs (8270 E SIM)	
Methane Ethane Ethene (RSK-175)	✓	SVOCS (8270 D)	
Anions (9056 A)	✓	Pesticides & PCBS (8081 B & 8082 A)	
Alkalinity (2320 B)	✓	2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)		QPCR	
CO2 (SM4500)	✓		
Sulfide (SM4500)	✓		

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L): 1.44

Dilution: 2 Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result: 5.76

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? No If Yes, List ID and Analyses

COMMENTS/NOTES

MEADOWS CONSULTING | MANAGEMENT | PLANNING AECOM Imagine it. Delivered.

GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	OU6-MW-238
Project/Site Name:	OU6 Annual	Sample ID:	OU6-MW-238-20240521
Date:	5-21-2024	Well Condition:	GOOD
Weather:	SUNNY 75		

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	2	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	12.8	Purging/Sampling Device:	Peristaltic Pump
Total Depth (ft btoc):	24.5 COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI PRO/DSS/218046
Water Column (ft):	11.70		
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier 0.1620	Start Purge Date/Time:	5-21-24/1120
		End Purge Date/Time:	5-21-24/1155
		Total Volume Purged (gal):	1 GAL
One Well Volume (gal):	1.90	Sample Date/Time:	5-21-24/1210
Screened Interval (ft bgs):	19.5 - 24.5	Sampler Name:	BRUCE DIGGS

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
1120	150	0.15	12.80	6.30	0.430	19.10	1.33	92.80	-57.20	
1125	150	0.30	12.95	6.32	0.419	19.00	1.00	75.00	-65.00	
1130	150	0.45	13.20	6.31	0.391	18.90	0.79	56.20	-66.10	
1135	150	0.60	13.45	6.25	0.298	18.70	0.62	45.20	-51.00	
1140	150	0.75	13.65	6.09	0.235	18.70	0.57	25.30	-38.00	
1145	150	0.90	13.85	5.99	0.221	18.60	0.53	20.90	-32.20	
1150	150	1.05	13.90	5.97	0.234	18.70	0.50	15.20	-32.20	
1155	150	1.20	14.00	5.99	0.244	18.70	0.48	10.20	-34.70	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	✓	Manganese (6020 A)	✓
TOC (9060 A)	✓	LLPAHs (8270 E SIM)	
Methane Ethane Ethene (RSK-175)	✓	SVOCS (8270 D)	
Anions (9056 A)	✓	Pesticides & PCBS (8081 B & 8082 A)	
Alkalinity (2320 B)	✓	2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)		QPCR	
CO2 (SM4500)	✓		
Sulfide (SM4500)	✓		

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L): 2.76

Dilution: 0 Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result: 2.76

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? No If Yes, List ID and Analyses

COMMENTS/NOTES

MEADOWS CONSULTING | MANAGEMENT | PLANNING AECOM Imagine it. Delivered.

GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	OU6-MW-290
Project/Site Name:	OU6 Annual	Sample ID:	OU6-MW-290-20240521
Date:	20240521	Well Condition:	GOOD
Weather:	MOSTLY SUNNY 73		

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	2.00	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	10.43	Purging/Sampling Device:	Bladder Pump
Total Depth (ft btoc):	42.00 COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI PRO DSS
Water Column (ft):	31.57		
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier 0.1620	Start Purge Date/Time:	24/5/21 1110
		End Purge Date/Time:	24/5/21 1200
		Total Volume Purged (gal):	2.50
One Well Volume (gal):	5.11	Sample Date/Time:	24/5/21 1200
Screened Interval (ft bgs):	37-42	Sampler Name:	TIM BROWN

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^C)	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
1115	250	0.25	10.54	5.81	0.394	15.60	1.68	139.00	357.30	WATER CLOUDY/ NO ODOR
1120	250	0.50	10.58	5.81	0.407	15.50	2.26	85.00	302.70	
1125	250	0.75	10.54	5.81	0.409	15.50	2.29	53.00	270.00	
1130	250	1.00	10.60	5.81	0.406	15.50	2.77	35.00	238.60	
1135	250	1.25	10.57	5.80	0.407	15.50	2.11	23.00	219.00	
1140	250	1.50	10.57	5.80	0.407	15.60	3.17	16.00	210.30	
1145	250	1.75	10.55	5.80	0.408	15.50	2.30	13.50	201.50	
1150	250	2.00	10.62	5.80	0.407	15.50	3.34	12.00	195.60	
1155	250	2.25	10.55	5.80	0.410	15.50	3.24	12.11	191.70	
1200	250	2.50	10.60	5.81	0.412	15.50	3.00	10.00	192.60	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	☑	Manganese (6020 A)	☑
TOC (9060 A)	☑	LLPAHs (8270 E SIM)	☐
Methane Ethane Ethene (RSK-175)	☑	SVOCS (8270 D)	☐
Anions (9056 A)	☑	Pesticides & PCBS (8081 B & 8082 A)	☐
Alkalinity (2320 B)	☑	2,3,7,8 TCDD (8290 A)	☐
Metals (6020 A/6010 C/7470 A)	☐	QPCR	☐
CO2 (SM4500)	☑		☐
Sulfide (SM4500)	☑		☐

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L): 1.61

Dilution: 0 Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result: 1.61

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? Yes If Yes, List ID and Analyses

Equipment Blank collected

COMMENTS/NOTES

MEADOWS CONSULTING | MANAGEMENT | PLANNING AECOM Imagine it. Delivered.

GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	OU6-MW-294
Project/Site Name:	OU6 Annual	Sample ID:	OU6-MW-294-20240521
Date:	20240521	Well Condition:	GOOD
Weather:	HAZE 64		

WATER LEVEL AND WELL SPECIFICATION DETAILS

Well Casing Diameter (inches):	2.00		
Initial Depth to Water (ft btoc):	14.20		
Total Depth (ft btoc):	32.45	COLLECT AFTER WELL IS SAMPLED	
Water Column (ft):	18.25		
Water Column Multipliers (gal/ft):	Enter Multiplier		
1/4": **0.0025**, 3/4": **0.024**, 1": **0.04**	0.1620		
2": **0.162**, 4": **0.653**, 6": **1.469**			
One Well Volume (gal):	2.96		
Screened Interval (ft bgs):	27-32		

SAMPLE COLLECTION INFORMATION

Purging/Sampling Method:	Low Flow
Purging/Sampling Device:	Bladder Pump
Field Parameter Measuring Devices:	YSI PRO DSS
Start Purge Date/Time:	24/5/21 0932
End Purge Date/Time:	24/5/21 1027
Total Volume Purged (gal):	2.75
Sample Date/Time:	24/5/21 1027
Sampler Name:	TIM BROWN

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
0937	250	0.25	14.45	5.79	0.214	15.40	2.31	311.00	346.00	WATER CLOUDY/ NO ODOR
0942	250	0.50	14.45	5.68	0.234	15.40	1.28	196.00	248.60	
0947	250	0.75	14.40	5.68	0.236	15.40	1.29	157.00	200.00	
0952	250	1.00	14.40	5.67	0.239	15.40	2.15	167.00	157.70	
0957	250	1.25	14.40	5.67	0.237	15.40	2.61	162.00	148.00	
1002	250	1.50	14.40	5.69	0.235	15.40	3.09	230.00	143.70	
1007	250	1.75	14.40	5.68	0.235	15.40	2.61	153.00	143.90	
1012	250	2.00	14.40	5.58	0.236	15.40	2.40	46.00	151.80	
1017	250	2.25	14.40	5.67	0.236	15.40	1.44	42.00	146.10	
1022	250	2.50	14.40	5.67	0.237	15.40	1.75	36.00	147.80	
1027	250	2.75	14.40	5.67	0.236	15.40	1.85	30.00	144.00	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	✓	Manganese (6020 A)	✓
TOC (9060 A)	✓	LLPAHs (8270 E SIM)	
Methane Ethane Ethene (RSK-175)	✓	SVOCS (8270 D)	
Anions (9056 A)	✓	Pesticides & PCBS (8081 B & 8082 A)	
Alkalinity (2320 B)	✓	2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)		QPCR	
CO2 (SM4500)	✓		
Sulfide (SM4500)	✓		

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L): 2.26

Dilution: 0 Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result: 2.26

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? No If Yes, List ID and Analyses

COMMENTS/NOTES

MEADOWS CONSULTING | MANAGEMENT | PLANNING AECOM Imagine it. Delivered.

GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	OU6-MW-293
Project/Site Name:	OU6 Annual	Sample ID:	OU6-MW-293-20240521
Date:	20240521	Well Condition:	GOOD
Weather:	CLOUDY 59		

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	2.00	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	13.74	Purging/Sampling Device:	Bladder Pump
Total Depth (ft btoc):	32.20 COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI PRO DSS
Water Column (ft):	18.46		
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier 0.1620	Start Purge Date/Time:	24/5/21 0800
		End Purge Date/Time:	24/5/21 0850
		Total Volume Purged (gal):	2.50
One Well Volume (gal):	2.99	Sample Date/Time:	24/5/21 0850
Screened Interval (ft bgs):	27-32	Sampler Name:	TIM BROWN

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^C)	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
0805	250	0.25	13.95	5.41	0.126	15.60	1.26	200.00	264.10	WATER CLOUDY/ NO ODOR
0810	250	0.50	13.95	5.27	0.126	15.60	0.60	122.00	257.30	
0815	250	0.75	13.90	5.31	0.128	15.60	0.38	91.00	245.20	
0820	250	1.00	13.90	5.39	0.129	15.60	0.27	68.00	231.00	
0825	250	1.25	14.00	5.42	0.130	15.60	0.22	53.00	221.30	
0830	250	1.50	13.97	5.43	0.130	15.60	0.19	44.00	211.90	
0835	250	1.75	13.90	5.43	0.131	15.60	0.17	32.00	203.90	
0840	250	2.00	13.92	5.44	0.131	15.60	0.16	30.00	196.90	
0845	250	2.25	14.00	5.44	0.131	15.60	0.19	24.00	193.60	
0850	250	2.50	13.97	5.44	0.131	15.60	0.19	22.00	191.10	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	✓	Manganese (6020 A)	✓
TOC (9060 A)	✓	LLPAHs (8270 E SIM)	
Methane Ethane Ethene (RSK-175)	✓	SVOCS (8270 D)	
Anions (9056 A)	✓	Pesticides & PCBS (8081 B & 8082 A)	
Alkalinity (2320 B)	✓	2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)		QPCR	✓
CO2 (SM4500)	✓		
Sulfide (SM4500)	✓		

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L): 0.48

Dilution: 0 Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result: 0.48

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? Yes If Yes, List ID and Analyses

Microbial Duplicate (Dup07) collected 05/23/2024

COMMENTS/NOTES

MEADOWS CONSULTING | MANAGEMENT | PLANNING AECOM Imagine it. Delivered.

GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	OU6-MW-236
Project/Site Name:	OU6 Annual	Sample ID:	OU6-MW-236-20240521
Date:	5/21/2024	Well Condition:	Good
Weather:	Mid 60's, Cloudy		

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	2	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	14.62	Purging/Sampling Device:	Bladder Pump
Total Depth (ft btoc):	55.55 COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI
Water Column (ft):	40.93		
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier 0.1620	Start Purge Date/Time:	5/21/2024 0928
		End Purge Date/Time:	5/21/2024 1015
		Total Volume Purged (gal):	2.5
One Well Volume (gal):	6.63	Sample Date/Time:	5/21/2024 1015
Screened Interval (ft bgs):	50.55 - 55.55	Sampler Name:	QR

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
0930	200	0.25	15.13	6.35	0.127	19.80	6.86	265.42	104.20	Light brown, no odor.
0935	200	0.25	15.30	6.06	0.184	19.50	3.42	634.20	62.40	
0940	200	0.50	15.16	6.04	0.209	19.40	1.13	497.90	45.90	
0945	200	0.75	15.10	6.03	0.205	19.30	0.91	395.24	45.40	
0950	200	1.00	15.10	6.01	0.198	19.40	0.81	357.90	46.10	
0955	200	1.25	15.10	5.99	0.191	19.40	0.72	252.37	47.30	
1000	200	1.50	15.10	5.98	0.183	19.40	0.66	205.42	47.30	
1005	200	2.00	15.10	5.98	0.182	19.40	0.01	108.60	47.20	
1010	200	2.50	15.10	5.98	0.182	19.40	0.01	108.60	47.30	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	✓	Manganese (6020 A)	✓
TOC (9060 A)	✓	LLPAHs (8270 E SIM)	
Methane Ethane Ethene (RSK-175)	✓	SVOCS (8270 D)	
Anions (9056 A)	✓	Pesticides & PCBS (8081 B & 8082 A)	
Alkalinity (2320 B)	✓	2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)		QPCR	
CO2 (SM4500)	✓		
Sulfide (SM4500)	✓		

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L): 0.76

Dilution: 0 Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result: 0.76

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? Yes If Yes, List ID and Analyses

MS/MSD collected

COMMENTS/NOTES

1015 30 PSI

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GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	OU6-MW-170
Project/Site Name:	OU6 Annual	Sample ID:	OU6-MW-170-20240521
Date:	5/21/2024	Well Condition:	Good
Weather:	Mid 60's, Cloudy		

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	2	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	19.08	Purging/Sampling Device:	Bladder Pump
Total Depth (ft btoc):	51.40 COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI
Water Column (ft):	32.32		
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier 0.1620	Start Purge Date/Time:	5/21/2024 0700
		End Purge Date/Time:	5/21/2024 0825
		Total Volume Purged (gal):	2
One Well Volume (gal):	5.24	Sample Date/Time:	5/21/2024 0830
Screened Interval (ft bgs):	46.40 - 51.40	Sampler Name:	QR

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
0755	200	70.25	20.75	6.59	1.148	17.00	16.40	19.90	125.70	Light brown. No Odor
0800	200	0.50	21.90	6.54	1.281	17.00	0.68	14.52	117.20	
0805	100	0.75	22.45	6.54	1.336	17.10	0.54	8.74	114.50	Turn psi to 20, lowest it can go.
0810	100	1.00	23.10	6.55	1.383	17.00	0.54	40.23	115.10	
0815	100	0.25	23.10	6.55	1.405	17.00	0.49	16.27	115.30	
0820	100	0.75	23.26	6.55	1.414	16.90	0.48	16.67	115.20	
0825	100	2.00	23.31	6.55	1.439	16.90	0.46	15.58	115.00	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	✓	Manganese (6020 A)	✓
TOC (9060 A)	✓	LLPAHs (8270 E SIM)	
Methane Ethane Ethene (RSK-175)	✓	SVOCS (8270 D)	
Anions (9056 A)	✓	Pesticides & PCBS (8081 B & 8082 A)	
Alkalinity (2320 B)	✓	2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)		QPCR	
CO2 (SM4500)	✓		
Sulfide (SM4500)	✓		

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L): 0.01

Dilution: 0 Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result: 0.01

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? No If Yes, List ID and Analyses

COMMENTS/NOTES

1015 40 PSI

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GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	OU6-MW-241
Project/Site Name:	OU6 Annual	Sample ID:	OU6-MW-241-20240521
Date:	20240521	Well Condition:	GOOD
Weather:	MOSTLY SUNNY 79		

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	2.00	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	12.68	Purging/Sampling Device:	Peristaltic Pump
Total Depth (ft btoc):	24.50 COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI PRO DSS
Water Column (ft):	11.82		
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier 0.1620	Start Purge Date/Time:	24/5/21 1300
		End Purge Date/Time:	24/5/21 1345
		Total Volume Purged (gal):	2.25
One Well Volume (gal):	1.91	Sample Date/Time:	24/5/21 1345
Screened Interval (ft bgs):	19-24	Sampler Name:	TIM BROWN

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
1305	250	0.25	12.90	6.24	0.768	18.80	0.23	-63.50	-64.10	WATER CLEAR/ NO ODOR
1310	250	0.50	12.90	6.25	0.746	19.00	0.19	67.00	-69.40	
1315	250	0.75	13.00	6.25	0.724	18.50	0.15	35.00	-71.50	
1320	250	1.00	13.00	6.26	0.721	18.50	0.14	60.00	-74.20	
1325	250	1.25	13.00	6.27	0.717	18.60	0.13	35.00	-76.30	
1330	250	1.50	13.00	6.27	0.707	18.50	0.11	26.00	-77.40	
1335	250	1.75	13.00	6.27	0.705	18.40	0.12	47.00	-78.70	
1340	250	2.00	13.00	6.27	0.704	18.50	0.12	27.00	-79.50	
1345	250	2.25	13.00	6.27	0.706	18.30	0.12	27.55	-80.60	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	☑	Manganese (6020 A)	☑
TOC (9060 A)	☑	LLPAHs (8270 E SIM)	☐
Methane Ethane Ethene (RSK-175)	☑	SVOCS (8270 D)	☐
Anions (9056 A)	☑	Pesticides & PCBS (8081 B & 8082 A)	☐
Alkalinity (2320 B)	☑	2,3,7,8 TCDD (8290 A)	☐
Metals (6020 A/6010 C/7470 A)	☐	QPCR	☑
CO2 (SM4500)	☑		☐
Sulfide (SM4500)	☑		☐

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L): 2.70

Dilution: 2 Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result: 10.80

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? No If Yes, List ID and Analyses

COMMENTS/NOTES

MEADOWS CONSULTING | MANAGEMENT | PLANNING AECOM Imagine it. Delivered.

GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	OU6-MW-239
Project/Site Name:	OU6 Annual	Sample ID:	OU6-MW-239-20240514
Date:	5/21/2024	Well Condition:	Good
Weather:	sunny, warm		

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	2	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	11.90	Purging/Sampling Device:	Peristaltic Pump
Total Depth (ft btoc):	24.60 COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI
Water Column (ft):	12.70		
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier 0.1620	Start Purge Date/Time:	5/21/2024 -1100
		End Purge Date/Time:	5/21/2024 - 1125
		Total Volume Purged (gal):	1.0
One Well Volume (gal):	2.06	Sample Date/Time:	5/21/2024 - 1130
Screened Interval (ft bgs):	19.6 - 24.60	Sampler Name:	TJ Skora

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
1100	200	0.25	11.91	5.05	0.044	21.80	4.24	-18.53	257.80	clear, no odor
1105	200	0.25	11.91	5.03	0.044	20.60	3.86	-17.83	274.20	
1110	200	0.50	11.91	5.05	0.095	20.00	3.16	-18.56	304.80	
1115	200	0.50	11.91	5.06	0.096	20.00	3.40	-18.55	321.20	
1120	200	0.75	11.91	5.04	0.094	20.20	3.11	-18.78	323.20	
1125	200	1.00	11.91	5.00	0.093	20.00	3.24	-187.90	332.70	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	✓	Manganese (6020 A)	✓
TOC (9060 A)	✓	LLPAHs (8270 E SIM)	
Methane Ethane Ethene (RSK-175)	✓	SVOCS (8270 D)	
Anions (9056 A)	✓	Pesticides & PCBS (8081 B & 8082 A)	
Alkalinity (2320 B)	✓	2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)		QPCR	
CO2 (SM4500)	✓		
Sulfide (SM4500)	✓		

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L):

Dilution: Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result:

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? No If Yes, List ID and Analyses

COMMENTS/NOTES

MEADOWS CONSULTING | MANAGEMENT | PLANNING AECOM Imagine it. Delivered.

GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	OU6-MW-244
Project/Site Name:	OU6 Annual	Sample ID:	OU6-MW-244-20240521
Date:	5/21/2024	Well Condition:	Good
Weather:	clear, warm		

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	2	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	12.58	Purging/Sampling Device:	Peristaltic Pump
Total Depth (ft btoc):	26.70 COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI
Water Column (ft):	14.12		
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier 0.1620	Start Purge Date/Time:	5/21/2024 - 1335
		End Purge Date/Time:	5/21/2024 - 1425
		Total Volume Purged (gal):	4.0
One Well Volume (gal):	2.29	Sample Date/Time:	5/21/2024 - 1430
Screened Interval (ft bgs):	21.7 - 26.7	Sampler Name:	TJ Skora

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
1340	250	0.25	13.00	5.04	0.066	21.10	4.08	-12.32	143.10	clear, no odor
1345	250	1.50	13.26	5.03	0.067	20.10	3.40	-13.12	223.90	
1350	200	2.00	13.02	5.03	0.050	20.90	3.88	-17.16	268.50	
1355	200	2.25	12.92	5.00	0.072	21.00	3.16	-18.21	283.30	
1400	200	2.50	12.98	4.99	0.077	20.70	2.20	17.06	305.20	
1405	200	2.75	12.98	4.99	0.085	20.80	2.51	-17.98	318.50	
1410	200	3.00	12.98	4.96	0.094	20.90	2.21	-17.76	298.40	
1415	200	3.50	12.98	5.00	0.097	20.50	2.28	-18.16	315.30	
1420	200	3.75	12.98	4.96	0.100	20.40	2.45	-18.31	325.00	
1425	200	4.00	12.98	4.95	0.102	20.40	2.50	-17.82	333.90	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	☑	Manganese (6020 A)	☑
TOC (9060 A)	☑	LLPAHs (8270 E SIM)	☐
Methane Ethane Ethene (RSK-175)	☑	SVOCS (8270 D)	☐
Anions (9056 A)	☑	Pesticides & PCBS (8081 B & 8082 A)	☐
Alkalinity (2320 B)	☑	2,3,7,8 TCDD (8290 A)	☐
Metals (6020 A/6010 C/7470 A)	☐	QPCR	☐
CO2 (SM4500)	☑		☐
Sulfide (SM4500)	☑		☐

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L):

Dilution: Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result:

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? No If Yes, List ID and Analyses

COMMENTS/NOTES

OU#	Well#	Sample ID	Date	Time Sampled	Time Hach	# of Dilutions	Iron Result	reportable result	Notes
Final Result Calculation, Dilution 1 Result X 2, Dilution 2 Result x 4, Dilution 3 Result x 8, Dilution 4 Result x 16, Dilution 5 Result x 32									
OU6	MW-241	OU6-MW-241-20240521	25/5/21	1345	1416	0	4.97	—	
OU6	11	11	11	11	1421	2	2.70	10.80	
OU6	MW-254	OU6-MW-254-20240521	25/5/21	0900	1427	0	1.03	1.03	
OU6	MW-237	OU6-MW-237-20240521	25/5/21	1000	1434	0	0.07	0.07	
OU6	MW-293	OU6-MW-293-20240521	25/5/21	0850	1439	0	0.48	0.48	
OU6	MW-287	OU6-MW-287-20240521	25/5/21	1315	1447	0	0.68	0.68	
OU6	MW-170	OU6-MW-170-20240521	25/5/21	0830	1453	0	0.01	0.01	
OU6	MW-236	OU6-MW-236-20240521	25/5/21	1015	1458	0	0.76	0.76	
OU6	MW-290	OU6-MW-290-20240521	25/5/21	1200	1504	0	1.61	1.61	
OU6	MW-294	OU6-MW-294-20240521	25/5/21	1027	1509	0	2.26	2.26	
OU6	MW-223	OU6-MW-223-20240521	25/5/21	0850	1515	0	0.94	0.94	
OU6	MW-256	OU6-MW-256-20240521	25/5/21	0755	1520	0	0.08	0.08	
OU6	MW-252	OU6-MW-252-20240521	25/5/21	1110	1526	0	0.12	0.12	
OU6	MW-238	OU6-MW-238-20240521	25/5/21	1210	1531	0	2.76	2.76	
OU6	MW-253	OU6-MW-253-20240521	25/5/21	1005	1537	0	1.90	1.90	
OU6	MW-240	OU6-MW-240-20240521	25/5/21	1310	1543	0	4.55	—	
OU6	11	11	11	11	1550	2	1.44	5.76	
OU6									
OU6									
OU6									

AECOM

DAILY FIELD INSTRUMENT CALIBRATION/ CALIBRATION CHECK FORM

Site Name: OUG

Project/Client:

Project Number: 0043-ecll

Location: DSCR - Richmond

Field Analyst(s): Quin Rebrcky

Date: 5/21/24

Start Time: 0700 Finish Time: 0730

Instrument Information

Parameter	Make	Model	Meter Serial #	Probe Serial #
DO	PRO DSS	YSI	21137 0	469 82
pH	↓	↓	↓	↓
Specific Conductance				
ORP				
Temperature	↓	↓	↓	↓
Turbidity				

Pre-Field Calibration and Quality Control Requirements

Prior to using instrument(s) in the field, field analysts must ensure that certain quality control procedures and calibrations have been completed for the instruments listed above. Records of the following, completed either by AECOM or the vendor, must be retained:

- •Weekly DO Winkler Titration ☐
- •5-Point Conductivity Curve ☐
- •Annual Conductivity Cell Constant ☐
- •Quarterly NIST Traceable Thermometer ☐
- •Solution Records ☐

Field Calibration/Calibration Check

DO (Method SM 4500 O G)

100% Saturation	
Barometric Pressure (mmHg)	
Temperature (°C)	21.5
Initial Reading	880
Reset Reading	4.48

0% Saturation	
Solution Temperature (°C)	
Solution Manufacturer & Lot #	
Reading	
*Requires Recalibration	Y / N
Reset Reading	

Note: DO must be calibrated to 100% saturation. DO may only be calibration checked to 0% saturation (zero oxygen solution standard). Calibration methods may differ between DO meters, and some fields listed may not be applicable. Refer to instrument manual for calibration instructions.

pH (Method SM 4500-H B)

Buffer Solution	Solution Manufacturer & Lot #	Solution Expiration Date	Solution Temperature	Reading	*Requires Recalibration	Reset Reading
7	460 1040	2126	22.2	7.21	Y / N	7
4	46B0637	2126	22.2	3.93	Y / N	4
10	3G F1815	6125	22.2	10.18	Y / N	10
					Y / N	

Note: A calibration check against one standard buffer must be performed and recorded in the field book every 3-hours of use after daily calibration/calibration check.

AECOM

DAILY FIELD INSTRUMENT CALIBRATION/ CALIBRATION CHECK FORM

Specific Conductance (Method 2510 B)

Standard Solution	Solution Manufacturer & Lot #	Solution Expiration Date	Solution Temperature	Reading ($\mu S\ cm^{-1}$)	*Requires Recalibration	Reset Reading ($\mu S\ cm^{-1}$)
1.413	16K0355	11/24	22.2	1.562	Y / (N)	1.413

ORP

Standard Solution	Solution Manufacturer & Lot #	Solution Expiration Date	Solution Temperature	Reading (mV)	*Requires Recalibration	Reset Reading (mV)
240	20H0038	3/24	22.2	238.8	Y / (N)	240

Turbidity (Method 2130 B)

Standard Solution (NTU)	Solution Manufacturer & Lot #	Solution Expiration Date	Reading (NTU)	*Requires Recalibration	Reset Reading (NTU)
0	24007124	1/25	4.41	(Y) / N	0
126	23J2704364B	9/24	136.04	Y / N	126
				Y / N	
				Y / N	

*Field check readings should be within the accuracy listed by the manufacturer's specifications or per New Jersey regulations (NJAC 7:18), whichever is more stringent. Otherwise, the instrument must be recalibrated for that parameter. Refer to instrument manual for accuracy. Values provided below for instruments typically used by AECOM

YSI 6-Series

Dissolved Oxygen	± 0.1 % or ± 0.1 mg/L, whichever is greater
pH **	± 0.2 units
	**NJAC 7:18 requires that calibration values be accurate to ±0.05, and accuracy within ±0.1 units for the initial calibration check and ±0.2 units for 3-hour checks
Specific Conductivity	± 0.5% + 0.001 mS/cm
ORP	± 20 mV
Turbidity	± 2%

Horiba U-20XD Series

Dissolved Oxygen	± 0.2 mg/L
pH **	± 0.1 units
Specific Conductivity	± 3%
ORP	± 15 mV
Turbidity	± 5%

LaMotte 2020wi Turbidity Meter

±0.05 or ±2% below 100 NTU

±3% above 100 NTU

AECOM

DAILY FIELD INSTRUMENT CALIBRATION/ CALIBRATION CHECK FORM

Site Name: DSCR

Project/Client: Meadows Project Number: 0045-0011

Location: Richmond VA

Field Analyst(s): Bruce w DIGGS

Date: 5-21-2024 Start Time: 0630 Finish Time: 0700

Instrument Information

Parameter	Make	Model	Meter Serial #	Probe Serial #
DO	YSI	Pro Plus	21804b	218077
pH	"	"	"	"
Specific Conductance	"	"	"	"
ORP				
Temperature				
Turbidity				

Pre-Field Calibration and Quality Control Requirements

Prior to using instrument(s) in the field, field analysts must ensure that certain quality control procedures and calibrations have been completed for the instruments listed above. Records of the following, completed either by AECOM or the vendor, must be retained:

- ♦Weekly DO Winkler Titration ☐
- ♦5-Point Conductivity Curve ☐
- ♦Annual Conductivity Cell Constant ☐
- ♦Quarterly NIST Traceable Thermometer ☐
- ♦Solution Records ☐

Field Calibration/Calibration Check

DO (Method SM 4500 O.G)

100% Saturation	
Barometric Pressure (mmHg)	~~759~~ 774
Temperature (°C)	22.7
Initial Reading	9.00
Reset Reading	8.61

0% Saturation	
Solution Temperature (°C)	
Solution Manufacturer & Lot #	
Reading	
*Requires Recalibration	Y / N
Reset Reading	

Note. DO must be calibrated to 100% saturation. DO may only be calibration checked to 0% saturation (zero oxygen solution standard). Calibration methods may differ between DO meters, and some fields listed may not be applicable. Refer to instrument manual for calibration instructions.

pH (Method SM 4500-H B)

Buffer Solution	Solution Manufacturer & Lot #	Solution Expiration Date	Solution Temperature	Reading	*Requires Recalibration	Reset Reading
4	3660073	7/25	23.3	3.86	Y / N	3.98
7	3GK1332	11/25	23.2	7.09	Y / N	6.99
10	3GK004	11/25	23.1	10.03	Y / N	10.00
126.	2FY00325	6/24	23.4	1411.	Y / N	124.0

Note: A calibration check against one standard buffer must be performed and recorded in the field book every 3-hours of use after daily calibration/calibration check.

AECOM

DAILY FIELD INSTRUMENT CALIBRATION/ CALIBRATION CHECK FORM

Specific Conductance (Method 2510 B)

Standard Solution	Solution Manufacturer & Lot #	Solution Expiration Date	Solution Temperature	Reading ($\mu S \cdot cm^{-1}$)	*Requires Recalibration	Reset Reading ($\mu S \cdot cm^{-1}$)
1.413	36T0310	10/24	23.0	1.460	Y / N	1.414

ORP

Standard Solution	Solution Manufacturer & Lot #	Solution Expiration Date	Solution Temperature	Reading (mV)	*Requires Recalibration	Reset Reading (mV)
240.0	36J0094	7/24	~~29.2~~ 23.3	229.2	Y / N	240.3

Turbidity (Method 2130 B)

Standard Solution (NTU)	Solution Manufacturer & Lot #	Solution Expiration Date	Reading (NTU)	*Requires Recalibration	Reset Reading (NTU)
				Y / N	
				Y / N	
				Y / N	
				Y / N	

*Field check readings should be within the accuracy listed by the manufacturer's specifications or per New Jersey regulations (NJAC 7:18), whichever is more stringent. Otherwise, the instrument must be recalibrated for that parameter. Refer to instrument manual for accuracy. Values provided below for instruments typically used by AECOM:

YSI 6-Series:

Dissolved Oxygen	± 0.1 % or ± 0.1 mg/L, whichever is greater
pH **	± 0.2 units
	**NJAC 7:18 requires that calibration values be accurate to ±0.05, and accuracy within ±0.1 units for the initial calibration check and ±0.2 units for 3-hour checks
Specific Conductivity	± 0.5% ÷ 0.001 mS/cm
ORP	± 20 mV
Turbidity	± 2%

Horriba U-20XD Series:

Dissolved Oxygen	± 0.2 mg/L
pH **	± 0.1 units
Specific Conductivity	± 3%
ORP	± 15 mV
Turbidity	± 5%

LaMotte 2020e/i Turbidity Meter:

±0.05 or ±2%, below 100 NTU

±3%, above 100 NTU

AECOM

DAILY FIELD INSTRUMENT CALIBRATION/ CALIBRATION CHECK FORM

Site Name: 006

Project/Client:

Project Number: 0045-0011

Location: DSCR - RICHMOND

Field Analyst(s): T.M BROWN

Date: 24/8/21 Start Time: 0650 Finish Time: 0718

Instrument Information

Parameter	Make	Model	Meter Serial #	Probe Serial #
DO	YSI	PRO QSS	16855	218078
pH	↓	↓	↓	↓
Specific Conductance				
ORP				
Temperature				
Turbidity				

Pre-Field Calibration and Quality Control Requirements

Prior to using instrument(s) in the field, field analysts must ensure that certain quality control procedures and calibrations have been completed for the instruments listed above. Records of the following, completed either by AECOM or the vendor, must be retained:

- ♦Weekly DO Winkler Titration ☐
- ♦5-Point Conductivity Curve ☐
- ♦Annual Conductivity Cell Constant ☐
- ♦Quarterly NIST Traceable Thermometer ☐
- ♦Solution Records ☐

Field Calibration/Calibration Check

DO (Method SM 4500 O.G)

100% Saturation	
Barometric Pressure (mmHg)	758.7
Temperature (°C)	19.5
Initial Reading	9.16
Reset Reading	9.18

0% Saturation	
Solution Temperature (°C)	X
Solution Manufacturer & Lot #	
Reading	
*Requires Recalibration	Y / N
Reset Reading	

Note: DO must be calibrated to 100% saturation. DO may only be calibration checked to 0% saturation (zero oxygen solution standard). Calibration methods may differ between DO meters, and some fields listed may not be applicable. Refer to instrument manual for calibration instructions.

pH (Method SM 4500-H B)

Buffer Solution	Solution Manufacturer & Lot #	Solution Expiration Date	Solution Temperature	Reading	*Requires Recalibration	Reset Reading
10	3GF1088	6/25	21.1	10.1	Y / N	
7	4GB1040	2/26	21.0	7.05	Y / N	
4	32017	12/25	21.6	4.00	Y / N	
					Y / N	

Note: A calibration check against one standard buffer must be performed and recorded in the field book every 3-hours of use after daily calibration/calibration check.

AECOM

DAILY FIELD INSTRUMENT CALIBRATION/ CALIBRATION CHECK FORM

Specific Conductance (Method 2510 B)

Standard Solution	Solution Manufacturer & Lot #	Solution Expiration Date	Solution Temperature	Reading ($\mu S \cdot cm^{-1}$)	*Requires Recalibration	Reset Reading ($\mu S \cdot cm^{-1}$)
1.413	36E0678	5/24	21.1	1.407	Y / N	

ORP

Standard Solution	Solution Manufacturer & Lot #	Solution Expiration Date	Solution Temperature	Reading (mV)	*Requires Recalibration	Reset Reading (mV)
240.0	36H0038	5/24	21.2	232.5	Y / N	246.7

Turbidity (Method 2130 B)

Standard Solution (NTU)	Solution Manufacturer & Lot #	Solution Expiration Date	Reading (NTU)	*Requires Recalibration	Reset Reading (NTU)
126.0	23J2405648	9/24	123	Y / N	126
0	24003824	7/24	-0.21	Y / N	0
				Y / N	
				Y / N	

*Field check readings should be within the accuracy listed by the manufacturer's specifications or per New Jersey regulations (NJAC 7:18), whichever is more stringent. Otherwise, the instrument must be recalibrated for that parameter. Refer to instrument manual for accuracy. Values provided below for instruments typically used by AECOM:

YSI 6-Series:

Dissolved Oxygen	± 0.1 % or ± 0.1 mg/L, whichever is greater
pH **	± 0.2 units
	**NJAC 7:18 requires that calibration values be accurate to ±0.05, and accuracy within ±0.1 units for the initial calibration check and ±0.2 units for 3-hour checks
Specific Conductivity	± 0.5% + 0.001 mS/cm
ORP	± 20 mV
Turbidity	± 2%

Horriba U-20XD Series:

Dissolved Oxygen	± 0.2 mg/L
pH **	± 0.1 units
Specific Conductivity	± 3%
ORP	± 15 mV
Turbidity	± 5%

LaMotte 2020e/i Turbidity Meter:

±0.05 or ±2%, below 100 NTU

±3%, above 100 NTU

AECOM

DAILY FIELD INSTRUMENT CALIBRATION/ CALIBRATION CHECK FORM

Site Name: DSCR
Project/Client: OMC Annual Project Number: 0045-0011
Location: OMC
Field Analyst(s): TJ Skora
Date: 5/23/24 Start Time: 0715 Finish Time: 0730

Instrument Information

Parameter	Make	Model	Meter Serial #	Probe Serial #
DO	Pro DSS	YSI	42061	23F102676
pH				
Specific Conductance				
ORP				
Temperature				
Turbidity				

Pre-Field Calibration and Quality Control Requirements

Prior to using instrument(s) in the field, field analysts must ensure that certain quality control procedures and calibrations have been completed for the instruments listed above. Records of the following, completed either by AECOM or the vendor, must be retained:

- Weekly DO Winkler Titration ☐
- 5-Point Conductivity Curve ☐
- Annual Conductivity Cell Constant ☐
- Quarterly NIST Traceable Thermometer ☐
- Solution Records ☐

Field Calibration/Calibration Check

DO (Method SM 4500 O.G)

100% Saturation	
Barometric Pressure (mmHg)	—
Temperature (°C)	21.0
Initial Reading	8.91
Reset Reading	8.92

0% Saturation	
Solution Temperature (°C)	
Solution Manufacturer & Lot #	
Reading	
*Requires Recalibration	Y / N
Reset Reading	

Note. DO must be calibrated to 100% saturation. DO may only be calibration checked to 0% saturation (zero oxygen solution standard). Calibration methods may differ between DO meters, and some fields listed may not be applicable. Refer to instrument manual for calibration instructions.

pH (Method SM 4500-H B)

Buffer Solution	Solution Manufacturer & Lot #	Solution Expiration Date	Solution Temperature	Reading	*Requires Recalibration	Reset Reading
4	Pine 4GB0637	2/26	21.9	4.04	Y / N	4.00
7	" 4GB1040	2/26	21.9	7.19	Y / N	7.02
10	" 3GF1088	6/25	21.9	10.03	Y / N	10.04
					Y / N	

Note: A calibration check against one standard buffer must be performed and recorded in the field book every 3-hours of use after daily calibration/calibration check.

AECOM

DAILY FIELD INSTRUMENT CALIBRATION/ CALIBRATION CHECK FORM

Specific Conductance (Method 2510 B)

Standard Solution	Solution Manufacturer & Lot #	Solution Expiration Date	Solution Temperature	Reading ($\mu S \cdot cm^{-1}$)	*Requires Recalibration	Reset Reading ($\mu S \cdot cm^{-1}$)
1.413	PINE 4GA0218	2025-1	22.1	0.803	Y / N	0.829

ORP

Standard Solution	Solution Manufacturer & Lot #	Solution Expiration Date	Solution Temperature	Reading (mV)	*Requires Recalibration	Reset Reading (mV)
240.0	Pine 3GH0038	5/24	21.9	232.2	Y / N	218.5

Turbidity (Method 2130 B)

Standard Solution (NTU)	Solution Manufacturer & Lot #	Solution Expiration Date	Reading (NTU)	*Requires Recalibration	Reset Reading (NTU)
0	Pine 24007124	1/25	3.55	Y / N	0.00
126.0	Pine 23024001164	4/24	121.89	Y / N	124.06
				Y / N	
				Y / N	

*Field check readings should be within the accuracy listed by the manufacturer's specifications or per New Jersey regulations (NJAC 7:18), whichever is more stringent. Otherwise, the instrument must be recalibrated for that parameter. Refer to instrument manual for accuracy. Values provided below for instruments typically used by AECOM:

YSI 6-Series:

Dissolved Oxygen	± 0.1 % or ± 0.1 mg/L, whichever is greater
pH **	± 0.2 units
	**NJAC 7:18 requires that calibration values be accurate to ±0.05, and accuracy within ±0.1 units for the initial calibration check and ±0.2 units for 3-hour checks
Specific Conductivity	± 0.5% + 0.001 mS/cm
ORP	± 20 mV
Turbidity	± 2%

Horriba U-20XD Series:

Dissolved Oxygen	± 0.2 mg/L
pH **	± 0.1 units
Specific Conductivity	± 3%
ORP	± 15 mV
Turbidity	± 5%

LaMotte 2020e/i Turbidity Meter:

±0.05 or ±2%, below 100 NTU
±3%, above 100 NTU

Eurofins Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Phone (912) 354-7858 Phone (912) 352-0165

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: Tim, TJ, Quin and Bruce	Lab PM: Lanier, Jerry	Carrier Tracking No(s):	COC No:
Client Contact: Andrew VanBuesking	Phone: 757-589-5825	E-Mail: Jerry.Lanier@et.eurofinsus.com	State of Origin: VA	Page: Page 1 of 2
Company: Meadows CMPG	PWSID:			Job #:

Address: 2107 Granby St	Due Date Requested:
City: Norfolk	TAT Requested (days): STD
State, Zip: VA	Compliance Project: Δ Yes Δ No
Phone: 757-623-3107	PO #: 0045-0011
Email: avanbuesking@meadowscmpg	WO #:
Project Name: OU6 Annual	Project #:
Site: DSCR, OU6	SSOW#:

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260D_DOD5 - (MOD) Volatiles		RSK_175_DOD5 - Ethane, Ethene, Methane	9060A - TOC	9056A_OF28D_D5 - Chloride & Sulfate 9056A_OF_48H_D5 - Local Method	SM4500_S2_F - Sulfide, Total	6020A_DOD5 - Manganese	SM4500_CO2_D - Carbon Dioxide	2320B - Alkalinity		8270E_DOD5 - (MOD) Semivolatiles (without PAHs)	8270E_SIM_DOD5 - Routine PAH	8081B_8082A_D5 - Routine Pesticides & PCBs	7470A_DOD5 - Mercury 6020A_DOD5- (MOD) TAL Metals	8270E_SIM_ID_D5 Local Method - Dioxane	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A		A	S	N	CB	D	N	N		N	N	N	D	N		
OU6-MW-130-20240522	5/22/24	1225	G	W			3		3	3	1	2	1	1	1							15	
OU6-MW-272-20240522	5/22/24	0805	G	W			3		3	3	1	2	1	1	1		2	2	2	1		22	
OU6-DUP-5-20240522	5/22/24		G	W			3		3	3	1	2	1	1	1							15	
OU6-MW-88-20240522	5/22/24	1005	G	W			3		3	3	1	2	1	1	1							15	
OU6-MW-271-20240522	5/22/24	0755	G	W			3		3	3	1	2	1	1	1							15	
OU6-MW-247-20240522	5/22/24	920	G	W			3		3	3	1	2	1	1	1							15	
OU6-MW-251-20240522	5/22/24	1210	G	W			3		3	3	1	2	1	1	1							15	
OU6-MW-250-20240522	5/22/24	1050	G	W			3		3	3	1	2	1	1	1							15	
OU6-MW-157-20240522	5/22/24	1125	G	W			3		3	3	1	2	1	1	1							15	
OU6-MW-289-20240522	5/22/24	1310	G	W			3		3	3	1	2	1	1	1							15	
OU6-MW-291-20240522	5/22/24	1002	G	W			3		3	3	1	2	1	1	1							15	

Possible Hazard Identification
☐ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* ☐ *Poison B* ■ *Unknown* ☐ *Radiological*

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ■ *Disposal By Lab* ☐ *Archive For _____ Months*

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:

Method of Shipment:

BRUCE DIGGS	5-22-2024/1600	Company	Received by:		Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:		Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:		Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No

Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:

Eurofins Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Phone (912) 354-7858 Phone (912) 352-0165

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler:	Lab PM: Lanier, Jerry	Carrier Tracking No(s):	COC No:
Client Contact: Andrew VanBuesking	Phone: 757-589-5825	E-Mail: Jerry.Lanier@et.eurofinsus.com	State of Origin: VA	Page: Page 2 of 2
Company: Meadows CMPG	PWSID:			Job #:
Address: 2107 Granby St	Due Date Requested:			
City: Norfolk	TAT Requested (days): STD			
State, Zip: VA	Compliance Project: Δ Yes Δ No			
Phone: 757-623-3107	PO #: 0045-0011			
Email: avanbuesking@meadowscmpg	WO #:			
Project Name: OU6 Annual	Project #:			
Site: DSCR, OU6	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260D_DOD5 - (MOD) Volatiles		RSK_175_DOD5 - Ethane, Ethene, Methane	9060A - TOC	9056A_OF28D_D5 - Chloride & Sulfate 9056A_OF_48H_D5 - Local Method	SM4500_S2_F - Sulfide, Total	6020A_DOD5 - Manganese	SM4500_CO2_D - Carbon Dioxide	2320B - Alkalinity		8270E_DOD5 - (MOD) Semivolatiles (without PAHs)	8270E_SIM_DOD5 - Routine PAH	8081B_8082A_D5 - Routine Pesticides & PCBs	7470A_DOD5 - Mercury 6020A_DOD5- (MOD) TAL Metals	8270E_SIM_ID_D5 Local Method - Dioxane	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A		A	S	N	CB	D	N	N		N	N	N	D	N		
Dup-06-20240522	5/22/24	0000	G	W			3															3	
TRIP-BLANK-20240522	5/22/24		G	W			2															0	
OU6-DMW-9B-20240522	5/22/24	0845	G	W			3															3	
OU6-MW-217-20240522	5/22/24	1020	G	W			3		3	3	1	2	1	1	1							15	
OU6-EBF-08D-20240522	5/22/24	1130	G	W			3		3	3	1	2	1	1	1							15	
OU6-MW-285-20240522	5/22/24	1335	G	W			3		3	3	1	2	1	1	1						2	17	
OU6-MW-255-20240522	5/22/24	1435	G	W			3		3	3	1	2	1	1	1							15	
																						0	
																						0	
																						0	
																						0	

Possible Hazard Identification
☐ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* ☐ *Poison B* ■ *Unknown* ☐ *Radiological*

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ■ *Disposal By Lab* ☐ *Archive For _____ Months*

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:		Method of Shipment:
BRUCE DIGGS	5-21-2024/1600	Company	Received by:	Date/Time: / Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: / Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: / Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

MEADOWS CONSULTING | MANAGEMENT | PLANNING AECOM Imagine it. Delivered.

GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	OU6-MW-130
Project/Site Name:	OU6 Annual	Sample ID:	OU6-MW-130-20240522
Date:	5-22-2024	Well Condition:	GOOD
Weather:	SUNNY 80		

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	3/4	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	13	Purging/Sampling Device:	Peristaltic Pump
Total Depth (ft btoc):	22.7 COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI DSS/PRO/218-46
Water Column (ft):	9.70		
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier 0.0240	Start Purge Date/Time:	5-22-24/1145
		End Purge Date/Time:	5-22-24/1215
		Total Volume Purged (gal):	1GAL
One Well Volume (gal):	0.23	Sample Date/Time:	5-22-24/1225
Screened Interval (ft bgs):	17.7 - 22.7	Sampler Name:	BRUCE DIGGS

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
1145	150	0.15	4.90	5.22	0.372	18.30	0.82	23.40	-47.80	
1150	150	0.30	5.00	5.22	0.372	18.30	0.82	22.10	-50.10	
1155	150	0.45	5.15	5.45	0.372	18.30	0.79	15.20	-50.80	
1200	150	0.60	5.20	5.45	0.372	18.20	0.74	15.00	-51.70	
1205	150	0.75	5.55	5.45	0.372	18.20	0.67	12.20	-53.90	
1210	150	0.90	5.65	5.45	0.372	18.20	0.67	11.90	-54.40	
1215	150	1.05	5.95	5.45	0.399	18.20	0.65	10.20	-55.10	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	✓	Manganese (6020 A)	✓
TOC (9060 A)	✓	LLPAHs (8270 E SIM)	
Methane Ethane Ethene (RSK-175)	✓	SVOCS (8270 D)	
Anions (9056 A)	✓	Pesticides & PCBS (8081 B & 8082 A)	
Alkalinity (2320 B)	✓	2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)		QPCR	
CO2 (SM4500)	✓		
Sulfide (SM4500)	✓		

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L): 2.5

Dilution: 1 Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result: 5.0

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? No If Yes, List ID and Analyses

COMMENTS/NOTES

MEADOWS CONSULTING | MANAGEMENT | PLANNING AECOM Imagine it. Delivered.

GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	OU6-MW-272
Project/Site Name:	OU6 Annual	Sample ID:	OU6-MW-272-20240522
Date:	5-22-2024	Well Condition:	GOOD
Weather:	SUNNY 66		

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	2	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	4.9	Purging/Sampling Device:	Peristaltic Pump
Total Depth (ft btoc):	18.8 COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI DSS/PRO/218-46
Water Column (ft):	13.90		
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier 0.1620	Start Purge Date/Time:	5-22-24/0730
		End Purge Date/Time:	5-22-24/0800
		Total Volume Purged (gal):	1GAL
One Well Volume (gal):	2.25	Sample Date/Time:	5-22-24/0805
Screened Interval (ft bgs):	13.8 - 18.8	Sampler Name:	BRUCE DIGGS

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
0730	150	0.15	4.90	6.56	0.221	18.30	1.81	54.20	166.90	
0735	150	0.30	5.00	6.56	0.193	18.30	1.29	45.20	182.00	
0740	150	0.45	5.15	6.59	0.173	18.20	1.07	35.20	193.50	
0745	150	0.60	5.20	6.59	0.141	18.10	0.99	25.20	199.10	
0750	150	0.75	5.55	6.59	0.124	18.10	0.93	15.20	204.00	
0755	150	0.90	5.65	6.59	0.124	18.20	0.86	12.20	209.00	
0800	150	1.05	5.95	6.59	0.124	18.20	0.82	10.20	212.20	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	✓	Manganese (6020 A)	✓
TOC (9060 A)	✓	LLPAHs (8270 E SIM)	✓
Methane Ethane Ethene (RSK-175)	✓	SVOCS (8270 D)	✓
Anions (9056 A)	✓	Pesticides & PCBS (8081 B & 8082 A)	✓
Alkalinity (2320 B)	✓	2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)	✓	QPCR	
CO2 (SM4500)	✓		
Sulfide (SM4500)	✓		

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L): 0.14

Dilution: 0.14 Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result:

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? Yes If Yes, List ID and Analyses

Dup5 collected

COMMENTS/NOTES

MEADOWS CONSULTING | MANAGEMENT | PLANNING AECOM Imagine it. Delivered.

GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	OU6-MW-88
Project/Site Name:	OU6 Annual	Sample ID:	OU6-MW-88-20240522
Date:	5-22-2024	Well Condition:	GOOD
Weather:	SUNNY 76		

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	3/4	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	10.4	Purging/Sampling Device:	Peristaltic Pump
Total Depth (ft btoc):	21 COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI DSS/PRO/218-46
Water Column (ft):	10.60		
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier 0.0240	Start Purge Date/Time:	5-22-24/1000
		End Purge Date/Time:	5-22-24/1030
		Total Volume Purged (gal):	1GAL
One Well Volume (gal):	0.25	Sample Date/Time:	5-22-24/1035
Screened Interval (ft bgs):	17.0 - 21.0	Sampler Name:	BRUCE DIGGS

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
1000	150	0.15	4.90	5.38	0.064	19.20	1.39	25.00	300.00	
1005	150	0.30	4.90	5.38	0.064	19.20	1.39	20.20	295.00	
1010	150	0.45	4.90	5.40	0.064	19.20	1.35	15.60	286.50	
1015	150	0.60	4.90	5.40	0.063	19.20	1.31	13.20	286.00	
1020	150	0.75	4.90	5.40	0.063	19.20	1.29	10.90	285.50	
1025	150	0.90	4.90	5.45	0.062	19.20	1.15	10.55	285.30	
1030	150	1.05	4.90	5.45	0.061	19.20	0.96	10.20	284.00	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	✓	Manganese (6020 A)	✓
TOC (9060 A)	✓	LLPAHs (8270 E SIM)	
Methane Ethane Ethene (RSK-175)	✓	SVOCS (8270 D)	
Anions (9056 A)	✓	Pesticides & PCBS (8081 B & 8082 A)	
Alkalinity (2320 B)	✓	2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)		QPCR	
CO2 (SM4500)	✓		
Sulfide (SM4500)	✓		

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L): 0.74

Dilution: 0 Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result: 0.74

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? No If Yes, List ID and Analyses

COMMENTS/NOTES

MEADOWS CONSULTING | MANAGEMENT | PLANNING AECOM Imagine it. Delivered.

GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	OU6-MW-271
Project/Site Name:	OU6 Annual	Sample ID:	OU6-MW-271-20240522
Date:	5-22-2024	Well Condition:	GOOD
Weather:	SUNNY 73		

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	2	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	5.1	Purging/Sampling Device:	Peristaltic Pump
Total Depth (ft btoc):	18.8 COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI DSS/PRO/218-46
Water Column (ft):	13.70		
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier 0.1620	Start Purge Date/Time:	5-22-24/0845
		End Purge Date/Time:	5-22-24/0920
		Total Volume Purged (gal):	1GAL
One Well Volume (gal):	2.22	Sample Date/Time:	5-22-24/0925
Screened Interval (ft bgs):	13.8 - 18.8	Sampler Name:	BRUCE DIGGS

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
0845	150	0.15	5.10	5.59	0.499	19.30	1.92	60.20	299.20	
0850	150	0.30	5.55	5.60	0.499	19.30	1.85	45.30	299.00	
0855	150	0.45	5.75	5.56	0.499	19.30	1.65	37.00	300.30	
0900	150	0.60	5.95	5.60	0.499	19.30	1.12	30.20	303.40	
0905	150	0.75	6.00	5.60	0.499	19.30	0.68	25.20	306.20	
0910	150	0.90	6.35	5.60	0.499	19.30	0.59	15.20	306.90	
0915	150	1.05	6.55	5.60	0.499	19.30	0.58	12.20	307.90	
0920	150	1.20	6.95	5.60	0.502	19.40	0.49	10.30	309.70	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	✓	Manganese (6020 A)	✓
TOC (9060 A)	✓	LLPAHs (8270 E SIM)	
Methane Ethane Ethene (RSK-175)	✓	SVOCS (8270 D)	
Anions (9056 A)	✓	Pesticides & PCBS (8081 B & 8082 A)	
Alkalinity (2320 B)	✓	2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)		QPCR	
CO2 (SM4500)	✓		
Sulfide (SM4500)	✓		

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L): 0.48

Dilution: 0 Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result: 0.48

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? No If Yes, List ID and Analyses

COMMENTS/NOTES

MEADOWS CONSULTING | MANAGEMENT | PLANNING AECOM Imagine it. Delivered.

GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	OU6-MW-247
Project/Site Name:	OU6 Annual	Sample ID:	OU6-MW-247-20240522
Date:	5/22/2024	Well Condition:	Good
Weather:	clear, hot		

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	2	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	12.61	Purging/Sampling Device:	Peristaltic Pump
Total Depth (ft btoc):	25.20 COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI
Water Column (ft):	12.59		
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier 0.1620	Start Purge Date/Time:	5/22/2024 - 0830
		End Purge Date/Time:	5/22/2024 - 0900
		Total Volume Purged (gal):	1.25
One Well Volume (gal):	2.04	Sample Date/Time:	5/22/2024 - 0920
Screened Interval (ft bgs):	20.2 - 25.2	Sampler Name:	TJ Skora

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
0835	250	0.25	13.50	6.34	1.243	20.20	3.03	-7.43	-86.10	yellowish, foul odor
0840	250	0.50	14.61	6.41	1.335	19.50	3.10	-6.16	-147.70	
0845	200	0.50	15.59	6.41	1.328	19.70	2.57	-4.93	-160.10	
0850	200	0.75	16.41	6.40	1.307	19.80	2.65	-4.86	-169.40	
0855	200	1.00	17.10	6.37	1.343	19.70	1.60	-5.88	-169.60	
0900	200	1.25	17.94	6.37	1.341	19.70	2.01	-5.38	-171.20	well dry, sampling after recharge

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	✓	Manganese (6020 A)	✓
TOC (9060 A)	✓	LLPAHs (8270 E SIM)	
Methane Ethane Ethene (RSK-175)	✓	SVOCS (8270 D)	
Anions (9056 A)	✓	Pesticides & PCBS (8081 B & 8082 A)	
Alkalinity (2320 B)	✓	2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)		QPCR	
CO2 (SM4500)	✓		
Sulfide (SM4500)	✓		

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L): 1.54

Dilution: 1 Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result: 3.08

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? No If Yes, List ID and Analyses

COMMENTS/NOTES

MEADOWS CONSULTING | MANAGEMENT | PLANNING AECOM Imagine it. Delivered.

GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	OU6-MW-251
Project/Site Name:	OU6 Annual	Sample ID:	OU6-MW-251-20240522
Date:	5/22/2024	Well Condition:	Good
Weather:	sunny, hot		

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	2	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	12.23	Purging/Sampling Device:	Peristaltic Pump
Total Depth (ft btoc):	27.05 COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI
Water Column (ft):	14.82		
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier 0.1620	Start Purge Date/Time:	5/22/2024 - 1130
		End Purge Date/Time:	5/22/2024 - 1205
		Total Volume Purged (gal):	2.0
One Well Volume (gal):	2.40	Sample Date/Time:	5/22/2024 - 1210
Screened Interval (ft bgs):	22.05 - 27.05	Sampler Name:	TJ Skora

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
1135	250	0.25	12.25	5.47	0.096	21.40	3.44	-6.99	240.70	clear, no odor
1140	250	0.50	12.25	5.34	0.081	21.10	2.83	-14.70	259.70	
1145	250	0.75	12.25	5.34	0.087	19.90	1.60	-16.14	269.30	
1150	250	1.00	12.25	5.49	0.108	19.70	2.35	-16.30	266.90	
1155	250	1.25	12.25	5.51	0.121	19.80	1.45	-16.39	243.30	
1200	250	1.50	12.25	5.53	0.129	19.50	1.50	-16.51	235.00	
1205	250	2.00	12.75	5.54	0.124	19.40	1.59	-16.89	228.30	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	✓	Manganese (6020 A)	✓
TOC (9060 A)	✓	LLPAHs (8270 E SIM)	
Methane Ethane Ethene (RSK-175)	✓	SVOCS (8270 D)	
Anions (9056 A)	✓	Pesticides & PCBS (8081 B & 8082 A)	
Alkalinity (2320 B)	✓	2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)		QPCR	
CO2 (SM4500)	✓		
Sulfide (SM4500)	✓		

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L): 2.49

Dilution: 0 Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result: 2.49

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? No If Yes, List ID and Analyses

COMMENTS/NOTES

MEADOWS CONSULTING | MANAGEMENT | PLANNING AECOM Imagine it. Delivered.

GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	OU6-MW-250
Project/Site Name:	OU6 Annual	Sample ID:	OU6-MW-250-20240522
Date:	5/22/2024	Well Condition:	Good
Weather:	sunny, hot		

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	2	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	12.51	Purging/Sampling Device:	Peristaltic Pump
Total Depth (ft btoc):	26.75 COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI
Water Column (ft):	14.24		
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier 0.1620	Start Purge Date/Time:	5/22/2024 - 1025
		End Purge Date/Time:	5/22/2024 - 1045
		Total Volume Purged (gal):	1.0
One Well Volume (gal):	2.31	Sample Date/Time:	5/22/2024 - 1050
Screened Interval (ft bgs):	21.75 - 26.75	Sampler Name:	TJ Skora

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
1030	250	0.25	12.68	6.66	0.260	21.20	4.02	349.42	193.30	clear, no odor
1035	250	0.50	12.68	6.46	0.224	19.00	3.13	328.30	216.80	
1040	250	0.75	12.68	6.38	0.223	18.90	3.23	305.73	210.60	
1045	250	1.00	12.68	6.32	0.220	18.70	3.18	310.12	202.30	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	✓	Manganese (6020 A)	✓
TOC (9060 A)	✓	LLPAHs (8270 E SIM)	
Methane Ethane Ethene (RSK-175)	✓	SVOCS (8270 D)	
Anions (9056 A)	✓	Pesticides & PCBS (8081 B & 8082 A)	
Alkalinity (2320 B)	✓	2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)		QPCR	
CO2 (SM4500)	✓		
Sulfide (SM4500)	✓		

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L): 2.21

Dilution: 1 Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result: 4.42

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? No If Yes, List ID and Analyses

COMMENTS/NOTES

MEADOWS CONSULTING | MANAGEMENT | PLANNING AECOM Imagine it. Delivered.

GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	OU6-MW-157
Project/Site Name:	OU6 Annual	Sample ID:	OU6-MW-157-20240522
Date:	20240522	Well Condition:	GOOD
Weather:	MOSTLY SUNNY 77		

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	2.00	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	10.50	Purging/Sampling Device:	Bladder Pump
Total Depth (ft btoc):	40.95 COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI PRO DSS
Water Column (ft):	30.45		
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier 0.1620	Start Purge Date/Time:	24/5/22 1040
		End Purge Date/Time:	24/5/22 1125
		Total Volume Purged (gal):	2.25
One Well Volume (gal):	4.93	Sample Date/Time:	24/5/22 1125
Screened Interval (ft bgs):	30-40	Sampler Name:	TIM BROWN

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
1045	250	0.25	10.85	5.61	0.520	16.00	1.29	344.00	336.00	WATER CLOUDY/ NO ODOR
1050	250	0.50	10.80	5.62	0.522	15.90	1.05	334.00	243.80	
1055	250	0.75	10.90	5.61	0.522	15.90	0.97	244.00	203.50	
1100	250	1.00	10.80	5.61	0.522	15.90	0.86	190.00	187.30	
1105	250	1.25	10.90	5.61	0.520	15.90	0.81	135.00	170.90	
1110	250	1.50	11.05	5.60	0.520	16.00	0.54	107.00	161.60	
1115	250	1.75	11.03	5.60	0.519	15.90	0.54	78.00	144.90	
1120	250	2.00	11.03	5.60	0.519	15.90	0.50	83.00	141.20	
1125	250	2.25	11.03	5.50	0.518	15.90	0.60	73.00	134.80	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	✓	Manganese (6020 A)	✓
TOC (9060 A)	✓	LLPAHs (8270 E SIM)	
Methane Ethane Ethene (RSK-175)	✓	SVOCS (8270 D)	
Anions (9056 A)	✓	Pesticides & PCBS (8081 B & 8082 A)	
Alkalinity (2320 B)	✓	2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)		QPCR	
CO2 (SM4500)	✓		
Sulfide (SM4500)	✓		

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L): 1.30

Dilution: 0 Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result: 1.30

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? Yes If Yes, List ID and Analyses

DUP-06-20240522 COLLECTED

COMMENTS/NOTES

MEADOWS CONSULTING | MANAGEMENT | PLANNING AECOM Imagine it. Delivered.

GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	OU6-MW-289
Project/Site Name:	OU6 Annual	Sample ID:	OU6-MW-289-20240522
Date:	20240522	Well Condition:	GOOD
Weather:	MOSTLY SUNNY 82		

WATER LEVEL AND WELL SPECIFICATION DETAILS

Well Casing Diameter (inches):	2.00	
Initial Depth to Water (ft btoc):	9.90	
Total Depth (ft btoc):	41.45	COLLECT AFTER WELL IS SAMPLED
Water Column (ft):	31.55	
Water Column Multipliers (gal/ft):	Enter Multiplier	
1/4": **0.0025**, 3/4": **0.024**, 1": **0.04**	0.1620	
2": **0.162**, 4": **0.653**, 6": **1.469**		
One Well Volume (gal):	5.11	
Screened Interval (ft bgs):	26-31	

SAMPLE COLLECTION INFORMATION

Purging/Sampling Method:	Low Flow
Purging/Sampling Device:	Bladder Pump
Field Parameter Measuring Devices:	YSI PRO DSS
Start Purge Date/Time:	24/5/22 1220
End Purge Date/Time:	24/5/22 1310
Total Volume Purged (gal):	2.50
Sample Date/Time:	24/5/22 1310
Sampler Name:	TIM BROWN

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^C)	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
1225	250	0.25	10.25	5.89	0.502	16.40	1.23	51.00	368.00	WATER CLEAR/ HAZE NO ODOR
1230	250	0.50	10.30	5.83	0.506	16.40	0.79	40.00	338.20	
1235	250	0.75	10.35	5.81	0.508	16.40	0.62	28.00	307.70	
1240	250	1.00	10.20	5.79	0.509	16.40	0.68	22.00	291.00	
1245	250	1.25	10.25	5.82	0.507	16.40	0.87	17.00	275.50	
1250	250	1.50	10.15	5.82	0.507	16.40	0.88	14.00	266.10	
1255	250	1.75	10.20	5.79	0.508	16.40	0.92	11.00	256.80	
1300	250	2.00	10.25	5.78	0.509	16.40	0.84	9.91	245.40	
1305	250	2.25	10.25	5.82	0.505	16.40	0.94	9.72	242.90	
1310	250	2.50	10.25	5.75	0.509	16.40	0.88	7.85	238.30	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	✓	Manganese (6020 A)	✓
TOC (9060 A)	✓	LLPAHs (8270 E SIM)	
Methane Ethane Ethene (RSK-175)	✓	SVOCS (8270 D)	
Anions (9056 A)	✓	Pesticides & PCBS (8081 B & 8082 A)	
Alkalinity (2320 B)	✓	2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)		QPCR	
CO2 (SM4500)	✓		
Sulfide (SM4500)	✓		

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L): 1.19

Dilution: 0 Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result: 1.19

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? No If Yes, List ID and Analyses

COMMENTS/NOTES

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GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	OU6-DMW-9B
Project/Site Name:	OU6 Annual	Sample ID:	OU6-DMW-9B-20240522
Date:	5/22/2024	Well Condition:	
Weather:	Mid 70's, Cloudy		

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	2	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	23.51	Purging/Sampling Device:	Bladder Pump
Total Depth (ft btoc):	50.30 COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI
Water Column (ft):	26.79		
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier 0.1620	Start Purge Date/Time:	5/22/2024 0753
		End Purge Date/Time:	5/22/2024 0845
		Total Volume Purged (gal):	2
One Well Volume (gal):	4.34	Sample Date/Time:	5/22/2024 0845
Screened Interval (ft bgs):	40 - 50	Sampler Name:	QR

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
0755	200	0.25	24.90	6.53	3.166	17.90	1.05	35.21	76.50	Clear, Strong sewage smell.
0800	100	0.25	25.50	6.52	3.625	17.90	0.72	50.11	81.90	Change to 20 PSI, lowest it can go.
0805	100	0.50	25.70	6.53	3.903	17.90	0.61	29.30	89.30	
0810	100	0.75	26.20	6.54	4.119	18.20	0.58	12.20	86.60	
0815	100	1.00	26.54	6.55	4.211	18.50	0.56	27.54	86.20	
0820	100	1.25	20.80	6.55	4.323	18.50	0.56	15.55	85.50	
0825	100	1.50	27.15	6.55	4.399	18.50	0.56	10.77	85.60	
0830	100	1.75	27.48	6.55	4.601	19.20	0.55	12.72	86.50	
0835	100	1.95	27.54	6.55	4.616	19.20	0.54	11.42	86.50	
0840	100	2.00	27.61	6.55	4.632	19.30	0.59	11.27	85.90	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	✓	Manganese (6020 A)	
TOC (9060 A)		LLPAHs (8270 E SIM)	
Methane Ethane Ethene (RSK-175)		SVOCS (8270 D)	
Anions (9056 A)		Pesticides & PCBS (8081 B & 8082 A)	
Alkalinity (2320 B)		2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)		QPCR	
CO2 (SM4500)			
Sulfide (SM4500)			

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L):

Dilution: Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result:

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? No If Yes, List ID and Analyses

COMMENTS/NOTES

1015 30 PSI

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GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	OU6-MW-217
Project/Site Name:	OU6 Annual	Sample ID:	OU6-MW-217-20240522
Date:	5/22/2024	Well Condition:	Good
Weather:	mid 70's, cloudy		

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	2	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	23.72	Purging/Sampling Device:	Bladder Pump
Total Depth (ft btoc):	65.42 COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI
Water Column (ft):	41.70		
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier 0.1620	Start Purge Date/Time:	5/22/2024 - 0922
		End Purge Date/Time:	5/22/2024 - 1020
		Total Volume Purged (gal):	3
One Well Volume (gal):	6.76	Sample Date/Time:	5/22/2024 - 1020
Screened Interval (ft bgs):	60.42 - 65.42	Sampler Name:	QR

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
0925	100	0.10	23.20	5.77	0.404	17.50	2.78	87.10	56.70	Clear, no odor
0930	100	0.50	24.70	5.76	0.370	17.30	6.68	72.24	61.50	Reduce psi to 20, lowest it can go
0935	100	0.75	26.70	5.91	0.346	17.30	5.91	58.75	66.70	
0940	100	1.00	28.50	5.94	0.340	17.70	9.78	52.95	69.50	
0945	100	1.25	29.13	5.94	0.332	17.90	10.13	40.94	72.50	
0950	100	1.50	29.90	5.89	0.335	17.80	9.24	41.53	75.50	
0955	100	1.75	30.85	5.87	0.331	17.80	9.18	216.76	76.30	
1000	100	2.00	31.92	5.89	0.325	17.90	8.94	112.54	79.50	
1005	100	2.25	33.70	5.94	0.321	18.10	9.18	81.42	79.00	
1010	100	2.50	33.50	5.94	0.317	18.20	9.21	90.89	80.00	
1015	100	3.00	33.72	5.95	0.315	18.20	9.95	85.60	80.10	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	✓	Manganese (6020 A)	✓
TOC (9060 A)	✓	LLPAHs (8270 E SIM)	
Methane Ethane Ethene (RSK-175)	✓	SVOCS (8270 D)	
Anions (9056 A)	✓	Pesticides & PCBS (8081 B & 8082 A)	
Alkalinity (2320 B)	✓	2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)		QPCR	
CO2 (SM4500)	✓		
Sulfide (SM4500)	✓		

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L): 0.12

Dilution: 0 Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result: 0.12

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? No If Yes, List ID and Analyses

COMMENTS/NOTES

1015 40 psi

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GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	EBF-08D
Project/Site Name:	OU6 Annual	Sample ID:	EBF-08D-20240522
Date:	5/22/2024	Well Condition:	Good
Weather:	mid 70's, cloudy		

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	2	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	18.64	Purging/Sampling Device:	Bladder Pump
Total Depth (ft btoc):	50.30 COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI
Water Column (ft):	31.66		
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier 0.1620	Start Purge Date/Time:	5/22/2024 - 1057
		End Purge Date/Time:	5/22/2024 - 1130
		Total Volume Purged (gal):	3
One Well Volume (gal):	5.13	Sample Date/Time:	5/22/2024 - 1130
Screened Interval (ft bgs):	45.30 - 50.30	Sampler Name:	QR

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
1055	250	0.10	18.85	5.72	0.155	20.40	2.86	10.44	91.80	Light brown, no odor
1100	250	0.50	18.90	5.63	0.152	20.10	2.24	19.16	162.10	
1105	250	1.00	18.90	5.62	0.155	20.10	1.94	3.96	102.50	
1110	250	1.50	18.90	5.62	0.156	20.10	1.81	0.88	106.00	
1115	250	2.00	18.90	5.62	0.154	20.10	1.74	2.54	125.40	
1120	250	2.50	18.90	5.62	0.152	20.00	1.68	3.54	127.30	
1125	250	3.00	18.90	5.62	0.151	20.00	1.63	3.21	134.30	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	✓	Manganese (6020 A)	✓
TOC (9060 A)	✓	LLPAHs (8270 E SIM)	
Methane Ethane Ethene (RSK-175)	✓	SVOCS (8270 D)	
Anions (9056 A)	✓	Pesticides & PCBS (8081 B & 8082 A)	
Alkalinity (2320 B)	✓	2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)		QPCR	
CO2 (SM4500)	✓		
Sulfide (SM4500)	✓		

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L): 0.07

Dilution: 0 Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result: 0.07

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? No If Yes, List ID and Analyses

COMMENTS/NOTES

MEADOWS CONSULTING | MANAGEMENT | PLANNING AECOM Imagine it. Delivered.

GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	OU6-MW-285
Project/Site Name:	OU6 Annual	Sample ID:	OU6-MW-285-20240522
Date:	5/22/2024	Well Condition:	Good
Weather:	mid 70's, coudy		

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	2	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	16.99	Purging/Sampling Device:	Bladder Pump
Total Depth (ft btoc):	41.00 COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI
Water Column (ft):	24.01		
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier 0.1620	Start Purge Date/Time:	5/22/2024 - 1257
		End Purge Date/Time:	5/22/24 - 1335
		Total Volume Purged (gal):	2.5
One Well Volume (gal):	3.89	Sample Date/Time:	5/22/2024 - 1335
Screened Interval (ft bgs):	36 - 41	Sampler Name:	QR

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
1300	200	0.10	16.66	5.63	0.309	20.90	4.42	929.00	84.80	light brown, no odor
1305	200	0.50	16.80	5.74	0.288	19.70	7.40	798.00	89.70	
1310	200	0.75	16.80	5.72	0.296	19.80	7.68	705.20	100.30	
1315	200	1.25	16.80	5.74	0.298	19.70	8.12	466.20	101.60	
1320	200	1.75	16.80	5.71	0.300	19.70	8.02	324.78	105.60	
1325	200	2.00	16.80	5.71	0.302	19.60	8.18	327.80	108.40	
1330	200	2.50	16.80	5.71	0.303	19.70	8.20	301.20	111.10	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	✓	Manganese (6020 A)	✓
TOC (9060 A)	✓	LLPAHs (8270 E SIM)	
Methane Ethane Ethene (RSK-175)	✓	SVOCS (8270 D)	
Anions (9056 A)	✓	Pesticides & PCBS (8081 B & 8082 A)	
Alkalinity (2320 B)	✓	2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)		QPCR	✓
CO2 (SM4500)	✓	Dioxane	✓
Sulfide (SM4500)	✓		

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L): 0.33

Dilution: 0 Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result: 0.33

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? No If Yes, List ID and Analyses

COMMENTS/NOTES

1015 30 psi

MEADOWS CONSULTING | MANAGEMENT | PLANNING AECOM Imagine it. Delivered.

GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	OU6-MW-255
Project/Site Name:	OU6 Annual	Sample ID:	OU6-MW-255-20240522
Date:	5/22/2024	Well Condition:	Good
Weather:	sunny, hot		

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	2	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	11.77	Purging/Sampling Device:	Peristaltic Pump
Total Depth (ft btoc):	25.25 COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI
Water Column (ft):	13.48		
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier 0.1620	Start Purge Date/Time:	5/22/2024 - 1340
		End Purge Date/Time:	5/22/2024 - 1430
		Total Volume Purged (gal):	2.75
One Well Volume (gal):	2.18	Sample Date/Time:	5/22/2024 - 1435
Screened Interval (ft bgs):	20.25 - 25.25	Sampler Name:	TJ Skora

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
1345	250	0.25	11.91	5.96	0.167	25.40	3.20	9.90	237.30	clear, no odor
1350	250	0.50	11.91	5.82	0.168	23.80	2.67	240.42	247.80	
1355	250	0.75	11.91	5.79	0.166	23.20	2.16	229.83	250.40	
1400	250	1.00	11.91	5.84	0.166	23.10	2.55	89.36	248.60	
1405	250	1.25	11.91	5.84	0.166	22.20	2.68	26.50	256.30	
1410	250	1.50	11.91	5.87	0.166	22.70	2.58	11.64	253.40	
1415	250	1.75	11.91	5.84	0.160	22.40	2.41	-3.42	254.20	
1420	250	2.00	11.91	5.82	0.167	22.50	2.53	30.52	249.70	
1425	250	2.50	11.91	5.85	0.165	22.70	2.60	28.33	242.50	
1430	250	2.75	11.91	5.80	0.166	22.40	2.61	27.09	239.40	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	✓	Manganese (6020 A)	✓
TOC (9060 A)	✓	LLPAHs (8270 E SIM)	
Methane Ethane Ethene (RSK-175)	✓	SVOCS (8270 D)	
Anions (9056 A)	✓	Pesticides & PCBS (8081 B & 8082 A)	
Alkalinity (2320 B)	✓	2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)		QPCR	
CO2 (SM4500)	✓		
Sulfide (SM4500)	✓		

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L): 1.82

Dilution: 0 Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result: 1.82

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? No If Yes, List ID and Analyses

COMMENTS/NOTES

OU#	Well#	Sample ID	Date	Time Sampled	Time Hach	# of Dilutions	Iron Result	reportable result	Notes
Final Result Calculation, Dilution 1 Result X 2, Dilution 2 Result x 4, Dilution 3 Result x 8, Dilution 4 Result x 16, Dilution 5 Result x 32									
OU6	MW-251	OU6-MW-251-20240522	24/5/22	1210	1412	Ø	2.49	2.49	
OU6	MW-239	OU6-MW-239-20240522	24/5/22	1130	1417	Ø	0.11	0.11	
OU6	MW-272	OU6-MW-272-20240522	24/5/22	0805	1422	Ø	0.14	0.14	
OU6	MW-289	OU6-MW-289-20240522	24/5/22	1310	1429	Ø	1.19	1.19	
OU6	DUP-05	DUP05-20240522	24/5/22	—	1434	Ø	0.17	0.17	
OU6	MW-157	OU6-MW-157-20240522	24/5/22	1125	1440	Ø	1.30	1.30	
OU6	MW-88	OU6-MW-88-20240522	24/5/22	1035	1446	Ø	0.74	0.74	
OU6	MW-244	OU6-MW-244-20240522	24/5/22	1430	1453	Ø	0.49	0.49	
OU6	EBF-08D	EBF-08D-20240522	24/5/22	1130	1458	Ø	0.07	0.07	
OU6	MW-255	OU6-MW-255-20240522	24/5/22	1435	1504	Ø	1.82	1.82	
OU6	MW-291	OU6-MW-291-20240522	24/5/22	1062	1509	Ø	3.08	—	
OU6	〃	〃	〃	〃	1514	1	1.21	2.42	
OU6	MW-271	OU6-MW-271-20240522	24/5/22	0925	1522	Ø	0.48	0.48	
OU6	MW-285	OU6-MW-285-20240522	24/5/22	1335	1528	Ø	0.33	0.33	
OU6	MW-130	OU6-MW-130-20240522	24/5/22	1225	1534	Ø	3.51	—	
OU6	〃	〃	〃	〃	1540	1	2.50	5.00	
OU6	MW-250	OU6-MW-250-20240522	24/5/22	1050	1545	Ø	3.66	—	
OU6	〃	〃	〃	〃	1550	1	2.21	4.42	
OU6	MW-217	OU6-MW-217-20240522	24/5/22	1020	1556	Ø	0.12	0.12	
OU6	MW-247	OU6-MW-247-20240522	24/5/22	0900	1602	Ø	3.71	—	
	〃	〃	〃	〃	1607	1	1.54	3.08	

AECOM

DAILY FIELD INSTRUMENT CALIBRATION/ CALIBRATION CHECK FORM

Site Name: OUG
Project/Client:
Project Number: 0043-ecll
Location: DSCR - Richmond
Field Analyst(s): Quin Rebrcky
Date: 5/22/24
Start Time: 0700 Finish Time: 0730

Instrument Information

Parameter	Make	Model	Meter Serial #	Probe Serial #
DO	PRO DSS	YSI	21137 0	469 82
pH	↓	↓	↓	↓
Specific Conductance	↓	↓	↓	↓
ORP	↓	↓	↓	↓
Temperature	↓	↓	↓	↓
Turbidity	↓	↓	↓	↓

Pre-Field Calibration and Quality Control Requirements

Prior to using instrument(s) in the field, field analysts must ensure that certain quality control procedures and calibrations have been completed for the instruments listed above. Records of the following, completed either by AECOM or the vendor, must be retained:

- •Weekly DO Winkler Titration ☐
- •5-Point Conductivity Curve ☐
- •Annual Conductivity Cell Constant ☐
- •Quarterly NIST Traceable Thermometer ☐
- •Solution Records ☐

Field Calibration/Calibration Check

DO (Method SM 4500 O G)

100% Saturation	
Barometric Pressure (mmHg)	
Temperature (°C)	21.5
Initial Reading	19.14
Reset Reading	9.48

0% Saturation	
Solution Temperature (°C)	
Solution Manufacturer & Lot #	
Reading	
*Requires Recalibration	Y / N
Reset Reading	

Note: DO must be calibrated to 100% saturation. DO may only be calibration checked to 0% saturation (zero oxygen solution standard). Calibration methods may differ between DO meters, and some fields listed may not be applicable. Refer to instrument manual for calibration instructions.

pH (Method SM 4500-H B)

Buffer Solution	Solution Manufacturer & Lot #	Solution Expiration Date	Solution Temperature	Reading	*Requires Recalibration	Reset Reading
7	460 1040	2/26	22.2	7.16	Y / N	7
4	46B0637	2/26	22.2	4.09	Y / N	4
10	3G Fields	6/25	22.2	10.29	Y / N	10
					Y / N	

Note: A calibration check against one standard buffer must be performed and recorded in the field book every 3-hours of use after daily calibration/calibration check.

AECOM

DAILY FIELD INSTRUMENT CALIBRATION/ CALIBRATION CHECK FORM

Specific Conductance (Method 2510 B)

Standard Solution	Solution Manufacturer & Lot #	Solution Expiration Date	Solution Temperature	Reading ($\mu S\ cm^{-1}$)	*Requires Recalibration	Reset Reading ($\mu S\ cm^{-1}$)
1.413	16K0355	11/24	22.2	1.323	Y / (N)	1.413

ORP

Standard Solution	Solution Manufacturer & Lot #	Solution Expiration Date	Solution Temperature	Reading (mV)	*Requires Recalibration	Reset Reading (mV)
240	20H0038	3/24	22.2	238.7	Y / (N)	240

Turbidity (Method 2130 B)

Standard Solution (NTU)	Solution Manufacturer & Lot #	Solution Expiration Date	Reading (NTU)	*Requires Recalibration	Reset Reading (NTU)
0	24007124	1/25	-2.49	(Y) / N	0
126	23J2704364B	9/24	130.2	Y / N	126
				Y / N	
				Y / N	

*Field check readings should be within the accuracy listed by the manufacturer's specifications or per New Jersey regulations (NJAC 7:18), whichever is more stringent. Otherwise, the instrument must be recalibrated for that parameter. Refer to instrument manual for accuracy. Values provided below for instruments typically used by AECOM

YSI 6-Series

Dissolved Oxygen	± 0.1 % or ± 0.1 mg/L, whichever is greater
pH **	± 0.2 units
	**NJAC 7:18 requires that calibration values be accurate to ±0.05, and accuracy within ±0.1 units for the initial calibration check and ±0.2 units for 3-hour checks
Specific Conductivity	± 0.5% + 0.001 mS/cm
ORP	± 20 mV
Turbidity	± 2%

Horiba U-20XD Series

Dissolved Oxygen	± 0.2 mg/L
pH **	± 0.1 units
Specific Conductivity	± 3%
ORP	± 15 mV
Turbidity	± 5%

LaMotte 2020wi Turbidity Meter

±0.05 or ±2%, below 100 NTU

±3%, above 100 NTU

AECOM

DAILY FIELD INSTRUMENT CALIBRATION/ CALIBRATION CHECK FORM

Site Name: DSCR

Project/Client: MEADOWS Project Number: 0045-0011

Location: Richmond VA

Field Analyst(s): B Miller W. DeVos

Date: 5-22-2024 Start Time: 0630 Finish Time:

Instrument Information

Parameter	Make	Model	Meter Serial #	Probe Serial #
DO	YSI	PRO DSS	21E046	21E077
pH	"	"	"	"
Specific Conductance	"	"	"	"
ORP	"	"	"	"
Temperature	"	"	"	"
Turbidity				

Pre-Field Calibration and Quality Control Requirements

Prior to using instrument(s) in the field, field analysts must ensure that certain quality control procedures and calibrations have been completed for the instruments listed above. Records of the following, completed either by AECOM or the vendor, must be retained:

- ♦Weekly DO Winkler Titration ☐
- ♦5-Point Conductivity Curve ☐
- ♦Annual Conductivity Cell Constant ☐
- ♦Quarterly NIST Traceable Thermometer ☐
- ♦Solution Records ☐

Field Calibration/Calibration Check

DO (Method SM 4500 O.G)

100% Saturation	
Barometric Pressure (mmHg)	773.2
Temperature (°C)	24.3
Initial Reading	8.89
Reset Reading	8.89

0% Saturation	
Solution Temperature (°C)	
Solution Manufacturer & Lot #	
Reading	
*Requires Recalibration	Y / N
Reset Reading	

Note. DO must be calibrated to 100% saturation. DO may only be calibration checked to 0% saturation (zero oxygen solution standard). Calibration methods may differ between DO meters, and some fields listed may not be applicable. Refer to instrument manual for calibration instructions.

pH (Method SM 4500-H B)

Buffer Solution	Solution Manufacturer & Lot #	Solution Expiration Date	Solution Temperature	Reading	*Requires Recalibration	Reset Reading
4	3CG0023	7/25	25	3.97	Y / N	4.00
7	3GK1332	11/25	24.8	7.11	Y / N	7.00
10	3CK004	11/25	24.8	9.94	Y / N	10.00
126	2fy00325	6/24	24.4	131.0	Y / N	126.0

Note: A calibration check against one standard buffer must be performed and recorded in the field book every 3-hours of use after daily calibration/calibration check.

AECOM

DAILY FIELD INSTRUMENT CALIBRATION/ CALIBRATION CHECK FORM

Specific Conductance (Method 2510 B)

Standard Solution	Solution Manufacturer & Lot #	Solution Expiration Date	Solution Temperature	Reading ($\mu S \cdot cm^{-1}$)	*Requires Recalibration	Reset Reading ($\mu S \cdot cm^{-1}$)
1.413	3GT0310	10/24	24.8	1.484	Y / N	1.413

ORP

Standard Solution	Solution Manufacturer & Lot #	Solution Expiration Date	Solution Temperature	Reading (mV)	*Requires Recalibration	Reset Reading (mV)
240.0	3GT 0094	7/24	24.9	232.6	Y / N	240.0

Turbidity (Method 2130 B)

Standard Solution (NTU)	Solution Manufacturer & Lot #	Solution Expiration Date	Reading (NTU)	*Requires Recalibration	Reset Reading (NTU)
				Y / N	
				Y / N	
				Y / N	
				Y / N	

*Field check readings should be within the accuracy listed by the manufacturer's specifications or per New Jersey regulations (NJAC 7:18), whichever is more stringent. Otherwise, the instrument must be recalibrated for that parameter. Refer to instrument manual for accuracy. Values provided below for instruments typically used by AECOM:

YSI 6-Series:

Dissolved Oxygen	± 0.1 % or ± 0.1 mg/L, whichever is greater
pH **	± 0.2 units
Specific Conductivity	± 0.5% ÷ 0.001 mS/cm
ORP	± 20 mV
Turbidity	± 2%

**NJAC 7:18 requires that calibration values be accurate to ±0.05, and accuracy within ±0.1 units for the initial calibration check and ±0.2 units for 3-hour checks

Horriba U-20XD Series:

Dissolved Oxygen	± 0.2 mg/L
pH **	± 0.1 units
Specific Conductivity	± 3%
ORP	± 15 mV
Turbidity	± 5%

LaMotte 2020e/i Turbidity Meter:

±0.05 or ±2%, below 100 NTU

±3%, above 100 NTU

AECOM

DAILY FIELD INSTRUMENT CALIBRATION/ CALIBRATION CHECK FORM

Site Name: OU6

Project/Client:

Project Number: 0045-0011

Location: DSCR - RICHMOND

Field Analyst(s): T.M BROWN

Date: 24/5/22 Start Time: 0650 Finish Time: 0720

Instrument Information

Parameter	Make	Model	Meter Serial #	Probe Serial #
DO	YSI	PRO DSS	16855	218078
pH	↓	↓	↓	↓
Specific Conductance				
ORP				
Temperature				
Turbidity				

Pre-Field Calibration and Quality Control Requirements

Prior to using instrument(s) in the field, field analysts must ensure that certain quality control procedures and calibrations have been completed for the instruments listed above. Records of the following, completed either by AECOM or the vendor, must be retained:

- ♦Weekly DO Winkler Titration ☐
- ♦5-Point Conductivity Curve ☐
- ♦Annual Conductivity Cell Constant ☐
- ♦Quarterly NIST Traceable Thermometer ☐
- ♦Solution Records ☐

Field Calibration/Calibration Check

DO (Method SM 4500 O.G)

100% Saturation	
Barometric Pressure (mmHg)	758.2
Temperature (°C)	21.6
Initial Reading	8.90
Reset Reading	8.98

0% Saturation	
Solution Temperature (°C)	X
Solution Manufacturer & Lot #	
Reading	
*Requires Recalibration	Y / N
Reset Reading	

Note: DO must be calibrated to 100% saturation. DO may only be calibration checked to 0% saturation (zero oxygen solution standard). Calibration methods may differ between DO meters, and some fields listed may not be applicable. Refer to instrument manual for calibration instructions.

pH (Method SM 4500-H B)

Buffer Solution	Solution Manufacturer & Lot #	Solution Expiration Date	Solution Temperature	Reading	*Requires Recalibration	Reset Reading
10	36F1088	6/25	22.4	10.07	Y / N	
7	46B1040	2/26	22.1	7.05	Y / N	
4	32017	12/25	22.5	4.07	Y / N	
					Y / N	

Note: A calibration check against one standard buffer must be performed and recorded in the field book every 3-hours of use after daily calibration/calibration check.

AECOM

DAILY FIELD INSTRUMENT CALIBRATION/ CALIBRATION CHECK FORM

Specific Conductance (Method 2510 B)

Standard Solution	Solution Manufacturer & Lot #	Solution Expiration Date	Solution Temperature	Reading ($\mu S \cdot cm^{-1}$)	*Requires Recalibration	Reset Reading ($\mu S \cdot cm^{-1}$)
1.413	36E0678	5/24	~~[illegible]~~ 22.3	1.414	Y / N	

ORP

Standard Solution	Solution Manufacturer & Lot #	Solution Expiration Date	Solution Temperature	Reading (mV)	*Requires Recalibration	Reset Reading (mV)
240.0	36H0038	5/24	22.6	244.5	Y / N	239.7

Turbidity (Method 2130 B)

Standard Solution (NTU)	Solution Manufacturer & Lot #	Solution Expiration Date	Reading (NTU)	*Requires Recalibration	Reset Reading (NTU)
126.0	23524005648	9/24	125.9	Y / N	
0	24003824	7/24	0.085	Y / N	0.0
				Y / N	
				Y / N	

*Field check readings should be within the accuracy listed by the manufacturer's specifications or per New Jersey regulations (NJAC 7:18), whichever is more stringent. Otherwise, the instrument must be recalibrated for that parameter. Refer to instrument manual for accuracy. Values provided below for instruments typically used by AECOM:

YSI 6-Series:

Dissolved Oxygen	± 0.1 % or ± 0.1 mg/L, whichever is greater
pH **	± 0.2 units
	**NJAC 7:18 requires that calibration values be accurate to ±0.05, and accuracy within ±0.1 units for the initial calibration check and ±0.2 units for 3-hour checks
Specific Conductivity	± 0.5% ÷ 0.001 mS/cm
ORP	± 20 mV
Turbidity	± 2%

Horriba U-20XD Series:

Dissolved Oxygen	± 0.2 mg/L
pH **	± 0.1 units
Specific Conductivity	± 3%
ORP	± 15 mV
Turbidity	± 5%

LaMotte 2020e/i Turbidity Meter:

±0.05 or ±2%, below 100 NTU

±3%, above 100 NTU

AECOM

DAILY FIELD INSTRUMENT CALIBRATION/ CALIBRATION CHECK FORM

Site Name: DSCR

Project/Client: OMC Annual Project Number: 0045-0011

Location: 046

Field Analyst(s): TJ Skora

Date: 5/~~15~~22/24 Start Time: 0715 Finish Time: 0730

Instrument Information

Parameter	Make	Model	Meter Serial #	Probe Serial #
DO	Pro DSS	YSI	42061	23F102676
pH				
Specific Conductance				
ORP				
Temperature				
Turbidity				

Pre-Field Calibration and Quality Control Requirements

Prior to using instrument(s) in the field, field analysts must ensure that certain quality control procedures and calibrations have been completed for the instruments listed above. Records of the following, completed either by AECOM or the vendor, must be retained:

- Weekly DO Winkler Titration ☐
- 5-Point Conductivity Curve ☐
- Annual Conductivity Cell Constant ☐
- Quarterly NIST Traceable Thermometer ☐
- Solution Records ☐

Field Calibration/Calibration Check

DO (Method SM 4500 O.G)

100% Saturation	
Barometric Pressure (mmHg)	
Temperature (°C)	22.5
Initial Reading	8.85
Reset Reading	8.81

0% Saturation	
Solution Temperature (°C)	
Solution Manufacturer & Lot #	
Reading	
*Requires Recalibration	Y / N
Reset Reading	

Note. DO must be calibrated to 100% saturation. DO may only be calibration checked to 0% saturation (zero oxygen solution standard). Calibration methods may differ between DO meters, and some fields listed may not be applicable. Refer to instrument manual for calibration instructions.

pH (Method SM 4500-H B)

Buffer Solution	Solution Manufacturer & Lot #	Solution Expiration Date	Solution Temperature	Reading	*Requires Recalibration	Reset Reading
4	Pine 4GB0637	2/26	23.0	3.94	Y / N	4.00
7	" 4GB1040	2/26	23.0	7.04	Y / N	7.01
10	" 3GF1088	6/25	23.0	9.84	Y / N	10.02
					Y / N	

Note: A calibration check against one standard buffer must be performed and recorded in the field book every 3-hours of use after daily calibration/calibration check.

AECOM

DAILY FIELD INSTRUMENT CALIBRATION/ CALIBRATION CHECK FORM

Specific Conductance (Method 2510 B)

Standard Solution	Solution Manufacturer & Lot #	Solution Expiration Date	Solution Temperature	Reading ($\mu S \cdot cm^{-1}$)	*Requires Recalibration	Reset Reading ($\mu S \cdot cm^{-1}$)
1.413	PINE 4GA0218	2025-1	23.2	0.777	Y / N	0.519

ORP

Standard Solution	Solution Manufacturer & Lot #	Solution Expiration Date	Solution Temperature	Reading (mV)	*Requires Recalibration	Reset Reading (mV)
240.0	Pine 3GH0038	5/24	23.1	244.6	Y / N	220.2

Turbidity (Method 2130 B)

Standard Solution (NTU)	Solution Manufacturer & Lot #	Solution Expiration Date	Reading (NTU)	*Requires Recalibration	Reset Reading (NTU)
0	Pine 24007124	1/25	2.04	Y / N	0.00
126.0	Pine 23D2400116 4	4/24	119.23	Y / N	124.00
				Y / N	
				Y / N	

*Field check readings should be within the accuracy listed by the manufacturer's specifications or per New Jersey regulations (NJAC 7:18), whichever is more stringent. Otherwise, the instrument must be recalibrated for that parameter. Refer to instrument manual for accuracy. Values provided below for instruments typically used by AECOM:

YSI 6-Series:

Dissolved Oxygen	± 0.1 % or ± 0.1 mg/L, whichever is greater
pH **	± 0.2 units
	**NJAC 7:18 requires that calibration values be accurate to ±0.05, and accuracy within ±0.1 units for the initial calibration check and ±0.2 units for 3-hour checks
Specific Conductivity	± 0.5% + 0.001 mS/cm
ORP	± 20 mV
Turbidity	± 2%

Horriba U-20XD Series:

Dissolved Oxygen	± 0.2 mg/L
pH **	± 0.1 units
Specific Conductivity	± 3%
ORP	± 15 mV
Turbidity	± 5%

LaMotte 2020e/i Turbidity Meter:

±0.05 or ±2%, below 100 NTU

±3%, above 100 NTU

Eurofins Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Phone (912) 354-7858 Phone (912) 352-0165

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: Tim, TJ, Quin and Bruce	Lab PM: Lanier, Jerry	Carrier Tracking No(s):	COC No:
Client Contact: Andrew VanBuesking	Phone: 757-589-5825	E-Mail: Jerry.Lanier@et.eurofinsus.com	State of Origin: VA	Page: Page 1 of 2
Company: Meadows CMPG	PWSID:			Job #:
Address: 2107 Granby St	Due Date Requested:			
City: Norfolk	TAT Requested (days): STD			
State, Zip: VA	Compliance Project: Δ Yes Δ No			
Phone: 757-623-3107	PO #: 0045-0011			
Email: avanbuesking@meadowscmpg	WO #:			
Project Name: OU6 Annual	Project #:			
Site: DSCR, OU6	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260D_DOD5 - (MOD) Volatiles		RSK_175_DOD5 - Ethane, Ethene, Methane	9060A - TOC	9056A_OF28D_D5 - Chloride & Sulfate 9056A_OF_48H_D5 - Local Method	SM4500_S2_F - Sulfide, Total	6020A_DOD5 - Manganese	SM4500_CO2_D - Carbon Dioxide	2320B - Alkalinity	DIOX 8270E ID D5	8270E_DOD5 - (MOD) Semivolatiles (without PAHs)	8270E_SIM_DOD5 - Routine PAH	8081B_8082A_D5 - Routine Pesticides & PCBs	7470A_DOD5 - Mercury 6020A_DOD5- (MOD) TAL Metals	8270E_SIM_ID_D5 Local Method - Dioxane	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A		A	S	N	CB	D	N	N		N	N	N	D	N		
OU6-MW-260-20240523	5/23/24	0920	G	W			3		3	3	1	2	1	1	1							15	
OU6-MW-264-20240523	5/23/24	0810	G	W		Y	9		9	9	3	6	3	3	3							45	MS/MSD
OU6-MW-89-20240523	5/23/24	1015	G	W			3		3	3	1	2	1	1	1							15	
OU6-MW-129-20240523	5/23/24	0830	G	W			3		3	3	1	2	1	1	1							15	
OU6-MW-131-20240523	5/23/24	0940	G	W			3		3	3	1	2	1	1	1							15	
OU6-MW-242-20240523	5/23/24	0825	G	W			3		3	3	1	2	1	1	1							15	
OU6-MW-243-20240523	5/23/24	1035	G	W			3		3	3	1	2	1	1	1		2	2	2	1		22	
OU6-MW-245-20240523	5/23/24	1400	G	W			3		3	3	1	2	1	1	1							15	
OU6-MW-126-20240523	5/23/24	1040	G	W			3		3													6	
OU6-NNC-3-20240523	5/23/24	1335	G	W			3															3	
Dup-8-20240523	5/23/24		G	W			3															3	

Possible Hazard Identification
☐ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* ☐ *Poison B* ■ *Unknown* ☐ *Radiological*

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ■ *Disposal By Lab* ☐ *Archive For _____ Months*

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:			Method of Shipment:	
BRUCE DIGGS	5-22-2024/1600	Company	Received by:	Date/Time: / Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: / Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: / Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Eurofins Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Phone (912) 354-7858 Phone (912) 352-0165

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler:	Lab PM: Lanier, Jerry	Carrier Tracking No(s):	COC No:
Client Contact: Andrew VanBuesking	Phone: 757-589-5825	E-Mail: Jerry.Lanier@et.eurofinsus.com	State of Origin: VA	Page: Page 2 of 2
Company: Meadows CMPG	PWSID:	**Analysis Requested**		Job #:
Address: 2107 Granby St	**Due Date Requested:**			
City: Norfolk	**TAT Requested (days):** STD			
State, Zip: VA	**Compliance Project:** Δ Yes Δ No			
Phone: 757-623-3107	PO #: 0045-0011			
Email: avanbuesking@meadowscmpg	WO #:			
Project Name: OU6 Annual	Project #:			
Site: DSCR, OU6	SSOW#:			

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260D_DOD5 - (MOD) Volatiles		RSK_175_DOD5 - Ethane, Ethene, Methane	9060A - TOC	9056A_OF28D_D5 - Chloride & Sulfate 9056A_OF_48H_D5 - Local Method	SM4500_S2_F - Sulfide, Total	6020A_DOD5 - Manganese	SM4500_CO2_D - Carbon Dioxide	2320B - Alkalinity	DIOX 8270E ID D5	8270E_DOD5 - (MOD) Semivolatiles (without PAHs)	8270E_SIM_DOD5 - Routine PAH	8081B_8082A_D5 - Routine Pesticides & PCBs	7470A_DOD5 - Mercury 6020A_DOD5- (MOD) TAL Metals	8270E_SIM_ID_D5 Local Method - Dioxane	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A		A	S	N	CB	D	N	N		N	N	N	D	N		
TRIP-BLANK-20240522	5/22/24		G	W			2															2	
OU6-NNC-1-20240523	5/23/24	1140	G	W		Y	9															9	MS/MSD
OU6-NNC-2-20240523	5/23/24	1420	G	W			3															3	
																						0	
																						0	
																						0	
																						0	
																						0	
																						0	
																						0	
																						0	

Possible Hazard Identification
☐ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* ☐ *Poison B* ■ *Unknown* ☐ *Radiological*

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ■ *Disposal By Lab* ☐ *Archive For _____ Months*

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:		Method of Shipment:		
BRUCE DIGGS	5-21-2024/1600	Company	Received by:		Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:		Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:		Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

REPORT TO (only people listed here will receive a copy of reports and access to the database)

Name: Andrew VanBuesking
Company: Meadows CMPG
Address: 2107 Granby St
Norfolk, VA 23517
email: avanbuesking@meadowscmpg.com
Phone: 757-589-5825
Fax:

INVOICE TO (For Invoices paid by a third party it is imperative that all information be provided)

Name: Kandyce Keller
Company: Meadows CMPG
Address: 2107 Granby St
Norfolk, VA 23517
email: kkeller@meadowscmpg.com
Phone: 757-623-3107
Fax: 757-319-4119

microbialinsights
10515 Research Dr **
Knoxville, TN 37932
865-573-8188
www.microbe.com

Project Manager: Andrew VanBuesking
Project Name: OU6 Annual
Project No.: 0045-0011

Purchase Order No.
Subcontract No.
MI Quote No.

Please Check One:*
[ ] More samples to follow
[X] No Additional Samples

Report Type: [X] Standard (default) [ ] Microbial Insights Level III Report (15% surcharge) [ ] Microbial Insights Level IV (25% surcharge) [ ] Comprehensive Interpretive(15%) [ ] Historical Interpretive (35%)
EDD type: [X] Microbial Insights Standard EDD (default) [ ] Specialty EDD (5% surcharge) Specify EDD Format:

Please contact us with any questions about the analyses or filling out the COC at (865) 573-8188 (9:00 am to 5:00 pm EST, M-F). After hours email: customerservice@microbe.com

Sample Information						Analyses						CENSUS qPCR Targets: Please select the target organism/gene																					
MI ID (Laboratory Use Only)	Sample Name	Date Sampled	Time Sampled	Matrix	Total Number of Containers	PLFA	NGS	QuantArray Chlor	QuantArray Petro	QuantArray NSZD	QuantArray BGC	DHC (Dehalococcoides)	DHC Functional genes (bvc, tce, vcr)	DHBt (Dehalobacter)	DHG (Dehalogenimonas)	DSM (Desulfuromonas)	DSB (Desulfitobacterium)	EBAC (Total Eubacteria)	SRB (Sulfate Reducing Bacteria-APS)	MGN (Methanogens)	MOB (Methanotrophs)	SMMO (Soluble Methane Monooxi)	DNF (Denitrifiers-nirS and nirK)	AMO (ammonia oxidizing bacteria)	PM1 (MTBE aerobic)	RMO (Toluene Monooxygenase)	RDEG (Toluene Monooxygenase)	PHE (Phenol Hydroxylase)	NAH (Napthalene-aerobic)	BSSA (Toluene/Xylene-Anaerobic)	add. qPCR:	RNA (Expression Option)*	Other:
	Dup-07-20240523	5/23/2024		W	1							X	X																				
	OU6-MW-242-20240523	5/23/2024	13:27	W	1							X	X																				
	OU6-MW-287-20240523	5/23/2024	9:25	W	1							X	X																				
	OU6-MW-243-20240523	5/23/2024	10:00	W	1							X	X																				
	OU6-MW-285-20240523	5/23/2024	11:00	W	1							X	X																				
	OU6--MW-288-20240523	5/23/2024	10:15	W	1							X	X																				
	OU6-MW-241-20240523	5/23/2024	11:26	W	1							X	X																				
	OU6-MW-293-20240523	5/23/2024	13:00	W	1							X	X																				
	OU6-MW-126-20240523	5/23/2024	10:40	W	1							X	X																				

Relinquished by: (name/signature) Date: Received by: (lab use only) Date:

It is vital that chain of custody is filled out correctly & that all relative information is provided.
*Failure to provide sufficient and/or correct information regarding reporting, invoicing & analyses requested information may result in delays for which MI will not be liable.

*additional cost and sample preservation are associated with RNA samples.

**Saturday delivery: See sampling protocol for alternate shipping address.

MEADOWS CONSULTING | MANAGEMENT | PLANNING AECOM Imagine it. Delivered.

GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	OU6-MW-260
Project/Site Name:	OU6 Annual	Sample ID:	OU6-MW-260-20240522
Date:	5-23-2024	Well Condition:	GOOD
Weather:	SUNNY 74		

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	2	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	11.4	Purging/Sampling Device:	Peristaltic Pump
Total Depth (ft btoc):	26.6 COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI DSS/PRO/218-46
Water Column (ft):	15.20		
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier 0.1620	Start Purge Date/Time:	5-23-24/0845
		End Purge Date/Time:	5-23-24/0915
		Total Volume Purged (gal):	1GAL
One Well Volume (gal):	2.46	Sample Date/Time:	5-23-24/0920
Screened Interval (ft bgs):	21.6 - 26.6	Sampler Name:	BRUCE DIGGS

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
0845	150	0.15	11.40	5.85	2.660	16.80	0.69	8.89	194.30	
0850	150	0.30	11.55	5.86	2.660	16.80	0.69	7.66	194.30	
0855	150	0.45	11.70	5.86	2.660	16.80	0.69	6.56	194.30	
0900	150	0.60	11.95	5.90	2.660	16.80	0.68	6.12	194.30	
0905	150	0.75	12.34	5.95	2.660	16.80	0.68	5.87	194.20	
0910	150	0.90	12.75	5.95	2.660	16.80	0.67	4.76	194.10	
0915	150	1.05	12.95	5.95	2.658	16.80	0.66	4.23	193.90	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	✓	Manganese (6020 A)	✓
TOC (9060 A)	✓	LLPAHs (8270 E SIM)	
Methane Ethane Ethene (RSK-175)	✓	SVOCS (8270 D)	
Anions (9056 A)	✓	Pesticides & PCBS (8081 B & 8082 A)	
Alkalinity (2320 B)	✓	2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)		QPCR	
CO2 (SM4500)	✓		
Sulfide (SM4500)	✓		

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L): 1.63

Dilution: 1 Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result: 3.26

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? No If Yes, List ID and Analyses

COMMENTS/NOTES

MEADOWS CONSULTING | MANAGEMENT | PLANNING AECOM Imagine it. Delivered.

GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	OU6-MW-264
Project/Site Name:	OU6 Annual	Sample ID:	OU6-MW-264-20240522
Date:	5-23-2024	Well Condition:	GOOD
Weather:	SUNNY 66		

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	2	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	5.9	Purging/Sampling Device:	Peristaltic Pump
Total Depth (ft btoc):	21.2 COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI DSS/PRO/218-46
Water Column (ft):	15.30		
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier 0.1620	Start Purge Date/Time:	5-23-24/0730
		End Purge Date/Time:	5-23-24/0805
		Total Volume Purged (gal):	1GAL
One Well Volume (gal):	2.48	Sample Date/Time:	5-23-24/0810
Screened Interval (ft bgs):	16.2 - 21.2	Sampler Name:	BRUCE DIGGS

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
0730	150	0.15	5.90	5.84	0.198	18.20	2.07	54.20	113.30	
0735	150	0.30	5.95	5.83	0.173	18.30	1.91	45.20	97.40	
0740	150	0.45	6.15	5.83	0.172	18.40	1.99	32.20	83.00	
0745	150	0.60	6.55	5.82	0.176	18.40	1.89	30.20	77.20	
0750	150	0.75	6.95	5.82	0.180	18.40	1.97	27.30	74.10	
0755	150	0.90	7.10	5.85	0.191	18.40	1.75	25.40	71.60	
0800	150	1.05	7.25	5.87	0.203	18.40	1.68	20.20	69.40	
0805	150	1.20	7.45	5.88	0.215	18.40	1.64	15.20	68.10	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	✓	Manganese (6020 A)	✓
TOC (9060 A)	✓	LLPAHs (8270 E SIM)	
Methane Ethane Ethene (RSK-175)	✓	SVOCS (8270 D)	
Anions (9056 A)	✓	Pesticides & PCBS (8081 B & 8082 A)	
Alkalinity (2320 B)	✓	2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)		QPCR	
CO2 (SM4500)	✓		
Sulfide (SM4500)	✓		

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L): 0.86

Dilution: 0 Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result: 0.86

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? Yes If Yes, List ID and Analyses

MS/MSD collected

COMMENTS/NOTES

MS/MSD

MEADOWS CONSULTING | MANAGEMENT | PLANNING AECOM Imagine it. Delivered.

GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	OU6-MW-89
Project/Site Name:	OU6 Annual	Sample ID:	OU6-MW-89-20240522
Date:	5-23-2024	Well Condition:	GOOD
Weather:	SUNNY 74		

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	3/4	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	10.45	Purging/Sampling Device:	Peristaltic Pump
Total Depth (ft btoc):	19.85 COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI DSS/PRO/218-46
Water Column (ft):	9.40		
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier 0.0240	Start Purge Date/Time:	5-23-24/093
		End Purge Date/Time:	5-23-24/1000
		Total Volume Purged (gal):	1GAL
One Well Volume (gal):	0.23	Sample Date/Time:	5-23-24/1015
Screened Interval (ft bgs):	14.85 - 19.85	Sampler Name:	BRUCE DIGGS

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
0930	150	0.15	10.45	5.67	0.063	18.20	0.99	101.00	278.00	
0935	150	0.30	10.45	5.67	0.063	18.20	0.89	89.00	266.00	
0940	150	0.45	10.45	5.68	0.063	18.20	0.76	85.00	260.00	
0945	150	0.60	10.45	5.68	0.063	18.20	0.66	78.00	256.00	
0950	150	0.75	10.45	5.69	0.063	18.20	0.51	66.20	245.00	
0955	150	0.90	10.45	6.00	0.063	18.20	0.51	56.50	235.00	
1000	150	1.05	10.45	6.00	0.063	18.20	0.51	48.00	222.00	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	✓	Manganese (6020 A)	✓
TOC (9060 A)	✓	LLPAHs (8270 E SIM)	
Methane Ethane Ethene (RSK-175)	✓	SVOCS (8270 D)	
Anions (9056 A)	✓	Pesticides & PCBS (8081 B & 8082 A)	
Alkalinity (2320 B)	✓	2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)		QPCR	
CO2 (SM4500)	✓		
Sulfide (SM4500)	✓		

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L): 0.29

Dilution: 0 Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result: 0.29

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? No If Yes, List ID and Analyses

COMMENTS/NOTES

MEADOWS CONSULTING | MANAGEMENT | PLANNING AECOM Imagine it. Delivered.

GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	OU6-MW-129
Project/Site Name:	OU6 Annual	Sample ID:	OU6-MW-129-20240523
Date:	5/23/2024	Well Condition:	Good
Weather:	mid 70's, cloudy		

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	2	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	12.95	Purging/Sampling Device:	Peristaltic Pump
Total Depth (ft btoc):	20.73 COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI
Water Column (ft):	7.78		
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier 0.1620	Start Purge Date/Time:	5/23/2024 - 0752
		End Purge Date/Time:	5/23/2024 - 0830
		Total Volume Purged (gal):	1.5
One Well Volume (gal):	1.26	Sample Date/Time:	5/23/2024 - 0830
Screened Interval (ft bgs):	15.73 - 20.73	Sampler Name:	QR

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
0755	250	0.10	18.82	5.37	0.124	18.10	1.24	136.00	40.40	Clear, no odor
0800	250	0.25	18.40	6.13	0.510	18.40	0.68	29.07	-66.20	
0805	250	0.50	18.50	6.17	0.549	18.50	0.57	87.00	-75.20	
0810	250	0.75	17.78	6.19	0.559	18.60	0.49	288.67	-80.20	
0815	250	1.00	18.28	6.16	0.555	18.50	0.45	192.25	-79.40	
0820	250	1.25	18.24	6.19	0.561	18.50	0.44	187.26	-82.40	
0825	250	1.50	18.28	6.19	0.560	18.60	0.41	182.03	-83.30	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	✓	Manganese (6020 A)	✓
TOC (9060 A)	✓	LLPAHs (8270 E SIM)	
Methane Ethane Ethene (RSK-175)	✓	SVOCS (8270 D)	
Anions (9056 A)	✓	Pesticides & PCBS (8081 B & 8082 A)	
Alkalinity (2320 B)	✓	2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)		QPCR	
CO2 (SM4500)	✓		
Sulfide (SM4500)	✓		

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L): 1.97

Dilution: 0 Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result: 1.97

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? No If Yes, List ID and Analyses

COMMENTS/NOTES

MEADOWS CONSULTING | MANAGEMENT | PLANNING AECOM Imagine it. Delivered.

GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	OU6-MW-131
Project/Site Name:	OU6 Annual	Sample ID:	OU6-MW-131-20240523
Date:	5/23/2024	Well Condition:	Good
Weather:	mid 70's, cloudy		

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	2	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	12.42	Purging/Sampling Device:	Peristaltic Pump
Total Depth (ft btoc):	21.83 COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI
Water Column (ft):	9.41		
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier 0.1620	Start Purge Date/Time:	5/23/2024 - 0857
		End Purge Date/Time:	5/23/2024 - 0940
		Total Volume Purged (gal):	1.75
One Well Volume (gal):	1.52	Sample Date/Time:	5/23/2024 - 0940
Screened Interval (ft bgs):	16.83 - 21.83	Sampler Name:	QR

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
0900	250	0.10	17.17	5.09	0.045	17.90	1.12	226.13	163.80	Light brown, No odor
0905	250	0.25	18.32	5.02	0.049	18.20	0.62	291.23	185.70	
0910	250	0.50	18.20	5.01	0.049	18.10	0.55	231.36	203.20	
0915	250	0.75	19.31	4.92	0.049	17.90	0.49	314.25	223.70	
0920	250	1.00	19.61	4.91	0.052	18.00	0.44	208.54	232.70	
0925	250	1.25	19.60	4.90	0.052	18.10	0.40	123.45	238.00	
0930	250	1.75	19.60	4.90	0.052	18.10	0.41	120.17	239.40	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	✓	Manganese (6020 A)	✓
TOC (9060 A)	✓	LLPAHs (8270 E SIM)	
Methane Ethane Ethene (RSK-175)	✓	SVOCS (8270 D)	
Anions (9056 A)	✓	Pesticides & PCBS (8081 B & 8082 A)	
Alkalinity (2320 B)	✓	2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)		QPCR	
CO2 (SM4500)	✓		
Sulfide (SM4500)	✓		

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L): 0.13

Dilution: 0 Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result: 0.13

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? No If Yes, List ID and Analyses

COMMENTS/NOTES

MEADOWS CONSULTING | MANAGEMENT | PLANNING AECOM Imagine it. Delivered.

GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	OU6-MW-242
Project/Site Name:	OU6 Annual	Sample ID:	OU6-MW-242-20240523
Date:	5/23/2024	Well Condition:	Good
Weather:	clear, warm		

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	2	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	12.49	Purging/Sampling Device:	Peristaltic Pump
Total Depth (ft btoc):	25.20 COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI
Water Column (ft):	12.71		
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier 0.1620	Start Purge Date/Time:	5/23/2024 - 0755
		End Purge Date/Time:	5/23/2024 - 0820
		Total Volume Purged (gal):	1.25
One Well Volume (gal):	2.06	Sample Date/Time:	5/23/2024 - 0825
Screened Interval (ft bgs):	20.2 - 25.2	Sampler Name:	TJ Skora

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
0800	250	0.25	12.60	6.00	0.219	20.30	3.08	-18.90	-1.40	clear, no odor
0805	250	0.50	12.60	6.18	0.464	19.60	2.44	-21.93	-78.60	
0810	250	0.75	12.60	6.23	0.476	19.20	2.31	-25.75	102.70	
0815	250	1.00	12.60	6.25	0.477	19.20	2.39	-25.67	-112.70	
0820	250	1.25	12.60	6.27	0.481	19.00	2.40	-25.13	-116.40	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	✓	Manganese (6020 A)	✓
TOC (9060 A)	✓	LLPAHs (8270 E SIM)	
Methane Ethane Ethene (RSK-175)	✓	SVOCS (8270 D)	
Anions (9056 A)	✓	Pesticides & PCBS (8081 B & 8082 A)	
Alkalinity (2320 B)	✓	2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)		QPCR	✓
CO2 (SM4500)	✓		
Sulfide (SM4500)	✓		

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L):

Dilution: Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result: 1.49

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? No If Yes, List ID and Analyses

COMMENTS/NOTES

MEADOWS CONSULTING | MANAGEMENT | PLANNING AECOM Imagine it. Delivered.

GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	OU6-MW-243
Project/Site Name:	OU6 Annual	Sample ID:	OU6-MW-243-20240523
Date:	5/23/2024	Well Condition:	Good
Weather:	clear, mild		

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	2	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	13.04	Purging/Sampling Device:	Peristaltic Pump
Total Depth (ft btoc):	25.20 COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI
Water Column (ft):	12.16		
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier 0.1620	Start Purge Date/Time:	5/23/2024 - 0915
		End Purge Date/Time:	5/23/2024 - 1030
		Total Volume Purged (gal):	3.75
One Well Volume (gal):	1.97	Sample Date/Time:	5/23/2024 - 1035
Screened Interval (ft bgs):	20.2 - 25.2	Sampler Name:	TJ Skora

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
0920	250	0.25	13.13	5.46	0.322	20.50	3.46	46.48	231.20	clear, slight odor
0925	250	0.50	13.13	5.44	0.318	19.30	2.50	34.09	164.40	
0930	250	0.75	13.13	5.46	0.318	19.10	2.80	40.47	126.30	
0935	250	1.00	13.13	5.46	0.325	18.90	2.21	85.03	94.00	
0940	250	1.25	13.13	5.46	0.334	19.32	2.00	82.74	79.80	
0945	250	1.50	13.13	5.49	0.347	18.80	2.20	40.11	56.50	
0950	250	1.75	13.13	5.46	0.353	18.80	1.78	36.79	48.50	
0955	250	2.00	13.13	5.46	0.364	18.90	1.72	30.58	44.20	
1000	250	2.25	13.13	5.47	0.382	19.10	1.62	14.04	29.30	
1005	250	2.50	13.13	5.51	0.414	19.10	2.01	7.91	10.10	
1010	250	2.75	13.13	5.53	0.468	19.20	1.74	-0.13	4.10	
1015	250	3.00	13.13	5.55	0.503	19.10	1.48	-10.20	-4.20	
1020	250	3.25	13.13	5.57	0.527	19.00	1.68	-16.82	-11.40	
1025	250	3.50	13.13	5.58	0.540	19.10	1.53	-18.37	-17.10	
1030	250	3.75	13.13	5.61	0.569	19.10	1.77	-18.92	-22.40	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	✓	Manganese (6020 A)	✓
TOC (9060 A)	✓	LLPAHs (8270 E SIM)	✓
Methane Ethane Ethene (RSK-175)	✓	SVOCS (8270 D)	✓
Anions (9056 A)	✓	Pesticides & PCBS (8081 B & 8082 A)	✓
Alkalinity (2320 B)	✓	2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)	✓	QPCR	✓
CO2 (SM4500)	✓		
Sulfide (SM4500)	✓		

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L): 1.50

Dilution: 0 Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result: 1.50

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? No If Yes, List ID and Analyses

COMMENTS/NOTES

MEADOWS CONSULTING | MANAGEMENT | PLANNING AECOM Imagine it. Delivered.

GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	OU6-MW-245
Project/Site Name:	OU6 Annual	Sample ID:	OU6-MW-245-20240523
Date:	5/23/2024	Well Condition:	Good
Weather:	clear, hot		

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	2	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	13.14	Purging/Sampling Device:	Peristaltic Pump
Total Depth (ft btoc):	25.20 COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI
Water Column (ft):	12.06		
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier 0.1620	Start Purge Date/Time:	5/23/2024 - 1320
		End Purge Date/Time:	5/23/2024 - 1355
		Total Volume Purged (gal):	1.75
One Well Volume (gal):	1.95	Sample Date/Time:	5/23/2024 - 1400
Screened Interval (ft bgs):	20.2 - 25.2	Sampler Name:	TJ Skora

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
1325	250	0.25	13.57	6.35	0.623	23.60	2.30	-8.64	-17.50	clear, slight odor
1330	250	0.50	14.07	6.38	0.637	21.50	2.24	-10.84	-111.50	
1335	250	0.75	14.40	6.41	0.632	21.20	2.28	-13.14	-135.10	
1340	250	1.00	14.30	6.40	0.657	20.70	2.04	-15.38	-141.80	
1345	200	1.25	14.30	6.42	0.657	20.90	2.17	-18.93	-145.50	
1350	200	1.50	14.30	6.40	0.666	20.60	1.99	-18.25	-145.90	
1355	200	1.75	14.30	6.40	0.667	20.20	2.05	-17.98	-140.20	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	✓	Manganese (6020 A)	✓
TOC (9060 A)	✓	LLPAHs (8270 E SIM)	
Methane Ethane Ethene (RSK-175)	✓	SVOCS (8270 D)	
Anions (9056 A)	✓	Pesticides & PCBS (8081 B & 8082 A)	
Alkalinity (2320 B)	✓	2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)		QPCR	
CO2 (SM4500)	✓		
Sulfide (SM4500)	✓		

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L): 2.89

Dilution: 2 Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result: 11.56

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? No If Yes, List ID and Analyses

COMMENTS/NOTES

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GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	OU6-MW-126
Project/Site Name:	OU6 Annual	Sample ID:	OU6-MW-126-20240523
Date:	5/23/2024	Well Condition:	Good
Weather:	mid 70's, cloudy		

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	2	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	12.62	Purging/Sampling Device:	Peristaltic Pump
Total Depth (ft btoc):	19.95 COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI
Water Column (ft):	7.33		
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier 0.1620	Start Purge Date/Time:	5/23/2024 - 1013
		End Purge Date/Time:	5/23/2024 - 1021
		Total Volume Purged (gal):	0.25
One Well Volume (gal):	1.19	Sample Date/Time:	5/23/2024 - 1040
Screened Interval (ft bgs):	14.95 - 19.95	Sampler Name:	QR

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
1015	200	0.10	15.75	6.03	0.348	20.00	1.01	592.80	-43.80	light brown, no odor
1020	200	0.10	18.05	6.13	0.362	21.60	0.48	601.98	-67.40	
1021										Well is Dry

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	✓	Manganese (6020 A)	
TOC (9060 A)		LLPAHs (8270 E SIM)	
Methane Ethane Ethene (RSK-175)	✓	SVOCS (8270 D)	
Anions (9056 A)		Pesticides & PCBS (8081 B & 8082 A)	
Alkalinity (2320 B)		2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)		QPCR	✓
CO2 (SM4500)			
Sulfide (SM4500)			

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L):

Dilution: Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result:

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? No If Yes, List ID and Analyses

COMMENTS/NOTES

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GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	NNC-3
Project/Site Name:	OU6 Annual	Sample ID:	NNC-3320240523
Date:	5/23/2024	Well Condition:	
Weather:	Mid 70's, cloudy		

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	N/A	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	N/A	Purging/Sampling Device:	Peristaltic Pump
Total Depth (ft btoc):	COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI
Water Column (ft):	0.00		
Water Column Multipliers (gal/ft):	Enter Multiplier	Start Purge Date/Time:	5/23/2024 - 1320
1/4": **0.0025**, 3/4": **0.024**, 1": **0.04**		End Purge Date/Time:	5/23/2024 - 1335
2": **0.162**, 4": **0.653**, 6": **1.469**		Total Volume Purged (gal):	
One Well Volume (gal):	0.00	Sample Date/Time:	05/23/2024 - 1335
Screened Interval (ft bgs):		Sampler Name:	QR

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
1320				5.91	0.124	18.30	7.54	22.95	110.30	Clear. Light Bio sheen, No odor
1325				6.00	0.122	18.00	7.35	23.48	95.00	
1330				6.06	0.120	17.90	7.22	23.60	82.60	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	✓	Manganese (6020 A)	
TOC (9060 A)		LLPAHs (8270 E SIM)	
Methane Ethane Ethene (RSK-175)		SVOCS (8270 D)	
Anions (9056 A)		Pesticides & PCBS (8081 B & 8082 A)	
Alkalinity (2320 B)		2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)		QPCR	
CO2 (SM4500)			
Sulfide (SM4500)			

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L):

Dilution: Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result:

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? No If Yes, List ID and Analyses

COMMENTS/NOTES

Creek sample

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GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	NNC-1
Project/Site Name:	OU6 Annual	Sample ID:	NNC-1-20240523
Date:	5-23-2024	Well Condition:	GOOD
Weather:	SUNNY 66		

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	N/A	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):		Purging/Sampling Device:	Peristaltic Pump
Total Depth (ft btoc):	COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	
Water Column (ft):	0.00		YSI DSS/PRO/218-46
Water Column Multipliers (gal/ft):	Enter Multiplier	Start Purge Date/Time:	5-23-24/1420
1/4": **0.0025**, 3/4": **0.024**, 1": **0.04**		End Purge Date/Time:	5-23-24/1435
2": **0.162**, 4": **0.653**, 6": **1.469**		Total Volume Purged (gal):	1GAL
One Well Volume (gal):	0.00	Sample Date/Time:	5-23-24/1440
Screened Interval (ft bgs):		Sampler Name:	BRUCE DIGGS TIM BROWN

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
1425				6.62	0.151	19.80	7.79	9.23	281.50	
1430				6.62	0.151	19.70	7.80	9.36	290.50	
1435				6.62	0.151	19.70	7.79	9.83	298.30	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	✓	Manganese (6020 A)	
TOC (9060 A)		LLPAHs (8270 E SIM)	
Methane Ethane Ethene (RSK-175)		SVOCS (8270 D)	
Anions (9056 A)		Pesticides & PCBS (8081 B & 8082 A)	
Alkalinity (2320 B)		2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)		QPCR	
CO2 (SM4500)			
Sulfide (SM4500)			

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L):

Dilution: Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result:

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? No If Yes, List ID and Analyses

MS/MSD

COMMENTS/NOTES

Creek Sample

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GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	NNC-2
Project/Site Name:	OU6 Annual	Sample ID:	NNC-2-20240523
Date:	5-23-2024	Well Condition:	GOOD
Weather:	SUNNY 66		

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	N/A	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):		Purging/Sampling Device:	Peristaltic Pump
Total Depth (ft btoc):	COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	
Water Column (ft):	0.00		YSI DSS/PRO/218-46
Water Column Multipliers (gal/ft):	Enter Multiplier	Start Purge Date/Time:	5-23-24/1400
1/4": **0.0025**, 3/4": **0.024**, 1": **0.04**		End Purge Date/Time:	5-23-24/1415
2": **0.162**, 4": **0.653**, 6": **1.469**		Total Volume Purged (gal):	1GAL
One Well Volume (gal):	0.00	Sample Date/Time:	5-23-24/1420
Screened Interval (ft bgs):		Sampler Name:	BRUCE DIGGS TIM BROWN

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
1405				6.56	0.151	19.60	7.79	32.40	255.40	
1410				6.55	0.151	19.60	7.75	35.50	262.40	
1415				6.54	0.151	19.60	7.71	45.00	269.30	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	✓	Manganese (6020 A)	
TOC (9060 A)		LLPAHs (8270 E SIM)	
Methane Ethane Ethene (RSK-175)		SVOCS (8270 D)	
Anions (9056 A)		Pesticides & PCBS (8081 B & 8082 A)	
Alkalinity (2320 B)		2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)		QPCR	
CO2 (SM4500)			
Sulfide (SM4500)			

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L):

Dilution: Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result:

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? Yes If Yes, List ID and Analyses

Dup08 Collected

COMMENTS/NOTES

DUP-8

OU#	Well#	Sample ID	Date	Time Sampled	Time Hach	# of Dilutions	Iron Result	reportable result	Notes
Final Result Calculation, Dilution 1 Result X 2, Dilution 2 Result x 4, Dilution 3 Result x 8, Dilution 4 Result x 16, Dilution 5 Result x 32									
OU6	MW-245	OU6-MW-245-20240523	24/5/23	1400	1525	0	5.32	—	
OU6	〃	〃	〃	〃	1536	2	2.89	11.56	
OU6	MW-260	OU6-MW-260-20240523	24/5/23	0920	1537	0	3.72	—	
OU6	〃	〃	〃	〃	1542	1	1.63	3.26	
OU6	MW-131	OU6-MW-131-20240523	24/5/23	0940	1550	0	0.13	0.13	
OU6	MW-243	OU6-MW-243-20240523	24/5/23	1035	1557	0	1.50	1.50	
OU6	MW-264	OU6-MW-264-20240523	24/5/23	0810	1403	0	0.86	0.86	
OU6	MW-89	OU6-MW-89-20240523	24/5/23	1015	1412	0	0.29	0.29	
OU6	MW-129	OU6-MW-129-20240523	24/5/23	0830	1418	0	1.97	1.97	
OU6	MW-242	OU6-MW-242-20240523	24/5/23	0825	1425	0	1.49	1.49	
OU6									
OU6									
OU6									
OU6									
OU6									
OU6									
OU6									
OU6									
OU6									
OU6									

AECOM

DAILY FIELD INSTRUMENT CALIBRATION/ CALIBRATION CHECK FORM

Site Name: OUG
Project/Client:
Project Number: 0043-ecll
Location: DSCR - Richmond
Field Analyst(s): Quin Rebrcky
Date: 5/23/24
Start Time: 0700 Finish Time: 0730

Instrument Information

Parameter	Make	Model	Meter Serial #	Probe Serial #
DO	PRO DSS	YSI	21137 0	469 82
pH	↓	↓	↓	↓
Specific Conductance	↓	↓	↓	↓
ORP	↓	↓	↓	↓
Temperature	↓	↓	↓	↓
Turbidity	↓	↓	↓	↓

Pre-Field Calibration and Quality Control Requirements

Prior to using instrument(s) in the field, field analysts must ensure that certain quality control procedures and calibrations have been completed for the instruments listed above. Records of the following, completed either by AECOM or the vendor, must be retained:

- •Weekly DO Winkler Titration ☐
- •5-Point Conductivity Curve ☐
- •Annual Conductivity Cell Constant ☐
- •Quarterly NIST Traceable Thermometer ☐
- •Solution Records ☐

Field Calibration/Calibration Check

DO (Method SM 4500 O G)

100% Saturation	
Barometric Pressure (mmHg)	
Temperature (°C)	21.5
Initial Reading	8.67
Reset Reading	8.48

0% Saturation	
Solution Temperature (°C)	
Solution Manufacturer & Lot #	
Reading	
*Requires Recalibration	Y / N
Reset Reading	

Note: DO must be calibrated to 100% saturation. DO may only be calibration checked to 0% saturation (zero oxygen solution standard). Calibration methods may differ between DO meters, and some fields listed may not be applicable. Refer to instrument manual for calibration instructions.

pH (Method SM 4500-H B)

Buffer Solution	Solution Manufacturer & Lot #	Solution Expiration Date	Solution Temperature	Reading	*Requires Recalibration	Reset Reading
7	460 1040	2/26	22.2	7.09	Y / N	7
4	46B0637	2/26	22.2	3.93	Y / N	4
10	3G Fields	6/25	22.2	10.11	Y / N	10
					Y / N	

Note: A calibration check against one standard buffer must be performed and recorded in the field book every 3-hours of use after daily calibration/calibration check.

AECOM

DAILY FIELD INSTRUMENT CALIBRATION/ CALIBRATION CHECK FORM

Specific Conductance (Method 2510 B)

Standard Solution	Solution Manufacturer & Lot #	Solution Expiration Date	Solution Temperature	Reading ($\mu S\ cm^{-1}$)	*Requires Recalibration	Reset Reading ($\mu S\ cm^{-1}$)
1.413	16K0355	11/24	22.2	1.495	Y / (N)	1.413

ORP

Standard Solution	Solution Manufacturer & Lot #	Solution Expiration Date	Solution Temperature	Reading (mV)	*Requires Recalibration	Reset Reading (mV)
240	20H0038	3/24	22.2	233.9	Y / (N)	240

Turbidity (Method 2130 B)

Standard Solution (NTU)	Solution Manufacturer & Lot #	Solution Expiration Date	Reading (NTU)	*Requires Recalibration	Reset Reading (NTU)
0	24007124	1/25	-0.70	(Y) / N	0
126	23J2704364B	9/24	104.90	Y / N	126
				Y / N	
				Y / N	

*Field check readings should be within the accuracy listed by the manufacturer's specifications or per New Jersey regulations (NJAC 7:18), whichever is more stringent. Otherwise, the instrument must be recalibrated for that parameter. Refer to instrument manual for accuracy. Values provided below for instruments typically used by AECOM

YSI 6-Series

Dissolved Oxygen	± 0.1 % or ± 0.1 mg/L, whichever is greater
pH **	± 0.2 units
	**NJAC 7:18 requires that calibration values be accurate to ±0.05, and accuracy within ±0.1 units for the initial calibration check and ±0.2 units for 3-hour checks
Specific Conductivity	± 0.5% + 0.001 mS/cm
ORP	± 20 mV
Turbidity	± 2%

Horiba U-20XD Series

Dissolved Oxygen	± 0.2 mg/L
pH **	± 0.1 units
Specific Conductivity	± 3%
ORP	± 15 mV
Turbidity	± 5%

LaMotte 2020wi Turbidity Meter

±0.05 or ±2% below 100 NTU

±3% above 100 NTU

AECOM

DAILY FIELD INSTRUMENT CALIBRATION/ CALIBRATION CHECK FORM

Site Name: DSCR

Project/Client: MEADOWS Project Number: 0045-0011

Location: Richmond DLA

Field Analyst(s): BMW W. NEGUS

Date: 5-23-2024 Start Time: 1630 Finish Time: 0700

Instrument Information

Parameter	Make	Model	Meter Serial #	Probe Serial #
DO	YSI	PRO DSS	18048	21502
pH				
Specific Conductance				
ORP				
Temperature				
Turbidity				

Pre-Field Calibration and Quality Control Requirements

Prior to using instrument(s) in the field, field analysts must ensure that certain quality control procedures and calibrations have been completed for the instruments listed above. Records of the following, completed either by AECOM or the vendor, must be retained:

- ♦Weekly DO Winkler Titration ☐
- ♦5-Point Conductivity Curve ☐
- ♦Annual Conductivity Cell Constant ☐
- ♦Quarterly NIST Traceable Thermometer ☐
- ♦Solution Records ☐

Field Calibration/Calibration Check

DO (Method SM 4500 O.G)

100% Saturation	
Barometric Pressure (mmHg)	775.1
Temperature (°C)	23.7
Initial Reading	8.68
Reset Reading	8.65

0% Saturation	
Solution Temperature (°C)	
Solution Manufacturer & Lot #	
Reading	
*Requires Recalibration	Y / N
Reset Reading	

Note: DO must be calibrated to 100% saturation. DO may only be calibration checked to 0% saturation (zero oxygen solution standard). Calibration methods may differ between DO meters, and some fields listed may not be applicable. Refer to instrument manual for calibration instructions.

pH (Method SM 4500-H B)

Buffer Solution	Solution Manufacturer & Lot #	Solution Expiration Date	Solution Temperature	Reading	*Requires Recalibration	Reset Reading
4	Lot 32017	12/25	23.6	4.01	Y / N	4.00
7	4GB100	2/26	24.3	7.31	Y / N	7.00
10	36F0188	6/25	24.5	10.2	Y / N	10.2
126	2FG0325	6/24	24.4	1.87	Y / N	126.3

Note: A calibration check against one standard buffer must be performed and recorded in the field book every 3-hours of use after daily calibration/calibration check.

AECOM

DAILY FIELD INSTRUMENT CALIBRATION/ CALIBRATION CHECK FORM

Specific Conductance (Method 2510 B)

Standard Solution	Solution Manufacturer & Lot #	Solution Expiration Date	Solution Temperature	Reading ($\mu S \cdot cm^{-1}$)	*Requires Recalibration	Reset Reading ($\mu S \cdot cm^{-1}$)
1.413	3GE0678	5/24	24.1	1.334	Y / N	1.411

ORP

Standard Solution	Solution Manufacturer & Lot #	Solution Expiration Date	Solution Temperature	Reading (mV)	*Requires Recalibration	Reset Reading (mV)
240	3GH 0038	5/24	~~24.0~~ 24.6	253.6	Y / N	240.0

Turbidity (Method 2130 B)

Standard Solution (NTU)	Solution Manufacturer & Lot #	Solution Expiration Date	Reading (NTU)	*Requires Recalibration	Reset Reading (NTU)
				Y / N	
				Y / N	
				Y / N	
				Y / N	

*Field check readings should be within the accuracy listed by the manufacturer's specifications or per New Jersey regulations (NJAC 7:18), whichever is more stringent. Otherwise, the instrument must be recalibrated for that parameter. Refer to instrument manual for accuracy. Values provided below for instruments typically used by AECOM:

YSI 6-Series:		Horriba U-20XD Series:	
Dissolved Oxygen	± 0.1 % or ± 0.1 mg/L, whichever is greater	Dissolved Oxygen	± 0.2 mg/L
pH **	± 0.2 units	pH **	± 0.1 units
	**NJAC 7:18 requires that calibration values be accurate to ±0.05, and accuracy within ±0.1 units for the initial calibration check and ±0.2 units for 3-hour checks		
Specific Conductivity	± 0.5% + 0.001 mS/cm	Specific Conductivity	± 3%
ORP	± 20 mV	ORP	± 15 mV
Turbidity	± 2%	Turbidity	± 5%

LaMotte 2020e/i Turbidity Meter:
±0.05 or ±2%, below 100 NTU
±3%, above 100 NTU

AECOM

DAILY FIELD INSTRUMENT CALIBRATION/ CALIBRATION CHECK FORM

Site Name: DSCR
Project/Client: OMC Annual Project Number: 0045-0011
Location: 046

Field Analyst(s): TJ Skora
Date: 5/~~5~~/24 (23) Start Time: 0715 Finish Time: 0731

Instrument Information

Parameter	Make	Model	Meter Serial #	Probe Serial #
DO	Pro DSS	YSI	42061	23F102676
pH				
Specific Conductance				
ORP				
Temperature				
Turbidity				

Pre-Field Calibration and Quality Control Requirements

Prior to using instrument(s) in the field, field analysts must ensure that certain quality control procedures and calibrations have been completed for the instruments listed above. Records of the following, completed either by AECOM or the vendor, must be retained:

- Weekly DO Winkler Titration ☐
- 5-Point Conductivity Curve ☐
- Annual Conductivity Cell Constant ☐
- Quarterly NIST Traceable Thermometer ☐
- Solution Records ☐

Field Calibration/Calibration Check

DO (Method SM 4500 O.G)

100% Saturation	
Barometric Pressure (mmHg)	
Temperature (°C)	23.1
Initial Reading	8.68
Reset Reading	8.65

0% Saturation	
Solution Temperature (°C)	
Solution Manufacturer & Lot #	
Reading	
*Requires Recalibration	Y / N
Reset Reading	

Note: DO must be calibrated to 100% saturation. DO may only be calibration checked to 0% saturation (zero oxygen solution standard). Calibration methods may differ between DO meters, and some fields listed may not be applicable. Refer to instrument manual for calibration instructions.

pH (Method SM 4500-H B)

Buffer Solution	Solution Manufacturer & Lot #	Solution Expiration Date	Solution Temperature	Reading	*Requires Recalibration	Reset Reading
4	Pine 4GB0637	2/26	24.4	4.03	Y / N	4.00
7	" 4GB1040	2/26	24.7	7.01	Y / N	7.00
10	" 3GF1088	6/25	24.6	10.08	Y / N	10.00
					Y / N	

Note: A calibration check against one standard buffer must be performed and recorded in the field book every 3-hours of use after daily calibration/calibration check.

AECOM

DAILY FIELD INSTRUMENT CALIBRATION/ CALIBRATION CHECK FORM

Specific Conductance (Method 2510 B)

Standard Solution	Solution Manufacturer & Lot #	Solution Expiration Date	Solution Temperature	Reading ($\mu S \cdot cm^{-1}$)	*Requires Recalibration	Reset Reading ($\mu S \cdot cm^{-1}$)
1.413	PINE 4GA0218	2025-1	24.7	0.491	Y / N	0.490

ORP

Standard Solution	Solution Manufacturer & Lot #	Solution Expiration Date	Solution Temperature	Reading (mV)	*Requires Recalibration	Reset Reading (mV)
240.0	Pine 3GH0038	5/24	24.4	198.0	Y / N	222.1

Turbidity (Method 2130 B)

Standard Solution (NTU)	Solution Manufacturer & Lot #	Solution Expiration Date	Reading (NTU)	*Requires Recalibration	Reset Reading (NTU)
0	Pine 24007124	1/25	5.55	Y / N	0.00
126.0	Pine 23024001164	4/24	124.58	Y / N	124.80
				Y / N	
				Y / N	

*Field check readings should be within the accuracy listed by the manufacturer's specifications or per New Jersey regulations (NJAC 7:18), whichever is more stringent. Otherwise, the instrument must be recalibrated for that parameter. Refer to instrument manual for accuracy. Values provided below for instruments typically used by AECOM:

YSI 6-Series:

Dissolved Oxygen	± 0.1 % or ± 0.1 mg/L, whichever is greater
pH **	± 0.2 units
	**NJAC 7:18 requires that calibration values be accurate to ±0.05, and accuracy within ±0.1 units for the initial calibration check and ±0.2 units for 3-hour checks
Specific Conductivity	± 0.5% + 0.001 mS/cm
ORP	± 20 mV
Turbidity	± 2%

Horriba U-20XD Series:

Dissolved Oxygen	± 0.2 mg/L
pH **	± 0.1 units
Specific Conductivity	± 3%
ORP	± 15 mV
Turbidity	± 5%

LaMotte 2020e/i Turbidity Meter:

±0.05 or ±2%, below 100 NTU

±3%, above 100 NTU

MEADOWS CONSULTING MANAGEMENT PLANNING | AECOM Imagine it. Delivered.

GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	DMW-28B
Project/Site Name:	OU6 Annual	Sample ID:	DMW-28B-20240529
Date:	5/29/2024	Well Condition:	Good
Weather:	Sunny, 70		

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	2	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	24.75	Purging/Sampling Device:	Peristaltic Pump
Total Depth (ft btoc):	52.85 COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI Pro DSS
Water Column (ft):	28.10		
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier 0.1620	Start Purge Date/Time:	5/29/2024 - 0915
		End Purge Date/Time:	5/29/2024 - 1025
		Total Volume Purged (gal):	3.50
One Well Volume (gal):	4.55	Sample Date/Time:	5/29/2024 - 1025
Screened Interval (ft bgs):	47 - 52	Sampler Name:	Tim Brown

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
0920	250	0.25	25.05	6.06	0.082	17.80	3.80	23.00	-67.10	Water Clear
0925	250	0.50	25.08	5.82	0.080	17.80	2.20	81.00	-46.30	No odor
0930	250	0.75	25.12	5.75	0.090	17.80	1.50	300.00	-26.50	
0935	250	1.00	25.12	5.81	0.089	17.80	0.78	476.00	-19.70	Water clear, but bubbly
0940	250	1.25	25.10	5.71	0.085	17.70	0.79	760.00	-15.50	
0945	250	1.50	25.30	5.75	0.081	17.90	0.77	80.00	-20.00	
0950	250	1.75	25.40	5.89	0.084	17.60	0.77	200.00	-15.50	
0955	250	2.00	25.40	5.72	0.079	17.50	0.77	241.00	-13.40	
1000	250	2.25	25.40	5.72	0.085	17.60	0.77	300.00	-12.00	
1005	250	2.50	25.40	5.72	0.085	17.70	0.77	300.00	-10.50	
1010	250	2.75	25.37	5.77	0.085	17.70	0.77	166.00	-9.10	
1015	250	3.00	25.30	5.71	0.084	17.80	0.77	200.00	-6.20	
1020	250	3.25	25.25	5.71	0.084	17.90	0.77	121.00	-4.80	
1025	250	3.50	25.20	5.70	0.083	18.00	0.77	150.00	-3.40	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	✓	Manganese (6020 A)	✓
TOC (9060 A)	✓	LLPAHs (8270 E SIM)	
Methane Ethane Ethene (RSK-175)	✓	SVOCS (8270 D)	
Anions (9056 A)	✓	Pesticides & PCBS (8081 B & 8082 A)	
Alkalinity (2320 B)	✓	2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)		QPCR	
CO2 (SM4500)	✓		
Sulfide (SM4500)	✓		

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L): 1.02

Dilution: 0 Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result: 1.02

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? No If Yes, List ID and Analyses

COMMENTS/NOTES

MEADOWS CONSULTING MANAGEMENT PLANNING AECOM Imagine it. Delivered.

GROUNDWATER SAMPLING DATA FORM

Project Number: 0045-0011	Well ID: DMW-28B
Project/Site Name: OU6 Annual	Sample ID: DMW-28B-20240529
Date: 20240529	Well Condition: GOOD
Weather: Sunny 70°	

WATER LEVEL AND WELL SPECIFICATION DETAILS

Well Casing Diameter (inches):	2.00
Initial Depth to Water (ft btoc):	24.75
Total Depth (ft btoc):	52.85 COLLECT AFTER WELL IS SAMPLED
Water Column (ft):	28.10
Water Column Multipliers (gal/ft):	Water Column x Multiplier
1/4": **0.0025**, 3/4": **0.024**, 1": **0.04**	
2": **0.162**, 4": **0.653**, 6": **1.469**	
One Well Volume (gal):	4.55
Screened Interval (ft bgs):	47-52

SAMPLE COLLECTION INFORMATION

Purging/Sampling Method:	Low Flow
Purging/Sampling Device:	Peristaltic / Bladder Pump
Field Parameter Measuring Devices:	YSI PRO DSS
Start Purge Date/Time:	24/5/29 0915
End Purge Date/Time:	24/5/29 1025
Total Volume Purged (gal):	3.50
Sample Date/Time:	24/5/29 1025
Sampler Name:	T. Brown

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^C)	Temp (°C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
0920	250mL	.25	25.05	6.06	0.082	17.80	3.80	230	-67.1	WATER CLEAR
0925		.50	25.08	5.82	0.080	17.80	2.20	81.0	-46.3	NO ODOR
0930		.75	25.12	5.75	0.090	17.80	1.50	300	-26.5	
0935		1.00	25.12	5.81	0.089	17.80	0.78	476	-19.7	ACIDIC Bubbles
0940		1.25	25.10	5.71	0.085	17.70	0.79	760	-15.5	
0945		1.50	25.30	5.75	0.081	17.90	0.77	80.0	-20.0	
0950		1.75	25.40	5.89	0.084	17.60	0.77	200	-15.5	
0955		2.00	25.40	5.72	0.079	17.50	0.77	241	-13.4	
1000		2.25	25.40	5.72	0.085	17.60	0.77	300	-12.0	
1005		2.50	25.40	5.72	0.085	17.70	0.77	269	-10.5	
1010		2.75	25.37	5.77	0.085	17.70	0.77	166	-9.10	
1015		3.00	25.30	5.71	0.084	17.80	0.77	200	-6.20	
1020		3.25	25.25	5.71	0.084	17.90	0.77	121	-4.80	
1025	↓	3.50	25.20	5.70	0.083	18.00	0.77	150	-3.40	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	☑	Manganese (6020 A)	☑
TOC (9060 A)	☑	LLPAHs (8270 E SIM)	☐
Methane Ethane Ethene (RSK-175)	☑	SVOCS (8270 D)	☐
Anions (9056 A)	☑	Pesticides & PCBS (8081 B & 8082 A)	☐
Alkalinity (2320 B)	☑	2,3,7,8 TCDD (8290 A)	☐
Metals (6020 A/6010 C/7470 A)	☑	QPCR	☐
CO2 (SM4500)	☑		
Sulfide (SM4500)	☑		

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L):

Dilution: Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result:

Samples Field Filtered? Yes/No If Yes, Which Analyses?

QA/QC Samples Collected? (Yes/No) If Yes, List ID & Analyses

COMMENTS/NOTES

OU#	Well#	Sample ID	Date	Time Sampled	Time Hach	# of Dilutions	Iron Result	reportable result	Notes
OU6	OMW-28B	OMW-28B-20210525	24/5/24	1025	1110	Ø	1.02	1.02	
OU6									
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Eurofins Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Phone (912) 354-7858 Phone (912) 352-0165

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: Tim Brown and Bruce Diggs	Lab PM: Lanier, Jerry	Carrier Tracking No(s):	COC No:
Client Contact: Andrew VanBuesking	Phone: 757-589-5825	E-Mail: Jerry.Lanier@et.eurofinsus.com	State of Origin: VA	Page: Page 1 of 1
Company: Meadows CMPG	PWSID:			Job #:
Address: 2107 Granby St	Due Date Requested:			
City: Norfolk	TAT Requested (days): STD			
State, Zip: VA	Compliance Project: Δ Yes Δ No			
Phone: 757-623-3107	PO #: 0045-0011			
Email: avanbuesking@meadowscmpg	WO #:			
Project Name: OU6 Annual	Project #:			
Site: DSCR, OU6	SSOW#:			

Analysis Requested

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260D_DOD5 - (MOD) Volatiles		RSK_175_DOD5 - Ethane, Ethene, Methane	9060A - TOC	9056A_OF28D_D5 - Chloride & Sulfate 9056A_OF_48H_D5 Local Method	SM4500_S2_F - Sulfide, Total	6020A_DOD5 - Manganese	SM4500_CO2_D - Carbon Dioxide	2320B - Alkalinity	DIOX 8270E ID D5	8270E_DOD5 - (MOD) Semivolatiles (without PAHs)	8270E_SIM_DOD5 - Routine PAH	8081B_8082A_D5 - Routine Pesticides & PCBs	7470A_DOD5 - Mercury 6020A_DOD5- (MOD) TAL Metals	8270E_SIM_ID_D5 Local Method - Dioxane	Total Number of containers
			Preservation Code:		X	X	A		A	S	N	CB	D	N	N		N	N	N	D	N	
OU6-DMW-28B-20240529	5/29/24	1025	G	W			3		3	3	1	2	1	1	1							15
TRIP-BLANK-20240529	5/29/24		G	W			2															

Special Instructions/Note:

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ■ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ■ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:

Method of Shipment:

BRUCE DIGGS	5-29-2024/1300	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:

MEADOWS CONSULTING | MANAGEMENT | PLANNING AECOM Imagine it. Delivered.

GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	OU6-MW-168
Project/Site Name:	OU6 Annual	Sample ID:	OU6-MW-168-20240612
Date:	06/12/2024	Well Condition:	Good
Weather:	Partly Cloudy 74		

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	2	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	19.40	Purging/Sampling Device:	Peristaltic Pump
Total Depth (ft btoc):	50.80 COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI Pro DSS
Water Column (ft):	31.40		
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier 0.1620	Start Purge Date/Time:	6/12/2024 - 1000
		End Purge Date/Time:	6/12/2024 - 1100
		Total Volume Purged (gal):	3
One Well Volume (gal):	5.09	Sample Date/Time:	
Screened Interval (ft bgs):	40 - 50	Sampler Name:	Tim Brown

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
1005	250	0.25	19.55	5.32	0.053	19.10	3.69	313.00	108.10	water clear / no odor
1010	250	0.50	19.55	5.26	0.052	19.20	3.84	450.00	128.10	
1015	250	0.75	19.50	5.22	0.051	19.20	3.84	293.00	148.20	
1020	250	1.00	19.50	5.23	0.050	19.30	4.04	258.00	159.50	
1025	250	1.25	19.52	5.22	0.049	19.30	4.02	273.00	151.20	
1030	250	1.50	19.52	5.20	0.048	19.30	3.95	292.00	166.80	
1035	250	1.75	19.52	5.16	0.048	19.30	3.35	240.00	178.00	
1040	250	2.00	19.52	5.20	0.048	19.30	3.51	194.00	151.10	
1045	250	2.25	19.52	5.17	0.047	19.30	3.45	223.00	176.70	
1050	250	2.50	19.53	5.16	0.047	19.20	3.43	242.00	186.80	
1055	250	2.75	19.53	5.17	0.048	19.30	3.34	275.00	182.10	
1100	250	3.00	19.53	5.13	0.048	19.40	3.29	247.00	184.70	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	✓	Manganese (6020 A)	✓
TOC (9060 A)	✓	LLPAHs (8270 E SIM)	
Methane Ethane Ethene (RSK-175)	✓	SVOCS (8270 D)	
Anions (9056 A)	✓	Pesticides & PCBS (8081 B & 8082 A)	
Alkalinity (2320 B)	✓	2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)		QPCR	
CO2 (SM4500)	✓		
Sulfide (SM4500)	✓		

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L): 0.17

Dilution: 0 Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result: 0.17

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? No If Yes, List ID and Analyses

COMMENTS/NOTES

Sample Collected 5/14/2024 - 1000

MEADOWS CONSULTING MANAGEMENT PLANNING AECOM Imagine it. Delivered.

GROUNDWATER SAMPLING DATA FORM

Project Number: 0045-CLIN-0013	Well ID: MW-168
Project/Site Name: OU8 Semi-Annual 2024	Sample ID: OU6-MW-168-20240612
Date: 20240612	Well Condition: Good
Weather: PARTLY CLOUDY 74°	

WATER LEVEL AND WELL SPECIFICATION DETAILS

Well Casing Diameter (inches): 2.0	
Initial Depth to Water (ft btoc): 19.40	
Total Depth (ft btoc): 50.80 COLLECT AFTER WELL IS SAMPLED	
Water Column (ft): 31.40	
Water Column Multipliers (gal/ft):	
.75-inch: 0.024 4-inch: 0.653	
2-inch: 0.162 6-inch: 1.469	
One Well Volume (gal): 5.08	
Screened Interval (ft bgs): 40-50	

SAMPLE COLLECTION INFORMATION

Purging/Sampling Method:	Low Flow
Purging/Sampling Device:	Peristaltic Pump (Bladder Pump)
Field Parameter Measuring Devices:	YSI PRO DSS
Start Purge Date/Time:	24/6/12 1000
End Purge Date/Time:	24/6/12 1100
Total Volume Purged (gal):	3.00
Sample Date/Time:	24/6/12 1100
Sampler Name:	T. M BROWN

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (°C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
1005	250mL	.25	19.55	5.32	0.053	19.1	3.69	313	108.1	WATER CLEAR / NO ODOR
1010		.50	19.55	5.26	0.052	19.2	3.84	450	128.1	
1015		.75	19.50	5.22	0.051	19.2	3.84	293	148.2	
1020		1.00	19.50	5.23	0.050	19.3	4.04	258	159.5	
1025		1.25	19.52	5.22	0.049	19.3	4.02	273	151.2	
1030		1.50	19.52	5.20	0.048	19.3	3.95	292	166.8	
1035		1.75	19.52	5.16	0.048	19.3	3.35	240	178.0	
1040		2.00	19.52	5.20	0.048	19.3	3.51	194	151.1	
1045		2.25	19.52	5.17	0.047	19.3	3.45	223	176.7	
1050		2.50	19.53	5.16	0.047	19.2	3.43	242	186.8	
1055		2.75	19.53	5.17	0.048	19.3	3.30	275	182.1	
1100	↓	3.00	19.53	5.13	0.048	19.4	3.29	247	184.7	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply		Field Test Kit Results (If Applicable)
Volatiles - VOCs (8260 D)	Manganese (6020 A)	Hach Ferrous Iron Field Test Kit Result (mg/L):
TOC (9060 A)	LLPAHs (8270 E SIM)	Dilution:
Methane Ethane Ethene (RSK-175)	SVOCS (8270 D)	Result:
Anions (9056 A)	Pesticides & PCBS (8081 B & 8082 A)	**Samples Field Filtered?** Yes/No If Yes, Which Samples?
Alkalinity (2320 B)	2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)	QPCR	QA/QC Samples Collected? Yes/No
CO2 (SM4500)		If Yes, List Sample ID, Date/Time Collected, and Analyses
Sulfide (SM4500)		

COMMENTS/NOTES

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GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	OU6-MW-291
Project/Site Name:	OU6 Annual	Sample ID:	OU6-MW-291-20240612-TB
Date:	06/12/2024	Well Condition:	Good
Weather:	Partly Cloudy, 77		

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	2	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	10.63	Purging/Sampling Device:	Peristaltic Pump
Total Depth (ft btoc):	41.35 COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI Pro DSS
Water Column (ft):	30.72		
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier 0.1620	Start Purge Date/Time:	6/12/2024 - 1305
		End Purge Date/Time:	6/12/2024 - 1405
		Total Volume Purged (gal):	3
One Well Volume (gal):	4.98	Sample Date/Time:	
Screened Interval (ft bgs):	36 - 41	Sampler Name:	Tim Brown

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
1310	250	0.25	10.65	5.40	0.360	16.20	2.22	79.00	58.40	Water Clear, no odor
1315	250	0.50	10.65	5.24	0.352	16.20	2.73	111.00	68.30	
1320	250	0.75	10.65	5.24	0.354	16.10	2.60	116.00	53.50	
1325	250	1.00	10.65	5.27	0.353	16.10	2.46	164.00	56.50	
1330	250	1.25	10.65	5.27	0.355	16.10	2.30	201.00	52.50	
1335	250	1.50	10.65	5.26	0.356	16.10	2.06	265.00	49.80	
1340	250	1.75	10.65	5.23	0.358	16.00	1.57	339.00	43.90	
1345	250	2.00	10.70	5.22	0.362	16.00	1.33	270.00	41.50	
1350	250	2.25	10.70	5.22	0.363	16.00	1.27	307.00	40.70	
1355	250	2.50	10.70	5.22	0.363	16.00	1.26	300.00	40.40	
1400	250	2.75	10.72	5.23	0.363	16.00	1.25	325.00	40.30	
1405	250	3.00	10.72	5.24	0.364	16.00	1.24	340.00	40.00	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	✓	Manganese (6020 A)	✓
TOC (9060 A)	✓	LLPAHs (8270 E SIM)	
Methane Ethane Ethene (RSK-175)	✓	SVOCS (8270 D)	
Anions (9056 A)	✓	Pesticides & PCBS (8081 B & 8082 A)	
Alkalinity (2320 B)	✓	2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)		QPCR	
CO2 (SM4500)	✓		
Sulfide (SM4500)	✓		

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L): 1.21

Dilution: 1 Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result: 2.42

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? No If Yes, List ID and Analyses

COMMENTS/NOTES

Sample collected on 05/22/2024 - 1002

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GROUNDWATER SAMPLING DATA FORM

Project Number: 0045-CLIN-0013	Well ID: OU6-MW-291
Project/Site Name: OU8 Semi-Annual 2024	Sample ID: OU6-MW-291-20240612
Date: 20240612	Well Condition: GOOD
Weather: PARTLY CLOUDY 77°	

WATER LEVEL AND WELL SPECIFICATION DETAILS

Well Casing Diameter (inches): 2.00	
Initial Depth to Water (ft btoc): 10.63	
Total Depth (ft btoc): 41.35 COLLECT AFTER WELL IS SAMPLED	
Water Column (ft): 30.72	
Water Column Multipliers (gal/ft):	
.75-inch: 0.024 4-inch: 0.653	
2-inch: 0.162 6-inch: 1.469	
One Well Volume (gal): 4.97	
Screened Interval (ft bgs): 36-41	

SAMPLE COLLECTION INFORMATION

Purging/Sampling Method:	Low Flow
Purging/Sampling Device:	Peristaltic Pump Bladder Pump
Field Parameter Measuring Devices:	YSI PRO DSS
Start Purge Date/Time:	24/6/12 1305
End Purge Date/Time:	24/6/12 1405
Total Volume Purged (gal):	300
Sample Date/Time:	24/6/12 1405
Sampler Name:	T. M Brown

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (°C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
1310	250mL	.25	10.65	5.40	0.360	16.2	2.22	79	58.4	WATER CLEAR/NO ODOR
1315		.50	10.65	5.24	0.352	16.2	2.73	111	68.3	
1320		.75	10.65	5.24	0.354	16.1	2.60	116	53.5	
1325		1.00	10.65	5.27	0.353	16.1	2.46	164	56.5	
1330		1.25	10.65	5.27	0.355	16.1	2.30	201	52.5	
1335		1.50	10.65	5.26	0.356	16.1	2.06	265	49.8	
1340		1.75	10.65	5.23	0.358	16.0	1.57	339	43.9	
1345		2.00	10.70	5.22	0.362	16.0	1.33	270	41.5	
1350		2.25	10.70	5.22	0.363	16.0	1.27	307	40.7	
1355		2.50	10.70	5.22	0.363	16.0	1.26	300	40.4	
1400		2.75	10.72	5.23	0.363	16.0	1.25	325	40.3	
1405	↓	3.00	10.72	5.24	0.364	16.0	1.24	340	40.0	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply		Field Test Kit Results (If Applicable)
Volatiles - VOCs (8260 D)	Manganese (6020 A)	Hach Ferrous Iron Field Test Kit Result (mg/L):
TOC (9060 A)	LLPAHs (8270 E SIM)	Dilution:
Methane Ethane Ethene (RSK-175)	SVOCS (8270 D)	Result:
Anions (9056 A)	Pesticides & PCBS (8081 B & 8082 A)	Samples Field Filtered? Yes/No If Yes, Which Samples?
Alkalinity (2320 B)	2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)	QPCR	QA/QC Samples Collected? Yes/No
CO2 (SM4500)		If Yes, List Sample ID, Date/Time Collected, and Analyses
Sulfide (SM4500)		

COMMENTS/NOTES

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GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-0011	Well ID:	OU6-MW-287
Project/Site Name:	OU6 Annual	Sample ID:	OU6-MW-287-20240612
Date:	6/12/2024	Well Condition:	Good
Weather:	Partly cloudy, 76		

WATER LEVEL AND WELL SPECIFICATION DETAILS		SAMPLE COLLECTION INFORMATION	
Well Casing Diameter (inches):	2	Purging/Sampling Method:	Low Flow
Initial Depth to Water (ft btoc):	14.55	Purging/Sampling Device:	Peristaltic Pump
Total Depth (ft btoc):	41.80 COLLECT AFTER WELL IS SAMPLED	Field Parameter Measuring Devices:	YSI Pro DSS
Water Column (ft):	27.25		
Water Column Multipliers (gal/ft): 1/4": **0.0025**, 3/4": **0.024**, 1": **0.04** 2": **0.162**, 4": **0.653**, 6": **1.469**	Enter Multiplier 0.1620	Start Purge Date/Time:	06/12/2024 - 1135
		End Purge Date/Time:	06/12/2024 - 1235
		Total Volume Purged (gal):	3
One Well Volume (gal):	4.41	Sample Date/Time:	
Screened Interval (ft bgs):	36 - 41	Sampler Name:	Tim Brown

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm^{C})	Temp (^{o}C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
1140	250	0.25	15.02	5.60	0.074	19.70	1.31	90.00	63.50	water clear, no odor
1145	250	0.50	15.00	5.62	0.077	20.00	1.07	162.00	53.00	
1150	250	0.75	15.08	5.62	0.076	19.60	1.00	217.00	51.60	
1155	250	1.00	15.05	5.63	0.077	19.50	0.95	238.00	49.50	
1200	250	1.25	15.05	5.66	0.077	19.60	0.90	242.00	45.70	
1205	250	1.50	15.05	5.63	0.077	19.70	0.87	268.00	46.70	
1210	250	1.75	15.05	5.63	0.077	19.70	0.85	268.00	47.20	
1215	250	2.00	15.05	5.66	0.077	19.60	0.84	313.00	41.60	
1220	250	2.25	15.05	5.63	0.077	19.50	0.84	317.00	46.00	
1225	250	2.50	15.05	5.62	0.079	19.60	0.86	320.00	46.60	
1230	250	2.75	15.05	5.62	0.079	19.70	0.87	380.00	46.70	
1235	250	3.00	15.50	5.62	0.079	19.70	0.88	335.00	46.60	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply			
Volatiles - VOCs (8260 D)	✓	Manganese (6020 A)	✓
TOC (9060 A)	✓	LLPAHs (8270 E SIM)	
Methane Ethane Ethene (RSK-175)	✓	SVOCS (8270 D)	
Anions (9056 A)	✓	Pesticides & PCBS (8081 B & 8082 A)	
Alkalinity (2320 B)	✓	2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)		QPCR	
CO2 (SM4500)	✓	Dioxane	✓
Sulfide (SM4500)	✓		

HACH Ferrous Iron Field Test Kit Results (If Applicable)

Ferrous Iron Result (mg/L): 0.68

Dilution: 0 Multiplier: (1,**2**) (2,**4**) (3,**8**) (4,**16**) (5,**32**)

Reportable Result: 0.68

Samples Field Filtered? No **If Yes, Which Analyses?**

QA/QC Samples Collected? No If Yes, List ID and Analyses

COMMENTS/NOTES

Sample collected 5/21/2024 - 1315

MEADOWS CONSULTING · MANAGEMENT · PLANNING AECOM Imagine it. Delivered.

GROUNDWATER SAMPLING DATA FORM

Project Number:	0045-CLIN-0013	Well ID:	OU8-MW-287
Project/Site Name:	OU8 Semi-Annual 2024	Sample ID:	OU8-MW-287-20240612
Date:	20240612	Well Condition:	GOOD
Weather:	PARTLY CLOUDY 76°		

WATER LEVEL AND WELL SPECIFICATION DETAILS

Well Casing Diameter (inches):	2.00
Initial Depth to Water (ft btoc):	14.55
Total Depth (ft btoc):	41.80 COLLECT AFTER WELL IS SAMPLED
Water Column (ft):	27.25
Water Column Multipliers (gal/ft):	
.75-inch: 0.024	4-inch: 0.653
2-inch: 0.162	6-inch: 1.469
One Well Volume (gal):	4.41
Screened Interval (ft bgs):	36-41

SAMPLE COLLECTION INFORMATION

Purging/Sampling Method:	Low Flow
Purging/Sampling Device:	Peristaltic Pump Bladder Pump
Field Parameter Measuring Devices:	YSI PRO DSS
Start Purge Date/Time:	24/6/12 1135
End Purge Date/Time:	24/6/12 1235
Total Volume Purged (gal):	3.00
Sample Date/Time:	24/6/12 1235
Sampler Name:	T. Brown

PURGING DATA/FIELD PARAMETERS

Time	Rate (ml/min) 200-500ml	Cumulative Gallons Purged	DTW (ft btoc)	pH	Specific Conductivity (mS/cm°C)	Temp (°C)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)	ORP (mV)	Visual Observation / Comments
Stabilization Criteria →			<0.33'	+/- 0.1	+/- 3%	+/- 3%	+/- 10%	+/- 10%	+/- 10 mV	
1140	250mL	.25	15.02	5.60	0.074	19.7	1.31	90	63.5	WATER CLEAR/NO ODOR
1145		.50	15.00	5.62	0.077	20.0	1.07	162	53.0	
1150		.75	15.08	5.62	0.076	19.6	1.00	217	51.6	
1155		1.00	15.05	5.63	0.077	19.5	0.95	238	49.5	
1200		1.25	15.05	5.66	0.077	19.6	0.90	242	45.7	
1205		1.50	15.05	5.63	0.077	19.7	0.87	268	46.7	
1210		1.75	15.05	5.63	0.077	19.7	0.85	268	47.2	
1215		2.00	15.05	5.66	0.077	19.6	0.84	313	41.6	
1220		2.25	15.05	5.63	0.077	19.5	0.84	317	46.0	
1225		2.50	15.05	5.62	0.079	19.6	0.86	320	46.6	
1230		2.75	15.05	5.62	0.079	19.7	0.87	380	46.7	
1235		3.00	15.05	5.62	0.079	19.7	0.88	335	46.6	

ADDITIONAL SAMPLE COLLECTION INFORMATION

Laboratory Analyses, Check All That Apply		Field Test Kit Results (If Applicable)
Volatiles - VOCs (8260 D)	Manganese (6020 A)	Hach Ferrous Iron Field Test Kit Result (mg/L):
TOC (9060 A)	LLPAHs (8270 E SIM)	Dilution:
Methane Ethane Ethene (RSK-175)	SVOCS (8270 D)	Result:
Anions (9056 A)	Pesticides & PCBS (8081 B & 8082 A)	**Samples Field Filtered?** Yes/No If Yes, Which Samples?
Alkalinity (2320 B)	2,3,7,8 TCDD (8290 A)	
Metals (6020 A/6010 C/7470 A)	QPCR	QA/QC Samples Collected? Yes/No
CO2 (SM4500)		If Yes, List Sample ID, Date/Time Collected, and Analyses
Sulfide (SM4500)		

COMMENTS/NOTES

A.3 Building 151 Quarterly OM&M

MEADOWS

QUARTERLY O & M CHECKLIST
SUB-SLAB DEPRESSURIZATION SYSTEM AT BUILDING 151
Defense Supply Center Richmond

AECOM Imagine it. Delivered.

Project Number: 60045-0011
Prepared By: A. VanBuskirk
Weather: 72°, SUNNY, WSW 10, 34%, 29.83"Hg
Meters: GEM 5000, MINIRAE 3000

Date: 11/10/23
Time Start: 1230
Time Finish: 1300
Indoor Air Temp: 76 (°F)
Elec Meter: 000 16791 (kilowatt hours)

SYSTEM COMPONENTS:

Exhaust Fan Operational:	(Yes) / No	(Circle)
EP-1 Operating Light	On / (Off)	(Circle)
EP-2 Operating Light	On / (Off)	(Circle)
Exterior Piping	(Good Condition) / Replace	(Circle)
Extraction Point Risers	(Good Condition) / Replace	(Circle)
Interior Piping	(Good Condition) / Replace	(Circle)
Any unusual noises, vibrations or odors at the fan?		Yes / No
Any damage to fittings, piping, or sample ports?		Yes / No

COMMENTS: (Samples collected, O&M performed, etc.)

DRAINED ~ 1 CUP OF CONDENSATION

RECOMMENDED REPAIR/MODIFICATIONS:

SYSTEM ALARMS:

SA-1 (Low Vacuum)	Yes / (No)	(Circle)
SA-2 (Low Vacuum)	Yes / (No)	(Circle)

GAUGES:

Extraction Point 1 (PG-1)	-4	IN WC
Extraction Point 2 (PG-2)	-4	IN WC
Effluent (PG-EF)	-4	IN WC

ANNUAL:

Low Vacuum Alarm Test: Turn off exhaust fan and ensure system alarms at EP-1 and EP-2 are functional.

SA-1 (functioning)	(Yes) / No	(Circle)
SA-2 (functioning)	(Yes) / No	(Circle)

SA - System Alarm
PG - Pressure Gauge
EF - Effluent
EP - Extraction Point

Quarterly monitoring performed 2nd week of November, February, May and August

MEADOWS

QUARTERLY VMP MONITORING
SUB-SLAB DEPRESSURIZATION SYSTEM AT BUILDING 151
Defense Supply Center Richmond

AECOM Imagine it. Delivered.

Date: 10/10/23

Zero micromanometer prior to each reading.

	CH4 (%)	CO2 (%)	O2 (%)	VOC (ppm)	Pressure/Vacuum (IN WC)
Extraction Point 1	0.0	0.1	20.9	0.8	-3.8
Extraction Point 2	0.0	0.1	20.9	0.7	-3.8
Exhaust	0.0	0.1	20.9	0.8	-4.8
VMP168	0.0	0.1	21.0	1.8	~~-.015~~ -.004
VMP169	0.0	0.1	20.9	0.9	~~-.004~~ -.015
VMP170	0.0	0.2	21.0	0.6	.000
VMP171	0.0	0.1	21.0	0.8	-.001
VMP172	0.0	0.1	21.0	0.6	.000
VMP173	0.0	0.1	21.0	0.7	-.006
VMP174	0.0	0.1	20.9	~~0.4~~ 0.9 -A/N	-.004

Quarterly monitoring performed 2nd week of November, February, May and August

Samples Every 3rd and 5th Year (OU6 ROD) Date: Upcoming in 2021

	Sample ID	Summa ID	Flow ID	Start Pressure	Time	End Pressure	Time
Indoor Air							
Sub-Slab Vapor							
Outdoor Air							

Notes on indoor building conditions:

INSTRUMENT CALIBRATION REPORT

Pine Environmental Services LLC

2225 Tomlynn Street
Richmond, Va. 23230
Toll-free: (866) 801-PINE (7463)

Pine Environmental Services, Inc.

Instrument ID 41736
Description MiniRae 3000
Calibrated 10/9/2023 9:36:58AM

Manufacturer Rae Systems
Model Number PGM7320
Serial Number/ Lot Number 592-902016
Location Virginia
Department

State Certified
Status Pass
Temp °C 20.2
Humidity % 40.9

Calibration Specifications

Group # 1
Group Name Isobutylene
Stated Accy Pct of Reading
Range Acc % 0.0000
Reading Acc % 3.0000
Plus/Minus 0.0

Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev%	Pass/Fail
100.0 / 100.0	PPM	100.0	PPM	98.4	100.0	0.00%	Pass

Test Instruments Used During the Calibration (As Of Cal Entry Date)

Test Standard ID	Description	Manufacturer	Model Number	Serial Number / Lot Number	Last Cal Date/ Opened Date	Next Cal Date / Expiration Date
VA ISO 100 PPM	ISOBUTYLENE (100 PPM)	Gasco	31721	304-402210876-1		9/30/2025
VA ZERO AIR	ZERO AIR	Gasco	31844	304-401826822-1		6/10/2024

Notes about this calibration

Calibration Result Calibration Successful
Who Calibrated Patrick Anderson

All instruments are calibrated by Pine Environmental Services LLC according to the manufacturer's specifications, but it is the customer's responsibility to calibrate and maintain this unit in accordance with the manufacturer's specifications and/or the customer's own specific needs.

Notify Pine Environmental Services LLC of any defect within 24 hours of receipt of equipment
Please call 800-301-9663 for Technical Assistance

INSTRUMENT CALIBRATION REPORT

Pine Environmental Services LLC

2225 Tomlynn Street
Richmond, Va. 23230
Toll-free: (866) 801-PINE (7463)

Pine Environmental Services, Inc.

Instrument ID 47714
Description Gem 5000+
Calibrated 10/6/2023 8:11:47AM

Manufacturer CES Landtec
Model Number GEM5000
Serial Number/ Lot Number G506813
Location Virginia
Department

State Certified
Status Pass
Temp °C 23.2
Humidity % 60.3

Calibration Specifications

Group # 1
Group Name Methane (CH4)
Stated Accy Pct of Reading
Range Acc % 0.0000
Reading Acc % 3.0000
Plus/Minus 0.0

Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev%	Pass/Fail
50.0 / 50.0	%Volume	50.0	%Volume	51.0	50.0	0.00%	Pass

Group # 2
Group Name Carbon Dioxide (CO2)
Stated Accy Pct of Reading
Range Acc % 0.0000
Reading Acc % 3.0000
Plus/Minus 0.0

Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev%	Pass/Fail
35.0 / 35.0	%Volume	35.0	%Volume	35.2	35.0	0.00%	Pass

Group # 3
Group Name Oxygen (O2)
Stated Accy Pct of Reading
Range Acc % 0.0000
Reading Acc % 3.0000
Plus/Minus 0.0

Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev%	Pass/Fail
20.9 / 20.9	%Volume	20.9	%Volume	20.9	20.9	0.00%	Pass

Group # 4
Group Name Carbon Monoxide (CO)
Stated Accy Pct of Reading
Range Acc % 0.0000
Reading Acc % 3.0000
Plus/Minus 0

Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev%	Pass/Fail
1000 / 1000	PPM	1000	PPM	1,003	1,000	0.00%	Pass

Group # 5
Group Name Hydrogen Sulfide (H2S)
Stated Accy Pct of Reading
Range Acc % 0.0000
Reading Acc % 3.0000
Plus/Minus 0

Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev%	Pass/Fail
50 / 50	PPM	50	PPM	52	50	0.00%	Pass

MEADOWS

QUARTERLY O & M CHECKLIST
SUB-SLAB DEPRESSURIZATION SYSTEM AT BUILDING 151
Defense Supply Center Richmond

AECOM Imagine it. Delivered.

Project Number: 0045 - 0011
Prepared By: ANDREW V.
Weather: 330, RAIN, 7NW, 91%, 25.84"HG
Meters: MINIRAE 3000 GEM5000
INFILTEC DM1 MICROMANOMETER

Date: 1/16/24
Time Start: 11.00
Time Finish: 14.00
Indoor Air Temp: 68° (°F)
Elec Meter: 17687 (kilowatt hours)

SYSTEM COMPONENTS:

Exhaust Fan Operational:	Yes / No	(Circle)
EP-1 Operating Light	On / Off	(Circle)
EP-2 Operating Light	On / Off	(Circle)
Exterior Piping	Good Condition / Replace	(Circle)
Extraction Point Risers	Good Condition / Replace	(Circle)
Interior Piping	Good Condition / Replace	(Circle)
Any unusual noises, vibrations or odors at the fan?		Yes / No
Any damage to fittings, piping, or sample ports?		Yes / No

COMMENTS: (Samples collected, O&M performed, etc.)

DRAIN CONDENSATION FROM EXHAUST COVER FOR UMP 173 WAS WAXED OVER NEEDED TO CHIP AROUND IT TO OPEN (FLOOR WAX)

RECOMMENDED REPAIR/MODIFICATIONS:

SYSTEM ALARMS:

SA-1 (Low Vacuum)	Yes / No	(Circle)
SA-2 (Low Vacuum)	Yes / No	(Circle)

GAUGES:

Extraction Point 1	(PG-1)	-4	IN WC
Extraction Point 2	(PG-2)	-4	IN WC
Effluent	(PG-EF)	-4	IN WC

ANNUAL:

Low Vacuum Alarm Test: Turn off exhaust fan and ensure system alarms at EP-1 and EP-2 are functional.

SA-1 (functioning)	Yes / No	(Circle)
SA-2 (functioning)	Yes / No	(Circle)

SA - System Alarm
PG - Pressure Gauge
EF - Effluent
EP - Extraction Point

Quarterly monitoring performed 2nd week of November, February, May and August

MEADOWS

QUARTERLY VMP MONITORING
SUB-SLAB DEPRESSURIZATION SYSTEM AT BUILDING 151
Defense Supply Center Richmond

AECOM Imagine it. Delivered.

Date: 1/16/24

Zero micromanometer prior to each reading.

	CH4 (%)	CO2 (%)	O2 (%)	VOC (ppm)	Pressure/Vacuum (IN WC)
Extraction Point 1	0.0	0.2	21.2	0.4	-4.0
Extraction Point 2	0.0	0.2	21.2	0.6	-4.0
Exhaust	0.0	0.2	21.1	0.4	-4.0
VMP168	0.0	0.2	21.1	1.6	-.003
VMP169	0.0	0.2	21.2	0.7	-.003
VMP170	0.0	0.2	21.0	0.4	.002
VMP171	0.0	0.2	20.9	0.6	-.000
VMP172	0.0	0.2	21.0	0.6	+.001
VMP173	0.0	0.2	21.3	0.7	-.004
VMP174	0.0	0.2	21.4	0.5	-.008

Quarterly monitoring performed 2nd week of November, February, May and August

Samples Every 3rd and 5th Year (OU6 ROD) Date: Upcoming in 2021

	Sample ID	Summa ID	Flow ID	Start Pressure	Time	End Pressure	Time
Indoor Air							
Sub-Slab Vapor							
Outdoor Air							

Notes on indoor building conditions:

INSTRUMENT CALIBRATION REPORT

Pine Environmental Services LLC

2225 Tomlynn Street
Richmond, Va. 23230
Toll-free: (866) 801-PINE (7463)

Pine Environmental Services, Inc.

Instrument ID 50840
Description MiniRae 3000_FIRMWARE 2.22A
Calibrated 1/12/2024 3:29:05PM

Manufacturer Rae Systems
Model Number PGM 7320
Serial Number/ Lot Number 592-601239
Location Virginia
Department

State Certified
Status Pass
Temp °C 21.3
Humidity % 34.0

Calibration Specifications

Group # 1
Group Name ISOBUTYLENE
Stated Accy Pct of Reading
Range Acc % 0.0000
Reading Acc % 3.0000
Plus/Minus 0.0

Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev%	Pass/Fail
100.0 / 100.0	PPM	100.0	PPM	98.8	100.0	0.00%	Pass

Test Instruments Used During the Calibration (As Of Cal Entry Date)

Test Standard ID	Description	Manufacturer	Model Number	Serial Number / Lot Number	Last Cal Date/ Opened Date	Next Cal Date / Expiration Date
VA ISO 100 PPM	ISOBUTYLENE (100 PPM)	Gasco	31721	304-402210876 -1		9/30/2025
VA ZERO AIR	ZERO AIR	Gasco	31844	304-401826822 -1		6/10/2024

Notes about this calibration

Calibration Result Calibration Successful
Who Calibrated Patrick Anderson

All instruments are calibrated by Pine Environmental Services LLC according to the manufacturer's specifications, but it is the customer's responsibility to calibrate and maintain this unit in accordance with the manufacturer's specifications and/or the customer's own specific needs.

Notify Pine Environmental Services LLC of any defect within 24 hours of receipt of equipment
Please call 800-301-9663 for Technical Assistance

INSTRUMENT CALIBRATION REPORT

Pine Environmental Services LLC

2225 Tomlynn Street
Richmond, Va. 23230
Toll-free: (866) 801-PINE (7463)

Pine Environmental Services, Inc.

Instrument ID 43892
Description Gem 5000 (3 gas only)
Calibrated 1/12/2024 8:41:13AM

Manufacturer CES Landtec
Model Number GEM 5000
Serial Number/ Lot Number G505614
Location Virginia
Department

State Certified
Status Pass
Temp °C 17.2
Humidity % 33.1

Calibration Specifications

Group # 1
Group Name Methane
Stated Accy Pct of Reading
Range Acc % 0.0000
Reading Acc % 3.0000
Plus/Minus 0.00

Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev%	Pass/Fail
50.00 / 50.00	%Volume	50.00	%Volume	50.10	50.00	0.00%	Pass

Group # 2
Group Name Carbon Dioxide
Stated Accy Pct of Reading
Range Acc % 0.0000
Reading Acc % 3.0000
Plus/Minus 0.00

Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev%	Pass/Fail
35.00 / 35.00	%Volume	35.00	%Volume	34.40	35.00	0.00%	Pass

Group # 3
Group Name Oxygen
Stated Accy Pct of Reading
Range Acc % 0.0000
Reading Acc % 3.0000
Plus/Minus 0.00

Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev%	Pass/Fail
20.90 / 20.90	%Volume	20.90	%Volume	20.90	20.90	0.00%	Pass

Test Instruments Used During the Calibration (As Of Cal Entry Date)

Test Standard ID	Description	Manufacturer	Model Number	Serial Number / Lot Number	Next Cal Date / Last Cal Date/ Expiration Date Opened Date
VA 2-GAS GEM 50% CH4/35% CO2	METHANE (50%) / CARBON DIOXIDE (35%)	Gasco	31803	304-402012888 -1	2/10/2025

Notes about this calibration

Calibration Result Calibration Successful
Who Calibrated Patrick Anderson

MEADOWS

QUARTERLY O & M CHECKLIST
SUB-SLAB DEPRESSURIZATION SYSTEM AT BUILDING 151
Defense Supply Center Richmond

AECOM Imagine it. Delivered.

Project Number: 0045 - 0011
Prepared By: ANDREW V.
Weather: 73°, SUNNY, 6ESE, 3%, 30.17"Hg (°F)
Meters: MINIRAE 3000, GEM 5000
INFILTEC DM1 MICROMANOMETER

Date: 4/16/2024
Time Start: 1400
Time Finish: 1500
Indoor Air Temp: 73 (°F)
Elec Meter: 18522 (kilowatt hours)

SYSTEM COMPONENTS:

Exhaust Fan Operational:	(Yes) / No	(Circle)
EP-1 Operating Light	On / (Off)	(Circle)
EP-2 Operating Light	On / (Off)	(Circle)
Exterior Piping	(Good Condition) / Replace	(Circle)
Extraction Point Risers	(Good Condition) / Replace	(Circle)
Interior Piping	(Good Condition) / Replace	(Circle)
Any unusual noises, vibrations or odors at the fan?	Yes / (No)	
Any damage to fittings, piping, or sample ports?	Yes / No	

COMMENTS: (Samples collected, O&M performed, etc.)

SYSTEM OPERATING AS EXPECTED

RECOMMENDED REPAIR/MODIFICATIONS:

NONE

SYSTEM ALARMS:

SA-1 (Low Vacuum)	Yes / (No)	(Circle)
SA-2 (Low Vacuum)	Yes / (No)	(Circle)

GAUGES:

Extraction Point 1 (PG-1)	-4	IN WC
Extraction Point 2 (PG-2)	-4	IN WC
Effluent (PG-EF)	-4	IN WC

ANNUAL:

Low Vacuum Alarm Test: Turn off exhaust fan and ensure system alarms at EP-1 and EP-2 are functional.

SA-1 (functioning)	(Yes) / No	(Circle)
SA-2 (functioning)	(Yes) / No	(Circle)

SA - System Alarm
PG - Pressure Gauge
EF - Effluent
EP - Extraction Point

Quarterly monitoring performed 2nd week of November, February, May and August

MEADOWS
CONSULTING MANAGEMENT PLANNING

QUARTERLY VMP MONITORING
SUB-SLAB DEPRESSURIZATION SYSTEM AT BUILDING 151
Defense Supply Center Richmond

AECOM Imagine it. Delivered.

Date: 4/16/2024

Zero micromanometer prior to each reading.

	CH4 (%)	CO2 (%)	O2 (%)	VOC (ppm)	Pressure/Vacuum (IN WC)
Extraction Point 1	0.0	0.1	20.7	0.2	-4
Extraction Point 2	0.0	0.1	20.7	0.3	-4
Exhaust	0.0	0.1	20.7	0.2	-4
VMP168	0.0	0.1	20.7	1.3	-.010
VMP169	0.0	0.1	20.7	0.5	-.003
VMP170	0.0	0.1	20.7	0.3	-.001
VMP171	0.0	0.1	20.7	0.3	-.000
VMP172	0.0	0.1	20.7	0.3	-.002
VMP173	0.0	0.1	20.7	0.3	-.004
VMP174	0.0	0.1	20.7	0.2	-.008

Quarterly monitoring performed 2nd week of November, February, May and August

Samples Every 3rd and 5th Year (OU6 ROD) Date: Upcoming in 2021

	Sample ID	Summa ID	Flow ID	Start Pressure	Time	End Pressure	Time
Indoor Air							
Sub-Slab Vapor							
Outdoor Air							

Notes on indoor building conditions:

INSTRUMENT CALIBRATION REPORT

Pine Environmental Services LLC
530 Pylon Drive
Raleigh, NC 27606
Phone: (919) 713-0008

Pine Environmental Services, Inc.

Instrument ID 223285
Description GEM 5000+
Calibrated 4/12/2024 3:25:07PM

Manufacturer CES Landtec
Model Number GEM 5000
Serial Number/ Lot Number G510112
Location North Carolina
Department

State Certified
Status Pass
Temp °C 20
Humidity % 38

Calibration Specifications

Group # 1
Group Name Methane
Stated Accy Pct of Reading
Range Acc % 0.0000
Reading Acc % 3.0000
Plus/Minus 0.0

Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev%	Pass/Fail
50.0 / 50.0	%Volume	50.0	%	51.7	50.0	0.00%	Pass

Group # 2
Group Name Carbon Dioxide
Stated Accy Pct of Reading
Range Acc % 0.0000
Reading Acc % 3.0000
Plus/Minus 0.0

Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev%	Pass/Fail
35.0 / 35.0	%Volume	35.0	%Volume	34.6	35.0	0.00%	Pass

Group # 3
Group Name Oxygen
Stated Accy Pct of Reading
Range Acc % 0.0000
Reading Acc % 3.0000
Plus/Minus 0.0

Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev%	Pass/Fail
20.9 / 20.9	%Volume	20.9	%Volume	21.0	20.9	0.00%	Pass

Group # 4
Group Name Carbon Monoxide
Stated Accy Pct of Reading
Range Acc % 0.0000
Reading Acc % 3.0000
Plus/Minus 0

Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev%	Pass/Fail
1000 / 1000	PPM	1000	PPM	1,007	1,000	0.00%	Pass

Group # 5
Group Name Hydrogen Sulfide
Stated Accy Pct of Reading
Range Acc % 0.0000
Reading Acc % 3.0000
Plus/Minus 0

Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev%	Pass/Fail
50 / 50	PPM	50	PPM	49	50	0.00%	Pass

CERTIFICATION OF CALIBRATION

PJLA Calibration
No. 66916

QED

Date Of Calibration: 18-Mar-2024

Certificate Number: G510112_10/34958

Issued by: QED Environmental Systems Inc.

Customer: **PINE ENVIRONMENTAL SERVCIES LLC**
PO BOX 943 HEIGHTSTOWN, NJ 08520 US

Description:

Model: GEM5000

Serial Number: G510112

Accredited Results:

Methane (CH4)

Certified Gas (%)	Instrument Reading (%)	Uncertainty (%)
5.1	4.9	0.42
15.0	14.8	0.66
60.0	59.6	1.03

Carbon Dioxide (CO2)

Certified Gas (%)	Instrument Reading (%)	Uncertainty (%)
5.0	4.8	0.43
15.2	14.9	0.71
40.0	39.9	1.19

Oxygen (O2)

Certified Gas (%)	Instrument Reading (%)	Uncertainty (%)
20.9	20.9	0.25

Gas cylinders are traceable and details can be provided if requested.

CH4, CO2 readings recorded at: 31.8 °C/89.2 °F

O2 readings recorded at: 22.2 °C/71.9 °F

Barometric Pressure: 0980 mbar/28.95 "Hg

Method of Test : The analyzer is calibrated in a temperature controlled chamber using a series of reference gases, in compliance with procedure ISP17.

Instrument has passed calibration as the measurement result is within the specification limit. The specification limit takes into account the measurement uncertainty.

The reported expanded uncertainty is based on a standard uncertainty multiplied by a coverage factor of k=2, providing a level of confidence of approximately 95%. The uncertainty evaluation has been carried out in accordance with NIST requirements.

The calibration results published in this certificate were obtained using equipment capable of producing results that are traceable through NIST to the International System of Units (SI). Certification only applies to results shown. This certificate may not be reproduced other than in full, except with the prior written approval of the issuing laboratory.

www.qedenv.com (800) 624-2026 info@qedenv.com

QED Environmental Systems Inc. 2355 Bishop Circle West, Dexter, MI 48130

CERTIFICATION OF CALIBRATION

PJLA Calibration
No. 66916

QED™

Date Of Calibration: 18-Mar-2024

Certificate Number: G510112_10/34958

Issued by: QED Environmental Systems Inc.

Non Accredited results:

Pressure Transducers (inches of water column)					
Transducer	Certified (Low)	Reading (Low)	Certified (High)	Reading (High)	Accuracy
Static	0"	0"	40"	39.82"	2.0"
Differential	0"	0"	4"	3.82"	0.7"

Barometer (mbar)	
Reference	Instrument Reading
0980 mbar / 28.95 "Hg	0982 mbar / 28.99 "Hg

Additional Gas Cells		
Gas	Certified Gas (ppm)	Instrument Reading (ppm)
CO/H_2 COMP	500	500
H_2S	252	252

Linda Ostrowski

Date of Issue : 30 Mar 2024

Approved By Signatory

Linda Ostrowski
Laboratory Inspection

The calibration results published in this certificate were obtained using equipment capable of producing results that are traceable through NIST to the International System of Units (SI). Certification only applies to results shown. This certificate may not be reproduced other than in full, except with the prior written approval of the issuing laboratory.

Calibration Instance: 118 IGC Instance: N A

www.qedenv.com (800) 624-2026 info@qedenv.com

QED Environmental Systems Inc. 2355 Bishop Circle West, Dexter, MI 48130

INSTRUMENT CALIBRATION REPORT

Pine Environmental Services LLC

2225 Tomlynn Street
Richmond, Va. 23230
Toll-free: (866) 801-PINE (7463)

Pine Environmental Services, Inc.

Instrument ID 29778
Description MIniRae 3000
Calibrated 4/11/2024 8:34:12AM

Manufacturer Rae Systems
Model Number MiniRAE 3000
Serial Number/ Lot Number 592-913406
Location Virginia
Department

State Certified
Status Pass
Temp °C 21.2
Humidity % 62.3

Calibration Specifications

Group # 1
Group Name Isobutylene
Stated Accy Pct of Reading

Range Acc % 0.0000
Reading Acc % 3.0000
Plus/Minus 0.00

Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev%	Pass/Fail
100.00 / 100.00	PPM	100.00	PPM	100.00	100.00	0.00%	Pass

Test Instruments Used During the Calibration

(As Of Cal Entry Date)

Test Standard ID	Description	Manufacturer	Model Number	Serial Number / Lot Number	Last Cal Date/ Opened Date	Next Cal Date / Expiration Date
VA ISO 100 PPM	ISOBUTYLENE (100 PPM)	Gasco	31721	304-402210876 -1		9/30/2025

Notes about this calibration

Calibration Result Calibration Successful
Who Calibrated Mani Rogers

All instruments are calibrated by Pine Environmental Services LLC according to the manufacturer's specifications, but it is the customer's responsibility to calibrate and maintain this unit in accordance with the manufacturer's specifications and/or the customer's own specific needs.

Notify Pine Environmental Services LLC of any defect within 24 hours of receipt of equipment
Please call 800-301-9663 for Technical Assistance

MEADOWS

QUARTERLY O & M CHECKLIST
SUB-SLAB DEPRESSURIZATION SYSTEM AT BUILDING 151
Defense Supply Center Richmond

AECOM Imagine it. Delivered.

Project Number: 0045-[illegible]11
Prepared By: ANDREW U.
Weather: 75°, MOSTLY CLOUDY, N12, 46% 30.05"HG
Meters: MINIRAE PID3K, GEM 5000

Date: 7/1/2024
Time Start: 1200
Time Finish: 1330
Indoor Air Temp: 75 GARAGE, 70 OFFICE (°F)
Elec Meter: 000 18731 (kilowatt hours)

SYSTEM COMPONENTS:

Exhaust Fan Operational:	Yes (No)	(Circle)
EP-1 Operating Light	On / (Off)	(Circle)
EP-2 Operating Light	On (Off)	(Circle)
Exterior Piping	(Good Condition) / Replace	(Circle)
Extraction Point Risers	(Good Condition) / Replace	(Circle)
Interior Piping	(Good Condition) / Replace	(Circle)
Any unusual noises, vibrations or odors at the fan?		Yes / No
Any damage to fittings, piping, or sample ports?		Yes / No

COMMENTS: (Samples collected, O&M performed, etc.)

SYSTEM REPORTED TO HAVE BEEN NON OPERATIONAL FOR ~ 2 MONTHS, ALARMS WERE UNPLUGGED, NO NOTIFICATION WAS GIVEN

RECOMMENDED REPAIR/MODIFICATIONS:

SYSTEM NOT RUNNING, POWER IS GOING TO UNIT, WILL LIKELY NEED REPAIR/REPLACEMENT FAN REMOVED FOR SERVICING ON 7/2/24, MAY REQUIRE REPLACEMENT FAN INSTALLED IN 2018, REMOVED + REBUILT IN 2021

SYSTEM ALARMS:

SA-1 (Low Vacuum)	(Yes) / No	(Circle)
SA-2 (Low Vacuum)	(Yes) / No	(Circle)

GAUGES:

Extraction Point 1 (PG-1)	Ø	IN WC
Extraction Point 2 (PG-2)	Ø	IN WC
Effluent (PG-EF)	Ø	IN WC

ANNUAL:

Low Vacuum Alarm Test: Turn off exhaust fan and ensure system alarms at EP-1 and EP-2 are functional.

SA-1 (functioning)	(Yes) / No	(Circle)
SA-2 (functioning)	(Yes) / No	(Circle)

SA - System Alarm
PG - Pressure Gauge
EF - Effluent
EP - Extraction Point

Quarterly monitoring performed 2nd week of November, February, May and August

MEADOWS

QUARTERLY VMP MONITORING
SUB-SLAB DEPRESSURIZATION SYSTEM AT BUILDING 151
Defense Supply Center Richmond

AECOM Imagine it. Delivered.

Date: 7/1/2024

Zero micromanometer prior to each reading.

	CH4 (%)	CO2 (%)	O2 (%)	VOC (ppm)	Pressure/Vacuum (IN WC)
Extraction Point 1	0.0	0.1	21.3	0.6	0.0
Extraction Point 2	0.0	0.1	21.3	0.6	0.0
Exhaust	0.0	0.2	21.3	0.5	0.0
VMP168	0.0	0.1	21.4	1.0	0.0
VMP169	0.0	0.2	21.4	0.8	0.0
VMP170	0.0	0.2	21.4	0.6	0.0
VMP171	0.0	0.2	21.2	0.6	0.0
VMP172	0.0	0.2	21.4	0.5	0.0
VMP173	0.0	0.2	21.3	0.7	0.0
VMP174	0.0	0.2	21.2	0.7	0.0

PID MEASURING 0.3, REZEROED BUT NO CHANGE

Quarterly monitoring performed 2nd week of November, February, May and August

Samples Every 3rd and 5th Year (OU6 ROD) Date: Upcoming in 2021

	Sample ID	Summa ID	Flow ID	Start Pressure	Time	End Pressure	Time
Indoor Air							
Sub-Slab Vapor							
Outdoor Air							

Notes on indoor building conditions:

INSTRUMENT CALIBRATION REPORT

Pine Environmental Services LLC

2225 Tomlynn Street
Richmond, Va. 23230
Toll-free: (866) 801-PINE (7463)

Pine Environmental Services, Inc.

Instrument ID 47714
Description Gem 5000+
Calibrated 6/27/2024 10:49:38AM

Test Instruments Used During the Calibration (As Of Cal Entry Date)

Test Standard ID	Description	Manufacturer	Model Number	Serial Number / Lot Number	Last Cal Date/ Opened Date	Next Cal Date / Expiration Date
VA 2-GAS 50-H2S 1000-CO	CARBON MONOXIDE (1000 PPM) / HYDROGEN SULFIDE (50 PPM)	Gasco	32278	304-402488559-1		7/31/2024
VA 2-GAS GEM 50% CH4/35% CO2	METHANE (50%) / CARBON DIOXIDE (35%)	Gasco	31803	304-402012888-1		2/10/2025

Notes about this calibration

Calibration Result Calibration Successful
Who Calibrated Patrick Anderson

All instruments are calibrated by Pine Environmental Services LLC according to the manufacturer's specifications, but it is the customer's responsibility to calibrate and maintain this unit in accordance with the manufacturer's specifications and/or the customer's own specific needs.

Notify Pine Environmental Services LLC of any defect within 24 hours of receipt of equipment
Please call 800-301-9663 for Technical Assistance

INSTRUMENT CALIBRATION REPORT

Pine Environmental Services LLC
2225 Tomlynn Street
Richmond, Va. 23230
Toll-free: (866) 801-PINE (7463)

Pine Environmental Services, Inc.

Instrument ID 41659
Description MiniRAE3000
Calibrated 6/26/2024 9:41:07AM

Manufacturer Rae Systems
Model Number MiniRAE3000
Serial Number/ Lot Number 592-923370
Location Virginia
Department

State Certified
Status Pass
Temp °C 27.3
Humidity % 53.0

Calibration Specifications

Group # 1
Group Name Isobutylene
Stated Accy Pct of Reading
Range Acc % 0.0000
Reading Acc % 3.0000
Plus/Minus 0.0

Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev%	Pass/Fail
100.0 / 100.0	PPM	100.0	PPM	99.4	100.0	0.00%	Pass

Test Instruments Used During the Calibration

(As Of Cal Entry Date)

Test Standard ID	Description	Manufacturer	Model Number	Serial Number / Lot Number	Next Cal Date / Last Cal Date/ Expiration Date / Opened Date
VA ISO 100 PPM	ISOBUTYLENE (100 PPM)	Gasco	31721	304-402210876-1	9/30/2025
ZERO AIR 0% FBJ-1-8	ZERO AIR 0% FBJ-1-8	Airgas	31844		7/10/2027

Notes about this calibration

Calibration Result Calibration Successful
Who Calibrated Patrick Anderson

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Appendix B Monitoring Data Summary Tables

B.1 Nov. 2023 ISB Performance Groundwater Monitoring Tables

Table B.1.1
OU 6 Volatile Organic Compounds - Fall 2023
Defense Supply Center Richmond

				Sample Location	OU6-MW-126			OU6-MW-129			OU6-MW-130			OU6-MW-131			OU6-MW-237			OU6-MW-238			OU6-MW-239			OU6-MW-240		
				Sample ID	OU6-MW-126-20231121			OU6-MW-129-20231121			OU6-MW-130-20231121			OU6-MW-131-20231121			OU6-MW-237-20231120			OU6-MW-238-20231120			OU6-MW-239-20231120			OU6-MW-240-20231121		
				Sample Date	11/21/2023			11/21/2023			11/21/2023			11/21/2023			11/20/2023			11/20/2023			11/20/2023			11/21/2023		
				Sample Type	N			N			N			N			N			N			N			N		
				Description	UWBU			UWBU			UWBU			UWBU			UWBU			UWBU			UWBU			UWBU		
Parameter	**CAS#**	**MCL**	**RSL**	**BTAG**	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV
VOCs by SW8260D (µg/L)																												
1,1,1,2-Tetrachloroethane	630-20-6	-	5.74E-01	-	< 1.8	U		< 36	U		< 0.72	U		< 3.6	U		< 0.36	U		< 9.0	U		< 0.72	U		< 9.0	U	
1,1,1-Trichloroethane	71-55-6	2.00E+02	8.01E+02	1.10E+01	< 1.1	U		< 21	U		< 0.42	U		< 2.1	U		< 0.21	U		< 5.3	U		< 0.42	U		< 5.3	U	
1,1,2,2-Tetrachloroethane	79-34-5	-	7.57E-02	6.10E+02	< 2.0	U		< 40	U		< 0.80	U		< 4.0	U		< 0.40	U		< 10	U		< 0.80	U		< 10	U	
1,1,2-Trichloroethane	79-00-5	5.00E+00	4.15E-02	1.20E+03	< 1.6	U		< 32	UM		< 0.64	U		< 3.2	U		< 0.32	U		< 8.0	U		< 0.64	U		< 8.0	U	
1,1-Dichloroethane	75-34-3	-	*2.75E+00*	4.70E+01	< 1.7	U		< 33	U		< 0.66	U		< 3.3	U		< 0.33	U		< 8.3	U		< 0.66	U		< 8.3	U	
1,1-Dichloroethene (Vinylidene chloride)	75-35-4	7.00E+00	*2.85E+01*	2.50E+01	***32***	***D***		< 83	U		**0.97**	**JD**	**J**	**3.4**	**JDM**	**J**	**15**			< 8.3	U		< 0.66	U		**12**	**JD**	**J**
1,1-Dichloropropene	563-58-6	-	-	-	< 1.4	U		< 28	U		< 0.56	U		< 2.8	U		< 0.28	U		< 7.0	U		< 0.56	U		< 7.0	U	
1,2,3-Trichlorobenzene	87-61-6	-	7.04E-01	8.00E+00	< 4.1	U		< 81	U		< 1.6	U		< 8.1	U		< 0.81	U		< 20	U		< 1.6	U		< 20	U	
1,2,3-Trichloropropane	96-18-4	-	7.49E-04	-	< 2.4	U		< 48	U		< 0.96	U		< 4.8	U		< 0.48	U		< 12	UJ1		< 0.96	U		< 12	U	
1,2,4-Trichlorobenzene	120-82-1	7.00E+01	3.99E-01	2.40E+01	< 2.7	U		< 53	U		< 1.1	U		< 5.3	U		< 0.53	U		< 13	U		< 1.1	U		< 13	U	
1,2,4-Trimethylbenzene	95-36-3	-	-	-	< 2.2	U		< 43	U		< 0.86	U		< 4.3	U		< 0.43	U		< 11	U		< 0.86	U		< 11	U	
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	2.00E-01	3.34E-04	-	< 9.0	U		< 180	UQ		< 3.6	U		< 18	U		< 1.8	U		< 45	U		< 3.6	U		< 45	UQ	
1,2-Dibromoethane (EDB)	106-93-4	5.00E-02	7.47E-03	-	< 1.7	U		< 33	U		< 0.66	U		< 3.3	U		< 0.33	U		< 8.3	U		< 0.66	U		< 8.3	U	
1,2-Dichlorobenzene	95-50-1	6.00E+02	3.04E+01	7.00E-01	< 1.6	U		< 31	U		< 0.62	U		< 3.1	U		< 0.31	U		< 7.8	U		< 0.62	U		< 7.8	U	
1,2-Dichloroethane	107-06-2	5.00E+00	*1.71E-01*	1.00E+02	***1.9***	***JDM***	***J***	< 25	UM		< 0.50	U		< 2.5	U		< 0.25	U		< 6.3	U		< 0.50	U		< 6.3	UM	
1,2-Dichloroethene, Total	540-59-0	-	-	5.90E+02	**630**	**D**		**33000**	**D**		**190**	**D**		**760**	**D**		**140**			**120**	**DJ1**		**7.2**	**D**		**2100**	**D**	
1,2-Dichloropropane	78-87-5	5.00E+00	8.25E-01	-	< 1.1	U		< 22	U		< 0.44	U		< 2.2	U		< 0.22	U		< 5.5	U		< 0.44	U		< 5.5	U	
1,3,5-Trimethylbenzene	108-67-8	-	6.03E+00	7.10E+01	< 1.4	U		< 28	U		< 0.56	U		< 2.8	U		< 0.28	U		< 7.0	U		< 0.56	U		< 7.0	U	
1,3-Dichlorobenzene	541-73-1	-	-	1.50E+02	< 1.6	U		< 31	U		< 0.62	U		< 3.1	U		< 0.31	U		< 7.8	U		< 0.62	U		< 7.8	U	
1,3-Dichloropropane	142-28-9	-	3.69E+01	-	< 1.8	U		< 36	U		< 0.72	U		< 3.6	U		< 0.36	U		< 9.0	U		< 0.72	U		< 9.0	U	
1,4-Dichlorobenzene	106-46-7	7.50E+01	4.82E-01	2.60E+01	< 1.6	U		< 31	U		< 0.62	U		< 3.1	U		< 0.31	U		< 7.8	U		< 0.62	U		< 7.8	U	
2,2-Dichloropropane	594-20-7	-	-	-	< 1.8	U		< 35	U		< 0.70	U		< 3.5	U		< 0.35	U		< 8.8	U		< 0.70	U		< 8.8	U	
2-Butanone (MEK)	78-93-3	-	5.57E+02	1.40E+04	< 32	U		< 640	UQ		< 13	U		< 64	U		< 6.4	U		< 160	U		< 13	U		< 160	UQ	
2-Chlorotoluene	95-49-8	-	2.37E+01	-	< 1.3	U		< 25	U		< 0.50	U		< 2.5	U		< 0.25	U		< 6.3	U		< 0.50	U		< 6.3	U	
2-Hexanone	591-78-6	-	*3.80E+00*	9.90E+01	< 16	U		< 320	UQ		< 6.4	U		< 32	U		< 3.2	U		< 80	U		< 6.4	U		< 80	UQ	
4-Chlorotoluene	106-43-4	-	2.50E+01	-	< 2.1	U		< 41	U		< 0.82	U		< 4.1	U		< 0.41	U		< 10	U		< 0.82	U		< 10	U	
4-Methyl-2-pentanone (MIBK)	108-10-1	-	6.26E+02	1.70E+02	< 14	U		< 270	UQ		< 5.4	U		< 27	U		< 2.7	U		< 68	U		< 5.4	U		< 68	UQ	
Acetone	67-64-1	-	1.80E+03	1.50E+03	< 19	U		< 370	U		< 7.4	U		< 37	U		< 3.7	U		< 93	U		< 7.4	U		**150**	**JD**	**J**
Benzene	71-43-2	5.00E+00	4.55E-01	3.70E+02	< 1.4	U		< 27	U		< 0.54	U		< 2.7	U		< 0.27	U		< 6.8	U		< 0.54	U		< 6.8	U	
Bromobenzene	108-86-1	-	6.22E+00	-	< 1.2	U		< 24	U		< 0.48	U		< 2.4	U		< 0.24	U		< 6.0	U		< 0.48	U		< 6.0	U	
Bromochloromethane	74-97-5	-	8.34E+00	-	< 1.7	U		< 34	U		< 0.68	U		< 3.4	U		< 0.34	U		< 8.5	U		< 0.68	U		< 8.5	U	
Bromodichloromethane	75-27-4	8.00E+01	1.34E-01	-	< 1.3	U		< 25	U		< 0.50	U		< 2.5	U		< 0.25	U		< 6.3	U		< 0.50	U		< 6.3	U	
Bromoform	75-25-2	8.00E+01	3.29E+00	3.20E+02	< 3.0	U		< 59	UQ		< 1.2	U		< 5.9	U		< 0.59	U		< 15	U		< 1.2	U		< 15	UQ	
Bromomethane	74-83-9	-	7.55E-01	-	< 19	U		< 370	UQ		< 7.4	U		< 37	U		< 3.7	U		< 93	U		< 7.4	U		< 93	UQ	
Carbon disulfide	75-15-0	-	8.11E+01	9.20E-01	< 2.2	UQ		< 43	UQ		< 0.86	UQ		< 4.3	UQ		< 0.43	U		< 11	U		< 0.86	U		< 11	UQ	
Carbon tetrachloride	56-23-5	5.00E+00	4.55E-01	1.33E+01	< 1.5	U		< 30	U		< 0.60	U		< 3.0	U		< 0.30	U		< 7.5	U		< 0.60	U		< 7.5	U	
Chlorobenzene	108-90-7	1.00E+02	7.77E+00	1.30E+00	< 0.75	U		< 15	U		< 0.30	U		< 1.5	U		< 0.15	U		< 3.8	U		< 0.30	U		< 3.8	U	
Chlorodibromomethane (Dibromochloromethane)	124-48-1	8.00E+01	8.71E-01	-	< 2.0	U		< 39	U		< 0.78	U		< 3.9	U		< 0.39	U		< 9.8	U		< 0.78	U		< 9.8	U	
Chloroethane	75-00-3	-	8.34E+02	-	< 23	U		< 460	U		< 9.2	U		< 46	U		< 4.6	U		< 120	UJ1		< 9.2	U		< 120	U	
Chloroform	67-66-3	8.00E+01	*2.21E-01*	1.80E+00	< 1.4	U		< 27	U		< 0.54	U		***4.5***	***JD***	***J***	***0.33***	***JM***	***J***	< 6.8	U		< 0.54	U		< 6.8	U	
Chloromethane	74-87-3	-	1.88E+01	-	< 2.7	U		< 54	U		< 1.1	U		< 5.4	U		< 0.54	U		< 14	U		< 1.1	U		< 14	U	
cis-1,2-Dichloroethene	156-59-2	7.00E+01	*2.52E+00*	-	***630***	***D***		***33000***	***D***		***190***	***D***		***760***	***D***		***140***			***120***	***DMJ1***		***7.2***	***DM***		***2100***	***D***	
cis-1,3-Dichloropropene	10061-01-5	-	-	-	< 1.3	U		< 26	U		< 0.52	U		< 2.6	U		< 0.26	U		< 6.5	U		< 0.52	U		< 6.5	U	
Cyclohexane	110-82-7	-	1.25E+03	-	< 1.4	U		< 28	U		< 0.56	U		< 2.8	U		< 0.28	U		< 7.0	U		< 0.56	U		< 7.0	U	
Dibromomethane	74-95-3	-	8.34E-01	-	< 1.7	U		< 34	U		< 0.68	U		< 3.4	U		< 0.34	U		< 8.5	U		< 0.68	U		< 8.5	U	
Dichlorodifluoromethane	75-71-8	-	1.97E+01	-	< 1.8	U		< 36	U		< 0.72	U		< 3.6	U		< 0.36	U		< 9.0	U		< 0.72	U		< 9.0	U	
Ethylbenzene	100-41-4	7.00E+02	1.50E+00	9.00E+01	< 1.0	U		< 20	U		< 0.40	U		< 2.0	U		< 0.20	U		< 5.0	U		< 0.40	U		< 5.0	U	
Hexachlorobutadiene	87-68-3	-	1.39E-01	1.30E+00	< 1.1	U		< 22	U		< 0.44	U		< 2.2	U		< 0.22	U		< 5.5	UJ1		< 0.44	U		< 5.5	U	
Isopropylbenzene	98-82-8	-	4.51E+01	2.60E+00	< 1.3	U		< 26	U		< 0.52	U		< 2.6	U		< 0.26	U		< 6.5	U		< 0.52	U		< 6.5	U	
m+p-Xylenes	179601-23-1	-	-	-	< 2.5	U		< 49	U		< 0.98	U		< 4.9	U		< 0.49	U		< 12	U		< 0.98	U		< 12	U	
Methyl Acetate	79-20-9	-	1.99E+03	-	< 16	U		< 320	U		< 6.4	U		< 32	U		< 3.2	UM		< 80	U		< 6.4	U		< 80	U	
Methylcyclohexane	108-87-2	-	1.98E+01	-	< 1.7	U		< 33	U		< 0.66	UM		< 3.3	U		< 0.33	UM		< 8.3	UM		< 0.66	U		< 8.3	U	
Methylene chloride (DCM)	75-09-2	5.00E+00	1.07E+01	9.81E+01	< 16	U		< 320	U		< 6.4	U		< 32	U		< 3.2	U		< 80	U		< 6.4	U		< 80	U	
Naphthalene	91-20-3	-	*1.17E-01*	1.10E+00	< 12	U		< 240	U		< 4.8	U		< 24	U		< 2.4	U		< 60	U		< 4.8	U		< 60	U	
n-Butylbenzene	104-51-8	-	1.00E+02	-	< 2.6	U		< 52	U		< 1.0	U		< 5.2	U		< 0.52	U		< 13	U		< 1.0	U		< 13	U	
n-Propylbenzene	103-65-1	-	6.56E+01	1.28E+02	< 2.1	U		< 41	U		< 0.82	UM		< 4.1	UM		< 0.41	UM		< 10	UM		< 0.82	UM		< 10	U	
o-Xylene	95-47-6	-	1.93E+01	-	< 1.3	U		< 26	U		< 0.52	U		< 2.6	U		< 0.26	U		< 6.5	U		< 0.52	U		< 6.5	U	
p-Isopropyltoluene	99-87-6	-	-	8.50E+01	< 2.2	U		< 44	U		< 0.88	U		< 4.4	U		< 0.44	U		< 11	U		< 0.88	U		< 11	U	
sec-Butylbenzene	135-98-8	-	2.01E+02	-	< 2.7	U		< 53	U		< 1.1	U		< 5.3	U		< 0.53	U		< 13	U		< 1.1	U		< 13	U	
Styrene	100-42-5	1.00E+02	1.21E+02	7.20E+01	< 1.4	U		< 27	U		< 0.54	U		< 2.7	UM		< 0.27	U		< 6.8	UM		< 0.54	UM		< 6.8	U	
tert-Butyl methyl ether (MTBE)	1634-04-4	-	1.43E+01	1.11E+04	< 4.1	U		< 81	U		< 1.6	U		< 8.1	U		< 0.81	U		< 20	U		< 1.6	U		< 20	U	
tert-Butylbenzene	98-06-6	-	6.91E+01	-	< 2.2	U		< 43	U		< 0.86	U		< 4.3	U		< 0.43	U		< 11	U		< 0.86	U		< 11	U	
Tetrachloroethene	127-18-4	5.00E+00	*4.06E+00*	1.11E+02	***4.4***	***JD***	***J***	***6900***	***D***		***86***	***D***		***81***	***D***		***49***			***38***	***JDMJ1***		< 0.70	U		***170***	***D***	
Toluene	108-88-3	1.00E+03	1.10E+02	2.00E+00	< 1.3	U		< 25	U		< 0.50	U		< 2.5	U		< 0.25	U		< 6.3	U		< 0.50	U		< 6.3	U	
trans-1,2-Dichloroethene	156-60-5	1.00E+02	*6.78E+00*	9.70E+02	**1.8**	**JDM**	**J**	***79***	***JD***	***J***	**1.5**	**JDM**	**J**	< 3.4	U		**0.74**	**J**	**J**	< 8.5	U		< 0.68	U		< 8.5	U	
trans-1,3-Dichloropropene	10061-02-6	-	-	-	< 1.2	U		< 23	U		< 0.46	UM		< 2.3	UM		< 0.23	UM		< 5.8	UM		< 0.46	U		< 5.8	U	
Trichloroethene	79-01-6	5.00E+00	*2.83E-01*	2.10E+01	***4.0***	***JDM***		***6200***	***D***		***60***	***D***		***1400***	***D***		***120***			***2600***	***DJ1***		***130***	***D***		***77***	***D***	
Trichlorofluoromethane	75-69-4	-	5.16E+02	-	< 1.7	U		< 33	UQ		< 0.66	U		< 3.3	U		< 0.33	U		< 8.3	U		< 0.66	U		< 8.3	UQ	
Trichlorotrifluoroethane (Freon 113)	76-13-1	-	1.02E+03	-	< 1.2	U		**370**	**D**		< 0.46	U		< 2.3	U		**1.5**			**14**	**JDJ1**		< 0.46	U		< 5.8	U	
Vinyl chloride	75-01-4	2.00E+00	*1.88E-02*	9.30E+02	***31***	***D***		***950***	***D***		***13***	***D***		***4.2***	***JD***	***J***	***2.7***			< 10	U		< 0.80	U		***300***	***D***	
Xylene (Total)	1330-20-7	1.00E+04	1.93E+01	1.30E+01	< 2.5	U		< 49	U		< 0.98	U		< 4.9	U		< 0.49	U		< 12	U		< 0.98	U		< 12	U	
Field Parameters																												
Depth to Water (ft)	DTW	-	-	-	-[1]			**21.5**			**16.7**			**21**			**18.15**			**16.7**			**16.05**			**17.45**		
Dissolved Oxygen (mg/L)	DO	-	-	-	-[1]			**1.03**			**0.55**			**0.64**			**1.36**			**1.17**			**0.6**			**2.36**		
Ferrous Iron - Field (mg/L)	FIELD FE	-	-	-	-[1]			**16.88**			**8.64**			**0.22**			**0.25**			**17.2**			**4**			**17.44**		
Oxidation Reduction Potential (mV)	ORP	-	-	-	-[1]			**-65.6**			**-16.3**			**170.6**			**197.2**			**-94.7**			**83.1**			**-108**		
pH (pH unit)	PH	-	-	-	-[1]			**6.35**			**5.95**			**4.96**			**5**			**6.39**			**5.5**			**6.18**		
Specific Conductivity (mS/cm)	SC	-	-	-	-[1]			**0.671**			**0.335**			**0.048**			**0.052**			**0.612**			**0.082**			**0.91**		
Temperature (C)	TEMP	-	-	-	-[1]			**19.12**			**18.93**			**18.48**			**18.75**			**20.06**			**20.27**			**18.43**		
Turbidity (NTU)	TURB	-	-	-	-[1]			**6.39**			**0.09**			**2500**			**8.01**			**7.37**			**6.35**			**4.34**		

Table B.1.1
OU 6 Volatile Organic Compounds - Fall 2023
Defense Supply Center Richmond

				Sample Location	OU6-MW-241			OU6-MW-242			OU6-MW-242			OU6-MW-243			OU6-MW-244			OU6-MW-245			OU6-MW-246			OU6-MW-247		
				Sample ID	OU6-MW-241-20231120			DUP-20231120			OU6-MW-242-20231120			OU6-MW-243-20231120			OU6-MW-244-20231120			OU6-MW-245-20231120			OU6-MW-246-20231121			OU6-MW-247-20231121		
				Sample Date	11/20/2023			11/20/2023			11/20/2023			11/20/2023			11/20/2023			11/20/2023			11/21/2023			11/21/2023		
				Sample Type	N			FD			N			N			N			N			N			N		
				Description	UWBU			UWBU			UWBU			UWBU			UWBU			UWBU			UWBU			UWBU		
Parameter	**CAS#**	**MCL**	**RSL**	**BTAG**	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV
VOCs by SW8260D (µg/L)																												
1,1,1,2-Tetrachloroethane	630-20-6	-	5.74E-01	-	< 0.36	U		< 18	U		< 9.0	U		< 36	U		< 0.72	U		< 0.36	U		< 0.36	U		< 0.36	U	
1,1,1-Trichloroethane	71-55-6	2.00E+02	8.01E+02	1.10E+01	< 0.21	U		< 11	U		< 5.3	U		< 21	U		< 0.42	U		< 0.21	U		< 0.21	U		< 0.21	U	
1,1,2,2-Tetrachloroethane	79-34-5	-	7.57E-02	6.10E+02	< 0.40	U		< 20	U		< 10	U		< 40	U		< 0.80	U		< 0.40	U		< 0.40	U		< 0.40	U	
1,1,2-Trichloroethane	79-00-5	5.00E+00	4.15E-02	1.20E+03	< 0.32	U		< 16	U		< 8.0	U		< 32	U		< 0.64	UM		< 0.32	U		< 0.32	U		< 0.32	UM	
1,1-Dichloroethane	75-34-3	-	*2.75E+00*	4.70E+01	**0.47**	**JM**	**J**	***53***	***JD***		***61***	***DM***		< 33	U		< 0.66	U		< 0.33	U		< 0.33	U		< 0.33	U	
1,1-Dichloroethene (Vinylidene chloride)	75-35-4	7.00E+00	*2.85E+01*	2.50E+01	**7.2**			***290***	***D***		***320***	***D***		***320***	***D***		< 0.66	UM		**1.8**	**JM**		**0.44**	**J**	**J**	< 0.33	UM	
1,1-Dichloropropene	563-58-6	-	-	-	< 0.28	U		< 14	U		< 7.0	U		< 28	U		< 0.56	U		< 0.28	U		< 0.28	U		< 0.28	U	
1,2,3-Trichlorobenzene	87-61-6	-	7.04E-01	8.00E+00	< 0.81	U		< 41	U		< 20	U		< 81	U		< 1.6	U		< 0.81	U		< 0.81	U		< 0.81	U	
1,2,3-Trichloropropane	96-18-4	-	7.49E-04	-	< 0.48	U		< 24	U		< 12	U		< 48	U		< 0.96	U		< 0.48	U		< 0.48	U		< 0.48	U	
1,2,4-Trichlorobenzene	120-82-1	7.00E+01	3.99E-01	2.40E+01	< 0.53	U		< 27	U		< 13	U		< 53	U		< 1.1	U		< 0.53	U		< 0.53	U		< 0.53	U	
1,2,4-Trimethylbenzene	95-36-3	-	-	-	< 0.43	U		< 22	U		< 11	U		< 43	U		< 0.86	U		< 0.43	U		< 0.43	U		< 0.43	U	
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	2.00E-01	3.34E-04	-	< 1.8	U		< 90	U		< 45	U		< 180	U		< 3.6	U		< 1.8	U		< 1.8	U		< 1.8	U	
1,2-Dibromoethane (EDB)	106-93-4	5.00E-02	7.47E-03	-	< 0.33	U		< 17	U		< 8.3	U		< 33	U		< 0.66	U		< 0.33	U		< 0.33	U		< 0.33	U	
1,2-Dichlorobenzene	95-50-1	6.00E+02	3.04E+01	7.00E-01	< 0.31	U		< 16	U		< 7.8	U		< 31	U		< 0.62	U		< 0.31	U		< 0.31	U		< 0.31	U	
1,2-Dichloroethane	107-06-2	5.00E+00	*1.71E-01*	1.00E+02	< 0.25	U		< 13	U		< 6.3	U		< 25	U		< 0.50	U		< 0.25	UM		< 0.25	U		< 0.25	U	
1,2-Dichloroethene, Total	540-59-0	-	-	5.90E+02	**60**			***4900***	***D***		***4300***	***D***		***24000***	***HD***		**72**	**D**		**19**			**7.0**			**31**		
1,2-Dichloropropane	78-87-5	5.00E+00	8.25E-01	-	< 0.22	U		< 11	U		< 5.5	U		< 22	U		< 0.44	UM		< 0.22	U		< 0.22	U		< 0.22	U	
1,3,5-Trimethylbenzene	108-67-8	-	6.03E+00	7.10E+01	< 0.28	U		< 14	U		< 7.0	U		< 28	U		< 0.56	U		< 0.28	U		< 0.28	U		< 0.28	U	
1,3-Dichlorobenzene	541-73-1	-	-	1.50E+02	< 0.31	U		< 16	U		< 7.8	U		< 31	U		< 0.62	U		< 0.31	U		< 0.31	U		< 0.31	U	
1,3-Dichloropropane	142-28-9	-	3.69E+01	-	< 0.36	U		< 18	U		< 9.0	U		< 36	U		< 0.72	U		< 0.36	U		< 0.36	U		< 0.36	U	
1,4-Dichlorobenzene	106-46-7	7.50E+01	4.82E-01	2.60E+01	< 0.31	U		< 16	U		< 7.8	U		< 31	U		< 0.62	U		< 0.31	U		< 0.31	U		< 0.31	U	
2,2-Dichloropropane	594-20-7	-	-	-	< 0.35	U		< 18	U		< 8.8	U		< 35	U		< 0.70	U		< 0.35	U		< 0.35	U		< 0.35	U	
2-Butanone (MEK)	78-93-3	-	5.57E+02	1.40E+04	**17**	**J**	**J**	< 320	U		< 160	U		< 640	U		< 13	U		< 6.4	UM		< 6.4	U		**450**		
2-Chlorotoluene	95-49-8	-	2.37E+01	-	< 0.25	U		< 13	U		< 6.3	U		< 25	U		< 0.50	U		< 0.25	U		< 0.25	U		< 0.25	U	
2-Hexanone	591-78-6	-	*3.80E+00*	9.90E+01	***6.2***	***J***	***J***	< 160	U		< 80	U		< 320	U		< 6.4	UM		< 3.2	U		< 3.2	U		***19***	***J***	
4-Chlorotoluene	106-43-4	-	2.50E+01	-	< 0.41	U		< 21	U		< 10	U		< 41	U		< 0.82	U		< 0.41	U		< 0.41	U		< 0.41	U	
4-Methyl-2-pentanone (MIBK)	108-10-1	-	6.26E+02	1.70E+02	**2.7**	**J**	**J**	< 140	U		< 68	U		< 270	U		< 5.4	U		< 2.7	U		< 2.7	U		< 2.7	U	
Acetone	67-64-1	-	1.80E+03	1.50E+03	**100**			< 190	U		< 93	U		< 370	U		< 7.4	U		**8.8**	**JM**	**J**	< 3.7	U		**600**		
Benzene	71-43-2	5.00E+00	4.55E-01	3.70E+02	< 0.27	U		< 14	U		< 6.8	U		< 27	U		< 0.54	U		< 0.27	U		< 0.27	U		< 0.27	U	
Bromobenzene	108-86-1	-	6.22E+00	-	< 0.24	U		< 12	U		< 6.0	U		< 24	U		< 0.48	U		< 0.24	U		< 0.24	U		< 0.24	U	
Bromochloromethane	74-97-5	-	8.34E+00	-	< 0.34	U		< 17	U		< 8.5	U		< 34	U		< 0.68	U		< 0.34	U		< 0.34	U		< 0.34	U	
Bromodichloromethane	75-27-4	8.00E+01	1.34E-01	-	< 0.25	U		< 13	U		< 6.3	U		< 25	U		< 0.50	U		< 0.25	U		< 0.25	U		< 0.25	U	
Bromoform	75-25-2	8.00E+01	3.29E+00	3.20E+02	< 0.59	U		< 30	U		< 15	U		< 59	U		< 1.2	U		< 0.59	U		< 0.59	U		< 0.59	U	
Bromomethane	74-83-9	-	7.55E-01	-	< 3.7	U		< 190	U		< 93	U		< 370	U		< 7.4	U		< 3.7	U		< 3.7	U		< 3.7	U	
Carbon disulfide	75-15-0	-	8.11E+01	9.20E-01	< 0.43	U		< 22	U		< 11	U		< 43	U		< 0.86	U		< 0.43	UQ		< 0.43	UQ		**1.4**	**JQ**	
Carbon tetrachloride	56-23-5	5.00E+00	4.55E-01	1.33E+01	< 0.30	U		< 15	U		< 7.5	U		< 30	U		< 0.60	U		< 0.30	U		< 0.30	U		< 0.30	U	
Chlorobenzene	108-90-7	1.00E+02	7.77E+00	1.30E+00	< 0.15	U		< 7.5	U		< 3.8	U		< 15	U		< 0.30	U		< 0.15	U		< 0.15	U		< 0.15	U	
Chlorodibromomethane (Dibromochloromethane)	124-48-1	8.00E+01	8.71E-01	-	< 0.39	U		< 20	U		< 9.8	U		< 39	U		< 0.78	U		< 0.39	U		< 0.39	UM		< 0.39	U	
Chloroethane	75-00-3	-	8.34E+02	-	< 4.6	U		< 230	U		< 120	U		< 460	U		< 9.2	U		< 4.6	U		< 4.6	U		< 4.6	U	
Chloroform	67-66-3	8.00E+01	*2.21E-01*	1.80E+00	< 0.27	U		< 14	U		< 6.8	U		< 27	U		< 0.54	U		< 0.27	U		< 0.27	U		< 0.27	U	
Chloromethane	74-87-3	-	1.88E+01	-	< 0.54	U		< 27	U		< 14	U		< 54	U		< 1.1	U		< 0.54	U		< 0.54	U		< 0.54	U	
cis-1,2-Dichloroethene	156-59-2	7.00E+01	*2.52E+00*	-	***60***			***4900***	***D***		***4300***	***D***		***24000***	***HD***		***72***	***D***		***18***			***7.0***			***31***		
cis-1,3-Dichloropropene	10061-01-5	-	-	-	< 0.26	U		< 13	U		< 6.5	U		< 26	U		< 0.52	U		< 0.26	U		< 0.26	U		< 0.26	U	
Cyclohexane	110-82-7	-	1.25E+03	-	< 0.28	U		< 14	U		< 7.0	U		< 28	U		< 0.56	U		< 0.28	U		< 0.28	U		< 0.28	U	
Dibromomethane	74-95-3	-	8.34E-01	-	< 0.34	U		< 17	U		< 8.5	U		< 34	U		< 0.68	U		< 0.34	U		< 0.34	U		< 0.34	U	
Dichlorodifluoromethane	75-71-8	-	1.97E+01	-	< 0.36	U		< 18	U		< 9.0	U		< 36	U		< 0.72	U		< 0.36	U		< 0.36	U		< 0.36	U	
Ethylbenzene	100-41-4	7.00E+02	1.50E+00	9.00E+01	< 0.20	U		< 10	U		< 5.0	U		< 20	U		< 0.40	U		< 0.20	U		< 0.20	U		< 0.20	U	
Hexachlorobutadiene	87-68-3	-	1.39E-01	1.30E+00	< 0.22	U		< 11	U		< 5.5	U		< 22	U		< 0.44	U		< 0.22	U		< 0.22	U		< 0.22	U	
Isopropylbenzene	98-82-8	-	4.51E+01	2.60E+00	< 0.26	U		< 13	U		< 6.5	U		< 26	U		< 0.52	U		< 0.26	U		< 0.26	U		< 0.26	U	
m+p-Xylenes	179601-23-1	-	-	-	< 0.49	U		< 25	U		< 12	U		< 49	U		< 0.98	U		< 0.49	U		< 0.49	U		< 0.49	U	
Methyl Acetate	79-20-9	-	1.99E+03	-	< 3.2	U		< 160	U		< 80	U		< 320	U		< 6.4	U		**3.3**	**J**	**J**	< 3.2	U		< 3.2	U	
Methylcyclohexane	108-87-2	-	1.98E+01	-	< 0.33	U		< 17	U		< 8.3	U		< 33	UM		< 0.66	U		< 0.33	U		< 0.33	U		< 0.33	U	
Methylene chloride (DCM)	75-09-2	5.00E+00	1.07E+01	9.81E+01	< 3.2	U		< 160	U		< 80	U		< 320	U		< 6.4	U		< 3.2	U		< 3.2	U		< 3.2	U	
Naphthalene	91-20-3	-	*1.17E-01*	1.10E+00	< 2.4	U		< 120	U		< 60	U		< 240	U		< 4.8	U		***3.0***	***J***	***J***	< 2.4	U		< 2.4	U	
n-Butylbenzene	104-51-8	-	1.00E+02	-	< 0.52	U		< 26	U		< 13	U		< 52	U		< 1.0	U		< 0.52	U		< 0.52	U		< 0.52	U	
n-Propylbenzene	103-65-1	-	6.56E+01	1.28E+02	< 0.41	UM		< 21	UM		< 10	UM		< 41	UM		< 0.82	UM		< 0.41	UM		< 0.41	UM		< 0.41	UM	
o-Xylene	95-47-6	-	1.93E+01	-	< 0.26	U		< 13	U		< 6.5	U		< 26	U		< 0.52	U		**0.56**	**J**	**J**	< 0.26	U		< 0.26	U	
p-Isopropyltoluene	99-87-6	-	-	8.50E+01	< 0.44	U		< 22	U		< 11	U		< 44	U		< 0.88	U		< 0.44	U		< 0.44	U		< 0.44	U	
sec-Butylbenzene	135-98-8	-	2.01E+02	-	< 0.53	U		< 27	U		< 13	U		< 53	U		< 1.1	U		< 0.53	U		< 0.53	U		< 0.53	U	
Styrene	100-42-5	1.00E+02	1.21E+02	7.20E+01	< 0.27	UM		< 14	UM		< 6.8	UM		< 27	UM		< 0.54	U		< 0.27	UM		< 0.27	UM		< 0.27	UM	
tert-Butyl methyl ether (MTBE)	1634-04-4	-	1.43E+01	1.11E+04	< 0.81	U		< 41	U		< 20	U		< 81	U		< 1.6	U		< 0.81	U		< 0.81	U		< 0.81	U	
tert-Butylbenzene	98-06-6	-	6.91E+01	-	< 0.43	U		< 22	U		< 11	U		< 43	U		< 0.86	U		< 0.43	U		< 0.43	U		< 0.43	U	
Tetrachloroethene	127-18-4	5.00E+00	*4.06E+00*	1.11E+02	**2.5**			***28***	***JD***		< 8.8	U		***5300***	***D***		***130***	***D***		< 0.35	UM		***36***			***41***		
Toluene	108-88-3	1.00E+03	1.10E+02	2.00E+00	< 0.25	U		< 13	U		< 6.3	U		< 25	U		< 0.50	U		< 0.25	U		< 0.25	U		< 0.25	U	
trans-1,2-Dichloroethene	156-60-5	1.00E+02	*6.78E+00*	9.70E+02	< 0.34	U		< 17	U		***12***	***JDM***	***J***	< 34	U		< 0.68	U		**1.0**	**J**		< 0.34	U		< 0.34	U	
trans-1,3-Dichloropropene	10061-02-6	-	-	-	< 0.23	U		< 12	U		< 5.8	UM		< 23	U		< 0.46	UM		< 0.23	UM		< 0.23	U		< 0.23	UM	
Trichloroethene	79-01-6	5.00E+00	*2.83E-01*	2.10E+01	***2.2***			***49***	***JD***		***51***	***D***		***5400***	***D***		***75***	***D***		***1.6***	***M***		***9.2***			***13***		
Trichlorofluoromethane	75-69-4	-	5.16E+02	-	< 0.33	U		< 17	U		< 8.3	U		< 33	U		< 0.66	U		< 0.33	U		< 0.33	U		< 0.33	U	
Trichlorotrifluoroethane (Freon 113)	76-13-1	-	1.02E+03	-	< 0.23	U		< 12	U		< 5.8	U		**74**	**JD**		**48**	**D**		< 0.23	U		< 0.23	U		< 0.23	U	
Vinyl chloride	75-01-4	2.00E+00	*1.88E-02*	9.30E+02	***9.1***			***500***	***D***		***550***	***D***		***1400***	***D***		***3.7***	***JD***		***1.6***	***J***		***0.69***	***J***	***J***	***2.3***		
Xylene (Total)	1330-20-7	1.00E+04	1.93E+01	1.30E+01	< 0.49	U		< 25	U		< 12	U		< 49	U		< 0.98	U		**0.56**	**J**	**J**	< 0.49	U		< 0.49	U	
Field Parameters																												
Depth to Water (ft)	DTW	-	-	-	**17.25**			**17.15**			**17.15**			**17.45**			**16.55**			**18.3**			**16.55**			**13.85**		
Dissolved Oxygen (mg/L)	DO	-	-	-	**1.41**			**1.24**			**1.24**			**1.51**			**0.93**			**0.37**			**5.26**			**2.49**		
Ferrous Iron - Field (mg/L)	FIELD FE	-	-	-	**14**			**10.8**			**13.84**			**1.6**			**0.35**			**38.88**			**0.51**			**5.76**		
Oxidation Reduction Potential (mV)	ORP	-	-	-	**-258**			**-337**			**-337**			**-243**			**-319**			**-94.7**			**33.1**			**-113**		
pH (pH unit)	PH	-	-	-	**6.33**			**6.42**			**6.42**			**5.46**			**4.99**			**6.34**			**5.27**			**6.42**		
Specific Conductivity (mS/cm)	SC	-	-	-	**0.973**			**0.533**			**0.533**			**0.335**			**0.058**			**0.611**			**0.094**			**2.188**		
Temperature (C)	TEMP	-	-	-	**19.14**			**19.6**			**19.6**			**18.52**			**18.62**			**20.69**			**17.72**			**17.4**		
Turbidity (NTU)	TURB	-	-	-	**8.88**			**4.44**			**4.44**			**10**			**9.87**			**15**			**10.2**			**10.5**		

Notes:
CAS = chemical abstract service, MCL = Maximum Contaminant Level from 40 CFR Subpart G - National Primary Drinking Water Regulations: Maximum Contaminant Levels and Maximum Residual Disinfectant Levels May 2024, BTAG = EPA Region III BTAG Freshwater Screening Benchmarks, 7/2006, RSL = Regional Screening Level (RSL) for Chemical Contaminants in Residential Tapwater at Superfund Sites (TR=1E-06, HQ=0.1) May 2024
µg/L = micrograms per liter, mg/L = milligrams per liter, mV = millivolts, mS/cm = milliSiemens per centimeter, °C = degree celcius, NTU = Nephelometric turbidity units
Sample types N = normal, FD = Field Duplicate
UWBU = upper water bearing unit,
Q = Lab qualifier, DV = validation qualifier

1- Parameters were not collected due to field conditions.

Lab Qualifiers (Q):
D = The reported value is from a dilution
H = Sample was prepped or analyzed beyond the specified holding time
J = Estimated: the analyte was positively idenfied; the quantitation is an estimation
J1 = Estimated: the quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria
M = Manual integrated compound
Q = One of more quality control criteria failed
U = Undetected at the limit of detection

Validator Qualifiers (DV):
J = The reported result was an estimated value with an unknown bias

Bold Result = detection
Grey Shading Result = concentration > MCL
Underlined Result = concentration > BTAG
Italicized Result = concentration > RSL

B.2 VOC Annual Monitoring Tables (May 2024)

Table B.2
OU6 Annual Volatile Organic Compounds - Spring 2024
Defense Supply Center Richmond

				Sample Location	CSMPZ-3			CSMPZ-7			DMW-16B			DMW-17A			DMW-28B			DMW-34B			DMW-8A			DMW-9A		
				Sample ID	OU6-CSMPZ-3-20240514			OU6-CSMPZ-7-20240514			OU6-DMW-16B-20240514			OU6-DMW-17A-20240515			OU6-DMW-28B-20240529			OU6-DMW-34B-20240516			OU6-DMW-8A-20240515			OU6-DMW-9A-20240514		
				Sample Date	5/14/2024			5/14/2024			5/14/2024			5/15/2024			5/29/2024			5/16/2024			5/15/2024			5/14/2024		
				Sample Type	N			N			N			N			N			N			N			N		
				Description	UWBU			UWBU			LWBU			UWBU			LWBU			LWBU			UWBU			UWBU		
Parameter	**CAS#**	**MCL**	**RSL**	**BTAG**	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV
VOCs by SW8260D (µg/L)																												
1,1,1,2-Tetrachloroethane	630-20-6	-	*5.74E-01*	-	< 0.36	U		< 0.36	U		< 0.36	U		< 0.36	U		< 0.36	U		< 0.36	U		< 0.36	U		< 0.36	U	
1,1,1-Trichloroethane	71-55-6	2.00E+02	8.01E+02	1.10E+01	< 0.21	U		< 0.21	U		< 0.21	U		< 0.21	U		< 0.21	U		< 0.21	U		< 0.21	U		< 0.21	U	
1,1,2,2-Tetrachloroethane	79-34-5	-	7.57E-02	6.10E+02	< 0.40	U		< 0.40	U		< 0.40	U		< 0.40	U		< 0.40	U		< 0.40	U		< 0.40	U		< 0.40	U	
1,1,2-Trichloroethane	79-00-5	5.00E+00	*4.15E-02*	1.20E+03	< 0.32	U		< 0.32	U		< 0.32	U		< 0.32	U		< 0.32	U		< 0.32	U		< 0.32	U		< 0.32	U	
1,1-Dichloroethane	75-34-3	-	*2.75E+00*	4.70E+01	< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	U		**0.88**	**JM**	**J**	< 0.33	U		< 0.33	U		< 0.33	U	
1,1-Dichloroethene (Vinylidene chloride)	75-35-4	7.00E+00	*2.85E+01*	2.50E+01	< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	U		**0.96**	**J**	**J**	**3.4**			< 0.33	U		< 0.33	U	
1,1-Dichloropropene	563-58-6	-	-	-	< 0.28	U		< 0.28	U		< 0.28	U		< 0.28	U		< 0.28	U		< 0.28	U		< 0.28	U		< 0.28	U	
1,2,3-Trichlorobenzene	87-61-6	-	7.04E-01	8.00E+00	< 0.81	U		< 0.81	U		< 0.81	U		< 0.81	U		< 0.81	U		< 0.81	U		< 0.81	U		< 0.81	U	
1,2,3-Trichloropropane	96-18-4	-	*7.49E-04*	-	< 0.48	U		< 0.48	U		< 0.48	U		< 0.48	U		< 0.48	U		< 0.48	U		< 0.48	U		< 0.48	U	
1,2,4-Trichlorobenzene	120-82-1	7.00E+01	*3.99E-01*	2.40E+01	< 0.53	U		< 0.53	U		< 0.53	U		< 0.53	U		< 0.53	UQ		< 0.53	U		< 0.53	U		< 0.53	U	
1,2,4-Trimethylbenzene	95-36-3	-	-	-	< 0.43	U		< 0.43	U		< 0.43	U		< 0.43	U		< 0.43	U		< 0.43	U		< 0.43	U		< 0.43	U	
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	2.00E-01	3.34E-04	-	< 1.8	U		< 1.8	U		< 1.8	U		< 1.8	U		< 1.8	UQ		< 1.8	U		< 1.8	U		< 1.8	U	
1,2-Dibromoethane (EDB)	106-93-4	5.00E-02	7.47E-03	-	< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	U	
1,2-Dichlorobenzene	95-50-1	6.00E+02	*3.04E+01*	7.00E-01	< 0.31	U		< 0.31	U		< 0.31	U		< 0.31	U		**0.61**	**JM**	**J**	< 0.31	U		< 0.31	U		< 0.31	U	
1,2-Dichloroethane	107-06-2	5.00E+00	*1.71E-01*	1.00E+02	< 0.25	UM		< 0.25	U		< 0.25	U		< 0.25	UM		< 0.25	UM		< 0.25	UM		< 0.25	UM		< 0.25	UM	
1,2-Dichloroethene, Total	540-59-0	-	-	5.90E+02	< 0.37	U		< 0.37	U		< 0.37	U		< 0.37	U		**110**			< 0.37	U		**1.0**	**J**		< 0.37	U	
1,2-Dichloropropane	78-87-5	5.00E+00	8.25E-01	-	< 0.22	U		< 0.22	U		< 0.22	U		< 0.22	U		< 0.22	U		< 0.22	U		< 0.22	U		< 0.22	U	
1,3,5-Trimethylbenzene	108-67-8	-	*6.03E+00*	7.10E+01	< 0.28	U		< 0.28	U		< 0.28	U		< 0.28	U		< 0.28	U		< 0.28	U		< 0.28	U		< 0.28	U	
1,3-Dichlorobenzene	541-73-1	-	-	1.50E+02	< 0.31	U		< 0.31	U		< 0.31	U		< 0.31	U		< 0.31	U		< 0.31	U		< 0.31	U		< 0.31	U	
1,3-Dichloropropane	142-28-9	-	3.69E+01	-	< 0.36	U		< 0.36	U		< 0.36	U		< 0.36	U		< 0.36	U		< 0.36	U		< 0.36	U		< 0.36	U	
1,4-Dichlorobenzene	106-46-7	7.50E+01	*4.82E-01*	2.60E+01	< 0.31	U		< 0.31	U		< 0.31	U		< 0.31	U		***1.8***	**J**		< 0.31	U		< 0.31	U		< 0.31	U	
2,2-Dichloropropane	594-20-7	-	-	-	< 0.35	U		< 0.35	U		< 0.35	U		< 0.35	U		< 0.35	U		< 0.35	U		< 0.35	U		< 0.35	U	
2-Butanone (MEK)	78-93-3	-	*5.57E+02*	1.40E+04	< 6.4	U		< 6.4	U		< 6.4	U		< 6.4	U		< 6.4	U		< 6.4	UQ		< 6.4	U		< 6.4	U	
2-Chlorotoluene	95-49-8	-	2.37E+01	-	< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U	
2-Hexanone	591-78-6	-	3.80E+00	9.90E+01	< 3.2	U		< 3.2	U		< 3.2	U		< 3.2	U		< 3.2	U		< 3.2	U		< 3.2	U		< 3.2	U	
4-Chlorotoluene	106-43-4	-	2.50E+01	-	< 0.41	U		< 0.41	U		< 0.41	U		< 0.41	U		< 0.41	U		< 0.41	U		< 0.41	U		< 0.41	U	
4-Methyl-2-pentanone (MIBK)	108-10-1	-	6.26E+02	1.70E+02	< 2.7	U		< 2.7	U		< 2.7	U		< 2.7	U		< 2.7	U		< 2.7	U		< 2.7	U		< 2.7	U	
Acetone	67-64-1	-	*1.80E+03*	1.50E+03	< 3.7	UQ		< 3.7	U		< 3.7	U		< 3.7	U		< 3.7	U		< 3.7	U		< 3.7	U		< 3.7	U	
Benzene	71-43-2	5.00E+00	*4.55E-01*	3.70E+02	< 0.27	U		< 0.27	U		< 0.27	U		< 0.27	U		< 0.27	U		< 0.27	U		< 0.27	U		< 0.27	U	
Bromobenzene	108-86-1	-	6.22E+00	-	< 0.24	U		< 0.24	U		< 0.24	U		< 0.24	U		< 0.24	U		< 0.24	U		< 0.24	U		< 0.24	U	
Bromochloromethane	74-97-5	-	8.34E+00	-	< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	UQ		< 0.34	UQ		< 0.34	U		< 0.34	U	
Bromodichloromethane	75-27-4	8.00E+01	1.34E-01	-	< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U	
Bromoform	75-25-2	8.00E+01	3.29E+00	3.20E+02	< 0.59	U		< 0.59	UQ		< 0.59	UQ		< 0.59	U		< 0.59	U		< 0.59	U		< 0.59	U		< 0.59	U	
Bromomethane	74-83-9	-	7.55E-01	-	< 3.7	U		< 3.7	U		< 3.7	U		< 3.7	UQ		< 3.7	UQ		< 3.7	UQ		< 3.7	UQ		< 3.7	UQ	
Carbon disulfide	75-15-0	-	8.11E+01	9.20E-01	< 0.43	U		< 0.43	UQ		< 0.43	UQ		< 0.43	UQ		< 0.43	U		< 0.43	U		< 0.43	UQ		< 0.43	U	
Carbon tetrachloride	56-23-5	5.00E+00	*4.55E-01*	1.33E+01	< 0.30	U		< 0.30	U		< 0.30	U		< 0.30	U		< 0.30	U		< 0.30	U		< 0.30	U		< 0.30	U	
Chlorobenzene	108-90-7	1.00E+02	*7.77E+00*	1.30E+00	< 0.15	U		< 0.15	U		< 0.15	U		< 0.15	U		**1.8**	**M**		< 0.15	U		< 0.15	U		< 0.15	U	
Chlorodibromomethane (Dibromochloromethane)	124-48-1	8.00E+01	8.71E-01	-	< 0.39	U		< 0.39	U		< 0.39	U		< 0.39	U		< 0.39	U		< 0.39	U		< 0.39	U		< 0.39	U	
Chloroethane	75-00-3	-	8.34E+02	-	< 4.6	U		< 4.6	U		< 4.6	U		< 4.6	U		< 4.6	UQ		< 4.6	U		< 4.6	U		< 4.6	U	
Chloroform	67-66-3	8.00E+01	*2.21E-01*	1.80E+00	< 0.27	U		< 0.27	U		< 0.27	U		< 0.27	U		< 0.27	U		< 0.27	U		< 0.27	U		< 0.27	U	
Chloromethane	74-87-3	-	1.88E+01	-	< 0.54	U		< 0.54	U		< 0.54	U		< 0.54	U		< 0.54	U		< 0.54	UQ		< 0.54	U		< 0.54	U	
cis-1,2-Dichloroethene	156-59-2	7.00E+01	*2.52E+00*	-	< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U		***110***			< 0.25	U		**1.0**	**J**		< 0.25	U	
cis-1,3-Dichloropropene	10061-01-5	-	-	-	< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U	
Cyclohexane	110-82-7	-	1.25E+03	-	< 0.28	U		< 0.28	U		< 0.28	U		< 0.28	UQ		< 0.28	U		< 0.28	U		< 0.28	UQ		< 0.28	U	
Dibromomethane	74-95-3	-	8.34E-01	-	< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U	
Dichlorodifluoromethane	75-71-8	-	1.97E+01	-	< 0.36	UQM		< 0.36	U		< 0.36	UM		< 0.36	U		< 0.36	UM		< 0.36	UQ		< 0.36	U		< 0.36	UQ	
Ethylbenzene	100-41-4	7.00E+02	*1.50E+00*	9.00E+01	< 0.20	U		< 0.20	U		< 0.20	U		< 0.20	U		< 0.20	U		< 0.20	U		< 0.20	U		< 0.20	U	
Hexachlorobutadiene	87-68-3	-	*1.39E-01*	1.30E+00	< 0.22	U		< 0.22	U		< 0.22	U		< 0.22	U		< 0.22	UQ		< 0.22	U		< 0.22	U		< 0.22	U	
Isopropylbenzene	98-82-8	-	4.51E+01	2.60E+00	< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U	
m+p-Xylenes	179601-23-1	-	-	-	< 0.49	U		< 0.49	U		< 0.49	U		< 0.49	U		< 0.49	U		< 0.49	U		< 0.49	U		< 0.49	U	
Methyl Acetate	79-20-9	-	1.99E+03	-	< 3.2	U		< 3.2	UQ		< 3.2	UQ		< 3.2	U		< 3.2	U		< 3.2	U		< 3.2	U		< 3.2	U	
Methylcyclohexane	108-87-2	-	1.98E+01	-	< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	UQ		< 0.33	U		< 0.33	U		< 0.33	UQ		< 0.33	U	
Methylene chloride (DCM)	75-09-2	5.00E+00	1.07E+01	9.81E+01	< 3.2	U		< 3.2	U		< 3.2	U		< 3.2	U		< 3.2	U		< 3.2	U		< 3.2	U		< 3.2	U	
Naphthalene	91-20-3	-	*1.17E-01*	1.10E+00	< 2.4	U		< 2.4	U		< 2.4	U		< 2.4	U		< 2.4	U		< 2.4	U		< 2.4	U		< 2.4	U	
n-Butylbenzene	104-51-8	-	1.00E+02	-	< 0.52	U		< 0.52	U		< 0.52	U		< 0.52	UQ		< 0.52	U		< 0.52	U		< 0.52	UQ		< 0.52	U	
n-Propylbenzene	103-65-1	-	6.56E+01	1.28E+02	< 0.41	U		< 0.41	U		< 0.41	U		< 0.41	U		< 0.41	U		< 0.41	U		< 0.41	U		< 0.41	U	
o-Xylene	95-47-6	-	*1.93E+01*	-	< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U	
p-Isopropyltoluene	99-87-6	-	-	8.50E+01	< 0.44	U		< 0.44	U		< 0.44	U		< 0.44	U		< 0.44	U		< 0.44	U		< 0.44	U		< 0.44	U	
sec-Butylbenzene	135-98-8	-	2.01E+02	-	< 0.53	U		< 0.53	U		< 0.53	U		< 0.53	U		< 0.53	U		< 0.53	U		< 0.53	U		< 0.53	U	
Styrene	100-42-5	1.00E+02	1.21E+02	7.20E+01	< 0.27	U		< 0.27	U		< 0.27	U		< 0.27	U		< 0.27	U		< 0.27	U		< 0.27	U		< 0.27	U	
tert-Butyl methyl ether (MTBE)	1634-04-4	-	1.43E+01	1.11E+04	< 0.81	U		< 0.81	U		< 0.81	U		< 0.81	U		< 0.81	U		< 0.81	U		< 0.81	U		< 0.81	U	
tert-Butylbenzene	98-06-6	-	6.91E+01	-	< 0.43	U		< 0.43	UM		< 0.43	U		< 0.43	U		< 0.43	U		< 0.43	U		< 0.43	U		< 0.43	U	
Tetrachloroethene	127-18-4	5.00E+00	*4.06E+00*	1.11E+02	< 0.35	U		< 0.35	U		< 0.35	U		< 0.35	U		< 0.35	U		***11***	**Q**		**0.61**	**J**	**J**	< 0.35	U	
Toluene	108-88-3	1.00E+03	1.10E+02	2.00E+00	< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U		**0.36**	**J**	**J**	< 0.25	U		< 0.25	U		< 0.25	U	
trans-1,2-Dichloroethene	156-60-5	1.00E+02	*6.78E+00*	9.70E+02	< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U	
trans-1,3-Dichloropropene	10061-02-6	-	-	-	< 0.23	U		< 0.23	U		< 0.23	U		< 0.23	U		< 0.23	U		< 0.23	U		< 0.23	U		< 0.23	U	
Trichloroethene	79-01-6	5.00E+00	*2.83E-01*	2.10E+01	< 0.20	U		< 0.20	U		< 0.20	U		< 0.20	U		***1.3***	***M***		***7.0***			***1.2***			< 0.20	U	
Trichlorofluoromethane	75-69-4	-	5.16E+02	-	< 0.33	UQ		< 0.33	UQ		< 0.33	UQ		< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	U	
Trichlorotrifluoroethane (Freon 113)	76-13-1	-	1.02E+03	-	< 0.23	U		< 0.23	U		< 0.23	U		< 0.23	U		< 0.23	U		< 0.23	U		< 0.23	U		< 0.23	U	
Vinyl chloride	75-01-4	2.00E+00	*1.88E-02*	9.30E+02	< 0.40	U		< 0.40	U		< 0.40	U		< 0.40	U		***15***			< 0.40	U		< 0.40	U		< 0.40	U	
Xylene (Total)	1330-20-7	1.00E+04	*1.93E+01*	1.30E+01	< 0.49	U		< 0.49	U		< 0.49	U		< 0.49	U		< 0.49	U		< 0.49	U		< 0.49	U		< 0.49	U	
Field Parameters																												
Depth to Water (ft)	DTW	-	-	-	**10.09**			**10.62**			**11.25**			**11.5**			**25.2**			**18.45**			**9.9**			**10.23**		
Dissolved Oxygen (mg/L)	DO	-	-	-	**3.04**			**3.06**			**6.49**			**5.45**			**0.77**			**1.56**			**3.56**			**5.09**		
Ferrous Iron - Field (mg/L)	FIELD FE	-	-	-	-[1]			-[1]			-[1]			-[1]			**1.02**			**0.03**			-[1]			-[1]		
Oxidation Reduction Potential (mV)	ORP	-	-	-	**43.3**			**3.3**			**95.5**			**271.9**			**-3.4**			**167.2**			**277.5**			**406.1**		
pH (pH unit)	PH	-	-	-	**5.94**			**6.25**			**6.23**			**5.26**			**5.7**			**5.62**			**4.36**			**4.9**		
Specific Conductivity (mS/cm)	SC	-	-	-	**0.138**			**0.414**			**0.1**			**0.053**			**0.083**			**0.061**			**0.133**			**0.076**		
Temperature (°C)	TEMP	-	-	-	**17**			**15.6**			**17.2**			**18.5**			**18**			**19**			**17.4**			**16.9**		
Turbidity (NTU)	TURB	-	-	-	-[1]			**0.45**			**103.29**			**2.15**			**150**			**1.58**			-[1]			**0**		

Table B.2
OU6 Annual Volatile Organic Compounds - Spring 2024
Defense Supply Center Richmond

					DMW-9B			EBF-08D			LAWMW-Q			MWNGA-10			MWNGA-8			OU6-MW-124			OU6-MW-126			OU6-MW-129		
Sample Location					DMW-9B			EBF-08D			LAWMW-Q			MWNGA-10			MWNGA-8			OU6-MW-124			OU6-MW-126			OU6-MW-129		
Sample ID					OU6-DMW-9B-20240522			OU6-EBF-08D-20240522			OU6-LAWMW-Q-20240516			OU6-MWNGA-10-20240515			OU6-MWNGA-8-20240515			OU6-MW-124-20240515			OU6-MW-126-20240523			OU6-MW-129-20240523		
Sample Date					5/22/2024			5/22/2024			5/16/2024			5/15/2024			5/15/2024			5/15/2024			5/23/2024			5/23/2024		
Sample Type					N			N			N			N			N			N			N			N		
Description					LWBU			LWBU			LWBU			LWBU			LWBU			UWBU			UWBU			UWBU		
Parameter	**CAS#**	**MCL**	**RSL**	**BTAG**	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV
VOCs by SW8260D (µg/L)																												
1,1,1,2-Tetrachloroethane	630-20-6	-	*5.74E-01*	-	< 9.0	U		< 0.36	U		< 0.36	U		< 0.36	U		< 0.36	U		< 0.36	U		< 0.36	U		< 0.36	U	
1,1,1-Trichloroethane	71-55-6	2.00E+02	8.01E+02	1.10E+01	< 5.3	U		< 0.21	U		< 0.21	U		< 0.21	U		< 0.21	U		< 0.21	U		< 0.21	U		< 0.21	U	
1,1,2,2-Tetrachloroethane	79-34-5	-	7.57E-02	6.10E+02	< 10	U		< 0.40	U		< 0.40	U		< 0.40	UJ1		< 0.40	U		< 0.40	U		< 0.40	U		< 0.40	U	
1,1,2-Trichloroethane	79-00-5	5.00E+00	*4.15E-02*	1.20E+03	< 8.0	U		< 0.32	U		< 0.32	U		< 0.32	UJ1		< 0.32	U		< 0.32	U		< 0.32	U		***0.52***	**J**	**J**
1,1-Dichloroethane	75-34-3	-	*2.75E+00*	4.70E+01	< 8.3	U		***4.0***			< 0.33	U		< 0.33	U		< 0.33	U		**2.3**			**1.3**	**J**		**1.0**	**J**	
1,1-Dichloroethene (Vinylidene chloride)	75-35-4	7.00E+00	*2.85E+01*	2.50E+01	< 8.3	U		< 0.33	UM		< 0.33	U		**5.4**		**J+**	**7.4**			**1.2**	**J**		**20**			**9.2**		
1,1-Dichloropropene	563-58-6	-	-	-	< 7.0	U		< 0.28	U		< 0.28	U		< 0.28	U		< 0.28	U		< 0.28	U		< 0.28	UQ		< 0.28	UQ	
1,2,3-Trichlorobenzene	87-61-6	-	7.04E-01	8.00E+00	< 20	U		< 0.81	U		< 0.81	U		< 0.81	UJ1		< 0.81	U		< 0.81	U		< 0.81	U		< 0.81	U	
1,2,3-Trichloropropane	96-18-4	-	*7.49E-04*	-	< 12	U		< 0.48	U		< 0.48	U		< 0.48	U		< 0.48	U		< 0.48	U		< 0.48	U		< 0.48	U	
1,2,4-Trichlorobenzene	120-82-1	7.00E+01	*3.99E-01*	2.40E+01	< 13	U		< 0.53	U		< 0.53	U		< 0.53	UJ1		< 0.53	U		< 0.53	U		< 0.53	U		< 0.53	U	
1,2,4-Trimethylbenzene	95-36-3	-	-	-	< 11	U		< 0.43	U		< 0.43	U		< 0.43	U		< 0.43	U		< 0.43	U		< 0.43	U		**1.4**	**J**	
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	2.00E-01	3.34E-04	-	< 45	UQ		< 1.8	UQ		< 1.8	U		< 1.8	UJ1		< 1.8	U		< 1.8	U		< 1.8	U		< 1.8	U	
1,2-Dibromoethane (EDB)	106-93-4	5.00E-02	7.47E-03	-	< 8.3	U		< 0.33	U		< 0.33	U		< 0.33	UJ1		< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	U	
1,2-Dichlorobenzene	95-50-1	6.00E+02	*3.04E+01*	7.00E-01	< 7.8	U		**1.8**	**J**		< 0.31	U		< 0.31	UJ1		< 0.31	U		< 0.31	U		< 0.31	U		< 0.31	U	
1,2-Dichloroethane	107-06-2	5.00E+00	*1.71E-01*	1.00E+02	< 6.3	UM		***2.1***			< 0.25	UM		< 0.25	UM		< 0.25	UM		< 0.25	UM		***0.59***	**J**	***J***	***1.3***	**J**	
1,2-Dichloroethene, Total	540-59-0	-	-	5.90E+02	**20**	**JD**	**J**	**75**			**0.99**	**J**	**J**	< 0.37	U		< 0.37	U		**41**			**370**	**D**		**6400**	**D**	
1,2-Dichloropropane	78-87-5	5.00E+00	8.25E-01	-	< 5.5	U		< 0.22	U		< 0.22	U		< 0.22	U		< 0.22	U		< 0.22	U		< 0.22	U		< 0.22	U	
1,3,5-Trimethylbenzene	108-67-8	-	*6.03E+00*	7.10E+01	< 7.0	U		< 0.28	U		< 0.28	U		< 0.28	U		< 0.28	U		< 0.28	U		< 0.28	U		**0.61**	**JM**	**J**
1,3-Dichlorobenzene	541-73-1	-	-	1.50E+02	< 7.8	U		< 0.31	U		< 0.31	U		< 0.31	UJ1		< 0.31	U		< 0.31	U		< 0.31	U		< 0.31	U	
1,3-Dichloropropane	142-28-9	-	3.69E+01	-	< 9.0	U		< 0.36	U		< 0.36	U		< 0.36	U		< 0.36	U		< 0.36	U		< 0.36	U		< 0.36	U	
1,4-Dichlorobenzene	106-46-7	7.50E+01	*4.82E-01*	2.60E+01	< 7.8	U		***1.6***	***J***		< 0.31	U		< 0.31	U		< 0.31	U		< 0.31	U		< 0.31	U		< 0.31	U	
2,2-Dichloropropane	594-20-7	-	-	-	< 8.8	U		< 0.35	U		< 0.35	U		< 0.35	U		< 0.35	U		< 0.35	U		< 0.35	U		< 0.35	U	
2-Butanone (MEK)	78-93-3	-	*5.57E+02*	1.40E+04	***5900***	***D***		< 6.4	U		< 6.4	U		< 6.4	UJ1		< 6.4	U		< 6.4	U		< 6.4	U		< 6.4	UM	
2-Chlorotoluene	95-49-8	-	2.37E+01	-	< 6.3	U		< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U	
2-Hexanone	591-78-6	-	3.80E+00	9.90E+01	< 80	U		< 3.2	U		< 3.2	U		< 3.2	UJ1		< 3.2	U		< 3.2	U		< 3.2	U		< 3.2	U	
4-Chlorotoluene	106-43-4	-	2.50E+01	-	< 10	U		< 0.41	U		< 0.41	U		< 0.41	UJ1		< 0.41	U		< 0.41	U		< 0.41	U		< 0.41	U	
4-Methyl-2-pentanone (MIBK)	108-10-1	-	6.26E+02	1.70E+02	< 68	U		< 2.7	U		< 2.7	U		< 2.7	UJ1		< 2.7	U		< 2.7	U		< 2.7	U		< 2.7	U	
Acetone	67-64-1	-	*1.80E+03*	1.50E+03	***3300***	***D***		< 3.7	U		< 3.7	U		**5.1**	**JJ1**	**J+**	< 3.7	U		< 3.7	U		**25**			**8.2**	**J**	**J**
Benzene	71-43-2	5.00E+00	*4.55E-01*	3.70E+02	< 6.8	U		< 0.27	U		< 0.27	U		< 0.27	U		< 0.27	U		< 0.27	U		< 0.27	U		**0.35**	**J**	**J**
Bromobenzene	108-86-1	-	6.22E+00	-	< 6.0	U		< 0.24	U		< 0.24	U		< 0.24	U		< 0.24	U		< 0.24	U		< 0.24	U		< 0.24	U	
Bromochloromethane	74-97-5	-	8.34E+00	-	< 8.5	U		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U	
Bromodichloromethane	75-27-4	8.00E+01	1.34E-01	-	< 6.3	U		< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U	
Bromoform	75-25-2	8.00E+01	3.29E+00	3.20E+02	< 15	U		< 0.59	U		< 0.59	U		< 0.59	UJ1		< 0.59	U		< 0.59	U		< 0.59	U		< 0.59	U	
Bromomethane	74-83-9	-	7.55E-01	-	< 93	U		< 3.7	U		< 3.7	UQ		< 3.7	UQ		< 3.7	UQ		< 3.7	UQ		< 3.7	UQ		< 3.7	UQ	
Carbon disulfide	75-15-0	-	8.11E+01	9.20E-01	< 11	U		< 0.43	U		< 0.43	U		< 0.43	U		< 0.43	UQ		< 0.43	UQ		< 0.43	U		< 0.43	U	
Carbon tetrachloride	56-23-5	5.00E+00	*4.55E-01*	1.33E+01	< 7.5	U		< 0.30	U		< 0.30	U		< 0.30	U		< 0.30	U		< 0.30	U		< 0.30	U		< 0.30	U	
Chlorobenzene	108-90-7	1.00E+02	*7.77E+00*	1.30E+00	< 3.8	U		**3.0**			< 0.15	U		< 0.15	U		< 0.15	U		< 0.15	U		< 0.15	U		**0.71**	**J**	
Chlorodibromomethane (Dibromochloromethane)	124-48-1	8.00E+01	8.71E-01	-	< 9.8	U		< 0.39	U		< 0.39	U		< 0.39	UJ1		< 0.39	U		< 0.39	U		< 0.39	U		< 0.39	U	
Chloroethane	75-00-3	-	8.34E+02	-	< 120	U		< 4.6	U		< 4.6	U		< 4.6	UJ1		< 4.6	U		< 4.6	U		< 4.6	U		< 4.6	U	
Chloroform	67-66-3	8.00E+01	*2.21E-01*	1.80E+00	< 6.8	U		< 0.27	U		< 0.27	U		< 0.27	U		< 0.27	U		< 0.27	U		< 0.27	U		< 0.27	U	
Chloromethane	74-87-3	-	1.88E+01	-	< 14	U		< 0.54	U		< 0.54	U		< 0.54	U		< 0.54	U		< 0.54	U		< 0.54	U		< 0.54	U	
cis-1,2-Dichloroethene	156-59-2	7.00E+01	*2.52E+00*	-	***20***	***JDM***	***J***	***75***			**0.99**	**J**	**J**	< 0.25	U		< 0.25	U		***39***			***370***	***D***		***6400***	***D***	
cis-1,3-Dichloropropene	10061-01-5	-	-	-	< 6.5	U		< 0.26	U		< 0.26	U		< 0.26	UJ1		< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U	
Cyclohexane	110-82-7	-	1.25E+03	-	< 7.0	U		< 0.28	U		< 0.28	U		< 0.28	U		< 0.28	UQ		< 0.28	UQ		< 0.28	UQ		< 0.28	UQ	
Dibromomethane	74-95-3	-	8.34E-01	-	< 8.5	U		< 0.34	U		< 0.34	U		< 0.34	UJ1		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U	
Dichlorodifluoromethane	75-71-8	-	1.97E+01	-	< 9.0	UQ		< 0.36	UMQ		< 0.36	UQ		< 0.36	UQ		< 0.36	U		< 0.36	U		< 0.36	UQ		< 0.36	UQ	
Ethylbenzene	100-41-4	7.00E+02	*1.50E+00*	9.00E+01	< 5.0	U		< 0.20	U		< 0.20	U		< 0.20	U		< 0.20	U		< 0.20	U		< 0.20	U		**1.4**		
Hexachlorobutadiene	87-68-3	-	*1.39E-01*	1.30E+00	< 5.5	U		< 0.22	U		< 0.22	U		< 0.22	UJ1		< 0.22	U		< 0.22	U		< 0.22	UQ		< 0.22	UQ	
Isopropylbenzene	98-82-8	-	4.51E+01	2.60E+00	< 6.5	U		< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U		**0.46**	**J**	**J**
m+p-Xylenes	179601-23-1	-	-	-	< 12	U		< 0.49	U		< 0.49	U		< 0.49	U		< 0.49	U		< 0.49	U		< 0.49	U		**1.7**	**J**	
Methyl Acetate	79-20-9	-	1.99E+03	-	< 80	U		< 3.2	U		< 3.2	U		< 3.2	UJ1		< 3.2	U		< 3.2	U		< 3.2	U		< 3.2	U	
Methylcyclohexane	108-87-2	-	1.98E+01	-	< 8.3	U		< 0.33	U		< 0.33	U		< 0.33	UJ1		< 0.33	UQ		< 0.33	UQ		< 0.33	UQ		< 0.33	UQ	
Methylene chloride (DCM)	75-09-2	5.00E+00	1.07E+01	9.81E+01	< 80	U		< 3.2	U		< 3.2	U		< 3.2	U		< 3.2	U		< 3.2	U		< 3.2	U		< 3.2	U	
Naphthalene	91-20-3	-	*1.17E-01*	1.10E+00	< 60	U		< 2.4	U		< 2.4	U		< 2.4	UJ1		< 2.4	U		< 2.4	U		< 2.4	U		***55***		
n-Butylbenzene	104-51-8	-	1.00E+02	-	< 13	U		< 0.52	U		< 0.52	U		< 0.52	UJ1		< 0.52	UQ		< 0.52	UQ		< 0.52	U		**1.3**	**J**	**J**
n-Propylbenzene	103-65-1	-	6.56E+01	1.28E+02	< 10	U		< 0.41	U		< 0.41	U		< 0.41	U		< 0.41	U		< 0.41	U		< 0.41	U		**0.53**	**J**	**J**
o-Xylene	95-47-6	-	*1.93E+01*	-	< 6.5	U		< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U		**3.4**		
p-Isopropyltoluene	99-87-6	-	-	8.50E+01	< 11	U		< 0.44	U		< 0.44	U		< 0.44	U		< 0.44	U		< 0.44	U		< 0.44	U		< 0.44	U	
sec-Butylbenzene	135-98-8	-	2.01E+02	-	< 13	U		< 0.53	U		< 0.53	U		< 0.53	U		< 0.53	U		< 0.53	U		< 0.53	U		< 0.53	U	
Styrene	100-42-5	1.00E+02	1.21E+02	7.20E+01	< 6.8	U		< 0.27	U		< 0.27	U		< 0.27	U		< 0.27	U		< 0.27	U		< 0.27	U		< 0.27	UM	
tert-Butyl methyl ether (MTBE)	1634-04-4	-	1.43E+01	1.11E+04	< 20	U		< 0.81	U		< 0.81	U		< 0.81	UJ1		< 0.81	U		< 0.81	U		< 0.81	U		< 0.81	U	
tert-Butylbenzene	98-06-6	-	6.91E+01	-	< 11	U		< 0.43	U		< 0.43	U		< 0.43	U		< 0.43	U		< 0.43	U		< 0.43	U		< 0.43	UM	
Tetrachloroethene	127-18-4	5.00E+00	*4.06E+00*	1.11E+02	< 8.8	U		**2.3**			< 0.35	U		< 0.35	UJ1		**1.1**	**J**		**3.1**			**0.99**	**J**	**J**	***30***		
Toluene	108-88-3	1.00E+03	1.10E+02	2.00E+00	< 6.3	U		< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U		**4.4**		
trans-1,2-Dichloroethene	156-60-5	1.00E+02	*6.78E+00*	9.70E+02	< 8.5	U		< 0.34	UM		< 0.34	U		< 0.34	U		< 0.34	U		**2.2**			**0.89**	**J**	**J**	***31***		
trans-1,3-Dichloropropene	10061-02-6	-	-	-	< 5.8	U		< 0.23	U		< 0.23	U		< 0.23	UJ1		< 0.23	U		< 0.23	U		< 0.23	U		< 0.23	U	
Trichloroethene	79-01-6	5.00E+00	*2.83E-01*	2.10E+01	< 5.0	UM		***19***			***4.8***			***3.4***		***J+***	***4.5***			***2.2***			***5.1***			***39***		
Trichlorofluoromethane	75-69-4	-	5.16E+02	-	< 8.3	U		< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	UQ		< 0.33	UQ	
Trichlorotrifluoroethane (Freon 113)	76-13-1	-	1.02E+03	-	< 5.8	U		< 0.23	U		< 0.23	U		< 0.23	U		< 0.23	U		< 0.23	U		< 0.23	UQ		< 12	UH	
Vinyl chloride	75-01-4	2.00E+00	*1.88E-02*	9.30E+02	< 10	U		***4.1***			***1.3***	***J***		< 0.40	U		< 0.40	U		***13***	***D***		***2300***	***D***		**5.1**		
Xylene (Total)	1330-20-7	1.00E+04	*1.93E+01*	1.30E+01	< 12	U		< 0.49	U		< 0.49	U		< 0.49	U		< 0.49	U		< 0.49	U		< 0.49	U				
Field Parameters																												
Depth to Water (ft)	DTW	-	-	-	**27.61**			**18.9**			**25.4**			**15.25**			**14.35**			**14.3**			**18.05**			**18.28**		
Dissolved Oxygen (mg/L)	DO	-	-	-	**0.59**			**1.63**			**0.23**			**0.49**			**0.43**			**5.53**			**0.48**			**0.41**		
Ferrous Iron - Field (mg/L)	FIELD FE	-	-	-	-[1]			**0.07**			-[1]			-[1]			-[1]			**0.07**			-[1]			**1.97**		
Oxidation Reduction Potential (mV)	ORP	-	-	-	**85.9**			**134.3**			**197.8**			**74.5**			**89.4**			**272.9**			**-67.4**			**-83.3**		
pH (pH unit)	PH	-	-	-	**6.55**			**5.62**			**5.56**			**5.56**			**5.83**			**5.4**			**6.13**			**6.19**		
Specific Conductivity (mS/cm)	SC	-	-	-	**4.632**			**0.151**			**0.15**			**0.056**			**0.069**			**0**			**0.362**			**0.56**		
Temperature (°C)	TEMP	-	-	-	**19.3**			**20**			**16.4**			**19.9**			**20.3**			**17.5**			**21.6**			**18.6**		
Turbidity (NTU)	TURB	-	-	-	**11.27**			**3.21**			**52**			**42.71**			**32.45**			**18.98**			**601.98**			**182.03**		

Table B.2
OU6 Annual Volatile Organic Compounds - Spring 2024
Defense Supply Center Richmond

Sample Location					OU6-MW-130			OU6-MW-131			OU6-MW-141			OU6-MW-142			OU6-MW-144			OU6-MW-145			OU6-MW-145			OU6-MW-149		
Sample ID					OU6-MW-130-20240522			OU6-MW-131-20240523			OU6-MW-141-20240514			OU6-MW-142-20240515			OU6-MW-144-20240514			DUP3-20240520			OU6-MW-145-20240520			OU6-MW-149-20240514		
Sample Date					5/22/2024			5/23/2024			5/14/2024			5/15/2024			5/14/2024			5/20/2024			5/20/2024			5/14/2024		
Sample Type					N			N			N			N			N			FD			N			N		
Description					UWBU			UWBU			LWBU			LWBU			UWBU			LWBU			LWBU			UWBU		
Parameter	**CAS#**	**MCL**	**RSL**	**BTAG**	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV
VOCs by SW8260D (µg/L)																												
1,1,1,2-Tetrachloroethane	630-20-6	-	*5.74E-01*	-	< 0.36	U		< 0.36	U		< 0.36	U		< 0.36	U		< 0.36	U		< 0.36	U		< 0.36	U		< 0.36	U	
1,1,1-Trichloroethane	71-55-6	2.00E+02	8.01E+02	1.10E+01	< 0.21	U		< 0.21	U		< 0.21	U		< 0.21	U		< 0.21	U		< 0.21	U		< 0.21	U		< 0.21	U	
1,1,2,2-Tetrachloroethane	79-34-5	-	7.57E-02	6.10E+02	< 0.40	U		< 0.40	U		< 0.40	U		< 0.40	U		< 0.40	U		< 0.40	U		< 0.40	U		< 0.40	U	
1,1,2-Trichloroethane	79-00-5	5.00E+00	*4.15E-02*	1.20E+03	< 0.32	U		***0.82***	***J***	***J***	< 0.32	U		< 0.32	U		< 0.32	U		< 0.32	U		< 0.32	U		< 0.32	U	
1,1-Dichloroethane	75-34-3	-	*2.75E+00*	4.70E+01	< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	U	
1,1-Dichloroethene (Vinylidene chloride)	75-35-4	7.00E+00	*2.85E+01*	2.50E+01	< 0.33	U		**2.9**			< 0.33	U		< 0.33	U		< 0.33	U		**0.71**	**J**		**0.75**	**J**	**J**	< 0.33	U	
1,1-Dichloropropene	563-58-6	-	-	-	< 0.28	U		< 0.28	UQ		< 0.28	U		< 0.28	U		< 0.28	U		< 0.28	U		< 0.28	U		< 0.28	U	
1,2,3-Trichlorobenzene	87-61-6	-	7.04E-01	8.00E+00	< 0.81	U		< 0.81	U		< 0.81	U		< 0.81	U		< 0.81	U		< 0.81	U		< 0.81	U		< 0.81	U	
1,2,3-Trichloropropane	96-18-4	-	*7.49E-04*	-	< 0.48	U		< 0.48	U		< 0.48	U		< 0.48	U		< 0.48	U		< 0.48	U		< 0.48	U		< 0.48	U	
1,2,4-Trichlorobenzene	120-82-1	7.00E+01	*3.99E-01*	2.40E+01	< 0.53	U		< 0.53	U		< 0.53	U		< 0.53	U		< 0.53	U		< 0.53	U		< 0.53	U		< 0.53	U	
1,2,4-Trimethylbenzene	95-36-3	-	-	-	< 0.43	U		< 0.43	U		< 0.43	U		< 0.43	U		< 0.43	U		< 0.43	U		< 0.43	U		< 0.43	U	
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	2.00E-01	3.34E-04	-	< 1.8	UQ		< 1.8	U		< 1.8	U		< 1.8	U		< 1.8	U		< 1.8	U		< 1.8	U		< 1.8	U	
1,2-Dibromoethane (EDB)	106-93-4	5.00E-02	7.47E-03	-	< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	U	
1,2-Dichlorobenzene	95-50-1	6.00E+02	*3.04E+01*	7.00E-01	< 0.31	U		< 0.31	U		< 0.31	U		< 0.31	U		< 0.31	U		< 0.31	U		< 0.31	U		< 0.31	U	
1,2-Dichloroethane	107-06-2	5.00E+00	*1.71E-01*	1.00E+02	< 0.25	UM		***0.50***	***J***	***J***	< 0.25	UM		< 0.25	UM		< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	UM	
1,2-Dichloroethene, Total	540-59-0	-	-	5.90E+02	**9.9**			**530**	**D**		< 0.37	U		**6.4**			< 0.37	U		**68**			**68**			< 0.37	U	
1,2-Dichloropropane	78-87-5	5.00E+00	8.25E-01	-	< 0.22	U		< 0.22	U		< 0.22	U		< 0.22	U		< 0.22	U		< 0.22	U		< 0.22	U		< 0.22	U	
1,3,5-Trimethylbenzene	108-67-8	-	*6.03E+00*	7.10E+01	< 0.28	U		< 0.28	U		< 0.28	U		< 0.28	U		< 0.28	U		< 0.28	U		< 0.28	U		< 0.28	U	
1,3-Dichlorobenzene	541-73-1	-	-	1.50E+02	< 0.31	U		< 0.31	U		< 0.31	U		< 0.31	U		< 0.31	U		< 0.31	U		< 0.31	U		< 0.31	U	
1,3-Dichloropropane	142-28-9	-	3.69E+01	-	< 0.36	U		< 0.36	U		< 0.36	U		< 0.36	U		< 0.36	U		< 0.36	U		< 0.36	U		< 0.36	U	
1,4-Dichlorobenzene	106-46-7	7.50E+01	*4.82E-01*	2.60E+01	< 0.31	U		< 0.31	U		< 0.31	U		< 0.31	U		< 0.31	U		< 0.31	U		< 0.31	U		< 0.31	U	
2,2-Dichloropropane	594-20-7	-	-	-	< 0.35	U		< 0.35	U		< 0.35	U		< 0.35	U		< 0.35	U		< 0.35	U		< 0.35	U		< 0.35	U	
2-Butanone (MEK)	78-93-3	-	*5.57E+02*	1.40E+04	< 6.4	U		< 6.4	U		< 6.4	U		< 6.4	U		< 6.4	U		< 6.4	U		< 6.4	U		< 6.4	U	
2-Chlorotoluene	95-49-8	-	2.37E+01	-	< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U	
2-Hexanone	591-78-6	-	3.80E+00	9.90E+01	< 3.2	U		< 3.2	U		< 3.2	U		< 3.2	U		< 3.2	U		< 3.2	U		< 3.2	U		< 3.2	U	
4-Chlorotoluene	106-43-4	-	2.50E+01	-	< 0.41	U		< 0.41	U		< 0.41	U		< 0.41	U		< 0.41	U		< 0.41	U		< 0.41	U		< 0.41	U	
4-Methyl-2-pentanone (MIBK)	108-10-1	-	6.26E+02	1.70E+02	< 2.7	U		< 2.7	U		< 2.7	U		< 2.7	U		< 2.7	U		< 2.7	U		< 2.7	U		< 2.7	U	
Acetone	67-64-1	-	*1.80E+03*	1.50E+03	< 3.7	U		< 3.7	U		< 3.7	U		< 3.7	U		< 3.7	U		< 3.7	U		< 3.7	U		< 3.7	U	
Benzene	71-43-2	5.00E+00	*4.55E-01*	3.70E+02	< 0.27	U		< 0.27	U		< 0.27	U		< 0.27	U		< 0.27	U		< 0.27	U		< 0.27	U		< 0.27	U	
Bromobenzene	108-86-1	-	6.22E+00	-	< 0.24	U		< 0.24	U		< 0.24	U		< 0.24	U		< 0.24	U		< 0.24	U		< 0.24	U		< 0.24	U	
Bromochloromethane	74-97-5	-	8.34E+00	-	< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U	
Bromodichloromethane	75-27-4	8.00E+01	1.34E-01	-	< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U	
Bromoform	75-25-2	8.00E+01	3.29E+00	3.20E+02	< 0.59	U		< 0.59	U		< 0.59	UQ		< 0.59	U		< 0.59	UMQ		< 0.59	UQ		< 0.59	UQ		< 0.59	UQ	
Bromomethane	74-83-9	-	7.55E-01	-	< 3.7	U		< 3.7	UQ		< 3.7	U		< 3.7	UQ		< 3.7	U		< 3.7	U		< 3.7	U		< 3.7	U	
Carbon disulfide	75-15-0	-	8.11E+01	9.20E-01	< 0.43	U		< 0.43	U		< 0.43	UQ		< 0.43	U		**1.9**	**JQ**		< 0.43	UQ		< 0.43	UQ		**12**	**Q**	
Carbon tetrachloride	56-23-5	5.00E+00	*4.55E-01*	1.33E+01	< 0.30	U		< 0.30	U		< 0.30	U		< 0.30	U		< 0.30	U		< 0.30	U		< 0.30	U		< 0.30	U	
Chlorobenzene	108-90-7	1.00E+02	*7.77E+00*	1.30E+00	< 0.15	U		< 0.15	U		< 0.15	U		**0.76**	**JM**		< 0.15	U		< 0.15	U		< 0.15	U		< 0.15	U	
Chlorodibromomethane (Dibromochloromethane)	124-48-1	8.00E+01	8.71E-01	-	< 0.39	U		< 0.39	U		< 0.39	U		< 0.39	U		< 0.39	U		< 0.39	U		< 0.39	U		< 0.39	U	
Chloroethane	75-00-3	-	8.34E+02	-	< 4.6	U		< 4.6	U		< 4.6	U		< 4.6	U		< 4.6	U		< 4.6	U		< 4.6	U		< 4.6	U	
Chloroform	67-66-3	8.00E+01	*2.21E-01*	1.80E+00	< 0.27	U		***4.3***			< 0.27	U		< 0.27	U		< 0.27	U		< 0.27	U		< 0.27	U		< 0.27	U	
Chloromethane	74-87-3	-	1.88E+01	-	< 0.54	U		< 0.54	U		< 0.54	U		< 0.54	U		< 0.54	U		< 0.54	U		< 0.54	U		< 0.54	U	
cis-1,2-Dichloroethene	156-59-2	7.00E+01	*2.52E+00*	-	***8.7***			***530***	***D***		< 0.25	U		***6.4***			< 0.25	U		***68***			***68***			< 0.25	U	
cis-1,3-Dichloropropene	10061-01-5	-	-	-	< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U	
Cyclohexane	110-82-7	-	1.25E+03	-	< 0.28	U		< 0.28	UQ		< 0.28	U		< 0.28	U		< 0.28	U		< 0.28	U		< 0.28	U		< 0.28	U	
Dibromomethane	74-95-3	-	8.34E-01	-	< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U	
Dichlorodifluoromethane	75-71-8	-	1.97E+01	-	< 0.36	UQ		< 0.36	UQ		< 0.36	U		< 0.36	UQ		< 0.36	U		< 0.36	UMQ		< 0.36	UQ		< 0.36	U	
Ethylbenzene	100-41-4	7.00E+02	*1.50E+00*	9.00E+01	< 0.20	UM		< 0.20	U		< 0.20	U		< 0.20	U		< 0.20	U		< 0.20	U		< 0.20	U		< 0.20	U	
Hexachlorobutadiene	87-68-3	-	*1.39E-01*	1.30E+00	< 0.22	U		< 0.22	UQ		< 0.22	U		< 0.22	U		< 0.22	U		< 0.22	U		< 0.22	U		< 0.22	U	
Isopropylbenzene	98-82-8	-	4.51E+01	2.60E+00	< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U	
m+p-Xylenes	179601-23-1	-	-	-	< 0.49	UM		< 0.49	U		< 0.49	U		< 0.49	U		< 0.49	U		< 0.49	U		< 0.49	U		< 0.49	U	
Methyl Acetate	79-20-9	-	1.99E+03	-	< 3.2	U		< 3.2	U		< 3.2	UQ		< 3.2	U		< 3.2	UQ		< 3.2	UQ		< 3.2	UQ		< 3.2	UQ	
Methylcyclohexane	108-87-2	-	1.98E+01	-	< 0.33	U		< 0.33	UQ		< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	U	
Methylene chloride (DCM)	75-09-2	5.00E+00	1.07E+01	9.81E+01	< 3.2	U		< 3.2	U		< 3.2	U		< 3.2	U		< 3.2	U		< 3.2	U		< 3.2	U		< 3.2	U	
Naphthalene	91-20-3	-	*1.17E-01*	1.10E+00	< 2.4	U		< 2.4	U		< 2.4	U		< 2.4	U		< 2.4	U		< 2.4	U		< 2.4	U		< 2.4	U	
n-Butylbenzene	104-51-8	-	1.00E+02	-	< 0.52	U		< 0.52	U		< 0.52	U		< 0.52	U		< 0.52	U		< 0.52	U		< 0.52	U		< 0.52	U	
n-Propylbenzene	103-65-1	-	6.56E+01	1.28E+02	< 0.41	U		< 0.41	U		< 0.41	U		< 0.41	U		< 0.41	U		< 0.41	U		< 0.41	U		< 0.41	U	
o-Xylene	95-47-6	-	*1.93E+01*	-	< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U	
p-Isopropyltoluene	99-87-6	-	-	8.50E+01	< 0.44	U		< 0.44	U		< 0.44	U		< 0.44	U		< 0.44	U		< 0.44	U		< 0.44	U		< 0.44	U	
sec-Butylbenzene	135-98-8	-	2.01E+02	-	< 0.53	U		< 0.53	U		< 0.53	U		< 0.53	U		< 0.53	U		< 0.53	U		< 0.53	U		< 0.53	U	
Styrene	100-42-5	1.00E+02	1.21E+02	7.20E+01	< 0.27	U		< 0.27	U		< 0.27	U		< 0.27	U		< 0.27	U		< 0.27	U		< 0.27	U		< 0.27	U	
tert-Butyl methyl ether (MTBE)	1634-04-4	-	1.43E+01	1.11E+04	< 0.81	U		< 0.81	U		< 0.81	U		< 0.81	U		< 0.81	U		< 0.81	U		< 0.81	U		< 0.81	U	
tert-Butylbenzene	98-06-6	-	6.91E+01	-	< 0.43	U		< 0.43	U		< 0.43	U		< 0.43	U		< 0.43	U		< 0.43	U		< 0.43	U		< 0.43	U	
Tetrachloroethene	127-18-4	5.00E+00	*4.06E+00*	1.11E+02	**0.97**	**J**	**J**	***17***			< 0.35	U		< 0.35	U		< 0.35	U		< 0.35	U		< 0.35	U		< 0.35	U	
Toluene	108-88-3	1.00E+03	1.10E+02	2.00E+00	< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U	
trans-1,2-Dichloroethene	156-60-5	1.00E+02	*6.78E+00*	9.70E+02	**1.2**	**JM**		**1.8**	**J**		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U	
trans-1,3-Dichloropropene	10061-02-6	-	-	-	< 0.23	U		< 0.23	U		< 0.23	U		< 0.23	U		< 0.23	U		< 0.23	U		< 0.23	U		< 0.23	U	
Trichloroethene	79-01-6	5.00E+00	*2.83E-01*	2.10E+01	***6.0***			***1100***	***D***		< 0.20	U		***2.3***			< 0.20	U		***30***			***29***			< 0.20	U	
Trichlorofluoromethane	75-69-4	-	5.16E+02	-	< 0.33	U		< 0.33	UQ		< 0.33	UQ		< 0.33	U		< 0.33	UQ		< 0.33	U		< 0.33	U		< 0.33	UQ	
Trichlorotrifluoroethane (Freon 113)	76-13-1	-	1.02E+03	-	< 0.23	U		< 0.23	UQ		< 0.23	U		< 0.23	U		< 0.23	U		< 0.23	U		< 0.23	U		< 0.23	U	
Vinyl chloride	75-01-4	2.00E+00	*1.88E-02*	9.30E+02	***3.7***			< 40	U		< 0.40	U		***0.68***	***J***	***J***	< 0.40	U		***6.8***	***M***		***6.7***			< 0.40	U	
Xylene (Total)	1330-20-7	1.00E+04	*1.93E+01*	1.30E+01	< 0.49	U		< 0.49	U		< 0.49	U		< 0.49	U		< 0.49	U		< 0.49	U		< 0.49	U		< 0.49	U	
Field Parameters																												
Depth to Water (ft)	DTW	-	-	-	**5.95**			**19.6**			**15.24**			**13.55**			**5.25**			**14.9**			**14.9**			**5.25**		
Dissolved Oxygen (mg/L)	DO	-	-	-	**0.65**			**0.41**			**1.63**			**2**			**1.31**			**1.62**			**1.62**			**1.79**		
Ferrous Iron - Field (mg/L)	FIELD FE	-	-	-	**5**			**0.13**			-[1]			**0.66**			-[1]			**0.62**			**0.75**			-[1]		
Oxidation Reduction Potential (mV)	ORP	-	-	-	**-55.1**			**239.4**			**327.5**			**231.7**			**399.8**			**278.8**			**278.8**			**259.2**		
pH (pH unit)	PH	-	-	-	**5.45**			**4.9**			**5.71**			**5.98**			**4.29**			**5.85**			**5.85**			**4.52**		
Specific Conductivity (mS/cm)	SC	-	-	-	**0.399**			**0.052**			**0.161**			**0.1**			**0.041**			**0.125**			**0.125**			**0.061**		
Temperature (°C)	TEMP	-	-	-	**18.2**			**18.1**			**15.8**			**15.6**			**15.2**			**15.8**			**15.8**			**15.3**		
Turbidity (NTU)	TURB	-	-	-	**10.2**			**120.17**			**30.53**			**19.65**			**39.89**			**14**			**14**			**15.2**		

Table B.2
OU6 Annual Volatile Organic Compounds - Spring 2024
Defense Supply Center Richmond

				Sample Location	OU6-MW-155			OU6-MW-156			OU6-MW-157			OU6-MW-157			OU6-MW-158			OU6-MW-159			OU6-MW-160			OU6-MW-165		
				Sample ID	OU6-MW-155-20240514			OU6-MW-156-20240515			DUP6-20240522			OU6-MW-157-20240522			OU6-MW-158-20240515			OU6-MW-159-20240517			OU6-MW-160-20240520			OU6-MW-165-20240517		
				Sample Date	5/14/2024			5/15/2024			5/22/2024			5/22/2024			5/15/2024			5/17/2024			5/20/2024			5/17/2024		
				Sample Type	N			N			FD			N			N			N			N			N		
				Description	UWBU			UWBU			LWBU			LWBU			UWBU			LWBU			LWBU			LWBU		
Parameter	**CAS#**	**MCL**	**RSL**	**BTAG**	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV
VOCs by SW8260D (µg/L)																															
1,1,1,2-Tetrachloroethane	630-20-6	-	*5.74E-01*	-	< 0.36	U		< 0.36	U		< 3.6	U		< 3.6	U		< 0.36	U		< 0.36	U		< 0.36	UJ1		< 0.36	U	
1,1,1-Trichloroethane	71-55-6	2.00E+02	8.01E+02	1.10E+01	< 0.21	U		< 0.21	U		< 2.1	U		< 2.1	U		< 0.21	U		< 0.21	U		< 0.21	UJ1		< 0.21	U	
1,1,2,2-Tetrachloroethane	79-34-5	-	7.57E-02	6.10E+02	< 0.40	U		< 0.40	U		< 4.0	U		< 4.0	U		< 0.40	U		< 0.40	UQ		< 0.40	UQJ1		< 0.40	U	
1,1,2-Trichloroethane	79-00-5	5.00E+00	*4.15E-02*	1.20E+03	< 0.32	U		< 0.32	U		< 3.2	U		< 3.2	U		< 0.32	U		< 0.32	U		< 0.32	UJ1		< 0.32	U	
1,1-Dichloroethane	75-34-3	-	*2.75E+00*	4.70E+01	< 0.33	U		< 0.33	U		< 3.3	U		< 3.3	U		< 0.33	U		< 0.33	U		< 0.33	UJ1		< 0.33	U	
1,1-Dichloroethene (Vinylidene chloride)	75-35-4	7.00E+00	*2.85E+01*	2.50E+01	< 0.33	U		< 0.33	U		**10**	**JD**		< 3.3	UM		< 0.33	U		< 0.33	U		< 0.33	UJ1		< 0.33	UQ	
1,1-Dichloropropene	563-58-6	-	-	-	< 0.28	U		< 0.28	U		< 2.8	U		< 2.8	U		< 0.28	U		< 0.28	U		< 0.28	UJ1		< 0.28	U	
1,2,3-Trichlorobenzene	87-61-6	-	7.04E-01	8.00E+00	< 0.81	U		< 0.81	U		< 8.1	U		< 8.1	U		< 0.81	U		< 0.81	U		< 0.81	UJ1		< 0.81	U	
1,2,3-Trichloropropane	96-18-4	-	*7.49E-04*	-	< 0.48	U		< 0.48	U		< 4.8	U		< 4.8	U		< 0.48	U		< 0.48	U		< 0.48	UJ1		< 0.48	U	
1,2,4-Trichlorobenzene	120-82-1	7.00E+01	*3.99E-01*	2.40E+01	< 0.53	U		< 0.53	U		< 5.3	U		< 5.3	U		< 0.53	U		< 0.53	U		< 0.53	UJ1		< 0.53	U	
1,2,4-Trimethylbenzene	95-36-3	-	-	-	< 0.43	U		< 0.43	U		< 4.3	U		< 4.3	U		< 0.43	U		< 0.43	U		< 0.43	UJ1		< 0.43	U	
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	2.00E-01	3.34E-04	-	< 1.8	U		< 1.8	U		< 18	UQ		< 18	UQ		< 1.8	U		< 1.8	U		< 1.8	UJ1		< 1.8	U	
1,2-Dibromoethane (EDB)	106-93-4	5.00E-02	7.47E-03	-	< 0.33	U		< 0.33	U		< 3.3	U		< 3.3	U		< 0.33	U		< 0.33	U		< 0.33	UJ1		< 0.33	U	
1,2-Dichlorobenzene	95-50-1	6.00E+02	*3.04E+01*	7.00E-01	< 0.31	U		< 0.31	U		< 3.1	U		< 3.1	U		< 0.31	U		< 0.31	U		< 0.31	UJ1		< 0.31	U	
1,2-Dichloroethane	107-06-2	5.00E+00	*1.71E-01*	1.00E+02	< 0.25	U		< 0.25	UM		< 2.5	U		< 2.5	U		< 0.25	U		< 0.25	U		< 0.25	UMJ1		< 0.25	UM	
1,2-Dichloroethene, Total	540-59-0	-	-	5.90E+02	< 0.37	U		**1.1**	**J**		**1200**	**D**		**1200**	**D**		**1.6**	**J**		**0.68**	**J**	**J**	**0.47**	**JJ1**	**J**	**0.92**	**J**	**J**
1,2-Dichloropropane	78-87-5	5.00E+00	8.25E-01	-	< 0.22	U		< 0.22	U		< 2.2	U		< 2.2	U		< 0.22	U		< 0.22	U		< 0.22	UJ1		< 0.22	U	
1,3,5-Trimethylbenzene	108-67-8	-	*6.03E+00*	7.10E+01	< 0.28	U		< 0.28	U		< 2.8	U		< 2.8	U		< 0.28	U		< 0.28	U		< 0.28	UJ1		< 0.28	U	
1,3-Dichlorobenzene	541-73-1	-	-	1.50E+02	< 0.31	U		< 0.31	U		< 3.1	U		< 3.1	U		< 0.31	U		< 0.31	U		< 0.31	UJ1		< 0.31	U	
1,3-Dichloropropane	142-28-9	-	3.69E+01	-	< 0.36	U		< 0.36	U		< 3.6	U		< 3.6	U		< 0.36	U		< 0.36	U		< 0.36	UJ1		< 0.36	U	
1,4-Dichlorobenzene	106-46-7	7.50E+01	*4.82E-01*	2.60E+01	< 0.31	U		< 0.31	U		< 3.1	U		***3.9***	***JD***	***J***	< 0.31	U		< 0.31	U		***1.0***	***JJ1***		< 0.31	U	
2,2-Dichloropropane	594-20-7	-	-	-	< 0.35	U		< 0.35	U		< 3.5	U		< 3.5	U		< 0.35	U		< 0.35	U		< 0.35	UJ1		< 0.35	UQ	
2-Butanone (MEK)	78-93-3	-	*5.57E+02*	1.40E+04	< 6.4	U		< 6.4	U		< 64	U		< 64	U		< 6.4	U		**22**	**J**		< 6.4	UJ1		< 6.4	U	
2-Chlorotoluene	95-49-8	-	2.37E+01	-	< 0.25	U		< 0.25	U		< 2.5	U		< 2.5	U		< 0.25	U		< 0.25	U		< 0.25	UJ1		< 0.25	U	
2-Hexanone	591-78-6	-	3.80E+00	9.90E+01	< 3.2	U		< 3.2	U		< 32	U		< 32	U		< 3.2	U		< 3.2	U		< 3.2	UJ1		< 3.2	U	
4-Chlorotoluene	106-43-4	-	2.50E+01	-	< 0.41	U		< 0.41	U		< 4.1	U		< 4.1	U		< 0.41	U		< 0.41	U		< 0.41	UJ1		< 0.41	U	
4-Methyl-2-pentanone (MIBK)	108-10-1	-	6.26E+02	1.70E+02	< 2.7	U		< 2.7	U		< 27	U		< 27	U		< 2.7	U		< 2.7	U		< 2.7	UJ1		< 2.7	U	
Acetone	67-64-1	-	*1.80E+03*	1.50E+03	< 3.7	U		< 3.7	U		< 37	U		< 37	U		< 3.7	U		**70**			< 3.7	UJ1		< 3.7	U	
Benzene	71-43-2	5.00E+00	*4.55E-01*	3.70E+02	< 0.27	U		< 0.27	U		< 2.7	U		< 2.7	U		< 0.27	U		< 0.27	U		< 0.27	UJ1		< 0.27	U	
Bromobenzene	108-86-1	-	6.22E+00	-	< 0.24	U		< 0.24	U		< 2.4	U		< 2.4	U		< 0.24	U		< 0.24	U		< 0.24	UJ1		< 0.24	U	
Bromochloromethane	74-97-5	-	8.34E+00	-	< 0.34	U		< 0.34	U		< 3.4	U		< 3.4	U		< 0.34	U		< 0.34	U		< 0.34	UJ1		< 0.34	UQ	
Bromodichloromethane	75-27-4	8.00E+01	1.34E-01	-	< 0.25	U		< 0.25	U		< 2.5	U		< 2.5	U		< 0.25	U		< 0.25	U		< 0.25	UJ1		< 0.25	U	
Bromoform	75-25-2	8.00E+01	3.29E+00	3.20E+02	< 0.59	UQ		< 0.59	UQ		< 5.9	U		< 5.9	U		< 0.59	UQ		< 0.59	UQ		< 0.59	UQJ1		< 0.59	U	
Bromomethane	74-83-9	-	7.55E-01	-	< 3.7	U		< 3.7	U		< 37	U		< 37	U		< 3.7	U		< 3.7	U		< 3.7	UJ1		< 3.7	U	
Carbon disulfide	75-15-0	-	8.11E+01	9.20E-01	**0.94**	**JQ**	**J**	**0.85**	**JQ**	**J**	< 4.3	U		< 4.3	U		**1.3**	**JQ**		< 0.43	UQ		< 0.43	UQJ1		< 0.43	UQ	
Carbon tetrachloride	56-23-5	5.00E+00	*4.55E-01*	1.33E+01	< 0.30	U		< 0.30	U		< 3.0	U		< 3.0	U		< 0.30	U		< 0.30	U		< 0.30	UJ1		< 0.30	UQ	
Chlorobenzene	108-90-7	1.00E+02	*7.77E+00*	1.30E+00	< 0.15	U		< 0.15	U		***18***	***D***		***18***	***DM***		< 0.15	U		< 0.15	U		< 0.15	UJ1		< 0.15	U	
Chlorodibromomethane (Dibromochloromethane)	124-48-1	8.00E+01	8.71E-01	-	< 0.39	U		< 0.39	U		< 3.9	U		< 3.9	U		< 0.39	U		< 0.39	U		< 0.39	UJ1		< 0.39	U	
Chloroethane	75-00-3	-	8.34E+02	-	< 4.6	U		< 4.6	U		< 46	U		< 46	U		< 4.6	U		< 4.6	U		< 4.6	UJ1		< 4.6	U	
Chloroform	67-66-3	8.00E+01	*2.21E-01*	1.80E+00	< 0.27	U		< 0.27	U		< 2.7	U		< 2.7	U		< 0.27	U		< 0.27	U		< 0.27	UJ1		***0.35***	***J***	***J***
Chloromethane	74-87-3	-	1.88E+01	-	< 0.54	U		< 0.54	U		< 5.4	U		< 5.4	U		< 0.54	U		< 0.54	U		< 0.54	UJ1		< 0.54	U	
cis-1,2-Dichloroethene	156-59-2	7.00E+01	*2.52E+00*	-	< 0.25	U		**1.1**	**J**		***1200***	***D***		***1200***	***D***		**1.6**	**J**		**0.68**	**J**	**J**	**0.47**	**JJ1**	**J**	**0.92**	**J**	**J**
cis-1,3-Dichloropropene	10061-01-5	-	-	-	< 0.26	U		< 0.26	U		< 2.6	U		< 2.6	U		< 0.26	U		< 0.26	U		< 0.26	UJ1		< 0.26	U	
Cyclohexane	110-82-7	-	1.25E+03	-	< 0.28	U		< 0.28	U		< 2.8	U		< 2.8	U		< 0.28	U		< 0.28	U		< 0.28	UJ1		< 0.28	UQ	
Dibromomethane	74-95-3	-	8.34E-01	-	< 0.34	U		< 0.34	U		< 3.4	U		< 3.4	U		< 0.34	U		< 0.34	U		< 0.34	UJ1		< 0.34	U	
Dichlorodifluoromethane	75-71-8	-	1.97E+01	-	< 0.36	U		< 0.36	UQ		**16**	**JD**		< 3.6	UQ		< 0.36	UQ		< 0.36	U		< 0.36	UJ1		< 0.36	UQ	
Ethylbenzene	100-41-4	7.00E+02	*1.50E+00*	9.00E+01	< 0.20	U		< 0.20	U		< 2.0	U		< 2.0	U		< 0.20	U		< 0.20	U		< 0.20	UJ1		< 0.20	U	
Hexachlorobutadiene	87-68-3	-	*1.39E-01*	1.30E+00	< 0.22	U		< 0.22	U		< 2.2	U		< 2.2	U		< 0.22	U		< 0.22	U		< 0.22	UJ1		< 0.22	U	
Isopropylbenzene	98-82-8	-	4.51E+01	2.60E+00	< 0.26	U		< 0.26	U		< 2.6	U		< 2.6	U		< 0.26	U		< 0.26	U		< 0.26	UJ1		< 0.26	U	
m+p-Xylenes	179601-23-1	-	-	-	< 0.49	U		< 0.49	U		< 4.9	U		< 4.9	U		< 0.49	U		< 0.49	U		< 0.49	UJ1		< 0.49	U	
Methyl Acetate	79-20-9	-	1.99E+03	-	< 3.2	UQ		< 3.2	U		< 32	U		< 32	U		< 3.2	U		< 3.2	U		< 3.2	UJ1		< 3.2	U	
Methylcyclohexane	108-87-2	-	1.98E+01	-	< 0.33	U		< 0.33	U		< 3.3	U		< 3.3	U		< 0.33	U		< 0.33	U		< 0.33	UJ1		< 0.33	UQ	
Methylene chloride (DCM)	75-09-2	5.00E+00	1.07E+01	9.81E+01	< 3.2	U		< 3.2	U		< 32	U		< 32	U		< 3.2	U		< 3.2	U		< 3.2	UJ1		< 3.2	U	
Naphthalene	91-20-3	-	*1.17E-01*	1.10E+00	< 2.4	U		< 2.4	U		< 24	U		< 24	U		< 2.4	U		< 2.4	U		< 2.4	UJ1		< 2.4	U	
n-Butylbenzene	104-51-8	-	1.00E+02	-	< 0.52	U		< 0.52	U		< 5.2	U		< 5.2	U		< 0.52	U		< 0.52	U		< 0.52	UJ1		< 0.52	UQ	
n-Propylbenzene	103-65-1	-	6.56E+01	1.28E+02	< 0.41	U		< 0.41	U		< 4.1	U		< 4.1	U		< 0.41	U		< 0.41	U		< 0.41	UJ1		< 0.41	U	
o-Xylene	95-47-6	-	*1.93E+01*	-	< 0.26	U		< 0.26	U		< 2.6	U		< 2.6	U		< 0.26	U		< 0.26	U		< 0.26	UJ1		< 0.26	U	
p-Isopropyltoluene	99-87-6	-	-	8.50E+01	< 0.44	U		< 0.44	U		< 4.4	U		< 4.4	U		< 0.44	U		< 0.44	U		< 0.44	UJ1		< 0.44	U	
sec-Butylbenzene	135-98-8	-	2.01E+02	-	< 0.53	U		< 0.53	U		< 5.3	U		< 5.3	U		< 0.53	U		< 0.53	U		< 0.53	UJ1		< 0.53	U	
Styrene	100-42-5	1.00E+02	1.21E+02	7.20E+01	< 0.27	U		< 0.27	U		< 2.7	U		< 2.7	U		< 0.27	U		< 0.27	U		< 0.27	UJ1		< 0.27	U	
tert-Butyl methyl ether (MTBE)	1634-04-4	-	1.43E+01	1.11E+04	< 0.81	U		< 0.81	U		< 8.1	U		< 8.1	U		< 0.81	U		< 0.81	U		< 0.81	UJ1		< 0.81	U	
tert-Butylbenzene	98-06-6	-	6.91E+01	-	< 0.43	U		< 0.43	U		< 4.3	U		< 4.3	U		< 0.43	U		< 0.43	U		< 0.43	UJ1		< 0.43	U	
Tetrachloroethene	127-18-4	5.00E+00	*4.06E+00*	1.11E+02	< 0.35	U		< 0.35	U		< 3.5	UM		< 3.5	UM		< 0.35	U		< 0.35	U		< 0.35	UJ1		**0.80**	**J**	**J**
Toluene	108-88-3	1.00E+03	1.10E+02	2.00E+00	< 0.25	U		< 0.25	U		< 2.5	U		< 2.5	U		< 0.25	U		< 0.25	U		< 0.25	UJ1		< 0.25	U	
trans-1,2-Dichloroethene	156-60-5	1.00E+02	*6.78E+00*	9.70E+02	< 0.34	U		< 0.34	U		< 3.4	U		< 3.4	UM		< 0.34	U		< 0.34	U		< 0.34	UJ1		< 0.34	U	
trans-1,3-Dichloropropene	10061-02-6	-	-	-	< 0.23	U		< 0.23	U		< 2.3	U		< 2.3	U		< 0.23	U		< 0.23	U		< 0.23	UJ1		< 0.23	U	
Trichloroethene	79-01-6	5.00E+00	*2.83E-01*	2.10E+01	< 0.20	U		< 0.20	U		***210***	***D***		***200***	***D***		***0.72***	***J***		***3.5***			***34***	***J1***		***18***		
Trichlorofluoromethane	75-69-4	-	5.16E+02	-	< 0.33	UQ		< 0.33	UQ		< 3.3	U		< 3.3	U		< 0.33	UQ		< 0.33	U		< 0.33	UJ1		< 0.33	U	
Trichlorotrifluoroethane (Freon 113)	76-13-1	-	1.02E+03	-	< 0.23	U		< 0.23	U		< 2.3	U		< 2.3	U		< 0.23	U		< 0.23	U		**2.1**	**J1**		**1.4**		
Vinyl chloride	75-01-4	2.00E+00	*1.88E-02*	9.30E+02	< 0.40	U		< 0.40	U		***81***	***D***		***80***	***D***		< 0.40	U		< 0.40	UM		< 0.40	UJ1		< 0.40	U	
Xylene (Total)	1330-20-7	1.00E+04	*1.93E+01*	1.30E+01	< 0.49	U		< 0.49	U		< 4.9	U		< 4.9	U		< 0.49	U		< 0.49	U		< 0.49	UJ1		< 0.49	U	
Field Parameters																															
Depth to Water (ft)	DTW	-	-	-	**8.45**			**2.75**			**11.03**			**11.03**			**3.25**			**22.1**			**19.65**			**19.4**		
Dissolved Oxygen (mg/L)	DO	-	-	-	**3.96**			**0.65**			**0.6**			**0.6**			**0.76**			**0.64**			**3.2**			**2.7**		
Ferrous Iron - Field (mg/L)	FIELD FE	-	-	-	-[1]			-[1]			**1.3**			**1.3**			-[1]			**2.29**			**0.16**			**0.01**		
Oxidation Reduction Potential (mV)	ORP	-	-	-	**432.8**			**223.9**			**134.8**			**134.8**			**113.2**			**108.9**			**181.2**			**448.8**		
pH (pH unit)	PH	-	-	-	**4.19**			**4.58**			**5.5**			**5.5**			**5.16**			**9.37**			**5.19**			**5.23**		
Specific Conductivity (mS/cm)	SC	-	-	-	**0.039**			**0.059**			**0.518**			**0.518**			**0.12**			**0.082**			**0.051**			**0.057**		
Temperature (°C)	TEMP	-	-	-	**14.9**			**15.3**			**15.9**			**15.9**			**15.5**			**18.5**			**18**			**18.7**		
Turbidity (NTU)	TURB	-	-	-	**24.6**			**15**			**73**			**73**			**11.2**			**0.85**			**95.87**			**61**		

Table B.2
OU6 Annual Volatile Organic Compounds - Spring 2024
Defense Supply Center Richmond

Sample Location					OU6-MW-166			OU6-MW-167			OU6-MW-168			OU6-MW-169			OU6-MW-170			OU6-MW-171			OU6-MW-180			OU6-MW-180		
Sample ID					OU6-MW-166-20240516			OU6-MW-167-20240516			OU6-MW-168-20240514[2]			OU6-MW-169-20240514			OU6-MW-170-20240521			OU6-MW-171-20240517			DUP1-20240514			OU6-MW-180-20240514		
Sample Date					5/16/2024			5/16/2024			5/14/2024			5/14/2024			5/21/2024			5/17/2024			5/14/2024			5/14/2024		
Sample Type					N			N			N			N			N			N			FD			N		
Description					LWBU			LWBU			LWBU			UWBU			LWBU			LWBU			LWBU			LWBU		
Parameter	**CAS#**	**MCL**	**RSL**	**BTAG**	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV
VOCs by SW8260D (µg/L)																												
1,1,1,2-Tetrachloroethane	630-20-6	-	*5.74E-01*	-	< 0.36	U		< 0.36	U		< 0.36	U		< 0.36	U		< 0.36	U		< 0.36	U		< 0.36	U		< 0.36	U	
1,1,1-Trichloroethane	71-55-6	2.00E+02	8.01E+02	1.10E+01	< 0.21	U		< 0.21	U		< 0.21	U		< 0.21	U		< 0.21	U		< 0.21	U		< 0.21	U		< 0.21	U	
1,1,2,2-Tetrachloroethane	79-34-5	-	7.57E-02	6.10E+02	< 0.40	U		< 0.40	U		< 0.40	U		< 0.40	U		< 0.40	U		< 0.40	UQ		< 0.40	U		< 0.40	U	
1,1,2-Trichloroethane	79-00-5	5.00E+00	*4.15E-02*	1.20E+03	< 0.32	U		< 0.32	U		< 0.32	U		< 0.32	U		< 0.32	UQ		< 0.32	UM		< 0.32	U		< 0.32	U	
1,1-Dichloroethane	75-34-3	-	*2.75E+00*	4.70E+01	< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	U	
1,1-Dichloroethene (Vinylidene chloride)	75-35-4	7.00E+00	*2.85E+01*	2.50E+01	< 0.33	U		< 0.33	U		**0.48**	**J**	**J**	< 0.33	U		**9.6**			< 0.33	U		< 0.33	U		< 0.33	U	
1,1-Dichloropropene	563-58-6	-	-	-	< 0.28	U		< 0.28	U		< 0.28	U		< 0.28	U		< 0.28	U		< 0.28	U		< 0.28	U		< 0.28	U	
1,2,3-Trichlorobenzene	87-61-6	-	7.04E-01	8.00E+00	< 0.81	U		< 0.81	U		< 0.81	U		< 0.81	U		< 0.81	U		< 0.81	U		< 0.81	U		< 0.81	U	
1,2,3-Trichloropropane	96-18-4	-	*7.49E-04*	-	< 0.48	U		< 0.48	U		< 0.48	U		< 0.48	U		< 2.4	U		< 0.48	U		< 0.48	U		< 0.48	U	
1,2,4-Trichlorobenzene	120-82-1	7.00E+01	*3.99E-01*	2.40E+01	< 0.53	U		< 0.53	U		< 0.53	U		< 0.53	U		< 2.7	U		< 0.53	U		< 0.53	U		< 0.53	U	
1,2,4-Trimethylbenzene	95-36-3	-	-	-	< 0.43	U		< 0.43	U		< 0.43	U		< 0.43	U		< 2.2	U		< 0.43	U		< 0.43	U		< 0.43	U	
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	2.00E-01	3.34E-04	-	< 1.8	U		< 1.8	U		< 1.8	U		< 1.8	U		< 9.0	UQ		< 1.8	U		< 1.8	U		< 1.8	U	
1,2-Dibromoethane (EDB)	106-93-4	5.00E-02	7.47E-03	-	< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	UQ		< 0.33	U		< 0.33	U		< 0.33	U	
1,2-Dichlorobenzene	95-50-1	6.00E+02	*3.04E+01*	7.00E-01	< 0.31	U		< 0.31	U		< 0.31	U		< 0.31	U		< 0.31	U		< 0.31	U		< 0.31	U		< 0.31	U	
1,2-Dichloroethane	107-06-2	5.00E+00	*1.71E-01*	1.00E+02	< 0.25	UM		< 0.25	UM		< 0.25	UM		< 0.25	UM		< 0.25	UM		< 0.25	U		< 0.25	UM		< 0.25	U	
1,2-Dichloroethene, Total	540-59-0	-	-	5.90E+02	**2.8**			**0.98**	**J**	**J**	< 0.37	U		**0.47**	**J**	**J**	**1.3**	**J**		**1.4**	**J**		< 0.37	U		< 0.37	U	
1,2-Dichloropropane	78-87-5	5.00E+00	8.25E-01	-	< 0.22	U		< 0.22	U		< 0.22	U		< 0.22	U		< 0.22	U		< 0.22	U		< 0.22	U		< 0.22	U	
1,3,5-Trimethylbenzene	108-67-8	-	*6.03E+00*	7.10E+01	< 0.28	U		< 0.28	U		< 0.28	U		< 0.28	U		< 1.4	U		< 0.28	U		< 0.28	U		< 0.28	U	
1,3-Dichlorobenzene	541-73-1	-	-	1.50E+02	< 0.31	U		< 0.31	U		< 0.31	U		< 0.31	U		< 0.31	U		< 0.31	U		< 0.31	U		< 0.31	U	
1,3-Dichloropropane	142-28-9	-	3.69E+01	-	< 0.36	U		< 0.36	U		< 0.36	U		< 0.36	U		< 0.36	UQ		< 0.36	U		< 0.36	U		< 0.36	U	
1,4-Dichlorobenzene	106-46-7	7.50E+01	*4.82E-01*	2.60E+01	< 0.31	U		< 0.31	U		< 0.31	U		< 0.31	U		< 0.31	U		< 0.31	U		< 0.31	U		< 0.31	U	
2,2-Dichloropropane	594-20-7	-	-	-	< 0.35	U		< 0.35	U		< 0.35	U		< 0.35	U		< 0.35	U		< 0.35	U		< 0.35	U		< 0.35	U	
2-Butanone (MEK)	78-93-3	-	*5.57E+02*	1.40E+04	< 6.4	U		**20**	**J**		< 6.4	U		< 6.4	U		***590***			< 6.4	U		< 6.4	U		< 6.4	U	
2-Chlorotoluene	95-49-8	-	2.37E+01	-	< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U		< 1.3	U		< 0.25	U		< 0.25	U		< 0.25	U	
2-Hexanone	591-78-6	-	3.80E+00	9.90E+01	< 3.2	U		< 3.2	UM		< 3.2	U		< 3.2	U		< 16	U		< 3.2	U		< 3.2	U		< 3.2	U	
4-Chlorotoluene	106-43-4	-	2.50E+01	-	< 0.41	U		< 0.41	U		< 0.41	U		< 0.41	U		< 2.1	U		< 0.41	U		< 0.41	U		< 0.41	U	
4-Methyl-2-pentanone (MIBK)	108-10-1	-	6.26E+02	1.70E+02	< 2.7	U		< 2.7	U		< 2.7	U		< 2.7	U		**9.5**	**JQ**	**J**	< 2.7	U		< 2.7	U		< 2.7	U	
Acetone	67-64-1	-	*1.80E+03*	1.50E+03	< 3.7	U		**180**			< 3.7	U		< 3.7	U		***1800***	***D***		< 3.7	U		< 3.7	U		< 3.7	U	
Benzene	71-43-2	5.00E+00	*4.55E-01*	3.70E+02	< 0.27	U		< 0.27	U		< 0.27	U		< 0.27	U		< 0.27	U		< 0.27	U		< 0.27	U		< 0.27	U	
Bromobenzene	108-86-1	-	6.22E+00	-	< 0.24	U		< 0.24	U		< 0.24	U		< 0.24	U		< 1.2	U		< 0.24	U		< 0.24	U		< 0.24	U	
Bromochloromethane	74-97-5	-	8.34E+00	-	< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U	
Bromodichloromethane	75-27-4	8.00E+01	1.34E-01	-	< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U	
Bromoform	75-25-2	8.00E+01	3.29E+00	3.20E+02	< 0.59	U		< 0.59	U		< 0.59	U		< 0.59	UMQ		< 0.59	U		< 0.59	UQ		< 0.59	UQ		< 0.59	UMQ	
Bromomethane	74-83-9	-	7.55E-01	-	< 3.7	UQ		< 3.7	UQ		< 3.7	UQ		< 3.7	U		< 3.7	UQ		< 3.7	U		< 3.7	U		< 3.7	U	
Carbon disulfide	75-15-0	-	8.11E+01	9.20E-01	< 0.43	U		< 0.43	U		< 0.43	U		< 0.43	UQ		< 2.2	U		< 0.43	UQ		< 0.43	UQ		< 0.43	UQ	
Carbon tetrachloride	56-23-5	5.00E+00	*4.55E-01*	1.33E+01	< 0.30	U		< 0.30	U		< 0.30	U		< 0.30	U		< 0.30	U		< 0.30	U		< 0.30	U		< 0.30	U	
Chlorobenzene	108-90-7	1.00E+02	*7.77E+00*	1.30E+00	< 0.15	U		< 0.15	U		< 0.15	U		< 0.15	U		< 0.15	U		< 0.15	U		< 0.15	U		< 0.15	U	
Chlorodibromomethane (Dibromochloromethane)	124-48-1	8.00E+01	8.71E-01	-	< 0.39	U		< 0.39	U		< 0.39	U		< 0.39	U		< 0.39	UQ		< 0.39	U		< 0.39	U		< 0.39	U	
Chloroethane	75-00-3	-	8.34E+02	-	< 4.6	U		< 4.6	U		< 4.6	U		< 4.6	U		< 4.6	UQ		< 4.6	U		< 4.6	U		< 4.6	U	
Chloroform	67-66-3	8.00E+01	*2.21E-01*	1.80E+00	< 0.27	U		< 0.27	U		< 0.27	U		< 0.27	U		< 0.27	U		< 0.27	U		< 0.27	U		< 0.27	U	
Chloromethane	74-87-3	-	1.88E+01	-	< 0.54	U		< 0.54	UM		< 0.54	U		< 0.54	U		< 0.54	U		< 0.54	U		< 0.54	U		< 0.54	U	
cis-1,2-Dichloroethene	156-59-2	7.00E+01	*2.52E+00*	-	***2.8***			**0.98**	**J**	**J**	< 0.25	U		**0.47**	**J**	**J**	**1.3**	**J**		**1.4**	**J**		< 0.25	U		< 0.25	U	
cis-1,3-Dichloropropene	10061-01-5	-	-	-	< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U	
Cyclohexane	110-82-7	-	1.25E+03	-	< 0.28	U		< 0.28	U		< 0.28	U		< 0.28	U		< 0.28	U		< 0.28	U		< 0.28	U		< 0.28	U	
Dibromomethane	74-95-3	-	8.34E-01	-	< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U	
Dichlorodifluoromethane	75-71-8	-	1.97E+01	-	< 0.36	UQ		< 0.36	UQ		< 0.36	UQ		< 0.36	UM		< 0.36	U		< 0.36	U		< 0.36	U		< 0.36	U	
Ethylbenzene	100-41-4	7.00E+02	*1.50E+00*	9.00E+01	< 0.20	U		< 0.20	U		< 0.20	UM		< 0.20	U		< 0.20	U		< 0.20	U		< 0.20	U		< 0.20	U	
Hexachlorobutadiene	87-68-3	-	*1.39E-01*	1.30E+00	< 0.22	U		< 0.22	U		< 0.22	U		< 0.22	U		< 1.1	U		< 0.22	U		< 0.22	U		< 0.22	U	
Isopropylbenzene	98-82-8	-	4.51E+01	2.60E+00	< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U		< 1.3	U		< 0.26	U		< 0.26	U		< 0.26	U	
m+p-Xylenes	179601-23-1	-	-	-	< 0.49	U		< 0.49	U		< 0.49	U		< 0.49	U		< 0.49	U		< 0.49	U		< 0.49	U		< 0.49	U	
Methyl Acetate	79-20-9	-	1.99E+03	-	< 3.2	U		< 3.2	U		< 3.2	U		< 3.2	UQ		< 16	U		< 3.2	U		< 3.2	UQ		< 3.2	UQ	
Methylcyclohexane	108-87-2	-	1.98E+01	-	< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	U	
Methylene chloride (DCM)	75-09-2	5.00E+00	1.07E+01	9.81E+01	< 3.2	U		< 3.2	U		< 3.2	U		< 3.2	U		< 3.2	U		< 3.2	U		< 3.2	U		< 3.2	U	
Naphthalene	91-20-3	-	*1.17E-01*	1.10E+00	< 2.4	U		< 2.4	U		< 2.4	U		< 2.4	U		< 12	U		< 2.4	U		< 2.4	U		< 2.4	U	
n-Butylbenzene	104-51-8	-	1.00E+02	-	< 0.52	U		< 0.52	U		< 0.52	U		< 0.52	U		< 0.52	U		< 0.52	U		< 0.52	U		< 0.52	U	
n-Propylbenzene	103-65-1	-	6.56E+01	1.28E+02	< 0.41	U		< 0.41	U		< 0.41	U		< 0.41	U		< 2.1	U		< 0.41	U		< 0.41	U		< 0.41	U	
o-Xylene	95-47-6	-	*1.93E+01*	-	< 0.26	U		< 0.26	U		< 0.26	UM		< 0.26	U		< 1.3	U		< 0.26	U		< 0.26	U		< 0.26	U	
p-Isopropyltoluene	99-87-6	-	-	8.50E+01	< 0.44	U		< 0.44	U		< 0.44	U		< 0.44	U		< 0.44	U		< 0.44	U		< 0.44	U		< 0.44	U	
sec-Butylbenzene	135-98-8	-	2.01E+02	-	< 0.53	U		< 0.53	U		< 0.53	U		< 0.53	U		< 2.7	U		< 0.53	U		< 0.53	U		< 0.53	U	
Styrene	100-42-5	1.00E+02	1.21E+02	7.20E+01	< 0.27	U		< 0.27	U		< 0.27	U		< 0.27	U		< 1.4	U		< 0.27	U		< 0.27	U		< 0.27	U	
tert-Butyl methyl ether (MTBE)	1634-04-4	-	1.43E+01	1.11E+04	< 0.81	U		< 0.81	U		< 0.81	U		< 0.81	U		< 0.81	U		< 0.81	U		< 0.81	U		< 0.81	U	
tert-Butylbenzene	98-06-6	-	6.91E+01	-	< 0.43	U		< 0.43	U		< 0.43	U		< 0.43	U		< 2.2	U		< 0.43	U		< 0.43	U		< 0.43	U	
Tetrachloroethene	127-18-4	5.00E+00	*4.06E+00*	1.11E+02	**1.2**	**J**		< 0.35	U		< 0.35	U		< 0.35	U		< 0.35	UQ		***32***			< 0.35	U		< 0.35	U	
Toluene	108-88-3	1.00E+03	1.10E+02	2.00E+00	< 0.25	U		< 0.25	U		**0.42**	**J**	**J**	< 0.25	U		< 0.25	UQ		< 0.25	U		< 0.25	U		< 0.25	U	
trans-1,2-Dichloroethene	156-60-5	1.00E+02	*6.78E+00*	9.70E+02	< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U		< 1.7	U		< 0.34	U		< 0.34	U		< 0.34	U	
trans-1,3-Dichloropropene	10061-02-6	-	-	-	< 0.23	U		< 0.23	U		< 0.23	U		< 0.23	U		< 0.23	UQ		< 0.23	U		< 0.23	U		< 0.23	U	
Trichloroethene	79-01-6	5.00E+00	*2.83E-01*	2.10E+01	***32***			***3.0***			***2.3***	***M***		***11***			***2.2***			***12***			< 0.20	U		< 0.20	U	
Trichlorofluoromethane	75-69-4	-	5.16E+02	-	< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	UQ		< 0.33	U		< 0.33	U		< 0.33	UQ		< 0.33	UQ	
Trichlorotrifluoroethane (Freon 113)	76-13-1	-	1.02E+03	-	**1.3**			< 0.23	U		< 0.23	U		< 0.23	U		< 0.23	U		< 0.23	U		< 0.23	U		< 0.23	U	
Vinyl chloride	75-01-4	2.00E+00	*1.88E-02*	9.30E+02	< 0.40	U		< 0.40	UM		< 0.40	U		< 0.40	U		***1.1***	***J***		< 0.40	U		< 0.40	U		< 0.40	U	
Xylene (Total)	1330-20-7	1.00E+04	*1.93E+01*	1.30E+01	< 0.49	U		< 0.49	U		< 0.49	U		< 0.49	U		< 2.5	U		< 0.49	U		< 0.49	U		< 0.49	U	
Field Parameters																												
Depth to Water (ft)	DTW	-	-	-	**20.47**			**44**			**19.53**			**8.8**			**23.31**			**21.05**			**16.25**			**16.25**		
Dissolved Oxygen (mg/L)	DO	-	-	-	**2.61**			**4.8**			**3.29**			**3.86**			**0.46**			**3.35**			**0.45**			**0.45**		
Ferrous Iron - Field (mg/L)	FIELD FE	-	-	-	**0.12**			**0.03**			**0.17**			**0.01**			**0.01**			**0.07**			-[1]			-[1]		
Oxidation Reduction Potential (mV)	ORP	-	-	-	**399.5**			**300.4**			**184.7**			**488.8**			**115**			**449.9**			**58.2**			**58.2**		
pH (pH unit)	PH	-	-	-	**5.2**			**5.41**			**5.13**			**4.52**			**6.55**			**4.84**			**6.44**			**6.44**		
Specific Conductivity (mS/cm)	SC	-	-	-	**0.07**			**0.133**			**0.048**			**0.083**			**1.439**			**0.044**			**0.108**			**0.108**		
Temperature (°C)	TEMP	-	-	-	**18.2**			**21.1**			**19.4**			**17.4**			**16.9**			**17.8**			**17.6**			**17.6**		
Turbidity (NTU)	TURB	-	-	-	**12.75**			**65**			**247**			-[1]			**15.58**			**6.77**			**12.88**			**12.88**		

Table B.2
OU6 Annual Volatile Organic Compounds - Spring 2024
Defense Supply Center Richmond

					OU6-MW-182			OU6-MW-217			OU6-MW-222			OU6-MW-223			OU6-MW-225			OU6-MW-236			OU6-MW-237			OU6-MW-238		
Sample Location					OU6-MW-182			OU6-MW-217			OU6-MW-222			OU6-MW-223			OU6-MW-225			OU6-MW-236			OU6-MW-237			OU6-MW-238		
Sample ID					OU6-MW-182-20240515			OU6-MW-217-20240522			OU6-MW-222-20240520			OU6-MW-223-20240521			OU6-MW-225-20240514			OU6-MW-236-20240521			OU6-MW-237-20240521			OU6-MW-238-20240521		
Sample Date					5/15/2024			5/22/2024			5/20/2024			5/21/2024			5/14/2024			5/21/2024			5/21/2024			5/21/2024		
Sample Type					N			N			N			N			N			N			N			N		
Description					UWBU			LWBU			UWBU			UWBU			LWBU			LWBU			UWBU			UWBU		
Parameter	**CAS#**	**MCL**	**RSL**	**BTAG**	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV
VOCs by SW8260D (µg/L)																												
1,1,1,2-Tetrachloroethane	630-20-6	-	*5.74E-01*	-	< 0.36	U		< 0.36	U		< 0.36	U		< 0.36	U		< 0.36	U		< 0.36	U		< 0.36	U		< 18	U	
1,1,1-Trichloroethane	71-55-6	2.00E+02	8.01E+02	1.10E+01	< 0.21	U		< 0.21	U		< 0.21	U		< 0.21	U		< 0.21	U		< 0.21	U		< 0.21	U		< 11	U	
1,1,2,2-Tetrachloroethane	79-34-5	-	7.57E-02	6.10E+02	< 0.40	U		< 0.40	U		< 0.40	U		< 0.40	U		< 0.40	U		< 0.40	UJ1Q		< 0.40	U		< 20	U	
1,1,2-Trichloroethane	79-00-5	5.00E+00	*4.15E-02*	1.20E+03	< 0.32	U		< 0.32	U		< 0.32	U		< 0.32	U		< 0.32	U		< 0.32	U		< 0.32	U		< 16	U	
1,1-Dichloroethane	75-34-3	-	*2.75E+00*	4.70E+01	< 0.33	U		< 0.33	U		**0.75**	**J**	**J**	***6.1***			< 0.33	U		< 0.33	U		< 0.33	U		< 17	U	
1,1-Dichloroethene (Vinylidene chloride)	75-35-4	7.00E+00	*2.85E+01*	2.50E+01	< 0.33	U		< 0.33	U		**2.4**			**1.2**	**J**		< 0.33	U		**1.0**	**J**		**4.3**			< 17	U	
1,1-Dichloropropene	563-58-6	-	-	-	< 0.28	U		< 0.28	U		< 0.28	U		< 0.28	U		< 0.28	U		< 0.28	U		< 0.28	U		< 14	U	
1,2,3-Trichlorobenzene	87-61-6	-	7.04E-01	8.00E+00	< 0.81	U		< 0.81	U		< 0.81	U		< 0.81	U		< 0.81	U		< 0.81	U		< 0.81	U		< 41	U	
1,2,3-Trichloropropane	96-18-4	-	*7.49E-04*	-	< 0.48	U		< 0.48	U		< 0.48	U		< 0.48	U		< 0.48	U		< 0.48	U		< 0.48	U		< 24	U	
1,2,4-Trichlorobenzene	120-82-1	7.00E+01	*3.99E-01*	2.40E+01	< 0.53	U		< 0.53	U		< 0.53	U		< 0.53	U		< 0.53	U		< 0.53	U		< 0.53	U		< 27	U	
1,2,4-Trimethylbenzene	95-36-3	-	-	-	< 0.43	U		< 0.43	U		< 0.43	U		< 0.43	U		< 0.43	U		< 0.43	U		< 0.43	U		< 22	U	
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	2.00E-01	3.34E-04	-	< 1.8	U		< 1.8	UQ		< 1.8	U		< 1.8	U		< 1.8	U		< 1.8	U		< 1.8	UQ		< 90	UQ	
1,2-Dibromoethane (EDB)	106-93-4	5.00E-02	7.47E-03	-	< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	U		< 17	U	
1,2-Dichlorobenzene	95-50-1	6.00E+02	*3.04E+01*	7.00E-01	< 0.31	U		< 0.31	U		**1.7**	**J**		< 0.31	U		< 0.31	U		< 0.31	U		< 0.31	U		< 16	U	
1,2-Dichloroethane	107-06-2	5.00E+00	*1.71E-01*	1.00E+02	< 0.25	UM		< 0.25	UM		< 0.25	U		< 0.25	UM		< 0.25	U		< 0.25	U		< 0.25	UM		< 13	UM	
1,2-Dichloroethene, Total	540-59-0	-	-	5.90E+02	< 0.37	U		**51**			**27**			**59**			**0.37**	**J**	**J**	**130**			**44**			**88**	**JD**	
1,2-Dichloropropane	78-87-5	5.00E+00	8.25E-01	-	< 0.22	U		< 0.22	U		< 0.22	U		< 0.22	U		< 0.22	U		< 0.22	U		< 0.22	U		< 11	U	
1,3,5-Trimethylbenzene	108-67-8	-	*6.03E+00*	7.10E+01	< 0.28	U		< 0.28	U		< 0.28	U		< 0.28	U		< 0.28	U		< 0.28	U		< 0.28	UM		< 14	U	
1,3-Dichlorobenzene	541-73-1	-	-	1.50E+02	< 0.31	U		< 0.31	U		**0.31**	**J**	**J**	< 0.31	U		< 0.31	U		< 0.31	U		< 0.31	U		< 16	U	
1,3-Dichloropropane	142-28-9	-	3.69E+01	-	< 0.36	U		< 0.36	U		< 0.36	U		< 0.36	U		< 0.36	U		< 0.36	U		< 0.36	U		< 18	U	
1,4-Dichlorobenzene	106-46-7	7.50E+01	*4.82E-01*	2.60E+01	< 0.31	U		< 0.31	U		***6.6***			< 0.31	U		< 0.31	U		**0.35**	**J**	**J**	< 0.31	U		< 16	U	
2,2-Dichloropropane	594-20-7	-	-	-	< 0.35	U		< 0.35	U		< 0.35	U		< 0.35	U		< 0.35	U		< 0.35	U		< 0.35	U		< 18	U	
2-Butanone (MEK)	78-93-3	-	*5.57E+02*	1.40E+04	< 6.4	U		< 6.4	U		< 6.4	U		< 6.4	UM		< 6.4	U		< 6.4	U		< 6.4	U		< 320	U	
2-Chlorotoluene	95-49-8	-	2.37E+01	-	< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U		< 13	U	
2-Hexanone	591-78-6	-	3.80E+00	9.90E+01	< 3.2	U		< 3.2	U		< 3.2	U		< 3.2	U		< 3.2	U		< 3.2	U		< 3.2	U		< 160	U	
4-Chlorotoluene	106-43-4	-	2.50E+01	-	< 0.41	U		< 0.41	U		< 0.41	U		< 0.41	U		< 0.41	U		< 0.41	U		< 0.41	UM		< 21	U	
4-Methyl-2-pentanone (MIBK)	108-10-1	-	6.26E+02	1.70E+02	< 2.7	U		< 2.7	U		< 2.7	U		< 2.7	U		< 2.7	U		< 2.7	U		< 2.7	U		< 140	U	
Acetone	67-64-1	-	*1.80E+03*	1.50E+03	< 3.7	U		**72**			< 3.7	U		< 3.7	UQ		< 3.7	U		< 3.7	U		< 3.7	U		< 190	U	
Benzene	71-43-2	5.00E+00	*4.55E-01*	3.70E+02	< 0.27	U		< 0.27	U		< 0.27	U		< 0.27	U		< 0.27	U		< 0.27	U		< 0.27	U		< 14	U	
Bromobenzene	108-86-1	-	6.22E+00	-	< 0.24	U		< 0.24	U		< 0.24	U		< 0.24	U		< 0.24	U		< 0.24	U		< 0.24	U		< 12	U	
Bromochloromethane	74-97-5	-	8.34E+00	-	< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U		< 17	U	
Bromodichloromethane	75-27-4	8.00E+01	1.34E-01	-	< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U		< 13	U	
Bromoform	75-25-2	8.00E+01	3.29E+00	3.20E+02	< 0.59	U		< 0.59	U		< 0.59	UQ		< 0.59	U		< 0.59	UQ		< 0.59	UJ1Q		< 0.59	U		< 30	U	
Bromomethane	74-83-9	-	7.55E-01	-	< 3.7	UQ		< 3.7	U		< 3.7	U		< 3.7	UQ		< 3.7	U		< 3.7	U		< 3.7	U		< 190	U	
Carbon disulfide	75-15-0	-	8.11E+01	9.20E-01	< 0.43	UQ		< 0.43	U		**1.2**	**JQ**		< 0.43	UQ		< 0.43	UQ		< 0.43	UQ		< 0.43	U		< 22	U	
Carbon tetrachloride	56-23-5	5.00E+00	*4.55E-01*	1.33E+01	< 0.30	U		< 0.30	U		< 0.30	U		< 0.30	U		< 0.30	U		< 0.30	U		< 0.30	U		< 15	U	
Chlorobenzene	108-90-7	1.00E+02	*7.77E+00*	1.30E+00	< 0.15	U		< 0.15	U		**6.2**			< 0.15	U		< 0.15	U		< 0.15	U		< 0.15	U		< 7.5	U	
Chlorodibromomethane (Dibromochloromethane)	124-48-1	8.00E+01	8.71E-01	-	< 0.39	U		< 0.39	U		< 0.39	U		< 0.39	U		< 0.39	U		< 0.39	U		< 0.39	U		< 20	U	
Chloroethane	75-00-3	-	8.34E+02	-	< 4.6	U		< 4.6	U		< 4.6	U		< 4.6	UQ		< 4.6	U		< 4.6	UJ1Q		< 4.6	U		< 230	U	
Chloroform	67-66-3	8.00E+01	*2.21E-01*	1.80E+00	< 0.27	U		< 0.27	U		< 0.27	U		< 0.27	U		< 0.27	U		< 0.27	U		***0.41***	***JM***	***J***	< 14	U	
Chloromethane	74-87-3	-	1.88E+01	-	< 0.54	U		< 0.54	U		< 0.54	U		< 0.54	U		< 0.54	U		< 0.54	UQ		< 0.54	U		< 27	U	
cis-1,2-Dichloroethene	156-59-2	7.00E+01	*2.52E+00*	-	< 0.25	U		***51***			***26***			***58***			**0.37**	**J**	**J**	***130***	***J1***	***J-***	***43***			***88***	***JDM***	
cis-1,3-Dichloropropene	10061-01-5	-	-	-	< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U		< 13	U	
Cyclohexane	110-82-7	-	1.25E+03	-	< 0.28	UQ		< 0.28	U		< 0.28	U		< 0.28	U		< 0.28	U		< 0.28	U		< 0.28	U		< 14	U	
Dibromomethane	74-95-3	-	8.34E-01	-	< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U		< 17	U	
Dichlorodifluoromethane	75-71-8	-	1.97E+01	-	< 0.36	U		< 0.36	UQ		< 0.36	UQ		< 0.36	UQ		< 0.36	U		**0.61**	**J**	**J**	< 0.36	UQ		< 18	UQ	
Ethylbenzene	100-41-4	7.00E+02	*1.50E+00*	9.00E+01	< 0.20	U		< 0.20	U		< 0.20	U		< 0.20	UM		< 0.20	U		< 0.20	U		< 0.20	U		< 10	U	
Hexachlorobutadiene	87-68-3	-	*1.39E-01*	1.30E+00	< 0.22	U		< 0.22	U		< 0.22	U		< 0.22	U		< 0.22	U		< 0.22	U		< 0.22	U		< 11	U	
Isopropylbenzene	98-82-8	-	4.51E+01	2.60E+00	< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U		< 13	U	
m+p-Xylenes	179601-23-1	-	-	-	< 0.49	U		< 0.49	U		< 0.49	U		< 0.49	U		< 0.49	U		< 0.49	U		< 0.49	U		< 25	U	
Methyl Acetate	79-20-9	-	1.99E+03	-	< 3.2	U		< 3.2	U		< 3.2	UQ		< 3.2	UQ		< 3.2	UQ		< 3.2	U		< 3.2	U		< 160	U	
Methylcyclohexane	108-87-2	-	1.98E+01	-	< 0.33	UQ		< 0.33	U		**0.52**	**J**	**J**	< 0.33	UQ		< 0.33	U		< 0.33	U		< 0.33	U		< 17	U	
Methylene chloride (DCM)	75-09-2	5.00E+00	1.07E+01	9.81E+01	< 3.2	U		< 3.2	U		< 3.2	U		< 3.2	U		< 3.2	U		< 3.2	U		< 3.2	U		< 160	U	
Naphthalene	91-20-3	-	*1.17E-01*	1.10E+00	< 2.4	U		< 2.4	U		< 2.4	U		< 2.4	U		< 2.4	U		< 2.4	U		< 2.4	U		< 120	U	
n-Butylbenzene	104-51-8	-	1.00E+02	-	< 0.52	UQ		< 0.52	U		< 0.52	U		< 0.52	U		< 0.52	U		< 0.52	U		< 0.52	U		< 26	U	
n-Propylbenzene	103-65-1	-	6.56E+01	1.28E+02	< 0.41	U		< 0.41	U		< 0.41	U		< 0.41	U		< 0.41	U		< 0.41	U		< 0.41	U		< 21	U	
o-Xylene	95-47-6	-	*1.93E+01*	-	< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U		< 13	U	
p-Isopropyltoluene	99-87-6	-	-	8.50E+01	< 0.44	U		< 0.44	U		< 0.44	U		< 0.44	U		< 0.44	U		< 0.44	U		< 0.44	U		< 22	U	
sec-Butylbenzene	135-98-8	-	2.01E+02	-	< 0.53	U		< 0.53	U		< 0.53	U		< 0.53	U		< 0.53	U		< 0.53	U		< 0.53	U		< 27	U	
Styrene	100-42-5	1.00E+02	1.21E+02	7.20E+01	< 0.27	U		< 0.27	U		< 0.27	U		< 0.27	U		< 0.27	U		< 0.27	U		< 0.27	U		< 14	U	
tert-Butyl methyl ether (MTBE)	1634-04-4	-	1.43E+01	1.11E+04	< 0.81	U		< 0.81	U		< 0.81	U		< 0.81	U		< 0.81	U		< 0.81	U		< 0.81	U		< 41	U	
tert-Butylbenzene	98-06-6	-	6.91E+01	-	< 0.43	U		< 0.43	U		< 0.43	U		< 0.43	U		< 0.43	U		< 0.43	UM		< 0.43	U		< 22	U	
Tetrachloroethene	127-18-4	5.00E+00	*4.06E+00*	1.11E+02	< 0.35	U		< 0.35	U		**3.4**			***12***			< 0.35	U		< 0.35	U		***9.4***			***75***	***JD***	
Toluene	108-88-3	1.00E+03	1.10E+02	2.00E+00	< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U		< 13	U	
trans-1,2-Dichloroethene	156-60-5	1.00E+02	*6.78E+00*	9.70E+02	< 0.34	U		< 0.34	U		**1.3**	**J**		**0.73**	**J**	**J**	< 0.34	U		**0.87**	**J**	**J**	**1.0**	**J**		< 17	U	
trans-1,3-Dichloropropene	10061-02-6	-	-	-	< 0.23	U		< 0.23	U		< 0.23	U		< 0.23	U		< 0.23	U		< 0.23	U		< 0.23	U		< 12	U	
Trichloroethene	79-01-6	5.00E+00	*2.83E-01*	2.10E+01	< 0.20	U		< 0.20	UM		***28***			***5.5***			***0.64***	***J***		***150***	***J1***	***J-***	***110***			***2800***	***D***	
Trichlorofluoromethane	75-69-4	-	5.16E+02	-	< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	UQ		< 0.33	UJ1Q		< 0.33	U		< 17	U	
Trichlorotrifluoroethane (Freon 113)	76-13-1	-	1.02E+03	-	< 0.23	U		< 0.23	U		**43**			**2.2**			< 0.23	U		< 0.23	U		< 0.23	U		< 12	U	
Vinyl chloride	75-01-4	2.00E+00	*1.88E-02*	9.30E+02	< 0.40	U		***10***			***2.2***	***M***		***4.1***			< 0.40	U		***16***	***J1***	***J+***	***1.6***	***J***		< 20	U	
Xylene (Total)	1330-20-7	1.00E+04	*1.93E+01*	1.30E+01	< 0.49	U		< 0.49	U		< 0.49	U		< 0.49	U		< 0.49	U		< 0.49	U		< 0.49	U		< 25	U	
Field Parameters																												
Depth to Water (ft)	DTW	-	-	-	**10.28**			**33.72**			**12.45**			**13.35**			**23**			**15.1**			**13.75**			**14**		
Dissolved Oxygen (mg/L)	DO	-	-	-	**3.3**			**9.95**			**0.7**			**5.11**			**0.12**			**0.01**			**4.15**			**0.48**		
Ferrous Iron - Field (mg/L)	FIELD FE	-	-	-	-[1]			**0.12**			**1.15**			**0.94**			-[1]			**0.76**			**0.07**			**2.76**		
Oxidation Reduction Potential (mV)	ORP	-	-	-	**192.7**			**80.1**			**191.6**			**204.2**			**95.1**			**47.3**			**296.3**			**-34.7**		
pH (pH unit)	PH	-	-	-	**5.22**			**5.95**			**5.02**			**5.68**			**5.65**			**5.98**			**5.03**			**5.99**		
Specific Conductivity (mS/cm)	SC	-	-	-	**0.106**			**0.315**			**0.091**			**0.221**			**0.104**			**0.182**			**0.053**			**0.244**		
Temperature (°C)	TEMP	-	-	-	**18.3**			**18.2**			**18.1**			**18.6**			**15.2**			**19.4**			**19.7**			**18.7**		
Turbidity (NTU)	TURB	-	-	-	**0.83**			**85.6**			**10.2**			-[1]			**4.69**			**108.6**			-[1]			**10.2**		

Table B.2
OU6 Annual Volatile Organic Compounds - Spring 2024
Defense Supply Center Richmond

					OU6-MW-239			OU6-MW-240			OU6-MW-241			OU6-MW-242			OU6-MW-243			OU6-MW-244			OU6-MW-245			OU6-MW-246		
Sample Location					OU6-MW-239			OU6-MW-240			OU6-MW-241			OU6-MW-242			OU6-MW-243			OU6-MW-244			OU6-MW-245			OU6-MW-246		
Sample ID					OU6-MW-239-20240521			OU6-MW-240-20240521			OU6-MW-241-20240521			OU6-MW-242-20240523			OU6-MW-243-20240523			OU6-MW-244-20240521			OU6-MW-245-20240523			OU6-MW-246-20240515		
Sample Date					5/21/2024			5/21/2024			5/21/2024			5/23/2024			5/23/2024			5/21/2024			5/23/2024			5/15/2024		
Sample Type					N			N			N			N			N			N			N			N		
Description					UWBU			UWBU			UWBU			UWBU			UWBU			UWBU			UWBU			UWBU		
Parameter	**CAS#**	**MCL**	**RSL**	**BTAG**	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV
VOCs by SW8260D (µg/L)																												
1,1,1,2-Tetrachloroethane	630-20-6	-	*5.74E-01*	-	< 9.0	U		< 0.36	U		< 0.36	U		< 0.36	U		< 36	U		< 0.36	U		< 0.36	U		< 0.36	U	
1,1,1-Trichloroethane	71-55-6	2.00E+02	8.01E+02	1.10E+01	< 5.3	U		< 0.21	U		< 0.21	U		< 0.21	U		< 21	U		< 0.21	U		< 0.21	U		< 0.21	U	
1,1,2,2-Tetrachloroethane	79-34-5	-	7.57E-02	6.10E+02	< 10	U		< 0.40	U		< 0.40	U		< 0.40	U		< 40	U		< 0.40	U		< 0.40	UQ		< 0.40	U	
1,1,2-Trichloroethane	79-00-5	5.00E+00	*4.15E-02*	1.20E+03	< 8.0	UQ		< 0.32	UQ		< 0.32	U		< 0.32	U		< 32	UM		< 0.32	U		< 0.32	U		< 0.32	U	
1,1-Dichloroethane	75-34-3	-	*2.75E+00*	4.70E+01	< 8.3	U		< 0.33	U		< 0.33	U		***25***			< 33	U		< 0.33	U		< 0.33	U		< 0.33	U	
1,1-Dichloroethene (Vinylidene chloride)	75-35-4	7.00E+00	*2.85E+01*	2.50E+01	< 8.3	U		< 0.33	UM		< 0.33	U		***220***	***JD***	***J***	***410***	***D***		**4.5**			**0.47**	**J**	**J**	< 0.33	U	
1,1-Dichloropropene	563-58-6	-	-	-	< 7.0	U		< 0.28	U		< 0.28	UQ		< 0.28	UQ		< 28	UQ		< 0.28	U		< 0.28	U		< 0.28	U	
1,2,3-Trichlorobenzene	87-61-6	-	7.04E-01	8.00E+00	< 20	U		< 0.81	U		< 0.81	U		< 0.81	U		< 81	U		< 0.81	U		< 0.81	U		< 0.81	U	
1,2,3-Trichloropropane	96-18-4	-	*7.49E-04*	-	< 12	U		< 2.4	U		< 0.48	U		< 0.48	U		< 48	U		< 0.48	U		< 0.48	U		< 0.48	U	
1,2,4-Trichlorobenzene	120-82-1	7.00E+01	*3.99E-01*	2.40E+01	< 13	U		< 2.7	U		< 0.53	U		< 0.53	U		< 53	U		< 0.53	U		< 0.53	U		< 0.53	U	
1,2,4-Trimethylbenzene	95-36-3	-	-	-	< 11	U		< 2.2	U		< 0.43	U		< 0.43	U		**130**	**JD**		< 0.43	U		< 0.43	U		< 0.43	U	
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	2.00E-01	3.34E-04	-	< 45	UQ		< 9.0	UQ		< 1.8	U		< 1.8	U		< 180	U		< 1.8	U		< 1.8	U		< 1.8	U	
1,2-Dibromoethane (EDB)	106-93-4	5.00E-02	7.47E-03	-	< 8.3	UQ		< 0.33	UQ		< 0.33	U		< 0.33	U		< 33	U		< 0.33	U		< 0.33	U		< 0.33	U	
1,2-Dichlorobenzene	95-50-1	6.00E+02	*3.04E+01*	7.00E-01	< 7.8	U		< 0.31	U		< 0.31	U		< 0.31	U		< 31	U		< 0.31	U		< 0.31	U		< 0.31	U	
1,2-Dichloroethane	107-06-2	5.00E+00	*1.71E-01*	1.00E+02	< 6.3	UM		< 0.25	UM		< 0.25	UM		***1.3***	***J***		< 25	UM		< 0.25	UM		***0.27***	***J***	***J***	< 0.25	UM	
1,2-Dichloroethene, Total	540-59-0	-	-	5.90E+02	**45**	**JD**		**210**	**D**		**2.0**			**3600**	**D**		**14000**	**D**		**13**			**4.7**			**1.6**	**J**	
1,2-Dichloropropane	78-87-5	5.00E+00	8.25E-01	-	< 5.5	U		< 0.22	U		< 0.22	U		< 0.22	U		< 22	U		< 0.22	U		< 0.22	U		< 0.22	U	
1,3,5-Trimethylbenzene	108-67-8	-	*6.03E+00*	7.10E+01	< 7.0	U		< 1.4	U		< 0.28	U		< 0.28	U		***46***	***JDM***	***J***	< 0.28	U		< 0.28	U		< 0.28	U	
1,3-Dichlorobenzene	541-73-1	-	-	1.50E+02	< 7.8	U		< 0.31	U		< 0.31	U		< 0.31	U		< 31	U		< 0.31	U		< 0.31	U		< 0.31	U	
1,3-Dichloropropane	142-28-9	-	3.69E+01	-	< 9.0	UQ		< 0.36	UQ		< 0.36	U		< 0.36	U		< 36	U		< 0.36	U		< 0.36	U		< 0.36	U	
1,4-Dichlorobenzene	106-46-7	7.50E+01	*4.82E-01*	2.60E+01	< 7.8	U		< 0.31	U		< 0.31	U		< 0.31	U		< 31	U		< 0.31	U		< 0.31	U		< 0.31	U	
2,2-Dichloropropane	594-20-7	-	-	-	< 8.8	U		< 0.35	U		< 0.35	U		< 0.35	U		< 35	U		< 0.35	U		< 0.35	U		< 0.35	U	
2-Butanone (MEK)	78-93-3	-	*5.57E+02*	1.40E+04	< 160	U		< 6.4	UM		< 6.4	U		< 6.4	UM		< 640	U		< 6.4	UM		< 6.4	U		< 6.4	U	
2-Chlorotoluene	95-49-8	-	2.37E+01	-	< 6.3	U		< 1.3	U		< 0.25	U		< 0.25	U		< 25	U		< 0.25	U		< 0.25	U		< 0.25	U	
2-Hexanone	591-78-6	-	3.80E+00	9.90E+01	< 80	U		< 16	U		< 3.2	U		< 3.2	UM		< 320	U		< 3.2	UM		< 3.2	U		< 3.2	U	
4-Chlorotoluene	106-43-4	-	2.50E+01	-	< 10	U		< 2.1	U		< 0.41	U		< 0.41	U		< 41	U		< 0.41	U		< 0.41	U		< 0.41	U	
4-Methyl-2-pentanone (MIBK)	108-10-1	-	6.26E+02	1.70E+02	< 68	UQ		**4.2**	**JQ**	**J**	< 2.7	U		< 2.7	UM		< 270	U		< 2.7	U		**4.6**	**J**	**J**	< 2.7	U	
Acetone	67-64-1	-	*1.80E+03*	1.50E+03	< 93	U		**15**	**J**		**6.8**	**J**	**J**	< 3.7	U		< 370	U		< 3.7	UQ		< 3.7	U		< 3.7	U	
Benzene	71-43-2	5.00E+00	*4.55E-01*	3.70E+02	< 6.8	U		< 0.27	U		< 0.27	U		< 0.27	U		< 27	U		< 0.27	U		< 0.27	U		< 0.27	U	
Bromobenzene	108-86-1	-	6.22E+00	-	< 6.0	U		< 1.2	U		< 0.24	U		< 0.24	U		< 24	U		< 0.24	U		< 0.24	U		< 0.24	U	
Bromochloromethane	74-97-5	-	8.34E+00	-	< 8.5	U		< 0.34	U		< 0.34	U		< 0.34	U		< 34	U		< 0.34	U		< 0.34	U		< 0.34	U	
Bromodichloromethane	75-27-4	8.00E+01	1.34E-01	-	< 6.3	U		< 0.25	U		< 0.25	U		< 0.25	U		< 25	U		< 0.25	U		< 0.25	U		< 0.25	U	
Bromoform	75-25-2	8.00E+01	3.29E+00	3.20E+02	< 15	U		< 0.59	U		< 0.59	U		< 0.59	U		< 59	U		< 0.59	U		< 0.59	UQ		< 0.59	U	
Bromomethane	74-83-9	-	7.55E-01	-	< 93	UQ		< 3.7	UQ		< 3.7	UQ		< 3.7	UQ		< 370	UQ		< 3.7	UQ		< 3.7	U		< 3.7	UQ	
Carbon disulfide	75-15-0	-	8.11E+01	9.20E-01	< 11	U		< 2.2	U		< 0.43	U		< 0.43	U		< 43	U		< 0.43	UQ		< 0.43	UQ		< 0.43	UQ	
Carbon tetrachloride	56-23-5	5.00E+00	*4.55E-01*	1.33E+01	< 7.5	U		< 0.30	U		< 0.30	U		< 0.30	U		< 30	U		< 0.30	U		< 0.30	U		< 0.30	U	
Chlorobenzene	108-90-7	1.00E+02	*7.77E+00*	1.30E+00	< 3.8	U		< 0.15	U		< 0.15	U		< 0.15	U		***31***	***JDM***	***J***	< 0.15	U		< 0.15	U		< 0.15	U	
Chlorodibromomethane (Dibromochloromethane)	124-48-1	8.00E+01	8.71E-01	-	< 9.8	UQ		< 0.39	UQ		< 0.39	U		< 0.39	U		< 39	U		< 0.39	U		< 0.39	U		< 0.39	U	
Chloroethane	75-00-3	-	8.34E+02	-	< 120	UQ		< 4.6	UMQ		< 4.6	U		< 4.6	U		< 460	U		< 4.6	UQ		**24**			< 4.6	U	
Chloroform	67-66-3	8.00E+01	*2.21E-01*	1.80E+00	< 6.8	U		< 0.27	U		< 0.27	U		***1.2***	***J***		< 27	U		< 0.27	U		< 0.27	U		< 0.27	U	
Chloromethane	74-87-3	-	1.88E+01	-	< 14	U		< 0.54	U		< 0.54	U		< 0.54	U		< 54	U		< 0.54	U		**0.57**	**J**	**J**	< 0.54	U	
cis-1,2-Dichloroethene	156-59-2	7.00E+01	*2.52E+00*	-	***45***	***JD***		***210***	***D***		**1.4**	**J**		***3600***	***D***		***14000***	***D***		***13***			**1.9**	**J**		**1.6**	**J**	
cis-1,3-Dichloropropene	10061-01-5	-	-	-	< 6.5	U		< 0.26	U		< 0.26	U		< 0.26	U		< 26	U		< 0.26	U		< 0.26	U		< 0.26	U	
Cyclohexane	110-82-7	-	1.25E+03	-	< 7.0	U		< 0.28	U		< 0.28	UQ		< 0.28	UQ		< 28	UQ		< 0.28	U		< 0.28	U		< 0.28	UQ	
Dibromomethane	74-95-3	-	8.34E-01	-	< 8.5	U		< 0.34	U		< 0.34	U		< 0.34	U		< 34	U		< 0.34	U		< 0.34	U		< 0.34	U	
Dichlorodifluoromethane	75-71-8	-	1.97E+01	-	< 9.0	U		< 0.36	U		< 0.36	UQ		< 0.36	UQ		< 36	UQ		< 0.36	UQ		< 0.36	UQ		< 0.36	U	
Ethylbenzene	100-41-4	7.00E+02	*1.50E+00*	9.00E+01	< 5.0	U		< 0.20	U		< 0.20	U		< 0.20	U		***24***	***JD***	***J***	< 0.20	U		**0.24**	**J**	**J**	< 0.20	U	
Hexachlorobutadiene	87-68-3	-	*1.39E-01*	1.30E+00	< 5.5	U		< 1.1	U		< 0.22	U		< 0.22	UQ		< 22	UQ		< 0.22	U		< 0.22	U		< 0.22	U	
Isopropylbenzene	98-82-8	-	4.51E+01	2.60E+00	< 6.5	U		< 1.3	U		< 0.26	U		< 0.26	U		< 26	U		< 0.26	U		< 0.26	U		< 0.26	U	
m+p-Xylenes	179601-23-1	-	-	-	< 12	U		< 0.49	U		< 0.49	U		< 0.49	UM		**110**	**JD**		< 0.49	U		< 0.49	U		< 0.49	U	
Methyl Acetate	79-20-9	-	1.99E+03	-	< 80	U		< 16	U		< 3.2	U		< 3.2	U		< 320	U		< 3.2	UQ		< 3.2	U		< 3.2	U	
Methylcyclohexane	108-87-2	-	1.98E+01	-	< 8.3	U		< 0.33	U		< 0.33	UQ		< 0.33	UQ		< 33	UQ		< 0.33	UQ		< 0.33	UM		< 0.33	UQ	
Methylene chloride (DCM)	75-09-2	5.00E+00	1.07E+01	9.81E+01	< 80	U		< 3.2	U		< 3.2	U		< 3.2	U		< 320	U		< 3.2	U		< 3.2	U		< 3.2	U	
Naphthalene	91-20-3	-	*1.17E-01*	1.10E+00	< 60	U		< 12	U		< 2.4	U		***2.9***	***J***	***J***	< 240	U		< 2.4	U		***2.9***	***J***	***J***	< 2.4	U	
n-Butylbenzene	104-51-8	-	1.00E+02	-	< 13	U		< 0.52	U		< 0.52	U		< 0.52	U		< 52	U		< 0.52	U		< 0.52	U		< 0.52	UQ	
n-Propylbenzene	103-65-1	-	6.56E+01	1.28E+02	< 10	U		< 2.1	U		< 0.41	U		< 0.41	U		< 41	UM		< 0.41	U		< 0.41	U		< 0.41	U	
o-Xylene	95-47-6	-	*1.93E+01*	-	< 6.5	U		< 1.3	U		< 0.26	U		**0.43**	**J**	**J**	***41***	***JD***	***J***	< 0.26	U		**0.77**	**J**	**J**	< 0.26	U	
p-Isopropyltoluene	99-87-6	-	-	8.50E+01	< 11	U		< 0.44	U		< 0.44	U		< 0.44	U		< 44	U		< 0.44	U		< 0.44	U		< 0.44	U	
sec-Butylbenzene	135-98-8	-	2.01E+02	-	< 13	U		< 2.7	U		< 0.53	U		< 0.53	U		< 53	U		< 0.53	U		< 0.53	U		< 0.53	U	
Styrene	100-42-5	1.00E+02	1.21E+02	7.20E+01	< 6.8	U		< 1.4	U		< 0.27	U		< 0.27	UM		< 27	UM		< 0.27	U		< 0.27	U		< 0.27	U	
tert-Butyl methyl ether (MTBE)	1634-04-4	-	1.43E+01	1.11E+04	< 20	U		< 0.81	U		< 0.81	U		< 0.81	U		< 81	U		< 0.81	U		< 0.81	U		< 0.81	U	
tert-Butylbenzene	98-06-6	-	6.91E+01	-	< 11	U		< 2.2	U		< 0.43	U		< 0.43	U		< 43	U		< 0.43	U		< 0.43	UM		< 0.43	U	
Tetrachloroethene	127-18-4	5.00E+00	*4.06E+00*	1.11E+02	***29***	***JDMQ***		***5.1***	***Q***		< 0.35	U		**0.77**	**J**	**J**	***4300***	***D***		**3.7**			< 0.35	U		**0.58**	**J**	**J**
Toluene	108-88-3	1.00E+03	1.10E+02	2.00E+00	< 6.3	UQ		< 0.25	UQ		< 0.25	U		**0.33**	**J**	**J**	< 25	U		< 0.25	U		**0.63**	**J**	**J**	< 0.25	U	
trans-1,2-Dichloroethene	156-60-5	1.00E+02	*6.78E+00*	9.70E+02	< 8.5	U		< 1.7	U		**0.66**	**J**	**J**	**6.1**			< 34	U		< 0.34	U		**2.8**			< 0.34	U	
trans-1,3-Dichloropropene	10061-02-6	-	-	-	< 5.8	UQ		< 0.23	UQ		< 0.23	U		< 0.23	U		< 23	U		< 0.23	U		< 0.23	U		< 0.23	U	
Trichloroethene	79-01-6	5.00E+00	*2.83E-01*	2.10E+01	***1500***	***D***		***150***			< 0.20	U		***0.80***	***J***		***3900***	***D***		***11***			***0.38***	***J***	***J***	< 0.20	U	
Trichlorofluoromethane	75-69-4	-	5.16E+02	-	< 8.3	U		< 0.33	U		< 0.33	UQ		< 0.33	UQ		< 33	UQ		< 0.33	U		< 0.33	UQ		< 0.33	U	
Trichlorotrifluoroethane (Freon 113)	76-13-1	-	1.02E+03	-	< 5.8	U		**8.5**			< 0.23	UQ		< 12	UHQ		< 23	UQ		**55**			< 0.23	U		< 0.23	U	
Vinyl chloride	75-01-4	2.00E+00	*1.88E-02*	9.30E+02	< 10	U		***80***			***0.94***	***JQ***	***J***	< 200	U		***1700***	***D***		***2.6***			***0.97***	***J***	***J***	< 0.40	U	
Xylene (Total)	1330-20-7	1.00E+04	*1.93E+01*	1.30E+01	< 12	U		< 2.5	U		< 0.49	U		< 0.49	U		***150***	***JD***		< 0.49	U		**0.77**	**J**	**J**	< 0.49	U	
Field Parameters																												
Depth to Water (ft)	DTW	-	-	-	**11.91**			**13.9**			**13**			**12.6**			**13.13**			**12.98**			**14.3**			**12.65**		
Dissolved Oxygen (mg/L)	DO	-	-	-	**3.24**			**0.42**			**0.12**			**2.4**			**1.77**			**2.5**			**2.05**			**3.23**		
Ferrous Iron - Field (mg/L)	FIELD FE	-	-	-	-[1]			**5.76**			**10.8**			**1.49**			**1.5**			-[1]			**11.56**			**0.26**		
Oxidation Reduction Potential (mV)	ORP	-	-	-	**332.7**			**-58**			**-80.6**			**-116.4**			**-22.4**			**333.9**			**-140.2**			**264.1**		
pH (pH unit)	PH	-	-	-	**5**			**6.03**			**6.27**			**6.27**			**5.61**			**4.95**			**6.4**			**4.79**		
Specific Conductivity (mS/cm)	SC	-	-	-	**0.093**			**0.693**			**0.706**			**0.481**			**0.569**			**0.102**			**0.667**			**0.058**		
Temperature (°C)	TEMP	-	-	-	**20**			**18.3**			**18.3**			**19**			**19.1**			**20.4**			**20.2**			**18.2**		
Turbidity (NTU)	TURB	-	-	-	-[1]			**25.7**			**27.55**			-[1]			-[1]			-[1]			-[1]			**0.59**		

Table B.2
OU6 Annual Volatile Organic Compounds - Spring 2024
Defense Supply Center Richmond

					OU6-MW-247			OU6-MW-248			OU6-MW-249			OU6-MW-250			OU6-MW-251			OU6-MW-252			OU6-MW-253			OU6-MW-254		
Sample Location					OU6-MW-247			OU6-MW-248			OU6-MW-249			OU6-MW-250			OU6-MW-251			OU6-MW-252			OU6-MW-253			OU6-MW-254		
Sample ID					OU6-MW-247-20240522			OU6-MW-248-20240516			OU6-MW-249-20240516			OU6-MW-250-20240522			OU6-MW-251-20240522			OU6-MW-252-20240521			OU6-MW-253-20240521			OU6-MW-254-20240521		
Sample Date					5/22/2024			5/16/2024			5/16/2024			5/22/2024			5/22/2024			5/21/2024			5/21/2024			5/21/2024		
Sample Type					N			N			N			N			N			N			N			N		
Description					UWBU			UWBU			UWBU			UWBU			UWBU			UWBU			UWBU			UWBU		
Parameter	**CAS#**	**MCL**	**RSL**	**BTAG**	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV
VOCs by SW8260D (µg/L)																												
1,1,1,2-Tetrachloroethane	630-20-6	-	*5.74E-01*	-	< 0.36	U		< 0.36	U		< 0.36	U		< 0.36	U		< 0.72	U		< 0.36	U		< 0.36	U		< 0.36	U	
1,1,1-Trichloroethane	71-55-6	2.00E+02	8.01E+02	1.10E+01	< 0.21	U		< 0.21	U		< 0.21	U		< 0.21	U		< 0.42	U		< 0.21	U		< 0.21	U		< 0.21	U	
1,1,2,2-Tetrachloroethane	79-34-5	-	7.57E-02	6.10E+02	< 0.40	U		< 0.40	U		< 0.40	U		< 0.40	U		< 0.80	U		< 0.40	U		< 0.40	U		< 0.40	U	
1,1,2-Trichloroethane	79-00-5	5.00E+00	*4.15E-02*	1.20E+03	< 0.32	U		< 0.32	U		< 0.32	U		< 0.32	U		< 0.64	U		< 0.32	UQ		< 0.32	UQ		< 0.32	U	
1,1-Dichloroethane	75-34-3	-	*2.75E+00*	4.70E+01	< 0.33	U		< 0.33	U		< 0.33	U		**2.1**			***4.5***	***DM***		< 0.33	U		< 0.33	U		***10***		
1,1-Dichloroethene (Vinylidene chloride)	75-35-4	7.00E+00	*2.85E+01*	2.50E+01	< 0.33	U		< 0.33	U		< 0.33	U		**6.3**			< 0.66	UM		< 0.33	U		< 0.33	U		**2.9**		
1,1-Dichloropropene	563-58-6	-	-	-	< 0.28	U		< 0.28	U		< 0.28	U		< 0.28	U		< 0.56	U		< 0.28	U		< 0.28	U		< 0.28	U	
1,2,3-Trichlorobenzene	87-61-6	-	7.04E-01	8.00E+00	< 0.81	U		< 0.81	U		< 0.81	U		< 0.81	U		< 1.6	U		< 0.81	U		< 0.81	U		< 0.81	U	
1,2,3-Trichloropropane	96-18-4	-	*7.49E-04*	-	< 0.48	U		< 0.48	U		< 0.48	U		< 0.48	U		< 0.96	U		< 0.48	U		< 0.48	U		< 0.48	U	
1,2,4-Trichlorobenzene	120-82-1	7.00E+01	*3.99E-01*	2.40E+01	< 0.53	U		< 0.53	U		< 0.53	U		< 0.53	U		< 1.1	U		< 0.53	U		< 0.53	U		< 0.53	U	
1,2,4-Trimethylbenzene	95-36-3	-	-	-	< 0.43	U		< 0.43	U		< 0.43	U		< 0.43	U		< 0.86	U		< 0.43	UQ		< 0.43	UQ		< 0.43	U	
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	2.00E-01	3.34E-04	-	< 1.8	UQ		< 1.8	U		< 1.8	U		< 1.8	UQ		< 3.6	UQ		< 1.8	U		< 1.8	U		< 1.8	U	
1,2-Dibromoethane (EDB)	106-93-4	5.00E-02	7.47E-03	-	< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	U		< 0.66	U		< 0.33	UQ		< 0.33	UQ		< 0.33	U	
1,2-Dichlorobenzene	95-50-1	6.00E+02	*3.04E+01*	7.00E-01	< 0.31	U		< 0.31	U		< 0.31	U		< 0.31	U		< 0.62	U		< 0.31	U		< 0.31	U		**0.58**	**J**	**J**
1,2-Dichloroethane	107-06-2	5.00E+00	*1.71E-01*	1.00E+02	< 0.25	U		< 0.25	UM		< 0.25	U		< 0.25	UM		< 0.50	UM		< 0.25	UM		< 0.25	UM		< 0.25	UM	
1,2-Dichloroethene, Total	540-59-0	-	-	5.90E+02	**5.4**			**4.1**			**0.99**	**J**	**J**	**110**			**190**	**D**		< 0.37	U		**22**			**180**		
1,2-Dichloropropane	78-87-5	5.00E+00	8.25E-01	-	< 0.22	U		< 0.22	U		< 0.22	U		< 0.22	U		< 0.44	U		< 0.22	U		< 0.22	U		< 0.22	U	
1,3,5-Trimethylbenzene	108-67-8	-	*6.03E+00*	7.10E+01	< 0.28	U		< 0.28	U		< 0.28	U		< 0.28	U		< 0.56	U		< 0.28	UQ		< 0.28	UQ		< 0.28	U	
1,3-Dichlorobenzene	541-73-1	-	-	1.50E+02	< 0.31	U		< 0.31	U		< 0.31	U		< 0.31	U		< 0.62	U		< 0.31	U		< 0.31	U		< 0.31	U	
1,3-Dichloropropane	142-28-9	-	3.69E+01	-	< 0.36	U		< 0.36	U		< 0.36	U		< 0.36	U		< 0.72	U		< 0.36	UQ		< 0.36	UQ		< 0.36	U	
1,4-Dichlorobenzene	106-46-7	7.50E+01	*4.82E-01*	2.60E+01	< 0.31	U		< 0.31	U		< 0.31	U		< 0.31	U		< 0.62	U		< 0.31	U		***0.68***	***J***	***J***	***1.5***	***J***	
2,2-Dichloropropane	594-20-7	-	-	-	< 0.35	U		< 0.35	UQ		< 0.35	U		< 0.35	U		< 0.70	U		< 0.35	U		< 0.35	U		< 0.35	U	
2-Butanone (MEK)	78-93-3	-	*5.57E+02*	1.40E+04	**93**			< 6.4	U		< 6.4	U		< 6.4	U		< 13	U		< 6.4	U		< 6.4	U		< 6.4	U	
2-Chlorotoluene	95-49-8	-	2.37E+01	-	< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U		< 0.50	U		< 0.25	U		< 0.25	UQ		< 0.25	U	
2-Hexanone	591-78-6	-	3.80E+00	9.90E+01	< 3.2	U		< 3.2	U		< 3.2	U		< 3.2	U		< 6.4	U		< 3.2	U		< 3.2	UQ		< 3.2	U	
4-Chlorotoluene	106-43-4	-	2.50E+01	-	< 0.41	U		< 0.41	U		< 0.41	U		< 0.41	U		< 0.82	U		< 0.41	U		< 0.41	UQ		< 0.41	U	
4-Methyl-2-pentanone (MIBK)	108-10-1	-	6.26E+02	1.70E+02	< 2.7	U		< 2.7	U		< 2.7	U		< 2.7	U		< 5.4	U		< 2.7	UQ		< 2.7	UQ		< 2.7	U	
Acetone	67-64-1	-	*1.80E+03*	1.50E+03	**200**			< 3.7	U		< 3.7	U		< 3.7	U		< 7.4	U		< 3.7	U		< 3.7	U		< 3.7	UQ	
Benzene	71-43-2	5.00E+00	*4.55E-01*	3.70E+02	< 0.27	U		< 0.27	U		< 0.27	U		< 0.27	U		< 0.54	U		< 0.27	U		< 0.27	U		< 0.27	U	
Bromobenzene	108-86-1	-	6.22E+00	-	< 0.24	U		< 0.24	U		< 0.24	U		< 0.24	U		< 0.48	U		< 0.24	U		< 0.24	UQ		< 0.24	U	
Bromochloromethane	74-97-5	-	8.34E+00	-	< 0.34	U		< 0.34	UQ		< 0.34	U		< 0.34	U		< 0.68	U		< 0.34	U		< 0.34	U		< 0.34	U	
Bromodichloromethane	75-27-4	8.00E+01	1.34E-01	-	< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U		< 0.50	U		< 0.25	U		< 0.25	U		< 0.25	U	
Bromoform	75-25-2	8.00E+01	3.29E+00	3.20E+02	< 0.59	U		< 0.59	U		< 0.59	U		< 0.59	U		< 1.2	U		< 0.59	U		< 0.59	U		< 0.59	U	
Bromomethane	74-83-9	-	7.55E-01	-	< 3.7	U		< 3.7	U		< 3.7	UQ		< 3.7	U		< 7.4	U		< 3.7	UQ		< 3.7	UQ		< 3.7	UQ	
Carbon disulfide	75-15-0	-	8.11E+01	9.20E-01	< 0.43	U		< 0.43	UQ		< 0.43	U		< 0.43	U		< 0.86	U		< 0.43	UQ		**1.5**	**J**		< 0.43	UQ	
Carbon tetrachloride	56-23-5	5.00E+00	*4.55E-01*	1.33E+01	< 0.30	U		< 0.30	UQ		< 0.30	U		< 0.30	U		< 0.60	U		< 0.30	U		< 0.30	U		< 0.30	U	
Chlorobenzene	108-90-7	1.00E+02	*7.77E+00*	1.30E+00	< 0.15	U		< 0.15	U		< 0.15	U		< 0.15	U		< 0.30	U		< 0.15	U		< 0.15	UM		**0.90**	**J**	**J+**
Chlorodibromomethane (Dibromochloromethane)	124-48-1	8.00E+01	8.71E-01	-	< 0.39	U		< 0.39	U		< 0.39	U		< 0.39	U		< 0.78	U		< 0.39	UQ		< 0.39	UQ		< 0.39	U	
Chloroethane	75-00-3	-	8.34E+02	-	< 4.6	U		< 4.6	U		< 4.6	U		< 4.6	U		< 9.2	U		< 4.6	UQ		< 4.6	UQ		< 4.6	UQ	
Chloroform	67-66-3	8.00E+01	*2.21E-01*	1.80E+00	< 0.27	U		< 0.27	U		< 0.27	U		< 0.27	U		< 0.54	U		< 0.27	U		< 0.27	U		< 0.27	U	
Chloromethane	74-87-3	-	1.88E+01	-	< 0.54	U		< 0.54	U		< 0.54	U		< 0.54	U		< 1.1	U		< 0.54	U		< 0.54	U		< 0.54	U	
cis-1,2-Dichloroethene	156-59-2	7.00E+01	*2.52E+00*	-	***5.4***			***4.1***			**0.99**	**J**	**J**	***110***			***180***	***D***		< 0.25	U		**22**			***180***		
cis-1,3-Dichloropropene	10061-01-5	-	-	-	< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U		< 0.52	U		< 0.26	U		< 0.26	U		< 0.26	U	
Cyclohexane	110-82-7	-	1.25E+03	-	< 0.28	U		< 0.28	UQ		< 0.28	U		< 0.28	U		< 0.56	U		< 0.28	U		< 0.28	U		< 0.28	U	
Dibromomethane	74-95-3	-	8.34E-01	-	< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U		< 0.68	U		< 0.34	U		< 0.34	U		< 0.34	U	
Dichlorodifluoromethane	75-71-8	-	1.97E+01	-	< 0.36	UQ		< 0.36	UQ		< 0.36	UQ		< 0.36	UQ		< 0.72	UQ		< 0.36	U		< 0.36	U		< 0.36	UQM	
Ethylbenzene	100-41-4	7.00E+02	*1.50E+00*	9.00E+01	< 0.20	U		< 0.20	U		< 0.20	U		< 0.20	U		< 0.40	U		< 0.20	U		< 0.20	U		< 0.20	U	
Hexachlorobutadiene	87-68-3	-	*1.39E-01*	1.30E+00	< 0.22	U		< 0.22	U		< 0.22	U		< 0.22	U		< 0.44	U		< 0.22	U		< 0.22	U		< 0.22	U	
Isopropylbenzene	98-82-8	-	4.51E+01	2.60E+00	< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U		< 0.52	U		< 0.26	U		< 0.26	U		< 0.26	U	
m+p-Xylenes	179601-23-1	-	-	-	< 0.49	U		< 0.49	U		< 0.49	U		< 0.49	U		< 0.98	U		< 0.49	U		< 0.49	U		< 0.49	U	
Methyl Acetate	79-20-9	-	1.99E+03	-	< 3.2	U		< 3.2	U		< 3.2	U		< 3.2	U		< 6.4	U		< 3.2	U		< 3.2	U		< 3.2	UQ	
Methylcyclohexane	108-87-2	-	1.98E+01	-	< 0.33	U		< 0.33	UQ		< 0.33	U		< 0.33	U		< 0.66	U		< 0.33	U		< 0.33	U		< 0.33	UQ	
Methylene chloride (DCM)	75-09-2	5.00E+00	1.07E+01	9.81E+01	< 3.2	U		< 3.2	U		< 3.2	U		< 3.2	U		< 6.4	U		< 3.2	U		< 3.2	U		< 3.2	U	
Naphthalene	91-20-3	-	*1.17E-01*	1.10E+00	< 2.4	U		< 2.4	U		< 2.4	U		< 2.4	U		< 4.8	U		< 2.4	U		< 2.4	U		< 2.4	U	
n-Butylbenzene	104-51-8	-	1.00E+02	-	< 0.52	U		< 0.52	UQ		< 0.52	U		< 0.52	U		< 1.0	U		< 0.52	U		< 0.52	U		< 0.52	U	
n-Propylbenzene	103-65-1	-	6.56E+01	1.28E+02	< 0.41	U		< 0.41	U		< 0.41	U		< 0.41	U		< 0.82	U		< 0.41	U		< 0.41	UQ		< 0.41	U	
o-Xylene	95-47-6	-	*1.93E+01*	-	< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U		< 0.52	U		< 0.26	U		< 0.26	UQ		< 0.26	U	
p-Isopropyltoluene	99-87-6	-	-	8.50E+01	< 0.44	U		< 0.44	U		< 0.44	U		< 0.44	U		< 0.88	U		< 0.44	U		< 0.44	U		< 0.44	U	
sec-Butylbenzene	135-98-8	-	2.01E+02	-	< 0.53	U		< 0.53	U		< 0.53	U		< 0.53	U		< 1.1	U		< 0.53	U		< 0.53	U		< 0.53	U	
Styrene	100-42-5	1.00E+02	1.21E+02	7.20E+01	< 0.27	U		< 0.27	U		< 0.27	U		< 0.27	U		< 0.54	U		< 0.27	U		< 0.27	UQ		< 0.27	U	
tert-Butyl methyl ether (MTBE)	1634-04-4	-	1.43E+01	1.11E+04	< 0.81	U		< 0.81	U		< 0.81	U		< 0.81	U		< 1.6	U		< 0.81	U		< 0.81	UM		< 0.81	U	
tert-Butylbenzene	98-06-6	-	6.91E+01	-	< 0.43	U		< 0.43	U		< 0.43	U		< 0.43	U		< 0.86	U		< 0.43	U		< 0.43	U		< 0.43	U	
Tetrachloroethene	127-18-4	5.00E+00	*4.06E+00*	1.11E+02	< 0.35	U		**1.6**	**J**	**J**	**0.47**	**J**	**J**	***11***			***13***	***D***		< 0.35	UMQ		**2.6**	**Q**	**J-**	***8.7***		***J+***
Toluene	108-88-3	1.00E+03	1.10E+02	2.00E+00	< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U		< 0.50	U		< 0.25	UQ		< 0.25	UQ		< 0.25	U	
trans-1,2-Dichloroethene	156-60-5	1.00E+02	*6.78E+00*	9.70E+02	< 0.34	U		< 0.34	U		< 0.34	U		**2.2**	**M**		***11***	***D***		< 0.34	U		**0.82**	**J**	**J**	**4.8**		
trans-1,3-Dichloropropene	10061-02-6	-	-	-	< 0.23	U		< 0.23	U		< 0.23	U		< 0.23	U		< 0.46	U		< 0.23	UQ		< 0.23	UQ		< 0.23	U	
Trichloroethene	79-01-6	5.00E+00	*2.83E-01*	2.10E+01	< 0.20	UM		***1.7***			***0.34***	***JM***	***J***	***19***			***76***	***D***		***0.65***	***J***		***5.8***			***21***		
Trichlorofluoromethane	75-69-4	-	5.16E+02	-	< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	U		< 0.66	U		< 0.33	U		< 0.33	U		< 0.33	U	
Trichlorotrifluoroethane (Freon 113)	76-13-1	-	1.02E+03	-	< 0.23	U		< 0.23	UQ		< 0.23	U		< 0.23	U		**240**	**D**		< 0.23	U		< 0.23	U		**2.3**		
Vinyl chloride	75-01-4	2.00E+00	*1.88E-02*	9.30E+02	< 0.40	UM		< 0.40	U		< 0.40	U		***19***			***5.8***	***D***		< 0.40	U		***2.1***			***18***		
Xylene (Total)	1330-20-7	1.00E+04	*1.93E+01*	1.30E+01	< 0.49	U		< 0.49	U		< 0.49	U		< 0.49	U		< 0.98	U		< 0.49	U		< 0.49	U		< 0.49	U	
Field Parameters																												
Depth to Water (ft)	DTW	-	-	-	**17.94**			**11.6**			**12.4**			**12.68**			**12.75**			**13.15**			**13.95**			**13.75**		
Dissolved Oxygen (mg/L)	DO	-	-	-	**2.01**			**4.39**			**5.95**			**3.18**			**1.59**			**5.84**			**0.54**			**0.69**		
Ferrous Iron - Field (mg/L)	FIELD FE	-	-	-	**3.08**			**1.37**			-[1]			**4.42**			**2.49**			**0.12**			**1.9**			**1.03**		
Oxidation Reduction Potential (mV)	ORP	-	-	-	**-171.2**			**273.7**			**206.3**			**202.3**			**228.3**			**97.2**			**161.7**			**26**		
pH (pH unit)	PH	-	-	-	**6.37**			**5.01**			**6.45**			**6.32**			**5.54**			**6.97**			**5.03**			**5.47**		
Specific Conductivity (mS/cm)	SC	-	-	-	**1.341**			**0.062**			**0.146**			**0.22**			**0.124**			**0.289**			**0.163**			**0.289**		
Temperature (°C)	TEMP	-	-	-	**19.7**			**19**			**19.2**			**18.7**			**19.4**			**17.3**			**19**			**19.2**		
Turbidity (NTU)	TURB	-	-	-	-[1]			**11.98**			**48.71**			**310.12**			-[1]			**10.2**			**9.99**			**6.87**		

Table B.2
OU6 Annual Volatile Organic Compounds - Spring 2024
Defense Supply Center Richmond

					OU6-MW-255			OU6-MW-256			OU6-MW-257			OU6-MW-258			OU6-MW-259			OU6-MW-260			OU6-MW-261			OU6-MW-262		
Sample Location					OU6-MW-255			OU6-MW-256			OU6-MW-257			OU6-MW-258			OU6-MW-259			OU6-MW-260			OU6-MW-261			OU6-MW-262		
Sample ID					OU6-MW-255-20240522			OU6-MW-256-20240521			OU6-MW-257-20240516			OU6-MW-258-20240517			OU6-MW-259-20240515			OU6-MW-260-20240523			OU6-MW-261-20240516			OU6-MW-262-20240517		
Sample Date					5/22/2024			5/21/2024			5/16/2024			5/17/2024			5/15/2024			5/23/2024			5/16/2024			5/17/2024		
Sample Type					N			N			N			N			N			N			N			N		
Description					UWBU			UWBU			UWBU			UWBU			UWBU			UWBU			UWBU			UWBU		
Parameter	**CAS#**	**MCL**	**RSL**	**BTAG**	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV
VOCs by SW8260D (µg/L)																												
1,1,1,2-Tetrachloroethane	630-20-6	-	*5.74E-01*	-	< 0.72	U		< 0.36	U		< 0.36	U		< 0.36	U		< 0.36	U		***0.92***	***J***	***J***	< 0.36	U		< 0.36	U	
1,1,1-Trichloroethane	71-55-6	2.00E+02	8.01E+02	1.10E+01	< 0.42	U		< 0.21	U		< 0.21	U		< 0.21	U		< 0.21	U		< 0.21	U		< 0.21	U		< 0.21	U	
1,1,2,2-Tetrachloroethane	79-34-5	-	7.57E-02	6.10E+02	< 0.80	U		< 0.40	U		< 0.40	U		< 0.40	U		< 0.40	U		< 0.40	U		< 0.40	U		< 0.40	U	
1,1,2-Trichloroethane	79-00-5	5.00E+00	*4.15E-02*	1.20E+03	< 0.64	UM		< 0.32	UQ		< 0.32	U		< 0.32	U		< 0.32	U		***6.3***			< 0.32	U		< 0.32	U	
1,1-Dichloroethane	75-34-3	-	*2.75E+00*	4.70E+01	***8.6***	***DM***		< 0.33	U		< 0.33	U		**1.4**	**J**		< 0.33	U		***36***			< 0.33	U		**0.80**	**J**	**J**
1,1-Dichloroethene (Vinylidene chloride)	75-35-4	7.00E+00	*2.85E+01*	2.50E+01	< 0.66	UM		< 0.33	U		< 0.33	U		**1.2**	**J**		< 0.33	U		**1.5**	**J**		< 0.33	U		< 0.33	UQ	
1,1-Dichloropropene	563-58-6	-	-	-	< 0.56	U		< 0.28	U		< 0.28	U		< 0.28	U		< 0.28	U		< 0.28	UQ		< 0.28	U		< 0.28	U	
1,2,3-Trichlorobenzene	87-61-6	-	7.04E-01	8.00E+00	< 1.6	U		< 0.81	U		< 0.81	U		< 0.81	U		< 0.81	U		< 0.81	U		< 0.81	U		< 0.81	U	
1,2,3-Trichloropropane	96-18-4	-	*7.49E-04*	-	< 0.96	U		< 0.48	U		< 0.48	U		< 0.48	U		< 0.48	U		***0.93***	***J***	***J***	< 0.48	U		< 0.48	U	
1,2,4-Trichlorobenzene	120-82-1	7.00E+01	*3.99E-01*	2.40E+01	< 1.1	U		< 0.53	U		< 0.53	U		< 0.53	U		< 0.53	U		***0.54***	***J***	***J***	< 0.53	U		< 0.53	U	
1,2,4-Trimethylbenzene	95-36-3	-	-	-	< 0.86	U		< 0.43	U		< 0.43	U		< 0.43	U		< 0.43	U		**2.4**			< 0.43	U		< 0.43	U	
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	2.00E-01	3.34E-04	-	< 3.6	UQ		< 1.8	U		< 1.8	U		< 1.8	U		< 1.8	U		< 1.8	U		< 1.8	U		< 1.8	U	
1,2-Dibromoethane (EDB)	106-93-4	5.00E-02	7.47E-03	-	< 0.66	U		< 0.33	UQ		< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	U	
1,2-Dichlorobenzene	95-50-1	6.00E+02	*3.04E+01*	7.00E-01	< 0.62	U		< 0.31	U		< 0.31	U		< 0.31	U		< 0.31	U		***58***			**3.2**			**6.9**		**J+**
1,2-Dichloroethane	107-06-2	5.00E+00	*1.71E-01*	1.00E+02	< 0.50	UM		< 0.25	UM		< 0.25	UM		< 0.25	UM		< 0.25	U		***18***			< 0.25	U		***0.68***	***J***	***J***
1,2-Dichloroethene, Total	540-59-0	-	-	5.90E+02	**180**	**D**		**37**			**0.62**	**J**	**J**	**13**			**1.2**	**J**		**120**			**0.51**	**J**	**J**	**150**		
1,2-Dichloropropane	78-87-5	5.00E+00	8.25E-01	-	< 0.44	U		< 0.22	U		< 0.22	U		< 0.22	U		< 0.22	U		**0.31**	**J**	**J**	< 0.22	U		< 0.22	U	
1,3,5-Trimethylbenzene	108-67-8	-	*6.03E+00*	7.10E+01	< 0.56	U		< 0.28	U		< 0.28	U		< 0.28	U		< 0.28	U		**1.2**	**JM**		< 0.28	U		< 0.28	U	
1,3-Dichlorobenzene	541-73-1	-	-	1.50E+02	< 0.62	U		< 0.31	U		< 0.31	U		< 0.31	U		< 0.31	U		**11**			**0.85**	**J**	**J**	< 0.31	U	
1,3-Dichloropropane	142-28-9	-	3.69E+01	-	< 0.72	U		< 0.36	UQ		< 0.36	U		< 0.36	U		< 0.36	U		< 0.36	U		< 0.36	U		< 0.36	U	
1,4-Dichlorobenzene	106-46-7	7.50E+01	*4.82E-01*	2.60E+01	< 0.62	U		***0.79***	***J***	***J***	< 0.31	U		< 0.31	U		< 0.31	U		***180***			***13***			***3.0***		***J+***
2,2-Dichloropropane	594-20-7	-	-	-	< 0.70	U		< 0.35	U		< 0.35	U		< 0.35	UQ		< 0.35	U		< 0.35	U		< 0.35	U		< 0.35	UQ	
2-Butanone (MEK)	78-93-3	-	*5.57E+02*	1.40E+04	< 13	U		< 6.4	U		< 6.4	U		< 6.4	U		< 6.4	U		< 6.4	U		< 6.4	U		< 6.4	U	
2-Chlorotoluene	95-49-8	-	2.37E+01	-	< 0.50	U		< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U	
2-Hexanone	591-78-6	-	3.80E+00	9.90E+01	< 6.4	U		< 3.2	U		< 3.2	U		< 3.2	U		< 3.2	U		< 3.2	U		< 3.2	U		< 3.2	U	
4-Chlorotoluene	106-43-4	-	2.50E+01	-	< 0.82	U		< 0.41	U		< 0.41	U		< 0.41	U		< 0.41	U		< 0.41	U		< 0.41	U		< 0.41	U	
4-Methyl-2-pentanone (MIBK)	108-10-1	-	6.26E+02	1.70E+02	< 5.4	U		< 2.7	UQ		< 2.7	U		< 2.7	U		< 2.7	U		**8.6**	**J**	**J**	< 2.7	U		< 2.7	U	
Acetone	67-64-1	-	*1.80E+03*	1.50E+03	< 7.4	U		< 3.7	U		< 3.7	U		< 3.7	U		< 3.7	U		**16**	**J**		< 3.7	U		< 3.7	U	
Benzene	71-43-2	5.00E+00	*4.55E-01*	3.70E+02	< 0.54	U		< 0.27	U		< 0.27	U		< 0.27	U		< 0.27	U		***3.9***			***2.0***			***1.0***	***J***	***J+***
Bromobenzene	108-86-1	-	6.22E+00	-	< 0.48	U		< 0.24	U		< 0.24	U		< 0.24	U		< 0.24	U		< 0.24	U		< 0.24	U		< 0.24	U	
Bromochloromethane	74-97-5	-	8.34E+00	-	< 0.68	U		< 0.34	U		< 0.34	U		< 0.34	UQ		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	UQ	
Bromodichloromethane	75-27-4	8.00E+01	1.34E-01	-	< 0.50	U		< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U	
Bromoform	75-25-2	8.00E+01	3.29E+00	3.20E+02	< 1.2	U		< 0.59	U		< 0.59	U		< 0.59	U		< 0.59	UQ		< 0.59	U		< 0.59	U		< 0.59	U	
Bromomethane	74-83-9	-	7.55E-01	-	< 7.4	U		< 3.7	UQ		< 3.7	UQ		< 3.7	U		< 3.7	U		< 3.7	UQ		< 3.7	UQ		< 3.7	U	
Carbon disulfide	75-15-0	-	8.11E+01	9.20E-01	< 0.86	U		< 0.43	UQ		< 0.43	U		< 0.43	UQ		< 0.43	UQ		< 0.43	U		< 0.43	U		< 0.43	UQ	
Carbon tetrachloride	56-23-5	5.00E+00	*4.55E-01*	1.33E+01	< 0.60	U		< 0.30	U		< 0.30	U		< 0.30	UQ		< 0.30	U		***11***			< 0.30	U		< 0.30	UQ	
Chlorobenzene	108-90-7	1.00E+02	*7.77E+00*	1.30E+00	< 0.30	U		< 0.15	U		< 0.15	U		< 0.15	U		< 0.15	U		***290***	***D***		***70***			***8.5***		***J+***
Chlorodibromomethane (Dibromochloromethane)	124-48-1	8.00E+01	8.71E-01	-	< 0.78	U		< 0.39	UQ		< 0.39	U		< 0.39	U		< 0.39	U		< 0.39	U		< 0.39	U		< 0.39	U	
Chloroethane	75-00-3	-	8.34E+02	-	< 9.2	U		< 4.6	UQ		< 4.6	U		< 4.6	U		< 4.6	U		**15**	**J**		< 4.6	U		< 4.6	U	
Chloroform	67-66-3	8.00E+01	*2.21E-01*	1.80E+00	< 0.54	U		< 0.27	U		< 0.27	U		< 0.27	U		< 0.27	U		***19***			< 0.27	U		***1.3***	***J***	
Chloromethane	74-87-3	-	1.88E+01	-	< 1.1	U		< 0.54	U		< 0.54	U		< 0.54	U		< 0.54	U		< 0.54	U		< 0.54	U		< 0.54	U	
cis-1,2-Dichloroethene	156-59-2	7.00E+01	*2.52E+00*	-	***180***	***D***		***36***			**0.62**	**JM**	**J**	***13***			**1.2**	**J**		***120***			**0.51**	**J**	**J**	***150***		
cis-1,3-Dichloropropene	10061-01-5	-	-	-	< 0.52	U		< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U	
Cyclohexane	110-82-7	-	1.25E+03	-	< 0.56	U		< 0.28	U		< 0.28	U		< 0.28	UQ		< 0.28	U		< 0.28	UQ		< 0.28	U		< 0.28	UQ	
Dibromomethane	74-95-3	-	8.34E-01	-	< 0.68	U		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U	
Dichlorodifluoromethane	75-71-8	-	1.97E+01	-	< 0.72	UQ		< 0.36	U		< 0.36	UQ		< 0.36	UQ		< 0.36	UQ		< 0.36	UQ		< 0.36	UQ		**3.0**	**Q**	
Ethylbenzene	100-41-4	7.00E+02	*1.50E+00*	9.00E+01	< 0.40	U		< 0.20	U		< 0.20	U		< 0.20	U		< 0.20	U		**1.4**			< 0.20	U		< 0.20	U	
Hexachlorobutadiene	87-68-3	-	*1.39E-01*	1.30E+00	< 0.44	U		< 0.22	U		< 0.22	U		< 0.22	U		< 0.22	U		< 0.22	UQ		< 0.22	U		< 0.22	U	
Isopropylbenzene	98-82-8	-	4.51E+01	2.60E+00	< 0.52	U		< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U		**0.33**	**J**	**J**	< 0.26	U		< 0.26	U	
m+p-Xylenes	179601-23-1	-	-	-	< 0.98	U		< 0.49	U		< 0.49	U		< 0.49	U		< 0.49	U		**1.6**	**J**		< 0.49	U		< 0.49	U	
Methyl Acetate	79-20-9	-	1.99E+03	-	< 6.4	U		< 3.2	U		< 3.2	U		< 3.2	U		< 3.2	U		< 3.2	U		< 3.2	U		< 3.2	U	
Methylcyclohexane	108-87-2	-	1.98E+01	-	< 0.66	U		< 0.33	U		< 0.33	U		< 0.33	UQ		< 0.33	U		**0.36**	**JQ**	**J**	< 0.33	U		< 0.33	UQ	
Methylene chloride (DCM)	75-09-2	5.00E+00	1.07E+01	9.81E+01	< 6.4	U		< 3.2	U		< 3.2	U		< 3.2	U		< 3.2	U		< 3.2	U		< 3.2	U		< 3.2	U	
Naphthalene	91-20-3	-	*1.17E-01*	1.10E+00	< 4.8	U		< 2.4	U		< 2.4	U		< 2.4	U		< 2.4	U		***9.2***	***J***		< 2.4	U		< 2.4	U	
n-Butylbenzene	104-51-8	-	1.00E+02	-	< 1.0	U		< 0.52	U		< 0.52	U		< 0.52	UQ		< 0.52	U		**0.70**	**JM**	**J**	< 0.52	U		< 0.52	UQ	
n-Propylbenzene	103-65-1	-	6.56E+01	1.28E+02	< 0.82	U		< 0.41	U		< 0.41	U		< 0.41	U		< 0.41	U		**0.78**	**J**	**J**	< 0.41	U		< 0.41	U	
o-Xylene	95-47-6	-	*1.93E+01*	-	< 0.52	U		< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U		**2.3**			< 0.26	U		**0.54**	**J**	**J**
p-Isopropyltoluene	99-87-6	-	-	8.50E+01	< 0.88	U		< 0.44	U		< 0.44	U		< 0.44	U		< 0.44	U		**0.49**	**J**	**J**	< 0.44	U		< 0.44	U	
sec-Butylbenzene	135-98-8	-	2.01E+02	-	< 1.1	U		< 0.53	U		< 0.53	U		< 0.53	U		< 0.53	U		< 0.53	UM		< 0.53	U		< 0.53	U	
Styrene	100-42-5	1.00E+02	1.21E+02	7.20E+01	< 0.54	U		< 0.27	U		< 0.27	U		< 0.27	U		< 0.27	U		< 0.27	UM		< 0.27	U		< 0.27	U	
tert-Butyl methyl ether (MTBE)	1634-04-4	-	1.43E+01	1.11E+04	< 1.6	U		< 0.81	U		< 0.81	U		< 0.81	U		**2.8**	**J**		< 0.81	U		< 0.81	U		< 0.81	U	
tert-Butylbenzene	98-06-6	-	6.91E+01	-	< 0.86	U		< 0.43	U		< 0.43	U		< 0.43	U		< 0.43	U		< 0.43	U		< 0.43	U		< 0.43	U	
Tetrachloroethene	127-18-4	5.00E+00	*4.06E+00*	1.11E+02	***40***	***D***		***11***	***Q***		< 0.35	U		**0.96**	**J**	**J**	**4.0**			***14***			< 0.35	U		**1.3**	**J**	
Toluene	108-88-3	1.00E+03	1.10E+02	2.00E+00	< 0.50	U		< 0.25	UQ		< 0.25	U		< 0.25	U		< 0.25	U		***17***			< 0.25	U		< 0.25	U	
trans-1,2-Dichloroethene	156-60-5	1.00E+02	*6.78E+00*	9.70E+02	**6.0**	**D**		**0.72**	**J**	**J**	< 0.34	U		< 0.34	U		< 0.34	U		**2.2**			< 0.34	U		**0.70**	**J**	**J**
trans-1,3-Dichloropropene	10061-02-6	-	-	-	< 0.46	U		< 0.23	UQ		< 0.23	U		< 0.23	U		< 0.23	U		< 0.23	U		< 0.23	U		< 0.23	U	
Trichloroethene	79-01-6	5.00E+00	*2.83E-01*	2.10E+01	***100***	***D***		***37***			***0.54***	***JM***		***3.9***			***2.5***			***190***			***0.32***	***J***	***J***	***5.7***		
Trichlorofluoromethane	75-69-4	-	5.16E+02	-	< 0.66	U		< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	UQ		< 0.33	UQ		< 0.33	U		< 0.33	U	
Trichlorotrifluoroethane (Freon 113)	76-13-1	-	1.02E+03	-	**170**	**D**		**30**			< 0.23	U		< 0.23	UQ		< 0.23	U		< 0.23	UQ		< 0.23	U		< 0.23	UQ	
Vinyl chloride	75-01-4	2.00E+00	*1.88E-02*	9.30E+02	***38***	***D***		***1.8***	***J***		< 0.40	U		< 0.40	U		< 0.40	UM		***550***	***D***		***0.51***	***J***	***J***	***92***		
Xylene (Total)	1330-20-7	1.00E+04	*1.93E+01*	1.30E+01	< 0.98	U		< 0.49	U		< 0.49	U		< 0.49	U		< 0.49	U		**3.9**			< 0.49	U		**0.54**	**J**	**J**
Field Parameters																												
Depth to Water (ft)	DTW	-	-	-	**11.91**			**12.55**			**10.28**			**9.27**			**12.55**			**12.95**			**6.85**			**10.95**		
Dissolved Oxygen (mg/L)	DO	-	-	-	**2.61**			**0.67**			**2.95**			**3.98**			**0.89**			**0.66**			**1.42**			**3.15**		
Ferrous Iron - Field (mg/L)	FIELD FE	-	-	-	**1.82**			**0.08**			-[1]			**0.07**			**0.03**			**3.26**			**2.11**			**2.28**		
Oxidation Reduction Potential (mV)	ORP	-	-	-	**239.4**			**278.1**			**261.2**			**319.9**			**284**			**193.9**			**25.3**			**327.1**		
pH (pH unit)	PH	-	-	-	**5.8**			**4.39**			**4.89**			**4.97**			**4.64**			**5.95**			**6.02**			**4.35**		
Specific Conductivity (mS/cm)	SC	-	-	-	**0.166**			**0.68**			**0.112**			**0.0079**			**0.128**			**2.658**			**0.883**			**0.0147**		
Temperature (°C)	TEMP	-	-	-	**22.4**			**18.7**			**18.3**			**18.2**			**15.8**			**16.8**			**16.1**			**16.4**		
Turbidity (NTU)	TURB	-	-	-	**27.09**			**8.76**			**1.55**			**5.85**			**40**			**4.23**			**5.66**			**8.48**		

Table B.2
OU6 Annual Volatile Organic Compounds - Spring 2024
Defense Supply Center Richmond

					OU6-MW-263			OU6-MW-264			OU6-MW-265			OU6-MW-266			OU6-MW-267			OU6-MW-268			OU6-MW-269			OU6-MW-270		
Sample Location					OU6-MW-263			OU6-MW-264			OU6-MW-265			OU6-MW-266			OU6-MW-267			OU6-MW-268			OU6-MW-269			OU6-MW-270		
Sample ID					OU6-MW-263-20240520			OU6-MW-264-20240523			OU6-MW-265-20240514			OU6-MW-266-20240520			OU6-MW-267-20240514			OU6-MW-268-20240520			OU6-MW-269-20240520			OU6-MW-270-20240516		
Sample Date					5/20/2024			5/23/2024			5/14/2024			5/20/2024			5/14/2024			5/20/2024			5/20/2024			5/16/2024		
Sample Type					N			N			N			N			N			N			N			N		
Description					UWBU			UWBU			UWBU			UWBU			UWBU			UWBU			UWBU			UWBU		
Parameter	**CAS#**	**MCL**	**RSL**	**BTAG**	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV
VOCs by SW8260D (µg/L)																												
1,1,1,2-Tetrachloroethane	630-20-6	-	*5.74E-01*	-	< 0.36	U		< 0.36	U		< 0.36	U		< 0.36	U		< 0.36	U		< 0.36	U		< 0.36	U		< 0.36	U	
1,1,1-Trichloroethane	71-55-6	2.00E+02	8.01E+02	1.10E+01	< 0.21	U		< 0.21	U		< 0.21	U		< 0.21	U		< 0.21	U		< 0.21	U		< 0.21	U		< 0.21	U	
1,1,2,2-Tetrachloroethane	79-34-5	-	7.57E-02	6.10E+02	< 0.40	UJ1		< 0.40	U		< 0.40	U		< 0.40	U		< 0.40	U		< 0.40	U		< 0.40	U		< 0.40	U	
1,1,2-Trichloroethane	79-00-5	5.00E+00	*4.15E-02*	1.20E+03	< 0.32	U		< 0.32	U		< 0.32	U		< 0.32	U		< 0.32	U		***1.5***	***J***		< 0.32	U		< 0.32	U	
1,1-Dichloroethane	75-34-3	-	*2.75E+00*	4.70E+01	**1.3**	**J**		**0.47**	**JM**	**J**	< 0.33	U		**0.44**	**J**	**J**	< 0.33	U		***10***			< 0.33	U		< 0.33	U	
1,1-Dichloroethene (Vinylidene chloride)	75-35-4	7.00E+00	*2.85E+01*	2.50E+01	< 0.33	U		< 0.33	U		< 0.33	U		**0.46**	**J**	**J**	< 0.33	U		**2.2**			< 0.33	U		< 0.33	U	
1,1-Dichloropropene	563-58-6	-	-	-	< 0.28	U		< 0.28	UQ		< 0.28	U		< 0.28	U		< 0.28	U		< 0.28	U		< 0.28	U		< 0.28	U	
1,2,3-Trichlorobenzene	87-61-6	-	7.04E-01	8.00E+00	< 0.81	U		< 0.81	U		< 0.81	U		< 0.81	U		< 0.81	U		< 0.81	U		< 0.81	U		< 0.81	U	
1,2,3-Trichloropropane	96-18-4	-	*7.49E-04*	-	< 0.48	U		< 0.48	U		< 0.48	U		< 0.48	U		< 0.48	U		< 0.48	U		< 0.48	U		< 0.48	U	
1,2,4-Trichlorobenzene	120-82-1	7.00E+01	*3.99E-01*	2.40E+01	< 0.53	U		< 0.53	U		< 0.53	U		< 0.53	U		< 0.53	U		< 0.53	U		< 0.53	U		< 0.53	U	
1,2,4-Trimethylbenzene	95-36-3	-	-	-	< 0.43	UJ1		< 0.43	U		< 0.43	U		< 0.43	U		< 0.43	U		< 0.43	U		< 0.43	U		< 0.43	U	
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	2.00E-01	3.34E-04	-	< 1.8	UJ1		< 1.8	U		< 1.8	U		< 1.8	U		< 1.8	U		< 1.8	U		< 1.8	U		< 1.8	U	
1,2-Dibromoethane (EDB)	106-93-4	5.00E-02	7.47E-03	-	< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	U	
1,2-Dichlorobenzene	95-50-1	6.00E+02	*3.04E+01*	7.00E-01	**1.5**	**J**		**5.3**			< 0.31	U		**1.9**	**J**		< 0.31	U		***52***			< 0.31	U		< 0.31	U	
1,2-Dichloroethane	107-06-2	5.00E+00	*1.71E-01*	1.00E+02	< 0.25	UM		***0.56***	***J***	***J***	< 0.25	U		< 0.25	U		< 0.25	U		***8.5***			< 0.25	U		< 0.25	UM	
1,2-Dichloroethene, Total	540-59-0	-	-	5.90E+02	**1.2**	**J**		**130**		**J+**	< 0.37	U		**66**			< 0.37	U		**390**	**D**		< 0.37	U		**1.4**	**J**	
1,2-Dichloropropane	78-87-5	5.00E+00	8.25E-01	-	< 0.22	U		< 0.22	U		< 0.22	U		< 0.22	U		< 0.22	U		**0.22**	**J**	**J**	< 0.22	U		< 0.22	U	
1,3,5-Trimethylbenzene	108-67-8	-	*6.03E+00*	7.10E+01	< 0.28	UJ1		< 0.28	U		< 0.28	U		< 0.28	U		< 0.28	U		< 0.28	U		< 0.28	U		< 0.28	U	
1,3-Dichlorobenzene	541-73-1	-	-	1.50E+02	< 0.31	U		**0.50**	**J**	**J**	< 0.31	U		< 0.31	U		< 0.31	U		**11**			< 0.31	U		< 0.31	U	
1,3-Dichloropropane	142-28-9	-	3.69E+01	-	< 0.36	U		< 0.36	U		< 0.36	U		< 0.36	U		< 0.36	U		< 0.36	U		< 0.36	U		< 0.36	U	
1,4-Dichlorobenzene	106-46-7	7.50E+01	*4.82E-01*	2.60E+01	< 0.31	U		***5.5***			< 0.31	U		< 0.31	U		< 0.31	U		***150***			< 0.31	U		< 0.31	U	
2,2-Dichloropropane	594-20-7	-	-	-	< 0.35	U		< 0.35	U		< 0.35	U		< 0.35	U		< 0.35	U		< 0.35	U		< 0.35	U		< 0.35	U	
2-Butanone (MEK)	78-93-3	-	*5.57E+02*	1.40E+04	< 6.4	U		< 6.4	U		< 6.4	U		< 6.4	U		< 6.4	U		< 6.4	U		< 6.4	U		< 6.4	U	
2-Chlorotoluene	95-49-8	-	2.37E+01	-	< 0.25	UJ1		< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U	
2-Hexanone	591-78-6	-	3.80E+00	9.90E+01	< 3.2	UJ1		< 3.2	U		< 3.2	U		< 3.2	U		< 3.2	U		< 3.2	U		< 3.2	U		< 3.2	U	
4-Chlorotoluene	106-43-4	-	2.50E+01	-	< 0.41	UJ1		< 0.41	U		< 0.41	U		< 0.41	U		< 0.41	U		< 0.41	U		< 0.41	U		< 0.41	U	
4-Methyl-2-pentanone (MIBK)	108-10-1	-	6.26E+02	1.70E+02	< 2.7	UJ1		< 2.7	U		< 2.7	U		< 2.7	U		< 2.7	U		< 2.7	U		< 2.7	U		< 2.7	U	
Acetone	67-64-1	-	*1.80E+03*	1.50E+03	< 3.7	U		< 3.7	U		< 3.7	U		< 3.7	U		< 3.7	U		< 3.7	U		< 3.7	U		**4.0**	**JM**	**J**
Benzene	71-43-2	5.00E+00	*4.55E-01*	3.70E+02	< 0.27	U		**0.37**	**J**	**J**	< 0.27	U		**0.27**	**J**	**J**	< 0.27	U		***2.3***			< 0.27	U		< 0.27	U	
Bromobenzene	108-86-1	-	6.22E+00	-	< 0.24	UJ1		< 0.24	U		< 0.24	U		< 0.24	U		< 0.24	U		< 0.24	U		< 0.24	U		< 0.24	U	
Bromochloromethane	74-97-5	-	8.34E+00	-	< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U	
Bromodichloromethane	75-27-4	8.00E+01	1.34E-01	-	< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U	
Bromoform	75-25-2	8.00E+01	3.29E+00	3.20E+02	< 0.59	UQ		< 0.59	U		< 0.59	UQ		< 0.59	UQ		< 0.59	UQ		< 0.59	UQ		< 0.59	UQ		< 0.59	U	
Bromomethane	74-83-9	-	7.55E-01	-	< 3.7	U		< 3.7	UQ		< 3.7	U		< 3.7	U		< 3.7	U		< 3.7	U		< 3.7	U		< 3.7	UQ	
Carbon disulfide	75-15-0	-	8.11E+01	9.20E-01	< 0.43	UQ		< 0.43	U		< 0.43	UQ		< 0.43	UQ		< 0.43	UQ		< 0.43	UQ		< 0.43	UQ		**0.78**	**J**	**J**
Carbon tetrachloride	56-23-5	5.00E+00	*4.55E-01*	1.33E+01	< 0.30	U		< 0.30	U		< 0.30	U		< 0.30	U		< 0.30	U		< 0.30	U		< 0.30	U		< 0.30	U	
Chlorobenzene	108-90-7	1.00E+02	*7.77E+00*	1.30E+00	**6.1**			***8.5***			< 0.15	U		< 0.15	U		< 0.15	U		***160***	***D***		< 0.15	U		< 0.15	U	
Chlorodibromomethane (Dibromochloromethane)	124-48-1	8.00E+01	8.71E-01	-	< 0.39	UJ1		< 0.39	U		< 0.39	U		< 0.39	U		< 0.39	U		< 0.39	U		< 0.39	U		< 0.39	U	
Chloroethane	75-00-3	-	8.34E+02	-	< 4.6	UJ1		< 4.6	U		< 4.6	U		< 4.6	U		< 4.6	U		< 4.6	UM		< 4.6	U		< 4.6	U	
Chloroform	67-66-3	8.00E+01	*2.21E-01*	1.80E+00	< 0.27	U		< 0.27	U		< 0.27	U		< 0.27	U		< 0.27	U		***3.6***			< 0.27	U		< 0.27	U	
Chloromethane	74-87-3	-	1.88E+01	-	< 0.54	U		< 0.54	U		< 0.54	U		< 0.54	U		< 0.54	U		< 0.54	UM		< 0.54	U		< 0.54	U	
cis-1,2-Dichloroethene	156-59-2	7.00E+01	*2.52E+00*	-	**1.2**	**J**		***130***		***J+***	< 0.25	U		***65***			< 0.25	U		***390***	***D***		< 0.25	U		**1.4**	**JM**	
cis-1,3-Dichloropropene	10061-01-5	-	-	-	< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U	
Cyclohexane	110-82-7	-	1.25E+03	-	< 0.28	U		< 0.28	UQ		< 0.28	U		< 0.28	U		< 0.28	U		< 0.28	U		< 0.28	U		< 0.28	U	
Dibromomethane	74-95-3	-	8.34E-01	-	< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U	
Dichlorodifluoromethane	75-71-8	-	1.97E+01	-	**1.9**	**J**	**J+**	< 0.36	UQ		< 0.36	U		**17**			< 0.36	U		< 1.8	UQ		< 0.36	UQ		< 0.36	UQ	
Ethylbenzene	100-41-4	7.00E+02	*1.50E+00*	9.00E+01	< 0.20	U		< 0.20	U		< 0.20	U		< 0.20	U		< 0.20	U		< 0.20	U		< 0.20	U		< 0.20	U	
Hexachlorobutadiene	87-68-3	-	*1.39E-01*	1.30E+00	< 0.22	U		< 0.22	UQ		< 0.22	U		< 0.22	U		< 0.22	U		< 0.22	U		< 0.22	U		< 0.22	U	
Isopropylbenzene	98-82-8	-	4.51E+01	2.60E+00	< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U		**0.28**	**J**	**J**	< 0.26	U		< 0.26	U	
m+p-Xylenes	179601-23-1	-	-	-	< 0.49	U		< 0.49	U		< 0.49	U		< 0.49	U		< 0.49	U		< 0.49	U		< 0.49	U		< 0.49	U	
Methyl Acetate	79-20-9	-	1.99E+03	-	< 3.2	UQ		< 3.2	U		< 3.2	UQ		< 3.2	UQ		< 3.2	UQ		< 3.2	UQ		< 3.2	UQ		< 3.2	U	
Methylcyclohexane	108-87-2	-	1.98E+01	-	< 0.33	UM		< 0.33	UQ		< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	U	
Methylene chloride (DCM)	75-09-2	5.00E+00	1.07E+01	9.81E+01	< 3.2	U		< 3.2	U		< 3.2	U		< 3.2	U		< 3.2	U		< 3.2	U		< 3.2	U		< 3.2	U	
Naphthalene	91-20-3	-	*1.17E-01*	1.10E+00	< 2.4	U		< 2.4	U		< 2.4	U		< 2.4	U		< 2.4	U		< 2.4	U		< 2.4	U		< 2.4	U	
n-Butylbenzene	104-51-8	-	1.00E+02	-	< 0.52	U		< 0.52	U		< 0.52	U		< 0.52	U		< 0.52	U		< 0.52	U		< 0.52	U		< 0.52	U	
n-Propylbenzene	103-65-1	-	6.56E+01	1.28E+02	< 0.41	U		< 0.41	U		< 0.41	U		< 0.41	U		< 0.41	U		< 0.41	U		< 0.41	U		< 0.41	U	
o-Xylene	95-47-6	-	*1.93E+01*	-	< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U		**0.40**	**J**	**J**	< 0.26	U		< 0.26	U	
p-Isopropyltoluene	99-87-6	-	-	8.50E+01	**0.67**	**J**	**J**	< 0.44	U		< 0.44	U		< 0.44	U		< 0.44	U		< 0.44	U		< 0.44	U		< 0.44	U	
sec-Butylbenzene	135-98-8	-	2.01E+02	-	< 0.53	U		< 0.53	U		< 0.53	U		< 0.53	U		< 0.53	U		< 0.53	U		< 0.53	U		< 0.53	U	
Styrene	100-42-5	1.00E+02	1.21E+02	7.20E+01	< 0.27	UJ1		< 0.27	U		< 0.27	U		< 0.27	U		< 0.27	U		< 0.27	U		< 0.27	U		< 0.27	U	
tert-Butyl methyl ether (MTBE)	1634-04-4	-	1.43E+01	1.11E+04	< 0.81	U		< 0.81	U		< 0.81	U		< 0.81	U		< 0.81	U		< 0.81	U		< 0.81	U		< 0.81	U	
tert-Butylbenzene	98-06-6	-	6.91E+01	-	< 0.43	UMJ1		< 0.43	U		< 0.43	U		< 0.43	U		< 0.43	U		< 0.43	U		< 0.43	U		< 0.43	U	
Tetrachloroethene	127-18-4	5.00E+00	*4.06E+00*	1.11E+02	< 0.35	U		**0.77**	**J**	**J**	< 0.35	U		**3.1**			< 0.35	U		***4.5***			< 0.35	U		< 0.35	U	
Toluene	108-88-3	1.00E+03	1.10E+02	2.00E+00	< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U		**0.70**	**J**	**J**	< 0.25	U		< 0.25	U	
trans-1,2-Dichloroethene	156-60-5	1.00E+02	*6.78E+00*	9.70E+02	< 0.34	U		**0.38**	**J**	**J**	< 0.34	U		**0.50**	**J**	**J**	< 0.34	U		**1.7**	**J**		< 0.34	U		< 0.34	U	
trans-1,3-Dichloropropene	10061-02-6	-	-	-	< 0.23	U		< 0.23	U		< 0.23	U		< 0.23	U		< 0.23	U		< 0.23	U		< 0.23	U		< 0.23	U	
Trichloroethene	79-01-6	5.00E+00	*2.83E-01*	2.10E+01	< 0.20	U		***15***			< 0.20	U		***17***			< 0.20	U		***33***			< 0.20	U		< 0.20	U	
Trichlorofluoromethane	75-69-4	-	5.16E+02	-	< 0.33	UJ1		< 0.33	UQ		< 0.33	UQ		< 0.33	U		< 0.33	UQ		< 0.33	U		< 0.33	U		< 0.33	U	
Trichlorotrifluoroethane (Freon 113)	76-13-1	-	1.02E+03	-	< 0.23	U		< 0.23	UQ		< 0.23	U		< 0.23	U		< 0.23	U		< 0.23	U		< 0.23	U		< 0.23	U	
Vinyl chloride	75-01-4	2.00E+00	*1.88E-02*	9.30E+02	***1.3***	***JJ1***	***J+***	***63***	***J1***		< 0.40	U		***7.3***			< 0.40	U		***260***	***D***		< 0.40	U		***0.48***	***J***	***J***
Xylene (Total)	1330-20-7	1.00E+04	*1.93E+01*	1.30E+01	< 0.49	U		< 0.49	U		< 0.49	U		< 0.49	U		< 0.49	U		< 0.49	U		< 0.49	U		< 0.49	U	
Field Parameters																												
Depth to Water (ft)	DTW	-	-	-	**10.5**			**7.45**			**9.11**			**5.85**			**6.9**			**5.85**			**5.95**			**7**		
Dissolved Oxygen (mg/L)	DO	-	-	-	**0.66**			**1.64**			**3.84**			**3.2**			**0.45**			**2.15**			**0.67**			**2.76**		
Ferrous Iron - Field (mg/L)	FIELD FE	-	-	-	**3.56**			**0.86**			**4.6**			**0.69**			**1.15**			**1.98**			**0.9**			**0.03**		
Oxidation Reduction Potential (mV)	ORP	-	-	-	**-68**			**68.1**			**26.2**			**410.9**			**236**			**130**			**161.1**			**35.9**		
pH (pH unit)	PH	-	-	-	**6.26**			**5.88**			**12.05**			**4.4**			**4.45**			**5.43**			**4.48**			**10.35**		
Specific Conductivity (mS/cm)	SC	-	-	-	**0.988**			**0.215**			**2.564**			**0.277**			**0.111**			**0.851**			**0.127**			**0.166**		
Temperature (°C)	TEMP	-	-	-	**15.4**			**18.4**			**18**			**18.7**			**19.4**			**20.6**			**19.4**			**22.1**		
Turbidity (NTU)	TURB	-	-	-	**10.2**			**15.2**			**99.2**			-[1]			**25**			-[1]			**10.2**			**64**		

Table B.2
OU6 Annual Volatile Organic Compounds - Spring 2024
Defense Supply Center Richmond

Sample Location					OU6-MW-271			OU6-MW-272			OU6-MW-272			OU6-MW-273			OU6-MW-274			OU6-MW-275			OU6-MW-276			OU6-MW-277		
Sample ID					OU6-MW-271-20240522			DUP5-20240522			OU6-MW-272-20240522			OU6-MW-273-20240516			OU6-MW-274-20240520			OU6-MW-275-20240520			OU6-MW-276-20240520			OU6-MW-277-20240515		
Sample Date					5/22/2024			5/22/2024			5/22/2024			5/16/2024			5/20/2024			5/20/2024			5/20/2024			5/15/2024		
Sample Type					N			FD			N			N			N			N			N			N		
Description					UWBU			UWBU			UWBU			UWBU			UWBU			UWBU			UWBU			UWBU		
Parameter	**CAS#**	**MCL**	**RSL**	**BTAG**	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV
VOCs by SW8260D (µg/L)																												
1,1,1,2-Tetrachloroethane	630-20-6	-	*5.74E-01*	-	< 1.8	U		< 0.36	U		< 0.36	U		< 0.36	U		< 0.36	U		< 0.36	U		< 0.36	U		< 0.36	U	
1,1,1-Trichloroethane	71-55-6	2.00E+02	8.01E+02	1.10E+01	< 1.1	U		< 0.21	U		< 0.21	U		< 0.21	U		< 0.21	U		< 0.21	U		< 0.21	U		< 0.21	U	
1,1,2,2-Tetrachloroethane	79-34-5	-	7.57E-02	6.10E+02	< 2.0	U		< 0.40	U		< 0.40	U		< 0.40	U		< 0.40	U		< 0.40	UQ		< 0.40	U		< 0.40	U	
1,1,2-Trichloroethane	79-00-5	5.00E+00	*4.15E-02*	1.20E+03	< 1.6	UM		< 0.32	UM		< 0.32	UM		***0.39***	***J***	***J***	***1.1***	***J***		***1.0***	***J***		< 0.32	U		< 0.32	U	
1,1-Dichloroethane	75-34-3	-	*2.75E+00*	4.70E+01	***18***	***D***		***5.8***			**2.6**			**2.2**	**M**		***5.3***			***8.1***			**2.3**			< 0.33	U	
1,1-Dichloroethene (Vinylidene chloride)	75-35-4	7.00E+00	*2.85E+01*	2.50E+01	< 1.7	UM		**1.6**	**J**		< 0.33	UM		< 0.33	UM		**1.1**	**J**		**1.5**	**J**		**0.62**	**J**	**J**	< 0.33	U	
1,1-Dichloropropene	563-58-6	-	-	-	< 1.4	U		< 0.28	U		< 0.28	U		< 0.28	U		< 0.28	U		< 0.28	U		< 0.28	U		< 0.28	U	
1,2,3-Trichlorobenzene	87-61-6	-	7.04E-01	8.00E+00	< 4.1	U		< 0.81	U		< 0.81	U		< 0.81	U		< 0.81	U		< 0.81	U		< 0.81	U		< 0.81	U	
1,2,3-Trichloropropane	96-18-4	-	*7.49E-04*	-	< 2.4	U		< 0.48	U		< 0.48	U		< 0.48	U		< 0.48	U		< 0.48	U		< 0.48	U		< 0.48	U	
1,2,4-Trichlorobenzene	120-82-1	7.00E+01	*3.99E-01*	2.40E+01	< 2.7	U		< 0.53	U		< 0.53	U		< 0.53	U		< 0.53	U		< 0.53	U		< 0.53	U		< 0.53	U	
1,2,4-Trimethylbenzene	95-36-3	-	-	-	< 2.2	U		< 0.43	U		< 0.43	U		< 0.43	U		< 0.43	U		< 0.43	U		< 0.43	U		< 0.43	U	
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	2.00E-01	3.34E-04	-	< 9.0	UQ		< 1.8	UQ		< 1.8	UQ		< 1.8	U		< 1.8	U		< 1.8	U		< 1.8	U		< 1.8	U	
1,2-Dibromoethane (EDB)	106-93-4	5.00E-02	7.47E-03	-	< 1.7	U		< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	U	
1,2-Dichlorobenzene	95-50-1	6.00E+02	*3.04E+01*	7.00E-01	***43***	***D***		***24***		***J***	***8.1***		***J***	***7.4***			***16***			***25***			< 0.31	U		< 0.31	U	
1,2-Dichloroethane	107-06-2	5.00E+00	*1.71E-01*	1.00E+02	***12***	***D***		***4.6***			< 0.25	UM		***1.7***	***J***		***4.3***	***M***		***6.2***			***1.6***	***J***		< 0.25	U	
1,2-Dichloroethene, Total	540-59-0	-	-	5.90E+02	**530**	**D**		**110**		**J**	**44**		**J**	**38**			**81**			**110**			**33**			**3.2**		
1,2-Dichloropropane	78-87-5	5.00E+00	8.25E-01	-	< 1.1	U		< 0.22	U		< 0.22	U		< 0.22	U		< 0.22	U		< 0.22	UM		< 0.22	U		< 0.22	U	
1,3,5-Trimethylbenzene	108-67-8	-	*6.03E+00*	7.10E+01	< 1.4	U		< 0.28	U		< 0.28	U		< 0.28	U		< 0.28	U		< 0.28	U		< 0.28	U		< 0.28	U	
1,3-Dichlorobenzene	541-73-1	-	-	1.50E+02	**8.8**	**JD**		**5.8**			**1.9**	**J**		**1.8**	**J**		**4.3**			**6.3**			< 0.31	U		< 0.31	U	
1,3-Dichloropropane	142-28-9	-	3.69E+01	-	< 1.8	U		< 0.36	U		< 0.36	U		< 0.36	U		< 0.36	U		< 0.36	U		< 0.36	U		< 0.36	U	
1,4-Dichlorobenzene	106-46-7	7.50E+01	*4.82E-01*	2.60E+01	***150***	***D***		***94***		***J***	***31***		***J***	***28***			***63***			***93***			< 0.31	U		< 0.31	U	
2,2-Dichloropropane	594-20-7	-	-	-	< 1.8	U		< 0.35	U		< 0.35	U		< 0.35	U		< 0.35	U		< 0.35	U		< 0.35	U		< 0.35	U	
2-Butanone (MEK)	78-93-3	-	*5.57E+02*	1.40E+04	< 32	U		< 6.4	U		< 6.4	UM		< 6.4	U		< 6.4	U		< 6.4	U		< 6.4	U		< 6.4	U	
2-Chlorotoluene	95-49-8	-	2.37E+01	-	< 1.3	U		< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U	
2-Hexanone	591-78-6	-	3.80E+00	9.90E+01	< 16	U		< 3.2	U		< 3.2	U		< 3.2	U		< 3.2	U		< 3.2	U		< 3.2	U		< 3.2	U	
4-Chlorotoluene	106-43-4	-	2.50E+01	-	< 2.1	U		< 0.41	U		< 0.41	U		< 0.41	U		< 0.41	U		< 0.41	U		< 0.41	U		< 0.41	U	
4-Methyl-2-pentanone (MIBK)	108-10-1	-	6.26E+02	1.70E+02	< 14	U		< 2.7	U		< 2.7	U		< 2.7	U		< 2.7	U		< 2.7	U		< 2.7	U		< 2.7	U	
Acetone	67-64-1	-	*1.80E+03*	1.50E+03	< 19	U		< 3.7	U		< 3.7	U		< 3.7	U		< 3.7	U		< 3.7	U		< 3.7	U		< 3.7	U	
Benzene	71-43-2	5.00E+00	*4.55E-01*	3.70E+02	***2.3***	***JD***	***J***	***0.87***	***J***		< 0.27	U		**0.29**	**J**	**J**	***0.89***	***J***	***J***	***2.1***			< 0.27	U		< 0.27	U	
Bromobenzene	108-86-1	-	6.22E+00	-	< 1.2	U		< 0.24	U		< 0.24	U		< 0.24	U		< 0.24	U		< 0.24	U		< 0.24	U		< 0.24	U	
Bromochloromethane	74-97-5	-	8.34E+00	-	< 1.7	U		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U	
Bromodichloromethane	75-27-4	8.00E+01	1.34E-01	-	< 1.3	U		< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U	
Bromoform	75-25-2	8.00E+01	3.29E+00	3.20E+02	< 3.0	U		< 0.59	U		< 0.59	U		< 0.59	U		< 0.59	UMQ		< 0.59	U		< 0.59	UQ		< 0.59	UQ	
Bromomethane	74-83-9	-	7.55E-01	-	< 19	U		< 3.7	U		< 3.7	U		< 3.7	UQ		< 3.7	U		< 3.7	U		< 3.7	U		< 3.7	U	
Carbon disulfide	75-15-0	-	8.11E+01	9.20E-01	< 2.2	U		< 0.43	U		< 0.43	U		< 0.43	U		< 0.43	UQ		< 0.43	UQ		**0.56**	**JQ**	**J**	< 0.43	UQ	
Carbon tetrachloride	56-23-5	5.00E+00	*4.55E-01*	1.33E+01	< 1.5	U		< 0.30	U		< 0.30	U		< 0.30	U		< 0.30	UM		< 0.30	U		< 0.30	U		< 0.30	U	
Chlorobenzene	108-90-7	1.00E+02	*7.77E+00*	1.30E+00	***200***	***D***		***120***		***J***	***45***		***J***	***38***			***76***			***120***			< 0.15	U		< 0.15	U	
Chlorodibromomethane (Dibromochloromethane)	124-48-1	8.00E+01	8.71E-01	-	< 2.0	U		< 0.39	U		< 0.39	U		< 0.39	U		< 0.39	U		< 0.39	U		< 0.39	U		< 0.39	U	
Chloroethane	75-00-3	-	8.34E+02	-	< 23	U		< 4.6	U		< 4.6	U		< 4.6	U		< 4.6	U		< 4.6	U		< 4.6	U		< 4.6	U	
Chloroform	67-66-3	8.00E+01	*2.21E-01*	1.80E+00	***7.6***	***JDM***		***3.8***			***1.6***	***J***		***1.4***	***J***		***3.4***			< 0.27	U		***1.6***	***J***		< 0.27	U	
Chloromethane	74-87-3	-	1.88E+01	-	< 2.7	U		< 0.54	U		< 0.54	U		< 0.54	U		< 0.54	U		< 0.54	U		< 0.54	U		< 0.54	U	
cis-1,2-Dichloroethene	156-59-2	7.00E+01	*2.52E+00*	-	***530***	***D***		***110***		***J***	***44***		***J***	***38***			***81***			***110***			***32***			***3.2***		
cis-1,3-Dichloropropene	10061-01-5	-	-	-	< 1.3	U		< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U	
Cyclohexane	110-82-7	-	1.25E+03	-	< 1.4	U		< 0.28	U		< 0.28	U		< 0.28	U		< 0.28	U		**1.9**	**J**		< 0.28	U		< 0.28	U	
Dibromomethane	74-95-3	-	8.34E-01	-	< 1.7	U		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U	
Dichlorodifluoromethane	75-71-8	-	1.97E+01	-	< 1.8	U		< 0.36	UQ		< 0.36	UQ		< 0.36	UQ		< 0.36	UQ		< 0.36	U		< 0.36	UQ		< 0.36	UQ	
Ethylbenzene	100-41-4	7.00E+02	*1.50E+00*	9.00E+01	< 1.0	U		< 0.20	U		< 0.20	U		< 0.20	U		< 0.20	U		**0.23**	**J**	**J**	< 0.20	U		< 0.20	U	
Hexachlorobutadiene	87-68-3	-	*1.39E-01*	1.30E+00	< 1.1	U		< 0.22	U		< 0.22	U		< 0.22	U		< 0.22	U		< 0.22	U		< 0.22	U		< 0.22	U	
Isopropylbenzene	98-82-8	-	4.51E+01	2.60E+00	< 1.3	U		< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U		**0.36**	**J**	**J**	< 0.26	U		< 0.26	U	
m+p-Xylenes	179601-23-1	-	-	-	< 2.5	U		< 0.49	U		< 0.49	U		< 0.49	U		< 0.49	U		< 0.49	U		< 0.49	U		< 0.49	U	
Methyl Acetate	79-20-9	-	1.99E+03	-	< 16	U		< 3.2	U		< 3.2	U		< 3.2	U		< 3.2	UQ		< 3.2	U		< 3.2	UQ		< 3.2	U	
Methylcyclohexane	108-87-2	-	1.98E+01	-	< 1.7	U		< 0.33	U		< 0.33	U		< 0.33	U		**0.50**	**J**	**J**	**6.7**			< 0.33	U		< 0.33	U	
Methylene chloride (DCM)	75-09-2	5.00E+00	1.07E+01	9.81E+01	< 16	U		< 3.2	U		< 3.2	U		< 3.2	U		< 3.2	U		< 3.2	U		< 3.2	U		< 3.2	U	
Naphthalene	91-20-3	-	*1.17E-01*	1.10E+00	< 12	U		< 2.4	U		< 2.4	U		< 2.4	U		< 2.4	U		< 2.4	U		< 2.4	U		< 2.4	U	
n-Butylbenzene	104-51-8	-	1.00E+02	-	< 2.6	U		< 0.52	U		< 0.52	U		< 0.52	UM		< 0.52	U		< 0.52	U		< 0.52	U		< 0.52	U	
n-Propylbenzene	103-65-1	-	6.56E+01	1.28E+02	< 2.1	U		< 0.41	U		< 0.41	U		< 0.41	U		< 0.41	U		< 0.41	U		< 0.41	U		< 0.41	U	
o-Xylene	95-47-6	-	*1.93E+01*	-	< 1.3	U		< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U	
p-Isopropyltoluene	99-87-6	-	-	8.50E+01	< 2.2	U		< 0.44	U		< 0.44	U		< 0.44	U		< 0.44	U		< 0.44	U		< 0.44	U		< 0.44	U	
sec-Butylbenzene	135-98-8	-	2.01E+02	-	< 2.7	U		< 0.53	U		< 0.53	U		< 0.53	U		< 0.53	U		< 0.53	U		< 0.53	U		< 0.53	U	
Styrene	100-42-5	1.00E+02	1.21E+02	7.20E+01	< 1.4	U		< 0.27	U		< 0.27	U		< 0.27	U		< 0.27	U		< 0.27	U		< 0.27	U		< 0.27	U	
tert-Butyl methyl ether (MTBE)	1634-04-4	-	1.43E+01	1.11E+04	< 4.1	U		< 0.81	U		< 0.81	U		< 0.81	U		< 0.81	U		< 0.81	U		< 0.81	U		**0.83**	**J**	**J**
tert-Butylbenzene	98-06-6	-	6.91E+01	-	< 2.2	U		< 0.43	U		< 0.43	U		< 0.43	U		< 0.43	U		< 0.43	U		< 0.43	U		< 0.43	UM	
Tetrachloroethene	127-18-4	5.00E+00	*4.06E+00*	1.11E+02	***12***	***D***		**2.6**			**1.7**	**J**		**0.78**	**J**	**J**	**2.2**			**1.6**	**J**		**1.2**	**J**		**1.1**	**J**	
Toluene	108-88-3	1.00E+03	1.10E+02	2.00E+00	< 1.3	U		< 0.25	U		< 0.25	U		< 0.25	UM		< 0.25	U		**0.43**	**J**	**J**	< 0.25	U		< 0.25	U	
trans-1,2-Dichloroethene	156-60-5	1.00E+02	*6.78E+00*	9.70E+02	< 1.7	UM		< 0.34	UM		< 0.34	U		< 0.34	U		< 0.34	U		**0.50**	**J**	**J**	< 0.34	U		< 0.34	U	
trans-1,3-Dichloropropene	10061-02-6	-	-	-	< 1.2	U		< 0.23	U		< 0.23	U		< 0.23	U		< 0.23	U		< 0.23	U		< 0.23	U		< 0.23	U	
Trichloroethene	79-01-6	5.00E+00	*2.83E-01*	2.10E+01	***73***	***D***		***29***		***J***	***45***		***J***	***6.2***			***18***			***20***			***10***			***1.7***		
Trichlorofluoromethane	75-69-4	-	5.16E+02	-	< 1.7	U		< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	UQ	
Trichlorotrifluoroethane (Freon 113)	76-13-1	-	1.02E+03	-	< 1.2	U		< 0.23	U		< 0.23	U		< 0.23	U		< 0.23	U		< 0.23	U		< 0.23	U		< 0.23	U	
Vinyl chloride	75-01-4	2.00E+00	*1.88E-02*	9.30E+02	***120***	***D***		***38***		***J***	***15***		***J***	***11***			***27***			***45***			***2.1***			< 0.40	U	
Xylene (Total)	1330-20-7	1.00E+04	*1.93E+01*	1.30E+01	< 2.5	U		< 0.49	U		< 0.49	U		< 0.49	U		< 0.49	U		< 0.49	U		< 0.49	U		< 0.49	U	
Field Parameters																												
Depth to Water (ft)	DTW	-	-	-	**6.95**			**5.95**			**5.95**			**5.95**			**6.05**			**7.55**			**8.22**			**7.45**		
Dissolved Oxygen (mg/L)	DO	-	-	-	**0.49**			**0.82**			**0.82**			**0.97**			**0.6**			**0.62**			**5.53**			**2.03**		
Ferrous Iron - Field (mg/L)	FIELD FE	-	-	-	**0.48**			**0.17**			**0.14**			**0.1**			**0.04**			**1.2**			**0.08**			**0.06**		
Oxidation Reduction Potential (mV)	ORP	-	-	-	**309.7**			**212.2**			**212.2**			**272.3**			**212.5**			**67.9**			**386.5**			**354.8**		
pH (pH unit)	PH	-	-	-	**5.6**			**6.59**			**6.59**			**4.71**			**4.77**			**5.16**			**4.53**			**4.75**		
Specific Conductivity (mS/cm)	SC	-	-	-	**0.502**			**0.124**			**0.124**			**0.073**			**0.198**			**0.296**			**0.14**			**0.073**		
Temperature (°C)	TEMP	-	-	-	**19.4**			**18.2**			**18.2**			**18.5**			**19.2**			**19.9**			**17.5**			**17.3**		
Turbidity (NTU)	TURB	-	-	-	**10.3**			**10.2**			**10.2**			**7.21**			**10**			**15.2**			-[1]			**45**		

Table B.2
OU6 Annual Volatile Organic Compounds - Spring 2024
Defense Supply Center Richmond

					OU6-MW-278			OU6-MW-279			OU6-MW-280			OU6-MW-281			OU6-MW-282			OU6-MW-283			OU6-MW-284			OU6-MW-285		
Sample Location					OU6-MW-278			OU6-MW-279			OU6-MW-280			OU6-MW-281			OU6-MW-282			OU6-MW-283			OU6-MW-284			OU6-MW-285		
Sample ID					OU6-MW-278-20240516			OU6-MW-279-20240516			OU6-MW-280-20240515			OU6-MW-281-20240516			OU6-MW-282-20240520			OU6-MW-283-20240520			OU6-MW-284-20240515			OU6-MW-285-20240522		
Sample Date					5/16/2024			5/16/2024			5/15/2024			5/16/2024			5/20/2024			5/20/2024			5/15/2024			5/22/2024		
Sample Type					N			N			N			N			N			N			N			N		
Description					UWBU			UWBU			UWBU			UWBU			LWBU			LWBU			LWBU			LWBU		
Parameter	**CAS#**	**MCL**	**RSL**	**BTAG**	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV
VOCs by SW8260D (µg/L)																												
1,1,1,2-Tetrachloroethane	630-20-6	-	*5.74E-01*	-	< 0.36	U		< 0.36	U		< 0.36	U		< 0.36	U		< 0.36	U		< 0.36	U		< 0.36	U		< 3.6	U	
1,1,1-Trichloroethane	71-55-6	2.00E+02	8.01E+02	1.10E+01	< 0.21	U		< 0.21	U		< 0.21	U		< 0.21	U		< 0.21	U		< 0.21	U		< 0.21	U		< 2.1	U	
1,1,2,2-Tetrachloroethane	79-34-5	-	7.57E-02	6.10E+02	< 0.40	U		< 0.40	U		< 0.40	U		< 0.40	U		< 0.40	U		< 0.40	U		< 0.40	U		< 4.0	U	
1,1,2-Trichloroethane	79-00-5	5.00E+00	*4.15E-02*	1.20E+03	< 0.32	U		< 0.32	U		< 0.32	U		< 0.32	U		< 0.32	U		< 0.32	U		< 0.32	U		< 3.2	U	
1,1-Dichloroethane	75-34-3	-	*2.75E+00*	4.70E+01	< 0.33	U		< 0.33	U		**0.38**	**J**	**J**	< 0.33	U		**1.9**	**J**		< 0.33	U		< 0.33	U		< 3.3	U	
1,1-Dichloroethene (Vinylidene chloride)	75-35-4	7.00E+00	*2.85E+01*	2.50E+01	< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	U		**0.95**	**J**	**J**	**1.6**	**J**		< 0.33	U		< 3.3	U	
1,1-Dichloropropene	563-58-6	-	-	-	< 0.28	U		< 0.28	U		< 0.28	U		< 0.28	U		< 0.28	U		< 0.28	U		< 0.28	U		< 2.8	U	
1,2,3-Trichlorobenzene	87-61-6	-	7.04E-01	8.00E+00	< 0.81	U		< 0.81	U		< 0.81	U		< 0.81	U		< 0.81	U		< 0.81	U		< 0.81	U		< 8.1	U	
1,2,3-Trichloropropane	96-18-4	-	*7.49E-04*	-	< 0.48	U		< 0.48	U		< 0.48	U		< 0.48	U		< 0.48	U		< 0.48	U		< 0.48	U		< 4.8	U	
1,2,4-Trichlorobenzene	120-82-1	7.00E+01	*3.99E-01*	2.40E+01	< 0.53	U		< 0.53	U		< 0.53	U		< 0.53	U		< 0.53	U		< 0.53	U		< 0.53	U		< 5.3	U	
1,2,4-Trimethylbenzene	95-36-3	-	-	-	< 0.43	U		< 0.43	U		< 0.43	U		< 0.43	U		< 0.43	U		< 0.43	U		< 0.43	U		< 4.3	U	
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	2.00E-01	3.34E-04	-	< 1.8	U		< 1.8	U		< 1.8	U		< 1.8	U		< 1.8	U		< 1.8	U		< 1.8	U		< 18	UQ	
1,2-Dibromoethane (EDB)	106-93-4	5.00E-02	7.47E-03	-	< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	U		< 3.3	U	
1,2-Dichlorobenzene	95-50-1	6.00E+02	*3.04E+01*	7.00E-01	< 0.31	U		**0.43**	**JM**	**J**	< 0.31	U		< 0.31	U		**0.81**	**J**	**J**	< 0.31	U		< 0.31	U		**6.7**	**JD**	**J**
1,2-Dichloroethane	107-06-2	5.00E+00	*1.71E-01*	1.00E+02	< 0.25	UM		< 0.25	UM		< 0.25	U		< 0.25	UM		***0.68***	***J***	***J***	< 0.25	U		< 0.25	UM		< 2.5	UM	
1,2-Dichloroethene, Total	540-59-0	-	-	5.90E+02	< 0.37	U		< 0.37	U		**1.1**	**J**		< 0.37	U		**22**			**76**			< 0.37	U		**810**	**D**	
1,2-Dichloropropane	78-87-5	5.00E+00	8.25E-01	-	< 0.22	U		< 0.22	U		< 0.22	U		< 0.22	U		< 0.22	U		< 0.22	U		< 0.22	U		< 2.2	U	
1,3,5-Trimethylbenzene	108-67-8	-	*6.03E+00*	7.10E+01	< 0.28	U		< 0.28	U		< 0.28	U		< 0.28	U		< 0.28	U		< 0.28	U		< 0.28	U		< 2.8	U	
1,3-Dichlorobenzene	541-73-1	-	-	1.50E+02	< 0.31	U		< 0.31	U		< 0.31	U		< 0.31	U		< 0.31	U		< 0.31	U		< 0.31	U		< 3.1	U	
1,3-Dichloropropane	142-28-9	-	3.69E+01	-	< 0.36	U		< 0.36	U		< 0.36	U		< 0.36	U		< 0.36	U		< 0.36	U		< 0.36	U		< 3.6	U	
1,4-Dichlorobenzene	106-46-7	7.50E+01	*4.82E-01*	2.60E+01	< 0.31	U		***0.77***	***J***	***J***	***1.3***	***J***		***0.85***	***JM***	***J***	***2.5***			< 0.31	U		< 0.31	U		***10***	***JDM***	
2,2-Dichloropropane	594-20-7	-	-	-	< 0.35	U		< 0.35	U		< 0.35	U		< 0.35	U		< 0.35	U		< 0.35	U		< 0.35	U		< 3.5	U	
2-Butanone (MEK)	78-93-3	-	*5.57E+02*	1.40E+04	< 6.4	U		< 6.4	U		< 6.4	U		< 6.4	UM		< 6.4	U		< 6.4	U		< 6.4	U		< 64	U	
2-Chlorotoluene	95-49-8	-	2.37E+01	-	< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U		< 2.5	U	
2-Hexanone	591-78-6	-	3.80E+00	9.90E+01	< 3.2	U		< 3.2	U		< 3.2	U		< 3.2	U		< 3.2	U		< 3.2	U		< 3.2	U		< 32	U	
4-Chlorotoluene	106-43-4	-	2.50E+01	-	< 0.41	U		< 0.41	U		< 0.41	U		< 0.41	U		< 0.41	U		< 0.41	U		< 0.41	U		< 4.1	U	
4-Methyl-2-pentanone (MIBK)	108-10-1	-	6.26E+02	1.70E+02	< 2.7	U		< 2.7	U		< 2.7	U		< 2.7	U		< 2.7	U		< 2.7	U		< 2.7	U		< 27	U	
Acetone	67-64-1	-	*1.80E+03*	1.50E+03	< 3.7	U		< 3.7	U		< 3.7	U		**7.6**	**J**	**J**	< 3.7	U		< 3.7	U		< 3.7	U		< 37	U	
Benzene	71-43-2	5.00E+00	*4.55E-01*	3.70E+02	< 0.27	U		< 0.27	U		**0.29**	**J**	**J**	< 0.27	U		***0.51***	***J***	***J***	< 0.27	U		< 0.27	U		< 2.7	U	
Bromobenzene	108-86-1	-	6.22E+00	-	< 0.24	U		< 0.24	U		< 0.24	U		< 0.24	U		< 0.24	U		< 0.24	U		< 0.24	U		< 2.4	U	
Bromochloromethane	74-97-5	-	8.34E+00	-	< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U		< 3.4	U	
Bromodichloromethane	75-27-4	8.00E+01	1.34E-01	-	< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U		< 2.5	U	
Bromoform	75-25-2	8.00E+01	3.29E+00	3.20E+02	< 0.59	U		< 0.59	U		< 0.59	U		< 0.59	U		< 0.59	UMQ		< 0.59	UMQ		< 0.59	UQ		< 5.9	UM	
Bromomethane	74-83-9	-	7.55E-01	-	< 3.7	UQ		< 3.7	UQ		< 3.7	U		< 3.7	UQ		< 3.7	U		< 3.7	U		< 3.7	U		< 37	U	
Carbon disulfide	75-15-0	-	8.11E+01	9.20E-01	< 0.43	U		**3.3**			< 0.43	UQ		< 0.43	U		**0.90**	**JQ**	**J**	< 0.43	UQ		< 0.43	UQ		< 4.3	U	
Carbon tetrachloride	56-23-5	5.00E+00	*4.55E-01*	1.33E+01	< 0.30	U		< 0.30	U		< 0.30	U		< 0.30	U		< 0.30	U		< 0.30	U		< 0.30	U		< 3.0	U	
Chlorobenzene	108-90-7	1.00E+02	*7.77E+00*	1.30E+00	< 0.15	U		**4.8**			**3.7**			**0.62**	**JM**		***13***			< 0.15	U		< 0.15	U		***17***	***D***	
Chlorodibromomethane (Dibromochloromethane)	124-48-1	8.00E+01	8.71E-01	-	< 0.39	U		< 0.39	U		< 0.39	U		< 0.39	U		< 0.39	U		< 0.39	U		< 0.39	U		< 3.9	U	
Chloroethane	75-00-3	-	8.34E+02	-	< 4.6	U		< 4.6	U		< 4.6	U		< 4.6	U		< 4.6	U		< 4.6	U		< 4.6	U		< 46	U	
Chloroform	67-66-3	8.00E+01	*2.21E-01*	1.80E+00	< 0.27	U		< 0.27	U		< 0.27	U		< 0.27	U		< 0.27	U		< 0.27	U		< 0.27	U		< 2.7	U	
Chloromethane	74-87-3	-	1.88E+01	-	< 0.54	U		< 0.54	U		< 0.54	U		< 0.54	U		< 0.54	U		< 0.54	U		< 0.54	U		< 5.4	U	
cis-1,2-Dichloroethene	156-59-2	7.00E+01	*2.52E+00*	-	< 0.25	U		**1.1**	**J**		< 0.25	UM		***21***			***76***						< 0.25	U		***810***	***D***	
cis-1,3-Dichloropropene	10061-01-5	-	-	-	< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U		< 2.6	U	
Cyclohexane	110-82-7	-	1.25E+03	-	< 0.28	U		< 0.28	U		< 0.28	U		< 0.28	U		< 0.28	U		< 0.28	U		< 0.28	U		< 2.8	U	
Dibromomethane	74-95-3	-	8.34E-01	-	< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U		< 3.4	U	
Dichlorodifluoromethane	75-71-8	-	1.97E+01	-	< 0.36	UQ		< 0.36	UQ		< 0.36	UQ		< 0.36	UQ		< 0.36	UMQ		< 0.36	UQ		< 0.36	UQ		< 3.6	UQH	
Ethylbenzene	100-41-4	7.00E+02	*1.50E+00*	9.00E+01	< 0.20	U		< 0.20	U		< 0.20	U		< 0.20	U		< 0.20	U		< 0.20	U		< 0.20	U		< 2.0	U	
Hexachlorobutadiene	87-68-3	-	*1.39E-01*	1.30E+00	< 0.22	U		< 0.22	U		< 0.22	U		< 0.22	U		< 0.22	U		< 0.22	U		< 0.22	U		< 2.2	U	
Isopropylbenzene	98-82-8	-	4.51E+01	2.60E+00	< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U		< 2.6	U	
m+p-Xylenes	179601-23-1	-	-	-	< 0.49	U		< 0.49	U		< 0.49	U		< 0.49	U		< 0.49	U		< 0.49	U		< 0.49	U		< 4.9	U	
Methyl Acetate	79-20-9	-	1.99E+03	-	< 3.2	U		< 3.2	U		< 3.2	U		< 3.2	U		< 3.2	UQ		< 3.2	UQ		< 3.2	U		< 32	U	
Methylcyclohexane	108-87-2	-	1.98E+01	-	< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	U		**0.47**	**J**	**J**	< 0.33	U		< 0.33	U		< 3.3	U	
Methylene chloride (DCM)	75-09-2	5.00E+00	1.07E+01	9.81E+01	< 3.2	U		< 3.2	U		< 3.2	U		< 3.2	U		< 3.2	U		< 3.2	U		< 3.2	U		< 32	U	
Naphthalene	91-20-3	-	*1.17E-01*	1.10E+00	< 2.4	U		< 2.4	U		< 2.4	U		< 2.4	U		< 2.4	U		< 2.4	U		< 2.4	U		< 24	U	
n-Butylbenzene	104-51-8	-	1.00E+02	-	< 0.52	U		< 0.52	U		< 0.52	U		< 0.52	U		< 0.52	U		< 0.52	U		< 0.52	U		< 5.2	U	
n-Propylbenzene	103-65-1	-	6.56E+01	1.28E+02	< 0.41	U		< 0.41	U		< 0.41	U		< 0.41	U		< 0.41	U		< 0.41	U		< 0.41	U		< 4.1	U	
o-Xylene	95-47-6	-	*1.93E+01*	-	< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U		< 2.6	U	
p-Isopropyltoluene	99-87-6	-	-	8.50E+01	< 0.44	U		**0.51**	**J**	**J**	< 0.44	U		< 0.44	U		< 0.44	U		< 0.44	U		< 0.44	U		< 4.4	U	
sec-Butylbenzene	135-98-8	-	2.01E+02	-	< 0.53	U		< 0.53	U		< 0.53	U		< 0.53	U		< 0.53	U		< 0.53	U		< 0.53	U		< 5.3	U	
Styrene	100-42-5	1.00E+02	1.21E+02	7.20E+01	< 0.27	U		< 0.27	U		< 0.27	U		< 0.27	U		< 0.27	U		< 0.27	U		< 0.27	U		< 2.7	U	
tert-Butyl methyl ether (MTBE)	1634-04-4	-	1.43E+01	1.11E+04	< 0.81	U		< 0.81	U		< 0.81	U		< 0.81	U		< 0.81	U		< 0.81	U		< 0.81	U		< 8.1	U	
tert-Butylbenzene	98-06-6	-	6.91E+01	-	< 0.43	U		< 0.43	U		< 0.43	U		< 0.43	U		< 0.43	U		< 0.43	U		< 0.43	U		< 4.3	U	
Tetrachloroethene	127-18-4	5.00E+00	*4.06E+00*	1.11E+02	< 0.35	U		< 0.35	U		< 0.35	U		< 0.35	U		< 0.35	U		**0.55**	**J**	**J**	< 0.35	U		***13***	***JD***	
Toluene	108-88-3	1.00E+03	1.10E+02	2.00E+00	< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U		< 2.5	U	
trans-1,2-Dichloroethene	156-60-5	1.00E+02	*6.78E+00*	9.70E+02	< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U		**0.59**	**J**	**J**	**0.63**	**J**	**J**	< 0.34	U		< 3.4	U	
trans-1,3-Dichloropropene	10061-02-6	-	-	-	< 0.23	U		< 0.23	U		< 0.23	U		< 0.23	U		< 0.23	U		< 0.23	U		< 0.23	U		< 2.3	U	
Trichloroethene	79-01-6	5.00E+00	*2.83E-01*	2.10E+01	< 0.20	U		< 0.20	U		< 0.20	U		< 0.20	U		***5.4***			***130***			< 0.20	U		***150***	***D***	
Trichlorofluoromethane	75-69-4	-	5.16E+02	-	< 0.33	U		< 0.33	U		< 0.33	UQ		< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	UQ		< 3.3	U	
Trichlorotrifluoroethane (Freon 113)	76-13-1	-	1.02E+03	-	< 0.23	U		< 0.23	U		< 0.23	U		< 0.23	U		< 0.23	U		< 0.23	U		< 0.23	U		< 2.3	U	
Vinyl chloride	75-01-4	2.00E+00	*1.88E-02*	9.30E+02	< 0.40	U		***0.51***	***J***	***J***	***1.2***	***J***		< 0.40	U		***5.1***	***M***		***14***			< 0.40	U		***34***	***D***	
Xylene (Total)	1330-20-7	1.00E+04	*1.93E+01*	1.30E+01	< 0.49	U		< 0.49	U		< 0.49	U		< 0.49	U		< 0.49	U		< 0.49	U		< 0.49	U		< 4.9	U	
Field Parameters																												
Depth to Water (ft)	DTW	-	-	-	**6.55**			**5.55**			**5.25**			**6.49**			**3.99**			**19.01**			**19.63**			**16.8**		
Dissolved Oxygen (mg/L)	DO	-	-	-	**1.12**			**0.63**			**1.39**			**0.46**			**3.47**			**1.61**			**0.61**			**8.2**		
Ferrous Iron - Field (mg/L)	FIELD FE	-	-	-	**1.42**			**1.32**			**2.45**			**1.26**			**1.58**			**0.04**			-[1]			**0.33**		
Oxidation Reduction Potential (mV)	ORP	-	-	-	**29.3**			**-74.9**			**33.4**			**-221.7**			**412**			**23**			**-5.9**			**111.1**		
pH (pH unit)	PH	-	-	-	**5.68**			**6.1**			**5.65**			**8.39**			**4.16**			**10.15**			**6.45**			**5.71**		
Specific Conductivity (mS/cm)	SC	-	-	-	**0.134**			**0.58**			**0.253**			**0.128**			**0.273**			**0.176**			**0.196**			**0.303**		
Temperature (°C)	TEMP	-	-	-	**18**			**18.7**			**17.8**			**19.8**			**17.1**			**19.3**			**18.2**			**19.7**		
Turbidity (NTU)	TURB	-	-	-	**27.3**			**25.2**			**45**			**37.2**			-[1]			**9.87**			**26.25**			**301.2**		

Table B.2
OU6 Annual Volatile Organic Compounds - Spring 2024
Defense Supply Center Richmond

Parameter	CAS#	MCL	RSL	BTAG	Sample Location	OU6-MW-286			OU6-MW-287			OU6-MW-288			OU6-MW-289			OU6-MW-290			OU6-MW-291			OU6-MW-292			OU6-MW-292		
					Sample ID	OU6-MW-286-20240516			OU6-MW-287-20240521[2]			OU6-MW-288-20240517			OU6-MW-289-20240522			OU6-MW-290-20240521			OU6-MW-291-20240522[2]			DUP4-20240520			OU6-MW-292-20240520		
					Sample Date	5/16/2024			5/21/2024			5/17/2024			5/22/2024			5/21/2024			5/22/2024			5/20/2024			5/20/2024		
					Sample Type	N			N			N			N			N			N			FD			N		
					Description	LWBU			LWBU			LWBU			LWBU			LWBU			LWBU			LWBU			LWBU		
VOCs by SW8260D (µg/L)																													
1,1,1,2-Tetrachloroethane	630-20-6	-	*5.74E-01*	-	< 0.36	U		< 0.36	U		< 0.36	U		< 1.8	U		< 3.6	U		< 3.6	U		< 0.36	U		< 0.36	U	
1,1,1-Trichloroethane	71-55-6	2.00E+02	8.01E+02	1.10E+01	< 0.21	U		< 0.21	U		< 0.21	U		< 1.1	U		< 2.1	U		< 2.1	U		< 0.21	U		< 0.21	U	
1,1,2,2-Tetrachloroethane	79-34-5	-	7.57E-02	6.10E+02	< 0.40	U		< 0.40	U		< 0.40	U		< 2.0	U		< 4.0	U		< 4.0	U		< 0.40	U		< 0.40	U	
1,1,2-Trichloroethane	79-00-5	5.00E+00	*4.15E-02*	1.20E+03	< 0.32	U		< 0.32	U		< 0.32	U		< 1.6	U		< 3.2	U		< 3.2	U		< 0.32	U		< 0.32	U	
1,1-Dichloroethane	75-34-3	-	*2.75E+00*	4.70E+01	< 0.33	U		< 0.33	U		< 0.33	U		< 1.7	U		< 3.3	U		< 3.3	U		**0.59**	**J**		**0.60**	**J**	**J**
1,1-Dichloroethene (Vinylidene chloride)	75-35-4	7.00E+00	*2.85E+01*	2.50E+01	**0.46**	**JM**	**J**	**0.38**	**J**	**J**	**0.96**	**J**	**J**	< 1.7	U		< 3.3	U		< 3.3	UM		**1.0**	**J**		**1.1**	**J**	
1,1-Dichloropropene	563-58-6	-	-	-	< 0.28	U		< 0.28	UQ		< 0.28	U		< 1.4	U		< 2.8	U		< 2.8	U		< 0.28	U		< 0.28	U	
1,2,3-Trichlorobenzene	87-61-6	-	7.04E-01	8.00E+00	< 0.81	U		< 0.81	U		< 0.81	U		< 4.1	U		< 8.1	U		< 8.1	U		< 0.81	U		< 0.81	U	
1,2,3-Trichloropropane	96-18-4	-	*7.49E-04*	-	< 0.48	U		< 0.48	U		< 0.48	UQ		< 2.4	U		< 4.8	U		< 4.8	U		< 0.48	U		< 0.48	U	
1,2,4-Trichlorobenzene	120-82-1	7.00E+01	*3.99E-01*	2.40E+01	< 0.53	U		< 0.53	U		< 0.53	UQ		< 2.7	U		< 5.3	U		< 5.3	U		< 0.53	U		< 0.53	U	
1,2,4-Trimethylbenzene	95-36-3	-	-	-	< 0.43	U		< 0.43	U		< 0.43	UQ		< 2.2	U		< 4.3	U		< 4.3	U		< 0.43	U		< 0.43	U	
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	2.00E-01	3.34E-04	-	< 1.8	U		< 1.8	U		< 1.8	UQ		< 9.0	UQ		< 18	UQ		< 18	UQ		< 1.8	U		< 1.8	U	
1,2-Dibromoethane (EDB)	106-93-4	5.00E-02	7.47E-03	-	< 0.33	U		< 0.33	U		< 0.33	U		< 1.7	U		< 3.3	U		< 3.3	U		< 0.33	U		< 0.33	U	
1,2-Dichlorobenzene	95-50-1	6.00E+02	*3.04E+01*	7.00E-01	**1.3**	**JM**		**0.59**	**J**	**J**	< 0.31	U		< 1.6	UM		< 3.1	U		< 3.1	UM		< 0.31	U		< 0.31	U	
1,2-Dichloroethane	107-06-2	5.00E+00	*1.71E-01*	1.00E+02	< 0.25	UM		< 0.25	UM		< 0.25	UM		< 1.3	UM		< 2.5	UM		***3.2***	***JD***	***J***	< 0.25	U		< 0.25	U	
1,2-Dichloroethene, Total	540-59-0	-	-	5.90E+02	**130**			**29**			**0.43**	**J**	**J**	**630**	**D**		**680**	**D**		**1300**	**D**		**140**			**140**		
1,2-Dichloropropane	78-87-5	5.00E+00	8.25E-01	-	< 0.22	U		< 0.22	U		< 0.22	U		< 1.1	U		< 2.2	U		< 2.2	U		< 0.22	U		< 0.22	U	
1,3,5-Trimethylbenzene	108-67-8	-	*6.03E+00*	7.10E+01	< 0.28	U		< 0.28	U		< 0.28	UQ		< 1.4	U		< 2.8	U		< 2.8	U		< 0.28	U		< 0.28	U	
1,3-Dichlorobenzene	541-73-1	-	-	1.50E+02	< 0.31	U		**0.31**	**J**	**J**	< 0.31	U		< 1.6	U		< 3.1	U		< 3.1	U		< 0.31	U		< 0.31	U	
1,3-Dichloropropane	142-28-9	-	3.69E+01	-	< 0.36	U		< 0.36	U		< 0.36	U		< 1.8	U		< 3.6	U		< 3.6	U		< 0.36	U		< 0.36	U	
1,4-Dichlorobenzene	106-46-7	7.50E+01	*4.82E-01*	2.60E+01	***3.3***			***1.5***	***J***		< 0.31	U		***4.2***	***JD***	***J***	< 3.1	U		< 3.1	UM		< 0.31	U		< 0.31	U	
2,2-Dichloropropane	594-20-7	-	-	-	< 0.35	U		< 0.35	U		< 0.35	U		< 1.8	U		< 3.5	U		< 3.5	U		< 0.35	U		< 0.35	U	
2-Butanone (MEK)	78-93-3	-	*5.57E+02*	1.40E+04	< 6.4	U		< 6.4	U		< 6.4	U		< 32	U		< 64	U		< 64	U		< 6.4	U		< 6.4	U	
2-Chlorotoluene	95-49-8	-	2.37E+01	-	< 0.25	U		< 0.25	U		< 0.25	UQ		< 1.3	U		< 2.5	U		< 2.5	U		< 0.25	U		< 0.25	U	
2-Hexanone	591-78-6	-	3.80E+00	9.90E+01	< 3.2	U		< 3.2	U		< 3.2	UQ		< 16	U		< 32	U		< 32	U		< 3.2	U		< 3.2	U	
4-Chlorotoluene	106-43-4	-	2.50E+01	-	< 0.41	U		< 0.41	U		< 0.41	UQ		< 2.1	U		< 4.1	U		< 4.1	U		< 0.41	U		< 0.41	U	
4-Methyl-2-pentanone (MIBK)	108-10-1	-	6.26E+02	1.70E+02	< 2.7	U		< 2.7	U		< 2.7	U		< 14	U		< 27	U		< 27	U		< 2.7	U		< 2.7	U	
Acetone	67-64-1	-	*1.80E+03*	1.50E+03	< 3.7	U		< 3.7	U		< 3.7	U		< 19	U		< 37	U		**53**	**JD**	**J**	< 3.7	U		< 3.7	U	
Benzene	71-43-2	5.00E+00	*4.55E-01*	3.70E+02	< 0.27	U		< 0.27	U		< 0.27	U		< 1.4	U		< 2.7	U		< 2.7	U		< 0.27	U		< 0.27	U	
Bromobenzene	108-86-1	-	6.22E+00	-	< 0.24	U		< 0.24	U		< 0.24	UQ		< 1.2	U		< 2.4	U		< 2.4	U		< 0.24	U		< 0.24	U	
Bromochloromethane	74-97-5	-	8.34E+00	-	< 0.34	U		< 0.34	U		< 0.34	U		< 1.7	U		< 3.4	U		< 3.4	U		< 0.34	U		< 0.34	U	
Bromodichloromethane	75-27-4	8.00E+01	1.34E-01	-	< 0.25	U		< 0.25	U		< 0.25	U		< 1.3	U		< 2.5	U		< 2.5	U		< 0.25	U		< 0.25	U	
Bromoform	75-25-2	8.00E+01	3.29E+00	3.20E+02	< 0.59	U		< 0.59	U		< 0.59	U		< 3.0	U		< 5.9	U		< 5.9	U		< 0.59	UQ		< 0.59	UQ	
Bromomethane	74-83-9	-	7.55E-01	-	< 3.7	UQ		< 3.7	UQ		< 3.7	U		< 19	U		< 37	U		< 37	U		< 3.7	U		< 3.7	U	
Carbon disulfide	75-15-0	-	8.11E+01	9.20E-01	< 0.43	U		< 0.43	U		< 0.43	UQ		< 2.2	U		< 4.3	U		< 4.3	U		< 0.43	UQ		< 0.43	UQ	
Carbon tetrachloride	56-23-5	5.00E+00	*4.55E-01*	1.33E+01	< 0.30	U		< 0.30	U		< 0.30	U		< 1.5	U		< 3.0	U		< 3.0	U		< 0.30	U		< 0.30	U	
Chlorobenzene	108-90-7	1.00E+02	*7.77E+00*	1.30E+00	**2.1**			**1.2**			< 0.15	U		***9.6***	***D***		**5.4**	**JD**		***30***	***D***		< 0.15	U		< 0.15	U	
Chlorodibromomethane (Dibromochloromethane)	124-48-1	8.00E+01	8.71E-01	-	< 0.39	U		< 0.39	U		< 0.39	U		< 2.0	U		< 3.9	U		< 3.9	U		< 0.39	U		< 0.39	U	
Chloroethane	75-00-3	-	8.34E+02	-	< 4.6	U		< 4.6	U		< 4.6	U		< 23	U		< 46	U		< 46	U		< 4.6	U		< 4.6	U	
Chloroform	67-66-3	8.00E+01	*2.21E-01*	1.80E+00	< 0.27	U		< 0.27	U		< 0.27	U		< 1.4	U		< 2.7	U		< 2.7	U		< 0.27	U		< 0.27	U	
Chloromethane	74-87-3	-	1.88E+01	-	< 0.54	U		< 0.54	U		< 0.54	U		< 2.7	U		< 5.4	U		< 5.4	U		< 0.54	U		< 0.54	U	
cis-1,2-Dichloroethene	156-59-2	7.00E+01	*2.52E+00*	-	***130***			***29***			**0.43**	**JM**	**J**	***630***	***D***		***680***	***D***		***1300***	***D***		***130***			***140***		
cis-1,3-Dichloropropene	10061-01-5	-	-	-	< 0.26	U		< 0.26	U		< 0.26	U		< 1.3	U		< 2.6	U		< 2.6	U		< 0.26	U		< 0.26	U	
Cyclohexane	110-82-7	-	1.25E+03	-	< 0.28	U		< 0.28	UQ		< 0.28	U		< 1.4	U		< 2.8	U		< 2.8	U		< 0.28	U		< 0.28	U	
Dibromomethane	74-95-3	-	8.34E-01	-	< 0.34	U		< 0.34	U		< 0.34	U		< 1.7	U		< 3.4	U		< 3.4	U		< 0.34	U		< 0.34	U	
Dichlorodifluoromethane	75-71-8	-	1.97E+01	-	< 0.36	UQ		< 0.36	UQ		< 0.36	U		**11**	**D**		< 3.6	UQ		< 3.6	UQ		**1.5**	**JM**		**1.6**	**JM**	
Ethylbenzene	100-41-4	7.00E+02	*1.50E+00*	9.00E+01	< 0.20	U		< 0.20	U		< 0.20	U		< 1.0	U		< 2.0	U		< 2.0	U		< 0.20	U		< 0.20	U	
Hexachlorobutadiene	87-68-3	-	*1.39E-01*	1.30E+00	< 0.22	U		***0.47***	***JQ***	***J***	< 0.22	UQ		< 1.1	U		< 2.2	U		< 2.2	U		< 0.22	U		< 0.22	U	
Isopropylbenzene	98-82-8	-	4.51E+01	2.60E+00	< 0.26	U		< 0.26	U		< 0.26	UQ		< 1.3	U		< 2.6	U		< 2.6	U		< 0.26	U		< 0.26	U	
m+p-Xylenes	179601-23-1	-	-	-	< 0.49	U		< 0.49	U		< 0.49	U		< 2.5	U		< 4.9	U		< 4.9	U		< 0.49	U		< 0.49	U	
Methyl Acetate	79-20-9	-	1.99E+03	-	< 3.2	U		< 3.2	U		< 3.2	UQ		< 16	U		< 32	U		< 32	U		< 3.2	UQ		< 3.2	UQ	
Methylcyclohexane	108-87-2	-	1.98E+01	-	< 0.33	U		< 0.33	UQ		< 0.33	U		< 1.7	U		< 3.3	U		< 3.3	U		< 0.33	U		< 0.33	U	
Methylene chloride (DCM)	75-09-2	5.00E+00	1.07E+01	9.81E+01	< 3.2	U		< 3.2	U		< 3.2	U		< 16	U		< 32	U		< 32	U		< 3.2	U		< 3.2	U	
Naphthalene	91-20-3	-	*1.17E-01*	1.10E+00	< 2.4	U		< 2.4	U		< 2.4	UQ		< 12	U		< 24	U		< 24	U		< 2.4	U		< 2.4	U	
n-Butylbenzene	104-51-8	-	1.00E+02	-	< 0.52	U		< 0.52	U		< 0.52	U		< 2.6	U		< 5.2	U		< 5.2	U		< 0.52	U		< 0.52	U	
n-Propylbenzene	103-65-1	-	6.56E+01	1.28E+02	< 0.41	U		< 0.41	U		< 0.41	UQ		< 2.1	U		< 4.1	U		< 4.1	U		< 0.41	U		< 0.41	U	
o-Xylene	95-47-6	-	*1.93E+01*	-	< 0.26	U		< 0.26	U		< 0.26	UQ		< 1.3	U		< 2.6	U		< 2.6	U		< 0.26	U		< 0.26	U	
p-Isopropyltoluene	99-87-6	-	-	8.50E+01	< 0.44	U		< 0.44	UM		< 0.44	U		< 2.2	U		< 4.4	U		< 4.4	U		< 0.44	U		< 0.44	U	
sec-Butylbenzene	135-98-8	-	2.01E+02	-	< 0.53	U		< 0.53	U		< 0.53	UQ		< 2.7	U		< 5.3	U		< 5.3	U		< 0.53	U		< 0.53	U	
Styrene	100-42-5	1.00E+02	1.21E+02	7.20E+01	< 0.27	U		< 0.27	U		< 0.27	UQ		< 1.4	U		< 2.7	U		< 2.7	U		< 0.27	U		< 0.27	U	
tert-Butyl methyl ether (MTBE)	1634-04-4	-	1.43E+01	1.11E+04	< 0.81	U		< 0.81	U		< 0.81	U		< 4.1	U		< 8.1	U		< 8.1	U		< 0.81	U		< 0.81	U	
tert-Butylbenzene	98-06-6	-	6.91E+01	-	< 0.43	U		< 0.43	U		< 0.43	UQ		< 2.2	U		< 4.3	U		< 4.3	U		< 0.43	U		< 0.43	U	
Tetrachloroethene	127-18-4	5.00E+00	*4.06E+00*	1.11E+02	< 0.35	U		**0.42**	**J**	**J**	< 0.35	U		***7.6***	***JDM***		***7.8***	***JD***	***J***	< 3.5	UM		< 0.35	U		< 0.35	UM	
Toluene	108-88-3	1.00E+03	1.10E+02	2.00E+00	< 0.25	U		< 0.25	U		< 0.25	U		< 1.3	U		< 2.5	U		< 2.5	U		< 0.25	U		< 0.25	U	
trans-1,2-Dichloroethene	156-60-5	1.00E+02	*6.78E+00*	9.70E+02	< 0.34	U		< 0.34	U		< 0.34	UQ		< 1.7	UM		< 3.4	U		< 3.4	U		**0.55**	**J**		**0.48**	**J**	**J**
trans-1,3-Dichloropropene	10061-02-6	-	-	-	< 0.23	U		< 0.23	U		< 0.23	U		< 1.2	U		< 2.3	U		< 2.3	U		< 0.23	U		< 0.23	U	
Trichloroethene	79-01-6	5.00E+00	*2.83E-01*	2.10E+01	***45***			***35***			***2.2***	***M***		***130***	***D***		***75***	***D***		***100***	***D***		***15***			***16***		
Trichlorofluoromethane	75-69-4	-	5.16E+02	-	< 0.33	U		< 0.33	UQ		< 0.33	U		< 1.7	U		< 3.3	U		< 3.3	U		< 0.33	U		< 0.33	U	
Trichlorotrifluoroethane (Freon 113)	76-13-1	-	1.02E+03	-	< 0.23	U		< 0.23	UQ		< 0.23	U		< 1.2	U		< 2.3	U		< 2.3	U		< 0.23	U		< 0.23	U	
Vinyl chloride	75-01-4	2.00E+00	*1.88E-02*	9.30E+02	***22***			***0.95***	***JQ***	***J***	< 0.40	U		***41***	***D***		***42***	***D***		***250***	***D***		***16***	***M***		***18***		
Xylene (Total)	1330-20-7	1.00E+04	*1.93E+01*	1.30E+01	< 0.49	U		< 0.49	U		< 0.49	UQ		< 2.5	U		< 4.9	U		< 4.9	U		< 0.49	U		< 0.49	U	
Field Parameters																													
Depth to Water (ft)	DTW	-	-	-	**14.65**			**15.5**			**15.2**			**10.25**			**10.6**			**10.72**			**12.67**			**12.67**		
Dissolved Oxygen (mg/L)	DO	-	-	-	**0.54**			**0.88**			**4.88**			**0.88**			**3**			**1.24**			**1.2**			**1.2**		
Ferrous Iron - Field (mg/L)	FIELD FE	-	-	-	-[1]			**0.68**			**0.07**			**1.19**			**1.61**			**2.42**			**1.43**			**1.36**		
Oxidation Reduction Potential (mV)	ORP	-	-	-	**54.4**			**46.6**			**178.1**			**238.3**			**192.6**			**40**			**40.1**			**40.1**		
pH (pH unit)	PH	-	-	-	**5.8**			**5.62**			**5.79**			**5.75**			**5.81**			**5.24**			**12.04**			**12.04**		
Specific Conductivity (mS/cm)	SC	-	-	-	**0.233**			**0.079**			**0.069**			**0.509**			**0.412**			**0.364**			**1.324**			**1.324**		
Temperature (°C)	TEMP	-	-	-	**22.5**			**19.7**			**17.2**			**16.4**			**15.5**			**16**			**15.6**			**15.6**		
Turbidity (NTU)	TURB	-	-	-	**65.42**			**335**			**14.67**			**7.85**			**10**			**340**			**12.34**			**12.34**		

Table B.2
OU6 Annual Volatile Organic Compounds - Spring 2024
Defense Supply Center Richmond

					OU6-MW-293			OU6-MW-294			OU6-MW-295			OU6-MW-296			OU6-MW-297			OU6-MW-298			OU6-MW-299			OU6-MW-300		
Sample Location					OU6-MW-293			OU6-MW-294			OU6-MW-295			OU6-MW-296			OU6-MW-297			OU6-MW-298			OU6-MW-299			OU6-MW-300		
Sample ID					OU6-MW-293-20240521			OU6-MW-294-20240521			OU6-MW-295-20240520			OU6-MW-296-20240514			OU6-MW-297-20240515			OU6-MW-298-20240516			OU6-MW-299-20240516			OU6-MW-300-20240514		
Sample Date					5/21/2024			5/21/2024			5/20/2024			5/14/2024			5/15/2024			5/16/2024			5/16/2024			5/14/2024		
Sample Type					N			N			N			N			N			N			N			N		
Description					LWBU			LWBU			LWBU			LWBU			LWBU			UWBU			UWBU			LWBU		
Parameter	**CAS#**	**MCL**	**RSL**	**BTAG**	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV
VOCs by SW8260D (µg/L)																												
1,1,1,2-Tetrachloroethane	630-20-6	-	*5.74E-01*	-	< 0.36	U		< 1.8	U		< 0.36	U		< 0.36	U		< 0.36	U		< 0.36	U		< 0.36	U		< 0.36	U	
1,1,1-Trichloroethane	71-55-6	2.00E+02	8.01E+02	1.10E+01	< 0.21	U		< 1.1	U		< 0.21	U		< 0.21	U		< 0.21	U		< 0.21	U		< 0.21	U		< 0.21	U	
1,1,2,2-Tetrachloroethane	79-34-5	-	7.57E-02	6.10E+02	< 0.40	U		< 2.0	U		< 0.40	U		< 0.40	U		< 0.40	U		< 0.40	U		< 0.40	U		< 0.40	U	
1,1,2-Trichloroethane	79-00-5	5.00E+00	*4.15E-02*	1.20E+03	< 0.32	UQ		< 1.6	U		< 0.32	U		< 0.32	U		< 0.32	U		< 0.32	U		< 0.32	U		< 0.32	U	
1,1-Dichloroethane	75-34-3	-	*2.75E+00*	4.70E+01	< 0.33	U		< 1.7	U		< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	U	
1,1-Dichloroethene (Vinylidene chloride)	75-35-4	7.00E+00	*2.85E+01*	2.50E+01	< 0.33	U		**3.5**	**JD**	**J**	< 0.33	U		< 0.33	U		**0.53**	**J**	**J**	< 0.33	U		< 0.33	U		< 0.33	U	
1,1-Dichloropropene	563-58-6	-	-	-	< 0.28	U		< 1.4	U		< 0.28	U		< 0.28	U		< 0.28	U		< 0.28	U		< 0.28	U		< 0.28	U	
1,2,3-Trichlorobenzene	87-61-6	-	7.04E-01	8.00E+00	< 0.81	U		< 4.1	U		< 0.81	U		< 0.81	U		< 0.81	U		< 0.81	U		< 0.81	U		< 0.81	U	
1,2,3-Trichloropropane	96-18-4	-	*7.49E-04*	-	< 0.48	U		< 2.4	U		< 0.48	U		< 0.48	U		< 0.48	U		< 0.48	U		< 0.48	U		< 0.48	U	
1,2,4-Trichlorobenzene	120-82-1	7.00E+01	*3.99E-01*	2.40E+01	< 0.53	U		< 2.7	U		< 0.53	U		< 0.53	U		< 0.53	U		< 0.53	U		< 0.53	U		< 0.53	U	
1,2,4-Trimethylbenzene	95-36-3	-	-	-	< 0.43	U		< 2.2	UQ		< 0.43	U		< 0.43	U		< 0.43	U		< 0.43	U		< 0.43	U		< 0.43	U	
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	2.00E-01	3.34E-04	-	< 1.8	U		< 9.0	U		< 1.8	U		< 1.8	U		< 1.8	U		< 1.8	U		< 1.8	U		< 1.8	U	
1,2-Dibromoethane (EDB)	106-93-4	5.00E-02	7.47E-03	-	< 0.33	UQ		< 1.7	U		< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	U	
1,2-Dichlorobenzene	95-50-1	6.00E+02	*3.04E+01*	7.00E-01	< 0.31	U		< 1.6	U		< 0.31	U		< 0.31	U		< 0.31	U		< 0.31	U		< 0.31	U		< 0.31	U	
1,2-Dichloroethane	107-06-2	5.00E+00	*1.71E-01*	1.00E+02	< 0.25	UM		< 1.3	U		< 0.25	U		< 0.25	UM		< 0.25	UM		< 0.25	UM		< 0.25	UM		< 0.25	UM	
1,2-Dichloroethene, Total	540-59-0	-	-	5.90E+02	**6.5**			**310**	**D**		**1.9**	**J**		< 0.37	U		**38**			< 0.37	U		< 0.37	U		< 0.37	U	
1,2-Dichloropropane	78-87-5	5.00E+00	8.25E-01	-	< 0.22	U		< 1.1	U		< 0.22	U		< 0.22	U		< 0.22	U		< 0.22	U		< 0.22	U		< 0.22	U	
1,3,5-Trimethylbenzene	108-67-8	-	*6.03E+00*	7.10E+01	< 0.28	U		< 1.4	UQ		< 0.28	U		< 0.28	U		< 0.28	U		< 0.28	U		< 0.28	U		< 0.28	U	
1,3-Dichlorobenzene	541-73-1	-	-	1.50E+02	< 0.31	U		< 1.6	U		< 0.31	U		< 0.31	U		< 0.31	U		< 0.31	U		< 0.31	U		< 0.31	U	
1,3-Dichloropropane	142-28-9	-	3.69E+01	-	< 0.36	UQ		< 1.8	U		< 0.36	U		< 0.36	U		< 0.36	U		< 0.36	U		< 0.36	U		< 0.36	U	
1,4-Dichlorobenzene	106-46-7	7.50E+01	*4.82E-01*	2.60E+01	< 0.31	U		< 1.6	U		< 0.31	U		< 0.31	U		< 0.31	U		< 0.31	U		< 0.31	U		< 0.31	U	
2,2-Dichloropropane	594-20-7	-	-	-	< 0.35	U		< 1.8	U		< 0.35	U		< 0.35	U		< 0.35	U		< 0.35	U		< 0.35	U		< 0.35	U	
2-Butanone (MEK)	78-93-3	-	*5.57E+02*	1.40E+04	< 6.4	U		< 32	U		< 6.4	U		< 6.4	U		< 6.4	U		< 6.4	U		< 6.4	U		< 6.4	U	
2-Chlorotoluene	95-49-8	-	2.37E+01	-	< 0.25	U		< 1.3	UQ		< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U	
2-Hexanone	591-78-6	-	3.80E+00	9.90E+01	< 3.2	U		< 16	U		< 3.2	U		< 3.2	U		< 3.2	U		< 3.2	U		< 3.2	U		< 3.2	U	
4-Chlorotoluene	106-43-4	-	2.50E+01	-	< 0.41	U		< 2.1	UQ		< 0.41	U		< 0.41	U		< 0.41	U		< 0.41	U		< 0.41	U		< 0.41	U	
4-Methyl-2-pentanone (MIBK)	108-10-1	-	6.26E+02	1.70E+02	< 2.7	UQ		< 14	U		< 2.7	U		< 2.7	U		< 2.7	U		< 2.7	U		< 2.7	U		< 2.7	U	
Acetone	67-64-1	-	*1.80E+03*	1.50E+03	< 3.7	U		< 19	U		< 3.7	U		< 3.7	U		< 3.7	U		< 3.7	U		< 3.7	U		< 3.7	U	
Benzene	71-43-2	5.00E+00	*4.55E-01*	3.70E+02	< 0.27	U		< 1.4	U		< 0.27	U		< 0.27	U		< 0.27	U		< 0.27	U		< 0.27	U		< 0.27	U	
Bromobenzene	108-86-1	-	6.22E+00	-	< 0.24	U		< 1.2	UQ		< 0.24	U		< 0.24	U		< 0.24	U		< 0.24	U		< 0.24	U		< 0.24	U	
Bromochloromethane	74-97-5	-	8.34E+00	-	< 0.34	U		< 1.7	U		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U	
Bromodichloromethane	75-27-4	8.00E+01	1.34E-01	-	< 0.25	U		< 1.3	U		< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U	
Bromoform	75-25-2	8.00E+01	3.29E+00	3.20E+02	< 0.59	U		< 3.0	U		< 0.59	UQ		< 0.59	UQ		< 0.59	U		< 0.59	U		< 0.59	U		< 0.59	UQ	
Bromomethane	74-83-9	-	7.55E-01	-	< 3.7	UQ		< 19	U		< 3.7	U		< 3.7	U		< 3.7	UQ		< 3.7	UQ		< 3.7	UQ		< 3.7	U	
Carbon disulfide	75-15-0	-	8.11E+01	9.20E-01	< 0.43	UQ		< 2.2	U		< 0.43	UQ		< 0.43	UQ		< 0.43	UQ		< 0.43	U		< 0.43	U		< 0.43	UQ	
Carbon tetrachloride	56-23-5	5.00E+00	*4.55E-01*	1.33E+01	< 0.30	U		< 1.5	U		< 0.30	U		< 0.30	U		< 0.30	U		< 0.30	U		< 0.30	U		< 0.30	U	
Chlorobenzene	108-90-7	1.00E+02	*7.77E+00*	1.30E+00	< 0.15	U		< 0.75	U		< 0.15	U		< 0.15	U		< 0.15	U		< 0.15	U		< 0.15	U		< 0.15	U	
Chlorodibromomethane (Dibromochloromethane)	124-48-1	8.00E+01	8.71E-01	-	< 0.39	UQ		< 2.0	U		< 0.39	U		< 0.39	U		< 0.39	U		< 0.39	U		< 0.39	U		< 0.39	U	
Chloroethane	75-00-3	-	8.34E+02	-	< 4.6	UQ		< 23	U		< 4.6	U		< 4.6	U		< 4.6	U		< 4.6	U		< 4.6	U		< 4.6	U	
Chloroform	67-66-3	8.00E+01	*2.21E-01*	1.80E+00	< 0.27	U		< 1.4	U		< 0.27	U		< 0.27	U		< 0.27	U		< 0.27	U		< 0.27	U		< 0.27	U	
Chloromethane	74-87-3	-	1.88E+01	-	< 0.54	U		< 2.7	U		< 0.54	U		< 0.54	U		< 0.54	U		< 0.54	U		< 0.54	U		< 0.54	U	
cis-1,2-Dichloroethene	156-59-2	7.00E+01	*2.52E+00*	-	***6.5***			***310***	***D***		**1.9**	**J**		< 0.25	U		***37***			< 0.25	U		< 0.25	U		< 0.25	U	
cis-1,3-Dichloropropene	10061-01-5	-	-	-	< 0.26	U		< 1.3	U		< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U	
Cyclohexane	110-82-7	-	1.25E+03	-	< 0.28	U		< 1.4	U		< 0.28	U		< 0.28	U		< 0.28	UQ		< 0.28	U		< 0.28	U		< 0.28	U	
Dibromomethane	74-95-3	-	8.34E-01	-	< 0.34	U		< 1.7	U		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U	
Dichlorodifluoromethane	75-71-8	-	1.97E+01	-	< 0.36	U		< 1.8	U		< 0.36	UMQ		< 0.36	UM		< 0.36	U		< 0.36	UQ		< 0.36	UQ		< 0.36	U	
Ethylbenzene	100-41-4	7.00E+02	*1.50E+00*	9.00E+01	< 0.20	U		< 1.0	U		< 0.20	U		< 0.20	U		< 0.20	U		< 0.20	U		< 0.20	U		< 0.20	U	
Hexachlorobutadiene	87-68-3	-	*1.39E-01*	1.30E+00	< 0.22	U		< 1.1	U		< 0.22	U		< 0.22	U		< 0.22	U		< 0.22	U		< 0.22	U		< 0.22	U	
Isopropylbenzene	98-82-8	-	4.51E+01	2.60E+00	< 0.26	U		< 1.3	U		< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U	
m+p-Xylenes	179601-23-1	-	-	-	< 0.49	U		< 2.5	U		< 0.49	U		< 0.49	U		< 0.49	U		< 0.49	U		< 0.49	U		< 0.49	U	
Methyl Acetate	79-20-9	-	1.99E+03	-	< 3.2	U		< 16	U		< 3.2	UQ		< 3.2	UQ		< 3.2	U		< 3.2	U		< 3.2	U		< 3.2	UQ	
Methylcyclohexane	108-87-2	-	1.98E+01	-	< 0.33	U		< 1.7	U		< 0.33	U		< 0.33	U		< 0.33	UQ		< 0.33	U		< 0.33	U		< 0.33	U	
Methylene chloride (DCM)	75-09-2	5.00E+00	1.07E+01	9.81E+01	< 3.2	U		< 16	U		< 3.2	U		< 3.2	U		< 3.2	U		< 3.2	U		< 3.2	U		< 3.2	U	
Naphthalene	91-20-3	-	*1.17E-01*	1.10E+00	< 2.4	U		< 12	U		< 2.4	U		< 2.4	U		< 2.4	U		< 2.4	U		< 2.4	U		< 2.4	U	
n-Butylbenzene	104-51-8	-	1.00E+02	-	< 0.52	U		< 2.6	U		< 0.52	U		< 0.52	U		< 0.52	UQ		< 0.52	U		< 0.52	U		< 0.52	U	
n-Propylbenzene	103-65-1	-	6.56E+01	1.28E+02	< 0.41	U		< 2.1	UQ		< 0.41	U		< 0.41	U		< 0.41	U		< 0.41	U		< 0.41	U		< 0.41	U	
o-Xylene	95-47-6	-	*1.93E+01*	-	< 0.26	U		< 1.3	UQ		< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U	
p-Isopropyltoluene	99-87-6	-	-	8.50E+01	< 0.44	U		< 2.2	U		< 0.44	U		< 0.44	U		< 0.44	U		< 0.44	U		< 0.44	U		< 0.44	U	
sec-Butylbenzene	135-98-8	-	2.01E+02	-	< 0.53	U		< 2.7	U		< 0.53	U		< 0.53	U		< 0.53	U		< 0.53	U		< 0.53	U		< 0.53	U	
Styrene	100-42-5	1.00E+02	1.21E+02	7.20E+01	< 0.27	U		< 1.4	UQ		< 0.27	U		< 0.27	U		< 0.27	U		< 0.27	U		< 0.27	U		< 0.27	U	
tert-Butyl methyl ether (MTBE)	1634-04-4	-	1.43E+01	1.11E+04	< 0.81	U		< 4.1	U		< 0.81	U		< 0.81	U		< 0.81	U		< 0.81	U		< 0.81	U		< 0.81	U	
tert-Butylbenzene	98-06-6	-	6.91E+01	-	< 0.43	U		< 2.2	U		< 0.43	U		< 0.43	U		< 0.43	U		< 0.43	U		< 0.43	U		< 0.43	U	
Tetrachloroethene	127-18-4	5.00E+00	*4.06E+00*	1.11E+02	< 0.35	UQ		< 1.8	U		< 0.35	U		< 0.35	U		**0.52**	**J**	**J**	< 0.35	U		< 0.35	U		< 0.35	U	
Toluene	108-88-3	1.00E+03	1.10E+02	2.00E+00	< 0.25	UQ		< 1.3	U		< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U	
trans-1,2-Dichloroethene	156-60-5	1.00E+02	*6.78E+00*	9.70E+02	< 0.34	U		**3.9**	**JD**	**J**	< 0.34	U		< 0.34	U		**0.38**	**J**	**J**	< 0.34	U		< 0.34	U		< 0.34	U	
trans-1,3-Dichloropropene	10061-02-6	-	-	-	< 0.23	UQ		< 1.2	U		< 0.23	U		< 0.23	U		< 0.23	U		< 0.23	U		< 0.23	U		< 0.23	U	
Trichloroethene	79-01-6	5.00E+00	*2.83E-01*	2.10E+01	***5.1***			***84***	***D***		***0.41***	***J***	***J***	< 0.20	U		***5.7***			< 0.20	U		< 0.20	U		< 0.20	U	
Trichlorofluoromethane	75-69-4	-	5.16E+02	-	< 0.33	U		< 1.7	U		< 0.33	UQ		< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	UQ	
Trichlorotrifluoroethane (Freon 113)	76-13-1	-	1.02E+03	-	< 0.23	U		< 1.2	U		< 0.23	U		< 0.23	U		< 0.23	U		< 0.23	U		< 0.23	U		< 0.23	U	
Vinyl chloride	75-01-4	2.00E+00	*1.88E-02*	9.30E+02	***0.83***	***J***	***J***	***56***	***D***		***0.41***	***J***	***J***	< 0.40	U		***2.1***			< 0.40	U		< 0.40	U		< 0.40	U	
Xylene (Total)	1330-20-7	1.00E+04	*1.93E+01*	1.30E+01	< 0.49	U		< 2.5	U		< 0.49	U		< 0.49	U		< 0.49	U		< 0.49	U		< 0.49	U		< 0.49	U	
Field Parameters																												
Depth to Water (ft)	DTW	-	-	-	**13.97**			**14.4**			**20.5**			**31**			**15.7**			**10.02**			**18**			**23.7**		
Dissolved Oxygen (mg/L)	DO	-	-	-	**0.19**			**1.85**			**1.75**			**0.5**			**1.18**			**4.11**			**0.32**			**0.13**		
Ferrous Iron - Field (mg/L)	FIELD FE	-	-	-	**0.48**			**2.26**			[1]			[1]			[1]			**0.01**			[1]			[1]		
Oxidation Reduction Potential (mV)	ORP	-	-	-	**191.1**			**144**			**-22.8**			**49.3**			**81.1**			**237.1**			**407.5**			**19.75**		
pH (pH unit)	PH	-	-	-	**5.44**			**5.67**			**6.57**			**6.3**			**5.77**			**5.77**			**4.58**			**6.24**		
Specific Conductivity (mS/cm)	SC	-	-	-	**0.131**			**0.236**			**0.199**			**0.196**			**0.276**			**0.091**			**0.048**			**0.134**		
Temperature (°C)	TEMP	-	-	-	**15.6**			**15.4**			**15.1**			**15.4**			**15.4**			**18.6**			**20.2**			**20.3**		
Turbidity (NTU)	TURB	-	-	-	**22**			**30**			**43**			**35.6**			**170**			**2.3**			**243**			**10.51**		

Table B.2
OU6 Annual Volatile Organic Compounds - Spring 2024
Defense Supply Center Richmond

					OU6-MW-301			OU6-MW-88			OU6-MW-89			OU6-MW-92			OU6-MW-93			OU6-MW-93			OU6-MW-94			OU6-MW-95			OU6-MW-96		
Sample Location					OU6-MW-301			OU6-MW-88			OU6-MW-89			OU6-MW-92			OU6-MW-93			OU6-MW-93			OU6-MW-94			OU6-MW-95			OU6-MW-96		
Sample ID					OU6-MW-301-20240515			OU6-MW-88-20240522			OU6-MW-89-20240523			OU6-MW-92-20240515			DUP2-20240516			OU6-MW-93-20240516			OU6-MW-94-20240516			OU6-MW-95-20240520			OU6-MW-96-20240514		
Sample Date					5/15/2024			5/22/2024			5/23/2024			5/15/2024			5/16/2024			5/16/2024			5/16/2024			5/20/2024			5/14/2024		
Sample Type					N			N			N			N			FD			N			N			N			N		
Description					LWBU			UWBU			UWBU			LWBU			LWBU			LWBU			LWBU			LWBU			LWBU		
Parameter	**CAS#**	**MCL**	**RSL**	**BTAG**	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV
VOCs by SW8260D (µg/L)																															
1,1,1,2-Tetrachloroethane	630-20-6	-	*5.74E-01*	-	< 0.36	U		< 0.36	U		< 0.36	U		< 0.36	U		< 0.36	U		< 0.36	U		< 0.36	U		< 3.6	U		< 0.36	U	
1,1,1-Trichloroethane	71-55-6	2.00E+02	8.01E+02	1.10E+01	< 0.21	U		< 0.21	U		< 0.21	U		< 0.21	U		< 0.21	U		< 0.21	U		< 0.21	U		< 2.1	U		< 0.21	U	
1,1,2,2-Tetrachloroethane	79-34-5	-	7.57E-02	6.10E+02	< 0.40	U		< 0.40	U		< 0.40	UQ		< 0.40	U		< 0.40	U		< 0.40	U		< 0.40	U		< 4.0	U		< 0.40	U	
1,1,2-Trichloroethane	79-00-5	5.00E+00	*4.15E-02*	1.20E+03	< 0.32	U		< 0.32	U		< 0.32	U		< 0.32	U		< 0.32	U		< 0.32	U		< 0.32	U		< 3.2	U		< 0.32	U	
1,1-Dichloroethane	75-34-3	-	*2.75E+00*	4.70E+01	< 0.33	U		**1.2**	**J**		**1.5**	**J**		< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	U		***13***	***JD***		< 0.33	U	
1,1-Dichloroethene (Vinylidene chloride)	75-35-4	7.00E+00	*2.85E+01*	2.50E+01	< 0.33	U		< 0.33	UM		**1.0**	**J**		< 0.33	U		< 0.33	U		< 0.33	U		**0.37**	**JM**	**J**	**6.4**	**JD**	**J**	< 0.33	U	
1,1-Dichloropropene	563-58-6	-	-	-	< 0.28	U		< 0.28	U		< 0.28	U		< 0.28	U		< 0.28	U		< 0.28	U		< 0.28	U		< 2.8	U		< 0.28	U	
1,2,3-Trichlorobenzene	87-61-6	-	7.04E-01	8.00E+00	< 0.81	U		< 0.81	U		< 0.81	U		< 0.81	U		< 0.81	U		< 0.81	U		< 0.81	U		< 8.1	U		< 0.81	U	
1,2,3-Trichloropropane	96-18-4	-	*7.49E-04*	-	< 0.48	U		< 0.48	U		< 0.48	U		< 0.48	U		< 0.48	U		< 0.48	U		< 0.48	U		< 4.8	U		< 0.48	U	
1,2,4-Trichlorobenzene	120-82-1	7.00E+01	*3.99E-01*	2.40E+01	< 0.53	U		< 0.53	U		< 0.53	U		< 0.53	U		< 0.53	U		< 0.53	U		< 0.53	U		< 5.3	U		< 0.53	U	
1,2,4-Trimethylbenzene	95-36-3	-	-	-	< 0.43	U		< 0.43	U		< 0.43	U		< 0.43	U		< 0.43	U		< 0.43	U		< 0.43	U		< 4.3	U		< 0.43	U	
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	2.00E-01	3.34E-04	-	< 1.8	U		< 1.8	UQ		< 1.8	U		< 1.8	U		< 1.8	U		< 1.8	U		< 1.8	U		< 18	U		< 1.8	U	
1,2-Dibromoethane (EDB)	106-93-4	5.00E-02	7.47E-03	-	< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	U		< 3.3	U		< 0.33	U	
1,2-Dichlorobenzene	95-50-1	6.00E+02	*3.04E+01*	7.00E-01	< 0.31	U		**5.0**			**0.83**	**J**	**J**	< 0.31	U		< 0.31	U		< 0.31	U		< 0.31	U		**3.3**	**JD**	**J**	< 0.31	U	
1,2-Dichloroethane	107-06-2	5.00E+00	*1.71E-01*	1.00E+02	< 0.25	UM		***0.47***	***JM***	***J***	< 0.25	U		< 0.25	UM		< 0.25	UM		< 0.25	UM		< 0.25	UM		***3.1***	***JD***	***J***	< 0.25	UM	
1,2-Dichloroethene, Total	540-59-0	-	-	5.90E+02	**48**			**85**			**140**			**4.0**			< 0.37	U		< 0.37	U		**4.7**			**870**	**D**		< 0.37	U	
1,2-Dichloropropane	78-87-5	5.00E+00	8.25E-01	-	< 0.22	U		< 0.22	U		< 0.22	U		< 0.22	U		< 0.22	U		< 0.22	U		< 0.22	U		< 2.2	U		< 0.22	U	
1,3,5-Trimethylbenzene	108-67-8	-	*6.03E+00*	7.10E+01	< 0.28	U		< 0.28	U		< 0.28	U		< 0.28	U		< 0.28	U		< 0.28	U		< 0.28	U		< 2.8	U		< 0.28	U	
1,3-Dichlorobenzene	541-73-1	-	-	1.50E+02	< 0.31	U		**1.0**	**J**		< 0.31	U		< 0.31	U		< 0.31	U		< 0.31	U		< 0.31	U		< 3.1	U		< 0.31	U	
1,3-Dichloropropane	142-28-9	-	3.69E+01	-	< 0.36	U		< 0.36	U		< 0.36	U		< 0.36	U		< 0.36	U		< 0.36	U		< 0.36	U		< 3.6	U		< 0.36	U	
1,4-Dichlorobenzene	106-46-7	7.50E+01	*4.82E-01*	2.60E+01	< 0.31	U		***17***			***3.3***			< 0.31	U		< 0.31	U		< 0.31	U		***0.73***	***J***	***J***	***14***	***JD***		< 0.31	U	
2,2-Dichloropropane	594-20-7	-	-	-	< 0.35	U		< 0.35	U		< 0.35	U		< 0.35	U		< 0.35	U		< 0.35	U		< 0.35	U		< 3.5	U		< 0.35	U	
2-Butanone (MEK)	78-93-3	-	*5.57E+02*	1.40E+04	< 6.4	U		< 6.4	U		**8.8**	**J**	**J**	< 6.4	U		< 6.4	UQ		< 6.4	UQ		< 6.4	U		< 64	U		< 6.4	U	
2-Chlorotoluene	95-49-8	-	2.37E+01	-	< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U		< 2.5	U		< 0.25	U	
2-Hexanone	591-78-6	-	3.80E+00	9.90E+01	< 3.2	U		< 3.2	U		< 3.2	U		< 3.2	U		< 3.2	U		< 3.2	U		< 3.2	U		< 32	U		< 3.2	U	
4-Chlorotoluene	106-43-4	-	2.50E+01	-	< 0.41	U		< 0.41	U		< 0.41	U		< 0.41	U		< 0.41	U		< 0.41	U		< 0.41	U		< 4.1	U		< 0.41	U	
4-Methyl-2-pentanone (MIBK)	108-10-1	-	6.26E+02	1.70E+02	< 2.7	U		< 2.7	U		< 2.7	U		< 2.7	U		< 2.7	U		< 2.7	U		< 2.7	U		< 27	U		< 2.7	U	
Acetone	67-64-1	-	*1.80E+03*	1.50E+03	< 3.7	U		< 3.7	U		< 3.7	U		< 3.7	U		< 3.7	U		< 3.7	U		< 3.7	U		< 37	U		< 3.7	UQ	
Benzene	71-43-2	5.00E+00	*4.55E-01*	3.70E+02	< 0.27	U		< 0.27	U		< 0.27	U		< 0.27	U		< 0.27	U		< 0.27	U		< 0.27	U		< 2.7	U		< 0.27	U	
Bromobenzene	108-86-1	-	6.22E+00	-	< 0.24	U		< 0.24	U		< 0.24	U		< 0.24	U		< 0.24	U		< 0.24	U		< 0.24	U		< 2.4	U		< 0.24	U	
Bromochloromethane	74-97-5	-	8.34E+00	-	< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	UQ		< 0.34	UQ		< 0.34	U		< 3.4	U		< 0.34	U	
Bromodichloromethane	75-27-4	8.00E+01	1.34E-01	-	< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U		< 2.5	U		< 0.25	U	
Bromoform	75-25-2	8.00E+01	3.29E+00	3.20E+02	< 0.59	U		< 0.59	U		< 0.59	UQ		< 0.59	U		< 0.59	U		< 0.59	U		< 0.59	U		< 5.9	U		< 0.59	U	
Bromomethane	74-83-9	-	7.55E-01	-	< 3.7	UQ		< 3.7	U		< 3.7	U		< 3.7	UQ		< 3.7	UQ		< 3.7	UQ		< 3.7	UQ		< 37	U		< 3.7	U	
Carbon disulfide	75-15-0	-	8.11E+01	9.20E-01	< 0.43	UQ		< 0.43	U		< 0.43	UQ		< 0.43	UQ		< 0.43	U		< 0.43	U		< 0.43	U		< 4.3	U		< 0.43	U	
Carbon tetrachloride	56-23-5	5.00E+00	*4.55E-01*	1.33E+01	< 0.30	U		< 0.30	U		< 0.30	U		< 0.30	U		< 0.30	U		< 0.30	U		< 0.30	U		< 3.0	U		< 0.30	U	
Chlorobenzene	108-90-7	1.00E+02	*7.77E+00*	1.30E+00	< 0.15	U		***19***			**1.5**			< 0.15	U		< 0.15	U		< 0.15	U		< 0.15	U		< 1.5	U		< 0.15	U	
Chlorodibromomethane (Dibromochloromethane)	124-48-1	8.00E+01	8.71E-01	-	< 0.39	U		< 0.39	U		< 0.39	U		< 0.39	U		< 0.39	U		< 0.39	U		< 0.39	U		< 3.9	U		< 0.39	U	
Chloroethane	75-00-3	-	8.34E+02	-	< 4.6	U		< 4.6	U		< 4.6	U		< 4.6	U		< 4.6	U		< 4.6	U		< 4.6	U		< 46	U		< 4.6	U	
Chloroform	67-66-3	8.00E+01	*2.21E-01*	1.80E+00	< 0.27	U		< 0.27	UM		< 0.27	U		< 0.27	U		< 0.27	U		< 0.27	U		< 0.27	U		< 2.7	U		< 0.27	U	
Chloromethane	74-87-3	-	1.88E+01	-	< 0.54	U		< 0.54	U		< 0.54	U		< 0.54	U		< 0.54	UQ		< 0.54	UQ		< 0.54	U		< 5.4	U		< 0.54	U	
cis-1,2-Dichloroethene	156-59-2	7.00E+01	*2.52E+00*	-	***48***			***84***			***140***			***4.0***			< 0.25	U		< 0.25	U		***4.7***			***870***	***D***		**0.31**	**J**	**J**
cis-1,3-Dichloropropene	10061-01-5	-	-	-	< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U		< 2.6	U		< 0.26	U	
Cyclohexane	110-82-7	-	1.25E+03	-	< 0.28	UQ		< 0.28	U		< 0.28	U		< 0.28	UQ		< 0.28	U		< 0.28	U		< 0.28	U		< 2.8	U		< 0.28	U	
Dibromomethane	74-95-3	-	8.34E-01	-	< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U		< 3.4	U		< 0.34	U	
Dichlorodifluoromethane	75-71-8	-	1.97E+01	-	< 0.36	U		< 0.36	UQ		< 0.36	UQ		< 0.36	U		< 0.36	UQ		< 0.36	UQ		< 0.36	UQ		< 3.6	UMQ		< 0.36	UQ	
Ethylbenzene	100-41-4	7.00E+02	*1.50E+00*	9.00E+01	< 0.20	U		< 0.20	U		< 0.20	U		< 0.20	U		< 0.20	U		< 0.20	U		< 0.20	U		< 2.0	U		< 0.20	U	
Hexachlorobutadiene	87-68-3	-	*1.39E-01*	1.30E+00	< 0.22	U		< 0.22	U		< 0.22	U		< 0.22	U		< 0.22	U		< 0.22	U		< 0.22	U		< 2.2	U		< 0.22	U	
Isopropylbenzene	98-82-8	-	4.51E+01	2.60E+00	< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U		< 2.6	U		< 0.26	U	
m+p-Xylenes	179601-23-1	-	-	-	< 0.49	U		< 0.49	U		< 0.49	U		< 0.49	U		< 0.49	U		< 0.49	U		< 0.49	U		< 4.9	U		< 0.49	U	
Methyl Acetate	79-20-9	-	1.99E+03	-	< 3.2	U		< 3.2	U		< 3.2	U		< 3.2	U		< 3.2	U		< 3.2	U		< 3.2	U		< 32	U		< 3.2	U	
Methylcyclohexane	108-87-2	-	1.98E+01	-	< 0.33	UQ		< 0.33	U		< 0.33	U		< 0.33	UQ		< 0.33	U		< 0.33	U		< 0.33	U		< 3.3	U		< 0.33	U	
Methylene chloride (DCM)	75-09-2	5.00E+00	1.07E+01	9.81E+01	< 3.2	U		< 3.2	U		< 3.2	U		< 3.2	U		< 3.2	U		< 3.2	U		< 3.2	U		< 32	U		< 3.2	U	
Naphthalene	91-20-3	-	*1.17E-01*	1.10E+00	< 2.4	U		< 2.4	U		< 2.4	U		< 2.4	U		< 2.4	U		< 2.4	U		< 2.4	U		< 24	U		< 2.4	U	
n-Butylbenzene	104-51-8	-	1.00E+02	-	< 0.52	UQ		< 0.52	U		< 0.52	U		< 0.52	UQ		< 0.52	U		< 0.52	U		< 0.52	U		< 5.2	U		< 0.52	U	
n-Propylbenzene	103-65-1	-	6.56E+01	1.28E+02	< 0.41	U		< 0.41	U		< 0.41	U		< 0.41	U		< 0.41	U		< 0.41	U		< 0.41	U		< 4.1	U		< 0.41	U	
o-Xylene	95-47-6	-	*1.93E+01*	-	< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U		< 2.6	U		< 0.26	U	
p-Isopropyltoluene	99-87-6	-	-	8.50E+01	< 0.44	U		< 0.44	U		< 0.44	U		< 0.44	U		< 0.44	U		< 0.44	U		< 0.44	U		< 4.4	U		< 0.44	U	
sec-Butylbenzene	135-98-8	-	2.01E+02	-	< 0.53	U		< 0.53	U		< 0.53	U		< 0.53	U		< 0.53	U		< 0.53	U		< 0.53	U		< 5.3	U		< 0.53	U	
Styrene	100-42-5	1.00E+02	1.21E+02	7.20E+01	< 0.27	U		< 0.27	U		< 0.27	U		< 0.27	U		< 0.27	U		< 0.27	U		< 0.27	U		< 2.7	U		< 0.27	U	
tert-Butyl methyl ether (MTBE)	1634-04-4	-	1.43E+01	1.11E+04	< 0.81	U		< 0.81	U		< 0.81	U		< 0.81	U		< 0.81	U		< 0.81	U		< 0.81	U		< 8.1	U		< 0.81	U	
tert-Butylbenzene	98-06-6	-	6.91E+01	-	< 0.43	U		< 0.43	U		< 0.43	U		< 0.43	U		< 0.43	U		< 0.43	U		< 0.43	U		< 4.3	U		< 0.43	U	
Tetrachloroethene	127-18-4	5.00E+00	*4.06E+00*	1.11E+02	< 0.35	U		***8.6***			***22***			< 0.35	U		< 0.35	UQ		< 0.35	UQ		< 0.35	U		< 3.5	U		< 0.35	U	
Toluene	108-88-3	1.00E+03	1.10E+02	2.00E+00	< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U		< 2.5	U		< 0.25	U	
trans-1,2-Dichloroethene	156-60-5	1.00E+02	*6.78E+00*	9.70E+02	< 0.34	U		**0.78**	**J**	**J**	**0.91**	**J**	**J**	< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U		< 3.4	U		< 0.34	U	
trans-1,3-Dichloropropene	10061-02-6	-	-	-	< 0.23	U		< 0.23	U		< 0.23	U		< 0.23	U		< 0.23	U		< 0.23	U		< 0.23	U		< 2.3	U		< 0.23	U	
Trichloroethene	79-01-6	5.00E+00	*2.83E-01*	2.10E+01	***2.4***			***43***			***39***			< 0.20	U		< 0.20	U		< 0.20	U		***10***			***6.2***	***JD***		< 0.20	U	
Trichlorofluoromethane	75-69-4	-	5.16E+02	-	< 0.33	U		< 0.33	U		< 0.33	UQ		< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	U		< 3.3	U		< 0.33	U	
Trichlorotrifluoroethane (Freon 113)	76-13-1	-	1.02E+03	-	< 0.23	U		**1.7**			**1.1**			< 0.23	U		< 0.23	U		< 0.23	U		< 0.23	U		< 2.3	U		< 0.23	U	
Vinyl chloride	75-01-4	2.00E+00	*1.88E-02*	9.30E+02	***2.1***			***2.9***			***4.9***	***M***		< 0.40	U		< 0.40	U		< 0.40	U		< 0.40	U		***220***	***DM***		< 0.40	U	
Xylene (Total)	1330-20-7	1.00E+04	*1.93E+01*	1.30E+01	< 0.49	U		< 0.49	U		< 0.49	U		< 0.49	U		< 0.49	U		< 0.49	U		< 0.49	U		< 4.9	U		< 0.49	U	
Field Parameters																															
Depth to Water (ft)	DTW	-	-	-	**13.97**			**4.9**			**10.45**			**20.3**			**16.95**			**16.95**			**14.65**			**19.99**			**24.75**		
Dissolved Oxygen (mg/L)	DO	-	-	-	**0.72**			**0.96**			**0.51**			**1.24**			**6.32**			**6.32**			**0.48**			**1.42**			**0.41**		
Ferrous Iron - Field (mg/L)	FIELD FE	-	-	-	-[1]			**0.74**			**0.29**			-[1]			-[1]			-[1]			**1.07**			**1.06**			-[1]		
Oxidation Reduction Potential (mV)	ORP	-	-	-	**260.4**			**284**			**222**			**17.2**			**20**			**20**			**17.6**			**30.9**			**-107.3**		
pH (pH unit)	PH	-	-	-	**5.91**			**5.45**			**6**			**6.08**			**9.77**			**9.77**			**6.06**			**5.37**			**5.69**		
Specific Conductivity (mS/cm)	SC	-	-	-	**0.158**			**0.061**			**0.063**			**0.114**			**0.067**			**0.067**			**0.103**			**0.48**			**0.194**		
Temperature (°C)	TEMP	-	-	-	**15.1**			**19.2**			**18.2**			**19**			**21.1**			**21.1**			**20.8**			**22.2**			**17.3**		
Turbidity (NTU)	TURB	-	-	-	**20**			**10.2**			**48**			**31.88**			**1.18**			**1.18**			**202.1**			**78.04**			**55.42**		

Notes:
CAS = chemical abstract service, MCL = Maximum Contaminant Level from 40 CFR Subpart G - National Primary Drinking Water Regulations: Maximum Contaminant Levels and Maximum Residual Disinfectant Levels May 2024, BTAG = EPA Region III BTAG Freshwater Screening Benchmarks, 7/2006, RSL = Regional Screening Level (RSL) for Chemical Contaminants in Residential Tapwater at Superfund Sites (TR=1E-06, HQ=0.1) May 2024
VOC = Volatile organic compound
µg/L = micrograms per liter, mg/L = milligrams per liter, mV = millivolts, mS/cm = milliSiemens per centimeter, °C = degree celcius, NTU = Nephelometric turbidity units
Sample types N = normal, FD = Field Duplicate
UWBU = upper water bearing unit, LWBU = lower water bearing unit,
Q = Lab qualifier, DV = validation qualifier

1- Parameters were not collected due to field conditions, reference field logs for details.
2- Field parameters were collected on a different date, reference field logs for details.

Lab Qualifiers (Q):
D = The reported value is from a dilution
H = Sample was prepped or analyzed beyond the specified holding time
J = Estimated: the analyte was positively idenfied; the quantitation is an estimation
J1 = Estimated: the quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria
M = Manual integrated compound
Q = One of more quality control criteria failed
U = Undetected at the limit of detection

Validator Qualifiers (DV):
J = The reported result was an estimated value with an unknown bias
J- = The result was an estimated quantity, but the result may be biased low
J+ = The result was an estimated quantity, but the result may be biased high

Bold Result = detection
Grey Shading Result = concentration > MCL
Italicized Result = concentration > RSL
Underlined Result = concentration > BTAG

B.3 MNA Annual Monitoring Tables (May 2024)

Table B.3.1
OU6 Annual Monitored Natural Attenuation - Spring 2024
Defense Supply Center Richmond

	Sample Location	DMW-28B			DMW-34B			DMW-9A			EBF-08D			OU6-MW-124			OU6-MW-126			OU6-MW-129		
	Sample ID	OU6-DMW-28B-20240529			OU6-DMW-34B-20240516			OU6-DMW-9A-20240514			OU6-EBF-08D-20240522			OU6-MW-124-20240515			OU6-MW-126-20240523			OU6-MW-129-20240523		
	Sample Date	5/29/2024			5/16/2024			5/14/2024			5/22/2024			5/15/2024			5/23/2024			5/23/2024		
	Sample Type	N			N			N			N			N			N			N		
	Description	LWBU			LWBU			UWBU			LWBU			UWBU			UWBU			UWBU		
Parameter	**CAS#**	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV
Dissolved Gases by RSK-175 (µg/L)																						
Ethane	74-84-0	**2.6**			< 1.0	U		< 1.0	U		**1.5**			< 1.0	U		**1.6**			< 0.30	U	
Ethene	74-85-1	**4.7**			< 1.0	UM		< 1.0	U		**0.86**	**J**		< 1.0	UM		**82**			**4900**	**J1**	
Methane	74-82-8	-			**3.0**	**JM**	**J**	< 3.0	U		**47**			**10**	**M**		-			-		
Methane (TCD)	74-82-8-TCD	**3800**			-			-			-			-			**13000**			**16000**		
Alkalinity by SM2320B (mg/L)																						
Alkalinity to pH 4.5	ALK4.5	**31**			**13**			**5.8**			**37**			**32**			-[1]			**220**		
Bicarbonate Alkalinity as CaCO3	ALKB	**31**			**13**			**5.8**	**J**		**37**			**32**			-[1]			**220**		
Carbonate Alkalinity as CaCO3	ALKC	< 5.0	U		< 5.0	U		< 5.0	U		< 5.0	U		< 5.0	U		-[1]			< 5.0	U	
Carbon Dioxide by SM4500-CO2-D (mg/L)																						
Carbon Dioxide, Free	CO2FR	**73**			**22**			**43**			**45**			**51**			-[1]			**180**		
Sulfide (total) by SM4500-S2-F (mg/L)																						
Sulfide	18496-25-8	< 0.83	U		< 0.81	U		< 0.83	U		< 0.89	U		< 0.83	U		-[1]			< 0.83	U	
Sulfide as H2S	7783-06-4	< 0.92	U		< 0.89	U		< 0.92	U		< 0.98	U		< 0.92	U		-[1]			< 0.92	U	
Metals by SW6020A (µg/L)																						
Manganese	7439-96-5	**58**			**3.6**	**J**	**J**	**18**			**41**			**7.6**	**J**		-[1]			**460**		
Anions by SW9056A (mg/L)																						
Chloride	16887-00-6	**4.0**			**2.5**			**37**			**26**	**M**		**3.3**	**M**		-[1]			**56**	**D**	
Nitrogen, Nitrate	14797-55-8	**0.18**			**0.16**			**1.7**	**D**		**0.14**			**0.025**	**J**	**J**	-[1]			< 0.023	U	
Nitrogen, Nitrate + Nitrite	NO3NO2N	**0.18**			**0.16**			**1.7**	**D**		**0.14**			**0.025**	**J**	**J**	-[1]			< 0.023	U	
Nitrogen, Nitrite	14797-65-0	< 0.023	U		< 0.023	U		< 0.046	UJ1		< 0.023	UM		< 0.023	U		-[1]			< 0.023	U	
Sulfate	18785-72-3	**7.1**	**M**		**7.3**			**5.8**			**2.3**			**1.6**			-[1]			**1.0**	**JM**	
Total Organic Carbon by SW9060A (mg/L)																						
Total Organic Carbon	TOC	< 0.50	U		< 0.50	U		**0.77**	**J**		**1.8**			**6.3**			-[1]			**18**		
Field Parameters																						
Depth to Water (ft)	DTW	**25.2**			**18.45**			**10.23**			**18.9**			**14.3**			**18.05**			**18.28**		
Dissolved Oxygen (mg/L)	DO	**0.77**			**1.56**			**5.09**			**1.63**			**5.53**			**0.48**			**0.41**		
Ferrous Iron - Field (mg/L)	FIELD FE	**1.02**			**0.03**			-[1]			**0.07**			**0.07**			-[1]			**1.97**		
Oxidation Reduction Potential (mV)	ORP	**-3.4**			**167.2**			**406.1**			**134.3**			**272.9**			**-67.4**			**-83.3**		
pH (pH unit)	PH	**5.7**			**5.62**			**4.9**			**5.62**			**5.4**			**6.13**			**6.19**		
Specific Conductivity (mS/cm)	SC	**0.083**			**0.061**			**0.076**			**0.151**			**0**			**0.362**			**0.56**		
Temperature (°C)	TEMP	**18**			**19**			**16.9**			**20**			**17.5**			**21.6**			**18.6**		
Turbidity (NTU)	TURB	**150**			**1.58**			**0**			**3.21**			**18.98**			**601.98**			**182.03**		

Table B.3.1
OU6 Annual Monitored Natural Attenuation - Spring 2024
Defense Supply Center Richmond

	Sample Location	OU6-MW-130			OU6-MW-131			OU6-MW-142			OU6-MW-145			OU6-MW-145			OU6-MW-157			OU6-MW-159		
	Sample ID	OU6-MW-130-20240522			OU6-MW-131-20240523			OU6-MW-142-20240515			DUP3-20240520			OU6-MW-145-20240520			OU6-MW-157-20240522			OU6-MW-159-20240517		
	Sample Date	5/22/2024			5/23/2024			5/15/2024			5/20/2024			5/20/2024			5/22/2024			5/17/2024		
	Sample Type	N			N			N			FD			N			N			N		
	Description	UWBU			UWBU			LWBU			LWBU			LWBU			LWBU			LWBU		
Parameter	**CAS#**	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV
Dissolved Gases by RSK-175 (µg/L)																						
Ethane	74-84-0	**4.9**			**2.5**			< 1.0	U		< 0.30	U		< 0.30	U		**9.6**			< 1.0	U	
Ethene	74-85-1	**88**			**9.9**			< 1.0	UM		< 0.31	U		< 0.31	U		**0.80**	**J**		**1.6**	**J**	**J**
Methane	74-82-8	-			-			**3.2**	**JM**	**J**	**23**			**22**			**330**			**14000**	**DM**	
Methane (TCD)	74-82-8-TCD	**13000**			**11000**			-			-			-			-			-		
Alkalinity by SM2320B (mg/L)																						
Alkalinity to pH 4.5	ALK4.5	**190**			**11**			**32**			**43**			**24**			**67**			**31**		
Bicarbonate Alkalinity as CaCO3	ALKB	**190**			**11**			**32**			**43**			**24**			**67**			**31**		
Carbonate Alkalinity as CaCO3	ALKC	< 5.0	U		< 5.0	U		< 5.0	U		< 5.0	U		< 5.0	U		< 5.0	U		< 5.0	U	
Carbon Dioxide by SM4500-CO2-D (mg/L)																						
Carbon Dioxide, Free	CO2FR	**240**			**44**			**43**			< 5.0	U		**37**			**85**			**75**		
Sulfide (total) by SM4500-S2-F (mg/L)																						
Sulfide	18496-25-8	< 0.89	U		< 0.83	U		< 0.81	U		< 0.89	U		< 0.83	U		< 0.81	U		< 0.81	U	
Sulfide as H2S	7783-06-4	< 0.98	U		< 0.92	U		< 0.89	U		< 0.98	U		< 0.92	U		< 0.89	U		< 0.89	U	
Metals by SW6020A (µg/L)																						
Manganese	7439-96-5	**270**			**44**			**25**			**44**			**56**			**200**			**430**		
Anions by SW9056A (mg/L)																						
Chloride	16887-00-6	**12**			**7.2**	**M**		**3.2**			**13**			**14**			**110**	**DM**		**1.9**	**M**	
Nitrogen, Nitrate	14797-55-8	< 0.046	U		**0.33**	**D**		< 0.023	UH		< 0.023	U		**0.024**	**JM**	**J**	< 0.046	U		< 0.023	U	
Nitrogen, Nitrate + Nitrite	NO3NO2N	< 0.046	U		**0.33**	**D**		< 0.023	UH		< 0.023	U		**0.024**	**J**	**J**	< 0.046	U		< 0.023	U	
Nitrogen, Nitrite	14797-65-0	< 0.046	UM		< 0.046	U		< 0.023	UH		< 0.023	U		< 0.023	U		< 0.046	UM		< 0.023	U	
Sulfate	18785-72-3	**1.3**	**J**		**1.3**	**JM**		**11**			**10**			**9.9**			**4.5**			**0.78**	**J**	**J**
Total Organic Carbon by SW9060A (mg/L)																						
Total Organic Carbon	TOC	**2.9**			**1.3**			**0.72**	**J**		< 0.50	U		< 0.50	U		**0.86**	**J**		**26**		
Field Parameters																						
Depth to Water (ft)	DTW	**5.95**			**19.6**			**13.55**			**14.9**			**14.9**			**11.03**			**22.1**		
Dissolved Oxygen (mg/L)	DO	**0.65**			**0.41**			**2**			**1.62**			**1.62**			**0.6**			**0.64**		
Ferrous Iron - Field (mg/L)	FIELD FE	**5**			**0.13**			**0.66**			**0.62**			**0.75**			**1.3**			**2.29**		
Oxidation Reduction Potential (mV)	ORP	**-55.1**			**239.4**			**231.7**			**278.8**			**278.8**			**134.8**			**108.9**		
pH (pH unit)	PH	**5.45**			**4.9**			**5.98**			**5.85**			**5.85**			**5.5**			**9.37**		
Specific Conductivity (mS/cm)	SC	**0.399**			**0.052**			**0.1**			**0.125**			**0.125**			**0.518**			**0.082**		
Temperature (°C)	TEMP	**18.2**			**18.1**			**15.6**			**15.8**			**15.8**			**15.9**			**18.5**		
Turbidity (NTU)	TURB	**10.2**			**120.17**			**19.65**			**14**			**14**			**73**			**0.85**		

Table B.3.1
OU6 Annual Monitored Natural Attenuation - Spring 2024
Defense Supply Center Richmond

	Sample Location	OU6-MW-160			OU6-MW-165			OU6-MW-166			OU6-MW-167			OU6-MW-168			OU6-MW-169			OU6-MW-170		
	Sample ID	OU6-MW-160-20240520			OU6-MW-165-20240517			OU6-MW-166-20240516			OU6-MW-167-20240516			OU6-MW-168-20240514[2]			OU6-MW-169-20240514			OU6-MW-170-20240521		
	Sample Date	5/20/2024			5/17/2024			5/16/2024			5/16/2024			5/14/2024			5/14/2024			5/21/2024		
	Sample Type	N			N			N			N			N			N			N		
	Description	LWBU			LWBU			LWBU			LWBU			LWBU			UWBU			LWBU		
Parameter	**CAS#**	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV
Dissolved Gases by RSK-175 (µg/L)																						
Ethane	74-84-0	< 0.30	U		< 1.0	U		< 1.0	U		< 1.0	U		< 1.0	U		< 1.0	U		**0.66**	**J**	**J**
Ethene	74-85-1	< 0.31	U		< 1.0	U		< 1.0	U		< 1.0	U		< 1.0	U		< 1.0	U		**4.5**		
Methane	74-82-8	**0.63**	**J**	**J**	**3.7**	**JM**	**J**	< 3.0	UM		**15000**	**DM**		< 3.0	U		< 3.0	U		-		
Methane (TCD)	74-82-8-TCD	-			-			-			-			-			-			**21000**		
Alkalinity by SM2320B (mg/L)																						
Alkalinity to pH 4.5	ALK4.5	**6.9**			**13**			**26**			**59**			**14**			**5.0**	**J**		**950**		
Bicarbonate Alkalinity as CaCO3	ALKB	**6.9**	**J**		**13**			**26**			**59**			**14**			**5.0**	**J**		**950**		
Carbonate Alkalinity as CaCO3	ALKC	< 5.0	U		< 5.0	U		< 5.0	U		< 5.0	U		< 5.0	U		< 5.0	U		< 5.0	U	
Carbon Dioxide by SM4500-CO2-D (mg/L)																						
Carbon Dioxide, Free	CO2FR	**21**			**29**			**35**			**110**			**36**			**33**			**190**		
Sulfide (total) by SM4500-S2-F (mg/L)																						
Sulfide	18496-25-8	< 0.81	U		< 0.81	U		< 0.86	U		< 0.83	U		< 0.81	U		< 0.83	U		< 0.81	U	
Sulfide as H2S	7783-06-4	< 0.89	U		< 0.89	U		< 0.95	U		< 0.92	U		< 0.89	U		< 0.92	U		< 0.89	U	
Metals by SW6020A (µg/L)																						
Manganese	7439-96-5	**20**			**8.7**	**J**		**28**			**330**			**17**			**270**			**54**		
Anions by SW9056A (mg/L)																						
Chloride	16887-00-6	**12**	**J1**	**J-**	**4.9**	**M**		**5.9**	**M**		**1.7**	**M**		**5.2**	**M**		**28**			< 0.20	U	
Nitrogen, Nitrate	14797-55-8	**0.70**	**J1**		**0.79**	**D**		**0.66**	**MJ1**	**J+**	< 0.023	U		**0.85**			**3.0**	**D**		< 0.023	U	
Nitrogen, Nitrate + Nitrite	NO3NO2N	**0.70**			**0.79**	**D**		**0.66**			< 0.023	U		**0.85**			**3.0**	**D**		< 0.023	U	
Nitrogen, Nitrite	14797-65-0	< 0.023	U		< 0.046	U		< 0.023	U		< 0.023	U		< 0.023	U		< 0.023	U		< 0.023	U	
Sulfate	18785-72-3	**30**	**J1**	**J-**	**2.1**			**3.1**			**0.76**	**J**	**J**	**2.2**			**1.0**	**J**		< 0.40	U	
Total Organic Carbon by SW9060A (mg/L)																						
Total Organic Carbon	TOC	< 0.50	U		< 0.50	U		< 0.50	U		**62**			< 0.50	U		< 0.50	U		**450**	**D**	
Field Parameters																						
Depth to Water (ft)	DTW	**19.65**			**19.4**			**20.47**			**44**			**19.53**			**8.8**			**23.31**		
Dissolved Oxygen (mg/L)	DO	**3.2**			**2.7**			**2.61**			**4.8**			**3.29**			**3.86**			**0.46**		
Ferrous Iron - Field (mg/L)	FIELD FE	**0.16**			**0.01**			**0.12**			**0.03**			**0.17**			**0.01**			**0.01**		
Oxidation Reduction Potential (mV)	ORP	**181.2**			**448.8**			**399.5**			**300.4**			**184.7**			**488.8**			**115**		
pH (pH unit)	PH	**5.19**			**5.23**			**5.2**			**5.41**			**5.13**			**4.52**			**6.55**		
Specific Conductivity (mS/cm)	SC	**0.051**			**0.057**			**0.07**			**0.133**			**0.048**			**0.083**			**1.439**		
Temperature (°C)	TEMP	**18**			**18.7**			**18.2**			**21.1**			**19.4**			**17.4**			**16.9**		
Turbidity (NTU)	TURB	**95.87**			**61**			**12.75**			**65**			**247**			-[1]			**15.58**		

Table B.3.1
OU6 Annual Monitored Natural Attenuation - Spring 2024
Defense Supply Center Richmond

	Sample Location	OU6-MW-171			OU6-MW-217			OU6-MW-222			OU6-MW-223			OU6-MW-236			OU6-MW-237			OU6-MW-238		
	Sample ID	OU6-MW-171-20240517			OU6-MW-217-20240522			OU6-MW-222-20240520			OU6-MW-223-20240521			OU6-MW-236-20240521			OU6-MW-237-20240521			OU6-MW-238-20240521		
	Sample Date	5/17/2024			5/22/2024			5/20/2024			5/21/2024			5/21/2024			5/21/2024			5/21/2024		
	Sample Type	N			N			N			N			N			N			N		
	Description	LWBU			LWBU			UWBU			UWBU			LWBU			UWBU			UWBU		
Parameter	**CAS#**	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV
Dissolved Gases by RSK-175 (µg/L)																						
Ethane	74-84-0	< 1.0	UM		**1.9**			< 0.30	U		< 0.30	U		**0.66**	**J**	**J**	< 0.30	U		**1.3**		
Ethene	74-85-1	< 1.0	U		**6.1**			**2.1**			**0.57**	**J**	**J**	**2.0**			< 0.31	U		**49**		
Methane	74-82-8	**5.3**	**JM**	**J**	-			-			-			-			**99**			-		
Methane (TCD)	74-82-8-TCD	-			**8100**			**5000**			**760**	**M**		**5400**	**J1**		-			**7800**		
Alkalinity by SM2320B (mg/L)																						
Alkalinity to pH 4.5	ALK4.5	**7.0**			**200**			**28**			**67**			**44**			**33**			**140**		
Bicarbonate Alkalinity as CaCO3	ALKB	**7.0**	**J**		**200**			**28**			**67**			**44**			**33**			**140**		
Carbonate Alkalinity as CaCO3	ALKC	< 5.0	U		< 5.0	U		< 5.0	U		< 5.0	U		< 5.0	U		< 5.0	U		< 5.0	U	
Carbon Dioxide by SM4500-CO2-D (mg/L)																						
Carbon Dioxide, Free	CO2FR	**26**			**100**			**78**			**55**			**28**			**30**			**160**		
Sulfide (total) by SM4500-S2-F (mg/L)																						
Sulfide	18496-25-8	< 0.81	U		**2.6**			< 0.89	U		< 0.86	U		< 0.81	U		< 0.86	U		< 0.93	U	
Sulfide as H2S	7783-06-4	< 0.89	U		**2.7**			< 0.98	U		< 0.95	U		< 0.89	U		< 0.95	U		< 1.0	U	
Metals by SW6020A (µg/L)																						
Manganese	7439-96-5	**6.4**	**J**		**41**			**86**			**160**			**56**			**6.9**	**J**		**150**		
Anions by SW9056A (mg/L)																						
Chloride	16887-00-6	**5.1**	**M**		**2.4**			**14**			**7.6**	**M**		**23**			**8.0**	**M**		**11**		
Nitrogen, Nitrate	14797-55-8	**0.50**	**D**		< 0.023	U		**0.18**			**0.042**	**JM**	**J**	< 0.023	UM		**0.32**	**M**		< 0.046	U	
Nitrogen, Nitrate + Nitrite	NO3NO2N	**0.50**	**D**		< 0.023	U		**0.18**			**0.042**	**J**	**J**	< 0.023	U		**0.32**			< 0.046	U	
Nitrogen, Nitrite	14797-65-0	< 0.046	U		< 0.023	U		< 0.023	UM		< 0.023	UM		< 0.023	UMJ1		< 0.023	U		< 0.046	U	
Sulfate	18785-72-3	**2.6**			**0.48**	**J**	**J**	**5.5**			**0.52**	**J**	**J**	**15**			**0.59**	**J**	**J**	**3.2**		
Total Organic Carbon by SW9060A (mg/L)																						
Total Organic Carbon	TOC	**0.60**	**J**		**34**			**1.8**			**4.8**			< 0.50	U		**1.0**			**4.1**		
Field Parameters																						
Depth to Water (ft)	DTW	**21.05**			**33.72**			**12.45**			**13.35**			**15.1**			**13.75**			**14**		
Dissolved Oxygen (mg/L)	DO	**3.35**			**9.95**			**0.7**			**5.11**			**0.01**			**4.15**			**0.48**		
Ferrous Iron - Field (mg/L)	FIELD FE	**0.07**			**0.12**			**1.15**			**0.94**			**0.76**			**0.07**			**2.76**		
Oxidation Reduction Potential (mV)	ORP	**449.9**			**80.1**			**191.6**			**204.2**			**47.3**			**296.3**			**-34.7**		
pH (pH unit)	PH	**4.84**			**5.95**			**5.02**			**5.68**			**5.98**			**5.03**			**5.99**		
Specific Conductivity (mS/cm)	SC	**0.044**			**0.315**			**0.091**			**0.221**			**0.182**			**0.053**			**0.244**		
Temperature (°C)	TEMP	**17.8**			**18.2**			**18.1**			**18.6**			**19.4**			**19.7**			**18.7**		
Turbidity (NTU)	TURB	**6.77**			**85.6**			**10.2**			-[1]			**108.6**			-[1]			**10.2**		

Table B.3.1
OU6 Annual Monitored Natural Attenuation - Spring 2024
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	Sample Location	OU6-MW-239			OU6-MW-240			OU6-MW-241			OU6-MW-242			OU6-MW-243			OU6-MW-244			OU6-MW-245		
	Sample ID	OU6-MW-239-20240521			OU6-MW-240-20240521			OU6-MW-241-20240521			OU6-MW-242-20240523			OU6-MW-243-20240523			OU6-MW-244-20240521			OU6-MW-245-20240523		
	Sample Date	5/21/2024			5/21/2024			5/21/2024			5/23/2024			5/23/2024			5/21/2024			5/23/2024		
	Sample Type	N			N			N			N			N			N			N		
	Description	UWBU			UWBU			UWBU			UWBU			UWBU			UWBU			UWBU		
Parameter	**CAS#**	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV
Dissolved Gases by RSK-175 (µg/L)																						
Ethane	74-84-0	< 0.30	U		< 0.30	U		**6.0**			**3.8**			< 0.30	U		**0.31**	**J**	**J**	**1.9**		
Ethene	74-85-1	**22**			**130**			**8.4**			**260**			**900**	**J1**		**13**			**32**		
Methane	74-82-8	-			-			-			-			-			-			-		
Methane (TCD)	74-82-8-TCD	**4300**			**11000**			**17000**			**23000**			**12000**			**9100**			**21000**		
Alkalinity by SM2320B (mg/L)																						
Alkalinity to pH 4.5	ALK4.5	**10**			**330**			**270**			**170**			**220**			**310**			**250**		
Bicarbonate Alkalinity as CaCO3	ALKB	**10**	**J**		**330**			**270**			**170**			**220**			**10**	**J**		**250**		
Carbonate Alkalinity as CaCO3	ALKC	< 5.0	U		< 5.0	U		< 5.0	U		< 5.0	U		< 5.0	U		< 5.0	U		< 5.0	U	
Carbon Dioxide by SM4500-CO2-D (mg/L)																						
Carbon Dioxide, Free	CO2FR	**32**			**340**			**220**			**180**			**320**			**52**			**240**		
Sulfide (total) by SM4500-S2-F (mg/L)																						
Sulfide	18496-25-8	< 0.81	U		< 0.81	U		< 0.81	U		< 0.83	U		< 0.83	U		< 0.81	U		< 0.83	U	
Sulfide as H2S	7783-06-4	< 0.89	U		< 0.89	U		< 0.89	U		< 0.92	U		< 0.92	U		< 0.89	U		< 0.92	U	
Metals by SW6020A (µg/L)																						
Manganese	7439-96-5	**82**			**740**			**1000**			**4900**			**1800**			**120**			**270**		
Anions by SW9056A (mg/L)																						
Chloride	16887-00-6	**9.7**	**M**		**20**			**9.8**			**15**			**41**			**10**	**M**		**20**		
Nitrogen, Nitrate	14797-55-8	**0.94**			< 0.046	U		< 0.046	U		< 0.046	U		< 0.046	U		**0.12**			< 0.046	U	
Nitrogen, Nitrate + Nitrite	NO3NO2N	**0.94**			< 0.046	U		< 0.046	U		< 0.046	U		< 0.046	U		**0.12**			< 0.046	U	
Nitrogen, Nitrite	14797-65-0	< 0.023	U		< 0.046	U		< 0.046	U		< 0.046	U		< 0.046	U		< 0.023	U		< 0.046	U	
Sulfate	18785-72-3	**3.4**			**0.49**	**J**	**J**	**0.98**	**JM**	**J**	**0.77**	**JM**	**J**	**0.75**	**JM**	**J**	**10**			**0.61**	**JM**	**J**
Total Organic Carbon by SW9060A (mg/L)																						
Total Organic Carbon	TOC	**0.72**	**J**		**85**			**27**			**12**			**130**	**D**		**1.3**			**55**		
Field Parameters																						
Depth to Water (ft)	DTW	**11.91**			**13.9**			**13**			**12.6**			**13.13**			**12.98**			**14.3**		
Dissolved Oxygen (mg/L)	DO	**3.24**			**0.42**			**0.12**			**2.4**			**1.77**			**2.5**			**2.05**		
Ferrous Iron - Field (mg/L)	FIELD FE	-[1]			**5.76**			**10.8**			**1.49**			**1.5**			-[1]			**11.56**		
Oxidation Reduction Potential (mV)	ORP	**332.7**			**-58**			**-80.6**			**-116.4**			**-22.4**			**333.9**			**-140.2**		
pH (pH unit)	PH	**5**			**6.03**			**6.27**			**6.27**			**5.61**			**4.95**			**6.4**		
Specific Conductivity (mS/cm)	SC	**0.093**			**0.693**			**0.706**			**0.481**			**0.569**			**0.102**			**0.667**		
Temperature (°C)	TEMP	**20**			**18.3**			**18.3**			**19**			**19.1**			**20.4**			**20.2**		
Turbidity (NTU)	TURB	-[1]			**25.7**			**27.55**			-[1]			-[1]			-[1]			-[1]		

Table B.3.1
OU6 Annual Monitored Natural Attenuation - Spring 2024
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	Sample Location	OU6-MW-246			OU6-MW-247			OU6-MW-248			OU6-MW-250			OU6-MW-251			OU6-MW-252			OU6-MW-253		
	Sample ID	OU6-MW-246-20240515			OU6-MW-247-20240522			OU6-MW-248-20240516			OU6-MW-250-20240522			OU6-MW-251-20240522			OU6-MW-252-20240521			OU6-MW-253-20240521		
	Sample Date	5/15/2024			5/22/2024			5/16/2024			5/22/2024			5/22/2024			5/21/2024			5/21/2024		
	Sample Type	N			N			N			N			N			N			N		
	Description	UWBU			UWBU			UWBU			UWBU			UWBU			UWBU			UWBU		
Parameter	**CAS#**	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV
Dissolved Gases by RSK-175 (µg/L)																						
Ethane	74-84-0	< 1.0	U		< 0.30	U		< 1.0	U		**1.2**			**0.82**	**J**		< 0.30	U		< 0.30	U	
Ethene	74-85-1	< 1.0	UM		**2.1**			< 1.0	UM		**44**			**4.7**			< 0.31	U		**0.91**	**J**	
Methane	74-82-8	**9700**	**DM**		-			< 3.0	UM		-			-			**4.0**			-		
Methane (TCD)	74-82-8-TCD	-			**6500**			-			**14000**			**7000**			-			**1500**		
Alkalinity by SM2320B (mg/L)																						
Alkalinity to pH 4.5	ALK4.5	**29**			< 2.2	U		**13**			**270**			**58**			**200**			**47**		
Bicarbonate Alkalinity as CaCO3	ALKB	**29**			< 5.0	U		**13**			**270**			**58**			**170**			**47**		
Carbonate Alkalinity as CaCO3	ALKC	< 5.0	U		< 5.0	U		< 5.0	U		< 5.0	U		< 5.0	U		**27**			< 5.0	U	
Carbon Dioxide by SM4500-CO2-D (mg/L)																						
Carbon Dioxide, Free	CO2FR	**19**			< 5.0	U		**49**			**230**			**69**			< 5.0	U		**170**		
Sulfide (total) by SM4500-S2-F (mg/L)																						
Sulfide	18496-25-8	< 0.81	U		**1.6**			< 0.81	U		< 0.81	U		< 0.81	U		< 0.83	U		< 0.81	U	
Sulfide as H2S	7783-06-4	< 0.89	U		**1.7**			< 0.89	U		< 0.89	U		< 0.89	U		< 0.92	U		< 0.89	U	
Metals by SW6020A (µg/L)																						
Manganese	7439-96-5	**47**			**190**			**31**			**310**			**300**			**130**			**220**		
Anions by SW9056A (mg/L)																						
Chloride	16887-00-6	**11**	**M**		**7.5**			**10**	**M**		**12**			**11**	**M**		**1.1**	**M**		**16**		
Nitrogen, Nitrate	14797-55-8	**0.61**	**MJ1**	**J-**	< 0.023	U		**0.75**	**M**		< 0.046	U		< 0.046	UM		**0.14**			< 0.046	U	
Nitrogen, Nitrate + Nitrite	NO3NO2N	**0.61**	**J1**	**J-**	< 0.023	U		**0.75**			< 0.046	U		< 0.046	U		**0.14**			< 0.046	U	
Nitrogen, Nitrite	14797-65-0	< 0.023	UJ1		< 0.023	U		< 0.023	UM		< 0.046	U		< 0.046	UM		< 0.023	U		< 0.046	U	
Sulfate	18785-72-3	**1.1**	**J**		**0.85**	**JM**	**J**	**4.4**			**2.1**			**2.3**			**5.9**			**0.56**	**J**	**J**
Total Organic Carbon by SW9060A (mg/L)																						
Total Organic Carbon	TOC	**0.88**	**J**		**760**	**D**		**0.70**	**J**		**6.0**			**2.0**			**9.6**			**3.2**		
Field Parameters																						
Depth to Water (ft)	DTW	**12.65**			**17.94**			**11.6**			**12.68**			**12.75**			**13.15**			**13.95**		
Dissolved Oxygen (mg/L)	DO	**3.23**			**2.01**			**4.39**			**3.18**			**1.59**			**5.84**			**0.54**		
Ferrous Iron - Field (mg/L)	FIELD FE	**0.26**			**3.08**			**1.37**			**4.42**			**2.49**			**0.12**			**1.9**		
Oxidation Reduction Potential (mV)	ORP	**264.1**			**-171.2**			**273.7**			**202.3**			**228.3**			**97.2**			**161.7**		
pH (pH unit)	PH	**4.79**			**6.37**			**5.01**			**6.32**			**5.54**			**6.97**			**5.03**		
Specific Conductivity (mS/cm)	SC	**0.058**			**1.341**			**0.062**			**0.22**			**0.124**			**0.289**			**0.163**		
Temperature (°C)	TEMP	**18.2**			**19.7**			**19**			**18.7**			**19.4**			**17.3**			**19**		
Turbidity (NTU)	TURB	**0.59**			-[1]			**11.98**			**310.12**			-[1]			**10.2**			**9.99**		

Table B.3.1
OU6 Annual Monitored Natural Attenuation - Spring 2024
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	Sample Location	OU6-MW-254			OU6-MW-255			OU6-MW-256			OU6-MW-258			OU6-MW-259			OU6-MW-260			OU6-MW-261		
	Sample ID	OU6-MW-254-20240521			OU6-MW-255-20240522			OU6-MW-256-20240521			OU6-MW-258-20240517			OU6-MW-259-20240515			OU6-MW-260-20240523			OU6-MW-261-20240516		
	Sample Date	5/21/2024			5/22/2024			5/21/2024			5/17/2024			5/15/2024			5/23/2024			5/16/2024		
	Sample Type	N			N			N			N			N			N			N		
	Description	UWBU			UWBU			UWBU			UWBU			UWBU			UWBU			UWBU		
Parameter	**CAS#**	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV
Dissolved Gases by RSK-175 (µg/L)																						
Ethane	74-84-0	**0.47**	**J**	**J**	**1.4**			< 0.30	U		< 1.0	U		< 1.0	UM		**570**			< 1.0	UM	
Ethene	74-85-1	**6.9**			**79**			**1.2**			< 1.0	U		< 1.0	U		**1000**	**J1**		< 1.0	U	
Methane	74-82-8	-			-			-			< 3.0	U		**78**	**M**		-			**210**	**M**	
Methane (TCD)	74-82-8-TCD	**3900**			**7400**			**1600**			-			-			**5700**			-		
Alkalinity by SM2320B (mg/L)																						
Alkalinity to pH 4.5	ALK4.5	**120**			**76**			**6.6**			**5.8**			**10**			**45**			**470**		
Bicarbonate Alkalinity as CaCO3	ALKB	**120**			**76**			**6.6**	**J**		**5.8**	**J**		**10**	**J**		**45**			**470**		
Carbonate Alkalinity as CaCO3	ALKC	< 5.0	U		< 5.0	U		< 5.0	U		< 5.0	U		< 5.0	U		< 5.0	U		< 5.0	U	
Carbon Dioxide by SM4500-CO2-D (mg/L)																						
Carbon Dioxide, Free	CO2FR	**220**			**80**			**58**			**30**			**81**			**510**			**220**		
Sulfide (total) by SM4500-S2-F (mg/L)																						
Sulfide	18496-25-8	< 0.86	U		< 0.81	U		< 0.83	U		< 0.81	U		< 0.89	U		< 0.89	U		< 0.81	U	
Sulfide as H2S	7783-06-4	< 0.95	U		< 0.89	U		< 0.92	U		< 0.89	U		< 0.98	U		< 0.98	U		< 0.89	U	
Metals by SW6020A (µg/L)																						
Manganese	7439-96-5	**65**			**3.5**	**J**	**J**	**6.1**	**J**		**50**			**73**			**330**			**180**		
Anions by SW9056A (mg/L)																						
Chloride	16887-00-6	**12**			**11**	**M**		**8.5**	**M**		**8.6**	**M**		**24**	**M**		**870**	**DM**		**8.7**	**J1**	**J+**
Nitrogen, Nitrate	14797-55-8	**0.046**	**JM**	**J**	< 0.023	U		**0.95**			**0.83**	**DM**		< 0.023	UHH3		< 0.023	U		< 0.023	U	
Nitrogen, Nitrate + Nitrite	NO3NO2N	**0.046**	**J**	**J**	< 0.023	U		**0.95**			**0.83**	**D**		< 0.023	UHH3		< 0.023	U		< 0.023	U	
Nitrogen, Nitrite	14797-65-0	< 0.023	UM		< 0.023	UJ1		< 0.023	UM		< 0.046	U		< 0.023	UHH3M		< 0.023	U		< 0.023	UM	
Sulfate	18785-72-3	**0.56**	**J**	**J**	**4.1**			**4.0**			**1.8**			**14**			**8.7**			**34**	**J1**	**J+**
Total Organic Carbon by SW9060A (mg/L)																						
Total Organic Carbon	TOC	**2.8**			**0.87**	**J**		**0.83**	**J**		**0.73**	**J**		**2.0**			**15**			**8.0**		
Field Parameters																						
Depth to Water (ft)	DTW	**13.75**			**11.91**			**12.55**			**9.27**			**12.55**			**12.95**			**6.85**		
Dissolved Oxygen (mg/L)	DO	**0.69**			**2.61**			**0.67**			**3.98**			**0.89**			**0.66**			**1.42**		
Ferrous Iron - Field (mg/L)	FIELD FE	**1.03**			**1.82**			**0.08**			**0.07**			**0.03**			**3.26**			**2.11**		
Oxidation Reduction Potential (mV)	ORP	**26**			**239.4**			**278.1**			**319.9**			**284**			**193.9**			**25.3**		
pH (pH unit)	PH	**5.47**			**5.8**			**4.39**			**4.97**			**4.64**			**5.95**			**6.02**		
Specific Conductivity (mS/cm)	SC	**0.289**			**0.166**			**0.68**			**0.0079**			**0.128**			**2.658**			**0.883**		
Temperature (°C)	TEMP	**19.2**			**22.4**			**18.7**			**18.2**			**15.8**			**16.8**			**16.1**		
Turbidity (NTU)	TURB	**6.87**			**27.09**			**8.76**			**5.85**			**40**			**4.23**			**5.66**		

Table B.3.1
OU6 Annual Monitored Natural Attenuation - Spring 2024
Defense Supply Center Richmond

	Sample Location	OU6-MW-262			OU6-MW-263			OU6-MW-264			OU6-MW-265			OU6-MW-266			OU6-MW-267			OU6-MW-268		
	Sample ID	OU6-MW-262-20240517			OU6-MW-263-20240520			OU6-MW-264-20240523			OU6-MW-265-20240514			OU6-MW-266-20240520			OU6-MW-267-20240514			OU6-MW-268-20240520		
	Sample Date	5/17/2024			5/20/2024			5/23/2024			5/14/2024			5/20/2024			5/14/2024			5/20/2024		
	Sample Type	N			N			N			N			N			N			N		
	Description	UWBU			UWBU			UWBU			UWBU			UWBU			UWBU			UWBU		
Parameter	**CAS#**	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV
Dissolved Gases by RSK-175 (µg/L)																						
Ethane	74-84-0	**160**			**2.4**			**88**			< 1.0	U		**16**			< 1.0	U		**250**		
Ethene	74-85-1	**270**			**0.76**	**J**		**60**			< 1.0	U		**56**			< 1.0	UM		**210**		
Methane	74-82-8	**14000**	**D**		-			-			< 3.0	UM		-			**11**	**M**		-		
Methane (TCD)	74-82-8-TCD	-			**2100**	**J1**		**2100**	**J1**		-			**920**			-			**10000**		
Alkalinity by SM2320B (mg/L)																						
Alkalinity to pH 4.5	ALK4.5	**4.2**	**J**		**460**			**50**			**860**			**14**			**4.0**	**J**		**81**		
Bicarbonate Alkalinity as CaCO3	ALKB	< 5.0	U		**460**			**50**			< 5.0	U		**14**			< 5.0	U		**81**		
Carbonate Alkalinity as CaCO3	ALKC	< 5.0	U		< 5.0	U		< 5.0	U		**32**			< 5.0	U		< 5.0	U		< 5.0	U	
Carbon Dioxide by SM4500-CO2-D (mg/L)																						
Carbon Dioxide, Free	CO2FR	**66**			**150**			**150**			< 5.0	U		**79**			**39**			**210**		
Sulfide (total) by SM4500-S2-F (mg/L)																						
Sulfide	18496-25-8	< 0.81	U		< 0.86	U		< 0.89	U		< 0.93	U		< 0.81	U		< 0.96	U		< 0.81	U	
Sulfide as H2S	7783-06-4	< 0.89	U		< 0.95	U		< 0.98	U		< 1.0	U		< 0.89	U		< 1.1	U		< 0.89	U	
Metals by SW6020A (µg/L)																						
Manganese	7439-96-5	**190**			**160**	**J1**		**530**	**J1**	**J+**	**17**			**990**			**30**			**2200**		
Anions by SW9056A (mg/L)																						
Chloride	16887-00-6	**70**	**DM**		**28**	**D**		**88**	**DM**		**17**			**64**	**D**		**28**			**170**	**D**	
Nitrogen, Nitrate	14797-55-8	< 0.046	U		< 0.023	U		< 0.023	UJ1		**0.23**			< 0.023	U		**0.17**			< 0.023	U	
Nitrogen, Nitrate + Nitrite	NO3NO2N	< 0.046	U		< 0.023	U		< 0.023	UJ1		**0.23**			< 0.023	U		**0.17**			< 0.023	U	
Nitrogen, Nitrite	14797-65-0	< 0.046	UM		< 0.023	UMJ1		< 0.023	UJ1		< 0.023	U		< 0.023	U		< 0.023	U		< 0.023	UM	
Sulfate	18785-72-3	**3.3**			**150**	**D**		**39**	**DJ1**		**1.6**			**1.7**	**JD**	**J**	**1.0**	**J**		**19**	**D**	
Total Organic Carbon by SW9060A (mg/L)																						
Total Organic Carbon	TOC	**2.1**			**12**			**3.2**			**24**			**0.83**	**J**		**3.5**			**4.5**		
Field Parameters																						
Depth to Water (ft)	DTW	**10.95**			**10.5**			**7.45**			**9.11**			**5.85**			**6.9**			**5.85**		
Dissolved Oxygen (mg/L)	DO	**3.15**			**0.66**			**1.64**			**3.84**			**3.2**			**0.45**			**2.15**		
Ferrous Iron - Field (mg/L)	FIELD FE	**2.28**			**3.56**			**0.86**			**4.6**			**0.69**			**1.15**			**1.98**		
Oxidation Reduction Potential (mV)	ORP	**327.1**			**-68**			**68.1**			**26.2**			**410.9**			**236**			**130**		
pH (pH unit)	PH	**4.35**			**6.26**			**5.88**			**12.05**			**4.4**			**4.45**			**5.43**		
Specific Conductivity (mS/cm)	SC	**0.0147**			**0.988**			**0.215**			**2.564**			**0.277**			**0.111**			**0.851**		
Temperature (°C)	TEMP	**16.4**			**15.4**			**18.4**			**18**			**18.7**			**19.4**			**20.6**		
Turbidity (NTU)	TURB	**8.48**			**10.2**			**15.2**			**99.2**			-[1]			**25**			-[1]		

Table B.3.1
OU6 Annual Monitored Natural Attenuation - Spring 2024
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	Sample Location	OU6-MW-269			OU6-MW-270			OU6-MW-271			OU6-MW-272			OU6-MW-272			OU6-MW-273			OU6-MW-274		
	Sample ID	OU6-MW-269-20240520			OU6-MW-270-20240516			OU6-MW-271-20240522			DUP5-20240522			OU6-MW-272-20240522			OU6-MW-273-20240516			OU6-MW-274-20240520		
	Sample Date	5/20/2024			5/16/2024			5/22/2024			5/22/2024			5/22/2024			5/16/2024			5/20/2024		
	Sample Type	N			N			N			FD			N			N			N		
	Description	UWBU			UWBU			UWBU			UWBU			UWBU			UWBU			UWBU		
Parameter	**CAS#**	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV
Dissolved Gases by RSK-175 (µg/L)																						
Ethane	74-84-0	< 0.30	U		< 1.0	U		**110**			**20**		**J**	**6.3**		**J**	**3.3**	**J**		**8.9**		
Ethene	74-85-1	< 0.31	U		< 1.0	UM		**120**			**28**		**J**	**8.2**		**J**	**4.6**	**JM**		**6.4**		
Methane	74-82-8	**44**			**6.7**	**M**		-			-			**190**			**120**	**M**		**320**		
Methane (TCD)	74-82-8-TCD	-			-			**4100**			**720**			-			-			-		
Alkalinity by SM2320B (mg/L)																						
Alkalinity to pH 4.5	ALK4.5	**4.8**	**J**		**62**			< 2.2	U		**4.1**	**J**		**5.7**			**4.3**	**J**		**15**		
Bicarbonate Alkalinity as CaCO3	ALKB	< 5.0	U		**51**			< 5.0	U		< 5.0	U		**5.7**	**J**		< 5.0	U		**15**		
Carbonate Alkalinity as CaCO3	ALKC	< 5.0	U		**11**			< 5.0	U		< 5.0	U		< 5.0	U		< 5.0	U		< 5.0	U	
Carbon Dioxide by SM4500-CO2-D (mg/L)																						
Carbon Dioxide, Free	CO2FR	**43**			< 5.0	U		< 5.0	U		**61**			**26**			**42**			**71**		
Sulfide (total) by SM4500-S2-F (mg/L)																						
Sulfide	18496-25-8	< 0.93	U		< 0.89	U		< 0.86	U		< 1.0	U		< 0.96	U		< 0.86	U		< 1.0	U	
Sulfide as H2S	7783-06-4	< 1.0	U		< 0.98	U		< 0.95	U		< 1.1	U		< 1.1	U		< 0.95	U		< 1.1	U	
Metals by SW6020A (µg/L)																						
Manganese	7439-96-5	**47**			**3.2**	**J**	**J**	**940**			**770**			**680**			**290**			**230**		
Anions by SW9056A (mg/L)																						
Chloride	16887-00-6	**27**			**14**			**170**	**DM**		**62**	**DM**	**J**	**34**	**M**	**J**	**38**			**50**	**DM**	
Nitrogen, Nitrate	14797-55-8	**0.17**			**0.11**	**M**		< 0.023	UM		**0.094**	**M**		**0.14**			**0.11**	**M**		< 0.023	U	
Nitrogen, Nitrate + Nitrite	NO3NO2N	**0.17**			**0.11**			< 0.023	U		**0.094**			**0.14**			**0.11**			< 0.023	U	
Nitrogen, Nitrite	14797-65-0	< 0.023	UM		< 0.023	UM		< 0.023	UM		< 0.023	UM		< 0.023	UM		< 0.023	UM		< 0.023	UM	
Sulfate	18785-72-3	**0.99**	**J**	**J**	**6.0**			**2.4**	**JDM**		**2.8**			**3.4**			**3.6**			**1.8**		
Total Organic Carbon by SW9060A (mg/L)																						
Total Organic Carbon	TOC	**0.82**	**J**		**4.5**			**1.6**			**1.1**			**1.2**			**0.84**	**J**		**0.90**	**J**	
Field Parameters																						
Depth to Water (ft)	DTW	**5.95**			**7**			**6.95**			**5.95**			**5.95**			**5.95**			**6.05**		
Dissolved Oxygen (mg/L)	DO	**0.67**			**2.76**			**0.49**			**0.82**			**0.82**			**0.97**			**0.6**		
Ferrous Iron - Field (mg/L)	FIELD FE	**0.9**			**0.03**			**0.48**			**0.17**			**0.14**			**0.1**			**0.04**		
Oxidation Reduction Potential (mV)	ORP	**161.1**			**35.9**			**309.7**			**212.2**			**212.2**			**272.3**			**212.5**		
pH (pH unit)	PH	**4.48**			**10.35**			**5.6**			**6.59**			**6.59**			**4.71**			**4.77**		
Specific Conductivity (mS/cm)	SC	**0.127**			**0.166**			**0.502**			**0.124**			**0.124**			**0.073**			**0.198**		
Temperature (°C)	TEMP	**19.4**			**22.1**			**19.4**			**18.2**			**18.2**			**18.5**			**19.2**		
Turbidity (NTU)	TURB	**10.2**			**64**			**10.3**			**10.2**			**10.2**			**7.21**			**10**		

Table B.3.1
OU6 Annual Monitored Natural Attenuation - Spring 2024
Defense Supply Center Richmond

	Sample Location	OU6-MW-275			OU6-MW-276			OU6-MW-277			OU6-MW-278			OU6-MW-279			OU6-MW-280			OU6-MW-281		
	Sample ID	OU6-MW-275-20240520			OU6-MW-276-20240520			OU6-MW-277-20240515			OU6-MW-278-20240516			OU6-MW-279-20240516			OU6-MW-280-20240515			OU6-MW-281-20240516		
	Sample Date	5/20/2024			5/20/2024			5/15/2024			5/16/2024			5/16/2024			5/15/2024			5/16/2024		
	Sample Type	N			N			N			N			N			N			N		
	Description	UWBU			UWBU			UWBU			UWBU			UWBU			UWBU			UWBU		
Parameter	**CAS#**	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV
Dissolved Gases by RSK-175 (µg/L)																						
Ethane	74-84-0	**22**			< 0.30	U		< 1.0	U		< 1.0	U		**1.1**	**JM**	**J**	**2.4**	**JM**		< 1.0	UM	
Ethene	74-85-1	**29**			< 0.31	U		< 1.0	U		< 1.0	UM		< 1.0	U		< 1.0	U		< 1.0	UM	
Methane	74-82-8	-			**0.98**	**J**	**J**	**14**	**M**		**3200**	**DM**		**3300**	**DM**		**1800**	**DM**		**3100**	**DM**	
Methane (TCD)	74-82-8-TCD	**2200**			-			-			-			-			-			-		
Alkalinity by SM2320B (mg/L)																						
Alkalinity to pH 4.5	ALK4.5	**44**			**8.9**			**12**			**130**			**170**			**94**			**98**		
Bicarbonate Alkalinity as CaCO3	ALKB	**44**			**8.9**	**J**		**12**			**130**			**170**			**94**			**98**		
Carbonate Alkalinity as CaCO3	ALKC	< 5.0	U		< 5.0	U		< 5.0	U		< 5.0	U		< 5.0	U		< 5.0	U		< 5.0	U	
Carbon Dioxide by SM4500-CO2-D (mg/L)																						
Carbon Dioxide, Free	CO2FR	**140**			**6.2**	**J**		**61**			**53**			**210**			**170**			**68**		
Sulfide (total) by SM4500-S2-F (mg/L)																						
Sulfide	18496-25-8	< 0.81	U		< 0.81	U		< 0.86	U		< 0.81	U		< 0.93	U		< 0.86	U		< 0.96	U	
Sulfide as H2S	7783-06-4	< 0.89	U		< 0.89	U		< 0.95	U		< 0.89	U		< 1.0	U		< 0.95	U		< 1.1	U	
Metals by SW6020A (µg/L)																						
Manganese	7439-96-5	**110**			**76**			**10**			**54**			**470**			**260**			**24**		
Anions by SW9056A (mg/L)																						
Chloride	16887-00-6	**68**	**DMJ1**		**26**			**14**			**1.3**			**3.8**			**16**			**2.0**		
Nitrogen, Nitrate	14797-55-8	< 0.023	U		**0.026**	**JM**	**J**	**0.92**	**HH3J1**	**J+**	< 0.023	UH		< 0.023	U		< 0.023	UHM		< 0.023	U	
Nitrogen, Nitrate + Nitrite	NO3NO2N	< 0.023	U		**0.026**	**J**	**J**	**0.92**	**HH3**		< 0.023	UH		< 0.023	U		< 0.023	UH		**0.048**	**J**	**J**
Nitrogen, Nitrite	14797-65-0	< 0.023	U		< 0.023	U		< 0.023	UHJ1H3M		< 0.023	UH		< 0.023	U		< 0.023	UHM		**0.048**	**J**	**J**
Sulfate	18785-72-3	**2.3**			**1.4**	**J**		**1.2**	**J**		**5.4**			**1.5**			**12**			**3.7**		
Total Organic Carbon by SW9060A (mg/L)																						
Total Organic Carbon	TOC	**1.5**			**0.66**	**J**		**8.1**			**2.2**			**11**			**7.2**			**17**		
Field Parameters																						
Depth to Water (ft)	DTW	**7.55**			**8.22**			**7.45**			**6.55**			**5.55**			**5.25**			**6.49**		
Dissolved Oxygen (mg/L)	DO	**0.62**			**5.53**			**2.03**			**1.12**			**0.63**			**1.39**			**0.46**		
Ferrous Iron - Field (mg/L)	FIELD FE	**1.2**			**0.08**			**0.06**			**1.42**			**1.32**			**2.45**			**1.26**		
Oxidation Reduction Potential (mV)	ORP	**67.9**			**386.5**			**354.8**			**29.3**			**-74.9**			**33.4**			**-221.7**		
pH (pH unit)	PH	**5.16**			**4.53**			**4.75**			**5.68**			**6.1**			**5.65**			**8.39**		
Specific Conductivity (mS/cm)	SC	**0.296**			**0.14**			**0.073**			**0.134**			**0.58**			**0.253**			**0.128**		
Temperature (°C)	TEMP	**19.9**			**17.5**			**17.3**			**18**			**18.7**			**17.8**			**19.8**		
Turbidity (NTU)	TURB	**15.2**			-[1]			**45**			**27.3**			**25.2**			**45**			**37.2**		

Table B.3.1
OU6 Annual Monitored Natural Attenuation - Spring 2024
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	Sample Location	OU6-MW-282			OU6-MW-283			OU6-MW-285			OU6-MW-286			OU6-MW-287			OU6-MW-288			OU6-MW-289		
	Sample ID	OU6-MW-282-20240520			OU6-MW-283-20240520			OU6-MW-285-20240522			OU6-MW-286-20240516			OU6-MW-287-20240521[2]			OU6-MW-288-20240517			OU6-MW-289-20240522		
	Sample Date	5/20/2024			5/20/2024			5/22/2024			5/16/2024			5/21/2024			5/17/2024			5/22/2024		
	Sample Type	N			N			N			N			N			N			N		
	Description	LWBU			LWBU			LWBU			LWBU			LWBU			LWBU			LWBU		
Parameter	**CAS#**	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV
Dissolved Gases by RSK-175 (µg/L)																						
Ethane	74-84-0	**7.6**			< 0.30	U		**13**			**1.1**	**J**	**J**	< 0.30	U		< 1.0	U		**16**		
Ethene	74-85-1	**0.62**	**J**	**J**	**1.3**			**0.95**	**J**		**2.8**	**JM**		< 0.31	U		< 1.0	U		**1.1**		
Methane	74-82-8	**120**			**19**			-			**11000**	**DM**		**11**			**8.9**	**M**		-		
Methane (TCD)	74-82-8-TCD	-			-			**750**			-			-			-			**640**		
Alkalinity by SM2320B (mg/L)																						
Alkalinity to pH 4.5	ALK4.5	< 2.2	U		**70**			**55**			**70**			**39**			**17**			**80**		
Bicarbonate Alkalinity as CaCO3	ALKB	< 5.0	U		**56**			**55**			**70**			**39**			**17**			**80**		
Carbonate Alkalinity as CaCO3	ALKC	< 5.0	U		**13**			< 5.0	U		< 5.0	U		< 5.0	U		< 5.0	U		< 5.0	U	
Carbon Dioxide by SM4500-CO2-D (mg/L)																						
Carbon Dioxide, Free	CO2FR	**31**			< 5.0	U		**66**			**90**			**64**			**6.0**	**J**		**91**		
Sulfide (total) by SM4500-S2-F (mg/L)																						
Sulfide	18496-25-8	< 0.81	U		< 0.81	U		< 0.81	U		< 0.89	U		< 0.83	U		< 0.81	U		< 0.81	U	
Sulfide as H2S	7783-06-4	< 0.89	U		< 0.89	U		< 0.89	U		< 0.98	U		< 0.92	U		< 0.89	U		< 0.89	U	
Metals by SW6020A (µg/L)																						
Manganese	7439-96-5	**150**			**30**			**60**			**230**			**48**			**48**			**290**		
Anions by SW9056A (mg/L)																						
Chloride	16887-00-6	**38**			**6.5**			**86**	**DM**		**6.7**			**3.2**			**2.7**			**85**	**DM**	
Nitrogen, Nitrate	14797-55-8	< 0.023	U		**0.048**	**JM**	**J**	**0.023**	**JM**	**J**	< 0.023	U		< 0.023	U		< 0.023	U		< 0.023	U	
Nitrogen, Nitrate + Nitrite	NO3NO2N	< 0.023	U		**0.048**	**J**	**J**	**0.023**	**J**	**J**	< 0.023	U		< 0.023	U		< 0.023	U		< 0.023	UJ1	
Nitrogen, Nitrite	14797-65-0	< 0.023	UM		< 0.023	U		< 0.023	UM		< 0.023	U		< 0.023	U		< 0.023	U		< 0.023	UMJ1	
Sulfate	18785-72-3	**28**			**9.6**			**14**	**D**		**42**			**14**			**9.4**			**34**	**D**	
Total Organic Carbon by SW9060A (mg/L)																						
Total Organic Carbon	TOC	**1.9**			**1.2**			**2.6**			**0.64**	**J**		< 0.50	U		**1.6**			**8.8**		
Field Parameters																						
Depth to Water (ft)	DTW	**3.99**			**19.01**			**16.8**			**14.65**			**15.5**			**15.2**			**10.25**		
Dissolved Oxygen (mg/L)	DO	**3.47**			**1.61**			**8.2**			**0.54**			**0.88**			**4.88**			**0.88**		
Ferrous Iron - Field (mg/L)	FIELD FE	**1.58**			**0.04**			**0.33**			-[1]			**0.68**			**0.07**			**1.19**		
Oxidation Reduction Potential (mV)	ORP	**412**			**23**			**111.1**			**54.4**			**46.6**			**178.1**			**238.3**		
pH (pH unit)	PH	**4.16**			**10.15**			**5.71**			**5.8**			**5.62**			**5.79**			**5.75**		
Specific Conductivity (mS/cm)	SC	**0.273**			**0.176**			**0.303**			**0.233**			**0.079**			**0.069**			**0.509**		
Temperature (°C)	TEMP	**17.1**			**19.3**			**19.7**			**22.5**			**19.7**			**17.2**			**16.4**		
Turbidity (NTU)	TURB	-[1]			**9.87**			**301.2**			**65.42**			**335**			**14.67**			**7.85**		

Table B.3.1
OU6 Annual Monitored Natural Attenuation - Spring 2024
Defense Supply Center Richmond

	Sample Location	OU6-MW-290			OU6-MW-291			OU6-MW-292			OU6-MW-292			OU6-MW-293			OU6-MW-294			OU6-MW-298		
	Sample ID	OU6-MW-290-20240521			OU6-MW-291-20240522[2]			DUP4-20240520			OU6-MW-292-20240520			OU6-MW-293-20240521			OU6-MW-294-20240521			OU6-MW-298-20240516		
	Sample Date	5/21/2024			5/22/2024			5/20/2024			5/20/2024			5/21/2024			5/21/2024			5/16/2024		
	Sample Type	N			N			FD			N			N			N			N		
	Description	LWBU			LWBU			LWBU			LWBU			LWBU			LWBU			UWBU		
Parameter	**CAS#**	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV
Dissolved Gases by RSK-175 (µg/L)																						
Ethane	74-84-0	**7.5**			**12**			**1.4**			**1.6**			< 0.30	U		**0.65**	**J**	**J**	< 1.0	U	
Ethene	74-85-1	**0.34**	**J**	**J**	**33**			< 0.31	U		< 0.31	U		< 0.31	U		**1.8**			< 1.0	UM	
Methane	74-82-8	**270**			-			**61**			**79**			**48**			-			< 3.0	UM	
Methane (TCD)	74-82-8-TCD	-			**2100**			-			-			-			**810**			-		
Alkalinity by SM2320B (mg/L)																						
Alkalinity to pH 4.5	ALK4.5	**59**			**60**			**160**			**240**			**20**			**35**			**97**		
Bicarbonate Alkalinity as CaCO3	ALKB	**59**			**60**			< 5.0	U		< 5.0	U		**20**			**35**			**97**		
Carbonate Alkalinity as CaCO3	ALKC	< 5.0	U		< 5.0	U		**25**			**24**			< 5.0	U		< 5.0	U		< 5.0	U	
Carbon Dioxide by SM4500-CO2-D (mg/L)																						
Carbon Dioxide, Free	CO2FR	**80**			**100**			< 5.0	U		< 5.0	U		**45**			**56**			**38**		
Sulfide (total) by SM4500-S2-F (mg/L)																						
Sulfide	18496-25-8	< 0.81	U		**2.5**			< 0.86	U		< 0.83	U		< 0.81	U		< 0.81	U		< 0.81	U	
Sulfide as H2S	7783-06-4	< 0.89	U		**2.6**			< 0.95	U		< 0.92	U		< 0.89	U		< 0.89	U		< 0.89	U	
Metals by SW6020A (µg/L)																						
Manganese	7439-96-5	**230**			**170**			**26**			**33**			**110**			**230**			**23**		
Anions by SW9056A (mg/L)																						
Chloride	16887-00-6	**88**	**D**		**98**	**DM**		**45**			**45**	**D**		**13**			**18**			**7.1**	**M**	
Nitrogen, Nitrate	14797-55-8	< 0.023	U		< 0.023	UM		< 0.023	U		< 0.023	U		< 0.023	U		< 0.023	U		**0.88**		
Nitrogen, Nitrate + Nitrite	NO3NO2N	< 0.023	U		< 0.023	U		< 0.023	U		< 0.023	U		< 0.023	U		< 0.023	U		**0.93**		
Nitrogen, Nitrite	14797-65-0	< 0.023	UM		< 0.023	UM		< 0.023	U		< 0.023	UM		< 0.023	UM		< 0.023	UM		**0.049**	**J**	**J**
Sulfate	18785-72-3	**6.2**	**D**		**2.5**	**JD**	**J**	**7.8**			**8.1**	**D**		**15**			**43**			**5.8**		
Total Organic Carbon by SW9060A (mg/L)																						
Total Organic Carbon	TOC	**0.92**	**J**		**0.71**	**J**		**1.5**			**1.8**			**1.5**			**0.80**	**J**		**4.8**		
Field Parameters																						
Depth to Water (ft)	DTW	**10.6**			**10.72**			**12.67**			**12.67**			**13.97**			**14.4**			**10.02**		
Dissolved Oxygen (mg/L)	DO	**3**			**1.24**			**1.2**			**1.2**			**0.19**			**1.85**			**4.11**		
Ferrous Iron - Field (mg/L)	FIELD FE	**1.61**			**2.42**			**1.43**			**1.36**			**0.48**			**2.26**			**0.01**		
Oxidation Reduction Potential (mV)	ORP	**192.6**			**40**			**40.1**			**40.1**			**191.1**			**144**			**237.1**		
pH (pH unit)	PH	**5.81**			**5.24**			**12.04**			**12.04**			**5.44**			**5.67**			**5.77**		
Specific Conductivity (mS/cm)	SC	**0.412**			**0.364**			**1.324**			**1.324**			**0.131**			**0.236**			**0.091**		
Temperature (°C)	TEMP	**15.5**			**16**			**15.6**			**15.6**			**15.6**			**15.4**			**18.6**		
Turbidity (NTU)	TURB	**10**			**340**			**12.34**			**12.34**			**22**			**30**			**2.3**		

Table B.3.1
OU6 Annual Monitored Natural Attenuation - Spring 2024
Defense Supply Center Richmond

Sample Location		OU6-MW-88			OU6-MW-89			OU6-MW-94			OU6-MW-95		
Sample ID		OU6-MW-88-20240522			OU6-MW-89-20240523			OU6-MW-94-20240516			OU6-MW-95-20240520		
Sample Date		5/22/2024			5/23/2024			5/16/2024			5/20/2024		
Sample Type		N			N			N			N		
Description		UWBU			UWBU			LWBU			LWBU		
Parameter	**CAS#**	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV
Dissolved Gases by RSK-175 (µg/L)													
Ethane	74-84-0	**0.79**	**J**		< 0.30	U		< 1.0	U		**33**		
Ethene	74-85-1	**0.79**	**J**		**0.83**	**J**		< 1.0	UM		**380**		
Methane	74-82-8	**190**			**150**			**35**	**M**		-		
Methane (TCD)	74-82-8-TCD	-			-			-			**640**		
Alkalinity by SM2320B (mg/L)													
Alkalinity to pH 4.5	ALK4.5	**8.2**			**48**			**26**			**52**		
Bicarbonate Alkalinity as CaCO3	ALKB	**8.2**	**J**		**48**			**26**			**52**		
Carbonate Alkalinity as CaCO3	ALKC	< 5.0	U		< 5.0	U		< 5.0	U		< 5.0	U	
Carbon Dioxide by SM4500-CO2-D (mg/L)													
Carbon Dioxide, Free	CO2FR	**55**			**140**			**35**			**140**		
Sulfide (total) by SM4500-S2-F (mg/L)													
Sulfide	18496-25-8	< 0.83	U		< 0.86	U		< 0.86	U		< 0.81	U	
Sulfide as H2S	7783-06-4	< 0.92	U		< 0.95	U		< 0.95	U		< 0.89	U	
Metals by SW6020A (µg/L)													
Manganese	7439-96-5	**28**			**26**			**48**			**280**		
Anions by SW9056A (mg/L)													
Chloride	16887-00-6	**10**	**M**		**10**	**M**		**2.5**			**160**	**D**	
Nitrogen, Nitrate	14797-55-8	< 0.023	U		< 0.046	U		< 0.023	U		< 0.023	UM	
Nitrogen, Nitrate + Nitrite	NO3NO2N	< 0.023	U		< 0.046	U		< 0.023	U		< 0.023	U	
Nitrogen, Nitrite	14797-65-0	< 0.023	UM		< 0.046	U		< 0.023	U		< 0.023	UM	
Sulfate	18785-72-3	**2.7**			**2.3**			**13**			**1.8**		
Total Organic Carbon by SW9060A (mg/L)													
Total Organic Carbon	TOC	**1.4**			**1.3**			< 0.50	U		**1.3**		
Field Parameters													
Depth to Water (ft)	DTW	**4.9**			**10.45**			**14.65**			**19.99**		
Dissolved Oxygen (mg/L)	DO	**0.96**			**0.51**			**0.48**			**1.42**		
Ferrous Iron - Field (mg/L)	FIELD FE	**0.74**			**0.29**			**1.07**			**1.06**		
Oxidation Reduction Potential (mV)	ORP	**284**			**222**			**17.6**			**30.9**		
pH (pH unit)	PH	**5.45**			**6**			**6.06**			**5.37**		
Specific Conductivity (mS/cm)	SC	**0.061**			**0.063**			**0.103**			**0.48**		
Temperature (°C)	TEMP	**19.2**			**18.2**			**20.8**			**22.2**		
Turbidity (NTU)	TURB	**10.2**			**48**			**202.1**			**78.04**		

Notes:
CAS = chemical abstract service
µg/L = micrograms per liter, mg/L = milligrams per liter, mV = millivolts, mS/cm = milliSiemens per centimeter, °C = degree celcius, NTU = Nephelometric turbidity units
Sample types N = normal, FD = Field Duplicate
UWBU = upper water bearing unit, LWBU = lower water bearing unit,
Q = Lab qualifier, DV = validation qualifier

1- Parameters were not collected due to field conditions, reference field logs for details.
2- Field parameters were collected on a different date, reference field logs for details.

Lab Qualifiers (Q):
D = The reported value is from a dilution
H = Sample was prepped or analyzed beyond the specified holding time
H3 = Sample was received and analyzed past holding time
J = Estimated: the analyte was positively idenfied; the quantitation is an estimation
J1 = Estimated: the quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria
M = Manual integrated compound
Q = One of more quality control criteria failed
U = Undetected at the limit of detection

Bold Result = detection

Validator Qualifiers (DV):
J = The reported result was an estimated value with an unknown bias
J- = The result was an estimated quantity, but the result may be biased low
J+ = The result was an estimated quantity, but the result may be biased high

Table B.3.2
OU6 Annual Microbial - Spring 2024
Defense Supply Center Richmond

	Sample Location	OU6-MW-126			OU6-MW-241			OU6-MW-242			OU6-MW-243			OU6-MW-285			OU6-MW-287			OU6-MW-288			OU6-MW-293			OU6-MW-293		
	Sample ID	OU6-MW-126-20240523			OU6-MW-241-20240523[2]			OU6-MW-242-20240523			OU6-MW-243-20240523			OU6-MW-285-20240523[2]			OU6-MW-287-20240523[2]			OU6-MW-288-20240523[2]			DUP7-20240523[2]			OU6-MW-293-20240523[2]		
	Sample Date	5/23/2024			5/23/2024			5/23/2024			5/23/2024			5/23/2024			5/23/2024			5/23/2024			5/23/2024			5/23/2024		
	Sample Type	N			N			N			N			N			N			N			FD			N		
	Description	UWBU			UWBU			UWBU			UWBU			LWBU			LWBU			LWBU			LWBU			LWBU		
Parameter	**CAS#**	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV
Microbial by CENSUS (cells/mL)																												
BAV1 Vinyl Chloride Reductase	BVC	< 1			< 0.01			< 0.0094			< 0.01			< 0.01			< 0.01			< 0.01			< 0.0088			< 0.0089		
DHC (Dehalococcoides)	DHC	**670**			**3000**			**40000**			**97000**			**1.2**			**1.3**			**0.11**	**J**		**0.8**			**0.77**		
tceA Reductase	TCE	< 1			**460**			**38**			**230**			< 0.01			< 0.01			< 0.01			< 0.0088			< 0.0089		
Vinyl Chloride Reductase	VCR	**100**			**640**			**5400**			**14000**			< 0.01			< 0.01			< 0.01			< 0.0088			< 0.0089		
Field Parameters																												
Depth to Water (ft)	DTW	**18.05**			**13**			**12.6**			**13.13**			**16.8**			**15.5**			**15.2**			**13.97**			**13.97**		
Dissolved Oxygen (mg/L)	DO	**0.48**			**0.12**			**2.4**			**1.77**			**8.2**			**0.88**			**4.88**			**0.19**			**0.19**		
Ferrous Iron - Field (mg/L)	FIELD FE	-[1]			**10.8**			**1.49**			**1.5**			**0.33**			**0.68**			**0.07**			**0.48**			**0.48**		
Oxidation Reduction Potential (mV)	ORP	**-67.4**			**-80.6**			**-116.4**			**-22.4**			**111.1**			**46.6**			**178.1**			**191.1**			**191.1**		
pH (pH unit)	PH	**6.13**			**6.27**			**6.27**			**5.61**			**5.71**			**5.62**			**5.79**			**5.44**			**5.44**		
Specific Conductivity (mS/cm)	SC	**0.362**			**0.706**			**0.481**			**0.569**			**0.303**			**0.079**			**0.069**			**0.131**			**0.131**		
Temperature (°C)	TEMP	**21.6**			**18.3**			**19**			**19.1**			**19.7**			**19.7**			**17.2**			**15.6**			**15.6**		
Turbidity (NTU)	TURB	**601.98**			**27.55**			-[1]			-[1]			**301.2**			**335**			**14.67**			**22**			**22**		

Notes:
CAS = chemical abstract service
cells/mL = cells per milliliter,
mg/L = milligrams per liter, mV = millivolts, mS/cm = milliSiemens per centimeter, °C = degree celcius, NTU = Nephelometric turbidity units
Sample types N = normal, FD = Field Duplicate
UWBU = upper water bearing unit, LWBU = lower water bearing unit,
Q = Lab qualifier, DV = validation qualifier

1- Parameters were not collected due to field conditions, reference field logs for details.
2- Field parameters were collected on a different date, reference field logs for details.

Lab Qualifiers (Q):
J = Estimated: the analyte was positively idenfied; the quantitation is an estimation

Bold Result = detection

B.4 Leachability Annual Monitoring Tables (May 2024)

Table B.4
OU6 Annual Leachability - Spring 2024
Defense Supply Center Richmond

					Sample Location	CSMPZ-7			OU6-MW-169			OU6-MW-243			OU6-MW-259			OU6-MW-263			OU6-MW-269		
					Sample ID	OU6-CSMPZ-7-20240514			OU6-MW-169-20240514			OU6-MW-243-20240523			OU6-MW-259-20240515			OU6-MW-263-20240520			OU6-MW-269-20240520		
					Sample Date	5/14/2024			5/14/2024			5/23/2024			5/15/2024			5/20/2024			5/20/2024		
					Sample Type	N			N			N			N			N			N		
					Description	UWBU			UWBU			UWBU			UWBU			UWBU			UWBU		
Parameter	**CAS#**	**MCL**	**RSL**	**BTAG**		Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV
SVOCs by 8270E SIM (µg/L)																							
1-Methylnaphthalene	90-12-0	-	*6.26E-04*	2.10E+00		< 0.018	UM		< 0.019	UM		***0.37***			< 0.021	UM		< 0.024	UM		< 0.021	UM	
2-Methylnaphthalene	91-57-6	-	3.59E+00	4.70E+00		< 0.011	U		< 0.011	U		**0.65**			< 0.013	U		< 0.015	U		< 0.013	U	
Acenaphthene	83-32-9	-	5.35E+01	5.80E+00		< 0.041	UM		< 0.044	UM		**0.080**	**J**	**J**	< 0.048	U		**0.38**			< 0.049	UM	
Acenaphthylene	208-96-8	-	-	-		< 0.017	U		< 0.018	U		< 0.017	UM		< 0.019	U		< 0.023	U		< 0.020	UM	
Anthracene	120-12-7	-	1.77E+02	1.20E-02		**0.025**	**J**	**J-**	< 0.019	UM		< 0.018	U		< 0.021	U		**0.42**			< 0.021	U	
Benzo(a)anthracene	56-55-3	-	2.98E-02	1.80E-02		< 0.026	UM		< 0.027	U		< 0.026	U		< 0.030	U		< 0.035	U		< 0.031	U	
Benzo(a)pyrene	50-32-8	2.00E-01	2.51E-02	1.50E-02		< 0.026	U		< 0.027	U		< 0.026	U		< 0.030	U		< 0.035	U		< 0.031	U	
Benzo(b)fluoranthene	205-99-2	-	2.51E-01	-		< 0.026	U		< 0.027	U		< 0.026	U		< 0.030	U		< 0.035	U		< 0.031	U	
Benzo(g,h,i)Perylene	191-24-2	-	-	-		< 0.026	UM		< 0.027	UM		< 0.026	UM		< 0.030	UM		< 0.035	UM		< 0.031	UM	
Benzo(k)fluoranthene	207-08-9	-	2.51E+00	-		< 0.029	U		< 0.030	U		< 0.029	U		< 0.033	U		< 0.039	U		< 0.034	U	
Chrysene	218-01-9	-	2.51E+01	-		< 0.023	U		< 0.024	U		< 0.023	U		< 0.026	U		< 0.031	U		< 0.027	U	
Dibenzo(a,h)Anthracene	53-70-3	-	2.51E-02	-		< 0.024	U		< 0.025	U		< 0.024	U		< 0.027	U		< 0.032	U		< 0.028	U	
Fluoranthene	206-44-0	-	8.02E+01	4.00E-02		< 0.027	UM		< 0.028	UM		< 0.027	UM		< 0.031	UM		**0.97**			< 0.032	UM	
Fluorene	86-73-7	-	2.94E+01	3.00E+00		< 0.025	UM		< 0.026	UM		**0.044**	**J**	**J**	< 0.029	U		**0.34**			< 0.029	UM	
Indeno(1,2,3-cd)pyrene	193-39-5	-	2.51E-01	-		< 0.028	U		< 0.029	U		< 0.028	U		< 0.032	U		< 0.038	U		< 0.033	U	
Naphthalene	91-20-3	-	*1.17E-01*	1.10E+00		< 0.014	U		< 0.015	UM		***29***			< 0.016	U		***0.37***			< 0.016	U	
Phenanthrene	85-01-8	-	-	4.00E-01		< 0.054	U		< 0.057	U		< 0.056	U		< 0.063	U		< 0.074	U		< 0.065	U	
Pyrene	129-00-0	-	1.21E+01	2.50E-02		< 0.027	UM		< 0.028	U		< 0.027	U		< 0.031	UM		**0.68**			< 0.032	UM	
Metals by SW6020A (µg/L)																							
Aluminum	7429-90-5	-	2.00E+03	8.70E+01		**46**	**J**	**J**	**170**	**J**		**57**	**J**	**J**	< 35	U		**56**	**J**	**J**	**190**	**J**	
Antimony	7440-36-0	6.00E+00	7.79E-01	3.00E+01		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U	
Arsenic	7440-38-2	1.00E+01	*5.17E-02*	5.00E+00		***1.5***	***J***	***J***	< 0.86	U		***7.7***			< 0.86	U		***5.8***			< 0.86	U	
Barium	7440-39-3	2.00E+03	3.77E+02	4.00E+00		**70**			**150**			**98**	**Q**		**22**			**51**	**Q**		**71**	**Q**	
Beryllium	7440-41-7	4.00E+00	2.46E+00	6.60E-01		< 0.20	U		**0.33**	**J**	**J**	< 0.20	U		< 0.20	U		< 0.20	U		< 0.20	U	
Boron	7440-42-8	-	3.99E+02	1.60E+00		**42**	**J**	**J**	< 22	U		< 22	U		**27**	**J**	**J**	**320**			**48**	**J**	**J**
Cadmium	7440-43-9	5.00E+00	1.84E-01	2.50E-01		< 0.078	U		< 0.078	U		< 0.078	U		< 0.078	U		< 0.078	U		< 0.078	U	
Calcium	7440-70-2	-	-	1.16E+05		**68000**			**1800**			**13000**			**1500**			**50000**	**J1**		**1700**		
Chromium	7440-47-3	1.00E+02	-	8.50E+01		< 0.81	U		< 0.81	U		< 0.81	U		< 0.81	U		**0.86**	**J**	**J**	< 0.81	U	
Cobalt	7440-48-4	-	*6.01E-01*	2.30E+01		***3.9***			***12***			***36***			***0.93***	***J***		***1.4***			***1.8***		
Copper	7440-50-8	1.30E+03	7.99E+01	9.00E+00		< 1.1	U		< 1.1	U		< 1.1	U		< 1.1	U		< 1.1	U		< 1.1	U	
Iron	7439-89-6	-	*1.40E+03*	3.00E+02		***12000***			**27**	**J**	**J**	***67000***			**56**	**J**	**J**	***40000***	***J1***		***2400***		
Lead[A]	7439-92-1	1.00E+01	1.00E+01	2.50E+00		**0.44**	**J**	**J**	**0.26**	**J**	**J**	< 0.21	U		< 0.21	U		< 0.21	U		**0.88**	**J**	**J**
Magnesium	7439-95-4	-	-	8.20E+04		**9300**			**2000**			**7500**			**900**			**75000**	**J1**		**1400**		
Manganese	7439-96-5	-	*4.34E+01*	1.20E+02		***400***			***270***			***1800***			***73***			***160***	***J1***		***47***		
Nickel	7440-02-0	-	3.92E+01	5.20E+01		< 0.42	U		**2.8**	**J**		**9.4**	**J**		**0.88**	**J**	**J**	**2.2**	**J**		**1.7**	**J**	
Potassium	9/7/7440	-	-	-		**2900**			**1600**			**1700**			**1600**			**4000**			**1700**		
Selenium	7782-49-2	5.00E+01	9.98E+00	1.00E+00		< 0.99	U		< 0.99	U		< 0.99	UQ		< 0.99	U		< 0.99	U		< 0.99	U	
Silver	7440-22-4	-	9.41E+00	3.20E+00		< 0.39	U		< 0.39	U		< 0.39	U		< 0.39	U		< 0.39	U		< 0.39	U	
Sodium	7440-23-5	-	-	6.80E+05		**7300**			**9100**			**83000**			**23000**			**93000**	**J1**		**8300**		
Thallium	7440-28-0	2.00E+00	2.00E-02	8.00E-01		< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U	
Vanadium	7440-62-2	-	8.64E+00	2.00E+01		< 0.63	U		< 0.63	U		< 0.63	U		< 0.63	U		< 0.63	U		< 0.63	U	
Zinc	7440-66-6	-	*6.00E+02*	1.20E+02		**6.1**	**J**	**J**	**9.2**	**J**	**J**	< 2.8	U		**6.4**	**J**	**J**	**41**	**J1**		**7.0**	**J**	**J**
Mercury by SW7470A (µg/L)																							
Mercury	7439-97-6	2.00E+00	*6.26E-02*	2.60E-02		< 0.080	U		< 0.080	U		< 0.080	U		***0.12***	***J***	***J***	< 0.080	U		< 0.080	U	
Organochlorine Pesticides and PCBs by SW8081B/SW8082A (µg/L)																							
4,4'-DDD	72-54-8	-	3.17E-02	1.10E-02		< 0.0020	U		< 0.0020	U		< 0.0019	U		< 0.0020	U		< 0.0024	U		< 0.0022	U	
4,4'-DDE	72-55-9	-	4.62E-02	-		< 0.00098	UM		< 0.00099	U		< 0.00097	U		< 0.0010	U		< 0.0012	UM		< 0.0011	UM	
4,4'-DDT	50-29-3	-	2.29E-01	5.00E-04		< 0.00098	U		< 0.00099	U		< 0.00097	UQ		< 0.0010	U		< 0.0012	U		< 0.0011	U	
Aldrin	309-00-2	-	9.17E-04	3.00E+00		< 0.0020	U		< 0.0020	UM		< 0.0019	U		< 0.0020	UM		< 0.0024	U		< 0.0022	U	
alpha-BHC	319-84-6	-	7.25E-03	-		< 0.00098	U		< 0.00099	U		< 0.00097	U		< 0.0010	UM		< 0.0012	UJ1		< 0.0011	U	
Aroclor-1016	12674-11-2	-	1.40E-01	7.40E-05		< 0.098	U		< 0.099	UM		< 0.097	U		< 0.10	UM		< 0.12	UJ1		< 0.11	U	
Aroclor-1221	11104-28-2	-	4.71E-03	7.40E-05		< 0.098	U		< 0.099	U		< 0.097	U		< 0.10	U		< 0.12	U		< 0.11	U	
Aroclor-1232	11141-16-5	-	4.71E-03	7.40E-05		< 0.098	U		< 0.099	UM		< 0.097	U		< 0.10	U		< 0.12	U		< 0.11	U	
Aroclor-1242	53469-21-9	-	7.85E-03	7.40E-05		< 0.098	U		< 0.099	UM		< 0.097	U		< 0.10	U		< 0.12	U		< 0.11	U	
Aroclor-1248	12672-29-6	-	7.85E-03	7.40E-05		< 0.098	UM		< 0.099	U		< 0.097	U		< 0.10	U		< 0.12	U		< 0.11	U	
Aroclor-1254	11097-69-1	-	7.85E-03	7.40E-05		< 0.098	UM		< 0.099	U		< 0.097	U		< 0.10	U		< 0.12	UM		< 0.11	U	
Aroclor-1260	11096-82-5	-	7.85E-03	7.40E-05		< 0.098	UMQ		< 0.099	UQ		< 0.097	U		< 0.10	UMQ		< 0.12	U		< 0.11	U	
beta-BHC	319-85-7	-	2.54E-02	-		< 0.0020	UM		< 0.0020	U		< 0.0019	UMQ		< 0.0020	U		< 0.0024	U		< 0.0022	U	
Chlordane (Technical)	12789-03-6	2.00E+00	2.00E-02	-		< 0.16	U		< 0.16	UM		< 0.16	U		< 0.16	U		< 0.19	U		< 0.18	U	
delta-BHC	319-86-8	-	-	1.41E+02		< 0.0020	UM		< 0.0020	U		< 0.0019	U		< 0.0020	U		< 0.0024	U		< 0.0022	U	
Dieldrin	60-57-1	-	1.75E-03	5.60E-02		< 0.0020	U		< 0.0020	U		< 0.0019	U		< 0.0020	U		< 0.0024	U		< 0.0022	U	
Endosulfan I	959-98-8	-	-	5.10E-02		< 0.0020	UM		< 0.0020	UM		< 0.0019	UQ		< 0.0020	U		< 0.0024	UJ1		< 0.0022	U	
Endosulfan II	33213-65-9	-	-	5.10E-02		< 0.0020	UM		< 0.0020	U		< 0.0019	U		< 0.0020	U		< 0.0024	U		< 0.0022	U	
Endosulfan sulfate	1031-07-8	-	1.06E+01	-		< 0.0020	U		< 0.0020	UM		< 0.0019	U		< 0.0020	U		< 0.0024	U		< 0.0022	U	
Endrin	72-20-8	2.00E+00	2.28E-01	3.60E-02		< 0.00098	UM		< 0.00099	U		< 0.00097	U		< 0.0010	UM		< 0.0012	UM		< 0.0011	U	
Endrin aldehyde	7421-93-4	-	-	-		< 0.0039	U		< 0.0040	U		< 0.0039	UM		< 0.0040	U		< 0.0047	U		< 0.0044	UM	
Endrin ketone	53494-70-5	-	-	-		< 0.0039	U		< 0.0040	U		< 0.0039	UQ		< 0.0040	U		< 0.0047	UQJ1		< 0.0044	UQ	
gamma-BHC (Lindane)	58-89-9	2.00E-01	4.15E-02	1.00E-02		< 0.00098	U		< 0.00099	U		< 0.00097	UQ		< 0.0010	UM		< 0.0012	UJ1		< 0.0011	U	
Heptachlor	76-44-8	4.00E-01	1.39E-03	1.90E-03		< 0.00098	U		< 0.00099	U		< 0.00097	UM		< 0.0010	U		< 0.0012	UJ1		< 0.0011	U	
Heptachlor epoxide	1024-57-3	2.00E-01	1.39E-03	1.90E-03		< 0.0020	U		< 0.0020	UM		< 0.0019	UM		< 0.0020	U		< 0.0024	U		< 0.0022	U	
Methoxychlor	72-43-5	4.00E+01	3.70E+00	1.90E-02		< 0.0020	UM		< 0.0020	U		< 0.0019	UQ		< 0.0020	UM		< 0.0024	U		< 0.0022	U	
Toxaphene	8001-35-2	3.00E+00	7.08E-02	2.00E-04		< 0.30	UM		< 0.31	UM		< 0.30	U		< 0.31	UM		< 0.37	U		< 0.34	U	

Table B.4
OU6 Annual Leachability - Spring 2024
Defense Supply Center Richmond

				Sample Location	CSMPZ-7			OU6-MW-169			OU6-MW-243			OU6-MW-259			OU6-MW-263			OU6-MW-269		
				Sample ID	OU6-CSMPZ-7-20240514			OU6-MW-169-20240514			OU6-MW-243-20240523			OU6-MW-259-20240515			OU6-MW-263-20240520			OU6-MW-269-20240520		
				Sample Date	5/14/2024			5/14/2024			5/23/2024			5/15/2024			5/20/2024			5/20/2024		
				Sample Type	N			N			N			N			N			N		
				Description	UWBU			UWBU			UWBU			UWBU			UWBU			UWBU		
Parameter	**CAS#**	**MCL**	**RSL**	**BTAG**	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV
SVOCs by 8270E (µg/L)																						
1,2,4,5-Tetrachlorobenzene	95-94-3	-	1.70E-02	3.00E+00	< 4.5	U		< 4.5	U		< 4.4	UQ		< 4.9	UQ		< 5.7	UJ1		< 5.0	U	
1,4-Dioxane	123-91-1	-	*4.59E-01*	-	< 4.4	U		< 4.4	U		***27***		***J-***	< 4.8	U		< 5.6	UJ1		< 4.9	U	
2,3,4,6-Tetrachlorophenol	58-90-2	-	2.38E+01	1.20E+00	< 4.3	U		< 4.3	U		< 4.2	U		< 4.7	U		< 5.5	U		< 4.7	U	
2,4,5-Trichlorophenol	95-95-4	-	1.18E+02	-	< 3.3	U		< 3.3	U		< 3.2	U		< 3.6	U		< 4.2	UJ1		< 3.6	U	
2,4,6-Trichlorophenol	88-06-2	-	1.21E+00	4.90E+00	< 2.2	U		< 2.2	U		< 2.2	U		< 2.4	U		< 2.8	UJ1		< 2.4	U	
2,4-Dichlorophenol	120-83-2	-	4.57E+00	1.10E+01	< 3.7	U		< 3.7	U		< 3.6	UM		< 4.0	U		< 4.7	UJ1		< 4.1	U	
2,4-Dimethylphenol	105-67-9	-	3.55E+01	-	< 3.0	UQ		< 3.0	UQ		< 2.9	UQ		< 3.3	UQ		< 3.8	UJ1Q		< 3.3	UQ	
2,4-Dinitrophenol	51-28-5	-	3.88E+00	-	< 16	U		< 16	U		< 16	U		< 17	U		< 20	U		< 18	U	
2,4-Dinitrotoluene	121-14-2	-	2.37E-01	4.40E+01	< 2.3	U		< 2.3	U		< 2.2	U		< 2.5	U		< 2.9	UJ1		< 2.5	U	
2,6-Dinitrotoluene	606-20-2	-	4.85E-02	8.10E+01	< 2.8	U		< 2.8	U		< 2.7	UM		< 3.0	U		< 3.6	UJ1		< 3.1	U	
2-Chloronaphthalene	91-58-7	-	7.47E+01	-	< 4.8	U		< 4.8	U		< 4.7	U		< 5.2	U		< 6.1	UJ1		< 5.3	U	
2-Chlorophenol	95-57-8	-	9.13E+00	2.40E+01	< 3.2	U		< 3.2	U		< 3.1	UM		< 3.5	U		< 4.1	UJ1		< 3.5	U	
2-Methylphenol (o-Cresol)	95-48-7	-	9.26E+01	1.30E+01	< 1.8	U		< 1.8	U		< 1.8	UM		< 2.0	UM		< 2.3	UJ1		< 2.0	U	
2-Nitroaniline	88-74-4	-	1.89E+01	-	< 2.9	UM		< 2.9	UM		< 2.8	U		< 3.2	U		< 3.7	UMJ1		< 3.2	UM	
2-Nitrophenol	88-75-5	-	-	1.92E+03	< 3.9	U		< 3.9	U		< 3.8	U		< 4.2	U		< 5.0	UJ1		< 4.3	U	
3,3'-Dichlorobenzidine	91-94-1	-	1.25E-01	4.50E+00	< 10	U		< 10	U		< 9.8	U		< 11	U		< 13	U		< 11	U	
3,4-Methylphenol (m,p-Cresol)	15831-10-4	-	-	-	< 1.4	U		< 1.4	U		**21**			< 1.5	U		< 1.8	UJ1		< 1.5	U	
3-Nitroaniline	99-09-2	-	-	-	< 3.0	U		< 3.0	U		< 2.9	U		< 3.3	U		< 3.8	U		< 3.3	U	
4,6-Dinitro-2-methylphenol	534-52-1	-	1.51E-01	-	< 5.3	U		< 5.3	U		< 5.2	U		< 5.8	U		< 6.7	U		< 5.8	U	
4-Bromophenyl-phenylether	101-55-3	-	-	1.50E+00	< 4.7	UM		< 4.7	UM		< 4.6	U		< 5.1	UM		< 6.0	UM		< 5.2	UM	
4-Chloro-3-methylphenol	59-50-7	-	1.45E+02	-	< 2.5	U		< 2.5	U		< 2.4	U		< 2.7	U		< 3.2	UJ1		< 2.8	U	
4-Chloroaniline	106-47-8	-	3.65E-01	2.32E+02	< 1.0	U		< 1.0	U		< 0.98	UMQ		< 1.1	UQ		< 1.3	UJ1		< 1.1	U	
4-Chlorophenyl-phenyl ether	7005-72-3	-	-	-	< 5.3	U		< 5.3	U		< 5.2	U		< 5.8	U		< 6.7	UJ1		< 5.8	U	
4-Nitroaniline	100-01-6	-	3.78E+00	-	< 3.0	U		< 3.0	U		< 2.9	U		< 3.3	U		< 3.8	U		< 3.3	U	
4-Nitrophenol	100-02-7	-	-	6.00E+01	< 8.1	U		< 8.1	U		< 7.9	UM		< 8.8	U		< 10	UJ1		< 8.9	U	
Acetophenone	98-86-2	-	1.92E+02	-	< 2.2	U		< 2.2	U		< 2.2	UM		< 2.4	U		< 2.8	UJ1		< 2.4	U	
Atrazine (Aatrex)	1912-24-9	3.00E+00	3.02E-01	1.80E+00	< 2.2	U		< 2.2	U		< 2.2	U		< 2.4	U		< 2.8	U		< 2.4	U	
Benzaldehyde	100-52-7	-	1.86E+01	-	< 4.8	U		< 4.8	U		< 4.7	U		< 5.2	U		< 6.1	UJ1		< 5.3	UM	
Biphenyl	92-52-4	-	8.34E-02	1.40E+01	< 4.6	UM		< 4.6	UM		< 4.5	U		< 5.0	UM		< 5.8	UMJ1		< 5.1	UM	
bis(2-Chloroethoxy)methane	111-91-1	-	5.90E+00	-	< 1.8	U		< 1.8	U		< 1.8	UQ		< 2.0	UQ		< 2.3	UJ1		< 2.0	U	
bis(2-Chloroethyl)ether	111-44-4	-	1.37E-02	-	< 3.6	UQ		< 3.6	UQ		< 3.5	UMQ		< 3.9	UQ		< 4.6	UQJ1		< 4.0	UQ	
bis(2-Chloroisopropyl)ether	108-60-1	-	7.14E+01	-	< 3.1	U		< 3.1	U		< 3.0	UMQ		< 3.4	UQ		< 3.9	UJ1		< 3.4	U	
bis(2-Ethylhexyl)phthalate	117-81-7	6.00E+00	5.56E+00	1.60E+01	< 3.0	U		< 3.0	U		< 2.9	U		< 3.3	U		< 3.8	U		< 3.3	U	
Butylbenzylphthalate	85-68-7	-	1.63E+01	1.90E+01	< 2.8	U		< 2.8	U		< 2.7	U		< 3.0	U		< 3.6	U		< 3.1	U	
Caprolactam	105-60-2	-	9.92E+02	-	< 2.8	U		< 2.8	U		< 2.7	U		< 3.0	U		< 3.6	UJ1		< 3.1	U	
Carbazole	86-74-8	-	-	-	< 1.8	U		< 1.8	U		< 1.8	U		< 2.0	U		< 2.3	U		< 2.0	UM	
Dibenzofuran	132-64-9	-	7.86E-01	3.70E+00	< 1.9	U		< 1.9	U		< 1.9	U		< 2.1	U		< 2.4	UJ1		< 2.1	U	
Dibutylphthalate	84-74-2	-	9.02E+01	1.90E+01	< 2.3	U		< 2.3	U		< 2.2	U		< 2.5	U		< 2.9	U		< 2.5	U	
Diethylphthalate	84-66-2	-	1.48E+03	2.10E+02	< 2.2	U		< 2.2	U		< 2.2	U		< 2.4	U		< 2.8	U		< 2.4	U	
Dimethylphthalate	131-11-3	-	-	-	< 2.1	U		< 2.1	U		< 2.1	U		< 2.3	U		< 2.7	UJ1		< 2.3	U	
Dioctylphthalate	117-84-0	-	2.01E+01	2.20E+01	< 2.8	U		< 2.8	UM		< 2.7	UM		< 3.0	U		< 3.6	U		< 3.1	UM	
Hexachlorobenzene	118-74-1	1.00E+00	9.76E-03	3.00E-04	< 1.6	U		< 1.6	U		< 1.6	U		< 1.7	U		< 2.0	U		< 1.8	U	
Hexachlorobutadiene	87-68-3	-	1.39E-01	1.30E+00	< 4.0	U		< 4.0	U		< 3.9	UQ		< 4.4	UQ		< 5.1	UJ1		< 4.4	U	
Hexachlorocyclopentadiene	77-47-4	5.00E+01	4.12E-02	-	< 3.5	U		< 3.5	U		< 3.4	UQ		< 3.8	U		< 4.4	UJ1		< 3.9	U	
Hexachloroethane	67-72-1	-	3.28E-01	1.20E+01	< 3.6	U		< 3.6	U		< 3.5	UMQ		< 3.9	UQ		< 4.6	UJ1		< 4.0	U	
Isophorone	78-59-1	-	7.81E+01	-	< 2.0	U		< 2.0	U		< 2.0	UMQ		< 2.2	UQ		< 2.5	UJ1		< 2.2	U	
Nitrobenzene	98-95-3	-	1.40E-01	-	< 3.5	U		< 3.5	U		< 3.4	UMQ		< 3.8	UQ		< 4.4	UJ1		< 3.9	U	
n-Nitrosodiphenylamine	86-30-6	-	1.22E+01	2.10E+02	< 2.9	UM		< 2.9	UM		< 2.8	U		< 3.2	UM		< 3.7	UM		< 3.2	UM	
N-Nitrosodipropylamine	621-64-7	-	1.08E-02	-	< 2.4	U		< 2.4	U		< 2.3	UMQ		< 2.6	UQ		< 3.1	UJ1		< 2.6	U	
Pentachlorophenol	87-86-5	1.00E+00	4.13E-02	5.00E-01	< 9.9	U		< 9.9	U		< 9.7	U		< 11	U		< 13	U		< 11	U	
Phenol	108-95-2	-	5.77E+02	4.00E+00	< 1.5	U		< 1.5	U		< 1.5	UM		< 1.6	U		< 1.9	UMJ1		< 1.7	UM	
Pyridine	110-86-1	-	1.98E+00	2.38E+03	< 7.4	U		< 7.4	U		< 7.2	UMQ		< 8.1	U		< 9.4	UJ1		< 8.2	U	
Field Parameters																						
Depth to Water (ft)	DTW	-	-	-	**10.62**			**8.8**			**13.13**			**12.55**			**10.5**			**5.95**		
Dissolved Oxygen (mg/L)	DO	-	-	-	**3.06**			**3.86**			**1.77**			**0.89**			**0.66**			**0.67**		
Ferrous Iron - Field (mg/L)	FIELD FE	-	-	-	-[1]			**0.01**			**1.5**			**0.03**			**3.56**			**0.9**		
Oxidation Reduction Potential (mV)	ORP	-	-	-	**3.3**			**488.8**			**-22.4**			**284**			**-68**			**161.1**		
pH (pH unit)	PH	-	-	-	**6.25**			**4.52**			**5.61**			**4.64**			**6.26**			**4.48**		
Specific Conductivity (mS/cm)	SC	-	-	-	**0.414**			**0.083**			**0.569**			**0.128**			**0.988**			**0.127**		
Temperature (°C)	TEMP	-	-	-	**15.6**			**17.4**			**19.1**			**15.8**			**15.4**			**19.4**		
Turbidity (NTU)	TURB	-	-	-	**0.45**			-[1]			-[1]			**40**			**10.2**			**10.2**		

Table B.4
OU6 Annual Leachability - Spring 2024
Defense Supply Center Richmond

				Sample Location	OU6-MW-272			OU6-MW-272			OU6-MW-277			OU6-MW-279			OU6-MW-280		
				Sample ID	DUP5-20240522			OU6-MW-272-20240522			OU6-MW-277-20240515			OU6-MW-279-20240516			OU6-MW-280-20240515		
				Sample Date	5/22/2024			5/22/2024			5/15/2024			5/16/2024			5/15/2024		
				Sample Type	FD			N			N			N			N		
				Description	UWBU			UWBU			UWBU			UWBU			UWBU		
Parameter	**CAS#**	**MCL**	**RSL**	**BTAG**	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV
SVOCs by 8270E SIM (µg/L)																			
1-Methylnaphthalene	90-12-0	-	*6.26E-04*	2.10E+00	< 0.022	UM		< 0.019	UM		< 0.020	UM		***0.16***	***J***	***J-***	< 0.021	UM	
2-Methylnaphthalene	91-57-6	-	3.59E+00	4.70E+00	< 0.013	UM		< 0.012	U		< 0.012	U		**0.29**		**J-**	< 0.013	U	
Acenaphthene	83-32-9	-	5.35E+01	5.80E+00	< 0.051	UM		< 0.045	UM		< 0.047	UM		< 0.041	UM		< 0.050	UM	
Acenaphthylene	208-96-8	-	-	-	< 0.021	UM		< 0.018	U		< 0.019	UM		< 0.017	UM		< 0.020	UM	
Anthracene	120-12-7	-	1.77E+02	1.20E-02	< 0.022	U		< 0.019	U		< 0.020	U		< 0.018	U		< 0.021	U	
Benzo(a)anthracene	56-55-3	-	2.98E-02	1.80E-02	< 0.031	U		< 0.028	U		< 0.029	U		< 0.026	U		< 0.031	U	
Benzo(a)pyrene	50-32-8	2.00E-01	2.51E-02	1.50E-02	< 0.031	U		< 0.028	U		< 0.029	U		< 0.026	U		< 0.031	U	
Benzo(b)fluoranthene	205-99-2	-	2.51E-01	-	< 0.031	U		< 0.028	U		< 0.029	U		< 0.026	U		< 0.031	U	
Benzo(g,h,i)Perylene	191-24-2	-	-	-	< 0.031	UM		< 0.028	UM		< 0.029	U		< 0.026	UM		< 0.031	U	
Benzo(k)fluoranthene	207-08-9	-	2.51E+00	-	< 0.035	U		< 0.031	U		< 0.032	U		< 0.029	U		< 0.034	U	
Chrysene	218-01-9	-	2.51E+01	-	< 0.028	U		< 0.024	U		< 0.026	U		< 0.023	U		< 0.027	U	
Dibenzo(a,h)Anthracene	53-70-3	-	2.51E-02	-	< 0.029	U		< 0.025	U		< 0.027	U		< 0.024	U		< 0.028	U	
Fluoranthene	206-44-0	-	8.02E+01	4.00E-02	< 0.033	UM		< 0.029	UM		< 0.030	UM		< 0.027	UM		< 0.032	UM	
Fluorene	86-73-7	-	2.94E+01	3.00E+00	< 0.030	U		< 0.027	UM		< 0.028	U		**0.072**	**J**	**J-**	< 0.029	UM	
Indeno(1,2,3-cd)pyrene	193-39-5	-	2.51E-01	-	< 0.034	U		< 0.030	U		< 0.031	U		< 0.028	U		< 0.033	U	
Naphthalene	91-20-3	-	*1.17E-01*	1.10E+00	***0.17***	***JM***	***J-***	**0.062**	**JM**		< 0.016	U		***0.99***		***J-***	***0.16***	***J***	
Phenanthrene	85-01-8	-	-	4.00E-01	< 0.067	U		< 0.058	U		< 0.061	U		**0.10**	**J**	**J-**	**0.089**	**J**	**J**
Pyrene	129-00-0	-	1.21E+01	2.50E-02	< 0.033	UM		< 0.029	UM		< 0.030	UM		< 0.027	UM		< 0.032	UM	
Metals by SW6020A (µg/L)																			
Aluminum	7429-90-5	-	2.00E+03	8.70E+01	**200**			**200**			**240**			< 35	U		**47**	**J**	**J**
Antimony	7440-36-0	6.00E+00	7.79E-01	3.00E+01	< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U	
Arsenic	7440-38-2	1.00E+01	*5.17E-02*	5.00E+00	< 0.86	U		< 0.86	U		< 0.86	U		***9.2***			***3.2***	***J***	
Barium	7440-39-3	2.00E+03	3.77E+02	4.00E+00	**110**	**Q**		**100**	**Q**		**42**			**110**			**26**		
Beryllium	7440-41-7	4.00E+00	2.46E+00	6.60E-01	**0.26**	**J**		**0.41**	**J**		< 0.20	U		< 0.20	U		< 0.20	U	
Boron	7440-42-8	-	3.99E+02	1.60E+00	**23**	**J**		**27**	**J**	**J**	< 22	U		**26**	**J**	**J**	< 22	U	
Cadmium	7440-43-9	5.00E+00	1.84E-01	2.50E-01	< 0.078	U		< 0.078	U		**0.090**	**J**	**J**	< 0.078	U		< 0.078	U	
Calcium	7440-70-2	-	-	1.16E+05	**4300**			**3800**			**3700**			**25000**	**J1**	**J-**	**3000**		
Chromium	7440-47-3	1.00E+02	-	8.50E+01	< 0.81	U		**0.94**	**J**	**J**	< 0.81	U		**1.1**	**J**	**J**	< 0.81	U	
Cobalt	7440-48-4	-	*6.01E-01*	2.30E+01	***20***			***17***			***0.85***	***J***		***3.4***			***2.1***		
Copper	7440-50-8	1.30E+03	7.99E+01	9.00E+00	< 1.1	U		< 1.1	U		**1.6**	**J**	**J**	**5.4**			< 1.1	U	
Iron	7439-89-6	-	*1.40E+03*	3.00E+02	**170**			**160**			**99**	**J**		***70000***	***J1***		***47000***		
Lead[A]	7439-92-1	1.00E+01	1.00E+01	2.50E+00	**0.23**	**J**		**0.27**	**J**	**J**	**0.87**	**J**	**J**	**0.81**	**J**	**J**	< 0.21	U	
Magnesium	7439-95-4	-	-	8.20E+04	**2600**			**2400**			**1100**			**4100**			**1800**		
Manganese	7439-96-5	-	*4.34E+01*	1.20E+02	***770***			***680***			**10**			***470***			***260***		
Nickel	7440-02-0	-	3.92E+01	5.20E+01	**3.1**	**J**		**2.8**	**J**		**1.2**	**J**		**1.4**	**JQ**		**1.4**	**J**	
Potassium	9/7/7440	-	-	-	**1800**			**1700**			**2300**			**7900**			**2400**		
Selenium	7782-49-2	5.00E+01	9.98E+00	1.00E+00	< 0.99	UQ		< 0.99	UQ		< 0.99	U		< 0.99	U		< 0.99	U	
Silver	7440-22-4	-	9.41E+00	3.20E+00	< 0.39	U		< 0.39	U		< 0.39	U		< 0.39	U		< 0.39	U	
Sodium	7440-23-5	-	-	6.80E+05	**34000**			**26000**			**6800**			**17000**	**J1**	**J-**	**27000**		
Thallium	7440-28-0	2.00E+00	2.00E-02	8.00E-01	< 0.26	UQ		< 0.26	UQ		< 0.26	U		< 0.26	U		< 0.26	U	
Vanadium	7440-62-2	-	8.64E+00	2.00E+01	< 0.63	U		< 0.63	U		< 0.63	U		< 0.63	U		**0.77**	**J**	**J**
Zinc	7440-66-6	-	*6.00E+02*	1.20E+02	**55**			**12**	**J**	**J**	**200**			***740***	***J1***		**9.4**	**J**	**J**
Mercury by SW7470A (µg/L)																			
Mercury	7439-97-6	2.00E+00	*6.26E-02*	2.60E-02	< 0.080	U		< 0.080	U		< 0.080	U		< 0.080	U		< 0.080	U	
Organochlorine Pesticides and PCBs by SW8081B/SW8082A (µg/L)																			
4,4'-DDD	72-54-8	-	3.17E-02	1.10E-02	< 0.0021	UM		< 0.0022	U		< 0.0023	UM		< 0.0020	UM		< 0.0023	UM	
4,4'-DDE	72-55-9	-	4.62E-02	-	< 0.0010	U		< 0.0011	UM		< 0.0012	UM		< 0.00098	U		< 0.0011	U	
4,4'-DDT	50-29-3	-	2.29E-01	5.00E-04	< 0.0010	U		< 0.0011	U		< 0.0012	U		< 0.00098	U		< 0.0011	U	
Aldrin	309-00-2	-	9.17E-04	3.00E+00	< 0.0021	U		< 0.0022	U		< 0.0023	UM		< 0.0020	U		< 0.0023	U	
alpha-BHC	319-84-6	-	7.25E-03	-	< 0.0010	U		< 0.0011	UM		< 0.0012	UM		< 0.00098	U		< 0.0011	UM	
Aroclor-1016	12674-11-2	-	1.40E-01	7.40E-05	< 0.10	UM		< 0.11	UM		< 0.12	U		< 0.098	UQ		< 0.11	UM	
Aroclor-1221	11104-28-2	-	4.71E-03	7.40E-05	< 0.10	U		< 0.11	U		< 0.12	U		< 0.098	U		< 0.11	U	
Aroclor-1232	11141-16-5	-	4.71E-03	7.40E-05	< 0.10	U		< 0.11	U		< 0.12	U		< 0.098	U		< 0.11	UM	
Aroclor-1242	53469-21-9	-	7.85E-03	7.40E-05	< 0.10	U		< 0.11	UM		< 0.12	U		< 0.098	U		< 0.11	UM	
Aroclor-1248	12672-29-6	-	7.85E-03	7.40E-05	< 0.10	UM		< 0.11	U		< 0.12	UM		< 0.098	UM		< 0.11	U	
Aroclor-1254	11097-69-1	-	7.85E-03	7.40E-05	< 0.10	U		< 0.11	U		< 0.12	UM		< 0.098	U		< 0.11	U	
Aroclor-1260	11096-82-5	-	7.85E-03	7.40E-05	< 0.10	U		< 0.11	U		< 0.12	UMQ		< 0.098	UMQ		< 0.11	UQ	
beta-BHC	319-85-7	-	2.54E-02	-	< 0.0021	UM		< 0.0022	UM		< 0.0023	U		< 0.0020	U		< 0.0023	UM	
Chlordane (Technical)	12789-03-6	2.00E+00	2.00E-02	-	< 0.17	UM		< 0.17	U		< 0.18	UM		< 0.16	UM		< 0.18	UM	
delta-BHC	319-86-8	-	-	1.41E+02	< 0.0021	U		< 0.0022	U		< 0.0023	U		< 0.0020	UM		< 0.0023	U	
Dieldrin	60-57-1	-	1.75E-03	5.60E-02	< 0.0021	U		< 0.0022	U		< 0.0023	U		< 0.0020	U		< 0.0023	U	
Endosulfan I	959-98-8	-	-	5.10E-02	< 0.0021	UQ		< 0.0022	U		< 0.0023	UM		< 0.0020	U		< 0.0023	UM	
Endosulfan II	33213-65-9	-	-	5.10E-02	< 0.0021	UM		< 0.0022	U		< 0.0023	U		< 0.0020	U		< 0.0023	U	
Endosulfan sulfate	1031-07-8	-	1.06E+01	-	< 0.0021	UM		< 0.0022	UM		< 0.0023	U		< 0.0020	UM		< 0.0023	U	
Endrin	72-20-8	2.00E+00	2.28E-01	3.60E-02	< 0.0010	U		< 0.0011	U		< 0.0012	U		< 0.00098	U		< 0.0011	U	
Endrin aldehyde	7421-93-4	-	-	-	< 0.0041	U		< 0.0043	UM		< 0.0046	U		< 0.0039	U		< 0.0045	UM	
Endrin ketone	53494-70-5	-	-	-	< 0.0041	UQ		< 0.0043	UQ		< 0.0046	U		< 0.0039	UQ		< 0.0045	UM	
gamma-BHC (Lindane)	58-89-9	2.00E-01	4.15E-02	1.00E-02	< 0.0010	UQ		< 0.0011	U		< 0.0012	UM		< 0.00098	U		< 0.0011	U	
Heptachlor	76-44-8	4.00E-01	1.39E-03	1.90E-03	< 0.0010	U		< 0.0011	U		< 0.0012	U		< 0.00098	U		< 0.0011	U	
Heptachlor epoxide	1024-57-3	2.00E-01	1.39E-03	1.90E-03	< 0.0021	U		< 0.0022	U		< 0.0023	U		< 0.0020	U		< 0.0023	U	
Methoxychlor	72-43-5	4.00E+01	3.70E+00	1.90E-02	< 0.0021	UQ		< 0.0022	U		< 0.0023	U		< 0.0020	U		< 0.0023	UM	
Toxaphene	8001-35-2	3.00E+00	7.08E-02	2.00E-04	< 0.32	U		< 0.34	U		< 0.36	UM		< 0.30	UM		< 0.35	UM	

Table B.4
OU6 Annual Leachability - Spring 2024
Defense Supply Center Richmond

					Sample Location	OU6-MW-272			OU6-MW-272			OU6-MW-277			OU6-MW-279			OU6-MW-280		
					Sample ID	DUP5-20240522			OU6-MW-272-20240522			OU6-MW-277-20240515			OU6-MW-279-20240516			OU6-MW-280-20240515		
					Sample Date	5/22/2024			5/22/2024			5/15/2024			5/16/2024			5/15/2024		
					Sample Type	FD			N			N			N			N		
					Description	UWBU			UWBU			UWBU			UWBU			UWBU		
Parameter	**CAS#**	**MCL**	**RSL**	**BTAG**		Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV
SVOCs by 8270E (µg/L)																				
1,2,4,5-Tetrachlorobenzene	95-94-3	-	1.70E-02	3.00E+00		< 5.0	U		< 5.0	U		< 4.5	U		< 4.7	U		< 4.8	U	
1,4-Dioxane	123-91-1	-	*4.59E-01*	-		< 4.9	U		< 4.9	U		< 4.4	U		< 4.6	U		< 4.7	U	
2,3,4,6-Tetrachlorophenol	58-90-2	-	2.38E+01	1.20E+00		< 4.8	U		< 4.8	U		< 4.3	U		< 4.5	U		< 4.6	U	
2,4,5-Trichlorophenol	95-95-4	-	1.18E+02	-		< 3.7	U		< 3.7	U		< 3.3	U		< 3.4	U		< 3.5	U	
2,4,6-Trichlorophenol	88-06-2	-	1.21E+00	4.90E+00		< 2.5	U		< 2.4	U		< 2.2	U		< 2.3	U		< 2.4	U	
2,4-Dichlorophenol	120-83-2	-	4.57E+00	1.10E+01		< 4.1	U		< 4.1	U		< 3.7	U		< 3.9	U		< 4.0	U	
2,4-Dimethylphenol	105-67-9	-	3.55E+01	-		< 3.4	UQ		< 3.3	UQ		< 3.0	UQ		< 3.1	UQ		< 3.2	UQ	
2,4-Dinitrophenol	51-28-5	-	3.88E+00	-		< 18	U		< 18	U		< 16	U		< 17	U		< 17	U	
2,4-Dinitrotoluene	121-14-2	-	2.37E-01	4.40E+01		< 2.6	U		< 2.6	U		< 2.3	U		< 2.4	U		< 2.5	U	
2,6-Dinitrotoluene	606-20-2	-	4.85E-02	8.10E+01		< 3.1	U		< 3.1	U		< 2.8	U		< 2.9	U		< 3.0	U	
2-Chloronaphthalene	91-58-7	-	7.47E+01	-		< 5.4	U		< 5.3	U		< 4.8	U		< 5.0	U		< 5.1	U	
2-Chlorophenol	95-57-8	-	9.13E+00	2.40E+01		< 3.6	U		< 3.6	U		< 3.2	U		< 3.3	U		< 3.4	U	
2-Methylphenol (o-Cresol)	95-48-7	-	9.26E+01	1.30E+01		< 2.0	U		< 2.0	U		< 1.8	U		< 1.9	U		< 1.9	U	
2-Nitroaniline	88-74-4	-	1.89E+01	-		< 3.2	U		< 3.2	U		< 2.9	UM		< 3.0	U		< 3.1	UM	
2-Nitrophenol	88-75-5	-	-	1.92E+03		< 4.4	U		< 4.3	U		< 3.9	U		< 4.1	U		< 4.2	U	
3,3'-Dichlorobenzidine	91-94-1	-	1.25E-01	4.50E+00		< 11	U		< 11	U		< 10	U		< 10	U		< 11	U	
3,4-Methylphenol (m,p-Cresol)	15831-10-4	-	-	-		< 1.6	U		< 1.6	U		< 1.4	U		< 1.5	U		< 1.5	U	
3-Nitroaniline	99-09-2	-	-	-		< 3.4	U		< 3.3	U		< 3.0	U		< 3.1	U		< 3.2	U	
4,6-Dinitro-2-methylphenol	534-52-1	-	1.51E-01	-		< 5.9	U		< 5.9	U		< 5.3	U		< 5.5	U		< 5.7	U	
4-Bromophenyl-phenylether	101-55-3	-	-	1.50E+00		< 5.3	U		< 5.2	U		< 4.7	U		< 4.9	UM		< 5.0	U	
4-Chloro-3-methylphenol	59-50-7	-	1.45E+02	-		< 2.8	U		< 2.8	U		< 2.5	U		< 2.6	U		< 2.7	U	
4-Chloroaniline	106-47-8	-	3.65E-01	2.32E+02		< 1.1	UQ		< 1.1	U		< 1.0	U		< 1.0	U		< 1.1	U	
4-Chlorophenyl-phenyl ether	7005-72-3	-	-	-		< 5.9	U		< 5.9	U		< 5.3	U		< 5.5	U		< 5.7	U	
4-Nitroaniline	100-01-6	-	3.78E+00	-		< 3.4	U		< 3.3	U		< 3.0	U		< 3.1	U		< 3.2	U	
4-Nitrophenol	100-02-7	-	-	6.00E+01		< 9.1	U		< 9.0	U		< 8.1	U		< 8.4	U		< 8.7	U	
Acetophenone	98-86-2	-	1.92E+02	-		< 2.5	U		< 2.4	U		< 2.2	U		< 2.3	UM		< 2.4	UM	
Atrazine (Aatrex)	1912-24-9	3.00E+00	3.02E-01	1.80E+00		< 2.5	U		< 2.4	U		< 2.2	U		< 2.3	U		< 2.4	U	
Benzaldehyde	100-52-7	-	1.86E+01	-		< 5.4	U		< 5.3	UM		< 4.8	U		< 5.0	U		< 5.1	UM	
Biphenyl	92-52-4	-	8.34E-02	1.40E+01		< 5.1	UM		< 5.1	UM		< 4.6	UM		< 4.8	UM		< 4.9	UM	
bis(2-Chloroethoxy)methane	111-91-1	-	5.90E+00	-		< 2.0	U		< 2.0	U		< 1.8	U		< 1.9	U		< 1.9	U	
bis(2-Chloroethyl)ether	111-44-4	-	1.37E-02	-		< 4.0	U		< 4.0	U		< 3.6	UQ		< 3.7	UQ		< 3.8	UQ	
bis(2-Chloroisopropyl)ether	108-60-1	-	7.14E+01	-		< 3.5	U		< 3.4	U		< 3.1	U		< 3.2	U		< 3.3	U	
bis(2-Ethylhexyl)phthalate	117-81-7	6.00E+00	5.56E+00	1.60E+01		< 3.4	U		< 3.3	U		< 3.0	U		< 3.1	U		< 3.2	U	
Butylbenzylphthalate	85-68-7	-	1.63E+01	1.90E+01		< 3.1	U		< 3.1	U		< 2.8	U		< 2.9	U		< 3.0	U	
Caprolactam	105-60-2	-	9.92E+02	-		< 3.1	U		< 3.1	U		< 2.8	U		< 2.9	U		< 3.0	U	
Carbazole	86-74-8	-	-	-		< 2.0	UM		< 2.0	UM		< 1.8	U		< 1.9	U		< 1.9	UM	
Dibenzofuran	132-64-9	-	7.86E-01	3.70E+00		< 2.1	U		< 2.1	U		< 1.9	U		< 2.0	UM		< 2.0	U	
Dibutylphthalate	84-74-2	-	9.02E+01	1.90E+01		< 2.6	U		< 2.6	U		< 2.3	U		< 2.4	U		< 2.5	U	
Diethylphthalate	84-66-2	-	1.48E+03	2.10E+02		< 2.5	UM		< 2.4	U		< 2.2	U		< 2.3	U		< 2.4	U	
Dimethylphthalate	131-11-3	-	-	-		< 2.3	U		< 2.3	U		< 2.1	U		< 2.2	U		< 2.2	U	
Dioctylphthalate	117-84-0	-	2.01E+01	2.20E+01		< 3.1	U		< 3.1	U		< 2.8	U		< 2.9	U		< 3.0	U	
Hexachlorobenzene	118-74-1	1.00E+00	9.76E-03	3.00E-04		< 1.8	U		< 1.8	U		< 1.6	U		< 1.7	U		< 1.7	U	
Hexachlorobutadiene	87-68-3	-	1.39E-01	1.30E+00		< 4.5	U		< 4.4	U		< 4.0	U		< 4.2	U		< 4.3	U	
Hexachlorocyclopentadiene	77-47-4	5.00E+01	4.12E-02	-		< 3.9	UQ		< 3.9	U		< 3.5	U		< 3.6	U		< 3.7	U	
Hexachloroethane	67-72-1	-	3.28E-01	1.20E+01		< 4.0	U		< 4.0	U		< 3.6	U		< 3.7	U		< 3.8	U	
Isophorone	78-59-1	-	7.81E+01	-		< 2.2	U		< 2.2	U		< 2.0	U		< 2.1	U		< 2.1	U	
Nitrobenzene	98-95-3	-	1.40E-01	-		< 3.9	U		< 3.9	U		< 3.5	U		< 3.6	U		< 3.7	U	
n-Nitrosodiphenylamine	86-30-6	-	1.22E+01	2.10E+02		< 3.2	U		< 3.2	U		< 2.9	U		< 3.0	UM		< 3.1	UM	
N-Nitrosodipropylamine	621-64-7	-	1.08E-02	-		< 2.7	U		< 2.7	U		< 2.4	U		< 2.5	U		< 2.6	U	
Pentachlorophenol	87-86-5	1.00E+00	4.13E-02	5.00E-01		< 11	U		< 11	U		< 9.9	U		< 10	U		< 11	U	
Phenol	108-95-2	-	5.77E+02	4.00E+00		< 1.7	U		< 1.7	U		< 1.5	U		< 1.6	U		< 1.6	U	
Pyridine	110-86-1	-	1.98E+00	2.38E+03		< 8.3	UQ		< 8.2	U		< 7.4	U		< 7.7	UM		< 7.9	U	
Field Parameters																				
Depth to Water (ft)	DTW	-	-	-		**5.95**			**5.95**			**7.45**			**5.55**			**5.25**		
Dissolved Oxygen (mg/L)	DO	-	-	-		**0.82**			**0.82**			**2.03**			**0.63**			**1.39**		
Ferrous Iron - Field (mg/L)	FIELD FE	-	-	-		**0.17**			**0.14**			**0.06**			**1.32**			**2.45**		
Oxidation Reduction Potential (mV)	ORP	-	-	-		**212.2**			**212.2**			**354.8**			**-74.9**			**33.4**		
pH (pH unit)	PH	-	-	-		**6.59**			**6.59**			**4.75**			**6.1**			**5.65**		
Specific Conductivity (mS/cm)	SC	-	-	-		**0.124**			**0.124**			**0.073**			**0.58**			**0.253**		
Temperature (°C)	TEMP	-	-	-		**18.2**			**18.2**			**17.3**			**18.7**			**17.8**		
Turbidity (NTU)	TURB	-	-	-		**10.2**			**10.2**			**45**			**25.2**			**45**		

Notes:
CAS = chemical abstract service, MCL = Maximum Contaminant Level from 40 CFR Subpart G - National Primary Drinking Water Regulations: Maximum Contaminant Levels and Maximum Residual Disinfectant Levels May 2024,
BTAG = EPA Region III BTAG Freshwater Screening Benchmarks, 7/2006, RSL = Regional Screening Level (RSL) for Chemical Contaminants in Residential Tapwater at Superfund Sites (TR=1E-06, HQ=0.1) May 2024
SVOCs = Semi-volatile organic compounds
µg/L = micrograms per liter, mg/L = milligrams per liter, mV = millivolts, pg/L = picograms per liter,
mS/cm = milliSiemens per centimeter, °C = degree celcius, NTU = Nephelometric turbidity units,
UWBU = upper water bearing unit,
Sample types N = normal, FD = Field Duplicate

1- Parameters were not collected due to field conditions, reference field logs for details.
A- Updated lead action level of 10 micrograms per liter (November 2024) is used as sceening level.

Lab Qualifiers (Q):
J = Estimated: the analyte was positively idenfied; the quantitation is an estimation
J1 = Estimated: the quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria
M = Manual integrated compound
Q = One of more quality control criteria failed
U = Undetected at the limit of detection

Validator Qualifiers (DV):
J = The reported result was an estimated value with an unknown bias
J- = The result was an estimated quantity, but the result may be biased low

Bold Result = detection
Grey Shading Result = concentration > MCL
Italicized Result = concentration > RSL
Underlined Result = concentration > BTAG

B.5 Surface Water Monitoring Tables (May 2024)

Table B.5
OU6 Annual Surface Water Sampling Spring 2024 - No Name Creek
Defense Supply Center Richmond

			Sample Location	NNC-1			NNC-2			NNC-2			NNC-3		
			Sample ID	OU6-NNC-1-20240523			OU6-NNC-2-20240523			DUP8-20240523			OU6-NNC-3-20240523		
			Sample Date	5/23/2024			5/23/2024			5/23/2024			5/23/2024		
			Sample Type	N			N			FD			N		
Parameter	**CAS#**	**MCL**	**BTAG**	Result	Q	DV	Result	Q	DV	Result	Q	DV	Result	Q	DV
VOCs by SW8260D (µg/L)															
1,1,1,2-Tetrachloroethane	630-20-6	-	-	< 0.36	U		< 0.36	U		< 0.36	U		< 0.36	U	
1,1,1-Trichloroethane	71-55-6	2.00E+02	1.10E+01	< 0.21	U		< 0.21	U		< 0.21	U		< 0.21	U	
1,1,2,2-Tetrachloroethane	79-34-5	-	6.10E+02	< 0.40	U		< 0.40	UQ		< 0.40	UQ		< 0.40	UQ	
1,1,2-Trichloroethane	79-00-5	5.00E+00	1.20E+03	< 0.32	U		< 0.32	U		< 0.32	U		< 0.32	U	
1,1-Dichloroethane	75-34-3	-	4.70E+01	< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	U	
1,1-Dichloroethene (Vinylidene chloride)	75-35-4	7.00E+00	2.50E+01	< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	U	
1,1-Dichloropropene	563-58-6	-	-	< 0.28	UQ		< 0.28	U		< 0.28	U		< 0.28	U	
1,2,3-Trichlorobenzene	87-61-6	-	8.00E+00	< 0.81	UJ1		< 0.81	U		< 0.81	U		< 0.81	U	
1,2,3-Trichloropropane	96-18-4	-	-	< 0.48	U		< 0.48	U		< 0.48	U		< 0.48	U	
1,2,4-Trichlorobenzene	120-82-1	7.00E+01	2.40E+01	< 0.53	UJ1		< 0.53	U		< 0.53	U		< 0.53	U	
1,2,4-Trimethylbenzene	95-36-3	-	-	< 0.43	U		< 0.43	U		< 0.43	U		< 0.43	U	
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	2.00E-01	-	< 1.8	U		< 1.8	U		< 1.8	U		< 1.8	U	
1,2-Dibromoethane (EDB)	106-93-4	5.00E-02	-	< 0.33	U		< 0.33	U		< 0.33	U		< 0.33	U	
1,2-Dichlorobenzene	95-50-1	6.00E+02	7.00E-01	< 0.31	U		< 0.31	U		< 0.31	U		< 0.31	U	
1,2-Dichloroethane	107-06-2	5.00E+00	1.00E+02	< 0.25	UM		< 0.25	U		< 0.25	UM		< 0.25	UM	
1,2-Dichloroethene, Total	540-59-0	-	5.90E+02	**0.81**	**J**	**J**	**0.99**	**J**	**J**	**0.73**	**J**		**1.2**	**J**	
1,2-Dichloropropane	78-87-5	5.00E+00	-	< 0.22	U		< 0.22	U		< 0.22	U		< 0.22	U	
1,3,5-Trimethylbenzene	108-67-8	-	7.10E+01	< 0.28	U		< 0.28	U		< 0.28	U		< 0.28	U	
1,3-Dichlorobenzene	541-73-1	-	1.50E+02	< 0.31	U		< 0.31	U		< 0.31	U		< 0.31	U	
1,3-Dichloropropane	142-28-9	-	-	< 0.36	U		< 0.36	U		< 0.36	U		< 0.36	U	
1,4-Dichlorobenzene	106-46-7	7.50E+01	2.60E+01	< 0.31	U		< 0.31	U		< 0.31	U		< 0.31	U	
2,2-Dichloropropane	594-20-7	-	-	< 0.35	U		< 0.35	U		< 0.35	U		< 0.35	U	
2-Butanone (MEK)	78-93-3	-	1.40E+04	< 6.4	U		< 6.4	U		< 6.4	U		< 6.4	U	
2-Chlorotoluene	95-49-8	-	-	< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U	
2-Hexanone	591-78-6	-	9.90E+01	< 3.2	U		< 3.2	U		< 3.2	U		< 3.2	U	
4-Chlorotoluene	106-43-4	-	-	< 0.41	U		< 0.41	U		< 0.41	U		< 0.41	U	
4-Methyl-2-pentanone (MIBK)	108-10-1	-	1.70E+02	< 2.7	U		< 2.7	U		< 2.7	U		< 2.7	U	
Acetone	67-64-1	-	1.50E+03	< 3.7	U		< 3.7	U		< 3.7	U		< 3.7	U	
Benzene	71-43-2	5.00E+00	3.70E+02	< 0.27	U		< 0.27	U		< 0.27	U		< 0.27	U	
Bromobenzene	108-86-1	-	-	< 0.24	U		< 0.24	U		< 0.24	U		< 0.24	U	
Bromochloromethane	74-97-5	-	-	< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U	
Bromodichloromethane	75-27-4	8.00E+01	-	< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U	
Bromoform	75-25-2	8.00E+01	3.20E+02	< 0.59	U		< 0.59	UQ		< 0.59	UQ		< 0.59	UQ	
Bromomethane	74-83-9	-	-	< 3.7	UJ1Q		< 3.7	U		< 3.7	U		< 3.7	U	
Carbon disulfide	75-15-0	-	9.20E-01	< 0.43	U		< 0.43	UQ		< 0.43	UQ		< 0.43	UQ	
Carbon tetrachloride	56-23-5	5.00E+00	1.33E+01	< 0.30	UJ1		< 0.30	U		< 0.30	U		< 0.30	U	
Chlorobenzene	108-90-7	1.00E+02	1.30E+00	< 0.15	U		< 0.15	U		< 0.15	U		< 0.15	U	
Chlorodibromomethane (Dibromochloromethane)	124-48-1	8.00E+01	-	< 0.39	U		< 0.39	U		< 0.39	U		< 0.39	U	
Chloroethane	75-00-3	-	-	< 4.6	UJ1		< 4.6	U		< 4.6	U		< 4.6	U	
Chloroform	67-66-3	8.00E+01	1.80E+00	< 0.27	U		< 0.27	U		< 0.27	U		< 0.27	U	
Chloromethane	74-87-3	-	-	< 0.54	UJ1		**0.64**	**J**	**J**	< 0.54	U		< 0.54	U	
cis-1,2-Dichloroethene	156-59-2	7.00E+01	-	**0.81**	**J**	**J**	**0.99**	**J**	**J**	**0.73**	**J**		**1.2**	**J**	
cis-1,3-Dichloropropene	10061-01-5	-	-	< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U	
Cyclohexane	110-82-7	-	-	< 0.28	UQJ1		< 0.28	U		< 0.28	U		< 0.28	U	
Dibromomethane	74-95-3	-	-	< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U	
Dichlorodifluoromethane	75-71-8	-	-	< 0.36	UQJ1		< 0.36	UQ		< 0.36	UQ		< 0.36	UQ	
Ethylbenzene	100-41-4	7.00E+02	9.00E+01	< 0.20	U		< 0.20	U		< 0.20	U		< 0.20	U	
Hexachlorobutadiene	87-68-3	-	1.30E+00	< 0.22	UQJ1		< 0.22	U		< 0.22	U		< 0.22	U	
Isopropylbenzene	98-82-8	-	2.60E+00	< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U	
m+p-Xylenes	179601-23-1	-	-	< 0.49	U		< 0.49	U		< 0.49	U		< 0.49	U	
Methyl Acetate	79-20-9	-	-	< 3.2	U		< 3.2	U		< 3.2	U		< 3.2	U	
Methylcyclohexane	108-87-2	-	-	< 0.33	UQJ1		< 0.33	U		< 0.33	U		< 0.33	U	
Methylene chloride (DCM)	75-09-2	5.00E+00	9.81E+01	< 3.2	U		< 3.2	U		< 3.2	U		< 3.2	U	
Naphthalene	91-20-3	-	1.10E+00	< 2.4	U		< 2.4	U		< 2.4	U		< 2.4	U	
n-Butylbenzene	104-51-8	-	-	< 0.52	UJ1		< 0.52	U		< 0.52	U		< 0.52	U	
n-Propylbenzene	103-65-1	-	1.28E+02	< 0.41	U		< 0.41	U		< 0.41	UM		< 0.41	U	
o-Xylene	95-47-6	-	-	< 0.26	U		< 0.26	U		< 0.26	U		< 0.26	U	
p-Isopropyltoluene	99-87-6	-	8.50E+01	< 0.44	UJ1		< 0.44	U		< 0.44	U		< 0.44	U	
sec-Butylbenzene	135-98-8	-	-	< 0.53	UJ1		< 0.53	U		< 0.53	U		< 0.53	U	
Styrene	100-42-5	1.00E+02	7.20E+01	< 0.27	U		< 0.27	U		< 0.27	U		< 0.27	U	
tert-Butyl methyl ether (MTBE)	1634-04-4	-	1.11E+04	< 0.81	U		< 0.81	U		< 0.81	U		< 0.81	U	
tert-Butylbenzene	98-06-6	-	-	< 0.43	UJ1		< 0.43	U		< 0.43	U		< 0.43	U	
Tetrachloroethene	127-18-4	5.00E+00	1.11E+02	< 0.35	U		< 0.35	U		< 0.35	U		**0.41**	**J**	**J**
Toluene	108-88-3	1.00E+03	2.00E+00	< 0.25	U		< 0.25	U		< 0.25	U		< 0.25	U	
trans-1,2-Dichloroethene	156-60-5	1.00E+02	9.70E+02	< 0.34	U		< 0.34	U		< 0.34	U		< 0.34	U	
trans-1,3-Dichloropropene	10061-02-6	-	-	< 0.23	U		< 0.23	U		< 0.23	U		< 0.23	U	
Trichloroethene	79-01-6	5.00E+00	2.10E+01	**0.55**	**J**		**0.87**	**J**		**0.79**	**J**		**1.3**		
Trichlorofluoromethane	75-69-4	-	-	< 0.33	UQJ1		< 0.33	UQ		< 0.33	UQ		< 0.33	UQ	
Trichlorotrifluoroethane (Freon 113)	76-13-1	-	-	< 0.23	UQJ1		< 0.23	U		< 0.23	U		**0.32**	**J**	**J**
Vinyl chloride	75-01-4	2.00E+00	9.30E+02	< 0.40	UQJ1		< 0.40	U		< 0.40	U		< 0.40	UM	
Xylene (Total)	1330-20-7	1.00E+04	1.30E+01	< 0.49	U		< 0.49	U		< 0.49	U		< 0.49	U	
Field Parameters															
Dissolved Oxygen (mg/L)	DO	-	-	**7.79**			**7.71**			**7.71**			**7.22**		
Oxidation Reduction Potential (mV)	ORP	-	-	**298.3**			**269.3**			**269.3**			**82.6**		
pH (pH unit)	PH	-	-	**6.62**			**6.54**			**6.54**			**6.06**		
Specific Conductivity (mS/cm)	SC	-	-	**0.151**			**0.151**			**0.151**			**0.12**		
Temperature (°C)	TEMP	-	-	**19.7**			**19.6**			**19.6**			**17.9**		
Turbidity (NTU)	TURB	-	-	**9.83**			**45**			**45**			**23.6**		

Notes:
CAS = chemical abstract service, , MCL = Maximum Contaminant Level from 40 CFR Subpart G - National Primary Drinking Water Regulations: Maximum Contaminant Levels and Maximum Residual Disinfectant Levels May 2024, BTAG = EPA Region III BTAG Freshwater Screening Benchmarks
VOC = Volatile organic compound
µg/L = micrograms per liter, mg/L = milligrams per liter, mV = millivolts, mS/cm = milliSiemens per centimeter, °C = degree celcius, NTU = Nephelometric turbidity units
Sample types N = normal, FD = Field Duplicate
Q = Lab qualifier, DV = validation qualifier

Lab Qualifiers (Q):
J = Estimated: the analyte was positively idenfied; the quantitation is an estimation
J1 = Estimated: the quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria
M = Manual integrated compound
Q = One of more quality control criteria failed
U = Undetected at the limit of detection

Validator Qualifiers (DV):
J = The reported result was an estimated value with an unknown bias

Bold Result = detection
Grey Shading Result = concentration > MCL
Underlined Result = concentration > BTAG

Appendix C Laboratory and Data Validation Reports

C.1 ISB Performance Monitoring Laboratory and Data Validation Reports

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Kandyce Keller
Meadows CMPG, Inc
2107 Granby Street
Norfolk, Virginia 23517

Generated 12/6/2023 10:54:12 AM

JOB DESCRIPTION

OU6 Performance

JOB NUMBER

680-243265-1

Eurofins Savannah
5102 LaRoche Avenue
Savannah GA 31404

See page two for job notes and contact information.

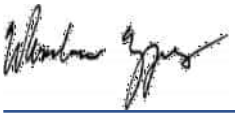
myEOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Southeast, LLC Project Manager.

Authorization



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12/6/2023 10:54:12 AM

Authorized for release by
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Designee for
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Jerry.Lanier@et.eurofinsus.com
(912)250-0281

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
D	The reported value is from a dilution.
H	Sample was prepped or analyzed beyond the specified holding time. This does not meet regulatory requirements.
J	Estimated: The analyte was positively identified; the quantitation is an estimation
J1	Estimated: The quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.
M	Manual integrated compound.
Q	One or more quality control criteria failed.
U	Undetected at the Limit of Detection.

GC VOA

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
J	Estimated: The analyte was positively identified; the quantitation is an estimation
J1	Estimated: The quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.
U	Undetected at the Limit of Detection.

HPLC/IC

Qualifier	Qualifier Description
D	The reported value is from a dilution.
J	Estimated: The analyte was positively identified; the quantitation is an estimation
J1	Estimated: The quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.
M	Manual integrated compound.
U	Undetected at the Limit of Detection.

Metals

Qualifier	Qualifier Description
J	Estimated: The analyte was positively identified; the quantitation is an estimation
U	Undetected at the Limit of Detection.

General Chemistry

Qualifier	Qualifier Description
J	Estimated: The analyte was positively identified; the quantitation is an estimation
U	Undetected at the Limit of Detection.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Sample Summary

Client: Meadows CMPG, Inc
Project/Site: OU6 Performance

Job ID: 680-243265-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-243265-1	OU6-MW-244-20231120	Water	11/20/23 13:10	11/21/23 10:28
680-243265-2	OU6-MW-242-20231120	Water	11/20/23 09:35	11/21/23 10:28
680-243265-3	OU6-MW-243-20231120	Water	11/20/23 12:00	11/21/23 10:28
680-243265-4	OU6-MW-241-20231120	Water	11/20/23 10:50	11/21/23 10:28
680-243265-5	OU6-MW-237-20231120	Water	11/20/23 10:15	11/21/23 10:28
680-243265-6	OU6-MW-239-20231120	Water	11/20/23 12:57	11/21/23 10:28
680-243265-7	OU6-MW-238-20231120	Water	11/20/23 11:25	11/21/23 10:28
680-243265-8	OU6-MW-245-20231120	Water	11/20/23 14:52	11/21/23 10:28
680-243265-9	TRIPBLANK-20231120	Water	11/20/23 00:00	11/21/23 10:28
680-243265-10	DUP-1-20231120	Water	11/20/23 00:00	11/21/23 10:28

Job ID: 680-243265-1

Laboratory: Eurofins Savannah

Narrative

Job Narrative
680-243265-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 11/21/2023 10:28 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 0.7°C and 3.2°C

GC/MS VOA
Method 8260D_DOD5: The following samples were diluted to bring the concentration of target analytes within the calibration range: OU6-MW-244-20231120 (680-243265-1), OU6-MW-242-20231120 (680-243265-2), OU6-MW-243-20231120 (680-243265-3), OU6-MW-239-20231120 (680-243265-6), OU6-MW-238-20231120 (680-243265-7) and DUP-1-20231120 (680-243265-10). Elevated reporting limits (RLs) are provided.

Method 8260D_DOD5: The continuing calibration verification (CCV) associated with batch 680-811496 recovered outside acceptance criteria, low biased, for Carbon disulfide. A reporting limit (RL) standard was analyzed, and the target analytes are detected. Since the associated samples were non-detect for the analyte(s), the data are reported.

Method 8260D_DOD5: Reanalysis of the following sample was performed outside of the analytical holding time due to dilution : OU6-MW-243-20231120 (680-243265-3).

Method 8260D_DOD5: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with analytical batch 680-811496.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC VOA
Method RSK_175_DOD5: Due to the high concentration of Methane (TCD), the matrix spike / matrix spike duplicate (MS/MSD) for analytical batch 680-810949 could not be evaluated for accuracy and precision. The associated laboratory control sample / laboratory control sample duplicate (LCS/LCSD) met acceptance criteria.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC
Method 9056A_OF_28D_D5: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 680-811389 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

Method 9056A_OF_48H_D5: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 680-809480 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

Method 9056A_OF_48H_D5: The following samples were diluted due to color: OU6-MW-242-20231120 (680-243265-2),

Job ID: 680-243265-1 (Continued)

Laboratory: Eurofins Savannah (Continued)

OU6-MW-241-20231120 (680-243265-4), OU6-MW-238-20231120 (680-243265-7), OU6-MW-238-20231120 (680-243265-7[MS]), OU6-MW-238-20231120 (680-243265-7[MSD]), OU6-MW-245-20231120 (680-243265-8) and DUP-1-20231120 (680-243265-10). Elevated reporting limits (RL) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Metals

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry

Method 2320B: The sample duplicate precision for the following sample associated with analytical batch 680-810526 was outside control limits: (680-243265-D-1 DU). The associated Laboratory Control Sample / Laboratory Control Sample Duplicate (LCS/LCSD) precision met acceptance criteria.

Method SM4500_S2_F: The method requirement for no headspace was not met. The following samples were analyzed with headspace in the sample container(s): OU6-MW-244-20231120 (680-243265-1), OU6-MW-242-20231120 (680-243265-2), OU6-MW-243-20231120 (680-243265-3), OU6-MW-241-20231120 (680-243265-4), OU6-MW-245-20231120 (680-243265-8), DUP-1-20231120 (680-243265-10), (680-243191-C-1) and (680-243191-D-1 DU).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Client Sample ID: OU6-MW-244-20231120
Date Collected: 11/20/23 13:10
Date Received: 11/21/23 10:28

Lab Sample ID: 680-243265-1
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	20	U	50	7.4	ug/L			12/04/23 18:39	2
Benzene	2.0	U	4.0	0.54	ug/L			12/04/23 18:39	2
Bromobenzene	1.0	U	2.0	0.48	ug/L			12/04/23 18:39	2
Bromochloromethane	2.0	U	4.0	0.68	ug/L			12/04/23 18:39	2
Bromodichloromethane	2.0	U	4.0	0.50	ug/L			12/04/23 18:39	2
Bromoform	4.0	U	5.0	1.2	ug/L			12/04/23 18:39	2
Bromomethane	20	U	40	7.4	ug/L			12/04/23 18:39	2
2-Butanone (MEK)	40	U	50	13	ug/L			12/04/23 18:39	2
Carbon disulfide	2.0	U	4.0	0.86	ug/L			12/04/23 18:39	2
Carbon tetrachloride	2.0	U	4.0	0.60	ug/L			12/04/23 18:39	2
Chlorobenzene	1.0	U	2.0	0.30	ug/L			12/04/23 18:39	2
Chloroethane	20	U	40	9.2	ug/L			12/04/23 18:39	2
Chloroform	2.0	U	4.0	0.54	ug/L			12/04/23 18:39	2
Chloromethane	4.0	U	5.0	1.1	ug/L			12/04/23 18:39	2
2-Chlorotoluene	1.0	U	2.0	0.50	ug/L			12/04/23 18:39	2
4-Chlorotoluene	2.0	U	4.0	0.82	ug/L			12/04/23 18:39	2
cis-1,2-Dichloroethene	**72**	**D**	4.0	0.50	ug/L			12/04/23 18:39	2
cis-1,3-Dichloropropene	2.0	U	4.0	0.52	ug/L			12/04/23 18:39	2
Cyclohexane	2.0	U	4.0	0.56	ug/L			12/04/23 18:39	2
Dibromochloromethane	2.0	U	4.0	0.78	ug/L			12/04/23 18:39	2
1,2-Dibromo-3-Chloropropane	10	U	20	3.6	ug/L			12/04/23 18:39	2
1,2-Dibromoethane	2.0	U	4.0	0.66	ug/L			12/04/23 18:39	2
Dibromomethane	2.0	U	4.0	0.68	ug/L			12/04/23 18:39	2
1,2-Dichlorobenzene	2.0	U	4.0	0.62	ug/L			12/04/23 18:39	2
1,3-Dichlorobenzene	2.0	U	4.0	0.62	ug/L			12/04/23 18:39	2
1,4-Dichlorobenzene	2.0	U	4.0	0.62	ug/L			12/04/23 18:39	2
Dichlorodifluoromethane	2.0	U	4.0	0.72	ug/L			12/04/23 18:39	2
1,1-Dichloroethane	2.0	U	4.0	0.66	ug/L			12/04/23 18:39	2
1,2-Dichloroethane	2.0	U	4.0	0.50	ug/L			12/04/23 18:39	2
1,1-Dichloroethene	2.0	U M	4.0	0.66	ug/L			12/04/23 18:39	2
1,2-Dichloroethene, Total	**72**	**D**	4.0	0.74	ug/L			12/04/23 18:39	2
1,2-Dichloropropane	1.0	U M	2.0	0.44	ug/L			12/04/23 18:39	2
1,3-Dichloropropane	2.0	U	4.0	0.72	ug/L			12/04/23 18:39	2
2,2-Dichloropropane	2.0	U	4.0	0.70	ug/L			12/04/23 18:39	2
1,1-Dichloropropene	2.0	U	4.0	0.56	ug/L			12/04/23 18:39	2
Ethylbenzene	1.0	U	2.0	0.40	ug/L			12/04/23 18:39	2
Hexachlorobutadiene	2.0	U	10	0.44	ug/L			12/04/23 18:39	2
2-Hexanone	20	U M	40	6.4	ug/L			12/04/23 18:39	2
Isopropylbenzene	2.0	U	4.0	0.52	ug/L			12/04/23 18:39	2
4-Isopropyltoluene	2.0	U	4.0	0.88	ug/L			12/04/23 18:39	2
Methyl acetate	20	U	40	6.4	ug/L			12/04/23 18:39	2
Methylcyclohexane	2.0	U	4.0	0.66	ug/L			12/04/23 18:39	2
Methylene Chloride	20	U	40	6.4	ug/L			12/04/23 18:39	2
4-Methyl-2-pentanone (MIBK)	20	U	40	5.4	ug/L			12/04/23 18:39	2
Methyl tert-butyl ether	4.0	U	10	1.6	ug/L			12/04/23 18:39	2
m-Xylene & p-Xylene	2.0	U	4.0	0.98	ug/L			12/04/23 18:39	2
Naphthalene	10	U	20	4.8	ug/L			12/04/23 18:39	2
n-Butylbenzene	4.0	U	5.0	1.0	ug/L			12/04/23 18:39	2
N-Propylbenzene	2.0	U M	4.0	0.82	ug/L			12/04/23 18:39	2

Client Sample ID: OU6-MW-244-20231120
Date Collected: 11/20/23 13:10
Date Received: 11/21/23 10:28

Lab Sample ID: 680-243265-1
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	2.0	U	4.0	0.52	ug/L			12/04/23 18:39	2
sec-Butylbenzene	4.0	U	5.0	1.1	ug/L			12/04/23 18:39	2
Styrene	2.0	U	4.0	0.54	ug/L			12/04/23 18:39	2
tert-Butylbenzene	2.0	U	4.0	0.86	ug/L			12/04/23 18:39	2
1,1,1,2-Tetrachloroethane	2.0	U	4.0	0.72	ug/L			12/04/23 18:39	2
1,1,2,2-Tetrachloroethane	2.0	U	4.0	0.80	ug/L			12/04/23 18:39	2
Tetrachloroethene	**130**	**D**	4.0	0.70	ug/L			12/04/23 18:39	2
Toluene	2.0	U	4.0	0.50	ug/L			12/04/23 18:39	2
trans-1,2-Dichloroethene	2.0	U	4.0	0.68	ug/L			12/04/23 18:39	2
trans-1,3-Dichloropropene	2.0	U M	4.0	0.46	ug/L			12/04/23 18:39	2
1,2,3-Trichlorobenzene	4.0	U	10	1.6	ug/L			12/04/23 18:39	2
1,2,4-Trichlorobenzene	4.0	U	10	1.1	ug/L			12/04/23 18:39	2
1,1,1-Trichloroethane	1.0	U	2.0	0.42	ug/L			12/04/23 18:39	2
1,1,2-Trichloroethane	2.0	U M	4.0	0.64	ug/L			12/04/23 18:39	2
Trichloroethene	**75**	**D**	2.0	0.40	ug/L			12/04/23 18:39	2
Trichlorofluoromethane	2.0	U	4.0	0.66	ug/L			12/04/23 18:39	2
1,2,3-Trichloropropane	2.0	U	4.0	0.96	ug/L			12/04/23 18:39	2
1,1,2-Trichloro-1,2,2-trifluoroethane	**48**	**D**	2.0	0.46	ug/L			12/04/23 18:39	2
1,2,4-Trimethylbenzene	2.0	U	4.0	0.86	ug/L			12/04/23 18:39	2
1,3,5-Trimethylbenzene	2.0	U	4.0	0.56	ug/L			12/04/23 18:39	2
Vinyl chloride	**3.7**	**J D**	4.0	0.80	ug/L			12/04/23 18:39	2
Xylenes, Total	2.0	U	4.0	0.98	ug/L			12/04/23 18:39	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*85 - 114*		*12/04/23 18:39*	*2*
Dibromofluoromethane (Surr)	*97*		*80 - 119*		*12/04/23 18:39*	*2*
1,2-Dichloroethane-d4 (Surr)	*93*		*81 - 118*		*12/04/23 18:39*	*2*
Toluene-d8 (Surr)	*95*		*89 - 112*		*12/04/23 18:39*	*2*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	**0.77**	**J**	1.1	0.30	ug/L			11/30/23 21:19	1
Ethylene	**18**		1.0	0.31	ug/L			11/30/23 21:19	1
Methane (TCD)	**11000**		390	39	ug/L			11/30/23 21:19	1

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**5.5**		0.55	0.20	mg/L			12/04/23 13:35	1
Nitrate as N	0.050	U	0.055	0.023	mg/L			11/21/23 15:44	1
Nitrate Nitrite as N	0.050	U	0.055	0.023	mg/L			11/21/23 15:44	1
Sulfate	**0.59**	**J**	1.5	0.40	mg/L			12/04/23 13:35	1
Nitrite as N	0.050	U	0.055	0.023	mg/L			11/21/23 15:44	1

Method: SW846 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**86**		10	2.2	ug/L		11/22/23 06:40	11/22/23 20:44	1

Client Sample ID: OU6-MW-244-20231120

Lab Sample ID: 680-243265-1

Date Collected: 11/20/23 13:10

Matrix: Water

Date Received: 11/21/23 10:28

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**14**		5.5	2.2	mg/L			11/28/23 18:25	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	**14**		11	5.0	mg/L			11/28/23 18:25	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	10	U	11	5.0	mg/L			11/28/23 18:25	1
Sulfide (SM 4500 S2 F-2011)	0.89	U	0.89	0.89	mg/L			11/22/23 09:18	1
Sulfide as H2S (SM 4500 S2 F-2011)	0.98	U	0.98	0.98	mg/L			11/22/23 09:18	1
Total Organic Carbon (SW846 9060A)	**0.70**	**J**	1.0	0.50	mg/L			11/22/23 20:38	1

Client Sample ID: OU6-MW-242-20231120

Lab Sample ID: 680-243265-2

Date Collected: 11/20/23 09:35

Matrix: Water

Date Received: 11/21/23 10:28

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	250	U	630	93	ug/L			12/04/23 19:00	25
Benzene	25	U	50	6.8	ug/L			12/04/23 19:00	25
Bromobenzene	13	U	25	6.0	ug/L			12/04/23 19:00	25
Bromochloromethane	25	U	50	8.5	ug/L			12/04/23 19:00	25
Bromodichloromethane	25	U	50	6.3	ug/L			12/04/23 19:00	25
Bromoform	50	U	63	15	ug/L			12/04/23 19:00	25
Bromomethane	250	U	500	93	ug/L			12/04/23 19:00	25
2-Butanone (MEK)	500	U	630	160	ug/L			12/04/23 19:00	25
Carbon disulfide	25	U	50	11	ug/L			12/04/23 19:00	25
Carbon tetrachloride	25	U	50	7.5	ug/L			12/04/23 19:00	25
Chlorobenzene	13	U	25	3.8	ug/L			12/04/23 19:00	25
Chloroethane	250	U	500	120	ug/L			12/04/23 19:00	25
Chloroform	25	U	50	6.8	ug/L			12/04/23 19:00	25
Chloromethane	50	U	63	14	ug/L			12/04/23 19:00	25
2-Chlorotoluene	13	U	25	6.3	ug/L			12/04/23 19:00	25
4-Chlorotoluene	25	U	50	10	ug/L			12/04/23 19:00	25
cis-1,2-Dichloroethene	**4300**	**D**	50	6.3	ug/L			12/03/23 20:53	25
cis-1,3-Dichloropropene	25	U	50	6.5	ug/L			12/04/23 19:00	25
Cyclohexane	25	U	50	7.0	ug/L			12/04/23 19:00	25
Dibromochloromethane	25	U	50	9.8	ug/L			12/04/23 19:00	25
1,2-Dibromo-3-Chloropropane	130	U	250	45	ug/L			12/04/23 19:00	25
1,2-Dibromoethane	25	U	50	8.3	ug/L			12/04/23 19:00	25
Dibromomethane	25	U	50	8.5	ug/L			12/04/23 19:00	25
1,2-Dichlorobenzene	25	U	50	7.8	ug/L			12/04/23 19:00	25
1,3-Dichlorobenzene	25	U	50	7.8	ug/L			12/04/23 19:00	25
1,4-Dichlorobenzene	25	U	50	7.8	ug/L			12/04/23 19:00	25
Dichlorodifluoromethane	25	U	50	9.0	ug/L			12/04/23 19:00	25
1,1-Dichloroethane	**61**	**D M**	50	8.3	ug/L			12/04/23 19:00	25
1,2-Dichloroethane	25	U	50	6.3	ug/L			12/04/23 19:00	25
1,1-Dichloroethene	**320**	**D**	50	8.3	ug/L			12/04/23 19:00	25
1,2-Dichloroethene, Total	**4300**	**D**	50	9.3	ug/L			12/03/23 20:53	25
1,2-Dichloropropane	13	U	25	5.5	ug/L			12/04/23 19:00	25
1,3-Dichloropropane	25	U	50	9.0	ug/L			12/04/23 19:00	25
2,2-Dichloropropane	25	U	50	8.8	ug/L			12/04/23 19:00	25

Client Sample ID: OU6-MW-242-20231120
Date Collected: 11/20/23 09:35
Date Received: 11/21/23 10:28

Lab Sample ID: 680-243265-2
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloropropene	25	U	50	7.0	ug/L			12/04/23 19:00	25
Ethylbenzene	13	U	25	5.0	ug/L			12/04/23 19:00	25
Hexachlorobutadiene	25	U	130	5.5	ug/L			12/04/23 19:00	25
2-Hexanone	250	U	500	80	ug/L			12/04/23 19:00	25
Isopropylbenzene	25	U	50	6.5	ug/L			12/04/23 19:00	25
4-Isopropyltoluene	25	U	50	11	ug/L			12/04/23 19:00	25
Methyl acetate	250	U	500	80	ug/L			12/04/23 19:00	25
Methylcyclohexane	25	U	50	8.3	ug/L			12/04/23 19:00	25
Methylene Chloride	250	U	500	80	ug/L			12/04/23 19:00	25
4-Methyl-2-pentanone (MIBK)	250	U	500	68	ug/L			12/04/23 19:00	25
Methyl tert-butyl ether	50	U	130	20	ug/L			12/04/23 19:00	25
m-Xylene & p-Xylene	25	U	50	12	ug/L			12/04/23 19:00	25
Naphthalene	130	U	250	60	ug/L			12/04/23 19:00	25
n-Butylbenzene	50	U	63	13	ug/L			12/04/23 19:00	25
N-Propylbenzene	25	U M	50	10	ug/L			12/04/23 19:00	25
o-Xylene	25	U	50	6.5	ug/L			12/04/23 19:00	25
sec-Butylbenzene	50	U	63	13	ug/L			12/04/23 19:00	25
Styrene	25	U M	50	6.8	ug/L			12/04/23 19:00	25
tert-Butylbenzene	25	U	50	11	ug/L			12/04/23 19:00	25
1,1,1,2-Tetrachloroethane	25	U	50	9.0	ug/L			12/04/23 19:00	25
1,1,2,2-Tetrachloroethane	25	U	50	10	ug/L			12/04/23 19:00	25
Tetrachloroethene	25	U	50	8.8	ug/L			12/04/23 19:00	25
Toluene	25	U	50	6.3	ug/L			12/04/23 19:00	25
trans-1,2-Dichloroethene	**12**	**J D M**	50	8.5	ug/L			12/04/23 19:00	25
trans-1,3-Dichloropropene	25	U M	50	5.8	ug/L			12/04/23 19:00	25
1,2,3-Trichlorobenzene	50	U	130	20	ug/L			12/04/23 19:00	25
1,2,4-Trichlorobenzene	50	U	130	13	ug/L			12/04/23 19:00	25
1,1,1-Trichloroethane	13	U	25	5.3	ug/L			12/04/23 19:00	25
1,1,2-Trichloroethane	25	U	50	8.0	ug/L			12/04/23 19:00	25
Trichloroethene	**51**	**D**	25	5.0	ug/L			12/04/23 19:00	25
Trichlorofluoromethane	25	U	50	8.3	ug/L			12/04/23 19:00	25
1,2,3-Trichloropropane	25	U	50	12	ug/L			12/04/23 19:00	25
1,1,2-Trichloro-1,2,2-trifluoroethane	13	U	25	5.8	ug/L			12/04/23 19:00	25
1,2,4-Trimethylbenzene	25	U	50	11	ug/L			12/04/23 19:00	25
1,3,5-Trimethylbenzene	25	U	50	7.0	ug/L			12/04/23 19:00	25
Vinyl chloride	**550**	**D**	50	10	ug/L			12/04/23 19:00	25
Xylenes, Total	25	U	50	12	ug/L			12/04/23 19:00	25

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*85*		*85 - 114*		*12/03/23 20:53*	*25*
4-Bromofluorobenzene (Surr)	*107*		*85 - 114*		*12/04/23 19:00*	*25*
Dibromofluoromethane (Surr)	*117*		*80 - 119*		*12/03/23 20:53*	*25*
Dibromofluoromethane (Surr)	*94*		*80 - 119*		*12/04/23 19:00*	*25*
1,2-Dichloroethane-d4 (Surr)	*107*		*81 - 118*		*12/03/23 20:53*	*25*
1,2-Dichloroethane-d4 (Surr)	*93*		*81 - 118*		*12/04/23 19:00*	*25*
Toluene-d8 (Surr)	*117*	*Q*	*89 - 112*		*12/03/23 20:53*	*25*
Toluene-d8 (Surr)	*93*		*89 - 112*		*12/04/23 19:00*	*25*

Client Sample ID: OU6-MW-242-20231120

Lab Sample ID: 680-243265-2

Date Collected: 11/20/23 09:35

Matrix: Water

Date Received: 11/21/23 10:28

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	0.76	U	1.1	0.30	ug/L			11/30/23 21:32	1
Ethylene	**340**		1.0	0.31	ug/L			11/30/23 21:32	1
Methane (TCD)	**16000**		390	39	ug/L			11/30/23 21:32	1

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**19**		0.55	0.20	mg/L			12/04/23 13:46	1
Nitrate as N	0.10	U	0.11	0.046	mg/L			11/21/23 15:54	2
Nitrate Nitrite as N	0.10	U	0.11	0.046	mg/L			11/21/23 15:54	2
Sulfate	**0.70**	**J**	1.5	0.40	mg/L			12/04/23 13:46	1
Nitrite as N	0.10	U	0.11	0.046	mg/L			11/21/23 15:54	2

Method: SW846 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**7100**		10	2.2	ug/L		11/22/23 06:40	11/22/23 20:48	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**150**		5.5	2.2	mg/L			11/28/23 19:24	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	**150**		11	5.0	mg/L			11/28/23 19:24	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	10	U	11	5.0	mg/L			11/28/23 19:24	1
Sulfide (SM 4500 S2 F-2011)	0.89	U	0.89	0.89	mg/L			11/22/23 09:18	1
Sulfide as H2S (SM 4500 S2 F-2011)	0.98	U	0.98	0.98	mg/L			11/22/23 09:18	1
Total Organic Carbon (SW846 9060A)	**3.0**		1.0	0.50	mg/L			11/22/23 20:58	1

Client Sample ID: OU6-MW-243-20231120

Lab Sample ID: 680-243265-3

Date Collected: 11/20/23 12:00

Matrix: Water

Date Received: 11/21/23 10:28

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	1000	U	2500	370	ug/L			12/04/23 20:05	100
Benzene	100	U	200	27	ug/L			12/04/23 20:05	100
Bromobenzene	50	U	100	24	ug/L			12/04/23 20:05	100
Bromochloromethane	100	U	200	34	ug/L			12/04/23 20:05	100
Bromodichloromethane	100	U	200	25	ug/L			12/04/23 20:05	100
Bromoform	200	U	250	59	ug/L			12/04/23 20:05	100
Bromomethane	1000	U	2000	370	ug/L			12/04/23 20:05	100
2-Butanone (MEK)	2000	U	2500	640	ug/L			12/04/23 20:05	100
Carbon disulfide	100	U	200	43	ug/L			12/04/23 20:05	100
Carbon tetrachloride	100	U	200	30	ug/L			12/04/23 20:05	100
Chlorobenzene	50	U	100	15	ug/L			12/04/23 20:05	100
Chloroethane	1000	U	2000	460	ug/L			12/04/23 20:05	100
Chloroform	100	U	200	27	ug/L			12/04/23 20:05	100
Chloromethane	200	U	250	54	ug/L			12/04/23 20:05	100
2-Chlorotoluene	50	U	100	25	ug/L			12/04/23 20:05	100
4-Chlorotoluene	100	U	200	41	ug/L			12/04/23 20:05	100
cis-1,3-Dichloropropene	100	U	200	26	ug/L			12/04/23 20:05	100

Client Sample ID: OU6-MW-243-20231120
Date Collected: 11/20/23 12:00
Date Received: 11/21/23 10:28

Lab Sample ID: 680-243265-3
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Cyclohexane	100	U	200	28	ug/L			12/04/23 20:05	100
Dibromochloromethane	100	U	200	39	ug/L			12/04/23 20:05	100
1,2-Dibromo-3-Chloropropane	500	U	1000	180	ug/L			12/04/23 20:05	100
1,2-Dibromoethane	100	U	200	33	ug/L			12/04/23 20:05	100
Dibromomethane	100	U	200	34	ug/L			12/04/23 20:05	100
1,2-Dichlorobenzene	100	U	200	31	ug/L			12/04/23 20:05	100
1,3-Dichlorobenzene	100	U	200	31	ug/L			12/04/23 20:05	100
1,4-Dichlorobenzene	100	U	200	31	ug/L			12/04/23 20:05	100
Dichlorodifluoromethane	100	U	200	36	ug/L			12/04/23 20:05	100
1,1-Dichloroethane	100	U	200	33	ug/L			12/04/23 20:05	100
1,2-Dichloroethane	100	U	200	25	ug/L			12/04/23 20:05	100
1,1-Dichloroethene	**320**	**D**	200	33	ug/L			12/04/23 20:05	100
1,2-Dichloropropane	50	U	100	22	ug/L			12/04/23 20:05	100
1,3-Dichloropropane	100	U	200	36	ug/L			12/04/23 20:05	100
2,2-Dichloropropane	100	U	200	35	ug/L			12/04/23 20:05	100
1,1-Dichloropropene	100	U	200	28	ug/L			12/04/23 20:05	100
Ethylbenzene	50	U	100	20	ug/L			12/04/23 20:05	100
Hexachlorobutadiene	100	U	500	22	ug/L			12/04/23 20:05	100
2-Hexanone	1000	U	2000	320	ug/L			12/04/23 20:05	100
Isopropylbenzene	100	U	200	26	ug/L			12/04/23 20:05	100
4-Isopropyltoluene	100	U	200	44	ug/L			12/04/23 20:05	100
Methyl acetate	1000	U	2000	320	ug/L			12/04/23 20:05	100
Methylcyclohexane	100	U M	200	33	ug/L			12/04/23 20:05	100
Methylene Chloride	1000	U	2000	320	ug/L			12/04/23 20:05	100
4-Methyl-2-pentanone (MIBK)	1000	U	2000	270	ug/L			12/04/23 20:05	100
Methyl tert-butyl ether	200	U	500	81	ug/L			12/04/23 20:05	100
m-Xylene & p-Xylene	100	U	200	49	ug/L			12/04/23 20:05	100
Naphthalene	500	U	1000	240	ug/L			12/04/23 20:05	100
n-Butylbenzene	200	U	250	52	ug/L			12/04/23 20:05	100
N-Propylbenzene	100	U M	200	41	ug/L			12/04/23 20:05	100
o-Xylene	100	U	200	26	ug/L			12/04/23 20:05	100
sec-Butylbenzene	200	U	250	53	ug/L			12/04/23 20:05	100
Styrene	100	U M	200	27	ug/L			12/04/23 20:05	100
tert-Butylbenzene	100	U	200	43	ug/L			12/04/23 20:05	100
1,1,1,2-Tetrachloroethane	100	U	200	36	ug/L			12/04/23 20:05	100
1,1,2,2-Tetrachloroethane	100	U	200	40	ug/L			12/04/23 20:05	100
Tetrachloroethene	**5300**	**D**	200	35	ug/L			12/04/23 20:05	100
Toluene	100	U	200	25	ug/L			12/04/23 20:05	100
trans-1,2-Dichloroethene	100	U	200	34	ug/L			12/04/23 20:05	100
trans-1,3-Dichloropropene	100	U	200	23	ug/L			12/04/23 20:05	100
1,2,3-Trichlorobenzene	200	U	500	81	ug/L			12/04/23 20:05	100
1,2,4-Trichlorobenzene	200	U	500	53	ug/L			12/04/23 20:05	100
1,1,1-Trichloroethane	50	U	100	21	ug/L			12/04/23 20:05	100
1,1,2-Trichloroethane	100	U	200	32	ug/L			12/04/23 20:05	100
Trichloroethene	**5400**	**D**	100	20	ug/L			12/04/23 20:05	100
Trichlorofluoromethane	100	U	200	33	ug/L			12/04/23 20:05	100
1,2,3-Trichloropropane	100	U	200	48	ug/L			12/04/23 20:05	100
1,1,2-Trichloro-1,2,2-trifluoroethane	**74**	**J D**	100	23	ug/L			12/04/23 20:05	100
1,2,4-Trimethylbenzene	100	U	200	43	ug/L			12/04/23 20:05	100

Client Sample ID: OU6-MW-243-20231120

Lab Sample ID: 680-243265-3

Date Collected: 11/20/23 12:00

Matrix: Water

Date Received: 11/21/23 10:28

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	100	U	200	28	ug/L			12/04/23 20:05	100
Vinyl chloride	**1400**	**D**	200	40	ug/L			12/04/23 20:05	100
Xylenes, Total	100	U	200	49	ug/L			12/04/23 20:05	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*85 - 114*		*12/04/23 20:05*	*100*
Dibromofluoromethane (Surr)	*100*		*80 - 119*		*12/04/23 20:05*	*100*
1,2-Dichloroethane-d4 (Surr)	*95*		*81 - 118*		*12/04/23 20:05*	*100*
Toluene-d8 (Surr)	*95*		*89 - 112*		*12/04/23 20:05*	*100*

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) - RADL

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	**24000**	**H D**	400	50	ug/L			12/05/23 18:54	200
1,2-Dichloroethene, Total	**24000**	**H D**	400	74	ug/L			12/05/23 18:54	200

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*85 - 114*		*12/05/23 18:54*	*200*
Dibromofluoromethane (Surr)	*98*		*80 - 119*		*12/05/23 18:54*	*200*
1,2-Dichloroethane-d4 (Surr)	*94*		*81 - 118*		*12/05/23 18:54*	*200*
Toluene-d8 (Surr)	*94*		*89 - 112*		*12/05/23 18:54*	*200*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	0.76	U	1.1	0.30	ug/L			11/30/23 21:45	1
Ethylene	**540**		1.0	0.31	ug/L			11/30/23 21:45	1
Methane (TCD)	**12000**		390	39	ug/L			11/30/23 21:45	1

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**51**		0.55	0.20	mg/L			12/04/23 13:56	1
Nitrate as N	0.050	U	0.055	0.023	mg/L			11/21/23 16:04	1
Nitrate Nitrite as N	0.050	U	0.055	0.023	mg/L			11/21/23 16:04	1
Sulfate	1.0	U	1.5	0.40	mg/L			12/04/23 13:56	1
Nitrite as N	0.050	U	0.055	0.023	mg/L			11/21/23 16:04	1

Method: SW846 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**580**		10	2.2	ug/L		11/22/23 06:40	11/22/23 21:00	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**170**		5.5	2.2	mg/L			11/28/23 19:36	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	**170**		11	5.0	mg/L			11/28/23 19:36	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	10	U	11	5.0	mg/L			11/28/23 19:36	1
Sulfide (SM 4500 S2 F-2011)	**1.7**		0.96	0.96	mg/L			11/22/23 09:18	1
Sulfide as H2S (SM 4500 S2 F-2011	**1.8**		1.1	1.1	mg/L			11/22/23 09:18	1
Total Organic Carbon (SW846 9060A)	**31**		1.0	0.50	mg/L			11/22/23 21:16	1

Client Sample ID: OU6-MW-241-20231120
Date Collected: 11/20/23 10:50
Date Received: 11/21/23 10:28

Lab Sample ID: 680-243265-4
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	**100**		25	3.7	ug/L			12/04/23 17:09	1
Benzene	1.0	U	2.0	0.27	ug/L			12/04/23 17:09	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			12/04/23 17:09	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			12/04/23 17:09	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			12/04/23 17:09	1
Bromoform	2.0	U	2.5	0.59	ug/L			12/04/23 17:09	1
Bromomethane	10	U	20	3.7	ug/L			12/04/23 17:09	1
2-Butanone (MEK)	**17**	**J**	25	6.4	ug/L			12/04/23 17:09	1
Carbon disulfide	1.0	U	2.0	0.43	ug/L			12/04/23 17:09	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			12/04/23 17:09	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			12/04/23 17:09	1
Chloroethane	10	U	20	4.6	ug/L			12/04/23 17:09	1
Chloroform	1.0	U	2.0	0.27	ug/L			12/04/23 17:09	1
Chloromethane	2.0	U	2.5	0.54	ug/L			12/04/23 17:09	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			12/04/23 17:09	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			12/04/23 17:09	1
cis-1,2-Dichloroethene	**60**		2.0	0.25	ug/L			12/04/23 17:09	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			12/04/23 17:09	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			12/04/23 17:09	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			12/04/23 17:09	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			12/04/23 17:09	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			12/04/23 17:09	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			12/04/23 17:09	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			12/04/23 17:09	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			12/04/23 17:09	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			12/04/23 17:09	1
Dichlorodifluoromethane	1.0	U	2.0	0.36	ug/L			12/04/23 17:09	1
1,1-Dichloroethane	**0.47**	**J M**	2.0	0.33	ug/L			12/04/23 17:09	1
1,2-Dichloroethane	1.0	U	2.0	0.25	ug/L			12/04/23 17:09	1
1,1-Dichloroethene	**7.2**		2.0	0.33	ug/L			12/04/23 17:09	1
1,2-Dichloroethene, Total	**60**		2.0	0.37	ug/L			12/04/23 17:09	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			12/04/23 17:09	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			12/04/23 17:09	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			12/04/23 17:09	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			12/04/23 17:09	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			12/04/23 17:09	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			12/04/23 17:09	1
2-Hexanone	**6.2**	**J**	20	3.2	ug/L			12/04/23 17:09	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			12/04/23 17:09	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			12/04/23 17:09	1
Methyl acetate	10	U	20	3.2	ug/L			12/04/23 17:09	1
Methylcyclohexane	1.0	U	2.0	0.33	ug/L			12/04/23 17:09	1
Methylene Chloride	10	U	20	3.2	ug/L			12/04/23 17:09	1
4-Methyl-2-pentanone (MIBK)	**2.7**	**J**	20	2.7	ug/L			12/04/23 17:09	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			12/04/23 17:09	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			12/04/23 17:09	1
Naphthalene	5.0	U	10	2.4	ug/L			12/04/23 17:09	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			12/04/23 17:09	1
N-Propylbenzene	1.0	U M	2.0	0.41	ug/L			12/04/23 17:09	1

Client Sample ID: OU6-MW-241-20231120
Date Collected: 11/20/23 10:50
Date Received: 11/21/23 10:28

Lab Sample ID: 680-243265-4
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	1.0	U	2.0	0.26	ug/L			12/04/23 17:09	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			12/04/23 17:09	1
Styrene	1.0	U M	2.0	0.27	ug/L			12/04/23 17:09	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			12/04/23 17:09	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			12/04/23 17:09	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			12/04/23 17:09	1
Tetrachloroethene	**2.5**		2.0	0.35	ug/L			12/04/23 17:09	1
Toluene	1.0	U	2.0	0.25	ug/L			12/04/23 17:09	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			12/04/23 17:09	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			12/04/23 17:09	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			12/04/23 17:09	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			12/04/23 17:09	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			12/04/23 17:09	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			12/04/23 17:09	1
Trichloroethene	**2.2**		1.0	0.20	ug/L			12/04/23 17:09	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			12/04/23 17:09	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			12/04/23 17:09	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			12/04/23 17:09	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			12/04/23 17:09	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			12/04/23 17:09	1
Vinyl chloride	**9.1**		2.0	0.40	ug/L			12/04/23 17:09	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			12/04/23 17:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*85 - 114*		*12/04/23 17:09*	*1*
Dibromofluoromethane (Surr)	*94*		*80 - 119*		*12/04/23 17:09*	*1*
1,2-Dichloroethane-d4 (Surr)	*91*		*81 - 118*		*12/04/23 17:09*	*1*
Toluene-d8 (Surr)	*93*		*89 - 112*		*12/04/23 17:09*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	0.76	U	1.1	0.30	ug/L			11/30/23 21:58	1
Ethylene	**8.0**		1.0	0.31	ug/L			11/30/23 21:58	1
Methane (TCD)	**16000**		390	39	ug/L			11/30/23 21:58	1

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**12**		0.55	0.20	mg/L			12/04/23 14:07	1
Nitrate as N	0.10	U	0.11	0.046	mg/L			11/21/23 16:14	2
Nitrate Nitrite as N	0.10	U	0.11	0.046	mg/L			11/21/23 16:14	2
Sulfate	1.0	U	1.5	0.40	mg/L			12/04/23 14:07	1
Nitrite as N	0.10	U	0.11	0.046	mg/L			11/21/23 16:14	2

Method: SW846 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**970**		10	2.2	ug/L		11/22/23 06:40	11/22/23 21:04	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**320**		5.5	2.2	mg/L			11/28/23 19:44	1

Client Sample ID: OU6-MW-241-20231120

Lab Sample ID: 680-243265-4

Date Collected: 11/20/23 10:50

Matrix: Water

Date Received: 11/21/23 10:28

General Chemistry (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	**320**		11	5.0	mg/L			11/28/23 19:44	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	10	U	11	5.0	mg/L			11/28/23 19:44	1
Sulfide (SM 4500 S2 F-2011)	0.93	U	0.93	0.93	mg/L			11/22/23 09:18	1
Sulfide as H2S (SM 4500 S2 F-2011)	1.0	U	1.0	1.0	mg/L			11/22/23 09:18	1
Total Organic Carbon (SW846 9060A)	**87**		1.0	0.50	mg/L			11/22/23 21:32	1

Client Sample ID: OU6-MW-237-20231120

Lab Sample ID: 680-243265-5

Date Collected: 11/20/23 10:15

Matrix: Water

Date Received: 11/21/23 10:28

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			12/04/23 17:35	1
Benzene	1.0	U	2.0	0.27	ug/L			12/04/23 17:35	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			12/04/23 17:35	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			12/04/23 17:35	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			12/04/23 17:35	1
Bromoform	2.0	U	2.5	0.59	ug/L			12/04/23 17:35	1
Bromomethane	10	U	20	3.7	ug/L			12/04/23 17:35	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			12/04/23 17:35	1
Carbon disulfide	1.0	U	2.0	0.43	ug/L			12/04/23 17:35	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			12/04/23 17:35	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			12/04/23 17:35	1
Chloroethane	10	U	20	4.6	ug/L			12/04/23 17:35	1
Chloroform	**0.33**	**J M**	2.0	0.27	ug/L			12/04/23 17:35	1
Chloromethane	2.0	U	2.5	0.54	ug/L			12/04/23 17:35	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			12/04/23 17:35	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			12/04/23 17:35	1
cis-1,2-Dichloroethene	**140**		2.0	0.25	ug/L			12/04/23 17:35	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			12/04/23 17:35	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			12/04/23 17:35	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			12/04/23 17:35	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			12/04/23 17:35	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			12/04/23 17:35	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			12/04/23 17:35	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			12/04/23 17:35	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			12/04/23 17:35	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			12/04/23 17:35	1
Dichlorodifluoromethane	1.0	U	2.0	0.36	ug/L			12/04/23 17:35	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			12/04/23 17:35	1
1,2-Dichloroethane	1.0	U	2.0	0.25	ug/L			12/04/23 17:35	1
1,1-Dichloroethene	**15**		2.0	0.33	ug/L			12/04/23 17:35	1
1,2-Dichloroethene, Total	**140**		2.0	0.37	ug/L			12/04/23 17:35	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			12/04/23 17:35	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			12/04/23 17:35	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			12/04/23 17:35	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			12/04/23 17:35	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			12/04/23 17:35	1

Client Sample ID: OU6-MW-237-20231120
Date Collected: 11/20/23 10:15
Date Received: 11/21/23 10:28

Lab Sample ID: 680-243265-5
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			12/04/23 17:35	1
2-Hexanone	10	U	20	3.2	ug/L			12/04/23 17:35	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			12/04/23 17:35	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			12/04/23 17:35	1
Methyl acetate	10	U M	20	3.2	ug/L			12/04/23 17:35	1
Methylcyclohexane	1.0	U M	2.0	0.33	ug/L			12/04/23 17:35	1
Methylene Chloride	10	U	20	3.2	ug/L			12/04/23 17:35	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			12/04/23 17:35	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			12/04/23 17:35	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			12/04/23 17:35	1
Naphthalene	5.0	U	10	2.4	ug/L			12/04/23 17:35	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			12/04/23 17:35	1
N-Propylbenzene	1.0	U M	2.0	0.41	ug/L			12/04/23 17:35	1
o-Xylene	1.0	U	2.0	0.26	ug/L			12/04/23 17:35	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			12/04/23 17:35	1
Styrene	1.0	U	2.0	0.27	ug/L			12/04/23 17:35	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			12/04/23 17:35	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			12/04/23 17:35	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			12/04/23 17:35	1
Tetrachloroethene	**49**		2.0	0.35	ug/L			12/04/23 17:35	1
Toluene	1.0	U	2.0	0.25	ug/L			12/04/23 17:35	1
trans-1,2-Dichloroethene	**0.74**	**J**	2.0	0.34	ug/L			12/04/23 17:35	1
trans-1,3-Dichloropropene	1.0	U M	2.0	0.23	ug/L			12/04/23 17:35	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			12/04/23 17:35	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			12/04/23 17:35	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			12/04/23 17:35	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			12/04/23 17:35	1
Trichloroethene	**120**		1.0	0.20	ug/L			12/04/23 17:35	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			12/04/23 17:35	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			12/04/23 17:35	1
1,1,2-Trichloro-1,2,2-trifluoroethane	**1.5**		1.0	0.23	ug/L			12/04/23 17:35	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			12/04/23 17:35	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			12/04/23 17:35	1
Vinyl chloride	**2.7**		2.0	0.40	ug/L			12/04/23 17:35	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			12/04/23 17:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*85 - 114*		*12/04/23 17:35*	*1*
Dibromofluoromethane (Surr)	*95*		*80 - 119*		*12/04/23 17:35*	*1*
1,2-Dichloroethane-d4 (Surr)	*91*		*81 - 118*		*12/04/23 17:35*	*1*
Toluene-d8 (Surr)	*97*		*89 - 112*		*12/04/23 17:35*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	0.76	U	1.1	0.30	ug/L			11/30/23 22:11	1
Ethylene	0.71	U	1.0	0.31	ug/L			11/30/23 22:11	1
Methane (TCD)	**2500**		390	39	ug/L			11/30/23 22:11	1

Client Sample ID: OU6-MW-237-20231120

Lab Sample ID: 680-243265-5

Date Collected: 11/20/23 10:15

Matrix: Water

Date Received: 11/21/23 10:28

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**8.3**		0.55	0.20	mg/L			12/04/23 14:18	1
Nitrate as N	**0.11**		0.055	0.023	mg/L			11/21/23 16:23	1
Nitrate Nitrite as N	**0.11**		0.055	0.023	mg/L			11/21/23 16:23	1
Sulfate	**1.8**		1.5	0.40	mg/L			12/04/23 14:18	1
Nitrite as N	0.050	U	0.055	0.023	mg/L			11/21/23 16:23	1

Method: SW846 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**9.4**	**J**	10	2.2	ug/L		11/22/23 06:40	11/22/23 21:08	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**14**		5.5	2.2	mg/L			11/28/23 19:55	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	**14**		11	5.0	mg/L			11/28/23 19:55	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	10	U	11	5.0	mg/L			11/28/23 19:55	1
Sulfide (SM 4500 S2 F-2011)	0.81	U	0.81	0.81	mg/L			11/22/23 09:18	1
Sulfide as H2S (SM 4500 S2 F-2011)	0.89	U	0.89	0.89	mg/L			11/22/23 09:18	1
Total Organic Carbon (SW846 9060A)	**1.4**		1.0	0.50	mg/L			11/22/23 21:51	1

Client Sample ID: OU6-MW-239-20231120

Lab Sample ID: 680-243265-6

Date Collected: 11/20/23 12:57

Matrix: Water

Date Received: 11/21/23 10:28

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	20	U	50	7.4	ug/L			12/04/23 18:18	2
Benzene	2.0	U	4.0	0.54	ug/L			12/04/23 18:18	2
Bromobenzene	1.0	U	2.0	0.48	ug/L			12/04/23 18:18	2
Bromochloromethane	2.0	U	4.0	0.68	ug/L			12/04/23 18:18	2
Bromodichloromethane	2.0	U	4.0	0.50	ug/L			12/04/23 18:18	2
Bromoform	4.0	U	5.0	1.2	ug/L			12/04/23 18:18	2
Bromomethane	20	U	40	7.4	ug/L			12/04/23 18:18	2
2-Butanone (MEK)	40	U	50	13	ug/L			12/04/23 18:18	2
Carbon disulfide	2.0	U	4.0	0.86	ug/L			12/04/23 18:18	2
Carbon tetrachloride	2.0	U	4.0	0.60	ug/L			12/04/23 18:18	2
Chlorobenzene	1.0	U	2.0	0.30	ug/L			12/04/23 18:18	2
Chloroethane	20	U	40	9.2	ug/L			12/04/23 18:18	2
Chloroform	2.0	U	4.0	0.54	ug/L			12/04/23 18:18	2
Chloromethane	4.0	U	5.0	1.1	ug/L			12/04/23 18:18	2
2-Chlorotoluene	1.0	U	2.0	0.50	ug/L			12/04/23 18:18	2
4-Chlorotoluene	2.0	U	4.0	0.82	ug/L			12/04/23 18:18	2
cis-1,2-Dichloroethene	**7.2**	**D M**	4.0	0.50	ug/L			12/04/23 18:18	2
cis-1,3-Dichloropropene	2.0	U	4.0	0.52	ug/L			12/04/23 18:18	2
Cyclohexane	2.0	U	4.0	0.56	ug/L			12/04/23 18:18	2
Dibromochloromethane	2.0	U	4.0	0.78	ug/L			12/04/23 18:18	2
1,2-Dibromo-3-Chloropropane	10	U	20	3.6	ug/L			12/04/23 18:18	2
1,2-Dibromoethane	2.0	U	4.0	0.66	ug/L			12/04/23 18:18	2

Client Sample ID: OU6-MW-239-20231120
Date Collected: 11/20/23 12:57
Date Received: 11/21/23 10:28

Lab Sample ID: 680-243265-6
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Dibromomethane	2.0	U	4.0	0.68	ug/L			12/04/23 18:18	2
1,2-Dichlorobenzene	2.0	U	4.0	0.62	ug/L			12/04/23 18:18	2
1,3-Dichlorobenzene	2.0	U	4.0	0.62	ug/L			12/04/23 18:18	2
1,4-Dichlorobenzene	2.0	U	4.0	0.62	ug/L			12/04/23 18:18	2
Dichlorodifluoromethane	2.0	U	4.0	0.72	ug/L			12/04/23 18:18	2
1,1-Dichloroethane	2.0	U	4.0	0.66	ug/L			12/04/23 18:18	2
1,2-Dichloroethane	2.0	U	4.0	0.50	ug/L			12/04/23 18:18	2
1,1-Dichloroethene	2.0	U	4.0	0.66	ug/L			12/04/23 18:18	2
1,2-Dichloroethene, Total	**7.2**	**D**	4.0	0.74	ug/L			12/04/23 18:18	2
1,2-Dichloropropane	1.0	U	2.0	0.44	ug/L			12/04/23 18:18	2
1,3-Dichloropropane	2.0	U	4.0	0.72	ug/L			12/04/23 18:18	2
2,2-Dichloropropane	2.0	U	4.0	0.70	ug/L			12/04/23 18:18	2
1,1-Dichloropropene	2.0	U	4.0	0.56	ug/L			12/04/23 18:18	2
Ethylbenzene	1.0	U	2.0	0.40	ug/L			12/04/23 18:18	2
Hexachlorobutadiene	2.0	U	10	0.44	ug/L			12/04/23 18:18	2
2-Hexanone	20	U	40	6.4	ug/L			12/04/23 18:18	2
Isopropylbenzene	2.0	U	4.0	0.52	ug/L			12/04/23 18:18	2
4-Isopropyltoluene	2.0	U	4.0	0.88	ug/L			12/04/23 18:18	2
Methyl acetate	20	U	40	6.4	ug/L			12/04/23 18:18	2
Methylcyclohexane	2.0	U	4.0	0.66	ug/L			12/04/23 18:18	2
Methylene Chloride	20	U	40	6.4	ug/L			12/04/23 18:18	2
4-Methyl-2-pentanone (MIBK)	20	U	40	5.4	ug/L			12/04/23 18:18	2
Methyl tert-butyl ether	4.0	U	10	1.6	ug/L			12/04/23 18:18	2
m-Xylene & p-Xylene	2.0	U	4.0	0.98	ug/L			12/04/23 18:18	2
Naphthalene	10	U	20	4.8	ug/L			12/04/23 18:18	2
n-Butylbenzene	4.0	U	5.0	1.0	ug/L			12/04/23 18:18	2
N-Propylbenzene	2.0	U M	4.0	0.82	ug/L			12/04/23 18:18	2
o-Xylene	2.0	U	4.0	0.52	ug/L			12/04/23 18:18	2
sec-Butylbenzene	4.0	U	5.0	1.1	ug/L			12/04/23 18:18	2
Styrene	2.0	U M	4.0	0.54	ug/L			12/04/23 18:18	2
tert-Butylbenzene	2.0	U	4.0	0.86	ug/L			12/04/23 18:18	2
1,1,1,2-Tetrachloroethane	2.0	U	4.0	0.72	ug/L			12/04/23 18:18	2
1,1,2,2-Tetrachloroethane	2.0	U	4.0	0.80	ug/L			12/04/23 18:18	2
Tetrachloroethene	2.0	U	4.0	0.70	ug/L			12/04/23 18:18	2
Toluene	2.0	U	4.0	0.50	ug/L			12/04/23 18:18	2
trans-1,2-Dichloroethene	2.0	U	4.0	0.68	ug/L			12/04/23 18:18	2
trans-1,3-Dichloropropene	2.0	U	4.0	0.46	ug/L			12/04/23 18:18	2
1,2,3-Trichlorobenzene	4.0	U	10	1.6	ug/L			12/04/23 18:18	2
1,2,4-Trichlorobenzene	4.0	U	10	1.1	ug/L			12/04/23 18:18	2
1,1,1-Trichloroethane	1.0	U	2.0	0.42	ug/L			12/04/23 18:18	2
1,1,2-Trichloroethane	2.0	U	4.0	0.64	ug/L			12/04/23 18:18	2
Trichloroethene	**130**	**D**	2.0	0.40	ug/L			12/04/23 18:18	2
Trichlorofluoromethane	2.0	U	4.0	0.66	ug/L			12/04/23 18:18	2
1,2,3-Trichloropropane	2.0	U	4.0	0.96	ug/L			12/04/23 18:18	2
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	2.0	0.46	ug/L			12/04/23 18:18	2
1,2,4-Trimethylbenzene	2.0	U	4.0	0.86	ug/L			12/04/23 18:18	2
1,3,5-Trimethylbenzene	2.0	U	4.0	0.56	ug/L			12/04/23 18:18	2
Vinyl chloride	2.0	U	4.0	0.80	ug/L			12/04/23 18:18	2
Xylenes, Total	2.0	U	4.0	0.98	ug/L			12/04/23 18:18	2

Client Sample ID: OU6-MW-239-20231120

Lab Sample ID: 680-243265-6

Date Collected: 11/20/23 12:57

Matrix: Water

Date Received: 11/21/23 10:28

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*85 - 114*		*12/04/23 18:18*	*2*
Dibromofluoromethane (Surr)	*96*		*80 - 119*		*12/04/23 18:18*	*2*
1,2-Dichloroethane-d4 (Surr)	*92*		*81 - 118*		*12/04/23 18:18*	*2*
Toluene-d8 (Surr)	*96*		*89 - 112*		*12/04/23 18:18*	*2*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	0.76	U	1.1	0.30	ug/L			11/30/23 22:24	1
Ethylene	**1.2**		1.0	0.31	ug/L			11/30/23 22:24	1
Methane (TCD)	**1500**		390	39	ug/L			11/30/23 22:24	1

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**9.8**		0.55	0.20	mg/L			12/04/23 14:28	1
Nitrate as N	**0.17**	**M**	0.055	0.023	mg/L			11/21/23 16:33	1
Nitrate Nitrite as N	**0.17**		0.055	0.023	mg/L			11/21/23 16:33	1
Sulfate	**2.4**		1.5	0.40	mg/L			12/04/23 14:28	1
Nitrite as N	0.050	U	0.055	0.023	mg/L			11/21/23 16:33	1

Method: SW846 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**470**		10	2.2	ug/L		11/22/23 06:40	11/22/23 21:12	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**30**		5.5	2.2	mg/L			11/28/23 22:09	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	**30**		11	5.0	mg/L			11/28/23 22:09	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	10	U	11	5.0	mg/L			11/28/23 22:09	1
Sulfide (SM 4500 S2 F-2011)	0.81	U	0.81	0.81	mg/L			11/22/23 09:18	1
Sulfide as H2S (SM 4500 S2 F-2011)	0.89	U	0.89	0.89	mg/L			11/22/23 09:18	1
Total Organic Carbon (SW846 9060A)	**0.61**	**J**	1.0	0.50	mg/L			11/22/23 22:09	1

Client Sample ID: OU6-MW-238-20231120

Lab Sample ID: 680-243265-7

Date Collected: 11/20/23 11:25

Matrix: Water

Date Received: 11/21/23 10:28

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	250	U	630	93	ug/L			12/04/23 19:22	25
Benzene	25	U	50	6.8	ug/L			12/04/23 19:22	25
Bromobenzene	13	U	25	6.0	ug/L			12/04/23 19:22	25
Bromochloromethane	25	U	50	8.5	ug/L			12/04/23 19:22	25
Bromodichloromethane	25	U	50	6.3	ug/L			12/04/23 19:22	25
Bromoform	50	U	63	15	ug/L			12/04/23 19:22	25
Bromomethane	250	U	500	93	ug/L			12/04/23 19:22	25
2-Butanone (MEK)	500	U	630	160	ug/L			12/04/23 19:22	25
Carbon disulfide	25	U	50	11	ug/L			12/04/23 19:22	25
Carbon tetrachloride	25	U	50	7.5	ug/L			12/04/23 19:22	25

Client Sample ID: OU6-MW-238-20231120
Date Collected: 11/20/23 11:25
Date Received: 11/21/23 10:28

Lab Sample ID: 680-243265-7
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorobenzene	13	U	25	3.8	ug/L			12/04/23 19:22	25
Chloroethane	250	U J1	500	120	ug/L			12/04/23 19:22	25
Chloroform	25	U	50	6.8	ug/L			12/04/23 19:22	25
Chloromethane	50	U	63	14	ug/L			12/04/23 19:22	25
2-Chlorotoluene	13	U	25	6.3	ug/L			12/04/23 19:22	25
4-Chlorotoluene	25	U	50	10	ug/L			12/04/23 19:22	25
cis-1,2-Dichloroethene	**120**	**D M J1**	50	6.3	ug/L			12/04/23 19:22	25
cis-1,3-Dichloropropene	25	U	50	6.5	ug/L			12/04/23 19:22	25
Cyclohexane	25	U	50	7.0	ug/L			12/04/23 19:22	25
Dibromochloromethane	25	U	50	9.8	ug/L			12/04/23 19:22	25
1,2-Dibromo-3-Chloropropane	130	U	250	45	ug/L			12/04/23 19:22	25
1,2-Dibromoethane	25	U	50	8.3	ug/L			12/04/23 19:22	25
Dibromomethane	25	U	50	8.5	ug/L			12/04/23 19:22	25
1,2-Dichlorobenzene	25	U	50	7.8	ug/L			12/04/23 19:22	25
1,3-Dichlorobenzene	25	U	50	7.8	ug/L			12/04/23 19:22	25
1,4-Dichlorobenzene	25	U	50	7.8	ug/L			12/04/23 19:22	25
Dichlorodifluoromethane	25	U	50	9.0	ug/L			12/04/23 19:22	25
1,1-Dichloroethane	25	U	50	8.3	ug/L			12/04/23 19:22	25
1,2-Dichloroethane	25	U	50	6.3	ug/L			12/04/23 19:22	25
1,1-Dichloroethene	25	U	50	8.3	ug/L			12/04/23 19:22	25
1,2-Dichloroethene, Total	**120**	**D J1**	50	9.3	ug/L			12/04/23 19:22	25
1,2-Dichloropropane	13	U	25	5.5	ug/L			12/04/23 19:22	25
1,3-Dichloropropane	25	U	50	9.0	ug/L			12/04/23 19:22	25
2,2-Dichloropropane	25	U	50	8.8	ug/L			12/04/23 19:22	25
1,1-Dichloropropene	25	U	50	7.0	ug/L			12/04/23 19:22	25
Ethylbenzene	13	U	25	5.0	ug/L			12/04/23 19:22	25
Hexachlorobutadiene	25	U J1	130	5.5	ug/L			12/04/23 19:22	25
2-Hexanone	250	U	500	80	ug/L			12/04/23 19:22	25
Isopropylbenzene	25	U	50	6.5	ug/L			12/04/23 19:22	25
4-Isopropyltoluene	25	U	50	11	ug/L			12/04/23 19:22	25
Methyl acetate	250	U	500	80	ug/L			12/04/23 19:22	25
Methylcyclohexane	25	U M	50	8.3	ug/L			12/04/23 19:22	25
Methylene Chloride	250	U	500	80	ug/L			12/04/23 19:22	25
4-Methyl-2-pentanone (MIBK)	250	U	500	68	ug/L			12/04/23 19:22	25
Methyl tert-butyl ether	50	U	130	20	ug/L			12/04/23 19:22	25
m-Xylene & p-Xylene	25	U	50	12	ug/L			12/04/23 19:22	25
Naphthalene	130	U	250	60	ug/L			12/04/23 19:22	25
n-Butylbenzene	50	U	63	13	ug/L			12/04/23 19:22	25
N-Propylbenzene	25	U M	50	10	ug/L			12/04/23 19:22	25
o-Xylene	25	U	50	6.5	ug/L			12/04/23 19:22	25
sec-Butylbenzene	50	U	63	13	ug/L			12/04/23 19:22	25
Styrene	25	U M	50	6.8	ug/L			12/04/23 19:22	25
tert-Butylbenzene	25	U	50	11	ug/L			12/04/23 19:22	25
1,1,1,2-Tetrachloroethane	25	U	50	9.0	ug/L			12/04/23 19:22	25
1,1,2,2-Tetrachloroethane	25	U	50	10	ug/L			12/04/23 19:22	25
Tetrachloroethene	**38**	**J D M J1**	50	8.8	ug/L			12/04/23 19:22	25
Toluene	25	U	50	6.3	ug/L			12/04/23 19:22	25
trans-1,2-Dichloroethene	25	U	50	8.5	ug/L			12/04/23 19:22	25
trans-1,3-Dichloropropene	25	U M	50	5.8	ug/L			12/04/23 19:22	25

Client Sample ID: OU6-MW-238-20231120
Date Collected: 11/20/23 11:25
Date Received: 11/21/23 10:28

Lab Sample ID: 680-243265-7
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichlorobenzene	50	U	130	20	ug/L			12/04/23 19:22	25
1,2,4-Trichlorobenzene	50	U	130	13	ug/L			12/04/23 19:22	25
1,1,1-Trichloroethane	13	U	25	5.3	ug/L			12/04/23 19:22	25
1,1,2-Trichloroethane	25	U	50	8.0	ug/L			12/04/23 19:22	25
Trichloroethene	**2600**	**D J1**	25	5.0	ug/L			12/04/23 19:22	25
Trichlorofluoromethane	25	U	50	8.3	ug/L			12/04/23 19:22	25
1,2,3-Trichloropropane	25	U J1	50	12	ug/L			12/04/23 19:22	25
1,1,2-Trichloro-1,2,2-trifluoroethane	**14**	**J D J1**	25	5.8	ug/L			12/04/23 19:22	25
1,2,4-Trimethylbenzene	25	U	50	11	ug/L			12/04/23 19:22	25
1,3,5-Trimethylbenzene	25	U	50	7.0	ug/L			12/04/23 19:22	25
Vinyl chloride	25	U	50	10	ug/L			12/04/23 19:22	25
Xylenes, Total	25	U	50	12	ug/L			12/04/23 19:22	25

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*85 - 114*		*12/04/23 19:22*	*25*
Dibromofluoromethane (Surr)	*97*		*80 - 119*		*12/04/23 19:22*	*25*
1,2-Dichloroethane-d4 (Surr)	*93*		*81 - 118*		*12/04/23 19:22*	*25*
Toluene-d8 (Surr)	*95*		*89 - 112*		*12/04/23 19:22*	*25*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	**3.5**		1.1	0.30	ug/L			11/30/23 22:37	1
Ethylene	**160**		1.0	0.31	ug/L			11/30/23 22:37	1
Methane (TCD)	**16000**	**J1**	390	39	ug/L			11/30/23 22:37	1

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**11**		0.55	0.20	mg/L			12/04/23 15:00	1
Nitrate as N	0.10	U J1	0.11	0.046	mg/L			11/21/23 17:15	2
Nitrate Nitrite as N	0.10	U J1	0.11	0.046	mg/L			11/21/23 17:15	2
Sulfate	1.0	U J1	1.5	0.40	mg/L			12/04/23 15:00	1
Nitrite as N	0.10	U	0.11	0.046	mg/L			11/21/23 17:15	2

Method: SW846 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**260**		10	2.2	ug/L		11/22/23 06:40	11/22/23 20:23	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**270**		5.5	2.2	mg/L			11/28/23 20:17	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	**270**		11	5.0	mg/L			11/28/23 20:17	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	10	U	11	5.0	mg/L			11/28/23 20:17	1
Sulfide (SM 4500 S2 F-2011)	0.81	U	0.81	0.81	mg/L			11/22/23 09:18	1
Sulfide as H2S (SM 4500 S2 F-2011)	0.89	U	0.89	0.89	mg/L			11/22/23 09:18	1
Total Organic Carbon (SW846 9060A)	**4.5**		1.0	0.50	mg/L			11/22/23 22:27	1

Client: Meadows CMPG, Inc
Project/Site: OU6 Performance

Job ID: 680-243265-1

Client Sample ID: OU6-MW-245-20231120
Date Collected: 11/20/23 14:52
Date Received: 11/21/23 10:28

Lab Sample ID: 680-243265-8
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	**8.8**	**J M**	25	3.7	ug/L			12/04/23 17:56	1
Benzene	1.0	U	2.0	0.27	ug/L			12/04/23 17:56	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			12/04/23 17:56	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			12/04/23 17:56	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			12/04/23 17:56	1
Bromoform	2.0	U	2.5	0.59	ug/L			12/04/23 17:56	1
Bromomethane	10	U	20	3.7	ug/L			12/04/23 17:56	1
2-Butanone (MEK)	20	U M	25	6.4	ug/L			12/04/23 17:56	1
Carbon disulfide	1.0	U	2.0	0.43	ug/L			12/04/23 17:56	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			12/04/23 17:56	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			12/04/23 17:56	1
Chloroethane	10	U	20	4.6	ug/L			12/04/23 17:56	1
Chloroform	1.0	U	2.0	0.27	ug/L			12/04/23 17:56	1
Chloromethane	2.0	U	2.5	0.54	ug/L			12/04/23 17:56	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			12/04/23 17:56	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			12/04/23 17:56	1
cis-1,2-Dichloroethene	**18**		2.0	0.25	ug/L			12/04/23 17:56	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			12/04/23 17:56	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			12/04/23 17:56	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			12/04/23 17:56	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			12/04/23 17:56	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			12/04/23 17:56	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			12/04/23 17:56	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			12/04/23 17:56	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			12/04/23 17:56	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			12/04/23 17:56	1
Dichlorodifluoromethane	1.0	U	2.0	0.36	ug/L			12/04/23 17:56	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			12/04/23 17:56	1
1,2-Dichloroethane	1.0	U M	2.0	0.25	ug/L			12/04/23 17:56	1
1,1-Dichloroethene	**1.8**	**J M**	2.0	0.33	ug/L			12/04/23 17:56	1
1,2-Dichloroethene, Total	**19**		2.0	0.37	ug/L			12/04/23 17:56	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			12/04/23 17:56	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			12/04/23 17:56	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			12/04/23 17:56	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			12/04/23 17:56	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			12/04/23 17:56	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			12/04/23 17:56	1
2-Hexanone	10	U	20	3.2	ug/L			12/04/23 17:56	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			12/04/23 17:56	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			12/04/23 17:56	1
Methyl acetate	**3.3**	**J**	20	3.2	ug/L			12/04/23 17:56	1
Methylcyclohexane	1.0	U	2.0	0.33	ug/L			12/04/23 17:56	1
Methylene Chloride	10	U	20	3.2	ug/L			12/04/23 17:56	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			12/04/23 17:56	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			12/04/23 17:56	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			12/04/23 17:56	1
Naphthalene	**3.0**	**J**	10	2.4	ug/L			12/04/23 17:56	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			12/04/23 17:56	1
N-Propylbenzene	1.0	U M	2.0	0.41	ug/L			12/04/23 17:56	1

Client: Meadows CMPG, Inc
Project/Site: OU6 Performance

Job ID: 680-243265-1

Client Sample ID: OU6-MW-245-20231120
Date Collected: 11/20/23 14:52
Date Received: 11/21/23 10:28

Lab Sample ID: 680-243265-8
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	**0.56**	**J**	2.0	0.26	ug/L			12/04/23 17:56	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			12/04/23 17:56	1
Styrene	1.0	U M	2.0	0.27	ug/L			12/04/23 17:56	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			12/04/23 17:56	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			12/04/23 17:56	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			12/04/23 17:56	1
Tetrachloroethene	1.0	U M	2.0	0.35	ug/L			12/04/23 17:56	1
Toluene	1.0	U	2.0	0.25	ug/L			12/04/23 17:56	1
trans-1,2-Dichloroethene	**1.0**	**J**	2.0	0.34	ug/L			12/04/23 17:56	1
trans-1,3-Dichloropropene	1.0	U M	2.0	0.23	ug/L			12/04/23 17:56	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			12/04/23 17:56	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			12/04/23 17:56	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			12/04/23 17:56	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			12/04/23 17:56	1
Trichloroethene	**1.6**	**M**	1.0	0.20	ug/L			12/04/23 17:56	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			12/04/23 17:56	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			12/04/23 17:56	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			12/04/23 17:56	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			12/04/23 17:56	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			12/04/23 17:56	1
Vinyl chloride	**1.6**	**J**	2.0	0.40	ug/L			12/04/23 17:56	1
Xylenes, Total	**0.56**	**J**	2.0	0.49	ug/L			12/04/23 17:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*85 - 114*		*12/04/23 17:56*	*1*
Dibromofluoromethane (Surr)	*97*		*80 - 119*		*12/04/23 17:56*	*1*
1,2-Dichloroethane-d4 (Surr)	*90*		*81 - 118*		*12/04/23 17:56*	*1*
Toluene-d8 (Surr)	*95*		*89 - 112*		*12/04/23 17:56*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	**1.3**		1.1	0.30	ug/L			11/30/23 23:15	1
Ethylene	**22**		1.0	0.31	ug/L			11/30/23 23:15	1
Methane (TCD)	**15000**		390	39	ug/L			11/30/23 23:15	1

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**12**		0.55	0.20	mg/L			12/04/23 15:32	1
Nitrate as N	0.10	U	0.11	0.046	mg/L			11/21/23 17:25	2
Nitrate Nitrite as N	0.10	U	0.11	0.046	mg/L			11/21/23 17:25	2
Sulfate	1.0	U	1.5	0.40	mg/L			12/04/23 15:32	1
Nitrite as N	0.10	U	0.11	0.046	mg/L			11/21/23 17:25	2

Method: SW846 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**310**		10	2.2	ug/L		11/22/23 06:40	11/22/23 21:16	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**250**		5.5	2.2	mg/L			11/28/23 22:37	1

Client Sample ID: OU6-MW-245-20231120

Lab Sample ID: 680-243265-8

Date Collected: 11/20/23 14:52

Matrix: Water

Date Received: 11/21/23 10:28

General Chemistry (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	**250**		11	5.0	mg/L			11/28/23 22:37	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	10	U	11	5.0	mg/L			11/28/23 22:37	1
Sulfide (SM 4500 S2 F-2011)	**3.6**		0.83	0.83	mg/L			11/22/23 09:18	1
Sulfide as H2S (SM 4500 S2 F-2011	**3.8**		0.92	0.92	mg/L			11/22/23 09:18	1
Total Organic Carbon (SW846 9060A)	**82**		1.0	0.50	mg/L			11/22/23 23:18	1

Client Sample ID: TRIPBLANK-20231120

Lab Sample ID: 680-243265-9

Date Collected: 11/20/23 00:00

Matrix: Water

Date Received: 11/21/23 10:28

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			12/04/23 16:26	1
Benzene	1.0	U	2.0	0.27	ug/L			12/04/23 16:26	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			12/04/23 16:26	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			12/04/23 16:26	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			12/04/23 16:26	1
Bromoform	2.0	U	2.5	0.59	ug/L			12/04/23 16:26	1
Bromomethane	10	U	20	3.7	ug/L			12/04/23 16:26	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			12/04/23 16:26	1
Carbon disulfide	1.0	U	2.0	0.43	ug/L			12/04/23 16:26	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			12/04/23 16:26	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			12/04/23 16:26	1
Chloroethane	10	U	20	4.6	ug/L			12/04/23 16:26	1
Chloroform	1.0	U	2.0	0.27	ug/L			12/04/23 16:26	1
Chloromethane	2.0	U	2.5	0.54	ug/L			12/04/23 16:26	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			12/04/23 16:26	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			12/04/23 16:26	1
cis-1,2-Dichloroethene	1.0	U	2.0	0.25	ug/L			12/04/23 16:26	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			12/04/23 16:26	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			12/04/23 16:26	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			12/04/23 16:26	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			12/04/23 16:26	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			12/04/23 16:26	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			12/04/23 16:26	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			12/04/23 16:26	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			12/04/23 16:26	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			12/04/23 16:26	1
Dichlorodifluoromethane	1.0	U	2.0	0.36	ug/L			12/04/23 16:26	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			12/04/23 16:26	1
1,2-Dichloroethane	1.0	U	2.0	0.25	ug/L			12/04/23 16:26	1
1,1-Dichloroethene	1.0	U	2.0	0.33	ug/L			12/04/23 16:26	1
1,2-Dichloroethene, Total	1.0	U	2.0	0.37	ug/L			12/04/23 16:26	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			12/04/23 16:26	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			12/04/23 16:26	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			12/04/23 16:26	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			12/04/23 16:26	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			12/04/23 16:26	1

Client Sample ID: TRIPBLANK-20231120

Lab Sample ID: 680-243265-9

Date Collected: 11/20/23 00:00

Matrix: Water

Date Received: 11/21/23 10:28

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			12/04/23 16:26	1
2-Hexanone	10	U	20	3.2	ug/L			12/04/23 16:26	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			12/04/23 16:26	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			12/04/23 16:26	1
Methyl acetate	10	U	20	3.2	ug/L			12/04/23 16:26	1
Methylcyclohexane	1.0	U	2.0	0.33	ug/L			12/04/23 16:26	1
Methylene Chloride	10	U	20	3.2	ug/L			12/04/23 16:26	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			12/04/23 16:26	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			12/04/23 16:26	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			12/04/23 16:26	1
Naphthalene	5.0	U	10	2.4	ug/L			12/04/23 16:26	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			12/04/23 16:26	1
N-Propylbenzene	1.0	U M	2.0	0.41	ug/L			12/04/23 16:26	1
o-Xylene	1.0	U	2.0	0.26	ug/L			12/04/23 16:26	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			12/04/23 16:26	1
Styrene	1.0	U M	2.0	0.27	ug/L			12/04/23 16:26	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			12/04/23 16:26	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			12/04/23 16:26	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			12/04/23 16:26	1
Tetrachloroethene	1.0	U	2.0	0.35	ug/L			12/04/23 16:26	1
Toluene	1.0	U	2.0	0.25	ug/L			12/04/23 16:26	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			12/04/23 16:26	1
trans-1,3-Dichloropropene	1.0	U M	2.0	0.23	ug/L			12/04/23 16:26	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			12/04/23 16:26	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			12/04/23 16:26	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			12/04/23 16:26	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			12/04/23 16:26	1
Trichloroethene	0.50	U	1.0	0.20	ug/L			12/04/23 16:26	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			12/04/23 16:26	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			12/04/23 16:26	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			12/04/23 16:26	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			12/04/23 16:26	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			12/04/23 16:26	1
Vinyl chloride	1.0	U	2.0	0.40	ug/L			12/04/23 16:26	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			12/04/23 16:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*85 - 114*		*12/04/23 16:26*	*1*
Dibromofluoromethane (Surr)	*104*		*80 - 119*		*12/04/23 16:26*	*1*
1,2-Dichloroethane-d4 (Surr)	*102*		*81 - 118*		*12/04/23 16:26*	*1*
Toluene-d8 (Surr)	*96*		*89 - 112*		*12/04/23 16:26*	*1*

Client Sample ID: DUP-1-20231120

Lab Sample ID: 680-243265-10

Date Collected: 11/20/23 00:00

Matrix: Water

Date Received: 11/21/23 10:28

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	500	U	1300	190	ug/L			12/04/23 19:43	50
Benzene	50	U	100	14	ug/L			12/04/23 19:43	50

Client Sample ID: DUP-1-20231120
Date Collected: 11/20/23 00:00
Date Received: 11/21/23 10:28

Lab Sample ID: 680-243265-10
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Bromobenzene	25	U	50	12	ug/L			12/04/23 19:43	50
Bromochloromethane	50	U	100	17	ug/L			12/04/23 19:43	50
Bromodichloromethane	50	U	100	13	ug/L			12/04/23 19:43	50
Bromoform	100	U	130	30	ug/L			12/04/23 19:43	50
Bromomethane	500	U	1000	190	ug/L			12/04/23 19:43	50
2-Butanone (MEK)	1000	U	1300	320	ug/L			12/04/23 19:43	50
Carbon disulfide	50	U	100	22	ug/L			12/04/23 19:43	50
Carbon tetrachloride	50	U	100	15	ug/L			12/04/23 19:43	50
Chlorobenzene	25	U	50	7.5	ug/L			12/04/23 19:43	50
Chloroethane	500	U	1000	230	ug/L			12/04/23 19:43	50
Chloroform	50	U	100	14	ug/L			12/04/23 19:43	50
Chloromethane	100	U	130	27	ug/L			12/04/23 19:43	50
2-Chlorotoluene	25	U	50	13	ug/L			12/04/23 19:43	50
4-Chlorotoluene	50	U	100	21	ug/L			12/04/23 19:43	50
cis-1,2-Dichloroethene	**4900**	**D**	100	13	ug/L			12/04/23 19:43	50
cis-1,3-Dichloropropene	50	U	100	13	ug/L			12/04/23 19:43	50
Cyclohexane	50	U	100	14	ug/L			12/04/23 19:43	50
Dibromochloromethane	50	U	100	20	ug/L			12/04/23 19:43	50
1,2-Dibromo-3-Chloropropane	250	U	500	90	ug/L			12/04/23 19:43	50
1,2-Dibromoethane	50	U	100	17	ug/L			12/04/23 19:43	50
Dibromomethane	50	U	100	17	ug/L			12/04/23 19:43	50
1,2-Dichlorobenzene	50	U	100	16	ug/L			12/04/23 19:43	50
1,3-Dichlorobenzene	50	U	100	16	ug/L			12/04/23 19:43	50
1,4-Dichlorobenzene	50	U	100	16	ug/L			12/04/23 19:43	50
Dichlorodifluoromethane	50	U	100	18	ug/L			12/04/23 19:43	50
1,1-Dichloroethane	**53**	**J D**	100	17	ug/L			12/04/23 19:43	50
1,2-Dichloroethane	50	U	100	13	ug/L			12/04/23 19:43	50
1,1-Dichloroethene	**290**	**D**	100	17	ug/L			12/04/23 19:43	50
1,2-Dichloroethene, Total	**4900**	**D**	100	19	ug/L			12/04/23 19:43	50
1,2-Dichloropropane	25	U	50	11	ug/L			12/04/23 19:43	50
1,3-Dichloropropane	50	U	100	18	ug/L			12/04/23 19:43	50
2,2-Dichloropropane	50	U	100	18	ug/L			12/04/23 19:43	50
1,1-Dichloropropene	50	U	100	14	ug/L			12/04/23 19:43	50
Ethylbenzene	25	U	50	10	ug/L			12/04/23 19:43	50
Hexachlorobutadiene	50	U	250	11	ug/L			12/04/23 19:43	50
2-Hexanone	500	U	1000	160	ug/L			12/04/23 19:43	50
Isopropylbenzene	50	U	100	13	ug/L			12/04/23 19:43	50
4-Isopropyltoluene	50	U	100	22	ug/L			12/04/23 19:43	50
Methyl acetate	500	U	1000	160	ug/L			12/04/23 19:43	50
Methylcyclohexane	50	U	100	17	ug/L			12/04/23 19:43	50
Methylene Chloride	500	U	1000	160	ug/L			12/04/23 19:43	50
4-Methyl-2-pentanone (MIBK)	500	U	1000	140	ug/L			12/04/23 19:43	50
Methyl tert-butyl ether	100	U	250	41	ug/L			12/04/23 19:43	50
m-Xylene & p-Xylene	50	U	100	25	ug/L			12/04/23 19:43	50
Naphthalene	250	U	500	120	ug/L			12/04/23 19:43	50
n-Butylbenzene	100	U	130	26	ug/L			12/04/23 19:43	50
N-Propylbenzene	50	U M	100	21	ug/L			12/04/23 19:43	50
o-Xylene	50	U	100	13	ug/L			12/04/23 19:43	50
sec-Butylbenzene	100	U	130	27	ug/L			12/04/23 19:43	50

Client Sample ID: DUP-1-20231120
Date Collected: 11/20/23 00:00
Date Received: 11/21/23 10:28

Lab Sample ID: 680-243265-10
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	50	U M	100	14	ug/L			12/04/23 19:43	50
tert-Butylbenzene	50	U	100	22	ug/L			12/04/23 19:43	50
1,1,1,2-Tetrachloroethane	50	U	100	18	ug/L			12/04/23 19:43	50
1,1,2,2-Tetrachloroethane	50	U	100	20	ug/L			12/04/23 19:43	50
Tetrachloroethene	**28**	**J D**	100	18	ug/L			12/04/23 19:43	50
Toluene	50	U	100	13	ug/L			12/04/23 19:43	50
trans-1,2-Dichloroethene	50	U	100	17	ug/L			12/04/23 19:43	50
trans-1,3-Dichloropropene	50	U	100	12	ug/L			12/04/23 19:43	50
1,2,3-Trichlorobenzene	100	U	250	41	ug/L			12/04/23 19:43	50
1,2,4-Trichlorobenzene	100	U	250	27	ug/L			12/04/23 19:43	50
1,1,1-Trichloroethane	25	U	50	11	ug/L			12/04/23 19:43	50
1,1,2-Trichloroethane	50	U	100	16	ug/L			12/04/23 19:43	50
Trichloroethene	**49**	**J D**	50	10	ug/L			12/04/23 19:43	50
Trichlorofluoromethane	50	U	100	17	ug/L			12/04/23 19:43	50
1,2,3-Trichloropropane	50	U	100	24	ug/L			12/04/23 19:43	50
1,1,2-Trichloro-1,2,2-trifluoroethane	25	U	50	12	ug/L			12/04/23 19:43	50
1,2,4-Trimethylbenzene	50	U	100	22	ug/L			12/04/23 19:43	50
1,3,5-Trimethylbenzene	50	U	100	14	ug/L			12/04/23 19:43	50
Vinyl chloride	**500**	**D**	100	20	ug/L			12/04/23 19:43	50
Xylenes, Total	50	U	100	25	ug/L			12/04/23 19:43	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*85 - 114*		*12/04/23 19:43*	*50*
Dibromofluoromethane (Surr)	*97*		*80 - 119*		*12/04/23 19:43*	*50*
1,2-Dichloroethane-d4 (Surr)	*95*		*81 - 118*		*12/04/23 19:43*	*50*
Toluene-d8 (Surr)	*94*		*89 - 112*		*12/04/23 19:43*	*50*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	0.76	U	1.1	0.30	ug/L			11/30/23 23:28	1
Ethylene	**330**		1.0	0.31	ug/L			11/30/23 23:28	1
Methane (TCD)	**15000**		390	39	ug/L			11/30/23 23:28	1

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**19**		0.55	0.20	mg/L			12/04/23 15:43	1
Nitrate as N	0.10	U	0.11	0.046	mg/L			11/21/23 18:11	2
Nitrate Nitrite as N	0.10	U	0.11	0.046	mg/L			11/21/23 18:11	2
Sulfate	**0.54**	**J**	1.5	0.40	mg/L			12/04/23 15:43	1
Nitrite as N	0.10	U	0.11	0.046	mg/L			11/21/23 18:11	2

Method: SW846 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**5600**		10	2.2	ug/L		11/22/23 06:40	11/22/23 21:20	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**190**		5.5	2.2	mg/L			11/28/23 22:27	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	**190**		11	5.0	mg/L			11/28/23 22:27	1

Client: Meadows CMPG, Inc
Project/Site: OU6 Performance

Job ID: 680-243265-1

Client Sample ID: DUP-1-20231120
Date Collected: 11/20/23 00:00
Date Received: 11/21/23 10:28

Lab Sample ID: 680-243265-10
Matrix: Water

General Chemistry (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	10	U	11	5.0	mg/L			11/28/23 22:27	1
Sulfide (SM 4500 S2 F-2011)	0.89	U	0.89	0.89	mg/L			11/22/23 09:18	1
Sulfide as H2S (SM 4500 S2 F-2011)	0.98	U	0.98	0.98	mg/L			11/22/23 09:18	1
Total Organic Carbon (SW846 9060A)	**3.0**		1.0	0.50	mg/L			11/22/23 23:54	1

Method: 8260D - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 680-811234/7
Matrix: Water
Analysis Batch: 811234

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			12/03/23 17:59	1
Benzene	1.0	U	2.0	0.27	ug/L			12/03/23 17:59	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			12/03/23 17:59	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			12/03/23 17:59	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			12/03/23 17:59	1
Bromoform	2.0	U	2.5	0.59	ug/L			12/03/23 17:59	1
Bromomethane	10	U	20	3.7	ug/L			12/03/23 17:59	1
2-Butanone (MEK)	20	U M	25	6.4	ug/L			12/03/23 17:59	1
Carbon disulfide	1.0	U	2.0	0.43	ug/L			12/03/23 17:59	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			12/03/23 17:59	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			12/03/23 17:59	1
Chloroethane	10	U	20	4.6	ug/L			12/03/23 17:59	1
Chloroform	1.0	U	2.0	0.27	ug/L			12/03/23 17:59	1
Chloromethane	2.0	U	2.5	0.54	ug/L			12/03/23 17:59	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			12/03/23 17:59	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			12/03/23 17:59	1
cis-1,2-Dichloroethene	1.0	U	2.0	0.25	ug/L			12/03/23 17:59	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			12/03/23 17:59	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			12/03/23 17:59	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			12/03/23 17:59	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			12/03/23 17:59	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			12/03/23 17:59	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			12/03/23 17:59	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			12/03/23 17:59	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			12/03/23 17:59	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			12/03/23 17:59	1
Dichlorodifluoromethane	1.0	U	2.0	0.36	ug/L			12/03/23 17:59	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			12/03/23 17:59	1
1,2-Dichloroethane	1.0	U	2.0	0.25	ug/L			12/03/23 17:59	1
1,1-Dichloroethene	1.0	U	2.0	0.33	ug/L			12/03/23 17:59	1
1,2-Dichloroethene, Total	1.0	U	2.0	0.37	ug/L			12/03/23 17:59	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			12/03/23 17:59	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			12/03/23 17:59	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			12/03/23 17:59	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			12/03/23 17:59	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			12/03/23 17:59	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			12/03/23 17:59	1
2-Hexanone	10	U	20	3.2	ug/L			12/03/23 17:59	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			12/03/23 17:59	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			12/03/23 17:59	1
Methyl acetate	10	U	20	3.2	ug/L			12/03/23 17:59	1
Methylcyclohexane	1.0	U	2.0	0.33	ug/L			12/03/23 17:59	1
Methylene Chloride	10	U	20	3.2	ug/L			12/03/23 17:59	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			12/03/23 17:59	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			12/03/23 17:59	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			12/03/23 17:59	1
Naphthalene	5.0	U	10	2.4	ug/L			12/03/23 17:59	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			12/03/23 17:59	1

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-811234/7
Matrix: Water
Analysis Batch: 811234

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			12/03/23 17:59	1
o-Xylene	1.0	U	2.0	0.26	ug/L			12/03/23 17:59	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			12/03/23 17:59	1
Styrene	1.0	U	2.0	0.27	ug/L			12/03/23 17:59	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			12/03/23 17:59	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			12/03/23 17:59	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			12/03/23 17:59	1
Tetrachloroethene	1.0	U	2.0	0.35	ug/L			12/03/23 17:59	1
Toluene	1.0	U	2.0	0.25	ug/L			12/03/23 17:59	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			12/03/23 17:59	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			12/03/23 17:59	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			12/03/23 17:59	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			12/03/23 17:59	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			12/03/23 17:59	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			12/03/23 17:59	1
Trichloroethene	0.50	U	1.0	0.20	ug/L			12/03/23 17:59	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			12/03/23 17:59	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			12/03/23 17:59	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			12/03/23 17:59	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			12/03/23 17:59	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			12/03/23 17:59	1
Vinyl chloride	1.0	U	2.0	0.40	ug/L			12/03/23 17:59	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			12/03/23 17:59	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*85 - 114*		*12/03/23 17:59*	*1*
Dibromofluoromethane (Surr)	*116*		*80 - 119*		*12/03/23 17:59*	*1*
1,2-Dichloroethane-d4 (Surr)	*110*		*81 - 118*		*12/03/23 17:59*	*1*
Toluene-d8 (Surr)	*116*	*Q*	*89 - 112*		*12/03/23 17:59*	*1*

Lab Sample ID: LCS 680-811234/3
Matrix: Water
Analysis Batch: 811234

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	250	244		ug/L		98	39 - 160
Benzene	50.0	47.8		ug/L		96	79 - 120
Bromobenzene	50.0	54.1		ug/L		108	80 - 120
Bromochloromethane	50.0	52.6		ug/L		105	78 - 123
Bromodichloromethane	50.0	48.4		ug/L		97	79 - 125
Bromoform	50.0	40.6		ug/L		81	66 - 130
Bromomethane	50.0	41.4		ug/L		83	53 - 141
2-Butanone (MEK)	250	247		ug/L		99	56 - 143
Carbon disulfide	50.0	44.7		ug/L		89	64 - 133
Carbon tetrachloride	50.0	49.5		ug/L		99	72 - 136
Chlorobenzene	50.0	51.0		ug/L		102	82 - 118
Chloroethane	50.0	45.0		ug/L		90	60 - 138
Chloroform	50.0	48.7		ug/L		97	79 - 124

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-811234/3
Matrix: Water
Analysis Batch: 811234

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloromethane	50.0	31.7		ug/L		63	50 - 139
2-Chlorotoluene	50.0	49.2		ug/L		98	79 - 122
4-Chlorotoluene	50.0	49.0		ug/L		98	78 - 122
cis-1,2-Dichloroethene	50.0	46.7		ug/L		93	78 - 123
cis-1,3-Dichloropropene	50.0	50.1		ug/L		100	75 - 124
Cyclohexane	50.0	46.1		ug/L		92	71 - 130
Dibromochloromethane	50.0	42.6		ug/L		85	74 - 126
1,2-Dibromo-3-Chloropropane	50.0	41.3		ug/L		83	62 - 128
1,2-Dibromoethane	50.0	52.1		ug/L		104	75 - 127
Dibromomethane	50.0	49.8		ug/L		100	79 - 123
1,2-Dichlorobenzene	50.0	47.9		ug/L		96	80 - 119
1,3-Dichlorobenzene	50.0	48.7		ug/L		97	80 - 119
1,4-Dichlorobenzene	50.0	47.1		ug/L		94	79 - 118
Dichlorodifluoromethane	50.0	28.7		ug/L		57	32 - 152
1,1-Dichloroethane	50.0	46.9		ug/L		94	77 - 125
1,2-Dichloroethane	50.0	48.2		ug/L		96	73 - 128
1,1-Dichloroethene	50.0	52.5		ug/L		105	71 - 131
1,2-Dichloroethene, Total	100	96.7		ug/L		97	79 - 121
1,2-Dichloropropane	50.0	46.6		ug/L		93	78 - 122
1,3-Dichloropropane	50.0	47.9		ug/L		96	80 - 119
2,2-Dichloropropane	50.0	48.7		ug/L		97	60 - 139
1,1-Dichloropropene	50.0	47.4		ug/L		95	79 - 125
Ethylbenzene	50.0	50.5		ug/L		101	79 - 121
Hexachlorobutadiene	50.0	49.0		ug/L		98	66 - 134
2-Hexanone	250	235		ug/L		94	57 - 139
Isopropylbenzene	50.0	51.9		ug/L		104	72 - 131
4-Isopropyltoluene	50.0	48.7		ug/L		97	77 - 127
Methyl acetate	100	88.3		ug/L		88	56 - 136
Methylcyclohexane	50.0	46.4		ug/L		93	72 - 132
Methylene Chloride	50.0	46.8		ug/L		94	74 - 124
4-Methyl-2-pentanone (MIBK)	250	230		ug/L		92	67 - 130
Methyl tert-butyl ether	50.0	48.6		ug/L		97	71 - 124
m-Xylene & p-Xylene	50.0	50.2		ug/L		100	80 - 121
Naphthalene	50.0	48.4		ug/L		97	61 - 128
n-Butylbenzene	50.0	45.2		ug/L		90	75 - 128
N-Propylbenzene	50.0	50.4		ug/L		101	76 - 126
o-Xylene	50.0	50.9		ug/L		102	78 - 122
sec-Butylbenzene	50.0	51.5		ug/L		103	77 - 126
Styrene	50.0	52.0		ug/L		104	78 - 123
tert-Butylbenzene	50.0	52.8		ug/L		106	78 - 124
1,1,1,2-Tetrachloroethane	50.0	54.4		ug/L		109	78 - 124
1,1,2,2-Tetrachloroethane	50.0	50.8		ug/L		102	71 - 121
Tetrachloroethene	50.0	53.8		ug/L		108	74 - 129
Toluene	50.0	49.4		ug/L		99	80 - 121
trans-1,2-Dichloroethene	50.0	50.0		ug/L		100	75 - 124
trans-1,3-Dichloropropene	50.0	51.0		ug/L		102	73 - 127
1,2,3-Trichlorobenzene	50.0	53.8		ug/L		108	69 - 129
1,2,4-Trichlorobenzene	50.0	49.4		ug/L		99	69 - 130
1,1,1-Trichloroethane	50.0	50.6		ug/L		101	74 - 131

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-811234/3
Matrix: Water
Analysis Batch: 811234

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,1,2-Trichloroethane			50.0	48.8		ug/L		98	80 - 119		
Trichloroethene			50.0	52.2		ug/L		104	79 - 123		
Trichlorofluoromethane			50.0	41.6		ug/L		83	65 - 141		
1,2,3-Trichloropropane			50.0	52.0		ug/L		104	73 - 122		
1,1,2-Trichloro-1,2,2-trifluoroethane			50.0	52.6		ug/L		105	70 - 136		
1,2,4-Trimethylbenzene			50.0	51.8		ug/L		104	76 - 124		
1,3,5-Trimethylbenzene			50.0	51.8		ug/L		104	75 - 124		
Vinyl chloride			50.0	39.5		ug/L		79	58 - 137		
Xylenes, Total			100	101		ug/L		101	79 - 121		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*87*		*85 - 114*
Dibromofluoromethane (Surr)	*102*		*80 - 119*
1,2-Dichloroethane-d4 (Surr)	*97*		*81 - 118*
Toluene-d8 (Surr)	*100*		*89 - 112*

Lab Sample ID: LCSD 680-811234/4
Matrix: Water
Analysis Batch: 811234

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acetone			250	253		ug/L		101	39 - 160	4	20
Benzene			50.0	48.1		ug/L		96	79 - 120	1	20
Bromobenzene			50.0	53.6		ug/L		107	80 - 120	1	20
Bromochloromethane			50.0	53.5		ug/L		107	78 - 123	2	20
Bromodichloromethane			50.0	49.4		ug/L		99	79 - 125	2	20
Bromoform			50.0	40.8		ug/L		82	66 - 130	1	20
Bromomethane			50.0	41.2		ug/L		82	53 - 141	1	20
2-Butanone (MEK)			250	260		ug/L		104	56 - 143	5	20
Carbon disulfide			50.0	44.6		ug/L		89	64 - 133	0	20
Carbon tetrachloride			50.0	49.2		ug/L		98	72 - 136	1	20
Chlorobenzene			50.0	50.7		ug/L		101	82 - 118	0	20
Chloroethane			50.0	45.9		ug/L		92	60 - 138	2	20
Chloroform			50.0	49.2		ug/L		98	79 - 124	1	20
Chloromethane			50.0	31.9		ug/L		64	50 - 139	1	20
2-Chlorotoluene			50.0	49.2		ug/L		98	79 - 122	0	20
4-Chlorotoluene			50.0	48.8		ug/L		98	78 - 122	0	20
cis-1,2-Dichloroethene			50.0	47.4		ug/L		95	78 - 123	2	20
cis-1,3-Dichloropropene			50.0	50.8		ug/L		102	75 - 124	1	20
Cyclohexane			50.0	46.0		ug/L		92	71 - 130	0	20
Dibromochloromethane			50.0	43.1		ug/L		86	74 - 126	1	20
1,2-Dibromo-3-Chloropropane			50.0	42.5		ug/L		85	62 - 128	3	20
1,2-Dibromoethane			50.0	53.5		ug/L		107	75 - 127	3	20
Dibromomethane			50.0	51.4		ug/L		103	79 - 123	3	20
1,2-Dichlorobenzene			50.0	48.2		ug/L		96	80 - 119	1	20
1,3-Dichlorobenzene			50.0	48.8		ug/L		98	80 - 119	0	20
1,4-Dichlorobenzene			50.0	47.4		ug/L		95	79 - 118	1	20
Dichlorodifluoromethane			50.0	28.5		ug/L		57	32 - 152	1	20

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-811234/4
Matrix: Water
Analysis Batch: 811234

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1-Dichloroethane			50.0	47.7		ug/L		95	77 - 125	2	20
1,2-Dichloroethane			50.0	50.1		ug/L		100	73 - 128	4	20
1,1-Dichloroethene			50.0	51.5		ug/L		103	71 - 131	2	20
1,2-Dichloroethene, Total			100	97.3		ug/L		97	79 - 121	1	20
1,2-Dichloropropane			50.0	47.3		ug/L		95	78 - 122	2	20
1,3-Dichloropropane			50.0	49.4		ug/L		99	80 - 119	3	20
2,2-Dichloropropane			50.0	48.4		ug/L		97	60 - 139	1	20
1,1-Dichloropropene			50.0	47.3		ug/L		95	79 - 125	0	20
Ethylbenzene			50.0	50.2		ug/L		100	79 - 121	1	20
Hexachlorobutadiene			50.0	47.4		ug/L		95	66 - 134	3	20
2-Hexanone			250	248		ug/L		99	57 - 139	6	20
Isopropylbenzene			50.0	51.2		ug/L		102	72 - 131	1	20
4-Isopropyltoluene			50.0	48.4		ug/L		97	77 - 127	1	20
Methyl acetate			100	93.5		ug/L		93	56 - 136	6	20
Methylcyclohexane			50.0	46.1		ug/L		92	72 - 132	1	20
Methylene Chloride			50.0	47.4		ug/L		95	74 - 124	1	20
4-Methyl-2-pentanone (MIBK)			250	243		ug/L		97	67 - 130	5	20
Methyl tert-butyl ether			50.0	50.6		ug/L		101	71 - 124	4	20
m-Xylene & p-Xylene			50.0	49.9		ug/L		100	80 - 121	1	20
Naphthalene			50.0	49.4		ug/L		99	61 - 128	2	20
n-Butylbenzene			50.0	45.2		ug/L		90	75 - 128	0	20
N-Propylbenzene			50.0	50.2		ug/L		100	76 - 126	0	20
o-Xylene			50.0	50.6		ug/L		101	78 - 122	1	20
sec-Butylbenzene			50.0	50.6		ug/L		101	77 - 126	2	20
Styrene			50.0	51.8		ug/L		104	78 - 123	0	20
tert-Butylbenzene			50.0	51.8		ug/L		104	78 - 124	2	20
1,1,1,2-Tetrachloroethane			50.0	54.2		ug/L		108	78 - 124	0	20
1,1,2,2-Tetrachloroethane			50.0	52.4		ug/L		105	71 - 121	3	20
Tetrachloroethene			50.0	52.8		ug/L		106	74 - 129	2	20
Toluene			50.0	49.3		ug/L		99	80 - 121	0	20
trans-1,2-Dichloroethene			50.0	49.8		ug/L		100	75 - 124	0	20
trans-1,3-Dichloropropene			50.0	52.3		ug/L		105	73 - 127	3	20
1,2,3-Trichlorobenzene			50.0	54.1		ug/L		108	69 - 129	1	20
1,2,4-Trichlorobenzene			50.0	49.6		ug/L		99	69 - 130	0	20
1,1,1-Trichloroethane			50.0	50.5		ug/L		101	74 - 131	0	20
1,1,2-Trichloroethane			50.0	50.4		ug/L		101	80 - 119	3	20
Trichloroethene			50.0	52.0		ug/L		104	79 - 123	0	20
Trichlorofluoromethane			50.0	41.3		ug/L		83	65 - 141	1	20
1,2,3-Trichloropropane			50.0	53.2		ug/L		106	73 - 122	2	20
1,1,2-Trichloro-1,2,2-trifluoroethane			50.0	51.2		ug/L		102	70 - 136	3	20
1,2,4-Trimethylbenzene			50.0	51.8		ug/L		104	76 - 124	0	20
1,3,5-Trimethylbenzene			50.0	51.4		ug/L		103	75 - 124	1	20
Vinyl chloride			50.0	39.0		ug/L		78	58 - 137	1	20
Xylenes, Total			100	101		ug/L		101	79 - 121	1	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*88*		*85 - 114*

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-811234/4
Matrix: Water
Analysis Batch: 811234

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Dibromofluoromethane (Surr)	*104*		*80 - 119*
1,2-Dichloroethane-d4 (Surr)	*99*		*81 - 118*
Toluene-d8 (Surr)	*101*		*89 - 112*

Lab Sample ID: 680-243265-7 MS
Matrix: Water
Analysis Batch: 811234

Client Sample ID: OU6-MW-238-20231120
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	250	U	6250	5030	D	ug/L		80	39 - 160
Benzene	25	U	1250	1230	D	ug/L		98	79 - 120
Bromobenzene	13	U	1250	1350	D	ug/L		108	80 - 120
Bromochloromethane	25	U	1250	1330	D	ug/L		106	78 - 123
Bromodichloromethane	25	U	1250	1260	D	ug/L		101	79 - 125
Bromoform	50	U	1250	1050	D	ug/L		84	66 - 130
Bromomethane	250	U	1250	1100	D	ug/L		88	53 - 141
2-Butanone (MEK)	500	U	6250	5670	D	ug/L		91	56 - 143
Carbon disulfide	25	U	1250	1200	D	ug/L		96	64 - 133
Carbon tetrachloride	25	U	1250	1320	D	ug/L		106	72 - 136
Chlorobenzene	13	U	1250	1290	D	ug/L		104	82 - 118
Chloroethane	250	U J1	1250	11600	J1 D	ug/L		932	60 - 138
Chloroform	25	U	1250	1250	D	ug/L		100	79 - 124
Chloromethane	50	U	1250	876	D	ug/L		70	50 - 139
2-Chlorotoluene	13	U	1250	1260	D	ug/L		101	79 - 122
4-Chlorotoluene	25	U	1250	1240	D	ug/L		99	78 - 122
cis-1,2-Dichloroethene	120	D M J1	1250	1250	D	ug/L		91	78 - 123
cis-1,3-Dichloropropene	25	U	1250	1240	D	ug/L		99	75 - 124
Cyclohexane	25	U	1250	1270	D	ug/L		101	71 - 130
Dibromochloromethane	25	U	1250	1120	D	ug/L		90	74 - 126
1,2-Dibromo-3-Chloropropane	130	U	1250	958	D	ug/L		77	62 - 128
1,2-Dibromoethane	25	U	1250	1290	D	ug/L		103	75 - 127
Dibromomethane	25	U	1250	1250	D	ug/L		100	79 - 123
1,2-Dichlorobenzene	25	U	1250	1180	D	ug/L		94	80 - 119
1,3-Dichlorobenzene	25	U	1250	1220	D	ug/L		98	80 - 119
1,4-Dichlorobenzene	25	U	1250	1170	D	ug/L		94	79 - 118
Dichlorodifluoromethane	25	U	1250	816	D	ug/L		65	32 - 152
1,1-Dichloroethane	25	U	1250	1200	D	ug/L		96	77 - 125
1,2-Dichloroethane	25	U	1250	1200	D	ug/L		96	73 - 128
1,1-Dichloroethene	25	U	1250	1170	D	ug/L		93	71 - 131
1,2-Dichloroethene, Total	120	D J1	2500	2540	D	ug/L		97	79 - 121
1,2-Dichloropropane	13	U	1250	1160	D	ug/L		93	78 - 122
1,3-Dichloropropane	25	U	1250	1200	D	ug/L		96	80 - 119
2,2-Dichloropropane	25	U	1250	1240	D	ug/L		99	60 - 139
1,1-Dichloropropene	25	U	1250	1240	D	ug/L		99	79 - 125
Ethylbenzene	13	U	1250	1320	D	ug/L		105	79 - 121
Hexachlorobutadiene	25	U J1	1250	1230	D	ug/L		99	66 - 134
2-Hexanone	250	U	6250	5450	D	ug/L		87	57 - 139
Isopropylbenzene	25	U	1250	1340	D	ug/L		107	72 - 131

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 680-243265-7 MS
Matrix: Water
Analysis Batch: 811234

Client Sample ID: OU6-MW-238-20231120
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
4-Isopropyltoluene	25	U	1250	1250	D	ug/L		100	77 - 127
Methyl acetate	250	U	2500	2060	D	ug/L		82	56 - 136
Methylcyclohexane	25	U M	1250	1280	D	ug/L		102	72 - 132
Methylene Chloride	250	U	1250	1190	D	ug/L		95	74 - 124
4-Methyl-2-pentanone (MIBK)	250	U	6250	5630	D	ug/L		90	67 - 130
Methyl tert-butyl ether	50	U	1250	1180	D	ug/L		94	71 - 124
m-Xylene & p-Xylene	25	U	1250	1350	D	ug/L		108	80 - 121
Naphthalene	130	U	1250	990	D	ug/L		79	61 - 128
n-Butylbenzene	50	U	1250	1160	D	ug/L		93	75 - 128
N-Propylbenzene	25	U M	1250	1310	D	ug/L		104	76 - 126
o-Xylene	25	U	1250	1320	D	ug/L		106	78 - 122
sec-Butylbenzene	50	U	1250	1340	D	ug/L		107	77 - 126
Styrene	25	U M	1250	1300	D	ug/L		104	78 - 123
tert-Butylbenzene	25	U	1250	1360	D	ug/L		109	78 - 124
1,1,1,2-Tetrachloroethane	25	U	1250	1380	D	ug/L		110	78 - 124
1,1,2,2-Tetrachloroethane	25	U	1250	1240	D	ug/L		99	71 - 121
Tetrachloroethene	38	D M J1	1250	1450	D	ug/L		113	74 - 129
Toluene	25	U	1250	1350	D	ug/L		108	80 - 121
trans-1,2-Dichloroethene	25	U	1250	1290	D	ug/L		103	75 - 124
trans-1,3-Dichloropropene	25	U M	1250	1240	D	ug/L		99	73 - 127
1,2,3-Trichlorobenzene	50	U	1250	1090	D	ug/L		87	69 - 129
1,2,4-Trichlorobenzene	50	U	1250	1080	D	ug/L		86	69 - 130
1,1,1-Trichloroethane	13	U	1250	1320	D	ug/L		106	74 - 131
1,1,2-Trichloroethane	25	U	1250	1230	D	ug/L		98	80 - 119
Trichloroethene	2600	D J1	1250	2910	D J1	ug/L		27	79 - 123
Trichlorofluoromethane	25	U	1250	1410	D	ug/L		112	65 - 141
1,2,3-Trichloropropane	25	U J1	1250	1270	D	ug/L		101	73 - 122
1,1,2-Trichloro-1,2,2-trifluoroethane	14	D J1	1250	1500	D	ug/L		119	70 - 136
1,2,4-Trimethylbenzene	25	U	1250	1340	D	ug/L		107	76 - 124
1,3,5-Trimethylbenzene	25	U	1250	1330	D	ug/L		107	75 - 124
Vinyl chloride	25	U	1250	1170	D	ug/L		94	58 - 137
Xylenes, Total	25	U	2500	2670	D	ug/L		107	79 - 121

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*87*		*85 - 114*
Dibromofluoromethane (Surr)	*106*		*80 - 119*
1,2-Dichloroethane-d4 (Surr)	*97*		*81 - 118*
Toluene-d8 (Surr)	*104*		*89 - 112*

Lab Sample ID: 680-243265-7 MSD
Matrix: Water
Analysis Batch: 811234

Client Sample ID: OU6-MW-238-20231120
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acetone	250	U	6250	5190	D	ug/L		83	39 - 160	3	20
Benzene	25	U	1250	1210	D	ug/L		97	79 - 120	1	20
Bromobenzene	13	U	1250	1350	D	ug/L		108	80 - 120	0	20
Bromochloromethane	25	U	1250	1340	D	ug/L		107	78 - 123	1	20

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 680-243265-7 MSD
Matrix: Water
Analysis Batch: 811234

Client Sample ID: OU6-MW-238-20231120
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Bromodichloromethane	25	U	1250	1270	D	ug/L		101	79 - 125	0	20
Bromoform	50	U	1250	1070	D	ug/L		86	66 - 130	2	20
Bromomethane	250	U	1250	1080	D	ug/L		87	53 - 141	1	20
2-Butanone (MEK)	500	U	6250	5820	D	ug/L		93	56 - 143	3	20
Carbon disulfide	25	U	1250	1160	D	ug/L		93	64 - 133	3	20
Carbon tetrachloride	25	U	1250	1290	D	ug/L		103	72 - 136	2	20
Chlorobenzene	13	U	1250	1280	D	ug/L		103	82 - 118	1	20
Chloroethane	250	U J1	1250	11800	D J1	ug/L		943	60 - 138	1	20
Chloroform	25	U	1250	1230	D	ug/L		99	79 - 124	1	20
Chloromethane	50	U	1250	824	D	ug/L		66	50 - 139	6	20
2-Chlorotoluene	13	U	1250	1230	D	ug/L		99	79 - 122	2	20
4-Chlorotoluene	25	U	1250	1220	D	ug/L		97	78 - 122	2	20
cis-1,2-Dichloroethene	120	D M J1	1250	1230	D	ug/L		89	78 - 123	2	20
cis-1,3-Dichloropropene	25	U	1250	1240	D	ug/L		99	75 - 124	0	20
Cyclohexane	25	U	1250	1220	D	ug/L		98	71 - 130	4	20
Dibromochloromethane	25	U	1250	1140	D	ug/L		91	74 - 126	1	20
1,2-Dibromo-3-Chloropropane	130	U	1250	978	D	ug/L		78	62 - 128	2	20
1,2-Dibromoethane	25	U	1250	1310	D	ug/L		105	75 - 127	2	20
Dibromomethane	25	U	1250	1260	D	ug/L		101	79 - 123	1	20
1,2-Dichlorobenzene	25	U	1250	1180	D	ug/L		95	80 - 119	0	20
1,3-Dichlorobenzene	25	U	1250	1210	D	ug/L		97	80 - 119	1	20
1,4-Dichlorobenzene	25	U	1250	1180	D	ug/L		94	79 - 118	0	20
Dichlorodifluoromethane	25	U	1250	753	D	ug/L		60	32 - 152	8	20
1,1-Dichloroethane	25	U	1250	1170	D	ug/L		94	77 - 125	3	20
1,2-Dichloroethane	25	U	1250	1220	D	ug/L		98	73 - 128	2	20
1,1-Dichloroethene	25	U	1250	1340	D	ug/L		107	71 - 131	14	20
1,2-Dichloroethene, Total	120	D J1	2500	2490	D	ug/L		95	79 - 121	2	20
1,2-Dichloropropane	13	U	1250	1160	D	ug/L		93	78 - 122	0	20
1,3-Dichloropropane	25	U	1250	1200	D	ug/L		96	80 - 119	1	20
2,2-Dichloropropane	25	U	1250	1210	D	ug/L		97	60 - 139	2	20
1,1-Dichloropropene	25	U	1250	1200	D	ug/L		96	79 - 125	3	20
Ethylbenzene	13	U	1250	1300	D	ug/L		104	79 - 121	2	20
Hexachlorobutadiene	25	U J1	1250	1220	D	ug/L		98	66 - 134	1	20
2-Hexanone	250	U	6250	5540	D	ug/L		89	57 - 139	2	20
Isopropylbenzene	25	U	1250	1310	D	ug/L		105	72 - 131	3	20
4-Isopropyltoluene	25	U	1250	1230	D	ug/L		98	77 - 127	2	20
Methyl acetate	250	U	2500	2100	D	ug/L		84	56 - 136	2	20
Methylcyclohexane	25	U M	1250	1230	D	ug/L		98	72 - 132	4	20
Methylene Chloride	250	U	1250	1180	D	ug/L		95	74 - 124	1	20
4-Methyl-2-pentanone (MIBK)	250	U	6250	5680	D	ug/L		91	67 - 130	1	20
Methyl tert-butyl ether	50	U	1250	1200	D	ug/L		96	71 - 124	2	20
m-Xylene & p-Xylene	25	U	1250	1320	D	ug/L		106	80 - 121	2	20
Naphthalene	130	U	1250	1060	D	ug/L		85	61 - 128	7	20
n-Butylbenzene	50	U	1250	1130	D	ug/L		91	75 - 128	3	20
N-Propylbenzene	25	U M	1250	1280	D	ug/L		102	76 - 126	2	20
o-Xylene	25	U	1250	1310	D	ug/L		105	78 - 122	1	20
sec-Butylbenzene	50	U	1250	1310	D	ug/L		104	77 - 126	3	20
Styrene	25	U M	1250	1300	D	ug/L		104	78 - 123	0	20
tert-Butylbenzene	25	U	1250	1330	D	ug/L		107	78 - 124	2	20

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 680-243265-7 MSD
Matrix: Water
Analysis Batch: 811234

Client Sample ID: OU6-MW-238-20231120
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	25	U	1250	1370	D	ug/L		110	78 - 124	0	20
1,1,2,2-Tetrachloroethane	25	U	1250	1260	D	ug/L		101	71 - 121	1	20
Tetrachloroethene	38	D M J1	1250	1410	D	ug/L		110	74 - 129	3	20
Toluene	25	U	1250	1330	D	ug/L		107	80 - 121	1	20
trans-1,2-Dichloroethene	25	U	1250	1260	D	ug/L		101	75 - 124	2	20
trans-1,3-Dichloropropene	25	U M	1250	1250	D	ug/L		100	73 - 127	1	20
1,2,3-Trichlorobenzene	50	U	1250	1140	D	ug/L		91	69 - 129	5	20
1,2,4-Trichlorobenzene	50	U	1250	1100	D	ug/L		88	69 - 130	2	20
1,1,1-Trichloroethane	13	U	1250	1290	D	ug/L		104	74 - 131	2	20
1,1,2-Trichloroethane	25	U	1250	1240	D	ug/L		100	80 - 119	1	20
Trichloroethene	2600	D J1	1250	2880	D J1	ug/L		24	79 - 123	1	20
Trichlorofluoromethane	25	U	1250	1330	D	ug/L		106	65 - 141	6	20
1,2,3-Trichloropropane	25	U J1	1250	1280	D	ug/L		103	73 - 122	1	20
1,1,2-Trichloro-1,2,2-trifluoroethane	14	D J1	1250	1440	D	ug/L		114	70 - 136	4	20
1,2,4-Trimethylbenzene	25	U	1250	1320	D	ug/L		105	76 - 124	2	20
1,3,5-Trimethylbenzene	25	U	1250	1300	D	ug/L		104	75 - 124	2	20
Vinyl chloride	25	U	1250	1090	D	ug/L		88	58 - 137	7	20
Xylenes, Total	25	U	2500	2630	D	ug/L		105	79 - 121	2	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*86*		*85 - 114*
Dibromofluoromethane (Surr)	*105*		*80 - 119*
1,2-Dichloroethane-d4 (Surr)	*98*		*81 - 118*
Toluene-d8 (Surr)	*102*		*89 - 112*

Lab Sample ID: MB 680-811293/9
Matrix: Water
Analysis Batch: 811293

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			12/04/23 12:15	1
Benzene	1.0	U	2.0	0.27	ug/L			12/04/23 12:15	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			12/04/23 12:15	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			12/04/23 12:15	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			12/04/23 12:15	1
Bromoform	2.0	U	2.5	0.59	ug/L			12/04/23 12:15	1
Bromomethane	10	U	20	3.7	ug/L			12/04/23 12:15	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			12/04/23 12:15	1
Carbon disulfide	1.0	U	2.0	0.43	ug/L			12/04/23 12:15	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			12/04/23 12:15	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			12/04/23 12:15	1
Chloroethane	10	U	20	4.6	ug/L			12/04/23 12:15	1
Chloroform	1.0	U	2.0	0.27	ug/L			12/04/23 12:15	1
Chloromethane	2.0	U	2.5	0.54	ug/L			12/04/23 12:15	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			12/04/23 12:15	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			12/04/23 12:15	1
cis-1,2-Dichloroethene	1.0	U	2.0	0.25	ug/L			12/04/23 12:15	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			12/04/23 12:15	1

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-811293/9
Matrix: Water
Analysis Batch: 811293

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Cyclohexane	1.0	U	2.0	0.28	ug/L			12/04/23 12:15	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			12/04/23 12:15	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			12/04/23 12:15	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			12/04/23 12:15	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			12/04/23 12:15	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			12/04/23 12:15	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			12/04/23 12:15	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			12/04/23 12:15	1
Dichlorodifluoromethane	1.0	U	2.0	0.36	ug/L			12/04/23 12:15	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			12/04/23 12:15	1
1,2-Dichloroethane	1.0	U	2.0	0.25	ug/L			12/04/23 12:15	1
1,1-Dichloroethene	1.0	U	2.0	0.33	ug/L			12/04/23 12:15	1
1,2-Dichloroethene, Total	1.0	U	2.0	0.37	ug/L			12/04/23 12:15	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			12/04/23 12:15	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			12/04/23 12:15	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			12/04/23 12:15	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			12/04/23 12:15	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			12/04/23 12:15	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			12/04/23 12:15	1
2-Hexanone	10	U	20	3.2	ug/L			12/04/23 12:15	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			12/04/23 12:15	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			12/04/23 12:15	1
Methyl acetate	10	U	20	3.2	ug/L			12/04/23 12:15	1
Methylcyclohexane	1.0	U	2.0	0.33	ug/L			12/04/23 12:15	1
Methylene Chloride	10	U M	20	3.2	ug/L			12/04/23 12:15	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			12/04/23 12:15	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			12/04/23 12:15	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			12/04/23 12:15	1
Naphthalene	5.0	U	10	2.4	ug/L			12/04/23 12:15	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			12/04/23 12:15	1
N-Propylbenzene	1.0	U M	2.0	0.41	ug/L			12/04/23 12:15	1
o-Xylene	1.0	U	2.0	0.26	ug/L			12/04/23 12:15	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			12/04/23 12:15	1
Styrene	1.0	U M	2.0	0.27	ug/L			12/04/23 12:15	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			12/04/23 12:15	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			12/04/23 12:15	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			12/04/23 12:15	1
Tetrachloroethene	1.0	U	2.0	0.35	ug/L			12/04/23 12:15	1
Toluene	1.0	U	2.0	0.25	ug/L			12/04/23 12:15	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			12/04/23 12:15	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			12/04/23 12:15	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			12/04/23 12:15	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			12/04/23 12:15	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			12/04/23 12:15	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			12/04/23 12:15	1
Trichloroethene	0.50	U	1.0	0.20	ug/L			12/04/23 12:15	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			12/04/23 12:15	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			12/04/23 12:15	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			12/04/23 12:15	1

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-811293/9
Matrix: Water
Analysis Batch: 811293

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			12/04/23 12:15	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			12/04/23 12:15	1
Vinyl chloride	1.0	U	2.0	0.40	ug/L			12/04/23 12:15	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			12/04/23 12:15	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*85 - 114*		*12/04/23 12:15*	*1*
Dibromofluoromethane (Surr)	*93*		*80 - 119*		*12/04/23 12:15*	*1*
1,2-Dichloroethane-d4 (Surr)	*89*		*81 - 118*		*12/04/23 12:15*	*1*
Toluene-d8 (Surr)	*97*		*89 - 112*		*12/04/23 12:15*	*1*

Lab Sample ID: LCS 680-811293/4
Matrix: Water
Analysis Batch: 811293

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	250	235		ug/L		94	39 - 160
Benzene	50.0	48.5		ug/L		97	79 - 120
Bromobenzene	50.0	49.6		ug/L		99	80 - 120
Bromochloromethane	50.0	44.7		ug/L		89	78 - 123
Bromodichloromethane	50.0	50.3		ug/L		101	79 - 125
Bromoform	50.0	56.7		ug/L		113	66 - 130
Bromomethane	50.0	43.0		ug/L		86	53 - 141
2-Butanone (MEK)	250	211		ug/L		84	56 - 143
Carbon disulfide	50.0	48.4		ug/L		97	64 - 133
Carbon tetrachloride	50.0	48.3		ug/L		97	72 - 136
Chlorobenzene	50.0	51.0		ug/L		102	82 - 118
Chloroethane	50.0	39.5		ug/L		79	60 - 138
Chloroform	50.0	48.5		ug/L		97	79 - 124
Chloromethane	50.0	41.8		ug/L		84	50 - 139
2-Chlorotoluene	50.0	50.1		ug/L		100	79 - 122
4-Chlorotoluene	50.0	51.0		ug/L		102	78 - 122
cis-1,2-Dichloroethene	50.0	49.3		ug/L		99	78 - 123
cis-1,3-Dichloropropene	50.0	52.7		ug/L		105	75 - 124
Cyclohexane	50.0	43.1		ug/L		86	71 - 130
Dibromochloromethane	50.0	52.3		ug/L		105	74 - 126
1,2-Dibromo-3-Chloropropane	50.0	55.6		ug/L		111	62 - 128
1,2-Dibromoethane	50.0	52.0		ug/L		104	75 - 127
Dibromomethane	50.0	47.9		ug/L		96	79 - 123
1,2-Dichlorobenzene	50.0	53.4		ug/L		107	80 - 119
1,3-Dichlorobenzene	50.0	52.4		ug/L		105	80 - 119
1,4-Dichlorobenzene	50.0	52.6		ug/L		105	79 - 118
Dichlorodifluoromethane	50.0	43.3		ug/L		87	32 - 152
1,1-Dichloroethane	50.0	47.7		ug/L		95	77 - 125
1,2-Dichloroethane	50.0	47.7		ug/L		95	73 - 128
1,1-Dichloroethene	50.0	49.8		ug/L		100	71 - 131
1,2-Dichloroethene, Total	100	96.4		ug/L		96	79 - 121
1,2-Dichloropropane	50.0	46.7		ug/L		93	78 - 122

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-811293/4
Matrix: Water
Analysis Batch: 811293

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,3-Dichloropropane	50.0	49.0		ug/L		98	80 - 119
2,2-Dichloropropane	50.0	51.0		ug/L		102	60 - 139
1,1-Dichloropropene	50.0	48.6		ug/L		97	79 - 125
Ethylbenzene	50.0	51.8		ug/L		104	79 - 121
Hexachlorobutadiene	50.0	48.6		ug/L		97	66 - 134
2-Hexanone	250	227		ug/L		91	57 - 139
Isopropylbenzene	50.0	52.0		ug/L		104	72 - 131
4-Isopropyltoluene	50.0	55.1		ug/L		110	77 - 127
Methyl acetate	100	87.8		ug/L		88	56 - 136
Methylcyclohexane	50.0	45.5		ug/L		91	72 - 132
Methylene Chloride	50.0	46.6		ug/L		93	74 - 124
4-Methyl-2-pentanone (MIBK)	250	228		ug/L		91	67 - 130
Methyl tert-butyl ether	50.0	49.5		ug/L		99	71 - 124
m-Xylene & p-Xylene	50.0	51.6		ug/L		103	80 - 121
Naphthalene	50.0	49.5		ug/L		99	61 - 128
n-Butylbenzene	50.0	51.5		ug/L		103	75 - 128
N-Propylbenzene	50.0	50.1		ug/L		100	76 - 126
o-Xylene	50.0	51.6		ug/L		103	78 - 122
sec-Butylbenzene	50.0	49.5		ug/L		99	77 - 126
Styrene	50.0	54.5		ug/L		109	78 - 123
tert-Butylbenzene	50.0	50.2		ug/L		100	78 - 124
1,1,1,2-Tetrachloroethane	50.0	54.0		ug/L		108	78 - 124
1,1,2,2-Tetrachloroethane	50.0	53.9		ug/L		108	71 - 121
Tetrachloroethene	50.0	46.9		ug/L		94	74 - 129
Toluene	50.0	48.1		ug/L		96	80 - 121
trans-1,2-Dichloroethene	50.0	47.1		ug/L		94	75 - 124
trans-1,3-Dichloropropene	50.0	52.7		ug/L		105	73 - 127
1,2,3-Trichlorobenzene	50.0	45.9		ug/L		92	69 - 129
1,2,4-Trichlorobenzene	50.0	49.8		ug/L		100	69 - 130
1,1,1-Trichloroethane	50.0	51.0		ug/L		102	74 - 131
1,1,2-Trichloroethane	50.0	50.7		ug/L		101	80 - 119
Trichloroethene	50.0	48.3		ug/L		97	79 - 123
Trichlorofluoromethane	50.0	46.3		ug/L		93	65 - 141
1,2,3-Trichloropropane	50.0	52.6		ug/L		105	73 - 122
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	47.0		ug/L		94	70 - 136
1,2,4-Trimethylbenzene	50.0	52.7		ug/L		105	76 - 124
1,3,5-Trimethylbenzene	50.0	51.5		ug/L		103	75 - 124
Vinyl chloride	50.0	43.3		ug/L		87	58 - 137
Xylenes, Total	100	103		ug/L		103	79 - 121

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*109*		*85 - 114*
Dibromofluoromethane (Surr)	*96*		*80 - 119*
1,2-Dichloroethane-d4 (Surr)	*90*		*81 - 118*
Toluene-d8 (Surr)	*96*		*89 - 112*

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-811293/5
Matrix: Water
Analysis Batch: 811293

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acetone			250	235		ug/L		94	39 - 160	0	20
Benzene			50.0	47.3		ug/L		95	79 - 120	2	20
Bromobenzene			50.0	49.0		ug/L		98	80 - 120	1	20
Bromochloromethane			50.0	42.5		ug/L		85	78 - 123	5	20
Bromodichloromethane			50.0	50.1		ug/L		100	79 - 125	0	20
Bromoform			50.0	55.8		ug/L		112	66 - 130	2	20
Bromomethane			50.0	42.4		ug/L		85	53 - 141	1	20
2-Butanone (MEK)			250	208		ug/L		83	56 - 143	1	20
Carbon disulfide			50.0	47.5		ug/L		95	64 - 133	2	20
Carbon tetrachloride			50.0	47.8		ug/L		96	72 - 136	1	20
Chlorobenzene			50.0	49.7		ug/L		99	82 - 118	3	20
Chloroethane			50.0	42.4		ug/L		85	60 - 138	7	20
Chloroform			50.0	47.4		ug/L		95	79 - 124	2	20
Chloromethane			50.0	41.4		ug/L		83	50 - 139	1	20
2-Chlorotoluene			50.0	48.4		ug/L		97	79 - 122	3	20
4-Chlorotoluene			50.0	50.0		ug/L		100	78 - 122	2	20
cis-1,2-Dichloroethene			50.0	48.1		ug/L		96	78 - 123	2	20
cis-1,3-Dichloropropene			50.0	52.9		ug/L		106	75 - 124	0	20
Cyclohexane			50.0	41.9		ug/L		84	71 - 130	3	20
Dibromochloromethane			50.0	51.3		ug/L		103	74 - 126	2	20
1,2-Dibromo-3-Chloropropane			50.0	55.7		ug/L		111	62 - 128	0	20
1,2-Dibromoethane			50.0	52.8		ug/L		106	75 - 127	1	20
Dibromomethane			50.0	49.0		ug/L		98	79 - 123	2	20
1,2-Dichlorobenzene			50.0	54.5		ug/L		109	80 - 119	2	20
1,3-Dichlorobenzene			50.0	54.2		ug/L		108	80 - 119	3	20
1,4-Dichlorobenzene			50.0	51.6		ug/L		103	79 - 118	2	20
Dichlorodifluoromethane			50.0	42.9		ug/L		86	32 - 152	1	20
1,1-Dichloroethane			50.0	46.5		ug/L		93	77 - 125	2	20
1,2-Dichloroethane			50.0	47.0		ug/L		94	73 - 128	1	20
1,1-Dichloroethene			50.0	47.7		ug/L		95	71 - 131	4	20
1,2-Dichloroethene, Total			100	95.3		ug/L		95	79 - 121	1	20
1,2-Dichloropropane			50.0	46.2		ug/L		92	78 - 122	1	20
1,3-Dichloropropane			50.0	48.9		ug/L		98	80 - 119	0	20
2,2-Dichloropropane			50.0	50.8	M	ug/L		102	60 - 139	0	20
1,1-Dichloropropene			50.0	46.5		ug/L		93	79 - 125	4	20
Ethylbenzene			50.0	51.0		ug/L		102	79 - 121	2	20
Hexachlorobutadiene			50.0	51.4		ug/L		103	66 - 134	6	20
2-Hexanone			250	228		ug/L		91	57 - 139	0	20
Isopropylbenzene			50.0	50.5		ug/L		101	72 - 131	3	20
4-Isopropyltoluene			50.0	53.9		ug/L		108	77 - 127	2	20
Methyl acetate			100	85.9		ug/L		86	56 - 136	2	20
Methylcyclohexane			50.0	44.0		ug/L		88	72 - 132	3	20
Methylene Chloride			50.0	46.0		ug/L		92	74 - 124	1	20
4-Methyl-2-pentanone (MIBK)			250	228		ug/L		91	67 - 130	0	20
Methyl tert-butyl ether			50.0	49.8		ug/L		100	71 - 124	1	20
m-Xylene & p-Xylene			50.0	49.8		ug/L		100	80 - 121	3	20
Naphthalene			50.0	51.4		ug/L		103	61 - 128	4	20
n-Butylbenzene			50.0	52.3		ug/L		105	75 - 128	2	20

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-811293/5
Matrix: Water
Analysis Batch: 811293

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
N-Propylbenzene			50.0	48.8		ug/L		98	76 - 126	3	20
o-Xylene			50.0	50.2		ug/L		100	78 - 122	3	20
sec-Butylbenzene			50.0	47.9		ug/L		96	77 - 126	3	20
Styrene			50.0	53.3		ug/L		107	78 - 123	2	20
tert-Butylbenzene			50.0	49.1		ug/L		98	78 - 124	2	20
1,1,1,2-Tetrachloroethane			50.0	53.3		ug/L		107	78 - 124	1	20
1,1,2,2-Tetrachloroethane			50.0	53.2		ug/L		106	71 - 121	1	20
Tetrachloroethene			50.0	45.7		ug/L		91	74 - 129	2	20
Toluene			50.0	47.6		ug/L		95	80 - 121	1	20
trans-1,2-Dichloroethene			50.0	47.2		ug/L		94	75 - 124	0	20
trans-1,3-Dichloropropene			50.0	52.7		ug/L		105	73 - 127	0	20
1,2,3-Trichlorobenzene			50.0	45.9		ug/L		92	69 - 129	0	20
1,2,4-Trichlorobenzene			50.0	50.7		ug/L		101	69 - 130	2	20
1,1,1-Trichloroethane			50.0	50.3		ug/L		101	74 - 131	1	20
1,1,2-Trichloroethane			50.0	51.0		ug/L		102	80 - 119	1	20
Trichloroethene			50.0	46.7		ug/L		93	79 - 123	3	20
Trichlorofluoromethane			50.0	46.4		ug/L		93	65 - 141	0	20
1,2,3-Trichloropropane			50.0	52.8		ug/L		106	73 - 122	0	20
1,1,2-Trichloro-1,2,2-trifluoroethane			50.0	47.1		ug/L		94	70 - 136	0	20
1,2,4-Trimethylbenzene			50.0	51.2		ug/L		102	76 - 124	3	20
1,3,5-Trimethylbenzene			50.0	50.6		ug/L		101	75 - 124	2	20
Vinyl chloride			50.0	42.9		ug/L		86	58 - 137	1	20
Xylenes, Total			100	100		ug/L		100	79 - 121	3	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*108*		*85 - 114*
Dibromofluoromethane (Surr)	*95*		*80 - 119*
1,2-Dichloroethane-d4 (Surr)	*91*		*81 - 118*
Toluene-d8 (Surr)	*95*		*89 - 112*

Lab Sample ID: MB 680-811496/8
Matrix: Water
Analysis Batch: 811496

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			12/05/23 12:02	1
Benzene	1.0	U	2.0	0.27	ug/L			12/05/23 12:02	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			12/05/23 12:02	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			12/05/23 12:02	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			12/05/23 12:02	1
Bromoform	2.0	U	2.5	0.59	ug/L			12/05/23 12:02	1
Bromomethane	10	U	20	3.7	ug/L			12/05/23 12:02	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			12/05/23 12:02	1
Carbon disulfide	1.0	U	2.0	0.43	ug/L			12/05/23 12:02	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			12/05/23 12:02	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			12/05/23 12:02	1
Chloroethane	10	U	20	4.6	ug/L			12/05/23 12:02	1
Chloroform	1.0	U	2.0	0.27	ug/L			12/05/23 12:02	1

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-811496/8
Matrix: Water
Analysis Batch: 811496

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	2.0	U	2.5	0.54	ug/L			12/05/23 12:02	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			12/05/23 12:02	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			12/05/23 12:02	1
cis-1,2-Dichloroethene	1.0	U	2.0	0.25	ug/L			12/05/23 12:02	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			12/05/23 12:02	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			12/05/23 12:02	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			12/05/23 12:02	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			12/05/23 12:02	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			12/05/23 12:02	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			12/05/23 12:02	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			12/05/23 12:02	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			12/05/23 12:02	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			12/05/23 12:02	1
Dichlorodifluoromethane	1.0	U	2.0	0.36	ug/L			12/05/23 12:02	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			12/05/23 12:02	1
1,2-Dichloroethane	1.0	U	2.0	0.25	ug/L			12/05/23 12:02	1
1,1-Dichloroethene	1.0	U	2.0	0.33	ug/L			12/05/23 12:02	1
1,2-Dichloroethene, Total	1.0	U	2.0	0.37	ug/L			12/05/23 12:02	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			12/05/23 12:02	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			12/05/23 12:02	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			12/05/23 12:02	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			12/05/23 12:02	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			12/05/23 12:02	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			12/05/23 12:02	1
2-Hexanone	10	U	20	3.2	ug/L			12/05/23 12:02	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			12/05/23 12:02	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			12/05/23 12:02	1
Methyl acetate	10	U	20	3.2	ug/L			12/05/23 12:02	1
Methylcyclohexane	1.0	U	2.0	0.33	ug/L			12/05/23 12:02	1
Methylene Chloride	10	U	20	3.2	ug/L			12/05/23 12:02	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			12/05/23 12:02	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			12/05/23 12:02	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			12/05/23 12:02	1
Naphthalene	5.0	U	10	2.4	ug/L			12/05/23 12:02	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			12/05/23 12:02	1
N-Propylbenzene	1.0	U M	2.0	0.41	ug/L			12/05/23 12:02	1
o-Xylene	1.0	U	2.0	0.26	ug/L			12/05/23 12:02	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			12/05/23 12:02	1
Styrene	1.0	U	2.0	0.27	ug/L			12/05/23 12:02	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			12/05/23 12:02	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			12/05/23 12:02	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			12/05/23 12:02	1
Tetrachloroethene	1.0	U	2.0	0.35	ug/L			12/05/23 12:02	1
Toluene	1.0	U	2.0	0.25	ug/L			12/05/23 12:02	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			12/05/23 12:02	1
trans-1,3-Dichloropropene	1.0	U M	2.0	0.23	ug/L			12/05/23 12:02	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			12/05/23 12:02	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			12/05/23 12:02	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			12/05/23 12:02	1

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-811496/8
Matrix: Water
Analysis Batch: 811496

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			12/05/23 12:02	1
Trichloroethene	0.50	U	1.0	0.20	ug/L			12/05/23 12:02	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			12/05/23 12:02	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			12/05/23 12:02	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			12/05/23 12:02	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			12/05/23 12:02	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			12/05/23 12:02	1
Vinyl chloride	1.0	U	2.0	0.40	ug/L			12/05/23 12:02	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			12/05/23 12:02	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*85 - 114*		*12/05/23 12:02*	*1*
Dibromofluoromethane (Surr)	*97*		*80 - 119*		*12/05/23 12:02*	*1*
1,2-Dichloroethane-d4 (Surr)	*91*		*81 - 118*		*12/05/23 12:02*	*1*
Toluene-d8 (Surr)	*95*		*89 - 112*		*12/05/23 12:02*	*1*

Lab Sample ID: LCS 680-811496/4
Matrix: Water
Analysis Batch: 811496

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	250	211		ug/L		84	39 - 160
Benzene	50.0	47.7		ug/L		95	79 - 120
Bromobenzene	50.0	48.9		ug/L		98	80 - 120
Bromochloromethane	50.0	43.8		ug/L		88	78 - 123
Bromodichloromethane	50.0	50.5		ug/L		101	79 - 125
Bromoform	50.0	55.0		ug/L		110	66 - 130
Bromomethane	50.0	57.8		ug/L		116	53 - 141
2-Butanone (MEK)	250	201		ug/L		80	56 - 143
Carbon disulfide	50.0	38.7		ug/L		77	64 - 133
Carbon tetrachloride	50.0	49.3		ug/L		99	72 - 136
Chlorobenzene	50.0	49.6		ug/L		99	82 - 118
Chloroethane	50.0	49.2		ug/L		98	60 - 138
Chloroform	50.0	48.8		ug/L		98	79 - 124
Chloromethane	50.0	49.7		ug/L		99	50 - 139
2-Chlorotoluene	50.0	49.3		ug/L		99	79 - 122
4-Chlorotoluene	50.0	49.7		ug/L		99	78 - 122
cis-1,2-Dichloroethene	50.0	46.3		ug/L		93	78 - 123
cis-1,3-Dichloropropene	50.0	53.9		ug/L		108	75 - 124
Cyclohexane	50.0	41.0		ug/L		82	71 - 130
Dibromochloromethane	50.0	52.3		ug/L		105	74 - 126
1,2-Dibromo-3-Chloropropane	50.0	50.7		ug/L		101	62 - 128
1,2-Dibromoethane	50.0	51.4		ug/L		103	75 - 127
Dibromomethane	50.0	47.9		ug/L		96	79 - 123
1,2-Dichlorobenzene	50.0	50.8		ug/L		102	80 - 119
1,3-Dichlorobenzene	50.0	50.4		ug/L		101	80 - 119
1,4-Dichlorobenzene	50.0	50.7		ug/L		101	79 - 118
Dichlorodifluoromethane	50.0	50.3		ug/L		101	32 - 152

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-811496/4
Matrix: Water
Analysis Batch: 811496

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1-Dichloroethane	50.0	46.9		ug/L		94	77 - 125
1,2-Dichloroethane	50.0	48.3		ug/L		97	73 - 128
1,1-Dichloroethene	50.0	42.5		ug/L		85	71 - 131
1,2-Dichloroethene, Total	100	92.1		ug/L		92	79 - 121
1,2-Dichloropropane	50.0	46.2		ug/L		92	78 - 122
1,3-Dichloropropane	50.0	49.8		ug/L		100	80 - 119
2,2-Dichloropropane	50.0	51.3	M	ug/L		103	60 - 139
1,1-Dichloropropene	50.0	46.9		ug/L		94	79 - 125
Ethylbenzene	50.0	51.2		ug/L		102	79 - 121
Hexachlorobutadiene	50.0	51.4		ug/L		103	66 - 134
2-Hexanone	250	214		ug/L		86	57 - 139
Isopropylbenzene	50.0	50.7		ug/L		101	72 - 131
4-Isopropyltoluene	50.0	53.2		ug/L		106	77 - 127
Methyl acetate	100	80.8		ug/L		81	56 - 136
Methylcyclohexane	50.0	44.6		ug/L		89	72 - 132
Methylene Chloride	50.0	43.4		ug/L		87	74 - 124
4-Methyl-2-pentanone (MIBK)	250	216		ug/L		86	67 - 130
Methyl tert-butyl ether	50.0	47.4		ug/L		95	71 - 124
m-Xylene & p-Xylene	50.0	50.4		ug/L		101	80 - 121
Naphthalene	50.0	45.8		ug/L		92	61 - 128
n-Butylbenzene	50.0	51.7		ug/L		103	75 - 128
N-Propylbenzene	50.0	49.5		ug/L		99	76 - 126
o-Xylene	50.0	49.7		ug/L		99	78 - 122
sec-Butylbenzene	50.0	48.7		ug/L		97	77 - 126
Styrene	50.0	52.1		ug/L		104	78 - 123
tert-Butylbenzene	50.0	49.3		ug/L		99	78 - 124
1,1,1,2-Tetrachloroethane	50.0	53.0		ug/L		106	78 - 124
1,1,2,2-Tetrachloroethane	50.0	50.7		ug/L		101	71 - 121
Tetrachloroethene	50.0	47.5		ug/L		95	74 - 129
Toluene	50.0	48.2		ug/L		96	80 - 121
trans-1,2-Dichloroethene	50.0	45.8		ug/L		92	75 - 124
trans-1,3-Dichloropropene	50.0	53.1		ug/L		106	73 - 127
1,2,3-Trichlorobenzene	50.0	44.1		ug/L		88	69 - 129
1,2,4-Trichlorobenzene	50.0	46.9	M	ug/L		94	69 - 130
1,1,1-Trichloroethane	50.0	51.6		ug/L		103	74 - 131
1,1,2-Trichloroethane	50.0	49.4		ug/L		99	80 - 119
Trichloroethene	50.0	47.7		ug/L		95	79 - 123
Trichlorofluoromethane	50.0	53.7		ug/L		107	65 - 141
1,2,3-Trichloropropane	50.0	49.3		ug/L		99	73 - 122
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	43.3		ug/L		87	70 - 136
1,2,4-Trimethylbenzene	50.0	52.0		ug/L		104	76 - 124
1,3,5-Trimethylbenzene	50.0	51.6		ug/L		103	75 - 124
Vinyl chloride	50.0	54.4		ug/L		109	58 - 137
Xylenes, Total	100	100		ug/L		100	79 - 121

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*104*		*85 - 114*

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-811496/4
Matrix: Water
Analysis Batch: 811496

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Dibromofluoromethane (Surr)	*94*		*80 - 119*
1,2-Dichloroethane-d4 (Surr)	*92*		*81 - 118*
Toluene-d8 (Surr)	*95*		*89 - 112*

Lab Sample ID: LCSD 680-811496/5
Matrix: Water
Analysis Batch: 811496

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acetone			250	210		ug/L		84	39 - 160	0	20
Benzene			50.0	47.3		ug/L		95	79 - 120	1	20
Bromobenzene			50.0	47.3		ug/L		95	80 - 120	3	20
Bromochloromethane			50.0	43.2		ug/L		86	78 - 123	1	20
Bromodichloromethane			50.0	48.7		ug/L		97	79 - 125	4	20
Bromoform			50.0	55.2		ug/L		110	66 - 130	0	20
Bromomethane			50.0	57.4		ug/L		115	53 - 141	1	20
2-Butanone (MEK)			250	199		ug/L		79	56 - 143	1	20
Carbon disulfide			50.0	38.8		ug/L		78	64 - 133	0	20
Carbon tetrachloride			50.0	48.7		ug/L		97	72 - 136	1	20
Chlorobenzene			50.0	49.1		ug/L		98	82 - 118	1	20
Chloroethane			50.0	48.1		ug/L		96	60 - 138	2	20
Chloroform			50.0	48.5		ug/L		97	79 - 124	0	20
Chloromethane			50.0	47.7		ug/L		95	50 - 139	4	20
2-Chlorotoluene			50.0	48.2		ug/L		96	79 - 122	2	20
4-Chlorotoluene			50.0	49.3		ug/L		99	78 - 122	1	20
cis-1,2-Dichloroethene			50.0	46.5		ug/L		93	78 - 123	0	20
cis-1,3-Dichloropropene			50.0	51.1		ug/L		102	75 - 124	5	20
Cyclohexane			50.0	40.6		ug/L		81	71 - 130	1	20
Dibromochloromethane			50.0	55.3		ug/L		111	74 - 126	6	20
1,2-Dibromo-3-Chloropropane			50.0	52.9		ug/L		106	62 - 128	4	20
1,2-Dibromoethane			50.0	51.3		ug/L		103	75 - 127	0	20
Dibromomethane			50.0	47.2		ug/L		94	79 - 123	1	20
1,2-Dichlorobenzene			50.0	52.2		ug/L		104	80 - 119	3	20
1,3-Dichlorobenzene			50.0	52.3		ug/L		105	80 - 119	4	20
1,4-Dichlorobenzene			50.0	51.5		ug/L		103	79 - 118	2	20
Dichlorodifluoromethane			50.0	48.5		ug/L		97	32 - 152	4	20
1,1-Dichloroethane			50.0	45.2		ug/L		90	77 - 125	4	20
1,2-Dichloroethane			50.0	47.4		ug/L		95	73 - 128	2	20
1,1-Dichloroethene			50.0	42.3		ug/L		85	71 - 131	0	20
1,2-Dichloroethene, Total			100	89.7		ug/L		90	79 - 121	3	20
1,2-Dichloropropane			50.0	46.1		ug/L		92	78 - 122	0	20
1,3-Dichloropropane			50.0	49.4		ug/L		99	80 - 119	1	20
2,2-Dichloropropane			50.0	50.7	M	ug/L		101	60 - 139	1	20
1,1-Dichloropropene			50.0	47.2		ug/L		94	79 - 125	1	20
Ethylbenzene			50.0	50.4		ug/L		101	79 - 121	1	20
Hexachlorobutadiene			50.0	51.2		ug/L		102	66 - 134	0	20
2-Hexanone			250	212		ug/L		85	57 - 139	1	20
Isopropylbenzene			50.0	50.0		ug/L		100	72 - 131	1	20

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-811496/5
Matrix: Water
Analysis Batch: 811496

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
4-Isopropyltoluene			50.0	55.5		ug/L		111	77 - 127	4	20
Methyl acetate			100	78.5		ug/L		79	56 - 136	3	20
Methylcyclohexane			50.0	44.5		ug/L		89	72 - 132	0	20
Methylene Chloride			50.0	44.0		ug/L		88	74 - 124	1	20
4-Methyl-2-pentanone (MIBK)			250	215		ug/L		86	67 - 130	0	20
Methyl tert-butyl ether			50.0	48.3		ug/L		97	71 - 124	2	20
m-Xylene & p-Xylene			50.0	50.3		ug/L		101	80 - 121	0	20
Naphthalene			50.0	46.8		ug/L		94	61 - 128	2	20
n-Butylbenzene			50.0	51.9		ug/L		104	75 - 128	0	20
N-Propylbenzene			50.0	48.3		ug/L		97	76 - 126	3	20
o-Xylene			50.0	50.5		ug/L		101	78 - 122	1	20
sec-Butylbenzene			50.0	48.4		ug/L		97	77 - 126	1	20
Styrene			50.0	52.3		ug/L		105	78 - 123	0	20
tert-Butylbenzene			50.0	48.1		ug/L		96	78 - 124	3	20
1,1,1,2-Tetrachloroethane			50.0	53.0		ug/L		106	78 - 124	0	20
1,1,2,2-Tetrachloroethane			50.0	50.2		ug/L		100	71 - 121	1	20
Tetrachloroethene			50.0	46.3		ug/L		93	74 - 129	3	20
Toluene			50.0	47.5		ug/L		95	80 - 121	1	20
trans-1,2-Dichloroethene			50.0	43.2		ug/L		86	75 - 124	6	20
trans-1,3-Dichloropropene			50.0	52.5		ug/L		105	73 - 127	1	20
1,2,3-Trichlorobenzene			50.0	45.5		ug/L		91	69 - 129	3	20
1,2,4-Trichlorobenzene			50.0	47.4		ug/L		95	69 - 130	1	20
1,1,1-Trichloroethane			50.0	50.6		ug/L		101	74 - 131	2	20
1,1,2-Trichloroethane			50.0	49.4		ug/L		99	80 - 119	0	20
Trichloroethene			50.0	47.5		ug/L		95	79 - 123	0	20
Trichlorofluoromethane			50.0	53.3		ug/L		107	65 - 141	1	20
1,2,3-Trichloropropane			50.0	48.6		ug/L		97	73 - 122	1	20
1,1,2-Trichloro-1,2,2-trifluoroethane			50.0	42.5		ug/L		85	70 - 136	2	20
1,2,4-Trimethylbenzene			50.0	52.1		ug/L		104	76 - 124	0	20
1,3,5-Trimethylbenzene			50.0	50.6		ug/L		101	75 - 124	2	20
Vinyl chloride			50.0	51.3		ug/L		103	58 - 137	6	20
Xylenes, Total			100	101		ug/L		101	79 - 121	1	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*107*		*85 - 114*
Dibromofluoromethane (Surr)	*94*		*80 - 119*
1,2-Dichloroethane-d4 (Surr)	*92*		*81 - 118*
Toluene-d8 (Surr)	*96*		*89 - 112*

Method: RSK-175 - Dissolved Gases (GC)

Lab Sample ID: MB 680-810949/35
Matrix: Water
Analysis Batch: 810949

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	0.76	U	1.1	0.30	ug/L			11/30/23 21:06	1
Ethylene	0.71	U	1.0	0.31	ug/L			11/30/23 21:06	1

Method: RSK-175 - Dissolved Gases (GC) (Continued)

Lab Sample ID: MB 680-810949/35
Matrix: Water
Analysis Batch: 810949

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	1.2	U	1.2	0.57	ug/L			11/30/23 21:06	1

Lab Sample ID: LCS 680-810949/30
Matrix: Water
Analysis Batch: 810949

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Methane (TCD)	1920	2160		ug/L		112	73 - 125

Lab Sample ID: LCS 680-810949/32
Matrix: Water
Analysis Batch: 810949

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Ethane	361	353		ug/L		98	74 - 131
Ethylene	337	319		ug/L		95	72 - 133
Methane	192	183		ug/L		95	73 - 125

Lab Sample ID: LCSD 680-810949/31
Matrix: Water
Analysis Batch: 810949

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Methane (TCD)	1920	2130		ug/L		111	73 - 125	1	30

Lab Sample ID: LCSD 680-810949/33
Matrix: Water
Analysis Batch: 810949

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ethane	361	338		ug/L		94	74 - 131	4	30
Ethylene	337	308		ug/L		91	72 - 133	4	30
Methane	192	178		ug/L		92	73 - 125	3	30

Lab Sample ID: 680-243265-7 MS
Matrix: Water
Analysis Batch: 810949

Client Sample ID: OU6-MW-238-20231120
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethane	3.5		361	335		ug/L		92	74 - 131
Ethylene	160		337	493		ug/L		100	72 - 133
Methane (TCD)	16000	J1	192	20300	4	ug/L		2364	73 - 125

Lab Sample ID: 680-243265-7 MSD
Matrix: Water
Analysis Batch: 810949

Client Sample ID: OU6-MW-238-20231120
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ethane	3.5		361	295		ug/L		81	74 - 131	13	30
Ethylene	160		337	436		ug/L		83	72 - 133	12	30

Method: RSK-175 - Dissolved Gases (GC) (Continued)

Lab Sample ID: 680-243265-7 MSD — **Client Sample ID: OU6-MW-238-20231120**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 810949

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Methane (TCD)	16000	J1	192	16400	4	ug/L		296	73 - 125	22	30

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 680-809480/4 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 809480

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.050	U	0.055	0.023	mg/L			11/21/23 10:18	1
Nitrate Nitrite as N	0.050	U	0.055	0.023	mg/L			11/21/23 10:18	1
Nitrite as N	0.050	U	0.055	0.023	mg/L			11/21/23 10:18	1

Lab Sample ID: CCV 680-809480/3 LCS — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 809480

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrate as N	1.00	1.03		mg/L		103	88 - 111
Nitrate Nitrite as N	2.00	2.05		mg/L		102	88 - 111
Nitrite as N	1.00	1.02		mg/L		102	87 - 111

Lab Sample ID: LCS 680-809480/5 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 809480

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrate as N	1.00	1.01		mg/L		101	88 - 111
Nitrate Nitrite as N	2.00	1.98		mg/L		99	88 - 111
Nitrite as N	1.00	0.973		mg/L		97	87 - 111

Lab Sample ID: LCSD 680-809480/6 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 809480

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrate as N	1.00	1.01		mg/L		101	88 - 111	0	15
Nitrate Nitrite as N	2.00	1.98		mg/L		99	88 - 111	0	15
Nitrite as N	1.00	0.972		mg/L		97	87 - 111	0	15

Lab Sample ID: 680-243265-7 MS — **Client Sample ID: OU6-MW-238-20231120**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 809480

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrate as N	0.10	U J1	2.00	1.60	M D J1	mg/L		80	88 - 111
Nitrate Nitrite as N	0.10	U J1	4.00	3.45	D J1	mg/L		86	88 - 111
Nitrite as N	0.10	U	2.00	1.85	D	mg/L		92	87 - 111

Method: 9056A - Anions, Ion Chromatography (Continued)

Lab Sample ID: 680-243265-7 MSD — **Client Sample ID: OU6-MW-238-20231120**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 809480

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrate as N	0.10	U J1	2.00	1.60	M D J1	mg/L		80	88 - 111	0	15
Nitrate Nitrite as N	0.10	U J1	4.00	3.45	D J1	mg/L		86	88 - 111	0	15
Nitrite as N	0.10	U	2.00	1.85	D	mg/L		93	87 - 111	0	15

Lab Sample ID: MB 680-811389/2 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 811389

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.50	U	0.55	0.20	mg/L			12/04/23 11:25	1
Sulfate	1.0	U	1.5	0.40	mg/L			12/04/23 11:25	1

Lab Sample ID: LCS 680-811389/4 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 811389

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	10.0	10.1		mg/L		101	87 - 111
Sulfate	10.0	10.0		mg/L		100	87 - 112

Lab Sample ID: LCSD 680-811389/5 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 811389

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	10.0	10.2		mg/L		102	87 - 111	0	15
Sulfate	10.0	10.0		mg/L		100	87 - 112	0	15

Lab Sample ID: 680-243265-7 MS — **Client Sample ID: OU6-MW-238-20231120**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 811389

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	11		10.0	21.2		mg/L		101	87 - 111
Sulfate	1.0	U J1	10.0	8.52	J1	mg/L		85	87 - 112

Lab Sample ID: 680-243265-7 MSD — **Client Sample ID: OU6-MW-238-20231120**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 811389

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	11		10.0	21.0		mg/L		99	87 - 111	1	15
Sulfate	1.0	U J1	10.0	8.36	J1	mg/L		84	87 - 112	2	15

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 680-809594/1-A
Matrix: Water
Analysis Batch: 809864

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 809594

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	5.0	U	10	2.2	ug/L		11/22/23 06:40	11/22/23 20:15	1

Lab Sample ID: LCS 680-809594/2-A
Matrix: Water
Analysis Batch: 809864

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 809594

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Manganese	400	409		ug/L		102	87 - 115

Lab Sample ID: 680-243265-7 MS
Matrix: Water
Analysis Batch: 809864

Client Sample ID: OU6-MW-238-20231120
Prep Type: Total Recoverable
Prep Batch: 809594

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Manganese	260		400	666		ug/L		102	87 - 115

Lab Sample ID: 680-243265-7 MSD
Matrix: Water
Analysis Batch: 809864

Client Sample ID: OU6-MW-238-20231120
Prep Type: Total Recoverable
Prep Batch: 809594

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Manganese	260		400	687		ug/L		108	87 - 115	3	20

Method: 2320B-2011 - Alkalinity, Total

Lab Sample ID: MB 680-810526/4
Matrix: Water
Analysis Batch: 810526

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	5.0	U	5.5	2.2	mg/L			11/28/23 16:01	1
Bicarbonate Alkalinity as CaCO3	10	U	11	5.0	mg/L			11/28/23 16:01	1
Carbonate Alkalinity as CaCO3	10	U	11	5.0	mg/L			11/28/23 16:01	1

Lab Sample ID: LCS 680-810526/6
Matrix: Water
Analysis Batch: 810526

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity as CaCO3 to pH 4.5	250	245		mg/L		98	90 - 112

Lab Sample ID: LCSD 680-810526/31
Matrix: Water
Analysis Batch: 810526

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5	250	249		mg/L		99	90 - 112	2	30

Method: 2320B-2011 - Alkalinity, Total (Continued)

Lab Sample ID: 680-243265-1 DU
Matrix: Water
Analysis Batch: 810526

Client Sample ID: OU6-MW-244-20231120
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5	14			9.98		mg/L				32	30
Bicarbonate Alkalinity as CaCO3	14			9.98	J	mg/L				32	30
Carbonate Alkalinity as CaCO3	10	U		10	U	mg/L				NC	30

Lab Sample ID: MB 680-810530/4
Matrix: Water
Analysis Batch: 810530

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	5.0	U	5.5	2.2	mg/L			11/28/23 21:44	1
Bicarbonate Alkalinity as CaCO3	10	U	11	5.0	mg/L			11/28/23 21:44	1
Carbonate Alkalinity as CaCO3	10	U	11	5.0	mg/L			11/28/23 21:44	1

Lab Sample ID: LCS 680-810530/6
Matrix: Water
Analysis Batch: 810530

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Alkalinity as CaCO3 to pH 4.5			250	248		mg/L		99	90 - 112		

Lab Sample ID: LCSD 680-810530/31
Matrix: Water
Analysis Batch: 810530

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5			250	250		mg/L		100	90 - 112	1	30

Lab Sample ID: 680-243265-6 DU
Matrix: Water
Analysis Batch: 810530

Client Sample ID: OU6-MW-239-20231120
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5	30			31.4		mg/L				6	30
Bicarbonate Alkalinity as CaCO3	30			31.4		mg/L				6	30
Carbonate Alkalinity as CaCO3	10	U		10	U	mg/L				NC	30

Method: 4500 S2 F-2011 - Sulfide, Total

Lab Sample ID: MB 680-809652/1
Matrix: Water
Analysis Batch: 809652

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	1.0	U	1.0	1.0	mg/L			11/22/23 09:18	1
Sulfide as H2S	1.1	U	1.1	1.1	mg/L			11/22/23 09:18	1

Method: 4500 S2 F-2011 - Sulfide, Total (Continued)

Lab Sample ID: LCS 680-809652/2
Matrix: Water
Analysis Batch: 809652

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfide	10.0	9.04		mg/L		90	75 - 125
Sulfide as H2S	10.6	9.60		mg/L		90	75 - 125

Lab Sample ID: LCSD 680-809652/3
Matrix: Water
Analysis Batch: 809652

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sulfide	10.0	8.71		mg/L		87	75 - 125	4	30
Sulfide as H2S	10.6	9.25		mg/L		87	75 - 125	4	30

Lab Sample ID: 680-243265-7 MS
Matrix: Water
Analysis Batch: 809652

Client Sample ID: OU6-MW-238-20231120
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfide	0.81	U	6.50	7.34		mg/L		113	75 - 125
Sulfide as H2S	0.89	U	6.91	7.80		mg/L		113	75 - 125

Lab Sample ID: 680-243265-7 MSD
Matrix: Water
Analysis Batch: 809652

Client Sample ID: OU6-MW-238-20231120
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sulfide	0.81	U	6.50	8.01		mg/L		123	75 - 125	9	30
Sulfide as H2S	0.89	U	6.91	8.51		mg/L		123	75 - 125	9	30

Method: 9060A - Organic Carbon, Total (TOC)

Lab Sample ID: MB 680-811028/2
Matrix: Water
Analysis Batch: 811028

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	1.0	U	1.0	0.50	mg/L			11/22/23 19:33	1

Lab Sample ID: LCS 680-811028/3
Matrix: Water
Analysis Batch: 811028

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Organic Carbon	20.0	18.9		mg/L		95	80 - 120

Lab Sample ID: LCSD 680-811028/4
Matrix: Water
Analysis Batch: 811028

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Organic Carbon	20.0	19.3		mg/L		97	80 - 120	2	25

Method: 9060A - Organic Carbon, Total (TOC) (Continued)

Lab Sample ID: 680-243265-7 MS
Matrix: Water
Analysis Batch: 811028

Client Sample ID: OU6-MW-238-20231120
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Total Organic Carbon	4.5		20.0	23.9		mg/L		97	80 - 120

Lab Sample ID: 680-243265-7 MSD
Matrix: Water
Analysis Batch: 811028

Client Sample ID: OU6-MW-238-20231120
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Organic Carbon	4.5		20.0	23.9		mg/L		97	80 - 120	0	25

GC/MS VOA

Analysis Batch: 811234

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-243265-2	OU6-MW-242-20231120	Total/NA	Water	8260D	
MB 680-811234/7	Method Blank	Total/NA	Water	8260D	
LCS 680-811234/3	Lab Control Sample	Total/NA	Water	8260D	
LCSD 680-811234/4	Lab Control Sample Dup	Total/NA	Water	8260D	
680-243265-7 MS	OU6-MW-238-20231120	Total/NA	Water	8260D	
680-243265-7 MSD	OU6-MW-238-20231120	Total/NA	Water	8260D	

Analysis Batch: 811293

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-243265-1	OU6-MW-244-20231120	Total/NA	Water	8260D	
680-243265-2	OU6-MW-242-20231120	Total/NA	Water	8260D	
680-243265-3	OU6-MW-243-20231120	Total/NA	Water	8260D	
680-243265-4	OU6-MW-241-20231120	Total/NA	Water	8260D	
680-243265-5	OU6-MW-237-20231120	Total/NA	Water	8260D	
680-243265-6	OU6-MW-239-20231120	Total/NA	Water	8260D	
680-243265-7	OU6-MW-238-20231120	Total/NA	Water	8260D	
680-243265-8	OU6-MW-245-20231120	Total/NA	Water	8260D	
680-243265-9	TRIPBLANK-20231120	Total/NA	Water	8260D	
680-243265-10	DUP-1-20231120	Total/NA	Water	8260D	
MB 680-811293/9	Method Blank	Total/NA	Water	8260D	
LCS 680-811293/4	Lab Control Sample	Total/NA	Water	8260D	
LCSD 680-811293/5	Lab Control Sample Dup	Total/NA	Water	8260D	

Analysis Batch: 811496

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-243265-3 - RADL	OU6-MW-243-20231120	Total/NA	Water	8260D	
MB 680-811496/8	Method Blank	Total/NA	Water	8260D	
LCS 680-811496/4	Lab Control Sample	Total/NA	Water	8260D	
LCSD 680-811496/5	Lab Control Sample Dup	Total/NA	Water	8260D	

GC VOA

Analysis Batch: 810949

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-243265-1	OU6-MW-244-20231120	Total/NA	Water	RSK-175	
680-243265-2	OU6-MW-242-20231120	Total/NA	Water	RSK-175	
680-243265-3	OU6-MW-243-20231120	Total/NA	Water	RSK-175	
680-243265-4	OU6-MW-241-20231120	Total/NA	Water	RSK-175	
680-243265-5	OU6-MW-237-20231120	Total/NA	Water	RSK-175	
680-243265-6	OU6-MW-239-20231120	Total/NA	Water	RSK-175	
680-243265-7	OU6-MW-238-20231120	Total/NA	Water	RSK-175	
680-243265-8	OU6-MW-245-20231120	Total/NA	Water	RSK-175	
680-243265-10	DUP-1-20231120	Total/NA	Water	RSK-175	
MB 680-810949/35	Method Blank	Total/NA	Water	RSK-175	
LCS 680-810949/30	Lab Control Sample	Total/NA	Water	RSK-175	
LCS 680-810949/32	Lab Control Sample	Total/NA	Water	RSK-175	
LCSD 680-810949/31	Lab Control Sample Dup	Total/NA	Water	RSK-175	
LCSD 680-810949/33	Lab Control Sample Dup	Total/NA	Water	RSK-175	
680-243265-7 MS	OU6-MW-238-20231120	Total/NA	Water	RSK-175	
680-243265-7 MSD	OU6-MW-238-20231120	Total/NA	Water	RSK-175	

HPLC/IC

Analysis Batch: 809480

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-243265-1	OU6-MW-244-20231120	Total/NA	Water	9056A	
680-243265-2	OU6-MW-242-20231120	Total/NA	Water	9056A	
680-243265-3	OU6-MW-243-20231120	Total/NA	Water	9056A	
680-243265-4	OU6-MW-241-20231120	Total/NA	Water	9056A	
680-243265-5	OU6-MW-237-20231120	Total/NA	Water	9056A	
680-243265-6	OU6-MW-239-20231120	Total/NA	Water	9056A	
680-243265-7	OU6-MW-238-20231120	Total/NA	Water	9056A	
680-243265-8	OU6-MW-245-20231120	Total/NA	Water	9056A	
680-243265-10	DUP-1-20231120	Total/NA	Water	9056A	
MB 680-809480/4	Method Blank	Total/NA	Water	9056A	
CCV 680-809480/3 LCS	Lab Control Sample	Total/NA	Water	9056A	
LCS 680-809480/5	Lab Control Sample	Total/NA	Water	9056A	
LCSD 680-809480/6	Lab Control Sample Dup	Total/NA	Water	9056A	
680-243265-7 MS	OU6-MW-238-20231120	Total/NA	Water	9056A	
680-243265-7 MSD	OU6-MW-238-20231120	Total/NA	Water	9056A	

Analysis Batch: 811389

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-243265-1	OU6-MW-244-20231120	Total/NA	Water	9056A	
680-243265-2	OU6-MW-242-20231120	Total/NA	Water	9056A	
680-243265-3	OU6-MW-243-20231120	Total/NA	Water	9056A	
680-243265-4	OU6-MW-241-20231120	Total/NA	Water	9056A	
680-243265-5	OU6-MW-237-20231120	Total/NA	Water	9056A	
680-243265-6	OU6-MW-239-20231120	Total/NA	Water	9056A	
680-243265-7	OU6-MW-238-20231120	Total/NA	Water	9056A	
680-243265-8	OU6-MW-245-20231120	Total/NA	Water	9056A	
680-243265-10	DUP-1-20231120	Total/NA	Water	9056A	
MB 680-811389/2	Method Blank	Total/NA	Water	9056A	
LCS 680-811389/4	Lab Control Sample	Total/NA	Water	9056A	
LCSD 680-811389/5	Lab Control Sample Dup	Total/NA	Water	9056A	
680-243265-7 MS	OU6-MW-238-20231120	Total/NA	Water	9056A	
680-243265-7 MSD	OU6-MW-238-20231120	Total/NA	Water	9056A	

Metals

Prep Batch: 809594

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-243265-1	OU6-MW-244-20231120	Total Recoverable	Water	3005A	
680-243265-2	OU6-MW-242-20231120	Total Recoverable	Water	3005A	
680-243265-3	OU6-MW-243-20231120	Total Recoverable	Water	3005A	
680-243265-4	OU6-MW-241-20231120	Total Recoverable	Water	3005A	
680-243265-5	OU6-MW-237-20231120	Total Recoverable	Water	3005A	
680-243265-6	OU6-MW-239-20231120	Total Recoverable	Water	3005A	
680-243265-7	OU6-MW-238-20231120	Total Recoverable	Water	3005A	
680-243265-8	OU6-MW-245-20231120	Total Recoverable	Water	3005A	
680-243265-10	DUP-1-20231120	Total Recoverable	Water	3005A	
MB 680-809594/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 680-809594/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
680-243265-7 MS	OU6-MW-238-20231120	Total Recoverable	Water	3005A	
680-243265-7 MSD	OU6-MW-238-20231120	Total Recoverable	Water	3005A	

QC Association Summary

Client: Meadows CMPG, Inc
Project/Site: OU6 Performance

Job ID: 680-243265-1

Metals

Analysis Batch: 809864

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-243265-1	OU6-MW-244-20231120	Total Recoverable	Water	6020A	809594
680-243265-2	OU6-MW-242-20231120	Total Recoverable	Water	6020A	809594
680-243265-3	OU6-MW-243-20231120	Total Recoverable	Water	6020A	809594
680-243265-4	OU6-MW-241-20231120	Total Recoverable	Water	6020A	809594
680-243265-5	OU6-MW-237-20231120	Total Recoverable	Water	6020A	809594
680-243265-6	OU6-MW-239-20231120	Total Recoverable	Water	6020A	809594
680-243265-7	OU6-MW-238-20231120	Total Recoverable	Water	6020A	809594
680-243265-8	OU6-MW-245-20231120	Total Recoverable	Water	6020A	809594
680-243265-10	DUP-1-20231120	Total Recoverable	Water	6020A	809594
MB 680-809594/1-A	Method Blank	Total Recoverable	Water	6020A	809594
LCS 680-809594/2-A	Lab Control Sample	Total Recoverable	Water	6020A	809594
680-243265-7 MS	OU6-MW-238-20231120	Total Recoverable	Water	6020A	809594
680-243265-7 MSD	OU6-MW-238-20231120	Total Recoverable	Water	6020A	809594

General Chemistry

Analysis Batch: 809652

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-243265-1	OU6-MW-244-20231120	Total/NA	Water	4500 S2 F-2011	
680-243265-2	OU6-MW-242-20231120	Total/NA	Water	4500 S2 F-2011	
680-243265-3	OU6-MW-243-20231120	Total/NA	Water	4500 S2 F-2011	
680-243265-4	OU6-MW-241-20231120	Total/NA	Water	4500 S2 F-2011	
680-243265-5	OU6-MW-237-20231120	Total/NA	Water	4500 S2 F-2011	
680-243265-6	OU6-MW-239-20231120	Total/NA	Water	4500 S2 F-2011	
680-243265-7	OU6-MW-238-20231120	Total/NA	Water	4500 S2 F-2011	
680-243265-8	OU6-MW-245-20231120	Total/NA	Water	4500 S2 F-2011	
680-243265-10	DUP-1-20231120	Total/NA	Water	4500 S2 F-2011	
MB 680-809652/1	Method Blank	Total/NA	Water	4500 S2 F-2011	
LCS 680-809652/2	Lab Control Sample	Total/NA	Water	4500 S2 F-2011	
LCSD 680-809652/3	Lab Control Sample Dup	Total/NA	Water	4500 S2 F-2011	
680-243265-7 MS	OU6-MW-238-20231120	Total/NA	Water	4500 S2 F-2011	
680-243265-7 MSD	OU6-MW-238-20231120	Total/NA	Water	4500 S2 F-2011	

Analysis Batch: 810526

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-243265-1	OU6-MW-244-20231120	Total/NA	Water	2320B-2011	
680-243265-2	OU6-MW-242-20231120	Total/NA	Water	2320B-2011	
680-243265-3	OU6-MW-243-20231120	Total/NA	Water	2320B-2011	
680-243265-4	OU6-MW-241-20231120	Total/NA	Water	2320B-2011	
680-243265-5	OU6-MW-237-20231120	Total/NA	Water	2320B-2011	
680-243265-7	OU6-MW-238-20231120	Total/NA	Water	2320B-2011	
MB 680-810526/4	Method Blank	Total/NA	Water	2320B-2011	
LCS 680-810526/6	Lab Control Sample	Total/NA	Water	2320B-2011	
LCSD 680-810526/31	Lab Control Sample Dup	Total/NA	Water	2320B-2011	
680-243265-1 DU	OU6-MW-244-20231120	Total/NA	Water	2320B-2011	

Analysis Batch: 810530

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-243265-6	OU6-MW-239-20231120	Total/NA	Water	2320B-2011	
680-243265-8	OU6-MW-245-20231120	Total/NA	Water	2320B-2011	
680-243265-10	DUP-1-20231120	Total/NA	Water	2320B-2011	

General Chemistry (Continued)

Analysis Batch: 810530 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 680-810530/4	Method Blank	Total/NA	Water	2320B-2011	
LCS 680-810530/6	Lab Control Sample	Total/NA	Water	2320B-2011	
LCSD 680-810530/31	Lab Control Sample Dup	Total/NA	Water	2320B-2011	
680-243265-6 DU	OU6-MW-239-20231120	Total/NA	Water	2320B-2011	

Analysis Batch: 811028

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-243265-1	OU6-MW-244-20231120	Total/NA	Water	9060A	
680-243265-2	OU6-MW-242-20231120	Total/NA	Water	9060A	
680-243265-3	OU6-MW-243-20231120	Total/NA	Water	9060A	
680-243265-4	OU6-MW-241-20231120	Total/NA	Water	9060A	
680-243265-5	OU6-MW-237-20231120	Total/NA	Water	9060A	
680-243265-6	OU6-MW-239-20231120	Total/NA	Water	9060A	
680-243265-7	OU6-MW-238-20231120	Total/NA	Water	9060A	
680-243265-8	OU6-MW-245-20231120	Total/NA	Water	9060A	
680-243265-10	DUP-1-20231120	Total/NA	Water	9060A	
MB 680-811028/2	Method Blank	Total/NA	Water	9060A	
LCS 680-811028/3	Lab Control Sample	Total/NA	Water	9060A	
LCSD 680-811028/4	Lab Control Sample Dup	Total/NA	Water	9060A	
680-243265-7 MS	OU6-MW-238-20231120	Total/NA	Water	9060A	
680-243265-7 MSD	OU6-MW-238-20231120	Total/NA	Water	9060A	

Lab Chronicle

Client: Meadows CMPG, Inc
Project/Site: OU6 Performance

Job ID: 680-243265-1

Client Sample ID: OU6-MW-244-20231120

Lab Sample ID: 680-243265-1

Date Collected: 11/20/23 13:10

Matrix: Water

Date Received: 11/21/23 10:28

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		2	5 mL	5 mL	811293	12/04/23 18:39	P1C	EET SAV
	Instrument ID: CMSAJ									
Total/NA	Analysis	RSK-175		1	17 mL	17 mL	810949	11/30/23 21:19	OK	EET SAV
	Instrument ID: CVGU									
Total/NA	Analysis	9056A		1	5 mL	5 mL	811389	12/04/23 13:35	UI	EET SAV
	Instrument ID: CICK									
Total/NA	Analysis	9056A		1	5 mL	5 mL	809480	11/21/23 15:44	UI	EET SAV
	Instrument ID: CICP									
Total Recoverable	Prep	3005A			25 mL	125 mL	809594	11/22/23 06:40	RR	EET SAV
Total Recoverable	Analysis	6020A		1			809864	11/22/23 20:44	BJB	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			810526	11/28/23 18:25	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	4500 S2 F-2011		1	280 mL	280 mL	809652	11/22/23 09:18	JAS	EET SAV
	Instrument ID: NoEquip									
Total/NA	Analysis	9060A		1	40 mL	40 mL	811028	11/22/23 20:38	MCH	EET SAV
	Instrument ID: TOC8									

Client Sample ID: OU6-MW-242-20231120

Lab Sample ID: 680-243265-2

Date Collected: 11/20/23 09:35

Matrix: Water

Date Received: 11/21/23 10:28

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		25	5 mL	5 mL	811293	12/04/23 19:00	P1C	EET SAV
	Instrument ID: CMSAJ									
Total/NA	Analysis	8260D		25	5 mL	5 mL	811234	12/03/23 20:53	AA	EET SAV
	Instrument ID: CMSU									
Total/NA	Analysis	RSK-175		1	17 mL	17 mL	810949	11/30/23 21:32	OK	EET SAV
	Instrument ID: CVGU									
Total/NA	Analysis	9056A		1	5 mL	5 mL	811389	12/04/23 13:46	UI	EET SAV
	Instrument ID: CICK									
Total/NA	Analysis	9056A		2	5 mL	5 mL	809480	11/21/23 15:54	UI	EET SAV
	Instrument ID: CICP									
Total Recoverable	Prep	3005A			25 mL	125 mL	809594	11/22/23 06:40	RR	EET SAV
Total Recoverable	Analysis	6020A		1			809864	11/22/23 20:48	BJB	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			810526	11/28/23 19:24	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	4500 S2 F-2011		1	280 mL	280 mL	809652	11/22/23 09:18	JAS	EET SAV
	Instrument ID: NoEquip									
Total/NA	Analysis	9060A		1	40 mL	40 mL	811028	11/22/23 20:58	MCH	EET SAV
	Instrument ID: TOC8									

Lab Chronicle

Client: Meadows CMPG, Inc
Project/Site: OU6 Performance

Job ID: 680-243265-1

Client Sample ID: OU6-MW-243-20231120

Lab Sample ID: 680-243265-3

Date Collected: 11/20/23 12:00
Matrix: Water
Date Received: 11/21/23 10:28

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		100	5 mL	5 mL	811293	12/04/23 20:05	P1C	EET SAV
	Instrument ID: CMSAJ									
Total/NA	Analysis	8260D	RADL	200	5 mL	5 mL	811496	12/05/23 18:54	P1C	EET SAV
	Instrument ID: CMSAJ									
Total/NA	Analysis	RSK-175		1	17 mL	17 mL	810949	11/30/23 21:45	OK	EET SAV
	Instrument ID: CVGU									
Total/NA	Analysis	9056A		1	5 mL	5 mL	811389	12/04/23 13:56	UI	EET SAV
	Instrument ID: CICK									
Total/NA	Analysis	9056A		1	5 mL	5 mL	809480	11/21/23 16:04	UI	EET SAV
	Instrument ID: CICP									
Total Recoverable	Prep	3005A			25 mL	125 mL	809594	11/22/23 06:40	RR	EET SAV
Total Recoverable	Analysis	6020A		1			809864	11/22/23 21:00	BJB	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			810526	11/28/23 19:36	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	4500 S2 F-2011		1	260 mL	260 mL	809652	11/22/23 09:18	JAS	EET SAV
	Instrument ID: NoEquip									
Total/NA	Analysis	9060A		1	40 mL	40 mL	811028	11/22/23 21:16	MCH	EET SAV
	Instrument ID: TOC8									

Client Sample ID: OU6-MW-241-20231120

Lab Sample ID: 680-243265-4

Date Collected: 11/20/23 10:50
Matrix: Water
Date Received: 11/21/23 10:28

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	811293	12/04/23 17:09	P1C	EET SAV
	Instrument ID: CMSAJ									
Total/NA	Analysis	RSK-175		1	17 mL	17 mL	810949	11/30/23 21:58	OK	EET SAV
	Instrument ID: CVGU									
Total/NA	Analysis	9056A		1	5 mL	5 mL	811389	12/04/23 14:07	UI	EET SAV
	Instrument ID: CICK									
Total/NA	Analysis	9056A		2	5 mL	5 mL	809480	11/21/23 16:14	UI	EET SAV
	Instrument ID: CICP									
Total Recoverable	Prep	3005A			25 mL	125 mL	809594	11/22/23 06:40	RR	EET SAV
Total Recoverable	Analysis	6020A		1			809864	11/22/23 21:04	BJB	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			810526	11/28/23 19:44	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	4500 S2 F-2011		1	270 mL	270 mL	809652	11/22/23 09:18	JAS	EET SAV
	Instrument ID: NoEquip									
Total/NA	Analysis	9060A		1	40 mL	40 mL	811028	11/22/23 21:32	MCH	EET SAV
	Instrument ID: TOC8									

Lab Chronicle

Client: Meadows CMPG, Inc
Project/Site: OU6 Performance

Job ID: 680-243265-1

Client Sample ID: OU6-MW-237-20231120

Lab Sample ID: 680-243265-5

Date Collected: 11/20/23 10:15

Matrix: Water

Date Received: 11/21/23 10:28

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	811293	12/04/23 17:35	P1C	EET SAV
	Instrument ID: CMSAJ									
Total/NA	Analysis	RSK-175		1	17 mL	17 mL	810949	11/30/23 22:11	OK	EET SAV
	Instrument ID: CVGU									
Total/NA	Analysis	9056A		1	5 mL	5 mL	811389	12/04/23 14:18	UI	EET SAV
	Instrument ID: CICK									
Total/NA	Analysis	9056A		1	5 mL	5 mL	809480	11/21/23 16:23	UI	EET SAV
	Instrument ID: CICP									
Total Recoverable	Prep	3005A			25 mL	125 mL	809594	11/22/23 06:40	RR	EET SAV
Total Recoverable	Analysis	6020A		1			809864	11/22/23 21:08	BJB	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			810526	11/28/23 19:55	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	4500 S2 F-2011		1	310 mL	310 mL	809652	11/22/23 09:18	JAS	EET SAV
	Instrument ID: NoEquip									
Total/NA	Analysis	9060A		1	40 mL	40 mL	811028	11/22/23 21:51	MCH	EET SAV
	Instrument ID: TOC8									

Client Sample ID: OU6-MW-239-20231120

Lab Sample ID: 680-243265-6

Date Collected: 11/20/23 12:57

Matrix: Water

Date Received: 11/21/23 10:28

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		2	5 mL	5 mL	811293	12/04/23 18:18	P1C	EET SAV
	Instrument ID: CMSAJ									
Total/NA	Analysis	RSK-175		1	17 mL	17 mL	810949	11/30/23 22:24	OK	EET SAV
	Instrument ID: CVGU									
Total/NA	Analysis	9056A		1	5 mL	5 mL	811389	12/04/23 14:28	UI	EET SAV
	Instrument ID: CICK									
Total/NA	Analysis	9056A		1	5 mL	5 mL	809480	11/21/23 16:33	UI	EET SAV
	Instrument ID: CICP									
Total Recoverable	Prep	3005A			25 mL	125 mL	809594	11/22/23 06:40	RR	EET SAV
Total Recoverable	Analysis	6020A		1			809864	11/22/23 21:12	BJB	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			810530	11/28/23 22:09	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	4500 S2 F-2011		1	310 mL	310 mL	809652	11/22/23 09:18	JAS	EET SAV
	Instrument ID: NoEquip									
Total/NA	Analysis	9060A		1	40 mL	40 mL	811028	11/22/23 22:09	MCH	EET SAV
	Instrument ID: TOC8									

Lab Chronicle

Client: Meadows CMPG, Inc
Project/Site: OU6 Performance

Job ID: 680-243265-1

Client Sample ID: OU6-MW-238-20231120

Lab Sample ID: 680-243265-7

Date Collected: 11/20/23 11:25

Matrix: Water

Date Received: 11/21/23 10:28

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		25	5 mL	5 mL	811293	12/04/23 19:22	P1C	EET SAV
	Instrument ID: CMSAJ									
Total/NA	Analysis	RSK-175		1	17 mL	17 mL	810949	11/30/23 22:37	OK	EET SAV
	Instrument ID: CVGU									
Total/NA	Analysis	9056A		1	5 mL	5 mL	811389	12/04/23 15:00	UI	EET SAV
	Instrument ID: CICK									
Total/NA	Analysis	9056A		2	5 mL	5 mL	809480	11/21/23 17:15	UI	EET SAV
	Instrument ID: CICP									
Total Recoverable	Prep	3005A			25 mL	125 mL	809594	11/22/23 06:40	RR	EET SAV
Total Recoverable	Analysis	6020A		1			809864	11/22/23 20:23	BJB	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			810526	11/28/23 20:17	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	4500 S2 F-2011		1	310 mL	310 mL	809652	11/22/23 09:18	JAS	EET SAV
	Instrument ID: NoEquip									
Total/NA	Analysis	9060A		1	40 mL	40 mL	811028	11/22/23 22:27	MCH	EET SAV
	Instrument ID: TOC8									

Client Sample ID: OU6-MW-245-20231120

Lab Sample ID: 680-243265-8

Date Collected: 11/20/23 14:52

Matrix: Water

Date Received: 11/21/23 10:28

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	811293	12/04/23 17:56	P1C	EET SAV
	Instrument ID: CMSAJ									
Total/NA	Analysis	RSK-175		1	17 mL	17 mL	810949	11/30/23 23:15	OK	EET SAV
	Instrument ID: CVGU									
Total/NA	Analysis	9056A		1	5 mL	5 mL	811389	12/04/23 15:32	UI	EET SAV
	Instrument ID: CICK									
Total/NA	Analysis	9056A		2	5 mL	5 mL	809480	11/21/23 17:25	UI	EET SAV
	Instrument ID: CICP									
Total Recoverable	Prep	3005A			25 mL	125 mL	809594	11/22/23 06:40	RR	EET SAV
Total Recoverable	Analysis	6020A		1			809864	11/22/23 21:16	BJB	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			810530	11/28/23 22:37	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	4500 S2 F-2011		1	300 mL	300 mL	809652	11/22/23 09:18	JAS	EET SAV
	Instrument ID: NoEquip									
Total/NA	Analysis	9060A		1	40 mL	40 mL	811028	11/22/23 23:18	MCH	EET SAV
	Instrument ID: TOC8									

Lab Chronicle

Client: Meadows CMPG, Inc
Project/Site: OU6 Performance

Job ID: 680-243265-1

Client Sample ID: TRIPBLANK-20231120

Lab Sample ID: 680-243265-9

Date Collected: 11/20/23 00:00

Matrix: Water

Date Received: 11/21/23 10:28

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	811293	12/04/23 16:26	P1C	EET SAV
	Instrument ID: CMSAJ									

Client Sample ID: DUP-1-20231120

Lab Sample ID: 680-243265-10

Date Collected: 11/20/23 00:00

Matrix: Water

Date Received: 11/21/23 10:28

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		50	5 mL	5 mL	811293	12/04/23 19:43	P1C	EET SAV
	Instrument ID: CMSAJ									
Total/NA	Analysis	RSK-175		1	17 mL	17 mL	810949	11/30/23 23:28	OK	EET SAV
	Instrument ID: CVGU									
Total/NA	Analysis	9056A		1	5 mL	5 mL	811389	12/04/23 15:43	UI	EET SAV
	Instrument ID: CICK									
Total/NA	Analysis	9056A		2	5 mL	5 mL	809480	11/21/23 18:11	UI	EET SAV
	Instrument ID: CICP									
Total Recoverable	Prep	3005A			25 mL	125 mL	809594	11/22/23 06:40	RR	EET SAV
Total Recoverable	Analysis	6020A		1			809864	11/22/23 21:20	BJB	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			810530	11/28/23 22:27	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	4500 S2 F-2011		1	280 mL	280 mL	809652	11/22/23 09:18	JAS	EET SAV
	Instrument ID: NoEquip									
Total/NA	Analysis	9060A		1	40 mL	40 mL	811028	11/22/23 23:54	MCH	EET SAV
	Instrument ID: TOC8									

Laboratory References:

EET SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Accreditation/Certification Summary

Client: Meadows CMPG, Inc
Project/Site: OU6 Performance

Job ID: 680-243265-1

Laboratory: Eurofins Savannah

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
ANAB	Dept. of Defense ELAP	L2463	09-22-24
Virginia	NELAP	460161	06-14-24

Method Summary

Client: Meadows CMPG, Inc
Project/Site: OU6 Performance

Job ID: 680-243265-1

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds (GC/MS)	SW846	EET SAV
RSK-175	Dissolved Gases (GC)	RSK	EET SAV
9056A	Anions, Ion Chromatography	SW846	EET SAV
6020A	Metals (ICP/MS)	SW846	EET SAV
2320B-2011	Alkalinity, Total	SM	EET SAV
4500 S2 F-2011	Sulfide, Total	SM	EET SAV
9060A	Organic Carbon, Total (TOC)	SW846	EET SAV
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET SAV
5030C	Purge and Trap	SW846	EET SAV

Protocol References:

RSK = Sample Prep And Calculations For Dissolved Gas Analysis In Water Samples Using A GC Headspace Equilibration Technique, RSKSOP-175, Rev. 0, 8/11/94, USEPA Research Lab
SM = "Standard Methods For The Examination Of Water And Wastewater"
SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Eurofins Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Phone (912) 354-7858 Phone (912) 352-0165

Chain of Custody Record

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Client Information	Sampler: T. Brown, B. Diggs	Lab PM: Lanier, Jerry	Carrier Tracking No(s):	COC No: 680-14494952555.1
Client Contact: Andrew VanBuesking	Phone: 757-589-5825	E-Mail: Jerry.Lanier@et.eurofinsus.com	State of Origin:	Page: Page 1 of 1
Company: Meadows CMPG	PWSID:			Job #:

Address: 2618 Colley Ave	Due Date Requested:	Analysis Requested	Preservation Codes:
City: Norfolk	TAT Requested (days): Standard		A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
State, Zip: VA, 23517	Compliance Project: Δ Yes Δ No		
Phone:	PO #: 0045-0011		Other:
Email: avanbuesking@meadowscmpg.com	WO #:		
Project Name: OU6 Performance	Project #: 68020891		
Site: Operable Unit 6, DSC Richmond	SSOW#:		

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260D_DOD5 - (MOD) Volatiles	9060A - Local Method - TOC	9056A_OF_28D_D5, 9056A_OF_48H_D5 - Anions	RSK_175_DDO5 - Ethane, Ethene, Methane	2320B - Alkalinity SM4500_CO2_D	SM4500_S2_F - Local Method - Sulfide		6020A_DOD5 - Manganese		8270E_DOD5 - (MOD) Semivolatiles (without PAHs)	8270E_SIM_DDO5- Local Method - PAHs	8081B_8082A - Routine Pesticides & PCBs	6020A_DOD5, 7470A_DOD5 - Metals	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A	S	N	A	N	CB	N	D		N	N	N	D		
OU6-MW-244-20231120	11/20/23	1310	G	W			3	2	1	3	1	2		1						13	
OU6-MW-242-20231120	11/20/23	0935	G	W			3	2	1	3	1	2		1						13	
OU6-MW-243-20231120	11/20/23	1200	G	W			3	2	1	3	1	2		1						13	
OU6-MW-241-20231120	11/20/23	1050	G	W			3	2	1	3	1	2		1						13	
OU6-MW-237-20231120	11/20/23	1015	G	W			3	2	1	3	1	2		1						13	
OU6-MW-239-20231120	11/20/23	1257	G	W			3	2	1	3	1	2		1						13	
OU6-MW-238-20231120	11/20/23	1125	G	W		Y	9	6	3	9	3	6		3						39	MS/MSD
OU6-MW-245-20231120	11/20/23	1452	G	W			3	2	1	3	1	2		1						13	
TRIPBLANK-20231120	11/20/23		G	W			2													2	
DUP-1-20231120	11/20/23		G	W			3	2	1	3	1	2		1						13	

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ■ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed
☐ Return To Client ■ Disposal B

680-243265 Chain of Custody

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by: | Date: | Time: | Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
BRUCE DIGGS	11-20-2023/1600	Meadows	FedEx		
				11.21.23 1028	

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 0.4/0.7 2.9/3.2

Ver: 01/16/2019

Login Sample Receipt Checklist

Client: Meadows CMPG, Inc

Job Number: 680-243265-1

Login Number: 243265
List Number: 1
Creator: Sims, Robert D

List Source: Eurofins Savannah

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

PREPARED FOR

Attn: Kandyce Keller
Meadows CMPG, Inc
2107 Granby Street
Norfolk, Virginia 23517

Generated 12/8/2023 12:34:30 PM

JOB DESCRIPTION

OU6 Monitoring

JOB NUMBER

680-243330-1

Eurofins Savannah
5102 LaRoche Avenue
Savannah GA 31404

See page two for job notes and contact information.

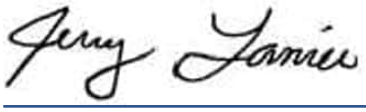
myEOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Southeast, LLC Project Manager.

Authorization



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Authorized for release by
Jerry Lanier, Project Manager I
Jerry.Lanier@et.eurofinsus.com
(912)250-0281

Definitions/Glossary

Client: Meadows CMPG, Inc
Project/Site: OU6 Monitoring

Job ID: 680-243330-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
D	The reported value is from a dilution.
J	Estimated: The analyte was positively identified; the quantitation is an estimation
M	Manual integrated compound.
Q	One or more quality control criteria failed.
U	Undetected at the Limit of Detection.

GC VOA

Qualifier	Qualifier Description
D	The reported value is from a dilution.
J	Estimated: The analyte was positively identified; the quantitation is an estimation
U	Undetected at the Limit of Detection.

HPLC/IC

Qualifier	Qualifier Description
D	The reported value is from a dilution.
J	Estimated: The analyte was positively identified; the quantitation is an estimation
J1	Estimated: The quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.
M	Manual integrated compound.
U	Undetected at the Limit of Detection.

Metals

Qualifier	Qualifier Description
U	Undetected at the Limit of Detection.

General Chemistry

Qualifier	Qualifier Description
D	The reported value is from a dilution.
U	Undetected at the Limit of Detection.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Sample Summary

Client: Meadows CMPG, Inc
Project/Site: OU6 Monitoring

Job ID: 680-243330-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-243330-1	OU6-MW-240-20231121	Water	11/21/23 07:40	11/22/23 10:23
680-243330-2	OU6-MW-246-20231121	Water	11/21/23 10:10	11/22/23 10:23
680-243330-3	OU6-MW-247-20231121	Water	11/21/23 08:50	11/22/23 10:23
680-243330-4	OU6-MW-130-20231121	Water	11/21/23 08:25	11/22/23 10:23
680-243330-5	OU6-MW-129-20231121	Water	11/21/23 09:35	11/22/23 10:23
680-243330-6	OU6-MW-131-20231121	Water	11/21/23 10:33	11/22/23 10:23
680-243330-7	OU6-MW-126-20231121	Water	11/21/23 11:35	11/22/23 10:23
680-243330-8	TRIPBLANK-20231121	Water	11/21/23 00:00	11/22/23 10:23

Job ID: 680-243330-1

Laboratory: Eurofins Savannah

Narrative

Job Narrative
680-243330-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 11/22/2023 10:23 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.2°C

GC/MS VOA
Method 8260D_DOD5: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for analytical batch 680-810968 recovered outside control limits for the following analytes: Trichlorofluoromethane. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 8260D_DOD5: The method blank for analytical batch 680-810968 contained 1,2,4-Trimethylbenzene above the method detection limit (MDL). Associated samples were not re-analyzed because the method blank results were less than the reporting limit (RL) OR practical quantitation limit (PQL).

Method 8260D_DOD5: The following samples were diluted to bring the concentration of target analytes within the calibration range: OU6-MW-240-20231121 (680-243330-1) and OU6-MW-129-20231121 (680-243330-5). Elevated reporting limits (RLs) are provided.

Method 8260D_DOD5: The following samples were diluted to bring the concentration of target analytes within the calibration range: OU6-MW-130-20231121 (680-243330-4), OU6-MW-131-20231121 (680-243330-6) and OU6-MW-126-20231121 (680-243330-7). Elevated reporting limits (RLs) are provided.

Method 8260D_DOD5: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with analytical batch 680-811496.

Method 8260D_DOD5: Surrogate recovery for the following sample was outside the upper control limit: OU6-MW-246-20231121 (680-243330-2). This sample did not contain any detections for the target analytes reported; therefore, re-extraction and/or re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC
Method 9056A_OF_48H_D5: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 680-809700 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Job ID: 680-243330-1 (Continued)

Laboratory: Eurofins Savannah (Continued)

Metals

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry

Method SM4500_S2_F: The method requirement for no headspace was not met. The following samples were analyzed with headspace in the sample container(s): OU6-MW-240-20231121 (680-243330-1), OU6-MW-246-20231121 (680-243330-2), OU6-MW-247-20231121 (680-243330-3), OU6-MW-130-20231121 (680-243330-4), (680-243330-B-1 DU), (680-243330-B-2 MS) and (680-243330-B-2 MSD).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Client Sample ID: OU6-MW-240-20231121
Date Collected: 11/21/23 07:40
Date Received: 11/22/23 10:23

Lab Sample ID: 680-243330-1
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	**150**	**J D**	630	93	ug/L			12/01/23 18:10	25
Benzene	25	U	50	6.8	ug/L			12/01/23 18:10	25
Bromobenzene	13	U	25	6.0	ug/L			12/01/23 18:10	25
Bromochloromethane	25	U	50	8.5	ug/L			12/01/23 18:10	25
Bromodichloromethane	25	U	50	6.3	ug/L			12/01/23 18:10	25
Bromoform	50	U Q	63	15	ug/L			12/01/23 18:10	25
Bromomethane	250	U Q	500	93	ug/L			12/01/23 18:10	25
2-Butanone (MEK)	500	U Q	630	160	ug/L			12/01/23 18:10	25
Carbon disulfide	25	U Q	50	11	ug/L			12/01/23 18:10	25
Carbon tetrachloride	25	U	50	7.5	ug/L			12/01/23 18:10	25
Chlorobenzene	13	U	25	3.8	ug/L			12/01/23 18:10	25
Chloroethane	250	U	500	120	ug/L			12/01/23 18:10	25
Chloroform	25	U	50	6.8	ug/L			12/01/23 18:10	25
Chloromethane	50	U	63	14	ug/L			12/01/23 18:10	25
2-Chlorotoluene	13	U	25	6.3	ug/L			12/01/23 18:10	25
4-Chlorotoluene	25	U	50	10	ug/L			12/01/23 18:10	25
cis-1,2-Dichloroethene	**2100**	**D**	50	6.3	ug/L			12/01/23 18:10	25
cis-1,3-Dichloropropene	25	U	50	6.5	ug/L			12/01/23 18:10	25
Cyclohexane	25	U	50	7.0	ug/L			12/01/23 18:10	25
Dibromochloromethane	25	U	50	9.8	ug/L			12/01/23 18:10	25
1,2-Dibromo-3-Chloropropane	130	U Q	250	45	ug/L			12/01/23 18:10	25
1,2-Dibromoethane	25	U	50	8.3	ug/L			12/01/23 18:10	25
Dibromomethane	25	U	50	8.5	ug/L			12/01/23 18:10	25
1,2-Dichlorobenzene	25	U	50	7.8	ug/L			12/01/23 18:10	25
1,3-Dichlorobenzene	25	U	50	7.8	ug/L			12/01/23 18:10	25
1,4-Dichlorobenzene	25	U	50	7.8	ug/L			12/01/23 18:10	25
Dichlorodifluoromethane	25	U	50	9.0	ug/L			12/01/23 18:10	25
1,1-Dichloroethane	25	U	50	8.3	ug/L			12/01/23 18:10	25
1,2-Dichloroethane	25	U M	50	6.3	ug/L			12/01/23 18:10	25
1,1-Dichloroethene	**12**	**J D**	50	8.3	ug/L			12/05/23 18:11	25
1,2-Dichloroethene, Total	**2100**	**D**	50	9.3	ug/L			12/01/23 18:10	25
1,2-Dichloropropane	13	U	25	5.5	ug/L			12/01/23 18:10	25
1,3-Dichloropropane	25	U	50	9.0	ug/L			12/01/23 18:10	25
2,2-Dichloropropane	25	U	50	8.8	ug/L			12/01/23 18:10	25
1,1-Dichloropropene	25	U	50	7.0	ug/L			12/01/23 18:10	25
Ethylbenzene	13	U	25	5.0	ug/L			12/01/23 18:10	25
Hexachlorobutadiene	25	U	130	5.5	ug/L			12/01/23 18:10	25
2-Hexanone	250	U Q	500	80	ug/L			12/01/23 18:10	25
Isopropylbenzene	25	U	50	6.5	ug/L			12/01/23 18:10	25
4-Isopropyltoluene	25	U	50	11	ug/L			12/01/23 18:10	25
Methyl acetate	250	U	500	80	ug/L			12/01/23 18:10	25
Methylcyclohexane	25	U	50	8.3	ug/L			12/01/23 18:10	25
Methylene Chloride	250	U	500	80	ug/L			12/01/23 18:10	25
4-Methyl-2-pentanone (MIBK)	250	U Q	500	68	ug/L			12/01/23 18:10	25
Methyl tert-butyl ether	50	U	130	20	ug/L			12/01/23 18:10	25
m-Xylene & p-Xylene	25	U	50	12	ug/L			12/01/23 18:10	25
Naphthalene	130	U	250	60	ug/L			12/01/23 18:10	25
n-Butylbenzene	50	U	63	13	ug/L			12/01/23 18:10	25
N-Propylbenzene	25	U	50	10	ug/L			12/01/23 18:10	25

Client Sample ID: OU6-MW-240-20231121
Date Collected: 11/21/23 07:40
Date Received: 11/22/23 10:23

Lab Sample ID: 680-243330-1
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	25	U	50	6.5	ug/L			12/01/23 18:10	25
sec-Butylbenzene	50	U	63	13	ug/L			12/01/23 18:10	25
Styrene	25	U	50	6.8	ug/L			12/01/23 18:10	25
tert-Butylbenzene	25	U	50	11	ug/L			12/01/23 18:10	25
1,1,1,2-Tetrachloroethane	25	U	50	9.0	ug/L			12/01/23 18:10	25
1,1,2,2-Tetrachloroethane	25	U	50	10	ug/L			12/01/23 18:10	25
Tetrachloroethene	**170**	**D**	50	8.8	ug/L			12/01/23 18:10	25
Toluene	25	U	50	6.3	ug/L			12/01/23 18:10	25
trans-1,2-Dichloroethene	25	U	50	8.5	ug/L			12/01/23 18:10	25
trans-1,3-Dichloropropene	25	U	50	5.8	ug/L			12/01/23 18:10	25
1,2,3-Trichlorobenzene	50	U	130	20	ug/L			12/01/23 18:10	25
1,2,4-Trichlorobenzene	50	U	130	13	ug/L			12/01/23 18:10	25
1,1,1-Trichloroethane	13	U	25	5.3	ug/L			12/01/23 18:10	25
1,1,2-Trichloroethane	25	U	50	8.0	ug/L			12/01/23 18:10	25
Trichloroethene	**77**	**D**	25	5.0	ug/L			12/01/23 18:10	25
Trichlorofluoromethane	25	U Q	50	8.3	ug/L			12/01/23 18:10	25
1,2,3-Trichloropropane	25	U	50	12	ug/L			12/01/23 18:10	25
1,1,2-Trichloro-1,2,2-trifluoroethane	13	U	25	5.8	ug/L			12/01/23 18:10	25
1,2,4-Trimethylbenzene	25	U	50	11	ug/L			12/01/23 18:10	25
1,3,5-Trimethylbenzene	25	U	50	7.0	ug/L			12/01/23 18:10	25
Vinyl chloride	**300**	**D**	50	10	ug/L			12/01/23 18:10	25
Xylenes, Total	25	U	50	12	ug/L			12/01/23 18:10	25

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*85 - 114*		*12/01/23 18:10*	*25*
4-Bromofluorobenzene (Surr)	*111*		*85 - 114*		*12/05/23 18:11*	*25*
Dibromofluoromethane (Surr)	*96*		*80 - 119*		*12/01/23 18:10*	*25*
Dibromofluoromethane (Surr)	*98*		*80 - 119*		*12/05/23 18:11*	*25*
1,2-Dichloroethane-d4 (Surr)	*88*		*81 - 118*		*12/01/23 18:10*	*25*
1,2-Dichloroethane-d4 (Surr)	*93*		*81 - 118*		*12/05/23 18:11*	*25*
Toluene-d8 (Surr)	*104*		*89 - 112*		*12/01/23 18:10*	*25*
Toluene-d8 (Surr)	*93*		*89 - 112*		*12/05/23 18:11*	*25*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	0.76	U	1.1	0.30	ug/L			11/30/23 23:41	1
Ethylene	**130**		1.0	0.31	ug/L			11/30/23 23:41	1
Methane (TCD)	**15000**		390	39	ug/L			11/30/23 23:41	1

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**19**		0.55	0.20	mg/L			12/05/23 16:35	1
Nitrate as N	0.10	U	0.11	0.046	mg/L			11/22/23 14:50	2
Nitrate Nitrite as N	0.10	U	0.11	0.046	mg/L			11/22/23 14:50	2
Sulfate	1.0	U	1.5	0.40	mg/L			12/05/23 16:35	1
Nitrite as N	0.10	U	0.11	0.046	mg/L			11/22/23 14:50	2

Method: SW846 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**620**		10	2.2	ug/L		11/26/23 10:02	11/27/23 22:18	1

Client Sample ID: OU6-MW-240-20231121

Lab Sample ID: 680-243330-1

Date Collected: 11/21/23 07:40

Matrix: Water

Date Received: 11/22/23 10:23

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**310**		5.5	2.2	mg/L			11/30/23 19:51	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	**310**		11	5.0	mg/L			11/30/23 19:51	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	10	U	11	5.0	mg/L			11/30/23 19:51	1
Sulfide (SM 4500 S2 F-2011)	0.89	U	0.89	0.89	mg/L			11/27/23 14:06	1
Sulfide as H2S (SM 4500 S2 F-2011)	0.98	U	0.98	0.98	mg/L			11/27/23 14:06	1
Total Organic Carbon (SW846 9060A)	**180**	**D**	2.0	1.0	mg/L			11/28/23 16:01	2

Client Sample ID: OU6-MW-246-20231121

Lab Sample ID: 680-243330-2

Date Collected: 11/21/23 10:10

Matrix: Water

Date Received: 11/22/23 10:23

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			12/05/23 12:49	1
Benzene	1.0	U	2.0	0.27	ug/L			12/05/23 12:49	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			12/05/23 12:49	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			12/05/23 12:49	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			12/05/23 12:49	1
Bromoform	2.0	U	2.5	0.59	ug/L			12/05/23 12:49	1
Bromomethane	10	U	20	3.7	ug/L			12/05/23 12:49	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			12/05/23 12:49	1
Carbon disulfide	1.0	U Q	2.0	0.43	ug/L			12/01/23 15:34	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			12/05/23 12:49	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			12/05/23 12:49	1
Chloroethane	10	U	20	4.6	ug/L			12/05/23 12:49	1
Chloroform	1.0	U	2.0	0.27	ug/L			12/05/23 12:49	1
Chloromethane	2.0	U	2.5	0.54	ug/L			12/05/23 12:49	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			12/05/23 12:49	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			12/05/23 12:49	1
cis-1,2-Dichloroethene	**7.0**		2.0	0.25	ug/L			12/05/23 12:49	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			12/05/23 12:49	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			12/05/23 12:49	1
Dibromochloromethane	1.0	U M	2.0	0.39	ug/L			12/05/23 12:49	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			12/05/23 12:49	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			12/05/23 12:49	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			12/05/23 12:49	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			12/05/23 12:49	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			12/05/23 12:49	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			12/05/23 12:49	1
Dichlorodifluoromethane	1.0	U	2.0	0.36	ug/L			12/05/23 12:49	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			12/05/23 12:49	1
1,2-Dichloroethane	1.0	U	2.0	0.25	ug/L			12/05/23 12:49	1
1,1-Dichloroethene	**0.44**	**J**	2.0	0.33	ug/L			12/05/23 12:49	1
1,2-Dichloroethene, Total	**7.0**		2.0	0.37	ug/L			12/05/23 12:49	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			12/05/23 12:49	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			12/05/23 12:49	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			12/05/23 12:49	1

Client Sample ID: OU6-MW-246-20231121
Date Collected: 11/21/23 10:10
Date Received: 11/22/23 10:23

Lab Sample ID: 680-243330-2
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			12/05/23 12:49	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			12/05/23 12:49	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			12/05/23 12:49	1
2-Hexanone	10	U	20	3.2	ug/L			12/05/23 12:49	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			12/05/23 12:49	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			12/05/23 12:49	1
Methyl acetate	10	U	20	3.2	ug/L			12/05/23 12:49	1
Methylcyclohexane	1.0	U	2.0	0.33	ug/L			12/05/23 12:49	1
Methylene Chloride	10	U	20	3.2	ug/L			12/05/23 12:49	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			12/05/23 12:49	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			12/05/23 12:49	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			12/05/23 12:49	1
Naphthalene	5.0	U	10	2.4	ug/L			12/05/23 12:49	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			12/05/23 12:49	1
N-Propylbenzene	1.0	U M	2.0	0.41	ug/L			12/05/23 12:49	1
o-Xylene	1.0	U	2.0	0.26	ug/L			12/05/23 12:49	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			12/05/23 12:49	1
Styrene	1.0	U M	2.0	0.27	ug/L			12/05/23 12:49	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			12/05/23 12:49	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			12/05/23 12:49	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			12/05/23 12:49	1
Tetrachloroethene	**36**		2.0	0.35	ug/L			12/05/23 12:49	1
Toluene	1.0	U	2.0	0.25	ug/L			12/05/23 12:49	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			12/05/23 12:49	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			12/05/23 12:49	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			12/05/23 12:49	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			12/05/23 12:49	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			12/05/23 12:49	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			12/05/23 12:49	1
Trichloroethene	**9.2**		1.0	0.20	ug/L			12/05/23 12:49	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			12/05/23 12:49	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			12/05/23 12:49	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			12/05/23 12:49	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			12/05/23 12:49	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			12/05/23 12:49	1
Vinyl chloride	**0.69**	**J**	2.0	0.40	ug/L			12/05/23 12:49	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			12/05/23 12:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*114*		*85 - 114*		*12/01/23 15:34*	*1*
4-Bromofluorobenzene (Surr)	*106*		*85 - 114*		*12/05/23 12:49*	*1*
Dibromofluoromethane (Surr)	*103*		*80 - 119*		*12/01/23 15:34*	*1*
Dibromofluoromethane (Surr)	*96*		*80 - 119*		*12/05/23 12:49*	*1*
1,2-Dichloroethane-d4 (Surr)	*92*		*81 - 118*		*12/01/23 15:34*	*1*
1,2-Dichloroethane-d4 (Surr)	*90*		*81 - 118*		*12/05/23 12:49*	*1*
Toluene-d8 (Surr)	*118*	*Q*	*89 - 112*		*12/01/23 15:34*	*1*
Toluene-d8 (Surr)	*95*		*89 - 112*		*12/05/23 12:49*	*1*

Client Sample ID: OU6-MW-246-20231121

Lab Sample ID: 680-243330-2

Date Collected: 11/21/23 10:10

Matrix: Water

Date Received: 11/22/23 10:23

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	**0.39**	**J**	1.1	0.30	ug/L			12/04/23 18:18	1
Ethylene	**2.1**		1.0	0.31	ug/L			12/04/23 18:18	1
Methane (TCD)	**5600**		390	39	ug/L			12/04/23 18:18	1

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**8.8**		0.55	0.20	mg/L			12/05/23 17:07	1
Nitrate as N	**1.2**	**D**	0.11	0.046	mg/L			11/22/23 15:00	2
Nitrate Nitrite as N	**1.3**	**D**	0.11	0.046	mg/L			11/22/23 15:00	2
Sulfate	**2.0**		1.5	0.40	mg/L			12/05/23 17:07	1
Nitrite as N	**0.058**	**J D**	0.11	0.046	mg/L			11/22/23 15:00	2

Method: SW846 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**29**		10	2.2	ug/L		11/26/23 10:02	11/27/23 22:22	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**40**		5.5	2.2	mg/L			11/30/23 20:09	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	**40**		11	5.0	mg/L			11/30/23 20:09	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	10	U	11	5.0	mg/L			11/30/23 20:09	1
Sulfide (SM 4500 S2 F-2011)	0.89	U	0.89	0.89	mg/L			11/27/23 14:06	1
Sulfide as H2S (SM 4500 S2 F-2011)	0.98	U	0.98	0.98	mg/L			11/27/23 14:06	1
Total Organic Carbon (SW846 9060A)	**1.8**		1.0	0.50	mg/L			11/23/23 01:03	1

Client Sample ID: OU6-MW-247-20231121

Lab Sample ID: 680-243330-3

Date Collected: 11/21/23 08:50

Matrix: Water

Date Received: 11/22/23 10:23

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	**600**		25	3.7	ug/L			12/05/23 13:11	1
Benzene	1.0	U	2.0	0.27	ug/L			12/05/23 13:11	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			12/05/23 13:11	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			12/05/23 13:11	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			12/05/23 13:11	1
Bromoform	2.0	U	2.5	0.59	ug/L			12/05/23 13:11	1
Bromomethane	10	U	20	3.7	ug/L			12/05/23 13:11	1
2-Butanone (MEK)	**450**		25	6.4	ug/L			12/05/23 13:11	1
Carbon disulfide	**1.4**	**J Q**	2.0	0.43	ug/L			12/05/23 13:11	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			12/05/23 13:11	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			12/05/23 13:11	1
Chloroethane	10	U	20	4.6	ug/L			12/05/23 13:11	1
Chloroform	1.0	U	2.0	0.27	ug/L			12/05/23 13:11	1
Chloromethane	2.0	U	2.5	0.54	ug/L			12/05/23 13:11	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			12/05/23 13:11	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			12/05/23 13:11	1
cis-1,2-Dichloroethene	**31**		2.0	0.25	ug/L			12/05/23 13:11	1

Client Sample ID: OU6-MW-247-20231121
Date Collected: 11/21/23 08:50
Date Received: 11/22/23 10:23

Lab Sample ID: 680-243330-3
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			12/05/23 13:11	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			12/05/23 13:11	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			12/05/23 13:11	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			12/05/23 13:11	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			12/05/23 13:11	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			12/05/23 13:11	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			12/05/23 13:11	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			12/05/23 13:11	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			12/05/23 13:11	1
Dichlorodifluoromethane	1.0	U	2.0	0.36	ug/L			12/05/23 13:11	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			12/05/23 13:11	1
1,2-Dichloroethane	1.0	U	2.0	0.25	ug/L			12/05/23 13:11	1
1,1-Dichloroethene	1.0	U M	2.0	0.33	ug/L			12/05/23 13:11	1
1,2-Dichloroethene, Total	**31**		2.0	0.37	ug/L			12/05/23 13:11	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			12/05/23 13:11	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			12/05/23 13:11	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			12/05/23 13:11	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			12/05/23 13:11	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			12/05/23 13:11	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			12/05/23 13:11	1
2-Hexanone	**19**	**J**	20	3.2	ug/L			12/05/23 13:11	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			12/05/23 13:11	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			12/05/23 13:11	1
Methyl acetate	10	U	20	3.2	ug/L			12/05/23 13:11	1
Methylcyclohexane	1.0	U	2.0	0.33	ug/L			12/05/23 13:11	1
Methylene Chloride	10	U	20	3.2	ug/L			12/05/23 13:11	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			12/05/23 13:11	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			12/05/23 13:11	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			12/05/23 13:11	1
Naphthalene	5.0	U	10	2.4	ug/L			12/05/23 13:11	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			12/05/23 13:11	1
N-Propylbenzene	1.0	U M	2.0	0.41	ug/L			12/05/23 13:11	1
o-Xylene	1.0	U	2.0	0.26	ug/L			12/05/23 13:11	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			12/05/23 13:11	1
Styrene	1.0	U M	2.0	0.27	ug/L			12/05/23 13:11	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			12/05/23 13:11	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			12/05/23 13:11	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			12/05/23 13:11	1
Tetrachloroethene	**41**		2.0	0.35	ug/L			12/05/23 13:11	1
Toluene	1.0	U	2.0	0.25	ug/L			12/05/23 13:11	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			12/05/23 13:11	1
trans-1,3-Dichloropropene	1.0	U M	2.0	0.23	ug/L			12/05/23 13:11	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			12/05/23 13:11	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			12/05/23 13:11	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			12/05/23 13:11	1
1,1,2-Trichloroethane	1.0	U M	2.0	0.32	ug/L			12/05/23 13:11	1
Trichloroethene	**13**		1.0	0.20	ug/L			12/05/23 13:11	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			12/05/23 13:11	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			12/05/23 13:11	1

Client Sample ID: OU6-MW-247-20231121

Lab Sample ID: 680-243330-3

Date Collected: 11/21/23 08:50

Matrix: Water

Date Received: 11/22/23 10:23

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			12/05/23 13:11	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			12/05/23 13:11	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			12/05/23 13:11	1
Vinyl chloride	**2.3**		2.0	0.40	ug/L			12/05/23 13:11	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			12/05/23 13:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*85 - 114*		*12/05/23 13:11*	*1*
Dibromofluoromethane (Surr)	*94*		*80 - 119*		*12/05/23 13:11*	*1*
1,2-Dichloroethane-d4 (Surr)	*95*		*81 - 118*		*12/05/23 13:11*	*1*
Toluene-d8 (Surr)	*96*		*89 - 112*		*12/05/23 13:11*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	0.76	U	1.1	0.30	ug/L			12/04/23 18:31	1
Ethylene	**3.8**		1.0	0.31	ug/L			12/04/23 18:31	1
Methane (TCD)	**14000**		390	39	ug/L			12/04/23 18:31	1

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**11**		0.55	0.20	mg/L			12/05/23 17:18	1
Nitrate as N	0.10	U	0.11	0.046	mg/L			11/22/23 15:09	2
Nitrate Nitrite as N	0.10	U	0.11	0.046	mg/L			11/22/23 15:09	2
Sulfate	**1.2**	**J**	1.5	0.40	mg/L			12/05/23 17:18	1
Nitrite as N	0.10	U	0.11	0.046	mg/L			11/22/23 15:09	2

Method: SW846 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**300**		10	2.2	ug/L		11/26/23 10:02	11/27/23 22:26	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**730**		5.5	2.2	mg/L			11/30/23 19:29	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	**730**		11	5.0	mg/L			11/30/23 19:29	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	10	U	11	5.0	mg/L			11/30/23 19:29	1
Sulfide (SM 4500 S2 F-2011)	0.89	U	0.89	0.89	mg/L			11/27/23 14:06	1
Sulfide as H2S (SM 4500 S2 F-2011)	0.98	U	0.98	0.98	mg/L			11/27/23 14:06	1
Total Organic Carbon (SW846 9060A)	**1300**	**D**	20	10	mg/L			11/28/23 16:20	20

Client Sample ID: OU6-MW-130-20231121

Lab Sample ID: 680-243330-4

Date Collected: 11/21/23 08:25

Matrix: Water

Date Received: 11/22/23 10:23

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	20	U	50	7.4	ug/L			12/05/23 16:02	2
Benzene	2.0	U	4.0	0.54	ug/L			12/05/23 16:02	2
Bromobenzene	1.0	U	2.0	0.48	ug/L			12/05/23 16:02	2

Client Sample ID: OU6-MW-130-20231121
Date Collected: 11/21/23 08:25
Date Received: 11/22/23 10:23

Lab Sample ID: 680-243330-4
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Bromochloromethane	2.0	U	4.0	0.68	ug/L			12/05/23 16:02	2
Bromodichloromethane	2.0	U	4.0	0.50	ug/L			12/05/23 16:02	2
Bromoform	4.0	U	5.0	1.2	ug/L			12/05/23 16:02	2
Bromomethane	20	U	40	7.4	ug/L			12/05/23 16:02	2
2-Butanone (MEK)	40	U	50	13	ug/L			12/05/23 16:02	2
Carbon disulfide	2.0	U Q	4.0	0.86	ug/L			12/05/23 16:02	2
Carbon tetrachloride	2.0	U	4.0	0.60	ug/L			12/05/23 16:02	2
Chlorobenzene	1.0	U	2.0	0.30	ug/L			12/05/23 16:02	2
Chloroethane	20	U	40	9.2	ug/L			12/05/23 16:02	2
Chloroform	2.0	U	4.0	0.54	ug/L			12/05/23 16:02	2
Chloromethane	4.0	U	5.0	1.1	ug/L			12/05/23 16:02	2
2-Chlorotoluene	1.0	U	2.0	0.50	ug/L			12/05/23 16:02	2
4-Chlorotoluene	2.0	U	4.0	0.82	ug/L			12/05/23 16:02	2
cis-1,2-Dichloroethene	**190**	**D**	4.0	0.50	ug/L			12/05/23 16:02	2
cis-1,3-Dichloropropene	2.0	U	4.0	0.52	ug/L			12/05/23 16:02	2
Cyclohexane	2.0	U	4.0	0.56	ug/L			12/05/23 16:02	2
Dibromochloromethane	2.0	U	4.0	0.78	ug/L			12/05/23 16:02	2
1,2-Dibromo-3-Chloropropane	10	U	20	3.6	ug/L			12/05/23 16:02	2
1,2-Dibromoethane	2.0	U	4.0	0.66	ug/L			12/05/23 16:02	2
Dibromomethane	2.0	U	4.0	0.68	ug/L			12/05/23 16:02	2
1,2-Dichlorobenzene	2.0	U	4.0	0.62	ug/L			12/05/23 16:02	2
1,3-Dichlorobenzene	2.0	U	4.0	0.62	ug/L			12/05/23 16:02	2
1,4-Dichlorobenzene	2.0	U	4.0	0.62	ug/L			12/05/23 16:02	2
Dichlorodifluoromethane	2.0	U	4.0	0.72	ug/L			12/05/23 16:02	2
1,1-Dichloroethane	2.0	U	4.0	0.66	ug/L			12/05/23 16:02	2
1,2-Dichloroethane	2.0	U	4.0	0.50	ug/L			12/05/23 16:02	2
1,1-Dichloroethene	**0.97**	**J D**	4.0	0.66	ug/L			12/05/23 16:02	2
1,2-Dichloroethene, Total	**190**	**D**	4.0	0.74	ug/L			12/05/23 16:02	2
1,2-Dichloropropane	1.0	U	2.0	0.44	ug/L			12/05/23 16:02	2
1,3-Dichloropropane	2.0	U	4.0	0.72	ug/L			12/05/23 16:02	2
2,2-Dichloropropane	2.0	U	4.0	0.70	ug/L			12/05/23 16:02	2
1,1-Dichloropropene	2.0	U	4.0	0.56	ug/L			12/05/23 16:02	2
Ethylbenzene	1.0	U	2.0	0.40	ug/L			12/05/23 16:02	2
Hexachlorobutadiene	2.0	U	10	0.44	ug/L			12/05/23 16:02	2
2-Hexanone	20	U	40	6.4	ug/L			12/05/23 16:02	2
Isopropylbenzene	2.0	U	4.0	0.52	ug/L			12/05/23 16:02	2
4-Isopropyltoluene	2.0	U	4.0	0.88	ug/L			12/05/23 16:02	2
Methyl acetate	20	U	40	6.4	ug/L			12/05/23 16:02	2
Methylcyclohexane	2.0	U M	4.0	0.66	ug/L			12/05/23 16:02	2
Methylene Chloride	20	U	40	6.4	ug/L			12/05/23 16:02	2
4-Methyl-2-pentanone (MIBK)	20	U	40	5.4	ug/L			12/05/23 16:02	2
Methyl tert-butyl ether	4.0	U	10	1.6	ug/L			12/05/23 16:02	2
m-Xylene & p-Xylene	2.0	U	4.0	0.98	ug/L			12/05/23 16:02	2
Naphthalene	10	U	20	4.8	ug/L			12/05/23 16:02	2
n-Butylbenzene	4.0	U	5.0	1.0	ug/L			12/05/23 16:02	2
N-Propylbenzene	2.0	U M	4.0	0.82	ug/L			12/05/23 16:02	2
o-Xylene	2.0	U	4.0	0.52	ug/L			12/05/23 16:02	2
sec-Butylbenzene	4.0	U	5.0	1.1	ug/L			12/05/23 16:02	2
Styrene	2.0	U	4.0	0.54	ug/L			12/05/23 16:02	2

Client Sample ID: OU6-MW-130-20231121
Date Collected: 11/21/23 08:25
Date Received: 11/22/23 10:23

Lab Sample ID: 680-243330-4
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
tert-Butylbenzene	2.0	U	4.0	0.86	ug/L			12/05/23 16:02	2
1,1,1,2-Tetrachloroethane	2.0	U	4.0	0.72	ug/L			12/05/23 16:02	2
1,1,2,2-Tetrachloroethane	2.0	U	4.0	0.80	ug/L			12/05/23 16:02	2
Tetrachloroethene	**86**	**D**	4.0	0.70	ug/L			12/05/23 16:02	2
Toluene	2.0	U	4.0	0.50	ug/L			12/05/23 16:02	2
trans-1,2-Dichloroethene	**1.5**	**J D M**	4.0	0.68	ug/L			12/05/23 16:02	2
trans-1,3-Dichloropropene	2.0	U M	4.0	0.46	ug/L			12/05/23 16:02	2
1,2,3-Trichlorobenzene	4.0	U	10	1.6	ug/L			12/05/23 16:02	2
1,2,4-Trichlorobenzene	4.0	U	10	1.1	ug/L			12/05/23 16:02	2
1,1,1-Trichloroethane	1.0	U	2.0	0.42	ug/L			12/05/23 16:02	2
1,1,2-Trichloroethane	2.0	U	4.0	0.64	ug/L			12/05/23 16:02	2
Trichloroethene	**60**	**D**	2.0	0.40	ug/L			12/05/23 16:02	2
Trichlorofluoromethane	2.0	U	4.0	0.66	ug/L			12/05/23 16:02	2
1,2,3-Trichloropropane	2.0	U	4.0	0.96	ug/L			12/05/23 16:02	2
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	2.0	0.46	ug/L			12/05/23 16:02	2
1,2,4-Trimethylbenzene	2.0	U	4.0	0.86	ug/L			12/05/23 16:02	2
1,3,5-Trimethylbenzene	2.0	U	4.0	0.56	ug/L			12/05/23 16:02	2
Vinyl chloride	**13**	**D**	4.0	0.80	ug/L			12/05/23 16:02	2
Xylenes, Total	2.0	U	4.0	0.98	ug/L			12/05/23 16:02	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*85 - 114*		*12/05/23 16:02*	*2*
Dibromofluoromethane (Surr)	*98*		*80 - 119*		*12/05/23 16:02*	*2*
1,2-Dichloroethane-d4 (Surr)	*94*		*81 - 118*		*12/05/23 16:02*	*2*
Toluene-d8 (Surr)	*95*		*89 - 112*		*12/05/23 16:02*	*2*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	0.76	U	1.1	0.30	ug/L			12/04/23 18:44	1
Ethylene	**2.9**		1.0	0.31	ug/L			12/04/23 18:44	1
Methane (TCD)	**1400**		390	39	ug/L			12/04/23 18:44	1

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**10**		0.55	0.20	mg/L			12/05/23 17:28	1
Nitrate as N	0.050	U J1	0.055	0.023	mg/L			11/22/23 15:19	1
Nitrate Nitrite as N	0.050	U	0.055	0.023	mg/L			11/22/23 15:19	1
Sulfate	**0.59**	**J**	1.5	0.40	mg/L			12/05/23 17:28	1
Nitrite as N	0.050	U J1	0.055	0.023	mg/L			11/22/23 15:19	1

Method: SW846 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**180**		10	2.2	ug/L		11/26/23 10:02	11/27/23 22:30	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**150**		5.5	2.2	mg/L			12/01/23 03:16	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	**150**		11	5.0	mg/L			12/01/23 03:16	1

Client Sample ID: OU6-MW-130-20231121

Lab Sample ID: 680-243330-4

Date Collected: 11/21/23 08:25

Matrix: Water

Date Received: 11/22/23 10:23

General Chemistry (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	10	U	11	5.0	mg/L			12/01/23 03:16	1
Sulfide (SM 4500 S2 F-2011)	0.89	U	0.89	0.89	mg/L			11/27/23 14:06	1
Sulfide as H2S (SM 4500 S2 F-2011)	0.98	U	0.98	0.98	mg/L			11/27/23 14:06	1
Total Organic Carbon (SW846 9060A)	**6.6**		1.0	0.50	mg/L			11/23/23 01:45	1

Client Sample ID: OU6-MW-129-20231121

Lab Sample ID: 680-243330-5

Date Collected: 11/21/23 09:35

Matrix: Water

Date Received: 11/22/23 10:23

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	1000	U	2500	370	ug/L			12/01/23 17:27	100
Benzene	100	U	200	27	ug/L			12/01/23 17:27	100
Bromobenzene	50	U	100	24	ug/L			12/01/23 17:27	100
Bromochloromethane	100	U	200	34	ug/L			12/01/23 17:27	100
Bromodichloromethane	100	U	200	25	ug/L			12/01/23 17:27	100
Bromoform	200	U Q	250	59	ug/L			12/01/23 17:27	100
Bromomethane	1000	U Q	2000	370	ug/L			12/01/23 17:27	100
2-Butanone (MEK)	2000	U Q	2500	640	ug/L			12/01/23 17:27	100
Carbon disulfide	100	U Q	200	43	ug/L			12/01/23 17:27	100
Carbon tetrachloride	100	U	200	30	ug/L			12/01/23 17:27	100
Chlorobenzene	50	U	100	15	ug/L			12/01/23 17:27	100
Chloroethane	1000	U	2000	460	ug/L			12/01/23 17:27	100
Chloroform	100	U	200	27	ug/L			12/01/23 17:27	100
Chloromethane	200	U	250	54	ug/L			12/01/23 17:27	100
2-Chlorotoluene	50	U	100	25	ug/L			12/01/23 17:27	100
4-Chlorotoluene	100	U	200	41	ug/L			12/01/23 17:27	100
cis-1,3-Dichloropropene	100	U	200	26	ug/L			12/01/23 17:27	100
Cyclohexane	100	U	200	28	ug/L			12/01/23 17:27	100
Dibromochloromethane	100	U	200	39	ug/L			12/01/23 17:27	100
1,2-Dibromo-3-Chloropropane	500	U Q	1000	180	ug/L			12/01/23 17:27	100
1,2-Dibromoethane	100	U	200	33	ug/L			12/01/23 17:27	100
Dibromomethane	100	U	200	34	ug/L			12/01/23 17:27	100
1,2-Dichlorobenzene	100	U	200	31	ug/L			12/01/23 17:27	100
1,3-Dichlorobenzene	100	U	200	31	ug/L			12/01/23 17:27	100
1,4-Dichlorobenzene	100	U	200	31	ug/L			12/01/23 17:27	100
Dichlorodifluoromethane	100	U	200	36	ug/L			12/01/23 17:27	100
1,1-Dichloroethane	100	U	200	33	ug/L			12/01/23 17:27	100
1,2-Dichloroethane	100	U M	200	25	ug/L			12/01/23 17:27	100
1,2-Dichloropropane	50	U	100	22	ug/L			12/01/23 17:27	100
1,3-Dichloropropane	100	U	200	36	ug/L			12/01/23 17:27	100
2,2-Dichloropropane	100	U	200	35	ug/L			12/01/23 17:27	100
1,1-Dichloropropene	100	U	200	28	ug/L			12/01/23 17:27	100
Ethylbenzene	50	U	100	20	ug/L			12/01/23 17:27	100
Hexachlorobutadiene	100	U	500	22	ug/L			12/01/23 17:27	100
2-Hexanone	1000	U Q	2000	320	ug/L			12/01/23 17:27	100
Isopropylbenzene	100	U	200	26	ug/L			12/01/23 17:27	100
4-Isopropyltoluene	100	U	200	44	ug/L			12/01/23 17:27	100

Client Sample ID: OU6-MW-129-20231121
Date Collected: 11/21/23 09:35
Date Received: 11/22/23 10:23

Lab Sample ID: 680-243330-5
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl acetate	1000	U	2000	320	ug/L			12/01/23 17:27	100
Methylcyclohexane	100	U	200	33	ug/L			12/01/23 17:27	100
Methylene Chloride	1000	U	2000	320	ug/L			12/01/23 17:27	100
4-Methyl-2-pentanone (MIBK)	1000	U Q	2000	270	ug/L			12/01/23 17:27	100
Methyl tert-butyl ether	200	U	500	81	ug/L			12/01/23 17:27	100
m-Xylene & p-Xylene	100	U	200	49	ug/L			12/01/23 17:27	100
Naphthalene	500	U	1000	240	ug/L			12/01/23 17:27	100
n-Butylbenzene	200	U	250	52	ug/L			12/01/23 17:27	100
N-Propylbenzene	100	U	200	41	ug/L			12/01/23 17:27	100
o-Xylene	100	U	200	26	ug/L			12/01/23 17:27	100
sec-Butylbenzene	200	U	250	53	ug/L			12/01/23 17:27	100
Styrene	100	U	200	27	ug/L			12/01/23 17:27	100
tert-Butylbenzene	100	U	200	43	ug/L			12/01/23 17:27	100
1,1,1,2-Tetrachloroethane	100	U	200	36	ug/L			12/01/23 17:27	100
1,1,2,2-Tetrachloroethane	100	U	200	40	ug/L			12/01/23 17:27	100
Tetrachloroethene	**6900**	**D**	200	35	ug/L			12/01/23 17:27	100
Toluene	100	U	200	25	ug/L			12/01/23 17:27	100
trans-1,2-Dichloroethene	**79**	**J D**	200	34	ug/L			12/01/23 17:27	100
trans-1,3-Dichloropropene	100	U	200	23	ug/L			12/01/23 17:27	100
1,2,3-Trichlorobenzene	200	U	500	81	ug/L			12/01/23 17:27	100
1,2,4-Trichlorobenzene	200	U	500	53	ug/L			12/01/23 17:27	100
1,1,1-Trichloroethane	50	U	100	21	ug/L			12/01/23 17:27	100
1,1,2-Trichloroethane	100	U M	200	32	ug/L			12/01/23 17:27	100
Trichloroethene	**6200**	**D**	100	20	ug/L			12/01/23 17:27	100
Trichlorofluoromethane	100	U Q	200	33	ug/L			12/01/23 17:27	100
1,2,3-Trichloropropane	100	U	200	48	ug/L			12/01/23 17:27	100
1,1,2-Trichloro-1,2,2-trifluoroethane	**370**	**D**	100	23	ug/L			12/01/23 17:27	100
1,2,4-Trimethylbenzene	100	U	200	43	ug/L			12/01/23 17:27	100
1,3,5-Trimethylbenzene	100	U	200	28	ug/L			12/01/23 17:27	100
Vinyl chloride	**950**	**D**	200	40	ug/L			12/01/23 17:27	100
Xylenes, Total	100	U	200	49	ug/L			12/01/23 17:27	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*85 - 114*		*12/01/23 17:27*	*100*
Dibromofluoromethane (Surr)	*99*		*80 - 119*		*12/01/23 17:27*	*100*
1,2-Dichloroethane-d4 (Surr)	*95*		*81 - 118*		*12/01/23 17:27*	*100*
Toluene-d8 (Surr)	*103*		*89 - 112*		*12/01/23 17:27*	*100*

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	**33000**	**D**	500	63	ug/L			12/05/23 18:33	250
1,1-Dichloroethene	250	U	500	83	ug/L			12/05/23 18:33	250
1,2-Dichloroethene, Total	**33000**	**D**	500	93	ug/L			12/05/23 18:33	250

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*85 - 114*		*12/05/23 18:33*	*250*
Dibromofluoromethane (Surr)	*95*		*80 - 119*		*12/05/23 18:33*	*250*
1,2-Dichloroethane-d4 (Surr)	*93*		*81 - 118*		*12/05/23 18:33*	*250*
Toluene-d8 (Surr)	*95*		*89 - 112*		*12/05/23 18:33*	*250*

Client Sample ID: OU6-MW-129-20231121

Lab Sample ID: 680-243330-5

Date Collected: 11/21/23 09:35

Matrix: Water

Date Received: 11/22/23 10:23

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	0.76	U	1.1	0.30	ug/L			12/04/23 18:57	1
Ethylene	**740**	**D**	10	3.1	ug/L			12/05/23 16:37	10
Methane (TCD)	**7900**		390	39	ug/L			12/04/23 18:57	1

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**34**		0.55	0.20	mg/L			12/05/23 17:39	1
Nitrate as N	0.10	U	0.11	0.046	mg/L			11/22/23 15:48	2
Nitrate Nitrite as N	0.10	U	0.11	0.046	mg/L			11/22/23 15:48	2
Sulfate	**1.3**	**J**	1.5	0.40	mg/L			12/05/23 17:39	1
Nitrite as N	0.10	U	0.11	0.046	mg/L			11/22/23 15:48	2

Method: SW846 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**260**		10	2.2	ug/L		11/26/23 10:02	11/27/23 22:35	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**200**		5.5	2.2	mg/L			11/30/23 19:02	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	**200**		11	5.0	mg/L			11/30/23 19:02	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	10	U	11	5.0	mg/L			11/30/23 19:02	1
Sulfide (SM 4500 S2 F-2011)	0.81	U	0.81	0.81	mg/L			11/27/23 14:06	1
Sulfide as H2S (SM 4500 S2 F-2011)	0.89	U	0.89	0.89	mg/L			11/27/23 14:06	1
Total Organic Carbon (SW846 9060A)	**16**		1.0	0.50	mg/L			11/23/23 02:03	1

Client Sample ID: OU6-MW-131-20231121

Lab Sample ID: 680-243330-6

Date Collected: 11/21/23 10:33

Matrix: Water

Date Received: 11/22/23 10:23

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	100	U	250	37	ug/L			12/05/23 17:29	10
Benzene	10	U	20	2.7	ug/L			12/05/23 17:29	10
Bromobenzene	5.0	U	10	2.4	ug/L			12/05/23 17:29	10
Bromochloromethane	10	U	20	3.4	ug/L			12/05/23 17:29	10
Bromodichloromethane	10	U	20	2.5	ug/L			12/05/23 17:29	10
Bromoform	20	U	25	5.9	ug/L			12/05/23 17:29	10
Bromomethane	100	U	200	37	ug/L			12/05/23 17:29	10
2-Butanone (MEK)	200	U	250	64	ug/L			12/05/23 17:29	10
Carbon disulfide	10	U Q	20	4.3	ug/L			12/05/23 17:29	10
Carbon tetrachloride	10	U	20	3.0	ug/L			12/05/23 17:29	10
Chlorobenzene	5.0	U	10	1.5	ug/L			12/05/23 17:29	10
Chloroethane	100	U	200	46	ug/L			12/05/23 17:29	10
Chloroform	**4.5**	**J D**	20	2.7	ug/L			12/05/23 17:29	10
Chloromethane	20	U	25	5.4	ug/L			12/05/23 17:29	10
2-Chlorotoluene	5.0	U	10	2.5	ug/L			12/05/23 17:29	10
4-Chlorotoluene	10	U	20	4.1	ug/L			12/05/23 17:29	10
cis-1,2-Dichloroethene	**760**	**D**	20	2.5	ug/L			12/05/23 17:29	10

Client Sample ID: OU6-MW-131-20231121
Date Collected: 11/21/23 10:33
Date Received: 11/22/23 10:23

Lab Sample ID: 680-243330-6
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,3-Dichloropropene	10	U	20	2.6	ug/L			12/05/23 17:29	10
Cyclohexane	10	U	20	2.8	ug/L			12/05/23 17:29	10
Dibromochloromethane	10	U	20	3.9	ug/L			12/05/23 17:29	10
1,2-Dibromo-3-Chloropropane	50	U	100	18	ug/L			12/05/23 17:29	10
1,2-Dibromoethane	10	U	20	3.3	ug/L			12/05/23 17:29	10
Dibromomethane	10	U	20	3.4	ug/L			12/05/23 17:29	10
1,2-Dichlorobenzene	10	U	20	3.1	ug/L			12/05/23 17:29	10
1,3-Dichlorobenzene	10	U	20	3.1	ug/L			12/05/23 17:29	10
1,4-Dichlorobenzene	10	U	20	3.1	ug/L			12/05/23 17:29	10
Dichlorodifluoromethane	10	U	20	3.6	ug/L			12/05/23 17:29	10
1,1-Dichloroethane	10	U	20	3.3	ug/L			12/05/23 17:29	10
1,2-Dichloroethane	10	U	20	2.5	ug/L			12/05/23 17:29	10
1,1-Dichloroethene	**3.4**	**J D M**	20	3.3	ug/L			12/05/23 17:29	10
1,2-Dichloroethene, Total	**760**	**D**	20	3.7	ug/L			12/05/23 17:29	10
1,2-Dichloropropane	5.0	U	10	2.2	ug/L			12/05/23 17:29	10
1,3-Dichloropropane	10	U	20	3.6	ug/L			12/05/23 17:29	10
2,2-Dichloropropane	10	U	20	3.5	ug/L			12/05/23 17:29	10
1,1-Dichloropropene	10	U	20	2.8	ug/L			12/05/23 17:29	10
Ethylbenzene	5.0	U	10	2.0	ug/L			12/05/23 17:29	10
Hexachlorobutadiene	10	U	50	2.2	ug/L			12/05/23 17:29	10
2-Hexanone	100	U	200	32	ug/L			12/05/23 17:29	10
Isopropylbenzene	10	U	20	2.6	ug/L			12/05/23 17:29	10
4-Isopropyltoluene	10	U	20	4.4	ug/L			12/05/23 17:29	10
Methyl acetate	100	U	200	32	ug/L			12/05/23 17:29	10
Methylcyclohexane	10	U	20	3.3	ug/L			12/05/23 17:29	10
Methylene Chloride	100	U	200	32	ug/L			12/05/23 17:29	10
4-Methyl-2-pentanone (MIBK)	100	U	200	27	ug/L			12/05/23 17:29	10
Methyl tert-butyl ether	20	U	50	8.1	ug/L			12/05/23 17:29	10
m-Xylene & p-Xylene	10	U	20	4.9	ug/L			12/05/23 17:29	10
Naphthalene	50	U	100	24	ug/L			12/05/23 17:29	10
n-Butylbenzene	20	U	25	5.2	ug/L			12/05/23 17:29	10
N-Propylbenzene	10	U M	20	4.1	ug/L			12/05/23 17:29	10
o-Xylene	10	U	20	2.6	ug/L			12/05/23 17:29	10
sec-Butylbenzene	20	U	25	5.3	ug/L			12/05/23 17:29	10
Styrene	10	U M	20	2.7	ug/L			12/05/23 17:29	10
tert-Butylbenzene	10	U	20	4.3	ug/L			12/05/23 17:29	10
1,1,1,2-Tetrachloroethane	10	U	20	3.6	ug/L			12/05/23 17:29	10
1,1,2,2-Tetrachloroethane	10	U	20	4.0	ug/L			12/05/23 17:29	10
Tetrachloroethene	**81**	**D**	20	3.5	ug/L			12/05/23 17:29	10
Toluene	10	U	20	2.5	ug/L			12/05/23 17:29	10
trans-1,2-Dichloroethene	10	U	20	3.4	ug/L			12/05/23 17:29	10
trans-1,3-Dichloropropene	10	U M	20	2.3	ug/L			12/05/23 17:29	10
1,2,3-Trichlorobenzene	20	U	50	8.1	ug/L			12/05/23 17:29	10
1,2,4-Trichlorobenzene	20	U	50	5.3	ug/L			12/05/23 17:29	10
1,1,1-Trichloroethane	5.0	U	10	2.1	ug/L			12/05/23 17:29	10
1,1,2-Trichloroethane	10	U	20	3.2	ug/L			12/05/23 17:29	10
Trichloroethene	**1400**	**D**	10	2.0	ug/L			12/05/23 17:29	10
Trichlorofluoromethane	10	U	20	3.3	ug/L			12/05/23 17:29	10
1,2,3-Trichloropropane	10	U	20	4.8	ug/L			12/05/23 17:29	10

Client Sample ID: OU6-MW-131-20231121

Lab Sample ID: 680-243330-6

Date Collected: 11/21/23 10:33

Matrix: Water

Date Received: 11/22/23 10:23

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	10	2.3	ug/L			12/05/23 17:29	10
1,2,4-Trimethylbenzene	10	U	20	4.3	ug/L			12/05/23 17:29	10
1,3,5-Trimethylbenzene	10	U	20	2.8	ug/L			12/05/23 17:29	10
Vinyl chloride	**4.2**	**J D**	20	4.0	ug/L			12/05/23 17:29	10
Xylenes, Total	10	U	20	4.9	ug/L			12/05/23 17:29	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*85 - 114*		*12/05/23 17:29*	*10*
Dibromofluoromethane (Surr)	*96*		*80 - 119*		*12/05/23 17:29*	*10*
1,2-Dichloroethane-d4 (Surr)	*90*		*81 - 118*		*12/05/23 17:29*	*10*
Toluene-d8 (Surr)	*94*		*89 - 112*		*12/05/23 17:29*	*10*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	**1.4**		1.1	0.30	ug/L			12/04/23 19:10	1
Ethylene	**19**		1.0	0.31	ug/L			12/04/23 19:10	1
Methane (TCD)	**12000**		390	39	ug/L			12/04/23 19:10	1

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**7.0**		0.55	0.20	mg/L			12/05/23 18:34	1
Nitrate as N	**0.11**	**D**	0.11	0.046	mg/L			11/22/23 15:58	2
Nitrate Nitrite as N	**0.11**	**D**	0.11	0.046	mg/L			11/22/23 15:58	2
Sulfate	**0.75**	**J**	1.5	0.40	mg/L			12/05/23 18:34	1
Nitrite as N	0.10	U	0.11	0.046	mg/L			11/22/23 15:58	2

Method: SW846 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**47**		10	2.2	ug/L		11/26/23 10:02	11/27/23 22:39	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**11**		5.5	2.2	mg/L			11/30/23 19:17	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	**11**		11	5.0	mg/L			11/30/23 19:17	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	10	U	11	5.0	mg/L			11/30/23 19:17	1
Sulfide (SM 4500 S2 F-2011)	0.81	U	0.81	0.81	mg/L			11/27/23 14:06	1
Sulfide as H2S (SM 4500 S2 F-2011)	0.89	U	0.89	0.89	mg/L			11/27/23 14:06	1
Total Organic Carbon (SW846 9060A)	**1.7**		1.0	0.50	mg/L			11/23/23 02:21	1

Client Sample ID: OU6-MW-126-20231121

Lab Sample ID: 680-243330-7

Date Collected: 11/21/23 11:35

Matrix: Water

Date Received: 11/22/23 10:23

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	50	U	130	19	ug/L			12/05/23 17:07	5
Benzene	5.0	U	10	1.4	ug/L			12/05/23 17:07	5
Bromobenzene	2.5	U	5.0	1.2	ug/L			12/05/23 17:07	5

Client Sample ID: OU6-MW-126-20231121
Date Collected: 11/21/23 11:35
Date Received: 11/22/23 10:23

Lab Sample ID: 680-243330-7
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Bromochloromethane	5.0	U	10	1.7	ug/L			12/05/23 17:07	5
Bromodichloromethane	5.0	U	10	1.3	ug/L			12/05/23 17:07	5
Bromoform	10	U	13	3.0	ug/L			12/05/23 17:07	5
Bromomethane	50	U	100	19	ug/L			12/05/23 17:07	5
2-Butanone (MEK)	100	U	130	32	ug/L			12/05/23 17:07	5
Carbon disulfide	5.0	U Q	10	2.2	ug/L			12/05/23 17:07	5
Carbon tetrachloride	5.0	U	10	1.5	ug/L			12/05/23 17:07	5
Chlorobenzene	2.5	U	5.0	0.75	ug/L			12/05/23 17:07	5
Chloroethane	50	U	100	23	ug/L			12/05/23 17:07	5
Chloroform	5.0	U	10	1.4	ug/L			12/05/23 17:07	5
Chloromethane	10	U	13	2.7	ug/L			12/05/23 17:07	5
2-Chlorotoluene	2.5	U	5.0	1.3	ug/L			12/05/23 17:07	5
4-Chlorotoluene	5.0	U	10	2.1	ug/L			12/05/23 17:07	5
cis-1,2-Dichloroethene	**630**	**D**	10	1.3	ug/L			12/05/23 17:07	5
cis-1,3-Dichloropropene	5.0	U	10	1.3	ug/L			12/05/23 17:07	5
Cyclohexane	5.0	U	10	1.4	ug/L			12/05/23 17:07	5
Dibromochloromethane	5.0	U	10	2.0	ug/L			12/05/23 17:07	5
1,2-Dibromo-3-Chloropropane	25	U	50	9.0	ug/L			12/05/23 17:07	5
1,2-Dibromoethane	5.0	U	10	1.7	ug/L			12/05/23 17:07	5
Dibromomethane	5.0	U	10	1.7	ug/L			12/05/23 17:07	5
1,2-Dichlorobenzene	5.0	U	10	1.6	ug/L			12/05/23 17:07	5
1,3-Dichlorobenzene	5.0	U	10	1.6	ug/L			12/05/23 17:07	5
1,4-Dichlorobenzene	5.0	U	10	1.6	ug/L			12/05/23 17:07	5
Dichlorodifluoromethane	5.0	U	10	1.8	ug/L			12/05/23 17:07	5
1,1-Dichloroethane	5.0	U	10	1.7	ug/L			12/05/23 17:07	5
1,2-Dichloroethane	**1.9**	**J D M**	10	1.3	ug/L			12/05/23 17:07	5
1,1-Dichloroethene	**32**	**D**	10	1.7	ug/L			12/05/23 17:07	5
1,2-Dichloroethene, Total	**630**	**D**	10	1.9	ug/L			12/05/23 17:07	5
1,2-Dichloropropane	2.5	U	5.0	1.1	ug/L			12/05/23 17:07	5
1,3-Dichloropropane	5.0	U	10	1.8	ug/L			12/05/23 17:07	5
2,2-Dichloropropane	5.0	U	10	1.8	ug/L			12/05/23 17:07	5
1,1-Dichloropropene	5.0	U	10	1.4	ug/L			12/05/23 17:07	5
Ethylbenzene	2.5	U	5.0	1.0	ug/L			12/05/23 17:07	5
Hexachlorobutadiene	5.0	U	25	1.1	ug/L			12/05/23 17:07	5
2-Hexanone	50	U	100	16	ug/L			12/05/23 17:07	5
Isopropylbenzene	5.0	U	10	1.3	ug/L			12/05/23 17:07	5
4-Isopropyltoluene	5.0	U	10	2.2	ug/L			12/05/23 17:07	5
Methyl acetate	50	U	100	16	ug/L			12/05/23 17:07	5
Methylcyclohexane	5.0	U	10	1.7	ug/L			12/05/23 17:07	5
Methylene Chloride	50	U	100	16	ug/L			12/05/23 17:07	5
4-Methyl-2-pentanone (MIBK)	50	U	100	14	ug/L			12/05/23 17:07	5
Methyl tert-butyl ether	10	U	25	4.1	ug/L			12/05/23 17:07	5
m-Xylene & p-Xylene	5.0	U	10	2.5	ug/L			12/05/23 17:07	5
Naphthalene	25	U	50	12	ug/L			12/05/23 17:07	5
n-Butylbenzene	10	U	13	2.6	ug/L			12/05/23 17:07	5
N-Propylbenzene	5.0	U	10	2.1	ug/L			12/05/23 17:07	5
o-Xylene	5.0	U	10	1.3	ug/L			12/05/23 17:07	5
sec-Butylbenzene	10	U	13	2.7	ug/L			12/05/23 17:07	5
Styrene	5.0	U	10	1.4	ug/L			12/05/23 17:07	5

Client Sample ID: OU6-MW-126-20231121

Lab Sample ID: 680-243330-7

Date Collected: 11/21/23 11:35

Matrix: Water

Date Received: 11/22/23 10:23

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
tert-Butylbenzene	5.0	U	10	2.2	ug/L			12/05/23 17:07	5
1,1,1,2-Tetrachloroethane	5.0	U	10	1.8	ug/L			12/05/23 17:07	5
1,1,2,2-Tetrachloroethane	5.0	U	10	2.0	ug/L			12/05/23 17:07	5
Tetrachloroethene	**4.4**	**J D**	10	1.8	ug/L			12/05/23 17:07	5
Toluene	5.0	U	10	1.3	ug/L			12/05/23 17:07	5
trans-1,2-Dichloroethene	**1.8**	**J D M**	10	1.7	ug/L			12/05/23 17:07	5
trans-1,3-Dichloropropene	5.0	U	10	1.2	ug/L			12/05/23 17:07	5
1,2,3-Trichlorobenzene	10	U	25	4.1	ug/L			12/05/23 17:07	5
1,2,4-Trichlorobenzene	10	U	25	2.7	ug/L			12/05/23 17:07	5
1,1,1-Trichloroethane	2.5	U	5.0	1.1	ug/L			12/05/23 17:07	5
1,1,2-Trichloroethane	5.0	U	10	1.6	ug/L			12/05/23 17:07	5
Trichloroethene	**4.0**	**J D M**	5.0	1.0	ug/L			12/05/23 17:07	5
Trichlorofluoromethane	5.0	U	10	1.7	ug/L			12/05/23 17:07	5
1,2,3-Trichloropropane	5.0	U	10	2.4	ug/L			12/05/23 17:07	5
1,1,2-Trichloro-1,2,2-trifluoroethane	2.5	U	5.0	1.2	ug/L			12/05/23 17:07	5
1,2,4-Trimethylbenzene	5.0	U	10	2.2	ug/L			12/05/23 17:07	5
1,3,5-Trimethylbenzene	5.0	U	10	1.4	ug/L			12/05/23 17:07	5
Vinyl chloride	**31**	**D**	10	2.0	ug/L			12/05/23 17:07	5
Xylenes, Total	5.0	U	10	2.5	ug/L			12/05/23 17:07	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*85 - 114*		*12/05/23 17:07*	*5*
Dibromofluoromethane (Surr)	*95*		*80 - 119*		*12/05/23 17:07*	*5*
1,2-Dichloroethane-d4 (Surr)	*94*		*81 - 118*		*12/05/23 17:07*	*5*
Toluene-d8 (Surr)	*94*		*89 - 112*		*12/05/23 17:07*	*5*

Client Sample ID: TRIPBLANK-20231121

Lab Sample ID: 680-243330-8

Date Collected: 11/21/23 00:00

Matrix: Water

Date Received: 11/22/23 10:23

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			12/01/23 13:59	1
Benzene	1.0	U	2.0	0.27	ug/L			12/01/23 13:59	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			12/01/23 13:59	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			12/01/23 13:59	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			12/01/23 13:59	1
Bromoform	2.0	U Q	2.5	0.59	ug/L			12/01/23 13:59	1
Bromomethane	10	U Q	20	3.7	ug/L			12/01/23 13:59	1
2-Butanone (MEK)	20	U Q	25	6.4	ug/L			12/01/23 13:59	1
Carbon disulfide	1.0	U Q	2.0	0.43	ug/L			12/01/23 13:59	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			12/01/23 13:59	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			12/01/23 13:59	1
Chloroethane	10	U	20	4.6	ug/L			12/01/23 13:59	1
Chloroform	1.0	U	2.0	0.27	ug/L			12/01/23 13:59	1
Chloromethane	2.0	U	2.5	0.54	ug/L			12/01/23 13:59	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			12/01/23 13:59	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			12/01/23 13:59	1
cis-1,2-Dichloroethene	1.0	U	2.0	0.25	ug/L			12/01/23 13:59	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			12/01/23 13:59	1

Client Sample ID: TRIPBLANK-20231121
Date Collected: 11/21/23 00:00
Date Received: 11/22/23 10:23

Lab Sample ID: 680-243330-8
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Cyclohexane	1.0	U	2.0	0.28	ug/L			12/01/23 13:59	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			12/01/23 13:59	1
1,2-Dibromo-3-Chloropropane	5.0	U Q	10	1.8	ug/L			12/01/23 13:59	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			12/01/23 13:59	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			12/01/23 13:59	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			12/01/23 13:59	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			12/01/23 13:59	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			12/01/23 13:59	1
Dichlorodifluoromethane	1.0	U	2.0	0.36	ug/L			12/01/23 13:59	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			12/01/23 13:59	1
1,2-Dichloroethane	1.0	U M	2.0	0.25	ug/L			12/01/23 13:59	1
1,1-Dichloroethene	1.0	U Q	2.0	0.33	ug/L			12/01/23 13:59	1
1,2-Dichloroethene, Total	1.0	U	2.0	0.37	ug/L			12/01/23 13:59	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			12/01/23 13:59	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			12/01/23 13:59	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			12/01/23 13:59	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			12/01/23 13:59	1
Ethylbenzene	0.50	U M	1.0	0.20	ug/L			12/01/23 13:59	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			12/01/23 13:59	1
2-Hexanone	10	U Q	20	3.2	ug/L			12/01/23 13:59	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			12/01/23 13:59	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			12/01/23 13:59	1
Methyl acetate	10	U	20	3.2	ug/L			12/01/23 13:59	1
Methylcyclohexane	1.0	U	2.0	0.33	ug/L			12/01/23 13:59	1
Methylene Chloride	10	U	20	3.2	ug/L			12/01/23 13:59	1
4-Methyl-2-pentanone (MIBK)	10	U Q	20	2.7	ug/L			12/01/23 13:59	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			12/01/23 13:59	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			12/01/23 13:59	1
Naphthalene	5.0	U	10	2.4	ug/L			12/01/23 13:59	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			12/01/23 13:59	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			12/01/23 13:59	1
o-Xylene	1.0	U	2.0	0.26	ug/L			12/01/23 13:59	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			12/01/23 13:59	1
Styrene	1.0	U	2.0	0.27	ug/L			12/01/23 13:59	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			12/01/23 13:59	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			12/01/23 13:59	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			12/01/23 13:59	1
Tetrachloroethene	1.0	U	2.0	0.35	ug/L			12/01/23 13:59	1
Toluene	1.0	U	2.0	0.25	ug/L			12/01/23 13:59	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			12/01/23 13:59	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			12/01/23 13:59	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			12/01/23 13:59	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			12/01/23 13:59	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			12/01/23 13:59	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			12/01/23 13:59	1
Trichloroethene	0.50	U	1.0	0.20	ug/L			12/01/23 13:59	1
Trichlorofluoromethane	1.0	U Q	2.0	0.33	ug/L			12/01/23 13:59	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			12/01/23 13:59	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			12/01/23 13:59	1

Client: Meadows CMPG, Inc
Project/Site: OU6 Monitoring

Job ID: 680-243330-1

Client Sample ID: TRIPBLANK-20231121
Date Collected: 11/21/23 00:00
Date Received: 11/22/23 10:23

Lab Sample ID: 680-243330-8
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			12/01/23 13:59	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			12/01/23 13:59	1
Vinyl chloride	1.0	U	2.0	0.40	ug/L			12/01/23 13:59	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			12/01/23 13:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*85 - 114*		*12/01/23 13:59*	*1*
Dibromofluoromethane (Surr)	*99*		*80 - 119*		*12/01/23 13:59*	*1*
1,2-Dichloroethane-d4 (Surr)	*91*		*81 - 118*		*12/01/23 13:59*	*1*
Toluene-d8 (Surr)	*110*		*89 - 112*		*12/01/23 13:59*	*1*

Method: 8260D - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 680-810968/8
Matrix: Water
Analysis Batch: 810968

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			12/01/23 11:31	1
Benzene	1.0	U	2.0	0.27	ug/L			12/01/23 11:31	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			12/01/23 11:31	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			12/01/23 11:31	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			12/01/23 11:31	1
Bromoform	2.0	U	2.5	0.59	ug/L			12/01/23 11:31	1
Bromomethane	10	U	20	3.7	ug/L			12/01/23 11:31	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			12/01/23 11:31	1
Carbon disulfide	1.0	U	2.0	0.43	ug/L			12/01/23 11:31	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			12/01/23 11:31	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			12/01/23 11:31	1
Chloroethane	10	U	20	4.6	ug/L			12/01/23 11:31	1
Chloroform	1.0	U	2.0	0.27	ug/L			12/01/23 11:31	1
Chloromethane	2.0	U	2.5	0.54	ug/L			12/01/23 11:31	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			12/01/23 11:31	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			12/01/23 11:31	1
cis-1,2-Dichloroethene	1.0	U	2.0	0.25	ug/L			12/01/23 11:31	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			12/01/23 11:31	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			12/01/23 11:31	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			12/01/23 11:31	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			12/01/23 11:31	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			12/01/23 11:31	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			12/01/23 11:31	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			12/01/23 11:31	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			12/01/23 11:31	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			12/01/23 11:31	1
Dichlorodifluoromethane	1.0	U	2.0	0.36	ug/L			12/01/23 11:31	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			12/01/23 11:31	1
1,2-Dichloroethane	1.0	U M	2.0	0.25	ug/L			12/01/23 11:31	1
1,1-Dichloroethene	1.0	U	2.0	0.33	ug/L			12/01/23 11:31	1
1,2-Dichloroethene, Total	1.0	U	2.0	0.37	ug/L			12/01/23 11:31	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			12/01/23 11:31	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			12/01/23 11:31	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			12/01/23 11:31	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			12/01/23 11:31	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			12/01/23 11:31	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			12/01/23 11:31	1
2-Hexanone	10	U	20	3.2	ug/L			12/01/23 11:31	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			12/01/23 11:31	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			12/01/23 11:31	1
Methyl acetate	10	U	20	3.2	ug/L			12/01/23 11:31	1
Methylcyclohexane	1.0	U	2.0	0.33	ug/L			12/01/23 11:31	1
Methylene Chloride	10	U	20	3.2	ug/L			12/01/23 11:31	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			12/01/23 11:31	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			12/01/23 11:31	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			12/01/23 11:31	1
Naphthalene	5.0	U	10	2.4	ug/L			12/01/23 11:31	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			12/01/23 11:31	1

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-810968/8
Matrix: Water
Analysis Batch: 810968

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			12/01/23 11:31	1
o-Xylene	1.0	U	2.0	0.26	ug/L			12/01/23 11:31	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			12/01/23 11:31	1
Styrene	1.0	U	2.0	0.27	ug/L			12/01/23 11:31	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			12/01/23 11:31	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			12/01/23 11:31	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			12/01/23 11:31	1
Tetrachloroethene	1.0	U	2.0	0.35	ug/L			12/01/23 11:31	1
Toluene	1.0	U	2.0	0.25	ug/L			12/01/23 11:31	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			12/01/23 11:31	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			12/01/23 11:31	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			12/01/23 11:31	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			12/01/23 11:31	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			12/01/23 11:31	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			12/01/23 11:31	1
Trichloroethene	0.50	U	1.0	0.20	ug/L			12/01/23 11:31	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			12/01/23 11:31	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			12/01/23 11:31	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			12/01/23 11:31	1
1,2,4-Trimethylbenzene	0.492	J	2.0	0.43	ug/L			12/01/23 11:31	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			12/01/23 11:31	1
Vinyl chloride	1.0	U	2.0	0.40	ug/L			12/01/23 11:31	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			12/01/23 11:31	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*85 - 114*		*12/01/23 11:31*	*1*
Dibromofluoromethane (Surr)	*98*		*80 - 119*		*12/01/23 11:31*	*1*
1,2-Dichloroethane-d4 (Surr)	*90*		*81 - 118*		*12/01/23 11:31*	*1*
Toluene-d8 (Surr)	*112*		*89 - 112*		*12/01/23 11:31*	*1*

Lab Sample ID: LCS 680-810968/4
Matrix: Water
Analysis Batch: 810968

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	250	237		ug/L		95	39 - 160
Benzene	50.0	49.3		ug/L		99	79 - 120
Bromobenzene	50.0	50.0		ug/L		100	80 - 120
Bromochloromethane	50.0	51.7		ug/L		103	78 - 123
Bromodichloromethane	50.0	47.3		ug/L		95	79 - 125
Bromoform	50.0	39.5		ug/L		79	66 - 130
Bromomethane	50.0	38.0		ug/L		76	53 - 141
2-Butanone (MEK)	250	177		ug/L		71	56 - 143
Carbon disulfide	50.0	63.8		ug/L		128	64 - 133
Carbon tetrachloride	50.0	50.4		ug/L		101	72 - 136
Chlorobenzene	50.0	49.1		ug/L		98	82 - 118
Chloroethane	50.0	44.1		ug/L		88	60 - 138
Chloroform	50.0	50.0		ug/L		100	79 - 124

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-810968/4
Matrix: Water
Analysis Batch: 810968

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloromethane	50.0	42.2		ug/L		84	50 - 139
2-Chlorotoluene	50.0	50.2		ug/L		100	79 - 122
4-Chlorotoluene	50.0	50.3		ug/L		101	78 - 122
cis-1,2-Dichloroethene	50.0	51.9		ug/L		104	78 - 123
cis-1,3-Dichloropropene	50.0	50.5		ug/L		101	75 - 124
Cyclohexane	50.0	49.9		ug/L		100	71 - 130
Dibromochloromethane	50.0	45.5		ug/L		91	74 - 126
1,2-Dibromo-3-Chloropropane	50.0	40.4		ug/L		81	62 - 128
1,2-Dibromoethane	50.0	45.1		ug/L		90	75 - 127
Dibromomethane	50.0	50.2		ug/L		100	79 - 123
1,2-Dichlorobenzene	50.0	48.8		ug/L		98	80 - 119
1,3-Dichlorobenzene	50.0	50.7		ug/L		101	80 - 119
1,4-Dichlorobenzene	50.0	48.7		ug/L		97	79 - 118
Dichlorodifluoromethane	50.0	42.5		ug/L		85	32 - 152
1,1-Dichloroethane	50.0	53.3		ug/L		107	77 - 125
1,2-Dichloroethane	50.0	48.9		ug/L		98	73 - 128
1,1-Dichloroethene	50.0	61.8		ug/L		124	71 - 131
1,2-Dichloroethene, Total	100	108		ug/L		108	79 - 121
1,2-Dichloropropane	50.0	49.8		ug/L		100	78 - 122
1,3-Dichloropropane	50.0	44.8		ug/L		90	80 - 119
2,2-Dichloropropane	50.0	53.5		ug/L		107	60 - 139
1,1-Dichloropropene	50.0	50.2		ug/L		100	79 - 125
Ethylbenzene	50.0	50.3		ug/L		101	79 - 121
Hexachlorobutadiene	50.0	44.8		ug/L		90	66 - 134
2-Hexanone	250	178		ug/L		71	57 - 139
Isopropylbenzene	50.0	50.1		ug/L		100	72 - 131
4-Isopropyltoluene	50.0	51.3		ug/L		103	77 - 127
Methyl acetate	100	84.6		ug/L		85	56 - 136
Methylcyclohexane	50.0	50.3		ug/L		101	72 - 132
Methylene Chloride	50.0	55.8		ug/L		112	74 - 124
4-Methyl-2-pentanone (MIBK)	250	196		ug/L		78	67 - 130
Methyl tert-butyl ether	50.0	43.7		ug/L		87	71 - 124
m-Xylene & p-Xylene	50.0	49.7		ug/L		99	80 - 121
Naphthalene	50.0	46.8		ug/L		94	61 - 128
n-Butylbenzene	50.0	52.0		ug/L		104	75 - 128
N-Propylbenzene	50.0	50.6		ug/L		101	76 - 126
o-Xylene	50.0	50.0		ug/L		100	78 - 122
sec-Butylbenzene	50.0	48.7		ug/L		97	77 - 126
Styrene	50.0	51.6		ug/L		103	78 - 123
tert-Butylbenzene	50.0	49.7		ug/L		99	78 - 124
1,1,1,2-Tetrachloroethane	50.0	51.2		ug/L		102	78 - 124
1,1,2,2-Tetrachloroethane	50.0	45.6		ug/L		91	71 - 121
Tetrachloroethene	50.0	47.5		ug/L		95	74 - 129
Toluene	50.0	49.1		ug/L		98	80 - 121
trans-1,2-Dichloroethene	50.0	56.0		ug/L		112	75 - 124
trans-1,3-Dichloropropene	50.0	48.6		ug/L		97	73 - 127
1,2,3-Trichlorobenzene	50.0	48.1		ug/L		96	69 - 129
1,2,4-Trichlorobenzene	50.0	49.7		ug/L		99	69 - 130
1,1,1-Trichloroethane	50.0	49.2		ug/L		98	74 - 131

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-810968/4
Matrix: Water
Analysis Batch: 810968

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,2-Trichloroethane	50.0	45.1		ug/L		90	80 - 119
Trichloroethene	50.0	49.2		ug/L		98	79 - 123
Trichlorofluoromethane	50.0	92.0	Q	ug/L		184	65 - 141
1,2,3-Trichloropropane	50.0	42.8		ug/L		86	73 - 122
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	58.1		ug/L		116	70 - 136
1,2,4-Trimethylbenzene	50.0	51.3		ug/L		103	76 - 124
1,3,5-Trimethylbenzene	50.0	50.3		ug/L		101	75 - 124
Vinyl chloride	50.0	46.9		ug/L		94	58 - 137
Xylenes, Total	100	99.7		ug/L		100	79 - 121

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*85 - 114*
Dibromofluoromethane (Surr)	*98*		*80 - 119*
1,2-Dichloroethane-d4 (Surr)	*95*		*81 - 118*
Toluene-d8 (Surr)	*105*		*89 - 112*

Lab Sample ID: LCSD 680-810968/5
Matrix: Water
Analysis Batch: 810968

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acetone	250	238		ug/L		95	39 - 160	0	20
Benzene	50.0	49.6		ug/L		99	79 - 120	0	20
Bromobenzene	50.0	48.5		ug/L		97	80 - 120	3	20
Bromochloromethane	50.0	51.3		ug/L		103	78 - 123	1	20
Bromodichloromethane	50.0	48.2		ug/L		96	79 - 125	2	20
Bromoform	50.0	40.2		ug/L		80	66 - 130	2	20
Bromomethane	50.0	34.9		ug/L		70	53 - 141	8	20
2-Butanone (MEK)	250	187		ug/L		75	56 - 143	6	20
Carbon disulfide	50.0	59.6		ug/L		119	64 - 133	7	20
Carbon tetrachloride	50.0	49.4		ug/L		99	72 - 136	2	20
Chlorobenzene	50.0	48.9		ug/L		98	82 - 118	0	20
Chloroethane	50.0	38.5		ug/L		77	60 - 138	14	20
Chloroform	50.0	49.6		ug/L		99	79 - 124	1	20
Chloromethane	50.0	38.6		ug/L		77	50 - 139	9	20
2-Chlorotoluene	50.0	48.5		ug/L		97	79 - 122	3	20
4-Chlorotoluene	50.0	48.6		ug/L		97	78 - 122	3	20
cis-1,2-Dichloroethene	50.0	50.6		ug/L		101	78 - 123	2	20
cis-1,3-Dichloropropene	50.0	51.4		ug/L		103	75 - 124	2	20
Cyclohexane	50.0	50.8		ug/L		102	71 - 130	2	20
Dibromochloromethane	50.0	46.0		ug/L		92	74 - 126	1	20
1,2-Dibromo-3-Chloropropane	50.0	41.5		ug/L		83	62 - 128	3	20
1,2-Dibromoethane	50.0	46.3		ug/L		93	75 - 127	3	20
Dibromomethane	50.0	49.9		ug/L		100	79 - 123	1	20
1,2-Dichlorobenzene	50.0	50.1		ug/L		100	80 - 119	3	20
1,3-Dichlorobenzene	50.0	50.4		ug/L		101	80 - 119	1	20
1,4-Dichlorobenzene	50.0	48.5		ug/L		97	79 - 118	0	20
Dichlorodifluoromethane	50.0	38.7		ug/L		77	32 - 152	9	20

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-810968/5
Matrix: Water
Analysis Batch: 810968

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1-Dichloroethane			50.0	52.9		ug/L		106	77 - 125	1	20
1,2-Dichloroethane			50.0	48.9		ug/L		98	73 - 128	0	20
1,1-Dichloroethene			50.0	58.4		ug/L		117	71 - 131	6	20
1,2-Dichloroethene, Total			100	105		ug/L		105	79 - 121	3	20
1,2-Dichloropropane			50.0	50.0		ug/L		100	78 - 122	0	20
1,3-Dichloropropane			50.0	46.5		ug/L		93	80 - 119	4	20
2,2-Dichloropropane			50.0	50.8		ug/L		102	60 - 139	5	20
1,1-Dichloropropene			50.0	50.1		ug/L		100	79 - 125	0	20
Ethylbenzene			50.0	49.6		ug/L		99	79 - 121	2	20
Hexachlorobutadiene			50.0	46.1		ug/L		92	66 - 134	3	20
2-Hexanone			250	191		ug/L		76	57 - 139	7	20
Isopropylbenzene			50.0	49.6		ug/L		99	72 - 131	1	20
4-Isopropyltoluene			50.0	51.2		ug/L		102	77 - 127	0	20
Methyl acetate			100	84.8		ug/L		85	56 - 136	0	20
Methylcyclohexane			50.0	50.3		ug/L		101	72 - 132	0	20
Methylene Chloride			50.0	54.1		ug/L		108	74 - 124	3	20
4-Methyl-2-pentanone (MIBK)			250	199		ug/L		80	67 - 130	2	20
Methyl tert-butyl ether			50.0	44.5		ug/L		89	71 - 124	2	20
m-Xylene & p-Xylene			50.0	49.2		ug/L		98	80 - 121	1	20
Naphthalene			50.0	47.8		ug/L		96	61 - 128	2	20
n-Butylbenzene			50.0	52.3		ug/L		105	75 - 128	1	20
N-Propylbenzene			50.0	48.7		ug/L		97	76 - 126	4	20
o-Xylene			50.0	50.0		ug/L		100	78 - 122	0	20
sec-Butylbenzene			50.0	47.8		ug/L		96	77 - 126	2	20
Styrene			50.0	51.2		ug/L		102	78 - 123	1	20
tert-Butylbenzene			50.0	48.7		ug/L		97	78 - 124	2	20
1,1,1,2-Tetrachloroethane			50.0	51.0		ug/L		102	78 - 124	0	20
1,1,2,2-Tetrachloroethane			50.0	45.9		ug/L		92	71 - 121	0	20
Tetrachloroethene			50.0	47.3		ug/L		95	74 - 129	0	20
Toluene			50.0	47.4		ug/L		95	80 - 121	4	20
trans-1,2-Dichloroethene			50.0	54.2		ug/L		108	75 - 124	3	20
trans-1,3-Dichloropropene			50.0	49.6		ug/L		99	73 - 127	2	20
1,2,3-Trichlorobenzene			50.0	49.9		ug/L		100	69 - 129	4	20
1,2,4-Trichlorobenzene			50.0	50.7		ug/L		101	69 - 130	2	20
1,1,1-Trichloroethane			50.0	48.0		ug/L		96	74 - 131	2	20
1,1,2-Trichloroethane			50.0	46.8		ug/L		94	80 - 119	4	20
Trichloroethene			50.0	48.7		ug/L		97	79 - 123	1	20
Trichlorofluoromethane			50.0	88.0	Q	ug/L		176	65 - 141	4	20
1,2,3-Trichloropropane			50.0	43.3		ug/L		87	73 - 122	1	20
1,1,2-Trichloro-1,2,2-trifluoroethane			50.0	54.2		ug/L		108	70 - 136	7	20
1,2,4-Trimethylbenzene			50.0	50.4		ug/L		101	76 - 124	2	20
1,3,5-Trimethylbenzene			50.0	49.2		ug/L		98	75 - 124	2	20
Vinyl chloride			50.0	42.3		ug/L		85	58 - 137	10	20
Xylenes, Total			100	99.2		ug/L		99	79 - 121	1	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*85 - 114*

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-810968/5
Matrix: Water
Analysis Batch: 810968

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Dibromofluoromethane (Surr)	*98*		*80 - 119*
1,2-Dichloroethane-d4 (Surr)	*97*		*81 - 118*
Toluene-d8 (Surr)	*100*		*89 - 112*

Lab Sample ID: MB 680-811496/8
Matrix: Water
Analysis Batch: 811496

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			12/05/23 12:02	1
Benzene	1.0	U	2.0	0.27	ug/L			12/05/23 12:02	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			12/05/23 12:02	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			12/05/23 12:02	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			12/05/23 12:02	1
Bromoform	2.0	U	2.5	0.59	ug/L			12/05/23 12:02	1
Bromomethane	10	U	20	3.7	ug/L			12/05/23 12:02	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			12/05/23 12:02	1
Carbon disulfide	1.0	U	2.0	0.43	ug/L			12/05/23 12:02	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			12/05/23 12:02	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			12/05/23 12:02	1
Chloroethane	10	U	20	4.6	ug/L			12/05/23 12:02	1
Chloroform	1.0	U	2.0	0.27	ug/L			12/05/23 12:02	1
Chloromethane	2.0	U	2.5	0.54	ug/L			12/05/23 12:02	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			12/05/23 12:02	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			12/05/23 12:02	1
cis-1,2-Dichloroethene	1.0	U	2.0	0.25	ug/L			12/05/23 12:02	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			12/05/23 12:02	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			12/05/23 12:02	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			12/05/23 12:02	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			12/05/23 12:02	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			12/05/23 12:02	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			12/05/23 12:02	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			12/05/23 12:02	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			12/05/23 12:02	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			12/05/23 12:02	1
Dichlorodifluoromethane	1.0	U	2.0	0.36	ug/L			12/05/23 12:02	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			12/05/23 12:02	1
1,2-Dichloroethane	1.0	U	2.0	0.25	ug/L			12/05/23 12:02	1
1,1-Dichloroethene	1.0	U	2.0	0.33	ug/L			12/05/23 12:02	1
1,2-Dichloroethene, Total	1.0	U	2.0	0.37	ug/L			12/05/23 12:02	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			12/05/23 12:02	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			12/05/23 12:02	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			12/05/23 12:02	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			12/05/23 12:02	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			12/05/23 12:02	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			12/05/23 12:02	1
2-Hexanone	10	U	20	3.2	ug/L			12/05/23 12:02	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			12/05/23 12:02	1

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-811496/8
Matrix: Water
Analysis Batch: 811496

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			12/05/23 12:02	1
Methyl acetate	10	U	20	3.2	ug/L			12/05/23 12:02	1
Methylcyclohexane	1.0	U	2.0	0.33	ug/L			12/05/23 12:02	1
Methylene Chloride	10	U	20	3.2	ug/L			12/05/23 12:02	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			12/05/23 12:02	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			12/05/23 12:02	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			12/05/23 12:02	1
Naphthalene	5.0	U	10	2.4	ug/L			12/05/23 12:02	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			12/05/23 12:02	1
N-Propylbenzene	1.0	U M	2.0	0.41	ug/L			12/05/23 12:02	1
o-Xylene	1.0	U	2.0	0.26	ug/L			12/05/23 12:02	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			12/05/23 12:02	1
Styrene	1.0	U	2.0	0.27	ug/L			12/05/23 12:02	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			12/05/23 12:02	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			12/05/23 12:02	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			12/05/23 12:02	1
Tetrachloroethene	1.0	U	2.0	0.35	ug/L			12/05/23 12:02	1
Toluene	1.0	U	2.0	0.25	ug/L			12/05/23 12:02	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			12/05/23 12:02	1
trans-1,3-Dichloropropene	1.0	U M	2.0	0.23	ug/L			12/05/23 12:02	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			12/05/23 12:02	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			12/05/23 12:02	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			12/05/23 12:02	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			12/05/23 12:02	1
Trichloroethene	0.50	U	1.0	0.20	ug/L			12/05/23 12:02	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			12/05/23 12:02	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			12/05/23 12:02	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			12/05/23 12:02	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			12/05/23 12:02	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			12/05/23 12:02	1
Vinyl chloride	1.0	U	2.0	0.40	ug/L			12/05/23 12:02	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			12/05/23 12:02	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*85 - 114*		*12/05/23 12:02*	*1*
Dibromofluoromethane (Surr)	*97*		*80 - 119*		*12/05/23 12:02*	*1*
1,2-Dichloroethane-d4 (Surr)	*91*		*81 - 118*		*12/05/23 12:02*	*1*
Toluene-d8 (Surr)	*95*		*89 - 112*		*12/05/23 12:02*	*1*

Lab Sample ID: LCS 680-811496/4
Matrix: Water
Analysis Batch: 811496

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Acetone			250	211		ug/L		84	39 - 160		
Benzene			50.0	47.7		ug/L		95	79 - 120		
Bromobenzene			50.0	48.9		ug/L		98	80 - 120		
Bromochloromethane			50.0	43.8		ug/L		88	78 - 123		

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-811496/4
Matrix: Water
Analysis Batch: 811496

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bromodichloromethane	50.0	50.5		ug/L		101	79 - 125
Bromoform	50.0	55.0		ug/L		110	66 - 130
Bromomethane	50.0	57.8		ug/L		116	53 - 141
2-Butanone (MEK)	250	201		ug/L		80	56 - 143
Carbon disulfide	50.0	38.7		ug/L		77	64 - 133
Carbon tetrachloride	50.0	49.3		ug/L		99	72 - 136
Chlorobenzene	50.0	49.6		ug/L		99	82 - 118
Chloroethane	50.0	49.2		ug/L		98	60 - 138
Chloroform	50.0	48.8		ug/L		98	79 - 124
Chloromethane	50.0	49.7		ug/L		99	50 - 139
2-Chlorotoluene	50.0	49.3		ug/L		99	79 - 122
4-Chlorotoluene	50.0	49.7		ug/L		99	78 - 122
cis-1,2-Dichloroethene	50.0	46.3		ug/L		93	78 - 123
cis-1,3-Dichloropropene	50.0	53.9		ug/L		108	75 - 124
Cyclohexane	50.0	41.0		ug/L		82	71 - 130
Dibromochloromethane	50.0	52.3		ug/L		105	74 - 126
1,2-Dibromo-3-Chloropropane	50.0	50.7		ug/L		101	62 - 128
1,2-Dibromoethane	50.0	51.4		ug/L		103	75 - 127
Dibromomethane	50.0	47.9		ug/L		96	79 - 123
1,2-Dichlorobenzene	50.0	50.8		ug/L		102	80 - 119
1,3-Dichlorobenzene	50.0	50.4		ug/L		101	80 - 119
1,4-Dichlorobenzene	50.0	50.7		ug/L		101	79 - 118
Dichlorodifluoromethane	50.0	50.3		ug/L		101	32 - 152
1,1-Dichloroethane	50.0	46.9		ug/L		94	77 - 125
1,2-Dichloroethane	50.0	48.3		ug/L		97	73 - 128
1,1-Dichloroethene	50.0	42.5		ug/L		85	71 - 131
1,2-Dichloroethene, Total	100	92.1		ug/L		92	79 - 121
1,2-Dichloropropane	50.0	46.2		ug/L		92	78 - 122
1,3-Dichloropropane	50.0	49.8		ug/L		100	80 - 119
2,2-Dichloropropane	50.0	51.3	M	ug/L		103	60 - 139
1,1-Dichloropropene	50.0	46.9		ug/L		94	79 - 125
Ethylbenzene	50.0	51.2		ug/L		102	79 - 121
Hexachlorobutadiene	50.0	51.4		ug/L		103	66 - 134
2-Hexanone	250	214		ug/L		86	57 - 139
Isopropylbenzene	50.0	50.7		ug/L		101	72 - 131
4-Isopropyltoluene	50.0	53.2		ug/L		106	77 - 127
Methyl acetate	100	80.8		ug/L		81	56 - 136
Methylcyclohexane	50.0	44.6		ug/L		89	72 - 132
Methylene Chloride	50.0	43.4		ug/L		87	74 - 124
4-Methyl-2-pentanone (MIBK)	250	216		ug/L		86	67 - 130
Methyl tert-butyl ether	50.0	47.4		ug/L		95	71 - 124
m-Xylene & p-Xylene	50.0	50.4		ug/L		101	80 - 121
Naphthalene	50.0	45.8		ug/L		92	61 - 128
n-Butylbenzene	50.0	51.7		ug/L		103	75 - 128
N-Propylbenzene	50.0	49.5		ug/L		99	76 - 126
o-Xylene	50.0	49.7		ug/L		99	78 - 122
sec-Butylbenzene	50.0	48.7		ug/L		97	77 - 126
Styrene	50.0	52.1		ug/L		104	78 - 123
tert-Butylbenzene	50.0	49.3		ug/L		99	78 - 124

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-811496/4
Matrix: Water
Analysis Batch: 811496

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1,2-Tetrachloroethane	50.0	53.0		ug/L		106	78 - 124
1,1,2,2-Tetrachloroethane	50.0	50.7		ug/L		101	71 - 121
Tetrachloroethene	50.0	47.5		ug/L		95	74 - 129
Toluene	50.0	48.2		ug/L		96	80 - 121
trans-1,2-Dichloroethene	50.0	45.8		ug/L		92	75 - 124
trans-1,3-Dichloropropene	50.0	53.1		ug/L		106	73 - 127
1,2,3-Trichlorobenzene	50.0	44.1		ug/L		88	69 - 129
1,2,4-Trichlorobenzene	50.0	46.9	M	ug/L		94	69 - 130
1,1,1-Trichloroethane	50.0	51.6		ug/L		103	74 - 131
1,1,2-Trichloroethane	50.0	49.4		ug/L		99	80 - 119
Trichloroethene	50.0	47.7		ug/L		95	79 - 123
Trichlorofluoromethane	50.0	53.7		ug/L		107	65 - 141
1,2,3-Trichloropropane	50.0	49.3		ug/L		99	73 - 122
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	43.3		ug/L		87	70 - 136
1,2,4-Trimethylbenzene	50.0	52.0		ug/L		104	76 - 124
1,3,5-Trimethylbenzene	50.0	51.6		ug/L		103	75 - 124
Vinyl chloride	50.0	54.4		ug/L		109	58 - 137
Xylenes, Total	100	100		ug/L		100	79 - 121

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*104*		*85 - 114*
Dibromofluoromethane (Surr)	*94*		*80 - 119*
1,2-Dichloroethane-d4 (Surr)	*92*		*81 - 118*
Toluene-d8 (Surr)	*95*		*89 - 112*

Lab Sample ID: LCSD 680-811496/5
Matrix: Water
Analysis Batch: 811496

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acetone	250	210		ug/L		84	39 - 160	0	20
Benzene	50.0	47.3		ug/L		95	79 - 120	1	20
Bromobenzene	50.0	47.3		ug/L		95	80 - 120	3	20
Bromochloromethane	50.0	43.2		ug/L		86	78 - 123	1	20
Bromodichloromethane	50.0	48.7		ug/L		97	79 - 125	4	20
Bromoform	50.0	55.2		ug/L		110	66 - 130	0	20
Bromomethane	50.0	57.4		ug/L		115	53 - 141	1	20
2-Butanone (MEK)	250	199		ug/L		79	56 - 143	1	20
Carbon disulfide	50.0	38.8		ug/L		78	64 - 133	0	20
Carbon tetrachloride	50.0	48.7		ug/L		97	72 - 136	1	20
Chlorobenzene	50.0	49.1		ug/L		98	82 - 118	1	20
Chloroethane	50.0	48.1		ug/L		96	60 - 138	2	20
Chloroform	50.0	48.5		ug/L		97	79 - 124	0	20
Chloromethane	50.0	47.7		ug/L		95	50 - 139	4	20
2-Chlorotoluene	50.0	48.2		ug/L		96	79 - 122	2	20
4-Chlorotoluene	50.0	49.3		ug/L		99	78 - 122	1	20
cis-1,2-Dichloroethene	50.0	46.5		ug/L		93	78 - 123	0	20
cis-1,3-Dichloropropene	50.0	51.1		ug/L		102	75 - 124	5	20

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-811496/5
Matrix: Water
Analysis Batch: 811496

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Cyclohexane	50.0	40.6		ug/L		81	71 - 130	1	20
Dibromochloromethane	50.0	55.3		ug/L		111	74 - 126	6	20
1,2-Dibromo-3-Chloropropane	50.0	52.9		ug/L		106	62 - 128	4	20
1,2-Dibromoethane	50.0	51.3		ug/L		103	75 - 127	0	20
Dibromomethane	50.0	47.2		ug/L		94	79 - 123	1	20
1,2-Dichlorobenzene	50.0	52.2		ug/L		104	80 - 119	3	20
1,3-Dichlorobenzene	50.0	52.3		ug/L		105	80 - 119	4	20
1,4-Dichlorobenzene	50.0	51.5		ug/L		103	79 - 118	2	20
Dichlorodifluoromethane	50.0	48.5		ug/L		97	32 - 152	4	20
1,1-Dichloroethane	50.0	45.2		ug/L		90	77 - 125	4	20
1,2-Dichloroethane	50.0	47.4		ug/L		95	73 - 128	2	20
1,1-Dichloroethene	50.0	42.3		ug/L		85	71 - 131	0	20
1,2-Dichloroethene, Total	100	89.7		ug/L		90	79 - 121	3	20
1,2-Dichloropropane	50.0	46.1		ug/L		92	78 - 122	0	20
1,3-Dichloropropane	50.0	49.4		ug/L		99	80 - 119	1	20
2,2-Dichloropropane	50.0	50.7	M	ug/L		101	60 - 139	1	20
1,1-Dichloropropene	50.0	47.2		ug/L		94	79 - 125	1	20
Ethylbenzene	50.0	50.4		ug/L		101	79 - 121	1	20
Hexachlorobutadiene	50.0	51.2		ug/L		102	66 - 134	0	20
2-Hexanone	250	212		ug/L		85	57 - 139	1	20
Isopropylbenzene	50.0	50.0		ug/L		100	72 - 131	1	20
4-Isopropyltoluene	50.0	55.5		ug/L		111	77 - 127	4	20
Methyl acetate	100	78.5		ug/L		79	56 - 136	3	20
Methylcyclohexane	50.0	44.5		ug/L		89	72 - 132	0	20
Methylene Chloride	50.0	44.0		ug/L		88	74 - 124	1	20
4-Methyl-2-pentanone (MIBK)	250	215		ug/L		86	67 - 130	0	20
Methyl tert-butyl ether	50.0	48.3		ug/L		97	71 - 124	2	20
m-Xylene & p-Xylene	50.0	50.3		ug/L		101	80 - 121	0	20
Naphthalene	50.0	46.8		ug/L		94	61 - 128	2	20
n-Butylbenzene	50.0	51.9		ug/L		104	75 - 128	0	20
N-Propylbenzene	50.0	48.3		ug/L		97	76 - 126	3	20
o-Xylene	50.0	50.5		ug/L		101	78 - 122	1	20
sec-Butylbenzene	50.0	48.4		ug/L		97	77 - 126	1	20
Styrene	50.0	52.3		ug/L		105	78 - 123	0	20
tert-Butylbenzene	50.0	48.1		ug/L		96	78 - 124	3	20
1,1,1,2-Tetrachloroethane	50.0	53.0		ug/L		106	78 - 124	0	20
1,1,2,2-Tetrachloroethane	50.0	50.2		ug/L		100	71 - 121	1	20
Tetrachloroethene	50.0	46.3		ug/L		93	74 - 129	3	20
Toluene	50.0	47.5		ug/L		95	80 - 121	1	20
trans-1,2-Dichloroethene	50.0	43.2		ug/L		86	75 - 124	6	20
trans-1,3-Dichloropropene	50.0	52.5		ug/L		105	73 - 127	1	20
1,2,3-Trichlorobenzene	50.0	45.5		ug/L		91	69 - 129	3	20
1,2,4-Trichlorobenzene	50.0	47.4		ug/L		95	69 - 130	1	20
1,1,1-Trichloroethane	50.0	50.6		ug/L		101	74 - 131	2	20
1,1,2-Trichloroethane	50.0	49.4		ug/L		99	80 - 119	0	20
Trichloroethene	50.0	47.5		ug/L		95	79 - 123	0	20
Trichlorofluoromethane	50.0	53.3		ug/L		107	65 - 141	1	20
1,2,3-Trichloropropane	50.0	48.6		ug/L		97	73 - 122	1	20

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-811496/5
Matrix: Water
Analysis Batch: 811496

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	42.5		ug/L		85	70 - 136	2	20
1,2,4-Trimethylbenzene	50.0	52.1		ug/L		104	76 - 124	0	20
1,3,5-Trimethylbenzene	50.0	50.6		ug/L		101	75 - 124	2	20
Vinyl chloride	50.0	51.3		ug/L		103	58 - 137	6	20
Xylenes, Total	100	101		ug/L		101	79 - 121	1	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*107*		*85 - 114*
Dibromofluoromethane (Surr)	*94*		*80 - 119*
1,2-Dichloroethane-d4 (Surr)	*92*		*81 - 118*
Toluene-d8 (Surr)	*96*		*89 - 112*

Method: RSK-175 - Dissolved Gases (GC)

Lab Sample ID: MB 680-810949/35
Matrix: Water
Analysis Batch: 810949

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	0.76	U	1.1	0.30	ug/L			11/30/23 21:06	1
Ethylene	0.71	U	1.0	0.31	ug/L			11/30/23 21:06	1
Methane	1.2	U	1.2	0.57	ug/L			11/30/23 21:06	1

Lab Sample ID: LCS 680-810949/30
Matrix: Water
Analysis Batch: 810949

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Methane (TCD)	1920	2160		ug/L		112	73 - 125

Lab Sample ID: LCS 680-810949/32
Matrix: Water
Analysis Batch: 810949

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Ethane	361	353		ug/L		98	74 - 131
Ethylene	337	319		ug/L		95	72 - 133
Methane	192	183		ug/L		95	73 - 125

Lab Sample ID: LCSD 680-810949/31
Matrix: Water
Analysis Batch: 810949

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Methane (TCD)	1920	2130		ug/L		111	73 - 125	1	30

Method: RSK-175 - Dissolved Gases (GC) (Continued)

Lab Sample ID: LCSD 680-810949/33
Matrix: Water
Analysis Batch: 810949

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ethane	361	338		ug/L		94	74 - 131	4	30
Ethylene	337	308		ug/L		91	72 - 133	4	30
Methane	192	178		ug/L		92	73 - 125	3	30

Lab Sample ID: MB 680-811422/9
Matrix: Water
Analysis Batch: 811422

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	0.76	U	1.1	0.30	ug/L			12/04/23 17:01	1
Ethylene	0.71	U	1.0	0.31	ug/L			12/04/23 17:01	1
Methane	1.2	U	1.2	0.57	ug/L			12/04/23 17:01	1

Lab Sample ID: LCS 680-811422/3
Matrix: Water
Analysis Batch: 811422

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Methane (TCD)	1920	2140		ug/L		112	73 - 125

Lab Sample ID: LCS 680-811422/6
Matrix: Water
Analysis Batch: 811422

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Ethane	361	343		ug/L		95	74 - 131
Ethylene	337	312		ug/L		93	72 - 133
Methane	192	180		ug/L		93	73 - 125

Lab Sample ID: LCSD 680-811422/4
Matrix: Water
Analysis Batch: 811422

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Methane (TCD)	1920	2120		ug/L		110	73 - 125	1	30

Lab Sample ID: LCSD 680-811422/7
Matrix: Water
Analysis Batch: 811422

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ethane	361	363		ug/L		101	74 - 131	6	30
Ethylene	337	330		ug/L		98	72 - 133	6	30
Methane	192	192		ug/L		100	73 - 125	6	30

Method: RSK-175 - Dissolved Gases (GC) (Continued)

Lab Sample ID: MB 680-811645/8
Matrix: Water
Analysis Batch: 811645

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	0.76	U	1.1	0.30	ug/L			12/05/23 16:16	1
Ethylene	0.71	U	1.0	0.31	ug/L			12/05/23 16:16	1
Methane	1.2	U	1.2	0.57	ug/L			12/05/23 16:16	1

Lab Sample ID: LCS 680-811645/3
Matrix: Water
Analysis Batch: 811645

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Methane (TCD)	1920	2130		ug/L		111	73 - 125

Lab Sample ID: LCS 680-811645/6
Matrix: Water
Analysis Batch: 811645

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Ethane	361	352		ug/L		98	74 - 131
Ethylene	337	319		ug/L		95	72 - 133
Methane	192	182		ug/L		94	73 - 125

Lab Sample ID: LCSD 680-811645/4
Matrix: Water
Analysis Batch: 811645

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Methane (TCD)	1920	2080		ug/L		108	73 - 125	2	30

Lab Sample ID: LCSD 680-811645/7
Matrix: Water
Analysis Batch: 811645

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ethane	361	330		ug/L		91	74 - 131	7	30
Ethylene	337	298		ug/L		88	72 - 133	7	30
Methane	192	171		ug/L		89	73 - 125	6	30

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 680-809700/4
Matrix: Water
Analysis Batch: 809700

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.050	U	0.055	0.023	mg/L			11/22/23 12:00	1
Nitrate Nitrite as N	0.050	U	0.055	0.023	mg/L			11/22/23 12:00	1
Nitrite as N	0.050	U	0.055	0.023	mg/L			11/22/23 12:00	1

Method: 9056A - Anions, Ion Chromatography (Continued)

Lab Sample ID: CCV 680-809700/3 LCS
Matrix: Water
Analysis Batch: 809700

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrate as N	1.00	1.02		mg/L		102	88 - 111
Nitrate Nitrite as N	2.00	2.04		mg/L		102	88 - 111
Nitrite as N	1.00	1.02		mg/L		102	87 - 111

Lab Sample ID: LCS 680-809700/5
Matrix: Water
Analysis Batch: 809700

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrate as N	1.00	1.00		mg/L		100	88 - 111
Nitrate Nitrite as N	2.00	1.98		mg/L		99	88 - 111
Nitrite as N	1.00	0.982		mg/L		98	87 - 111

Lab Sample ID: LCSD 680-809700/6
Matrix: Water
Analysis Batch: 809700

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrate as N	1.00	1.01		mg/L		101	88 - 111	1	15
Nitrate Nitrite as N	2.00	1.99		mg/L		100	88 - 111	0	15
Nitrite as N	1.00	0.981		mg/L		98	87 - 111	0	15

Lab Sample ID: 680-243330-4 MS
Matrix: Water
Analysis Batch: 809700

Client Sample ID: OU6-MW-130-20231121
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrate as N	0.050	U J1	1.00	1.18	J1 M	mg/L		118	88 - 111
Nitrate Nitrite as N	0.050	U	2.00	2.01		mg/L		100	88 - 111
Nitrite as N	0.050	U J1	1.00	0.828	J1	mg/L		83	87 - 111

Lab Sample ID: 680-243330-4 MSD
Matrix: Water
Analysis Batch: 809700

Client Sample ID: OU6-MW-130-20231121
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrate as N	0.050	U J1	1.00	1.08	M	mg/L		108	88 - 111	9	15
Nitrate Nitrite as N	0.050	U	2.00	1.92		mg/L		96	88 - 111	5	15
Nitrite as N	0.050	U J1	1.00	0.837	J1	mg/L		84	87 - 111	1	15

Lab Sample ID: MB 680-811595/1002
Matrix: Water
Analysis Batch: 811595

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.50	U	0.55	0.20	mg/L			12/05/23 12:33	1
Sulfate	1.0	U	1.5	0.40	mg/L			12/05/23 12:33	1

Method: 9056A - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 680-811595/5
Matrix: Water
Analysis Batch: 811595

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			5.00	4.67		mg/L		93	87 - 111		
Sulfate			5.00	4.92		mg/L		98	87 - 112		

Lab Sample ID: LCSD 680-811595/6
Matrix: Water
Analysis Batch: 811595

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			5.00	4.69		mg/L		94	87 - 111	0	15
Sulfate			5.00	4.93		mg/L		99	87 - 112	0	15

Lab Sample ID: 680-243330-1 MS
Matrix: Water
Analysis Batch: 811595

Client Sample ID: OU6-MW-240-20231121
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	19		5.00	23.8		mg/L		93	87 - 111		
Sulfate	1.0	U	5.00	4.92		mg/L		98	87 - 112		

Lab Sample ID: 680-243330-1 MSD
Matrix: Water
Analysis Batch: 811595

Client Sample ID: OU6-MW-240-20231121
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	19		5.00	23.7		mg/L		93	87 - 111	0	15
Sulfate	1.0	U	5.00	4.91		mg/L		98	87 - 112	0	15

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 680-809926/1-A
Matrix: Water
Analysis Batch: 810173

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 809926

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	5.0	U	10	2.2	ug/L		11/26/23 10:02	11/27/23 21:22	1

Lab Sample ID: LCS 680-809926/2-A
Matrix: Water
Analysis Batch: 810173

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 809926

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Manganese			400	394		ug/L		98	87 - 115		

Method: 2320B-2011 - Alkalinity, Total

Lab Sample ID: MB 680-811048/4
Matrix: Water
Analysis Batch: 811048

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	5.0	U	5.5	2.2	mg/L			11/30/23 17:25	1
Bicarbonate Alkalinity as CaCO3	10	U	11	5.0	mg/L			11/30/23 17:25	1
Carbonate Alkalinity as CaCO3	10	U	11	5.0	mg/L			11/30/23 17:25	1

Lab Sample ID: LCS 680-811048/6
Matrix: Water
Analysis Batch: 811048

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Alkalinity as CaCO3 to pH 4.5			250	248		mg/L		99	90 - 112		

Lab Sample ID: LCSD 680-811048/31
Matrix: Water
Analysis Batch: 811048

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5			250	249		mg/L		100	90 - 112	1	30

Lab Sample ID: 680-243330-2 DU
Matrix: Water
Analysis Batch: 811048

Client Sample ID: OU6-MW-246-20231121
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5	40			36.3		mg/L				9	30
Bicarbonate Alkalinity as CaCO3	40			36.3		mg/L				9	30
Carbonate Alkalinity as CaCO3	10	U		10	U	mg/L				NC	30

Lab Sample ID: MB 680-811051/4
Matrix: Water
Analysis Batch: 811051

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	5.0	U	5.5	2.2	mg/L			11/30/23 23:33	1
Bicarbonate Alkalinity as CaCO3	10	U	11	5.0	mg/L			11/30/23 23:33	1
Carbonate Alkalinity as CaCO3	10	U	11	5.0	mg/L			11/30/23 23:33	1

Lab Sample ID: LCS 680-811051/6
Matrix: Water
Analysis Batch: 811051

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Alkalinity as CaCO3 to pH 4.5			250	245		mg/L		98	90 - 112		

Method: 2320B-2011 - Alkalinity, Total (Continued)

Lab Sample ID: LCSD 680-811051/31
Matrix: Water
Analysis Batch: 811051

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5			250	250		mg/L		100	90 - 112	2	30

Method: 4500 S2 F-2011 - Sulfide, Total

Lab Sample ID: MB 680-810118/1
Matrix: Water
Analysis Batch: 810118

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	1.0	U	1.0	1.0	mg/L			11/27/23 14:06	1
Sulfide as H2S	1.1	U	1.1	1.1	mg/L			11/27/23 14:06	1

Lab Sample ID: LCS 680-810118/2
Matrix: Water
Analysis Batch: 810118

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Sulfide			10.0	8.13		mg/L		81	75 - 125		
Sulfide as H2S			10.6	8.64		mg/L		81	75 - 125		

Lab Sample ID: LCSD 680-810118/3
Matrix: Water
Analysis Batch: 810118

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sulfide			10.0	8.20		mg/L		82	75 - 125	1	30
Sulfide as H2S			10.6	8.71		mg/L		82	75 - 125	1	30

Lab Sample ID: 680-243330-2 MS
Matrix: Water
Analysis Batch: 810118

Client Sample ID: OU6-MW-246-20231121
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Sulfide	0.89	U	7.97	7.07		mg/L		89	75 - 125		
Sulfide as H2S	0.98	U	8.47	7.51		mg/L		89	75 - 125		

Lab Sample ID: 680-243330-2 MSD
Matrix: Water
Analysis Batch: 810118

Client Sample ID: OU6-MW-246-20231121
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sulfide	0.89	U	7.97	7.07		mg/L		89	75 - 125	0	30
Sulfide as H2S	0.98	U	8.47	7.51		mg/L		89	75 - 125	0	30

Method: 4500 S2 F-2011 - Sulfide, Total (Continued)

Lab Sample ID: 680-243330-1 DU
Matrix: Water
Analysis Batch: 810118

Client Sample ID: OU6-MW-240-20231121
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Sulfide	0.89	U	0.89	U	mg/L		NC	30
Sulfide as H2S	0.98	U	0.98	U	mg/L		NC	30

Method: 9060A - Organic Carbon, Total (TOC)

Lab Sample ID: MB 680-810497/3
Matrix: Water
Analysis Batch: 810497

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	1.0	U	1.0	0.50	mg/L			11/28/23 13:05	1

Lab Sample ID: LCS 680-810497/4
Matrix: Water
Analysis Batch: 810497

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Organic Carbon	20.0	18.1		mg/L		91	80 - 120

Lab Sample ID: LCSD 680-810497/5
Matrix: Water
Analysis Batch: 810497

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Organic Carbon	20.0	18.3		mg/L		92	80 - 120	1	25

Lab Sample ID: MB 680-811028/2
Matrix: Water
Analysis Batch: 811028

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	1.0	U	1.0	0.50	mg/L			11/22/23 19:33	1

Lab Sample ID: LCS 680-811028/3
Matrix: Water
Analysis Batch: 811028

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Organic Carbon	20.0	18.9		mg/L		95	80 - 120

Lab Sample ID: LCSD 680-811028/4
Matrix: Water
Analysis Batch: 811028

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Organic Carbon	20.0	19.3		mg/L		97	80 - 120	2	25

GC/MS VOA

Analysis Batch: 810968

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-243330-1	OU6-MW-240-20231121	Total/NA	Water	8260D	
680-243330-2	OU6-MW-246-20231121	Total/NA	Water	8260D	
680-243330-5	OU6-MW-129-20231121	Total/NA	Water	8260D	
680-243330-8	TRIPBLANK-20231121	Total/NA	Water	8260D	
MB 680-810968/8	Method Blank	Total/NA	Water	8260D	
LCS 680-810968/4	Lab Control Sample	Total/NA	Water	8260D	
LCSD 680-810968/5	Lab Control Sample Dup	Total/NA	Water	8260D	

Analysis Batch: 811496

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-243330-1	OU6-MW-240-20231121	Total/NA	Water	8260D	
680-243330-2	OU6-MW-246-20231121	Total/NA	Water	8260D	
680-243330-3	OU6-MW-247-20231121	Total/NA	Water	8260D	
680-243330-4	OU6-MW-130-20231121	Total/NA	Water	8260D	
680-243330-5 - DL	OU6-MW-129-20231121	Total/NA	Water	8260D	
680-243330-6	OU6-MW-131-20231121	Total/NA	Water	8260D	
680-243330-7	OU6-MW-126-20231121	Total/NA	Water	8260D	
MB 680-811496/8	Method Blank	Total/NA	Water	8260D	
LCS 680-811496/4	Lab Control Sample	Total/NA	Water	8260D	
LCSD 680-811496/5	Lab Control Sample Dup	Total/NA	Water	8260D	

GC VOA

Analysis Batch: 810949

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-243330-1	OU6-MW-240-20231121	Total/NA	Water	RSK-175	
MB 680-810949/35	Method Blank	Total/NA	Water	RSK-175	
LCS 680-810949/30	Lab Control Sample	Total/NA	Water	RSK-175	
LCS 680-810949/32	Lab Control Sample	Total/NA	Water	RSK-175	
LCSD 680-810949/31	Lab Control Sample Dup	Total/NA	Water	RSK-175	
LCSD 680-810949/33	Lab Control Sample Dup	Total/NA	Water	RSK-175	

Analysis Batch: 811422

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-243330-2	OU6-MW-246-20231121	Total/NA	Water	RSK-175	
680-243330-3	OU6-MW-247-20231121	Total/NA	Water	RSK-175	
680-243330-4	OU6-MW-130-20231121	Total/NA	Water	RSK-175	
680-243330-5	OU6-MW-129-20231121	Total/NA	Water	RSK-175	
680-243330-6	OU6-MW-131-20231121	Total/NA	Water	RSK-175	
MB 680-811422/9	Method Blank	Total/NA	Water	RSK-175	
LCS 680-811422/3	Lab Control Sample	Total/NA	Water	RSK-175	
LCS 680-811422/6	Lab Control Sample	Total/NA	Water	RSK-175	
LCSD 680-811422/4	Lab Control Sample Dup	Total/NA	Water	RSK-175	
LCSD 680-811422/7	Lab Control Sample Dup	Total/NA	Water	RSK-175	

Analysis Batch: 811645

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-243330-5	OU6-MW-129-20231121	Total/NA	Water	RSK-175	
MB 680-811645/8	Method Blank	Total/NA	Water	RSK-175	
LCS 680-811645/3	Lab Control Sample	Total/NA	Water	RSK-175	
LCS 680-811645/6	Lab Control Sample	Total/NA	Water	RSK-175	

GC VOA (Continued)

Analysis Batch: 811645 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 680-811645/4	Lab Control Sample Dup	Total/NA	Water	RSK-175	
LCSD 680-811645/7	Lab Control Sample Dup	Total/NA	Water	RSK-175	

HPLC/IC

Analysis Batch: 809700

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-243330-1	OU6-MW-240-20231121	Total/NA	Water	9056A	
680-243330-2	OU6-MW-246-20231121	Total/NA	Water	9056A	
680-243330-3	OU6-MW-247-20231121	Total/NA	Water	9056A	
680-243330-4	OU6-MW-130-20231121	Total/NA	Water	9056A	
680-243330-5	OU6-MW-129-20231121	Total/NA	Water	9056A	
680-243330-6	OU6-MW-131-20231121	Total/NA	Water	9056A	
MB 680-809700/4	Method Blank	Total/NA	Water	9056A	
CCV 680-809700/3 LCS	Lab Control Sample	Total/NA	Water	9056A	
LCS 680-809700/5	Lab Control Sample	Total/NA	Water	9056A	
LCSD 680-809700/6	Lab Control Sample Dup	Total/NA	Water	9056A	
680-243330-4 MS	OU6-MW-130-20231121	Total/NA	Water	9056A	
680-243330-4 MSD	OU6-MW-130-20231121	Total/NA	Water	9056A	

Analysis Batch: 811595

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-243330-1	OU6-MW-240-20231121	Total/NA	Water	9056A	
680-243330-2	OU6-MW-246-20231121	Total/NA	Water	9056A	
680-243330-3	OU6-MW-247-20231121	Total/NA	Water	9056A	
680-243330-4	OU6-MW-130-20231121	Total/NA	Water	9056A	
680-243330-5	OU6-MW-129-20231121	Total/NA	Water	9056A	
680-243330-6	OU6-MW-131-20231121	Total/NA	Water	9056A	
MB 680-811595/1002	Method Blank	Total/NA	Water	9056A	
LCS 680-811595/5	Lab Control Sample	Total/NA	Water	9056A	
LCSD 680-811595/6	Lab Control Sample Dup	Total/NA	Water	9056A	
680-243330-1 MS	OU6-MW-240-20231121	Total/NA	Water	9056A	
680-243330-1 MSD	OU6-MW-240-20231121	Total/NA	Water	9056A	

Metals

Prep Batch: 809926

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-243330-1	OU6-MW-240-20231121	Total Recoverable	Water	3005A	
680-243330-2	OU6-MW-246-20231121	Total Recoverable	Water	3005A	
680-243330-3	OU6-MW-247-20231121	Total Recoverable	Water	3005A	
680-243330-4	OU6-MW-130-20231121	Total Recoverable	Water	3005A	
680-243330-5	OU6-MW-129-20231121	Total Recoverable	Water	3005A	
680-243330-6	OU6-MW-131-20231121	Total Recoverable	Water	3005A	
MB 680-809926/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 680-809926/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 810173

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-243330-1	OU6-MW-240-20231121	Total Recoverable	Water	6020A	809926
680-243330-2	OU6-MW-246-20231121	Total Recoverable	Water	6020A	809926
680-243330-3	OU6-MW-247-20231121	Total Recoverable	Water	6020A	809926

Metals (Continued)

Analysis Batch: 810173 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-243330-4	OU6-MW-130-20231121	Total Recoverable	Water	6020A	809926
680-243330-5	OU6-MW-129-20231121	Total Recoverable	Water	6020A	809926
680-243330-6	OU6-MW-131-20231121	Total Recoverable	Water	6020A	809926
MB 680-809926/1-A	Method Blank	Total Recoverable	Water	6020A	809926
LCS 680-809926/2-A	Lab Control Sample	Total Recoverable	Water	6020A	809926

General Chemistry

Analysis Batch: 810118

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-243330-1	OU6-MW-240-20231121	Total/NA	Water	4500 S2 F-2011	
680-243330-2	OU6-MW-246-20231121	Total/NA	Water	4500 S2 F-2011	
680-243330-3	OU6-MW-247-20231121	Total/NA	Water	4500 S2 F-2011	
680-243330-4	OU6-MW-130-20231121	Total/NA	Water	4500 S2 F-2011	
680-243330-5	OU6-MW-129-20231121	Total/NA	Water	4500 S2 F-2011	
680-243330-6	OU6-MW-131-20231121	Total/NA	Water	4500 S2 F-2011	
MB 680-810118/1	Method Blank	Total/NA	Water	4500 S2 F-2011	
LCS 680-810118/2	Lab Control Sample	Total/NA	Water	4500 S2 F-2011	
LCSD 680-810118/3	Lab Control Sample Dup	Total/NA	Water	4500 S2 F-2011	
680-243330-2 MS	OU6-MW-246-20231121	Total/NA	Water	4500 S2 F-2011	
680-243330-2 MSD	OU6-MW-246-20231121	Total/NA	Water	4500 S2 F-2011	
680-243330-1 DU	OU6-MW-240-20231121	Total/NA	Water	4500 S2 F-2011	

Analysis Batch: 810497

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-243330-1	OU6-MW-240-20231121	Total/NA	Water	9060A	
680-243330-3	OU6-MW-247-20231121	Total/NA	Water	9060A	
MB 680-810497/3	Method Blank	Total/NA	Water	9060A	
LCS 680-810497/4	Lab Control Sample	Total/NA	Water	9060A	
LCSD 680-810497/5	Lab Control Sample Dup	Total/NA	Water	9060A	

Analysis Batch: 811028

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-243330-2	OU6-MW-246-20231121	Total/NA	Water	9060A	
680-243330-4	OU6-MW-130-20231121	Total/NA	Water	9060A	
680-243330-5	OU6-MW-129-20231121	Total/NA	Water	9060A	
680-243330-6	OU6-MW-131-20231121	Total/NA	Water	9060A	
MB 680-811028/2	Method Blank	Total/NA	Water	9060A	
LCS 680-811028/3	Lab Control Sample	Total/NA	Water	9060A	
LCSD 680-811028/4	Lab Control Sample Dup	Total/NA	Water	9060A	

Analysis Batch: 811048

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-243330-1	OU6-MW-240-20231121	Total/NA	Water	2320B-2011	
680-243330-2	OU6-MW-246-20231121	Total/NA	Water	2320B-2011	
680-243330-3	OU6-MW-247-20231121	Total/NA	Water	2320B-2011	
680-243330-5	OU6-MW-129-20231121	Total/NA	Water	2320B-2011	
680-243330-6	OU6-MW-131-20231121	Total/NA	Water	2320B-2011	
MB 680-811048/4	Method Blank	Total/NA	Water	2320B-2011	
LCS 680-811048/6	Lab Control Sample	Total/NA	Water	2320B-2011	
LCSD 680-811048/31	Lab Control Sample Dup	Total/NA	Water	2320B-2011	

General Chemistry (Continued)

Analysis Batch: 811048 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-243330-2 DU	OU6-MW-246-20231121	Total/NA	Water	2320B-2011	

Analysis Batch: 811051

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-243330-4	OU6-MW-130-20231121	Total/NA	Water	2320B-2011	
MB 680-811051/4	Method Blank	Total/NA	Water	2320B-2011	
LCS 680-811051/6	Lab Control Sample	Total/NA	Water	2320B-2011	
LCSD 680-811051/31	Lab Control Sample Dup	Total/NA	Water	2320B-2011	

Lab Chronicle

Client: Meadows CMPG, Inc
Project/Site: OU6 Monitoring

Job ID: 680-243330-1

Client Sample ID: OU6-MW-240-20231121

Lab Sample ID: 680-243330-1

Date Collected: 11/21/23 07:40

Matrix: Water

Date Received: 11/22/23 10:23

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		25	5 mL	5 mL	810968	12/01/23 18:10	P1C	EET SAV
	Instrument ID: CMSAA									
Total/NA	Analysis	8260D		25	5 mL	5 mL	811496	12/05/23 18:11	P1C	EET SAV
	Instrument ID: CMSAJ									
Total/NA	Analysis	RSK-175		1	17 mL	17 mL	810949	11/30/23 23:41	OK	EET SAV
	Instrument ID: CVGU									
Total/NA	Analysis	9056A		2	5 mL	5 mL	809700	11/22/23 14:50	UI	EET SAV
	Instrument ID: CICP									
Total/NA	Analysis	9056A		1	5 mL	5 mL	811595	12/05/23 16:35	GE	EET SAV
	Instrument ID: CICS									
Total Recoverable	Prep	3005A			25 mL	125 mL	809926	11/26/23 10:02	RR	EET SAV
Total Recoverable	Analysis	6020A		1			810173	11/27/23 22:18	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			811048	11/30/23 19:51	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	4500 S2 F-2011		1	280 mL	280 mL	810118	11/27/23 14:06	JAS	EET SAV
	Instrument ID: NoEquip									
Total/NA	Analysis	9060A		2	40 mL	40 mL	810497	11/28/23 16:01	MCH	EET SAV
	Instrument ID: TOC7									

Client Sample ID: OU6-MW-246-20231121

Lab Sample ID: 680-243330-2

Date Collected: 11/21/23 10:10

Matrix: Water

Date Received: 11/22/23 10:23

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	810968	12/01/23 15:34	P1C	EET SAV
	Instrument ID: CMSAA									
Total/NA	Analysis	8260D		1	5 mL	5 mL	811496	12/05/23 12:49	P1C	EET SAV
	Instrument ID: CMSAJ									
Total/NA	Analysis	RSK-175		1	17 mL	17 mL	811422	12/04/23 18:18	OK	EET SAV
	Instrument ID: CVGU									
Total/NA	Analysis	9056A		2	5 mL	5 mL	809700	11/22/23 15:00	UI	EET SAV
	Instrument ID: CICP									
Total/NA	Analysis	9056A		1	5 mL	5 mL	811595	12/05/23 17:07	GE	EET SAV
	Instrument ID: CICS									
Total Recoverable	Prep	3005A			25 mL	125 mL	809926	11/26/23 10:02	RR	EET SAV
Total Recoverable	Analysis	6020A		1			810173	11/27/23 22:22	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			811048	11/30/23 20:09	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	4500 S2 F-2011		1	280 mL	280 mL	810118	11/27/23 14:06	JAS	EET SAV
	Instrument ID: NoEquip									
Total/NA	Analysis	9060A		1	40 mL	40 mL	811028	11/23/23 01:03	MCH	EET SAV
	Instrument ID: TOC8									

Lab Chronicle

Client: Meadows CMPG, Inc
Project/Site: OU6 Monitoring

Job ID: 680-243330-1

Client Sample ID: OU6-MW-247-20231121

Lab Sample ID: 680-243330-3

Date Collected: 11/21/23 08:50

Matrix: Water

Date Received: 11/22/23 10:23

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	811496	12/05/23 13:11	P1C	EET SAV
	Instrument ID: CMSAJ									
Total/NA	Analysis	RSK-175		1	17 mL	17 mL	811422	12/04/23 18:31	OK	EET SAV
	Instrument ID: CVGU									
Total/NA	Analysis	9056A		2	5 mL	5 mL	809700	11/22/23 15:09	UI	EET SAV
	Instrument ID: CICP									
Total/NA	Analysis	9056A		1	5 mL	5 mL	811595	12/05/23 17:18	GE	EET SAV
	Instrument ID: CICS									
Total Recoverable	Prep	3005A			25 mL	125 mL	809926	11/26/23 10:02	RR	EET SAV
Total Recoverable	Analysis	6020A		1			810173	11/27/23 22:26	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			811048	11/30/23 19:29	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	4500 S2 F-2011		1	280 mL	280 mL	810118	11/27/23 14:06	JAS	EET SAV
	Instrument ID: NoEquip									
Total/NA	Analysis	9060A		20	40 mL	40 mL	810497	11/28/23 16:20	MCH	EET SAV
	Instrument ID: TOC7									

Client Sample ID: OU6-MW-130-20231121

Lab Sample ID: 680-243330-4

Date Collected: 11/21/23 08:25

Matrix: Water

Date Received: 11/22/23 10:23

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		2	5 mL	5 mL	811496	12/05/23 16:02	P1C	EET SAV
	Instrument ID: CMSAJ									
Total/NA	Analysis	RSK-175		1	17 mL	17 mL	811422	12/04/23 18:44	OK	EET SAV
	Instrument ID: CVGU									
Total/NA	Analysis	9056A		1	5 mL	5 mL	809700	11/22/23 15:19	UI	EET SAV
	Instrument ID: CICP									
Total/NA	Analysis	9056A		1	5 mL	5 mL	811595	12/05/23 17:28	GE	EET SAV
	Instrument ID: CICS									
Total Recoverable	Prep	3005A			25 mL	125 mL	809926	11/26/23 10:02	RR	EET SAV
Total Recoverable	Analysis	6020A		1			810173	11/27/23 22:30	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			811051	12/01/23 03:16	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	4500 S2 F-2011		1	280 mL	280 mL	810118	11/27/23 14:06	JAS	EET SAV
	Instrument ID: NoEquip									
Total/NA	Analysis	9060A		1	40 mL	40 mL	811028	11/23/23 01:45	MCH	EET SAV
	Instrument ID: TOC8									

Client Sample ID: OU6-MW-129-20231121

Lab Sample ID: 680-243330-5

Date Collected: 11/21/23 09:35

Matrix: Water

Date Received: 11/22/23 10:23

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		100	5 mL	5 mL	810968	12/01/23 17:27	P1C	EET SAV
	Instrument ID: CMSAA									
Total/NA	Analysis	8260D	DL	250	5 mL	5 mL	811496	12/05/23 18:33	P1C	EET SAV
	Instrument ID: CMSAJ									
Total/NA	Analysis	RSK-175		1	17 mL	17 mL	811422	12/04/23 18:57	OK	EET SAV
	Instrument ID: CVGU									
Total/NA	Analysis	RSK-175		10	17 mL	17 mL	811645	12/05/23 16:37	OK	EET SAV
	Instrument ID: CVGU									
Total/NA	Analysis	9056A		2	5 mL	5 mL	809700	11/22/23 15:48	UI	EET SAV
	Instrument ID: CICP									
Total/NA	Analysis	9056A		1	5 mL	5 mL	811595	12/05/23 17:39	GE	EET SAV
	Instrument ID: CICS									
Total Recoverable	Prep	3005A			25 mL	125 mL	809926	11/26/23 10:02	RR	EET SAV
Total Recoverable	Analysis	6020A		1			810173	11/27/23 22:35	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			811048	11/30/23 19:02	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	4500 S2 F-2011		1	310 mL	310 mL	810118	11/27/23 14:06	JAS	EET SAV
	Instrument ID: NoEquip									
Total/NA	Analysis	9060A		1	40 mL	40 mL	811028	11/23/23 02:03	MCH	EET SAV
	Instrument ID: TOC8									

Client Sample ID: OU6-MW-131-20231121

Lab Sample ID: 680-243330-6

Date Collected: 11/21/23 10:33

Matrix: Water

Date Received: 11/22/23 10:23

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		10	5 mL	5 mL	811496	12/05/23 17:29	P1C	EET SAV
	Instrument ID: CMSAJ									
Total/NA	Analysis	RSK-175		1	17 mL	17 mL	811422	12/04/23 19:10	OK	EET SAV
	Instrument ID: CVGU									
Total/NA	Analysis	9056A		2	5 mL	5 mL	809700	11/22/23 15:58	UI	EET SAV
	Instrument ID: CICP									
Total/NA	Analysis	9056A		1	5 mL	5 mL	811595	12/05/23 18:34	GE	EET SAV
	Instrument ID: CICS									
Total Recoverable	Prep	3005A			25 mL	125 mL	809926	11/26/23 10:02	RR	EET SAV
Total Recoverable	Analysis	6020A		1			810173	11/27/23 22:39	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			811048	11/30/23 19:17	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	4500 S2 F-2011		1	310 mL	310 mL	810118	11/27/23 14:06	JAS	EET SAV
	Instrument ID: NoEquip									
Total/NA	Analysis	9060A		1	40 mL	40 mL	811028	11/23/23 02:21	MCH	EET SAV
	Instrument ID: TOC8									

Lab Chronicle

Client: Meadows CMPG, Inc
Project/Site: OU6 Monitoring

Job ID: 680-243330-1

Client Sample ID: OU6-MW-126-20231121

Lab Sample ID: 680-243330-7

Date Collected: 11/21/23 11:35
Matrix: Water
Date Received: 11/22/23 10:23

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		5	5 mL	5 mL	811496	12/05/23 17:07	P1C	EET SAV
	Instrument ID: CMSAJ									

Client Sample ID: TRIPBLANK-20231121

Lab Sample ID: 680-243330-8

Date Collected: 11/21/23 00:00
Matrix: Water
Date Received: 11/22/23 10:23

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	810968	12/01/23 13:59	P1C	EET SAV
	Instrument ID: CMSAA									

Laboratory References:

EET SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Accreditation/Certification Summary

Client: Meadows CMPG, Inc
Project/Site: OU6 Monitoring

Job ID: 680-243330-1

Laboratory: Eurofins Savannah

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
ANAB	Dept. of Defense ELAP	L2463	09-22-24
Virginia	NELAP	460161	06-14-24

Method Summary

Client: Meadows CMPG, Inc
Project/Site: OU6 Monitoring

Job ID: 680-243330-1

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds (GC/MS)	SW846	EET SAV
RSK-175	Dissolved Gases (GC)	RSK	EET SAV
9056A	Anions, Ion Chromatography	SW846	EET SAV
6020A	Metals (ICP/MS)	SW846	EET SAV
2320B-2011	Alkalinity, Total	SM	EET SAV
4500 S2 F-2011	Sulfide, Total	SM	EET SAV
9060A	Organic Carbon, Total (TOC)	SW846	EET SAV
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET SAV
5030C	Purge and Trap	SW846	EET SAV

Protocol References:

RSK = Sample Prep And Calculations For Dissolved Gas Analysis In Water Samples Using A GC Headspace Equilibration Technique, RSKSOP-175, Rev. 0, 8/11/94, USEPA Research Lab
SM = "Standard Methods For The Examination Of Water And Wastewater"
SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Login Sample Receipt Checklist

Client: Meadows CMPG, Inc

Job Number: 680-243330-1

Login Number: 243330
List Number: 1
Creator: Johnson, Corey M

List Source: Eurofins Savannah

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

microbialinsights
10515 Research Drive
Knoxville, TN 37932
Phone: (865) 573-8188
Fax: (865) 573-8133

ilac-MRA

ANAB
ANSI National Accreditation Board
ACCREDITED
ISO/IEC 17025
TESTING LABORATORY

Client: Andrew VanBuesking
Meadows CMPG, Inc.
2107 Granby Street
Norfolk, VA 23517

Phone:

Fax:

Identifier: 087UK **Date Rec:** 11/21/2023 **Report Date:** 11/27/2023

Client Project #: 0045-0011 **Client Project Name:** OU6 Permformance

Purchase Order #:

Test results provided for: CENSUS

Reviewed By:



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Results relate only to the items tested and the sample(s) as received by the laboratory.

MICROBIAL INSIGHTS, INC.

10515 Research Dr., Knoxville, TN 37932
Tel. (865) 573-8188 Fax. (865) 573-8133

CENSUS

Client: **Meadows CMPG, Inc.**
Project: OU6 Permformance

MI Project Number: **087UK**
Date Received: 11/21/2023

Sample Information

Client Sample ID:		**Dup-01-20231120**	**OU6-MW-242-20231120**	**OU6-MW-243-20231120**	**OU6-MW-241-20231120**	**OU6-MW-245-20231120**
Sample Date:		11/20/2023	11/20/2023	11/20/2023	11/20/2023	11/20/2023
Units:		cells/mL	cells/mL	cells/mL	cells/mL	cells/mL
Analyst/Reviewer:		AR/SK	AR/SK	AR/SK	AR/SK	AR/SK
Dechlorinating Bacteria						
Dehalococcoides	*DHC*	**1.15E+05**	**7.62E+04**	**1.30E+05**	**5.68E+04**	**1.80E+02**
tceA Reductase	TCE	**5.00E-01(J)**	**1.60E+01**	**8.44E+01**	**4.79E+03**	<5.00E-01
BAV1 Vinyl Chloride Reductase	BVC	<5.00E-01	<5.00E-01	<1.10E+00	<5.00E-01	<5.00E-01
Vinyl Chloride Reductase	VCR	**3.07E+03**	**2.67E+03**	**5.16E+03**	**2.43E+03**	**6.10E+00**

Legend:
NA = Not Analyzed NS = Not Sampled J = Estimated gene copies below PQL but above LQL I = Inhibited
< = Result not detected

Quality Assurance/Quality Control Data

Samples Received **11/21/2023**

Component	Date Prepared	Date Analyzed	Arrival Temperature	Positive Control	Extraction Blank	Negative Control
BVC	11/21/2023	11/27/2023	0 °C	99%	non-detect	non-detect
DHC	11/21/2023	11/27/2023	0 °C	104%	non-detect	non-detect
TCE	11/21/2023	11/27/2023	0 °C	83%	non-detect	non-detect
VCR	11/21/2023	11/27/2023	0 °C	86%	non-detect	non-detect

Data Qualification Event Summary
OU6 Fall 2023 ISB Performance Monitoring
Defense Supply Center Richmond

Facility:	DSCR	DQM QAPP Code:	DSCR_Aqueous_DOD_5.4_7.23.3	Test Batch ID(s):	see below
Event ID:	DSCR_FY24_OU6_NOV_PM	COC(s):	-	Task Code(s):	-
Created By:	NA\JonesA10	Field SDG(s):	-	Sample Code(s):	-
Created Date:	5/28/2024 4:32:00 PM	Lab SDG(s):	-	MAG(s):	-

Checks and Options	Types of Results or Samples Checked	Total Number of Results	Number of Results Checked	Number of Exceptions	Association Method	Number of Associated Results	Validation Code
DQM QAPP Code:	DSCR_Aqueous_DOD_5.4_7.23.3	2731	-	-	-	-	-
Total Number of Results		2731	-	-	-	-	-
Dilution Factor	S='N'; R='TRG'	2731	1233	740	N/A	0	A
Estimated results	S='N'; R='TRG'; Detects Only	2731	178	31	N/A	0	A
Field Blank Contamination	S = 'AB', 'EB', 'FB'	2731	0	0	N/A	0	A
Lab Blank Contamination	S = 'LB', 'MB'	2731	311	1	Test Batch ID	0	A
Preservative	S='N'	2731	1313	0	N/A	0	A
Relative Percent Difference (RPD)	S=RPD Sample Types from Settings	2731	92	0	N/A	0	A
Field Duplicate RPD	S = FD	2731	83	0	N/A	0	A
Spike Recovery - Multiple Rules	S=Spike SampleTypes from Setting	2731	496	6	BS-TestBatchID/MS-ParentSample	3	A
Surrogate Recovery	R = 'SUR'	2731	148	2	Test ID	15	A
Surrogate Association QAPP:	QAPP_SURR_ASSO_CAS_RN	2731	-	-	-	-	-
Trip Blank Contamination	S = 'AB', 'TB'	2731	142	0	N/A	0	A
Verify Sample Units	All Results	2731	1233	0	N/A	0	A
Holding Time Types:	Collection To Analysis (U)	2731	-	-	-	-	-
HTT-2	Collection To Analysis (P)	2731	-	-	-	-	-
HTT-3	Preservation To Analysis	2731	-	-	-	-	-
HTT-4	Prep To Analysis	2731	-	-	-	-	-

Test Batch ID(s): 680-809480 : 680-809652 : 680-809700 : 680-809864 : 680-810118 : 680-810173 : 680-810497 : 680-810949 : 680-810968 : 680-811028 : 680-811234 : 680-811293 : 680-811389 : 680-811422 : 680-811595 : 680-811496 : 680-811645

Validation Codes:
A=Acceptable
E/NB=Exceptions with no bias
SR=See Report

Notes:
DSCR = Defense Supply Center Richmond, DOD = Department of Defense, QAPP = quality assurance project plan, SDG = sample delivery group
COC = chain of command, N = organic or not applicable , HTT = holding time test, TRG = target
EB = equipment blank, FB = field blank, FD = field duplicate, LB = lab blank, LR = lab replicate, MB = method blank, SUR = surrogate, TB = trip blank
LCS = laboratory control sample, MS = matrix spike

Data Qualification Validation Report
OU6 Fall 2023 ISB Performance Monitoring
Defense Supply Center Richmond

Facility:	DSCR
Event ID:	_FY24_OU6_NOV_PM
Created By:	NA\JonesA10
Created Date:	5/28/2024 4:32:00 PM
Checks:	Dilution Factor, Estimated results, Field Blank Contamination, Field Duplicate RPD, HTT-2, HTT-3, HTT-4 Lab Blank Contamination, Preservative, Relative Percent Difference (RPD), Spike Recovery - Multiple Rules Surrogate Recovery, Trip Blank Contamination, Verify Sample Units

Sample Code	Location	Sample Date	Method	FR	Analyte	Result	Unit	RDL	Qual	Reason Code
OU6-MW-246-20231121	OU6-MW-246	11/21/2023 10:10 AM	RSK175	N	Ethane	0.39	µg/L	0.76	J	ER2
OU6-MW-241-20231120	OU6-MW-241	11/20/2023 10:50 AM	SW8260D	N	1,1-Dichloroethane	0.47	µg/L	1.0	J	ER2
OU6-MW-130-20231121	OU6-MW-130	11/21/2023 8:25 AM	SW8260D	N	1,1-Dichloroethene (Vinylidene chloride)	0.97	µg/L	2.0	J	ER2
OU6-MW-131-20231121	OU6-MW-131	11/21/2023 10:33 AM	SW8260D	N	1,1-Dichloroethene (Vinylidene chloride)	3.4	µg/L	10	J	ER2
OU6-MW-240-20231121	OU6-MW-240	11/21/2023 7:40 AM	SW8260D	N	1,1-Dichloroethene (Vinylidene chloride)	12	µg/L	25	J	ER2
OU6-MW-246-20231121	OU6-MW-246	11/21/2023 10:10 AM	SW8260D	N	1,1-Dichloroethene (Vinylidene chloride)	0.44	µg/L	1.0	J	ER2
MB 680-810968/8	-	-	SW8260D	N	1,2,4-Trimethylbenzene	0.492	µg/L	1.0	B	LBH
OU6-MW-126-20231121	OU6-MW-126	11/21/2023 1:42 PM	SW8260D	N	1,2-Dichloroethane	1.9	µg/L	5.0	J	ER2
OU6-MW-241-20231120	OU6-MW-241	11/20/2023 10:50 AM	SW8260D	N	2-Butanone (MEK)	17	µg/L	20	J	ER2
OU6-MW-241-20231120	OU6-MW-241	11/20/2023 10:50 AM	SW8260D	N	2-Hexanone	6.2	µg/L	10	J	ER2
OU6-MW-241-20231120	OU6-MW-241	11/20/2023 10:50 AM	SW8260D	N	4-Methyl-2-pentanone (MIBK)	2.7	µg/L	10	J	ER2
OU6-MW-240-20231121	OU6-MW-240	11/21/2023 7:40 AM	SW8260D	N	Acetone	150	µg/L	250	J	ER2
OU6-MW-245-20231120	OU6-MW-245	11/20/2023 2:52 PM	SW8260D	N	Acetone	8.8	µg/L	10	J	ER2
OU6-MW-131-20231121	OU6-MW-131	11/21/2023 10:33 AM	SW8260D	N	Chloroform	4.5	µg/L	10	J	ER2
OU6-MW-237-20231120	OU6-MW-237	11/20/2023 10:15 AM	SW8260D	N	Chloroform	0.33	µg/L	1.0	J	ER2
OU6-MW-245-20231120	OU6-MW-245	11/20/2023 2:52 PM	SW8260D	N	Methyl Acetate	3.3	µg/L	10	J	ER2
OU6-MW-245-20231120	OU6-MW-245	11/20/2023 2:52 PM	SW8260D	N	Naphthalene	3.0	µg/L	5.0	J	ER2
OU6-MW-245-20231120	OU6-MW-245	11/20/2023 2:52 PM	SW8260D	N	o-Xylene	0.56	µg/L	1.0	J	ER2
OU6-MW-126-20231121	OU6-MW-126	11/21/2023 1:42 PM	SW8260D	N	Tetrachloroethene	4.4	µg/L	5.0	J	ER2
MB 680-811234/7	-	-	SW8260D	N	Toluene-d8	58.2	µg/L	1.0	J+	SURR9
OU6-MW-246-20231121	OU6-MW-246	11/21/2023 10:10 AM	SW8260D	N	Toluene-d8	59	µg/L	1.0	J+	SURR9
OU6-MW-126-20231121	OU6-MW-126	11/21/2023 1:42 PM	SW8260D	N	trans-1,2-Dichloroethene	1.8	µg/L	5.0	J	ER2
OU6-MW-129-20231121	OU6-MW-129	11/21/2023 9:35 AM	SW8260D	N	trans-1,2-Dichloroethene	79	µg/L	100	J	ER2
OU6-MW-130-20231121	OU6-MW-130	11/21/2023 8:25 AM	SW8260D	N	trans-1,2-Dichloroethene	1.5	µg/L	2.0	J	ER2
OU6-MW-237-20231120	OU6-MW-237	11/20/2023 10:15 AM	SW8260D	N	trans-1,2-Dichloroethene	0.74	µg/L	1.0	J	ER2
OU6-MW-242-20231120	OU6-MW-242	11/20/2023 9:35 AM	SW8260D	N	trans-1,2-Dichloroethene	12	µg/L	25	J	ER2|NC
LCS 680-810968/4	-	-	SW8260D	N	Trichlorofluoromethane	92.0	µg/L	1.0	J+	LCSH
LCSD 680-810968/5	-	-	SW8260D	N	Trichlorofluoromethane	88.0	µg/L	1.0	J+	LCSH
OU6-MW-131-20231121	OU6-MW-131	11/21/2023 10:33 AM	SW8260D	N	Vinyl chloride	4.2	µg/L	10	J	ER2
OU6-MW-246-20231121	OU6-MW-246	11/21/2023 10:10 AM	SW8260D	N	Vinyl chloride	0.69	µg/L	1.0	J	ER2
OU6-MW-245-20231120	OU6-MW-245	11/20/2023 2:52 PM	SW8260D	N	Xylene (Total)	0.56	µg/L	1.0	J	ER2

Data Qualification Validation Report
OU6 Fall 2023 ISB Performance Monitoring
Defense Supply Center Richmond

Facility:	DSCR
Event ID:	_FY24_OU6_NOV_PM
Created By:	NA\JonesA10
Created Date:	5/28/2024 4:32:00 PM
Checks:	Dilution Factor, Estimated results, Field Blank Contamination, Field Duplicate RPD, HTT-2, HTT-3, HTT-4 Lab Blank Contamination, Preservative, Relative Percent Difference (RPD), Spike Recovery - Multiple Rules Surrogate Recovery, Trip Blank Contamination, Verify Sample Units

Sample Code	Location	Sample Date	Method	FR	Analyte	Result	Unit	RDL	Qual	Reason Code
OU6-MW-130-20231121MS	OU6-MW-130	11/21/2023 8:25 AM	SW9056A	N	Nitrogen, Nitrate	1.18	mg/L	0.050	J+	MSH
OU6-MW-130-20231121	OU6-MW-130	11/21/2023 8:25 AM	SW9056A	N	Nitrogen, Nitrite		mg/L	0.050	UJ	MSL
OU6-MW-130-20231121MS	OU6-MW-130	11/21/2023 8:25 AM	SW9056A	N	Nitrogen, Nitrite	0.828	mg/L	0.050	J-	MSL
OU6-MW-130-20231121MSD	OU6-MW-130	11/21/2023 8:25 AM	SW9056A	N	Nitrogen, Nitrite	0.837	mg/L	0.050	J-	MSDL
OU6-MW-246-20231121	OU6-MW-246	11/21/2023 10:10 AM	SW9056A	N	Nitrogen, Nitrite	0.058	mg/L	0.10	J	ER1
OU6-MW-130-20231121	OU6-MW-130	11/21/2023 8:25 AM	SW9056A	N	Sulfate	0.59	mg/L	1.0	J	ER1
OU6-MW-131-20231121	OU6-MW-131	11/21/2023 10:33 AM	SW9056A	N	Sulfate	0.75	mg/L	1.0	J	ER1
OU6-MW-238-20231120	OU6-MW-238	11/20/2023 11:25 AM	SW9056A	N	Sulfate		mg/L	1.0	UJ	MSL
OU6-MW-238-20231120MS	OU6-MW-238	11/20/2023 11:25 AM	SW9056A	N	Sulfate	8.52	mg/L	1.0	J-	MSL
OU6-MW-238-20231120MSD	OU6-MW-238	11/20/2023 11:25 AM	SW9056A	N	Sulfate	8.36	mg/L	1.0	J-	MSDL
OU6-MW-242-20231120	OU6-MW-242	11/20/2023 9:35 AM	SW9056A	N	Sulfate	0.70	mg/L	1.0	J	ER1
OU6-MW-244-20231120	OU6-MW-244	11/20/2023 1:10 PM	SW9056A	N	Sulfate	0.59	mg/L	1.0	J	ER1

Reason Codes	Reason Code Descriptions
ER1	The reported inorganic result is greater than/equal to the MDL and less than the RDL or QL; it should be considered an estimated value.
ER2	The reported organic result is greater than/equal to the MDL and less than the RDL or QL; it should be considered an estimated value.
NC	No code applied
LBH	Contamination detected in the Lab Blank greater than or equal to the Quantitation Limit.
LCSH	The LCS recovery exceeds the upper control limit.
MSDL	The Matrix Spike Duplicate Recovery for a sample is less than lower control limit but greater than the the lower cutoff.
MSH	The Matrix Spike recovery for a sample exceeds the upper control limit.
MSL	The Matrix Spike recovery for a sample is less than lower control limit but greater than the the lower cutoff.
SURR9	The Surrogate recovery exceeds the upper control limit.

Qualifiers	Qualifier Descriptions
B	Detections found in the method blank
E	Exceeds upper calibration level.
J	Estimated value
J+	Estimated value, with high bias
J-	Estimated value, with low bias
R	Rejected
U	Not Detected
UJ	Not Detected, Limit is estimated.
X	Data should be excluded

Notes:
DSCR = Defense Supply Center Richmond
FR = fraction
N = organic or not applicable , T = total
µg/L = micrograms per liter, mg/L = milligrams per liter
RDL = reporting detection limit

C.2 Annual Monitoring Laboratory and Data Validation Reports

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Kandyce Keller
Meadows CMPG, Inc
2107 Granby Street
Norfolk, Virginia 23517

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JOB DESCRIPTION

DSCR - OU6 Annual

JOB NUMBER

680-250771-1

Eurofins Savannah
5102 LaRoche Avenue
Savannah GA 31404

See page two for job notes and contact information.

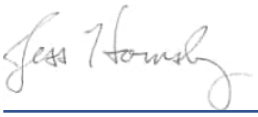
my EOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Southeast, LLC Project Manager.

Authorization



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Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Estimated: The analyte was positively identified; the quantitation is an estimation
J1	Estimated: The quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.
M	Manual integrated compound.
Q	One or more quality control criteria failed.
U	Undetected at the Limit of Detection.

GC/MS Semi VOA

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time. This does not meet regulatory requirements.
J	Estimated: The analyte was positively identified; the quantitation is an estimation
M	Manual integrated compound.
Q	One or more quality control criteria failed.
U	Undetected at the Limit of Detection.

GC VOA

Qualifier	Qualifier Description
M	Manual integrated compound.
U	Undetected at the Limit of Detection.

GC Semi VOA

Qualifier	Qualifier Description
J	Estimated: The analyte was positively identified; the quantitation is an estimation
M	Manual integrated compound.
Q	One or more quality control criteria failed.
U	Undetected at the Limit of Detection.

HPLC/IC

Qualifier	Qualifier Description
D	The reported value is from a dilution.
J	Estimated: The analyte was positively identified; the quantitation is an estimation
J1	Estimated: The quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.
M	Manual integrated compound.
U	Undetected at the Limit of Detection.

Metals

Qualifier	Qualifier Description
J	Estimated: The analyte was positively identified; the quantitation is an estimation
U	Undetected at the Limit of Detection.

General Chemistry

Qualifier	Qualifier Description
J	Estimated: The analyte was positively identified; the quantitation is an estimation
J1	Estimated: The quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.
U	Undetected at the Limit of Detection.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Sample Summary

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-250771-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-250771-1	OU6-CSMPZ-7-20240514	Water	05/14/24 10:50	05/15/24 09:35
680-250771-2	OU6-MW-267-20240514	Water	05/14/24 13:10	05/15/24 09:35
680-250771-3	OU6-MW-265-20240514	Water	05/14/24 11:55	05/15/24 09:35
680-250771-4	OU6-MW-155-20240514	Water	05/14/24 10:35	05/15/24 09:35
680-250771-5	OU6-MW-144-20240514	Water	05/14/24 09:25	05/15/24 09:35
680-250771-6	OU6-MW-149-20240514	Water	05/14/24 08:40	05/15/24 09:35
680-250771-7	OU6-MW-141-20240514	Water	05/14/24 12:17	05/15/24 09:35
680-250771-8	OU6-MW-296-20240514	Water	05/14/24 10:30	05/15/24 09:35
680-250771-9	OU6-MW-300-20240514	Water	05/14/24 14:05	05/15/24 09:35
680-250771-10	OU6-MW-225-20240514	Water	05/14/24 09:02	05/15/24 09:35
680-250771-11	OU6-MW-180-20240514	Water	05/14/24 11:55	05/15/24 09:35
680-250771-12	OU6-MW-169-20240514	Water	05/14/24 14:15	05/15/24 09:35
680-250771-13	DUP-1-20240514	Water	05/14/24 00:00	05/15/24 09:35
680-250771-14	DMW-16B-20240514	Water	05/14/24 08:35	05/15/24 09:35
680-250771-15	OU6-MW-168-20240514	Water	05/14/24 10:00	05/15/24 09:35
680-250771-16	OU6-DMW--9A-20240514	Water	05/14/24 12:15	05/15/24 09:35
680-250771-17	CSMPZ-3-20240514	Water	05/14/24 09:05	05/15/24 09:35
680-250771-18	OU6-MW-96-20240514	Water	05/14/24 14:25	05/15/24 09:35
680-250771-19	Trip Blank	Water	05/14/24 00:00	05/15/24 09:35

Job Narrative
680-250771-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 5/15/2024 9:35 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 0.7°C and 3.2°C.

Receipt Exceptions
Sample IDs logged based on notes on COC

Received extra samples not listed on the COC
-18 (OU6-MW-96-20240514)
-19 (Trip Blank)

GC/MS VOA
Method 8260D_DOD5: The initial calibration verification (ICV) analyzed in batch 680-836362 was outside method criteria for the following analyte(s): Bromoform and Carbon disulfide. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

Method 8260D_DOD5: The initial calibration verification (ICV) analyzed in batch 680-837880 was outside method criteria for the following analyte(s): Dichlorodifluoromethane. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

Method 8260D_DOD5: The continuing calibration verification (CCV) associated with batch 680-838701 recovered outside acceptance criteria, low biased, for Methyl acetate. A reporting limit (RL) standard was analyzed, and the target analytes are detected. Since the associated samples were non-detect for the analyte(s), the data are reported.

Method 8260D_DOD5: The continuing calibration verification (CCV) associated with batch 680-838701 recovered above the upper control limit for Bromoform and Trichlorofluoromethane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8260D_DOD5: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for analytical batch 680-838701 recovered outside control limits for the following analytes: Trichlorofluoromethane. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 8260D_DOD5: The method blank for 680-838701 contained Bromoform above the method detection limit (MDL). Associated samples were not re-analyzed because the method blank results were less than the reporting limit (RL) OR practical quantitation limit (PQL).

Method 8260D_DOD5: The closing continuing calibration verification (CCVC) associated with batch 680-838701 recovered above the upper control limit for Trichlorofluoromethane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8260D_DOD5: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with analytical batch 680-838701.

Method 8260D_DOD5: The continuing calibration verification (CCV) associated with batch 680-838714 recovered above the upper control limit for Bromomethane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the

data have been reported.

Method 8260D_DOD5: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for analytical batch 680-838997 recovered outside control limits for the following analytes: Acetone.

Method 8260D_DOD5: The method blank for 680-838997 contained Carbon disulfide above the method detection limit (MDL). Associated samples were not re-analyzed because the method blank results were less than the reporting limit (RL) OR practical quantitation limit (PQL).

Method 8260D_DOD5: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with analytical batch 680-838997.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC/MS Semi VOA
Method 8270E_DOD5: The initial calibration verification (ICV) result for batch 680-836548 was above the upper control limit. The affected analytes are: 2,4-Dimethylphenol. Sample results were non-detects, and have been reported as qualified data.

Method 8270E_DOD5: The continuing calibration verification (CCV) associated with batch 680-838829 recovered above the upper control limit for Bis(2-chloroethyl)ether. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8270E_SIM_DOD5: These samples were re-extracted out of hold due to low surrogate recovery of the MB and LCS and several of the samples. The re-extracted samples surrogates recovered within limits. Both sets of data have been reported.

OU6-CSMPZ-7-20240514 (680-250771-1) and OU6-MW-169-20240514 (680-250771-12)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC VOA
Method RSK_175_DOD5: The method requirement for no headspace was not met. The following volatile sample was analyzed with significant headspace in the sample container(s): OU6-DMW--9A-20240514 (680-250771-16). Significant headspace is defined as a bubble greater than 6 mm in diameter.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Pesticides/PCBs
Method 8081B_8082A_D5: The continuing calibration verification (CCV) associated with batch 680-838891 recovered above the upper control limit for PCB-1260. The samples associated with this CCV were non-detects for the affected analyte; therefore, the data has been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC
Method 9056A_OF_48H_D5: The matrix spike (MS) recoveries for analytical batch 680-838101 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Metals
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
Method 2320B: The sample duplicate precision for the following sample associated with analytical batch 680-838857 was outside control limits: (680-250771-H-12 DU). The associated Laboratory Control Sample / Laboratory Control Sample Duplicate (LCS/LCSD) precision met acceptance criteria.

Method SM4500_CO2_D: The sample duplicate precision for the following sample associated with analytical batch 680-838857 was outside control limits: (680-250771-H-12 DU). The associated Laboratory Control Sample / Laboratory Control Sample

Job ID: 680-250771-1 (Continued) Eurofins Savannah

Duplicate (LCS/LCSD) precision met acceptance criteria.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-250771-1

Client Sample ID: OU6-CSMPZ-7-20240514
Date Collected: 05/14/24 10:50
Date Received: 05/15/24 09:35

Lab Sample ID: 680-250771-1
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			05/19/24 15:59	1
Benzene	1.0	U	2.0	0.27	ug/L			05/19/24 15:59	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			05/19/24 15:59	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			05/19/24 15:59	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			05/19/24 15:59	1
Bromoform	2.0	U Q	2.5	0.59	ug/L			05/19/24 15:59	1
Bromomethane	10	U	20	3.7	ug/L			05/19/24 15:59	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			05/19/24 15:59	1
Carbon disulfide	1.0	U Q	2.0	0.43	ug/L			05/19/24 15:59	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			05/19/24 15:59	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			05/19/24 15:59	1
Chloroethane	10	U	20	4.6	ug/L			05/19/24 15:59	1
Chloroform	1.0	U	2.0	0.27	ug/L			05/19/24 15:59	1
Chloromethane	2.0	U	2.5	0.54	ug/L			05/19/24 15:59	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			05/19/24 15:59	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			05/19/24 15:59	1
cis-1,2-Dichloroethene	1.0	U	2.0	0.25	ug/L			05/19/24 15:59	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			05/19/24 15:59	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			05/19/24 15:59	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			05/19/24 15:59	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			05/19/24 15:59	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			05/19/24 15:59	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			05/19/24 15:59	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/19/24 15:59	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/19/24 15:59	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/19/24 15:59	1
Dichlorodifluoromethane	1.0	U	2.0	0.36	ug/L			05/19/24 15:59	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			05/19/24 15:59	1
1,2-Dichloroethane	1.0	U	2.0	0.25	ug/L			05/19/24 15:59	1
1,1-Dichloroethene	1.0	U	2.0	0.33	ug/L			05/19/24 15:59	1
1,2-Dichloroethene, Total	1.0	U	2.0	0.37	ug/L			05/19/24 15:59	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			05/19/24 15:59	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			05/19/24 15:59	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			05/19/24 15:59	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			05/19/24 15:59	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			05/19/24 15:59	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			05/19/24 15:59	1
2-Hexanone	10	U	20	3.2	ug/L			05/19/24 15:59	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			05/19/24 15:59	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			05/19/24 15:59	1
Methyl acetate	10	U Q	20	3.2	ug/L			05/19/24 15:59	1
Methylcyclohexane	1.0	U	2.0	0.33	ug/L			05/19/24 15:59	1
Methylene Chloride	10	U	20	3.2	ug/L			05/19/24 15:59	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			05/19/24 15:59	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			05/19/24 15:59	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			05/19/24 15:59	1
Naphthalene	5.0	U	10	2.4	ug/L			05/19/24 15:59	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			05/19/24 15:59	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			05/19/24 15:59	1

Client Sample ID: OU6-CSMPZ-7-20240514
Date Collected: 05/14/24 10:50
Date Received: 05/15/24 09:35

Lab Sample ID: 680-250771-1
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	1.0	U	2.0	0.26	ug/L			05/19/24 15:59	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			05/19/24 15:59	1
Styrene	1.0	U	2.0	0.27	ug/L			05/19/24 15:59	1
tert-Butylbenzene	1.0	U M	2.0	0.43	ug/L			05/19/24 15:59	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			05/19/24 15:59	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			05/19/24 15:59	1
Tetrachloroethene	1.0	U	2.0	0.35	ug/L			05/19/24 15:59	1
Toluene	1.0	U	2.0	0.25	ug/L			05/19/24 15:59	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			05/19/24 15:59	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			05/19/24 15:59	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			05/19/24 15:59	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			05/19/24 15:59	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			05/19/24 15:59	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			05/19/24 15:59	1
Trichloroethene	0.50	U	1.0	0.20	ug/L			05/19/24 15:59	1
Trichlorofluoromethane	1.0	U Q	2.0	0.33	ug/L			05/19/24 15:59	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			05/19/24 15:59	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			05/19/24 15:59	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			05/19/24 15:59	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			05/19/24 15:59	1
Vinyl chloride	1.0	U	2.0	0.40	ug/L			05/19/24 15:59	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			05/19/24 15:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*85 - 114*		*05/19/24 15:59*	*1*
Dibromofluoromethane (Surr)	*106*		*80 - 119*		*05/19/24 15:59*	*1*
1,2-Dichloroethane-d4 (Surr)	*91*		*81 - 118*		*05/19/24 15:59*	*1*
Toluene-d8 (Surr)	*94*		*89 - 112*		*05/19/24 15:59*	*1*

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	0.049	U M	0.20	0.018	ug/L		05/17/24 07:40	05/25/24 12:35	1
Acenaphthene	0.099	U M	0.20	0.041	ug/L		05/17/24 07:40	05/25/24 12:35	1
Acenaphthylene	0.049	U	0.20	0.017	ug/L		05/17/24 07:40	05/25/24 12:35	1
Pyrene	0.099	U M	0.20	0.027	ug/L		05/17/24 07:40	05/25/24 12:35	1
2-Methylnaphthalene	0.039	U	0.20	0.011	ug/L		05/17/24 07:40	05/25/24 12:35	1
Anthracene	**0.025**	**J**	0.20	0.018	ug/L		05/17/24 07:40	05/25/24 12:35	1
Benzo[a]pyrene	0.099	U	0.20	0.026	ug/L		05/17/24 07:40	05/25/24 12:35	1
Benzo[a]anthracene	0.099	U M	0.20	0.026	ug/L		05/17/24 07:40	05/25/24 12:35	1
Benzo[b]fluoranthene	0.099	U	0.20	0.026	ug/L		05/17/24 07:40	05/25/24 12:35	1
Benzo[g,h,i]perylene	0.099	U M	0.20	0.026	ug/L		05/17/24 07:40	05/25/24 12:35	1
Benzo[k]fluoranthene	0.099	U	0.20	0.029	ug/L		05/17/24 07:40	05/25/24 12:35	1
Chrysene	0.049	U	0.20	0.023	ug/L		05/17/24 07:40	05/25/24 12:35	1
Dibenz(a,h)anthracene	0.049	U	0.20	0.024	ug/L		05/17/24 07:40	05/25/24 12:35	1
Phenanthrene	0.20	U	0.39	0.054	ug/L		05/17/24 07:40	05/25/24 12:35	1
Indeno[1,2,3-cd]pyrene	0.099	U	0.20	0.028	ug/L		05/17/24 07:40	05/25/24 12:35	1
Naphthalene	0.049	U	0.20	0.014	ug/L		05/17/24 07:40	05/25/24 12:35	1
Fluoranthene	0.099	U M	0.20	0.027	ug/L		05/17/24 07:40	05/25/24 12:35	1
Fluorene	0.099	U M	0.20	0.025	ug/L		05/17/24 07:40	05/25/24 12:35	1

Client Sample ID: OU6-CSMPZ-7-20240514

Date Collected: 05/14/24 10:50
Date Received: 05/15/24 09:35

Lab Sample ID: 680-250771-1

Matrix: Water

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*44*	*Q*	*53 - 106*	*05/17/24 07:40*	*05/25/24 12:35*	*1*
2-methylnaphthalene-d10	*46*		*30 - 100*	*05/17/24 07:40*	*05/25/24 12:35*	*1*
Fluoranthene-d10	*93*		*42 - 114*	*05/17/24 07:40*	*05/25/24 12:35*	*1*
Nitrobenzene-d5	*51*		*42 - 100*	*05/17/24 07:40*	*05/25/24 12:35*	*1*
Terphenyl-d14	*96*		*53 - 111*	*05/17/24 07:40*	*05/25/24 12:35*	*1*

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) - RE

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	0.049	U H	0.19	0.018	ug/L		05/29/24 12:48	05/30/24 14:13	1
Acenaphthene	0.097	U H	0.19	0.041	ug/L		05/29/24 12:48	05/30/24 14:13	1
Acenaphthylene	0.049	U H	0.19	0.017	ug/L		05/29/24 12:48	05/30/24 14:13	1
Pyrene	0.097	U M H	0.19	0.026	ug/L		05/29/24 12:48	05/30/24 14:13	1
2-Methylnaphthalene	0.039	U M H	0.19	0.011	ug/L		05/29/24 12:48	05/30/24 14:13	1
Anthracene	0.049	U H	0.19	0.018	ug/L		05/29/24 12:48	05/30/24 14:13	1
Benzo[a]pyrene	0.097	U H	0.19	0.025	ug/L		05/29/24 12:48	05/30/24 14:13	1
Benzo[a]anthracene	0.097	U H	0.19	0.025	ug/L		05/29/24 12:48	05/30/24 14:13	1
Benzo[b]fluoranthene	0.097	U H	0.19	0.025	ug/L		05/29/24 12:48	05/30/24 14:13	1
Benzo[g,h,i]perylene	0.097	U M H	0.19	0.025	ug/L		05/29/24 12:48	05/30/24 14:13	1
Benzo[k]fluoranthene	0.097	U H	0.19	0.028	ug/L		05/29/24 12:48	05/30/24 14:13	1
Chrysene	0.049	U H	0.19	0.022	ug/L		05/29/24 12:48	05/30/24 14:13	1
Dibenz(a,h)anthracene	0.049	U H	0.19	0.023	ug/L		05/29/24 12:48	05/30/24 14:13	1
Phenanthrene	0.19	U H	0.39	0.054	ug/L		05/29/24 12:48	05/30/24 14:13	1
Indeno[1,2,3-cd]pyrene	0.097	U H	0.19	0.027	ug/L		05/29/24 12:48	05/30/24 14:13	1
Naphthalene	0.049	U H	0.19	0.014	ug/L		05/29/24 12:48	05/30/24 14:13	1
Fluoranthene	0.097	U M H	0.19	0.026	ug/L		05/29/24 12:48	05/30/24 14:13	1
Fluorene	0.097	U M H	0.19	0.024	ug/L		05/29/24 12:48	05/30/24 14:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*67*		*53 - 106*	*05/29/24 12:48*	*05/30/24 14:13*	*1*
2-methylnaphthalene-d10	*64*		*30 - 100*	*05/29/24 12:48*	*05/30/24 14:13*	*1*
Fluoranthene-d10	*87*		*42 - 114*	*05/29/24 12:48*	*05/30/24 14:13*	*1*
Nitrobenzene-d5	*66*		*42 - 100*	*05/29/24 12:48*	*05/30/24 14:13*	*1*
Terphenyl-d14	*94*		*53 - 111*	*05/29/24 12:48*	*05/30/24 14:13*	*1*

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	10	U M	20	4.6	ug/L		05/20/24 06:53	05/20/24 19:54	1
1,2,4,5-Tetrachlorobenzene	10	U	20	4.5	ug/L		05/20/24 06:53	05/20/24 19:54	1
1,4-Dioxane	10	U	20	4.4	ug/L		05/20/24 06:53	05/20/24 19:54	1
2,3,4,6-Tetrachlorophenol	10	U	20	4.3	ug/L		05/20/24 06:53	05/20/24 19:54	1
2,4,5-Trichlorophenol	10	U	20	3.3	ug/L		05/20/24 06:53	05/20/24 19:54	1
2,4,6-Trichlorophenol	5.0	U	20	2.2	ug/L		05/20/24 06:53	05/20/24 19:54	1
2,4-Dichlorophenol	10	U	20	3.7	ug/L		05/20/24 06:53	05/20/24 19:54	1
2,4-Dimethylphenol	10	U Q	20	3.0	ug/L		05/20/24 06:53	05/20/24 19:54	1
2,4-Dinitrophenol	40	U	50	16	ug/L		05/20/24 06:53	05/20/24 19:54	1
2,4-Dinitrotoluene	5.0	U	10	2.3	ug/L		05/20/24 06:53	05/20/24 19:54	1
2,6-Dinitrotoluene	10	U	20	2.8	ug/L		05/20/24 06:53	05/20/24 19:54	1
2-Chloronaphthalene	10	U	20	4.8	ug/L		05/20/24 06:53	05/20/24 19:54	1
2-Chlorophenol	10	U	20	3.2	ug/L		05/20/24 06:53	05/20/24 19:54	1
2-Methylphenol	4.0	U	10	1.8	ug/L		05/20/24 06:53	05/20/24 19:54	1
2-Nitroaniline	10	U M	20	2.9	ug/L		05/20/24 06:53	05/20/24 19:54	1

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-250771-1

Client Sample ID: OU6-CSMPZ-7-20240514
Date Collected: 05/14/24 10:50
Date Received: 05/15/24 09:35

Lab Sample ID: 680-250771-1
Matrix: Water

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
2-Nitrophenol	10	U	20	3.9	ug/L		05/20/24 06:53	05/20/24 19:54	1
3 & 4 Methylphenol	4.0	U	10	1.4	ug/L		05/20/24 06:53	05/20/24 19:54	1
3,3'-Dichlorobenzidine	20	U	50	10	ug/L		05/20/24 06:53	05/20/24 19:54	1
3-Nitroaniline	10	U	50	3.0	ug/L		05/20/24 06:53	05/20/24 19:54	1
4,6-Dinitro-2-methylphenol	20	U	50	5.3	ug/L		05/20/24 06:53	05/20/24 19:54	1
4-Bromophenyl phenyl ether	10	U M	20	4.7	ug/L		05/20/24 06:53	05/20/24 19:54	1
4-Chloro-3-methylphenol	10	U	20	2.5	ug/L		05/20/24 06:53	05/20/24 19:54	1
4-Chloroaniline	4.0	U	10	1.0	ug/L		05/20/24 06:53	05/20/24 19:54	1
4-Chlorophenyl phenyl ether	12	U	20	5.3	ug/L		05/20/24 06:53	05/20/24 19:54	1
4-Nitroaniline	10	U	50	3.0	ug/L		05/20/24 06:53	05/20/24 19:54	1
4-Nitrophenol	20	U	50	8.1	ug/L		05/20/24 06:53	05/20/24 19:54	1
Acetophenone	5.0	U	10	2.2	ug/L		05/20/24 06:53	05/20/24 19:54	1
Atrazine	5.0	U	10	2.2	ug/L		05/20/24 06:53	05/20/24 19:54	1
Benzaldehyde	10	U	20	4.8	ug/L		05/20/24 06:53	05/20/24 19:54	1
bis (2-chloroisopropyl) ether	10	U	20	3.1	ug/L		05/20/24 06:53	05/20/24 19:54	1
Bis(2-chloroethoxy)methane	4.0	U	10	1.8	ug/L		05/20/24 06:53	05/20/24 19:54	1
Bis(2-chloroethyl)ether	10	U Q	20	3.6	ug/L		05/20/24 06:53	05/20/24 19:54	1
Bis(2-ethylhexyl) phthalate	10	U	20	3.0	ug/L		05/20/24 06:53	05/20/24 19:54	1
Butyl benzyl phthalate	10	U	20	2.8	ug/L		05/20/24 06:53	05/20/24 19:54	1
Caprolactam	10	U	20	2.8	ug/L		05/20/24 06:53	05/20/24 19:54	1
Carbazole	4.0	U	10	1.8	ug/L		05/20/24 06:53	05/20/24 19:54	1
Dibenzofuran	4.0	U	10	1.9	ug/L		05/20/24 06:53	05/20/24 19:54	1
Diethyl phthalate	5.0	U	10	2.2	ug/L		05/20/24 06:53	05/20/24 19:54	1
Dimethyl phthalate	5.0	U	10	2.1	ug/L		05/20/24 06:53	05/20/24 19:54	1
Di-n-butyl phthalate	5.0	U	10	2.3	ug/L		05/20/24 06:53	05/20/24 19:54	1
Di-n-octyl phthalate	10	U	20	2.8	ug/L		05/20/24 06:53	05/20/24 19:54	1
Hexachlorobenzene	4.0	U	10	1.6	ug/L		05/20/24 06:53	05/20/24 19:54	1
Hexachlorobutadiene	10	U	20	4.0	ug/L		05/20/24 06:53	05/20/24 19:54	1
Hexachlorocyclopentadiene	10	U	20	3.5	ug/L		05/20/24 06:53	05/20/24 19:54	1
Hexachloroethane	10	U	20	3.6	ug/L		05/20/24 06:53	05/20/24 19:54	1
Isophorone	4.0	U	10	2.0	ug/L		05/20/24 06:53	05/20/24 19:54	1
Nitrobenzene	10	U	20	3.5	ug/L		05/20/24 06:53	05/20/24 19:54	1
N-Nitrosodi-n-propylamine	5.0	U	10	2.4	ug/L		05/20/24 06:53	05/20/24 19:54	1
N-Nitrosodiphenylamine	10	U M	20	2.9	ug/L		05/20/24 06:53	05/20/24 19:54	1
Pentachlorophenol	20	U	50	9.9	ug/L		05/20/24 06:53	05/20/24 19:54	1
Phenol	4.0	U	10	1.5	ug/L		05/20/24 06:53	05/20/24 19:54	1
Pyridine	20	U	50	7.4	ug/L		05/20/24 06:53	05/20/24 19:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*59*		*43 - 140*	*05/20/24 06:53*	*05/20/24 19:54*	*1*
2-Fluorobiphenyl	*59*		*44 - 119*	*05/20/24 06:53*	*05/20/24 19:54*	*1*
2-Fluorophenol	*30*		*19 - 119*	*05/20/24 06:53*	*05/20/24 19:54*	*1*
Nitrobenzene-d5	*50*		*44 - 120*	*05/20/24 06:53*	*05/20/24 19:54*	*1*
Phenol-d5	*21*		*10 - 130*	*05/20/24 06:53*	*05/20/24 19:54*	*1*
Terphenyl-d14	*71*		*50 - 134*	*05/20/24 06:53*	*05/20/24 19:54*	*1*

Method: SW846 8081B 8082A - Organochlorine Pesticides & PCBs (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	0.0039	U	0.049	0.0020	ug/L		05/17/24 12:07	05/20/24 19:27	1
4,4'-DDE	0.0039	U M	0.049	0.00098	ug/L		05/17/24 12:07	05/20/24 19:27	1

Client Sample ID: OU6-CSMPZ-7-20240514

Lab Sample ID: 680-250771-1

Date Collected: 05/14/24 10:50

Matrix: Water

Date Received: 05/15/24 09:35

Method: SW846 8081B 8082A - Organochlorine Pesticides & PCBs (GC) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDT	0.0039	U	0.049	0.00098	ug/L		05/17/24 12:07	05/20/24 19:27	1
Aldrin	0.0039	U	0.049	0.0020	ug/L		05/17/24 12:07	05/20/24 19:27	1
alpha-BHC	0.0039	U	0.049	0.00098	ug/L		05/17/24 12:07	05/20/24 19:27	1
beta-BHC	0.0039	U M	0.049	0.0020	ug/L		05/17/24 12:07	05/20/24 19:27	1
delta-BHC	0.0039	U M	0.049	0.0020	ug/L		05/17/24 12:07	05/20/24 19:27	1
Dieldrin	0.0039	U	0.049	0.0020	ug/L		05/17/24 12:07	05/20/24 19:27	1
Endosulfan I	0.0039	U M	0.049	0.0020	ug/L		05/17/24 12:07	05/20/24 19:27	1
Endosulfan II	0.0039	U M	0.049	0.0020	ug/L		05/17/24 12:07	05/20/24 19:27	1
Endosulfan sulfate	0.0039	U	0.049	0.0020	ug/L		05/17/24 12:07	05/20/24 19:27	1
Endrin	0.0039	U M	0.049	0.00098	ug/L		05/17/24 12:07	05/20/24 19:27	1
Endrin aldehyde	0.016	U	0.049	0.0039	ug/L		05/17/24 12:07	05/20/24 19:27	1
Endrin ketone	0.016	U	0.049	0.0039	ug/L		05/17/24 12:07	05/20/24 19:27	1
gamma-BHC (Lindane)	0.0039	U	0.049	0.00098	ug/L		05/17/24 12:07	05/20/24 19:27	1
Heptachlor	0.0039	U	0.049	0.00098	ug/L		05/17/24 12:07	05/20/24 19:27	1
Heptachlor epoxide	0.0039	U	0.049	0.0020	ug/L		05/17/24 12:07	05/20/24 19:27	1
Methoxychlor	0.0039	U M	0.049	0.0020	ug/L		05/17/24 12:07	05/20/24 19:27	1
Chlordane (technical)	0.39	U	0.49	0.16	ug/L		05/17/24 12:07	05/20/24 19:27	1
PCB-1016	0.23	U	0.49	0.098	ug/L		05/17/24 12:07	05/20/24 19:27	1
PCB-1221	0.23	U	0.49	0.098	ug/L		05/17/24 12:07	05/20/24 19:27	1
PCB-1232	0.23	U	0.49	0.098	ug/L		05/17/24 12:07	05/20/24 19:27	1
PCB-1242	0.23	U	0.49	0.098	ug/L		05/17/24 12:07	05/20/24 19:27	1
PCB-1248	0.23	U M	0.49	0.098	ug/L		05/17/24 12:07	05/20/24 19:27	1
PCB-1254	0.23	U M	0.49	0.098	ug/L		05/17/24 12:07	05/20/24 19:27	1
PCB-1260	0.23	U M Q	0.49	0.098	ug/L		05/17/24 12:07	05/20/24 19:27	1
Toxaphene	0.78	U M	4.9	0.30	ug/L		05/17/24 12:07	05/20/24 19:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*85*		*14 - 130*	*05/17/24 12:07*	*05/20/24 19:27*	*1*
Tetrachloro-m-xylene	*93*		*44 - 124*	*05/17/24 12:07*	*05/20/24 19:27*	*1*

Method: SW846 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**46**	**J**	200	35	ug/L		05/16/24 06:12	05/16/24 22:59	1
Antimony	1.5	U	5.0	0.34	ug/L		05/16/24 06:12	05/16/24 22:59	1
Arsenic	**1.5**	**J**	5.0	0.86	ug/L		05/16/24 06:12	05/16/24 22:59	1
Barium	**70**		5.0	0.89	ug/L		05/16/24 06:12	05/16/24 22:59	1
Beryllium	0.40	U	0.50	0.20	ug/L		05/16/24 06:12	05/16/24 22:59	1
Boron	**42**	**J**	100	22	ug/L		05/16/24 06:12	05/16/24 22:59	1
Cadmium	0.20	U	0.50	0.078	ug/L		05/16/24 06:12	05/16/24 22:59	1
Calcium	**68000**		500	140	ug/L		05/16/24 06:12	05/16/24 22:59	1
Chromium	2.5	U	20	0.81	ug/L		05/16/24 06:12	05/16/24 22:59	1
Cobalt	**3.9**		1.0	0.22	ug/L		05/16/24 06:12	05/16/24 22:59	1
Copper	2.0	U	5.0	1.1	ug/L		05/16/24 06:12	05/16/24 22:59	1
Iron	**12000**		100	12	ug/L		05/16/24 06:12	05/16/24 22:59	1
Lead	**0.44**	**J**	2.5	0.21	ug/L		05/16/24 06:12	05/16/24 22:59	1
Magnesium	**9300**		250	23	ug/L		05/16/24 06:12	05/16/24 22:59	1
Manganese	**400**		10	2.2	ug/L		05/16/24 06:12	05/16/24 22:59	1
Nickel	1.0	U	10	0.42	ug/L		05/16/24 06:12	05/16/24 22:59	1
Potassium	**2900**		1000	44	ug/L		05/16/24 06:12	05/16/24 22:59	1
Selenium	2.5	U	5.0	0.99	ug/L		05/16/24 06:12	05/16/24 22:59	1

Client Sample ID: OU6-CSMPZ-7-20240514
Lab Sample ID: 680-250771-1
Date Collected: 05/14/24 10:50
Matrix: Water
Date Received: 05/15/24 09:35

Method: SW846 6020A - Metals (ICP/MS) - Total Recoverable (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.0	U	2.0	0.39	ug/L		05/16/24 06:12	05/16/24 22:59	1
Sodium	**7300**		1000	200	ug/L		05/16/24 06:12	05/16/24 22:59	1
Thallium	1.0	U	2.0	0.26	ug/L		05/16/24 06:12	05/16/24 22:59	1
Vanadium	2.5	U	10	0.63	ug/L		05/16/24 06:12	05/16/24 22:59	1
Zinc	**6.1**	**J**	25	2.8	ug/L		05/16/24 06:12	05/16/24 22:59	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	0.20	U	0.25	0.080	ug/L		05/17/24 10:50	05/17/24 15:57	1

Client Sample ID: OU6-MW-267-20240514
Lab Sample ID: 680-250771-2
Date Collected: 05/14/24 13:10
Matrix: Water
Date Received: 05/15/24 09:35

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			05/19/24 16:22	1
Benzene	1.0	U	2.0	0.27	ug/L			05/19/24 16:22	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			05/19/24 16:22	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			05/19/24 16:22	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			05/19/24 16:22	1
Bromoform	2.0	U Q	2.5	0.59	ug/L			05/19/24 16:22	1
Bromomethane	10	U	20	3.7	ug/L			05/19/24 16:22	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			05/19/24 16:22	1
Carbon disulfide	1.0	U Q	2.0	0.43	ug/L			05/19/24 16:22	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			05/19/24 16:22	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			05/19/24 16:22	1
Chloroethane	10	U	20	4.6	ug/L			05/19/24 16:22	1
Chloroform	1.0	U	2.0	0.27	ug/L			05/19/24 16:22	1
Chloromethane	2.0	U	2.5	0.54	ug/L			05/19/24 16:22	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			05/19/24 16:22	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			05/19/24 16:22	1
cis-1,2-Dichloroethene	1.0	U	2.0	0.25	ug/L			05/19/24 16:22	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			05/19/24 16:22	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			05/19/24 16:22	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			05/19/24 16:22	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			05/19/24 16:22	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			05/19/24 16:22	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			05/19/24 16:22	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/19/24 16:22	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/19/24 16:22	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/19/24 16:22	1
Dichlorodifluoromethane	1.0	U	2.0	0.36	ug/L			05/19/24 16:22	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			05/19/24 16:22	1
1,2-Dichloroethane	1.0	U	2.0	0.25	ug/L			05/19/24 16:22	1
1,1-Dichloroethene	1.0	U	2.0	0.33	ug/L			05/19/24 16:22	1
1,2-Dichloroethene, Total	1.0	U	2.0	0.37	ug/L			05/19/24 16:22	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			05/19/24 16:22	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			05/19/24 16:22	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			05/19/24 16:22	1

Client Sample ID: OU6-MW-267-20240514

Lab Sample ID: 680-250771-2

Date Collected: 05/14/24 13:10

Matrix: Water

Date Received: 05/15/24 09:35

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			05/19/24 16:22	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			05/19/24 16:22	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			05/19/24 16:22	1
2-Hexanone	10	U	20	3.2	ug/L			05/19/24 16:22	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			05/19/24 16:22	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			05/19/24 16:22	1
Methyl acetate	10	U Q	20	3.2	ug/L			05/19/24 16:22	1
Methylcyclohexane	1.0	U	2.0	0.33	ug/L			05/19/24 16:22	1
Methylene Chloride	10	U	20	3.2	ug/L			05/19/24 16:22	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			05/19/24 16:22	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			05/19/24 16:22	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			05/19/24 16:22	1
Naphthalene	5.0	U	10	2.4	ug/L			05/19/24 16:22	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			05/19/24 16:22	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			05/19/24 16:22	1
o-Xylene	1.0	U	2.0	0.26	ug/L			05/19/24 16:22	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			05/19/24 16:22	1
Styrene	1.0	U	2.0	0.27	ug/L			05/19/24 16:22	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			05/19/24 16:22	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			05/19/24 16:22	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			05/19/24 16:22	1
Tetrachloroethene	1.0	U	2.0	0.35	ug/L			05/19/24 16:22	1
Toluene	1.0	U	2.0	0.25	ug/L			05/19/24 16:22	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			05/19/24 16:22	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			05/19/24 16:22	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			05/19/24 16:22	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			05/19/24 16:22	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			05/19/24 16:22	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			05/19/24 16:22	1
Trichloroethene	0.50	U	1.0	0.20	ug/L			05/19/24 16:22	1
Trichlorofluoromethane	1.0	U Q	2.0	0.33	ug/L			05/19/24 16:22	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			05/19/24 16:22	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			05/19/24 16:22	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			05/19/24 16:22	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			05/19/24 16:22	1
Vinyl chloride	1.0	U	2.0	0.40	ug/L			05/19/24 16:22	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			05/19/24 16:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*85 - 114*		*05/19/24 16:22*	*1*
Dibromofluoromethane (Surr)	*105*		*80 - 119*		*05/19/24 16:22*	*1*
1,2-Dichloroethane-d4 (Surr)	*91*		*81 - 118*		*05/19/24 16:22*	*1*
Toluene-d8 (Surr)	*96*		*89 - 112*		*05/19/24 16:22*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	2.0	U	5.0	1.0	ug/L		05/24/24 13:13	05/24/24 19:00	1
Ethylene	2.0	U M	5.0	1.0	ug/L		05/24/24 13:13	05/24/24 19:00	1
Methane	**11**	**M**	6.5	3.0	ug/L		05/24/24 13:13	05/24/24 19:00	1

Client Sample ID: OU6-MW-267-20240514

Lab Sample ID: 680-250771-2

Date Collected: 05/14/24 13:10

Matrix: Water

Date Received: 05/15/24 09:35

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**28**		0.55	0.20	mg/L			05/28/24 17:04	1
Nitrate as N	**0.17**		0.055	0.023	mg/L			05/15/24 16:21	1
Nitrate Nitrite as N	**0.17**		0.055	0.023	mg/L			05/15/24 16:21	1
Sulfate	**1.0**	**J**	1.5	0.40	mg/L			05/28/24 17:04	1
Nitrite as N	0.050	U	0.055	0.023	mg/L			05/15/24 16:21	1

Method: SW846 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**30**		10	2.2	ug/L		05/16/24 06:10	05/17/24 05:21	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**4.0**	**J**	5.5	2.2	mg/L			05/17/24 10:11	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	10	U	11	5.0	mg/L			05/17/24 10:11	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	10	U	11	5.0	mg/L			05/17/24 10:11	1
Sulfide (SM 4500 S2 F-2011)	0.96	U	0.96	0.96	mg/L			05/20/24 15:13	1
Sulfide as H2S (SM 4500 S2 F-2011)	1.1	U	1.1	1.1	mg/L			05/20/24 15:13	1
Total Organic Carbon (SW846 9060A)	**3.5**		1.0	0.50	mg/L			05/17/24 04:49	1
Carbon Dioxide, Free (SM 4500 CO2 D)	**39**		11	5.0	mg/L			05/17/24 10:11	1

Client Sample ID: OU6-MW-265-20240514

Lab Sample ID: 680-250771-3

Date Collected: 05/14/24 11:55

Matrix: Water

Date Received: 05/15/24 09:35

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			05/19/24 16:44	1
Benzene	1.0	U	2.0	0.27	ug/L			05/19/24 16:44	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			05/19/24 16:44	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			05/19/24 16:44	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			05/19/24 16:44	1
Bromoform	2.0	U Q	2.5	0.59	ug/L			05/19/24 16:44	1
Bromomethane	10	U	20	3.7	ug/L			05/19/24 16:44	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			05/19/24 16:44	1
Carbon disulfide	1.0	U Q	2.0	0.43	ug/L			05/19/24 16:44	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			05/19/24 16:44	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			05/19/24 16:44	1
Chloroethane	10	U	20	4.6	ug/L			05/19/24 16:44	1
Chloroform	1.0	U	2.0	0.27	ug/L			05/19/24 16:44	1
Chloromethane	2.0	U	2.5	0.54	ug/L			05/19/24 16:44	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			05/19/24 16:44	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			05/19/24 16:44	1
cis-1,2-Dichloroethene	1.0	U	2.0	0.25	ug/L			05/19/24 16:44	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			05/19/24 16:44	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			05/19/24 16:44	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			05/19/24 16:44	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			05/19/24 16:44	1

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-250771-1

Client Sample ID: OU6-MW-265-20240514
Date Collected: 05/14/24 11:55
Date Received: 05/15/24 09:35

Lab Sample ID: 680-250771-3
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			05/19/24 16:44	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			05/19/24 16:44	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/19/24 16:44	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/19/24 16:44	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/19/24 16:44	1
Dichlorodifluoromethane	1.0	U	2.0	0.36	ug/L			05/19/24 16:44	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			05/19/24 16:44	1
1,2-Dichloroethane	1.0	U	2.0	0.25	ug/L			05/19/24 16:44	1
1,1-Dichloroethene	1.0	U	2.0	0.33	ug/L			05/19/24 16:44	1
1,2-Dichloroethene, Total	1.0	U	2.0	0.37	ug/L			05/19/24 16:44	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			05/19/24 16:44	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			05/19/24 16:44	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			05/19/24 16:44	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			05/19/24 16:44	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			05/19/24 16:44	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			05/19/24 16:44	1
2-Hexanone	10	U	20	3.2	ug/L			05/19/24 16:44	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			05/19/24 16:44	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			05/19/24 16:44	1
Methyl acetate	10	U Q	20	3.2	ug/L			05/19/24 16:44	1
Methylcyclohexane	1.0	U	2.0	0.33	ug/L			05/19/24 16:44	1
Methylene Chloride	10	U	20	3.2	ug/L			05/19/24 16:44	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			05/19/24 16:44	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			05/19/24 16:44	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			05/19/24 16:44	1
Naphthalene	5.0	U	10	2.4	ug/L			05/19/24 16:44	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			05/19/24 16:44	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			05/19/24 16:44	1
o-Xylene	1.0	U	2.0	0.26	ug/L			05/19/24 16:44	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			05/19/24 16:44	1
Styrene	1.0	U	2.0	0.27	ug/L			05/19/24 16:44	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			05/19/24 16:44	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			05/19/24 16:44	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			05/19/24 16:44	1
Tetrachloroethene	1.0	U	2.0	0.35	ug/L			05/19/24 16:44	1
Toluene	1.0	U	2.0	0.25	ug/L			05/19/24 16:44	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			05/19/24 16:44	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			05/19/24 16:44	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			05/19/24 16:44	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			05/19/24 16:44	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			05/19/24 16:44	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			05/19/24 16:44	1
Trichloroethene	0.50	U	1.0	0.20	ug/L			05/19/24 16:44	1
Trichlorofluoromethane	1.0	U Q	2.0	0.33	ug/L			05/19/24 16:44	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			05/19/24 16:44	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			05/19/24 16:44	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			05/19/24 16:44	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			05/19/24 16:44	1
Vinyl chloride	1.0	U	2.0	0.40	ug/L			05/19/24 16:44	1

Client Sample ID: OU6-MW-265-20240514

Lab Sample ID: 680-250771-3

Date Collected: 05/14/24 11:55

Matrix: Water

Date Received: 05/15/24 09:35

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	1.0	U	2.0	0.49	ug/L			05/19/24 16:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*85 - 114*		*05/19/24 16:44*	*1*
Dibromofluoromethane (Surr)	*104*		*80 - 119*		*05/19/24 16:44*	*1*
1,2-Dichloroethane-d4 (Surr)	*90*		*81 - 118*		*05/19/24 16:44*	*1*
Toluene-d8 (Surr)	*98*		*89 - 112*		*05/19/24 16:44*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	2.0	U	5.0	1.0	ug/L		05/24/24 13:13	05/24/24 19:15	1
Ethylene	2.0	U	5.0	1.0	ug/L		05/24/24 13:13	05/24/24 19:15	1
Methane	6.0	U M	6.5	3.0	ug/L		05/24/24 13:13	05/24/24 19:15	1

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**17**		0.55	0.20	mg/L			05/28/24 16:44	1
Nitrate as N	**0.23**		0.055	0.023	mg/L			05/15/24 16:30	1
Nitrate Nitrite as N	**0.23**		0.055	0.023	mg/L			05/15/24 16:30	1
Sulfate	**1.6**		1.5	0.40	mg/L			05/28/24 16:44	1
Nitrite as N	0.050	U	0.055	0.023	mg/L			05/15/24 16:30	1

Method: SW846 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**17**		10	2.2	ug/L		05/16/24 06:12	05/16/24 22:55	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**860**		5.5	2.2	mg/L			05/17/24 10:28	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	10	U	11	5.0	mg/L			05/17/24 10:28	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	**32**		11	5.0	mg/L			05/17/24 10:28	1
Sulfide (SM 4500 S2 F-2011)	0.93	U	0.93	0.93	mg/L			05/20/24 15:13	1
Sulfide as H2S (SM 4500 S2 F-2011)	1.0	U	1.0	1.0	mg/L			05/20/24 15:13	1
Total Organic Carbon (SW846 9060A)	**24**		1.0	0.50	mg/L			05/17/24 05:10	1
Carbon Dioxide, Free (SM 4500 CO2 D)	10	U	11	5.0	mg/L			05/17/24 10:28	1

Client Sample ID: OU6-MW-155-20240514

Lab Sample ID: 680-250771-4

Date Collected: 05/14/24 10:35

Matrix: Water

Date Received: 05/15/24 09:35

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			05/19/24 17:07	1
Benzene	1.0	U	2.0	0.27	ug/L			05/19/24 17:07	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			05/19/24 17:07	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			05/19/24 17:07	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			05/19/24 17:07	1

Client Sample ID: OU6-MW-155-20240514
Date Collected: 05/14/24 10:35
Date Received: 05/15/24 09:35

Lab Sample ID: 680-250771-4
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Bromoform	2.0	U Q	2.5	0.59	ug/L			05/19/24 17:07	1
Bromomethane	10	U	20	3.7	ug/L			05/19/24 17:07	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			05/19/24 17:07	1
Carbon disulfide	**0.94**	**J Q**	2.0	0.43	ug/L			05/19/24 17:07	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			05/19/24 17:07	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			05/19/24 17:07	1
Chloroethane	10	U	20	4.6	ug/L			05/19/24 17:07	1
Chloroform	1.0	U	2.0	0.27	ug/L			05/19/24 17:07	1
Chloromethane	2.0	U	2.5	0.54	ug/L			05/19/24 17:07	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			05/19/24 17:07	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			05/19/24 17:07	1
cis-1,2-Dichloroethene	1.0	U	2.0	0.25	ug/L			05/19/24 17:07	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			05/19/24 17:07	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			05/19/24 17:07	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			05/19/24 17:07	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			05/19/24 17:07	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			05/19/24 17:07	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			05/19/24 17:07	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/19/24 17:07	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/19/24 17:07	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/19/24 17:07	1
Dichlorodifluoromethane	1.0	U	2.0	0.36	ug/L			05/19/24 17:07	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			05/19/24 17:07	1
1,2-Dichloroethane	1.0	U	2.0	0.25	ug/L			05/19/24 17:07	1
1,1-Dichloroethene	1.0	U	2.0	0.33	ug/L			05/19/24 17:07	1
1,2-Dichloroethene, Total	1.0	U	2.0	0.37	ug/L			05/19/24 17:07	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			05/19/24 17:07	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			05/19/24 17:07	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			05/19/24 17:07	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			05/19/24 17:07	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			05/19/24 17:07	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			05/19/24 17:07	1
2-Hexanone	10	U	20	3.2	ug/L			05/19/24 17:07	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			05/19/24 17:07	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			05/19/24 17:07	1
Methyl acetate	10	U Q	20	3.2	ug/L			05/19/24 17:07	1
Methylcyclohexane	1.0	U	2.0	0.33	ug/L			05/19/24 17:07	1
Methylene Chloride	10	U	20	3.2	ug/L			05/19/24 17:07	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			05/19/24 17:07	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			05/19/24 17:07	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			05/19/24 17:07	1
Naphthalene	5.0	U	10	2.4	ug/L			05/19/24 17:07	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			05/19/24 17:07	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			05/19/24 17:07	1
o-Xylene	1.0	U	2.0	0.26	ug/L			05/19/24 17:07	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			05/19/24 17:07	1
Styrene	1.0	U	2.0	0.27	ug/L			05/19/24 17:07	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			05/19/24 17:07	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			05/19/24 17:07	1

Client Sample ID: OU6-MW-155-20240514

Lab Sample ID: 680-250771-4

Date Collected: 05/14/24 10:35

Matrix: Water

Date Received: 05/15/24 09:35

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			05/19/24 17:07	1
Tetrachloroethene	1.0	U	2.0	0.35	ug/L			05/19/24 17:07	1
Toluene	1.0	U	2.0	0.25	ug/L			05/19/24 17:07	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			05/19/24 17:07	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			05/19/24 17:07	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			05/19/24 17:07	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			05/19/24 17:07	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			05/19/24 17:07	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			05/19/24 17:07	1
Trichloroethene	0.50	U	1.0	0.20	ug/L			05/19/24 17:07	1
Trichlorofluoromethane	1.0	U Q	2.0	0.33	ug/L			05/19/24 17:07	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			05/19/24 17:07	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			05/19/24 17:07	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			05/19/24 17:07	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			05/19/24 17:07	1
Vinyl chloride	1.0	U	2.0	0.40	ug/L			05/19/24 17:07	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			05/19/24 17:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*112*		*85 - 114*		*05/19/24 17:07*	*1*
Dibromofluoromethane (Surr)	*104*		*80 - 119*		*05/19/24 17:07*	*1*
1,2-Dichloroethane-d4 (Surr)	*92*		*81 - 118*		*05/19/24 17:07*	*1*
Toluene-d8 (Surr)	*100*		*89 - 112*		*05/19/24 17:07*	*1*

Client Sample ID: OU6-MW-144-20240514

Lab Sample ID: 680-250771-5

Date Collected: 05/14/24 09:25

Matrix: Water

Date Received: 05/15/24 09:35

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			05/19/24 17:30	1
Benzene	1.0	U	2.0	0.27	ug/L			05/19/24 17:30	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			05/19/24 17:30	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			05/19/24 17:30	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			05/19/24 17:30	1
Bromoform	2.0	U M Q	2.5	0.59	ug/L			05/19/24 17:30	1
Bromomethane	10	U	20	3.7	ug/L			05/19/24 17:30	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			05/19/24 17:30	1
Carbon disulfide	**1.9**	**J Q**	2.0	0.43	ug/L			05/19/24 17:30	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			05/19/24 17:30	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			05/19/24 17:30	1
Chloroethane	10	U	20	4.6	ug/L			05/19/24 17:30	1
Chloroform	1.0	U	2.0	0.27	ug/L			05/19/24 17:30	1
Chloromethane	2.0	U	2.5	0.54	ug/L			05/19/24 17:30	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			05/19/24 17:30	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			05/19/24 17:30	1
cis-1,2-Dichloroethene	1.0	U	2.0	0.25	ug/L			05/19/24 17:30	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			05/19/24 17:30	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			05/19/24 17:30	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			05/19/24 17:30	1

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-250771-1

Client Sample ID: OU6-MW-144-20240514
Date Collected: 05/14/24 09:25
Date Received: 05/15/24 09:35

Lab Sample ID: 680-250771-5
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			05/19/24 17:30	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			05/19/24 17:30	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			05/19/24 17:30	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/19/24 17:30	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/19/24 17:30	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/19/24 17:30	1
Dichlorodifluoromethane	1.0	U	2.0	0.36	ug/L			05/19/24 17:30	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			05/19/24 17:30	1
1,2-Dichloroethane	1.0	U	2.0	0.25	ug/L			05/19/24 17:30	1
1,1-Dichloroethene	1.0	U	2.0	0.33	ug/L			05/19/24 17:30	1
1,2-Dichloroethene, Total	1.0	U	2.0	0.37	ug/L			05/19/24 17:30	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			05/19/24 17:30	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			05/19/24 17:30	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			05/19/24 17:30	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			05/19/24 17:30	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			05/19/24 17:30	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			05/19/24 17:30	1
2-Hexanone	10	U	20	3.2	ug/L			05/19/24 17:30	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			05/19/24 17:30	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			05/19/24 17:30	1
Methyl acetate	10	U Q	20	3.2	ug/L			05/19/24 17:30	1
Methylcyclohexane	1.0	U	2.0	0.33	ug/L			05/19/24 17:30	1
Methylene Chloride	10	U	20	3.2	ug/L			05/19/24 17:30	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			05/19/24 17:30	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			05/19/24 17:30	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			05/19/24 17:30	1
Naphthalene	5.0	U	10	2.4	ug/L			05/19/24 17:30	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			05/19/24 17:30	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			05/19/24 17:30	1
o-Xylene	1.0	U	2.0	0.26	ug/L			05/19/24 17:30	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			05/19/24 17:30	1
Styrene	1.0	U	2.0	0.27	ug/L			05/19/24 17:30	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			05/19/24 17:30	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			05/19/24 17:30	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			05/19/24 17:30	1
Tetrachloroethene	1.0	U	2.0	0.35	ug/L			05/19/24 17:30	1
Toluene	1.0	U	2.0	0.25	ug/L			05/19/24 17:30	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			05/19/24 17:30	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			05/19/24 17:30	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			05/19/24 17:30	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			05/19/24 17:30	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			05/19/24 17:30	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			05/19/24 17:30	1
Trichloroethene	0.50	U	1.0	0.20	ug/L			05/19/24 17:30	1
Trichlorofluoromethane	1.0	U Q	2.0	0.33	ug/L			05/19/24 17:30	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			05/19/24 17:30	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			05/19/24 17:30	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			05/19/24 17:30	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			05/19/24 17:30	1

Client Sample ID: OU6-MW-144-20240514

Lab Sample ID: 680-250771-5

Date Collected: 05/14/24 09:25

Matrix: Water

Date Received: 05/15/24 09:35

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	1.0	U	2.0	0.40	ug/L			05/19/24 17:30	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			05/19/24 17:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*111*		*85 - 114*		*05/19/24 17:30*	*1*
Dibromofluoromethane (Surr)	*106*		*80 - 119*		*05/19/24 17:30*	*1*
1,2-Dichloroethane-d4 (Surr)	*92*		*81 - 118*		*05/19/24 17:30*	*1*
Toluene-d8 (Surr)	*97*		*89 - 112*		*05/19/24 17:30*	*1*

Client Sample ID: OU6-MW-149-20240514

Lab Sample ID: 680-250771-6

Date Collected: 05/14/24 08:40

Matrix: Water

Date Received: 05/15/24 09:35

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			05/19/24 17:52	1
Benzene	1.0	U	2.0	0.27	ug/L			05/19/24 17:52	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			05/19/24 17:52	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			05/19/24 17:52	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			05/19/24 17:52	1
Bromoform	2.0	U Q	2.5	0.59	ug/L			05/19/24 17:52	1
Bromomethane	10	U	20	3.7	ug/L			05/19/24 17:52	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			05/19/24 17:52	1
Carbon disulfide	**12**	**Q**	2.0	0.43	ug/L			05/19/24 17:52	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			05/19/24 17:52	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			05/19/24 17:52	1
Chloroethane	10	U	20	4.6	ug/L			05/19/24 17:52	1
Chloroform	1.0	U	2.0	0.27	ug/L			05/19/24 17:52	1
Chloromethane	2.0	U	2.5	0.54	ug/L			05/19/24 17:52	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			05/19/24 17:52	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			05/19/24 17:52	1
cis-1,2-Dichloroethene	1.0	U	2.0	0.25	ug/L			05/19/24 17:52	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			05/19/24 17:52	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			05/19/24 17:52	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			05/19/24 17:52	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			05/19/24 17:52	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			05/19/24 17:52	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			05/19/24 17:52	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/19/24 17:52	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/19/24 17:52	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/19/24 17:52	1
Dichlorodifluoromethane	1.0	U	2.0	0.36	ug/L			05/19/24 17:52	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			05/19/24 17:52	1
1,2-Dichloroethane	1.0	U M	2.0	0.25	ug/L			05/19/24 17:52	1
1,1-Dichloroethene	1.0	U	2.0	0.33	ug/L			05/19/24 17:52	1
1,2-Dichloroethene, Total	1.0	U	2.0	0.37	ug/L			05/19/24 17:52	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			05/19/24 17:52	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			05/19/24 17:52	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			05/19/24 17:52	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			05/19/24 17:52	1

Client Sample ID: OU6-MW-149-20240514

Lab Sample ID: 680-250771-6

Date Collected: 05/14/24 08:40

Matrix: Water

Date Received: 05/15/24 09:35

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	0.50	U	1.0	0.20	ug/L			05/19/24 17:52	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			05/19/24 17:52	1
2-Hexanone	10	U	20	3.2	ug/L			05/19/24 17:52	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			05/19/24 17:52	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			05/19/24 17:52	1
Methyl acetate	10	U Q	20	3.2	ug/L			05/19/24 17:52	1
Methylcyclohexane	1.0	U	2.0	0.33	ug/L			05/19/24 17:52	1
Methylene Chloride	10	U	20	3.2	ug/L			05/19/24 17:52	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			05/19/24 17:52	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			05/19/24 17:52	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			05/19/24 17:52	1
Naphthalene	5.0	U	10	2.4	ug/L			05/19/24 17:52	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			05/19/24 17:52	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			05/19/24 17:52	1
o-Xylene	1.0	U	2.0	0.26	ug/L			05/19/24 17:52	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			05/19/24 17:52	1
Styrene	1.0	U	2.0	0.27	ug/L			05/19/24 17:52	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			05/19/24 17:52	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			05/19/24 17:52	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			05/19/24 17:52	1
Tetrachloroethene	1.0	U	2.0	0.35	ug/L			05/19/24 17:52	1
Toluene	1.0	U	2.0	0.25	ug/L			05/19/24 17:52	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			05/19/24 17:52	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			05/19/24 17:52	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			05/19/24 17:52	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			05/19/24 17:52	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			05/19/24 17:52	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			05/19/24 17:52	1
Trichloroethene	0.50	U	1.0	0.20	ug/L			05/19/24 17:52	1
Trichlorofluoromethane	1.0	U Q	2.0	0.33	ug/L			05/19/24 17:52	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			05/19/24 17:52	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			05/19/24 17:52	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			05/19/24 17:52	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			05/19/24 17:52	1
Vinyl chloride	1.0	U	2.0	0.40	ug/L			05/19/24 17:52	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			05/19/24 17:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*85 - 114*		*05/19/24 17:52*	*1*
Dibromofluoromethane (Surr)	*106*		*80 - 119*		*05/19/24 17:52*	*1*
1,2-Dichloroethane-d4 (Surr)	*94*		*81 - 118*		*05/19/24 17:52*	*1*
Toluene-d8 (Surr)	*96*		*89 - 112*		*05/19/24 17:52*	*1*

Client Sample ID: OU6-MW-141-20240514

Lab Sample ID: 680-250771-7

Date Collected: 05/14/24 12:17

Matrix: Water

Date Received: 05/15/24 09:35

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			05/19/24 18:15	1

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-250771-1

Client Sample ID: OU6-MW-141-20240514
Date Collected: 05/14/24 12:17
Date Received: 05/15/24 09:35

Lab Sample ID: 680-250771-7
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	2.0	0.27	ug/L			05/19/24 18:15	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			05/19/24 18:15	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			05/19/24 18:15	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			05/19/24 18:15	1
Bromoform	2.0	U Q	2.5	0.59	ug/L			05/19/24 18:15	1
Bromomethane	10	U	20	3.7	ug/L			05/19/24 18:15	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			05/19/24 18:15	1
Carbon disulfide	1.0	U Q	2.0	0.43	ug/L			05/19/24 18:15	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			05/19/24 18:15	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			05/19/24 18:15	1
Chloroethane	10	U	20	4.6	ug/L			05/19/24 18:15	1
Chloroform	1.0	U	2.0	0.27	ug/L			05/19/24 18:15	1
Chloromethane	2.0	U	2.5	0.54	ug/L			05/19/24 18:15	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			05/19/24 18:15	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			05/19/24 18:15	1
cis-1,2-Dichloroethene	1.0	U	2.0	0.25	ug/L			05/19/24 18:15	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			05/19/24 18:15	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			05/19/24 18:15	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			05/19/24 18:15	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			05/19/24 18:15	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			05/19/24 18:15	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			05/19/24 18:15	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/19/24 18:15	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/19/24 18:15	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/19/24 18:15	1
Dichlorodifluoromethane	1.0	U	2.0	0.36	ug/L			05/19/24 18:15	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			05/19/24 18:15	1
1,2-Dichloroethane	1.0	U M	2.0	0.25	ug/L			05/19/24 18:15	1
1,1-Dichloroethene	1.0	U	2.0	0.33	ug/L			05/19/24 18:15	1
1,2-Dichloroethene, Total	1.0	U	2.0	0.37	ug/L			05/19/24 18:15	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			05/19/24 18:15	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			05/19/24 18:15	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			05/19/24 18:15	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			05/19/24 18:15	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			05/19/24 18:15	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			05/19/24 18:15	1
2-Hexanone	10	U	20	3.2	ug/L			05/19/24 18:15	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			05/19/24 18:15	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			05/19/24 18:15	1
Methyl acetate	10	U Q	20	3.2	ug/L			05/19/24 18:15	1
Methylcyclohexane	1.0	U	2.0	0.33	ug/L			05/19/24 18:15	1
Methylene Chloride	10	U	20	3.2	ug/L			05/19/24 18:15	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			05/19/24 18:15	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			05/19/24 18:15	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			05/19/24 18:15	1
Naphthalene	5.0	U	10	2.4	ug/L			05/19/24 18:15	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			05/19/24 18:15	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			05/19/24 18:15	1
o-Xylene	1.0	U	2.0	0.26	ug/L			05/19/24 18:15	1

Client Sample ID: OU6-MW-141-20240514
Lab Sample ID: 680-250771-7
Date Collected: 05/14/24 12:17
Matrix: Water
Date Received: 05/15/24 09:35

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			05/19/24 18:15	1
Styrene	1.0	U	2.0	0.27	ug/L			05/19/24 18:15	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			05/19/24 18:15	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			05/19/24 18:15	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			05/19/24 18:15	1
Tetrachloroethene	1.0	U	2.0	0.35	ug/L			05/19/24 18:15	1
Toluene	1.0	U	2.0	0.25	ug/L			05/19/24 18:15	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			05/19/24 18:15	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			05/19/24 18:15	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			05/19/24 18:15	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			05/19/24 18:15	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			05/19/24 18:15	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			05/19/24 18:15	1
Trichloroethene	0.50	U	1.0	0.20	ug/L			05/19/24 18:15	1
Trichlorofluoromethane	1.0	U Q	2.0	0.33	ug/L			05/19/24 18:15	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			05/19/24 18:15	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			05/19/24 18:15	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			05/19/24 18:15	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			05/19/24 18:15	1
Vinyl chloride	1.0	U	2.0	0.40	ug/L			05/19/24 18:15	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			05/19/24 18:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*85 - 114*		*05/19/24 18:15*	*1*
Dibromofluoromethane (Surr)	*106*		*80 - 119*		*05/19/24 18:15*	*1*
1,2-Dichloroethane-d4 (Surr)	*93*		*81 - 118*		*05/19/24 18:15*	*1*
Toluene-d8 (Surr)	*96*		*89 - 112*		*05/19/24 18:15*	*1*

Client Sample ID: OU6-MW-296-20240514
Lab Sample ID: 680-250771-8
Date Collected: 05/14/24 10:30
Matrix: Water
Date Received: 05/15/24 09:35

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			05/19/24 18:38	1
Benzene	1.0	U	2.0	0.27	ug/L			05/19/24 18:38	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			05/19/24 18:38	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			05/19/24 18:38	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			05/19/24 18:38	1
Bromoform	2.0	U Q	2.5	0.59	ug/L			05/19/24 18:38	1
Bromomethane	10	U	20	3.7	ug/L			05/19/24 18:38	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			05/19/24 18:38	1
Carbon disulfide	1.0	U Q	2.0	0.43	ug/L			05/19/24 18:38	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			05/19/24 18:38	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			05/19/24 18:38	1
Chloroethane	10	U	20	4.6	ug/L			05/19/24 18:38	1
Chloroform	1.0	U	2.0	0.27	ug/L			05/19/24 18:38	1
Chloromethane	2.0	U	2.5	0.54	ug/L			05/19/24 18:38	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			05/19/24 18:38	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			05/19/24 18:38	1

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-250771-1

Client Sample ID: OU6-MW-296-20240514
Date Collected: 05/14/24 10:30
Date Received: 05/15/24 09:35

Lab Sample ID: 680-250771-8
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	1.0	U	2.0	0.25	ug/L			05/19/24 18:38	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			05/19/24 18:38	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			05/19/24 18:38	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			05/19/24 18:38	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			05/19/24 18:38	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			05/19/24 18:38	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			05/19/24 18:38	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/19/24 18:38	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/19/24 18:38	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/19/24 18:38	1
Dichlorodifluoromethane	1.0	U M	2.0	0.36	ug/L			05/19/24 18:38	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			05/19/24 18:38	1
1,2-Dichloroethane	1.0	U M	2.0	0.25	ug/L			05/19/24 18:38	1
1,1-Dichloroethene	1.0	U	2.0	0.33	ug/L			05/19/24 18:38	1
1,2-Dichloroethene, Total	1.0	U	2.0	0.37	ug/L			05/19/24 18:38	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			05/19/24 18:38	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			05/19/24 18:38	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			05/19/24 18:38	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			05/19/24 18:38	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			05/19/24 18:38	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			05/19/24 18:38	1
2-Hexanone	10	U	20	3.2	ug/L			05/19/24 18:38	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			05/19/24 18:38	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			05/19/24 18:38	1
Methyl acetate	10	U Q	20	3.2	ug/L			05/19/24 18:38	1
Methylcyclohexane	1.0	U	2.0	0.33	ug/L			05/19/24 18:38	1
Methylene Chloride	10	U	20	3.2	ug/L			05/19/24 18:38	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			05/19/24 18:38	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			05/19/24 18:38	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			05/19/24 18:38	1
Naphthalene	5.0	U	10	2.4	ug/L			05/19/24 18:38	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			05/19/24 18:38	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			05/19/24 18:38	1
o-Xylene	1.0	U	2.0	0.26	ug/L			05/19/24 18:38	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			05/19/24 18:38	1
Styrene	1.0	U	2.0	0.27	ug/L			05/19/24 18:38	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			05/19/24 18:38	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			05/19/24 18:38	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			05/19/24 18:38	1
Tetrachloroethene	1.0	U	2.0	0.35	ug/L			05/19/24 18:38	1
Toluene	1.0	U	2.0	0.25	ug/L			05/19/24 18:38	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			05/19/24 18:38	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			05/19/24 18:38	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			05/19/24 18:38	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			05/19/24 18:38	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			05/19/24 18:38	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			05/19/24 18:38	1
Trichloroethene	0.50	U	1.0	0.20	ug/L			05/19/24 18:38	1
Trichlorofluoromethane	1.0	U Q	2.0	0.33	ug/L			05/19/24 18:38	1

Client Sample ID: OU6-MW-296-20240514

Lab Sample ID: 680-250771-8

Date Collected: 05/14/24 10:30

Matrix: Water

Date Received: 05/15/24 09:35

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			05/19/24 18:38	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			05/19/24 18:38	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			05/19/24 18:38	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			05/19/24 18:38	1
Vinyl chloride	1.0	U	2.0	0.40	ug/L			05/19/24 18:38	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			05/19/24 18:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*85 - 114*		*05/19/24 18:38*	*1*
Dibromofluoromethane (Surr)	*104*		*80 - 119*		*05/19/24 18:38*	*1*
1,2-Dichloroethane-d4 (Surr)	*91*		*81 - 118*		*05/19/24 18:38*	*1*
Toluene-d8 (Surr)	*96*		*89 - 112*		*05/19/24 18:38*	*1*

Client Sample ID: OU6-MW-300-20240514

Lab Sample ID: 680-250771-9

Date Collected: 05/14/24 14:05

Matrix: Water

Date Received: 05/15/24 09:35

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			05/19/24 19:00	1
Benzene	1.0	U	2.0	0.27	ug/L			05/19/24 19:00	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			05/19/24 19:00	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			05/19/24 19:00	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			05/19/24 19:00	1
Bromoform	2.0	U Q	2.5	0.59	ug/L			05/19/24 19:00	1
Bromomethane	10	U	20	3.7	ug/L			05/19/24 19:00	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			05/19/24 19:00	1
Carbon disulfide	1.0	U Q	2.0	0.43	ug/L			05/19/24 19:00	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			05/19/24 19:00	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			05/19/24 19:00	1
Chloroethane	10	U	20	4.6	ug/L			05/19/24 19:00	1
Chloroform	1.0	U	2.0	0.27	ug/L			05/19/24 19:00	1
Chloromethane	2.0	U	2.5	0.54	ug/L			05/19/24 19:00	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			05/19/24 19:00	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			05/19/24 19:00	1
cis-1,2-Dichloroethene	1.0	U	2.0	0.25	ug/L			05/19/24 19:00	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			05/19/24 19:00	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			05/19/24 19:00	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			05/19/24 19:00	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			05/19/24 19:00	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			05/19/24 19:00	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			05/19/24 19:00	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/19/24 19:00	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/19/24 19:00	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/19/24 19:00	1
Dichlorodifluoromethane	1.0	U	2.0	0.36	ug/L			05/19/24 19:00	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			05/19/24 19:00	1
1,2-Dichloroethane	1.0	U M	2.0	0.25	ug/L			05/19/24 19:00	1
1,1-Dichloroethene	1.0	U	2.0	0.33	ug/L			05/19/24 19:00	1
1,2-Dichloroethene, Total	1.0	U	2.0	0.37	ug/L			05/19/24 19:00	1

Client Sample ID: OU6-MW-300-20240514
Date Collected: 05/14/24 14:05
Date Received: 05/15/24 09:35

Lab Sample ID: 680-250771-9
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			05/19/24 19:00	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			05/19/24 19:00	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			05/19/24 19:00	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			05/19/24 19:00	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			05/19/24 19:00	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			05/19/24 19:00	1
2-Hexanone	10	U	20	3.2	ug/L			05/19/24 19:00	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			05/19/24 19:00	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			05/19/24 19:00	1
Methyl acetate	10	U Q	20	3.2	ug/L			05/19/24 19:00	1
Methylcyclohexane	1.0	U	2.0	0.33	ug/L			05/19/24 19:00	1
Methylene Chloride	10	U	20	3.2	ug/L			05/19/24 19:00	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			05/19/24 19:00	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			05/19/24 19:00	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			05/19/24 19:00	1
Naphthalene	5.0	U	10	2.4	ug/L			05/19/24 19:00	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			05/19/24 19:00	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			05/19/24 19:00	1
o-Xylene	1.0	U	2.0	0.26	ug/L			05/19/24 19:00	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			05/19/24 19:00	1
Styrene	1.0	U	2.0	0.27	ug/L			05/19/24 19:00	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			05/19/24 19:00	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			05/19/24 19:00	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			05/19/24 19:00	1
Tetrachloroethene	1.0	U	2.0	0.35	ug/L			05/19/24 19:00	1
Toluene	1.0	U	2.0	0.25	ug/L			05/19/24 19:00	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			05/19/24 19:00	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			05/19/24 19:00	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			05/19/24 19:00	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			05/19/24 19:00	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			05/19/24 19:00	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			05/19/24 19:00	1
Trichloroethene	0.50	U	1.0	0.20	ug/L			05/19/24 19:00	1
Trichlorofluoromethane	1.0	U Q	2.0	0.33	ug/L			05/19/24 19:00	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			05/19/24 19:00	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			05/19/24 19:00	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			05/19/24 19:00	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			05/19/24 19:00	1
Vinyl chloride	1.0	U	2.0	0.40	ug/L			05/19/24 19:00	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			05/19/24 19:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*85 - 114*		*05/19/24 19:00*	*1*
Dibromofluoromethane (Surr)	*106*		*80 - 119*		*05/19/24 19:00*	*1*
1,2-Dichloroethane-d4 (Surr)	*93*		*81 - 118*		*05/19/24 19:00*	*1*
Toluene-d8 (Surr)	*96*		*89 - 112*		*05/19/24 19:00*	*1*

Client Sample ID: OU6-MW-225-20240514
Date Collected: 05/14/24 09:02
Date Received: 05/15/24 09:35

Lab Sample ID: 680-250771-10
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			05/19/24 19:23	1
Benzene	1.0	U	2.0	0.27	ug/L			05/19/24 19:23	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			05/19/24 19:23	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			05/19/24 19:23	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			05/19/24 19:23	1
Bromoform	2.0	U Q	2.5	0.59	ug/L			05/19/24 19:23	1
Bromomethane	10	U	20	3.7	ug/L			05/19/24 19:23	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			05/19/24 19:23	1
Carbon disulfide	1.0	U Q	2.0	0.43	ug/L			05/19/24 19:23	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			05/19/24 19:23	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			05/19/24 19:23	1
Chloroethane	10	U	20	4.6	ug/L			05/19/24 19:23	1
Chloroform	1.0	U	2.0	0.27	ug/L			05/19/24 19:23	1
Chloromethane	2.0	U	2.5	0.54	ug/L			05/19/24 19:23	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			05/19/24 19:23	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			05/19/24 19:23	1
cis-1,2-Dichloroethene	**0.37**	**J**	2.0	0.25	ug/L			05/19/24 19:23	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			05/19/24 19:23	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			05/19/24 19:23	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			05/19/24 19:23	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			05/19/24 19:23	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			05/19/24 19:23	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			05/19/24 19:23	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/19/24 19:23	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/19/24 19:23	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/19/24 19:23	1
Dichlorodifluoromethane	1.0	U	2.0	0.36	ug/L			05/19/24 19:23	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			05/19/24 19:23	1
1,2-Dichloroethane	1.0	U	2.0	0.25	ug/L			05/19/24 19:23	1
1,1-Dichloroethene	1.0	U	2.0	0.33	ug/L			05/19/24 19:23	1
1,2-Dichloroethene, Total	**0.37**	**J**	2.0	0.37	ug/L			05/19/24 19:23	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			05/19/24 19:23	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			05/19/24 19:23	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			05/19/24 19:23	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			05/19/24 19:23	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			05/19/24 19:23	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			05/19/24 19:23	1
2-Hexanone	10	U	20	3.2	ug/L			05/19/24 19:23	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			05/19/24 19:23	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			05/19/24 19:23	1
Methyl acetate	10	U Q	20	3.2	ug/L			05/19/24 19:23	1
Methylcyclohexane	1.0	U	2.0	0.33	ug/L			05/19/24 19:23	1
Methylene Chloride	10	U	20	3.2	ug/L			05/19/24 19:23	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			05/19/24 19:23	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			05/19/24 19:23	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			05/19/24 19:23	1
Naphthalene	5.0	U	10	2.4	ug/L			05/19/24 19:23	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			05/19/24 19:23	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			05/19/24 19:23	1

Client Sample ID: OU6-MW-225-20240514

Lab Sample ID: 680-250771-10

Date Collected: 05/14/24 09:02

Matrix: Water

Date Received: 05/15/24 09:35

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	1.0	U	2.0	0.26	ug/L			05/19/24 19:23	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			05/19/24 19:23	1
Styrene	1.0	U	2.0	0.27	ug/L			05/19/24 19:23	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			05/19/24 19:23	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			05/19/24 19:23	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			05/19/24 19:23	1
Tetrachloroethene	1.0	U	2.0	0.35	ug/L			05/19/24 19:23	1
Toluene	1.0	U	2.0	0.25	ug/L			05/19/24 19:23	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			05/19/24 19:23	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			05/19/24 19:23	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			05/19/24 19:23	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			05/19/24 19:23	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			05/19/24 19:23	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			05/19/24 19:23	1
Trichloroethene	**0.64**	**J**	1.0	0.20	ug/L			05/19/24 19:23	1
Trichlorofluoromethane	1.0	U Q	2.0	0.33	ug/L			05/19/24 19:23	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			05/19/24 19:23	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			05/19/24 19:23	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			05/19/24 19:23	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			05/19/24 19:23	1
Vinyl chloride	1.0	U	2.0	0.40	ug/L			05/19/24 19:23	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			05/19/24 19:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*85 - 114*		*05/19/24 19:23*	*1*
Dibromofluoromethane (Surr)	*106*		*80 - 119*		*05/19/24 19:23*	*1*
1,2-Dichloroethane-d4 (Surr)	*94*		*81 - 118*		*05/19/24 19:23*	*1*
Toluene-d8 (Surr)	*97*		*89 - 112*		*05/19/24 19:23*	*1*

Client Sample ID: OU6-MW-180-20240514

Lab Sample ID: 680-250771-11

Date Collected: 05/14/24 11:55

Matrix: Water

Date Received: 05/15/24 09:35

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			05/19/24 19:46	1
Benzene	1.0	U	2.0	0.27	ug/L			05/19/24 19:46	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			05/19/24 19:46	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			05/19/24 19:46	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			05/19/24 19:46	1
Bromoform	2.0	U M Q	2.5	0.59	ug/L			05/19/24 19:46	1
Bromomethane	10	U	20	3.7	ug/L			05/19/24 19:46	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			05/19/24 19:46	1
Carbon disulfide	1.0	U Q	2.0	0.43	ug/L			05/19/24 19:46	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			05/19/24 19:46	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			05/19/24 19:46	1
Chloroethane	10	U	20	4.6	ug/L			05/19/24 19:46	1
Chloroform	1.0	U	2.0	0.27	ug/L			05/19/24 19:46	1
Chloromethane	2.0	U	2.5	0.54	ug/L			05/19/24 19:46	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			05/19/24 19:46	1

Client Sample ID: OU6-MW-180-20240514
Date Collected: 05/14/24 11:55
Date Received: 05/15/24 09:35

Lab Sample ID: 680-250771-11
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			05/19/24 19:46	1
cis-1,2-Dichloroethene	1.0	U	2.0	0.25	ug/L			05/19/24 19:46	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			05/19/24 19:46	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			05/19/24 19:46	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			05/19/24 19:46	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			05/19/24 19:46	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			05/19/24 19:46	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			05/19/24 19:46	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/19/24 19:46	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/19/24 19:46	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/19/24 19:46	1
Dichlorodifluoromethane	1.0	U	2.0	0.36	ug/L			05/19/24 19:46	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			05/19/24 19:46	1
1,2-Dichloroethane	1.0	U	2.0	0.25	ug/L			05/19/24 19:46	1
1,1-Dichloroethene	1.0	U	2.0	0.33	ug/L			05/19/24 19:46	1
1,2-Dichloroethene, Total	1.0	U	2.0	0.37	ug/L			05/19/24 19:46	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			05/19/24 19:46	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			05/19/24 19:46	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			05/19/24 19:46	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			05/19/24 19:46	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			05/19/24 19:46	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			05/19/24 19:46	1
2-Hexanone	10	U	20	3.2	ug/L			05/19/24 19:46	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			05/19/24 19:46	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			05/19/24 19:46	1
Methyl acetate	10	U Q	20	3.2	ug/L			05/19/24 19:46	1
Methylcyclohexane	1.0	U	2.0	0.33	ug/L			05/19/24 19:46	1
Methylene Chloride	10	U	20	3.2	ug/L			05/19/24 19:46	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			05/19/24 19:46	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			05/19/24 19:46	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			05/19/24 19:46	1
Naphthalene	5.0	U	10	2.4	ug/L			05/19/24 19:46	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			05/19/24 19:46	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			05/19/24 19:46	1
o-Xylene	1.0	U	2.0	0.26	ug/L			05/19/24 19:46	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			05/19/24 19:46	1
Styrene	1.0	U	2.0	0.27	ug/L			05/19/24 19:46	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			05/19/24 19:46	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			05/19/24 19:46	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			05/19/24 19:46	1
Tetrachloroethene	1.0	U	2.0	0.35	ug/L			05/19/24 19:46	1
Toluene	1.0	U	2.0	0.25	ug/L			05/19/24 19:46	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			05/19/24 19:46	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			05/19/24 19:46	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			05/19/24 19:46	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			05/19/24 19:46	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			05/19/24 19:46	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			05/19/24 19:46	1
Trichloroethene	0.50	U	1.0	0.20	ug/L			05/19/24 19:46	1

Client Sample ID: OU6-MW-180-20240514

Lab Sample ID: 680-250771-11

Date Collected: 05/14/24 11:55

Matrix: Water

Date Received: 05/15/24 09:35

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Trichlorofluoromethane	1.0	U Q	2.0	0.33	ug/L			05/19/24 19:46	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			05/19/24 19:46	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			05/19/24 19:46	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			05/19/24 19:46	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			05/19/24 19:46	1
Vinyl chloride	1.0	U	2.0	0.40	ug/L			05/19/24 19:46	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			05/19/24 19:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*85 - 114*		*05/19/24 19:46*	*1*
Dibromofluoromethane (Surr)	*106*		*80 - 119*		*05/19/24 19:46*	*1*
1,2-Dichloroethane-d4 (Surr)	*94*		*81 - 118*		*05/19/24 19:46*	*1*
Toluene-d8 (Surr)	*97*		*89 - 112*		*05/19/24 19:46*	*1*

Client Sample ID: OU6-MW-169-20240514

Lab Sample ID: 680-250771-12

Date Collected: 05/14/24 14:15

Matrix: Water

Date Received: 05/15/24 09:35

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			05/19/24 20:09	1
Benzene	1.0	U	2.0	0.27	ug/L			05/19/24 20:09	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			05/19/24 20:09	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			05/19/24 20:09	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			05/19/24 20:09	1
Bromoform	2.0	U M Q	2.5	0.59	ug/L			05/19/24 20:09	1
Bromomethane	10	U	20	3.7	ug/L			05/19/24 20:09	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			05/19/24 20:09	1
Carbon disulfide	1.0	U Q	2.0	0.43	ug/L			05/19/24 20:09	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			05/19/24 20:09	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			05/19/24 20:09	1
Chloroethane	10	U	20	4.6	ug/L			05/19/24 20:09	1
Chloroform	1.0	U	2.0	0.27	ug/L			05/19/24 20:09	1
Chloromethane	2.0	U	2.5	0.54	ug/L			05/19/24 20:09	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			05/19/24 20:09	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			05/19/24 20:09	1
cis-1,2-Dichloroethene	**0.47**	**J**	2.0	0.25	ug/L			05/19/24 20:09	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			05/19/24 20:09	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			05/19/24 20:09	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			05/19/24 20:09	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			05/19/24 20:09	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			05/19/24 20:09	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			05/19/24 20:09	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/19/24 20:09	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/19/24 20:09	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/19/24 20:09	1
Dichlorodifluoromethane	1.0	U M	2.0	0.36	ug/L			05/19/24 20:09	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			05/19/24 20:09	1
1,2-Dichloroethane	1.0	U M	2.0	0.25	ug/L			05/19/24 20:09	1
1,1-Dichloroethene	**0.48**	**J**	2.0	0.33	ug/L			05/19/24 20:09	1

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-250771-1

Client Sample ID: OU6-MW-169-20240514
Date Collected: 05/14/24 14:15
Date Received: 05/15/24 09:35

Lab Sample ID: 680-250771-12
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethene, Total	0.47	J	2.0	0.37	ug/L			05/19/24 20:09	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			05/19/24 20:09	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			05/19/24 20:09	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			05/19/24 20:09	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			05/19/24 20:09	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			05/19/24 20:09	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			05/19/24 20:09	1
2-Hexanone	10	U	20	3.2	ug/L			05/19/24 20:09	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			05/19/24 20:09	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			05/19/24 20:09	1
Methyl acetate	10	U Q	20	3.2	ug/L			05/19/24 20:09	1
Methylcyclohexane	1.0	U	2.0	0.33	ug/L			05/19/24 20:09	1
Methylene Chloride	10	U	20	3.2	ug/L			05/19/24 20:09	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			05/19/24 20:09	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			05/19/24 20:09	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			05/19/24 20:09	1
Naphthalene	5.0	U	10	2.4	ug/L			05/19/24 20:09	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			05/19/24 20:09	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			05/19/24 20:09	1
o-Xylene	1.0	U	2.0	0.26	ug/L			05/19/24 20:09	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			05/19/24 20:09	1
Styrene	1.0	U	2.0	0.27	ug/L			05/19/24 20:09	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			05/19/24 20:09	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			05/19/24 20:09	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			05/19/24 20:09	1
Tetrachloroethene	1.0	U	2.0	0.35	ug/L			05/19/24 20:09	1
Toluene	1.0	U	2.0	0.25	ug/L			05/19/24 20:09	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			05/19/24 20:09	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			05/19/24 20:09	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			05/19/24 20:09	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			05/19/24 20:09	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			05/19/24 20:09	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			05/19/24 20:09	1
Trichloroethene	11		1.0	0.20	ug/L			05/19/24 20:09	1
Trichlorofluoromethane	1.0	U Q	2.0	0.33	ug/L			05/19/24 20:09	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			05/19/24 20:09	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			05/19/24 20:09	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			05/19/24 20:09	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			05/19/24 20:09	1
Vinyl chloride	1.0	U	2.0	0.40	ug/L			05/19/24 20:09	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			05/19/24 20:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*85 - 114*		*05/19/24 20:09*	*1*
Dibromofluoromethane (Surr)	*105*		*80 - 119*		*05/19/24 20:09*	*1*
1,2-Dichloroethane-d4 (Surr)	*93*		*81 - 118*		*05/19/24 20:09*	*1*
Toluene-d8 (Surr)	*97*		*89 - 112*		*05/19/24 20:09*	*1*

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-250771-1

Client Sample ID: OU6-MW-169-20240514

Date Collected: 05/14/24 14:15
Date Received: 05/15/24 09:35

Lab Sample ID: 680-250771-12

Matrix: Water

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	0.052	U M	0.21	0.019	ug/L		05/17/24 07:40	05/25/24 12:59	1
Acenaphthene	0.10	U M	0.21	0.044	ug/L		05/17/24 07:40	05/25/24 12:59	1
Acenaphthylene	0.052	U	0.21	0.018	ug/L		05/17/24 07:40	05/25/24 12:59	1
Pyrene	0.10	U	0.21	0.028	ug/L		05/17/24 07:40	05/25/24 12:59	1
2-Methylnaphthalene	0.042	U	0.21	0.011	ug/L		05/17/24 07:40	05/25/24 12:59	1
Anthracene	0.052	U M	0.21	0.019	ug/L		05/17/24 07:40	05/25/24 12:59	1
Benzo[a]pyrene	0.10	U	0.21	0.027	ug/L		05/17/24 07:40	05/25/24 12:59	1
Benzo[a]anthracene	0.10	U	0.21	0.027	ug/L		05/17/24 07:40	05/25/24 12:59	1
Benzo[b]fluoranthene	0.10	U	0.21	0.027	ug/L		05/17/24 07:40	05/25/24 12:59	1
Benzo[g,h,i]perylene	0.10	U M	0.21	0.027	ug/L		05/17/24 07:40	05/25/24 12:59	1
Benzo[k]fluoranthene	0.10	U	0.21	0.030	ug/L		05/17/24 07:40	05/25/24 12:59	1
Chrysene	0.052	U	0.21	0.024	ug/L		05/17/24 07:40	05/25/24 12:59	1
Dibenz(a,h)anthracene	0.052	U	0.21	0.025	ug/L		05/17/24 07:40	05/25/24 12:59	1
Phenanthrene	0.21	U	0.42	0.057	ug/L		05/17/24 07:40	05/25/24 12:59	1
Indeno[1,2,3-cd]pyrene	0.10	U	0.21	0.029	ug/L		05/17/24 07:40	05/25/24 12:59	1
Naphthalene	0.052	U M	0.21	0.015	ug/L		05/17/24 07:40	05/25/24 12:59	1
Fluoranthene	0.10	U M	0.21	0.028	ug/L		05/17/24 07:40	05/25/24 12:59	1
Fluorene	0.10	U M	0.21	0.026	ug/L		05/17/24 07:40	05/25/24 12:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*50*	*Q*	*53 - 106*	*05/17/24 07:40*	*05/25/24 12:59*	*1*
2-methylnaphthalene-d10	*51*		*30 - 100*	*05/17/24 07:40*	*05/25/24 12:59*	*1*
Fluoranthene-d10	*94*		*42 - 114*	*05/17/24 07:40*	*05/25/24 12:59*	*1*
Nitrobenzene-d5	*57*		*42 - 100*	*05/17/24 07:40*	*05/25/24 12:59*	*1*
Terphenyl-d14	*95*		*53 - 111*	*05/17/24 07:40*	*05/25/24 12:59*	*1*

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) - RE

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	0.047	U M H	0.19	0.017	ug/L		05/29/24 12:48	05/30/24 14:37	1
Acenaphthene	0.095	U M H	0.19	0.040	ug/L		05/29/24 12:48	05/30/24 14:37	1
Acenaphthylene	0.047	U M H	0.19	0.016	ug/L		05/29/24 12:48	05/30/24 14:37	1
Pyrene	0.095	U M H	0.19	0.026	ug/L		05/29/24 12:48	05/30/24 14:37	1
2-Methylnaphthalene	0.038	U M H	0.19	0.010	ug/L		05/29/24 12:48	05/30/24 14:37	1
Anthracene	0.047	U H	0.19	0.017	ug/L		05/29/24 12:48	05/30/24 14:37	1
Benzo[a]pyrene	0.095	U H	0.19	0.025	ug/L		05/29/24 12:48	05/30/24 14:37	1
Benzo[a]anthracene	0.095	U H	0.19	0.025	ug/L		05/29/24 12:48	05/30/24 14:37	1
Benzo[b]fluoranthene	0.095	U H	0.19	0.025	ug/L		05/29/24 12:48	05/30/24 14:37	1
Benzo[g,h,i]perylene	0.095	U M H	0.19	0.025	ug/L		05/29/24 12:48	05/30/24 14:37	1
Benzo[k]fluoranthene	0.095	U H	0.19	0.028	ug/L		05/29/24 12:48	05/30/24 14:37	1
Chrysene	0.047	U H	0.19	0.022	ug/L		05/29/24 12:48	05/30/24 14:37	1
Dibenz(a,h)anthracene	0.047	U H	0.19	0.023	ug/L		05/29/24 12:48	05/30/24 14:37	1
Phenanthrene	0.19	U H	0.38	0.052	ug/L		05/29/24 12:48	05/30/24 14:37	1
Indeno[1,2,3-cd]pyrene	0.095	U H	0.19	0.027	ug/L		05/29/24 12:48	05/30/24 14:37	1
Naphthalene	**0.61**	**H**	0.19	0.013	ug/L		05/29/24 12:48	05/30/24 14:37	1
Fluoranthene	0.095	U M H	0.19	0.026	ug/L		05/29/24 12:48	05/30/24 14:37	1
Fluorene	0.095	U M H	0.19	0.024	ug/L		05/29/24 12:48	05/30/24 14:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*62*		*53 - 106*	*05/29/24 12:48*	*05/30/24 14:37*	*1*
2-methylnaphthalene-d10	*60*		*30 - 100*	*05/29/24 12:48*	*05/30/24 14:37*	*1*

Client Sample ID: OU6-MW-169-20240514
Date Collected: 05/14/24 14:15
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Lab Sample ID: 680-250771-12
Matrix: Water

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) - RE (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Fluoranthene-d10	*78*		*42 - 114*	*05/29/24 12:48*	*05/30/24 14:37*	*1*
Nitrobenzene-d5	*61*		*42 - 100*	*05/29/24 12:48*	*05/30/24 14:37*	*1*
Terphenyl-d14	*85*		*53 - 111*	*05/29/24 12:48*	*05/30/24 14:37*	*1*

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	10	U M	20	4.6	ug/L		05/20/24 06:53	05/20/24 20:19	1
1,2,4,5-Tetrachlorobenzene	10	U	20	4.5	ug/L		05/20/24 06:53	05/20/24 20:19	1
1,4-Dioxane	10	U	20	4.4	ug/L		05/20/24 06:53	05/20/24 20:19	1
2,3,4,6-Tetrachlorophenol	10	U	20	4.3	ug/L		05/20/24 06:53	05/20/24 20:19	1
2,4,5-Trichlorophenol	10	U	20	3.3	ug/L		05/20/24 06:53	05/20/24 20:19	1
2,4,6-Trichlorophenol	5.0	U	20	2.2	ug/L		05/20/24 06:53	05/20/24 20:19	1
2,4-Dichlorophenol	10	U	20	3.7	ug/L		05/20/24 06:53	05/20/24 20:19	1
2,4-Dimethylphenol	10	U Q	20	3.0	ug/L		05/20/24 06:53	05/20/24 20:19	1
2,4-Dinitrophenol	40	U	50	16	ug/L		05/20/24 06:53	05/20/24 20:19	1
2,4-Dinitrotoluene	5.0	U	10	2.3	ug/L		05/20/24 06:53	05/20/24 20:19	1
2,6-Dinitrotoluene	10	U	20	2.8	ug/L		05/20/24 06:53	05/20/24 20:19	1
2-Chloronaphthalene	10	U	20	4.8	ug/L		05/20/24 06:53	05/20/24 20:19	1
2-Chlorophenol	10	U	20	3.2	ug/L		05/20/24 06:53	05/20/24 20:19	1
2-Methylphenol	4.0	U	10	1.8	ug/L		05/20/24 06:53	05/20/24 20:19	1
2-Nitroaniline	10	U M	20	2.9	ug/L		05/20/24 06:53	05/20/24 20:19	1
2-Nitrophenol	10	U	20	3.9	ug/L		05/20/24 06:53	05/20/24 20:19	1
3 & 4 Methylphenol	4.0	U	10	1.4	ug/L		05/20/24 06:53	05/20/24 20:19	1
3,3'-Dichlorobenzidine	20	U	50	10	ug/L		05/20/24 06:53	05/20/24 20:19	1
3-Nitroaniline	10	U	50	3.0	ug/L		05/20/24 06:53	05/20/24 20:19	1
4,6-Dinitro-2-methylphenol	20	U	50	5.3	ug/L		05/20/24 06:53	05/20/24 20:19	1
4-Bromophenyl phenyl ether	10	U M	20	4.7	ug/L		05/20/24 06:53	05/20/24 20:19	1
4-Chloro-3-methylphenol	10	U	20	2.5	ug/L		05/20/24 06:53	05/20/24 20:19	1
4-Chloroaniline	4.0	U	10	1.0	ug/L		05/20/24 06:53	05/20/24 20:19	1
4-Chlorophenyl phenyl ether	12	U	20	5.3	ug/L		05/20/24 06:53	05/20/24 20:19	1
4-Nitroaniline	10	U	50	3.0	ug/L		05/20/24 06:53	05/20/24 20:19	1
4-Nitrophenol	20	U	50	8.1	ug/L		05/20/24 06:53	05/20/24 20:19	1
Acetophenone	5.0	U	10	2.2	ug/L		05/20/24 06:53	05/20/24 20:19	1
Atrazine	5.0	U	10	2.2	ug/L		05/20/24 06:53	05/20/24 20:19	1
Benzaldehyde	10	U	20	4.8	ug/L		05/20/24 06:53	05/20/24 20:19	1
bis (2-chloroisopropyl) ether	10	U	20	3.1	ug/L		05/20/24 06:53	05/20/24 20:19	1
Bis(2-chloroethoxy)methane	4.0	U	10	1.8	ug/L		05/20/24 06:53	05/20/24 20:19	1
Bis(2-chloroethyl)ether	10	U Q	20	3.6	ug/L		05/20/24 06:53	05/20/24 20:19	1
Bis(2-ethylhexyl) phthalate	10	U	20	3.0	ug/L		05/20/24 06:53	05/20/24 20:19	1
Butyl benzyl phthalate	10	U	20	2.8	ug/L		05/20/24 06:53	05/20/24 20:19	1
Caprolactam	10	U	20	2.8	ug/L		05/20/24 06:53	05/20/24 20:19	1
Carbazole	4.0	U	10	1.8	ug/L		05/20/24 06:53	05/20/24 20:19	1
Dibenzofuran	4.0	U	10	1.9	ug/L		05/20/24 06:53	05/20/24 20:19	1
Diethyl phthalate	5.0	U	10	2.2	ug/L		05/20/24 06:53	05/20/24 20:19	1
Dimethyl phthalate	5.0	U	10	2.1	ug/L		05/20/24 06:53	05/20/24 20:19	1
Di-n-butyl phthalate	5.0	U	10	2.3	ug/L		05/20/24 06:53	05/20/24 20:19	1
Di-n-octyl phthalate	10	U M	20	2.8	ug/L		05/20/24 06:53	05/20/24 20:19	1
Hexachlorobenzene	4.0	U	10	1.6	ug/L		05/20/24 06:53	05/20/24 20:19	1
Hexachlorobutadiene	10	U	20	4.0	ug/L		05/20/24 06:53	05/20/24 20:19	1

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Lab Sample ID: 680-250771-12
Matrix: Water

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorocyclopentadiene	10	U	20	3.5	ug/L		05/20/24 06:53	05/20/24 20:19	1
Hexachloroethane	10	U	20	3.6	ug/L		05/20/24 06:53	05/20/24 20:19	1
Isophorone	4.0	U	10	2.0	ug/L		05/20/24 06:53	05/20/24 20:19	1
Nitrobenzene	10	U	20	3.5	ug/L		05/20/24 06:53	05/20/24 20:19	1
N-Nitrosodi-n-propylamine	5.0	U	10	2.4	ug/L		05/20/24 06:53	05/20/24 20:19	1
N-Nitrosodiphenylamine	10	U M	20	2.9	ug/L		05/20/24 06:53	05/20/24 20:19	1
Pentachlorophenol	20	U	50	9.9	ug/L		05/20/24 06:53	05/20/24 20:19	1
Phenol	4.0	U	10	1.5	ug/L		05/20/24 06:53	05/20/24 20:19	1
Pyridine	20	U	50	7.4	ug/L		05/20/24 06:53	05/20/24 20:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*54*		*43 - 140*	*05/20/24 06:53*	*05/20/24 20:19*	*1*
2-Fluorobiphenyl	*51*		*44 - 119*	*05/20/24 06:53*	*05/20/24 20:19*	*1*
2-Fluorophenol	*30*		*19 - 119*	*05/20/24 06:53*	*05/20/24 20:19*	*1*
Nitrobenzene-d5	*50*		*44 - 120*	*05/20/24 06:53*	*05/20/24 20:19*	*1*
Phenol-d5	*20*		*10 - 130*	*05/20/24 06:53*	*05/20/24 20:19*	*1*
Terphenyl-d14	*72*		*50 - 134*	*05/20/24 06:53*	*05/20/24 20:19*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	2.0	U	5.0	1.0	ug/L		05/23/24 10:18	05/23/24 12:19	1
Ethylene	2.0	U	5.0	1.0	ug/L		05/23/24 10:18	05/23/24 12:19	1
Methane	6.0	U	6.5	3.0	ug/L		05/23/24 10:18	05/23/24 12:19	1

Method: SW846 8081B 8082A - Organochlorine Pesticides & PCBs (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	0.0040	U	0.050	0.0020	ug/L		05/17/24 12:07	05/20/24 19:45	1
4,4'-DDE	0.0040	U	0.050	0.00099	ug/L		05/17/24 12:07	05/20/24 19:45	1
4,4'-DDT	0.0040	U	0.050	0.00099	ug/L		05/17/24 12:07	05/20/24 19:45	1
Aldrin	0.0040	U M	0.050	0.0020	ug/L		05/17/24 12:07	05/20/24 19:45	1
alpha-BHC	0.0040	U	0.050	0.00099	ug/L		05/17/24 12:07	05/20/24 19:45	1
beta-BHC	0.0040	U	0.050	0.0020	ug/L		05/17/24 12:07	05/20/24 19:45	1
delta-BHC	0.0040	U	0.050	0.0020	ug/L		05/17/24 12:07	05/20/24 19:45	1
Dieldrin	0.0040	U	0.050	0.0020	ug/L		05/17/24 12:07	05/20/24 19:45	1
Endosulfan I	0.0040	U M	0.050	0.0020	ug/L		05/17/24 12:07	05/20/24 19:45	1
Endosulfan II	0.0040	U	0.050	0.0020	ug/L		05/17/24 12:07	05/20/24 19:45	1
Endosulfan sulfate	0.0040	U M	0.050	0.0020	ug/L		05/17/24 12:07	05/20/24 19:45	1
Endrin	0.0040	U	0.050	0.00099	ug/L		05/17/24 12:07	05/20/24 19:45	1
Endrin aldehyde	0.016	U	0.050	0.0040	ug/L		05/17/24 12:07	05/20/24 19:45	1
Endrin ketone	0.016	U	0.050	0.0040	ug/L		05/17/24 12:07	05/20/24 19:45	1
gamma-BHC (Lindane)	0.0040	U	0.050	0.00099	ug/L		05/17/24 12:07	05/20/24 19:45	1
Heptachlor	0.0040	U	0.050	0.00099	ug/L		05/17/24 12:07	05/20/24 19:45	1
Heptachlor epoxide	0.0040	U M	0.050	0.0020	ug/L		05/17/24 12:07	05/20/24 19:45	1
Methoxychlor	0.0040	U	0.050	0.0020	ug/L		05/17/24 12:07	05/20/24 19:45	1
Chlordane (technical)	0.40	U M	0.50	0.16	ug/L		05/17/24 12:07	05/20/24 19:45	1
PCB-1016	0.24	U M	0.50	0.099	ug/L		05/17/24 12:07	05/20/24 19:45	1
PCB-1221	0.24	U	0.50	0.099	ug/L		05/17/24 12:07	05/20/24 19:45	1
PCB-1232	0.24	U M	0.50	0.099	ug/L		05/17/24 12:07	05/20/24 19:45	1
PCB-1242	0.24	U M	0.50	0.099	ug/L		05/17/24 12:07	05/20/24 19:45	1
PCB-1248	0.24	U	0.50	0.099	ug/L		05/17/24 12:07	05/20/24 19:45	1

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Matrix: Water

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Method: SW846 8081B 8082A - Organochlorine Pesticides & PCBs (GC) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1254	0.24	U	0.50	0.099	ug/L		05/17/24 12:07	05/20/24 19:45	1
PCB-1260	0.24	U Q	0.50	0.099	ug/L		05/17/24 12:07	05/20/24 19:45	1
Toxaphene	0.80	U M	5.0	0.31	ug/L		05/17/24 12:07	05/20/24 19:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*92*		*14 - 130*	*05/17/24 12:07*	*05/20/24 19:45*	*1*
Tetrachloro-m-xylene	*59*		*44 - 124*	*05/17/24 12:07*	*05/20/24 19:45*	*1*

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**28**		0.55	0.20	mg/L			05/28/24 16:31	1
Nitrate as N	**3.0**	**D**	0.11	0.046	mg/L			05/15/24 17:50	2
Nitrate Nitrite as N	**3.0**	**D**	0.11	0.046	mg/L			05/15/24 17:50	2
Sulfate	**1.0**	**J**	1.5	0.40	mg/L			05/28/24 16:31	1
Nitrite as N	0.050	U	0.055	0.023	mg/L			05/15/24 16:38	1

Method: SW846 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**170**	**J**	200	35	ug/L		05/16/24 06:10	05/17/24 05:25	1
Antimony	1.5	U	5.0	0.34	ug/L		05/16/24 06:10	05/17/24 05:25	1
Arsenic	3.0	U	5.0	0.86	ug/L		05/16/24 06:10	05/17/24 05:25	1
Barium	**150**		5.0	0.89	ug/L		05/16/24 06:10	05/17/24 05:25	1
Beryllium	**0.33**	**J**	0.50	0.20	ug/L		05/16/24 06:10	05/17/24 05:25	1
Boron	75	U	100	22	ug/L		05/16/24 06:10	05/17/24 05:25	1
Cadmium	0.20	U	0.50	0.078	ug/L		05/16/24 06:10	05/17/24 05:25	1
Calcium	**1800**		500	140	ug/L		05/16/24 06:10	05/17/24 05:25	1
Chromium	2.5	U	20	0.81	ug/L		05/16/24 06:10	05/17/24 05:25	1
Cobalt	**12**		1.0	0.22	ug/L		05/16/24 06:10	05/17/24 05:25	1
Copper	2.0	U	5.0	1.1	ug/L		05/16/24 06:10	05/17/24 05:25	1
Iron	**27**	**J**	100	12	ug/L		05/16/24 06:10	05/17/24 05:25	1
Lead	**0.26**	**J**	2.5	0.21	ug/L		05/16/24 06:10	05/17/24 05:25	1
Magnesium	**2000**		250	23	ug/L		05/16/24 06:10	05/17/24 05:25	1
Manganese	**270**		10	2.2	ug/L		05/16/24 06:10	05/17/24 05:25	1
Nickel	**2.8**	**J**	10	0.42	ug/L		05/16/24 06:10	05/17/24 05:25	1
Potassium	**1600**		1000	44	ug/L		05/16/24 06:10	05/17/24 05:25	1
Selenium	2.5	U	5.0	0.99	ug/L		05/16/24 06:10	05/17/24 05:25	1
Silver	1.0	U	2.0	0.39	ug/L		05/16/24 06:10	05/17/24 05:25	1
Sodium	**9100**		1000	200	ug/L		05/16/24 06:10	05/17/24 05:25	1
Thallium	1.0	U	2.0	0.26	ug/L		05/16/24 06:10	05/17/24 05:25	1
Vanadium	2.5	U	10	0.63	ug/L		05/16/24 06:10	05/17/24 05:25	1
Zinc	**9.2**	**J**	25	2.8	ug/L		05/16/24 06:10	05/17/24 05:25	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	0.20	U	0.25	0.080	ug/L		05/17/24 10:50	05/17/24 15:59	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**5.0**	**J**	5.5	2.2	mg/L			05/17/24 10:57	1

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Lab Sample ID: 680-250771-12

Date Collected: 05/14/24 14:15

Matrix: Water

Date Received: 05/15/24 09:35

General Chemistry (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	**5.0**	**J**	11	5.0	mg/L			05/17/24 10:57	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	10	U	11	5.0	mg/L			05/17/24 10:57	1
Sulfide (SM 4500 S2 F-2011)	0.83	U	0.83	0.83	mg/L			05/20/24 15:13	1
Sulfide as H2S (SM 4500 S2 F-2011)	0.92	U	0.92	0.92	mg/L			05/20/24 15:13	1
Total Organic Carbon (SW846 9060A)	1.0	U	1.0	0.50	mg/L			05/17/24 05:34	1
Carbon Dioxide, Free (SM 4500 CO2 D)	**33**		11	5.0	mg/L			05/17/24 10:57	1

Client Sample ID: DUP-1-20240514

Lab Sample ID: 680-250771-13

Date Collected: 05/14/24 00:00

Matrix: Water

Date Received: 05/15/24 09:35

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			05/19/24 20:31	1
Benzene	1.0	U	2.0	0.27	ug/L			05/19/24 20:31	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			05/19/24 20:31	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			05/19/24 20:31	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			05/19/24 20:31	1
Bromoform	2.0	U Q	2.5	0.59	ug/L			05/19/24 20:31	1
Bromomethane	10	U	20	3.7	ug/L			05/19/24 20:31	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			05/19/24 20:31	1
Carbon disulfide	1.0	U Q	2.0	0.43	ug/L			05/19/24 20:31	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			05/19/24 20:31	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			05/19/24 20:31	1
Chloroethane	10	U	20	4.6	ug/L			05/19/24 20:31	1
Chloroform	1.0	U	2.0	0.27	ug/L			05/19/24 20:31	1
Chloromethane	2.0	U	2.5	0.54	ug/L			05/19/24 20:31	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			05/19/24 20:31	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			05/19/24 20:31	1
cis-1,2-Dichloroethene	1.0	U	2.0	0.25	ug/L			05/19/24 20:31	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			05/19/24 20:31	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			05/19/24 20:31	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			05/19/24 20:31	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			05/19/24 20:31	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			05/19/24 20:31	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			05/19/24 20:31	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/19/24 20:31	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/19/24 20:31	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/19/24 20:31	1
Dichlorodifluoromethane	1.0	U	2.0	0.36	ug/L			05/19/24 20:31	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			05/19/24 20:31	1
1,2-Dichloroethane	1.0	U M	2.0	0.25	ug/L			05/19/24 20:31	1
1,1-Dichloroethene	1.0	U	2.0	0.33	ug/L			05/19/24 20:31	1
1,2-Dichloroethene, Total	1.0	U	2.0	0.37	ug/L			05/19/24 20:31	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			05/19/24 20:31	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			05/19/24 20:31	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			05/19/24 20:31	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			05/19/24 20:31	1

Client Sample ID: DUP-1-20240514

Lab Sample ID: 680-250771-13

Date Collected: 05/14/24 00:00

Matrix: Water

Date Received: 05/15/24 09:35

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	0.50	U	1.0	0.20	ug/L			05/19/24 20:31	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			05/19/24 20:31	1
2-Hexanone	10	U	20	3.2	ug/L			05/19/24 20:31	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			05/19/24 20:31	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			05/19/24 20:31	1
Methyl acetate	10	U Q	20	3.2	ug/L			05/19/24 20:31	1
Methylcyclohexane	1.0	U	2.0	0.33	ug/L			05/19/24 20:31	1
Methylene Chloride	10	U	20	3.2	ug/L			05/19/24 20:31	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			05/19/24 20:31	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			05/19/24 20:31	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			05/19/24 20:31	1
Naphthalene	5.0	U	10	2.4	ug/L			05/19/24 20:31	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			05/19/24 20:31	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			05/19/24 20:31	1
o-Xylene	1.0	U	2.0	0.26	ug/L			05/19/24 20:31	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			05/19/24 20:31	1
Styrene	1.0	U	2.0	0.27	ug/L			05/19/24 20:31	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			05/19/24 20:31	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			05/19/24 20:31	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			05/19/24 20:31	1
Tetrachloroethene	1.0	U	2.0	0.35	ug/L			05/19/24 20:31	1
Toluene	1.0	U	2.0	0.25	ug/L			05/19/24 20:31	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			05/19/24 20:31	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			05/19/24 20:31	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			05/19/24 20:31	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			05/19/24 20:31	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			05/19/24 20:31	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			05/19/24 20:31	1
Trichloroethene	0.50	U	1.0	0.20	ug/L			05/19/24 20:31	1
Trichlorofluoromethane	1.0	U Q	2.0	0.33	ug/L			05/19/24 20:31	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			05/19/24 20:31	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			05/19/24 20:31	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			05/19/24 20:31	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			05/19/24 20:31	1
Vinyl chloride	1.0	U	2.0	0.40	ug/L			05/19/24 20:31	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			05/19/24 20:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*85 - 114*		*05/19/24 20:31*	*1*
Dibromofluoromethane (Surr)	*105*		*80 - 119*		*05/19/24 20:31*	*1*
1,2-Dichloroethane-d4 (Surr)	*92*		*81 - 118*		*05/19/24 20:31*	*1*
Toluene-d8 (Surr)	*97*		*89 - 112*		*05/19/24 20:31*	*1*

Client Sample ID: DMW-16B-20240514

Lab Sample ID: 680-250771-14

Date Collected: 05/14/24 08:35

Matrix: Water

Date Received: 05/15/24 09:35

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			05/19/24 20:54	1

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-250771-1

Client Sample ID: DMW-16B-20240514
Date Collected: 05/14/24 08:35
Date Received: 05/15/24 09:35

Lab Sample ID: 680-250771-14
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	2.0	0.27	ug/L			05/19/24 20:54	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			05/19/24 20:54	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			05/19/24 20:54	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			05/19/24 20:54	1
Bromoform	2.0	U Q	2.5	0.59	ug/L			05/19/24 20:54	1
Bromomethane	10	U	20	3.7	ug/L			05/19/24 20:54	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			05/19/24 20:54	1
Carbon disulfide	1.0	U Q	2.0	0.43	ug/L			05/19/24 20:54	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			05/19/24 20:54	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			05/19/24 20:54	1
Chloroethane	10	U	20	4.6	ug/L			05/19/24 20:54	1
Chloroform	1.0	U	2.0	0.27	ug/L			05/19/24 20:54	1
Chloromethane	2.0	U	2.5	0.54	ug/L			05/19/24 20:54	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			05/19/24 20:54	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			05/19/24 20:54	1
cis-1,2-Dichloroethene	1.0	U	2.0	0.25	ug/L			05/19/24 20:54	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			05/19/24 20:54	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			05/19/24 20:54	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			05/19/24 20:54	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			05/19/24 20:54	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			05/19/24 20:54	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			05/19/24 20:54	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/19/24 20:54	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/19/24 20:54	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/19/24 20:54	1
Dichlorodifluoromethane	1.0	U M	2.0	0.36	ug/L			05/19/24 20:54	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			05/19/24 20:54	1
1,2-Dichloroethane	1.0	U	2.0	0.25	ug/L			05/19/24 20:54	1
1,1-Dichloroethene	1.0	U	2.0	0.33	ug/L			05/19/24 20:54	1
1,2-Dichloroethene, Total	1.0	U	2.0	0.37	ug/L			05/19/24 20:54	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			05/19/24 20:54	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			05/19/24 20:54	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			05/19/24 20:54	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			05/19/24 20:54	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			05/19/24 20:54	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			05/19/24 20:54	1
2-Hexanone	10	U	20	3.2	ug/L			05/19/24 20:54	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			05/19/24 20:54	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			05/19/24 20:54	1
Methyl acetate	10	U Q	20	3.2	ug/L			05/19/24 20:54	1
Methylcyclohexane	1.0	U	2.0	0.33	ug/L			05/19/24 20:54	1
Methylene Chloride	10	U	20	3.2	ug/L			05/19/24 20:54	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			05/19/24 20:54	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			05/19/24 20:54	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			05/19/24 20:54	1
Naphthalene	5.0	U	10	2.4	ug/L			05/19/24 20:54	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			05/19/24 20:54	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			05/19/24 20:54	1
o-Xylene	1.0	U	2.0	0.26	ug/L			05/19/24 20:54	1

Client Sample ID: DMW-16B-20240514

Lab Sample ID: 680-250771-14

Date Collected: 05/14/24 08:35

Matrix: Water

Date Received: 05/15/24 09:35

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			05/19/24 20:54	1
Styrene	1.0	U	2.0	0.27	ug/L			05/19/24 20:54	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			05/19/24 20:54	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			05/19/24 20:54	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			05/19/24 20:54	1
Tetrachloroethene	1.0	U	2.0	0.35	ug/L			05/19/24 20:54	1
Toluene	1.0	U	2.0	0.25	ug/L			05/19/24 20:54	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			05/19/24 20:54	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			05/19/24 20:54	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			05/19/24 20:54	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			05/19/24 20:54	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			05/19/24 20:54	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			05/19/24 20:54	1
Trichloroethene	0.50	U	1.0	0.20	ug/L			05/19/24 20:54	1
Trichlorofluoromethane	1.0	U Q	2.0	0.33	ug/L			05/19/24 20:54	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			05/19/24 20:54	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			05/19/24 20:54	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			05/19/24 20:54	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			05/19/24 20:54	1
Vinyl chloride	1.0	U	2.0	0.40	ug/L			05/19/24 20:54	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			05/19/24 20:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*85 - 114*		*05/19/24 20:54*	*1*
Dibromofluoromethane (Surr)	*106*		*80 - 119*		*05/19/24 20:54*	*1*
1,2-Dichloroethane-d4 (Surr)	*94*		*81 - 118*		*05/19/24 20:54*	*1*
Toluene-d8 (Surr)	*100*		*89 - 112*		*05/19/24 20:54*	*1*

Client Sample ID: OU6-MW-168-20240514

Lab Sample ID: 680-250771-15

Date Collected: 05/14/24 10:00

Matrix: Water

Date Received: 05/15/24 09:35

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			05/19/24 18:54	1
Benzene	1.0	U	2.0	0.27	ug/L			05/19/24 18:54	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			05/19/24 18:54	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			05/19/24 18:54	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			05/19/24 18:54	1
Bromoform	2.0	U	2.5	0.59	ug/L			05/19/24 18:54	1
Bromomethane	10	U Q	20	3.7	ug/L			05/19/24 18:54	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			05/19/24 18:54	1
Carbon disulfide	1.0	U	2.0	0.43	ug/L			05/19/24 18:54	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			05/19/24 18:54	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			05/19/24 18:54	1
Chloroethane	10	U	20	4.6	ug/L			05/19/24 18:54	1
Chloroform	1.0	U	2.0	0.27	ug/L			05/19/24 18:54	1
Chloromethane	2.0	U	2.5	0.54	ug/L			05/19/24 18:54	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			05/19/24 18:54	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			05/19/24 18:54	1

Client Sample ID: OU6-MW-168-20240514
Date Collected: 05/14/24 10:00
Date Received: 05/15/24 09:35

Lab Sample ID: 680-250771-15
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	1.0	U	2.0	0.25	ug/L			05/19/24 18:54	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			05/19/24 18:54	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			05/19/24 18:54	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			05/19/24 18:54	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			05/19/24 18:54	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			05/19/24 18:54	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			05/19/24 18:54	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/19/24 18:54	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/19/24 18:54	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/19/24 18:54	1
Dichlorodifluoromethane	1.0	U Q	2.0	0.36	ug/L			05/19/24 18:54	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			05/19/24 18:54	1
1,2-Dichloroethane	1.0	U M	2.0	0.25	ug/L			05/19/24 18:54	1
1,1-Dichloroethene	1.0	U	2.0	0.33	ug/L			05/19/24 18:54	1
1,2-Dichloroethene, Total	1.0	U	2.0	0.37	ug/L			05/19/24 18:54	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			05/19/24 18:54	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			05/19/24 18:54	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			05/19/24 18:54	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			05/19/24 18:54	1
Ethylbenzene	0.50	U M	1.0	0.20	ug/L			05/19/24 18:54	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			05/19/24 18:54	1
2-Hexanone	10	U	20	3.2	ug/L			05/19/24 18:54	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			05/19/24 18:54	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			05/19/24 18:54	1
Methyl acetate	10	U	20	3.2	ug/L			05/19/24 18:54	1
Methylcyclohexane	1.0	U	2.0	0.33	ug/L			05/19/24 18:54	1
Methylene Chloride	10	U	20	3.2	ug/L			05/19/24 18:54	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			05/19/24 18:54	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			05/19/24 18:54	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			05/19/24 18:54	1
Naphthalene	5.0	U	10	2.4	ug/L			05/19/24 18:54	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			05/19/24 18:54	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			05/19/24 18:54	1
o-Xylene	1.0	U M	2.0	0.26	ug/L			05/19/24 18:54	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			05/19/24 18:54	1
Styrene	1.0	U	2.0	0.27	ug/L			05/19/24 18:54	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			05/19/24 18:54	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			05/19/24 18:54	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			05/19/24 18:54	1
Tetrachloroethene	1.0	U	2.0	0.35	ug/L			05/19/24 18:54	1
Toluene	**0.42**	**J**	2.0	0.25	ug/L			05/19/24 18:54	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			05/19/24 18:54	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			05/19/24 18:54	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			05/19/24 18:54	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			05/19/24 18:54	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			05/19/24 18:54	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			05/19/24 18:54	1
Trichloroethene	**2.3**	**M**	1.0	0.20	ug/L			05/19/24 18:54	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			05/19/24 18:54	1

Client Sample ID: OU6-MW-168-20240514

Lab Sample ID: 680-250771-15

Date Collected: 05/14/24 10:00

Matrix: Water

Date Received: 05/15/24 09:35

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			05/19/24 18:54	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			05/19/24 18:54	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			05/19/24 18:54	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			05/19/24 18:54	1
Vinyl chloride	1.0	U	2.0	0.40	ug/L			05/19/24 18:54	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			05/19/24 18:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*85 - 114*		*05/19/24 18:54*	*1*
Dibromofluoromethane (Surr)	*118*		*80 - 119*		*05/19/24 18:54*	*1*
1,2-Dichloroethane-d4 (Surr)	*116*		*81 - 118*		*05/19/24 18:54*	*1*
Toluene-d8 (Surr)	*107*		*89 - 112*		*05/19/24 18:54*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	2.0	U	5.0	1.0	ug/L		05/23/24 10:18	05/23/24 12:38	1
Ethylene	2.0	U	5.0	1.0	ug/L		05/23/24 10:18	05/23/24 12:38	1
Methane	6.0	U	6.5	3.0	ug/L		05/23/24 10:18	05/23/24 12:38	1

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**5.2**	**M**	0.55	0.20	mg/L			05/28/24 17:44	1
Nitrate as N	**0.85**		0.055	0.023	mg/L			05/15/24 16:46	1
Nitrate Nitrite as N	**0.85**		0.055	0.023	mg/L			05/15/24 16:46	1
Sulfate	**2.2**		1.5	0.40	mg/L			05/28/24 17:44	1
Nitrite as N	0.050	U	0.055	0.023	mg/L			05/15/24 16:46	1

Method: SW846 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**17**		10	2.2	ug/L		05/16/24 06:10	05/17/24 05:29	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**14**		5.5	2.2	mg/L			05/17/24 11:10	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	**14**		11	5.0	mg/L			05/17/24 11:10	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	10	U	11	5.0	mg/L			05/17/24 11:10	1
Sulfide (SM 4500 S2 F-2011)	0.81	U	0.81	0.81	mg/L			05/20/24 15:13	1
Sulfide as H2S (SM 4500 S2 F-2011)	0.89	U	0.89	0.89	mg/L			05/20/24 15:13	1
Total Organic Carbon (SW846 9060A)	1.0	U	1.0	0.50	mg/L			05/17/24 05:55	1
Carbon Dioxide, Free (SM 4500 CO2 D)	**36**		11	5.0	mg/L			05/17/24 11:10	1

Client Sample ID: OU6-DMW--9A-20240514

Lab Sample ID: 680-250771-16

Date Collected: 05/14/24 12:15

Matrix: Water

Date Received: 05/15/24 09:35

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			05/19/24 19:16	1

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-250771-1

Client Sample ID: OU6-DMW--9A-20240514
Date Collected: 05/14/24 12:15
Date Received: 05/15/24 09:35

Lab Sample ID: 680-250771-16
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	2.0	0.27	ug/L			05/19/24 19:16	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			05/19/24 19:16	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			05/19/24 19:16	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			05/19/24 19:16	1
Bromoform	2.0	U	2.5	0.59	ug/L			05/19/24 19:16	1
Bromomethane	10	U Q	20	3.7	ug/L			05/19/24 19:16	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			05/19/24 19:16	1
Carbon disulfide	1.0	U	2.0	0.43	ug/L			05/19/24 19:16	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			05/19/24 19:16	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			05/19/24 19:16	1
Chloroethane	10	U	20	4.6	ug/L			05/19/24 19:16	1
Chloroform	1.0	U	2.0	0.27	ug/L			05/19/24 19:16	1
Chloromethane	2.0	U	2.5	0.54	ug/L			05/19/24 19:16	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			05/19/24 19:16	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			05/19/24 19:16	1
cis-1,2-Dichloroethene	1.0	U	2.0	0.25	ug/L			05/19/24 19:16	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			05/19/24 19:16	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			05/19/24 19:16	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			05/19/24 19:16	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			05/19/24 19:16	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			05/19/24 19:16	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			05/19/24 19:16	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/19/24 19:16	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/19/24 19:16	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/19/24 19:16	1
Dichlorodifluoromethane	1.0	U Q	2.0	0.36	ug/L			05/19/24 19:16	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			05/19/24 19:16	1
1,2-Dichloroethane	1.0	U M	2.0	0.25	ug/L			05/19/24 19:16	1
1,1-Dichloroethene	1.0	U	2.0	0.33	ug/L			05/19/24 19:16	1
1,2-Dichloroethene, Total	1.0	U	2.0	0.37	ug/L			05/19/24 19:16	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			05/19/24 19:16	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			05/19/24 19:16	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			05/19/24 19:16	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			05/19/24 19:16	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			05/19/24 19:16	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			05/19/24 19:16	1
2-Hexanone	10	U	20	3.2	ug/L			05/19/24 19:16	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			05/19/24 19:16	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			05/19/24 19:16	1
Methyl acetate	10	U	20	3.2	ug/L			05/19/24 19:16	1
Methylcyclohexane	1.0	U	2.0	0.33	ug/L			05/19/24 19:16	1
Methylene Chloride	10	U	20	3.2	ug/L			05/19/24 19:16	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			05/19/24 19:16	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			05/19/24 19:16	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			05/19/24 19:16	1
Naphthalene	5.0	U	10	2.4	ug/L			05/19/24 19:16	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			05/19/24 19:16	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			05/19/24 19:16	1
o-Xylene	1.0	U	2.0	0.26	ug/L			05/19/24 19:16	1

Client Sample ID: OU6-DMW--9A-20240514
Date Collected: 05/14/24 12:15
Date Received: 05/15/24 09:35

Lab Sample ID: 680-250771-16
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			05/19/24 19:16	1
Styrene	1.0	U	2.0	0.27	ug/L			05/19/24 19:16	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			05/19/24 19:16	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			05/19/24 19:16	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			05/19/24 19:16	1
Tetrachloroethene	1.0	U	2.0	0.35	ug/L			05/19/24 19:16	1
Toluene	1.0	U	2.0	0.25	ug/L			05/19/24 19:16	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			05/19/24 19:16	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			05/19/24 19:16	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			05/19/24 19:16	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			05/19/24 19:16	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			05/19/24 19:16	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			05/19/24 19:16	1
Trichloroethene	0.50	U	1.0	0.20	ug/L			05/19/24 19:16	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			05/19/24 19:16	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			05/19/24 19:16	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			05/19/24 19:16	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			05/19/24 19:16	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			05/19/24 19:16	1
Vinyl chloride	1.0	U	2.0	0.40	ug/L			05/19/24 19:16	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			05/19/24 19:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*85 - 114*		*05/19/24 19:16*	*1*
Dibromofluoromethane (Surr)	*118*		*80 - 119*		*05/19/24 19:16*	*1*
1,2-Dichloroethane-d4 (Surr)	*117*		*81 - 118*		*05/19/24 19:16*	*1*
Toluene-d8 (Surr)	*106*		*89 - 112*		*05/19/24 19:16*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	2.0	U	5.0	1.0	ug/L		05/23/24 10:18	05/23/24 12:57	1
Ethylene	2.0	U	5.0	1.0	ug/L		05/23/24 10:18	05/23/24 12:57	1
Methane	6.0	U	6.5	3.0	ug/L		05/23/24 10:18	05/23/24 12:57	1

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**37**		0.55	0.20	mg/L			05/28/24 17:50	1
Nitrate as N	**1.7**	**D**	0.11	0.046	mg/L			05/15/24 17:17	2
Nitrate Nitrite as N	**1.7**	**D**	0.11	0.046	mg/L			05/15/24 17:17	2
Sulfate	**5.8**		1.5	0.40	mg/L			05/28/24 17:50	1
Nitrite as N	0.10	U J1	0.11	0.046	mg/L			05/15/24 17:17	2

Method: SW846 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**18**		10	2.2	ug/L		05/16/24 06:12	05/16/24 22:51	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**5.8**		5.5	2.2	mg/L			05/17/24 11:17	1

Client Sample ID: OU6-DMW--9A-20240514

Lab Sample ID: 680-250771-16

Date Collected: 05/14/24 12:15

Matrix: Water

Date Received: 05/15/24 09:35

General Chemistry (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	**5.8**	**J**	11	5.0	mg/L			05/17/24 11:17	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	10	U	11	5.0	mg/L			05/17/24 11:17	1
Sulfide (SM 4500 S2 F-2011)	0.83	U	0.83	0.83	mg/L			05/20/24 15:13	1
Sulfide as H2S (SM 4500 S2 F-2011)	0.92	U	0.92	0.92	mg/L			05/20/24 15:13	1
Total Organic Carbon (SW846 9060A)	**0.77**	**J**	1.0	0.50	mg/L			05/17/24 08:03	1
Carbon Dioxide, Free (SM 4500 CO2 D)	**43**		11	5.0	mg/L			05/17/24 11:17	1

Client Sample ID: CSMPZ-3-20240514

Lab Sample ID: 680-250771-17

Date Collected: 05/14/24 09:05

Matrix: Water

Date Received: 05/15/24 09:35

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U Q	25	3.7	ug/L			05/21/24 14:56	1
Benzene	1.0	U	2.0	0.27	ug/L			05/21/24 14:56	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			05/21/24 14:56	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			05/21/24 14:56	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			05/21/24 14:56	1
Bromoform	2.0	U	2.5	0.59	ug/L			05/21/24 14:56	1
Bromomethane	10	U	20	3.7	ug/L			05/21/24 14:56	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			05/21/24 14:56	1
Carbon disulfide	1.0	U	2.0	0.43	ug/L			05/21/24 14:56	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			05/21/24 14:56	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			05/21/24 14:56	1
Chloroethane	10	U	20	4.6	ug/L			05/21/24 14:56	1
Chloroform	1.0	U	2.0	0.27	ug/L			05/21/24 14:56	1
Chloromethane	2.0	U	2.5	0.54	ug/L			05/21/24 14:56	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			05/21/24 14:56	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			05/21/24 14:56	1
cis-1,2-Dichloroethene	1.0	U	2.0	0.25	ug/L			05/21/24 14:56	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			05/21/24 14:56	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			05/21/24 14:56	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			05/21/24 14:56	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			05/21/24 14:56	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			05/21/24 14:56	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			05/21/24 14:56	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/21/24 14:56	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/21/24 14:56	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/21/24 14:56	1
Dichlorodifluoromethane	1.0	U Q M	2.0	0.36	ug/L			05/21/24 14:56	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			05/21/24 14:56	1
1,2-Dichloroethane	1.0	U M	2.0	0.25	ug/L			05/21/24 14:56	1
1,1-Dichloroethene	1.0	U	2.0	0.33	ug/L			05/21/24 14:56	1
1,2-Dichloroethene, Total	1.0	U	2.0	0.37	ug/L			05/21/24 14:56	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			05/21/24 14:56	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			05/21/24 14:56	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			05/21/24 14:56	1

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-250771-1

Client Sample ID: CSMPZ-3-20240514
Date Collected: 05/14/24 09:05
Date Received: 05/15/24 09:35

Lab Sample ID: 680-250771-17
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			05/21/24 14:56	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			05/21/24 14:56	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			05/21/24 14:56	1
2-Hexanone	10	U	20	3.2	ug/L			05/21/24 14:56	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			05/21/24 14:56	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			05/21/24 14:56	1
Methyl acetate	10	U	20	3.2	ug/L			05/21/24 14:56	1
Methylcyclohexane	1.0	U	2.0	0.33	ug/L			05/21/24 14:56	1
Methylene Chloride	10	U	20	3.2	ug/L			05/21/24 14:56	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			05/21/24 14:56	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			05/21/24 14:56	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			05/21/24 14:56	1
Naphthalene	5.0	U	10	2.4	ug/L			05/21/24 14:56	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			05/21/24 14:56	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			05/21/24 14:56	1
o-Xylene	1.0	U	2.0	0.26	ug/L			05/21/24 14:56	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			05/21/24 14:56	1
Styrene	1.0	U	2.0	0.27	ug/L			05/21/24 14:56	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			05/21/24 14:56	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			05/21/24 14:56	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			05/21/24 14:56	1
Tetrachloroethene	1.0	U	2.0	0.35	ug/L			05/21/24 14:56	1
Toluene	1.0	U	2.0	0.25	ug/L			05/21/24 14:56	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			05/21/24 14:56	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			05/21/24 14:56	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			05/21/24 14:56	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			05/21/24 14:56	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			05/21/24 14:56	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			05/21/24 14:56	1
Trichloroethene	0.50	U	1.0	0.20	ug/L			05/21/24 14:56	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			05/21/24 14:56	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			05/21/24 14:56	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			05/21/24 14:56	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			05/21/24 14:56	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			05/21/24 14:56	1
Vinyl chloride	1.0	U	2.0	0.40	ug/L			05/21/24 14:56	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			05/21/24 14:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*85 - 114*		*05/21/24 14:56*	*1*
Dibromofluoromethane (Surr)	*113*		*80 - 119*		*05/21/24 14:56*	*1*
1,2-Dichloroethane-d4 (Surr)	*113*		*81 - 118*		*05/21/24 14:56*	*1*
Toluene-d8 (Surr)	*103*		*89 - 112*		*05/21/24 14:56*	*1*

Client Sample ID: OU6-MW-96-20240514
Date Collected: 05/14/24 14:25
Date Received: 05/15/24 09:35

Lab Sample ID: 680-250771-18
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U Q	25	3.7	ug/L			05/21/24 15:18	1
Benzene	1.0	U	2.0	0.27	ug/L			05/21/24 15:18	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			05/21/24 15:18	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			05/21/24 15:18	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			05/21/24 15:18	1
Bromoform	2.0	U	2.5	0.59	ug/L			05/21/24 15:18	1
Bromomethane	10	U	20	3.7	ug/L			05/21/24 15:18	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			05/21/24 15:18	1
Carbon disulfide	1.0	U	2.0	0.43	ug/L			05/21/24 15:18	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			05/21/24 15:18	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			05/21/24 15:18	1
Chloroethane	10	U	20	4.6	ug/L			05/21/24 15:18	1
Chloroform	1.0	U	2.0	0.27	ug/L			05/21/24 15:18	1
Chloromethane	2.0	U	2.5	0.54	ug/L			05/21/24 15:18	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			05/21/24 15:18	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			05/21/24 15:18	1
cis-1,2-Dichloroethene	**0.31**	**J**	2.0	0.25	ug/L			05/21/24 15:18	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			05/21/24 15:18	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			05/21/24 15:18	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			05/21/24 15:18	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			05/21/24 15:18	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			05/21/24 15:18	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			05/21/24 15:18	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/21/24 15:18	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/21/24 15:18	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/21/24 15:18	1
Dichlorodifluoromethane	1.0	U Q	2.0	0.36	ug/L			05/21/24 15:18	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			05/21/24 15:18	1
1,2-Dichloroethane	1.0	U M	2.0	0.25	ug/L			05/21/24 15:18	1
1,1-Dichloroethene	1.0	U	2.0	0.33	ug/L			05/21/24 15:18	1
1,2-Dichloroethene, Total	1.0	U	2.0	0.37	ug/L			05/21/24 15:18	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			05/21/24 15:18	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			05/21/24 15:18	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			05/21/24 15:18	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			05/21/24 15:18	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			05/21/24 15:18	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			05/21/24 15:18	1
2-Hexanone	10	U	20	3.2	ug/L			05/21/24 15:18	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			05/21/24 15:18	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			05/21/24 15:18	1
Methyl acetate	10	U	20	3.2	ug/L			05/21/24 15:18	1
Methylcyclohexane	1.0	U	2.0	0.33	ug/L			05/21/24 15:18	1
Methylene Chloride	10	U	20	3.2	ug/L			05/21/24 15:18	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			05/21/24 15:18	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			05/21/24 15:18	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			05/21/24 15:18	1
Naphthalene	5.0	U	10	2.4	ug/L			05/21/24 15:18	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			05/21/24 15:18	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			05/21/24 15:18	1

Client Sample ID: OU6-MW-96-20240514

Lab Sample ID: 680-250771-18

Date Collected: 05/14/24 14:25

Matrix: Water

Date Received: 05/15/24 09:35

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	1.0	U	2.0	0.26	ug/L			05/21/24 15:18	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			05/21/24 15:18	1
Styrene	1.0	U	2.0	0.27	ug/L			05/21/24 15:18	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			05/21/24 15:18	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			05/21/24 15:18	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			05/21/24 15:18	1
Tetrachloroethene	1.0	U	2.0	0.35	ug/L			05/21/24 15:18	1
Toluene	1.0	U	2.0	0.25	ug/L			05/21/24 15:18	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			05/21/24 15:18	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			05/21/24 15:18	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			05/21/24 15:18	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			05/21/24 15:18	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			05/21/24 15:18	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			05/21/24 15:18	1
Trichloroethene	0.50	U	1.0	0.20	ug/L			05/21/24 15:18	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			05/21/24 15:18	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			05/21/24 15:18	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			05/21/24 15:18	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			05/21/24 15:18	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			05/21/24 15:18	1
Vinyl chloride	1.0	U	2.0	0.40	ug/L			05/21/24 15:18	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			05/21/24 15:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*85 - 114*		*05/21/24 15:18*	*1*
Dibromofluoromethane (Surr)	*111*		*80 - 119*		*05/21/24 15:18*	*1*
1,2-Dichloroethane-d4 (Surr)	*109*		*81 - 118*		*05/21/24 15:18*	*1*
Toluene-d8 (Surr)	*103*		*89 - 112*		*05/21/24 15:18*	*1*

Client Sample ID: Trip Blank

Lab Sample ID: 680-250771-19

Date Collected: 05/14/24 00:00

Matrix: Water

Date Received: 05/15/24 09:35

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			05/19/24 15:19	1
Benzene	1.0	U	2.0	0.27	ug/L			05/19/24 15:19	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			05/19/24 15:19	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			05/19/24 15:19	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			05/19/24 15:19	1
Bromoform	2.0	U Q	2.5	0.59	ug/L			05/19/24 15:19	1
Bromomethane	10	U	20	3.7	ug/L			05/19/24 15:19	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			05/19/24 15:19	1
Carbon disulfide	1.0	U Q	2.0	0.43	ug/L			05/19/24 15:19	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			05/19/24 15:19	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			05/19/24 15:19	1
Chloroethane	10	U	20	4.6	ug/L			05/19/24 15:19	1
Chloroform	1.0	U	2.0	0.27	ug/L			05/19/24 15:19	1
Chloromethane	2.0	U	2.5	0.54	ug/L			05/19/24 15:19	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			05/19/24 15:19	1

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-250771-1

Client Sample ID: Trip Blank

Date Collected: 05/14/24 00:00
Date Received: 05/15/24 09:35

Lab Sample ID: 680-250771-19

Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			05/19/24 15:19	1
cis-1,2-Dichloroethene	1.0	U	2.0	0.25	ug/L			05/19/24 15:19	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			05/19/24 15:19	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			05/19/24 15:19	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			05/19/24 15:19	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			05/19/24 15:19	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			05/19/24 15:19	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			05/19/24 15:19	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/19/24 15:19	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/19/24 15:19	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/19/24 15:19	1
Dichlorodifluoromethane	1.0	U	2.0	0.36	ug/L			05/19/24 15:19	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			05/19/24 15:19	1
1,2-Dichloroethane	1.0	U	2.0	0.25	ug/L			05/19/24 15:19	1
1,1-Dichloroethene	1.0	U	2.0	0.33	ug/L			05/19/24 15:19	1
1,2-Dichloroethene, Total	1.0	U	2.0	0.37	ug/L			05/19/24 15:19	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			05/19/24 15:19	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			05/19/24 15:19	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			05/19/24 15:19	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			05/19/24 15:19	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			05/19/24 15:19	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			05/19/24 15:19	1
2-Hexanone	10	U	20	3.2	ug/L			05/19/24 15:19	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			05/19/24 15:19	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			05/19/24 15:19	1
Methyl acetate	10	U Q	20	3.2	ug/L			05/19/24 15:19	1
Methylcyclohexane	1.0	U	2.0	0.33	ug/L			05/19/24 15:19	1
Methylene Chloride	10	U	20	3.2	ug/L			05/19/24 15:19	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			05/19/24 15:19	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			05/19/24 15:19	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			05/19/24 15:19	1
Naphthalene	5.0	U	10	2.4	ug/L			05/19/24 15:19	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			05/19/24 15:19	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			05/19/24 15:19	1
o-Xylene	1.0	U	2.0	0.26	ug/L			05/19/24 15:19	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			05/19/24 15:19	1
Styrene	1.0	U	2.0	0.27	ug/L			05/19/24 15:19	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			05/19/24 15:19	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			05/19/24 15:19	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			05/19/24 15:19	1
Tetrachloroethene	1.0	U	2.0	0.35	ug/L			05/19/24 15:19	1
Toluene	1.0	U	2.0	0.25	ug/L			05/19/24 15:19	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			05/19/24 15:19	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			05/19/24 15:19	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			05/19/24 15:19	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			05/19/24 15:19	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			05/19/24 15:19	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			05/19/24 15:19	1
Trichloroethene	0.50	U	1.0	0.20	ug/L			05/19/24 15:19	1

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-250771-1

Client Sample ID: Trip Blank
Date Collected: 05/14/24 00:00
Date Received: 05/15/24 09:35

Lab Sample ID: 680-250771-19
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Trichlorofluoromethane	1.0	U Q	2.0	0.33	ug/L			05/19/24 15:19	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			05/19/24 15:19	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			05/19/24 15:19	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			05/19/24 15:19	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			05/19/24 15:19	1
Vinyl chloride	1.0	U	2.0	0.40	ug/L			05/19/24 15:19	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			05/19/24 15:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*85 - 114*		*05/19/24 15:19*	*1*
Dibromofluoromethane (Surr)	*104*		*80 - 119*		*05/19/24 15:19*	*1*
1,2-Dichloroethane-d4 (Surr)	*91*		*81 - 118*		*05/19/24 15:19*	*1*
Toluene-d8 (Surr)	*97*		*89 - 112*		*05/19/24 15:19*	*1*

Method: 8260D - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 680-838701/8
Matrix: Water
Analysis Batch: 838701

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			05/19/24 13:33	1
Benzene	1.0	U	2.0	0.27	ug/L			05/19/24 13:33	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			05/19/24 13:33	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			05/19/24 13:33	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			05/19/24 13:33	1
Bromoform	1.65	J	2.5	0.59	ug/L			05/19/24 13:33	1
Bromomethane	10	U	20	3.7	ug/L			05/19/24 13:33	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			05/19/24 13:33	1
Carbon disulfide	1.0	U	2.0	0.43	ug/L			05/19/24 13:33	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			05/19/24 13:33	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			05/19/24 13:33	1
Chloroethane	10	U	20	4.6	ug/L			05/19/24 13:33	1
Chloroform	1.0	U	2.0	0.27	ug/L			05/19/24 13:33	1
Chloromethane	2.0	U	2.5	0.54	ug/L			05/19/24 13:33	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			05/19/24 13:33	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			05/19/24 13:33	1
cis-1,2-Dichloroethene	1.0	U	2.0	0.25	ug/L			05/19/24 13:33	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			05/19/24 13:33	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			05/19/24 13:33	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			05/19/24 13:33	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			05/19/24 13:33	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			05/19/24 13:33	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			05/19/24 13:33	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/19/24 13:33	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/19/24 13:33	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/19/24 13:33	1
Dichlorodifluoromethane	1.0	U	2.0	0.36	ug/L			05/19/24 13:33	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			05/19/24 13:33	1
1,2-Dichloroethane	1.0	U M	2.0	0.25	ug/L			05/19/24 13:33	1
1,1-Dichloroethene	1.0	U	2.0	0.33	ug/L			05/19/24 13:33	1
1,2-Dichloroethene, Total	1.0	U	2.0	0.37	ug/L			05/19/24 13:33	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			05/19/24 13:33	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			05/19/24 13:33	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			05/19/24 13:33	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			05/19/24 13:33	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			05/19/24 13:33	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			05/19/24 13:33	1
2-Hexanone	10	U	20	3.2	ug/L			05/19/24 13:33	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			05/19/24 13:33	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			05/19/24 13:33	1
Methyl acetate	10	U	20	3.2	ug/L			05/19/24 13:33	1
Methylcyclohexane	1.0	U M	2.0	0.33	ug/L			05/19/24 13:33	1
Methylene Chloride	10	U	20	3.2	ug/L			05/19/24 13:33	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			05/19/24 13:33	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			05/19/24 13:33	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			05/19/24 13:33	1
Naphthalene	5.0	U	10	2.4	ug/L			05/19/24 13:33	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			05/19/24 13:33	1

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-838701/8
Matrix: Water
Analysis Batch: 838701

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			05/19/24 13:33	1
o-Xylene	1.0	U	2.0	0.26	ug/L			05/19/24 13:33	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			05/19/24 13:33	1
Styrene	1.0	U	2.0	0.27	ug/L			05/19/24 13:33	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			05/19/24 13:33	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			05/19/24 13:33	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			05/19/24 13:33	1
Tetrachloroethene	1.0	U	2.0	0.35	ug/L			05/19/24 13:33	1
Toluene	1.0	U	2.0	0.25	ug/L			05/19/24 13:33	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			05/19/24 13:33	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			05/19/24 13:33	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			05/19/24 13:33	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			05/19/24 13:33	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			05/19/24 13:33	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			05/19/24 13:33	1
Trichloroethene	0.50	U	1.0	0.20	ug/L			05/19/24 13:33	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			05/19/24 13:33	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			05/19/24 13:33	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			05/19/24 13:33	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			05/19/24 13:33	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			05/19/24 13:33	1
Vinyl chloride	1.0	U	2.0	0.40	ug/L			05/19/24 13:33	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			05/19/24 13:33	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*85 - 114*		*05/19/24 13:33*	*1*
Dibromofluoromethane (Surr)	*105*		*80 - 119*		*05/19/24 13:33*	*1*
1,2-Dichloroethane-d4 (Surr)	*92*		*81 - 118*		*05/19/24 13:33*	*1*
Toluene-d8 (Surr)	*98*		*89 - 112*		*05/19/24 13:33*	*1*

Lab Sample ID: LCS 680-838701/4
Matrix: Water
Analysis Batch: 838701

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	250	226		ug/L		91	39 - 160
Benzene	50.0	49.9		ug/L		100	79 - 120
Bromobenzene	50.0	55.3		ug/L		111	80 - 120
Bromochloromethane	50.0	49.9		ug/L		100	78 - 123
Bromodichloromethane	50.0	47.2		ug/L		94	79 - 125
Bromoform	50.0	63.7	J1	ug/L		127	66 - 130
Bromomethane	50.0	51.6		ug/L		103	53 - 141
2-Butanone (MEK)	250	242		ug/L		97	56 - 143
Carbon disulfide	50.0	50.1		ug/L		100	64 - 133
Carbon tetrachloride	50.0	47.0		ug/L		94	72 - 136
Chlorobenzene	50.0	51.1		ug/L		102	82 - 118
Chloroethane	50.0	53.1		ug/L		106	60 - 138
Chloroform	50.0	47.7		ug/L		95	79 - 124

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-838701/4
Matrix: Water
Analysis Batch: 838701

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloromethane	50.0	50.3		ug/L		101	50 - 139
2-Chlorotoluene	50.0	52.2		ug/L		104	79 - 122
4-Chlorotoluene	50.0	51.7		ug/L		103	78 - 122
cis-1,2-Dichloroethene	50.0	48.4		ug/L		97	78 - 123
cis-1,3-Dichloropropene	50.0	50.3		ug/L		101	75 - 124
Cyclohexane	50.0	51.7		ug/L		103	71 - 130
Dibromochloromethane	50.0	48.9		ug/L		98	74 - 126
1,2-Dibromo-3-Chloropropane	50.0	49.5		ug/L		99	62 - 128
1,2-Dibromoethane	50.0	50.2		ug/L		100	75 - 127
Dibromomethane	50.0	48.7		ug/L		97	79 - 123
1,2-Dichlorobenzene	50.0	51.9		ug/L		104	80 - 119
1,3-Dichlorobenzene	50.0	51.7		ug/L		103	80 - 119
1,4-Dichlorobenzene	50.0	51.9		ug/L		104	79 - 118
Dichlorodifluoromethane	50.0	57.5	M	ug/L		115	32 - 152
1,1-Dichloroethane	50.0	48.8		ug/L		98	77 - 125
1,2-Dichloroethane	50.0	44.3		ug/L		89	73 - 128
1,1-Dichloroethene	50.0	48.6		ug/L		97	71 - 131
1,2-Dichloroethene, Total	100	98.4		ug/L		98	79 - 121
1,2-Dichloropropane	50.0	50.5		ug/L		101	78 - 122
1,3-Dichloropropane	50.0	49.8		ug/L		100	80 - 119
2,2-Dichloropropane	50.0	50.1		ug/L		100	60 - 139
1,1-Dichloropropene	50.0	50.3		ug/L		101	79 - 125
Ethylbenzene	50.0	50.2		ug/L		100	79 - 121
Hexachlorobutadiene	50.0	58.4		ug/L		117	66 - 134
2-Hexanone	250	249		ug/L		99	57 - 139
Isopropylbenzene	50.0	51.3		ug/L		103	72 - 131
4-Isopropyltoluene	50.0	50.7		ug/L		101	77 - 127
Methyl acetate	100	80.8		ug/L		81	56 - 136
Methylcyclohexane	50.0	50.9		ug/L		102	72 - 132
Methylene Chloride	50.0	48.8		ug/L		98	74 - 124
4-Methyl-2-pentanone (MIBK)	250	246		ug/L		98	67 - 130
Methyl tert-butyl ether	50.0	47.5		ug/L		95	71 - 124
m-Xylene & p-Xylene	50.0	50.5		ug/L		101	80 - 121
Naphthalene	50.0	50.3		ug/L		101	61 - 128
n-Butylbenzene	50.0	51.3		ug/L		103	75 - 128
N-Propylbenzene	50.0	51.4		ug/L		103	76 - 126
o-Xylene	50.0	51.6		ug/L		103	78 - 122
sec-Butylbenzene	50.0	52.8		ug/L		106	77 - 126
Styrene	50.0	52.6		ug/L		105	78 - 123
tert-Butylbenzene	50.0	52.1		ug/L		104	78 - 124
1,1,1,2-Tetrachloroethane	50.0	52.5		ug/L		105	78 - 124
1,1,2,2-Tetrachloroethane	50.0	57.0		ug/L		114	71 - 121
Tetrachloroethene	50.0	53.0		ug/L		106	74 - 129
Toluene	50.0	49.5		ug/L		99	80 - 121
trans-1,2-Dichloroethene	50.0	50.0		ug/L		100	75 - 124
trans-1,3-Dichloropropene	50.0	48.4		ug/L		97	73 - 127
1,2,3-Trichlorobenzene	50.0	50.4		ug/L		101	69 - 129
1,2,4-Trichlorobenzene	50.0	55.1		ug/L		110	69 - 130
1,1,1-Trichloroethane	50.0	48.5		ug/L		97	74 - 131

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-838701/4
Matrix: Water
Analysis Batch: 838701

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,1,2-Trichloroethane			50.0	50.2		ug/L		100	80 - 119		
Trichloroethene			50.0	49.8		ug/L		100	79 - 123		
Trichlorofluoromethane			50.0	76.6	Q	ug/L		153	65 - 141		
1,2,3-Trichloropropane			50.0	51.7		ug/L		103	73 - 122		
1,1,2-Trichloro-1,2,2-trifluoroethane			50.0	53.7		ug/L		107	70 - 136		
1,2,4-Trimethylbenzene			50.0	54.4		ug/L		109	76 - 124		
1,3,5-Trimethylbenzene			50.0	52.6		ug/L		105	75 - 124		
Vinyl chloride			50.0	68.2		ug/L		136	58 - 137		
Xylenes, Total			100	102		ug/L		102	79 - 121		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*100*		*85 - 114*
Dibromofluoromethane (Surr)	*100*		*80 - 119*
1,2-Dichloroethane-d4 (Surr)	*88*		*81 - 118*
Toluene-d8 (Surr)	*101*		*89 - 112*

Lab Sample ID: LCSD 680-838701/5
Matrix: Water
Analysis Batch: 838701

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acetone			250	228		ug/L		91	39 - 160	1	20
Benzene			50.0	50.2		ug/L		100	79 - 120	1	20
Bromobenzene			50.0	55.6		ug/L		111	80 - 120	1	20
Bromochloromethane			50.0	51.4		ug/L		103	78 - 123	3	20
Bromodichloromethane			50.0	48.0		ug/L		96	79 - 125	2	20
Bromoform			50.0	64.0	J1	ug/L		128	66 - 130	0	20
Bromomethane			50.0	52.4		ug/L		105	53 - 141	2	20
2-Butanone (MEK)			250	240		ug/L		96	56 - 143	1	20
Carbon disulfide			50.0	48.9		ug/L		98	64 - 133	2	20
Carbon tetrachloride			50.0	46.6		ug/L		93	72 - 136	1	20
Chlorobenzene			50.0	51.0		ug/L		102	82 - 118	0	20
Chloroethane			50.0	53.0		ug/L		106	60 - 138	0	20
Chloroform			50.0	48.3		ug/L		97	79 - 124	1	20
Chloromethane			50.0	49.6		ug/L		99	50 - 139	1	20
2-Chlorotoluene			50.0	52.1		ug/L		104	79 - 122	0	20
4-Chlorotoluene			50.0	51.8		ug/L		104	78 - 122	0	20
cis-1,2-Dichloroethene			50.0	48.6		ug/L		97	78 - 123	0	20
cis-1,3-Dichloropropene			50.0	50.9		ug/L		102	75 - 124	1	20
Cyclohexane			50.0	51.8		ug/L		104	71 - 130	0	20
Dibromochloromethane			50.0	49.9		ug/L		100	74 - 126	2	20
1,2-Dibromo-3-Chloropropane			50.0	50.1		ug/L		100	62 - 128	1	20
1,2-Dibromoethane			50.0	50.6		ug/L		101	75 - 127	1	20
Dibromomethane			50.0	49.0		ug/L		98	79 - 123	1	20
1,2-Dichlorobenzene			50.0	52.1		ug/L		104	80 - 119	0	20
1,3-Dichlorobenzene			50.0	51.6		ug/L		103	80 - 119	0	20
1,4-Dichlorobenzene			50.0	51.3		ug/L		103	79 - 118	1	20
Dichlorodifluoromethane			50.0	58.3	M	ug/L		117	32 - 152	1	20

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-838701/5
Matrix: Water
Analysis Batch: 838701

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1-Dichloroethane			50.0	48.8		ug/L		98	77 - 125	0	20
1,2-Dichloroethane			50.0	45.0		ug/L		90	73 - 128	2	20
1,1-Dichloroethene			50.0	49.4		ug/L		99	71 - 131	2	20
1,2-Dichloroethene, Total			100	98.6		ug/L		99	79 - 121	0	20
1,2-Dichloropropane			50.0	50.9		ug/L		102	78 - 122	1	20
1,3-Dichloropropane			50.0	50.3		ug/L		101	80 - 119	1	20
2,2-Dichloropropane			50.0	49.9		ug/L		100	60 - 139	0	20
1,1-Dichloropropene			50.0	50.4		ug/L		101	79 - 125	0	20
Ethylbenzene			50.0	50.2		ug/L		100	79 - 121	0	20
Hexachlorobutadiene			50.0	59.0		ug/L		118	66 - 134	1	20
2-Hexanone			250	253		ug/L		101	57 - 139	2	20
Isopropylbenzene			50.0	51.2		ug/L		102	72 - 131	0	20
4-Isopropyltoluene			50.0	49.7		ug/L		99	77 - 127	2	20
Methyl acetate			100	80.8		ug/L		81	56 - 136	0	20
Methylcyclohexane			50.0	50.9		ug/L		102	72 - 132	0	20
Methylene Chloride			50.0	49.2		ug/L		98	74 - 124	1	20
4-Methyl-2-pentanone (MIBK)			250	252		ug/L		101	67 - 130	3	20
Methyl tert-butyl ether			50.0	48.1		ug/L		96	71 - 124	1	20
m-Xylene & p-Xylene			50.0	51.0		ug/L		102	80 - 121	1	20
Naphthalene			50.0	51.2		ug/L		102	61 - 128	2	20
n-Butylbenzene			50.0	50.8		ug/L		102	75 - 128	1	20
N-Propylbenzene			50.0	50.9		ug/L		102	76 - 126	1	20
o-Xylene			50.0	51.5		ug/L		103	78 - 122	0	20
sec-Butylbenzene			50.0	52.5		ug/L		105	77 - 126	1	20
Styrene			50.0	52.7		ug/L		105	78 - 123	0	20
tert-Butylbenzene			50.0	51.8		ug/L		104	78 - 124	1	20
1,1,1,2-Tetrachloroethane			50.0	51.8		ug/L		104	78 - 124	1	20
1,1,2,2-Tetrachloroethane			50.0	57.0		ug/L		114	71 - 121	0	20
Tetrachloroethene			50.0	54.1		ug/L		108	74 - 129	2	20
Toluene			50.0	49.5		ug/L		99	80 - 121	0	20
trans-1,2-Dichloroethene			50.0	49.9		ug/L		100	75 - 124	0	20
trans-1,3-Dichloropropene			50.0	49.3		ug/L		99	73 - 127	2	20
1,2,3-Trichlorobenzene			50.0	51.1		ug/L		102	69 - 129	2	20
1,2,4-Trichlorobenzene			50.0	55.6		ug/L		111	69 - 130	1	20
1,1,1-Trichloroethane			50.0	48.6		ug/L		97	74 - 131	0	20
1,1,2-Trichloroethane			50.0	50.7		ug/L		101	80 - 119	1	20
Trichloroethene			50.0	50.4		ug/L		101	79 - 123	1	20
Trichlorofluoromethane			50.0	78.2	Q	ug/L		156	65 - 141	2	20
1,2,3-Trichloropropane			50.0	52.9		ug/L		106	73 - 122	2	20
1,1,2-Trichloro-1,2,2-trifluoroethane			50.0	53.9		ug/L		108	70 - 136	0	20
1,2,4-Trimethylbenzene			50.0	54.4		ug/L		109	76 - 124	0	20
1,3,5-Trimethylbenzene			50.0	52.5		ug/L		105	75 - 124	0	20
Vinyl chloride			50.0	67.4		ug/L		135	58 - 137	1	20
Xylenes, Total			100	103		ug/L		103	79 - 121	0	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*85 - 114*

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-838701/5
Matrix: Water
Analysis Batch: 838701

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Dibromofluoromethane (Surr)	*101*		*80 - 119*
1,2-Dichloroethane-d4 (Surr)	*96*		*81 - 118*
Toluene-d8 (Surr)	*100*		*89 - 112*

Lab Sample ID: MB 680-838714/8
Matrix: Water
Analysis Batch: 838714

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			05/19/24 13:25	1
Benzene	1.0	U	2.0	0.27	ug/L			05/19/24 13:25	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			05/19/24 13:25	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			05/19/24 13:25	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			05/19/24 13:25	1
Bromoform	2.0	U	2.5	0.59	ug/L			05/19/24 13:25	1
Bromomethane	10	U M	20	3.7	ug/L			05/19/24 13:25	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			05/19/24 13:25	1
Carbon disulfide	1.0	U	2.0	0.43	ug/L			05/19/24 13:25	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			05/19/24 13:25	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			05/19/24 13:25	1
Chloroethane	10	U	20	4.6	ug/L			05/19/24 13:25	1
Chloroform	1.0	U M	2.0	0.27	ug/L			05/19/24 13:25	1
Chloromethane	2.0	U	2.5	0.54	ug/L			05/19/24 13:25	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			05/19/24 13:25	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			05/19/24 13:25	1
cis-1,2-Dichloroethene	1.0	U	2.0	0.25	ug/L			05/19/24 13:25	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			05/19/24 13:25	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			05/19/24 13:25	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			05/19/24 13:25	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			05/19/24 13:25	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			05/19/24 13:25	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			05/19/24 13:25	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/19/24 13:25	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/19/24 13:25	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/19/24 13:25	1
Dichlorodifluoromethane	1.0	U	2.0	0.36	ug/L			05/19/24 13:25	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			05/19/24 13:25	1
1,2-Dichloroethane	1.0	U M	2.0	0.25	ug/L			05/19/24 13:25	1
1,1-Dichloroethene	1.0	U	2.0	0.33	ug/L			05/19/24 13:25	1
1,2-Dichloroethene, Total	1.0	U	2.0	0.37	ug/L			05/19/24 13:25	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			05/19/24 13:25	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			05/19/24 13:25	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			05/19/24 13:25	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			05/19/24 13:25	1
Ethylbenzene	0.50	U M	1.0	0.20	ug/L			05/19/24 13:25	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			05/19/24 13:25	1
2-Hexanone	10	U	20	3.2	ug/L			05/19/24 13:25	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			05/19/24 13:25	1

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-838714/8
Matrix: Water
Analysis Batch: 838714

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			05/19/24 13:25	1
Methyl acetate	10	U	20	3.2	ug/L			05/19/24 13:25	1
Methylcyclohexane	1.0	U	2.0	0.33	ug/L			05/19/24 13:25	1
Methylene Chloride	10	U	20	3.2	ug/L			05/19/24 13:25	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			05/19/24 13:25	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			05/19/24 13:25	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			05/19/24 13:25	1
Naphthalene	5.0	U	10	2.4	ug/L			05/19/24 13:25	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			05/19/24 13:25	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			05/19/24 13:25	1
o-Xylene	1.0	U	2.0	0.26	ug/L			05/19/24 13:25	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			05/19/24 13:25	1
Styrene	1.0	U	2.0	0.27	ug/L			05/19/24 13:25	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			05/19/24 13:25	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			05/19/24 13:25	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			05/19/24 13:25	1
Tetrachloroethene	1.0	U	2.0	0.35	ug/L			05/19/24 13:25	1
Toluene	1.0	U	2.0	0.25	ug/L			05/19/24 13:25	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			05/19/24 13:25	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			05/19/24 13:25	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			05/19/24 13:25	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			05/19/24 13:25	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			05/19/24 13:25	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			05/19/24 13:25	1
Trichloroethene	0.50	U	1.0	0.20	ug/L			05/19/24 13:25	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			05/19/24 13:25	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			05/19/24 13:25	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			05/19/24 13:25	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			05/19/24 13:25	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			05/19/24 13:25	1
Vinyl chloride	1.0	U	2.0	0.40	ug/L			05/19/24 13:25	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			05/19/24 13:25	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*85 - 114*		*05/19/24 13:25*	*1*
Dibromofluoromethane (Surr)	*115*		*80 - 119*		*05/19/24 13:25*	*1*
1,2-Dichloroethane-d4 (Surr)	*114*		*81 - 118*		*05/19/24 13:25*	*1*
Toluene-d8 (Surr)	*106*		*89 - 112*		*05/19/24 13:25*	*1*

Lab Sample ID: LCS 680-838714/4
Matrix: Water
Analysis Batch: 838714

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Acetone			250	214		ug/L		86	39 - 160		
Benzene			50.0	51.2		ug/L		102	79 - 120		
Bromobenzene			50.0	52.9		ug/L		106	80 - 120		
Bromochloromethane			50.0	53.6		ug/L		107	78 - 123		

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-838714/4
Matrix: Water
Analysis Batch: 838714

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bromodichloromethane	50.0	50.3		ug/L		101	79 - 125
Bromoform	50.0	46.1		ug/L		92	66 - 130
Bromomethane	50.0	62.8		ug/L		126	53 - 141
2-Butanone (MEK)	250	233		ug/L		93	56 - 143
Carbon disulfide	50.0	40.8		ug/L		82	64 - 133
Carbon tetrachloride	50.0	52.0		ug/L		104	72 - 136
Chlorobenzene	50.0	50.9		ug/L		102	82 - 118
Chloroethane	50.0	54.7		ug/L		109	60 - 138
Chloroform	50.0	53.2		ug/L		106	79 - 124
Chloromethane	50.0	50.6		ug/L		101	50 - 139
2-Chlorotoluene	50.0	52.4		ug/L		105	79 - 122
4-Chlorotoluene	50.0	53.1		ug/L		106	78 - 122
cis-1,2-Dichloroethene	50.0	52.1		ug/L		104	78 - 123
cis-1,3-Dichloropropene	50.0	51.0		ug/L		102	75 - 124
Cyclohexane	50.0	51.3		ug/L		103	71 - 130
Dibromochloromethane	50.0	48.0		ug/L		96	74 - 126
1,2-Dibromo-3-Chloropropane	50.0	44.3		ug/L		89	62 - 128
1,2-Dibromoethane	50.0	48.9		ug/L		98	75 - 127
Dibromomethane	50.0	48.4		ug/L		97	79 - 123
1,2-Dichlorobenzene	50.0	50.3		ug/L		101	80 - 119
1,3-Dichlorobenzene	50.0	51.5		ug/L		103	80 - 119
1,4-Dichlorobenzene	50.0	50.6		ug/L		101	79 - 118
Dichlorodifluoromethane	50.0	44.4		ug/L		89	32 - 152
1,1-Dichloroethane	50.0	49.8		ug/L		100	77 - 125
1,2-Dichloroethane	50.0	52.2		ug/L		104	73 - 128
1,1-Dichloroethene	50.0	50.1		ug/L		100	71 - 131
1,2-Dichloroethene, Total	100	102		ug/L		102	79 - 121
1,2-Dichloropropane	50.0	51.1		ug/L		102	78 - 122
1,3-Dichloropropane	50.0	51.0		ug/L		102	80 - 119
2,2-Dichloropropane	50.0	51.2		ug/L		102	60 - 139
1,1-Dichloropropene	50.0	50.6		ug/L		101	79 - 125
Ethylbenzene	50.0	51.6		ug/L		103	79 - 121
Hexachlorobutadiene	50.0	53.0		ug/L		106	66 - 134
2-Hexanone	250	248		ug/L		99	57 - 139
Isopropylbenzene	50.0	52.0		ug/L		104	72 - 131
4-Isopropyltoluene	50.0	50.7		ug/L		101	77 - 127
Methyl acetate	100	88.2		ug/L		88	56 - 136
Methylcyclohexane	50.0	49.2		ug/L		98	72 - 132
Methylene Chloride	50.0	49.0		ug/L		98	74 - 124
4-Methyl-2-pentanone (MIBK)	250	249		ug/L		100	67 - 130
Methyl tert-butyl ether	50.0	52.4		ug/L		105	71 - 124
m-Xylene & p-Xylene	50.0	51.5		ug/L		103	80 - 121
Naphthalene	50.0	48.1		ug/L		96	61 - 128
n-Butylbenzene	50.0	55.7		ug/L		111	75 - 128
N-Propylbenzene	50.0	52.1		ug/L		104	76 - 126
o-Xylene	50.0	51.9		ug/L		104	78 - 122
sec-Butylbenzene	50.0	56.0		ug/L		112	77 - 126
Styrene	50.0	53.4		ug/L		107	78 - 123
tert-Butylbenzene	50.0	55.9		ug/L		112	78 - 124

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-838714/4
Matrix: Water
Analysis Batch: 838714

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1,2-Tetrachloroethane	50.0	52.8		ug/L		106	78 - 124
1,1,2,2-Tetrachloroethane	50.0	48.0		ug/L		96	71 - 121
Tetrachloroethene	50.0	50.3		ug/L		101	74 - 129
Toluene	50.0	48.7		ug/L		97	80 - 121
trans-1,2-Dichloroethene	50.0	50.4		ug/L		101	75 - 124
trans-1,3-Dichloropropene	50.0	49.4		ug/L		99	73 - 127
1,2,3-Trichlorobenzene	50.0	52.6		ug/L		105	69 - 129
1,2,4-Trichlorobenzene	50.0	49.2		ug/L		98	69 - 130
1,1,1-Trichloroethane	50.0	51.4		ug/L		103	74 - 131
1,1,2-Trichloroethane	50.0	50.2		ug/L		100	80 - 119
Trichloroethene	50.0	53.3		ug/L		107	79 - 123
Trichlorofluoromethane	50.0	49.7		ug/L		99	65 - 141
1,2,3-Trichloropropane	50.0	49.3		ug/L		99	73 - 122
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	48.9		ug/L		98	70 - 136
1,2,4-Trimethylbenzene	50.0	51.3		ug/L		103	76 - 124
1,3,5-Trimethylbenzene	50.0	54.8		ug/L		110	75 - 124
Vinyl chloride	50.0	50.7		ug/L		101	58 - 137
Xylenes, Total	100	103		ug/L		103	79 - 121

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*85 - 114*
Dibromofluoromethane (Surr)	*107*		*80 - 119*
1,2-Dichloroethane-d4 (Surr)	*103*		*81 - 118*
Toluene-d8 (Surr)	*103*		*89 - 112*

Lab Sample ID: LCSD 680-838714/5
Matrix: Water
Analysis Batch: 838714

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acetone	250	221		ug/L		88	39 - 160	3	20
Benzene	50.0	51.0		ug/L		102	79 - 120	0	20
Bromobenzene	50.0	53.0		ug/L		106	80 - 120	0	20
Bromochloromethane	50.0	53.9		ug/L		108	78 - 123	1	20
Bromodichloromethane	50.0	50.5		ug/L		101	79 - 125	0	20
Bromoform	50.0	46.0		ug/L		92	66 - 130	0	20
Bromomethane	50.0	56.6		ug/L		113	53 - 141	10	20
2-Butanone (MEK)	250	236		ug/L		94	56 - 143	1	20
Carbon disulfide	50.0	43.3		ug/L		87	64 - 133	6	20
Carbon tetrachloride	50.0	50.4		ug/L		101	72 - 136	3	20
Chlorobenzene	50.0	49.7		ug/L		99	82 - 118	2	20
Chloroethane	50.0	51.5		ug/L		103	60 - 138	6	20
Chloroform	50.0	53.0		ug/L		106	79 - 124	0	20
Chloromethane	50.0	50.0		ug/L		100	50 - 139	1	20
2-Chlorotoluene	50.0	51.6		ug/L		103	79 - 122	1	20
4-Chlorotoluene	50.0	51.0		ug/L		102	78 - 122	4	20
cis-1,2-Dichloroethene	50.0	50.6		ug/L		101	78 - 123	3	20
cis-1,3-Dichloropropene	50.0	51.8		ug/L		104	75 - 124	1	20

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-838714/5
Matrix: Water
Analysis Batch: 838714

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Cyclohexane	50.0	48.9		ug/L		98	71 - 130	5	20
Dibromochloromethane	50.0	48.7		ug/L		97	74 - 126	1	20
1,2-Dibromo-3-Chloropropane	50.0	46.8		ug/L		94	62 - 128	5	20
1,2-Dibromoethane	50.0	50.3		ug/L		101	75 - 127	3	20
Dibromomethane	50.0	49.8		ug/L		100	79 - 123	3	20
1,2-Dichlorobenzene	50.0	50.1		ug/L		100	80 - 119	0	20
1,3-Dichlorobenzene	50.0	50.3		ug/L		101	80 - 119	2	20
1,4-Dichlorobenzene	50.0	50.4		ug/L		101	79 - 118	1	20
Dichlorodifluoromethane	50.0	42.8	M	ug/L		86	32 - 152	4	20
1,1-Dichloroethane	50.0	50.0		ug/L		100	77 - 125	0	20
1,2-Dichloroethane	50.0	50.9		ug/L		102	73 - 128	3	20
1,1-Dichloroethene	50.0	48.5		ug/L		97	71 - 131	3	20
1,2-Dichloroethene, Total	100	100		ug/L		100	79 - 121	2	20
1,2-Dichloropropane	50.0	51.9		ug/L		104	78 - 122	2	20
1,3-Dichloropropane	50.0	52.1		ug/L		104	80 - 119	2	20
2,2-Dichloropropane	50.0	50.9		ug/L		102	60 - 139	1	20
1,1-Dichloropropene	50.0	49.6		ug/L		99	79 - 125	2	20
Ethylbenzene	50.0	50.5		ug/L		101	79 - 121	2	20
Hexachlorobutadiene	50.0	51.8		ug/L		104	66 - 134	2	20
2-Hexanone	250	263		ug/L		105	57 - 139	6	20
Isopropylbenzene	50.0	50.4		ug/L		101	72 - 131	3	20
4-Isopropyltoluene	50.0	48.7		ug/L		97	77 - 127	4	20
Methyl acetate	100	95.1		ug/L		95	56 - 136	8	20
Methylcyclohexane	50.0	47.3		ug/L		95	72 - 132	4	20
Methylene Chloride	50.0	49.1		ug/L		98	74 - 124	0	20
4-Methyl-2-pentanone (MIBK)	250	263		ug/L		105	67 - 130	5	20
Methyl tert-butyl ether	50.0	53.4		ug/L		107	71 - 124	2	20
m-Xylene & p-Xylene	50.0	50.9		ug/L		102	80 - 121	1	20
Naphthalene	50.0	49.4		ug/L		99	61 - 128	3	20
n-Butylbenzene	50.0	52.7		ug/L		105	75 - 128	6	20
N-Propylbenzene	50.0	49.9		ug/L		100	76 - 126	4	20
o-Xylene	50.0	50.7		ug/L		101	78 - 122	2	20
sec-Butylbenzene	50.0	53.2		ug/L		106	77 - 126	5	20
Styrene	50.0	52.5		ug/L		105	78 - 123	2	20
tert-Butylbenzene	50.0	53.4		ug/L		107	78 - 124	5	20
1,1,1,2-Tetrachloroethane	50.0	51.9		ug/L		104	78 - 124	2	20
1,1,2,2-Tetrachloroethane	50.0	49.1		ug/L		98	71 - 121	2	20
Tetrachloroethene	50.0	48.1		ug/L		96	74 - 129	4	20
Toluene	50.0	48.9		ug/L		98	80 - 121	0	20
trans-1,2-Dichloroethene	50.0	49.4		ug/L		99	75 - 124	2	20
trans-1,3-Dichloropropene	50.0	51.1		ug/L		102	73 - 127	3	20
1,2,3-Trichlorobenzene	50.0	52.8		ug/L		106	69 - 129	0	20
1,2,4-Trichlorobenzene	50.0	48.5		ug/L		97	69 - 130	1	20
1,1,1-Trichloroethane	50.0	49.8		ug/L		100	74 - 131	3	20
1,1,2-Trichloroethane	50.0	51.5		ug/L		103	80 - 119	3	20
Trichloroethene	50.0	53.8		ug/L		108	79 - 123	1	20
Trichlorofluoromethane	50.0	48.8		ug/L		98	65 - 141	2	20
1,2,3-Trichloropropane	50.0	49.9		ug/L		100	73 - 122	1	20

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-838714/5
Matrix: Water
Analysis Batch: 838714

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1,2-Trichloro-1,2,2-trifluoroethane			50.0	48.8		ug/L		98	70 - 136	0	20
1,2,4-Trimethylbenzene			50.0	50.0		ug/L		100	76 - 124	3	20
1,3,5-Trimethylbenzene			50.0	52.2		ug/L		104	75 - 124	5	20
Vinyl chloride			50.0	49.3		ug/L		99	58 - 137	3	20
Xylenes, Total			100	102		ug/L		102	79 - 121	2	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*85 - 114*
Dibromofluoromethane (Surr)	*107*		*80 - 119*
1,2-Dichloroethane-d4 (Surr)	*105*		*81 - 118*
Toluene-d8 (Surr)	*104*		*89 - 112*

Lab Sample ID: MB 680-838997/8
Matrix: Water
Analysis Batch: 838997

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			05/21/24 12:59	1
Benzene	1.0	U	2.0	0.27	ug/L			05/21/24 12:59	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			05/21/24 12:59	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			05/21/24 12:59	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			05/21/24 12:59	1
Bromoform	2.0	U	2.5	0.59	ug/L			05/21/24 12:59	1
Bromomethane	10	U M	20	3.7	ug/L			05/21/24 12:59	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			05/21/24 12:59	1
Carbon disulfide	0.804	J	2.0	0.43	ug/L			05/21/24 12:59	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			05/21/24 12:59	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			05/21/24 12:59	1
Chloroethane	10	U	20	4.6	ug/L			05/21/24 12:59	1
Chloroform	1.0	U	2.0	0.27	ug/L			05/21/24 12:59	1
Chloromethane	2.0	U	2.5	0.54	ug/L			05/21/24 12:59	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			05/21/24 12:59	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			05/21/24 12:59	1
cis-1,2-Dichloroethene	1.0	U	2.0	0.25	ug/L			05/21/24 12:59	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			05/21/24 12:59	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			05/21/24 12:59	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			05/21/24 12:59	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			05/21/24 12:59	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			05/21/24 12:59	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			05/21/24 12:59	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/21/24 12:59	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/21/24 12:59	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/21/24 12:59	1
Dichlorodifluoromethane	1.0	U	2.0	0.36	ug/L			05/21/24 12:59	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			05/21/24 12:59	1
1,2-Dichloroethane	1.0	U M	2.0	0.25	ug/L			05/21/24 12:59	1
1,1-Dichloroethene	1.0	U	2.0	0.33	ug/L			05/21/24 12:59	1
1,2-Dichloroethene, Total	1.0	U	2.0	0.37	ug/L			05/21/24 12:59	1

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-838997/8
Matrix: Water
Analysis Batch: 838997

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			05/21/24 12:59	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			05/21/24 12:59	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			05/21/24 12:59	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			05/21/24 12:59	1
Ethylbenzene	0.50	U M	1.0	0.20	ug/L			05/21/24 12:59	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			05/21/24 12:59	1
2-Hexanone	10	U	20	3.2	ug/L			05/21/24 12:59	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			05/21/24 12:59	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			05/21/24 12:59	1
Methyl acetate	10	U	20	3.2	ug/L			05/21/24 12:59	1
Methylcyclohexane	1.0	U	2.0	0.33	ug/L			05/21/24 12:59	1
Methylene Chloride	10	U	20	3.2	ug/L			05/21/24 12:59	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			05/21/24 12:59	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			05/21/24 12:59	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			05/21/24 12:59	1
Naphthalene	5.0	U	10	2.4	ug/L			05/21/24 12:59	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			05/21/24 12:59	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			05/21/24 12:59	1
o-Xylene	1.0	U	2.0	0.26	ug/L			05/21/24 12:59	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			05/21/24 12:59	1
Styrene	1.0	U	2.0	0.27	ug/L			05/21/24 12:59	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			05/21/24 12:59	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			05/21/24 12:59	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			05/21/24 12:59	1
Tetrachloroethene	1.0	U	2.0	0.35	ug/L			05/21/24 12:59	1
Toluene	1.0	U	2.0	0.25	ug/L			05/21/24 12:59	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			05/21/24 12:59	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			05/21/24 12:59	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			05/21/24 12:59	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			05/21/24 12:59	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			05/21/24 12:59	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			05/21/24 12:59	1
Trichloroethene	0.50	U	1.0	0.20	ug/L			05/21/24 12:59	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			05/21/24 12:59	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			05/21/24 12:59	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			05/21/24 12:59	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			05/21/24 12:59	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			05/21/24 12:59	1
Vinyl chloride	1.0	U	2.0	0.40	ug/L			05/21/24 12:59	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			05/21/24 12:59	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*85 - 114*		*05/21/24 12:59*	*1*
Dibromofluoromethane (Surr)	*111*		*80 - 119*		*05/21/24 12:59*	*1*
1,2-Dichloroethane-d4 (Surr)	*109*		*81 - 118*		*05/21/24 12:59*	*1*
Toluene-d8 (Surr)	*104*		*89 - 112*		*05/21/24 12:59*	*1*

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-838997/4
Matrix: Water
Analysis Batch: 838997

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	250	181		ug/L		72	39 - 160
Benzene	50.0	52.9		ug/L		106	79 - 120
Bromobenzene	50.0	51.8		ug/L		104	80 - 120
Bromochloromethane	50.0	53.9		ug/L		108	78 - 123
Bromodichloromethane	50.0	50.6		ug/L		101	79 - 125
Bromoform	50.0	45.1		ug/L		90	66 - 130
Bromomethane	50.0	58.3		ug/L		117	53 - 141
2-Butanone (MEK)	250	234		ug/L		94	56 - 143
Carbon disulfide	50.0	46.0		ug/L		92	64 - 133
Carbon tetrachloride	50.0	53.2		ug/L		106	72 - 136
Chlorobenzene	50.0	50.6		ug/L		101	82 - 118
Chloroethane	50.0	59.9	M	ug/L		120	60 - 138
Chloroform	50.0	53.5		ug/L		107	79 - 124
Chloromethane	50.0	52.9		ug/L		106	50 - 139
2-Chlorotoluene	50.0	51.5		ug/L		103	79 - 122
4-Chlorotoluene	50.0	51.3		ug/L		103	78 - 122
cis-1,2-Dichloroethene	50.0	53.1		ug/L		106	78 - 123
cis-1,3-Dichloropropene	50.0	50.9		ug/L		102	75 - 124
Cyclohexane	50.0	52.8		ug/L		106	71 - 130
Dibromochloromethane	50.0	48.3		ug/L		97	74 - 126
1,2-Dibromo-3-Chloropropane	50.0	46.8		ug/L		94	62 - 128
1,2-Dibromoethane	50.0	49.5		ug/L		99	75 - 127
Dibromomethane	50.0	49.7		ug/L		99	79 - 123
1,2-Dichlorobenzene	50.0	51.0		ug/L		102	80 - 119
1,3-Dichlorobenzene	50.0	51.6		ug/L		103	80 - 119
1,4-Dichlorobenzene	50.0	51.7		ug/L		103	79 - 118
Dichlorodifluoromethane	50.0	51.5	M	ug/L		103	32 - 152
1,1-Dichloroethane	50.0	52.6		ug/L		105	77 - 125
1,2-Dichloroethane	50.0	53.6		ug/L		107	73 - 128
1,1-Dichloroethene	50.0	52.8		ug/L		106	71 - 131
1,2-Dichloroethene, Total	100	106		ug/L		106	79 - 121
1,2-Dichloropropane	50.0	52.1		ug/L		104	78 - 122
1,3-Dichloropropane	50.0	50.6		ug/L		101	80 - 119
2,2-Dichloropropane	50.0	53.6		ug/L		107	60 - 139
1,1-Dichloropropene	50.0	52.7		ug/L		105	79 - 125
Ethylbenzene	50.0	51.7		ug/L		103	79 - 121
Hexachlorobutadiene	50.0	54.0		ug/L		108	66 - 134
2-Hexanone	250	249		ug/L		100	57 - 139
Isopropylbenzene	50.0	51.6		ug/L		103	72 - 131
4-Isopropyltoluene	50.0	50.7		ug/L		101	77 - 127
Methyl acetate	100	94.8		ug/L		95	56 - 136
Methylcyclohexane	50.0	50.2		ug/L		100	72 - 132
Methylene Chloride	50.0	50.7		ug/L		101	74 - 124
4-Methyl-2-pentanone (MIBK)	250	253		ug/L		101	67 - 130
Methyl tert-butyl ether	50.0	54.1		ug/L		108	71 - 124
m-Xylene & p-Xylene	50.0	51.7		ug/L		103	80 - 121
Naphthalene	50.0	48.6		ug/L		97	61 - 128
n-Butylbenzene	50.0	55.4		ug/L		111	75 - 128

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-838997/4
Matrix: Water
Analysis Batch: 838997

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
N-Propylbenzene	50.0	51.9		ug/L		104	76 - 126
o-Xylene	50.0	51.2		ug/L		102	78 - 122
sec-Butylbenzene	50.0	54.3		ug/L		109	77 - 126
Styrene	50.0	52.7		ug/L		105	78 - 123
tert-Butylbenzene	50.0	54.2		ug/L		108	78 - 124
1,1,1,2-Tetrachloroethane	50.0	52.4		ug/L		105	78 - 124
1,1,2,2-Tetrachloroethane	50.0	47.0		ug/L		94	71 - 121
Tetrachloroethene	50.0	50.7		ug/L		101	74 - 129
Toluene	50.0	49.7		ug/L		99	80 - 121
trans-1,2-Dichloroethene	50.0	52.7		ug/L		105	75 - 124
trans-1,3-Dichloropropene	50.0	48.7		ug/L		97	73 - 127
1,2,3-Trichlorobenzene	50.0	52.6		ug/L		105	69 - 129
1,2,4-Trichlorobenzene	50.0	49.8		ug/L		100	69 - 130
1,1,1-Trichloroethane	50.0	52.7		ug/L		105	74 - 131
1,1,2-Trichloroethane	50.0	50.3		ug/L		101	80 - 119
Trichloroethene	50.0	54.8		ug/L		110	79 - 123
Trichlorofluoromethane	50.0	42.3		ug/L		85	65 - 141
1,2,3-Trichloropropane	50.0	49.1		ug/L		98	73 - 122
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	51.0		ug/L		102	70 - 136
1,2,4-Trimethylbenzene	50.0	49.9		ug/L		100	76 - 124
1,3,5-Trimethylbenzene	50.0	53.4		ug/L		107	75 - 124
Vinyl chloride	50.0	46.4		ug/L		93	58 - 137
Xylenes, Total	100	103		ug/L		103	79 - 121

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*100*		*85 - 114*
Dibromofluoromethane (Surr)	*109*		*80 - 119*
1,2-Dichloroethane-d4 (Surr)	*103*		*81 - 118*
Toluene-d8 (Surr)	*105*		*89 - 112*

Lab Sample ID: LCSD 680-838997/5
Matrix: Water
Analysis Batch: 838997

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acetone	250	228	Q	ug/L		91	39 - 160	23	20
Benzene	50.0	53.0		ug/L		106	79 - 120	0	20
Bromobenzene	50.0	52.2		ug/L		104	80 - 120	1	20
Bromochloromethane	50.0	54.4		ug/L		109	78 - 123	1	20
Bromodichloromethane	50.0	50.4		ug/L		101	79 - 125	0	20
Bromoform	50.0	45.9		ug/L		92	66 - 130	2	20
Bromomethane	50.0	57.6	M	ug/L		115	53 - 141	1	20
2-Butanone (MEK)	250	244		ug/L		98	56 - 143	4	20
Carbon disulfide	50.0	46.1		ug/L		92	64 - 133	0	20
Carbon tetrachloride	50.0	53.0		ug/L		106	72 - 136	0	20
Chlorobenzene	50.0	50.1		ug/L		100	82 - 118	1	20
Chloroethane	50.0	58.3	M	ug/L		117	60 - 138	3	20
Chloroform	50.0	54.2		ug/L		108	79 - 124	1	20

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-838997/5
Matrix: Water
Analysis Batch: 838997

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloromethane	50.0	52.8		ug/L		106	50 - 139	0	20
2-Chlorotoluene	50.0	50.3		ug/L		101	79 - 122	2	20
4-Chlorotoluene	50.0	50.6		ug/L		101	78 - 122	1	20
cis-1,2-Dichloroethene	50.0	54.2		ug/L		108	78 - 123	2	20
cis-1,3-Dichloropropene	50.0	52.5		ug/L		105	75 - 124	3	20
Cyclohexane	50.0	51.5		ug/L		103	71 - 130	3	20
Dibromochloromethane	50.0	49.0		ug/L		98	74 - 126	2	20
1,2-Dibromo-3-Chloropropane	50.0	48.8		ug/L		98	62 - 128	4	20
1,2-Dibromoethane	50.0	51.2		ug/L		102	75 - 127	3	20
Dibromomethane	50.0	50.6		ug/L		101	79 - 123	2	20
1,2-Dichlorobenzene	50.0	50.9		ug/L		102	80 - 119	0	20
1,3-Dichlorobenzene	50.0	51.3		ug/L		103	80 - 119	1	20
1,4-Dichlorobenzene	50.0	51.7		ug/L		103	79 - 118	0	20
Dichlorodifluoromethane	50.0	51.6	M	ug/L		103	32 - 152	0	20
1,1-Dichloroethane	50.0	53.0		ug/L		106	77 - 125	1	20
1,2-Dichloroethane	50.0	53.2		ug/L		106	73 - 128	1	20
1,1-Dichloroethene	50.0	52.6		ug/L		105	71 - 131	0	20
1,2-Dichloroethene, Total	100	107		ug/L		107	79 - 121	1	20
1,2-Dichloropropane	50.0	53.0		ug/L		106	78 - 122	2	20
1,3-Dichloropropane	50.0	51.8		ug/L		104	80 - 119	2	20
2,2-Dichloropropane	50.0	52.0		ug/L		104	60 - 139	3	20
1,1-Dichloropropene	50.0	52.8		ug/L		106	79 - 125	0	20
Ethylbenzene	50.0	51.0		ug/L		102	79 - 121	1	20
Hexachlorobutadiene	50.0	51.6		ug/L		103	66 - 134	5	20
2-Hexanone	250	262		ug/L		105	57 - 139	5	20
Isopropylbenzene	50.0	50.6		ug/L		101	72 - 131	2	20
4-Isopropyltoluene	50.0	49.5		ug/L		99	77 - 127	2	20
Methyl acetate	100	99.8		ug/L		100	56 - 136	5	20
Methylcyclohexane	50.0	48.8		ug/L		98	72 - 132	3	20
Methylene Chloride	50.0	52.0		ug/L		104	74 - 124	3	20
4-Methyl-2-pentanone (MIBK)	250	265		ug/L		106	67 - 130	4	20
Methyl tert-butyl ether	50.0	55.5		ug/L		111	71 - 124	3	20
m-Xylene & p-Xylene	50.0	51.1		ug/L		102	80 - 121	1	20
Naphthalene	50.0	49.9		ug/L		100	61 - 128	2	20
n-Butylbenzene	50.0	53.8		ug/L		108	75 - 128	3	20
N-Propylbenzene	50.0	50.6		ug/L		101	76 - 126	2	20
o-Xylene	50.0	50.5		ug/L		101	78 - 122	1	20
sec-Butylbenzene	50.0	52.7		ug/L		105	77 - 126	3	20
Styrene	50.0	52.5		ug/L		105	78 - 123	0	20
tert-Butylbenzene	50.0	53.3		ug/L		107	78 - 124	2	20
1,1,1,2-Tetrachloroethane	50.0	52.0		ug/L		104	78 - 124	1	20
1,1,2,2-Tetrachloroethane	50.0	48.4		ug/L		97	71 - 121	3	20
Tetrachloroethene	50.0	51.2		ug/L		102	74 - 129	1	20
Toluene	50.0	49.7		ug/L		99	80 - 121	0	20
trans-1,2-Dichloroethene	50.0	52.7		ug/L		105	75 - 124	0	20
trans-1,3-Dichloropropene	50.0	50.5		ug/L		101	73 - 127	4	20
1,2,3-Trichlorobenzene	50.0	53.4		ug/L		107	69 - 129	1	20
1,2,4-Trichlorobenzene	50.0	49.2		ug/L		98	69 - 130	1	20
1,1,1-Trichloroethane	50.0	52.1		ug/L		104	74 - 131	1	20

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-838997/5
Matrix: Water
Analysis Batch: 838997

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1,2-Trichloroethane			50.0	51.6		ug/L		103	80 - 119	2	20
Trichloroethene			50.0	54.8		ug/L		110	79 - 123	0	20
Trichlorofluoromethane			50.0	40.6		ug/L		81	65 - 141	4	20
1,2,3-Trichloropropane			50.0	49.0		ug/L		98	73 - 122	0	20
1,1,2-Trichloro-1,2,2-trifluoroethane			50.0	51.7		ug/L		103	70 - 136	1	20
1,2,4-Trimethylbenzene			50.0	49.5		ug/L		99	76 - 124	1	20
1,3,5-Trimethylbenzene			50.0	53.0		ug/L		106	75 - 124	1	20
Vinyl chloride			50.0	44.7		ug/L		89	58 - 137	4	20
Xylenes, Total			100	102		ug/L		102	79 - 121	1	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*85 - 114*
Dibromofluoromethane (Surr)	*109*		*80 - 119*
1,2-Dichloroethane-d4 (Surr)	*107*		*81 - 118*
Toluene-d8 (Surr)	*106*		*89 - 112*

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 680-838752/1-A
Matrix: Water
Analysis Batch: 838829

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 838752

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	10	U M	20	4.6	ug/L		05/20/24 06:53	05/20/24 14:23	1
1,2,4,5-Tetrachlorobenzene	10	U	20	4.5	ug/L		05/20/24 06:53	05/20/24 14:23	1
1,4-Dioxane	10	U	20	4.4	ug/L		05/20/24 06:53	05/20/24 14:23	1
2,3,4,6-Tetrachlorophenol	10	U	20	4.3	ug/L		05/20/24 06:53	05/20/24 14:23	1
2,4,5-Trichlorophenol	10	U	20	3.3	ug/L		05/20/24 06:53	05/20/24 14:23	1
2,4,6-Trichlorophenol	5.0	U	20	2.2	ug/L		05/20/24 06:53	05/20/24 14:23	1
2,4-Dichlorophenol	10	U	20	3.7	ug/L		05/20/24 06:53	05/20/24 14:23	1
2,4-Dimethylphenol	10	U	20	3.0	ug/L		05/20/24 06:53	05/20/24 14:23	1
2,4-Dinitrophenol	40	U	50	16	ug/L		05/20/24 06:53	05/20/24 14:23	1
2,4-Dinitrotoluene	5.0	U	10	2.3	ug/L		05/20/24 06:53	05/20/24 14:23	1
2,6-Dinitrotoluene	10	U	20	2.8	ug/L		05/20/24 06:53	05/20/24 14:23	1
2-Chloronaphthalene	10	U	20	4.8	ug/L		05/20/24 06:53	05/20/24 14:23	1
2-Chlorophenol	10	U	20	3.2	ug/L		05/20/24 06:53	05/20/24 14:23	1
2-Methylphenol	4.0	U	10	1.8	ug/L		05/20/24 06:53	05/20/24 14:23	1
2-Nitroaniline	10	U	20	2.9	ug/L		05/20/24 06:53	05/20/24 14:23	1
2-Nitrophenol	10	U	20	3.9	ug/L		05/20/24 06:53	05/20/24 14:23	1
3 & 4 Methylphenol	4.0	U	10	1.4	ug/L		05/20/24 06:53	05/20/24 14:23	1
3,3'-Dichlorobenzidine	20	U	50	10	ug/L		05/20/24 06:53	05/20/24 14:23	1
3-Nitroaniline	10	U	50	3.0	ug/L		05/20/24 06:53	05/20/24 14:23	1
4,6-Dinitro-2-methylphenol	20	U	50	5.3	ug/L		05/20/24 06:53	05/20/24 14:23	1
4-Bromophenyl phenyl ether	10	U	20	4.7	ug/L		05/20/24 06:53	05/20/24 14:23	1
4-Chloro-3-methylphenol	10	U	20	2.5	ug/L		05/20/24 06:53	05/20/24 14:23	1
4-Chloroaniline	4.0	U	10	1.0	ug/L		05/20/24 06:53	05/20/24 14:23	1
4-Chlorophenyl phenyl ether	12	U	20	5.3	ug/L		05/20/24 06:53	05/20/24 14:23	1
4-Nitroaniline	10	U	50	3.0	ug/L		05/20/24 06:53	05/20/24 14:23	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-838752/1-A
Matrix: Water
Analysis Batch: 838829

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 838752

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	20	U	50	8.1	ug/L		05/20/24 06:53	05/20/24 14:23	1
Acetophenone	5.0	U	10	2.2	ug/L		05/20/24 06:53	05/20/24 14:23	1
Atrazine	5.0	U	10	2.2	ug/L		05/20/24 06:53	05/20/24 14:23	1
Benzaldehyde	10	U	20	4.8	ug/L		05/20/24 06:53	05/20/24 14:23	1
bis (2-chloroisopropyl) ether	10	U	20	3.1	ug/L		05/20/24 06:53	05/20/24 14:23	1
Bis(2-chloroethoxy)methane	4.0	U	10	1.8	ug/L		05/20/24 06:53	05/20/24 14:23	1
Bis(2-chloroethyl)ether	10	U	20	3.6	ug/L		05/20/24 06:53	05/20/24 14:23	1
Bis(2-ethylhexyl) phthalate	10	U	20	3.0	ug/L		05/20/24 06:53	05/20/24 14:23	1
Butyl benzyl phthalate	10	U	20	2.8	ug/L		05/20/24 06:53	05/20/24 14:23	1
Caprolactam	10	U	20	2.8	ug/L		05/20/24 06:53	05/20/24 14:23	1
Carbazole	4.0	U	10	1.8	ug/L		05/20/24 06:53	05/20/24 14:23	1
Dibenzofuran	4.0	U	10	1.9	ug/L		05/20/24 06:53	05/20/24 14:23	1
Diethyl phthalate	5.0	U	10	2.2	ug/L		05/20/24 06:53	05/20/24 14:23	1
Dimethyl phthalate	5.0	U	10	2.1	ug/L		05/20/24 06:53	05/20/24 14:23	1
Di-n-butyl phthalate	5.0	U	10	2.3	ug/L		05/20/24 06:53	05/20/24 14:23	1
Di-n-octyl phthalate	10	U	20	2.8	ug/L		05/20/24 06:53	05/20/24 14:23	1
Hexachlorobenzene	4.0	U	10	1.6	ug/L		05/20/24 06:53	05/20/24 14:23	1
Hexachlorobutadiene	10	U	20	4.0	ug/L		05/20/24 06:53	05/20/24 14:23	1
Hexachlorocyclopentadiene	10	U	20	3.5	ug/L		05/20/24 06:53	05/20/24 14:23	1
Hexachloroethane	10	U	20	3.6	ug/L		05/20/24 06:53	05/20/24 14:23	1
Isophorone	4.0	U	10	2.0	ug/L		05/20/24 06:53	05/20/24 14:23	1
Nitrobenzene	10	U	20	3.5	ug/L		05/20/24 06:53	05/20/24 14:23	1
N-Nitrosodi-n-propylamine	5.0	U	10	2.4	ug/L		05/20/24 06:53	05/20/24 14:23	1
N-Nitrosodiphenylamine	10	U	20	2.9	ug/L		05/20/24 06:53	05/20/24 14:23	1
Pentachlorophenol	20	U	50	9.9	ug/L		05/20/24 06:53	05/20/24 14:23	1
Phenol	4.0	U	10	1.5	ug/L		05/20/24 06:53	05/20/24 14:23	1
Pyridine	20	U	50	7.4	ug/L		05/20/24 06:53	05/20/24 14:23	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*56*		*43 - 140*	*05/20/24 06:53*	*05/20/24 14:23*	*1*
2-Fluorobiphenyl	*54*		*44 - 119*	*05/20/24 06:53*	*05/20/24 14:23*	*1*
2-Fluorophenol	*33*		*19 - 119*	*05/20/24 06:53*	*05/20/24 14:23*	*1*
Nitrobenzene-d5	*58*		*44 - 120*	*05/20/24 06:53*	*05/20/24 14:23*	*1*
Phenol-d5	*20*		*10 - 130*	*05/20/24 06:53*	*05/20/24 14:23*	*1*
Terphenyl-d14	*76*		*50 - 134*	*05/20/24 06:53*	*05/20/24 14:23*	*1*

Lab Sample ID: LCS 680-838752/2-A
Matrix: Water
Analysis Batch: 838829

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 838752

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1'-Biphenyl	200	118		ug/L		59	49 - 115
1,4-Dioxane	200	54.5		ug/L		27	10 - 130
2,3,4,6-Tetrachlorophenol	200	132		ug/L		66	50 - 128
2,4,5-Trichlorophenol	200	121		ug/L		61	53 - 123
2,4,6-Trichlorophenol	200	123		ug/L		62	50 - 125
2,4-Dichlorophenol	200	115		ug/L		58	47 - 121
2,4-Dimethylphenol	200	114		ug/L		57	31 - 124

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-838752/2-A
Matrix: Water
Analysis Batch: 838829

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 838752

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2,4-Dinitrophenol	400	277		ug/L		69	23 - 143
2,4-Dinitrotoluene	200	147		ug/L		73	57 - 128
2,6-Dinitrotoluene	200	133		ug/L		66	57 - 124
2-Chloronaphthalene	200	112		ug/L		56	40 - 116
2-Chlorophenol	200	96.3		ug/L		48	38 - 117
2-Methylphenol	200	94.4		ug/L		47	30 - 117
2-Nitroaniline	200	153		ug/L		76	55 - 127
2-Nitrophenol	200	110		ug/L		55	47 - 123
3 & 4 Methylphenol	200	87.0		ug/L		43	29 - 110
3,3'-Dichlorobenzidine	200	187		ug/L		94	27 - 129
3-Nitroaniline	200	138		ug/L		69	41 - 128
4,6-Dinitro-2-methylphenol	400	320		ug/L		80	44 - 137
4-Bromophenyl phenyl ether	200	144		ug/L		72	55 - 124
4-Chloro-3-methylphenol	200	130		ug/L		65	52 - 119
4-Chloroaniline	200	107		ug/L		53	33 - 117
4-Chlorophenyl phenyl ether	200	126		ug/L		63	53 - 121
4-Nitroaniline	200	152		ug/L		76	55 - 115
4-Nitrophenol	400	147		ug/L		37	13 - 130
Acetophenone	200	113		ug/L		56	46 - 118
Atrazine	200	134		ug/L		67	44 - 142
Benzaldehyde	200	98.2		ug/L		49	25 - 130
bis (2-chloroisopropyl) ether	200	119		ug/L		59	37 - 130
Bis(2-chloroethoxy)methane	200	124		ug/L		62	48 - 120
Bis(2-chloroethyl)ether	200	118		ug/L		59	43 - 118
Bis(2-ethylhexyl) phthalate	200	172		ug/L		86	55 - 135
Butyl benzyl phthalate	200	181		ug/L		90	53 - 134
Caprolactam	200	45.6	M	ug/L		23	13 - 130
Carbazole	200	160		ug/L		80	60 - 122
Dibenzofuran	200	121		ug/L		60	53 - 118
Diethyl phthalate	200	152		ug/L		76	56 - 125
Dimethyl phthalate	200	138		ug/L		69	45 - 127
Di-n-butyl phthalate	200	175		ug/L		87	56 - 122
Di-n-octyl phthalate	200	181		ug/L		90	59 - 128
Hexachlorobenzene	200	143		ug/L		72	53 - 125
Hexachlorobutadiene	200	95.8		ug/L		48	22 - 124
Hexachlorocyclopentadiene	200	73.5		ug/L		37	28 - 130
Hexachloroethane	200	83.7		ug/L		42	21 - 115
Isophorone	200	128		ug/L		64	42 - 124
Nitrobenzene	200	112		ug/L		56	45 - 121
N-Nitrosodi-n-propylamine	200	115		ug/L		58	49 - 119
N-Nitrosodiphenylamine	200	154		ug/L		77	51 - 123
Pentachlorophenol	400	281		ug/L		70	35 - 138
Phenol	200	50.1	M	ug/L		25	14 - 130
Pyridine	400	68.4	M	ug/L		17	10 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol	*58*		*43 - 140*
2-Fluorobiphenyl	*53*		*44 - 119*

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-838752/2-A
Matrix: Water
Analysis Batch: 838829

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 838752

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorophenol	*28*		*19 - 119*
Nitrobenzene-d5	*50*		*44 - 120*
Phenol-d5	*20*		*10 - 130*
Terphenyl-d14	*73*		*50 - 134*

Lab Sample ID: LCSD 680-838752/3-A
Matrix: Water
Analysis Batch: 838829

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 838752

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1'-Biphenyl			200	125		ug/L		63	49 - 115	6	20
1,4-Dioxane			200	59.4		ug/L		30	10 - 130	9	20
2,3,4,6-Tetrachlorophenol			200	140		ug/L		70	50 - 128	6	20
2,4,5-Trichlorophenol			200	127		ug/L		64	53 - 123	5	20
2,4,6-Trichlorophenol			200	131		ug/L		65	50 - 125	6	20
2,4-Dichlorophenol			200	112		ug/L		56	47 - 121	3	20
2,4-Dimethylphenol			200	103		ug/L		51	31 - 124	10	20
2,4-Dinitrophenol			400	293		ug/L		73	23 - 143	6	20
2,4-Dinitrotoluene			200	159		ug/L		79	57 - 128	8	20
2,6-Dinitrotoluene			200	142		ug/L		71	57 - 124	7	20
2-Chloronaphthalene			200	122		ug/L		61	40 - 116	8	20
2-Chlorophenol			200	102		ug/L		51	38 - 117	5	20
2-Methylphenol			200	95.5		ug/L		48	30 - 117	1	20
2-Nitroaniline			200	164		ug/L		82	55 - 127	7	20
2-Nitrophenol			200	105		ug/L		53	47 - 123	4	20
3 & 4 Methylphenol			200	89.6		ug/L		45	29 - 110	3	20
3,3'-Dichlorobenzidine			200	187		ug/L		94	27 - 129	0	20
3-Nitroaniline			200	149		ug/L		74	41 - 128	8	20
4,6-Dinitro-2-methylphenol			400	306		ug/L		76	44 - 137	5	20
4-Bromophenyl phenyl ether			200	137		ug/L		68	55 - 124	5	20
4-Chloro-3-methylphenol			200	124		ug/L		62	52 - 119	4	20
4-Chloroaniline			200	105		ug/L		52	33 - 117	2	20
4-Chlorophenyl phenyl ether			200	136		ug/L		68	53 - 121	8	20
4-Nitroaniline			200	158		ug/L		79	55 - 115	4	20
4-Nitrophenol			400	160		ug/L		40	13 - 130	8	20
Acetophenone			200	108		ug/L		54	46 - 118	5	20
Atrazine			200	123		ug/L		62	44 - 142	8	20
Benzaldehyde			200	104		ug/L		52	25 - 130	5	20
bis (2-chloroisopropyl) ether			200	122		ug/L		61	37 - 130	3	20
Bis(2-chloroethoxy)methane			200	113		ug/L		56	48 - 120	10	20
Bis(2-chloroethyl)ether			200	117		ug/L		58	43 - 118	1	20
Bis(2-ethylhexyl) phthalate			200	169		ug/L		85	55 - 135	2	20
Butyl benzyl phthalate			200	171		ug/L		85	53 - 134	6	20
Caprolactam			200	45.3	M	ug/L		23	13 - 130	1	20
Carbazole			200	163		ug/L		82	60 - 122	2	20
Dibenzofuran			200	134		ug/L		67	53 - 118	10	20
Diethyl phthalate			200	162		ug/L		81	56 - 125	6	20
Dimethyl phthalate			200	147		ug/L		74	45 - 127	6	20

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-838752/3-A
Matrix: Water
Analysis Batch: 838829

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 838752

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Di-n-butyl phthalate			200	171		ug/L		86	56 - 122	2	20
Di-n-octyl phthalate			200	170		ug/L		85	59 - 128	6	20
Hexachlorobenzene			200	138		ug/L		69	53 - 125	4	20
Hexachlorobutadiene			200	93.6		ug/L		47	22 - 124	2	20
Hexachlorocyclopentadiene			200	76.2		ug/L		38	28 - 130	4	20
Hexachloroethane			200	91.9		ug/L		46	21 - 115	9	20
Isophorone			200	121		ug/L		61	42 - 124	6	20
Nitrobenzene			200	107		ug/L		54	45 - 121	5	20
N-Nitrosodi-n-propylamine			200	121		ug/L		60	49 - 119	5	20
N-Nitrosodiphenylamine			200	147		ug/L		74	51 - 123	4	20
Pentachlorophenol			400	268		ug/L		67	35 - 138	5	20
Phenol			200	51.1	M	ug/L		26	14 - 130	2	20
Pyridine			400	72.9	M	ug/L		18	10 - 130	6	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2,4,6-Tribromophenol	*62*		*43 - 140*
2-Fluorobiphenyl	*53*		*44 - 119*
2-Fluorophenol	*28*		*19 - 119*
Nitrobenzene-d5	*49*		*44 - 120*
Phenol-d5	*20*		*10 - 130*
Terphenyl-d14	*72*		*50 - 134*

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 680-838472/1-A
Matrix: Water
Analysis Batch: 839724

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 838472

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	0.050	U M	0.20	0.018	ug/L		05/17/24 07:40	05/25/24 11:23	1
Acenaphthene	0.10	U M	0.20	0.042	ug/L		05/17/24 07:40	05/25/24 11:23	1
Acenaphthylene	0.050	U	0.20	0.017	ug/L		05/17/24 07:40	05/25/24 11:23	1
Pyrene	0.10	U M	0.20	0.027	ug/L		05/17/24 07:40	05/25/24 11:23	1
2-Methylnaphthalene	0.040	U	0.20	0.011	ug/L		05/17/24 07:40	05/25/24 11:23	1
Anthracene	0.050	U	0.20	0.018	ug/L		05/17/24 07:40	05/25/24 11:23	1
Benzo[a]pyrene	0.10	U	0.20	0.026	ug/L		05/17/24 07:40	05/25/24 11:23	1
Benzo[a]anthracene	0.10	U	0.20	0.026	ug/L		05/17/24 07:40	05/25/24 11:23	1
Benzo[b]fluoranthene	0.10	U	0.20	0.026	ug/L		05/17/24 07:40	05/25/24 11:23	1
Benzo[g,h,i]perylene	0.10	U M	0.20	0.026	ug/L		05/17/24 07:40	05/25/24 11:23	1
Benzo[k]fluoranthene	0.10	U	0.20	0.029	ug/L		05/17/24 07:40	05/25/24 11:23	1
Chrysene	0.050	U	0.20	0.023	ug/L		05/17/24 07:40	05/25/24 11:23	1
Dibenz(a,h)anthracene	0.050	U	0.20	0.024	ug/L		05/17/24 07:40	05/25/24 11:23	1
Phenanthrene	0.20	U	0.40	0.055	ug/L		05/17/24 07:40	05/25/24 11:23	1
Indeno[1,2,3-cd]pyrene	0.10	U	0.20	0.028	ug/L		05/17/24 07:40	05/25/24 11:23	1
Naphthalene	0.050	U M	0.20	0.014	ug/L		05/17/24 07:40	05/25/24 11:23	1
Fluoranthene	0.10	U M	0.20	0.027	ug/L		05/17/24 07:40	05/25/24 11:23	1
Fluorene	0.10	U M	0.20	0.025	ug/L		05/17/24 07:40	05/25/24 11:23	1

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: MB 680-838472/1-A
Matrix: Water
Analysis Batch: 839724

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 838472

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	46	Q	53 - 106	05/17/24 07:40	05/25/24 11:23	1
2-methylnaphthalene-d10	48		30 - 100	05/17/24 07:40	05/25/24 11:23	1
Fluoranthene-d10	86		42 - 114	05/17/24 07:40	05/25/24 11:23	1
Nitrobenzene-d5	56		42 - 100	05/17/24 07:40	05/25/24 11:23	1
Terphenyl-d14	97		53 - 111	05/17/24 07:40	05/25/24 11:23	1

Lab Sample ID: LCS 680-838472/2-A
Matrix: Water
Analysis Batch: 839724

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 838472

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	10.0	4.56		ug/L		46	41 - 115
Acenaphthene	10.0	5.16		ug/L		52	48 - 114
Acenaphthylene	10.0	5.02		ug/L		50	35 - 121
Pyrene	10.0	9.43		ug/L		94	53 - 121
2-Methylnaphthalene	10.0	4.86		ug/L		49	39 - 114
Anthracene	10.0	6.81		ug/L		68	53 - 119
Benzo[a]pyrene	10.0	9.65		ug/L		96	53 - 120
Benzo[a]anthracene	10.0	9.33		ug/L		93	59 - 120
Benzo[b]fluoranthene	10.0	10.3		ug/L		103	53 - 126
Benzo[g,h,i]perylene	10.0	10.1		ug/L		101	44 - 128
Benzo[k]fluoranthene	10.0	9.69		ug/L		97	54 - 125
Chrysene	10.0	9.64		ug/L		96	57 - 120
Dibenz(a,h)anthracene	10.0	10.3		ug/L		103	44 - 131
Phenanthrene	10.0	6.77		ug/L		68	53 - 115
Indeno[1,2,3-cd]pyrene	10.0	10.0		ug/L		100	48 - 130
Naphthalene	10.0	4.58		ug/L		46	43 - 114
Fluoranthene	10.0	9.21		ug/L		92	58 - 120
Fluorene	10.0	5.40		ug/L		54	50 - 118

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl	47	Q	53 - 106
2-methylnaphthalene-d10	48		30 - 100
Fluoranthene-d10	95		42 - 114
Nitrobenzene-d5	56		42 - 100
Terphenyl-d14	99		53 - 111

Lab Sample ID: LCSD 680-838472/3-A
Matrix: Water
Analysis Batch: 839724

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 838472

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1-Methylnaphthalene	10.0	5.33		ug/L		53	41 - 115	15	20
Acenaphthene	10.0	6.17		ug/L		62	48 - 114	18	20
Acenaphthylene	10.0	5.96		ug/L		60	35 - 121	17	20
Pyrene	10.0	8.18		ug/L		82	53 - 121	14	20
2-Methylnaphthalene	10.0	5.77		ug/L		58	39 - 114	17	20
Anthracene	10.0	7.03		ug/L		70	53 - 119	3	20

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: LCSD 680-838472/3-A
Matrix: Water
Analysis Batch: 839724

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 838472

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzo[a]pyrene			10.0	8.16		ug/L		82	53 - 120	17	20
Benzo[a]anthracene			10.0	7.97		ug/L		80	59 - 120	16	20
Benzo[b]fluoranthene			10.0	8.64		ug/L		86	53 - 126	18	20
Benzo[g,h,i]perylene			10.0	8.51		ug/L		85	44 - 128	18	20
Benzo[k]fluoranthene			10.0	8.13	M	ug/L		81	54 - 125	17	20
Chrysene			10.0	8.19		ug/L		82	57 - 120	16	20
Dibenz(a,h)anthracene			10.0	8.66		ug/L		87	44 - 131	17	20
Phenanthrene			10.0	7.11		ug/L		71	53 - 115	5	20
Indeno[1,2,3-cd]pyrene			10.0	8.47		ug/L		85	48 - 130	17	20
Naphthalene			10.0	5.40		ug/L		54	43 - 114	16	20
Fluoranthene			10.0	8.05		ug/L		81	58 - 120	13	20
Fluorene			10.0	6.38		ug/L		64	50 - 118	17	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*56*		*53 - 106*
2-methylnaphthalene-d10	*57*		*30 - 100*
Fluoranthene-d10	*83*		*42 - 114*
Nitrobenzene-d5	*63*		*42 - 100*
Terphenyl-d14	*85*		*53 - 111*

Lab Sample ID: MB 680-840202/1-A
Matrix: Water
Analysis Batch: 839814

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 840202

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	0.050	U	0.20	0.018	ug/L		05/29/24 12:48	05/30/24 13:04	1
Acenaphthene	0.10	U	0.20	0.042	ug/L		05/29/24 12:48	05/30/24 13:04	1
Acenaphthylene	0.050	U M	0.20	0.017	ug/L		05/29/24 12:48	05/30/24 13:04	1
Pyrene	0.10	U M	0.20	0.027	ug/L		05/29/24 12:48	05/30/24 13:04	1
2-Methylnaphthalene	0.040	U M	0.20	0.011	ug/L		05/29/24 12:48	05/30/24 13:04	1
Anthracene	0.050	U	0.20	0.018	ug/L		05/29/24 12:48	05/30/24 13:04	1
Benzo[a]pyrene	0.10	U	0.20	0.026	ug/L		05/29/24 12:48	05/30/24 13:04	1
Benzo[a]anthracene	0.10	U	0.20	0.026	ug/L		05/29/24 12:48	05/30/24 13:04	1
Benzo[b]fluoranthene	0.10	U	0.20	0.026	ug/L		05/29/24 12:48	05/30/24 13:04	1
Benzo[g,h,i]perylene	0.10	U M	0.20	0.026	ug/L		05/29/24 12:48	05/30/24 13:04	1
Benzo[k]fluoranthene	0.10	U	0.20	0.029	ug/L		05/29/24 12:48	05/30/24 13:04	1
Chrysene	0.050	U	0.20	0.023	ug/L		05/29/24 12:48	05/30/24 13:04	1
Dibenz(a,h)anthracene	0.050	U	0.20	0.024	ug/L		05/29/24 12:48	05/30/24 13:04	1
Phenanthrene	0.20	U	0.40	0.055	ug/L		05/29/24 12:48	05/30/24 13:04	1
Indeno[1,2,3-cd]pyrene	0.10	U	0.20	0.028	ug/L		05/29/24 12:48	05/30/24 13:04	1
Naphthalene	0.050	U	0.20	0.014	ug/L		05/29/24 12:48	05/30/24 13:04	1
Fluoranthene	0.10	U M	0.20	0.027	ug/L		05/29/24 12:48	05/30/24 13:04	1
Fluorene	0.10	U M	0.20	0.025	ug/L		05/29/24 12:48	05/30/24 13:04	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*64*		*53 - 106*	*05/29/24 12:48*	*05/30/24 13:04*	*1*
2-methylnaphthalene-d10	*61*		*30 - 100*	*05/29/24 12:48*	*05/30/24 13:04*	*1*
Fluoranthene-d10	*84*		*42 - 114*	*05/29/24 12:48*	*05/30/24 13:04*	*1*

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: MB 680-840202/1-A
Matrix: Water
Analysis Batch: 839814

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 840202

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	66		42 - 100	05/29/24 12:48	05/30/24 13:04	1
Terphenyl-d14	94		53 - 111	05/29/24 12:48	05/30/24 13:04	1

Lab Sample ID: LCS 680-840202/2-A
Matrix: Water
Analysis Batch: 839814

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 840202

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	10.0	5.74		ug/L		57	41 - 115
Acenaphthene	10.0	6.80		ug/L		68	48 - 114
Acenaphthylene	10.0	6.44		ug/L		64	35 - 121
Pyrene	10.0	8.12		ug/L		81	53 - 121
2-Methylnaphthalene	10.0	6.01		ug/L		60	39 - 114
Anthracene	10.0	7.44		ug/L		74	53 - 119
Benzo[a]pyrene	10.0	8.15		ug/L		82	53 - 120
Benzo[a]anthracene	10.0	7.82		ug/L		78	59 - 120
Benzo[b]fluoranthene	10.0	8.29		ug/L		83	53 - 126
Benzo[g,h,i]perylene	10.0	8.38		ug/L		84	44 - 128
Benzo[k]fluoranthene	10.0	8.21		ug/L		82	54 - 125
Chrysene	10.0	8.67		ug/L		87	57 - 120
Dibenz(a,h)anthracene	10.0	8.52		ug/L		85	44 - 131
Phenanthrene	10.0	7.62		ug/L		76	53 - 115
Indeno[1,2,3-cd]pyrene	10.0	8.40		ug/L		84	48 - 130
Naphthalene	10.0	5.44		ug/L		54	43 - 114
Fluoranthene	10.0	8.08		ug/L		81	58 - 120
Fluorene	10.0	6.96		ug/L		70	50 - 118

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl	65		53 - 106
2-methylnaphthalene-d10	63		30 - 100
Fluoranthene-d10	87		42 - 114
Nitrobenzene-d5	64		42 - 100
Terphenyl-d14	93		53 - 111

Lab Sample ID: LCSD 680-840202/3-A
Matrix: Water
Analysis Batch: 839814

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 840202

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1-Methylnaphthalene	10.0	5.46		ug/L		55	41 - 115	5	20
Acenaphthene	10.0	6.38		ug/L		64	48 - 114	6	20
Acenaphthylene	10.0	5.99		ug/L		60	35 - 121	7	20
Pyrene	10.0	7.51		ug/L		75	53 - 121	8	20
2-Methylnaphthalene	10.0	5.69		ug/L		57	39 - 114	6	20
Anthracene	10.0	6.92		ug/L		69	53 - 119	7	20
Benzo[a]pyrene	10.0	7.56		ug/L		76	53 - 120	8	20
Benzo[a]anthracene	10.0	7.14		ug/L		71	59 - 120	9	20
Benzo[b]fluoranthene	10.0	7.63		ug/L		76	53 - 126	8	20

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: LCSD 680-840202/3-A
Matrix: Water
Analysis Batch: 839814

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 840202

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzo[g,h,i]perylene			10.0	7.71		ug/L		77	44 - 128	8	20
Benzo[k]fluoranthene			10.0	7.70		ug/L		77	54 - 125	6	20
Chrysene			10.0	8.06		ug/L		81	57 - 120	7	20
Dibenz(a,h)anthracene			10.0	7.74		ug/L		77	44 - 131	10	20
Phenanthrene			10.0	7.13		ug/L		71	53 - 115	7	20
Indeno[1,2,3-cd]pyrene			10.0	7.66		ug/L		77	48 - 130	9	20
Naphthalene			10.0	5.12		ug/L		51	43 - 114	6	20
Fluoranthene			10.0	7.46		ug/L		75	58 - 120	8	20
Fluorene			10.0	6.50		ug/L		65	50 - 118	7	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*62*		*53 - 106*
2-methylnaphthalene-d10	*59*		*30 - 100*
Fluoranthene-d10	*79*		*42 - 114*
Nitrobenzene-d5	*58*		*42 - 100*
Terphenyl-d14	*87*		*53 - 111*

Method: RSK-175 - Dissolved Gases (GC)

Lab Sample ID: MB 410-509791/1-A
Matrix: Water
Analysis Batch: 509733

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 509791

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	2.0	U	5.0	1.0	ug/L		05/23/24 10:18	05/23/24 10:23	1
Ethylene	2.0	U	5.0	1.0	ug/L		05/23/24 10:18	05/23/24 10:23	1
Methane	6.0	U	6.5	3.0	ug/L		05/23/24 10:18	05/23/24 10:23	1

Lab Sample ID: LCS 410-509791/2-A
Matrix: Water
Analysis Batch: 509733

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 509791

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Ethane			61.7	62.9		ug/L		102	74 - 131		
Ethylene			58.3	60.5		ug/L		104	72 - 133		
Methane			59.8	62.1		ug/L		104	73 - 125		

Lab Sample ID: LCSD 410-509791/3-A
Matrix: Water
Analysis Batch: 509733

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 509791

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ethane			61.7	63.2		ug/L		102	74 - 131	0	20
Ethylene			58.3	61.2		ug/L		105	72 - 133	1	20
Methane			59.8	61.5		ug/L		103	73 - 125	1	20

Method: RSK-175 - Dissolved Gases (GC) (Continued)

Lab Sample ID: MB 410-510325/1-A
Matrix: Water
Analysis Batch: 510310

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 510325

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	2.0	U	5.0	1.0	ug/L		05/24/24 13:13	05/24/24 18:13	1
Ethylene	2.0	U M	5.0	1.0	ug/L		05/24/24 13:13	05/24/24 18:13	1
Methane	6.0	U M	6.5	3.0	ug/L		05/24/24 13:13	05/24/24 18:13	1

Lab Sample ID: LCS 410-510325/2-A
Matrix: Water
Analysis Batch: 510310

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 510325

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Ethane	61.7	65.3		ug/L		106	74 - 131
Ethylene	58.3	61.4		ug/L		105	72 - 133
Methane	59.8	64.1	M	ug/L		107	73 - 125

Lab Sample ID: LCSD 410-510325/3-A
Matrix: Water
Analysis Batch: 510310

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 510325

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ethane	61.7	65.1		ug/L		106	74 - 131	0	20
Ethylene	58.3	61.1		ug/L		105	72 - 133	1	20
Methane	59.8	63.9	M	ug/L		107	73 - 125	0	20

Method: 8081B 8082A - Organochlorine Pesticides & PCBs (GC)

Lab Sample ID: MB 680-838559/1-A
Matrix: Water
Analysis Batch: 838891

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 838559

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	0.0040	U	0.050	0.0020	ug/L		05/17/24 12:07	05/20/24 17:59	1
4,4'-DDE	0.0040	U	0.050	0.0010	ug/L		05/17/24 12:07	05/20/24 17:59	1
4,4'-DDT	0.0040	U	0.050	0.0010	ug/L		05/17/24 12:07	05/20/24 17:59	1
Aldrin	0.0040	U M	0.050	0.0020	ug/L		05/17/24 12:07	05/20/24 17:59	1
alpha-BHC	0.0040	U	0.050	0.0010	ug/L		05/17/24 12:07	05/20/24 17:59	1
beta-BHC	0.0040	U	0.050	0.0020	ug/L		05/17/24 12:07	05/20/24 17:59	1
delta-BHC	0.0040	U	0.050	0.0020	ug/L		05/17/24 12:07	05/20/24 17:59	1
Dieldrin	0.0040	U	0.050	0.0020	ug/L		05/17/24 12:07	05/20/24 17:59	1
Endosulfan I	0.0040	U	0.050	0.0020	ug/L		05/17/24 12:07	05/20/24 17:59	1
Endosulfan II	0.0040	U	0.050	0.0020	ug/L		05/17/24 12:07	05/20/24 17:59	1
Endosulfan sulfate	0.0040	U	0.050	0.0020	ug/L		05/17/24 12:07	05/20/24 17:59	1
Endrin	0.0040	U	0.050	0.0010	ug/L		05/17/24 12:07	05/20/24 17:59	1
Endrin aldehyde	0.016	U	0.050	0.0040	ug/L		05/17/24 12:07	05/20/24 17:59	1
Endrin ketone	0.016	U	0.050	0.0040	ug/L		05/17/24 12:07	05/20/24 17:59	1
gamma-BHC (Lindane)	0.0040	U	0.050	0.0010	ug/L		05/17/24 12:07	05/20/24 17:59	1
Heptachlor	0.0040	U	0.050	0.0010	ug/L		05/17/24 12:07	05/20/24 17:59	1
Heptachlor epoxide	0.0040	U	0.050	0.0020	ug/L		05/17/24 12:07	05/20/24 17:59	1
Methoxychlor	0.0040	U	0.050	0.0020	ug/L		05/17/24 12:07	05/20/24 17:59	1
Chlordane (technical)	0.40	U M	0.50	0.16	ug/L		05/17/24 12:07	05/20/24 17:59	1
PCB-1016	0.24	U M	0.50	0.10	ug/L		05/17/24 12:07	05/20/24 17:59	1

Method: 8081B 8082A - Organochlorine Pesticides & PCBs (GC) (Continued)

Lab Sample ID: MB 680-838559/1-A
Matrix: Water
Analysis Batch: 838891

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 838559

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1221	0.24	U	0.50	0.10	ug/L		05/17/24 12:07	05/20/24 17:59	1
PCB-1232	0.24	U M	0.50	0.10	ug/L		05/17/24 12:07	05/20/24 17:59	1
PCB-1242	0.24	U M	0.50	0.10	ug/L		05/17/24 12:07	05/20/24 17:59	1
PCB-1248	0.24	U M	0.50	0.10	ug/L		05/17/24 12:07	05/20/24 17:59	1
PCB-1254	0.24	U M	0.50	0.10	ug/L		05/17/24 12:07	05/20/24 17:59	1
PCB-1260	0.24	U	0.50	0.10	ug/L		05/17/24 12:07	05/20/24 17:59	1
Toxaphene	0.80	U M	5.0	0.31	ug/L		05/17/24 12:07	05/20/24 17:59	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*99*		*14 - 130*	*05/17/24 12:07*	*05/20/24 17:59*	*1*
Tetrachloro-m-xylene	*80*		*44 - 124*	*05/17/24 12:07*	*05/20/24 17:59*	*1*

Lab Sample ID: LCS 680-838559/2-A
Matrix: Water
Analysis Batch: 838891

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 838559

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
4,4'-DDD	0.0400	0.0510		ug/L		128	56 - 143
4,4'-DDE	0.0400	0.0509		ug/L		127	57 - 135
4,4'-DDT	0.0400	0.0494	J	ug/L		124	51 - 143
Aldrin	0.0400	0.0328	J	ug/L		82	45 - 134
alpha-BHC	0.0400	0.0404	J	ug/L		101	54 - 138
beta-BHC	0.0400	0.0434	J	ug/L		108	56 - 136
delta-BHC	0.0400	0.0470	J	ug/L		117	52 - 142
Dieldrin	0.0400	0.0483	J	ug/L		121	60 - 136
Endosulfan I	0.0400	0.0425	J	ug/L		106	62 - 126
Endosulfan II	0.0400	0.0474	J	ug/L		119	52 - 135
Endosulfan sulfate	0.0400	0.0475	J	ug/L		119	62 - 133
Endrin	0.0400	0.0498	J	ug/L		125	60 - 138
Endrin aldehyde	0.0400	0.0519		ug/L		130	51 - 132
Endrin ketone	0.0400	0.0507		ug/L		127	58 - 134
gamma-BHC (Lindane)	0.0400	0.0414	J	ug/L		103	59 - 134
Heptachlor	0.0400	0.0376	J	ug/L		94	54 - 130
Heptachlor epoxide	0.0400	0.0459	J	ug/L		115	61 - 133
Methoxychlor	0.0400	0.0555		ug/L		139	54 - 145

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*106*		*14 - 130*
Tetrachloro-m-xylene	*76*		*44 - 124*

Lab Sample ID: LCS 680-838559/4-A
Matrix: Water
Analysis Batch: 838891

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 838559

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
PCB-1016	2.40	2.30	M	ug/L		96	46 - 129
PCB-1260	2.40	2.58	M	ug/L		108	45 - 134

Method: 8081B 8082A - Organochlorine Pesticides & PCBs (GC) (Continued)

Lab Sample ID: LCS 680-838559/4-A
Matrix: Water
Analysis Batch: 838891

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 838559

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl	95		14 - 130
Tetrachloro-m-xylene	73		44 - 124

Lab Sample ID: LCSD 680-838559/3-A
Matrix: Water
Analysis Batch: 838891

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 838559

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
4,4'-DDD			0.0400	0.0447	J	ug/L		112	56 - 143	13	30
4,4'-DDE			0.0400	0.0451	J	ug/L		113	57 - 135	12	30
4,4'-DDT			0.0400	0.0437	J	ug/L		109	51 - 143	12	30
Aldrin			0.0400	0.0332	J	ug/L		83	45 - 134	1	30
alpha-BHC			0.0400	0.0365	J	ug/L		91	54 - 138	10	30
beta-BHC			0.0400	0.0401	J	ug/L		100	56 - 136	8	30
delta-BHC			0.0400	0.0406	J	ug/L		101	52 - 142	15	30
Dieldrin			0.0400	0.0425	J	ug/L		106	60 - 136	13	30
Endosulfan I			0.0400	0.0375	J	ug/L		94	62 - 126	13	30
Endosulfan II			0.0400	0.0419	J	ug/L		105	52 - 135	12	30
Endosulfan sulfate			0.0400	0.0465	J	ug/L		116	62 - 133	2	30
Endrin			0.0400	0.0441	J	ug/L		110	60 - 138	12	30
Endrin aldehyde			0.0400	0.0463	J	ug/L		116	51 - 132	11	30
Endrin ketone			0.0400	0.0462	J	ug/L		115	58 - 134	9	30
gamma-BHC (Lindane)			0.0400	0.0377	J	ug/L		94	59 - 134	9	30
Heptachlor			0.0400	0.0355	J	ug/L		89	54 - 130	6	30
Heptachlor epoxide			0.0400	0.0411	J	ug/L		103	61 - 133	11	30
Methoxychlor			0.0400	0.0484	J	ug/L		121	54 - 145	14	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
DCB Decachlorobiphenyl	81		14 - 130
Tetrachloro-m-xylene	60		44 - 124

Lab Sample ID: LCSD 680-838559/5-A
Matrix: Water
Analysis Batch: 838891

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 838559

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
PCB-1016			2.40	2.54	M	ug/L		106	46 - 129	10	30
PCB-1260			2.40	3.03		ug/L		126	45 - 134	16	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
DCB Decachlorobiphenyl	111		14 - 130
Tetrachloro-m-xylene	76		44 - 124

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 680-838101/35
Matrix: Water
Analysis Batch: 838101

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.050	U	0.055	0.023	mg/L			05/14/24 19:46	1
Nitrate Nitrite as N	0.050	U	0.055	0.023	mg/L			05/14/24 19:46	1
Nitrite as N	0.050	U	0.055	0.023	mg/L			05/14/24 19:46	1

Lab Sample ID: LCS 680-838101/37
Matrix: Water
Analysis Batch: 838101

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrate as N	1.00	1.05		mg/L		105	88 - 111
Nitrate Nitrite as N	2.00	2.06		mg/L		103	88 - 111
Nitrite as N	1.00	1.01		mg/L		101	87 - 111

Lab Sample ID: LCSD 680-838101/38
Matrix: Water
Analysis Batch: 838101

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrate as N	1.00	1.04		mg/L		104	88 - 111	1	15
Nitrate Nitrite as N	2.00	2.05		mg/L		102	88 - 111	0	15
Nitrite as N	1.00	1.01		mg/L		101	87 - 111	0	15

Lab Sample ID: 680-250771-16 MS
Matrix: Water
Analysis Batch: 838101

Client Sample ID: OU6-DMW--9A-20240514
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrate as N	1.7	D	2.00	3.77	D	mg/L		102	88 - 111
Nitrate Nitrite as N	1.7	D	4.00	5.49	D	mg/L		95	88 - 111
Nitrite as N	0.10	U J1	2.00	1.72	D J1	mg/L		86	87 - 111

Lab Sample ID: 680-250771-16 MSD
Matrix: Water
Analysis Batch: 838101

Client Sample ID: OU6-DMW--9A-20240514
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrate as N	1.7	D	2.00	3.78	D	mg/L		102	88 - 111	0	15
Nitrate Nitrite as N	1.7	D	4.00	5.52	D	mg/L		95	88 - 111	1	15
Nitrite as N	0.10	U J1	2.00	1.74	D	mg/L		87	87 - 111	1	15

Lab Sample ID: MB 680-839968/2
Matrix: Water
Analysis Batch: 839968

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.50	U M	0.55	0.20	mg/L			05/28/24 11:39	1
Sulfate	1.0	U	1.5	0.40	mg/L			05/28/24 11:39	1

Method: 9056A - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 680-839968/3
Matrix: Water
Analysis Batch: 839968

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			10.0	10.2		mg/L		102	87 - 111		
Sulfate			10.0	9.98		mg/L		100	87 - 112		

Lab Sample ID: LCSD 680-839968/4
Matrix: Water
Analysis Batch: 839968

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			10.0	10.3		mg/L		103	87 - 111	1	15
Sulfate			10.0	10.1		mg/L		101	87 - 112	1	15

Lab Sample ID: 680-250771-3 MS
Matrix: Water
Analysis Batch: 839968

Client Sample ID: OU6-MW-265-20240514
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	17		10.0	27.4		mg/L		104	87 - 111		
Sulfate	1.6		10.0	11.1		mg/L		95	87 - 112		

Lab Sample ID: 680-250771-3 MSD
Matrix: Water
Analysis Batch: 839968

Client Sample ID: OU6-MW-265-20240514
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	17		10.0	27.4		mg/L		103	87 - 111	0	15
Sulfate	1.6		10.0	11.1		mg/L		95	87 - 112	0	15

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 680-838252/1-A
Matrix: Water
Analysis Batch: 838480

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 838252

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	100	U	200	35	ug/L		05/16/24 06:05	05/17/24 03:31	1
Antimony	1.5	U	5.0	0.34	ug/L		05/16/24 06:05	05/17/24 03:31	1
Arsenic	3.0	U	5.0	0.86	ug/L		05/16/24 06:05	05/17/24 03:31	1
Barium	2.0	U	5.0	0.89	ug/L		05/16/24 06:05	05/17/24 03:31	1
Beryllium	0.40	U	0.50	0.20	ug/L		05/16/24 06:05	05/17/24 03:31	1
Boron	75	U	100	22	ug/L		05/16/24 06:05	05/17/24 03:31	1
Cadmium	0.20	U	0.50	0.078	ug/L		05/16/24 06:05	05/17/24 03:31	1
Calcium	300	U	500	140	ug/L		05/16/24 06:05	05/17/24 03:31	1
Chromium	2.5	U	20	0.81	ug/L		05/16/24 06:05	05/17/24 03:31	1
Cobalt	0.50	U	1.0	0.22	ug/L		05/16/24 06:05	05/17/24 03:31	1
Copper	2.0	U	5.0	1.1	ug/L		05/16/24 06:05	05/17/24 03:31	1
Iron	30.6	J	100	12	ug/L		05/16/24 06:05	05/17/24 03:31	1
Lead	1.0	U	2.5	0.21	ug/L		05/16/24 06:05	05/17/24 03:31	1
Magnesium	60	U	250	23	ug/L		05/16/24 06:05	05/17/24 03:31	1
Manganese	5.0	U	10	2.2	ug/L		05/16/24 06:05	05/17/24 03:31	1
Nickel	1.0	U	10	0.42	ug/L		05/16/24 06:05	05/17/24 03:31	1

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 680-838252/1-A
Matrix: Water
Analysis Batch: 838480

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 838252

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Potassium	56.5	J	1000	44	ug/L		05/16/24 06:05	05/17/24 03:31	1
Selenium	2.5	U	5.0	0.99	ug/L		05/16/24 06:05	05/17/24 03:31	1
Silver	1.0	U	2.0	0.39	ug/L		05/16/24 06:05	05/17/24 03:31	1
Sodium	500	U	1000	200	ug/L		05/16/24 06:05	05/17/24 03:31	1
Thallium	1.0	U	2.0	0.26	ug/L		05/16/24 06:05	05/17/24 03:31	1
Vanadium	2.5	U	10	0.63	ug/L		05/16/24 06:05	05/17/24 03:31	1
Zinc	4.84	J	25	2.8	ug/L		05/16/24 06:05	05/17/24 03:31	1

Lab Sample ID: LCS 680-838252/2-A
Matrix: Water
Analysis Batch: 838480

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 838252

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aluminum	5050	4720		ug/L		93	84 - 117
Antimony	50.0	51.2		ug/L		102	85 - 117
Arsenic	100	101		ug/L		101	84 - 116
Barium	100	97.9		ug/L		98	86 - 114
Beryllium	50.0	50.1		ug/L		100	83 - 121
Boron	400	381		ug/L		95	73 - 130
Cadmium	50.0	51.4		ug/L		103	87 - 115
Calcium	5000	4950		ug/L		99	87 - 118
Chromium	100	102		ug/L		101	85 - 116
Cobalt	50.0	52.0		ug/L		104	86 - 115
Copper	101	98.1		ug/L		97	85 - 118
Iron	4990	5150		ug/L		103	87 - 118
Lead	500	496		ug/L		99	88 - 115
Magnesium	5000	4940		ug/L		99	83 - 118
Manganese	400	391		ug/L		98	87 - 115
Nickel	100	102		ug/L		102	85 - 117
Potassium	7000	6860		ug/L		98	87 - 115
Selenium	100	101		ug/L		101	80 - 120
Silver	50.0	47.2		ug/L		94	85 - 116
Sodium	5030	5280		ug/L		105	85 - 117
Thallium	50.0	50.8		ug/L		102	82 - 116
Vanadium	100	100		ug/L		100	86 - 115
Zinc	50.5	50.8		ug/L		101	83 - 119

Lab Sample ID: MB 680-838253/1-A
Matrix: Water
Analysis Batch: 838480

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 838253

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	100	U	200	35	ug/L		05/16/24 06:12	05/16/24 21:46	1
Antimony	1.5	U	5.0	0.34	ug/L		05/16/24 06:12	05/16/24 21:46	1
Arsenic	3.0	U	5.0	0.86	ug/L		05/16/24 06:12	05/16/24 21:46	1
Barium	2.0	U	5.0	0.89	ug/L		05/16/24 06:12	05/16/24 21:46	1
Beryllium	0.200	J	0.50	0.20	ug/L		05/16/24 06:12	05/16/24 21:46	1
Boron	75	U	100	22	ug/L		05/16/24 06:12	05/16/24 21:46	1
Cadmium	0.20	U	0.50	0.078	ug/L		05/16/24 06:12	05/16/24 21:46	1

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 680-838253/1-A
Matrix: Water
Analysis Batch: 838480

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 838253

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	300	U	500	140	ug/L		05/16/24 06:12	05/16/24 21:46	1
Chromium	2.5	U	20	0.81	ug/L		05/16/24 06:12	05/16/24 21:46	1
Cobalt	0.50	U	1.0	0.22	ug/L		05/16/24 06:12	05/16/24 21:46	1
Copper	2.0	U	5.0	1.1	ug/L		05/16/24 06:12	05/16/24 21:46	1
Iron	75	U	100	12	ug/L		05/16/24 06:12	05/16/24 21:46	1
Lead	1.0	U	2.5	0.21	ug/L		05/16/24 06:12	05/16/24 21:46	1
Magnesium	60	U	250	23	ug/L		05/16/24 06:12	05/16/24 21:46	1
Manganese	5.0	U	10	2.2	ug/L		05/16/24 06:12	05/16/24 21:46	1
Nickel	1.0	U	10	0.42	ug/L		05/16/24 06:12	05/16/24 21:46	1
Potassium	100	U	1000	44	ug/L		05/16/24 06:12	05/16/24 21:46	1
Selenium	2.5	U	5.0	0.99	ug/L		05/16/24 06:12	05/16/24 21:46	1
Silver	1.0	U	2.0	0.39	ug/L		05/16/24 06:12	05/16/24 21:46	1
Sodium	500	U	1000	200	ug/L		05/16/24 06:12	05/16/24 21:46	1
Thallium	1.0	U	2.0	0.26	ug/L		05/16/24 06:12	05/16/24 21:46	1
Vanadium	2.5	U	10	0.63	ug/L		05/16/24 06:12	05/16/24 21:46	1
Zinc	20	U	25	2.8	ug/L		05/16/24 06:12	05/16/24 21:46	1

Lab Sample ID: LCS 680-838253/2-A
Matrix: Water
Analysis Batch: 838480

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 838253

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aluminum	5050	4700		ug/L		93	84 - 117
Antimony	50.0	50.6		ug/L		101	85 - 117
Arsenic	100	102		ug/L		102	84 - 116
Barium	100	98.6		ug/L		99	86 - 114
Beryllium	50.0	52.1		ug/L		104	83 - 121
Boron	400	392		ug/L		98	73 - 130
Cadmium	50.0	51.5		ug/L		103	87 - 115
Calcium	5000	4900		ug/L		98	87 - 118
Chromium	100	103		ug/L		103	85 - 116
Cobalt	50.0	53.5		ug/L		107	86 - 115
Copper	101	99.7		ug/L		99	85 - 118
Iron	4990	5160		ug/L		103	87 - 118
Lead	500	495		ug/L		99	88 - 115
Magnesium	5000	4940		ug/L		99	83 - 118
Manganese	400	395		ug/L		99	87 - 115
Nickel	100	103		ug/L		103	85 - 117
Potassium	7000	6870		ug/L		98	87 - 115
Selenium	100	102		ug/L		102	80 - 120
Silver	50.0	47.9		ug/L		96	85 - 116
Sodium	5030	5270		ug/L		105	85 - 117
Thallium	50.0	51.0		ug/L		102	82 - 116
Vanadium	100	101		ug/L		101	86 - 115
Zinc	50.5	50.7		ug/L		100	83 - 119

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 680-838540/1-A
Matrix: Water
Analysis Batch: 838840

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 838540

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	0.20	U	0.25	0.080	ug/L		05/17/24 10:50	05/17/24 15:05	1

Lab Sample ID: LCS 680-838540/2-A
Matrix: Water
Analysis Batch: 838840

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 838540

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Hg	2.50	2.57		ug/L		103	80 - 124

Method: 2320B-2011 - Alkalinity, Total

Lab Sample ID: MB 680-838857/4
Matrix: Water
Analysis Batch: 838857

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	5.0	U	5.5	2.2	mg/L			05/17/24 08:15	1
Bicarbonate Alkalinity as CaCO3	10	U	11	5.0	mg/L			05/17/24 08:15	1
Carbonate Alkalinity as CaCO3	10	U	11	5.0	mg/L			05/17/24 08:15	1

Lab Sample ID: LCS 680-838857/6
Matrix: Water
Analysis Batch: 838857

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity as CaCO3 to pH 4.5	250	248		mg/L		99	90 - 112

Lab Sample ID: LCSD 680-838857/31
Matrix: Water
Analysis Batch: 838857

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5	250	247		mg/L		99	90 - 112	0	30

Lab Sample ID: 680-250771-12 DU
Matrix: Water
Analysis Batch: 838857

Client Sample ID: OU6-MW-169-20240514
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5	5.0	J	5.0	U	mg/L		NC	30
Bicarbonate Alkalinity as CaCO3	5.0	J	10	U	mg/L		NC	30
Carbonate Alkalinity as CaCO3	10	U	10	U	mg/L		NC	30

Method: 4500 S2 F-2011 - Sulfide, Total

Lab Sample ID: MB 680-838906/1
Matrix: Water
Analysis Batch: 838906

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	1.0	U	1.0	1.0	mg/L			05/20/24 15:13	1
Sulfide as H2S	1.1	U	1.1	1.1	mg/L			05/20/24 15:13	1

Lab Sample ID: LCS 680-838906/2
Matrix: Water
Analysis Batch: 838906

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Sulfide			10.0	9.29		mg/L		93	75 - 125		
Sulfide as H2S			10.6	9.87		mg/L		93	75 - 125		

Lab Sample ID: LCSD 680-838906/3
Matrix: Water
Analysis Batch: 838906

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sulfide			10.0	9.17		mg/L		92	75 - 125	1	30
Sulfide as H2S			10.6	9.75		mg/L		92	75 - 125	1	30

Lab Sample ID: 680-250771-15 MS
Matrix: Water
Analysis Batch: 838906

Client Sample ID: OU6-MW-168-20240514
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Sulfide	0.81	U	6.94	7.68		mg/L		111	75 - 125		
Sulfide as H2S	0.89	U	7.38	8.16		mg/L		111	75 - 125		

Lab Sample ID: 680-250771-15 MSD
Matrix: Water
Analysis Batch: 838906

Client Sample ID: OU6-MW-168-20240514
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sulfide	0.81	U	6.94	7.68		mg/L		111	75 - 125	0	30
Sulfide as H2S	0.89	U	7.38	8.16		mg/L		111	75 - 125	0	30

Lab Sample ID: 680-250771-12 DU
Matrix: Water
Analysis Batch: 838906

Client Sample ID: OU6-MW-169-20240514
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Sulfide	0.83	U		0.81	U	mg/L				NC	30
Sulfide as H2S	0.92	U		0.89	U	mg/L				NC	30

Method: 9060A - Organic Carbon, Total (TOC)

Lab Sample ID: MB 680-838654/1
Matrix: Water
Analysis Batch: 838654

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	1.0	U	1.0	0.50	mg/L			05/17/24 00:36	1

Lab Sample ID: LCS 680-838654/2
Matrix: Water
Analysis Batch: 838654

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Organic Carbon	20.0	20.9		mg/L		105	80 - 120

Lab Sample ID: LCSD 680-838654/3
Matrix: Water
Analysis Batch: 838654

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Organic Carbon	20.0	20.9		mg/L		105	80 - 120	0	25

Lab Sample ID: MB 680-838655/1
Matrix: Water
Analysis Batch: 838655

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	1.0	U	1.0	0.50	mg/L			05/17/24 06:39	1

Lab Sample ID: LCS 680-838655/2
Matrix: Water
Analysis Batch: 838655

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Organic Carbon	20.0	20.7		mg/L		104	80 - 120

Lab Sample ID: LCSD 680-838655/3
Matrix: Water
Analysis Batch: 838655

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Organic Carbon	20.0	20.8		mg/L		104	80 - 120	0	25

Lab Sample ID: 680-250771-16 DU
Matrix: Water
Analysis Batch: 838655

Client Sample ID: OU6-DMW--9A-20240514
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Organic Carbon	0.77	J	0.729	J	mg/L		5	25

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-250771-1

Method: SM 4500 CO2 D - Carbon Dioxide and Forms of Alkalinity by Calculation

Lab Sample ID: 680-250771-12 DU
Matrix: Water
Analysis Batch: 838857

Client Sample ID: OU6-MW-169-20240514
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Carbon Dioxide, Free	33			14.0	J1	mg/L				82	30

QC Association Summary

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-250771-1

GC/MS VOA

Analysis Batch: 838701

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-250771-1	OU6-CSMPZ-7-20240514	Total/NA	Water	8260D	
680-250771-2	OU6-MW-267-20240514	Total/NA	Water	8260D	
680-250771-3	OU6-MW-265-20240514	Total/NA	Water	8260D	
680-250771-4	OU6-MW-155-20240514	Total/NA	Water	8260D	
680-250771-5	OU6-MW-144-20240514	Total/NA	Water	8260D	
680-250771-6	OU6-MW-149-20240514	Total/NA	Water	8260D	
680-250771-7	OU6-MW-141-20240514	Total/NA	Water	8260D	
680-250771-8	OU6-MW-296-20240514	Total/NA	Water	8260D	
680-250771-9	OU6-MW-300-20240514	Total/NA	Water	8260D	
680-250771-10	OU6-MW-225-20240514	Total/NA	Water	8260D	
680-250771-11	OU6-MW-180-20240514	Total/NA	Water	8260D	
680-250771-12	OU6-MW-169-20240514	Total/NA	Water	8260D	
680-250771-13	DUP-1-20240514	Total/NA	Water	8260D	
680-250771-14	DMW-16B-20240514	Total/NA	Water	8260D	
680-250771-19	Trip Blank	Total/NA	Water	8260D	
MB 680-838701/8	Method Blank	Total/NA	Water	8260D	
LCS 680-838701/4	Lab Control Sample	Total/NA	Water	8260D	
LCSD 680-838701/5	Lab Control Sample Dup	Total/NA	Water	8260D	

Analysis Batch: 838714

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-250771-15	OU6-MW-168-20240514	Total/NA	Water	8260D	
680-250771-16	OU6-DMW--9A-20240514	Total/NA	Water	8260D	
MB 680-838714/8	Method Blank	Total/NA	Water	8260D	
LCS 680-838714/4	Lab Control Sample	Total/NA	Water	8260D	
LCSD 680-838714/5	Lab Control Sample Dup	Total/NA	Water	8260D	

Analysis Batch: 838997

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-250771-17	CSMPZ-3-20240514	Total/NA	Water	8260D	
680-250771-18	OU6-MW-96-20240514	Total/NA	Water	8260D	
MB 680-838997/8	Method Blank	Total/NA	Water	8260D	
LCS 680-838997/4	Lab Control Sample	Total/NA	Water	8260D	
LCSD 680-838997/5	Lab Control Sample Dup	Total/NA	Water	8260D	

GC/MS Semi VOA

Prep Batch: 838472

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-250771-1	OU6-CSMPZ-7-20240514	Total/NA	Water	3510C	
680-250771-12	OU6-MW-169-20240514	Total/NA	Water	3510C	
MB 680-838472/1-A	Method Blank	Total/NA	Water	3510C	
LCS 680-838472/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 680-838472/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Prep Batch: 838752

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-250771-1	OU6-CSMPZ-7-20240514	Total/NA	Water	3510C	
680-250771-12	OU6-MW-169-20240514	Total/NA	Water	3510C	
MB 680-838752/1-A	Method Blank	Total/NA	Water	3510C	
LCS 680-838752/2-A	Lab Control Sample	Total/NA	Water	3510C	

GC/MS Semi VOA (Continued)

Prep Batch: 838752 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 680-838752/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 838829

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-250771-1	OU6-CSMPZ-7-20240514	Total/NA	Water	8270E	838752
680-250771-12	OU6-MW-169-20240514	Total/NA	Water	8270E	838752
MB 680-838752/1-A	Method Blank	Total/NA	Water	8270E	838752
LCS 680-838752/2-A	Lab Control Sample	Total/NA	Water	8270E	838752
LCSD 680-838752/3-A	Lab Control Sample Dup	Total/NA	Water	8270E	838752

Analysis Batch: 839724

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-250771-1	OU6-CSMPZ-7-20240514	Total/NA	Water	8270E SIM	838472
680-250771-12	OU6-MW-169-20240514	Total/NA	Water	8270E SIM	838472
MB 680-838472/1-A	Method Blank	Total/NA	Water	8270E SIM	838472
LCS 680-838472/2-A	Lab Control Sample	Total/NA	Water	8270E SIM	838472
LCSD 680-838472/3-A	Lab Control Sample Dup	Total/NA	Water	8270E SIM	838472

Analysis Batch: 839814

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-250771-1 - RE	OU6-CSMPZ-7-20240514	Total/NA	Water	8270E SIM	840202
680-250771-12 - RE	OU6-MW-169-20240514	Total/NA	Water	8270E SIM	840202
MB 680-840202/1-A	Method Blank	Total/NA	Water	8270E SIM	840202
LCS 680-840202/2-A	Lab Control Sample	Total/NA	Water	8270E SIM	840202
LCSD 680-840202/3-A	Lab Control Sample Dup	Total/NA	Water	8270E SIM	840202

Prep Batch: 840202

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-250771-1 - RE	OU6-CSMPZ-7-20240514	Total/NA	Water	3510C	
680-250771-12 - RE	OU6-MW-169-20240514	Total/NA	Water	3510C	
MB 680-840202/1-A	Method Blank	Total/NA	Water	3510C	
LCS 680-840202/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 680-840202/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

GC VOA

Analysis Batch: 509733

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-250771-12	OU6-MW-169-20240514	Total/NA	Water	RSK-175	509791
680-250771-15	OU6-MW-168-20240514	Total/NA	Water	RSK-175	509791
680-250771-16	OU6-DMW--9A-20240514	Total/NA	Water	RSK-175	509791
MB 410-509791/1-A	Method Blank	Total/NA	Water	RSK-175	509791
LCS 410-509791/2-A	Lab Control Sample	Total/NA	Water	RSK-175	509791
LCSD 410-509791/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	509791

Prep Batch: 509791

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-250771-12	OU6-MW-169-20240514	Total/NA	Water	RSK-175	
680-250771-15	OU6-MW-168-20240514	Total/NA	Water	RSK-175	
680-250771-16	OU6-DMW--9A-20240514	Total/NA	Water	RSK-175	
MB 410-509791/1-A	Method Blank	Total/NA	Water	RSK-175	

GC VOA (Continued)

Prep Batch: 509791 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 410-509791/2-A	Lab Control Sample	Total/NA	Water	RSK-175	
LCSD 410-509791/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	

Analysis Batch: 510310

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-250771-2	OU6-MW-267-20240514	Total/NA	Water	RSK-175	510325
680-250771-3	OU6-MW-265-20240514	Total/NA	Water	RSK-175	510325
MB 410-510325/1-A	Method Blank	Total/NA	Water	RSK-175	510325
LCS 410-510325/2-A	Lab Control Sample	Total/NA	Water	RSK-175	510325
LCSD 410-510325/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	510325

Prep Batch: 510325

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-250771-2	OU6-MW-267-20240514	Total/NA	Water	RSK-175	
680-250771-3	OU6-MW-265-20240514	Total/NA	Water	RSK-175	
MB 410-510325/1-A	Method Blank	Total/NA	Water	RSK-175	
LCS 410-510325/2-A	Lab Control Sample	Total/NA	Water	RSK-175	
LCSD 410-510325/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	

GC Semi VOA

Prep Batch: 838559

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-250771-1	OU6-CSMPZ-7-20240514	Total/NA	Water	3510C	
680-250771-12	OU6-MW-169-20240514	Total/NA	Water	3510C	
MB 680-838559/1-A	Method Blank	Total/NA	Water	3510C	
LCS 680-838559/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCS 680-838559/4-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 680-838559/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
LCSD 680-838559/5-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 838891

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-250771-1	OU6-CSMPZ-7-20240514	Total/NA	Water	8081B 8082A	838559
680-250771-12	OU6-MW-169-20240514	Total/NA	Water	8081B 8082A	838559
MB 680-838559/1-A	Method Blank	Total/NA	Water	8081B 8082A	838559
LCS 680-838559/2-A	Lab Control Sample	Total/NA	Water	8081B 8082A	838559
LCS 680-838559/4-A	Lab Control Sample	Total/NA	Water	8081B 8082A	838559
LCSD 680-838559/3-A	Lab Control Sample Dup	Total/NA	Water	8081B 8082A	838559
LCSD 680-838559/5-A	Lab Control Sample Dup	Total/NA	Water	8081B 8082A	838559

HPLC/IC

Analysis Batch: 838101

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-250771-2	OU6-MW-267-20240514	Total/NA	Water	9056A	
680-250771-3	OU6-MW-265-20240514	Total/NA	Water	9056A	
680-250771-12	OU6-MW-169-20240514	Total/NA	Water	9056A	
680-250771-12	OU6-MW-169-20240514	Total/NA	Water	9056A	
680-250771-15	OU6-MW-168-20240514	Total/NA	Water	9056A	
680-250771-16	OU6-DMW--9A-20240514	Total/NA	Water	9056A	
MB 680-838101/35	Method Blank	Total/NA	Water	9056A	

HPLC/IC (Continued)

Analysis Batch: 838101 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 680-838101/37	Lab Control Sample	Total/NA	Water	9056A	
LCSD 680-838101/38	Lab Control Sample Dup	Total/NA	Water	9056A	
680-250771-16 MS	OU6-DMW--9A-20240514	Total/NA	Water	9056A	
680-250771-16 MSD	OU6-DMW--9A-20240514	Total/NA	Water	9056A	

Analysis Batch: 839968

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-250771-2	OU6-MW-267-20240514	Total/NA	Water	9056A	
680-250771-3	OU6-MW-265-20240514	Total/NA	Water	9056A	
680-250771-12	OU6-MW-169-20240514	Total/NA	Water	9056A	
680-250771-15	OU6-MW-168-20240514	Total/NA	Water	9056A	
680-250771-16	OU6-DMW--9A-20240514	Total/NA	Water	9056A	
MB 680-839968/2	Method Blank	Total/NA	Water	9056A	
LCS 680-839968/3	Lab Control Sample	Total/NA	Water	9056A	
LCSD 680-839968/4	Lab Control Sample Dup	Total/NA	Water	9056A	
680-250771-3 MS	OU6-MW-265-20240514	Total/NA	Water	9056A	
680-250771-3 MSD	OU6-MW-265-20240514	Total/NA	Water	9056A	

Metals

Prep Batch: 838252

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-250771-2	OU6-MW-267-20240514	Total Recoverable	Water	3005A	
680-250771-12	OU6-MW-169-20240514	Total Recoverable	Water	3005A	
680-250771-15	OU6-MW-168-20240514	Total Recoverable	Water	3005A	
MB 680-838252/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 680-838252/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 838253

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-250771-1	OU6-CSMPZ-7-20240514	Total Recoverable	Water	3005A	
680-250771-3	OU6-MW-265-20240514	Total Recoverable	Water	3005A	
680-250771-16	OU6-DMW--9A-20240514	Total Recoverable	Water	3005A	
MB 680-838253/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 680-838253/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 838480

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-250771-1	OU6-CSMPZ-7-20240514	Total Recoverable	Water	6020A	838253
680-250771-2	OU6-MW-267-20240514	Total Recoverable	Water	6020A	838252
680-250771-3	OU6-MW-265-20240514	Total Recoverable	Water	6020A	838253
680-250771-12	OU6-MW-169-20240514	Total Recoverable	Water	6020A	838252
680-250771-15	OU6-MW-168-20240514	Total Recoverable	Water	6020A	838252
680-250771-16	OU6-DMW--9A-20240514	Total Recoverable	Water	6020A	838253
MB 680-838252/1-A	Method Blank	Total Recoverable	Water	6020A	838252
MB 680-838253/1-A	Method Blank	Total Recoverable	Water	6020A	838253
LCS 680-838252/2-A	Lab Control Sample	Total Recoverable	Water	6020A	838252
LCS 680-838253/2-A	Lab Control Sample	Total Recoverable	Water	6020A	838253

Metals

Prep Batch: 838540

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-250771-1	OU6-CSMPZ-7-20240514	Total/NA	Water	7470A	
680-250771-12	OU6-MW-169-20240514	Total/NA	Water	7470A	
MB 680-838540/1-A	Method Blank	Total/NA	Water	7470A	
LCS 680-838540/2-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 838840

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-250771-1	OU6-CSMPZ-7-20240514	Total/NA	Water	7470A	838540
680-250771-12	OU6-MW-169-20240514	Total/NA	Water	7470A	838540
MB 680-838540/1-A	Method Blank	Total/NA	Water	7470A	838540
LCS 680-838540/2-A	Lab Control Sample	Total/NA	Water	7470A	838540

General Chemistry

Analysis Batch: 838654

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-250771-2	OU6-MW-267-20240514	Total/NA	Water	9060A	
680-250771-3	OU6-MW-265-20240514	Total/NA	Water	9060A	
680-250771-12	OU6-MW-169-20240514	Total/NA	Water	9060A	
680-250771-15	OU6-MW-168-20240514	Total/NA	Water	9060A	
MB 680-838654/1	Method Blank	Total/NA	Water	9060A	
LCS 680-838654/2	Lab Control Sample	Total/NA	Water	9060A	
LCSD 680-838654/3	Lab Control Sample Dup	Total/NA	Water	9060A	

Analysis Batch: 838655

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-250771-16	OU6-DMW--9A-20240514	Total/NA	Water	9060A	
MB 680-838655/1	Method Blank	Total/NA	Water	9060A	
LCS 680-838655/2	Lab Control Sample	Total/NA	Water	9060A	
LCSD 680-838655/3	Lab Control Sample Dup	Total/NA	Water	9060A	
680-250771-16 DU	OU6-DMW--9A-20240514	Total/NA	Water	9060A	

Analysis Batch: 838857

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-250771-2	OU6-MW-267-20240514	Total/NA	Water	2320B-2011	
680-250771-2	OU6-MW-267-20240514	Total/NA	Water	SM 4500 CO2 D	
680-250771-3	OU6-MW-265-20240514	Total/NA	Water	2320B-2011	
680-250771-3	OU6-MW-265-20240514	Total/NA	Water	SM 4500 CO2 D	
680-250771-12	OU6-MW-169-20240514	Total/NA	Water	2320B-2011	
680-250771-12	OU6-MW-169-20240514	Total/NA	Water	SM 4500 CO2 D	
680-250771-15	OU6-MW-168-20240514	Total/NA	Water	2320B-2011	
680-250771-15	OU6-MW-168-20240514	Total/NA	Water	SM 4500 CO2 D	
680-250771-16	OU6-DMW--9A-20240514	Total/NA	Water	2320B-2011	
680-250771-16	OU6-DMW--9A-20240514	Total/NA	Water	SM 4500 CO2 D	
MB 680-838857/4	Method Blank	Total/NA	Water	2320B-2011	
LCS 680-838857/6	Lab Control Sample	Total/NA	Water	2320B-2011	
LCSD 680-838857/31	Lab Control Sample Dup	Total/NA	Water	2320B-2011	
680-250771-12 DU	OU6-MW-169-20240514	Total/NA	Water	2320B-2011	
680-250771-12 DU	OU6-MW-169-20240514	Total/NA	Water	SM 4500 CO2 D	

QC Association Summary

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-250771-1

General Chemistry

Analysis Batch: 838906

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-250771-2	OU6-MW-267-20240514	Total/NA	Water	4500 S2 F-2011	
680-250771-3	OU6-MW-265-20240514	Total/NA	Water	4500 S2 F-2011	
680-250771-12	OU6-MW-169-20240514	Total/NA	Water	4500 S2 F-2011	
680-250771-15	OU6-MW-168-20240514	Total/NA	Water	4500 S2 F-2011	
680-250771-16	OU6-DMW--9A-20240514	Total/NA	Water	4500 S2 F-2011	
MB 680-838906/1	Method Blank	Total/NA	Water	4500 S2 F-2011	
LCS 680-838906/2	Lab Control Sample	Total/NA	Water	4500 S2 F-2011	
LCSD 680-838906/3	Lab Control Sample Dup	Total/NA	Water	4500 S2 F-2011	
680-250771-15 MS	OU6-MW-168-20240514	Total/NA	Water	4500 S2 F-2011	
680-250771-15 MSD	OU6-MW-168-20240514	Total/NA	Water	4500 S2 F-2011	
680-250771-12 DU	OU6-MW-169-20240514	Total/NA	Water	4500 S2 F-2011	

Lab Chronicle

Client: Meadows CMPG, Inc
Job ID: 680-250771-1
Project/Site: DSCR - OU6 Annual

Client Sample ID: OU6-CSMPZ-7-20240514
Lab Sample ID: 680-250771-1
Date Collected: 05/14/24 10:50
Matrix: Water
Date Received: 05/15/24 09:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	838701	05/19/24 15:59	P1C	EET SAV
	Instrument ID: CMSAB									
Total/NA	Prep	3510C			498.1 mL	1 mL	838752	05/20/24 06:53	DS	EET SAV
Total/NA	Analysis	8270E		1	1 mL	1 mL	838829	05/20/24 19:54	T1C	EET SAV
	Instrument ID: CMSD									
Total/NA	Prep	3510C			253.8 mL	1 mL	838472	05/17/24 07:40	DS	EET SAV
Total/NA	Analysis	8270E SIM		1	1 mL	1 mL	839724	05/25/24 12:35	NED	EET SAV
	Instrument ID: CMSY									
Total/NA	Prep	3510C	RE		256.8 mL	1 mL	840202	05/29/24 12:48	RR	EET SAV
Total/NA	Analysis	8270E SIM	RE	1	1 mL	1 mL	839814	05/30/24 14:13	NED	EET SAV
	Instrument ID: CMSY									
Total/NA	Prep	3510C			255.8 mL	1 mL	838559	05/17/24 12:07	RR	EET SAV
Total/NA	Analysis	8081B 8082A		1	1 mL	1 mL	838891	05/20/24 19:27	K1C	EET SAV
	Instrument ID: CSGJ									
Total Recoverable	Prep	3005A			25 mL	125 mL	838253	05/16/24 06:12	RR	EET SAV
Total Recoverable	Analysis	6020A		1			838480	05/16/24 22:59	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Prep	7470A			50 mL	50 mL	838540	05/17/24 10:50	RS	EET SAV
Total/NA	Analysis	7470A		1			838840	05/17/24 15:57	BCB	EET SAV
	Instrument ID: QuickTrace2									

Client Sample ID: OU6-MW-267-20240514
Lab Sample ID: 680-250771-2
Date Collected: 05/14/24 13:10
Matrix: Water
Date Received: 05/15/24 09:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	838701	05/19/24 16:22	P1C	EET SAV
	Instrument ID: CMSAB									
Total/NA	Prep	RSK-175			5 mL	5 mL	510325	05/24/24 13:13	WN7O	ELLE
Total/NA	Analysis	RSK-175		1	5 mL	5 mL	510310	05/24/24 19:00	LXF2	ELLE
	Instrument ID: 19506									
Total/NA	Analysis	9056A		1	5 mL	5 mL	838101	05/15/24 16:21	AF	EET SAV
	Instrument ID: CICP									
Total/NA	Analysis	9056A		1	2 mL	2 mL	839968	05/28/24 17:04	KMB	EET SAV
	Instrument ID: CICR									
Total Recoverable	Prep	3005A			25 mL	125 mL	838252	05/16/24 06:10	RR	EET SAV
Total Recoverable	Analysis	6020A		1			838480	05/17/24 05:21	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			838857	05/17/24 10:11	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	4500 S2 F-2011		1	260 mL	260 mL	838906	05/20/24 15:13	JAS	EET SAV
	Instrument ID: NoEquip									
Total/NA	Analysis	9060A		1	40 mL	40 mL	838654	05/17/24 04:49	NVF	EET SAV
	Instrument ID: TOC7									

Lab Chronicle

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-250771-1

Client Sample ID: OU6-MW-267-20240514
Date Collected: 05/14/24 13:10
Date Received: 05/15/24 09:35

Lab Sample ID: 680-250771-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 CO2 D		1			838857	05/17/24 10:11	PG	EET SAV

Client Sample ID: OU6-MW-265-20240514
Date Collected: 05/14/24 11:55
Date Received: 05/15/24 09:35

Lab Sample ID: 680-250771-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	838701	05/19/24 16:44	P1C	EET SAV
	Instrument ID: CMSAB									
Total/NA	Prep	RSK-175			5 mL	5 mL	510325	05/24/24 13:13	WN7O	ELLE
Total/NA	Analysis	RSK-175		1	5 mL	5 mL	510310	05/24/24 19:15	LXF2	ELLE
	Instrument ID: 19506									
Total/NA	Analysis	9056A		1	5 mL	5 mL	838101	05/15/24 16:30	AF	EET SAV
	Instrument ID: CICP									
Total/NA	Analysis	9056A		1	2 mL	2 mL	839968	05/28/24 16:44	KMB	EET SAV
	Instrument ID: CICR									
Total Recoverable	Prep	3005A			25 mL	125 mL	838253	05/16/24 06:12	RR	EET SAV
Total Recoverable	Analysis	6020A		1			838480	05/16/24 22:55	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			838857	05/17/24 10:28	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	4500 S2 F-2011		1	270 mL	270 mL	838906	05/20/24 15:13	JAS	EET SAV
	Instrument ID: NoEquip									
Total/NA	Analysis	9060A		1	40 mL	40 mL	838654	05/17/24 05:10	NVF	EET SAV
	Instrument ID: TOC7									
Total/NA	Analysis	SM 4500 CO2 D		1			838857	05/17/24 10:28	PG	EET SAV
	Instrument ID: MANTECH 2									

Client Sample ID: OU6-MW-155-20240514
Date Collected: 05/14/24 10:35
Date Received: 05/15/24 09:35

Lab Sample ID: 680-250771-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	838701	05/19/24 17:07	P1C	EET SAV
	Instrument ID: CMSAB									

Client Sample ID: OU6-MW-144-20240514
Date Collected: 05/14/24 09:25
Date Received: 05/15/24 09:35

Lab Sample ID: 680-250771-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	838701	05/19/24 17:30	P1C	EET SAV
	Instrument ID: CMSAB									

Lab Chronicle

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-250771-1

Client Sample ID: OU6-MW-149-20240514
Lab Sample ID: 680-250771-6
Date Collected: 05/14/24 08:40
Matrix: Water
Date Received: 05/15/24 09:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	838701	05/19/24 17:52	P1C	EET SAV
	Instrument ID: CMSAB									

Client Sample ID: OU6-MW-141-20240514
Lab Sample ID: 680-250771-7
Date Collected: 05/14/24 12:17
Matrix: Water
Date Received: 05/15/24 09:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	838701	05/19/24 18:15	P1C	EET SAV
	Instrument ID: CMSAB									

Client Sample ID: OU6-MW-296-20240514
Lab Sample ID: 680-250771-8
Date Collected: 05/14/24 10:30
Matrix: Water
Date Received: 05/15/24 09:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	838701	05/19/24 18:38	P1C	EET SAV
	Instrument ID: CMSAB									

Client Sample ID: OU6-MW-300-20240514
Lab Sample ID: 680-250771-9
Date Collected: 05/14/24 14:05
Matrix: Water
Date Received: 05/15/24 09:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	838701	05/19/24 19:00	P1C	EET SAV
	Instrument ID: CMSAB									

Client Sample ID: OU6-MW-225-20240514
Lab Sample ID: 680-250771-10
Date Collected: 05/14/24 09:02
Matrix: Water
Date Received: 05/15/24 09:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	838701	05/19/24 19:23	P1C	EET SAV
	Instrument ID: CMSAB									

Client Sample ID: OU6-MW-180-20240514
Lab Sample ID: 680-250771-11
Date Collected: 05/14/24 11:55
Matrix: Water
Date Received: 05/15/24 09:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	838701	05/19/24 19:46	P1C	EET SAV
	Instrument ID: CMSAB									

Lab Chronicle

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-250771-1

Client Sample ID: OU6-MW-169-20240514

Lab Sample ID: 680-250771-12

Date Collected: 05/14/24 14:15

Matrix: Water

Date Received: 05/15/24 09:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	838701	05/19/24 20:09	P1C	EET SAV
	Instrument ID: CMSAB									
Total/NA	Prep	3510C			500 mL	1 mL	838752	05/20/24 06:53	DS	EET SAV
Total/NA	Analysis	8270E		1	1 mL	1 mL	838829	05/20/24 20:19	T1C	EET SAV
	Instrument ID: CMSD									
Total/NA	Prep	3510C			240.2 mL	1 mL	838472	05/17/24 07:40	DS	EET SAV
Total/NA	Analysis	8270E SIM		1	1 mL	1 mL	839724	05/25/24 12:59	NED	EET SAV
	Instrument ID: CMSY									
Total/NA	Prep	3510C	RE		263.6 mL	1 mL	840202	05/29/24 12:48	RR	EET SAV
Total/NA	Analysis	8270E SIM	RE	1	1 mL	1 mL	839814	05/30/24 14:37	NED	EET SAV
	Instrument ID: CMSY									
Total/NA	Prep	RSK-175			5 mL	5 mL	509791	05/23/24 10:18	HQR6	ELLE
Total/NA	Analysis	RSK-175		1	5 mL	5 mL	509733	05/23/24 12:19	LXF2	ELLE
	Instrument ID: 3145B									
Total/NA	Prep	3510C			251.5 mL	1 mL	838559	05/17/24 12:07	RR	EET SAV
Total/NA	Analysis	8081B 8082A		1	1 mL	1 mL	838891	05/20/24 19:45	K1C	EET SAV
	Instrument ID: CSGJ									
Total/NA	Analysis	9056A		1	5 mL	5 mL	838101	05/15/24 16:38	AF	EET SAV
	Instrument ID: CICP									
Total/NA	Analysis	9056A		2	5 mL	5 mL	838101	05/15/24 17:50	AF	EET SAV
	Instrument ID: CICP									
Total/NA	Analysis	9056A		1	2 mL	2 mL	839968	05/28/24 16:31	KMB	EET SAV
	Instrument ID: CICR									
Total Recoverable	Prep	3005A			25 mL	125 mL	838252	05/16/24 06:10	RR	EET SAV
Total Recoverable	Analysis	6020A		1			838480	05/17/24 05:25	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Prep	7470A			50 mL	50 mL	838540	05/17/24 10:50	RS	EET SAV
Total/NA	Analysis	7470A		1			838840	05/17/24 15:59	BCB	EET SAV
	Instrument ID: QuickTrace2									
Total/NA	Analysis	2320B-2011		1			838857	05/17/24 10:57	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	4500 S2 F-2011		1	300 mL	300 mL	838906	05/20/24 15:13	JAS	EET SAV
	Instrument ID: NoEquip									
Total/NA	Analysis	9060A		1	40 mL	40 mL	838654	05/17/24 05:34	NVF	EET SAV
	Instrument ID: TOC7									
Total/NA	Analysis	SM 4500 CO2 D		1			838857	05/17/24 10:57	PG	EET SAV
	Instrument ID: MANTECH 2									

Client Sample ID: DUP-1-20240514

Lab Sample ID: 680-250771-13

Date Collected: 05/14/24 00:00

Matrix: Water

Date Received: 05/15/24 09:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	838701	05/19/24 20:31	P1C	EET SAV
	Instrument ID: CMSAB									

Lab Chronicle

Client: Meadows CMPG, Inc
Job ID: 680-250771-1
Project/Site: DSCR - OU6 Annual

Client Sample ID: DMW-16B-20240514
Lab Sample ID: 680-250771-14
Date Collected: 05/14/24 08:35
Matrix: Water
Date Received: 05/15/24 09:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	838701	05/19/24 20:54	P1C	EET SAV
	Instrument ID: CMSAB									

Client Sample ID: OU6-MW-168-20240514
Lab Sample ID: 680-250771-15
Date Collected: 05/14/24 10:00
Matrix: Water
Date Received: 05/15/24 09:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	838714	05/19/24 18:54	P1C	EET SAV
	Instrument ID: CMSAH									
Total/NA	Prep	RSK-175			5 mL	5 mL	509791	05/23/24 10:18	HQR6	ELLE
Total/NA	Analysis	RSK-175		1	5 mL	5 mL	509733	05/23/24 12:38	LXF2	ELLE
	Instrument ID: 3145B									
Total/NA	Analysis	9056A		1	5 mL	5 mL	838101	05/15/24 16:46	AF	EET SAV
	Instrument ID: CICP									
Total/NA	Analysis	9056A		1	2 mL	2 mL	839968	05/28/24 17:44	KMB	EET SAV
	Instrument ID: CICR									
Total Recoverable	Prep	3005A			25 mL	125 mL	838252	05/16/24 06:10	RR	EET SAV
Total Recoverable	Analysis	6020A		1			838480	05/17/24 05:29	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			838857	05/17/24 11:10	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	4500 S2 F-2011		1	310 mL	310 mL	838906	05/20/24 15:13	JAS	EET SAV
	Instrument ID: NoEquip									
Total/NA	Analysis	9060A		1	40 mL	40 mL	838654	05/17/24 05:55	NVF	EET SAV
	Instrument ID: TOC7									
Total/NA	Analysis	SM 4500 CO2 D		1			838857	05/17/24 11:10	PG	EET SAV
	Instrument ID: MANTECH 2									

Client Sample ID: OU6-DMW--9A-20240514
Lab Sample ID: 680-250771-16
Date Collected: 05/14/24 12:15
Matrix: Water
Date Received: 05/15/24 09:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	838714	05/19/24 19:16	P1C	EET SAV
	Instrument ID: CMSAH									
Total/NA	Prep	RSK-175			5 mL	5 mL	509791	05/23/24 10:18	HQR6	ELLE
Total/NA	Analysis	RSK-175		1	5 mL	5 mL	509733	05/23/24 12:57	LXF2	ELLE
	Instrument ID: 3145B									
Total/NA	Analysis	9056A		2	5 mL	5 mL	838101	05/15/24 17:17	AF	EET SAV
	Instrument ID: CICP									
Total/NA	Analysis	9056A		1	2 mL	2 mL	839968	05/28/24 17:50	KMB	EET SAV
	Instrument ID: CICR									

Lab Chronicle

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-250771-1

Client Sample ID: OU6-DMW--9A-20240514

Lab Sample ID: 680-250771-16
Date Collected: 05/14/24 12:15
Matrix: Water
Date Received: 05/15/24 09:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			25 mL	125 mL	838253	05/16/24 06:12	RR	EET SAV
Total Recoverable	Analysis	6020A		1			838480	05/16/24 22:51	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			838857	05/17/24 11:17	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	4500 S2 F-2011		1	300 mL	300 mL	838906	05/20/24 15:13	JAS	EET SAV
	Instrument ID: NoEquip									
Total/NA	Analysis	9060A		1	40 mL	40 mL	838655	05/17/24 08:03	NVF	EET SAV
	Instrument ID: TOC7									
Total/NA	Analysis	SM 4500 CO2 D		1			838857	05/17/24 11:17	PG	EET SAV
	Instrument ID: MANTECH 2									

Client Sample ID: CSMPZ-3-20240514

Lab Sample ID: 680-250771-17
Date Collected: 05/14/24 09:05
Matrix: Water
Date Received: 05/15/24 09:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	838997	05/21/24 14:56	P1C	EET SAV
	Instrument ID: CMSAH									

Client Sample ID: OU6-MW-96-20240514

Lab Sample ID: 680-250771-18
Date Collected: 05/14/24 14:25
Matrix: Water
Date Received: 05/15/24 09:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	838997	05/21/24 15:18	P1C	EET SAV
	Instrument ID: CMSAH									

Client Sample ID: Trip Blank

Lab Sample ID: 680-250771-19
Date Collected: 05/14/24 00:00
Matrix: Water
Date Received: 05/15/24 09:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	838701	05/19/24 15:19	P1C	EET SAV
	Instrument ID: CMSAB									

Laboratory References:

EET SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: Meadows CMPG, Inc
Job ID: 680-250771-1
Project/Site: DSCR - OU6 Annual

Laboratory: Eurofins Savannah

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
ANAB	Dept. of Defense ELAP	L2463	09-22-24
Virginia	NELAP	460161	06-14-24

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	0001.01	05-30-24

Method Summary

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-250771-1

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds (GC/MS)	SW846	EET SAV
8270E	Semivolatile Organic Compounds (GC/MS)	SW846	EET SAV
8270E SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	EET SAV
RSK-175	Dissolved Gases (GC)	RSK	ELLE
8081B 8082A	Organochlorine Pesticides & PCBs (GC)	SW846	EET SAV
9056A	Anions, Ion Chromatography	SW846	EET SAV
6020A	Metals (ICP/MS)	SW846	EET SAV
7470A	Mercury (CVAA)	SW846	EET SAV
2320B-2011	Alkalinity, Total	SM	EET SAV
4500 S2 F-2011	Sulfide, Total	SM	EET SAV
9060A	Organic Carbon, Total (TOC)	SW846	EET SAV
SM 4500 CO2 D	Carbon Dioxide and Forms of Alkalinity by Calculation	SM	EET SAV
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET SAV
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	EET SAV
5030C	Purge and Trap	SW846	EET SAV
7470A	Preparation, Mercury	SW846	EET SAV
RSK-175	Dissolved Gases Prep	RSK	ELLE

Protocol References:

RSK = Sample Prep And Calculations For Dissolved Gas Analysis In Water Samples Using A GC Headspace Equilibration Technique, RSKSOP-175, Rev. 0, 8/11/94, USEPA Research Lab
SM = "Standard Methods For The Examination Of Water And Wastewater"
SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858
ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Eurofins Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Phone (912) 354-7858 Phone (912) 352-0165

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: Tim, TJ, Quin and Bruce	Lab PM: Lanier, Jerry	Carrier Tracking No(s):	COC No:
Client Contact: Andrew VanBuesking	Phone: 757-589-5825	E-Mail: Jerry.Lanier@et.eurofinsus.com	State of Origin: VA	Page: Page 1 of 2
Company: Meadows CMPG	PWSID:			Job #:
Address: 2107 Granby St	Due Date Requested:			
City: Norfolk	TAT Requested (days): STD			
State, Zip: VA	Compliance Project: Δ Yes Δ No			
Phone: 757-623-3107	PO #: 0045-0011			
Email: avanbuesking@meadowscmpg	WO #:			
Project Name: OU6 Annual	Project #: 68020891			
Site: DSCR, OU6	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	8260D_DOD5 - (MOD) Volatiles	RSK_175_DOD5 - Ethane, Ethene, Methane	9060A - TOC	9056A_OF28D_D5 - Chloride & Sulfate 9056A_OF_48H_D5 - Local Method	SM4500_S2_F - Sulfide, Total	6020A_DOD5 - Manganese	SM4500_CO2_D - Carbon Dioxide	2320B - Alkalinity	8270E_DOD5 - (MOD) Semivolatiles (without PAHs)	8270E_SIM_DOD5 - Routine PAH	8081B_8082A_D5 - Routine Pesticides & PCBs	7470A_DOD5 - Mercury 6020A_DOD5 - (MOD) TAL Metals	8270E_SIM_ID_D5 Local Method - Dioxane	Total Number of containers	Special Instructions/Note:
Preservation Code:						A	A	S	N	CB	D	N	N	N	N	N	D	N		
OU6-CSMPZ-7-20240514	5/14/24	1050	G	W		3								2	2	2	1	2	12	Should not receive 2 bottles for Dioxane, Sample ID CSMPZ-7-20240514
OU6-MW-267-20240524	5/14/24	1310	G	W		3	3	3	1	2	1	1	1						15	
OU6-MW-265-20240514	5/14/24	1155	G	W		3	3	3	1	2	1	1	1						15	
OU6-MW-155-20240514	5/14/24	1035	G	W		3													3	
OU6-MW-144-20240514	5/14/24	0925	G	W		3													3	
OU6-MW-149-20240514	5/14/24	0840	G	W		3													3	
OU6-MW-141-20240514	5/14/24	1217	G	W		3													3	
OU6-MW-296-20240514	5/14/24	1030	G	W		3													3	
OU6-MW-300-20240514	5/14/24	1405	G	W		3													3	
OU6-MW-225-20240514	5/14/24	0902	G	W		3													3	
OU6-MW-180-20240514	5/14/24	1155	G	W		3													3	

680-250771 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ■ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ■ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:

Method of Shipment:

BRUCE DIGGS	5-14-2024/1600	Company	Received by:	Date/Time: 5/15/24 0935	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 3.1/3.2 0.6/0.7

Ver 01/16/2019

Eurofins Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Phone (912) 354-7858 Phone (912) 352-0165

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler:	Lab PM: Lanier, Jerry	Carrier Tracking No(s):	COC No:
Client Contact: Andrew VanBuesking	Phone: 757-589-5825	E-Mail: Jerry.Lanier@et.eurofinsus.com	State of Origin: VA	Page: Page 2 of 2
Company: Meadows CMPG	PWSID:			Job #:
Address: 2107 Granby St	Due Date Requested:			
City: Norfolk	TAT Requested (days): STD			
State, Zip: VA	Compliance Project: Δ Yes Δ No			
Phone: 757-623-3107	PO #: 0045-0011			
Email: avanbuesking@meadowscmpg	WO #:			
Project Name: OU6 Annual	Project #: 68020891			
Site: DSCR, OU6	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260D_DOD5 - (MOD) Volatiles	RSK_175_DOD5 - Ethane, Ethene, Methane	9060A - TOC	9056A_OF28D_D5 - Chloride & Sulfate 9056A_OF_48H_D5 - Local Method	SM4500_S2_F - Sulfide, Total	6020A_DOD5 - Manganese	SM4500_CO2_D - Carbon Dioxide	2320B - Alkalinity		8270E_DOD5 - (MOD) Semivolatiles (without PAHs)	8270E_SIM_DOD5 - Routine PAH	8081B_8082A_D5 - Routine Pesticides & PCBs	7470A_DOD5 - Mercury 6020A_DOD5- (MOD) TAL Metals	8270E_SIM_ID_D5 Local Method - Dioxane	Total Number of containers	Special Instructions/Note:
Preservation Code:							A	A	S	N	CB	D	N	N		N	N	N	D	N		
OU6-MW-169-20240514	5/14/24	1415	G	W			3	3	2	1	2	1	1	1		2	2	2	1	2	23	
DUP-1-20240514	5/14/24		G	W			3														3	
OU6-DMW-20240514	5/14/24	0835	G	W			3														3	Sample ID - DMW-16B-20250514
OU6-MW-196-20240514	5/14/24	1000	G	W			3	3	3	1	2	1	1	1							6	Sample ID - OU6-MW-168-20240514
OU6-DMW-9A-20240514	5/14/24	1215	G	W			3	3	3	1	2	1	1	1							6	
OU6-CSMPZ-3-20240514	5/14/24	0905	G	W			3														3	Sample ID - CSMPZ-3-20240514
																					0	
																					0	
																					0	
																					0	
																					0	

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ■ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ■ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
				5/15/24 0935	

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:
		3.1/3.2 0.6/0.7

Ver: 01/16/2019

Eurofins Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Phone: 912-354-7858 Fax: 912-352-0165

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Lanier, Jerry A	Carrier Tracking No(s):	COC No: 680-772883 1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Jerry.Lanier@et.eurofinsus.com	State of Origin: Virginia	Page: Page 1 of 1
Company: Eurofins Lancaster Laboratories Environm		Accreditations Required (See note): Dept. of Defense ELAP - A2LA; DoD - A2LA; DoD ELAP - A2		Job #: 680-250771-1
Address: 2425 New Holland Pike,	Due Date Requested: 5/30/2024	Analysis Requested		Preservation Codes: -
City: Lancaster	TAT Requested (days):			
State, Zip: PA, 17601				
Phone: 717-656-2300(Tel)	PO #:			
Email:	WO #:			
Project Name: DSCR - OU6 Annual	Project #: 68020891			Other:
Site: Meadows CMPG	SSOW#:			

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	RSK_175_DOD5/RSK_HS_Prep (MOD) Dissolved Gases (GC)	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
OU6-MW-267-20240514 (680-250771-2)	5/14/24	13:10 Eastern		Water			X	3	
OU6-MW-265-20240514 (680-250771-3)	5/14/24	11:55 Eastern		Water			X	3	
OU6-MW-169-20240514 (680-250771-12)	5/14/24	14:15 Eastern		Water			X	3	
OU6-MW-168-20240514 (680-250771-15)	5/14/24	10:00 Eastern		Water			X	3	
OU6-DMW--9A-20240514 (680-250771-16)	5/14/24	12:15 Eastern		Water			X	3	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Southeast, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Southeast, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Southeast, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Southeast, LLC.

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1		5/21/24 1530				
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time	Company
3	Relinquished by:	Date/Time	Company	Received by:	Date/Time: 5/22/24 09:45	Company: ECLET

Custody Seals Intact:	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:
X Yes ∆ No		IR 15.5 3.9 C: 5.1 3.5

NJ

Ver: 04/02/2024

Login Sample Receipt Checklist

Client: Meadows CMPG, Inc

Job Number: 680-250771-1

Login Number: 250771
List Number: 1
Creator: Johnson, Corey M

List Source: Eurofins Savannah

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	Received extra samples not listed on COC.
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Meadows CMPG, Inc

Job Number: 680-250771-1

Login Number: 250771
List Number: 2
Creator: Santiago, Nathaniel

List Source: Eurofins Lancaster Laboratories Environment Testing, LLC
List Creation: 05/22/24 01:03 PM

Question	Answer	Comment
The cooler's custody seal is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature acceptable,where thermal pres is required(</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV:Container Temp acceptable,where thermal pres is required (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
Sample custody seals are intact.	N/A	
VOA sample vials do not have headspace >6mm in diameter (none, if from WV)?	N/A	

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ANALYTICAL REPORT

PREPARED FOR

Attn: Kandyce Keller
Meadows CMPG, Inc
2107 Granby Street
Norfolk, Virginia 23517

Generated 6/24/2024 4:25:20 PM Revision 1

JOB DESCRIPTION

DSCR - OU6 Annual

JOB NUMBER

680-250842-1

Eurofins Savannah
5102 LaRoche Avenue
Savannah GA 31404

See page two for job notes and contact information.

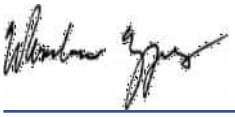
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Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Southeast, LLC Project Manager.

Authorization



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6/24/2024 4:25:20 PM
Revision 1

Authorized for release by
Woodrow Eggers, EDD Analyst (IT)
woodrow.eggers@et.eurofinsus.com
Designee for
Jerry Lanier, Project Manager I
Jerry.Lanier@et.eurofinsus.com
(912)250-0281

Definitions/Glossary

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-250842-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Estimated: The analyte was positively identified; the quantitation is an estimation
J1	Estimated: The quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.
M	Manual integrated compound.
Q	One or more quality control criteria failed.
U	Undetected at the Limit of Detection.

GC/MS Semi VOA

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time. This does not meet regulatory requirements.
J	Estimated: The analyte was positively identified; the quantitation is an estimation
M	Manual integrated compound.
Q	One or more quality control criteria failed.
U	Undetected at the Limit of Detection.

GC VOA

Qualifier	Qualifier Description
D	The reported value is from a dilution.
J	Estimated: The analyte was positively identified; the quantitation is an estimation
M	Manual integrated compound.
U	Undetected at the Limit of Detection.

GC Semi VOA

Qualifier	Qualifier Description
J	Estimated: The analyte was positively identified; the quantitation is an estimation
M	Manual integrated compound.
Q	One or more quality control criteria failed.
U	Undetected at the Limit of Detection.

HPLC/IC

Qualifier	Qualifier Description
J	Estimated: The analyte was positively identified; the quantitation is an estimation
J1	Estimated: The quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.
M	Manual integrated compound.
U	Undetected at the Limit of Detection.

Metals

Qualifier	Qualifier Description
J	Estimated: The analyte was positively identified; the quantitation is an estimation
U	Undetected at the Limit of Detection.

General Chemistry

Qualifier	Qualifier Description
J	Estimated: The analyte was positively identified; the quantitation is an estimation
U	Undetected at the Limit of Detection.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Sample Summary

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-250842-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-250842-1	OU6-MW-277-20240515	Water	05/15/24 09:35	05/16/24 10:28
680-250842-2	OU6-MW-259-20240515	Water	05/15/24 08:20	05/16/24 10:28
680-250842-3	OU6-MW-280-20240515	Water	05/15/24 12:50	05/16/24 10:28
680-250842-4	OU6-MW-156-20240515	Water	05/15/24 11:45	05/16/24 10:28
680-250842-5	OU6-MW-158-20240515	Water	05/15/24 10:50	05/16/24 10:28
680-250842-6	OU6-MW-284-20240515	Water	05/15/24 08:50	05/16/24 10:28
680-250842-7	OU6-MWNGA-8-20240515	Water	05/15/24 12:25	05/16/24 10:28
680-250842-8	OU6-MWNGA-10-20240515	Water	05/15/24 10:15	05/16/24 10:28
680-250842-9	OU6-MW-297-20240515	Water	05/15/24 12:10	05/16/24 10:28
680-250842-10	OU6-MW-301-20240515	Water	05/15/24 13:35	05/16/24 10:28
680-250842-11	OU6-MW-246-20240515	Water	05/15/24 15:05	05/16/24 10:28
680-250842-12	OU6-MW-182-20240515	Water	05/15/24 12:55	05/16/24 10:28
680-250842-13	OU6-DMW-17A-20240515	Water	05/15/24 11:35	05/16/24 10:28
680-250842-14	OU6-MW-124-20240515	Water	05/15/24 09:15	05/16/24 10:28
680-250842-15	OU6-MW-8A-20240515	Water	05/15/24 10:35	05/16/24 10:28
680-250842-16	TRIP-BLANK-20240515	Water	05/15/24 00:00	05/16/24 10:28
680-250842-17	OU6-MW-92-20240515	Water	05/15/24 14:00	05/16/24 10:28

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 5/16/2024 10:28 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 0.2°C, 2.7°C and 2.7°C.

Receipt Exceptions
Missing sample OU6-MW-142-20240515; however, we received sample OU6-MW-92-20240515 that was not listed on the chain of custody. Sample was logged in for VOCs as this matches the containers.

Nitrate, Chloride and Sulfate bottles not received for the following samples: OU6-MW-277-20240515 (680-250842-1), OU6-MW-259-20240515 (680-250842-2) and OU6-MW-280-20240515 (680-250842-3).

Received one broken vial for: OU6-MWNGA-10-20240515 (680-250842-8). Sufficient vials remained to complete testing.

GC/MS VOA
Method 8260D_DOD5: The initial calibration verification (ICV) analyzed in batch 680-836351 was outside method criteria for the following analyte(s): Carbon disulfide. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated. The data has been qualified and reported.

Method 8260D_DOD5: The initial calibration verification (ICV) analyzed in batch 680-836362 was outside method criteria for the following analyte(s): Bromoform and Carbon disulfide. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

Method 8260D_DOD5: The initial calibration verification (ICV) analyzed in batch 680-837880 was outside method criteria for the following analyte(s): Dichlorodifluoromethane. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

Method 8260D_DOD5: The closing continuing calibration verification (CCVC) associated with batch 680-838669 recovered above the upper control limit for Bromoform and Trichlorofluoromethane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8260D_DOD5: The continuing calibration verification (CCV) associated with batch 680-838669 recovered outside acceptance criteria, low biased, for Dichlorodifluoromethane. A reporting limit (RL) standard was analyzed, and the target analytes are detected. Since the associated samples were non-detect for the analyte(s), the data are reported.

Method 8260D_DOD5: The laboratory control sample (LCS) for analytical batch 680-838669 recovered outside control limits for the following analytes: Trichlorofluoromethane This analyte was biased high in the LCS and were not detected in the associated samples; therefore, the data has been reported.

Method 8260D_DOD5: The laboratory control sample duplicate (LCSD) for analytical batch 680-838669 recovered outside control limits for the following analytes: Bromoform and Trichlorofluoromethane. These analytes were biased high in the LCSD and were not detected in the associated samples; therefore, the data have been reported.

Method 8260D_DOD5: The method blank for 680-838669 contained Methylcyclohexane above the method detection limit (MDL). Associated samples were not re-analyzed because the method blank results were less than the reporting limit (RL) OR practical quantitation limit (PQL).

Method 8260D_DOD5: The closing continuing calibration verification (CCVC) associated with batch 680-838669 recovered above

the upper control limit for Trichlorofluoromethane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8260D_DOD5: The continuing calibration verification (CCV) associated with batch 680-838714 recovered above the upper control limit for Bromomethane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8260D_DOD5: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 680-838714 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

Method 8260D_DOD5: Surrogate recovery was outside acceptance limits for the parent sample: OU6-MWNGA-10-20240515 (680-250842-8). The matrix spike/matrix spike duplicate (MS/MSD) sample's surrogate recovery was within limits. The parent sample has been qualified and reported.

Method 8260D_DOD5: The continuing calibration verification (CCV) associated with batch 680-838727 recovered above the upper control limit for Cyclohexane and n-Butylbenzene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8260D_DOD5: The continuing calibration verification (CCV) associated with batch 680-838727 recovered outside acceptance criteria, low biased, for Bromomethane. A reporting limit (RL) standard was analyzed, and the target analytes are detected. Since the associated samples were non-detect for the analyte(s), the data are reported.

Method 8260D_DOD5: The laboratory control sample duplicate (LCSD) for analytical batch 680-838727 recovered outside control limits for the following analytes: Cyclohexane, Methylcyclohexane and n-Butylbenzene. These analytes were biased high in the LCSD and were not detected in the associated samples; therefore, the data have been reported.

Method 8260D_DOD5: The method blank for 680-838727 contained Hexachlorobutadiene above the method detection limit (MDL). Associated samples were not re-analyzed because the method blank results were less than the reporting limit (RL) OR practical quantitation limit (PQL).

Method 8260D_DOD5: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for analytical batch 680-838727 recovered outside control limits for the following analytes: Methylcyclohexane.

Method 8260D_DOD5: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with analytical batch 680-838727.

Method 8260D_DOD5: The continuing calibration verification (CCV) associated with batch 680-838791 recovered above the upper control limit for Bromomethane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8260D_DOD5: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 680-838791 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC/MS Semi VOA

Method 8270E_DOD5: The initial calibration verification (ICV) result for batch 680-836548 was above the upper control limit. The affected analytes are: 2,4-Dimethylphenol. Sample results were non-detects, and have been reported as qualified data.

Method 8270E_DOD5: The continuing calibration verification (CCV) associated with batch 680-838829 recovered above the upper control limit for Bis(2-chloroethyl)ether. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8270E_DOD5: Surrogate recovery for the following sample was outside control limits: OU6-MW-259-20240515 (680-250842-2). Re-extraction and/or re-analysis was performed outside of holding time with acceptable results.

Method 8270E_DOD5: The following closing continuing calibration verification (CCVC) was outside the method defined tuning window: (CCVC 680-839803/29) and (CCVC 680-839803/30) All target analytes in the affected CCVC were within control limits.

The data has been reported.

Method 8270E_SIM_DOD5: These samples were re-extracted out of hold due to low surrogate recovery of the MB and LCS and several of the samples. The re-extracted samples surrogates recovered within limits. Both sets of data have been reported: OU6-MW-277-20240515 (680-250842-1), OU6-MW-259-20240515 (680-250842-2) and OU6-MW-280-20240515 (680-250842-3).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC VOA
Method RSK_175_DOD5: The method requirement for no headspace was not met. The following volatile sample was analyzed with significant headspace in the sample container(s): OU6-MW-280-20240515 (680-250842-3). Significant headspace is defined as a bubble greater than 6 mm in diameter.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Pesticides/PCBs
Method 8081B_8082A_D5: Two surrogates are used for this analysis. The laboratory's SOP allows one of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following sample contained an allowable number of surrogate compounds outside limits: OU6-MW-259-20240515 (680-250842-2). Re-extraction would have been outside of holding time. These results have been reported and qualified.

Method 8081B_8082A_D5: The continuing calibration verification (CCV) associated with batch 680-838891 recovered above the upper control limit for PCB-1260. The samples associated with this CCV were non-detects for the affected analyte; therefore, the data has been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC
Method 9056A_OF_48H_D5: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 680-837892 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Metals
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-250842-1

Client Sample ID: OU6-MW-277-20240515
Date Collected: 05/15/24 09:35
Date Received: 05/16/24 10:28

Lab Sample ID: 680-250842-1
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			05/18/24 18:01	1
Benzene	1.0	U	2.0	0.27	ug/L			05/18/24 18:01	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			05/18/24 18:01	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			05/18/24 18:01	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			05/18/24 18:01	1
Bromoform	2.0	U Q	2.5	0.59	ug/L			05/18/24 18:01	1
Bromomethane	10	U	20	3.7	ug/L			05/18/24 18:01	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			05/18/24 18:01	1
Carbon disulfide	1.0	U Q	2.0	0.43	ug/L			05/18/24 18:01	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			05/18/24 18:01	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			05/18/24 18:01	1
Chloroethane	10	U	20	4.6	ug/L			05/18/24 18:01	1
Chloroform	1.0	U	2.0	0.27	ug/L			05/18/24 18:01	1
Chloromethane	2.0	U	2.5	0.54	ug/L			05/18/24 18:01	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			05/18/24 18:01	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			05/18/24 18:01	1
cis-1,2-Dichloroethene	**3.2**		2.0	0.25	ug/L			05/18/24 18:01	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			05/18/24 18:01	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			05/18/24 18:01	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			05/18/24 18:01	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			05/18/24 18:01	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			05/18/24 18:01	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			05/18/24 18:01	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/18/24 18:01	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/18/24 18:01	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/18/24 18:01	1
Dichlorodifluoromethane	1.0	U Q	2.0	0.36	ug/L			05/18/24 18:01	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			05/18/24 18:01	1
1,2-Dichloroethane	1.0	U	2.0	0.25	ug/L			05/18/24 18:01	1
1,1-Dichloroethene	1.0	U	2.0	0.33	ug/L			05/18/24 18:01	1
1,2-Dichloroethene, Total	**3.2**		2.0	0.37	ug/L			05/18/24 18:01	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			05/18/24 18:01	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			05/18/24 18:01	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			05/18/24 18:01	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			05/18/24 18:01	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			05/18/24 18:01	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			05/18/24 18:01	1
2-Hexanone	10	U	20	3.2	ug/L			05/18/24 18:01	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			05/18/24 18:01	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			05/18/24 18:01	1
Methyl acetate	10	U	20	3.2	ug/L			05/18/24 18:01	1
Methylcyclohexane	1.0	U	2.0	0.33	ug/L			05/18/24 18:01	1
Methylene Chloride	10	U	20	3.2	ug/L			05/18/24 18:01	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			05/18/24 18:01	1
Methyl tert-butyl ether	**0.83**	**J**	5.0	0.81	ug/L			05/18/24 18:01	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			05/18/24 18:01	1
Naphthalene	5.0	U	10	2.4	ug/L			05/18/24 18:01	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			05/18/24 18:01	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			05/18/24 18:01	1

Client Sample ID: OU6-MW-277-20240515
Date Collected: 05/15/24 09:35
Date Received: 05/16/24 10:28

Lab Sample ID: 680-250842-1
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	1.0	U	2.0	0.26	ug/L			05/18/24 18:01	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			05/18/24 18:01	1
Styrene	1.0	U	2.0	0.27	ug/L			05/18/24 18:01	1
tert-Butylbenzene	1.0	U M	2.0	0.43	ug/L			05/18/24 18:01	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			05/18/24 18:01	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			05/18/24 18:01	1
Tetrachloroethene	**1.1**	**J**	2.0	0.35	ug/L			05/18/24 18:01	1
Toluene	1.0	U	2.0	0.25	ug/L			05/18/24 18:01	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			05/18/24 18:01	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			05/18/24 18:01	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			05/18/24 18:01	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			05/18/24 18:01	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			05/18/24 18:01	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			05/18/24 18:01	1
Trichloroethene	**1.7**		1.0	0.20	ug/L			05/18/24 18:01	1
Trichlorofluoromethane	1.0	U Q	2.0	0.33	ug/L			05/18/24 18:01	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			05/18/24 18:01	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			05/18/24 18:01	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			05/18/24 18:01	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			05/18/24 18:01	1
Vinyl chloride	1.0	U	2.0	0.40	ug/L			05/18/24 18:01	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			05/18/24 18:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*85 - 114*		*05/18/24 18:01*	*1*
Dibromofluoromethane (Surr)	*105*		*80 - 119*		*05/18/24 18:01*	*1*
1,2-Dichloroethane-d4 (Surr)	*92*		*81 - 118*		*05/18/24 18:01*	*1*
Toluene-d8 (Surr)	*96*		*89 - 112*		*05/18/24 18:01*	*1*

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	0.056	U M	0.22	0.020	ug/L		05/17/24 07:40	05/25/24 18:08	1
Acenaphthene	0.11	U M	0.22	0.047	ug/L		05/17/24 07:40	05/25/24 18:08	1
Acenaphthylene	0.056	U M	0.22	0.019	ug/L		05/17/24 07:40	05/25/24 18:08	1
Pyrene	0.11	U M	0.22	0.030	ug/L		05/17/24 07:40	05/25/24 18:08	1
2-Methylnaphthalene	0.045	U	0.22	0.012	ug/L		05/17/24 07:40	05/25/24 18:08	1
Anthracene	0.056	U	0.22	0.020	ug/L		05/17/24 07:40	05/25/24 18:08	1
Benzo[a]pyrene	0.11	U	0.22	0.029	ug/L		05/17/24 07:40	05/25/24 18:08	1
Benzo[a]anthracene	0.11	U	0.22	0.029	ug/L		05/17/24 07:40	05/25/24 18:08	1
Benzo[b]fluoranthene	0.11	U	0.22	0.029	ug/L		05/17/24 07:40	05/25/24 18:08	1
Benzo[g,h,i]perylene	0.11	U	0.22	0.029	ug/L		05/17/24 07:40	05/25/24 18:08	1
Benzo[k]fluoranthene	0.11	U	0.22	0.032	ug/L		05/17/24 07:40	05/25/24 18:08	1
Chrysene	0.056	U	0.22	0.026	ug/L		05/17/24 07:40	05/25/24 18:08	1
Dibenz(a,h)anthracene	0.056	U	0.22	0.027	ug/L		05/17/24 07:40	05/25/24 18:08	1
Phenanthrene	0.22	U	0.45	0.061	ug/L		05/17/24 07:40	05/25/24 18:08	1
Indeno[1,2,3-cd]pyrene	0.11	U	0.22	0.031	ug/L		05/17/24 07:40	05/25/24 18:08	1
Naphthalene	0.056	U	0.22	0.016	ug/L		05/17/24 07:40	05/25/24 18:08	1
Fluoranthene	0.11	U M	0.22	0.030	ug/L		05/17/24 07:40	05/25/24 18:08	1
Fluorene	0.11	U	0.22	0.028	ug/L		05/17/24 07:40	05/25/24 18:08	1

Client Sample ID: OU6-MW-277-20240515

Date Collected: 05/15/24 09:35
Date Received: 05/16/24 10:28

Lab Sample ID: 680-250842-1

Matrix: Water

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*60*		*53 - 106*	*05/17/24 07:40*	*05/25/24 18:08*	*1*
2-methylnaphthalene-d10	*62*		*30 - 100*	*05/17/24 07:40*	*05/25/24 18:08*	*1*
Fluoranthene-d10	*97*		*42 - 114*	*05/17/24 07:40*	*05/25/24 18:08*	*1*
Nitrobenzene-d5	*71*		*42 - 100*	*05/17/24 07:40*	*05/25/24 18:08*	*1*
Terphenyl-d14	*101*		*53 - 111*	*05/17/24 07:40*	*05/25/24 18:08*	*1*

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) - RE

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	0.053	U H	0.21	0.019	ug/L		05/29/24 12:48	05/30/24 16:33	1
Acenaphthene	0.11	U M H	0.21	0.045	ug/L		05/29/24 12:48	05/30/24 16:33	1
Acenaphthylene	0.053	U H	0.21	0.018	ug/L		05/29/24 12:48	05/30/24 16:33	1
Pyrene	0.11	U M H	0.21	0.029	ug/L		05/29/24 12:48	05/30/24 16:33	1
2-Methylnaphthalene	0.043	U M H	0.21	0.012	ug/L		05/29/24 12:48	05/30/24 16:33	1
Anthracene	0.053	U H	0.21	0.019	ug/L		05/29/24 12:48	05/30/24 16:33	1
Benzo[a]pyrene	0.11	U H	0.21	0.028	ug/L		05/29/24 12:48	05/30/24 16:33	1
Benzo[a]anthracene	0.11	U H	0.21	0.028	ug/L		05/29/24 12:48	05/30/24 16:33	1
Benzo[b]fluoranthene	0.11	U H	0.21	0.028	ug/L		05/29/24 12:48	05/30/24 16:33	1
Benzo[g,h,i]perylene	0.11	U M H	0.21	0.028	ug/L		05/29/24 12:48	05/30/24 16:33	1
Benzo[k]fluoranthene	0.11	U H	0.21	0.031	ug/L		05/29/24 12:48	05/30/24 16:33	1
Chrysene	0.053	U H	0.21	0.025	ug/L		05/29/24 12:48	05/30/24 16:33	1
Dibenz(a,h)anthracene	0.053	U H	0.21	0.026	ug/L		05/29/24 12:48	05/30/24 16:33	1
Phenanthrene	0.21	U H	0.43	0.059	ug/L		05/29/24 12:48	05/30/24 16:33	1
Indeno[1,2,3-cd]pyrene	0.11	U H	0.21	0.030	ug/L		05/29/24 12:48	05/30/24 16:33	1
Naphthalene	0.053	U H	0.21	0.015	ug/L		05/29/24 12:48	05/30/24 16:33	1
Fluoranthene	0.11	U M H	0.21	0.029	ug/L		05/29/24 12:48	05/30/24 16:33	1
Fluorene	0.11	U M H	0.21	0.027	ug/L		05/29/24 12:48	05/30/24 16:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*65*		*53 - 106*	*05/29/24 12:48*	*05/30/24 16:33*	*1*
2-methylnaphthalene-d10	*64*		*30 - 100*	*05/29/24 12:48*	*05/30/24 16:33*	*1*
Fluoranthene-d10	*88*		*42 - 114*	*05/29/24 12:48*	*05/30/24 16:33*	*1*
Nitrobenzene-d5	*67*		*42 - 100*	*05/29/24 12:48*	*05/30/24 16:33*	*1*
Terphenyl-d14	*91*		*53 - 111*	*05/29/24 12:48*	*05/30/24 16:33*	*1*

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	10	U M	20	4.6	ug/L		05/20/24 06:53	05/20/24 20:45	1
1,2,4,5-Tetrachlorobenzene	10	U	20	4.5	ug/L		05/20/24 06:53	05/20/24 20:45	1
1,4-Dioxane	10	U	20	4.4	ug/L		05/20/24 06:53	05/20/24 20:45	1
2,3,4,6-Tetrachlorophenol	10	U	20	4.3	ug/L		05/20/24 06:53	05/20/24 20:45	1
2,4,5-Trichlorophenol	10	U	20	3.3	ug/L		05/20/24 06:53	05/20/24 20:45	1
2,4,6-Trichlorophenol	5.0	U	20	2.2	ug/L		05/20/24 06:53	05/20/24 20:45	1
2,4-Dichlorophenol	10	U	20	3.7	ug/L		05/20/24 06:53	05/20/24 20:45	1
2,4-Dimethylphenol	10	U Q	20	3.0	ug/L		05/20/24 06:53	05/20/24 20:45	1
2,4-Dinitrophenol	40	U	50	16	ug/L		05/20/24 06:53	05/20/24 20:45	1
2,4-Dinitrotoluene	5.0	U	10	2.3	ug/L		05/20/24 06:53	05/20/24 20:45	1
2,6-Dinitrotoluene	10	U	20	2.8	ug/L		05/20/24 06:53	05/20/24 20:45	1
2-Chloronaphthalene	10	U	20	4.8	ug/L		05/20/24 06:53	05/20/24 20:45	1
2-Chlorophenol	10	U	20	3.2	ug/L		05/20/24 06:53	05/20/24 20:45	1
2-Methylphenol	4.0	U	10	1.8	ug/L		05/20/24 06:53	05/20/24 20:45	1
2-Nitroaniline	10	U M	20	2.9	ug/L		05/20/24 06:53	05/20/24 20:45	1

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-250842-1

Client Sample ID: OU6-MW-277-20240515
Date Collected: 05/15/24 09:35
Date Received: 05/16/24 10:28

Lab Sample ID: 680-250842-1
Matrix: Water

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
2-Nitrophenol	10	U	20	3.9	ug/L		05/20/24 06:53	05/20/24 20:45	1
3 & 4 Methylphenol	4.0	U	10	1.4	ug/L		05/20/24 06:53	05/20/24 20:45	1
3,3'-Dichlorobenzidine	20	U	50	10	ug/L		05/20/24 06:53	05/20/24 20:45	1
3-Nitroaniline	10	U	50	3.0	ug/L		05/20/24 06:53	05/20/24 20:45	1
4,6-Dinitro-2-methylphenol	20	U	50	5.3	ug/L		05/20/24 06:53	05/20/24 20:45	1
4-Bromophenyl phenyl ether	10	U	20	4.7	ug/L		05/20/24 06:53	05/20/24 20:45	1
4-Chloro-3-methylphenol	10	U	20	2.5	ug/L		05/20/24 06:53	05/20/24 20:45	1
4-Chloroaniline	4.0	U	10	1.0	ug/L		05/20/24 06:53	05/20/24 20:45	1
4-Chlorophenyl phenyl ether	12	U	20	5.3	ug/L		05/20/24 06:53	05/20/24 20:45	1
4-Nitroaniline	10	U	50	3.0	ug/L		05/20/24 06:53	05/20/24 20:45	1
4-Nitrophenol	20	U	50	8.1	ug/L		05/20/24 06:53	05/20/24 20:45	1
Acetophenone	5.0	U	10	2.2	ug/L		05/20/24 06:53	05/20/24 20:45	1
Atrazine	5.0	U	10	2.2	ug/L		05/20/24 06:53	05/20/24 20:45	1
Benzaldehyde	10	U	20	4.8	ug/L		05/20/24 06:53	05/20/24 20:45	1
bis (2-chloroisopropyl) ether	10	U	20	3.1	ug/L		05/20/24 06:53	05/20/24 20:45	1
Bis(2-chloroethoxy)methane	4.0	U	10	1.8	ug/L		05/20/24 06:53	05/20/24 20:45	1
Bis(2-chloroethyl)ether	10	U Q	20	3.6	ug/L		05/20/24 06:53	05/20/24 20:45	1
Bis(2-ethylhexyl) phthalate	10	U	20	3.0	ug/L		05/20/24 06:53	05/20/24 20:45	1
Butyl benzyl phthalate	10	U	20	2.8	ug/L		05/20/24 06:53	05/20/24 20:45	1
Caprolactam	10	U	20	2.8	ug/L		05/20/24 06:53	05/20/24 20:45	1
Carbazole	4.0	U	10	1.8	ug/L		05/20/24 06:53	05/20/24 20:45	1
Dibenzofuran	4.0	U	10	1.9	ug/L		05/20/24 06:53	05/20/24 20:45	1
Diethyl phthalate	5.0	U	10	2.2	ug/L		05/20/24 06:53	05/20/24 20:45	1
Dimethyl phthalate	5.0	U	10	2.1	ug/L		05/20/24 06:53	05/20/24 20:45	1
Di-n-butyl phthalate	5.0	U	10	2.3	ug/L		05/20/24 06:53	05/20/24 20:45	1
Di-n-octyl phthalate	10	U	20	2.8	ug/L		05/20/24 06:53	05/20/24 20:45	1
Hexachlorobenzene	4.0	U	10	1.6	ug/L		05/20/24 06:53	05/20/24 20:45	1
Hexachlorobutadiene	10	U	20	4.0	ug/L		05/20/24 06:53	05/20/24 20:45	1
Hexachlorocyclopentadiene	10	U	20	3.5	ug/L		05/20/24 06:53	05/20/24 20:45	1
Hexachloroethane	10	U	20	3.6	ug/L		05/20/24 06:53	05/20/24 20:45	1
Isophorone	4.0	U	10	2.0	ug/L		05/20/24 06:53	05/20/24 20:45	1
Nitrobenzene	10	U	20	3.5	ug/L		05/20/24 06:53	05/20/24 20:45	1
N-Nitrosodi-n-propylamine	5.0	U	10	2.4	ug/L		05/20/24 06:53	05/20/24 20:45	1
N-Nitrosodiphenylamine	10	U	20	2.9	ug/L		05/20/24 06:53	05/20/24 20:45	1
Pentachlorophenol	20	U	50	9.9	ug/L		05/20/24 06:53	05/20/24 20:45	1
Phenol	4.0	U	10	1.5	ug/L		05/20/24 06:53	05/20/24 20:45	1
Pyridine	20	U	50	7.4	ug/L		05/20/24 06:53	05/20/24 20:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*51*		*43 - 140*	*05/20/24 06:53*	*05/20/24 20:45*	*1*
2-Fluorobiphenyl	*48*		*44 - 119*	*05/20/24 06:53*	*05/20/24 20:45*	*1*
2-Fluorophenol	*27*		*19 - 119*	*05/20/24 06:53*	*05/20/24 20:45*	*1*
Nitrobenzene-d5	*45*		*44 - 120*	*05/20/24 06:53*	*05/20/24 20:45*	*1*
Phenol-d5	*19*		*10 - 130*	*05/20/24 06:53*	*05/20/24 20:45*	*1*
Terphenyl-d14	*60*		*50 - 134*	*05/20/24 06:53*	*05/20/24 20:45*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	2.0	U	5.0	1.0	ug/L		05/24/24 13:13	05/24/24 19:46	1
Ethylene	2.0	U	5.0	1.0	ug/L		05/24/24 13:13	05/24/24 19:46	1

Client Sample ID: OU6-MW-277-20240515

Date Collected: 05/15/24 09:35
Date Received: 05/16/24 10:28

Lab Sample ID: 680-250842-1

Matrix: Water

Method: RSK-175 - Dissolved Gases (GC) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	**14**	**M**	6.5	3.0	ug/L		05/24/24 13:13	05/24/24 19:46	1

Method: SW846 8081B 8082A - Organochlorine Pesticides & PCBs (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	0.0046	U M	0.058	0.0023	ug/L		05/17/24 12:07	05/20/24 20:02	1
4,4'-DDE	0.0046	U M	0.058	0.0012	ug/L		05/17/24 12:07	05/20/24 20:02	1
4,4'-DDT	0.0046	U	0.058	0.0012	ug/L		05/17/24 12:07	05/20/24 20:02	1
Aldrin	0.0046	U M	0.058	0.0023	ug/L		05/17/24 12:07	05/20/24 20:02	1
alpha-BHC	0.0046	U M	0.058	0.0012	ug/L		05/17/24 12:07	05/20/24 20:02	1
beta-BHC	0.0046	U	0.058	0.0023	ug/L		05/17/24 12:07	05/20/24 20:02	1
delta-BHC	0.0046	U	0.058	0.0023	ug/L		05/17/24 12:07	05/20/24 20:02	1
Dieldrin	0.0046	U	0.058	0.0023	ug/L		05/17/24 12:07	05/20/24 20:02	1
Endosulfan I	0.0046	U M	0.058	0.0023	ug/L		05/17/24 12:07	05/20/24 20:02	1
Endosulfan II	0.0046	U	0.058	0.0023	ug/L		05/17/24 12:07	05/20/24 20:02	1
Endosulfan sulfate	0.0046	U	0.058	0.0023	ug/L		05/17/24 12:07	05/20/24 20:02	1
Endrin	0.0046	U	0.058	0.0012	ug/L		05/17/24 12:07	05/20/24 20:02	1
Endrin aldehyde	0.018	U	0.058	0.0046	ug/L		05/17/24 12:07	05/20/24 20:02	1
Endrin ketone	0.018	U	0.058	0.0046	ug/L		05/17/24 12:07	05/20/24 20:02	1
gamma-BHC (Lindane)	0.0046	U M	0.058	0.0012	ug/L		05/17/24 12:07	05/20/24 20:02	1
Heptachlor	0.0046	U	0.058	0.0012	ug/L		05/17/24 12:07	05/20/24 20:02	1
Heptachlor epoxide	0.0046	U	0.058	0.0023	ug/L		05/17/24 12:07	05/20/24 20:02	1
Methoxychlor	0.0046	U	0.058	0.0023	ug/L		05/17/24 12:07	05/20/24 20:02	1
Chlordane (technical)	0.46	U M	0.58	0.18	ug/L		05/17/24 12:07	05/20/24 20:02	1
PCB-1016	0.28	U	0.58	0.12	ug/L		05/17/24 12:07	05/20/24 20:02	1
PCB-1221	0.28	U	0.58	0.12	ug/L		05/17/24 12:07	05/20/24 20:02	1
PCB-1232	0.28	U	0.58	0.12	ug/L		05/17/24 12:07	05/20/24 20:02	1
PCB-1242	0.28	U	0.58	0.12	ug/L		05/17/24 12:07	05/20/24 20:02	1
PCB-1248	0.28	U M	0.58	0.12	ug/L		05/17/24 12:07	05/20/24 20:02	1
PCB-1254	0.28	U M	0.58	0.12	ug/L		05/17/24 12:07	05/20/24 20:02	1
PCB-1260	0.28	U M Q	0.58	0.12	ug/L		05/17/24 12:07	05/20/24 20:02	1
Toxaphene	0.92	U M	5.8	0.36	ug/L		05/17/24 12:07	05/20/24 20:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*86*		*14 - 130*	*05/17/24 12:07*	*05/20/24 20:02*	*1*
Tetrachloro-m-xylene	*77*		*44 - 124*	*05/17/24 12:07*	*05/20/24 20:02*	*1*

Method: SW846 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**240**		200	35	ug/L		05/17/24 05:47	05/17/24 13:12	1
Antimony	1.5	U	5.0	0.34	ug/L		05/17/24 05:47	05/17/24 13:12	1
Arsenic	3.0	U	5.0	0.86	ug/L		05/17/24 05:47	05/17/24 13:12	1
Barium	**42**		5.0	0.89	ug/L		05/17/24 05:47	05/17/24 13:12	1
Beryllium	0.40	U	0.50	0.20	ug/L		05/17/24 05:47	05/17/24 13:12	1
Boron	75	U	100	22	ug/L		05/17/24 05:47	05/17/24 13:12	1
Cadmium	**0.090**	**J**	0.50	0.078	ug/L		05/17/24 05:47	05/17/24 13:12	1
Calcium	**3700**		500	140	ug/L		05/17/24 05:47	05/17/24 13:12	1
Chromium	2.5	U	20	0.81	ug/L		05/17/24 05:47	05/17/24 13:12	1
Cobalt	**0.85**	**J**	1.0	0.22	ug/L		05/17/24 05:47	05/20/24 11:32	1
Copper	**1.6**	**J**	5.0	1.1	ug/L		05/17/24 05:47	05/17/24 13:12	1
Iron	**99**	**J**	100	12	ug/L		05/17/24 05:47	05/17/24 13:12	1

Client Sample ID: OU6-MW-277-20240515
Lab Sample ID: 680-250842-1
Date Collected: 05/15/24 09:35
Matrix: Water
Date Received: 05/16/24 10:28

Method: SW846 6020A - Metals (ICP/MS) - Total Recoverable (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**0.87**	**J**	2.5	0.21	ug/L		05/17/24 05:47	05/17/24 13:12	1
Magnesium	**1100**		250	23	ug/L		05/17/24 05:47	05/17/24 13:12	1
Manganese	**10**		10	2.2	ug/L		05/17/24 05:47	05/17/24 13:12	1
Nickel	**1.2**	**J**	10	0.42	ug/L		05/17/24 05:47	05/17/24 13:12	1
Potassium	**2300**		1000	44	ug/L		05/17/24 05:47	05/17/24 13:12	1
Selenium	2.5	U	5.0	0.99	ug/L		05/17/24 05:47	05/17/24 13:12	1
Silver	1.0	U	2.0	0.39	ug/L		05/17/24 05:47	05/17/24 13:12	1
Sodium	**6800**		1000	200	ug/L		05/17/24 05:47	05/17/24 13:12	1
Thallium	1.0	U	2.0	0.26	ug/L		05/17/24 05:47	05/17/24 13:12	1
Vanadium	2.5	U	10	0.63	ug/L		05/17/24 05:47	05/17/24 13:12	1
Zinc	**200**		25	2.8	ug/L		05/17/24 05:47	05/17/24 13:12	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	0.20	U	0.25	0.080	ug/L		05/17/24 12:59	05/21/24 16:35	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon (SW846 9060A)	**8.1**		1.0	0.50	mg/L			05/22/24 20:28	1

Client Sample ID: OU6-MW-259-20240515
Lab Sample ID: 680-250842-2
Date Collected: 05/15/24 08:20
Matrix: Water
Date Received: 05/16/24 10:28

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			05/18/24 18:24	1
Benzene	1.0	U	2.0	0.27	ug/L			05/18/24 18:24	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			05/18/24 18:24	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			05/18/24 18:24	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			05/18/24 18:24	1
Bromoform	2.0	U Q	2.5	0.59	ug/L			05/18/24 18:24	1
Bromomethane	10	U	20	3.7	ug/L			05/18/24 18:24	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			05/18/24 18:24	1
Carbon disulfide	1.0	U Q	2.0	0.43	ug/L			05/18/24 18:24	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			05/18/24 18:24	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			05/18/24 18:24	1
Chloroethane	10	U	20	4.6	ug/L			05/18/24 18:24	1
Chloroform	1.0	U	2.0	0.27	ug/L			05/18/24 18:24	1
Chloromethane	2.0	U	2.5	0.54	ug/L			05/18/24 18:24	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			05/18/24 18:24	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			05/18/24 18:24	1
cis-1,2-Dichloroethene	**1.2**	**J**	2.0	0.25	ug/L			05/18/24 18:24	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			05/18/24 18:24	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			05/18/24 18:24	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			05/18/24 18:24	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			05/18/24 18:24	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			05/18/24 18:24	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			05/18/24 18:24	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/18/24 18:24	1

Client Sample ID: OU6-MW-259-20240515
Date Collected: 05/15/24 08:20
Date Received: 05/16/24 10:28

Lab Sample ID: 680-250842-2
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/18/24 18:24	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/18/24 18:24	1
Dichlorodifluoromethane	1.0	U Q	2.0	0.36	ug/L			05/18/24 18:24	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			05/18/24 18:24	1
1,2-Dichloroethane	1.0	U	2.0	0.25	ug/L			05/18/24 18:24	1
1,1-Dichloroethene	1.0	U	2.0	0.33	ug/L			05/18/24 18:24	1
1,2-Dichloroethene, Total	**1.2**	**J**	2.0	0.37	ug/L			05/18/24 18:24	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			05/18/24 18:24	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			05/18/24 18:24	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			05/18/24 18:24	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			05/18/24 18:24	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			05/18/24 18:24	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			05/18/24 18:24	1
2-Hexanone	10	U	20	3.2	ug/L			05/18/24 18:24	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			05/18/24 18:24	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			05/18/24 18:24	1
Methyl acetate	10	U	20	3.2	ug/L			05/18/24 18:24	1
Methylcyclohexane	1.0	U	2.0	0.33	ug/L			05/18/24 18:24	1
Methylene Chloride	10	U	20	3.2	ug/L			05/18/24 18:24	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			05/18/24 18:24	1
Methyl tert-butyl ether	**2.8**	**J**	5.0	0.81	ug/L			05/18/24 18:24	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			05/18/24 18:24	1
Naphthalene	5.0	U	10	2.4	ug/L			05/18/24 18:24	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			05/18/24 18:24	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			05/18/24 18:24	1
o-Xylene	1.0	U	2.0	0.26	ug/L			05/18/24 18:24	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			05/18/24 18:24	1
Styrene	1.0	U	2.0	0.27	ug/L			05/18/24 18:24	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			05/18/24 18:24	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			05/18/24 18:24	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			05/18/24 18:24	1
Tetrachloroethene	**4.0**		2.0	0.35	ug/L			05/18/24 18:24	1
Toluene	1.0	U	2.0	0.25	ug/L			05/18/24 18:24	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			05/18/24 18:24	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			05/18/24 18:24	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			05/18/24 18:24	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			05/18/24 18:24	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			05/18/24 18:24	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			05/18/24 18:24	1
Trichloroethene	**2.5**		1.0	0.20	ug/L			05/18/24 18:24	1
Trichlorofluoromethane	1.0	U Q	2.0	0.33	ug/L			05/18/24 18:24	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			05/18/24 18:24	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			05/18/24 18:24	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			05/18/24 18:24	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			05/18/24 18:24	1
Vinyl chloride	1.0	U M	2.0	0.40	ug/L			05/18/24 18:24	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			05/18/24 18:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*85 - 114*		*05/18/24 18:24*	*1*

Client Sample ID: OU6-MW-259-20240515
Date Collected: 05/15/24 08:20
Date Received: 05/16/24 10:28

Lab Sample ID: 680-250842-2
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	*104*		*80 - 119*		*05/18/24 18:24*	*1*
1,2-Dichloroethane-d4 (Surr)	*92*		*81 - 118*		*05/18/24 18:24*	*1*
Toluene-d8 (Surr)	*96*		*89 - 112*		*05/18/24 18:24*	*1*

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	0.057	U M	0.23	0.021	ug/L		05/17/24 07:40	05/25/24 18:32	1
Acenaphthene	0.11	U	0.23	0.048	ug/L		05/17/24 07:40	05/25/24 18:32	1
Acenaphthylene	0.057	U	0.23	0.019	ug/L		05/17/24 07:40	05/25/24 18:32	1
Pyrene	0.11	U M	0.23	0.031	ug/L		05/17/24 07:40	05/25/24 18:32	1
2-Methylnaphthalene	0.046	U	0.23	0.013	ug/L		05/17/24 07:40	05/25/24 18:32	1
Anthracene	0.057	U	0.23	0.021	ug/L		05/17/24 07:40	05/25/24 18:32	1
Benzo[a]pyrene	0.11	U	0.23	0.030	ug/L		05/17/24 07:40	05/25/24 18:32	1
Benzo[a]anthracene	0.11	U	0.23	0.030	ug/L		05/17/24 07:40	05/25/24 18:32	1
Benzo[b]fluoranthene	0.11	U	0.23	0.030	ug/L		05/17/24 07:40	05/25/24 18:32	1
Benzo[g,h,i]perylene	0.11	U M	0.23	0.030	ug/L		05/17/24 07:40	05/25/24 18:32	1
Benzo[k]fluoranthene	0.11	U	0.23	0.033	ug/L		05/17/24 07:40	05/25/24 18:32	1
Chrysene	0.057	U	0.23	0.026	ug/L		05/17/24 07:40	05/25/24 18:32	1
Dibenz(a,h)anthracene	0.057	U	0.23	0.027	ug/L		05/17/24 07:40	05/25/24 18:32	1
Phenanthrene	0.23	U	0.46	0.063	ug/L		05/17/24 07:40	05/25/24 18:32	1
Indeno[1,2,3-cd]pyrene	0.11	U	0.23	0.032	ug/L		05/17/24 07:40	05/25/24 18:32	1
Naphthalene	0.057	U	0.23	0.016	ug/L		05/17/24 07:40	05/25/24 18:32	1
Fluoranthene	0.11	U M	0.23	0.031	ug/L		05/17/24 07:40	05/25/24 18:32	1
Fluorene	0.11	U	0.23	0.029	ug/L		05/17/24 07:40	05/25/24 18:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	*60*		*53 - 106*	*05/17/24 07:40*	*05/25/24 18:32*	*1*
2-methylnaphthalene-d10	*62*		*30 - 100*	*05/17/24 07:40*	*05/25/24 18:32*	*1*
Fluoranthene-d10	*95*		*42 - 114*	*05/17/24 07:40*	*05/25/24 18:32*	*1*
Nitrobenzene-d5	*71*		*42 - 100*	*05/17/24 07:40*	*05/25/24 18:32*	*1*
Terphenyl-d14	*97*		*53 - 111*	*05/17/24 07:40*	*05/25/24 18:32*	*1*

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) - RE

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	0.060	U M H	0.24	0.022	ug/L		05/29/24 12:48	05/30/24 16:56	1
Acenaphthene	0.12	U M H	0.24	0.050	ug/L		05/29/24 12:48	05/30/24 16:56	1
Acenaphthylene	0.060	U H	0.24	0.020	ug/L		05/29/24 12:48	05/30/24 16:56	1
Pyrene	0.12	U M H	0.24	0.032	ug/L		05/29/24 12:48	05/30/24 16:56	1
2-Methylnaphthalene	0.048	U H	0.24	0.013	ug/L		05/29/24 12:48	05/30/24 16:56	1
Anthracene	0.060	U H	0.24	0.022	ug/L		05/29/24 12:48	05/30/24 16:56	1
Benzo[a]pyrene	0.12	U H	0.24	0.031	ug/L		05/29/24 12:48	05/30/24 16:56	1
Benzo[a]anthracene	0.12	U H	0.24	0.031	ug/L		05/29/24 12:48	05/30/24 16:56	1
Benzo[b]fluoranthene	0.12	U H	0.24	0.031	ug/L		05/29/24 12:48	05/30/24 16:56	1
Benzo[g,h,i]perylene	0.12	U M H	0.24	0.031	ug/L		05/29/24 12:48	05/30/24 16:56	1
Benzo[k]fluoranthene	0.12	U H	0.24	0.035	ug/L		05/29/24 12:48	05/30/24 16:56	1
Chrysene	0.060	U H	0.24	0.028	ug/L		05/29/24 12:48	05/30/24 16:56	1
Dibenz(a,h)anthracene	0.060	U H	0.24	0.029	ug/L		05/29/24 12:48	05/30/24 16:56	1
Phenanthrene	0.24	U H	0.48	0.066	ug/L		05/29/24 12:48	05/30/24 16:56	1
Indeno[1,2,3-cd]pyrene	0.12	U H	0.24	0.034	ug/L		05/29/24 12:48	05/30/24 16:56	1
Naphthalene	0.060	U H	0.24	0.017	ug/L		05/29/24 12:48	05/30/24 16:56	1

Client Sample ID: OU6-MW-259-20240515
Date Collected: 05/15/24 08:20
Date Received: 05/16/24 10:28

Lab Sample ID: 680-250842-2
Matrix: Water

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) - RE (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	0.12	U M H	0.24	0.032	ug/L		05/29/24 12:48	05/30/24 16:56	1
Fluorene	0.12	U H	0.24	0.030	ug/L		05/29/24 12:48	05/30/24 16:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*62*		*53 - 106*	*05/29/24 12:48*	*05/30/24 16:56*	*1*
2-methylnaphthalene-d10	*60*		*30 - 100*	*05/29/24 12:48*	*05/30/24 16:56*	*1*
Fluoranthene-d10	*85*		*42 - 114*	*05/29/24 12:48*	*05/30/24 16:56*	*1*
Nitrobenzene-d5	*62*		*42 - 100*	*05/29/24 12:48*	*05/30/24 16:56*	*1*
Terphenyl-d14	*90*		*53 - 111*	*05/29/24 12:48*	*05/30/24 16:56*	*1*

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	11	U M	22	5.0	ug/L		05/20/24 06:53	05/20/24 21:10	1
1,2,4,5-Tetrachlorobenzene	11	U Q	22	4.9	ug/L		05/20/24 06:53	05/20/24 21:10	1
1,4-Dioxane	11	U	22	4.8	ug/L		05/20/24 06:53	05/20/24 21:10	1
2,3,4,6-Tetrachlorophenol	11	U	22	4.7	ug/L		05/20/24 06:53	05/20/24 21:10	1
2,4,5-Trichlorophenol	11	U	22	3.6	ug/L		05/20/24 06:53	05/20/24 21:10	1
2,4,6-Trichlorophenol	5.4	U	22	2.4	ug/L		05/20/24 06:53	05/20/24 21:10	1
2,4-Dichlorophenol	11	U	22	4.0	ug/L		05/20/24 06:53	05/20/24 21:10	1
2,4-Dimethylphenol	11	U Q	22	3.3	ug/L		05/20/24 06:53	05/20/24 21:10	1
2,4-Dinitrophenol	44	U	54	17	ug/L		05/20/24 06:53	05/20/24 21:10	1
2,4-Dinitrotoluene	5.4	U	11	2.5	ug/L		05/20/24 06:53	05/20/24 21:10	1
2,6-Dinitrotoluene	11	U	22	3.0	ug/L		05/20/24 06:53	05/20/24 21:10	1
2-Chloronaphthalene	11	U	22	5.2	ug/L		05/20/24 06:53	05/20/24 21:10	1
2-Chlorophenol	11	U	22	3.5	ug/L		05/20/24 06:53	05/20/24 21:10	1
2-Methylphenol	4.4	U M	11	2.0	ug/L		05/20/24 06:53	05/20/24 21:10	1
2-Nitroaniline	11	U	22	3.2	ug/L		05/20/24 06:53	05/20/24 21:10	1
2-Nitrophenol	11	U	22	4.2	ug/L		05/20/24 06:53	05/20/24 21:10	1
3 & 4 Methylphenol	4.4	U	11	1.5	ug/L		05/20/24 06:53	05/20/24 21:10	1
3,3'-Dichlorobenzidine	22	U	54	11	ug/L		05/20/24 06:53	05/20/24 21:10	1
3-Nitroaniline	11	U	54	3.3	ug/L		05/20/24 06:53	05/20/24 21:10	1
4,6-Dinitro-2-methylphenol	22	U	54	5.8	ug/L		05/20/24 06:53	05/20/24 21:10	1
4-Bromophenyl phenyl ether	11	U M	22	5.1	ug/L		05/20/24 06:53	05/20/24 21:10	1
4-Chloro-3-methylphenol	11	U	22	2.7	ug/L		05/20/24 06:53	05/20/24 21:10	1
4-Chloroaniline	4.4	U Q	11	1.1	ug/L		05/20/24 06:53	05/20/24 21:10	1
4-Chlorophenyl phenyl ether	13	U	22	5.8	ug/L		05/20/24 06:53	05/20/24 21:10	1
4-Nitroaniline	11	U	54	3.3	ug/L		05/20/24 06:53	05/20/24 21:10	1
4-Nitrophenol	22	U	54	8.8	ug/L		05/20/24 06:53	05/20/24 21:10	1
Acetophenone	5.4	U	11	2.4	ug/L		05/20/24 06:53	05/20/24 21:10	1
Atrazine	5.4	U	11	2.4	ug/L		05/20/24 06:53	05/20/24 21:10	1
Benzaldehyde	11	U	22	5.2	ug/L		05/20/24 06:53	05/20/24 21:10	1
bis (2-chloroisopropyl) ether	11	U Q	22	3.4	ug/L		05/20/24 06:53	05/20/24 21:10	1
Bis(2-chloroethoxy)methane	4.4	U Q	11	2.0	ug/L		05/20/24 06:53	05/20/24 21:10	1
Bis(2-chloroethyl)ether	11	U Q	22	3.9	ug/L		05/20/24 06:53	05/20/24 21:10	1
Bis(2-ethylhexyl) phthalate	11	U	22	3.3	ug/L		05/20/24 06:53	05/20/24 21:10	1
Butyl benzyl phthalate	11	U	22	3.0	ug/L		05/20/24 06:53	05/20/24 21:10	1
Caprolactam	11	U	22	3.0	ug/L		05/20/24 06:53	05/20/24 21:10	1
Carbazole	4.4	U	11	2.0	ug/L		05/20/24 06:53	05/20/24 21:10	1
Dibenzofuran	4.4	U	11	2.1	ug/L		05/20/24 06:53	05/20/24 21:10	1
Diethyl phthalate	5.4	U	11	2.4	ug/L		05/20/24 06:53	05/20/24 21:10	1

Client Sample ID: OU6-MW-259-20240515

Date Collected: 05/15/24 08:20
Date Received: 05/16/24 10:28

Lab Sample ID: 680-250842-2

Matrix: Water

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Dimethyl phthalate	5.4	U	11	2.3	ug/L		05/20/24 06:53	05/20/24 21:10	1
Di-n-butyl phthalate	5.4	U	11	2.5	ug/L		05/20/24 06:53	05/20/24 21:10	1
Di-n-octyl phthalate	11	U	22	3.0	ug/L		05/20/24 06:53	05/20/24 21:10	1
Hexachlorobenzene	4.4	U	11	1.7	ug/L		05/20/24 06:53	05/20/24 21:10	1
Hexachlorobutadiene	11	U Q	22	4.4	ug/L		05/20/24 06:53	05/20/24 21:10	1
Hexachlorocyclopentadiene	11	U	22	3.8	ug/L		05/20/24 06:53	05/20/24 21:10	1
Hexachloroethane	11	U Q	22	3.9	ug/L		05/20/24 06:53	05/20/24 21:10	1
Isophorone	4.4	U Q	11	2.2	ug/L		05/20/24 06:53	05/20/24 21:10	1
Nitrobenzene	11	U Q	22	3.8	ug/L		05/20/24 06:53	05/20/24 21:10	1
N-Nitrosodi-n-propylamine	5.4	U Q	11	2.6	ug/L		05/20/24 06:53	05/20/24 21:10	1
N-Nitrosodiphenylamine	11	U M	22	3.2	ug/L		05/20/24 06:53	05/20/24 21:10	1
Pentachlorophenol	22	U	54	11	ug/L		05/20/24 06:53	05/20/24 21:10	1
Phenol	4.4	U	11	1.6	ug/L		05/20/24 06:53	05/20/24 21:10	1
Pyridine	22	U	54	8.1	ug/L		05/20/24 06:53	05/20/24 21:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*46*		*43 - 140*	*05/20/24 06:53*	*05/20/24 21:10*	*1*
2-Fluorobiphenyl	*45*		*44 - 119*	*05/20/24 06:53*	*05/20/24 21:10*	*1*
2-Fluorophenol	*27*		*19 - 119*	*05/20/24 06:53*	*05/20/24 21:10*	*1*
Nitrobenzene-d5	*41*	*Q*	*44 - 120*	*05/20/24 06:53*	*05/20/24 21:10*	*1*
Phenol-d5	*19*		*10 - 130*	*05/20/24 06:53*	*05/20/24 21:10*	*1*
Terphenyl-d14	*69*		*50 - 134*	*05/20/24 06:53*	*05/20/24 21:10*	*1*

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS) - RE

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	11	U M H	22	5.0	ug/L		05/23/24 10:55	05/24/24 00:40	1
1,2,4,5-Tetrachlorobenzene	11	U H	22	4.9	ug/L		05/23/24 10:55	05/24/24 00:40	1
1,4-Dioxane	11	U H	22	4.8	ug/L		05/23/24 10:55	05/24/24 00:40	1
2,3,4,6-Tetrachlorophenol	11	U H	22	4.7	ug/L		05/23/24 10:55	05/24/24 00:40	1
2,4,5-Trichlorophenol	11	U H	22	3.6	ug/L		05/23/24 10:55	05/24/24 00:40	1
2,4,6-Trichlorophenol	5.4	U H	22	2.4	ug/L		05/23/24 10:55	05/24/24 00:40	1
2,4-Dichlorophenol	11	U H	22	4.0	ug/L		05/23/24 10:55	05/24/24 00:40	1
2,4-Dimethylphenol	11	U H Q	22	3.3	ug/L		05/23/24 10:55	05/24/24 00:40	1
2,4-Dinitrophenol	43	U H	54	17	ug/L		05/23/24 10:55	05/24/24 00:40	1
2,4-Dinitrotoluene	5.4	U H	11	2.5	ug/L		05/23/24 10:55	05/24/24 00:40	1
2,6-Dinitrotoluene	11	U H	22	3.0	ug/L		05/23/24 10:55	05/24/24 00:40	1
2-Chloronaphthalene	11	U H	22	5.2	ug/L		05/23/24 10:55	05/24/24 00:40	1
2-Chlorophenol	11	U H	22	3.5	ug/L		05/23/24 10:55	05/24/24 00:40	1
2-Methylphenol	4.3	U H	11	2.0	ug/L		05/23/24 10:55	05/24/24 00:40	1
2-Nitroaniline	11	U H	22	3.1	ug/L		05/23/24 10:55	05/24/24 00:40	1
2-Nitrophenol	11	U H	22	4.2	ug/L		05/23/24 10:55	05/24/24 00:40	1
3 & 4 Methylphenol	4.3	U H	11	1.5	ug/L		05/23/24 10:55	05/24/24 00:40	1
3,3'-Dichlorobenzidine	22	U H	54	11	ug/L		05/23/24 10:55	05/24/24 00:40	1
3-Nitroaniline	11	U H	54	3.3	ug/L		05/23/24 10:55	05/24/24 00:40	1
4,6-Dinitro-2-methylphenol	22	U H	54	5.8	ug/L		05/23/24 10:55	05/24/24 00:40	1
4-Bromophenyl phenyl ether	11	U H	22	5.1	ug/L		05/23/24 10:55	05/24/24 00:40	1
4-Chloro-3-methylphenol	11	U H	22	2.7	ug/L		05/23/24 10:55	05/24/24 00:40	1
4-Chloroaniline	4.3	U H	11	1.1	ug/L		05/23/24 10:55	05/24/24 00:40	1
4-Chlorophenyl phenyl ether	13	U H	22	5.8	ug/L		05/23/24 10:55	05/24/24 00:40	1
4-Nitroaniline	11	U H	54	3.3	ug/L		05/23/24 10:55	05/24/24 00:40	1

Client Sample ID: OU6-MW-259-20240515
Date Collected: 05/15/24 08:20
Date Received: 05/16/24 10:28

Lab Sample ID: 680-250842-2
Matrix: Water

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS) - RE (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	22	U H	54	8.8	ug/L		05/23/24 10:55	05/24/24 00:40	1
Acetophenone	5.4	U H	11	2.4	ug/L		05/23/24 10:55	05/24/24 00:40	1
Atrazine	5.4	U H	11	2.4	ug/L		05/23/24 10:55	05/24/24 00:40	1
Benzaldehyde	11	U M H	22	5.2	ug/L		05/23/24 10:55	05/24/24 00:40	1
bis (2-chloroisopropyl) ether	11	U H	22	3.4	ug/L		05/23/24 10:55	05/24/24 00:40	1
Bis(2-chloroethoxy)methane	4.3	U H	11	2.0	ug/L		05/23/24 10:55	05/24/24 00:40	1
Bis(2-chloroethyl)ether	11	U H	22	3.9	ug/L		05/23/24 10:55	05/24/24 00:40	1
Bis(2-ethylhexyl) phthalate	11	U H	22	3.3	ug/L		05/23/24 10:55	05/24/24 00:40	1
Butyl benzyl phthalate	11	U H	22	3.0	ug/L		05/23/24 10:55	05/24/24 00:40	1
Caprolactam	11	U H	22	3.0	ug/L		05/23/24 10:55	05/24/24 00:40	1
Carbazole	4.3	U H	11	2.0	ug/L		05/23/24 10:55	05/24/24 00:40	1
Dibenzofuran	4.3	U H	11	2.1	ug/L		05/23/24 10:55	05/24/24 00:40	1
Diethyl phthalate	5.4	U H	11	2.4	ug/L		05/23/24 10:55	05/24/24 00:40	1
Dimethyl phthalate	5.4	U H	11	2.3	ug/L		05/23/24 10:55	05/24/24 00:40	1
Di-n-butyl phthalate	5.4	U H	11	2.5	ug/L		05/23/24 10:55	05/24/24 00:40	1
Di-n-octyl phthalate	11	U H	22	3.0	ug/L		05/23/24 10:55	05/24/24 00:40	1
Hexachlorobenzene	4.3	U H	11	1.7	ug/L		05/23/24 10:55	05/24/24 00:40	1
Hexachlorobutadiene	11	U H	22	4.3	ug/L		05/23/24 10:55	05/24/24 00:40	1
Hexachlorocyclopentadiene	11	U H	22	3.8	ug/L		05/23/24 10:55	05/24/24 00:40	1
Hexachloroethane	11	U H	22	3.9	ug/L		05/23/24 10:55	05/24/24 00:40	1
Isophorone	4.3	U H	11	2.2	ug/L		05/23/24 10:55	05/24/24 00:40	1
Nitrobenzene	11	U H	22	3.8	ug/L		05/23/24 10:55	05/24/24 00:40	1
N-Nitrosodi-n-propylamine	5.4	U H	11	2.6	ug/L		05/23/24 10:55	05/24/24 00:40	1
N-Nitrosodiphenylamine	11	U H	22	3.1	ug/L		05/23/24 10:55	05/24/24 00:40	1
Pentachlorophenol	22	U H	54	11	ug/L		05/23/24 10:55	05/24/24 00:40	1
Phenol	4.3	U M H	11	1.6	ug/L		05/23/24 10:55	05/24/24 00:40	1
Pyridine	22	U H	54	8.0	ug/L		05/23/24 10:55	05/24/24 00:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*67*		*43 - 140*	*05/23/24 10:55*	*05/24/24 00:40*	*1*
2-Fluorobiphenyl	*57*		*44 - 119*	*05/23/24 10:55*	*05/24/24 00:40*	*1*
2-Fluorophenol	*28*		*19 - 119*	*05/23/24 10:55*	*05/24/24 00:40*	*1*
Nitrobenzene-d5	*47*		*44 - 120*	*05/23/24 10:55*	*05/24/24 00:40*	*1*
Phenol-d5	*20*		*10 - 130*	*05/23/24 10:55*	*05/24/24 00:40*	*1*
Terphenyl-d14	*72*		*50 - 134*	*05/23/24 10:55*	*05/24/24 00:40*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	2.0	U M	5.0	1.0	ug/L		05/24/24 13:13	05/24/24 20:02	1
Ethylene	2.0	U	5.0	1.0	ug/L		05/24/24 13:13	05/24/24 20:02	1
Methane	**78**	**M**	6.5	3.0	ug/L		05/24/24 13:13	05/24/24 20:02	1

Method: SW846 8081B 8082A - Organochlorine Pesticides & PCBs (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	0.0040	U	0.051	0.0020	ug/L		05/17/24 12:07	05/20/24 20:21	1
4,4'-DDE	0.0040	U	0.051	0.0010	ug/L		05/17/24 12:07	05/20/24 20:21	1
4,4'-DDT	0.0040	U	0.051	0.0010	ug/L		05/17/24 12:07	05/20/24 20:21	1
Aldrin	0.0040	U M	0.051	0.0020	ug/L		05/17/24 12:07	05/20/24 20:21	1
alpha-BHC	0.0040	U M	0.051	0.0010	ug/L		05/17/24 12:07	05/20/24 20:21	1
beta-BHC	0.0040	U	0.051	0.0020	ug/L		05/17/24 12:07	05/20/24 20:21	1

Client Sample ID: OU6-MW-259-20240515

Date Collected: 05/15/24 08:20
Date Received: 05/16/24 10:28

Lab Sample ID: 680-250842-2

Matrix: Water

Method: SW846 8081B 8082A - Organochlorine Pesticides & PCBs (GC) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
delta-BHC	0.0040	U	0.051	0.0020	ug/L		05/17/24 12:07	05/20/24 20:21	1
Dieldrin	0.0040	U	0.051	0.0020	ug/L		05/17/24 12:07	05/20/24 20:21	1
Endosulfan I	0.0040	U	0.051	0.0020	ug/L		05/17/24 12:07	05/20/24 20:21	1
Endosulfan II	0.0040	U	0.051	0.0020	ug/L		05/17/24 12:07	05/20/24 20:21	1
Endosulfan sulfate	0.0040	U	0.051	0.0020	ug/L		05/17/24 12:07	05/20/24 20:21	1
Endrin	0.0040	U M	0.051	0.0010	ug/L		05/17/24 12:07	05/20/24 20:21	1
Endrin aldehyde	0.016	U	0.051	0.0040	ug/L		05/17/24 12:07	05/20/24 20:21	1
Endrin ketone	0.016	U	0.051	0.0040	ug/L		05/17/24 12:07	05/20/24 20:21	1
gamma-BHC (Lindane)	0.0040	U M	0.051	0.0010	ug/L		05/17/24 12:07	05/20/24 20:21	1
Heptachlor	0.0040	U	0.051	0.0010	ug/L		05/17/24 12:07	05/20/24 20:21	1
Heptachlor epoxide	0.0040	U	0.051	0.0020	ug/L		05/17/24 12:07	05/20/24 20:21	1
Methoxychlor	0.0040	U M	0.051	0.0020	ug/L		05/17/24 12:07	05/20/24 20:21	1
Chlordane (technical)	0.40	U	0.51	0.16	ug/L		05/17/24 12:07	05/20/24 20:21	1
PCB-1016	0.24	U M	0.51	0.10	ug/L		05/17/24 12:07	05/20/24 20:21	1
PCB-1221	0.24	U	0.51	0.10	ug/L		05/17/24 12:07	05/20/24 20:21	1
PCB-1232	0.24	U	0.51	0.10	ug/L		05/17/24 12:07	05/20/24 20:21	1
PCB-1242	0.24	U	0.51	0.10	ug/L		05/17/24 12:07	05/20/24 20:21	1
PCB-1248	0.24	U	0.51	0.10	ug/L		05/17/24 12:07	05/20/24 20:21	1
PCB-1254	0.24	U	0.51	0.10	ug/L		05/17/24 12:07	05/20/24 20:21	1
PCB-1260	0.24	U M Q	0.51	0.10	ug/L		05/17/24 12:07	05/20/24 20:21	1
Toxaphene	0.81	U M	5.1	0.31	ug/L		05/17/24 12:07	05/20/24 20:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*76*		*14 - 130*	*05/17/24 12:07*	*05/20/24 20:21*	*1*
Tetrachloro-m-xylene	*37*	*Q*	*44 - 124*	*05/17/24 12:07*	*05/20/24 20:21*	*1*

Method: SW846 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	100	U	200	35	ug/L		05/17/24 05:47	05/17/24 13:16	1
Antimony	1.5	U	5.0	0.34	ug/L		05/17/24 05:47	05/17/24 13:16	1
Arsenic	3.0	U	5.0	0.86	ug/L		05/17/24 05:47	05/17/24 13:16	1
Barium	**22**		5.0	0.89	ug/L		05/17/24 05:47	05/17/24 13:16	1
Beryllium	0.40	U	0.50	0.20	ug/L		05/17/24 05:47	05/17/24 13:16	1
Boron	**27**	**J**	100	22	ug/L		05/17/24 05:47	05/17/24 13:16	1
Cadmium	0.20	U	0.50	0.078	ug/L		05/17/24 05:47	05/17/24 13:16	1
Calcium	**1500**		500	140	ug/L		05/17/24 05:47	05/17/24 13:16	1
Chromium	2.5	U	20	0.81	ug/L		05/17/24 05:47	05/17/24 13:16	1
Cobalt	**0.93**	**J**	1.0	0.22	ug/L		05/17/24 05:47	05/20/24 11:36	1
Copper	2.0	U	5.0	1.1	ug/L		05/17/24 05:47	05/17/24 13:16	1
Iron	**56**	**J**	100	12	ug/L		05/17/24 05:47	05/17/24 13:16	1
Lead	1.0	U	2.5	0.21	ug/L		05/17/24 05:47	05/17/24 13:16	1
Magnesium	**900**		250	23	ug/L		05/17/24 05:47	05/17/24 13:16	1
Manganese	**73**		10	2.2	ug/L		05/17/24 05:47	05/17/24 13:16	1
Nickel	**0.88**	**J**	10	0.42	ug/L		05/17/24 05:47	05/17/24 13:16	1
Potassium	**1600**		1000	44	ug/L		05/17/24 05:47	05/17/24 13:16	1
Selenium	2.5	U	5.0	0.99	ug/L		05/17/24 05:47	05/17/24 13:16	1
Silver	1.0	U	2.0	0.39	ug/L		05/17/24 05:47	05/17/24 13:16	1
Sodium	**23000**		1000	200	ug/L		05/17/24 05:47	05/17/24 13:16	1
Thallium	1.0	U	2.0	0.26	ug/L		05/17/24 05:47	05/17/24 13:16	1
Vanadium	2.5	U	10	0.63	ug/L		05/17/24 05:47	05/17/24 13:16	1

Client Sample ID: OU6-MW-259-20240515
Lab Sample ID: 680-250842-2
Date Collected: 05/15/24 08:20
Matrix: Water
Date Received: 05/16/24 10:28

Method: SW846 6020A - Metals (ICP/MS) - Total Recoverable (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	**6.4**	**J**	25	2.8	ug/L		05/17/24 05:47	05/17/24 13:16	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	**0.12**	**J**	0.25	0.080	ug/L		05/17/24 12:59	05/21/24 16:41	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon (SW846 9060A)	**2.0**		1.0	0.50	mg/L			05/22/24 20:52	1

Client Sample ID: OU6-MW-280-20240515
Lab Sample ID: 680-250842-3
Date Collected: 05/15/24 12:50
Matrix: Water
Date Received: 05/16/24 10:28

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			05/18/24 18:47	1
Benzene	**0.29**	**J**	2.0	0.27	ug/L			05/18/24 18:47	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			05/18/24 18:47	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			05/18/24 18:47	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			05/18/24 18:47	1
Bromoform	2.0	U	2.5	0.59	ug/L			05/20/24 17:03	1
Bromomethane	10	U	20	3.7	ug/L			05/18/24 18:47	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			05/18/24 18:47	1
Carbon disulfide	1.0	U Q	2.0	0.43	ug/L			05/18/24 18:47	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			05/18/24 18:47	1
Chlorobenzene	**3.7**		1.0	0.15	ug/L			05/18/24 18:47	1
Chloroethane	10	U	20	4.6	ug/L			05/18/24 18:47	1
Chloroform	1.0	U	2.0	0.27	ug/L			05/18/24 18:47	1
Chloromethane	2.0	U	2.5	0.54	ug/L			05/18/24 18:47	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			05/18/24 18:47	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			05/18/24 18:47	1
cis-1,2-Dichloroethene	**1.1**	**J**	2.0	0.25	ug/L			05/18/24 18:47	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			05/18/24 18:47	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			05/18/24 18:47	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			05/18/24 18:47	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			05/18/24 18:47	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			05/18/24 18:47	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			05/18/24 18:47	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/18/24 18:47	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/18/24 18:47	1
1,4-Dichlorobenzene	**1.3**	**J**	2.0	0.31	ug/L			05/18/24 18:47	1
Dichlorodifluoromethane	1.0	U Q	2.0	0.36	ug/L			05/18/24 18:47	1
1,1-Dichloroethane	**0.38**	**J**	2.0	0.33	ug/L			05/18/24 18:47	1
1,2-Dichloroethane	1.0	U	2.0	0.25	ug/L			05/18/24 18:47	1
1,1-Dichloroethene	1.0	U	2.0	0.33	ug/L			05/18/24 18:47	1
1,2-Dichloroethene, Total	**1.1**	**J**	2.0	0.37	ug/L			05/18/24 18:47	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			05/18/24 18:47	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			05/18/24 18:47	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			05/18/24 18:47	1

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-250842-1

Client Sample ID: OU6-MW-280-20240515
Date Collected: 05/15/24 12:50
Date Received: 05/16/24 10:28

Lab Sample ID: 680-250842-3
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			05/18/24 18:47	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			05/18/24 18:47	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			05/18/24 18:47	1
2-Hexanone	10	U	20	3.2	ug/L			05/18/24 18:47	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			05/18/24 18:47	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			05/18/24 18:47	1
Methyl acetate	10	U	20	3.2	ug/L			05/18/24 18:47	1
Methylcyclohexane	1.0	U	2.0	0.33	ug/L			05/18/24 18:47	1
Methylene Chloride	10	U	20	3.2	ug/L			05/18/24 18:47	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			05/18/24 18:47	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			05/18/24 18:47	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			05/18/24 18:47	1
Naphthalene	5.0	U	10	2.4	ug/L			05/18/24 18:47	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			05/18/24 18:47	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			05/18/24 18:47	1
o-Xylene	1.0	U	2.0	0.26	ug/L			05/18/24 18:47	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			05/18/24 18:47	1
Styrene	1.0	U	2.0	0.27	ug/L			05/18/24 18:47	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			05/18/24 18:47	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			05/18/24 18:47	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			05/18/24 18:47	1
Tetrachloroethene	1.0	U	2.0	0.35	ug/L			05/18/24 18:47	1
Toluene	1.0	U	2.0	0.25	ug/L			05/18/24 18:47	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			05/18/24 18:47	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			05/18/24 18:47	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			05/18/24 18:47	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			05/18/24 18:47	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			05/18/24 18:47	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			05/18/24 18:47	1
Trichloroethene	0.50	U	1.0	0.20	ug/L			05/18/24 18:47	1
Trichlorofluoromethane	1.0	U Q	2.0	0.33	ug/L			05/18/24 18:47	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			05/18/24 18:47	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			05/18/24 18:47	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			05/18/24 18:47	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			05/18/24 18:47	1
Vinyl chloride	**1.2**	**J**	2.0	0.40	ug/L			05/18/24 18:47	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			05/18/24 18:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*85 - 114*		*05/18/24 18:47*	*1*
4-Bromofluorobenzene (Surr)	*102*		*85 - 114*		*05/20/24 17:03*	*1*
Dibromofluoromethane (Surr)	*105*		*80 - 119*		*05/18/24 18:47*	*1*
Dibromofluoromethane (Surr)	*111*		*80 - 119*		*05/20/24 17:03*	*1*
1,2-Dichloroethane-d4 (Surr)	*92*		*81 - 118*		*05/18/24 18:47*	*1*
1,2-Dichloroethane-d4 (Surr)	*112*		*81 - 118*		*05/20/24 17:03*	*1*
Toluene-d8 (Surr)	*99*		*89 - 112*		*05/18/24 18:47*	*1*
Toluene-d8 (Surr)	*105*		*89 - 112*		*05/20/24 17:03*	*1*

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-250842-1

Client Sample ID: OU6-MW-280-20240515

Date Collected: 05/15/24 12:50
Date Received: 05/16/24 10:28

Lab Sample ID: 680-250842-3

Matrix: Water

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	0.059	U M	0.24	0.021	ug/L		05/17/24 07:40	05/25/24 18:56	1
Acenaphthene	0.12	U M	0.24	0.050	ug/L		05/17/24 07:40	05/25/24 18:56	1
Acenaphthylene	0.059	U M	0.24	0.020	ug/L		05/17/24 07:40	05/25/24 18:56	1
Pyrene	0.12	U M	0.24	0.032	ug/L		05/17/24 07:40	05/25/24 18:56	1
2-Methylnaphthalene	0.047	U	0.24	0.013	ug/L		05/17/24 07:40	05/25/24 18:56	1
Anthracene	0.059	U	0.24	0.021	ug/L		05/17/24 07:40	05/25/24 18:56	1
Benzo[a]pyrene	0.12	U	0.24	0.031	ug/L		05/17/24 07:40	05/25/24 18:56	1
Benzo[a]anthracene	0.12	U	0.24	0.031	ug/L		05/17/24 07:40	05/25/24 18:56	1
Benzo[b]fluoranthene	0.12	U	0.24	0.031	ug/L		05/17/24 07:40	05/25/24 18:56	1
Benzo[g,h,i]perylene	0.12	U	0.24	0.031	ug/L		05/17/24 07:40	05/25/24 18:56	1
Benzo[k]fluoranthene	0.12	U	0.24	0.034	ug/L		05/17/24 07:40	05/25/24 18:56	1
Chrysene	0.059	U	0.24	0.027	ug/L		05/17/24 07:40	05/25/24 18:56	1
Dibenz(a,h)anthracene	0.059	U	0.24	0.028	ug/L		05/17/24 07:40	05/25/24 18:56	1
Phenanthrene	**0.089**	**J**	0.47	0.065	ug/L		05/17/24 07:40	05/25/24 18:56	1
Indeno[1,2,3-cd]pyrene	0.12	U	0.24	0.033	ug/L		05/17/24 07:40	05/25/24 18:56	1
Naphthalene	**0.16**	**J**	0.24	0.017	ug/L		05/17/24 07:40	05/25/24 18:56	1
Fluoranthene	0.12	U M	0.24	0.032	ug/L		05/17/24 07:40	05/25/24 18:56	1
Fluorene	0.12	U M	0.24	0.029	ug/L		05/17/24 07:40	05/25/24 18:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*65*		*53 - 106*	*05/17/24 07:40*	*05/25/24 18:56*	*1*
2-methylnaphthalene-d10	*67*		*30 - 100*	*05/17/24 07:40*	*05/25/24 18:56*	*1*
Fluoranthene-d10	*86*		*42 - 114*	*05/17/24 07:40*	*05/25/24 18:56*	*1*
Nitrobenzene-d5	*72*		*42 - 100*	*05/17/24 07:40*	*05/25/24 18:56*	*1*
Terphenyl-d14	*87*		*53 - 111*	*05/17/24 07:40*	*05/25/24 18:56*	*1*

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) - RE

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	0.060	U M H	0.24	0.022	ug/L		05/29/24 12:48	05/30/24 17:19	1
Acenaphthene	0.12	U H	0.24	0.050	ug/L		05/29/24 12:48	05/30/24 17:19	1
Acenaphthylene	0.060	U M H	0.24	0.020	ug/L		05/29/24 12:48	05/30/24 17:19	1
Pyrene	0.12	U M H	0.24	0.032	ug/L		05/29/24 12:48	05/30/24 17:19	1
2-Methylnaphthalene	0.048	U H	0.24	0.013	ug/L		05/29/24 12:48	05/30/24 17:19	1
Anthracene	0.060	U H	0.24	0.022	ug/L		05/29/24 12:48	05/30/24 17:19	1
Benzo[a]pyrene	0.12	U H	0.24	0.031	ug/L		05/29/24 12:48	05/30/24 17:19	1
Benzo[a]anthracene	0.12	U H	0.24	0.031	ug/L		05/29/24 12:48	05/30/24 17:19	1
Benzo[b]fluoranthene	0.12	U H	0.24	0.031	ug/L		05/29/24 12:48	05/30/24 17:19	1
Benzo[g,h,i]perylene	0.12	U M H	0.24	0.031	ug/L		05/29/24 12:48	05/30/24 17:19	1
Benzo[k]fluoranthene	0.12	U H	0.24	0.035	ug/L		05/29/24 12:48	05/30/24 17:19	1
Chrysene	0.060	U H	0.24	0.028	ug/L		05/29/24 12:48	05/30/24 17:19	1
Dibenz(a,h)anthracene	0.060	U H	0.24	0.029	ug/L		05/29/24 12:48	05/30/24 17:19	1
Phenanthrene	0.24	U H	0.48	0.066	ug/L		05/29/24 12:48	05/30/24 17:19	1
Indeno[1,2,3-cd]pyrene	0.12	U H	0.24	0.034	ug/L		05/29/24 12:48	05/30/24 17:19	1
Naphthalene	0.060	U H	0.24	0.017	ug/L		05/29/24 12:48	05/30/24 17:19	1
Fluoranthene	0.12	U M H	0.24	0.032	ug/L		05/29/24 12:48	05/30/24 17:19	1
Fluorene	0.12	U H	0.24	0.030	ug/L		05/29/24 12:48	05/30/24 17:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*66*		*53 - 106*	*05/29/24 12:48*	*05/30/24 17:19*	*1*
2-methylnaphthalene-d10	*63*		*30 - 100*	*05/29/24 12:48*	*05/30/24 17:19*	*1*

Client Sample ID: OU6-MW-280-20240515
Date Collected: 05/15/24 12:50
Date Received: 05/16/24 10:28

Lab Sample ID: 680-250842-3
Matrix: Water

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) - RE (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Fluoranthene-d10	*84*		*42 - 114*	*05/29/24 12:48*	*05/30/24 17:19*	*1*
Nitrobenzene-d5	*61*		*42 - 100*	*05/29/24 12:48*	*05/30/24 17:19*	*1*
Terphenyl-d14	*86*		*53 - 111*	*05/29/24 12:48*	*05/30/24 17:19*	*1*

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	11	U M	21	4.9	ug/L		05/20/24 06:53	05/20/24 21:36	1
1,2,4,5-Tetrachlorobenzene	11	U	21	4.8	ug/L		05/20/24 06:53	05/20/24 21:36	1
1,4-Dioxane	11	U	21	4.7	ug/L		05/20/24 06:53	05/20/24 21:36	1
2,3,4,6-Tetrachlorophenol	11	U	21	4.6	ug/L		05/20/24 06:53	05/20/24 21:36	1
2,4,5-Trichlorophenol	11	U	21	3.5	ug/L		05/20/24 06:53	05/20/24 21:36	1
2,4,6-Trichlorophenol	5.3	U	21	2.4	ug/L		05/20/24 06:53	05/20/24 21:36	1
2,4-Dichlorophenol	11	U	21	4.0	ug/L		05/20/24 06:53	05/20/24 21:36	1
2,4-Dimethylphenol	11	U Q	21	3.2	ug/L		05/20/24 06:53	05/20/24 21:36	1
2,4-Dinitrophenol	43	U	53	17	ug/L		05/20/24 06:53	05/20/24 21:36	1
2,4-Dinitrotoluene	5.3	U	11	2.5	ug/L		05/20/24 06:53	05/20/24 21:36	1
2,6-Dinitrotoluene	11	U	21	3.0	ug/L		05/20/24 06:53	05/20/24 21:36	1
2-Chloronaphthalene	11	U	21	5.1	ug/L		05/20/24 06:53	05/20/24 21:36	1
2-Chlorophenol	11	U	21	3.4	ug/L		05/20/24 06:53	05/20/24 21:36	1
2-Methylphenol	4.3	U	11	1.9	ug/L		05/20/24 06:53	05/20/24 21:36	1
2-Nitroaniline	11	U M	21	3.1	ug/L		05/20/24 06:53	05/20/24 21:36	1
2-Nitrophenol	11	U	21	4.2	ug/L		05/20/24 06:53	05/20/24 21:36	1
3 & 4 Methylphenol	4.3	U	11	1.5	ug/L		05/20/24 06:53	05/20/24 21:36	1
3,3'-Dichlorobenzidine	21	U	53	11	ug/L		05/20/24 06:53	05/20/24 21:36	1
3-Nitroaniline	11	U	53	3.2	ug/L		05/20/24 06:53	05/20/24 21:36	1
4,6-Dinitro-2-methylphenol	21	U	53	5.7	ug/L		05/20/24 06:53	05/20/24 21:36	1
4-Bromophenyl phenyl ether	11	U	21	5.0	ug/L		05/20/24 06:53	05/20/24 21:36	1
4-Chloro-3-methylphenol	11	U	21	2.7	ug/L		05/20/24 06:53	05/20/24 21:36	1
4-Chloroaniline	4.3	U	11	1.1	ug/L		05/20/24 06:53	05/20/24 21:36	1
4-Chlorophenyl phenyl ether	13	U	21	5.7	ug/L		05/20/24 06:53	05/20/24 21:36	1
4-Nitroaniline	11	U	53	3.2	ug/L		05/20/24 06:53	05/20/24 21:36	1
4-Nitrophenol	21	U	53	8.7	ug/L		05/20/24 06:53	05/20/24 21:36	1
Acetophenone	5.3	U M	11	2.4	ug/L		05/20/24 06:53	05/20/24 21:36	1
Atrazine	5.3	U	11	2.4	ug/L		05/20/24 06:53	05/20/24 21:36	1
Benzaldehyde	11	U M	21	5.1	ug/L		05/20/24 06:53	05/20/24 21:36	1
bis (2-chloroisopropyl) ether	11	U	21	3.3	ug/L		05/20/24 06:53	05/20/24 21:36	1
Bis(2-chloroethoxy)methane	4.3	U	11	1.9	ug/L		05/20/24 06:53	05/20/24 21:36	1
Bis(2-chloroethyl)ether	11	U Q	21	3.8	ug/L		05/20/24 06:53	05/20/24 21:36	1
Bis(2-ethylhexyl) phthalate	11	U	21	3.2	ug/L		05/20/24 06:53	05/20/24 21:36	1
Butyl benzyl phthalate	11	U	21	3.0	ug/L		05/20/24 06:53	05/20/24 21:36	1
Caprolactam	11	U	21	3.0	ug/L		05/20/24 06:53	05/20/24 21:36	1
Carbazole	4.3	U M	11	1.9	ug/L		05/20/24 06:53	05/20/24 21:36	1
Dibenzofuran	4.3	U	11	2.0	ug/L		05/20/24 06:53	05/20/24 21:36	1
Diethyl phthalate	5.3	U	11	2.4	ug/L		05/20/24 06:53	05/20/24 21:36	1
Dimethyl phthalate	5.3	U	11	2.2	ug/L		05/20/24 06:53	05/20/24 21:36	1
Di-n-butyl phthalate	5.3	U	11	2.5	ug/L		05/20/24 06:53	05/20/24 21:36	1
Di-n-octyl phthalate	11	U	21	3.0	ug/L		05/20/24 06:53	05/20/24 21:36	1
Hexachlorobenzene	4.3	U	11	1.7	ug/L		05/20/24 06:53	05/20/24 21:36	1
Hexachlorobutadiene	11	U	21	4.3	ug/L		05/20/24 06:53	05/20/24 21:36	1

Client Sample ID: OU6-MW-280-20240515

Date Collected: 05/15/24 12:50
Date Received: 05/16/24 10:28

Lab Sample ID: 680-250842-3
Matrix: Water

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorocyclopentadiene	11	U	21	3.7	ug/L		05/20/24 06:53	05/20/24 21:36	1
Hexachloroethane	11	U	21	3.8	ug/L		05/20/24 06:53	05/20/24 21:36	1
Isophorone	4.3	U	11	2.1	ug/L		05/20/24 06:53	05/20/24 21:36	1
Nitrobenzene	11	U	21	3.7	ug/L		05/20/24 06:53	05/20/24 21:36	1
N-Nitrosodi-n-propylamine	5.3	U	11	2.6	ug/L		05/20/24 06:53	05/20/24 21:36	1
N-Nitrosodiphenylamine	11	U M	21	3.1	ug/L		05/20/24 06:53	05/20/24 21:36	1
Pentachlorophenol	21	U	53	11	ug/L		05/20/24 06:53	05/20/24 21:36	1
Phenol	4.3	U	11	1.6	ug/L		05/20/24 06:53	05/20/24 21:36	1
Pyridine	21	U	53	7.9	ug/L		05/20/24 06:53	05/20/24 21:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*52*		*43 - 140*	*05/20/24 06:53*	*05/20/24 21:36*	*1*
2-Fluorobiphenyl	*46*		*44 - 119*	*05/20/24 06:53*	*05/20/24 21:36*	*1*
2-Fluorophenol	*26*		*19 - 119*	*05/20/24 06:53*	*05/20/24 21:36*	*1*
Nitrobenzene-d5	*44*		*44 - 120*	*05/20/24 06:53*	*05/20/24 21:36*	*1*
Phenol-d5	*18*		*10 - 130*	*05/20/24 06:53*	*05/20/24 21:36*	*1*
Terphenyl-d14	*65*		*50 - 134*	*05/20/24 06:53*	*05/20/24 21:36*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	**2.4**	**J M**	5.0	1.0	ug/L		05/24/24 13:13	05/24/24 20:17	1
Ethylene	2.0	U	5.0	1.0	ug/L		05/24/24 13:13	05/24/24 20:17	1

Method: RSK-175 - Dissolved Gases (GC) - DL

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	**1800**	**D M**	65	30	ug/L		05/24/24 13:13	05/24/24 20:33	10

Method: SW846 8081B 8082A - Organochlorine Pesticides & PCBs (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	0.0045	U M	0.057	0.0023	ug/L		05/17/24 12:07	05/20/24 20:38	1
4,4'-DDE	0.0045	U	0.057	0.0011	ug/L		05/17/24 12:07	05/20/24 20:38	1
4,4'-DDT	0.0045	U	0.057	0.0011	ug/L		05/17/24 12:07	05/20/24 20:38	1
Aldrin	0.0045	U	0.057	0.0023	ug/L		05/17/24 12:07	05/20/24 20:38	1
alpha-BHC	0.0045	U M	0.057	0.0011	ug/L		05/17/24 12:07	05/20/24 20:38	1
beta-BHC	0.0045	U M	0.057	0.0023	ug/L		05/17/24 12:07	05/20/24 20:38	1
delta-BHC	0.0045	U	0.057	0.0023	ug/L		05/17/24 12:07	05/20/24 20:38	1
Dieldrin	0.0045	U	0.057	0.0023	ug/L		05/17/24 12:07	05/20/24 20:38	1
Endosulfan I	0.0045	U M	0.057	0.0023	ug/L		05/17/24 12:07	05/20/24 20:38	1
Endosulfan II	0.0045	U	0.057	0.0023	ug/L		05/17/24 12:07	05/20/24 20:38	1
Endosulfan sulfate	0.0045	U	0.057	0.0023	ug/L		05/17/24 12:07	05/20/24 20:38	1
Endrin	0.0045	U	0.057	0.0011	ug/L		05/17/24 12:07	05/20/24 20:38	1
Endrin aldehyde	0.018	U M	0.057	0.0045	ug/L		05/17/24 12:07	05/20/24 20:38	1
Endrin ketone	0.018	U M	0.057	0.0045	ug/L		05/17/24 12:07	05/20/24 20:38	1
gamma-BHC (Lindane)	0.0045	U	0.057	0.0011	ug/L		05/17/24 12:07	05/20/24 20:38	1
Heptachlor	0.0045	U	0.057	0.0011	ug/L		05/17/24 12:07	05/20/24 20:38	1
Heptachlor epoxide	0.0045	U	0.057	0.0023	ug/L		05/17/24 12:07	05/20/24 20:38	1
Methoxychlor	0.0045	U M	0.057	0.0023	ug/L		05/17/24 12:07	05/20/24 20:38	1
Chlordane (technical)	0.45	U M	0.57	0.18	ug/L		05/17/24 12:07	05/20/24 20:38	1
PCB-1016	0.27	U M	0.57	0.11	ug/L		05/17/24 12:07	05/20/24 20:38	1
PCB-1221	0.27	U	0.57	0.11	ug/L		05/17/24 12:07	05/20/24 20:38	1

Client Sample ID: OU6-MW-280-20240515

Lab Sample ID: 680-250842-3

Date Collected: 05/15/24 12:50

Matrix: Water

Date Received: 05/16/24 10:28

Method: SW846 8081B 8082A - Organochlorine Pesticides & PCBs (GC) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1232	0.27	U M	0.57	0.11	ug/L		05/17/24 12:07	05/20/24 20:38	1
PCB-1242	0.27	U M	0.57	0.11	ug/L		05/17/24 12:07	05/20/24 20:38	1
PCB-1248	0.27	U	0.57	0.11	ug/L		05/17/24 12:07	05/20/24 20:38	1
PCB-1254	0.27	U	0.57	0.11	ug/L		05/17/24 12:07	05/20/24 20:38	1
PCB-1260	0.27	U Q	0.57	0.11	ug/L		05/17/24 12:07	05/20/24 20:38	1
Toxaphene	0.91	U M	5.7	0.35	ug/L		05/17/24 12:07	05/20/24 20:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*94*		*14 - 130*	*05/17/24 12:07*	*05/20/24 20:38*	*1*
Tetrachloro-m-xylene	*62*		*44 - 124*	*05/17/24 12:07*	*05/20/24 20:38*	*1*

Method: SW846 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**47**	**J**	200	35	ug/L		05/17/24 05:47	05/17/24 13:08	1
Antimony	1.5	U	5.0	0.34	ug/L		05/17/24 05:47	05/17/24 13:08	1
Arsenic	**3.2**	**J**	5.0	0.86	ug/L		05/17/24 05:47	05/17/24 13:08	1
Barium	**26**		5.0	0.89	ug/L		05/17/24 05:47	05/17/24 13:08	1
Beryllium	0.40	U	0.50	0.20	ug/L		05/17/24 05:47	05/17/24 13:08	1
Boron	75	U	100	22	ug/L		05/17/24 05:47	05/17/24 13:08	1
Cadmium	0.20	U	0.50	0.078	ug/L		05/17/24 05:47	05/17/24 13:08	1
Calcium	**3000**		500	140	ug/L		05/17/24 05:47	05/17/24 13:08	1
Chromium	2.5	U	20	0.81	ug/L		05/17/24 05:47	05/17/24 13:08	1
Cobalt	**2.1**		1.0	0.22	ug/L		05/17/24 05:47	05/20/24 11:20	1
Copper	2.0	U	5.0	1.1	ug/L		05/17/24 05:47	05/17/24 13:08	1
Iron	**47000**		100	12	ug/L		05/17/24 05:47	05/17/24 13:08	1
Lead	1.0	U	2.5	0.21	ug/L		05/17/24 05:47	05/17/24 13:08	1
Magnesium	**1800**		250	23	ug/L		05/17/24 05:47	05/17/24 13:08	1
Manganese	**260**		10	2.2	ug/L		05/17/24 05:47	05/17/24 13:08	1
Nickel	**1.4**	**J**	10	0.42	ug/L		05/17/24 05:47	05/17/24 13:08	1
Potassium	**2400**		1000	44	ug/L		05/17/24 05:47	05/17/24 13:08	1
Selenium	2.5	U	5.0	0.99	ug/L		05/17/24 05:47	05/17/24 13:08	1
Silver	1.0	U	2.0	0.39	ug/L		05/17/24 05:47	05/17/24 13:08	1
Sodium	**27000**		1000	200	ug/L		05/17/24 05:47	05/17/24 13:08	1
Thallium	1.0	U	2.0	0.26	ug/L		05/17/24 05:47	05/17/24 13:08	1
Vanadium	**0.77**	**J**	10	0.63	ug/L		05/17/24 05:47	05/17/24 13:08	1
Zinc	**9.4**	**J**	25	2.8	ug/L		05/17/24 05:47	05/17/24 13:08	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	0.20	U	0.25	0.080	ug/L		05/17/24 12:59	05/21/24 16:43	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon (SW846 9060A)	**7.2**		1.0	0.50	mg/L			05/22/24 21:15	1

Client Sample ID: OU6-MW-156-20240515
Date Collected: 05/15/24 11:45
Date Received: 05/16/24 10:28

Lab Sample ID: 680-250842-4
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			05/18/24 19:09	1
Benzene	1.0	U	2.0	0.27	ug/L			05/18/24 19:09	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			05/18/24 19:09	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			05/18/24 19:09	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			05/18/24 19:09	1
Bromoform	2.0	U Q	2.5	0.59	ug/L			05/18/24 19:09	1
Bromomethane	10	U	20	3.7	ug/L			05/18/24 19:09	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			05/18/24 19:09	1
Carbon disulfide	**0.85**	**J Q**	2.0	0.43	ug/L			05/18/24 19:09	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			05/18/24 19:09	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			05/18/24 19:09	1
Chloroethane	10	U	20	4.6	ug/L			05/18/24 19:09	1
Chloroform	1.0	U	2.0	0.27	ug/L			05/18/24 19:09	1
Chloromethane	2.0	U	2.5	0.54	ug/L			05/18/24 19:09	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			05/18/24 19:09	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			05/18/24 19:09	1
cis-1,2-Dichloroethene	**1.1**	**J**	2.0	0.25	ug/L			05/18/24 19:09	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			05/18/24 19:09	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			05/18/24 19:09	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			05/18/24 19:09	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			05/18/24 19:09	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			05/18/24 19:09	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			05/18/24 19:09	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/18/24 19:09	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/18/24 19:09	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/18/24 19:09	1
Dichlorodifluoromethane	1.0	U Q	2.0	0.36	ug/L			05/18/24 19:09	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			05/18/24 19:09	1
1,2-Dichloroethane	1.0	U M	2.0	0.25	ug/L			05/18/24 19:09	1
1,1-Dichloroethene	1.0	U	2.0	0.33	ug/L			05/18/24 19:09	1
1,2-Dichloroethene, Total	**1.1**	**J**	2.0	0.37	ug/L			05/18/24 19:09	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			05/18/24 19:09	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			05/18/24 19:09	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			05/18/24 19:09	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			05/18/24 19:09	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			05/18/24 19:09	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			05/18/24 19:09	1
2-Hexanone	10	U	20	3.2	ug/L			05/18/24 19:09	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			05/18/24 19:09	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			05/18/24 19:09	1
Methyl acetate	10	U	20	3.2	ug/L			05/18/24 19:09	1
Methylcyclohexane	1.0	U	2.0	0.33	ug/L			05/18/24 19:09	1
Methylene Chloride	10	U	20	3.2	ug/L			05/18/24 19:09	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			05/18/24 19:09	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			05/18/24 19:09	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			05/18/24 19:09	1
Naphthalene	5.0	U	10	2.4	ug/L			05/18/24 19:09	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			05/18/24 19:09	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			05/18/24 19:09	1

Client Sample ID: OU6-MW-156-20240515

Lab Sample ID: 680-250842-4

Date Collected: 05/15/24 11:45

Matrix: Water

Date Received: 05/16/24 10:28

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	1.0	U	2.0	0.26	ug/L			05/18/24 19:09	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			05/18/24 19:09	1
Styrene	1.0	U	2.0	0.27	ug/L			05/18/24 19:09	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			05/18/24 19:09	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			05/18/24 19:09	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			05/18/24 19:09	1
Tetrachloroethene	1.0	U	2.0	0.35	ug/L			05/18/24 19:09	1
Toluene	1.0	U	2.0	0.25	ug/L			05/18/24 19:09	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			05/18/24 19:09	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			05/18/24 19:09	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			05/18/24 19:09	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			05/18/24 19:09	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			05/18/24 19:09	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			05/18/24 19:09	1
Trichloroethene	0.50	U	1.0	0.20	ug/L			05/18/24 19:09	1
Trichlorofluoromethane	1.0	U Q	2.0	0.33	ug/L			05/18/24 19:09	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			05/18/24 19:09	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			05/18/24 19:09	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			05/18/24 19:09	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			05/18/24 19:09	1
Vinyl chloride	1.0	U	2.0	0.40	ug/L			05/18/24 19:09	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			05/18/24 19:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*85 - 114*		*05/18/24 19:09*	*1*
Dibromofluoromethane (Surr)	*107*		*80 - 119*		*05/18/24 19:09*	*1*
1,2-Dichloroethane-d4 (Surr)	*96*		*81 - 118*		*05/18/24 19:09*	*1*
Toluene-d8 (Surr)	*96*		*89 - 112*		*05/18/24 19:09*	*1*

Client Sample ID: OU6-MW-158-20240515

Lab Sample ID: 680-250842-5

Date Collected: 05/15/24 10:50

Matrix: Water

Date Received: 05/16/24 10:28

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			05/18/24 19:32	1
Benzene	1.0	U	2.0	0.27	ug/L			05/18/24 19:32	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			05/18/24 19:32	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			05/18/24 19:32	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			05/18/24 19:32	1
Bromoform	2.0	U Q	2.5	0.59	ug/L			05/18/24 19:32	1
Bromomethane	10	U	20	3.7	ug/L			05/18/24 19:32	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			05/18/24 19:32	1
Carbon disulfide	**1.3**	**J Q**	2.0	0.43	ug/L			05/18/24 19:32	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			05/18/24 19:32	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			05/18/24 19:32	1
Chloroethane	10	U	20	4.6	ug/L			05/18/24 19:32	1
Chloroform	1.0	U	2.0	0.27	ug/L			05/18/24 19:32	1
Chloromethane	2.0	U	2.5	0.54	ug/L			05/18/24 19:32	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			05/18/24 19:32	1

Client Sample ID: OU6-MW-158-20240515
Date Collected: 05/15/24 10:50
Date Received: 05/16/24 10:28

Lab Sample ID: 680-250842-5
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			05/18/24 19:32	1
cis-1,2-Dichloroethene	**1.6**	**J**	2.0	0.25	ug/L			05/18/24 19:32	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			05/18/24 19:32	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			05/18/24 19:32	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			05/18/24 19:32	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			05/18/24 19:32	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			05/18/24 19:32	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			05/18/24 19:32	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/18/24 19:32	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/18/24 19:32	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/18/24 19:32	1
Dichlorodifluoromethane	1.0	U Q	2.0	0.36	ug/L			05/18/24 19:32	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			05/18/24 19:32	1
1,2-Dichloroethane	1.0	U	2.0	0.25	ug/L			05/18/24 19:32	1
1,1-Dichloroethene	1.0	U	2.0	0.33	ug/L			05/18/24 19:32	1
1,2-Dichloroethene, Total	**1.6**	**J**	2.0	0.37	ug/L			05/18/24 19:32	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			05/18/24 19:32	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			05/18/24 19:32	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			05/18/24 19:32	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			05/18/24 19:32	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			05/18/24 19:32	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			05/18/24 19:32	1
2-Hexanone	10	U	20	3.2	ug/L			05/18/24 19:32	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			05/18/24 19:32	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			05/18/24 19:32	1
Methyl acetate	10	U	20	3.2	ug/L			05/18/24 19:32	1
Methylcyclohexane	1.0	U	2.0	0.33	ug/L			05/18/24 19:32	1
Methylene Chloride	10	U	20	3.2	ug/L			05/18/24 19:32	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			05/18/24 19:32	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			05/18/24 19:32	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			05/18/24 19:32	1
Naphthalene	5.0	U	10	2.4	ug/L			05/18/24 19:32	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			05/18/24 19:32	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			05/18/24 19:32	1
o-Xylene	1.0	U	2.0	0.26	ug/L			05/18/24 19:32	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			05/18/24 19:32	1
Styrene	1.0	U	2.0	0.27	ug/L			05/18/24 19:32	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			05/18/24 19:32	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			05/18/24 19:32	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			05/18/24 19:32	1
Tetrachloroethene	1.0	U	2.0	0.35	ug/L			05/18/24 19:32	1
Toluene	1.0	U	2.0	0.25	ug/L			05/18/24 19:32	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			05/18/24 19:32	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			05/18/24 19:32	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			05/18/24 19:32	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			05/18/24 19:32	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			05/18/24 19:32	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			05/18/24 19:32	1
Trichloroethene	**0.72**	**J**	1.0	0.20	ug/L			05/18/24 19:32	1

Client Sample ID: OU6-MW-158-20240515

Lab Sample ID: 680-250842-5

Date Collected: 05/15/24 10:50

Matrix: Water

Date Received: 05/16/24 10:28

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Trichlorofluoromethane	1.0	U Q	2.0	0.33	ug/L			05/18/24 19:32	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			05/18/24 19:32	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			05/18/24 19:32	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			05/18/24 19:32	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			05/18/24 19:32	1
Vinyl chloride	1.0	U	2.0	0.40	ug/L			05/18/24 19:32	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			05/18/24 19:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*85 - 114*		*05/18/24 19:32*	*1*
Dibromofluoromethane (Surr)	*104*		*80 - 119*		*05/18/24 19:32*	*1*
1,2-Dichloroethane-d4 (Surr)	*93*		*81 - 118*		*05/18/24 19:32*	*1*
Toluene-d8 (Surr)	*96*		*89 - 112*		*05/18/24 19:32*	*1*

Client Sample ID: OU6-MW-284-20240515

Lab Sample ID: 680-250842-6

Date Collected: 05/15/24 08:50

Matrix: Water

Date Received: 05/16/24 10:28

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			05/18/24 19:55	1
Benzene	1.0	U	2.0	0.27	ug/L			05/18/24 19:55	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			05/18/24 19:55	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			05/18/24 19:55	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			05/18/24 19:55	1
Bromoform	2.0	U Q	2.5	0.59	ug/L			05/18/24 19:55	1
Bromomethane	10	U	20	3.7	ug/L			05/18/24 19:55	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			05/18/24 19:55	1
Carbon disulfide	1.0	U Q	2.0	0.43	ug/L			05/18/24 19:55	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			05/18/24 19:55	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			05/18/24 19:55	1
Chloroethane	10	U	20	4.6	ug/L			05/18/24 19:55	1
Chloroform	1.0	U	2.0	0.27	ug/L			05/18/24 19:55	1
Chloromethane	2.0	U	2.5	0.54	ug/L			05/18/24 19:55	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			05/18/24 19:55	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			05/18/24 19:55	1
cis-1,2-Dichloroethene	1.0	U	2.0	0.25	ug/L			05/18/24 19:55	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			05/18/24 19:55	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			05/18/24 19:55	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			05/18/24 19:55	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			05/18/24 19:55	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			05/18/24 19:55	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			05/18/24 19:55	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/18/24 19:55	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/18/24 19:55	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/18/24 19:55	1
Dichlorodifluoromethane	1.0	U Q	2.0	0.36	ug/L			05/18/24 19:55	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			05/18/24 19:55	1
1,2-Dichloroethane	1.0	U M	2.0	0.25	ug/L			05/18/24 19:55	1
1,1-Dichloroethene	1.0	U	2.0	0.33	ug/L			05/18/24 19:55	1

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-250842-1

Client Sample ID: OU6-MW-284-20240515
Date Collected: 05/15/24 08:50
Date Received: 05/16/24 10:28

Lab Sample ID: 680-250842-6
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethene, Total	1.0	U	2.0	0.37	ug/L			05/18/24 19:55	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			05/18/24 19:55	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			05/18/24 19:55	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			05/18/24 19:55	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			05/18/24 19:55	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			05/18/24 19:55	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			05/18/24 19:55	1
2-Hexanone	10	U	20	3.2	ug/L			05/18/24 19:55	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			05/18/24 19:55	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			05/18/24 19:55	1
Methyl acetate	10	U	20	3.2	ug/L			05/18/24 19:55	1
Methylcyclohexane	1.0	U	2.0	0.33	ug/L			05/18/24 19:55	1
Methylene Chloride	10	U	20	3.2	ug/L			05/18/24 19:55	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			05/18/24 19:55	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			05/18/24 19:55	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			05/18/24 19:55	1
Naphthalene	5.0	U	10	2.4	ug/L			05/18/24 19:55	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			05/18/24 19:55	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			05/18/24 19:55	1
o-Xylene	1.0	U	2.0	0.26	ug/L			05/18/24 19:55	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			05/18/24 19:55	1
Styrene	1.0	U	2.0	0.27	ug/L			05/18/24 19:55	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			05/18/24 19:55	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			05/18/24 19:55	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			05/18/24 19:55	1
Tetrachloroethene	1.0	U	2.0	0.35	ug/L			05/18/24 19:55	1
Toluene	1.0	U	2.0	0.25	ug/L			05/18/24 19:55	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			05/18/24 19:55	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			05/18/24 19:55	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			05/18/24 19:55	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			05/18/24 19:55	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			05/18/24 19:55	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			05/18/24 19:55	1
Trichloroethene	0.50	U	1.0	0.20	ug/L			05/18/24 19:55	1
Trichlorofluoromethane	1.0	U Q	2.0	0.33	ug/L			05/18/24 19:55	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			05/18/24 19:55	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			05/18/24 19:55	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			05/18/24 19:55	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			05/18/24 19:55	1
Vinyl chloride	1.0	U	2.0	0.40	ug/L			05/18/24 19:55	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			05/18/24 19:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*85 - 114*		*05/18/24 19:55*	*1*
Dibromofluoromethane (Surr)	*105*		*80 - 119*		*05/18/24 19:55*	*1*
1,2-Dichloroethane-d4 (Surr)	*93*		*81 - 118*		*05/18/24 19:55*	*1*
Toluene-d8 (Surr)	*95*		*89 - 112*		*05/18/24 19:55*	*1*

Client Sample ID: OU6-MW-284-20240515

Lab Sample ID: 680-250842-6

Date Collected: 05/15/24 08:50
Matrix: Water
Date Received: 05/16/24 10:28

Method: SW846 8270E SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	0.095	U	0.19	0.030	ug/L		05/22/24 08:13	05/22/24 15:02	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*15*	*M*	*10 - 150*	*05/22/24 08:13*	*05/22/24 15:02*	*1*

Client Sample ID: OU6-MWNGA-8-20240515

Lab Sample ID: 680-250842-7

Date Collected: 05/15/24 12:25
Matrix: Water
Date Received: 05/16/24 10:28

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			05/19/24 16:31	1
Benzene	1.0	U	2.0	0.27	ug/L			05/19/24 16:31	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			05/19/24 16:31	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			05/19/24 16:31	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			05/19/24 16:31	1
Bromoform	2.0	U	2.5	0.59	ug/L			05/19/24 16:31	1
Bromomethane	10	U Q	20	3.7	ug/L			05/19/24 16:31	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			05/19/24 16:31	1
Carbon disulfide	1.0	U Q	2.0	0.43	ug/L			05/19/24 16:31	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			05/19/24 16:31	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			05/19/24 16:31	1
Chloroethane	10	U	20	4.6	ug/L			05/19/24 16:31	1
Chloroform	1.0	U	2.0	0.27	ug/L			05/19/24 16:31	1
Chloromethane	2.0	U	2.5	0.54	ug/L			05/19/24 16:31	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			05/19/24 16:31	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			05/19/24 16:31	1
cis-1,2-Dichloroethene	1.0	U	2.0	0.25	ug/L			05/19/24 16:31	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			05/19/24 16:31	1
Cyclohexane	1.0	U Q	2.0	0.28	ug/L			05/19/24 16:31	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			05/19/24 16:31	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			05/19/24 16:31	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			05/19/24 16:31	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			05/19/24 16:31	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/19/24 16:31	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/19/24 16:31	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/19/24 16:31	1
Dichlorodifluoromethane	1.0	U	2.0	0.36	ug/L			05/19/24 16:31	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			05/19/24 16:31	1
1,2-Dichloroethane	1.0	U M	2.0	0.25	ug/L			05/19/24 16:31	1
1,1-Dichloroethene	**7.4**		2.0	0.33	ug/L			05/19/24 16:31	1
1,2-Dichloroethene, Total	1.0	U	2.0	0.37	ug/L			05/19/24 16:31	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			05/19/24 16:31	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			05/19/24 16:31	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			05/19/24 16:31	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			05/19/24 16:31	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			05/19/24 16:31	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			05/19/24 16:31	1
2-Hexanone	10	U	20	3.2	ug/L			05/19/24 16:31	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			05/19/24 16:31	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			05/19/24 16:31	1

Client Sample ID: OU6-MWNGA-8-20240515

Lab Sample ID: 680-250842-7

Date Collected: 05/15/24 12:25

Matrix: Water

Date Received: 05/16/24 10:28

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl acetate	10	U	20	3.2	ug/L			05/19/24 16:31	1
Methylcyclohexane	1.0	U Q	2.0	0.33	ug/L			05/19/24 16:31	1
Methylene Chloride	10	U	20	3.2	ug/L			05/19/24 16:31	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			05/19/24 16:31	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			05/19/24 16:31	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			05/19/24 16:31	1
Naphthalene	5.0	U	10	2.4	ug/L			05/19/24 16:31	1
n-Butylbenzene	2.0	U Q	2.5	0.52	ug/L			05/19/24 16:31	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			05/19/24 16:31	1
o-Xylene	1.0	U	2.0	0.26	ug/L			05/19/24 16:31	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			05/19/24 16:31	1
Styrene	1.0	U	2.0	0.27	ug/L			05/19/24 16:31	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			05/19/24 16:31	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			05/19/24 16:31	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			05/19/24 16:31	1
Tetrachloroethene	**1.1**	**J**	2.0	0.35	ug/L			05/19/24 16:31	1
Toluene	1.0	U	2.0	0.25	ug/L			05/19/24 16:31	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			05/19/24 16:31	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			05/19/24 16:31	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			05/19/24 16:31	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			05/19/24 16:31	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			05/19/24 16:31	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			05/19/24 16:31	1
Trichloroethene	**4.5**		1.0	0.20	ug/L			05/19/24 16:31	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			05/19/24 16:31	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			05/19/24 16:31	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			05/19/24 16:31	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			05/19/24 16:31	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			05/19/24 16:31	1
Vinyl chloride	1.0	U	2.0	0.40	ug/L			05/19/24 16:31	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			05/19/24 16:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*85 - 114*		*05/19/24 16:31*	*1*
Dibromofluoromethane (Surr)	*99*		*80 - 119*		*05/19/24 16:31*	*1*
1,2-Dichloroethane-d4 (Surr)	*95*		*81 - 118*		*05/19/24 16:31*	*1*
Toluene-d8 (Surr)	*102*		*89 - 112*		*05/19/24 16:31*	*1*

Method: SW846 8270E SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	0.10	U	0.20	0.032	ug/L		05/22/24 08:13	05/22/24 15:25	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*21*	*M*	*10 - 150*	*05/22/24 08:13*	*05/22/24 15:25*	*1*

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-250842-1

Client Sample ID: OU6-MWNGA-10-20240515
Date Collected: 05/15/24 10:15
Date Received: 05/16/24 10:28

Lab Sample ID: 680-250842-8
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	**5.1**	**J J1**	25	3.7	ug/L			05/19/24 19:38	1
Benzene	1.0	U	2.0	0.27	ug/L			05/19/24 19:38	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			05/19/24 19:38	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			05/19/24 19:38	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			05/19/24 19:38	1
Bromoform	2.0	U J1	2.5	0.59	ug/L			05/19/24 19:38	1
Bromomethane	10	U Q	20	3.7	ug/L			05/19/24 19:38	1
2-Butanone (MEK)	20	U J1	25	6.4	ug/L			05/19/24 19:38	1
Carbon disulfide	1.0	U	2.0	0.43	ug/L			05/19/24 19:38	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			05/19/24 19:38	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			05/19/24 19:38	1
Chloroethane	10	U J1	20	4.6	ug/L			05/19/24 19:38	1
Chloroform	1.0	U	2.0	0.27	ug/L			05/19/24 19:38	1
Chloromethane	2.0	U	2.5	0.54	ug/L			05/19/24 19:38	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			05/19/24 19:38	1
4-Chlorotoluene	1.0	U J1	2.0	0.41	ug/L			05/19/24 19:38	1
cis-1,2-Dichloroethene	1.0	U	2.0	0.25	ug/L			05/19/24 19:38	1
cis-1,3-Dichloropropene	1.0	U J1	2.0	0.26	ug/L			05/19/24 19:38	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			05/19/24 19:38	1
Dibromochloromethane	1.0	U J1	2.0	0.39	ug/L			05/19/24 19:38	1
1,2-Dibromo-3-Chloropropane	5.0	U J1	10	1.8	ug/L			05/19/24 19:38	1
1,2-Dibromoethane	1.0	U J1	2.0	0.33	ug/L			05/19/24 19:38	1
Dibromomethane	1.0	U J1	2.0	0.34	ug/L			05/19/24 19:38	1
1,2-Dichlorobenzene	1.0	U J1	2.0	0.31	ug/L			05/19/24 19:38	1
1,3-Dichlorobenzene	1.0	U J1	2.0	0.31	ug/L			05/19/24 19:38	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/19/24 19:38	1
Dichlorodifluoromethane	1.0	U Q	2.0	0.36	ug/L			05/19/24 19:38	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			05/19/24 19:38	1
1,2-Dichloroethane	1.0	U M	2.0	0.25	ug/L			05/19/24 19:38	1
1,1-Dichloroethene	**5.4**		2.0	0.33	ug/L			05/19/24 19:38	1
1,2-Dichloroethene, Total	1.0	U	2.0	0.37	ug/L			05/19/24 19:38	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			05/19/24 19:38	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			05/19/24 19:38	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			05/19/24 19:38	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			05/19/24 19:38	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			05/19/24 19:38	1
Hexachlorobutadiene	1.0	U J1	5.0	0.22	ug/L			05/19/24 19:38	1
2-Hexanone	10	U J1	20	3.2	ug/L			05/19/24 19:38	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			05/19/24 19:38	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			05/19/24 19:38	1
Methyl acetate	10	U J1	20	3.2	ug/L			05/19/24 19:38	1
Methylcyclohexane	1.0	U J1	2.0	0.33	ug/L			05/19/24 19:38	1
Methylene Chloride	10	U	20	3.2	ug/L			05/19/24 19:38	1
4-Methyl-2-pentanone (MIBK)	10	U J1	20	2.7	ug/L			05/19/24 19:38	1
Methyl tert-butyl ether	2.0	U J1	5.0	0.81	ug/L			05/19/24 19:38	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			05/19/24 19:38	1
Naphthalene	5.0	U J1	10	2.4	ug/L			05/19/24 19:38	1
n-Butylbenzene	2.0	U J1	2.5	0.52	ug/L			05/19/24 19:38	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			05/19/24 19:38	1

Client Sample ID: OU6-MWNGA-10-20240515

Lab Sample ID: 680-250842-8

Date Collected: 05/15/24 10:15

Matrix: Water

Date Received: 05/16/24 10:28

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	1.0	U	2.0	0.26	ug/L			05/19/24 19:38	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			05/19/24 19:38	1
Styrene	1.0	U	2.0	0.27	ug/L			05/19/24 19:38	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			05/19/24 19:38	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			05/19/24 19:38	1
1,1,2,2-Tetrachloroethane	1.0	U J1	2.0	0.40	ug/L			05/19/24 19:38	1
Tetrachloroethene	1.0	U J1	2.0	0.35	ug/L			05/19/24 19:38	1
Toluene	1.0	U	2.0	0.25	ug/L			05/19/24 19:38	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			05/19/24 19:38	1
trans-1,3-Dichloropropene	1.0	U J1	2.0	0.23	ug/L			05/19/24 19:38	1
1,2,3-Trichlorobenzene	2.0	U J1	5.0	0.81	ug/L			05/19/24 19:38	1
1,2,4-Trichlorobenzene	2.0	U J1	5.0	0.53	ug/L			05/19/24 19:38	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			05/19/24 19:38	1
1,1,2-Trichloroethane	1.0	U J1	2.0	0.32	ug/L			05/19/24 19:38	1
Trichloroethene	**3.4**		1.0	0.20	ug/L			05/19/24 19:38	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			05/19/24 19:38	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			05/19/24 19:38	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			05/19/24 19:38	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			05/19/24 19:38	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			05/19/24 19:38	1
Vinyl chloride	1.0	U	2.0	0.40	ug/L			05/19/24 19:38	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			05/19/24 19:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*85 - 114*		*05/19/24 19:38*	*1*
Dibromofluoromethane (Surr)	*119*		*80 - 119*		*05/19/24 19:38*	*1*
1,2-Dichloroethane-d4 (Surr)	*119*	*Q*	*81 - 118*		*05/19/24 19:38*	*1*
Toluene-d8 (Surr)	*105*		*89 - 112*		*05/19/24 19:38*	*1*

Method: SW846 8270E SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	0.11	U	0.21	0.034	ug/L		05/22/24 08:13	05/22/24 15:47	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*29*	*M*	*10 - 150*	*05/22/24 08:13*	*05/22/24 15:47*	*1*

Client Sample ID: OU6-MW-297-20240515

Lab Sample ID: 680-250842-9

Date Collected: 05/15/24 12:10

Matrix: Water

Date Received: 05/16/24 10:28

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			05/19/24 16:52	1
Benzene	1.0	U	2.0	0.27	ug/L			05/19/24 16:52	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			05/19/24 16:52	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			05/19/24 16:52	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			05/19/24 16:52	1
Bromoform	2.0	U	2.5	0.59	ug/L			05/19/24 16:52	1
Bromomethane	10	U Q	20	3.7	ug/L			05/19/24 16:52	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			05/19/24 16:52	1
Carbon disulfide	1.0	U Q	2.0	0.43	ug/L			05/19/24 16:52	1

Client Sample ID: OU6-MW-297-20240515
Date Collected: 05/15/24 12:10
Date Received: 05/16/24 10:28

Lab Sample ID: 680-250842-9
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			05/19/24 16:52	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			05/19/24 16:52	1
Chloroethane	10	U	20	4.6	ug/L			05/19/24 16:52	1
Chloroform	1.0	U	2.0	0.27	ug/L			05/19/24 16:52	1
Chloromethane	2.0	U	2.5	0.54	ug/L			05/19/24 16:52	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			05/19/24 16:52	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			05/19/24 16:52	1
cis-1,2-Dichloroethene	**37**		2.0	0.25	ug/L			05/19/24 16:52	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			05/19/24 16:52	1
Cyclohexane	1.0	U Q	2.0	0.28	ug/L			05/19/24 16:52	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			05/19/24 16:52	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			05/19/24 16:52	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			05/19/24 16:52	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			05/19/24 16:52	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/19/24 16:52	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/19/24 16:52	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/19/24 16:52	1
Dichlorodifluoromethane	1.0	U	2.0	0.36	ug/L			05/19/24 16:52	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			05/19/24 16:52	1
1,2-Dichloroethane	1.0	U M	2.0	0.25	ug/L			05/19/24 16:52	1
1,1-Dichloroethene	**0.53**	**J**	2.0	0.33	ug/L			05/19/24 16:52	1
1,2-Dichloroethene, Total	**38**		2.0	0.37	ug/L			05/19/24 16:52	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			05/19/24 16:52	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			05/19/24 16:52	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			05/19/24 16:52	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			05/19/24 16:52	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			05/19/24 16:52	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			05/19/24 16:52	1
2-Hexanone	10	U	20	3.2	ug/L			05/19/24 16:52	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			05/19/24 16:52	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			05/19/24 16:52	1
Methyl acetate	10	U	20	3.2	ug/L			05/19/24 16:52	1
Methylcyclohexane	1.0	U Q	2.0	0.33	ug/L			05/19/24 16:52	1
Methylene Chloride	10	U	20	3.2	ug/L			05/19/24 16:52	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			05/19/24 16:52	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			05/19/24 16:52	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			05/19/24 16:52	1
Naphthalene	5.0	U	10	2.4	ug/L			05/19/24 16:52	1
n-Butylbenzene	2.0	U Q	2.5	0.52	ug/L			05/19/24 16:52	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			05/19/24 16:52	1
o-Xylene	1.0	U	2.0	0.26	ug/L			05/19/24 16:52	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			05/19/24 16:52	1
Styrene	1.0	U	2.0	0.27	ug/L			05/19/24 16:52	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			05/19/24 16:52	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			05/19/24 16:52	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			05/19/24 16:52	1
Tetrachloroethene	**0.52**	**J**	2.0	0.35	ug/L			05/19/24 16:52	1
Toluene	1.0	U	2.0	0.25	ug/L			05/19/24 16:52	1
trans-1,2-Dichloroethene	**0.38**	**J**	2.0	0.34	ug/L			05/19/24 16:52	1

Client Sample ID: OU6-MW-297-20240515
Lab Sample ID: 680-250842-9
Date Collected: 05/15/24 12:10
Matrix: Water
Date Received: 05/16/24 10:28

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			05/19/24 16:52	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			05/19/24 16:52	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			05/19/24 16:52	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			05/19/24 16:52	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			05/19/24 16:52	1
Trichloroethene	**5.7**		1.0	0.20	ug/L			05/19/24 16:52	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			05/19/24 16:52	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			05/19/24 16:52	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			05/19/24 16:52	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			05/19/24 16:52	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			05/19/24 16:52	1
Vinyl chloride	**2.1**		2.0	0.40	ug/L			05/19/24 16:52	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			05/19/24 16:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*111*		*85 - 114*		*05/19/24 16:52*	*1*
Dibromofluoromethane (Surr)	*98*		*80 - 119*		*05/19/24 16:52*	*1*
1,2-Dichloroethane-d4 (Surr)	*96*		*81 - 118*		*05/19/24 16:52*	*1*
Toluene-d8 (Surr)	*102*		*89 - 112*		*05/19/24 16:52*	*1*

Client Sample ID: OU6-MW-301-20240515
Lab Sample ID: 680-250842-10
Date Collected: 05/15/24 13:35
Matrix: Water
Date Received: 05/16/24 10:28

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			05/19/24 17:14	1
Benzene	1.0	U	2.0	0.27	ug/L			05/19/24 17:14	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			05/19/24 17:14	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			05/19/24 17:14	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			05/19/24 17:14	1
Bromoform	2.0	U	2.5	0.59	ug/L			05/19/24 17:14	1
Bromomethane	10	U Q	20	3.7	ug/L			05/19/24 17:14	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			05/19/24 17:14	1
Carbon disulfide	1.0	U Q	2.0	0.43	ug/L			05/19/24 17:14	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			05/19/24 17:14	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			05/19/24 17:14	1
Chloroethane	10	U	20	4.6	ug/L			05/19/24 17:14	1
Chloroform	1.0	U	2.0	0.27	ug/L			05/19/24 17:14	1
Chloromethane	2.0	U	2.5	0.54	ug/L			05/19/24 17:14	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			05/19/24 17:14	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			05/19/24 17:14	1
cis-1,2-Dichloroethene	**48**		2.0	0.25	ug/L			05/19/24 17:14	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			05/19/24 17:14	1
Cyclohexane	1.0	U Q	2.0	0.28	ug/L			05/19/24 17:14	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			05/19/24 17:14	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			05/19/24 17:14	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			05/19/24 17:14	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			05/19/24 17:14	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/19/24 17:14	1

Client Sample ID: OU6-MW-301-20240515

Lab Sample ID: 680-250842-10

Date Collected: 05/15/24 13:35

Matrix: Water

Date Received: 05/16/24 10:28

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/19/24 17:14	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/19/24 17:14	1
Dichlorodifluoromethane	1.0	U	2.0	0.36	ug/L			05/19/24 17:14	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			05/19/24 17:14	1
1,2-Dichloroethane	1.0	U M	2.0	0.25	ug/L			05/19/24 17:14	1
1,1-Dichloroethene	1.0	U	2.0	0.33	ug/L			05/19/24 17:14	1
1,2-Dichloroethene, Total	**48**		2.0	0.37	ug/L			05/19/24 17:14	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			05/19/24 17:14	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			05/19/24 17:14	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			05/19/24 17:14	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			05/19/24 17:14	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			05/19/24 17:14	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			05/19/24 17:14	1
2-Hexanone	10	U	20	3.2	ug/L			05/19/24 17:14	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			05/19/24 17:14	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			05/19/24 17:14	1
Methyl acetate	10	U	20	3.2	ug/L			05/19/24 17:14	1
Methylcyclohexane	1.0	U Q	2.0	0.33	ug/L			05/19/24 17:14	1
Methylene Chloride	10	U	20	3.2	ug/L			05/19/24 17:14	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			05/19/24 17:14	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			05/19/24 17:14	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			05/19/24 17:14	1
Naphthalene	5.0	U	10	2.4	ug/L			05/19/24 17:14	1
n-Butylbenzene	2.0	U Q	2.5	0.52	ug/L			05/19/24 17:14	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			05/19/24 17:14	1
o-Xylene	1.0	U	2.0	0.26	ug/L			05/19/24 17:14	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			05/19/24 17:14	1
Styrene	1.0	U	2.0	0.27	ug/L			05/19/24 17:14	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			05/19/24 17:14	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			05/19/24 17:14	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			05/19/24 17:14	1
Tetrachloroethene	1.0	U	2.0	0.35	ug/L			05/19/24 17:14	1
Toluene	1.0	U	2.0	0.25	ug/L			05/19/24 17:14	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			05/19/24 17:14	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			05/19/24 17:14	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			05/19/24 17:14	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			05/19/24 17:14	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			05/19/24 17:14	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			05/19/24 17:14	1
Trichloroethene	**2.4**		1.0	0.20	ug/L			05/19/24 17:14	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			05/19/24 17:14	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			05/19/24 17:14	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			05/19/24 17:14	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			05/19/24 17:14	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			05/19/24 17:14	1
Vinyl chloride	**2.1**		2.0	0.40	ug/L			05/19/24 17:14	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			05/19/24 17:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*85 - 114*		*05/19/24 17:14*	*1*

Client Sample ID: OU6-MW-301-20240515

Lab Sample ID: 680-250842-10

Date Collected: 05/15/24 13:35
Matrix: Water
Date Received: 05/16/24 10:28

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*98*		*80 - 119*		*05/19/24 17:14*	*1*
1,2-Dichloroethane-d4 (Surr)	*96*		*81 - 118*		*05/19/24 17:14*	*1*
Toluene-d8 (Surr)	*102*		*89 - 112*		*05/19/24 17:14*	*1*

Client Sample ID: OU6-MW-246-20240515

Lab Sample ID: 680-250842-11

Date Collected: 05/15/24 15:05
Matrix: Water
Date Received: 05/16/24 10:28

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			05/19/24 17:36	1
Benzene	1.0	U	2.0	0.27	ug/L			05/19/24 17:36	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			05/19/24 17:36	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			05/19/24 17:36	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			05/19/24 17:36	1
Bromoform	2.0	U	2.5	0.59	ug/L			05/19/24 17:36	1
Bromomethane	10	U Q	20	3.7	ug/L			05/19/24 17:36	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			05/19/24 17:36	1
Carbon disulfide	1.0	U Q	2.0	0.43	ug/L			05/19/24 17:36	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			05/19/24 17:36	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			05/19/24 17:36	1
Chloroethane	10	U	20	4.6	ug/L			05/19/24 17:36	1
Chloroform	1.0	U	2.0	0.27	ug/L			05/19/24 17:36	1
Chloromethane	2.0	U	2.5	0.54	ug/L			05/19/24 17:36	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			05/19/24 17:36	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			05/19/24 17:36	1
cis-1,2-Dichloroethene	**1.6**	**J**	2.0	0.25	ug/L			05/19/24 17:36	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			05/19/24 17:36	1
Cyclohexane	1.0	U Q	2.0	0.28	ug/L			05/19/24 17:36	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			05/19/24 17:36	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			05/19/24 17:36	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			05/19/24 17:36	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			05/19/24 17:36	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/19/24 17:36	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/19/24 17:36	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/19/24 17:36	1
Dichlorodifluoromethane	1.0	U	2.0	0.36	ug/L			05/19/24 17:36	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			05/19/24 17:36	1
1,2-Dichloroethane	1.0	U M	2.0	0.25	ug/L			05/19/24 17:36	1
1,1-Dichloroethene	1.0	U	2.0	0.33	ug/L			05/19/24 17:36	1
1,2-Dichloroethene, Total	**1.6**	**J**	2.0	0.37	ug/L			05/19/24 17:36	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			05/19/24 17:36	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			05/19/24 17:36	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			05/19/24 17:36	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			05/19/24 17:36	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			05/19/24 17:36	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			05/19/24 17:36	1
2-Hexanone	10	U	20	3.2	ug/L			05/19/24 17:36	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			05/19/24 17:36	1

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-250842-1

Client Sample ID: OU6-MW-246-20240515
Date Collected: 05/15/24 15:05
Date Received: 05/16/24 10:28

Lab Sample ID: 680-250842-11
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			05/19/24 17:36	1
Methyl acetate	10	U	20	3.2	ug/L			05/19/24 17:36	1
Methylcyclohexane	1.0	U Q	2.0	0.33	ug/L			05/19/24 17:36	1
Methylene Chloride	10	U	20	3.2	ug/L			05/19/24 17:36	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			05/19/24 17:36	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			05/19/24 17:36	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			05/19/24 17:36	1
Naphthalene	5.0	U	10	2.4	ug/L			05/19/24 17:36	1
n-Butylbenzene	2.0	U Q	2.5	0.52	ug/L			05/19/24 17:36	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			05/19/24 17:36	1
o-Xylene	1.0	U	2.0	0.26	ug/L			05/19/24 17:36	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			05/19/24 17:36	1
Styrene	1.0	U	2.0	0.27	ug/L			05/19/24 17:36	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			05/19/24 17:36	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			05/19/24 17:36	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			05/19/24 17:36	1
Tetrachloroethene	**0.58**	**J**	2.0	0.35	ug/L			05/19/24 17:36	1
Toluene	1.0	U	2.0	0.25	ug/L			05/19/24 17:36	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			05/19/24 17:36	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			05/19/24 17:36	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			05/19/24 17:36	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			05/19/24 17:36	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			05/19/24 17:36	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			05/19/24 17:36	1
Trichloroethene	0.50	U	1.0	0.20	ug/L			05/19/24 17:36	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			05/19/24 17:36	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			05/19/24 17:36	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			05/19/24 17:36	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			05/19/24 17:36	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			05/19/24 17:36	1
Vinyl chloride	1.0	U	2.0	0.40	ug/L			05/19/24 17:36	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			05/19/24 17:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*112*		*85 - 114*		*05/19/24 17:36*	*1*
Dibromofluoromethane (Surr)	*98*		*80 - 119*		*05/19/24 17:36*	*1*
1,2-Dichloroethane-d4 (Surr)	*95*		*81 - 118*		*05/19/24 17:36*	*1*
Toluene-d8 (Surr)	*103*		*89 - 112*		*05/19/24 17:36*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	2.0	U	5.0	1.0	ug/L		05/24/24 13:13	05/24/24 21:04	1
Ethylene	2.0	U M	5.0	1.0	ug/L		05/24/24 13:13	05/24/24 21:04	1

Method: RSK-175 - Dissolved Gases (GC) - DL

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	**9700**	**D M**	330	150	ug/L		05/24/24 13:13	05/24/24 21:19	50

Client Sample ID: OU6-MW-246-20240515

Lab Sample ID: 680-250842-11

Date Collected: 05/15/24 15:05

Matrix: Water

Date Received: 05/16/24 10:28

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**11**	**M**	0.55	0.20	mg/L			05/29/24 02:24	1
Nitrate as N	**0.61**	**M J1**	0.055	0.023	mg/L			05/16/24 15:43	1
Nitrate Nitrite as N	**0.61**	**J1**	0.055	0.023	mg/L			05/16/24 15:43	1
Sulfate	**1.1**	**J**	1.5	0.40	mg/L			05/29/24 02:24	1
Nitrite as N	0.050	U J1	0.055	0.023	mg/L			05/16/24 15:43	1

Method: SW846 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**47**		10	2.2	ug/L		05/17/24 05:47	05/17/24 13:04	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**29**		5.5	2.2	mg/L			05/17/24 16:47	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	**29**		11	5.0	mg/L			05/17/24 16:47	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	10	U	11	5.0	mg/L			05/17/24 16:47	1
Sulfide (SM 4500 S2 F-2011)	0.81	U	0.81	0.81	mg/L			05/21/24 12:09	1
Sulfide as H2S (SM 4500 S2 F-2011)	0.89	U	0.89	0.89	mg/L			05/21/24 12:09	1
Total Organic Carbon (SW846 9060A)	**0.88**	**J**	1.0	0.50	mg/L			05/22/24 21:39	1
Carbon Dioxide, Free (SM 4500 CO2 D)	**19**		11	5.0	mg/L			05/17/24 16:47	1

Client Sample ID: OU6-MW-182-20240515

Lab Sample ID: 680-250842-12

Date Collected: 05/15/24 12:55

Matrix: Water

Date Received: 05/16/24 10:28

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			05/19/24 17:58	1
Benzene	1.0	U	2.0	0.27	ug/L			05/19/24 17:58	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			05/19/24 17:58	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			05/19/24 17:58	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			05/19/24 17:58	1
Bromoform	2.0	U	2.5	0.59	ug/L			05/19/24 17:58	1
Bromomethane	10	U Q	20	3.7	ug/L			05/19/24 17:58	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			05/19/24 17:58	1
Carbon disulfide	1.0	U Q	2.0	0.43	ug/L			05/19/24 17:58	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			05/19/24 17:58	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			05/19/24 17:58	1
Chloroethane	10	U	20	4.6	ug/L			05/19/24 17:58	1
Chloroform	1.0	U	2.0	0.27	ug/L			05/19/24 17:58	1
Chloromethane	2.0	U	2.5	0.54	ug/L			05/19/24 17:58	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			05/19/24 17:58	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			05/19/24 17:58	1
cis-1,2-Dichloroethene	1.0	U	2.0	0.25	ug/L			05/19/24 17:58	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			05/19/24 17:58	1
Cyclohexane	1.0	U Q	2.0	0.28	ug/L			05/19/24 17:58	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			05/19/24 17:58	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			05/19/24 17:58	1

Client Sample ID: OU6-MW-182-20240515
Date Collected: 05/15/24 12:55
Date Received: 05/16/24 10:28

Lab Sample ID: 680-250842-12
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			05/19/24 17:58	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			05/19/24 17:58	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/19/24 17:58	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/19/24 17:58	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/19/24 17:58	1
Dichlorodifluoromethane	1.0	U	2.0	0.36	ug/L			05/19/24 17:58	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			05/19/24 17:58	1
1,2-Dichloroethane	1.0	U M	2.0	0.25	ug/L			05/19/24 17:58	1
1,1-Dichloroethene	1.0	U	2.0	0.33	ug/L			05/19/24 17:58	1
1,2-Dichloroethene, Total	1.0	U	2.0	0.37	ug/L			05/19/24 17:58	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			05/19/24 17:58	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			05/19/24 17:58	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			05/19/24 17:58	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			05/19/24 17:58	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			05/19/24 17:58	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			05/19/24 17:58	1
2-Hexanone	10	U	20	3.2	ug/L			05/19/24 17:58	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			05/19/24 17:58	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			05/19/24 17:58	1
Methyl acetate	10	U	20	3.2	ug/L			05/19/24 17:58	1
Methylcyclohexane	1.0	U Q	2.0	0.33	ug/L			05/19/24 17:58	1
Methylene Chloride	10	U	20	3.2	ug/L			05/19/24 17:58	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			05/19/24 17:58	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			05/19/24 17:58	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			05/19/24 17:58	1
Naphthalene	5.0	U	10	2.4	ug/L			05/19/24 17:58	1
n-Butylbenzene	2.0	U Q	2.5	0.52	ug/L			05/19/24 17:58	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			05/19/24 17:58	1
o-Xylene	1.0	U	2.0	0.26	ug/L			05/19/24 17:58	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			05/19/24 17:58	1
Styrene	1.0	U	2.0	0.27	ug/L			05/19/24 17:58	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			05/19/24 17:58	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			05/19/24 17:58	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			05/19/24 17:58	1
Tetrachloroethene	1.0	U	2.0	0.35	ug/L			05/19/24 17:58	1
Toluene	1.0	U	2.0	0.25	ug/L			05/19/24 17:58	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			05/19/24 17:58	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			05/19/24 17:58	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			05/19/24 17:58	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			05/19/24 17:58	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			05/19/24 17:58	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			05/19/24 17:58	1
Trichloroethene	0.50	U	1.0	0.20	ug/L			05/19/24 17:58	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			05/19/24 17:58	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			05/19/24 17:58	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			05/19/24 17:58	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			05/19/24 17:58	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			05/19/24 17:58	1
Vinyl chloride	1.0	U	2.0	0.40	ug/L			05/19/24 17:58	1

Client Sample ID: OU6-MW-182-20240515

Lab Sample ID: 680-250842-12

Date Collected: 05/15/24 12:55
Matrix: Water
Date Received: 05/16/24 10:28

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	1.0	U	2.0	0.49	ug/L			05/19/24 17:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*85 - 114*		*05/19/24 17:58*	*1*
Dibromofluoromethane (Surr)	*99*		*80 - 119*		*05/19/24 17:58*	*1*
1,2-Dichloroethane-d4 (Surr)	*97*		*81 - 118*		*05/19/24 17:58*	*1*
Toluene-d8 (Surr)	*103*		*89 - 112*		*05/19/24 17:58*	*1*

Client Sample ID: OU6-DMW-17A-20240515

Lab Sample ID: 680-250842-13

Date Collected: 05/15/24 11:35
Matrix: Water
Date Received: 05/16/24 10:28

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			05/19/24 18:20	1
Benzene	1.0	U	2.0	0.27	ug/L			05/19/24 18:20	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			05/19/24 18:20	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			05/19/24 18:20	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			05/19/24 18:20	1
Bromoform	2.0	U	2.5	0.59	ug/L			05/19/24 18:20	1
Bromomethane	10	U Q	20	3.7	ug/L			05/19/24 18:20	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			05/19/24 18:20	1
Carbon disulfide	1.0	U Q	2.0	0.43	ug/L			05/19/24 18:20	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			05/19/24 18:20	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			05/19/24 18:20	1
Chloroethane	10	U	20	4.6	ug/L			05/19/24 18:20	1
Chloroform	1.0	U	2.0	0.27	ug/L			05/19/24 18:20	1
Chloromethane	2.0	U	2.5	0.54	ug/L			05/19/24 18:20	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			05/19/24 18:20	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			05/19/24 18:20	1
cis-1,2-Dichloroethene	1.0	U	2.0	0.25	ug/L			05/19/24 18:20	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			05/19/24 18:20	1
Cyclohexane	1.0	U Q	2.0	0.28	ug/L			05/19/24 18:20	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			05/19/24 18:20	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			05/19/24 18:20	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			05/19/24 18:20	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			05/19/24 18:20	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/19/24 18:20	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/19/24 18:20	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/19/24 18:20	1
Dichlorodifluoromethane	1.0	U	2.0	0.36	ug/L			05/19/24 18:20	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			05/19/24 18:20	1
1,2-Dichloroethane	1.0	U M	2.0	0.25	ug/L			05/19/24 18:20	1
1,1-Dichloroethene	1.0	U	2.0	0.33	ug/L			05/19/24 18:20	1
1,2-Dichloroethene, Total	1.0	U	2.0	0.37	ug/L			05/19/24 18:20	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			05/19/24 18:20	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			05/19/24 18:20	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			05/19/24 18:20	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			05/19/24 18:20	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			05/19/24 18:20	1

Client Sample ID: OU6-DMW-17A-20240515

Lab Sample ID: 680-250842-13

Date Collected: 05/15/24 11:35

Matrix: Water

Date Received: 05/16/24 10:28

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			05/19/24 18:20	1
2-Hexanone	10	U	20	3.2	ug/L			05/19/24 18:20	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			05/19/24 18:20	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			05/19/24 18:20	1
Methyl acetate	10	U	20	3.2	ug/L			05/19/24 18:20	1
Methylcyclohexane	1.0	U Q	2.0	0.33	ug/L			05/19/24 18:20	1
Methylene Chloride	10	U	20	3.2	ug/L			05/19/24 18:20	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			05/19/24 18:20	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			05/19/24 18:20	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			05/19/24 18:20	1
Naphthalene	5.0	U	10	2.4	ug/L			05/19/24 18:20	1
n-Butylbenzene	2.0	U Q	2.5	0.52	ug/L			05/19/24 18:20	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			05/19/24 18:20	1
o-Xylene	1.0	U	2.0	0.26	ug/L			05/19/24 18:20	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			05/19/24 18:20	1
Styrene	1.0	U	2.0	0.27	ug/L			05/19/24 18:20	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			05/19/24 18:20	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			05/19/24 18:20	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			05/19/24 18:20	1
Tetrachloroethene	1.0	U	2.0	0.35	ug/L			05/19/24 18:20	1
Toluene	1.0	U	2.0	0.25	ug/L			05/19/24 18:20	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			05/19/24 18:20	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			05/19/24 18:20	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			05/19/24 18:20	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			05/19/24 18:20	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			05/19/24 18:20	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			05/19/24 18:20	1
Trichloroethene	0.50	U	1.0	0.20	ug/L			05/19/24 18:20	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			05/19/24 18:20	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			05/19/24 18:20	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			05/19/24 18:20	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			05/19/24 18:20	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			05/19/24 18:20	1
Vinyl chloride	1.0	U	2.0	0.40	ug/L			05/19/24 18:20	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			05/19/24 18:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*85 - 114*		*05/19/24 18:20*	*1*
Dibromofluoromethane (Surr)	*99*		*80 - 119*		*05/19/24 18:20*	*1*
1,2-Dichloroethane-d4 (Surr)	*96*		*81 - 118*		*05/19/24 18:20*	*1*
Toluene-d8 (Surr)	*103*		*89 - 112*		*05/19/24 18:20*	*1*

Client Sample ID: OU6-MW-124-20240515

Lab Sample ID: 680-250842-14

Date Collected: 05/15/24 09:15

Matrix: Water

Date Received: 05/16/24 10:28

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			05/19/24 18:41	1
Benzene	1.0	U	2.0	0.27	ug/L			05/19/24 18:41	1

Client Sample ID: OU6-MW-124-20240515
Date Collected: 05/15/24 09:15
Date Received: 05/16/24 10:28

Lab Sample ID: 680-250842-14
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Bromobenzene	0.50	U	1.0	0.24	ug/L			05/19/24 18:41	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			05/19/24 18:41	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			05/19/24 18:41	1
Bromoform	2.0	U	2.5	0.59	ug/L			05/19/24 18:41	1
Bromomethane	10	U Q	20	3.7	ug/L			05/19/24 18:41	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			05/19/24 18:41	1
Carbon disulfide	1.0	U Q	2.0	0.43	ug/L			05/19/24 18:41	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			05/19/24 18:41	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			05/19/24 18:41	1
Chloroethane	10	U	20	4.6	ug/L			05/19/24 18:41	1
Chloroform	1.0	U	2.0	0.27	ug/L			05/19/24 18:41	1
Chloromethane	2.0	U	2.5	0.54	ug/L			05/19/24 18:41	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			05/19/24 18:41	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			05/19/24 18:41	1
cis-1,2-Dichloroethene	**39**		2.0	0.25	ug/L			05/19/24 18:41	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			05/19/24 18:41	1
Cyclohexane	1.0	U Q	2.0	0.28	ug/L			05/19/24 18:41	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			05/19/24 18:41	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			05/19/24 18:41	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			05/19/24 18:41	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			05/19/24 18:41	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/19/24 18:41	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/19/24 18:41	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/19/24 18:41	1
Dichlorodifluoromethane	1.0	U	2.0	0.36	ug/L			05/19/24 18:41	1
1,1-Dichloroethane	**2.3**		2.0	0.33	ug/L			05/19/24 18:41	1
1,2-Dichloroethane	1.0	U M	2.0	0.25	ug/L			05/19/24 18:41	1
1,1-Dichloroethene	**1.2**	**J**	2.0	0.33	ug/L			05/19/24 18:41	1
1,2-Dichloroethene, Total	**41**		2.0	0.37	ug/L			05/19/24 18:41	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			05/19/24 18:41	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			05/19/24 18:41	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			05/19/24 18:41	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			05/19/24 18:41	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			05/19/24 18:41	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			05/19/24 18:41	1
2-Hexanone	10	U	20	3.2	ug/L			05/19/24 18:41	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			05/19/24 18:41	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			05/19/24 18:41	1
Methyl acetate	10	U	20	3.2	ug/L			05/19/24 18:41	1
Methylcyclohexane	1.0	U Q	2.0	0.33	ug/L			05/19/24 18:41	1
Methylene Chloride	10	U	20	3.2	ug/L			05/19/24 18:41	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			05/19/24 18:41	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			05/19/24 18:41	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			05/19/24 18:41	1
Naphthalene	5.0	U	10	2.4	ug/L			05/19/24 18:41	1
n-Butylbenzene	2.0	U Q	2.5	0.52	ug/L			05/19/24 18:41	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			05/19/24 18:41	1
o-Xylene	1.0	U	2.0	0.26	ug/L			05/19/24 18:41	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			05/19/24 18:41	1

Client Sample ID: OU6-MW-124-20240515

Lab Sample ID: 680-250842-14

Date Collected: 05/15/24 09:15

Matrix: Water

Date Received: 05/16/24 10:28

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	1.0	U	2.0	0.27	ug/L			05/19/24 18:41	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			05/19/24 18:41	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			05/19/24 18:41	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			05/19/24 18:41	1
Tetrachloroethene	**3.1**		2.0	0.35	ug/L			05/19/24 18:41	1
Toluene	1.0	U	2.0	0.25	ug/L			05/19/24 18:41	1
trans-1,2-Dichloroethene	**2.2**		2.0	0.34	ug/L			05/19/24 18:41	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			05/19/24 18:41	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			05/19/24 18:41	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			05/19/24 18:41	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			05/19/24 18:41	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			05/19/24 18:41	1
Trichloroethene	**2.2**		1.0	0.20	ug/L			05/19/24 18:41	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			05/19/24 18:41	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			05/19/24 18:41	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			05/19/24 18:41	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			05/19/24 18:41	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			05/19/24 18:41	1
Vinyl chloride	1.0	U	2.0	0.40	ug/L			05/19/24 18:41	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			05/19/24 18:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*85 - 114*		*05/19/24 18:41*	*1*
Dibromofluoromethane (Surr)	*97*		*80 - 119*		*05/19/24 18:41*	*1*
1,2-Dichloroethane-d4 (Surr)	*95*		*81 - 118*		*05/19/24 18:41*	*1*
Toluene-d8 (Surr)	*102*		*89 - 112*		*05/19/24 18:41*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	2.0	U	5.0	1.0	ug/L		05/24/24 13:13	05/24/24 21:35	1
Ethylene	2.0	U M	5.0	1.0	ug/L		05/24/24 13:13	05/24/24 21:35	1
Methane	**10**	**M**	6.5	3.0	ug/L		05/24/24 13:13	05/24/24 21:35	1

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**3.3**	**M**	0.55	0.20	mg/L			05/29/24 02:31	1
Nitrate as N	**0.025**	**J**	0.055	0.023	mg/L			05/16/24 16:08	1
Nitrate Nitrite as N	**0.025**	**J**	0.055	0.023	mg/L			05/16/24 16:08	1
Sulfate	**1.6**		1.5	0.40	mg/L			05/29/24 02:31	1
Nitrite as N	0.050	U	0.055	0.023	mg/L			05/16/24 16:08	1

Method: SW846 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**7.6**	**J**	10	2.2	ug/L		05/17/24 05:47	05/17/24 13:00	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**32**		5.5	2.2	mg/L			05/17/24 17:17	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	**32**		11	5.0	mg/L			05/17/24 17:17	1

Client Sample ID: OU6-MW-124-20240515

Lab Sample ID: 680-250842-14

Date Collected: 05/15/24 09:15

Matrix: Water

Date Received: 05/16/24 10:28

General Chemistry (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	10	U	11	5.0	mg/L			05/17/24 17:17	1
Sulfide (SM 4500 S2 F-2011)	0.83	U	0.83	0.83	mg/L			05/21/24 14:01	1
Sulfide as H2S (SM 4500 S2 F-2011)	0.92	U	0.92	0.92	mg/L			05/21/24 14:01	1
Total Organic Carbon (SW846 9060A)	**6.3**		1.0	0.50	mg/L			05/22/24 22:02	1
Carbon Dioxide, Free (SM 4500 CO2 D)	**51**		11	5.0	mg/L			05/17/24 17:17	1

Client Sample ID: OU6-MW-8A-20240515

Lab Sample ID: 680-250842-15

Date Collected: 05/15/24 10:35

Matrix: Water

Date Received: 05/16/24 10:28

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			05/19/24 19:25	1
Benzene	1.0	U	2.0	0.27	ug/L			05/19/24 19:25	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			05/19/24 19:25	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			05/19/24 19:25	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			05/19/24 19:25	1
Bromoform	2.0	U	2.5	0.59	ug/L			05/19/24 19:25	1
Bromomethane	10	U Q	20	3.7	ug/L			05/19/24 19:25	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			05/19/24 19:25	1
Carbon disulfide	1.0	U Q	2.0	0.43	ug/L			05/19/24 19:25	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			05/19/24 19:25	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			05/19/24 19:25	1
Chloroethane	10	U	20	4.6	ug/L			05/19/24 19:25	1
Chloroform	1.0	U	2.0	0.27	ug/L			05/19/24 19:25	1
Chloromethane	2.0	U	2.5	0.54	ug/L			05/19/24 19:25	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			05/19/24 19:25	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			05/19/24 19:25	1
cis-1,2-Dichloroethene	**1.0**	**J**	2.0	0.25	ug/L			05/19/24 19:25	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			05/19/24 19:25	1
Cyclohexane	1.0	U Q	2.0	0.28	ug/L			05/19/24 19:25	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			05/19/24 19:25	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			05/19/24 19:25	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			05/19/24 19:25	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			05/19/24 19:25	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/19/24 19:25	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/19/24 19:25	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/19/24 19:25	1
Dichlorodifluoromethane	1.0	U	2.0	0.36	ug/L			05/19/24 19:25	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			05/19/24 19:25	1
1,2-Dichloroethane	1.0	U M	2.0	0.25	ug/L			05/19/24 19:25	1
1,1-Dichloroethene	1.0	U	2.0	0.33	ug/L			05/19/24 19:25	1
1,2-Dichloroethene, Total	**1.0**	**J**	2.0	0.37	ug/L			05/19/24 19:25	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			05/19/24 19:25	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			05/19/24 19:25	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			05/19/24 19:25	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			05/19/24 19:25	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			05/19/24 19:25	1

Client Sample ID: OU6-MW-8A-20240515

Lab Sample ID: 680-250842-15

Date Collected: 05/15/24 10:35

Matrix: Water

Date Received: 05/16/24 10:28

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			05/19/24 19:25	1
2-Hexanone	10	U	20	3.2	ug/L			05/19/24 19:25	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			05/19/24 19:25	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			05/19/24 19:25	1
Methyl acetate	10	U	20	3.2	ug/L			05/19/24 19:25	1
Methylcyclohexane	1.0	U Q	2.0	0.33	ug/L			05/19/24 19:25	1
Methylene Chloride	10	U	20	3.2	ug/L			05/19/24 19:25	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			05/19/24 19:25	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			05/19/24 19:25	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			05/19/24 19:25	1
Naphthalene	5.0	U	10	2.4	ug/L			05/19/24 19:25	1
n-Butylbenzene	2.0	U Q	2.5	0.52	ug/L			05/19/24 19:25	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			05/19/24 19:25	1
o-Xylene	1.0	U	2.0	0.26	ug/L			05/19/24 19:25	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			05/19/24 19:25	1
Styrene	1.0	U	2.0	0.27	ug/L			05/19/24 19:25	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			05/19/24 19:25	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			05/19/24 19:25	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			05/19/24 19:25	1
Tetrachloroethene	**0.61**	**J**	2.0	0.35	ug/L			05/19/24 19:25	1
Toluene	1.0	U	2.0	0.25	ug/L			05/19/24 19:25	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			05/19/24 19:25	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			05/19/24 19:25	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			05/19/24 19:25	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			05/19/24 19:25	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			05/19/24 19:25	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			05/19/24 19:25	1
Trichloroethene	**1.2**		1.0	0.20	ug/L			05/19/24 19:25	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			05/19/24 19:25	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			05/19/24 19:25	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			05/19/24 19:25	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			05/19/24 19:25	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			05/19/24 19:25	1
Vinyl chloride	1.0	U	2.0	0.40	ug/L			05/19/24 19:25	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			05/19/24 19:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*113*		*85 - 114*		*05/19/24 19:25*	*1*
Dibromofluoromethane (Surr)	*98*		*80 - 119*		*05/19/24 19:25*	*1*
1,2-Dichloroethane-d4 (Surr)	*95*		*81 - 118*		*05/19/24 19:25*	*1*
Toluene-d8 (Surr)	*104*		*89 - 112*		*05/19/24 19:25*	*1*

Client Sample ID: TRIP-BLANK-20240515

Lab Sample ID: 680-250842-16

Date Collected: 05/15/24 00:00

Matrix: Water

Date Received: 05/16/24 10:28

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			05/19/24 15:16	1
Benzene	1.0	U	2.0	0.27	ug/L			05/19/24 15:16	1

Client Sample ID: TRIP-BLANK-20240515
Date Collected: 05/15/24 00:00
Date Received: 05/16/24 10:28

Lab Sample ID: 680-250842-16
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Bromobenzene	0.50	U	1.0	0.24	ug/L			05/19/24 15:16	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			05/19/24 15:16	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			05/19/24 15:16	1
Bromoform	2.0	U	2.5	0.59	ug/L			05/19/24 15:16	1
Bromomethane	10	U Q	20	3.7	ug/L			05/19/24 15:16	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			05/19/24 15:16	1
Carbon disulfide	1.0	U Q	2.0	0.43	ug/L			05/19/24 15:16	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			05/19/24 15:16	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			05/19/24 15:16	1
Chloroethane	10	U	20	4.6	ug/L			05/19/24 15:16	1
Chloroform	1.0	U	2.0	0.27	ug/L			05/19/24 15:16	1
Chloromethane	2.0	U	2.5	0.54	ug/L			05/19/24 15:16	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			05/19/24 15:16	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			05/19/24 15:16	1
cis-1,2-Dichloroethene	1.0	U	2.0	0.25	ug/L			05/19/24 15:16	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			05/19/24 15:16	1
Cyclohexane	1.0	U Q	2.0	0.28	ug/L			05/19/24 15:16	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			05/19/24 15:16	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			05/19/24 15:16	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			05/19/24 15:16	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			05/19/24 15:16	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/19/24 15:16	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/19/24 15:16	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/19/24 15:16	1
Dichlorodifluoromethane	1.0	U	2.0	0.36	ug/L			05/19/24 15:16	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			05/19/24 15:16	1
1,2-Dichloroethane	1.0	U M	2.0	0.25	ug/L			05/19/24 15:16	1
1,1-Dichloroethene	1.0	U	2.0	0.33	ug/L			05/19/24 15:16	1
1,2-Dichloroethene, Total	1.0	U	2.0	0.37	ug/L			05/19/24 15:16	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			05/19/24 15:16	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			05/19/24 15:16	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			05/19/24 15:16	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			05/19/24 15:16	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			05/19/24 15:16	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			05/20/24 13:56	1
2-Hexanone	10	U	20	3.2	ug/L			05/19/24 15:16	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			05/19/24 15:16	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			05/19/24 15:16	1
Methyl acetate	10	U	20	3.2	ug/L			05/19/24 15:16	1
Methylcyclohexane	1.0	U Q	2.0	0.33	ug/L			05/19/24 15:16	1
Methylene Chloride	10	U	20	3.2	ug/L			05/19/24 15:16	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			05/19/24 15:16	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			05/19/24 15:16	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			05/19/24 15:16	1
Naphthalene	5.0	U	10	2.4	ug/L			05/19/24 15:16	1
n-Butylbenzene	2.0	U Q	2.5	0.52	ug/L			05/19/24 15:16	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			05/19/24 15:16	1
o-Xylene	1.0	U	2.0	0.26	ug/L			05/20/24 13:56	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			05/19/24 15:16	1

Client Sample ID: TRIP-BLANK-20240515

Lab Sample ID: 680-250842-16

Date Collected: 05/15/24 00:00

Matrix: Water

Date Received: 05/16/24 10:28

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	1.0	U	2.0	0.27	ug/L			05/20/24 13:56	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			05/19/24 15:16	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			05/19/24 15:16	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			05/19/24 15:16	1
Tetrachloroethene	1.0	U	2.0	0.35	ug/L			05/19/24 15:16	1
Toluene	1.0	U	2.0	0.25	ug/L			05/19/24 15:16	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			05/19/24 15:16	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			05/19/24 15:16	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			05/19/24 15:16	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			05/19/24 15:16	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			05/19/24 15:16	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			05/19/24 15:16	1
Trichloroethene	0.50	U	1.0	0.20	ug/L			05/19/24 15:16	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			05/19/24 15:16	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			05/19/24 15:16	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			05/19/24 15:16	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			05/19/24 15:16	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			05/19/24 15:16	1
Vinyl chloride	1.0	U	2.0	0.40	ug/L			05/19/24 15:16	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			05/19/24 15:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*111*		*85 - 114*		*05/19/24 15:16*	*1*
4-Bromofluorobenzene (Surr)	*104*		*85 - 114*		*05/20/24 13:56*	*1*
Dibromofluoromethane (Surr)	*98*		*80 - 119*		*05/19/24 15:16*	*1*
Dibromofluoromethane (Surr)	*114*		*80 - 119*		*05/20/24 13:56*	*1*
1,2-Dichloroethane-d4 (Surr)	*94*		*81 - 118*		*05/19/24 15:16*	*1*
1,2-Dichloroethane-d4 (Surr)	*112*		*81 - 118*		*05/20/24 13:56*	*1*
Toluene-d8 (Surr)	*102*		*89 - 112*		*05/19/24 15:16*	*1*
Toluene-d8 (Surr)	*105*		*89 - 112*		*05/20/24 13:56*	*1*

Client Sample ID: OU6-MW-92-20240515

Lab Sample ID: 680-250842-17

Date Collected: 05/15/24 14:00

Matrix: Water

Date Received: 05/16/24 10:28

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			05/19/24 19:03	1
Benzene	1.0	U	2.0	0.27	ug/L			05/19/24 19:03	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			05/19/24 19:03	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			05/19/24 19:03	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			05/19/24 19:03	1
Bromoform	2.0	U	2.5	0.59	ug/L			05/19/24 19:03	1
Bromomethane	10	U Q	20	3.7	ug/L			05/19/24 19:03	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			05/19/24 19:03	1
Carbon disulfide	1.0	U Q	2.0	0.43	ug/L			05/19/24 19:03	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			05/19/24 19:03	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			05/19/24 19:03	1
Chloroethane	10	U	20	4.6	ug/L			05/19/24 19:03	1
Chloroform	1.0	U	2.0	0.27	ug/L			05/19/24 19:03	1

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-250842-1

Client Sample ID: OU6-MW-92-20240515
Date Collected: 05/15/24 14:00
Date Received: 05/16/24 10:28

Lab Sample ID: 680-250842-17
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	2.0	U	2.5	0.54	ug/L			05/19/24 19:03	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			05/19/24 19:03	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			05/19/24 19:03	1
cis-1,2-Dichloroethene	**4.0**		2.0	0.25	ug/L			05/19/24 19:03	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			05/19/24 19:03	1
Cyclohexane	1.0	U Q	2.0	0.28	ug/L			05/19/24 19:03	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			05/19/24 19:03	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			05/19/24 19:03	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			05/19/24 19:03	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			05/19/24 19:03	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/19/24 19:03	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/19/24 19:03	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/19/24 19:03	1
Dichlorodifluoromethane	1.0	U	2.0	0.36	ug/L			05/19/24 19:03	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			05/19/24 19:03	1
1,2-Dichloroethane	1.0	U M	2.0	0.25	ug/L			05/19/24 19:03	1
1,1-Dichloroethene	1.0	U	2.0	0.33	ug/L			05/19/24 19:03	1
1,2-Dichloroethene, Total	**4.0**		2.0	0.37	ug/L			05/19/24 19:03	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			05/19/24 19:03	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			05/19/24 19:03	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			05/19/24 19:03	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			05/19/24 19:03	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			05/19/24 19:03	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			05/19/24 19:03	1
2-Hexanone	10	U	20	3.2	ug/L			05/19/24 19:03	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			05/19/24 19:03	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			05/19/24 19:03	1
Methyl acetate	10	U	20	3.2	ug/L			05/19/24 19:03	1
Methylcyclohexane	1.0	U Q	2.0	0.33	ug/L			05/19/24 19:03	1
Methylene Chloride	10	U	20	3.2	ug/L			05/19/24 19:03	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			05/19/24 19:03	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			05/19/24 19:03	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			05/19/24 19:03	1
Naphthalene	5.0	U	10	2.4	ug/L			05/19/24 19:03	1
n-Butylbenzene	2.0	U Q	2.5	0.52	ug/L			05/19/24 19:03	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			05/19/24 19:03	1
o-Xylene	1.0	U	2.0	0.26	ug/L			05/19/24 19:03	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			05/19/24 19:03	1
Styrene	1.0	U	2.0	0.27	ug/L			05/19/24 19:03	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			05/19/24 19:03	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			05/19/24 19:03	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			05/19/24 19:03	1
Tetrachloroethene	1.0	U	2.0	0.35	ug/L			05/19/24 19:03	1
Toluene	1.0	U	2.0	0.25	ug/L			05/19/24 19:03	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			05/19/24 19:03	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			05/19/24 19:03	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			05/19/24 19:03	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			05/19/24 19:03	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			05/19/24 19:03	1

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-250842-1

Client Sample ID: OU6-MW-92-20240515
Date Collected: 05/15/24 14:00
Date Received: 05/16/24 10:28

Lab Sample ID: 680-250842-17
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			05/19/24 19:03	1
Trichloroethene	0.50	U	1.0	0.20	ug/L			05/19/24 19:03	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			05/19/24 19:03	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			05/19/24 19:03	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			05/19/24 19:03	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			05/19/24 19:03	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			05/19/24 19:03	1
Vinyl chloride	1.0	U	2.0	0.40	ug/L			05/19/24 19:03	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			05/19/24 19:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*85 - 114*		*05/19/24 19:03*	*1*
Dibromofluoromethane (Surr)	*99*		*80 - 119*		*05/19/24 19:03*	*1*
1,2-Dichloroethane-d4 (Surr)	*95*		*81 - 118*		*05/19/24 19:03*	*1*
Toluene-d8 (Surr)	*103*		*89 - 112*		*05/19/24 19:03*	*1*

Isotope Dilution Summary

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-250842-1

Method: 8270E SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Matrix: Water **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)
		DXE
Lab Sample ID	Client Sample ID	(10-150)
680-250842-6	OU6-MW-284-20240515	15 M
680-250842-6 MS	OU6-MW-284-20240515	23
680-250842-6 MSD	OU6-MW-284-20240515	17
680-250842-7	OU6-MWNGA-8-20240515	21 M
680-250842-8	OU6-MWNGA-10-20240515	29 M
680-250842-8 MS	OU6-MWNGA-10-20240515	16
680-250842-8 MSD	OU6-MWNGA-10-20240515	16
LCS 680-839167/2-A	Lab Control Sample	16
MB 680-839167/1-A	Method Blank	24 M

Surrogate Legend

DXE = 1,4-Dioxane-d8

Method: 8260D - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 680-838669/8
Matrix: Water
Analysis Batch: 838669

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			05/18/24 16:01	1
Benzene	1.0	U	2.0	0.27	ug/L			05/18/24 16:01	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			05/18/24 16:01	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			05/18/24 16:01	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			05/18/24 16:01	1
Bromoform	2.0	U	2.5	0.59	ug/L			05/18/24 16:01	1
Bromomethane	10	U	20	3.7	ug/L			05/18/24 16:01	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			05/18/24 16:01	1
Carbon disulfide	1.0	U	2.0	0.43	ug/L			05/18/24 16:01	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			05/18/24 16:01	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			05/18/24 16:01	1
Chloroethane	10	U	20	4.6	ug/L			05/18/24 16:01	1
Chloroform	1.0	U	2.0	0.27	ug/L			05/18/24 16:01	1
Chloromethane	2.0	U	2.5	0.54	ug/L			05/18/24 16:01	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			05/18/24 16:01	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			05/18/24 16:01	1
cis-1,2-Dichloroethene	1.0	U	2.0	0.25	ug/L			05/18/24 16:01	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			05/18/24 16:01	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			05/18/24 16:01	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			05/18/24 16:01	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			05/18/24 16:01	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			05/18/24 16:01	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			05/18/24 16:01	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/18/24 16:01	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/18/24 16:01	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/18/24 16:01	1
Dichlorodifluoromethane	1.0	U	2.0	0.36	ug/L			05/18/24 16:01	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			05/18/24 16:01	1
1,2-Dichloroethane	1.0	U	2.0	0.25	ug/L			05/18/24 16:01	1
1,1-Dichloroethene	1.0	U	2.0	0.33	ug/L			05/18/24 16:01	1
1,2-Dichloroethene, Total	1.0	U	2.0	0.37	ug/L			05/18/24 16:01	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			05/18/24 16:01	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			05/18/24 16:01	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			05/18/24 16:01	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			05/18/24 16:01	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			05/18/24 16:01	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			05/18/24 16:01	1
2-Hexanone	10	U	20	3.2	ug/L			05/18/24 16:01	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			05/18/24 16:01	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			05/18/24 16:01	1
Methyl acetate	10	U	20	3.2	ug/L			05/18/24 16:01	1
Methylcyclohexane	0.614	J	2.0	0.33	ug/L			05/18/24 16:01	1
Methylene Chloride	10	U	20	3.2	ug/L			05/18/24 16:01	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			05/18/24 16:01	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			05/18/24 16:01	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			05/18/24 16:01	1
Naphthalene	5.0	U	10	2.4	ug/L			05/18/24 16:01	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			05/18/24 16:01	1

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-838669/8
Matrix: Water
Analysis Batch: 838669

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			05/18/24 16:01	1
o-Xylene	1.0	U	2.0	0.26	ug/L			05/18/24 16:01	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			05/18/24 16:01	1
Styrene	1.0	U	2.0	0.27	ug/L			05/18/24 16:01	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			05/18/24 16:01	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			05/18/24 16:01	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			05/18/24 16:01	1
Tetrachloroethene	1.0	U	2.0	0.35	ug/L			05/18/24 16:01	1
Toluene	1.0	U	2.0	0.25	ug/L			05/18/24 16:01	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			05/18/24 16:01	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			05/18/24 16:01	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			05/18/24 16:01	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			05/18/24 16:01	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			05/18/24 16:01	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			05/18/24 16:01	1
Trichloroethene	0.50	U	1.0	0.20	ug/L			05/18/24 16:01	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			05/18/24 16:01	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			05/18/24 16:01	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			05/18/24 16:01	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			05/18/24 16:01	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			05/18/24 16:01	1
Vinyl chloride	1.0	U	2.0	0.40	ug/L			05/18/24 16:01	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			05/18/24 16:01	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*85 - 114*		*05/18/24 16:01*	*1*
Dibromofluoromethane (Surr)	*106*		*80 - 119*		*05/18/24 16:01*	*1*
1,2-Dichloroethane-d4 (Surr)	*93*		*81 - 118*		*05/18/24 16:01*	*1*
Toluene-d8 (Surr)	*98*		*89 - 112*		*05/18/24 16:01*	*1*

Lab Sample ID: LCS 680-838669/4
Matrix: Water
Analysis Batch: 838669

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	250	257		ug/L		103	39 - 160
Benzene	50.0	52.0		ug/L		104	79 - 120
Bromobenzene	50.0	54.9		ug/L		110	80 - 120
Bromochloromethane	50.0	51.3		ug/L		103	78 - 123
Bromodichloromethane	50.0	47.7		ug/L		95	79 - 125
Bromoform	50.0	64.0	J1	ug/L		128	66 - 130
Bromomethane	50.0	48.4		ug/L		97	53 - 141
2-Butanone (MEK)	250	250		ug/L		100	56 - 143
Carbon disulfide	50.0	52.6		ug/L		105	64 - 133
Carbon tetrachloride	50.0	49.2		ug/L		98	72 - 136
Chlorobenzene	50.0	50.9		ug/L		102	82 - 118
Chloroethane	50.0	52.3		ug/L		105	60 - 138
Chloroform	50.0	49.8		ug/L		100	79 - 124

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-838669/4
Matrix: Water
Analysis Batch: 838669

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloromethane	50.0	40.5		ug/L		81	50 - 139
2-Chlorotoluene	50.0	52.7		ug/L		105	79 - 122
4-Chlorotoluene	50.0	51.7		ug/L		103	78 - 122
cis-1,2-Dichloroethene	50.0	50.7		ug/L		101	78 - 123
cis-1,3-Dichloropropene	50.0	51.0		ug/L		102	75 - 124
Cyclohexane	50.0	55.2		ug/L		110	71 - 130
Dibromochloromethane	50.0	50.7		ug/L		101	74 - 126
1,2-Dibromo-3-Chloropropane	50.0	49.9		ug/L		100	62 - 128
1,2-Dibromoethane	50.0	51.5		ug/L		103	75 - 127
Dibromomethane	50.0	49.0		ug/L		98	79 - 123
1,2-Dichlorobenzene	50.0	50.7		ug/L		101	80 - 119
1,3-Dichlorobenzene	50.0	51.7		ug/L		103	80 - 119
1,4-Dichlorobenzene	50.0	51.1		ug/L		102	79 - 118
Dichlorodifluoromethane	50.0	36.9	M	ug/L		74	32 - 152
1,1-Dichloroethane	50.0	50.8		ug/L		102	77 - 125
1,2-Dichloroethane	50.0	46.3		ug/L		93	73 - 128
1,1-Dichloroethene	50.0	53.9		ug/L		108	71 - 131
1,2-Dichloroethene, Total	100	103		ug/L		103	79 - 121
1,2-Dichloropropane	50.0	51.9		ug/L		104	78 - 122
1,3-Dichloropropane	50.0	50.7		ug/L		101	80 - 119
2,2-Dichloropropane	50.0	53.2		ug/L		106	60 - 139
1,1-Dichloropropene	50.0	53.7		ug/L		107	79 - 125
Ethylbenzene	50.0	49.8		ug/L		100	79 - 121
Hexachlorobutadiene	50.0	58.1		ug/L		116	66 - 134
2-Hexanone	250	258		ug/L		103	57 - 139
Isopropylbenzene	50.0	51.7		ug/L		103	72 - 131
4-Isopropyltoluene	50.0	50.5		ug/L		101	77 - 127
Methyl acetate	100	83.7		ug/L		84	56 - 136
Methylcyclohexane	50.0	54.1		ug/L		108	72 - 132
Methylene Chloride	50.0	51.6		ug/L		103	74 - 124
4-Methyl-2-pentanone (MIBK)	250	260		ug/L		104	67 - 130
Methyl tert-butyl ether	50.0	49.3		ug/L		99	71 - 124
m-Xylene & p-Xylene	50.0	50.7		ug/L		101	80 - 121
Naphthalene	50.0	51.5		ug/L		103	61 - 128
n-Butylbenzene	50.0	50.9		ug/L		102	75 - 128
N-Propylbenzene	50.0	52.6		ug/L		105	76 - 126
o-Xylene	50.0	52.1		ug/L		104	78 - 122
sec-Butylbenzene	50.0	53.1		ug/L		106	77 - 126
Styrene	50.0	53.2		ug/L		106	78 - 123
tert-Butylbenzene	50.0	52.4		ug/L		105	78 - 124
1,1,1,2-Tetrachloroethane	50.0	51.4		ug/L		103	78 - 124
1,1,2,2-Tetrachloroethane	50.0	57.3		ug/L		115	71 - 121
Tetrachloroethene	50.0	54.3		ug/L		109	74 - 129
Toluene	50.0	50.1		ug/L		100	80 - 121
trans-1,2-Dichloroethene	50.0	52.6		ug/L		105	75 - 124
trans-1,3-Dichloropropene	50.0	49.6		ug/L		99	73 - 127
1,2,3-Trichlorobenzene	50.0	51.3		ug/L		103	69 - 129
1,2,4-Trichlorobenzene	50.0	54.7		ug/L		109	69 - 130
1,1,1-Trichloroethane	50.0	51.4		ug/L		103	74 - 131

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-838669/4
Matrix: Water
Analysis Batch: 838669

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,1,2-Trichloroethane			50.0	51.1		ug/L		102	80 - 119		
Trichloroethene			50.0	50.3		ug/L		101	79 - 123		
Trichlorofluoromethane			50.0	97.0	Q	ug/L		194	65 - 141		
1,2,3-Trichloropropane			50.0	51.5		ug/L		103	73 - 122		
1,1,2-Trichloro-1,2,2-trifluoroethane			50.0	58.7		ug/L		117	70 - 136		
1,2,4-Trimethylbenzene			50.0	53.7		ug/L		107	76 - 124		
1,3,5-Trimethylbenzene			50.0	53.2		ug/L		106	75 - 124		
Vinyl chloride			50.0	44.9		ug/L		90	58 - 137		
Xylenes, Total			100	103		ug/L		103	79 - 121		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*85 - 114*
Dibromofluoromethane (Surr)	*103*		*80 - 119*
1,2-Dichloroethane-d4 (Surr)	*90*		*81 - 118*
Toluene-d8 (Surr)	*98*		*89 - 112*

Lab Sample ID: LCSD 680-838669/5
Matrix: Water
Analysis Batch: 838669

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acetone			250	266		ug/L		107	39 - 160	4	20
Benzene			50.0	52.0		ug/L		104	79 - 120	0	20
Bromobenzene			50.0	55.0		ug/L		110	80 - 120	0	20
Bromochloromethane			50.0	52.2		ug/L		104	78 - 123	2	20
Bromodichloromethane			50.0	49.5		ug/L		99	79 - 125	4	20
Bromoform			50.0	65.4	J1 Q	ug/L		131	66 - 130	2	20
Bromomethane			50.0	48.6		ug/L		97	53 - 141	0	20
2-Butanone (MEK)			250	257		ug/L		103	56 - 143	3	20
Carbon disulfide			50.0	50.3		ug/L		101	64 - 133	5	20
Carbon tetrachloride			50.0	49.0		ug/L		98	72 - 136	0	20
Chlorobenzene			50.0	50.7		ug/L		101	82 - 118	0	20
Chloroethane			50.0	52.8		ug/L		106	60 - 138	1	20
Chloroform			50.0	49.9		ug/L		100	79 - 124	0	20
Chloromethane			50.0	40.3		ug/L		81	50 - 139	1	20
2-Chlorotoluene			50.0	51.7		ug/L		103	79 - 122	2	20
4-Chlorotoluene			50.0	51.5		ug/L		103	78 - 122	0	20
cis-1,2-Dichloroethene			50.0	50.2		ug/L		100	78 - 123	1	20
cis-1,3-Dichloropropene			50.0	51.8		ug/L		104	75 - 124	1	20
Cyclohexane			50.0	54.0		ug/L		108	71 - 130	2	20
Dibromochloromethane			50.0	52.6		ug/L		105	74 - 126	4	20
1,2-Dibromo-3-Chloropropane			50.0	51.8		ug/L		104	62 - 128	4	20
1,2-Dibromoethane			50.0	52.7		ug/L		105	75 - 127	2	20
Dibromomethane			50.0	50.8		ug/L		102	79 - 123	4	20
1,2-Dichlorobenzene			50.0	51.7		ug/L		103	80 - 119	2	20
1,3-Dichlorobenzene			50.0	51.0		ug/L		102	80 - 119	1	20
1,4-Dichlorobenzene			50.0	50.0		ug/L		100	79 - 118	2	20
Dichlorodifluoromethane			50.0	37.4		ug/L		75	32 - 152	1	20

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-838669/5
Matrix: Water
Analysis Batch: 838669

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1-Dichloroethane			50.0	51.0		ug/L		102	77 - 125	0	20
1,2-Dichloroethane			50.0	46.5		ug/L		93	73 - 128	1	20
1,1-Dichloroethene			50.0	53.5		ug/L		107	71 - 131	1	20
1,2-Dichloroethene, Total			100	103		ug/L		103	79 - 121	1	20
1,2-Dichloropropane			50.0	52.8		ug/L		106	78 - 122	2	20
1,3-Dichloropropane			50.0	52.5		ug/L		105	80 - 119	4	20
2,2-Dichloropropane			50.0	51.9		ug/L		104	60 - 139	3	20
1,1-Dichloropropene			50.0	52.7		ug/L		105	79 - 125	2	20
Ethylbenzene			50.0	49.6		ug/L		99	79 - 121	0	20
Hexachlorobutadiene			50.0	57.4		ug/L		115	66 - 134	1	20
2-Hexanone			250	273		ug/L		109	57 - 139	6	20
Isopropylbenzene			50.0	51.6		ug/L		103	72 - 131	0	20
4-Isopropyltoluene			50.0	50.1		ug/L		100	77 - 127	1	20
Methyl acetate			100	86.5		ug/L		87	56 - 136	3	20
Methylcyclohexane			50.0	53.2		ug/L		106	72 - 132	2	20
Methylene Chloride			50.0	52.8		ug/L		106	74 - 124	2	20
4-Methyl-2-pentanone (MIBK)			250	273		ug/L		109	67 - 130	5	20
Methyl tert-butyl ether			50.0	50.9		ug/L		102	71 - 124	3	20
m-Xylene & p-Xylene			50.0	50.5		ug/L		101	80 - 121	0	20
Naphthalene			50.0	52.6		ug/L		105	61 - 128	2	20
n-Butylbenzene			50.0	50.6		ug/L		101	75 - 128	1	20
N-Propylbenzene			50.0	51.7		ug/L		103	76 - 126	2	20
o-Xylene			50.0	51.3		ug/L		103	78 - 122	2	20
sec-Butylbenzene			50.0	52.0		ug/L		104	77 - 126	2	20
Styrene			50.0	52.9		ug/L		106	78 - 123	0	20
tert-Butylbenzene			50.0	51.6		ug/L		103	78 - 124	2	20
1,1,1,2-Tetrachloroethane			50.0	51.1		ug/L		102	78 - 124	1	20
1,1,2,2-Tetrachloroethane			50.0	59.3		ug/L		119	71 - 121	3	20
Tetrachloroethene			50.0	54.5		ug/L		109	74 - 129	0	20
Toluene			50.0	50.6		ug/L		101	80 - 121	1	20
trans-1,2-Dichloroethene			50.0	52.4		ug/L		105	75 - 124	0	20
trans-1,3-Dichloropropene			50.0	51.5		ug/L		103	73 - 127	4	20
1,2,3-Trichlorobenzene			50.0	51.7		ug/L		103	69 - 129	1	20
1,2,4-Trichlorobenzene			50.0	55.6		ug/L		111	69 - 130	2	20
1,1,1-Trichloroethane			50.0	50.2		ug/L		100	74 - 131	2	20
1,1,2-Trichloroethane			50.0	52.5		ug/L		105	80 - 119	3	20
Trichloroethene			50.0	50.6		ug/L		101	79 - 123	0	20
Trichlorofluoromethane			50.0	106	Q	ug/L		212	65 - 141	9	20
1,2,3-Trichloropropane			50.0	52.1		ug/L		104	73 - 122	1	20
1,1,2-Trichloro-1,2,2-trifluoroethane			50.0	57.8		ug/L		116	70 - 136	1	20
1,2,4-Trimethylbenzene			50.0	52.8		ug/L		106	76 - 124	2	20
1,3,5-Trimethylbenzene			50.0	52.6		ug/L		105	75 - 124	1	20
Vinyl chloride			50.0	44.6		ug/L		89	58 - 137	1	20
Xylenes, Total			100	102		ug/L		102	79 - 121	1	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*103*		*85 - 114*

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-838669/5
Matrix: Water
Analysis Batch: 838669

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Dibromofluoromethane (Surr)	*103*		*80 - 119*
1,2-Dichloroethane-d4 (Surr)	*92*		*81 - 118*
Toluene-d8 (Surr)	*98*		*89 - 112*

Lab Sample ID: MB 680-838714/8
Matrix: Water
Analysis Batch: 838714

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			05/19/24 13:25	1
Benzene	1.0	U	2.0	0.27	ug/L			05/19/24 13:25	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			05/19/24 13:25	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			05/19/24 13:25	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			05/19/24 13:25	1
Bromoform	2.0	U	2.5	0.59	ug/L			05/19/24 13:25	1
Bromomethane	10	U M	20	3.7	ug/L			05/19/24 13:25	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			05/19/24 13:25	1
Carbon disulfide	1.0	U	2.0	0.43	ug/L			05/19/24 13:25	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			05/19/24 13:25	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			05/19/24 13:25	1
Chloroethane	10	U	20	4.6	ug/L			05/19/24 13:25	1
Chloroform	1.0	U M	2.0	0.27	ug/L			05/19/24 13:25	1
Chloromethane	2.0	U	2.5	0.54	ug/L			05/19/24 13:25	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			05/19/24 13:25	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			05/19/24 13:25	1
cis-1,2-Dichloroethene	1.0	U	2.0	0.25	ug/L			05/19/24 13:25	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			05/19/24 13:25	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			05/19/24 13:25	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			05/19/24 13:25	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			05/19/24 13:25	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			05/19/24 13:25	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			05/19/24 13:25	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/19/24 13:25	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/19/24 13:25	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/19/24 13:25	1
Dichlorodifluoromethane	1.0	U	2.0	0.36	ug/L			05/19/24 13:25	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			05/19/24 13:25	1
1,2-Dichloroethane	1.0	U M	2.0	0.25	ug/L			05/19/24 13:25	1
1,1-Dichloroethene	1.0	U	2.0	0.33	ug/L			05/19/24 13:25	1
1,2-Dichloroethene, Total	1.0	U	2.0	0.37	ug/L			05/19/24 13:25	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			05/19/24 13:25	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			05/19/24 13:25	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			05/19/24 13:25	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			05/19/24 13:25	1
Ethylbenzene	0.50	U M	1.0	0.20	ug/L			05/19/24 13:25	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			05/19/24 13:25	1
2-Hexanone	10	U	20	3.2	ug/L			05/19/24 13:25	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			05/19/24 13:25	1

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-838714/8
Matrix: Water
Analysis Batch: 838714

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			05/19/24 13:25	1
Methyl acetate	10	U	20	3.2	ug/L			05/19/24 13:25	1
Methylcyclohexane	1.0	U	2.0	0.33	ug/L			05/19/24 13:25	1
Methylene Chloride	10	U	20	3.2	ug/L			05/19/24 13:25	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			05/19/24 13:25	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			05/19/24 13:25	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			05/19/24 13:25	1
Naphthalene	5.0	U	10	2.4	ug/L			05/19/24 13:25	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			05/19/24 13:25	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			05/19/24 13:25	1
o-Xylene	1.0	U	2.0	0.26	ug/L			05/19/24 13:25	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			05/19/24 13:25	1
Styrene	1.0	U	2.0	0.27	ug/L			05/19/24 13:25	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			05/19/24 13:25	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			05/19/24 13:25	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			05/19/24 13:25	1
Tetrachloroethene	1.0	U	2.0	0.35	ug/L			05/19/24 13:25	1
Toluene	1.0	U	2.0	0.25	ug/L			05/19/24 13:25	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			05/19/24 13:25	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			05/19/24 13:25	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			05/19/24 13:25	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			05/19/24 13:25	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			05/19/24 13:25	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			05/19/24 13:25	1
Trichloroethene	0.50	U	1.0	0.20	ug/L			05/19/24 13:25	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			05/19/24 13:25	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			05/19/24 13:25	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			05/19/24 13:25	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			05/19/24 13:25	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			05/19/24 13:25	1
Vinyl chloride	1.0	U	2.0	0.40	ug/L			05/19/24 13:25	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			05/19/24 13:25	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*85 - 114*		*05/19/24 13:25*	*1*
Dibromofluoromethane (Surr)	*115*		*80 - 119*		*05/19/24 13:25*	*1*
1,2-Dichloroethane-d4 (Surr)	*114*		*81 - 118*		*05/19/24 13:25*	*1*
Toluene-d8 (Surr)	*106*		*89 - 112*		*05/19/24 13:25*	*1*

Lab Sample ID: LCS 680-838714/4
Matrix: Water
Analysis Batch: 838714

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	250	214		ug/L		86	39 - 160
Benzene	50.0	51.2		ug/L		102	79 - 120
Bromobenzene	50.0	52.9		ug/L		106	80 - 120
Bromochloromethane	50.0	53.6		ug/L		107	78 - 123

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-838714/4
Matrix: Water
Analysis Batch: 838714

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bromodichloromethane	50.0	50.3		ug/L		101	79 - 125
Bromoform	50.0	46.1		ug/L		92	66 - 130
Bromomethane	50.0	62.8		ug/L		126	53 - 141
2-Butanone (MEK)	250	233		ug/L		93	56 - 143
Carbon disulfide	50.0	40.8		ug/L		82	64 - 133
Carbon tetrachloride	50.0	52.0		ug/L		104	72 - 136
Chlorobenzene	50.0	50.9		ug/L		102	82 - 118
Chloroethane	50.0	54.7		ug/L		109	60 - 138
Chloroform	50.0	53.2		ug/L		106	79 - 124
Chloromethane	50.0	50.6		ug/L		101	50 - 139
2-Chlorotoluene	50.0	52.4		ug/L		105	79 - 122
4-Chlorotoluene	50.0	53.1		ug/L		106	78 - 122
cis-1,2-Dichloroethene	50.0	52.1		ug/L		104	78 - 123
cis-1,3-Dichloropropene	50.0	51.0		ug/L		102	75 - 124
Cyclohexane	50.0	51.3		ug/L		103	71 - 130
Dibromochloromethane	50.0	48.0		ug/L		96	74 - 126
1,2-Dibromo-3-Chloropropane	50.0	44.3		ug/L		89	62 - 128
1,2-Dibromoethane	50.0	48.9		ug/L		98	75 - 127
Dibromomethane	50.0	48.4		ug/L		97	79 - 123
1,2-Dichlorobenzene	50.0	50.3		ug/L		101	80 - 119
1,3-Dichlorobenzene	50.0	51.5		ug/L		103	80 - 119
1,4-Dichlorobenzene	50.0	50.6		ug/L		101	79 - 118
Dichlorodifluoromethane	50.0	44.4		ug/L		89	32 - 152
1,1-Dichloroethane	50.0	49.8		ug/L		100	77 - 125
1,2-Dichloroethane	50.0	52.2		ug/L		104	73 - 128
1,1-Dichloroethene	50.0	50.1		ug/L		100	71 - 131
1,2-Dichloroethene, Total	100	102		ug/L		102	79 - 121
1,2-Dichloropropane	50.0	51.1		ug/L		102	78 - 122
1,3-Dichloropropane	50.0	51.0		ug/L		102	80 - 119
2,2-Dichloropropane	50.0	51.2		ug/L		102	60 - 139
1,1-Dichloropropene	50.0	50.6		ug/L		101	79 - 125
Ethylbenzene	50.0	51.6		ug/L		103	79 - 121
Hexachlorobutadiene	50.0	53.0		ug/L		106	66 - 134
2-Hexanone	250	248		ug/L		99	57 - 139
Isopropylbenzene	50.0	52.0		ug/L		104	72 - 131
4-Isopropyltoluene	50.0	50.7		ug/L		101	77 - 127
Methyl acetate	100	88.2		ug/L		88	56 - 136
Methylcyclohexane	50.0	49.2		ug/L		98	72 - 132
Methylene Chloride	50.0	49.0		ug/L		98	74 - 124
4-Methyl-2-pentanone (MIBK)	250	249		ug/L		100	67 - 130
Methyl tert-butyl ether	50.0	52.4		ug/L		105	71 - 124
m-Xylene & p-Xylene	50.0	51.5		ug/L		103	80 - 121
Naphthalene	50.0	48.1		ug/L		96	61 - 128
n-Butylbenzene	50.0	55.7		ug/L		111	75 - 128
N-Propylbenzene	50.0	52.1		ug/L		104	76 - 126
o-Xylene	50.0	51.9		ug/L		104	78 - 122
sec-Butylbenzene	50.0	56.0		ug/L		112	77 - 126
Styrene	50.0	53.4		ug/L		107	78 - 123
tert-Butylbenzene	50.0	55.9		ug/L		112	78 - 124

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-838714/4
Matrix: Water
Analysis Batch: 838714

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,1,1,2-Tetrachloroethane			50.0	52.8		ug/L		106	78 - 124		
1,1,2,2-Tetrachloroethane			50.0	48.0		ug/L		96	71 - 121		
Tetrachloroethene			50.0	50.3		ug/L		101	74 - 129		
Toluene			50.0	48.7		ug/L		97	80 - 121		
trans-1,2-Dichloroethene			50.0	50.4		ug/L		101	75 - 124		
trans-1,3-Dichloropropene			50.0	49.4		ug/L		99	73 - 127		
1,2,3-Trichlorobenzene			50.0	52.6		ug/L		105	69 - 129		
1,2,4-Trichlorobenzene			50.0	49.2		ug/L		98	69 - 130		
1,1,1-Trichloroethane			50.0	51.4		ug/L		103	74 - 131		
1,1,2-Trichloroethane			50.0	50.2		ug/L		100	80 - 119		
Trichloroethene			50.0	53.3		ug/L		107	79 - 123		
Trichlorofluoromethane			50.0	49.7		ug/L		99	65 - 141		
1,2,3-Trichloropropane			50.0	49.3		ug/L		99	73 - 122		
1,1,2-Trichloro-1,2,2-trifluoroethane			50.0	48.9		ug/L		98	70 - 136		
1,2,4-Trimethylbenzene			50.0	51.3		ug/L		103	76 - 124		
1,3,5-Trimethylbenzene			50.0	54.8		ug/L		110	75 - 124		
Vinyl chloride			50.0	50.7		ug/L		101	58 - 137		
Xylenes, Total			100	103		ug/L		103	79 - 121		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*85 - 114*
Dibromofluoromethane (Surr)	*107*		*80 - 119*
1,2-Dichloroethane-d4 (Surr)	*103*		*81 - 118*
Toluene-d8 (Surr)	*103*		*89 - 112*

Lab Sample ID: LCSD 680-838714/5
Matrix: Water
Analysis Batch: 838714

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acetone			250	221		ug/L		88	39 - 160	3	20
Benzene			50.0	51.0		ug/L		102	79 - 120	0	20
Bromobenzene			50.0	53.0		ug/L		106	80 - 120	0	20
Bromochloromethane			50.0	53.9		ug/L		108	78 - 123	1	20
Bromodichloromethane			50.0	50.5		ug/L		101	79 - 125	0	20
Bromoform			50.0	46.0		ug/L		92	66 - 130	0	20
Bromomethane			50.0	56.6		ug/L		113	53 - 141	10	20
2-Butanone (MEK)			250	236		ug/L		94	56 - 143	1	20
Carbon disulfide			50.0	43.3		ug/L		87	64 - 133	6	20
Carbon tetrachloride			50.0	50.4		ug/L		101	72 - 136	3	20
Chlorobenzene			50.0	49.7		ug/L		99	82 - 118	2	20
Chloroethane			50.0	51.5		ug/L		103	60 - 138	6	20
Chloroform			50.0	53.0		ug/L		106	79 - 124	0	20
Chloromethane			50.0	50.0		ug/L		100	50 - 139	1	20
2-Chlorotoluene			50.0	51.6		ug/L		103	79 - 122	1	20
4-Chlorotoluene			50.0	51.0		ug/L		102	78 - 122	4	20
cis-1,2-Dichloroethene			50.0	50.6		ug/L		101	78 - 123	3	20
cis-1,3-Dichloropropene			50.0	51.8		ug/L		104	75 - 124	1	20

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-838714/5
Matrix: Water
Analysis Batch: 838714

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Cyclohexane	50.0	48.9		ug/L		98	71 - 130	5	20
Dibromochloromethane	50.0	48.7		ug/L		97	74 - 126	1	20
1,2-Dibromo-3-Chloropropane	50.0	46.8		ug/L		94	62 - 128	5	20
1,2-Dibromoethane	50.0	50.3		ug/L		101	75 - 127	3	20
Dibromomethane	50.0	49.8		ug/L		100	79 - 123	3	20
1,2-Dichlorobenzene	50.0	50.1		ug/L		100	80 - 119	0	20
1,3-Dichlorobenzene	50.0	50.3		ug/L		101	80 - 119	2	20
1,4-Dichlorobenzene	50.0	50.4		ug/L		101	79 - 118	1	20
Dichlorodifluoromethane	50.0	42.8	M	ug/L		86	32 - 152	4	20
1,1-Dichloroethane	50.0	50.0		ug/L		100	77 - 125	0	20
1,2-Dichloroethane	50.0	50.9		ug/L		102	73 - 128	3	20
1,1-Dichloroethene	50.0	48.5		ug/L		97	71 - 131	3	20
1,2-Dichloroethene, Total	100	100		ug/L		100	79 - 121	2	20
1,2-Dichloropropane	50.0	51.9		ug/L		104	78 - 122	2	20
1,3-Dichloropropane	50.0	52.1		ug/L		104	80 - 119	2	20
2,2-Dichloropropane	50.0	50.9		ug/L		102	60 - 139	1	20
1,1-Dichloropropene	50.0	49.6		ug/L		99	79 - 125	2	20
Ethylbenzene	50.0	50.5		ug/L		101	79 - 121	2	20
Hexachlorobutadiene	50.0	51.8		ug/L		104	66 - 134	2	20
2-Hexanone	250	263		ug/L		105	57 - 139	6	20
Isopropylbenzene	50.0	50.4		ug/L		101	72 - 131	3	20
4-Isopropyltoluene	50.0	48.7		ug/L		97	77 - 127	4	20
Methyl acetate	100	95.1		ug/L		95	56 - 136	8	20
Methylcyclohexane	50.0	47.3		ug/L		95	72 - 132	4	20
Methylene Chloride	50.0	49.1		ug/L		98	74 - 124	0	20
4-Methyl-2-pentanone (MIBK)	250	263		ug/L		105	67 - 130	5	20
Methyl tert-butyl ether	50.0	53.4		ug/L		107	71 - 124	2	20
m-Xylene & p-Xylene	50.0	50.9		ug/L		102	80 - 121	1	20
Naphthalene	50.0	49.4		ug/L		99	61 - 128	3	20
n-Butylbenzene	50.0	52.7		ug/L		105	75 - 128	6	20
N-Propylbenzene	50.0	49.9		ug/L		100	76 - 126	4	20
o-Xylene	50.0	50.7		ug/L		101	78 - 122	2	20
sec-Butylbenzene	50.0	53.2		ug/L		106	77 - 126	5	20
Styrene	50.0	52.5		ug/L		105	78 - 123	2	20
tert-Butylbenzene	50.0	53.4		ug/L		107	78 - 124	5	20
1,1,1,2-Tetrachloroethane	50.0	51.9		ug/L		104	78 - 124	2	20
1,1,2,2-Tetrachloroethane	50.0	49.1		ug/L		98	71 - 121	2	20
Tetrachloroethene	50.0	48.1		ug/L		96	74 - 129	4	20
Toluene	50.0	48.9		ug/L		98	80 - 121	0	20
trans-1,2-Dichloroethene	50.0	49.4		ug/L		99	75 - 124	2	20
trans-1,3-Dichloropropene	50.0	51.1		ug/L		102	73 - 127	3	20
1,2,3-Trichlorobenzene	50.0	52.8		ug/L		106	69 - 129	0	20
1,2,4-Trichlorobenzene	50.0	48.5		ug/L		97	69 - 130	1	20
1,1,1-Trichloroethane	50.0	49.8		ug/L		100	74 - 131	3	20
1,1,2-Trichloroethane	50.0	51.5		ug/L		103	80 - 119	3	20
Trichloroethene	50.0	53.8		ug/L		108	79 - 123	1	20
Trichlorofluoromethane	50.0	48.8		ug/L		98	65 - 141	2	20
1,2,3-Trichloropropane	50.0	49.9		ug/L		100	73 - 122	1	20

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-838714/5
Matrix: Water
Analysis Batch: 838714

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1,2-Trichloro-1,2,2-trifluoroethane			50.0	48.8		ug/L		98	70 - 136	0	20
1,2,4-Trimethylbenzene			50.0	50.0		ug/L		100	76 - 124	3	20
1,3,5-Trimethylbenzene			50.0	52.2		ug/L		104	75 - 124	5	20
Vinyl chloride			50.0	49.3		ug/L		99	58 - 137	3	20
Xylenes, Total			100	102		ug/L		102	79 - 121	2	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*85 - 114*
Dibromofluoromethane (Surr)	*107*		*80 - 119*
1,2-Dichloroethane-d4 (Surr)	*105*		*81 - 118*
Toluene-d8 (Surr)	*104*		*89 - 112*

Lab Sample ID: 680-250842-8 MS
Matrix: Water
Analysis Batch: 838714

Client Sample ID: OU6-MWNGA-10-20240515
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Acetone	5.1	J1	250	180		ug/L		70	39 - 160		
Benzene	1.0	U	50.0	45.3		ug/L		91	79 - 120		
Bromobenzene	0.50	U	50.0	45.6		ug/L		91	80 - 120		
Bromochloromethane	1.0	U	50.0	47.8		ug/L		96	78 - 123		
Bromodichloromethane	1.0	U	50.0	45.6		ug/L		91	79 - 125		
Bromoform	2.0	U J1	50.0	42.1		ug/L		84	66 - 130		
Bromomethane	10	U Q	50.0	55.2		ug/L		110	53 - 141		
2-Butanone (MEK)	20	U J1	250	192		ug/L		77	56 - 143		
Carbon disulfide	1.0	U	50.0	39.2		ug/L		78	64 - 133		
Carbon tetrachloride	1.0	U	50.0	47.6		ug/L		95	72 - 136		
Chlorobenzene	0.50	U	50.0	44.0		ug/L		88	82 - 118		
Chloroethane	10	U J1	50.0	84.2	J1	ug/L		168	60 - 138		
Chloroform	1.0	U	50.0	47.7		ug/L		95	79 - 124		
Chloromethane	2.0	U	50.0	48.4		ug/L		97	50 - 139		
2-Chlorotoluene	0.50	U	50.0	45.8		ug/L		92	79 - 122		
4-Chlorotoluene	1.0	U J1	50.0	44.8		ug/L		90	78 - 122		
cis-1,2-Dichloroethene	1.0	U	50.0	46.1		ug/L		92	78 - 123		
cis-1,3-Dichloropropene	1.0	U J1	50.0	43.7		ug/L		87	75 - 124		
Cyclohexane	1.0	U	50.0	44.7		ug/L		89	71 - 130		
Dibromochloromethane	1.0	U J1	50.0	44.8		ug/L		90	74 - 126		
1,2-Dibromo-3-Chloropropane	5.0	U J1	50.0	42.1		ug/L		84	62 - 128		
1,2-Dibromoethane	1.0	U J1	50.0	42.8		ug/L		86	75 - 127		
Dibromomethane	1.0	U J1	50.0	43.2		ug/L		86	79 - 123		
1,2-Dichlorobenzene	1.0	U J1	50.0	44.9		ug/L		90	80 - 119		
1,3-Dichlorobenzene	1.0	U J1	50.0	45.6		ug/L		91	80 - 119		
1,4-Dichlorobenzene	1.0	U	50.0	45.5		ug/L		91	79 - 118		
Dichlorodifluoromethane	1.0	U Q	50.0	42.4		ug/L		85	32 - 152		
1,1-Dichloroethane	1.0	U	50.0	45.8		ug/L		92	77 - 125		
1,2-Dichloroethane	1.0	U M	50.0	45.6		ug/L		91	73 - 128		
1,1-Dichloroethene	5.4		50.0	51.7		ug/L		92	71 - 131		
1,2-Dichloroethene, Total	1.0	U	100	92.2		ug/L		92	79 - 121		

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 680-250842-8 MS
Matrix: Water
Analysis Batch: 838714

Client Sample ID: OU6-MWNGA-10-20240515
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,2-Dichloropropane	0.50	U	50.0	45.5		ug/L		91	78 - 122
1,3-Dichloropropane	1.0	U	50.0	44.7		ug/L		89	80 - 119
2,2-Dichloropropane	1.0	U	50.0	44.7		ug/L		89	60 - 139
1,1-Dichloropropene	1.0	U	50.0	45.2		ug/L		90	79 - 125
Ethylbenzene	0.50	U	50.0	45.9		ug/L		92	79 - 121
Hexachlorobutadiene	1.0	U J1	50.0	44.1		ug/L		88	66 - 134
2-Hexanone	10	U J1	250	214		ug/L		85	57 - 139
Isopropylbenzene	1.0	U	50.0	45.2		ug/L		90	72 - 131
4-Isopropyltoluene	1.0	U	50.0	44.4		ug/L		89	77 - 127
Methyl acetate	10	U J1	100	69.1		ug/L		69	56 - 136
Methylcyclohexane	1.0	U J1	50.0	40.8		ug/L		82	72 - 132
Methylene Chloride	10	U	50.0	44.4		ug/L		89	74 - 124
4-Methyl-2-pentanone (MIBK)	10	U J1	250	219		ug/L		87	67 - 130
Methyl tert-butyl ether	2.0	U J1	50.0	44.8		ug/L		90	71 - 124
m-Xylene & p-Xylene	1.0	U	50.0	46.2		ug/L		92	80 - 121
Naphthalene	5.0	U J1	50.0	40.5		ug/L		81	61 - 128
n-Butylbenzene	2.0	U J1	50.0	46.7		ug/L		93	75 - 128
N-Propylbenzene	1.0	U	50.0	45.5		ug/L		91	76 - 126
o-Xylene	1.0	U	50.0	45.2		ug/L		90	78 - 122
sec-Butylbenzene	2.0	U	50.0	47.5		ug/L		95	77 - 126
Styrene	1.0	U	50.0	46.7		ug/L		93	78 - 123
tert-Butylbenzene	1.0	U	50.0	48.4		ug/L		97	78 - 124
1,1,1,2-Tetrachloroethane	1.0	U	50.0	47.5		ug/L		95	78 - 124
1,1,2,2-Tetrachloroethane	1.0	U J1	50.0	42.6		ug/L		85	71 - 121
Tetrachloroethene	1.0	U J1	50.0	42.8		ug/L		86	74 - 129
Toluene	1.0	U	50.0	43.7		ug/L		87	80 - 121
trans-1,2-Dichloroethene	1.0	U	50.0	46.1		ug/L		92	75 - 124
trans-1,3-Dichloropropene	1.0	U J1	50.0	42.8		ug/L		86	73 - 127
1,2,3-Trichlorobenzene	2.0	U J1	50.0	43.6		ug/L		87	69 - 129
1,2,4-Trichlorobenzene	2.0	U J1	50.0	39.9		ug/L		80	69 - 130
1,1,1-Trichloroethane	0.50	U	50.0	46.2		ug/L		92	74 - 131
1,1,2-Trichloroethane	1.0	U J1	50.0	44.2		ug/L		88	80 - 119
Trichloroethene	3.4		50.0	49.4		ug/L		92	79 - 123
Trichlorofluoromethane	1.0	U	50.0	50.1		ug/L		100	65 - 141
1,2,3-Trichloropropane	1.0	U	50.0	42.9		ug/L		86	73 - 122
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	50.0	44.7		ug/L		89	70 - 136
1,2,4-Trimethylbenzene	1.0	U	50.0	43.5		ug/L		87	76 - 124
1,3,5-Trimethylbenzene	1.0	U	50.0	46.5		ug/L		93	75 - 124
Vinyl chloride	1.0	U	50.0	48.3		ug/L		97	58 - 137
Xylenes, Total	1.0	U	100	91.4		ug/L		91	79 - 121

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*91*		*85 - 114*
Dibromofluoromethane (Surr)	*99*		*80 - 119*
1,2-Dichloroethane-d4 (Surr)	*93*		*81 - 118*
Toluene-d8 (Surr)	*92*		*89 - 112*

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 680-250842-8 MSD
Matrix: Water
Analysis Batch: 838714

Client Sample ID: OU6-MWNGA-10-20240515
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acetone	5.1	J1	250	226	J1	ug/L		88	39 - 160	22	20
Benzene	1.0	U	50.0	54.0		ug/L		108	79 - 120	18	20
Bromobenzene	0.50	U	50.0	55.9		ug/L		112	80 - 120	20	20
Bromochloromethane	1.0	U	50.0	57.8		ug/L		116	78 - 123	19	20
Bromodichloromethane	1.0	U	50.0	56.0		ug/L		112	79 - 125	20	20
Bromoform	2.0	U J1	50.0	54.3	J1	ug/L		109	66 - 130	25	20
Bromomethane	10	U Q	50.0	53.5		ug/L		107	53 - 141	3	20
2-Butanone (MEK)	20	U J1	250	246	J1	ug/L		98	56 - 143	24	20
Carbon disulfide	1.0	U	50.0	46.9		ug/L		94	64 - 133	18	20
Carbon tetrachloride	1.0	U	50.0	56.9		ug/L		114	72 - 136	18	20
Chlorobenzene	0.50	U	50.0	53.5		ug/L		107	82 - 118	19	20
Chloroethane	10	U J1	50.0	70.0	J1	ug/L		140	60 - 138	18	20
Chloroform	1.0	U	50.0	57.6		ug/L		115	79 - 124	19	20
Chloromethane	2.0	U	50.0	53.9		ug/L		108	50 - 139	11	20
2-Chlorotoluene	0.50	U	50.0	55.1		ug/L		110	79 - 122	18	20
4-Chlorotoluene	1.0	U J1	50.0	55.5	J1	ug/L		111	78 - 122	21	20
cis-1,2-Dichloroethene	1.0	U	50.0	55.6		ug/L		111	78 - 123	19	20
cis-1,3-Dichloropropene	1.0	U J1	50.0	54.5	J1	ug/L		109	75 - 124	22	20
Cyclohexane	1.0	U	50.0	52.8		ug/L		106	71 - 130	17	20
Dibromochloromethane	1.0	U J1	50.0	56.1	J1	ug/L		112	74 - 126	22	20
1,2-Dibromo-3-Chloropropane	5.0	U J1	50.0	54.8	J1	ug/L		110	62 - 128	26	20
1,2-Dibromoethane	1.0	U J1	50.0	54.1	J1	ug/L		108	75 - 127	23	20
Dibromomethane	1.0	U J1	50.0	54.0	J1	ug/L		108	79 - 123	22	20
1,2-Dichlorobenzene	1.0	U J1	50.0	56.0	J1	ug/L		112	80 - 119	22	20
1,3-Dichlorobenzene	1.0	U J1	50.0	56.1	J1	ug/L		112	80 - 119	21	20
1,4-Dichlorobenzene	1.0	U	50.0	55.9		ug/L		112	79 - 118	20	20
Dichlorodifluoromethane	1.0	U Q	50.0	47.9		ug/L		96	32 - 152	12	20
1,1-Dichloroethane	1.0	U	50.0	54.4		ug/L		109	77 - 125	17	20
1,2-Dichloroethane	1.0	U M	50.0	54.5		ug/L		109	73 - 128	18	20
1,1-Dichloroethene	5.4		50.0	56.8		ug/L		103	71 - 131	9	20
1,2-Dichloroethene, Total	1.0	U	100	109		ug/L		109	79 - 121	17	20
1,2-Dichloropropane	0.50	U	50.0	54.5		ug/L		109	78 - 122	18	20
1,3-Dichloropropane	1.0	U	50.0	54.9		ug/L		110	80 - 119	20	20
2,2-Dichloropropane	1.0	U	50.0	51.3		ug/L		103	60 - 139	14	20
1,1-Dichloropropene	1.0	U	50.0	52.9		ug/L		106	79 - 125	16	20
Ethylbenzene	0.50	U	50.0	54.8		ug/L		110	79 - 121	18	20
Hexachlorobutadiene	1.0	U J1	50.0	54.2	J1	ug/L		108	66 - 134	21	20
2-Hexanone	10	U J1	250	273	J1	ug/L		109	57 - 139	24	20
Isopropylbenzene	1.0	U	50.0	54.4		ug/L		109	72 - 131	18	20
4-Isopropyltoluene	1.0	U	50.0	54.5		ug/L		109	77 - 127	20	20
Methyl acetate	10	U J1	100	87.8	J1	ug/L		88	56 - 136	24	20
Methylcyclohexane	1.0	U J1	50.0	50.1	J1	ug/L		100	72 - 132	21	20
Methylene Chloride	10	U	50.0	52.7		ug/L		105	74 - 124	17	20
4-Methyl-2-pentanone (MIBK)	10	U J1	250	282	J1	ug/L		113	67 - 130	25	20
Methyl tert-butyl ether	2.0	U J1	50.0	55.2	J1	ug/L		110	71 - 124	21	20
m-Xylene & p-Xylene	1.0	U	50.0	54.8		ug/L		110	80 - 121	17	20
Naphthalene	5.0	U J1	50.0	52.4	J1	ug/L		105	61 - 128	26	20
n-Butylbenzene	2.0	U J1	50.0	58.2	J1	ug/L		116	75 - 128	22	20

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 680-250842-8 MSD
Matrix: Water
Analysis Batch: 838714

Client Sample ID: OU6-MWNGA-10-20240515
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
N-Propylbenzene	1.0	U	50.0	54.4		ug/L		109	76 - 126	18	20
o-Xylene	1.0	U	50.0	55.2		ug/L		110	78 - 122	20	20
sec-Butylbenzene	2.0	U	50.0	57.3		ug/L		115	77 - 126	19	20
Styrene	1.0	U	50.0	56.8		ug/L		114	78 - 123	20	20
tert-Butylbenzene	1.0	U	50.0	58.3		ug/L		117	78 - 124	19	20
1,1,1,2-Tetrachloroethane	1.0	U	50.0	57.4		ug/L		115	78 - 124	19	20
1,1,2,2-Tetrachloroethane	1.0	U J1	50.0	54.3	J1	ug/L		109	71 - 121	24	20
Tetrachloroethene	1.0	U J1	50.0	52.6	J1	ug/L		105	74 - 129	21	20
Toluene	1.0	U	50.0	52.2		ug/L		104	80 - 121	18	20
trans-1,2-Dichloroethene	1.0	U	50.0	53.7		ug/L		107	75 - 124	15	20
trans-1,3-Dichloropropene	1.0	U J1	50.0	54.1	J1	ug/L		108	73 - 127	23	20
1,2,3-Trichlorobenzene	2.0	U J1	50.0	55.3	J1	ug/L		111	69 - 129	24	20
1,2,4-Trichlorobenzene	2.0	U J1	50.0	51.4	J1	ug/L		103	69 - 130	25	20
1,1,1-Trichloroethane	0.50	U	50.0	54.9		ug/L		110	74 - 131	17	20
1,1,2-Trichloroethane	1.0	U J1	50.0	54.7	J1	ug/L		109	80 - 119	21	20
Trichloroethene	3.4		50.0	57.4		ug/L		108	79 - 123	15	20
Trichlorofluoromethane	1.0	U	50.0	54.6		ug/L		109	65 - 141	9	20
1,2,3-Trichloropropane	1.0	U	50.0	52.3		ug/L		105	73 - 122	20	20
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	50.0	52.1		ug/L		104	70 - 136	15	20
1,2,4-Trimethylbenzene	1.0	U	50.0	53.3		ug/L		107	76 - 124	20	20
1,3,5-Trimethylbenzene	1.0	U	50.0	56.4		ug/L		113	75 - 124	19	20
Vinyl chloride	1.0	U	50.0	55.4		ug/L		111	58 - 137	14	20
Xylenes, Total	1.0	U	100	110		ug/L		110	79 - 121	18	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*111*		*85 - 114*
Dibromofluoromethane (Surr)	*117*		*80 - 119*
1,2-Dichloroethane-d4 (Surr)	*111*		*81 - 118*
Toluene-d8 (Surr)	*112*		*89 - 112*

Lab Sample ID: MB 680-838727/7
Matrix: Water
Analysis Batch: 838727

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			05/19/24 13:55	1
Benzene	1.0	U	2.0	0.27	ug/L			05/19/24 13:55	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			05/19/24 13:55	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			05/19/24 13:55	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			05/19/24 13:55	1
Bromoform	2.0	U	2.5	0.59	ug/L			05/19/24 13:55	1
Bromomethane	10	U	20	3.7	ug/L			05/19/24 13:55	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			05/19/24 13:55	1
Carbon disulfide	1.0	U	2.0	0.43	ug/L			05/19/24 13:55	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			05/19/24 13:55	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			05/19/24 13:55	1
Chloroethane	10	U	20	4.6	ug/L			05/19/24 13:55	1
Chloroform	1.0	U	2.0	0.27	ug/L			05/19/24 13:55	1

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-838727/7
Matrix: Water
Analysis Batch: 838727

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	2.0	U	2.5	0.54	ug/L			05/19/24 13:55	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			05/19/24 13:55	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			05/19/24 13:55	1
cis-1,2-Dichloroethene	1.0	U	2.0	0.25	ug/L			05/19/24 13:55	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			05/19/24 13:55	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			05/19/24 13:55	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			05/19/24 13:55	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			05/19/24 13:55	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			05/19/24 13:55	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			05/19/24 13:55	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/19/24 13:55	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/19/24 13:55	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/19/24 13:55	1
Dichlorodifluoromethane	1.0	U	2.0	0.36	ug/L			05/19/24 13:55	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			05/19/24 13:55	1
1,2-Dichloroethane	1.0	U M	2.0	0.25	ug/L			05/19/24 13:55	1
1,1-Dichloroethene	1.0	U	2.0	0.33	ug/L			05/19/24 13:55	1
1,2-Dichloroethene, Total	1.0	U	2.0	0.37	ug/L			05/19/24 13:55	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			05/19/24 13:55	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			05/19/24 13:55	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			05/19/24 13:55	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			05/19/24 13:55	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			05/19/24 13:55	1
Hexachlorobutadiene	0.509	J	5.0	0.22	ug/L			05/19/24 13:55	1
2-Hexanone	10	U	20	3.2	ug/L			05/19/24 13:55	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			05/19/24 13:55	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			05/19/24 13:55	1
Methyl acetate	10	U	20	3.2	ug/L			05/19/24 13:55	1
Methylcyclohexane	1.0	U	2.0	0.33	ug/L			05/19/24 13:55	1
Methylene Chloride	10	U	20	3.2	ug/L			05/19/24 13:55	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			05/19/24 13:55	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			05/19/24 13:55	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			05/19/24 13:55	1
Naphthalene	5.0	U	10	2.4	ug/L			05/19/24 13:55	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			05/19/24 13:55	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			05/19/24 13:55	1
o-Xylene	1.0	U M	2.0	0.26	ug/L			05/19/24 13:55	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			05/19/24 13:55	1
Styrene	1.0	U	2.0	0.27	ug/L			05/19/24 13:55	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			05/19/24 13:55	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			05/19/24 13:55	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			05/19/24 13:55	1
Tetrachloroethene	1.0	U	2.0	0.35	ug/L			05/19/24 13:55	1
Toluene	1.0	U	2.0	0.25	ug/L			05/19/24 13:55	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			05/19/24 13:55	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			05/19/24 13:55	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			05/19/24 13:55	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			05/19/24 13:55	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			05/19/24 13:55	1

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-838727/7
Matrix: Water
Analysis Batch: 838727

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			05/19/24 13:55	1
Trichloroethene	0.50	U	1.0	0.20	ug/L			05/19/24 13:55	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			05/19/24 13:55	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			05/19/24 13:55	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			05/19/24 13:55	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			05/19/24 13:55	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			05/19/24 13:55	1
Vinyl chloride	1.0	U	2.0	0.40	ug/L			05/19/24 13:55	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			05/19/24 13:55	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*85 - 114*		*05/19/24 13:55*	*1*
Dibromofluoromethane (Surr)	*97*		*80 - 119*		*05/19/24 13:55*	*1*
1,2-Dichloroethane-d4 (Surr)	*95*		*81 - 118*		*05/19/24 13:55*	*1*
Toluene-d8 (Surr)	*102*		*89 - 112*		*05/19/24 13:55*	*1*

Lab Sample ID: LCS 680-838727/20
Matrix: Water
Analysis Batch: 838727

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	250	249		ug/L		100	39 - 160
Benzene	50.0	53.3		ug/L		107	79 - 120
Bromobenzene	50.0	49.8		ug/L		100	80 - 120
Bromochloromethane	50.0	56.1		ug/L		112	78 - 123
Bromodichloromethane	50.0	54.3		ug/L		109	79 - 125
Bromoform	50.0	49.3		ug/L		99	66 - 130
Bromomethane	50.0	36.0		ug/L		72	53 - 141
2-Butanone (MEK)	250	280		ug/L		112	56 - 143
Carbon disulfide	50.0	52.9		ug/L		106	64 - 133
Carbon tetrachloride	50.0	57.8		ug/L		116	72 - 136
Chlorobenzene	50.0	48.0		ug/L		96	82 - 118
Chloroethane	50.0	53.8		ug/L		108	60 - 138
Chloroform	50.0	53.6		ug/L		107	79 - 124
Chloromethane	50.0	48.2		ug/L		96	50 - 139
2-Chlorotoluene	50.0	51.8		ug/L		104	79 - 122
4-Chlorotoluene	50.0	50.8		ug/L		102	78 - 122
cis-1,2-Dichloroethene	50.0	51.8		ug/L		104	78 - 123
cis-1,3-Dichloropropene	50.0	53.0		ug/L		106	75 - 124
Cyclohexane	50.0	57.9		ug/L		116	71 - 130
Dibromochloromethane	50.0	50.2		ug/L		100	74 - 126
1,2-Dibromo-3-Chloropropane	50.0	49.6		ug/L		99	62 - 128
1,2-Dibromoethane	50.0	51.9		ug/L		104	75 - 127
Dibromomethane	50.0	50.8		ug/L		102	79 - 123
1,2-Dichlorobenzene	50.0	54.4		ug/L		109	80 - 119
1,3-Dichlorobenzene	50.0	54.6		ug/L		109	80 - 119
1,4-Dichlorobenzene	50.0	53.7		ug/L		107	79 - 118
Dichlorodifluoromethane	50.0	48.2		ug/L		96	32 - 152

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-838727/20
Matrix: Water
Analysis Batch: 838727

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1-Dichloroethane	50.0	54.2		ug/L		108	77 - 125
1,2-Dichloroethane	50.0	52.5		ug/L		105	73 - 128
1,1-Dichloroethene	50.0	53.9		ug/L		108	71 - 131
1,2-Dichloroethene, Total	100	104		ug/L		104	79 - 121
1,2-Dichloropropane	50.0	54.5		ug/L		109	78 - 122
1,3-Dichloropropane	50.0	52.5		ug/L		105	80 - 119
2,2-Dichloropropane	50.0	52.6		ug/L		105	60 - 139
1,1-Dichloropropene	50.0	53.8		ug/L		108	79 - 125
Ethylbenzene	50.0	54.6		ug/L		109	79 - 121
Hexachlorobutadiene	50.0	56.0		ug/L		112	66 - 134
2-Hexanone	250	282		ug/L		113	57 - 139
Isopropylbenzene	50.0	53.6		ug/L		107	72 - 131
4-Isopropyltoluene	50.0	56.7		ug/L		113	77 - 127
Methyl acetate	100	105		ug/L		105	56 - 136
Methylcyclohexane	50.0	55.5		ug/L		111	72 - 132
Methylene Chloride	50.0	53.3		ug/L		107	74 - 124
4-Methyl-2-pentanone (MIBK)	250	286		ug/L		115	67 - 130
Methyl tert-butyl ether	50.0	53.1		ug/L		106	71 - 124
m-Xylene & p-Xylene	50.0	52.5		ug/L		105	80 - 121
Naphthalene	50.0	52.4		ug/L		105	61 - 128
n-Butylbenzene	50.0	58.1		ug/L		116	75 - 128
N-Propylbenzene	50.0	52.3		ug/L		105	76 - 126
o-Xylene	50.0	50.1		ug/L		100	78 - 122
sec-Butylbenzene	50.0	53.7		ug/L		107	77 - 126
Styrene	50.0	49.9		ug/L		100	78 - 123
tert-Butylbenzene	50.0	52.6		ug/L		105	78 - 124
1,1,1,2-Tetrachloroethane	50.0	53.1		ug/L		106	78 - 124
1,1,2,2-Tetrachloroethane	50.0	51.5		ug/L		103	71 - 121
Tetrachloroethene	50.0	50.4		ug/L		101	74 - 129
Toluene	50.0	54.3		ug/L		109	80 - 121
trans-1,2-Dichloroethene	50.0	52.5		ug/L		105	75 - 124
trans-1,3-Dichloropropene	50.0	53.0		ug/L		106	73 - 127
1,2,3-Trichlorobenzene	50.0	56.0		ug/L		112	69 - 129
1,2,4-Trichlorobenzene	50.0	54.2		ug/L		108	69 - 130
1,1,1-Trichloroethane	50.0	53.5		ug/L		107	74 - 131
1,1,2-Trichloroethane	50.0	52.4		ug/L		105	80 - 119
Trichloroethene	50.0	49.3		ug/L		99	79 - 123
Trichlorofluoromethane	50.0	56.1		ug/L		112	65 - 141
1,2,3-Trichloropropane	50.0	50.4		ug/L		101	73 - 122
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	54.0		ug/L		108	70 - 136
1,2,4-Trimethylbenzene	50.0	52.9		ug/L		106	76 - 124
1,3,5-Trimethylbenzene	50.0	52.8		ug/L		106	75 - 124
Vinyl chloride	50.0	51.0		ug/L		102	58 - 137
Xylenes, Total	100	103		ug/L		103	79 - 121

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*106*		*85 - 114*

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-838727/20
Matrix: Water
Analysis Batch: 838727

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Dibromofluoromethane (Surr)	*105*		*80 - 119*
1,2-Dichloroethane-d4 (Surr)	*105*		*81 - 118*
Toluene-d8 (Surr)	*104*		*89 - 112*

Lab Sample ID: LCSD 680-838727/21
Matrix: Water
Analysis Batch: 838727

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acetone			250	236		ug/L		95	39 - 160	5	20
Benzene			50.0	52.6		ug/L		105	79 - 120	1	20
Bromobenzene			50.0	51.1		ug/L		102	80 - 120	2	20
Bromochloromethane			50.0	53.9		ug/L		108	78 - 123	4	20
Bromodichloromethane			50.0	52.9		ug/L		106	79 - 125	3	20
Bromoform			50.0	49.1		ug/L		98	66 - 130	0	20
Bromomethane			50.0	38.7		ug/L		77	53 - 141	7	20
2-Butanone (MEK)			250	264		ug/L		106	56 - 143	6	20
Carbon disulfide			50.0	56.5		ug/L		113	64 - 133	7	20
Carbon tetrachloride			50.0	65.0		ug/L		130	72 - 136	12	20
Chlorobenzene			50.0	49.3		ug/L		99	82 - 118	3	20
Chloroethane			50.0	55.0		ug/L		110	60 - 138	2	20
Chloroform			50.0	52.7		ug/L		105	79 - 124	2	20
Chloromethane			50.0	48.9		ug/L		98	50 - 139	1	20
2-Chlorotoluene			50.0	54.7		ug/L		109	79 - 122	5	20
4-Chlorotoluene			50.0	52.9		ug/L		106	78 - 122	4	20
cis-1,2-Dichloroethene			50.0	51.0		ug/L		102	78 - 123	1	20
cis-1,3-Dichloropropene			50.0	51.4		ug/L		103	75 - 124	3	20
Cyclohexane			50.0	69.5	Q	ug/L		139	71 - 130	18	20
Dibromochloromethane			50.0	48.6		ug/L		97	74 - 126	3	20
1,2-Dibromo-3-Chloropropane			50.0	49.1		ug/L		98	62 - 128	1	20
1,2-Dibromoethane			50.0	49.7		ug/L		99	75 - 127	4	20
Dibromomethane			50.0	49.2		ug/L		98	79 - 123	3	20
1,2-Dichlorobenzene			50.0	55.7		ug/L		111	80 - 119	2	20
1,3-Dichlorobenzene			50.0	56.3		ug/L		113	80 - 119	3	20
1,4-Dichlorobenzene			50.0	54.8		ug/L		110	79 - 118	2	20
Dichlorodifluoromethane			50.0	58.3		ug/L		117	32 - 152	19	20
1,1-Dichloroethane			50.0	53.9		ug/L		108	77 - 125	1	20
1,2-Dichloroethane			50.0	51.0		ug/L		102	73 - 128	3	20
1,1-Dichloroethene			50.0	58.3		ug/L		117	71 - 131	8	20
1,2-Dichloroethene, Total			100	106		ug/L		106	79 - 121	2	20
1,2-Dichloropropane			50.0	52.4		ug/L		105	78 - 122	4	20
1,3-Dichloropropane			50.0	51.1		ug/L		102	80 - 119	3	20
2,2-Dichloropropane			50.0	55.5		ug/L		111	60 - 139	5	20
1,1-Dichloropropene			50.0	59.0		ug/L		118	79 - 125	9	20
Ethylbenzene			50.0	58.0		ug/L		116	79 - 121	6	20
Hexachlorobutadiene			50.0	66.9		ug/L		134	66 - 134	18	20
2-Hexanone			250	271		ug/L		108	57 - 139	4	20
Isopropylbenzene			50.0	58.4		ug/L		117	72 - 131	9	20

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-838727/21
Matrix: Water
Analysis Batch: 838727

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
4-Isopropyltoluene	50.0	62.8		ug/L		126	77 - 127	10	20
Methyl acetate	100	99.3		ug/L		99	56 - 136	5	20
Methylcyclohexane	50.0	69.1	Q	ug/L		138	72 - 132	22	20
Methylene Chloride	50.0	50.7		ug/L		101	74 - 124	5	20
4-Methyl-2-pentanone (MIBK)	250	274		ug/L		110	67 - 130	4	20
Methyl tert-butyl ether	50.0	50.1		ug/L		100	71 - 124	6	20
m-Xylene & p-Xylene	50.0	55.5		ug/L		111	80 - 121	6	20
Naphthalene	50.0	54.1		ug/L		108	61 - 128	3	20
n-Butylbenzene	50.0	66.4	Q	ug/L		133	75 - 128	13	20
N-Propylbenzene	50.0	58.8		ug/L		118	76 - 126	12	20
o-Xylene	50.0	52.0		ug/L		104	78 - 122	4	20
sec-Butylbenzene	50.0	62.1		ug/L		124	77 - 126	15	20
Styrene	50.0	51.3		ug/L		103	78 - 123	3	20
tert-Butylbenzene	50.0	59.1		ug/L		118	78 - 124	12	20
1,1,1,2-Tetrachloroethane	50.0	53.6		ug/L		107	78 - 124	1	20
1,1,2,2-Tetrachloroethane	50.0	51.8		ug/L		104	71 - 121	1	20
Tetrachloroethene	50.0	56.0		ug/L		112	74 - 129	10	20
Toluene	50.0	55.1		ug/L		110	80 - 121	1	20
trans-1,2-Dichloroethene	50.0	55.0		ug/L		110	75 - 124	5	20
trans-1,3-Dichloropropene	50.0	51.6		ug/L		103	73 - 127	3	20
1,2,3-Trichlorobenzene	50.0	59.3		ug/L		119	69 - 129	6	20
1,2,4-Trichlorobenzene	50.0	58.0		ug/L		116	69 - 130	7	20
1,1,1-Trichloroethane	50.0	57.6		ug/L		115	74 - 131	7	20
1,1,2-Trichloroethane	50.0	50.7		ug/L		101	80 - 119	3	20
Trichloroethene	50.0	51.8		ug/L		104	79 - 123	5	20
Trichlorofluoromethane	50.0	64.5		ug/L		129	65 - 141	14	20
1,2,3-Trichloropropane	50.0	51.2		ug/L		102	73 - 122	2	20
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	65.1		ug/L		130	70 - 136	19	20
1,2,4-Trimethylbenzene	50.0	56.2		ug/L		112	76 - 124	6	20
1,3,5-Trimethylbenzene	50.0	57.1		ug/L		114	75 - 124	8	20
Vinyl chloride	50.0	55.2		ug/L		110	58 - 137	8	20
Xylenes, Total	100	108		ug/L		108	79 - 121	5	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*105*		*85 - 114*
Dibromofluoromethane (Surr)	*101*		*80 - 119*
1,2-Dichloroethane-d4 (Surr)	*100*		*81 - 118*
Toluene-d8 (Surr)	*104*		*89 - 112*

Lab Sample ID: MB 680-838791/8
Matrix: Water
Analysis Batch: 838791

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			05/20/24 12:40	1
Benzene	1.0	U	2.0	0.27	ug/L			05/20/24 12:40	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			05/20/24 12:40	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			05/20/24 12:40	1

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-838791/8
Matrix: Water
Analysis Batch: 838791

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			05/20/24 12:40	1
Bromoform	2.0	U	2.5	0.59	ug/L			05/20/24 12:40	1
Bromomethane	10	U	20	3.7	ug/L			05/20/24 12:40	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			05/20/24 12:40	1
Carbon disulfide	1.0	U	2.0	0.43	ug/L			05/20/24 12:40	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			05/20/24 12:40	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			05/20/24 12:40	1
Chloroethane	10	U	20	4.6	ug/L			05/20/24 12:40	1
Chloroform	1.0	U	2.0	0.27	ug/L			05/20/24 12:40	1
Chloromethane	2.0	U	2.5	0.54	ug/L			05/20/24 12:40	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			05/20/24 12:40	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			05/20/24 12:40	1
cis-1,2-Dichloroethene	1.0	U	2.0	0.25	ug/L			05/20/24 12:40	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			05/20/24 12:40	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			05/20/24 12:40	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			05/20/24 12:40	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			05/20/24 12:40	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			05/20/24 12:40	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			05/20/24 12:40	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/20/24 12:40	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/20/24 12:40	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/20/24 12:40	1
Dichlorodifluoromethane	1.0	U	2.0	0.36	ug/L			05/20/24 12:40	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			05/20/24 12:40	1
1,2-Dichloroethane	1.0	U M	2.0	0.25	ug/L			05/20/24 12:40	1
1,1-Dichloroethene	1.0	U	2.0	0.33	ug/L			05/20/24 12:40	1
1,2-Dichloroethene, Total	1.0	U	2.0	0.37	ug/L			05/20/24 12:40	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			05/20/24 12:40	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			05/20/24 12:40	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			05/20/24 12:40	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			05/20/24 12:40	1
Ethylbenzene	0.50	U M	1.0	0.20	ug/L			05/20/24 12:40	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			05/20/24 12:40	1
2-Hexanone	10	U	20	3.2	ug/L			05/20/24 12:40	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			05/20/24 12:40	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			05/20/24 12:40	1
Methyl acetate	10	U	20	3.2	ug/L			05/20/24 12:40	1
Methylcyclohexane	1.0	U	2.0	0.33	ug/L			05/20/24 12:40	1
Methylene Chloride	10	U	20	3.2	ug/L			05/20/24 12:40	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			05/20/24 12:40	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			05/20/24 12:40	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			05/20/24 12:40	1
Naphthalene	5.0	U	10	2.4	ug/L			05/20/24 12:40	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			05/20/24 12:40	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			05/20/24 12:40	1
o-Xylene	1.0	U	2.0	0.26	ug/L			05/20/24 12:40	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			05/20/24 12:40	1
Styrene	1.0	U	2.0	0.27	ug/L			05/20/24 12:40	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			05/20/24 12:40	1

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-838791/8
Matrix: Water
Analysis Batch: 838791

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			05/20/24 12:40	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			05/20/24 12:40	1
Tetrachloroethene	1.0	U	2.0	0.35	ug/L			05/20/24 12:40	1
Toluene	1.0	U	2.0	0.25	ug/L			05/20/24 12:40	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			05/20/24 12:40	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			05/20/24 12:40	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			05/20/24 12:40	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			05/20/24 12:40	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			05/20/24 12:40	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			05/20/24 12:40	1
Trichloroethene	0.50	U	1.0	0.20	ug/L			05/20/24 12:40	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			05/20/24 12:40	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			05/20/24 12:40	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			05/20/24 12:40	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			05/20/24 12:40	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			05/20/24 12:40	1
Vinyl chloride	1.0	U	2.0	0.40	ug/L			05/20/24 12:40	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			05/20/24 12:40	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*85 - 114*		*05/20/24 12:40*	*1*
Dibromofluoromethane (Surr)	*112*		*80 - 119*		*05/20/24 12:40*	*1*
1,2-Dichloroethane-d4 (Surr)	*112*		*81 - 118*		*05/20/24 12:40*	*1*
Toluene-d8 (Surr)	*107*		*89 - 112*		*05/20/24 12:40*	*1*

Lab Sample ID: LCS 680-838791/4
Matrix: Water
Analysis Batch: 838791

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	250	205		ug/L		82	39 - 160
Benzene	50.0	54.5		ug/L		109	79 - 120
Bromobenzene	50.0	49.6		ug/L		99	80 - 120
Bromochloromethane	50.0	55.9		ug/L		112	78 - 123
Bromodichloromethane	50.0	53.4		ug/L		107	79 - 125
Bromoform	50.0	42.6		ug/L		85	66 - 130
Bromomethane	50.0	49.6		ug/L		99	53 - 141
2-Butanone (MEK)	250	235		ug/L		94	56 - 143
Carbon disulfide	50.0	51.6		ug/L		103	64 - 133
Carbon tetrachloride	50.0	56.4		ug/L		113	72 - 136
Chlorobenzene	50.0	48.6		ug/L		97	82 - 118
Chloroethane	50.0	53.4		ug/L		107	60 - 138
Chloroform	50.0	56.3		ug/L		113	79 - 124
Chloromethane	50.0	51.9		ug/L		104	50 - 139
2-Chlorotoluene	50.0	49.8		ug/L		100	79 - 122
4-Chlorotoluene	50.0	49.1		ug/L		98	78 - 122
cis-1,2-Dichloroethene	50.0	56.0		ug/L		112	78 - 123
cis-1,3-Dichloropropene	50.0	52.8		ug/L		106	75 - 124

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-838791/4
Matrix: Water
Analysis Batch: 838791

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cyclohexane	50.0	57.0		ug/L		114	71 - 130
Dibromochloromethane	50.0	49.7		ug/L		99	74 - 126
1,2-Dibromo-3-Chloropropane	50.0	41.4		ug/L		83	62 - 128
1,2-Dibromoethane	50.0	50.4		ug/L		101	75 - 127
Dibromomethane	50.0	50.4		ug/L		101	79 - 123
1,2-Dichlorobenzene	50.0	45.8		ug/L		92	80 - 119
1,3-Dichlorobenzene	50.0	46.7		ug/L		93	80 - 119
1,4-Dichlorobenzene	50.0	46.3		ug/L		93	79 - 118
Dichlorodifluoromethane	50.0	47.8		ug/L		96	32 - 152
1,1-Dichloroethane	50.0	54.7		ug/L		109	77 - 125
1,2-Dichloroethane	50.0	56.1		ug/L		112	73 - 128
1,1-Dichloroethene	50.0	58.0		ug/L		116	71 - 131
1,2-Dichloroethene, Total	100	112		ug/L		112	79 - 121
1,2-Dichloropropane	50.0	54.0		ug/L		108	78 - 122
1,3-Dichloropropane	50.0	51.9		ug/L		104	80 - 119
2,2-Dichloropropane	50.0	56.4		ug/L		113	60 - 139
1,1-Dichloropropene	50.0	55.0		ug/L		110	79 - 125
Ethylbenzene	50.0	49.4		ug/L		99	79 - 121
Hexachlorobutadiene	50.0	50.2		ug/L		100	66 - 134
2-Hexanone	250	249		ug/L		100	57 - 139
Isopropylbenzene	50.0	49.5		ug/L		99	72 - 131
4-Isopropyltoluene	50.0	47.0		ug/L		94	77 - 127
Methyl acetate	100	90.0		ug/L		90	56 - 136
Methylcyclohexane	50.0	53.1		ug/L		106	72 - 132
Methylene Chloride	50.0	53.2		ug/L		106	74 - 124
4-Methyl-2-pentanone (MIBK)	250	255		ug/L		102	67 - 130
Methyl tert-butyl ether	50.0	55.6		ug/L		111	71 - 124
m-Xylene & p-Xylene	50.0	50.0		ug/L		100	80 - 121
Naphthalene	50.0	43.2		ug/L		86	61 - 128
n-Butylbenzene	50.0	52.0		ug/L		104	75 - 128
N-Propylbenzene	50.0	49.1		ug/L		98	76 - 126
o-Xylene	50.0	49.1		ug/L		98	78 - 122
sec-Butylbenzene	50.0	52.8		ug/L		106	77 - 126
Styrene	50.0	49.9		ug/L		100	78 - 123
tert-Butylbenzene	50.0	52.9		ug/L		106	78 - 124
1,1,1,2-Tetrachloroethane	50.0	49.5		ug/L		99	78 - 124
1,1,2,2-Tetrachloroethane	50.0	44.0		ug/L		88	71 - 121
Tetrachloroethene	50.0	51.7		ug/L		103	74 - 129
Toluene	50.0	50.9		ug/L		102	80 - 121
trans-1,2-Dichloroethene	50.0	56.4		ug/L		113	75 - 124
trans-1,3-Dichloropropene	50.0	51.2		ug/L		102	73 - 127
1,2,3-Trichlorobenzene	50.0	46.3		ug/L		93	69 - 129
1,2,4-Trichlorobenzene	50.0	44.2		ug/L		88	69 - 130
1,1,1-Trichloroethane	50.0	55.1		ug/L		110	74 - 131
1,1,2-Trichloroethane	50.0	51.5		ug/L		103	80 - 119
Trichloroethene	50.0	55.7		ug/L		111	79 - 123
Trichlorofluoromethane	50.0	48.3		ug/L		97	65 - 141
1,2,3-Trichloropropane	50.0	44.6		ug/L		89	73 - 122

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-838791/4
Matrix: Water
Analysis Batch: 838791

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,1,2-Trichloro-1,2,2-trifluoroethane			50.0	57.1		ug/L		114	70 - 136		
1,2,4-Trimethylbenzene			50.0	47.6		ug/L		95	76 - 124		
1,3,5-Trimethylbenzene			50.0	51.5		ug/L		103	75 - 124		
Vinyl chloride			50.0	51.2		ug/L		102	58 - 137		
Xylenes, Total			100	99.1		ug/L		99	79 - 121		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*91*		*85 - 114*
Dibromofluoromethane (Surr)	*111*		*80 - 119*
1,2-Dichloroethane-d4 (Surr)	*108*		*81 - 118*
Toluene-d8 (Surr)	*108*		*89 - 112*

Lab Sample ID: LCSD 680-838791/5
Matrix: Water
Analysis Batch: 838791

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acetone			250	216		ug/L		87	39 - 160	5	20
Benzene			50.0	54.5		ug/L		109	79 - 120	0	20
Bromobenzene			50.0	49.2		ug/L		98	80 - 120	1	20
Bromochloromethane			50.0	56.5		ug/L		113	78 - 123	1	20
Bromodichloromethane			50.0	53.0		ug/L		106	79 - 125	1	20
Bromoform			50.0	43.4		ug/L		87	66 - 130	2	20
Bromomethane			50.0	52.0		ug/L		104	53 - 141	5	20
2-Butanone (MEK)			250	244		ug/L		98	56 - 143	4	20
Carbon disulfide			50.0	49.4		ug/L		99	64 - 133	4	20
Carbon tetrachloride			50.0	53.6		ug/L		107	72 - 136	5	20
Chlorobenzene			50.0	47.5		ug/L		95	82 - 118	2	20
Chloroethane			50.0	52.3		ug/L		105	60 - 138	2	20
Chloroform			50.0	55.5		ug/L		111	79 - 124	1	20
Chloromethane			50.0	51.1		ug/L		102	50 - 139	2	20
2-Chlorotoluene			50.0	48.4		ug/L		97	79 - 122	3	20
4-Chlorotoluene			50.0	48.9		ug/L		98	78 - 122	0	20
cis-1,2-Dichloroethene			50.0	54.7		ug/L		109	78 - 123	2	20
cis-1,3-Dichloropropene			50.0	53.3		ug/L		107	75 - 124	1	20
Cyclohexane			50.0	54.9		ug/L		110	71 - 130	4	20
Dibromochloromethane			50.0	50.5		ug/L		101	74 - 126	2	20
1,2-Dibromo-3-Chloropropane			50.0	43.4		ug/L		87	62 - 128	5	20
1,2-Dibromoethane			50.0	52.2		ug/L		104	75 - 127	4	20
Dibromomethane			50.0	51.4		ug/L		103	79 - 123	2	20
1,2-Dichlorobenzene			50.0	46.2		ug/L		92	80 - 119	1	20
1,3-Dichlorobenzene			50.0	46.6		ug/L		93	80 - 119	0	20
1,4-Dichlorobenzene			50.0	46.9		ug/L		94	79 - 118	1	20
Dichlorodifluoromethane			50.0	46.5		ug/L		93	32 - 152	3	20
1,1-Dichloroethane			50.0	53.4		ug/L		107	77 - 125	3	20
1,2-Dichloroethane			50.0	55.0		ug/L		110	73 - 128	2	20
1,1-Dichloroethene			50.0	55.7		ug/L		111	71 - 131	4	20
1,2-Dichloroethene, Total			100	109		ug/L		109	79 - 121	3	20

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-838791/5
Matrix: Water
Analysis Batch: 838791

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-Dichloropropane			50.0	53.4		ug/L		107	78 - 122	1	20
1,3-Dichloropropane			50.0	53.1		ug/L		106	80 - 119	2	20
2,2-Dichloropropane			50.0	54.1		ug/L		108	60 - 139	4	20
1,1-Dichloropropene			50.0	54.1		ug/L		108	79 - 125	2	20
Ethylbenzene			50.0	48.5		ug/L		97	79 - 121	2	20
Hexachlorobutadiene			50.0	48.7		ug/L		97	66 - 134	3	20
2-Hexanone			250	260		ug/L		104	57 - 139	4	20
Isopropylbenzene			50.0	47.7		ug/L		95	72 - 131	4	20
4-Isopropyltoluene			50.0	45.4		ug/L		91	77 - 127	4	20
Methyl acetate			100	90.5		ug/L		90	56 - 136	1	20
Methylcyclohexane			50.0	51.4		ug/L		103	72 - 132	3	20
Methylene Chloride			50.0	52.9		ug/L		106	74 - 124	1	20
4-Methyl-2-pentanone (MIBK)			250	263		ug/L		105	67 - 130	3	20
Methyl tert-butyl ether			50.0	56.4		ug/L		113	71 - 124	1	20
m-Xylene & p-Xylene			50.0	48.3		ug/L		97	80 - 121	3	20
Naphthalene			50.0	44.0		ug/L		88	61 - 128	2	20
n-Butylbenzene			50.0	49.5		ug/L		99	75 - 128	5	20
N-Propylbenzene			50.0	47.8		ug/L		96	76 - 126	3	20
o-Xylene			50.0	48.0		ug/L		96	78 - 122	2	20
sec-Butylbenzene			50.0	50.3		ug/L		101	77 - 126	5	20
Styrene			50.0	49.4		ug/L		99	78 - 123	1	20
tert-Butylbenzene			50.0	50.8		ug/L		102	78 - 124	4	20
1,1,1,2-Tetrachloroethane			50.0	49.2		ug/L		98	78 - 124	1	20
1,1,2,2-Tetrachloroethane			50.0	45.6		ug/L		91	71 - 121	4	20
Tetrachloroethene			50.0	50.3		ug/L		101	74 - 129	3	20
Toluene			50.0	49.7		ug/L		99	80 - 121	2	20
trans-1,2-Dichloroethene			50.0	53.9		ug/L		108	75 - 124	4	20
trans-1,3-Dichloropropene			50.0	51.3		ug/L		103	73 - 127	0	20
1,2,3-Trichlorobenzene			50.0	47.4		ug/L		95	69 - 129	2	20
1,2,4-Trichlorobenzene			50.0	44.5		ug/L		89	69 - 130	0	20
1,1,1-Trichloroethane			50.0	53.6		ug/L		107	74 - 131	3	20
1,1,2-Trichloroethane			50.0	51.5		ug/L		103	80 - 119	0	20
Trichloroethene			50.0	54.4		ug/L		109	79 - 123	2	20
Trichlorofluoromethane			50.0	41.9		ug/L		84	65 - 141	14	20
1,2,3-Trichloropropane			50.0	46.1		ug/L		92	73 - 122	3	20
1,1,2-Trichloro-1,2,2-trifluoroethane			50.0	53.8		ug/L		108	70 - 136	6	20
1,2,4-Trimethylbenzene			50.0	46.6		ug/L		93	76 - 124	2	20
1,3,5-Trimethylbenzene			50.0	49.4		ug/L		99	75 - 124	4	20
Vinyl chloride			50.0	50.0		ug/L		100	58 - 137	2	20
Xylenes, Total			100	96.3		ug/L		96	79 - 121	3	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*91*		*85 - 114*
Dibromofluoromethane (Surr)	*113*		*80 - 119*
1,2-Dichloroethane-d4 (Surr)	*107*		*81 - 118*
Toluene-d8 (Surr)	*107*		*89 - 112*

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 680-250842-6 MS
Matrix: Water
Analysis Batch: 838791

Client Sample ID: OU6-MW-284-20240515
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	10	U	250	223		ug/L		89	39 - 160
Benzene	1.0	U	50.0	50.3		ug/L		101	79 - 120
Bromobenzene	0.50	U	50.0	54.0		ug/L		108	80 - 120
Bromochloromethane	1.0	U	50.0	53.2		ug/L		106	78 - 123
Bromodichloromethane	1.0	U	50.0	51.0		ug/L		102	79 - 125
Bromoform	2.0	U	50.0	49.8		ug/L		100	66 - 130
Bromomethane	10	U Q	50.0	36.4	M	ug/L		73	53 - 141
2-Butanone (MEK)	20	U	250	245		ug/L		98	56 - 143
Carbon disulfide	1.0	U	50.0	40.6		ug/L		81	64 - 133
Carbon tetrachloride	1.0	U	50.0	52.8		ug/L		106	72 - 136
Chlorobenzene	0.50	U	50.0	51.0		ug/L		102	82 - 118
Chloroethane	10	U	50.0	49.0		ug/L		98	60 - 138
Chloroform	1.0	U	50.0	52.8		ug/L		106	79 - 124
Chloromethane	2.0	U J1	50.0	22.6	J1	ug/L		45	50 - 139
2-Chlorotoluene	0.50	U	50.0	53.5		ug/L		107	79 - 122
4-Chlorotoluene	1.0	U	50.0	54.0		ug/L		108	78 - 122
cis-1,2-Dichloroethene	1.0	U	50.0	49.6		ug/L		99	78 - 123
cis-1,3-Dichloropropene	1.0	U	50.0	49.0		ug/L		98	75 - 124
Cyclohexane	1.0	U	50.0	48.3		ug/L		97	71 - 130
Dibromochloromethane	1.0	U	50.0	50.6		ug/L		101	74 - 126
1,2-Dibromo-3-Chloropropane	5.0	U	50.0	51.2		ug/L		102	62 - 128
1,2-Dibromoethane	1.0	U	50.0	50.2		ug/L		100	75 - 127
Dibromomethane	1.0	U	50.0	49.4		ug/L		99	79 - 123
1,2-Dichlorobenzene	1.0	U	50.0	50.9		ug/L		102	80 - 119
1,3-Dichlorobenzene	1.0	U	50.0	52.0		ug/L		104	80 - 119
1,4-Dichlorobenzene	1.0	U	50.0	51.8		ug/L		104	79 - 118
Dichlorodifluoromethane	1.0	U Q J1	50.0	11.5	J1	ug/L		23	32 - 152
1,1-Dichloroethane	1.0	U	50.0	50.7		ug/L		101	77 - 125
1,2-Dichloroethane	1.0	U M	50.0	51.6		ug/L		103	73 - 128
1,1-Dichloroethene	1.0	U	50.0	49.7		ug/L		99	71 - 131
1,2-Dichloroethene, Total	1.0	U	100	98.3		ug/L		98	79 - 121
1,2-Dichloropropane	0.50	U	50.0	50.6		ug/L		101	78 - 122
1,3-Dichloropropane	1.0	U	50.0	50.6		ug/L		101	80 - 119
2,2-Dichloropropane	1.0	U	50.0	47.7		ug/L		95	60 - 139
1,1-Dichloropropene	1.0	U	50.0	49.9		ug/L		100	79 - 125
Ethylbenzene	0.50	U	50.0	52.7		ug/L		105	79 - 121
Hexachlorobutadiene	1.0	U	50.0	54.5		ug/L		109	66 - 134
2-Hexanone	10	U	250	266		ug/L		107	57 - 139
Isopropylbenzene	1.0	U	50.0	53.4		ug/L		107	72 - 131
4-Isopropyltoluene	1.0	U	50.0	52.1		ug/L		104	77 - 127
Methyl acetate	10	U	100	84.1		ug/L		84	56 - 136
Methylcyclohexane	1.0	U	50.0	47.6		ug/L		95	72 - 132
Methylene Chloride	10	U	50.0	48.8		ug/L		98	74 - 124
4-Methyl-2-pentanone (MIBK)	10	U	250	277		ug/L		111	67 - 130
Methyl tert-butyl ether	2.0	U	50.0	49.8		ug/L		100	71 - 124
m-Xylene & p-Xylene	1.0	U	50.0	53.3		ug/L		107	80 - 121
Naphthalene	5.0	U	50.0	48.6		ug/L		97	61 - 128
n-Butylbenzene	2.0	U	50.0	56.3		ug/L		113	75 - 128

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 680-250842-6 MS
Matrix: Water
Analysis Batch: 838791

Client Sample ID: OU6-MW-284-20240515
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
N-Propylbenzene	1.0	U	50.0	53.6		ug/L		107	76 - 126
o-Xylene	1.0	U	50.0	52.2		ug/L		104	78 - 122
sec-Butylbenzene	2.0	U	50.0	56.8		ug/L		114	77 - 126
Styrene	1.0	U	50.0	54.1		ug/L		108	78 - 123
tert-Butylbenzene	1.0	U	50.0	56.6		ug/L		113	78 - 124
1,1,1,2-Tetrachloroethane	1.0	U	50.0	54.1		ug/L		108	78 - 124
1,1,2,2-Tetrachloroethane	1.0	U	50.0	51.9		ug/L		104	71 - 121
Tetrachloroethene	1.0	U	50.0	51.6		ug/L		103	74 - 129
Toluene	1.0	U	50.0	49.7		ug/L		99	80 - 121
trans-1,2-Dichloroethene	1.0	U	50.0	48.6		ug/L		97	75 - 124
trans-1,3-Dichloropropene	1.0	U	50.0	49.5		ug/L		99	73 - 127
1,2,3-Trichlorobenzene	2.0	U	50.0	50.4		ug/L		101	69 - 129
1,2,4-Trichlorobenzene	2.0	U	50.0	46.6		ug/L		93	69 - 130
1,1,1-Trichloroethane	0.50	U	50.0	50.4		ug/L		101	74 - 131
1,1,2-Trichloroethane	1.0	U	50.0	50.4		ug/L		101	80 - 119
Trichloroethene	0.50	U	50.0	51.6		ug/L		103	79 - 123
Trichlorofluoromethane	1.0	U	50.0	38.1		ug/L		76	65 - 141
1,2,3-Trichloropropane	1.0	U	50.0	51.4		ug/L		103	73 - 122
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	50.0	48.6		ug/L		97	70 - 136
1,2,4-Trimethylbenzene	1.0	U	50.0	51.1		ug/L		102	76 - 124
1,3,5-Trimethylbenzene	1.0	U	50.0	54.6		ug/L		109	75 - 124
Vinyl chloride	1.0	U J1	50.0	25.6	J1	ug/L		51	58 - 137
Xylenes, Total	1.0	U	100	106		ug/L		106	79 - 121

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*85 - 114*
Dibromofluoromethane (Surr)	*108*		*80 - 119*
1,2-Dichloroethane-d4 (Surr)	*100*		*81 - 118*
Toluene-d8 (Surr)	*105*		*89 - 112*

Lab Sample ID: 680-250842-6 MSD
Matrix: Water
Analysis Batch: 838791

Client Sample ID: OU6-MW-284-20240515
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acetone	10	U	250	225		ug/L		90	39 - 160	1	20
Benzene	1.0	U	50.0	49.8		ug/L		100	79 - 120	1	20
Bromobenzene	0.50	U	50.0	53.0		ug/L		106	80 - 120	2	20
Bromochloromethane	1.0	U	50.0	53.5		ug/L		107	78 - 123	1	20
Bromodichloromethane	1.0	U	50.0	52.1		ug/L		104	79 - 125	2	20
Bromoform	2.0	U	50.0	50.4		ug/L		101	66 - 130	1	20
Bromomethane	10	U Q	50.0	35.3	M	ug/L		71	53 - 141	3	20
2-Butanone (MEK)	20	U	250	246		ug/L		98	56 - 143	0	20
Carbon disulfide	1.0	U	50.0	39.5		ug/L		79	64 - 133	3	20
Carbon tetrachloride	1.0	U	50.0	51.2		ug/L		102	72 - 136	3	20
Chlorobenzene	0.50	U	50.0	50.9		ug/L		102	82 - 118	0	20
Chloroethane	10	U	50.0	50.4		ug/L		101	60 - 138	3	20
Chloroform	1.0	U	50.0	52.5		ug/L		105	79 - 124	1	20

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 680-250842-6 MSD
Matrix: Water
Analysis Batch: 838791

Client Sample ID: OU6-MW-284-20240515
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloromethane	2.0	U J1	50.0	23.1	J1	ug/L		46	50 - 139	2	20
2-Chlorotoluene	0.50	U	50.0	51.7		ug/L		103	79 - 122	3	20
4-Chlorotoluene	1.0	U	50.0	52.7		ug/L		105	78 - 122	2	20
cis-1,2-Dichloroethene	1.0	U	50.0	50.7		ug/L		101	78 - 123	2	20
cis-1,3-Dichloropropene	1.0	U	50.0	49.5		ug/L		99	75 - 124	1	20
Cyclohexane	1.0	U	50.0	47.8		ug/L		96	71 - 130	1	20
Dibromochloromethane	1.0	U	50.0	52.2		ug/L		104	74 - 126	3	20
1,2-Dibromo-3-Chloropropane	5.0	U	50.0	51.8		ug/L		104	62 - 128	1	20
1,2-Dibromoethane	1.0	U	50.0	50.4		ug/L		101	75 - 127	0	20
Dibromomethane	1.0	U	50.0	50.3		ug/L		101	79 - 123	2	20
1,2-Dichlorobenzene	1.0	U	50.0	51.1		ug/L		102	80 - 119	0	20
1,3-Dichlorobenzene	1.0	U	50.0	52.1		ug/L		104	80 - 119	0	20
1,4-Dichlorobenzene	1.0	U	50.0	52.3		ug/L		105	79 - 118	1	20
Dichlorodifluoromethane	1.0	U Q J1	50.0	8.33	J1	ug/L		17	32 - 152	32	20
1,1-Dichloroethane	1.0	U	50.0	49.2		ug/L		98	77 - 125	3	20
1,2-Dichloroethane	1.0	U M	50.0	51.9		ug/L		104	73 - 128	1	20
1,1-Dichloroethene	1.0	U	50.0	48.9		ug/L		98	71 - 131	2	20
1,2-Dichloroethene, Total	1.0	U	100	99.8		ug/L		100	79 - 121	2	20
1,2-Dichloropropane	0.50	U	50.0	50.9		ug/L		102	78 - 122	1	20
1,3-Dichloropropane	1.0	U	50.0	52.0		ug/L		104	80 - 119	3	20
2,2-Dichloropropane	1.0	U	50.0	46.8		ug/L		94	60 - 139	2	20
1,1-Dichloropropene	1.0	U	50.0	50.1		ug/L		100	79 - 125	0	20
Ethylbenzene	0.50	U	50.0	51.9		ug/L		104	79 - 121	2	20
Hexachlorobutadiene	1.0	U	50.0	52.2		ug/L		104	66 - 134	4	20
2-Hexanone	10	U	250	277		ug/L		111	57 - 139	4	20
Isopropylbenzene	1.0	U	50.0	52.1		ug/L		104	72 - 131	3	20
4-Isopropyltoluene	1.0	U	50.0	50.9		ug/L		102	77 - 127	2	20
Methyl acetate	10	U	100	86.0		ug/L		86	56 - 136	2	20
Methylcyclohexane	1.0	U	50.0	46.7		ug/L		93	72 - 132	2	20
Methylene Chloride	10	U	50.0	49.3		ug/L		99	74 - 124	1	20
4-Methyl-2-pentanone (MIBK)	10	U	250	283		ug/L		113	67 - 130	2	20
Methyl tert-butyl ether	2.0	U	50.0	50.8		ug/L		102	71 - 124	2	20
m-Xylene & p-Xylene	1.0	U	50.0	51.9		ug/L		104	80 - 121	3	20
Naphthalene	5.0	U	50.0	50.3		ug/L		101	61 - 128	3	20
n-Butylbenzene	2.0	U	50.0	54.9		ug/L		110	75 - 128	3	20
N-Propylbenzene	1.0	U	50.0	51.9		ug/L		104	76 - 126	3	20
o-Xylene	1.0	U	50.0	51.3		ug/L		103	78 - 122	2	20
sec-Butylbenzene	2.0	U	50.0	54.9		ug/L		110	77 - 126	3	20
Styrene	1.0	U	50.0	53.7		ug/L		107	78 - 123	1	20
tert-Butylbenzene	1.0	U	50.0	55.0		ug/L		110	78 - 124	3	20
1,1,1,2-Tetrachloroethane	1.0	U	50.0	52.1		ug/L		104	78 - 124	4	20
1,1,2,2-Tetrachloroethane	1.0	U	50.0	52.5		ug/L		105	71 - 121	1	20
Tetrachloroethene	1.0	U	50.0	50.4		ug/L		101	74 - 129	2	20
Toluene	1.0	U	50.0	49.4		ug/L		99	80 - 121	1	20
trans-1,2-Dichloroethene	1.0	U	50.0	49.1		ug/L		98	75 - 124	1	20
trans-1,3-Dichloropropene	1.0	U	50.0	50.1		ug/L		100	73 - 127	1	20
1,2,3-Trichlorobenzene	2.0	U	50.0	50.9		ug/L		102	69 - 129	1	20
1,2,4-Trichlorobenzene	2.0	U	50.0	46.5		ug/L		93	69 - 130	0	20
1,1,1-Trichloroethane	0.50	U	50.0	50.4		ug/L		101	74 - 131	0	20

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 680-250842-6 MSD
Matrix: Water
Analysis Batch: 838791

Client Sample ID: OU6-MW-284-20240515
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1,2-Trichloroethane	1.0	U	50.0	51.5		ug/L		103	80 - 119	2	20
Trichloroethene	0.50	U	50.0	52.0		ug/L		104	79 - 123	1	20
Trichlorofluoromethane	1.0	U	50.0	39.5		ug/L		79	65 - 141	3	20
1,2,3-Trichloropropane	1.0	U	50.0	52.8		ug/L		106	73 - 122	3	20
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	50.0	47.7		ug/L		95	70 - 136	2	20
1,2,4-Trimethylbenzene	1.0	U	50.0	49.9		ug/L		100	76 - 124	2	20
1,3,5-Trimethylbenzene	1.0	U	50.0	52.9		ug/L		106	75 - 124	3	20
Vinyl chloride	1.0	U J1	50.0	25.8	J1	ug/L		52	58 - 137	1	20
Xylenes, Total	1.0	U	100	103		ug/L		103	79 - 121	2	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*103*		*85 - 114*
Dibromofluoromethane (Surr)	*110*		*80 - 119*
1,2-Dichloroethane-d4 (Surr)	*102*		*81 - 118*
Toluene-d8 (Surr)	*106*		*89 - 112*

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 680-838752/1-A
Matrix: Water
Analysis Batch: 838829

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 838752

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	10	U M	20	4.6	ug/L		05/20/24 06:53	05/20/24 14:23	1
1,2,4,5-Tetrachlorobenzene	10	U	20	4.5	ug/L		05/20/24 06:53	05/20/24 14:23	1
1,4-Dioxane	10	U	20	4.4	ug/L		05/20/24 06:53	05/20/24 14:23	1
2,3,4,6-Tetrachlorophenol	10	U	20	4.3	ug/L		05/20/24 06:53	05/20/24 14:23	1
2,4,5-Trichlorophenol	10	U	20	3.3	ug/L		05/20/24 06:53	05/20/24 14:23	1
2,4,6-Trichlorophenol	5.0	U	20	2.2	ug/L		05/20/24 06:53	05/20/24 14:23	1
2,4-Dichlorophenol	10	U	20	3.7	ug/L		05/20/24 06:53	05/20/24 14:23	1
2,4-Dimethylphenol	10	U	20	3.0	ug/L		05/20/24 06:53	05/20/24 14:23	1
2,4-Dinitrophenol	40	U	50	16	ug/L		05/20/24 06:53	05/20/24 14:23	1
2,4-Dinitrotoluene	5.0	U	10	2.3	ug/L		05/20/24 06:53	05/20/24 14:23	1
2,6-Dinitrotoluene	10	U	20	2.8	ug/L		05/20/24 06:53	05/20/24 14:23	1
2-Chloronaphthalene	10	U	20	4.8	ug/L		05/20/24 06:53	05/20/24 14:23	1
2-Chlorophenol	10	U	20	3.2	ug/L		05/20/24 06:53	05/20/24 14:23	1
2-Methylphenol	4.0	U	10	1.8	ug/L		05/20/24 06:53	05/20/24 14:23	1
2-Nitroaniline	10	U	20	2.9	ug/L		05/20/24 06:53	05/20/24 14:23	1
2-Nitrophenol	10	U	20	3.9	ug/L		05/20/24 06:53	05/20/24 14:23	1
3 & 4 Methylphenol	4.0	U	10	1.4	ug/L		05/20/24 06:53	05/20/24 14:23	1
3,3'-Dichlorobenzidine	20	U	50	10	ug/L		05/20/24 06:53	05/20/24 14:23	1
3-Nitroaniline	10	U	50	3.0	ug/L		05/20/24 06:53	05/20/24 14:23	1
4,6-Dinitro-2-methylphenol	20	U	50	5.3	ug/L		05/20/24 06:53	05/20/24 14:23	1
4-Bromophenyl phenyl ether	10	U	20	4.7	ug/L		05/20/24 06:53	05/20/24 14:23	1
4-Chloro-3-methylphenol	10	U	20	2.5	ug/L		05/20/24 06:53	05/20/24 14:23	1
4-Chloroaniline	4.0	U	10	1.0	ug/L		05/20/24 06:53	05/20/24 14:23	1
4-Chlorophenyl phenyl ether	12	U	20	5.3	ug/L		05/20/24 06:53	05/20/24 14:23	1
4-Nitroaniline	10	U	50	3.0	ug/L		05/20/24 06:53	05/20/24 14:23	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-838752/1-A
Matrix: Water
Analysis Batch: 838829

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 838752

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	20	U	50	8.1	ug/L		05/20/24 06:53	05/20/24 14:23	1
Acetophenone	5.0	U	10	2.2	ug/L		05/20/24 06:53	05/20/24 14:23	1
Atrazine	5.0	U	10	2.2	ug/L		05/20/24 06:53	05/20/24 14:23	1
Benzaldehyde	10	U	20	4.8	ug/L		05/20/24 06:53	05/20/24 14:23	1
bis (2-chloroisopropyl) ether	10	U	20	3.1	ug/L		05/20/24 06:53	05/20/24 14:23	1
Bis(2-chloroethoxy)methane	4.0	U	10	1.8	ug/L		05/20/24 06:53	05/20/24 14:23	1
Bis(2-chloroethyl)ether	10	U	20	3.6	ug/L		05/20/24 06:53	05/20/24 14:23	1
Bis(2-ethylhexyl) phthalate	10	U	20	3.0	ug/L		05/20/24 06:53	05/20/24 14:23	1
Butyl benzyl phthalate	10	U	20	2.8	ug/L		05/20/24 06:53	05/20/24 14:23	1
Caprolactam	10	U	20	2.8	ug/L		05/20/24 06:53	05/20/24 14:23	1
Carbazole	4.0	U	10	1.8	ug/L		05/20/24 06:53	05/20/24 14:23	1
Dibenzofuran	4.0	U	10	1.9	ug/L		05/20/24 06:53	05/20/24 14:23	1
Diethyl phthalate	5.0	U	10	2.2	ug/L		05/20/24 06:53	05/20/24 14:23	1
Dimethyl phthalate	5.0	U	10	2.1	ug/L		05/20/24 06:53	05/20/24 14:23	1
Di-n-butyl phthalate	5.0	U	10	2.3	ug/L		05/20/24 06:53	05/20/24 14:23	1
Di-n-octyl phthalate	10	U	20	2.8	ug/L		05/20/24 06:53	05/20/24 14:23	1
Hexachlorobenzene	4.0	U	10	1.6	ug/L		05/20/24 06:53	05/20/24 14:23	1
Hexachlorobutadiene	10	U	20	4.0	ug/L		05/20/24 06:53	05/20/24 14:23	1
Hexachlorocyclopentadiene	10	U	20	3.5	ug/L		05/20/24 06:53	05/20/24 14:23	1
Hexachloroethane	10	U	20	3.6	ug/L		05/20/24 06:53	05/20/24 14:23	1
Isophorone	4.0	U	10	2.0	ug/L		05/20/24 06:53	05/20/24 14:23	1
Nitrobenzene	10	U	20	3.5	ug/L		05/20/24 06:53	05/20/24 14:23	1
N-Nitrosodi-n-propylamine	5.0	U	10	2.4	ug/L		05/20/24 06:53	05/20/24 14:23	1
N-Nitrosodiphenylamine	10	U	20	2.9	ug/L		05/20/24 06:53	05/20/24 14:23	1
Pentachlorophenol	20	U	50	9.9	ug/L		05/20/24 06:53	05/20/24 14:23	1
Phenol	4.0	U	10	1.5	ug/L		05/20/24 06:53	05/20/24 14:23	1
Pyridine	20	U	50	7.4	ug/L		05/20/24 06:53	05/20/24 14:23	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*56*		*43 - 140*	*05/20/24 06:53*	*05/20/24 14:23*	*1*
2-Fluorobiphenyl	*54*		*44 - 119*	*05/20/24 06:53*	*05/20/24 14:23*	*1*
2-Fluorophenol	*33*		*19 - 119*	*05/20/24 06:53*	*05/20/24 14:23*	*1*
Nitrobenzene-d5	*58*		*44 - 120*	*05/20/24 06:53*	*05/20/24 14:23*	*1*
Phenol-d5	*20*		*10 - 130*	*05/20/24 06:53*	*05/20/24 14:23*	*1*
Terphenyl-d14	*76*		*50 - 134*	*05/20/24 06:53*	*05/20/24 14:23*	*1*

Lab Sample ID: LCS 680-838752/2-A
Matrix: Water
Analysis Batch: 838829

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 838752

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1'-Biphenyl	200	118		ug/L		59	49 - 115
1,4-Dioxane	200	54.5		ug/L		27	10 - 130
2,3,4,6-Tetrachlorophenol	200	132		ug/L		66	50 - 128
2,4,5-Trichlorophenol	200	121		ug/L		61	53 - 123
2,4,6-Trichlorophenol	200	123		ug/L		62	50 - 125
2,4-Dichlorophenol	200	115		ug/L		58	47 - 121
2,4-Dimethylphenol	200	114		ug/L		57	31 - 124

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-838752/2-A
Matrix: Water
Analysis Batch: 838829

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 838752

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2,4-Dinitrophenol	400	277		ug/L		69	23 - 143
2,4-Dinitrotoluene	200	147		ug/L		73	57 - 128
2,6-Dinitrotoluene	200	133		ug/L		66	57 - 124
2-Chloronaphthalene	200	112		ug/L		56	40 - 116
2-Chlorophenol	200	96.3		ug/L		48	38 - 117
2-Methylphenol	200	94.4		ug/L		47	30 - 117
2-Nitroaniline	200	153		ug/L		76	55 - 127
2-Nitrophenol	200	110		ug/L		55	47 - 123
3 & 4 Methylphenol	200	87.0		ug/L		43	29 - 110
3,3'-Dichlorobenzidine	200	187		ug/L		94	27 - 129
3-Nitroaniline	200	138		ug/L		69	41 - 128
4,6-Dinitro-2-methylphenol	400	320		ug/L		80	44 - 137
4-Bromophenyl phenyl ether	200	144		ug/L		72	55 - 124
4-Chloro-3-methylphenol	200	130		ug/L		65	52 - 119
4-Chloroaniline	200	107		ug/L		53	33 - 117
4-Chlorophenyl phenyl ether	200	126		ug/L		63	53 - 121
4-Nitroaniline	200	152		ug/L		76	55 - 115
4-Nitrophenol	400	147		ug/L		37	13 - 130
Acetophenone	200	113		ug/L		56	46 - 118
Atrazine	200	134		ug/L		67	44 - 142
Benzaldehyde	200	98.2		ug/L		49	25 - 130
bis (2-chloroisopropyl) ether	200	119		ug/L		59	37 - 130
Bis(2-chloroethoxy)methane	200	124		ug/L		62	48 - 120
Bis(2-chloroethyl)ether	200	118		ug/L		59	43 - 118
Bis(2-ethylhexyl) phthalate	200	172		ug/L		86	55 - 135
Butyl benzyl phthalate	200	181		ug/L		90	53 - 134
Caprolactam	200	45.6	M	ug/L		23	13 - 130
Carbazole	200	160		ug/L		80	60 - 122
Dibenzofuran	200	121		ug/L		60	53 - 118
Diethyl phthalate	200	152		ug/L		76	56 - 125
Dimethyl phthalate	200	138		ug/L		69	45 - 127
Di-n-butyl phthalate	200	175		ug/L		87	56 - 122
Di-n-octyl phthalate	200	181		ug/L		90	59 - 128
Hexachlorobenzene	200	143		ug/L		72	53 - 125
Hexachlorobutadiene	200	95.8		ug/L		48	22 - 124
Hexachlorocyclopentadiene	200	73.5		ug/L		37	28 - 130
Hexachloroethane	200	83.7		ug/L		42	21 - 115
Isophorone	200	128		ug/L		64	42 - 124
Nitrobenzene	200	112		ug/L		56	45 - 121
N-Nitrosodi-n-propylamine	200	115		ug/L		58	49 - 119
N-Nitrosodiphenylamine	200	154		ug/L		77	51 - 123
Pentachlorophenol	400	281		ug/L		70	35 - 138
Phenol	200	50.1	M	ug/L		25	14 - 130
Pyridine	400	68.4	M	ug/L		17	10 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol	*58*		*43 - 140*
2-Fluorobiphenyl	*53*		*44 - 119*

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-838752/2-A
Matrix: Water
Analysis Batch: 838829

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 838752

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorophenol	*28*		*19 - 119*
Nitrobenzene-d5	*50*		*44 - 120*
Phenol-d5	*20*		*10 - 130*
Terphenyl-d14	*73*		*50 - 134*

Lab Sample ID: LCSD 680-838752/3-A
Matrix: Water
Analysis Batch: 838829

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 838752

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1'-Biphenyl			200	125		ug/L		63	49 - 115	6	20
1,4-Dioxane			200	59.4		ug/L		30	10 - 130	9	20
2,3,4,6-Tetrachlorophenol			200	140		ug/L		70	50 - 128	6	20
2,4,5-Trichlorophenol			200	127		ug/L		64	53 - 123	5	20
2,4,6-Trichlorophenol			200	131		ug/L		65	50 - 125	6	20
2,4-Dichlorophenol			200	112		ug/L		56	47 - 121	3	20
2,4-Dimethylphenol			200	103		ug/L		51	31 - 124	10	20
2,4-Dinitrophenol			400	293		ug/L		73	23 - 143	6	20
2,4-Dinitrotoluene			200	159		ug/L		79	57 - 128	8	20
2,6-Dinitrotoluene			200	142		ug/L		71	57 - 124	7	20
2-Chloronaphthalene			200	122		ug/L		61	40 - 116	8	20
2-Chlorophenol			200	102		ug/L		51	38 - 117	5	20
2-Methylphenol			200	95.5		ug/L		48	30 - 117	1	20
2-Nitroaniline			200	164		ug/L		82	55 - 127	7	20
2-Nitrophenol			200	105		ug/L		53	47 - 123	4	20
3 & 4 Methylphenol			200	89.6		ug/L		45	29 - 110	3	20
3,3'-Dichlorobenzidine			200	187		ug/L		94	27 - 129	0	20
3-Nitroaniline			200	149		ug/L		74	41 - 128	8	20
4,6-Dinitro-2-methylphenol			400	306		ug/L		76	44 - 137	5	20
4-Bromophenyl phenyl ether			200	137		ug/L		68	55 - 124	5	20
4-Chloro-3-methylphenol			200	124		ug/L		62	52 - 119	4	20
4-Chloroaniline			200	105		ug/L		52	33 - 117	2	20
4-Chlorophenyl phenyl ether			200	136		ug/L		68	53 - 121	8	20
4-Nitroaniline			200	158		ug/L		79	55 - 115	4	20
4-Nitrophenol			400	160		ug/L		40	13 - 130	8	20
Acetophenone			200	108		ug/L		54	46 - 118	5	20
Atrazine			200	123		ug/L		62	44 - 142	8	20
Benzaldehyde			200	104		ug/L		52	25 - 130	5	20
bis (2-chloroisopropyl) ether			200	122		ug/L		61	37 - 130	3	20
Bis(2-chloroethoxy)methane			200	113		ug/L		56	48 - 120	10	20
Bis(2-chloroethyl)ether			200	117		ug/L		58	43 - 118	1	20
Bis(2-ethylhexyl) phthalate			200	169		ug/L		85	55 - 135	2	20
Butyl benzyl phthalate			200	171		ug/L		85	53 - 134	6	20
Caprolactam			200	45.3	M	ug/L		23	13 - 130	1	20
Carbazole			200	163		ug/L		82	60 - 122	2	20
Dibenzofuran			200	134		ug/L		67	53 - 118	10	20
Diethyl phthalate			200	162		ug/L		81	56 - 125	6	20
Dimethyl phthalate			200	147		ug/L		74	45 - 127	6	20

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-838752/3-A
Matrix: Water
Analysis Batch: 838829

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 838752

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Di-n-butyl phthalate			200	171		ug/L		86	56 - 122	2	20
Di-n-octyl phthalate			200	170		ug/L		85	59 - 128	6	20
Hexachlorobenzene			200	138		ug/L		69	53 - 125	4	20
Hexachlorobutadiene			200	93.6		ug/L		47	22 - 124	2	20
Hexachlorocyclopentadiene			200	76.2		ug/L		38	28 - 130	4	20
Hexachloroethane			200	91.9		ug/L		46	21 - 115	9	20
Isophorone			200	121		ug/L		61	42 - 124	6	20
Nitrobenzene			200	107		ug/L		54	45 - 121	5	20
N-Nitrosodi-n-propylamine			200	121		ug/L		60	49 - 119	5	20
N-Nitrosodiphenylamine			200	147		ug/L		74	51 - 123	4	20
Pentachlorophenol			400	268		ug/L		67	35 - 138	5	20
Phenol			200	51.1	M	ug/L		26	14 - 130	2	20
Pyridine			400	72.9	M	ug/L		18	10 - 130	6	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2,4,6-Tribromophenol	*62*		*43 - 140*
2-Fluorobiphenyl	*53*		*44 - 119*
2-Fluorophenol	*28*		*19 - 119*
Nitrobenzene-d5	*49*		*44 - 120*
Phenol-d5	*20*		*10 - 130*
Terphenyl-d14	*72*		*50 - 134*

Lab Sample ID: MB 680-839443/1-A
Matrix: Water
Analysis Batch: 839803

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 839443

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	10	U M	20	4.6	ug/L		05/23/24 10:55	05/26/24 16:52	1
1,2,4,5-Tetrachlorobenzene	10	U	20	4.5	ug/L		05/23/24 10:55	05/26/24 16:52	1
1,4-Dioxane	10	U	20	4.4	ug/L		05/23/24 10:55	05/26/24 16:52	1
2,3,4,6-Tetrachlorophenol	10	U	20	4.3	ug/L		05/23/24 10:55	05/26/24 16:52	1
2,4,5-Trichlorophenol	10	U	20	3.3	ug/L		05/23/24 10:55	05/26/24 16:52	1
2,4,6-Trichlorophenol	5.0	U	20	2.2	ug/L		05/23/24 10:55	05/26/24 16:52	1
2,4-Dichlorophenol	10	U	20	3.7	ug/L		05/23/24 10:55	05/26/24 16:52	1
2,4-Dimethylphenol	10	U	20	3.0	ug/L		05/23/24 10:55	05/26/24 16:52	1
2,4-Dinitrophenol	40	U	50	16	ug/L		05/23/24 10:55	05/26/24 16:52	1
2,4-Dinitrotoluene	5.0	U	10	2.3	ug/L		05/23/24 10:55	05/26/24 16:52	1
2,6-Dinitrotoluene	10	U	20	2.8	ug/L		05/23/24 10:55	05/26/24 16:52	1
2-Chloronaphthalene	10	U	20	4.8	ug/L		05/23/24 10:55	05/26/24 16:52	1
2-Chlorophenol	10	U	20	3.2	ug/L		05/23/24 10:55	05/26/24 16:52	1
2-Methylphenol	4.0	U	10	1.8	ug/L		05/23/24 10:55	05/26/24 16:52	1
2-Nitroaniline	10	U	20	2.9	ug/L		05/23/24 10:55	05/26/24 16:52	1
2-Nitrophenol	10	U	20	3.9	ug/L		05/23/24 10:55	05/26/24 16:52	1
3 & 4 Methylphenol	4.0	U	10	1.4	ug/L		05/23/24 10:55	05/26/24 16:52	1
3,3'-Dichlorobenzidine	20	U	50	10	ug/L		05/23/24 10:55	05/26/24 16:52	1
3-Nitroaniline	10	U	50	3.0	ug/L		05/23/24 10:55	05/26/24 16:52	1
4,6-Dinitro-2-methylphenol	20	U	50	5.3	ug/L		05/23/24 10:55	05/26/24 16:52	1
4-Bromophenyl phenyl ether	10	U M	20	4.7	ug/L		05/23/24 10:55	05/26/24 16:52	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-839443/1-A
Matrix: Water
Analysis Batch: 839803

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 839443

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chloro-3-methylphenol	10	U	20	2.5	ug/L		05/23/24 10:55	05/26/24 16:52	1
4-Chloroaniline	4.0	U	10	1.0	ug/L		05/23/24 10:55	05/26/24 16:52	1
4-Chlorophenyl phenyl ether	12	U	20	5.3	ug/L		05/23/24 10:55	05/26/24 16:52	1
4-Nitroaniline	10	U	50	3.0	ug/L		05/23/24 10:55	05/26/24 16:52	1
4-Nitrophenol	20	U	50	8.1	ug/L		05/23/24 10:55	05/26/24 16:52	1
Acetophenone	5.0	U M	10	2.2	ug/L		05/23/24 10:55	05/26/24 16:52	1
Atrazine	5.0	U	10	2.2	ug/L		05/23/24 10:55	05/26/24 16:52	1
Benzaldehyde	10	U M	20	4.8	ug/L		05/23/24 10:55	05/26/24 16:52	1
bis (2-chloroisopropyl) ether	10	U	20	3.1	ug/L		05/23/24 10:55	05/26/24 16:52	1
Bis(2-chloroethoxy)methane	4.0	U	10	1.8	ug/L		05/23/24 10:55	05/26/24 16:52	1
Bis(2-chloroethyl)ether	10	U	20	3.6	ug/L		05/23/24 10:55	05/26/24 16:52	1
Bis(2-ethylhexyl) phthalate	10	U	20	3.0	ug/L		05/23/24 10:55	05/26/24 16:52	1
Butyl benzyl phthalate	10	U	20	2.8	ug/L		05/23/24 10:55	05/26/24 16:52	1
Caprolactam	10	U	20	2.8	ug/L		05/23/24 10:55	05/26/24 16:52	1
Carbazole	4.0	U	10	1.8	ug/L		05/23/24 10:55	05/26/24 16:52	1
Dibenzofuran	4.0	U	10	1.9	ug/L		05/23/24 10:55	05/26/24 16:52	1
Diethyl phthalate	5.0	U	10	2.2	ug/L		05/23/24 10:55	05/26/24 16:52	1
Dimethyl phthalate	5.0	U	10	2.1	ug/L		05/23/24 10:55	05/26/24 16:52	1
Di-n-butyl phthalate	5.0	U	10	2.3	ug/L		05/23/24 10:55	05/26/24 16:52	1
Di-n-octyl phthalate	10	U	20	2.8	ug/L		05/23/24 10:55	05/26/24 16:52	1
Hexachlorobenzene	4.0	U	10	1.6	ug/L		05/23/24 10:55	05/26/24 16:52	1
Hexachlorobutadiene	10	U	20	4.0	ug/L		05/23/24 10:55	05/26/24 16:52	1
Hexachlorocyclopentadiene	10	U	20	3.5	ug/L		05/23/24 10:55	05/26/24 16:52	1
Hexachloroethane	10	U	20	3.6	ug/L		05/23/24 10:55	05/26/24 16:52	1
Isophorone	4.0	U	10	2.0	ug/L		05/23/24 10:55	05/26/24 16:52	1
Nitrobenzene	10	U	20	3.5	ug/L		05/23/24 10:55	05/26/24 16:52	1
N-Nitrosodi-n-propylamine	5.0	U	10	2.4	ug/L		05/23/24 10:55	05/26/24 16:52	1
N-Nitrosodiphenylamine	10	U	20	2.9	ug/L		05/23/24 10:55	05/26/24 16:52	1
Pentachlorophenol	20	U	50	9.9	ug/L		05/23/24 10:55	05/26/24 16:52	1
Phenol	4.0	U	10	1.5	ug/L		05/23/24 10:55	05/26/24 16:52	1
Pyridine	20	U M	50	7.4	ug/L		05/23/24 10:55	05/26/24 16:52	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*53*		*43 - 140*	*05/23/24 10:55*	*05/26/24 16:52*	*1*
2-Fluorobiphenyl	*47*		*44 - 119*	*05/23/24 10:55*	*05/26/24 16:52*	*1*
2-Fluorophenol	*28*		*19 - 119*	*05/23/24 10:55*	*05/26/24 16:52*	*1*
Nitrobenzene-d5	*44*		*44 - 120*	*05/23/24 10:55*	*05/26/24 16:52*	*1*
Phenol-d5	*18*		*10 - 130*	*05/23/24 10:55*	*05/26/24 16:52*	*1*
Terphenyl-d14	*64*		*50 - 134*	*05/23/24 10:55*	*05/26/24 16:52*	*1*

Lab Sample ID: LCS 680-839443/2-A
Matrix: Water
Analysis Batch: 839538

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 839443

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1'-Biphenyl	200	120		ug/L		60	49 - 115
1,4-Dioxane	200	52.9		ug/L		26	10 - 130
2,3,4,6-Tetrachlorophenol	200	137		ug/L		68	50 - 128

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-839443/2-A
Matrix: Water
Analysis Batch: 839538

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 839443

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2,4,5-Trichlorophenol	200	130		ug/L		65	53 - 123
2,4,6-Trichlorophenol	200	132		ug/L		66	50 - 125
2,4-Dichlorophenol	200	111		ug/L		55	47 - 121
2,4-Dimethylphenol	200	105		ug/L		52	31 - 124
2,4-Dinitrophenol	400	290		ug/L		72	23 - 143
2,4-Dinitrotoluene	200	139		ug/L		69	57 - 128
2,6-Dinitrotoluene	200	132		ug/L		66	57 - 124
2-Chloronaphthalene	200	127		ug/L		63	40 - 116
2-Chlorophenol	200	89.1		ug/L		45	38 - 117
2-Methylphenol	200	85.0		ug/L		42	30 - 117
2-Nitroaniline	200	136		ug/L		68	55 - 127
2-Nitrophenol	200	102		ug/L		51	47 - 123
3 & 4 Methylphenol	200	81.5		ug/L		41	29 - 110
3,3'-Dichlorobenzidine	200	156		ug/L		78	27 - 129
3-Nitroaniline	200	137		ug/L		68	41 - 128
4,6-Dinitro-2-methylphenol	400	313		ug/L		78	44 - 137
4-Bromophenyl phenyl ether	200	145		ug/L		72	55 - 124
4-Chloro-3-methylphenol	200	119		ug/L		59	52 - 119
4-Chloroaniline	200	102		ug/L		51	33 - 117
4-Chlorophenyl phenyl ether	200	129		ug/L		65	53 - 121
4-Nitroaniline	200	148		ug/L		74	55 - 115
4-Nitrophenol	400	129	M	ug/L		32	13 - 130
Acetophenone	200	102		ug/L		51	46 - 118
Atrazine	200	121		ug/L		61	44 - 142
Benzaldehyde	200	86.4		ug/L		43	25 - 130
bis (2-chloroisopropyl) ether	200	96.2		ug/L		48	37 - 130
Bis(2-chloroethoxy)methane	200	106		ug/L		53	48 - 120
Bis(2-chloroethyl)ether	200	96.5		ug/L		48	43 - 118
Bis(2-ethylhexyl) phthalate	200	152		ug/L		76	55 - 135
Butyl benzyl phthalate	200	155		ug/L		77	53 - 134
Caprolactam	200	46.8	M	ug/L		23	13 - 130
Carbazole	200	154		ug/L		77	60 - 122
Dibenzofuran	200	125		ug/L		63	53 - 118
Diethyl phthalate	200	142		ug/L		71	56 - 125
Dimethyl phthalate	200	141		ug/L		71	45 - 127
Di-n-butyl phthalate	200	160		ug/L		80	56 - 122
Di-n-octyl phthalate	200	158		ug/L		79	59 - 128
Hexachlorobenzene	200	135		ug/L		68	53 - 125
Hexachlorobutadiene	200	101		ug/L		51	22 - 124
Hexachlorocyclopentadiene	200	75.9		ug/L		38	28 - 130
Hexachloroethane	200	89.4		ug/L		45	21 - 115
Isophorone	200	110		ug/L		55	42 - 124
Nitrobenzene	200	94.4		ug/L		47	45 - 121
N-Nitrosodi-n-propylamine	200	104		ug/L		52	49 - 119
N-Nitrosodiphenylamine	200	141		ug/L		70	51 - 123
Pentachlorophenol	400	262		ug/L		65	35 - 138
Phenol	200	46.7		ug/L		23	14 - 130
Pyridine	400	62.5	M	ug/L		16	10 - 130

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-839443/2-A
Matrix: Water
Analysis Batch: 839538

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 839443

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol	*61*		*43 - 140*
2-Fluorobiphenyl	*55*		*44 - 119*
2-Fluorophenol	*26*		*19 - 119*
Nitrobenzene-d5	*45*		*44 - 120*
Phenol-d5	*19*		*10 - 130*
Terphenyl-d14	*68*		*50 - 134*

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 680-838472/1-A
Matrix: Water
Analysis Batch: 839724

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 838472

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	0.050	U M	0.20	0.018	ug/L		05/17/24 07:40	05/25/24 11:23	1
Acenaphthene	0.10	U M	0.20	0.042	ug/L		05/17/24 07:40	05/25/24 11:23	1
Acenaphthylene	0.050	U	0.20	0.017	ug/L		05/17/24 07:40	05/25/24 11:23	1
Pyrene	0.10	U M	0.20	0.027	ug/L		05/17/24 07:40	05/25/24 11:23	1
2-Methylnaphthalene	0.040	U	0.20	0.011	ug/L		05/17/24 07:40	05/25/24 11:23	1
Anthracene	0.050	U	0.20	0.018	ug/L		05/17/24 07:40	05/25/24 11:23	1
Benzo[a]pyrene	0.10	U	0.20	0.026	ug/L		05/17/24 07:40	05/25/24 11:23	1
Benzo[a]anthracene	0.10	U	0.20	0.026	ug/L		05/17/24 07:40	05/25/24 11:23	1
Benzo[b]fluoranthene	0.10	U	0.20	0.026	ug/L		05/17/24 07:40	05/25/24 11:23	1
Benzo[g,h,i]perylene	0.10	U M	0.20	0.026	ug/L		05/17/24 07:40	05/25/24 11:23	1
Benzo[k]fluoranthene	0.10	U	0.20	0.029	ug/L		05/17/24 07:40	05/25/24 11:23	1
Chrysene	0.050	U	0.20	0.023	ug/L		05/17/24 07:40	05/25/24 11:23	1
Dibenz(a,h)anthracene	0.050	U	0.20	0.024	ug/L		05/17/24 07:40	05/25/24 11:23	1
Phenanthrene	0.20	U	0.40	0.055	ug/L		05/17/24 07:40	05/25/24 11:23	1
Indeno[1,2,3-cd]pyrene	0.10	U	0.20	0.028	ug/L		05/17/24 07:40	05/25/24 11:23	1
Naphthalene	0.050	U M	0.20	0.014	ug/L		05/17/24 07:40	05/25/24 11:23	1
Fluoranthene	0.10	U M	0.20	0.027	ug/L		05/17/24 07:40	05/25/24 11:23	1
Fluorene	0.10	U M	0.20	0.025	ug/L		05/17/24 07:40	05/25/24 11:23	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*46*	*Q*	*53 - 106*	*05/17/24 07:40*	*05/25/24 11:23*	*1*
2-methylnaphthalene-d10	*48*		*30 - 100*	*05/17/24 07:40*	*05/25/24 11:23*	*1*
Fluoranthene-d10	*86*		*42 - 114*	*05/17/24 07:40*	*05/25/24 11:23*	*1*
Nitrobenzene-d5	*56*		*42 - 100*	*05/17/24 07:40*	*05/25/24 11:23*	*1*
Terphenyl-d14	*97*		*53 - 111*	*05/17/24 07:40*	*05/25/24 11:23*	*1*

Lab Sample ID: LCS 680-838472/2-A
Matrix: Water
Analysis Batch: 839724

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 838472

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	10.0	4.56		ug/L		46	41 - 115
Acenaphthene	10.0	5.16		ug/L		52	48 - 114
Acenaphthylene	10.0	5.02		ug/L		50	35 - 121

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: LCS 680-838472/2-A
Matrix: Water
Analysis Batch: 839724

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 838472

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Pyrene			10.0	9.43		ug/L		94	53 - 121		
2-Methylnaphthalene			10.0	4.86		ug/L		49	39 - 114		
Anthracene			10.0	6.81		ug/L		68	53 - 119		
Benzo[a]pyrene			10.0	9.65		ug/L		96	53 - 120		
Benzo[a]anthracene			10.0	9.33		ug/L		93	59 - 120		
Benzo[b]fluoranthene			10.0	10.3		ug/L		103	53 - 126		
Benzo[g,h,i]perylene			10.0	10.1		ug/L		101	44 - 128		
Benzo[k]fluoranthene			10.0	9.69		ug/L		97	54 - 125		
Chrysene			10.0	9.64		ug/L		96	57 - 120		
Dibenz(a,h)anthracene			10.0	10.3		ug/L		103	44 - 131		
Phenanthrene			10.0	6.77		ug/L		68	53 - 115		
Indeno[1,2,3-cd]pyrene			10.0	10.0		ug/L		100	48 - 130		
Naphthalene			10.0	4.58		ug/L		46	43 - 114		
Fluoranthene			10.0	9.21		ug/L		92	58 - 120		
Fluorene			10.0	5.40		ug/L		54	50 - 118		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*47*	*Q*	*53 - 106*
2-methylnaphthalene-d10	*48*		*30 - 100*
Fluoranthene-d10	*95*		*42 - 114*
Nitrobenzene-d5	*56*		*42 - 100*
Terphenyl-d14	*99*		*53 - 111*

Lab Sample ID: LCSD 680-838472/3-A
Matrix: Water
Analysis Batch: 839724

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 838472

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1-Methylnaphthalene			10.0	5.33		ug/L		53	41 - 115	15	20
Acenaphthene			10.0	6.17		ug/L		62	48 - 114	18	20
Acenaphthylene			10.0	5.96		ug/L		60	35 - 121	17	20
Pyrene			10.0	8.18		ug/L		82	53 - 121	14	20
2-Methylnaphthalene			10.0	5.77		ug/L		58	39 - 114	17	20
Anthracene			10.0	7.03		ug/L		70	53 - 119	3	20
Benzo[a]pyrene			10.0	8.16		ug/L		82	53 - 120	17	20
Benzo[a]anthracene			10.0	7.97		ug/L		80	59 - 120	16	20
Benzo[b]fluoranthene			10.0	8.64		ug/L		86	53 - 126	18	20
Benzo[g,h,i]perylene			10.0	8.51		ug/L		85	44 - 128	18	20
Benzo[k]fluoranthene			10.0	8.13	M	ug/L		81	54 - 125	17	20
Chrysene			10.0	8.19		ug/L		82	57 - 120	16	20
Dibenz(a,h)anthracene			10.0	8.66		ug/L		87	44 - 131	17	20
Phenanthrene			10.0	7.11		ug/L		71	53 - 115	5	20
Indeno[1,2,3-cd]pyrene			10.0	8.47		ug/L		85	48 - 130	17	20
Naphthalene			10.0	5.40		ug/L		54	43 - 114	16	20
Fluoranthene			10.0	8.05		ug/L		81	58 - 120	13	20
Fluorene			10.0	6.38		ug/L		64	50 - 118	17	20

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: LCSD 680-838472/3-A
Matrix: Water
Analysis Batch: 839724

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 838472

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*56*		*53 - 106*
2-methylnaphthalene-d10	*57*		*30 - 100*
Fluoranthene-d10	*83*		*42 - 114*
Nitrobenzene-d5	*63*		*42 - 100*
Terphenyl-d14	*85*		*53 - 111*

Lab Sample ID: MB 680-840202/1-A
Matrix: Water
Analysis Batch: 839814

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 840202

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	0.050	U	0.20	0.018	ug/L		05/29/24 12:48	05/30/24 13:04	1
Acenaphthene	0.10	U	0.20	0.042	ug/L		05/29/24 12:48	05/30/24 13:04	1
Acenaphthylene	0.050	U M	0.20	0.017	ug/L		05/29/24 12:48	05/30/24 13:04	1
Pyrene	0.10	U M	0.20	0.027	ug/L		05/29/24 12:48	05/30/24 13:04	1
2-Methylnaphthalene	0.040	U M	0.20	0.011	ug/L		05/29/24 12:48	05/30/24 13:04	1
Anthracene	0.050	U	0.20	0.018	ug/L		05/29/24 12:48	05/30/24 13:04	1
Benzo[a]pyrene	0.10	U	0.20	0.026	ug/L		05/29/24 12:48	05/30/24 13:04	1
Benzo[a]anthracene	0.10	U	0.20	0.026	ug/L		05/29/24 12:48	05/30/24 13:04	1
Benzo[b]fluoranthene	0.10	U	0.20	0.026	ug/L		05/29/24 12:48	05/30/24 13:04	1
Benzo[g,h,i]perylene	0.10	U M	0.20	0.026	ug/L		05/29/24 12:48	05/30/24 13:04	1
Benzo[k]fluoranthene	0.10	U	0.20	0.029	ug/L		05/29/24 12:48	05/30/24 13:04	1
Chrysene	0.050	U	0.20	0.023	ug/L		05/29/24 12:48	05/30/24 13:04	1
Dibenz(a,h)anthracene	0.050	U	0.20	0.024	ug/L		05/29/24 12:48	05/30/24 13:04	1
Phenanthrene	0.20	U	0.40	0.055	ug/L		05/29/24 12:48	05/30/24 13:04	1
Indeno[1,2,3-cd]pyrene	0.10	U	0.20	0.028	ug/L		05/29/24 12:48	05/30/24 13:04	1
Naphthalene	0.050	U	0.20	0.014	ug/L		05/29/24 12:48	05/30/24 13:04	1
Fluoranthene	0.10	U M	0.20	0.027	ug/L		05/29/24 12:48	05/30/24 13:04	1
Fluorene	0.10	U M	0.20	0.025	ug/L		05/29/24 12:48	05/30/24 13:04	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*64*		*53 - 106*	*05/29/24 12:48*	*05/30/24 13:04*	*1*
2-methylnaphthalene-d10	*61*		*30 - 100*	*05/29/24 12:48*	*05/30/24 13:04*	*1*
Fluoranthene-d10	*84*		*42 - 114*	*05/29/24 12:48*	*05/30/24 13:04*	*1*
Nitrobenzene-d5	*66*		*42 - 100*	*05/29/24 12:48*	*05/30/24 13:04*	*1*
Terphenyl-d14	*94*		*53 - 111*	*05/29/24 12:48*	*05/30/24 13:04*	*1*

Lab Sample ID: LCS 680-840202/2-A
Matrix: Water
Analysis Batch: 839814

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 840202

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	10.0	5.74		ug/L		57	41 - 115
Acenaphthene	10.0	6.80		ug/L		68	48 - 114
Acenaphthylene	10.0	6.44		ug/L		64	35 - 121
Pyrene	10.0	8.12		ug/L		81	53 - 121
2-Methylnaphthalene	10.0	6.01		ug/L		60	39 - 114
Anthracene	10.0	7.44		ug/L		74	53 - 119

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: LCS 680-840202/2-A
Matrix: Water
Analysis Batch: 839814

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 840202

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzo[a]pyrene			10.0	8.15		ug/L		82	53 - 120		
Benzo[a]anthracene			10.0	7.82		ug/L		78	59 - 120		
Benzo[b]fluoranthene			10.0	8.29		ug/L		83	53 - 126		
Benzo[g,h,i]perylene			10.0	8.38		ug/L		84	44 - 128		
Benzo[k]fluoranthene			10.0	8.21		ug/L		82	54 - 125		
Chrysene			10.0	8.67		ug/L		87	57 - 120		
Dibenz(a,h)anthracene			10.0	8.52		ug/L		85	44 - 131		
Phenanthrene			10.0	7.62		ug/L		76	53 - 115		
Indeno[1,2,3-cd]pyrene			10.0	8.40		ug/L		84	48 - 130		
Naphthalene			10.0	5.44		ug/L		54	43 - 114		
Fluoranthene			10.0	8.08		ug/L		81	58 - 120		
Fluorene			10.0	6.96		ug/L		70	50 - 118		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*65*		*53 - 106*
2-methylnaphthalene-d10	*63*		*30 - 100*
Fluoranthene-d10	*87*		*42 - 114*
Nitrobenzene-d5	*64*		*42 - 100*
Terphenyl-d14	*93*		*53 - 111*

Lab Sample ID: LCSD 680-840202/3-A
Matrix: Water
Analysis Batch: 839814

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 840202

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1-Methylnaphthalene			10.0	5.46		ug/L		55	41 - 115	5	20
Acenaphthene			10.0	6.38		ug/L		64	48 - 114	6	20
Acenaphthylene			10.0	5.99		ug/L		60	35 - 121	7	20
Pyrene			10.0	7.51		ug/L		75	53 - 121	8	20
2-Methylnaphthalene			10.0	5.69		ug/L		57	39 - 114	6	20
Anthracene			10.0	6.92		ug/L		69	53 - 119	7	20
Benzo[a]pyrene			10.0	7.56		ug/L		76	53 - 120	8	20
Benzo[a]anthracene			10.0	7.14		ug/L		71	59 - 120	9	20
Benzo[b]fluoranthene			10.0	7.63		ug/L		76	53 - 126	8	20
Benzo[g,h,i]perylene			10.0	7.71		ug/L		77	44 - 128	8	20
Benzo[k]fluoranthene			10.0	7.70		ug/L		77	54 - 125	6	20
Chrysene			10.0	8.06		ug/L		81	57 - 120	7	20
Dibenz(a,h)anthracene			10.0	7.74		ug/L		77	44 - 131	10	20
Phenanthrene			10.0	7.13		ug/L		71	53 - 115	7	20
Indeno[1,2,3-cd]pyrene			10.0	7.66		ug/L		77	48 - 130	9	20
Naphthalene			10.0	5.12		ug/L		51	43 - 114	6	20
Fluoranthene			10.0	7.46		ug/L		75	58 - 120	8	20
Fluorene			10.0	6.50		ug/L		65	50 - 118	7	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*62*		*53 - 106*
2-methylnaphthalene-d10	*59*		*30 - 100*
Fluoranthene-d10	*79*		*42 - 114*

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: LCSD 680-840202/3-A
Matrix: Water
Analysis Batch: 839814

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 840202

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Nitrobenzene-d5	58		42 - 100
Terphenyl-d14	87		53 - 111

Method: 8270E SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Lab Sample ID: MB 680-839167/1-A
Matrix: Water
Analysis Batch: 839173

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 839167

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	0.10	U	0.20	0.032	ug/L		05/22/24 08:13	05/22/24 12:46	1

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	24	M	10 - 150	05/22/24 08:13	05/22/24 12:46	1

Lab Sample ID: LCS 680-839167/2-A
Matrix: Water
Analysis Batch: 839173

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 839167

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,4-Dioxane			10.0	11.6	M	ug/L		116	70 - 130		

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
1,4-Dioxane-d8	16		10 - 150

Lab Sample ID: 680-250842-6 MS
Matrix: Water
Analysis Batch: 839173

Client Sample ID: OU6-MW-284-20240515
Prep Type: Total/NA
Prep Batch: 839167

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
1,4-Dioxane	0.095	U	10.6	12.1	M	ug/L		114	30 - 130		

Isotope Dilution	MS %Recovery	MS Qualifier	Limits
1,4-Dioxane-d8	23		10 - 150

Lab Sample ID: 680-250842-6 MSD
Matrix: Water
Analysis Batch: 839173

Client Sample ID: OU6-MW-284-20240515
Prep Type: Total/NA
Prep Batch: 839167

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,4-Dioxane	0.095	U	10.5	12.2	M	ug/L		116	30 - 130	1	30

Isotope Dilution	MSD %Recovery	MSD Qualifier	Limits
1,4-Dioxane-d8	17		10 - 150

Method: 8270E SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution) (Continued)

Lab Sample ID: 680-250842-8 MS
Matrix: Water
Analysis Batch: 839173

Client Sample ID: OU6-MWNGA-10-20240515
Prep Type: Total/NA
Prep Batch: 839167

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,4-Dioxane	0.11	U	10.5	12.4	M	ug/L		118	30 - 130

Isotope Dilution	*MS %Recovery*	*MS Qualifier*	*Limits*
1,4-Dioxane-d8	*16*		*10 - 150*

Lab Sample ID: 680-250842-8 MSD
Matrix: Water
Analysis Batch: 839173

Client Sample ID: OU6-MWNGA-10-20240515
Prep Type: Total/NA
Prep Batch: 839167

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,4-Dioxane	0.11	U	9.72	11.3	M	ug/L		116	30 - 130	10	30

Isotope Dilution	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,4-Dioxane-d8	*16*		*10 - 150*

Method: RSK-175 - Dissolved Gases (GC)

Lab Sample ID: MB 410-510325/1-A
Matrix: Water
Analysis Batch: 510310

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 510325

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	2.0	U	5.0	1.0	ug/L		05/24/24 13:13	05/24/24 18:13	1
Ethylene	2.0	U M	5.0	1.0	ug/L		05/24/24 13:13	05/24/24 18:13	1
Methane	6.0	U M	6.5	3.0	ug/L		05/24/24 13:13	05/24/24 18:13	1

Lab Sample ID: LCS 410-510325/2-A
Matrix: Water
Analysis Batch: 510310

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 510325

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Ethane	61.7	65.3		ug/L		106	74 - 131
Ethylene	58.3	61.4		ug/L		105	72 - 133
Methane	59.8	64.1	M	ug/L		107	73 - 125

Lab Sample ID: LCSD 410-510325/3-A
Matrix: Water
Analysis Batch: 510310

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 510325

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ethane	61.7	65.1		ug/L		106	74 - 131	0	20
Ethylene	58.3	61.1		ug/L		105	72 - 133	1	20
Methane	59.8	63.9	M	ug/L		107	73 - 125	0	20

Method: 8081B 8082A - Organochlorine Pesticides & PCBs (GC)

Lab Sample ID: MB 680-838559/1-A
Matrix: Water
Analysis Batch: 838891

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 838559

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	0.0040	U	0.050	0.0020	ug/L		05/17/24 12:07	05/20/24 17:59	1
4,4'-DDE	0.0040	U	0.050	0.0010	ug/L		05/17/24 12:07	05/20/24 17:59	1
4,4'-DDT	0.0040	U	0.050	0.0010	ug/L		05/17/24 12:07	05/20/24 17:59	1
Aldrin	0.0040	U M	0.050	0.0020	ug/L		05/17/24 12:07	05/20/24 17:59	1
alpha-BHC	0.0040	U	0.050	0.0010	ug/L		05/17/24 12:07	05/20/24 17:59	1
beta-BHC	0.0040	U	0.050	0.0020	ug/L		05/17/24 12:07	05/20/24 17:59	1
delta-BHC	0.0040	U	0.050	0.0020	ug/L		05/17/24 12:07	05/20/24 17:59	1
Dieldrin	0.0040	U	0.050	0.0020	ug/L		05/17/24 12:07	05/20/24 17:59	1
Endosulfan I	0.0040	U	0.050	0.0020	ug/L		05/17/24 12:07	05/20/24 17:59	1
Endosulfan II	0.0040	U	0.050	0.0020	ug/L		05/17/24 12:07	05/20/24 17:59	1
Endosulfan sulfate	0.0040	U	0.050	0.0020	ug/L		05/17/24 12:07	05/20/24 17:59	1
Endrin	0.0040	U	0.050	0.0010	ug/L		05/17/24 12:07	05/20/24 17:59	1
Endrin aldehyde	0.016	U	0.050	0.0040	ug/L		05/17/24 12:07	05/20/24 17:59	1
Endrin ketone	0.016	U	0.050	0.0040	ug/L		05/17/24 12:07	05/20/24 17:59	1
gamma-BHC (Lindane)	0.0040	U	0.050	0.0010	ug/L		05/17/24 12:07	05/20/24 17:59	1
Heptachlor	0.0040	U	0.050	0.0010	ug/L		05/17/24 12:07	05/20/24 17:59	1
Heptachlor epoxide	0.0040	U	0.050	0.0020	ug/L		05/17/24 12:07	05/20/24 17:59	1
Methoxychlor	0.0040	U	0.050	0.0020	ug/L		05/17/24 12:07	05/20/24 17:59	1
Chlordane (technical)	0.40	U M	0.50	0.16	ug/L		05/17/24 12:07	05/20/24 17:59	1
PCB-1016	0.24	U M	0.50	0.10	ug/L		05/17/24 12:07	05/20/24 17:59	1
PCB-1221	0.24	U	0.50	0.10	ug/L		05/17/24 12:07	05/20/24 17:59	1
PCB-1232	0.24	U M	0.50	0.10	ug/L		05/17/24 12:07	05/20/24 17:59	1
PCB-1242	0.24	U M	0.50	0.10	ug/L		05/17/24 12:07	05/20/24 17:59	1
PCB-1248	0.24	U M	0.50	0.10	ug/L		05/17/24 12:07	05/20/24 17:59	1
PCB-1254	0.24	U M	0.50	0.10	ug/L		05/17/24 12:07	05/20/24 17:59	1
PCB-1260	0.24	U	0.50	0.10	ug/L		05/17/24 12:07	05/20/24 17:59	1
Toxaphene	0.80	U M	5.0	0.31	ug/L		05/17/24 12:07	05/20/24 17:59	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*99*		*14 - 130*	*05/17/24 12:07*	*05/20/24 17:59*	*1*
Tetrachloro-m-xylene	*80*		*44 - 124*	*05/17/24 12:07*	*05/20/24 17:59*	*1*

Lab Sample ID: LCS 680-838559/2-A
Matrix: Water
Analysis Batch: 838891

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 838559

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
4,4'-DDD	0.0400	0.0510		ug/L		128	56 - 143
4,4'-DDE	0.0400	0.0509		ug/L		127	57 - 135
4,4'-DDT	0.0400	0.0494	J	ug/L		124	51 - 143
Aldrin	0.0400	0.0328	J	ug/L		82	45 - 134
alpha-BHC	0.0400	0.0404	J	ug/L		101	54 - 138
beta-BHC	0.0400	0.0434	J	ug/L		108	56 - 136
delta-BHC	0.0400	0.0470	J	ug/L		117	52 - 142
Dieldrin	0.0400	0.0483	J	ug/L		121	60 - 136
Endosulfan I	0.0400	0.0425	J	ug/L		106	62 - 126
Endosulfan II	0.0400	0.0474	J	ug/L		119	52 - 135
Endosulfan sulfate	0.0400	0.0475	J	ug/L		119	62 - 133

Method: 8081B 8082A - Organochlorine Pesticides & PCBs (GC) (Continued)

Lab Sample ID: LCS 680-838559/2-A
Matrix: Water
Analysis Batch: 838891

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 838559

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Endrin			0.0400	0.0498	J	ug/L		125	60 - 138		
Endrin aldehyde			0.0400	0.0519		ug/L		130	51 - 132		
Endrin ketone			0.0400	0.0507		ug/L		127	58 - 134		
gamma-BHC (Lindane)			0.0400	0.0414	J	ug/L		103	59 - 134		
Heptachlor			0.0400	0.0376	J	ug/L		94	54 - 130		
Heptachlor epoxide			0.0400	0.0459	J	ug/L		115	61 - 133		
Methoxychlor			0.0400	0.0555		ug/L		139	54 - 145		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*106*		*14 - 130*
Tetrachloro-m-xylene	*76*		*44 - 124*

Lab Sample ID: LCS 680-838559/4-A
Matrix: Water
Analysis Batch: 838891

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 838559

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
PCB-1016			2.40	2.30	M	ug/L		96	46 - 129		
PCB-1260			2.40	2.58	M	ug/L		108	45 - 134		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*95*		*14 - 130*
Tetrachloro-m-xylene	*73*		*44 - 124*

Lab Sample ID: LCSD 680-838559/3-A
Matrix: Water
Analysis Batch: 838891

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 838559

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
4,4'-DDD			0.0400	0.0447	J	ug/L		112	56 - 143	13	30
4,4'-DDE			0.0400	0.0451	J	ug/L		113	57 - 135	12	30
4,4'-DDT			0.0400	0.0437	J	ug/L		109	51 - 143	12	30
Aldrin			0.0400	0.0332	J	ug/L		83	45 - 134	1	30
alpha-BHC			0.0400	0.0365	J	ug/L		91	54 - 138	10	30
beta-BHC			0.0400	0.0401	J	ug/L		100	56 - 136	8	30
delta-BHC			0.0400	0.0406	J	ug/L		101	52 - 142	15	30
Dieldrin			0.0400	0.0425	J	ug/L		106	60 - 136	13	30
Endosulfan I			0.0400	0.0375	J	ug/L		94	62 - 126	13	30
Endosulfan II			0.0400	0.0419	J	ug/L		105	52 - 135	12	30
Endosulfan sulfate			0.0400	0.0465	J	ug/L		116	62 - 133	2	30
Endrin			0.0400	0.0441	J	ug/L		110	60 - 138	12	30
Endrin aldehyde			0.0400	0.0463	J	ug/L		116	51 - 132	11	30
Endrin ketone			0.0400	0.0462	J	ug/L		115	58 - 134	9	30
gamma-BHC (Lindane)			0.0400	0.0377	J	ug/L		94	59 - 134	9	30
Heptachlor			0.0400	0.0355	J	ug/L		89	54 - 130	6	30
Heptachlor epoxide			0.0400	0.0411	J	ug/L		103	61 - 133	11	30
Methoxychlor			0.0400	0.0484	J	ug/L		121	54 - 145	14	30

Method: 8081B 8082A - Organochlorine Pesticides & PCBs (GC) (Continued)

Lab Sample ID: LCSD 680-838559/3-A
Matrix: Water
Analysis Batch: 838891

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 838559

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
DCB Decachlorobiphenyl	*81*		*14 - 130*
Tetrachloro-m-xylene	*60*		*44 - 124*

Lab Sample ID: LCSD 680-838559/5-A
Matrix: Water
Analysis Batch: 838891

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 838559

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
PCB-1016	2.40	2.54	M	ug/L		106	46 - 129	10	30
PCB-1260	2.40	3.03		ug/L		126	45 - 134	16	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
DCB Decachlorobiphenyl	*111*		*14 - 130*
Tetrachloro-m-xylene	*76*		*44 - 124*

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 680-837892/2
Matrix: Water
Analysis Batch: 837892

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.050	U	0.055	0.023	mg/L			05/16/24 12:42	1
Nitrate Nitrite as N	0.050	U	0.055	0.023	mg/L			05/16/24 12:42	1
Nitrite as N	0.050	U	0.055	0.023	mg/L			05/16/24 12:42	1

Lab Sample ID: LCS 680-837892/3
Matrix: Water
Analysis Batch: 837892

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrate as N	1.00	1.02		mg/L		102	88 - 111
Nitrate Nitrite as N	2.00	2.04		mg/L		102	88 - 111
Nitrite as N	1.00	1.02		mg/L		102	87 - 111

Lab Sample ID: LCSD 680-837892/4
Matrix: Water
Analysis Batch: 837892

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrate as N	1.00	1.02		mg/L		102	88 - 111	0	15
Nitrate Nitrite as N	2.00	2.03		mg/L		101	88 - 111	0	15
Nitrite as N	1.00	1.01		mg/L		101	87 - 111	0	15

Method: 9056A - Anions, Ion Chromatography (Continued)

Lab Sample ID: 680-250842-11 MS
Matrix: Water
Analysis Batch: 837892

Client Sample ID: OU6-MW-246-20240515
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrate as N	0.61	M J1	1.00	1.24	J1	mg/L		63	88 - 111
Nitrate Nitrite as N	0.61	J1	2.00	2.02	J1	mg/L		71	88 - 111
Nitrite as N	0.050	U J1	1.00	0.782	J1	mg/L		78	87 - 111

Lab Sample ID: 680-250842-11 MSD
Matrix: Water
Analysis Batch: 837892

Client Sample ID: OU6-MW-246-20240515
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrate as N	0.61	M J1	1.00	1.42	J1	mg/L		81	88 - 111	13	15
Nitrate Nitrite as N	0.61	J1	2.00	2.21	J1	mg/L		80	88 - 111	9	15
Nitrite as N	0.050	U J1	1.00	0.792	J1	mg/L		79	87 - 111	1	15

Lab Sample ID: MB 680-840135/44
Matrix: Water
Analysis Batch: 840135

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.50	U M	0.55	0.20	mg/L			05/28/24 19:15	1
Sulfate	1.0	U	1.5	0.40	mg/L			05/28/24 19:15	1

Lab Sample ID: LCS 680-840135/48
Matrix: Water
Analysis Batch: 840135

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	10.0	10.4		mg/L		104	87 - 111
Sulfate	10.0	10.2		mg/L		102	87 - 112

Lab Sample ID: LCSD 680-840135/49
Matrix: Water
Analysis Batch: 840135

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	10.0	10.4		mg/L		104	87 - 111	0	15
Sulfate	10.0	10.2		mg/L		102	87 - 112	1	15

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 680-838460/1-A
Matrix: Water
Analysis Batch: 838729

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 838460

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	100	U	200	35	ug/L		05/17/24 05:47	05/17/24 11:59	1
Antimony	1.5	U	5.0	0.34	ug/L		05/17/24 05:47	05/17/24 11:59	1
Arsenic	3.0	U	5.0	0.86	ug/L		05/17/24 05:47	05/17/24 11:59	1
Barium	2.0	U	5.0	0.89	ug/L		05/17/24 05:47	05/17/24 11:59	1
Beryllium	0.40	U	0.50	0.20	ug/L		05/17/24 05:47	05/17/24 11:59	1
Boron	75	U	100	22	ug/L		05/17/24 05:47	05/17/24 11:59	1

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 680-838460/1-A
Matrix: Water
Analysis Batch: 838729

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 838460

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.20	U	0.50	0.078	ug/L		05/17/24 05:47	05/17/24 11:59	1
Calcium	300	U	500	140	ug/L		05/17/24 05:47	05/17/24 11:59	1
Chromium	2.5	U	20	0.81	ug/L		05/17/24 05:47	05/17/24 11:59	1
Copper	2.0	U	5.0	1.1	ug/L		05/17/24 05:47	05/17/24 11:59	1
Iron	75	U	100	12	ug/L		05/17/24 05:47	05/17/24 11:59	1
Lead	1.0	U	2.5	0.21	ug/L		05/17/24 05:47	05/17/24 11:59	1
Magnesium	60	U	250	23	ug/L		05/17/24 05:47	05/17/24 11:59	1
Manganese	5.0	U	10	2.2	ug/L		05/17/24 05:47	05/17/24 11:59	1
Nickel	1.0	U	10	0.42	ug/L		05/17/24 05:47	05/17/24 11:59	1
Potassium	100	U	1000	44	ug/L		05/17/24 05:47	05/17/24 11:59	1
Selenium	2.5	U	5.0	0.99	ug/L		05/17/24 05:47	05/17/24 11:59	1
Silver	1.0	U	2.0	0.39	ug/L		05/17/24 05:47	05/17/24 11:59	1
Sodium	500	U	1000	200	ug/L		05/17/24 05:47	05/17/24 11:59	1
Thallium	1.0	U	2.0	0.26	ug/L		05/17/24 05:47	05/17/24 11:59	1
Vanadium	2.5	U	10	0.63	ug/L		05/17/24 05:47	05/17/24 11:59	1
Zinc	20	U	25	2.8	ug/L		05/17/24 05:47	05/17/24 11:59	1

Lab Sample ID: MB 680-838460/1-A
Matrix: Water
Analysis Batch: 838963

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 838460

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	0.50	U	1.0	0.22	ug/L		05/17/24 05:47	05/20/24 10:44	1

Lab Sample ID: LCS 680-838460/2-A
Matrix: Water
Analysis Batch: 838729

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 838460

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aluminum	5050	4950		ug/L		98	84 - 117
Antimony	50.0	55.4		ug/L		111	85 - 117
Arsenic	100	110		ug/L		110	84 - 116
Barium	100	101		ug/L		101	86 - 114
Beryllium	50.0	56.4		ug/L		113	83 - 121
Boron	400	418		ug/L		104	73 - 130
Cadmium	50.0	57.0		ug/L		114	87 - 115
Calcium	5000	5030		ug/L		101	87 - 118
Chromium	100	114		ug/L		113	85 - 116
Copper	101	102		ug/L		101	85 - 118
Iron	4990	5550		ug/L		111	87 - 118
Lead	500	531		ug/L		106	88 - 115
Magnesium	5000	5290		ug/L		106	83 - 118
Manganese	400	432		ug/L		108	87 - 115
Nickel	100	110		ug/L		110	85 - 117
Potassium	7000	7350		ug/L		105	87 - 115
Selenium	100	110		ug/L		110	80 - 120
Silver	50.0	51.2		ug/L		102	85 - 116
Sodium	5030	5780		ug/L		115	85 - 117
Thallium	50.0	54.8		ug/L		110	82 - 116

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 680-838460/2-A
Matrix: Water
Analysis Batch: 838729

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 838460

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Vanadium	100	113		ug/L		113	86 - 115
Zinc	50.5	53.8		ug/L		107	83 - 119

Lab Sample ID: LCS 680-838460/2-A
Matrix: Water
Analysis Batch: 838963

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 838460

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cobalt	50.0	51.1		ug/L		102	86 - 115

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 680-838572/1-A
Matrix: Water
Analysis Batch: 839136

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 838572

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	0.20	U	0.25	0.080	ug/L		05/17/24 12:59	05/21/24 16:31	1

Lab Sample ID: LCS 680-838572/2-A
Matrix: Water
Analysis Batch: 839136

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 838572

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Hg	2.50	2.56		ug/L		103	80 - 124

Lab Sample ID: 680-250842-1 MS
Matrix: Water
Analysis Batch: 839136

Client Sample ID: OU6-MW-277-20240515
Prep Type: Total/NA
Prep Batch: 838572

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Hg	0.20	U	1.00	0.971		ug/L		97	80 - 124

Lab Sample ID: 680-250842-1 MSD
Matrix: Water
Analysis Batch: 839136

Client Sample ID: OU6-MW-277-20240515
Prep Type: Total/NA
Prep Batch: 838572

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Hg	0.20	U	1.00	0.951		ug/L		95	80 - 124	2	20

Method: 2320B-2011 - Alkalinity, Total

Lab Sample ID: MB 680-838862/4
Matrix: Water
Analysis Batch: 838862

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	5.0	U	5.5	2.2	mg/L			05/17/24 14:42	1
Bicarbonate Alkalinity as CaCO3	10	U	11	5.0	mg/L			05/17/24 14:42	1
Carbonate Alkalinity as CaCO3	10	U	11	5.0	mg/L			05/17/24 14:42	1

Method: 2320B-2011 - Alkalinity, Total (Continued)

Lab Sample ID: LCS 680-838862/6
Matrix: Water
Analysis Batch: 838862

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity as CaCO3 to pH 4.5	250	246		mg/L		98	90 - 112

Lab Sample ID: LCSD 680-838862/24
Matrix: Water
Analysis Batch: 838862

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5	250	250		mg/L		100	90 - 112	2	30

Lab Sample ID: 680-250842-14 DU
Matrix: Water
Analysis Batch: 838862

Client Sample ID: OU6-MW-124-20240515
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5	32		26.1		mg/L		19	30
Bicarbonate Alkalinity as CaCO3	32		26.1		mg/L		19	30
Carbonate Alkalinity as CaCO3	10	U	10	U	mg/L		NC	30

Method: 4500 S2 F-2011 - Sulfide, Total

Lab Sample ID: MB 680-839071/1
Matrix: Water
Analysis Batch: 839071

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	1.0	U	1.0	1.0	mg/L			05/21/24 12:09	1
Sulfide as H2S	1.1	U	1.1	1.1	mg/L			05/21/24 12:09	1

Lab Sample ID: LCS 680-839071/2
Matrix: Water
Analysis Batch: 839071

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfide	10.0	8.06		mg/L		81	75 - 125
Sulfide as H2S	10.6	8.56		mg/L		81	75 - 125

Lab Sample ID: LCSD 680-839071/3
Matrix: Water
Analysis Batch: 839071

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sulfide	10.0	8.61		mg/L		86	75 - 125	7	30
Sulfide as H2S	10.6	9.15		mg/L		86	75 - 125	7	30

Method: 4500 S2 F-2011 - Sulfide, Total (Continued)

Lab Sample ID: MB 680-839093/1
Matrix: Water
Analysis Batch: 839093

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	1.0	U	1.0	1.0	mg/L			05/21/24 14:01	1
Sulfide as H2S	1.1	U	1.1	1.1	mg/L			05/21/24 14:01	1

Lab Sample ID: LCS 680-839093/2
Matrix: Water
Analysis Batch: 839093

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfide	10.0	8.80		mg/L		88	75 - 125
Sulfide as H2S	10.6	9.35		mg/L		88	75 - 125

Lab Sample ID: LCSD 680-839093/3
Matrix: Water
Analysis Batch: 839093

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sulfide	10.0	8.42		mg/L		84	75 - 125	4	30
Sulfide as H2S	10.6	8.94		mg/L		84	75 - 125	4	30

Method: 9060A - Organic Carbon, Total (TOC)

Lab Sample ID: MB 680-839761/3
Matrix: Water
Analysis Batch: 839761

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	1.0	U	1.0	0.50	mg/L			05/22/24 17:24	1

Lab Sample ID: LCS 680-839761/4
Matrix: Water
Analysis Batch: 839761

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Organic Carbon	20.0	21.9		mg/L		109	80 - 120

Lab Sample ID: LCSD 680-839761/5
Matrix: Water
Analysis Batch: 839761

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Organic Carbon	20.0	21.8		mg/L		109	80 - 120	0	25

Method: SM 4500 CO2 D - Carbon Dioxide and Forms of Alkalinity by Calculation

Lab Sample ID: 680-250842-14 DU
Matrix: Water
Analysis Batch: 838862

Client Sample ID: OU6-MW-124-20240515
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Carbon Dioxide, Free	51		63.0		mg/L		21	30

QC Association Summary

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-250842-1

GC/MS VOA

Analysis Batch: 838669

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-250842-1	OU6-MW-277-20240515	Total/NA	Water	8260D	
680-250842-2	OU6-MW-259-20240515	Total/NA	Water	8260D	
680-250842-3	OU6-MW-280-20240515	Total/NA	Water	8260D	
680-250842-4	OU6-MW-156-20240515	Total/NA	Water	8260D	
680-250842-5	OU6-MW-158-20240515	Total/NA	Water	8260D	
680-250842-6	OU6-MW-284-20240515	Total/NA	Water	8260D	
MB 680-838669/8	Method Blank	Total/NA	Water	8260D	
LCS 680-838669/4	Lab Control Sample	Total/NA	Water	8260D	
LCSD 680-838669/5	Lab Control Sample Dup	Total/NA	Water	8260D	

Analysis Batch: 838714

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-250842-8	OU6-MWNGA-10-20240515	Total/NA	Water	8260D	
MB 680-838714/8	Method Blank	Total/NA	Water	8260D	
LCS 680-838714/4	Lab Control Sample	Total/NA	Water	8260D	
LCSD 680-838714/5	Lab Control Sample Dup	Total/NA	Water	8260D	
680-250842-8 MS	OU6-MWNGA-10-20240515	Total/NA	Water	8260D	
680-250842-8 MSD	OU6-MWNGA-10-20240515	Total/NA	Water	8260D	

Analysis Batch: 838727

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-250842-7	OU6-MWNGA-8-20240515	Total/NA	Water	8260D	
680-250842-9	OU6-MW-297-20240515	Total/NA	Water	8260D	
680-250842-10	OU6-MW-301-20240515	Total/NA	Water	8260D	
680-250842-11	OU6-MW-246-20240515	Total/NA	Water	8260D	
680-250842-12	OU6-MW-182-20240515	Total/NA	Water	8260D	
680-250842-13	OU6-DMW-17A-20240515	Total/NA	Water	8260D	
680-250842-14	OU6-MW-124-20240515	Total/NA	Water	8260D	
680-250842-15	OU6-MW-8A-20240515	Total/NA	Water	8260D	
680-250842-16	TRIP-BLANK-20240515	Total/NA	Water	8260D	
680-250842-17	OU6-MW-92-20240515	Total/NA	Water	8260D	
MB 680-838727/7	Method Blank	Total/NA	Water	8260D	
LCS 680-838727/20	Lab Control Sample	Total/NA	Water	8260D	
LCSD 680-838727/21	Lab Control Sample Dup	Total/NA	Water	8260D	

Analysis Batch: 838791

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-250842-3	OU6-MW-280-20240515	Total/NA	Water	8260D	
680-250842-16	TRIP-BLANK-20240515	Total/NA	Water	8260D	
MB 680-838791/8	Method Blank	Total/NA	Water	8260D	
LCS 680-838791/4	Lab Control Sample	Total/NA	Water	8260D	
LCSD 680-838791/5	Lab Control Sample Dup	Total/NA	Water	8260D	
680-250842-6 MS	OU6-MW-284-20240515	Total/NA	Water	8260D	
680-250842-6 MSD	OU6-MW-284-20240515	Total/NA	Water	8260D	

GC/MS Semi VOA

Prep Batch: 838472

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-250842-1	OU6-MW-277-20240515	Total/NA	Water	3510C	
680-250842-2	OU6-MW-259-20240515	Total/NA	Water	3510C	

GC/MS Semi VOA (Continued)

Prep Batch: 838472 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-250842-3	OU6-MW-280-20240515	Total/NA	Water	3510C	
MB 680-838472/1-A	Method Blank	Total/NA	Water	3510C	
LCS 680-838472/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 680-838472/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Prep Batch: 838752

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-250842-1	OU6-MW-277-20240515	Total/NA	Water	3510C	
680-250842-2	OU6-MW-259-20240515	Total/NA	Water	3510C	
680-250842-3	OU6-MW-280-20240515	Total/NA	Water	3510C	
MB 680-838752/1-A	Method Blank	Total/NA	Water	3510C	
LCS 680-838752/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 680-838752/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 838829

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-250842-1	OU6-MW-277-20240515	Total/NA	Water	8270E	838752
680-250842-2	OU6-MW-259-20240515	Total/NA	Water	8270E	838752
680-250842-3	OU6-MW-280-20240515	Total/NA	Water	8270E	838752
MB 680-838752/1-A	Method Blank	Total/NA	Water	8270E	838752
LCS 680-838752/2-A	Lab Control Sample	Total/NA	Water	8270E	838752
LCSD 680-838752/3-A	Lab Control Sample Dup	Total/NA	Water	8270E	838752

Prep Batch: 839167

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-250842-6	OU6-MW-284-20240515	Total/NA	Water	3510C	
680-250842-7	OU6-MWNGA-8-20240515	Total/NA	Water	3510C	
680-250842-8	OU6-MWNGA-10-20240515	Total/NA	Water	3510C	
MB 680-839167/1-A	Method Blank	Total/NA	Water	3510C	
LCS 680-839167/2-A	Lab Control Sample	Total/NA	Water	3510C	
680-250842-6 MS	OU6-MW-284-20240515	Total/NA	Water	3510C	
680-250842-6 MSD	OU6-MW-284-20240515	Total/NA	Water	3510C	
680-250842-8 MS	OU6-MWNGA-10-20240515	Total/NA	Water	3510C	
680-250842-8 MSD	OU6-MWNGA-10-20240515	Total/NA	Water	3510C	

Analysis Batch: 839173

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-250842-6	OU6-MW-284-20240515	Total/NA	Water	8270E SIM ID	839167
680-250842-7	OU6-MWNGA-8-20240515	Total/NA	Water	8270E SIM ID	839167
680-250842-8	OU6-MWNGA-10-20240515	Total/NA	Water	8270E SIM ID	839167
MB 680-839167/1-A	Method Blank	Total/NA	Water	8270E SIM ID	839167
LCS 680-839167/2-A	Lab Control Sample	Total/NA	Water	8270E SIM ID	839167
680-250842-6 MS	OU6-MW-284-20240515	Total/NA	Water	8270E SIM ID	839167
680-250842-6 MSD	OU6-MW-284-20240515	Total/NA	Water	8270E SIM ID	839167
680-250842-8 MS	OU6-MWNGA-10-20240515	Total/NA	Water	8270E SIM ID	839167
680-250842-8 MSD	OU6-MWNGA-10-20240515	Total/NA	Water	8270E SIM ID	839167

Prep Batch: 839443

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-250842-2 - RE	OU6-MW-259-20240515	Total/NA	Water	3510C	
MB 680-839443/1-A	Method Blank	Total/NA	Water	3510C	

GC/MS Semi VOA (Continued)

Prep Batch: 839443 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 680-839443/2-A	Lab Control Sample	Total/NA	Water	3510C	

Analysis Batch: 839538

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-250842-2 - RE	OU6-MW-259-20240515	Total/NA	Water	8270E	839443
LCS 680-839443/2-A	Lab Control Sample	Total/NA	Water	8270E	839443

Analysis Batch: 839724

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-250842-1	OU6-MW-277-20240515	Total/NA	Water	8270E SIM	838472
680-250842-2	OU6-MW-259-20240515	Total/NA	Water	8270E SIM	838472
680-250842-3	OU6-MW-280-20240515	Total/NA	Water	8270E SIM	838472
MB 680-838472/1-A	Method Blank	Total/NA	Water	8270E SIM	838472
LCS 680-838472/2-A	Lab Control Sample	Total/NA	Water	8270E SIM	838472
LCSD 680-838472/3-A	Lab Control Sample Dup	Total/NA	Water	8270E SIM	838472

Analysis Batch: 839803

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 680-839443/1-A	Method Blank	Total/NA	Water	8270E	839443

Analysis Batch: 839814

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-250842-1 - RE	OU6-MW-277-20240515	Total/NA	Water	8270E SIM	840202
680-250842-2 - RE	OU6-MW-259-20240515	Total/NA	Water	8270E SIM	840202
680-250842-3 - RE	OU6-MW-280-20240515	Total/NA	Water	8270E SIM	840202
MB 680-840202/1-A	Method Blank	Total/NA	Water	8270E SIM	840202
LCS 680-840202/2-A	Lab Control Sample	Total/NA	Water	8270E SIM	840202
LCSD 680-840202/3-A	Lab Control Sample Dup	Total/NA	Water	8270E SIM	840202

Prep Batch: 840202

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-250842-1 - RE	OU6-MW-277-20240515	Total/NA	Water	3510C	
680-250842-2 - RE	OU6-MW-259-20240515	Total/NA	Water	3510C	
680-250842-3 - RE	OU6-MW-280-20240515	Total/NA	Water	3510C	
MB 680-840202/1-A	Method Blank	Total/NA	Water	3510C	
LCS 680-840202/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 680-840202/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

GC VOA

Analysis Batch: 510310

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-250842-1	OU6-MW-277-20240515	Total/NA	Water	RSK-175	510325
680-250842-2	OU6-MW-259-20240515	Total/NA	Water	RSK-175	510325
680-250842-3	OU6-MW-280-20240515	Total/NA	Water	RSK-175	510325
680-250842-3 - DL	OU6-MW-280-20240515	Total/NA	Water	RSK-175	510325
680-250842-11	OU6-MW-246-20240515	Total/NA	Water	RSK-175	510325
680-250842-11 - DL	OU6-MW-246-20240515	Total/NA	Water	RSK-175	510325
680-250842-14	OU6-MW-124-20240515	Total/NA	Water	RSK-175	510325
MB 410-510325/1-A	Method Blank	Total/NA	Water	RSK-175	510325
LCS 410-510325/2-A	Lab Control Sample	Total/NA	Water	RSK-175	510325

GC VOA (Continued)

Analysis Batch: 510310 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 410-510325/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	510325

Prep Batch: 510325

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-250842-1	OU6-MW-277-20240515	Total/NA	Water	RSK-175	
680-250842-2	OU6-MW-259-20240515	Total/NA	Water	RSK-175	
680-250842-3	OU6-MW-280-20240515	Total/NA	Water	RSK-175	
680-250842-3 - DL	OU6-MW-280-20240515	Total/NA	Water	RSK-175	
680-250842-11	OU6-MW-246-20240515	Total/NA	Water	RSK-175	
680-250842-11 - DL	OU6-MW-246-20240515	Total/NA	Water	RSK-175	
680-250842-14	OU6-MW-124-20240515	Total/NA	Water	RSK-175	
MB 410-510325/1-A	Method Blank	Total/NA	Water	RSK-175	
LCS 410-510325/2-A	Lab Control Sample	Total/NA	Water	RSK-175	
LCSD 410-510325/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	

GC Semi VOA

Prep Batch: 838559

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-250842-1	OU6-MW-277-20240515	Total/NA	Water	3510C	
680-250842-2	OU6-MW-259-20240515	Total/NA	Water	3510C	
680-250842-3	OU6-MW-280-20240515	Total/NA	Water	3510C	
MB 680-838559/1-A	Method Blank	Total/NA	Water	3510C	
LCS 680-838559/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCS 680-838559/4-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 680-838559/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
LCSD 680-838559/5-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 838891

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-250842-1	OU6-MW-277-20240515	Total/NA	Water	8081B 8082A	838559
680-250842-2	OU6-MW-259-20240515	Total/NA	Water	8081B 8082A	838559
680-250842-3	OU6-MW-280-20240515	Total/NA	Water	8081B 8082A	838559
MB 680-838559/1-A	Method Blank	Total/NA	Water	8081B 8082A	838559
LCS 680-838559/2-A	Lab Control Sample	Total/NA	Water	8081B 8082A	838559
LCS 680-838559/4-A	Lab Control Sample	Total/NA	Water	8081B 8082A	838559
LCSD 680-838559/3-A	Lab Control Sample Dup	Total/NA	Water	8081B 8082A	838559
LCSD 680-838559/5-A	Lab Control Sample Dup	Total/NA	Water	8081B 8082A	838559

HPLC/IC

Analysis Batch: 837892

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-250842-11	OU6-MW-246-20240515	Total/NA	Water	9056A	
680-250842-14	OU6-MW-124-20240515	Total/NA	Water	9056A	
MB 680-837892/2	Method Blank	Total/NA	Water	9056A	
LCS 680-837892/3	Lab Control Sample	Total/NA	Water	9056A	
LCSD 680-837892/4	Lab Control Sample Dup	Total/NA	Water	9056A	
680-250842-11 MS	OU6-MW-246-20240515	Total/NA	Water	9056A	
680-250842-11 MSD	OU6-MW-246-20240515	Total/NA	Water	9056A	

HPLC/IC

Analysis Batch: 840135

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-250842-11	OU6-MW-246-20240515	Total/NA	Water	9056A	
680-250842-14	OU6-MW-124-20240515	Total/NA	Water	9056A	
MB 680-840135/44	Method Blank	Total/NA	Water	9056A	
LCS 680-840135/48	Lab Control Sample	Total/NA	Water	9056A	
LCSD 680-840135/49	Lab Control Sample Dup	Total/NA	Water	9056A	

Metals

Prep Batch: 838460

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-250842-1	OU6-MW-277-20240515	Total Recoverable	Water	3005A	
680-250842-2	OU6-MW-259-20240515	Total Recoverable	Water	3005A	
680-250842-3	OU6-MW-280-20240515	Total Recoverable	Water	3005A	
680-250842-11	OU6-MW-246-20240515	Total Recoverable	Water	3005A	
680-250842-14	OU6-MW-124-20240515	Total Recoverable	Water	3005A	
MB 680-838460/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 680-838460/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 838572

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-250842-1	OU6-MW-277-20240515	Total/NA	Water	7470A	
680-250842-2	OU6-MW-259-20240515	Total/NA	Water	7470A	
680-250842-3	OU6-MW-280-20240515	Total/NA	Water	7470A	
MB 680-838572/1-A	Method Blank	Total/NA	Water	7470A	
LCS 680-838572/2-A	Lab Control Sample	Total/NA	Water	7470A	
680-250842-1 MS	OU6-MW-277-20240515	Total/NA	Water	7470A	
680-250842-1 MSD	OU6-MW-277-20240515	Total/NA	Water	7470A	

Analysis Batch: 838729

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-250842-1	OU6-MW-277-20240515	Total Recoverable	Water	6020A	838460
680-250842-2	OU6-MW-259-20240515	Total Recoverable	Water	6020A	838460
680-250842-3	OU6-MW-280-20240515	Total Recoverable	Water	6020A	838460
680-250842-11	OU6-MW-246-20240515	Total Recoverable	Water	6020A	838460
680-250842-14	OU6-MW-124-20240515	Total Recoverable	Water	6020A	838460
MB 680-838460/1-A	Method Blank	Total Recoverable	Water	6020A	838460
LCS 680-838460/2-A	Lab Control Sample	Total Recoverable	Water	6020A	838460

Analysis Batch: 838963

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-250842-1	OU6-MW-277-20240515	Total Recoverable	Water	6020A	838460
680-250842-2	OU6-MW-259-20240515	Total Recoverable	Water	6020A	838460
680-250842-3	OU6-MW-280-20240515	Total Recoverable	Water	6020A	838460
MB 680-838460/1-A	Method Blank	Total Recoverable	Water	6020A	838460
LCS 680-838460/2-A	Lab Control Sample	Total Recoverable	Water	6020A	838460

Analysis Batch: 839136

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-250842-1	OU6-MW-277-20240515	Total/NA	Water	7470A	838572
680-250842-2	OU6-MW-259-20240515	Total/NA	Water	7470A	838572
680-250842-3	OU6-MW-280-20240515	Total/NA	Water	7470A	838572

Metals (Continued)

Analysis Batch: 839136 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 680-838572/1-A	Method Blank	Total/NA	Water	7470A	838572
LCS 680-838572/2-A	Lab Control Sample	Total/NA	Water	7470A	838572
680-250842-1 MS	OU6-MW-277-20240515	Total/NA	Water	7470A	838572
680-250842-1 MSD	OU6-MW-277-20240515	Total/NA	Water	7470A	838572

General Chemistry

Analysis Batch: 838862

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-250842-11	OU6-MW-246-20240515	Total/NA	Water	2320B-2011	
680-250842-11	OU6-MW-246-20240515	Total/NA	Water	SM 4500 CO2 D	
680-250842-14	OU6-MW-124-20240515	Total/NA	Water	2320B-2011	
680-250842-14	OU6-MW-124-20240515	Total/NA	Water	SM 4500 CO2 D	
MB 680-838862/4	Method Blank	Total/NA	Water	2320B-2011	
LCS 680-838862/6	Lab Control Sample	Total/NA	Water	2320B-2011	
LCSD 680-838862/24	Lab Control Sample Dup	Total/NA	Water	2320B-2011	
680-250842-14 DU	OU6-MW-124-20240515	Total/NA	Water	2320B-2011	
680-250842-14 DU	OU6-MW-124-20240515	Total/NA	Water	SM 4500 CO2 D	

Analysis Batch: 839071

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-250842-11	OU6-MW-246-20240515	Total/NA	Water	4500 S2 F-2011	
MB 680-839071/1	Method Blank	Total/NA	Water	4500 S2 F-2011	
LCS 680-839071/2	Lab Control Sample	Total/NA	Water	4500 S2 F-2011	
LCSD 680-839071/3	Lab Control Sample Dup	Total/NA	Water	4500 S2 F-2011	

Analysis Batch: 839093

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-250842-14	OU6-MW-124-20240515	Total/NA	Water	4500 S2 F-2011	
MB 680-839093/1	Method Blank	Total/NA	Water	4500 S2 F-2011	
LCS 680-839093/2	Lab Control Sample	Total/NA	Water	4500 S2 F-2011	
LCSD 680-839093/3	Lab Control Sample Dup	Total/NA	Water	4500 S2 F-2011	

Analysis Batch: 839761

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-250842-1	OU6-MW-277-20240515	Total/NA	Water	9060A	
680-250842-2	OU6-MW-259-20240515	Total/NA	Water	9060A	
680-250842-3	OU6-MW-280-20240515	Total/NA	Water	9060A	
680-250842-11	OU6-MW-246-20240515	Total/NA	Water	9060A	
680-250842-14	OU6-MW-124-20240515	Total/NA	Water	9060A	
MB 680-839761/3	Method Blank	Total/NA	Water	9060A	
LCS 680-839761/4	Lab Control Sample	Total/NA	Water	9060A	
LCSD 680-839761/5	Lab Control Sample Dup	Total/NA	Water	9060A	

Lab Chronicle

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-250842-1

Client Sample ID: OU6-MW-277-20240515

Lab Sample ID: 680-250842-1

Date Collected: 05/15/24 09:35
Matrix: Water
Date Received: 05/16/24 10:28

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	838669	05/18/24 18:01	P1C	EET SAV
	Instrument ID: CMSAB									
Total/NA	Prep	3510C			500.1 mL	1 mL	838752	05/20/24 06:53	DS	EET SAV
Total/NA	Analysis	8270E		1	1 mL	1 mL	838829	05/20/24 20:45	T1C	EET SAV
	Instrument ID: CMSD									
Total/NA	Prep	3510C			224.1 mL	1 mL	838472	05/17/24 07:40	DS	EET SAV
Total/NA	Analysis	8270E SIM		1	1 mL	1 mL	839724	05/25/24 18:08	NED	EET SAV
	Instrument ID: CMSY									
Total/NA	Prep	3510C	RE		234.3 mL	1 mL	840202	05/29/24 12:48	RR	EET SAV
Total/NA	Analysis	8270E SIM	RE	1	1 mL	1 mL	839814	05/30/24 16:33	NED	EET SAV
	Instrument ID: CMSY									
Total/NA	Prep	RSK-175			5 mL	5 mL	510325	05/24/24 13:13	WN7O	ELLE
Total/NA	Analysis	RSK-175		1	5 mL	5 mL	510310	05/24/24 19:46	LXF2	ELLE
	Instrument ID: 19506									
Total/NA	Prep	3510C			217 mL	1 mL	838559	05/17/24 12:07	RR	EET SAV
Total/NA	Analysis	8081B 8082A		1	1 mL	1 mL	838891	05/20/24 20:02	K1C	EET SAV
	Instrument ID: CSGJ									
Total Recoverable	Prep	3005A			25 mL	125 mL	838460	05/17/24 05:47	RR	EET SAV
Total Recoverable	Analysis	6020A		1			838729	05/17/24 13:12	BJB	EET SAV
	Instrument ID: ICPMSC									
Total Recoverable	Prep	3005A			25 mL	125 mL	838460	05/17/24 05:47	RR	EET SAV
Total Recoverable	Analysis	6020A		1			838963	05/20/24 11:32	BJB	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Prep	7470A			50 mL	50 mL	838572	05/17/24 12:59	RS	EET SAV
Total/NA	Analysis	7470A		1			839136	05/21/24 16:35	BCB	EET SAV
	Instrument ID: QuickTrace2									
Total/NA	Analysis	9060A		1	40 mL	40 mL	839761	05/22/24 20:28	NVF	EET SAV
	Instrument ID: TOC7									

Client Sample ID: OU6-MW-259-20240515

Lab Sample ID: 680-250842-2

Date Collected: 05/15/24 08:20
Matrix: Water
Date Received: 05/16/24 10:28

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	838669	05/18/24 18:24	P1C	EET SAV
	Instrument ID: CMSAB									
Total/NA	Prep	3510C			459.5 mL	1 mL	838752	05/20/24 06:53	DS	EET SAV
Total/NA	Analysis	8270E		1	1 mL	1 mL	838829	05/20/24 21:10	T1C	EET SAV
	Instrument ID: CMSD									
Total/NA	Prep	3510C	RE		460.4 mL	1 mL	839443	05/23/24 10:55	RR	EET SAV
Total/NA	Analysis	8270E	RE	1	1 mL	1 mL	839538	05/24/24 00:40	T1C	EET SAV
	Instrument ID: CMSD									
Total/NA	Prep	3510C			218.4 mL	1 mL	838472	05/17/24 07:40	DS	EET SAV
Total/NA	Analysis	8270E SIM		1	1 mL	1 mL	839724	05/25/24 18:32	NED	EET SAV
	Instrument ID: CMSY									

Lab Chronicle

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-250842-1

Client Sample ID: OU6-MW-259-20240515

Lab Sample ID: 680-250842-2

Date Collected: 05/15/24 08:20

Matrix: Water

Date Received: 05/16/24 10:28

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C	RE		208 mL	1 mL	840202	05/29/24 12:48	RR	EET SAV
Total/NA	Analysis	8270E SIM	RE	1	1 mL	1 mL	839814	05/30/24 16:56	NED	EET SAV
	Instrument ID: CMSY									
Total/NA	Prep	RSK-175			5 mL	5 mL	510325	05/24/24 13:13	WN7O	ELLE
Total/NA	Analysis	RSK-175		1	5 mL	5 mL	510310	05/24/24 20:02	LXF2	ELLE
	Instrument ID: 19506									
Total/NA	Prep	3510C			247.5 mL	1 mL	838559	05/17/24 12:07	RR	EET SAV
Total/NA	Analysis	8081B 8082A		1	1 mL	1 mL	838891	05/20/24 20:21	K1C	EET SAV
	Instrument ID: CSGJ									
Total Recoverable	Prep	3005A			25 mL	125 mL	838460	05/17/24 05:47	RR	EET SAV
Total Recoverable	Analysis	6020A		1			838729	05/17/24 13:16	BJB	EET SAV
	Instrument ID: ICPMSC									
Total Recoverable	Prep	3005A			25 mL	125 mL	838460	05/17/24 05:47	RR	EET SAV
Total Recoverable	Analysis	6020A		1			838963	05/20/24 11:36	BJB	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Prep	7470A			50 mL	50 mL	838572	05/17/24 12:59	RS	EET SAV
Total/NA	Analysis	7470A		1			839136	05/21/24 16:41	BCB	EET SAV
	Instrument ID: QuickTrace2									
Total/NA	Analysis	9060A		1	40 mL	40 mL	839761	05/22/24 20:52	NVF	EET SAV
	Instrument ID: TOC7									

Client Sample ID: OU6-MW-280-20240515

Lab Sample ID: 680-250842-3

Date Collected: 05/15/24 12:50

Matrix: Water

Date Received: 05/16/24 10:28

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	838669	05/18/24 18:47	P1C	EET SAV
	Instrument ID: CMSAB									
Total/NA	Analysis	8260D		1	5 mL	5 mL	838791	05/20/24 17:03	P1C	EET SAV
	Instrument ID: CMSAH									
Total/NA	Prep	3510C			467.6 mL	1 mL	838752	05/20/24 06:53	DS	EET SAV
Total/NA	Analysis	8270E		1	1 mL	1 mL	838829	05/20/24 21:36	T1C	EET SAV
	Instrument ID: CMSD									
Total/NA	Prep	3510C			211.9 mL	1 mL	838472	05/17/24 07:40	DS	EET SAV
Total/NA	Analysis	8270E SIM		1	1 mL	1 mL	839724	05/25/24 18:56	NED	EET SAV
	Instrument ID: CMSY									
Total/NA	Prep	3510C	RE		208.4 mL	1 mL	840202	05/29/24 12:48	RR	EET SAV
Total/NA	Analysis	8270E SIM	RE	1	1 mL	1 mL	839814	05/30/24 17:19	NED	EET SAV
	Instrument ID: CMSY									
Total/NA	Prep	RSK-175			5 mL	5 mL	510325	05/24/24 13:13	WN7O	ELLE
Total/NA	Analysis	RSK-175		1	5 mL	5 mL	510310	05/24/24 20:17	LXF2	ELLE
	Instrument ID: 19506									
Total/NA	Prep	RSK-175	DL		5 mL	5 mL	510325	05/24/24 13:13	WN7O	ELLE
Total/NA	Analysis	RSK-175	DL	10	5 mL	5 mL	510310	05/24/24 20:33	LXF2	ELLE
	Instrument ID: 19506									

Lab Chronicle

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-250842-1

Client Sample ID: OU6-MW-280-20240515
Date Collected: 05/15/24 12:50
Date Received: 05/16/24 10:28

Lab Sample ID: 680-250842-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			220.4 mL	1 mL	838559	05/17/24 12:07	RR	EET SAV
Total/NA	Analysis	8081B 8082A		1	1 mL	1 mL	838891	05/20/24 20:38	K1C	EET SAV
	Instrument ID: CSGJ									
Total Recoverable	Prep	3005A			25 mL	125 mL	838460	05/17/24 05:47	RR	EET SAV
Total Recoverable	Analysis	6020A		1			838729	05/17/24 13:08	BJB	EET SAV
	Instrument ID: ICPMSC									
Total Recoverable	Prep	3005A			25 mL	125 mL	838460	05/17/24 05:47	RR	EET SAV
Total Recoverable	Analysis	6020A		1			838963	05/20/24 11:20	BJB	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Prep	7470A			50 mL	50 mL	838572	05/17/24 12:59	RS	EET SAV
Total/NA	Analysis	7470A		1			839136	05/21/24 16:43	BCB	EET SAV
	Instrument ID: QuickTrace2									
Total/NA	Analysis	9060A		1	40 mL	40 mL	839761	05/22/24 21:15	NVF	EET SAV
	Instrument ID: TOC7									

Client Sample ID: OU6-MW-156-20240515
Date Collected: 05/15/24 11:45
Date Received: 05/16/24 10:28

Lab Sample ID: 680-250842-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	838669	05/18/24 19:09	P1C	EET SAV
	Instrument ID: CMSAB									

Client Sample ID: OU6-MW-158-20240515
Date Collected: 05/15/24 10:50
Date Received: 05/16/24 10:28

Lab Sample ID: 680-250842-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	838669	05/18/24 19:32	P1C	EET SAV
	Instrument ID: CMSAB									

Client Sample ID: OU6-MW-284-20240515
Date Collected: 05/15/24 08:50
Date Received: 05/16/24 10:28

Lab Sample ID: 680-250842-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	838669	05/18/24 19:55	P1C	EET SAV
	Instrument ID: CMSAB									
Total/NA	Prep	3510C			262.8 mL	1 mL	839167	05/22/24 08:13	DS	EET SAV
Total/NA	Analysis	8270E SIM ID		1	1 mL	1 mL	839173	05/22/24 15:02	NED	EET SAV
	Instrument ID: CMSX									

Lab Chronicle

Client: Meadows CMPG, Inc
Job ID: 680-250842-1
Project/Site: DSCR - OU6 Annual

Client Sample ID: OU6-MWNGA-8-20240515
Lab Sample ID: 680-250842-7
Date Collected: 05/15/24 12:25
Matrix: Water
Date Received: 05/16/24 10:28

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	838727	05/19/24 16:31	P1C	EET SAV
	Instrument ID: CMSAA									
Total/NA	Prep	3510C			251 mL	1 mL	839167	05/22/24 08:13	DS	EET SAV
Total/NA	Analysis	8270E SIM ID		1	1 mL	1 mL	839173	05/22/24 15:25	NED	EET SAV
	Instrument ID: CMSX									

Client Sample ID: OU6-MWNGA-10-20240515
Lab Sample ID: 680-250842-8
Date Collected: 05/15/24 10:15
Matrix: Water
Date Received: 05/16/24 10:28

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	838714	05/19/24 19:38	P1C	EET SAV
	Instrument ID: CMSAH									
Total/NA	Prep	3510C			235.6 mL	1 mL	839167	05/22/24 08:13	DS	EET SAV
Total/NA	Analysis	8270E SIM ID		1	1 mL	1 mL	839173	05/22/24 15:47	NED	EET SAV
	Instrument ID: CMSX									

Client Sample ID: OU6-MW-297-20240515
Lab Sample ID: 680-250842-9
Date Collected: 05/15/24 12:10
Matrix: Water
Date Received: 05/16/24 10:28

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	838727	05/19/24 16:52	P1C	EET SAV
	Instrument ID: CMSAA									

Client Sample ID: OU6-MW-301-20240515
Lab Sample ID: 680-250842-10
Date Collected: 05/15/24 13:35
Matrix: Water
Date Received: 05/16/24 10:28

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	838727	05/19/24 17:14	P1C	EET SAV
	Instrument ID: CMSAA									

Client Sample ID: OU6-MW-246-20240515
Lab Sample ID: 680-250842-11
Date Collected: 05/15/24 15:05
Matrix: Water
Date Received: 05/16/24 10:28

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	838727	05/19/24 17:36	P1C	EET SAV
	Instrument ID: CMSAA									
Total/NA	Prep	RSK-175			5 mL	5 mL	510325	05/24/24 13:13	WN7O	ELLE
Total/NA	Analysis	RSK-175		1	5 mL	5 mL	510310	05/24/24 21:04	LXF2	ELLE
	Instrument ID: 19506									
Total/NA	Prep	RSK-175	DL		5 mL	5 mL	510325	05/24/24 13:13	WN7O	ELLE
Total/NA	Analysis	RSK-175	DL	50	5 mL	5 mL	510310	05/24/24 21:19	LXF2	ELLE
	Instrument ID: 19506									

Client Sample ID: OU6-MW-246-20240515
Lab Sample ID: 680-250842-11
Date Collected: 05/15/24 15:05
Matrix: Water
Date Received: 05/16/24 10:28

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	837892	05/16/24 15:43	AF	EET SAV
Total/NA	Analysis	9056A		1	2 mL	2 mL	840135	05/29/24 02:24	AF	EET SAV
	Instrument ID: CICR									
Total Recoverable	Prep	3005A			25 mL	125 mL	838460	05/17/24 05:47	RR	EET SAV
Total Recoverable	Analysis	6020A		1			838729	05/17/24 13:04	BJB	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			838862	05/17/24 16:47	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	4500 S2 F-2011		1	310 mL	310 mL	839071	05/21/24 12:09	JAS	EET SAV
	Instrument ID: NoEquip									
Total/NA	Analysis	9060A		1	40 mL	40 mL	839761	05/22/24 21:39	NVF	EET SAV
	Instrument ID: TOC7									
Total/NA	Analysis	SM 4500 CO2 D		1			838862	05/17/24 16:47	PG	EET SAV
	Instrument ID: MANTECH 2									

Client Sample ID: OU6-MW-182-20240515
Lab Sample ID: 680-250842-12
Date Collected: 05/15/24 12:55
Matrix: Water
Date Received: 05/16/24 10:28

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	838727	05/19/24 17:58	P1C	EET SAV
	Instrument ID: CMSAA									

Client Sample ID: OU6-DMW-17A-20240515
Lab Sample ID: 680-250842-13
Date Collected: 05/15/24 11:35
Matrix: Water
Date Received: 05/16/24 10:28

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	838727	05/19/24 18:20	P1C	EET SAV
	Instrument ID: CMSAA									

Client Sample ID: OU6-MW-124-20240515
Lab Sample ID: 680-250842-14
Date Collected: 05/15/24 09:15
Matrix: Water
Date Received: 05/16/24 10:28

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	838727	05/19/24 18:41	P1C	EET SAV
	Instrument ID: CMSAA									
Total/NA	Prep	RSK-175			5 mL	5 mL	510325	05/24/24 13:13	WN7O	ELLE
Total/NA	Analysis	RSK-175		1	5 mL	5 mL	510310	05/24/24 21:35	LXF2	ELLE
	Instrument ID: 19506									
Total/NA	Analysis	9056A		1	5 mL	5 mL	837892	05/16/24 16:08	AF	EET SAV
	Instrument ID: CICP									
Total/NA	Analysis	9056A		1	2 mL	2 mL	840135	05/29/24 02:31	AF	EET SAV
	Instrument ID: CICR									

Lab Chronicle

Client: Meadows CMPG, Inc
Job ID: 680-250842-1
Project/Site: DSCR - OU6 Annual

Client Sample ID: OU6-MW-124-20240515
Lab Sample ID: 680-250842-14
Date Collected: 05/15/24 09:15
Matrix: Water
Date Received: 05/16/24 10:28

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			25 mL	125 mL	838460	05/17/24 05:47	RR	EET SAV
Total Recoverable	Analysis	6020A		1			838729	05/17/24 13:00	BJB	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			838862	05/17/24 17:17	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	4500 S2 F-2011		1	300 mL	300 mL	839093	05/21/24 14:01	JAS	EET SAV
	Instrument ID: NoEquip									
Total/NA	Analysis	9060A		1	40 mL	40 mL	839761	05/22/24 22:02	NVF	EET SAV
	Instrument ID: TOC7									
Total/NA	Analysis	SM 4500 CO2 D		1			838862	05/17/24 17:17	PG	EET SAV
	Instrument ID: MANTECH 2									

Client Sample ID: OU6-MW-8A-20240515
Lab Sample ID: 680-250842-15
Date Collected: 05/15/24 10:35
Matrix: Water
Date Received: 05/16/24 10:28

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	838727	05/19/24 19:25	P1C	EET SAV
	Instrument ID: CMSAA									

Client Sample ID: TRIP-BLANK-20240515
Lab Sample ID: 680-250842-16
Date Collected: 05/15/24 00:00
Matrix: Water
Date Received: 05/16/24 10:28

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	838727	05/19/24 15:16	P1C	EET SAV
	Instrument ID: CMSAA									
Total/NA	Analysis	8260D		1	5 mL	5 mL	838791	05/20/24 13:56	P1C	EET SAV
	Instrument ID: CMSAH									

Client Sample ID: OU6-MW-92-20240515
Lab Sample ID: 680-250842-17
Date Collected: 05/15/24 14:00
Matrix: Water
Date Received: 05/16/24 10:28

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	838727	05/19/24 19:03	P1C	EET SAV
	Instrument ID: CMSAA									

Laboratory References:
EET SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858
ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: Meadows CMPG, Inc
Job ID: 680-250842-1
Project/Site: DSCR - OU6 Annual

Laboratory: Eurofins Savannah

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
ANAB	Dept. of Defense ELAP	L2463	09-22-24
Virginia	NELAP	460161	06-14-24

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	0001.01	05-30-24

Method Summary

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-250842-1

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds (GC/MS)	SW846	EET SAV
8270E	Semivolatile Organic Compounds (GC/MS)	SW846	EET SAV
8270E SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	EET SAV
8270E SIM ID	Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)	SW846	EET SAV
RSK-175	Dissolved Gases (GC)	RSK	ELLE
8081B 8082A	Organochlorine Pesticides & PCBs (GC)	SW846	EET SAV
9056A	Anions, Ion Chromatography	SW846	EET SAV
6020A	Metals (ICP/MS)	SW846	EET SAV
7470A	Mercury (CVAA)	SW846	EET SAV
2320B-2011	Alkalinity, Total	SM	EET SAV
4500 S2 F-2011	Sulfide, Total	SM	EET SAV
9060A	Organic Carbon, Total (TOC)	SW846	EET SAV
SM 4500 CO2 D	Carbon Dioxide and Forms of Alkalinity by Calculation	SM	EET SAV
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET SAV
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	EET SAV
5030C	Purge and Trap	SW846	EET SAV
7470A	Preparation, Mercury	SW846	EET SAV
RSK-175	Dissolved Gases Prep	RSK	ELLE

Protocol References:

RSK = Sample Prep And Calculations For Dissolved Gas Analysis In Water Samples Using A GC Headspace Equilibration Technique, RSKSOP-175, Rev. 0, 8/11/94, USEPA Research Lab

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Eurofins Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Phone (912) 354-7858 Phone (912) 352-0165

Chain of Custody Record

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Client Information	Sampler: Tim, TJ, Quin and Bruce	Lab PM: Lanier, Jerry	Carrier Tracking No(s):	COC No:
Client Contact: Andrew VanBuesking	Phone: 757-589-5825	E-Mail: Jerry.Lanier@et.eurofinsus.com	State of Origin: VA	Page: Page 1 of 2
Company: Meadows CMPG	PWSID:			Job #:
Address: 2107 Granby St	Due Date Requested:			
City: Norfolk	TAT Requested (days): STD			
State, Zip: VA	Compliance Project: Δ Yes Δ No			
Phone: 757-623-3107	PO #: 0045-0011			
Email: avanbuesking@meadowscmpg	WO #:			
Project Name: OU6 Annual	Project #:			
Site: DSCR, OU6	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260D_DOD5 - (MOD) Volatiles		RSK_175_DOD5 - Ethane, Ethene, Methane	9060A - TOC	9056A_OF28D_D5 - Chloride & Sulfate 9056A_OF_46H_D5 - Local Method	SM4500_S2_F - Sulfide, Total	6020A_DOD5 - Manganese	SM4500_CO2_D - Carbon Dioxide	2320B - Alkalinity	DIOX 8270E ID D5	8270E_DOD5 - (MOD) Semivolatiles (without PAHs)	8270E_SIM_DOD5 - Routine PAH	8081B_8082A_D5 - Routine Pesticides & PCBs	7470A_DOD5 - Mercury 6020A_DOD5- (MOD) TAL Metals	8270E_SIM_ID_D5 Local Method - Dioxane	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A		A	S	N	CB	D	N	N		N	N	N	D	N		
OU6-MW-277-20240515	5/15/24	0935	G	W			3		3	3	1	2	1	1	1		2	2	2	1		22	
OU6-MW-259-20240515	5/15/24	0820	G	W			3		3	3	1	2	1	1	1		2	2	2	1		22	
OU6-MW-280-20240515	5/15/24	1250	G	W			3		3	3	1	2	1	1	1		2	2	2	1		22	
OU6-MW-156-20240515	5/15/24	1145	G	W			3															3	
OU6-MW-158-20240515	5/15/24	1050	G	W			3															3	
OU6-MW-284-20240515	5/15/24	0850	G	W		Y	9														6	15	
OU6-MWNGA-8-20240515	5/15/24	1225	G	W			3														2	5	
OU6-MWNGA-10-20240515	5/15/24	1015	G	W		Y	9														6	15	
OU6-MW-142-20240515	5/15/24	1032	G	W			3		3	3	1	2	1	1	1							15	
OU6-MW-297-20240515	5/15/24	1210	G	W			3															3	
OU6-MW-301-20240515	5/15/24	1335	G	W			3															3	

680-250842 Chain of Custody

Possible Hazard Identification
☐ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* ☐ *Poison B* ■ *Unknown* ☐ *Radiological*

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ■ *Disposal By Lab* ☐ *Archive For _____ Months*

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:

Method of Shipment:

BRUCE DIGGS	5-15-2024/1600	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 5/16/24 1028	Company E.Walton

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 2.6/2.7 2.6/2.7 0.1/0.2

Ver: 01/16/2019

Eurofins Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Phone (912) 354-7858 Phone (912) 352-0165

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler:	Lab PM: Lanier, Jerry	Carrier Tracking No(s):	COC No:
Client Contact: Andrew VanBuesking	Phone: 757-589-5825	E-Mail: Jerry.Lanier@et.eurofinsus.com	State of Origin: VA	Page: Page 2 of 2
Company: Meadows CMPG	PWSID:			Job #:
Address: 2107 Granby St	Due Date Requested:			
City: Norfolk	TAT Requested (days): STD			
State, Zip: VA	Compliance Project: Δ Yes Δ No			
Phone: 757-623-3107	PO #: 0045-0011			
Email: avanbuesking@meadowscmpg	WO #:			
Project Name: OU6 Annual	Project #:			
Site: DSCR, OU6	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=wasteoil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	8260D_DOD5 - (MOD) Volatiles	R8K_175_DOD5 - Ethane, Ethene, Methane	9060A - TOC	9056A_OF28D_D5 - Chloride & Sulfate 9056A_OF_48H_D5 - Local Method	SM4500_S2_F - Sulfide, Total	6020A_DOD5 - Manganese	SM4500_CO2_D - Carbon Dioxide	2320B - Alkalinity	8270E_DOD5 - (MOD) Semivolatiles (without PAHs)	8270E_SIM_DOD5 - Routine PAH	8081B_8082A_D5 - Routine Pesticides & PCBs	7470A_DOD5 - Mercury 6020A_DOD5- (MOD) TAL Metals	8270E_SIM_ID_D5 Local Method - Dioxane	Total Number of containers	Special Instructions/Note:
			Preservation Code:			A	A	S	N	CB	D	N	N	N	N	N	D	N		
OU6-MW-246-20240515	5/15/24	1505	G	W		3	3	2	1	2	1	1	1						14	
OU6-MW-182-20240515	5/15/24	1255	G	W		3													3	
OU6-DMW-17A-20240515	5/15/24	1135	G	W		3													3	
OU6-MW-124-20240515	5/15/24	0915	G	W		3	3	3	1	2	1	1	1						15	
OU6-MW-8A-20240515	5/15/24	1035	G	W		3													3	
TRIP-BLANK-20240515	5/15/24		G	W		3													3	
																			0	
																			0	
																			0	
																			0	
																			0	
																			0	

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ■ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ■ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by: C. Munoz	Date/Time: 5/16/24 1028	Company Eurofins

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 2.6/2.7 2.6/2.7 0.1/0.2

Ver: 01/16/2019

Eurofins Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Phone: 912-354-7858 Fax: 912-352-0165

Chain of Custody Record

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Client Information (Sub Contract Lab)	Sampler:	Lab PM: Lanier, Jerry A	Carrier Tracking No(s):	COC No: 680-772883.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Jerry.Lanier@et.eurofinsus.com	State of Origin: Virginia	Page: Page 1 of 1
Company: Eurofins Lancaster Laboratories Environm		Accreditations Required (See note): Dept. of Defense ELAP - A2LA; DoD - A2LA; DoD ELAP - A2 ...		Job #: 680-250842-1
Address: 2425 New Holland Pike, ,	Due Date Requested: 5/31/2024	Analysis Requested		Preservation Codes: -
City: Lancaster	TAT Requested (days):			
State, Zip: PA, 17601				
Phone: 717-656-2300(Tel)	PO #:			
Email:	WO #:			
Project Name: DSCR - OU6 Annual	Project #: 68020891			Other:
Site: Meadows CMPG	SSOW#:			

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	RSK_175_DOD5/RSK_HS_Prep (MOD) Dissolved Gases (GC)	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
OU6-MW-277-20240515 (680-250842-1)	5/15/24	09:35 Eastern		Water			X	3	
OU6-MW-259-20240515 (680-250842-2)	5/15/24	08:20 Eastern		Water			X	3	
OU6-MW-280-20240515 (680-250842-3)	5/15/24	12:50 Eastern		Water			X	3	
OU6-MW-246-20240515 (680-250842-11)	5/15/24	15:05 Eastern		Water			X	3	
OU6-MW-124-20240515 (680-250842-14)	5/15/24	09:15 Eastern		Water			X	3	
,									

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Southeast, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Southeast, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Southeast, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Southeast, LLC.

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by	Date/Time:	Company	Received by	Date/Time	Company
Relinquished by	Date/Time:	Company	Received by	Date/Time	Company
Relinquished by	Date/Time	Company	Received by	Date/Time: 5/22/24 09:45	Company: EAGT

Custody Seals Intact: X Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: R 5.5 3.9 C 5.1 5.5

Ver: 04/02/2024

Login Sample Receipt Checklist

Client: Meadows CMPG, Inc

Job Number: 680-250842-1

Login Number: 250842
List Number: 1
Creator: Munro, Caroline

List Source: Eurofins Savannah

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	Refer to Job Narrative for details.
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	False	Refer to Job Narrative for details.
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Meadows CMPG, Inc

Job Number: 680-250842-1

Login Number: 250842
List Number: 2
Creator: Santiago, Nathaniel

List Source: Eurofins Lancaster Laboratories Environment Testing, LLC
List Creation: 05/22/24 01:03 PM

Question	Answer	Comment
The cooler's custody seal is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature acceptable,where thermal pres is required(</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV:Container Temp acceptable,where thermal pres is required (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
Sample custody seals are intact.	N/A	
VOA sample vials do not have headspace >6mm in diameter (none, if from WV)?	False	Headspace greater than 6mm in diameter in some but not all containers

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ANALYTICAL REPORT

PREPARED FOR

Attn: Kandyce Keller
Meadows CMPG, Inc
2107 Granby Street
Norfolk, Virginia 23517

Generated 6/25/2024 10:33:40 AM Revision 1

JOB DESCRIPTION

DSCR - OU6 Annual

JOB NUMBER

680-250910-1

Eurofins Savannah
5102 LaRoche Avenue
Savannah GA 31404

See page two for job notes and contact information.

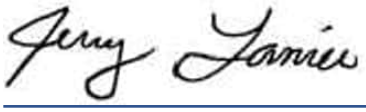
myEOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Southeast, LLC Project Manager.

Authorization



Generated
6/25/2024 10:33:40 AM
Revision 1

Authorized for release by
Jerry Lanier, Project Manager I
Jerry.Lanier@et.eurofinsus.com
(912)250-0281

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Estimated: The analyte was positively identified; the quantitation is an estimation
M	Manual integrated compound.
Q	One or more quality control criteria failed.
U	Undetected at the Limit of Detection.

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Estimated: The analyte was positively identified; the quantitation is an estimation
M	Manual integrated compound.
Q	One or more quality control criteria failed.
U	Undetected at the Limit of Detection.

GC VOA

Qualifier	Qualifier Description
D	The reported value is from a dilution.
J	Estimated: The analyte was positively identified; the quantitation is an estimation
M	Manual integrated compound.
U	Undetected at the Limit of Detection.

GC Semi VOA

Qualifier	Qualifier Description
J	Estimated: The analyte was positively identified; the quantitation is an estimation
M	Manual integrated compound.
Q	One or more quality control criteria failed.
U	Undetected at the Limit of Detection.

HPLC/IC

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time. This does not meet regulatory requirements.
H3	Sample was received and analyzed past holding time. This does not meet regulatory requirements.
J	Estimated: The analyte was positively identified; the quantitation is an estimation
J1	Estimated: The quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.
M	Manual integrated compound.
U	Undetected at the Limit of Detection.

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
J	Estimated: The analyte was positively identified; the quantitation is an estimation
J1	Estimated: The quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.
Q	One or more quality control criteria failed.
U	Undetected at the Limit of Detection.

General Chemistry

Qualifier	Qualifier Description
J	Estimated: The analyte was positively identified; the quantitation is an estimation
U	Undetected at the Limit of Detection.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Sample Summary

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-250910-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-250910-1	OU6-MW-277-20240515	Water	05/15/24 09:35	05/17/24 10:29
680-250910-2	OU6-MW-259-20240515	Water	05/15/24 08:20	05/17/24 10:29
680-250910-3	OU6-MW-280-20240515	Water	05/15/24 12:50	05/17/24 10:29
680-250910-4	OU6-MW-279-20240516	Water	05/16/24 08:00	05/17/24 10:29
680-250910-5	OU6-MW-270-20240516	Water	05/16/24 09:10	05/17/24 10:29
680-250910-6	OU6-MW-273-20240516	Water	05/16/24 10:10	05/17/24 10:29
680-250910-7	OU6-MW-281-20240516	Water	05/16/24 13:15	05/17/24 10:29
680-250910-8	OU6-MW-261-20240516	Water	05/16/24 11:15	05/17/24 10:29
680-250910-9	OU6-MW-142-20240515	Water	05/15/24 10:32	05/17/24 10:29
680-250910-10	OU6-MW-278-20240516	Water	05/15/24 12:15	05/17/24 10:29
680-250910-11	OU6-MW-166-20240516	Water	05/16/24 08:58	05/17/24 10:29
680-250910-12	OU6-MW-167-20240516	Water	05/16/24 10:35	05/17/24 10:29
680-250910-13	OU6-MW-249-20240516	Water	05/16/24 13:45	05/17/24 10:29
680-250910-14	OU6-MW-248-20240516	Water	05/16/24 11:05	05/17/24 10:29
680-250910-15	OU6-MW-298-20240516	Water	05/16/24 10:10	05/17/24 10:29
680-250910-16	OU6-MW-257-20240516	Water	05/16/24 09:10	05/17/24 10:29
680-250910-17	OU6-LAWMNQ-20240516	Water	05/16/24 12:40	05/17/24 10:29
680-250910-18	OU6-MW-299-20240516	Water	05/16/24 14:10	05/17/24 10:29
680-250910-19	OU6-MW-286-20240516	Water	05/16/24 12:00	05/17/24 10:29
680-250910-20	OU6-DMW-34B-20240516	Water	05/16/24 13:55	05/17/24 10:29
680-250910-21	OU6-MW-94-20240516	Water	05/16/24 10:20	05/17/24 10:29
680-250910-22	OU6-MW-93-20240516	Water	05/16/24 09:45	05/17/24 10:29
680-250910-23	DUP-2-20240516	Water	05/16/24 00:00	05/17/24 10:29
680-250910-24	TRIP-BLANK-20240516	Water	05/16/24 00:00	05/17/24 10:29

Job Narrative
680-250910-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Revision
The report being provided is a revision of the original report sent on 6/3/2024. The report (revision 1) is being revised due to: Revision to report a single Aluminum result in the MB/MS/MSD..

Receipt
The samples were received on 5/17/2024 10:29 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 4 coolers at receipt time were 0.7°C, 0.9°C, 3.0°C and 4.0°C.

GC/MS VOA
Method 8260D_DOD5: The initial calibration verification (ICV) analyzed in batch 680-834962 was outside method criteria for the following analyte(s): Dichlorodifluoromethane. As indicated in the reference method, sample analysis may proceed; however, sample results were non-detects and have been reported as qualified data. (ICV 680-834962/4)

Method 8260D_DOD5: The initial calibration verification (ICV) analyzed in batch 680-836351 was outside method criteria for the following analyte(s): Carbon disulfide. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated. The data has been qualified and reported.

Method 8260D_DOD5: The continuing calibration verification (CCV) associated with batch 680-839410 recovered outside acceptance criteria, low biased, for Bromomethane. A reporting limit (RL) standard was analyzed, and the target analytes are detected. Since the associated samples were non-detect for the analyte(s), the data are reported.

Method 8260D_DOD5: The method blank for analytical batch 680-839410 contained 4-Chlorotoluene above the reporting limit (RL). None of the samples associated with this method blank contained the target compound; therefore, re-extraction and/or re-analysis of samples were not performed.

Method 8260D_DOD5: Surrogate recovery for the following sample was outside the upper control limit: OU6-MW-93-20240516 (680-250910-22). This sample did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

Method 8260D_DOD5: The continuing calibration verification (CCV) associated with batch 680-839604 recovered above the upper control limit for Bromochloromethane, 2-Butanone (MEK) and Chloromethane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8260D_DOD5: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for analytical batch 680-839604 recovered outside control limits for the following analytes: Bromomethane and Tetrachloroethene.

Method 8260D_DOD5: The method blank for 680-839604 contained 4-Chlorotoluene above the method detection limit (MDL). Associated samples were not re-analyzed because the method blank results were less than the reporting limit (RL) OR practical quantitation limit (PQL).

Method 8260D_DOD5: The continuing calibration verification (CCV) associated with batch 680-840104 recovered above the upper control limit for Bromochloromethane, Carbon disulfide, Carbon tetrachloride, Cyclohexane, 2,2-Dichloropropane, Methylcyclohexane and n-Butylbenzene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8260D_DOD5: The method blank for 680-840104 contained Tetrachloroethene above the method detection limit (MDL). Associated samples were not re-analyzed because the method blank results were less than the reporting limit (RL) OR practical quantitation limit (PQL).

Method 8260D_DOD5: The continuing calibration verification (CCV) associated with batch 680-840104 recovered outside acceptance criteria, low biased, for Dichlorodifluoromethane. A reporting limit (RL) standard was analyzed, and the target analytes are detected. Since the associated samples were non-detect for the analyte(s), the data are reported.

Method 8260D_DOD5: The laboratory control sample duplicate (LCSD) for analytical batch 680-840104 recovered outside control limits for the following analytes: Cyclohexane, Methylcyclohexane, n-Butylbenzene and 1,1,2-Trichloro-1,2,2-trifluoroethane. These analytes were biased high in the LCSD and were not detected in the associated samples; therefore, the data have been reported.

Method 8260D_DOD5: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for analytical batch 680-840104 recovered outside control limits for the following analytes: Methylcyclohexane.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC/MS Semi VOA

Method 8270E_DOD5: The initial calibration verification (ICV) result for batch 680-836548 was above the upper control limit. The affected analytes are: 2,4-Dimethylphenol. Sample results were non-detects, and have been reported as qualified data.

Method 8270E_DOD5: The continuing calibration verification (CCV) associated with batch 680-838829 recovered above the upper control limit for Bis(2-chloroethyl)ether. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8270E_SIM_DOD5: Surrogate recovery for the following sample was outside control limits: OU6-MW-279-20240516 (680-250910-4). Re-extraction and/or re-analysis was performed and surrogate recovery was outside control limits.

Method 8270E_SIM_DOD5: The method blank for preparation batch 680-838962 and analytical batch 680-838979 contained Naphthalene above the method detection limit (MDL). Associated sample(s) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC VOA

Method RSK_175_DOD5: The method requirement for no headspace was not met. The following volatile samples were analyzed with significant headspace in the sample container(s): OU6-MW-279-20240516 (680-250910-4) and OU6-MW-261-20240516 (680-250910-8). Significant headspace is defined as a bubble greater than 6 mm in diameter.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Pesticides/PCBs

Method 8081B_8082A_D5: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for preparation batch 680-839075 and analytical batch 680-839253 recovered outside control limits for the following analytes: PCB-1016 and PCB-1260.

Method 8081B_8082A_D5: The laboratory control sample duplicate (LCSD) for preparation batch 680-839075 and analytical batch 680-839253 recovered outside control limits for the following analyte: Endrin aldehyde. This analyte was biased high in the LCSD and was not detected in the associated samples; therefore, the data has been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC

Method 9056A_OF_28D_D5: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 680-840377 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

Method 9056A_OF_48H_D5: The following samples were received outside of holding time: OU6-MW-277-20240515 (680-250910-1), OU6-MW-259-20240515 (680-250910-2) and OU6-MW-280-20240515 (680-250910-3).

Job ID: 680-250910-1 (Continued) Eurofins Savannah

Method 9056A_OF_48H_D5: The following samples were received with less than one shift (8 hours) remaining on a test with a holding time of 48 hours or less. As such, the laboratory had insufficient time remaining to perform the analysis within holding time: OU6-MW-142-20240515 (680-250910-9) and OU6-MW-278-20240516 (680-250910-10).

Method 9056A_OF_48H_D5: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 680-838545 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Metals
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Client Sample ID: OU6-MW-277-20240515

Lab Sample ID: 680-250910-1

Date Collected: 05/15/24 09:35

Matrix: Water

Date Received: 05/17/24 10:29

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**14**		0.55	0.20	mg/L			05/29/24 21:25	1
Nitrate as N	**0.92**	**H H3 J1**	0.055	0.023	mg/L			05/17/24 16:11	1
Nitrate Nitrite as N	**0.92**	**H H3**	0.055	0.023	mg/L			05/17/24 16:11	1
Sulfate	**1.2**	**J**	1.5	0.40	mg/L			05/29/24 21:25	1
Nitrite as N	0.050	U H J1 H3 M	0.055	0.023	mg/L			05/17/24 16:11	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**12**		5.5	2.2	mg/L			05/20/24 17:14	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	**12**		11	5.0	mg/L			05/20/24 17:14	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	10	U	11	5.0	mg/L			05/20/24 17:14	1
Sulfide (SM 4500 S2 F-2011)	0.86	U	0.86	0.86	mg/L			05/21/24 14:01	1
Sulfide as H2S (SM 4500 S2 F-2011)	0.95	U	0.95	0.95	mg/L			05/21/24 14:01	1
Carbon Dioxide, Free (SM 4500 CO2 D)	**61**		11	5.0	mg/L			05/20/24 17:14	1

Client Sample ID: OU6-MW-259-20240515

Lab Sample ID: 680-250910-2

Date Collected: 05/15/24 08:20

Matrix: Water

Date Received: 05/17/24 10:29

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**24**	**M**	0.55	0.20	mg/L			05/29/24 21:45	1
Nitrate as N	0.050	U H H3	0.055	0.023	mg/L			05/17/24 16:35	1
Nitrate Nitrite as N	0.050	U H H3	0.055	0.023	mg/L			05/17/24 16:35	1
Sulfate	**14**		1.5	0.40	mg/L			05/29/24 21:45	1
Nitrite as N	0.050	U H H3 M	0.055	0.023	mg/L			05/17/24 16:35	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**10**		5.5	2.2	mg/L			05/20/24 17:21	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	**10**	**J**	11	5.0	mg/L			05/20/24 17:21	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	10	U	11	5.0	mg/L			05/20/24 17:21	1
Sulfide (SM 4500 S2 F-2011)	0.89	U	0.89	0.89	mg/L			05/21/24 14:01	1
Sulfide as H2S (SM 4500 S2 F-2011)	0.98	U	0.98	0.98	mg/L			05/21/24 14:01	1
Carbon Dioxide, Free (SM 4500 CO2 D)	**81**		11	5.0	mg/L			05/20/24 17:21	1

Client Sample ID: OU6-MW-280-20240515

Lab Sample ID: 680-250910-3

Date Collected: 05/15/24 12:50

Matrix: Water

Date Received: 05/17/24 10:29

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**16**		0.55	0.20	mg/L			05/29/24 21:52	1
Nitrate as N	0.050	U H M	0.055	0.023	mg/L			05/17/24 16:44	1

Client Sample ID: OU6-MW-280-20240515

Lab Sample ID: 680-250910-3

Date Collected: 05/15/24 12:50

Matrix: Water

Date Received: 05/17/24 10:29

Method: SW846 9056A - Anions, Ion Chromatography (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate Nitrite as N	0.050	U H	0.055	0.023	mg/L			05/17/24 16:44	1
Sulfate	**12**		1.5	0.40	mg/L			05/29/24 21:52	1
Nitrite as N	0.050	U H M	0.055	0.023	mg/L			05/17/24 16:44	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**94**		5.5	2.2	mg/L			05/20/24 16:46	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	**94**		11	5.0	mg/L			05/20/24 16:46	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	10	U	11	5.0	mg/L			05/20/24 16:46	1
Sulfide (SM 4500 S2 F-2011)	0.86	U	0.86	0.86	mg/L			05/21/24 14:01	1
Sulfide as H2S (SM 4500 S2 F-2011)	0.95	U	0.95	0.95	mg/L			05/21/24 14:01	1
Carbon Dioxide, Free (SM 4500 CO2 D)	**170**		11	5.0	mg/L			05/20/24 16:46	1

Client Sample ID: OU6-MW-279-20240516

Lab Sample ID: 680-250910-4

Date Collected: 05/16/24 08:00

Matrix: Water

Date Received: 05/17/24 10:29

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			05/23/24 13:48	1
Benzene	1.0	U	2.0	0.27	ug/L			05/23/24 13:48	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			05/23/24 13:48	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			05/23/24 13:48	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			05/23/24 13:48	1
Bromoform	2.0	U	2.5	0.59	ug/L			05/23/24 13:48	1
Bromomethane	10	U Q	20	3.7	ug/L			05/23/24 13:48	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			05/23/24 13:48	1
Carbon disulfide	**3.3**		2.0	0.43	ug/L			05/23/24 13:48	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			05/23/24 13:48	1
Chlorobenzene	**4.8**		1.0	0.15	ug/L			05/23/24 13:48	1
Chloroethane	10	U	20	4.6	ug/L			05/23/24 13:48	1
Chloroform	1.0	U	2.0	0.27	ug/L			05/23/24 13:48	1
Chloromethane	2.0	U	2.5	0.54	ug/L			05/23/24 13:48	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			05/23/24 13:48	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			05/23/24 13:48	1
cis-1,2-Dichloroethene	1.0	U	2.0	0.25	ug/L			05/23/24 13:48	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			05/23/24 13:48	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			05/23/24 13:48	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			05/23/24 13:48	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			05/23/24 13:48	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			05/23/24 13:48	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			05/23/24 13:48	1
1,2-Dichlorobenzene	**0.43**	**J M**	2.0	0.31	ug/L			05/23/24 13:48	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/23/24 13:48	1
1,4-Dichlorobenzene	**0.77**	**J**	2.0	0.31	ug/L			05/23/24 13:48	1
Dichlorodifluoromethane	1.0	U Q	2.0	0.36	ug/L			05/23/24 13:48	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			05/23/24 13:48	1

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-250910-1

Client Sample ID: OU6-MW-279-20240516
Date Collected: 05/16/24 08:00
Date Received: 05/17/24 10:29

Lab Sample ID: 680-250910-4
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	1.0	U M	2.0	0.25	ug/L			05/23/24 13:48	1
1,1-Dichloroethene	1.0	U	2.0	0.33	ug/L			05/23/24 13:48	1
1,2-Dichloroethene, Total	1.0	U	2.0	0.37	ug/L			05/23/24 13:48	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			05/23/24 13:48	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			05/23/24 13:48	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			05/23/24 13:48	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			05/23/24 13:48	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			05/23/24 13:48	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			05/23/24 13:48	1
2-Hexanone	10	U	20	3.2	ug/L			05/23/24 13:48	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			05/23/24 13:48	1
4-Isopropyltoluene	**0.51**	**J**	2.0	0.44	ug/L			05/23/24 13:48	1
Methyl acetate	10	U	20	3.2	ug/L			05/23/24 13:48	1
Methylcyclohexane	1.0	U	2.0	0.33	ug/L			05/23/24 13:48	1
Methylene Chloride	10	U	20	3.2	ug/L			05/23/24 13:48	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			05/23/24 13:48	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			05/23/24 13:48	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			05/23/24 13:48	1
Naphthalene	5.0	U	10	2.4	ug/L			05/23/24 13:48	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			05/23/24 13:48	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			05/23/24 13:48	1
o-Xylene	1.0	U	2.0	0.26	ug/L			05/23/24 13:48	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			05/23/24 13:48	1
Styrene	1.0	U	2.0	0.27	ug/L			05/23/24 13:48	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			05/23/24 13:48	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			05/23/24 13:48	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			05/23/24 13:48	1
Tetrachloroethene	1.0	U	2.0	0.35	ug/L			05/23/24 13:48	1
Toluene	1.0	U	2.0	0.25	ug/L			05/23/24 13:48	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			05/23/24 13:48	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			05/23/24 13:48	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			05/23/24 13:48	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			05/23/24 13:48	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			05/23/24 13:48	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			05/23/24 13:48	1
Trichloroethene	0.50	U	1.0	0.20	ug/L			05/23/24 13:48	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			05/23/24 13:48	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			05/23/24 13:48	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			05/23/24 13:48	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			05/23/24 13:48	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			05/23/24 13:48	1
Vinyl chloride	**0.51**	**J**	2.0	0.40	ug/L			05/23/24 13:48	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			05/23/24 13:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*85 - 114*		*05/23/24 13:48*	*1*
Dibromofluoromethane (Surr)	*106*		*80 - 119*		*05/23/24 13:48*	*1*
1,2-Dichloroethane-d4 (Surr)	*96*		*81 - 118*		*05/23/24 13:48*	*1*
Toluene-d8 (Surr)	*105*		*89 - 112*		*05/23/24 13:48*	*1*

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-250910-1

Client Sample ID: OU6-MW-279-20240516
Date Collected: 05/16/24 08:00
Date Received: 05/17/24 10:29

Lab Sample ID: 680-250910-4
Matrix: Water

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	**0.16**	**J**	0.20	0.018	ug/L		05/21/24 07:24	05/21/24 18:45	1
Acenaphthene	0.099	U M	0.20	0.041	ug/L		05/21/24 07:24	05/21/24 18:45	1
Acenaphthylene	0.049	U M	0.20	0.017	ug/L		05/21/24 07:24	05/21/24 18:45	1
Pyrene	0.099	U M	0.20	0.027	ug/L		05/21/24 07:24	05/21/24 18:45	1
2-Methylnaphthalene	**0.29**		0.20	0.011	ug/L		05/21/24 07:24	05/21/24 18:45	1
Anthracene	0.049	U	0.20	0.018	ug/L		05/21/24 07:24	05/21/24 18:45	1
Benzo[a]pyrene	0.099	U	0.20	0.026	ug/L		05/21/24 07:24	05/21/24 18:45	1
Benzo[a]anthracene	0.099	U	0.20	0.026	ug/L		05/21/24 07:24	05/21/24 18:45	1
Benzo[b]fluoranthene	0.099	U	0.20	0.026	ug/L		05/21/24 07:24	05/21/24 18:45	1
Benzo[g,h,i]perylene	0.099	U M	0.20	0.026	ug/L		05/21/24 07:24	05/21/24 18:45	1
Benzo[k]fluoranthene	0.099	U	0.20	0.029	ug/L		05/21/24 07:24	05/21/24 18:45	1
Chrysene	0.049	U	0.20	0.023	ug/L		05/21/24 07:24	05/21/24 18:45	1
Dibenz(a,h)anthracene	0.049	U	0.20	0.024	ug/L		05/21/24 07:24	05/21/24 18:45	1
Phenanthrene	**0.10**	**J**	0.39	0.054	ug/L		05/21/24 07:24	05/21/24 18:45	1
Indeno[1,2,3-cd]pyrene	0.099	U	0.20	0.028	ug/L		05/21/24 07:24	05/21/24 18:45	1
Naphthalene	**0.99**		0.20	0.014	ug/L		05/21/24 07:24	05/21/24 18:45	1
Fluoranthene	0.099	U M	0.20	0.027	ug/L		05/21/24 07:24	05/21/24 18:45	1
Fluorene	**0.072**	**J**	0.20	0.025	ug/L		05/21/24 07:24	05/21/24 18:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*44*	*Q*	*53 - 106*	*05/21/24 07:24*	*05/21/24 18:45*	*1*
2-methylnaphthalene-d10	*44*		*30 - 100*	*05/21/24 07:24*	*05/21/24 18:45*	*1*
Fluoranthene-d10	*89*		*42 - 114*	*05/21/24 07:24*	*05/21/24 18:45*	*1*
Nitrobenzene-d5	*44*		*42 - 100*	*05/21/24 07:24*	*05/21/24 18:45*	*1*
Terphenyl-d14	*92*		*53 - 111*	*05/21/24 07:24*	*05/21/24 18:45*	*1*

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) - RE

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	0.050	U M	0.20	0.018	ug/L		05/23/24 07:08	05/24/24 19:09	1
Acenaphthene	0.099	U M	0.20	0.042	ug/L		05/23/24 07:08	05/24/24 19:09	1
Acenaphthylene	0.050	U	0.20	0.017	ug/L		05/23/24 07:08	05/24/24 19:09	1
Pyrene	0.099	U M	0.20	0.027	ug/L		05/23/24 07:08	05/24/24 19:09	1
2-Methylnaphthalene	0.040	U	0.20	0.011	ug/L		05/23/24 07:08	05/24/24 19:09	1
Anthracene	0.050	U	0.20	0.018	ug/L		05/23/24 07:08	05/24/24 19:09	1
Benzo[a]pyrene	0.099	U	0.20	0.026	ug/L		05/23/24 07:08	05/24/24 19:09	1
Benzo[a]anthracene	0.099	U	0.20	0.026	ug/L		05/23/24 07:08	05/24/24 19:09	1
Benzo[b]fluoranthene	0.099	U	0.20	0.026	ug/L		05/23/24 07:08	05/24/24 19:09	1
Benzo[g,h,i]perylene	0.099	U M	0.20	0.026	ug/L		05/23/24 07:08	05/24/24 19:09	1
Benzo[k]fluoranthene	0.099	U	0.20	0.029	ug/L		05/23/24 07:08	05/24/24 19:09	1
Chrysene	0.050	U	0.20	0.023	ug/L		05/23/24 07:08	05/24/24 19:09	1
Dibenz(a,h)anthracene	0.050	U	0.20	0.024	ug/L		05/23/24 07:08	05/24/24 19:09	1
Phenanthrene	0.20	U	0.40	0.054	ug/L		05/23/24 07:08	05/24/24 19:09	1
Indeno[1,2,3-cd]pyrene	0.099	U	0.20	0.028	ug/L		05/23/24 07:08	05/24/24 19:09	1
Naphthalene	0.050	U	0.20	0.014	ug/L		05/23/24 07:08	05/24/24 19:09	1
Fluoranthene	0.099	U M	0.20	0.027	ug/L		05/23/24 07:08	05/24/24 19:09	1
Fluorene	0.099	U M	0.20	0.025	ug/L		05/23/24 07:08	05/24/24 19:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*45*	*Q*	*53 - 106*	*05/23/24 07:08*	*05/24/24 19:09*	*1*
2-methylnaphthalene-d10	*46*		*30 - 100*	*05/23/24 07:08*	*05/24/24 19:09*	*1*

Client Sample ID: OU6-MW-279-20240516
Date Collected: 05/16/24 08:00
Date Received: 05/17/24 10:29

Lab Sample ID: 680-250910-4
Matrix: Water

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) - RE (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Fluoranthene-d10	*93*		*42 - 114*	*05/23/24 07:08*	*05/24/24 19:09*	*1*
Nitrobenzene-d5	*47*		*42 - 100*	*05/23/24 07:08*	*05/24/24 19:09*	*1*
Terphenyl-d14	*94*		*53 - 111*	*05/23/24 07:08*	*05/24/24 19:09*	*1*

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	10	U M	21	4.8	ug/L		05/20/24 06:53	05/20/24 22:01	1
1,2,4,5-Tetrachlorobenzene	10	U	21	4.7	ug/L		05/20/24 06:53	05/20/24 22:01	1
1,4-Dioxane	10	U	21	4.6	ug/L		05/20/24 06:53	05/20/24 22:01	1
2,3,4,6-Tetrachlorophenol	10	U	21	4.5	ug/L		05/20/24 06:53	05/20/24 22:01	1
2,4,5-Trichlorophenol	10	U	21	3.4	ug/L		05/20/24 06:53	05/20/24 22:01	1
2,4,6-Trichlorophenol	5.2	U	21	2.3	ug/L		05/20/24 06:53	05/20/24 22:01	1
2,4-Dichlorophenol	10	U	21	3.9	ug/L		05/20/24 06:53	05/20/24 22:01	1
2,4-Dimethylphenol	10	U Q	21	3.1	ug/L		05/20/24 06:53	05/20/24 22:01	1
2,4-Dinitrophenol	42	U	52	17	ug/L		05/20/24 06:53	05/20/24 22:01	1
2,4-Dinitrotoluene	5.2	U	10	2.4	ug/L		05/20/24 06:53	05/20/24 22:01	1
2,6-Dinitrotoluene	10	U	21	2.9	ug/L		05/20/24 06:53	05/20/24 22:01	1
2-Chloronaphthalene	10	U	21	5.0	ug/L		05/20/24 06:53	05/20/24 22:01	1
2-Chlorophenol	10	U	21	3.3	ug/L		05/20/24 06:53	05/20/24 22:01	1
2-Methylphenol	4.2	U	10	1.9	ug/L		05/20/24 06:53	05/20/24 22:01	1
2-Nitroaniline	10	U	21	3.0	ug/L		05/20/24 06:53	05/20/24 22:01	1
2-Nitrophenol	10	U	21	4.1	ug/L		05/20/24 06:53	05/20/24 22:01	1
3 & 4 Methylphenol	4.2	U	10	1.5	ug/L		05/20/24 06:53	05/20/24 22:01	1
3,3'-Dichlorobenzidine	21	U	52	10	ug/L		05/20/24 06:53	05/20/24 22:01	1
3-Nitroaniline	10	U	52	3.1	ug/L		05/20/24 06:53	05/20/24 22:01	1
4,6-Dinitro-2-methylphenol	21	U	52	5.5	ug/L		05/20/24 06:53	05/20/24 22:01	1
4-Bromophenyl phenyl ether	10	U M	21	4.9	ug/L		05/20/24 06:53	05/20/24 22:01	1
4-Chloro-3-methylphenol	10	U	21	2.6	ug/L		05/20/24 06:53	05/20/24 22:01	1
4-Chloroaniline	4.2	U	10	1.0	ug/L		05/20/24 06:53	05/20/24 22:01	1
4-Chlorophenyl phenyl ether	12	U	21	5.5	ug/L		05/20/24 06:53	05/20/24 22:01	1
4-Nitroaniline	10	U	52	3.1	ug/L		05/20/24 06:53	05/20/24 22:01	1
4-Nitrophenol	21	U	52	8.4	ug/L		05/20/24 06:53	05/20/24 22:01	1
Acetophenone	5.2	U M	10	2.3	ug/L		05/20/24 06:53	05/20/24 22:01	1
Atrazine	5.2	U	10	2.3	ug/L		05/20/24 06:53	05/20/24 22:01	1
Benzaldehyde	10	U	21	5.0	ug/L		05/20/24 06:53	05/20/24 22:01	1
bis (2-chloroisopropyl) ether	10	U	21	3.2	ug/L		05/20/24 06:53	05/20/24 22:01	1
Bis(2-chloroethoxy)methane	4.2	U	10	1.9	ug/L		05/20/24 06:53	05/20/24 22:01	1
Bis(2-chloroethyl)ether	10	U Q	21	3.7	ug/L		05/20/24 06:53	05/20/24 22:01	1
Bis(2-ethylhexyl) phthalate	10	U	21	3.1	ug/L		05/20/24 06:53	05/20/24 22:01	1
Butyl benzyl phthalate	10	U	21	2.9	ug/L		05/20/24 06:53	05/20/24 22:01	1
Caprolactam	10	U	21	2.9	ug/L		05/20/24 06:53	05/20/24 22:01	1
Carbazole	4.2	U	10	1.9	ug/L		05/20/24 06:53	05/20/24 22:01	1
Dibenzofuran	4.2	U M	10	2.0	ug/L		05/20/24 06:53	05/20/24 22:01	1
Diethyl phthalate	5.2	U	10	2.3	ug/L		05/20/24 06:53	05/20/24 22:01	1
Dimethyl phthalate	5.2	U	10	2.2	ug/L		05/20/24 06:53	05/20/24 22:01	1
Di-n-butyl phthalate	5.2	U	10	2.4	ug/L		05/20/24 06:53	05/20/24 22:01	1
Di-n-octyl phthalate	10	U	21	2.9	ug/L		05/20/24 06:53	05/20/24 22:01	1
Hexachlorobenzene	4.2	U	10	1.7	ug/L		05/20/24 06:53	05/20/24 22:01	1
Hexachlorobutadiene	10	U	21	4.2	ug/L		05/20/24 06:53	05/20/24 22:01	1

Client Sample ID: OU6-MW-279-20240516
Date Collected: 05/16/24 08:00
Date Received: 05/17/24 10:29

Lab Sample ID: 680-250910-4
Matrix: Water

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorocyclopentadiene	10	U	21	3.6	ug/L		05/20/24 06:53	05/20/24 22:01	1
Hexachloroethane	10	U	21	3.7	ug/L		05/20/24 06:53	05/20/24 22:01	1
Isophorone	4.2	U	10	2.1	ug/L		05/20/24 06:53	05/20/24 22:01	1
Nitrobenzene	10	U	21	3.6	ug/L		05/20/24 06:53	05/20/24 22:01	1
N-Nitrosodi-n-propylamine	5.2	U	10	2.5	ug/L		05/20/24 06:53	05/20/24 22:01	1
N-Nitrosodiphenylamine	10	U M	21	3.0	ug/L		05/20/24 06:53	05/20/24 22:01	1
Pentachlorophenol	21	U	52	10	ug/L		05/20/24 06:53	05/20/24 22:01	1
Phenol	4.2	U	10	1.6	ug/L		05/20/24 06:53	05/20/24 22:01	1
Pyridine	21	U M	52	7.7	ug/L		05/20/24 06:53	05/20/24 22:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*56*		*43 - 140*	*05/20/24 06:53*	*05/20/24 22:01*	*1*
2-Fluorobiphenyl	*50*		*44 - 119*	*05/20/24 06:53*	*05/20/24 22:01*	*1*
2-Fluorophenol	*29*		*19 - 119*	*05/20/24 06:53*	*05/20/24 22:01*	*1*
Nitrobenzene-d5	*48*		*44 - 120*	*05/20/24 06:53*	*05/20/24 22:01*	*1*
Phenol-d5	*21*		*10 - 130*	*05/20/24 06:53*	*05/20/24 22:01*	*1*
Terphenyl-d14	*64*		*50 - 134*	*05/20/24 06:53*	*05/20/24 22:01*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	**1.1**	**J M**	5.0	1.0	ug/L		05/24/24 13:13	05/24/24 21:50	1
Ethylene	2.0	U	5.0	1.0	ug/L		05/24/24 13:13	05/24/24 21:50	1

Method: RSK-175 - Dissolved Gases (GC) - DL

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	**3300**	**D M**	65	30	ug/L		05/24/24 13:13	05/24/24 22:06	10

Method: SW846 8081B 8082A - Organochlorine Pesticides & PCBs (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	0.0039	U M	0.049	0.0020	ug/L		05/21/24 12:36	05/22/24 16:17	1
4,4'-DDE	0.0039	U	0.049	0.00098	ug/L		05/21/24 12:36	05/22/24 16:17	1
4,4'-DDT	0.0039	U	0.049	0.00098	ug/L		05/21/24 12:36	05/22/24 16:17	1
Aldrin	0.0039	U	0.049	0.0020	ug/L		05/21/24 12:36	05/22/24 16:17	1
alpha-BHC	0.0039	U	0.049	0.00098	ug/L		05/21/24 12:36	05/22/24 16:17	1
beta-BHC	0.0039	U	0.049	0.0020	ug/L		05/21/24 12:36	05/22/24 16:17	1
delta-BHC	0.0039	U M	0.049	0.0020	ug/L		05/21/24 12:36	05/22/24 16:17	1
Dieldrin	0.0039	U	0.049	0.0020	ug/L		05/21/24 12:36	05/22/24 16:17	1
Endosulfan I	0.0039	U	0.049	0.0020	ug/L		05/21/24 12:36	05/22/24 16:17	1
Endosulfan II	0.0039	U	0.049	0.0020	ug/L		05/21/24 12:36	05/22/24 16:17	1
Endosulfan sulfate	0.0039	U M	0.049	0.0020	ug/L		05/21/24 12:36	05/22/24 16:17	1
Endrin	0.0039	U	0.049	0.00098	ug/L		05/21/24 12:36	05/22/24 16:17	1
Endrin aldehyde	0.016	U	0.049	0.0039	ug/L		05/21/24 12:36	05/22/24 16:17	1
Endrin ketone	0.016	U Q	0.049	0.0039	ug/L		05/21/24 12:36	05/22/24 16:17	1
gamma-BHC (Lindane)	0.0039	U	0.049	0.00098	ug/L		05/21/24 12:36	05/22/24 16:17	1
Heptachlor	0.0039	U	0.049	0.00098	ug/L		05/21/24 12:36	05/22/24 16:17	1
Heptachlor epoxide	0.0039	U	0.049	0.0020	ug/L		05/21/24 12:36	05/22/24 16:17	1
Methoxychlor	0.0039	U	0.049	0.0020	ug/L		05/21/24 12:36	05/22/24 16:17	1
Chlordane (technical)	0.39	U M	0.49	0.16	ug/L		05/21/24 12:36	05/22/24 16:17	1
PCB-1016	0.24	U Q	0.49	0.098	ug/L		05/21/24 12:36	05/22/24 16:17	1
PCB-1221	0.24	U	0.49	0.098	ug/L		05/21/24 12:36	05/22/24 16:17	1

Client Sample ID: OU6-MW-279-20240516

Lab Sample ID: 680-250910-4

Date Collected: 05/16/24 08:00

Matrix: Water

Date Received: 05/17/24 10:29

Method: SW846 8081B 8082A - Organochlorine Pesticides & PCBs (GC) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1232	0.24	U	0.49	0.098	ug/L		05/21/24 12:36	05/22/24 16:17	1
PCB-1242	0.24	U	0.49	0.098	ug/L		05/21/24 12:36	05/22/24 16:17	1
PCB-1248	0.24	U M	0.49	0.098	ug/L		05/21/24 12:36	05/22/24 16:17	1
PCB-1254	0.24	U	0.49	0.098	ug/L		05/21/24 12:36	05/22/24 16:17	1
PCB-1260	0.24	U M Q	0.49	0.098	ug/L		05/21/24 12:36	05/22/24 16:17	1
Toxaphene	0.79	U M	4.9	0.30	ug/L		05/21/24 12:36	05/22/24 16:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*60*		*14 - 130*	*05/21/24 12:36*	*05/22/24 16:17*	*1*
Tetrachloro-m-xylene	*76*		*44 - 124*	*05/21/24 12:36*	*05/22/24 16:17*	*1*

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**3.8**		0.55	0.20	mg/L			05/29/24 21:58	1
Nitrate as N	0.050	U	0.055	0.023	mg/L			05/17/24 16:52	1
Nitrate Nitrite as N	0.050	U	0.055	0.023	mg/L			05/17/24 16:52	1
Sulfate	**1.5**		1.5	0.40	mg/L			05/29/24 21:58	1
Nitrite as N	0.050	U	0.055	0.023	mg/L			05/17/24 16:52	1

Method: SW846 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	100	U	200	35	ug/L		05/20/24 12:17	05/23/24 15:10	1
Antimony	1.5	U	5.0	0.34	ug/L		05/20/24 12:17	05/22/24 10:45	1
Arsenic	**9.2**		5.0	0.86	ug/L		05/20/24 12:17	05/22/24 10:45	1
Barium	**110**		5.0	0.89	ug/L		05/20/24 12:17	05/22/24 10:45	1
Beryllium	0.40	U	0.50	0.20	ug/L		05/20/24 12:17	05/22/24 10:45	1
Boron	**26**	**J**	100	22	ug/L		05/20/24 12:17	05/22/24 10:45	1
Cadmium	0.20	U	0.50	0.078	ug/L		05/20/24 12:17	05/22/24 10:45	1
Calcium	**25000**	**J1**	500	140	ug/L		05/20/24 12:17	05/22/24 10:45	1
Chromium	**1.1**	**J**	20	0.81	ug/L		05/20/24 12:17	05/22/24 10:45	1
Cobalt	**3.4**		1.0	0.22	ug/L		05/20/24 12:17	05/22/24 10:45	1
Copper	**5.4**		5.0	1.1	ug/L		05/20/24 12:17	05/22/24 10:45	1
Iron	**70000**	**J1**	100	12	ug/L		05/20/24 12:17	05/22/24 10:45	1
Lead	**0.81**	**J**	2.5	0.21	ug/L		05/20/24 12:17	05/22/24 10:45	1
Magnesium	**4100**		250	23	ug/L		05/20/24 12:17	05/22/24 10:45	1
Manganese	**470**		10	2.2	ug/L		05/20/24 12:17	05/22/24 10:45	1
Nickel	**1.4**	**J Q**	10	0.42	ug/L		05/20/24 12:17	05/22/24 10:45	1
Potassium	**7900**		1000	44	ug/L		05/20/24 12:17	05/22/24 10:45	1
Selenium	2.5	U	5.0	0.99	ug/L		05/20/24 12:17	05/22/24 10:45	1
Silver	1.0	U	2.0	0.39	ug/L		05/20/24 12:17	05/22/24 10:45	1
Sodium	**17000**	**J1**	1000	200	ug/L		05/20/24 12:17	05/22/24 10:45	1
Thallium	1.0	U	2.0	0.26	ug/L		05/20/24 12:17	05/22/24 10:45	1
Vanadium	2.5	U	10	0.63	ug/L		05/20/24 12:17	05/22/24 10:45	1
Zinc	**740**	**J1**	25	2.8	ug/L		05/20/24 12:17	05/22/24 10:45	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	0.20	U	0.25	0.080	ug/L		05/24/24 13:35	05/25/24 10:40	1

Client Sample ID: OU6-MW-279-20240516

Lab Sample ID: 680-250910-4

Date Collected: 05/16/24 08:00

Matrix: Water

Date Received: 05/17/24 10:29

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**170**		5.5	2.2	mg/L			05/20/24 16:37	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	**170**		11	5.0	mg/L			05/20/24 16:37	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	10	U	11	5.0	mg/L			05/20/24 16:37	1
Sulfide (SM 4500 S2 F-2011)	0.93	U	0.93	0.93	mg/L			05/21/24 14:01	1
Sulfide as H2S (SM 4500 S2 F-2011)	1.0	U	1.0	1.0	mg/L			05/21/24 14:01	1
Total Organic Carbon (SW846 9060A)	**11**		1.0	0.50	mg/L			05/23/24 09:10	1
Carbon Dioxide, Free (SM 4500 CO2 D)	**210**		11	5.0	mg/L			05/20/24 16:37	1

Client Sample ID: OU6-MW-270-20240516

Lab Sample ID: 680-250910-5

Date Collected: 05/16/24 09:10

Matrix: Water

Date Received: 05/17/24 10:29

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	**4.0**	**J M**	25	3.7	ug/L			05/23/24 14:09	1
Benzene	1.0	U	2.0	0.27	ug/L			05/23/24 14:09	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			05/23/24 14:09	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			05/23/24 14:09	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			05/23/24 14:09	1
Bromoform	2.0	U	2.5	0.59	ug/L			05/23/24 14:09	1
Bromomethane	10	U Q	20	3.7	ug/L			05/23/24 14:09	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			05/23/24 14:09	1
Carbon disulfide	**0.78**	**J**	2.0	0.43	ug/L			05/23/24 14:09	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			05/23/24 14:09	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			05/23/24 14:09	1
Chloroethane	10	U	20	4.6	ug/L			05/23/24 14:09	1
Chloroform	1.0	U	2.0	0.27	ug/L			05/23/24 14:09	1
Chloromethane	2.0	U	2.5	0.54	ug/L			05/23/24 14:09	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			05/23/24 14:09	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			05/23/24 14:09	1
cis-1,2-Dichloroethene	**1.4**	**J M**	2.0	0.25	ug/L			05/23/24 14:09	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			05/23/24 14:09	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			05/23/24 14:09	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			05/23/24 14:09	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			05/23/24 14:09	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			05/23/24 14:09	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			05/23/24 14:09	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/23/24 14:09	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/23/24 14:09	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/23/24 14:09	1
Dichlorodifluoromethane	1.0	U Q	2.0	0.36	ug/L			05/23/24 14:09	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			05/23/24 14:09	1
1,2-Dichloroethane	1.0	U M	2.0	0.25	ug/L			05/23/24 14:09	1
1,1-Dichloroethene	1.0	U	2.0	0.33	ug/L			05/23/24 14:09	1
1,2-Dichloroethene, Total	**1.4**	**J**	2.0	0.37	ug/L			05/23/24 14:09	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			05/23/24 14:09	1

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-250910-1

Client Sample ID: OU6-MW-270-20240516
Date Collected: 05/16/24 09:10
Date Received: 05/17/24 10:29

Lab Sample ID: 680-250910-5
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			05/23/24 14:09	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			05/23/24 14:09	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			05/23/24 14:09	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			05/23/24 14:09	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			05/23/24 14:09	1
2-Hexanone	10	U	20	3.2	ug/L			05/23/24 14:09	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			05/23/24 14:09	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			05/23/24 14:09	1
Methyl acetate	10	U	20	3.2	ug/L			05/23/24 14:09	1
Methylcyclohexane	1.0	U	2.0	0.33	ug/L			05/23/24 14:09	1
Methylene Chloride	10	U	20	3.2	ug/L			05/23/24 14:09	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			05/23/24 14:09	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			05/23/24 14:09	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			05/23/24 14:09	1
Naphthalene	5.0	U	10	2.4	ug/L			05/23/24 14:09	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			05/23/24 14:09	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			05/23/24 14:09	1
o-Xylene	1.0	U	2.0	0.26	ug/L			05/23/24 14:09	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			05/23/24 14:09	1
Styrene	1.0	U	2.0	0.27	ug/L			05/23/24 14:09	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			05/23/24 14:09	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			05/23/24 14:09	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			05/23/24 14:09	1
Tetrachloroethene	1.0	U	2.0	0.35	ug/L			05/23/24 14:09	1
Toluene	1.0	U	2.0	0.25	ug/L			05/23/24 14:09	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			05/23/24 14:09	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			05/23/24 14:09	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			05/23/24 14:09	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			05/23/24 14:09	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			05/23/24 14:09	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			05/23/24 14:09	1
Trichloroethene	0.50	U	1.0	0.20	ug/L			05/23/24 14:09	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			05/23/24 14:09	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			05/23/24 14:09	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			05/23/24 14:09	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			05/23/24 14:09	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			05/23/24 14:09	1
Vinyl chloride	**0.48**	**J**	2.0	0.40	ug/L			05/23/24 14:09	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			05/23/24 14:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*85 - 114*		*05/23/24 14:09*	*1*
Dibromofluoromethane (Surr)	*107*		*80 - 119*		*05/23/24 14:09*	*1*
1,2-Dichloroethane-d4 (Surr)	*96*		*81 - 118*		*05/23/24 14:09*	*1*
Toluene-d8 (Surr)	*105*		*89 - 112*		*05/23/24 14:09*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	2.0	U	5.0	1.0	ug/L		05/24/24 13:13	05/24/24 22:22	1
Ethylene	2.0	U M	5.0	1.0	ug/L		05/24/24 13:13	05/24/24 22:22	1

Client Sample ID: OU6-MW-270-20240516

Lab Sample ID: 680-250910-5

Date Collected: 05/16/24 09:10

Matrix: Water

Date Received: 05/17/24 10:29

Method: RSK-175 - Dissolved Gases (GC) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	**6.7**	**M**	6.5	3.0	ug/L		05/24/24 13:13	05/24/24 22:22	1

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**14**		0.55	0.20	mg/L			05/29/24 22:05	1
Nitrate as N	**0.11**	**M**	0.055	0.023	mg/L			05/17/24 17:00	1
Nitrate Nitrite as N	**0.11**		0.055	0.023	mg/L			05/17/24 17:00	1
Sulfate	**6.0**		1.5	0.40	mg/L			05/29/24 22:05	1
Nitrite as N	0.050	U M	0.055	0.023	mg/L			05/17/24 17:00	1

Method: SW846 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**3.2**	**J**	10	2.2	ug/L		05/20/24 12:17	05/22/24 11:17	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**62**		5.5	2.2	mg/L			05/20/24 19:38	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	**51**		11	5.0	mg/L			05/20/24 19:38	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	**11**		11	5.0	mg/L			05/20/24 19:38	1
Sulfide (SM 4500 S2 F-2011)	0.89	U	0.89	0.89	mg/L			05/21/24 14:01	1
Sulfide as H2S (SM 4500 S2 F-2011)	0.98	U	0.98	0.98	mg/L			05/21/24 14:01	1
Total Organic Carbon (SW846 9060A)	**4.5**		1.0	0.50	mg/L			05/23/24 09:35	1
Carbon Dioxide, Free (SM 4500 CO2 D)	10	U	11	5.0	mg/L			05/20/24 19:38	1

Client Sample ID: OU6-MW-273-20240516

Lab Sample ID: 680-250910-6

Date Collected: 05/16/24 10:10

Matrix: Water

Date Received: 05/17/24 10:29

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			05/23/24 14:31	1
Benzene	**0.29**	**J**	2.0	0.27	ug/L			05/23/24 14:31	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			05/23/24 14:31	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			05/23/24 14:31	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			05/23/24 14:31	1
Bromoform	2.0	U	2.5	0.59	ug/L			05/23/24 14:31	1
Bromomethane	10	U Q	20	3.7	ug/L			05/23/24 14:31	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			05/23/24 14:31	1
Carbon disulfide	1.0	U	2.0	0.43	ug/L			05/23/24 14:31	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			05/23/24 14:31	1
Chlorobenzene	**38**		1.0	0.15	ug/L			05/23/24 14:31	1
Chloroethane	10	U	20	4.6	ug/L			05/23/24 14:31	1
Chloroform	**1.4**	**J**	2.0	0.27	ug/L			05/23/24 14:31	1
Chloromethane	2.0	U	2.5	0.54	ug/L			05/23/24 14:31	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			05/23/24 14:31	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			05/23/24 14:31	1
cis-1,2-Dichloroethene	**38**		2.0	0.25	ug/L			05/23/24 14:31	1

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-250910-1

Client Sample ID: OU6-MW-273-20240516
Date Collected: 05/16/24 10:10
Date Received: 05/17/24 10:29

Lab Sample ID: 680-250910-6
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			05/23/24 14:31	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			05/23/24 14:31	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			05/23/24 14:31	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			05/23/24 14:31	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			05/23/24 14:31	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			05/23/24 14:31	1
1,2-Dichlorobenzene	**7.4**		2.0	0.31	ug/L			05/23/24 14:31	1
1,3-Dichlorobenzene	**1.8**	**J**	2.0	0.31	ug/L			05/23/24 14:31	1
1,4-Dichlorobenzene	**28**		2.0	0.31	ug/L			05/23/24 14:31	1
Dichlorodifluoromethane	1.0	U Q	2.0	0.36	ug/L			05/23/24 14:31	1
1,1-Dichloroethane	**2.2**	**M**	2.0	0.33	ug/L			05/23/24 14:31	1
1,2-Dichloroethane	**1.7**	**J**	2.0	0.25	ug/L			05/23/24 14:31	1
1,1-Dichloroethene	1.0	U M	2.0	0.33	ug/L			05/23/24 14:31	1
1,2-Dichloroethene, Total	**38**		2.0	0.37	ug/L			05/23/24 14:31	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			05/23/24 14:31	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			05/23/24 14:31	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			05/23/24 14:31	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			05/23/24 14:31	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			05/23/24 14:31	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			05/23/24 14:31	1
2-Hexanone	10	U	20	3.2	ug/L			05/23/24 14:31	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			05/23/24 14:31	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			05/23/24 14:31	1
Methyl acetate	10	U	20	3.2	ug/L			05/23/24 14:31	1
Methylcyclohexane	1.0	U	2.0	0.33	ug/L			05/23/24 14:31	1
Methylene Chloride	10	U	20	3.2	ug/L			05/23/24 14:31	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			05/23/24 14:31	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			05/23/24 14:31	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			05/23/24 14:31	1
Naphthalene	5.0	U	10	2.4	ug/L			05/23/24 14:31	1
n-Butylbenzene	2.0	U M	2.5	0.52	ug/L			05/23/24 14:31	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			05/23/24 14:31	1
o-Xylene	1.0	U	2.0	0.26	ug/L			05/23/24 14:31	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			05/23/24 14:31	1
Styrene	1.0	U	2.0	0.27	ug/L			05/23/24 14:31	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			05/23/24 14:31	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			05/23/24 14:31	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			05/23/24 14:31	1
Tetrachloroethene	**0.78**	**J**	2.0	0.35	ug/L			05/23/24 14:31	1
Toluene	1.0	U M	2.0	0.25	ug/L			05/23/24 14:31	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			05/23/24 14:31	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			05/23/24 14:31	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			05/23/24 14:31	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			05/23/24 14:31	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			05/23/24 14:31	1
1,1,2-Trichloroethane	**0.39**	**J**	2.0	0.32	ug/L			05/23/24 14:31	1
Trichloroethene	**6.2**		1.0	0.20	ug/L			05/23/24 14:31	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			05/23/24 14:31	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			05/23/24 14:31	1

Client Sample ID: OU6-MW-273-20240516
Lab Sample ID: 680-250910-6
Date Collected: 05/16/24 10:10
Matrix: Water
Date Received: 05/17/24 10:29

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			05/23/24 14:31	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			05/23/24 14:31	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			05/23/24 14:31	1
Vinyl chloride	**11**		2.0	0.40	ug/L			05/23/24 14:31	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			05/23/24 14:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*85 - 114*		*05/23/24 14:31*	*1*
Dibromofluoromethane (Surr)	*105*		*80 - 119*		*05/23/24 14:31*	*1*
1,2-Dichloroethane-d4 (Surr)	*97*		*81 - 118*		*05/23/24 14:31*	*1*
Toluene-d8 (Surr)	*105*		*89 - 112*		*05/23/24 14:31*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	**3.3**	**J**	5.0	1.0	ug/L		05/24/24 13:13	05/24/24 22:37	1
Ethylene	**4.6**	**J M**	5.0	1.0	ug/L		05/24/24 13:13	05/24/24 22:37	1
Methane	**120**	**M**	6.5	3.0	ug/L		05/24/24 13:13	05/24/24 22:37	1

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**38**		0.55	0.20	mg/L			05/29/24 22:12	1
Nitrate as N	**0.11**	**M**	0.055	0.023	mg/L			05/17/24 17:08	1
Nitrate Nitrite as N	**0.11**		0.055	0.023	mg/L			05/17/24 17:08	1
Sulfate	**3.6**		1.5	0.40	mg/L			05/29/24 22:12	1
Nitrite as N	0.050	U M	0.055	0.023	mg/L			05/17/24 17:08	1

Method: SW846 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**290**		10	2.2	ug/L		05/20/24 12:17	05/22/24 11:21	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**4.3**	**J**	5.5	2.2	mg/L			05/20/24 17:28	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	10	U	11	5.0	mg/L			05/20/24 17:28	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	10	U	11	5.0	mg/L			05/20/24 17:28	1
Sulfide (SM 4500 S2 F-2011)	0.86	U	0.86	0.86	mg/L			05/21/24 14:01	1
Sulfide as H2S (SM 4500 S2 F-2011)	0.95	U	0.95	0.95	mg/L			05/21/24 14:01	1
Total Organic Carbon (SW846 9060A)	**0.84**	**J**	1.0	0.50	mg/L			05/23/24 09:58	1
Carbon Dioxide, Free (SM 4500 CO2 D)	**42**		11	5.0	mg/L			05/20/24 17:28	1

Client Sample ID: OU6-MW-281-20240516
Lab Sample ID: 680-250910-7
Date Collected: 05/16/24 13:15
Matrix: Water
Date Received: 05/17/24 10:29

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	**7.6**	**J**	25	3.7	ug/L			05/23/24 14:52	1

Client Sample ID: OU6-MW-281-20240516
Date Collected: 05/16/24 13:15
Date Received: 05/17/24 10:29

Lab Sample ID: 680-250910-7
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	2.0	0.27	ug/L			05/23/24 14:52	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			05/23/24 14:52	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			05/23/24 14:52	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			05/23/24 14:52	1
Bromoform	2.0	U	2.5	0.59	ug/L			05/23/24 14:52	1
Bromomethane	10	U Q	20	3.7	ug/L			05/23/24 14:52	1
2-Butanone (MEK)	20	U M	25	6.4	ug/L			05/23/24 14:52	1
Carbon disulfide	1.0	U	2.0	0.43	ug/L			05/23/24 14:52	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			05/23/24 14:52	1
Chlorobenzene	**0.62**	**J M**	1.0	0.15	ug/L			05/23/24 14:52	1
Chloroethane	10	U	20	4.6	ug/L			05/23/24 14:52	1
Chloroform	1.0	U	2.0	0.27	ug/L			05/23/24 14:52	1
Chloromethane	2.0	U	2.5	0.54	ug/L			05/23/24 14:52	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			05/23/24 14:52	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			05/23/24 14:52	1
cis-1,2-Dichloroethene	1.0	U M	2.0	0.25	ug/L			05/23/24 14:52	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			05/23/24 14:52	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			05/23/24 14:52	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			05/23/24 14:52	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			05/23/24 14:52	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			05/23/24 14:52	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			05/23/24 14:52	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/23/24 14:52	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/23/24 14:52	1
1,4-Dichlorobenzene	**0.85**	**J M**	2.0	0.31	ug/L			05/23/24 14:52	1
Dichlorodifluoromethane	1.0	U Q	2.0	0.36	ug/L			05/23/24 14:52	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			05/23/24 14:52	1
1,2-Dichloroethane	1.0	U M	2.0	0.25	ug/L			05/23/24 14:52	1
1,1-Dichloroethene	1.0	U	2.0	0.33	ug/L			05/23/24 14:52	1
1,2-Dichloroethene, Total	1.0	U	2.0	0.37	ug/L			05/23/24 14:52	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			05/23/24 14:52	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			05/23/24 14:52	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			05/23/24 14:52	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			05/23/24 14:52	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			05/23/24 14:52	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			05/23/24 14:52	1
2-Hexanone	10	U	20	3.2	ug/L			05/23/24 14:52	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			05/23/24 14:52	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			05/23/24 14:52	1
Methyl acetate	10	U	20	3.2	ug/L			05/23/24 14:52	1
Methylcyclohexane	1.0	U	2.0	0.33	ug/L			05/23/24 14:52	1
Methylene Chloride	10	U	20	3.2	ug/L			05/23/24 14:52	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			05/23/24 14:52	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			05/23/24 14:52	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			05/23/24 14:52	1
Naphthalene	5.0	U	10	2.4	ug/L			05/23/24 14:52	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			05/23/24 14:52	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			05/23/24 14:52	1
o-Xylene	1.0	U	2.0	0.26	ug/L			05/23/24 14:52	1

Client Sample ID: OU6-MW-281-20240516
Date Collected: 05/16/24 13:15
Date Received: 05/17/24 10:29

Lab Sample ID: 680-250910-7
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			05/23/24 14:52	1
Styrene	1.0	U	2.0	0.27	ug/L			05/23/24 14:52	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			05/23/24 14:52	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			05/23/24 14:52	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			05/23/24 14:52	1
Tetrachloroethene	1.0	U	2.0	0.35	ug/L			05/23/24 14:52	1
Toluene	1.0	U	2.0	0.25	ug/L			05/23/24 14:52	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			05/23/24 14:52	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			05/23/24 14:52	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			05/23/24 14:52	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			05/23/24 14:52	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			05/23/24 14:52	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			05/23/24 14:52	1
Trichloroethene	0.50	U	1.0	0.20	ug/L			05/23/24 14:52	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			05/23/24 14:52	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			05/23/24 14:52	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			05/23/24 14:52	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			05/23/24 14:52	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			05/23/24 14:52	1
Vinyl chloride	1.0	U	2.0	0.40	ug/L			05/23/24 14:52	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			05/23/24 14:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*85 - 114*		*05/23/24 14:52*	*1*
Dibromofluoromethane (Surr)	*104*		*80 - 119*		*05/23/24 14:52*	*1*
1,2-Dichloroethane-d4 (Surr)	*94*		*81 - 118*		*05/23/24 14:52*	*1*
Toluene-d8 (Surr)	*104*		*89 - 112*		*05/23/24 14:52*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	2.0	U M	5.0	1.0	ug/L		05/24/24 14:22	05/25/24 03:05	1
Ethylene	2.0	U M	5.0	1.0	ug/L		05/24/24 14:22	05/25/24 03:05	1

Method: RSK-175 - Dissolved Gases (GC) - DL

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	**3100**	**D M**	65	30	ug/L		05/24/24 14:22	05/25/24 03:21	10

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2.0**		0.55	0.20	mg/L			05/29/24 22:18	1
Nitrate as N	0.050	U	0.055	0.023	mg/L			05/17/24 17:17	1
Nitrate Nitrite as N	**0.048**	**J**	0.055	0.023	mg/L			05/17/24 17:17	1
Sulfate	**3.7**		1.5	0.40	mg/L			05/29/24 22:18	1
Nitrite as N	**0.048**	**J**	0.055	0.023	mg/L			05/17/24 17:17	1

Method: SW846 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**24**		10	2.2	ug/L		05/20/24 12:17	05/22/24 11:25	1

Client Sample ID: OU6-MW-281-20240516

Lab Sample ID: 680-250910-7

Date Collected: 05/16/24 13:15

Matrix: Water

Date Received: 05/17/24 10:29

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**98**		5.5	2.2	mg/L			05/20/24 17:37	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	**98**		11	5.0	mg/L			05/20/24 17:37	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	10	U	11	5.0	mg/L			05/20/24 17:37	1
Sulfide (SM 4500 S2 F-2011)	0.96	U	0.96	0.96	mg/L			05/21/24 14:01	1
Sulfide as H2S (SM 4500 S2 F-2011)	1.1	U	1.1	1.1	mg/L			05/21/24 14:01	1
Total Organic Carbon (SW846 9060A)	**17**		1.0	0.50	mg/L			05/23/24 10:18	1
Carbon Dioxide, Free (SM 4500 CO2 D)	**68**		11	5.0	mg/L			05/20/24 17:37	1

Client Sample ID: OU6-MW-261-20240516

Lab Sample ID: 680-250910-8

Date Collected: 05/16/24 11:15

Matrix: Water

Date Received: 05/17/24 10:29

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			05/23/24 15:14	1
Benzene	**2.0**		2.0	0.27	ug/L			05/23/24 15:14	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			05/23/24 15:14	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			05/23/24 15:14	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			05/23/24 15:14	1
Bromoform	2.0	U	2.5	0.59	ug/L			05/23/24 15:14	1
Bromomethane	10	U Q	20	3.7	ug/L			05/23/24 15:14	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			05/23/24 15:14	1
Carbon disulfide	1.0	U	2.0	0.43	ug/L			05/23/24 15:14	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			05/23/24 15:14	1
Chlorobenzene	**70**		1.0	0.15	ug/L			05/23/24 15:14	1
Chloroethane	10	U	20	4.6	ug/L			05/23/24 15:14	1
Chloroform	1.0	U	2.0	0.27	ug/L			05/23/24 15:14	1
Chloromethane	2.0	U	2.5	0.54	ug/L			05/23/24 15:14	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			05/23/24 15:14	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			05/23/24 15:14	1
cis-1,2-Dichloroethene	**0.51**	**J**	2.0	0.25	ug/L			05/23/24 15:14	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			05/23/24 15:14	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			05/23/24 15:14	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			05/23/24 15:14	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			05/23/24 15:14	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			05/23/24 15:14	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			05/23/24 15:14	1
1,2-Dichlorobenzene	**3.2**		2.0	0.31	ug/L			05/23/24 15:14	1
1,3-Dichlorobenzene	**0.85**	**J**	2.0	0.31	ug/L			05/23/24 15:14	1
1,4-Dichlorobenzene	**13**		2.0	0.31	ug/L			05/23/24 15:14	1
Dichlorodifluoromethane	1.0	U Q	2.0	0.36	ug/L			05/23/24 15:14	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			05/23/24 15:14	1
1,2-Dichloroethane	1.0	U	2.0	0.25	ug/L			05/23/24 15:14	1
1,1-Dichloroethene	1.0	U	2.0	0.33	ug/L			05/23/24 15:14	1
1,2-Dichloroethene, Total	**0.51**	**J**	2.0	0.37	ug/L			05/23/24 15:14	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			05/23/24 15:14	1

Client Sample ID: OU6-MW-261-20240516
Date Collected: 05/16/24 11:15
Date Received: 05/17/24 10:29

Lab Sample ID: 680-250910-8
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			05/23/24 15:14	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			05/23/24 15:14	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			05/23/24 15:14	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			05/23/24 15:14	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			05/23/24 15:14	1
2-Hexanone	10	U	20	3.2	ug/L			05/23/24 15:14	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			05/23/24 15:14	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			05/23/24 15:14	1
Methyl acetate	10	U	20	3.2	ug/L			05/23/24 15:14	1
Methylcyclohexane	1.0	U	2.0	0.33	ug/L			05/23/24 15:14	1
Methylene Chloride	10	U	20	3.2	ug/L			05/23/24 15:14	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			05/23/24 15:14	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			05/23/24 15:14	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			05/23/24 15:14	1
Naphthalene	5.0	U	10	2.4	ug/L			05/23/24 15:14	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			05/23/24 15:14	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			05/23/24 15:14	1
o-Xylene	1.0	U	2.0	0.26	ug/L			05/23/24 15:14	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			05/23/24 15:14	1
Styrene	1.0	U	2.0	0.27	ug/L			05/23/24 15:14	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			05/23/24 15:14	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			05/23/24 15:14	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			05/23/24 15:14	1
Tetrachloroethene	1.0	U	2.0	0.35	ug/L			05/23/24 15:14	1
Toluene	1.0	U	2.0	0.25	ug/L			05/23/24 15:14	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			05/23/24 15:14	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			05/23/24 15:14	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			05/23/24 15:14	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			05/23/24 15:14	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			05/23/24 15:14	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			05/23/24 15:14	1
Trichloroethene	**0.32**	**J**	1.0	0.20	ug/L			05/23/24 15:14	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			05/23/24 15:14	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			05/23/24 15:14	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			05/23/24 15:14	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			05/23/24 15:14	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			05/23/24 15:14	1
Vinyl chloride	**0.51**	**J**	2.0	0.40	ug/L			05/23/24 15:14	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			05/23/24 15:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*86*		*85 - 114*		*05/23/24 15:14*	*1*
Dibromofluoromethane (Surr)	*103*		*80 - 119*		*05/23/24 15:14*	*1*
1,2-Dichloroethane-d4 (Surr)	*93*		*81 - 118*		*05/23/24 15:14*	*1*
Toluene-d8 (Surr)	*104*		*89 - 112*		*05/23/24 15:14*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	2.0	U M	5.0	1.0	ug/L		05/24/24 14:22	05/25/24 03:36	1
Ethylene	2.0	U	5.0	1.0	ug/L		05/24/24 14:22	05/25/24 03:36	1

Client Sample ID: OU6-MW-261-20240516

Lab Sample ID: 680-250910-8

Date Collected: 05/16/24 11:15

Matrix: Water

Date Received: 05/17/24 10:29

Method: RSK-175 - Dissolved Gases (GC) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	**210**	**M**	6.5	3.0	ug/L		05/24/24 14:22	05/25/24 03:36	1

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**8.7**	**J1**	0.55	0.20	mg/L			05/29/24 23:04	1
Nitrate as N	0.050	U	0.055	0.023	mg/L			05/17/24 17:25	1
Nitrate Nitrite as N	0.050	U	0.055	0.023	mg/L			05/17/24 17:25	1
Sulfate	**34**	**J1**	1.5	0.40	mg/L			05/29/24 23:04	1
Nitrite as N	0.050	U M	0.055	0.023	mg/L			05/17/24 17:25	1

Method: SW846 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**180**		10	2.2	ug/L		05/20/24 12:17	05/22/24 11:29	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**470**		5.5	2.2	mg/L			05/20/24 17:06	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	**470**		11	5.0	mg/L			05/20/24 17:06	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	10	U	11	5.0	mg/L			05/20/24 17:06	1
Sulfide (SM 4500 S2 F-2011)	0.81	U	0.81	0.81	mg/L			05/21/24 14:01	1
Sulfide as H2S (SM 4500 S2 F-2011)	0.89	U	0.89	0.89	mg/L			05/21/24 14:01	1
Total Organic Carbon (SW846 9060A)	**8.0**		1.0	0.50	mg/L			05/23/24 10:39	1
Carbon Dioxide, Free (SM 4500 CO2 D)	**220**		11	5.0	mg/L			05/20/24 17:06	1

Client Sample ID: OU6-MW-142-20240515

Lab Sample ID: 680-250910-9

Date Collected: 05/15/24 10:32

Matrix: Water

Date Received: 05/17/24 10:29

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			05/23/24 15:35	1
Benzene	1.0	U	2.0	0.27	ug/L			05/23/24 15:35	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			05/23/24 15:35	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			05/23/24 15:35	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			05/23/24 15:35	1
Bromoform	2.0	U	2.5	0.59	ug/L			05/23/24 15:35	1
Bromomethane	10	U Q	20	3.7	ug/L			05/23/24 15:35	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			05/23/24 15:35	1
Carbon disulfide	1.0	U	2.0	0.43	ug/L			05/23/24 15:35	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			05/23/24 15:35	1
Chlorobenzene	**0.76**	**J M**	1.0	0.15	ug/L			05/23/24 15:35	1
Chloroethane	10	U	20	4.6	ug/L			05/23/24 15:35	1
Chloroform	1.0	U	2.0	0.27	ug/L			05/23/24 15:35	1
Chloromethane	2.0	U	2.5	0.54	ug/L			05/23/24 15:35	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			05/23/24 15:35	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			05/23/24 15:35	1
cis-1,2-Dichloroethene	**6.4**		2.0	0.25	ug/L			05/23/24 15:35	1

Client Sample ID: OU6-MW-142-20240515
Date Collected: 05/15/24 10:32
Date Received: 05/17/24 10:29

Lab Sample ID: 680-250910-9
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			05/23/24 15:35	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			05/23/24 15:35	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			05/23/24 15:35	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			05/23/24 15:35	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			05/23/24 15:35	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			05/23/24 15:35	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/23/24 15:35	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/23/24 15:35	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/23/24 15:35	1
Dichlorodifluoromethane	1.0	U Q	2.0	0.36	ug/L			05/23/24 15:35	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			05/23/24 15:35	1
1,2-Dichloroethane	1.0	U M	2.0	0.25	ug/L			05/23/24 15:35	1
1,1-Dichloroethene	1.0	U	2.0	0.33	ug/L			05/23/24 15:35	1
1,2-Dichloroethene, Total	**6.4**		2.0	0.37	ug/L			05/23/24 15:35	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			05/23/24 15:35	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			05/23/24 15:35	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			05/23/24 15:35	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			05/23/24 15:35	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			05/23/24 15:35	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			05/23/24 15:35	1
2-Hexanone	10	U	20	3.2	ug/L			05/23/24 15:35	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			05/23/24 15:35	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			05/23/24 15:35	1
Methyl acetate	10	U	20	3.2	ug/L			05/23/24 15:35	1
Methylcyclohexane	1.0	U	2.0	0.33	ug/L			05/23/24 15:35	1
Methylene Chloride	10	U	20	3.2	ug/L			05/23/24 15:35	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			05/23/24 15:35	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			05/23/24 15:35	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			05/23/24 15:35	1
Naphthalene	5.0	U	10	2.4	ug/L			05/23/24 15:35	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			05/23/24 15:35	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			05/23/24 15:35	1
o-Xylene	1.0	U	2.0	0.26	ug/L			05/23/24 15:35	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			05/23/24 15:35	1
Styrene	1.0	U	2.0	0.27	ug/L			05/23/24 15:35	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			05/23/24 15:35	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			05/23/24 15:35	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			05/23/24 15:35	1
Tetrachloroethene	1.0	U	2.0	0.35	ug/L			05/23/24 15:35	1
Toluene	1.0	U	2.0	0.25	ug/L			05/23/24 15:35	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			05/23/24 15:35	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			05/23/24 15:35	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			05/23/24 15:35	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			05/23/24 15:35	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			05/23/24 15:35	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			05/23/24 15:35	1
Trichloroethene	**2.3**		1.0	0.20	ug/L			05/23/24 15:35	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			05/23/24 15:35	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			05/23/24 15:35	1

Client Sample ID: OU6-MW-142-20240515

Lab Sample ID: 680-250910-9
Date Collected: 05/15/24 10:32
Matrix: Water
Date Received: 05/17/24 10:29

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			05/23/24 15:35	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			05/23/24 15:35	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			05/23/24 15:35	1
Vinyl chloride	**0.68**	**J**	2.0	0.40	ug/L			05/23/24 15:35	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			05/23/24 15:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*85 - 114*		*05/23/24 15:35*	*1*
Dibromofluoromethane (Surr)	*107*		*80 - 119*		*05/23/24 15:35*	*1*
1,2-Dichloroethane-d4 (Surr)	*98*		*81 - 118*		*05/23/24 15:35*	*1*
Toluene-d8 (Surr)	*105*		*89 - 112*		*05/23/24 15:35*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	2.0	U	5.0	1.0	ug/L		05/24/24 13:13	05/24/24 22:53	1
Ethylene	2.0	U M	5.0	1.0	ug/L		05/24/24 13:13	05/24/24 22:53	1
Methane	**3.2**	**J M**	6.5	3.0	ug/L		05/24/24 13:13	05/24/24 22:53	1

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**3.2**		0.55	0.20	mg/L			05/29/24 23:24	1
Nitrate as N	0.050	U H	0.055	0.023	mg/L			05/17/24 17:33	1
Nitrate Nitrite as N	0.050	U H	0.055	0.023	mg/L			05/17/24 17:33	1
Sulfate	**11**		1.5	0.40	mg/L			05/29/24 23:24	1
Nitrite as N	0.050	U H	0.055	0.023	mg/L			05/17/24 17:33	1

Method: SW846 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**25**		10	2.2	ug/L		05/20/24 12:17	05/22/24 11:33	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**32**		5.5	2.2	mg/L			05/20/24 16:54	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	**32**		11	5.0	mg/L			05/20/24 16:54	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	10	U	11	5.0	mg/L			05/20/24 16:54	1
Sulfide (SM 4500 S2 F-2011)	0.81	U	0.81	0.81	mg/L			05/21/24 14:01	1
Sulfide as H2S (SM 4500 S2 F-2011)	0.89	U	0.89	0.89	mg/L			05/21/24 14:01	1
Total Organic Carbon (SW846 9060A)	**0.72**	**J**	1.0	0.50	mg/L			05/23/24 12:48	1
Carbon Dioxide, Free (SM 4500 CO2 D)	**43**		11	5.0	mg/L			05/20/24 16:54	1

Client Sample ID: OU6-MW-278-20240516

Lab Sample ID: 680-250910-10
Date Collected: 05/15/24 12:15
Matrix: Water
Date Received: 05/17/24 10:29

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			05/23/24 15:57	1

Client Sample ID: OU6-MW-278-20240516
Date Collected: 05/15/24 12:15
Date Received: 05/17/24 10:29

Lab Sample ID: 680-250910-10
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	2.0	0.27	ug/L			05/23/24 15:57	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			05/23/24 15:57	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			05/23/24 15:57	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			05/23/24 15:57	1
Bromoform	2.0	U	2.5	0.59	ug/L			05/23/24 15:57	1
Bromomethane	10	U Q	20	3.7	ug/L			05/23/24 15:57	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			05/23/24 15:57	1
Carbon disulfide	1.0	U	2.0	0.43	ug/L			05/23/24 15:57	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			05/23/24 15:57	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			05/23/24 15:57	1
Chloroethane	10	U	20	4.6	ug/L			05/23/24 15:57	1
Chloroform	1.0	U	2.0	0.27	ug/L			05/23/24 15:57	1
Chloromethane	2.0	U	2.5	0.54	ug/L			05/23/24 15:57	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			05/23/24 15:57	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			05/23/24 15:57	1
cis-1,2-Dichloroethene	1.0	U	2.0	0.25	ug/L			05/23/24 15:57	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			05/23/24 15:57	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			05/23/24 15:57	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			05/23/24 15:57	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			05/23/24 15:57	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			05/23/24 15:57	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			05/23/24 15:57	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/23/24 15:57	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/23/24 15:57	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/23/24 15:57	1
Dichlorodifluoromethane	1.0	U Q	2.0	0.36	ug/L			05/23/24 15:57	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			05/23/24 15:57	1
1,2-Dichloroethane	1.0	U M	2.0	0.25	ug/L			05/23/24 15:57	1
1,1-Dichloroethene	1.0	U	2.0	0.33	ug/L			05/23/24 15:57	1
1,2-Dichloroethene, Total	1.0	U	2.0	0.37	ug/L			05/23/24 15:57	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			05/23/24 15:57	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			05/23/24 15:57	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			05/23/24 15:57	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			05/23/24 15:57	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			05/23/24 15:57	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			05/23/24 15:57	1
2-Hexanone	10	U	20	3.2	ug/L			05/23/24 15:57	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			05/23/24 15:57	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			05/23/24 15:57	1
Methyl acetate	10	U	20	3.2	ug/L			05/23/24 15:57	1
Methylcyclohexane	1.0	U	2.0	0.33	ug/L			05/23/24 15:57	1
Methylene Chloride	10	U	20	3.2	ug/L			05/23/24 15:57	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			05/23/24 15:57	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			05/23/24 15:57	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			05/23/24 15:57	1
Naphthalene	5.0	U	10	2.4	ug/L			05/23/24 15:57	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			05/23/24 15:57	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			05/23/24 15:57	1
o-Xylene	1.0	U	2.0	0.26	ug/L			05/23/24 15:57	1

Client Sample ID: OU6-MW-278-20240516
Date Collected: 05/15/24 12:15
Date Received: 05/17/24 10:29

Lab Sample ID: 680-250910-10
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			05/23/24 15:57	1
Styrene	1.0	U	2.0	0.27	ug/L			05/23/24 15:57	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			05/23/24 15:57	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			05/23/24 15:57	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			05/23/24 15:57	1
Tetrachloroethene	1.0	U	2.0	0.35	ug/L			05/23/24 15:57	1
Toluene	1.0	U	2.0	0.25	ug/L			05/23/24 15:57	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			05/23/24 15:57	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			05/23/24 15:57	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			05/23/24 15:57	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			05/23/24 15:57	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			05/23/24 15:57	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			05/23/24 15:57	1
Trichloroethene	0.50	U	1.0	0.20	ug/L			05/23/24 15:57	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			05/23/24 15:57	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			05/23/24 15:57	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			05/23/24 15:57	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			05/23/24 15:57	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			05/23/24 15:57	1
Vinyl chloride	1.0	U	2.0	0.40	ug/L			05/23/24 15:57	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			05/23/24 15:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*85 - 114*		*05/23/24 15:57*	*1*
Dibromofluoromethane (Surr)	*105*		*80 - 119*		*05/23/24 15:57*	*1*
1,2-Dichloroethane-d4 (Surr)	*96*		*81 - 118*		*05/23/24 15:57*	*1*
Toluene-d8 (Surr)	*106*		*89 - 112*		*05/23/24 15:57*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	2.0	U	5.0	1.0	ug/L		05/24/24 13:13	05/24/24 23:08	1
Ethylene	2.0	U M	5.0	1.0	ug/L		05/24/24 13:13	05/24/24 23:08	1

Method: RSK-175 - Dissolved Gases (GC) - DL

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	**3200**	**D M**	65	30	ug/L		05/24/24 13:13	05/24/24 23:24	10

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1.3**		0.55	0.20	mg/L			05/29/24 23:31	1
Nitrate as N	0.050	U H	0.055	0.023	mg/L			05/17/24 17:41	1
Nitrate Nitrite as N	0.050	U H	0.055	0.023	mg/L			05/17/24 17:41	1
Sulfate	**5.4**		1.5	0.40	mg/L			05/29/24 23:31	1
Nitrite as N	0.050	U H	0.055	0.023	mg/L			05/17/24 17:41	1

Method: SW846 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**54**		10	2.2	ug/L		05/20/24 12:17	05/22/24 11:37	1

Client Sample ID: OU6-MW-278-20240516

Lab Sample ID: 680-250910-10

Date Collected: 05/15/24 12:15

Matrix: Water

Date Received: 05/17/24 10:29

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**130**		5.5	2.2	mg/L			05/20/24 20:04	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	**130**		11	5.0	mg/L			05/20/24 20:04	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	10	U	11	5.0	mg/L			05/20/24 20:04	1
Sulfide (SM 4500 S2 F-2011)	0.81	U	0.81	0.81	mg/L			05/21/24 14:01	1
Sulfide as H2S (SM 4500 S2 F-2011)	0.89	U	0.89	0.89	mg/L			05/21/24 14:01	1
Total Organic Carbon (SW846 9060A)	**2.2**		1.0	0.50	mg/L			05/23/24 13:29	1
Carbon Dioxide, Free (SM 4500 CO2 D)	**53**		11	5.0	mg/L			05/20/24 20:04	1

Client Sample ID: OU6-MW-166-20240516

Lab Sample ID: 680-250910-11

Date Collected: 05/16/24 08:58

Matrix: Water

Date Received: 05/17/24 10:29

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			05/23/24 16:18	1
Benzene	1.0	U	2.0	0.27	ug/L			05/23/24 16:18	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			05/23/24 16:18	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			05/23/24 16:18	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			05/23/24 16:18	1
Bromoform	2.0	U	2.5	0.59	ug/L			05/23/24 16:18	1
Bromomethane	10	U Q	20	3.7	ug/L			05/23/24 16:18	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			05/23/24 16:18	1
Carbon disulfide	1.0	U	2.0	0.43	ug/L			05/23/24 16:18	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			05/23/24 16:18	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			05/23/24 16:18	1
Chloroethane	10	U	20	4.6	ug/L			05/23/24 16:18	1
Chloroform	1.0	U	2.0	0.27	ug/L			05/23/24 16:18	1
Chloromethane	2.0	U	2.5	0.54	ug/L			05/23/24 16:18	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			05/23/24 16:18	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			05/23/24 16:18	1
cis-1,2-Dichloroethene	**2.8**		2.0	0.25	ug/L			05/23/24 16:18	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			05/23/24 16:18	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			05/23/24 16:18	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			05/23/24 16:18	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			05/23/24 16:18	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			05/23/24 16:18	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			05/23/24 16:18	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/23/24 16:18	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/23/24 16:18	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/23/24 16:18	1
Dichlorodifluoromethane	1.0	U Q	2.0	0.36	ug/L			05/23/24 16:18	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			05/23/24 16:18	1
1,2-Dichloroethane	1.0	U M	2.0	0.25	ug/L			05/23/24 16:18	1
1,1-Dichloroethene	1.0	U	2.0	0.33	ug/L			05/23/24 16:18	1
1,2-Dichloroethene, Total	**2.8**		2.0	0.37	ug/L			05/23/24 16:18	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			05/23/24 16:18	1

Client Sample ID: OU6-MW-166-20240516

Lab Sample ID: 680-250910-11

Date Collected: 05/16/24 08:58

Matrix: Water

Date Received: 05/17/24 10:29

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			05/23/24 16:18	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			05/23/24 16:18	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			05/23/24 16:18	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			05/23/24 16:18	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			05/23/24 16:18	1
2-Hexanone	10	U	20	3.2	ug/L			05/23/24 16:18	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			05/23/24 16:18	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			05/23/24 16:18	1
Methyl acetate	10	U	20	3.2	ug/L			05/23/24 16:18	1
Methylcyclohexane	1.0	U	2.0	0.33	ug/L			05/23/24 16:18	1
Methylene Chloride	10	U	20	3.2	ug/L			05/23/24 16:18	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			05/23/24 16:18	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			05/23/24 16:18	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			05/23/24 16:18	1
Naphthalene	5.0	U	10	2.4	ug/L			05/23/24 16:18	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			05/23/24 16:18	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			05/23/24 16:18	1
o-Xylene	1.0	U	2.0	0.26	ug/L			05/23/24 16:18	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			05/23/24 16:18	1
Styrene	1.0	U	2.0	0.27	ug/L			05/23/24 16:18	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			05/23/24 16:18	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			05/23/24 16:18	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			05/23/24 16:18	1
Tetrachloroethene	**1.2**	**J**	2.0	0.35	ug/L			05/23/24 16:18	1
Toluene	1.0	U	2.0	0.25	ug/L			05/23/24 16:18	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			05/23/24 16:18	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			05/23/24 16:18	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			05/23/24 16:18	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			05/23/24 16:18	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			05/23/24 16:18	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			05/23/24 16:18	1
Trichloroethene	**32**		1.0	0.20	ug/L			05/23/24 16:18	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			05/23/24 16:18	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			05/23/24 16:18	1
1,1,2-Trichloro-1,2,2-trifluoroethane	**1.3**		1.0	0.23	ug/L			05/23/24 16:18	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			05/23/24 16:18	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			05/23/24 16:18	1
Vinyl chloride	1.0	U	2.0	0.40	ug/L			05/23/24 16:18	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			05/23/24 16:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*85 - 114*		*05/23/24 16:18*	*1*
Dibromofluoromethane (Surr)	*103*		*80 - 119*		*05/23/24 16:18*	*1*
1,2-Dichloroethane-d4 (Surr)	*93*		*81 - 118*		*05/23/24 16:18*	*1*
Toluene-d8 (Surr)	*106*		*89 - 112*		*05/23/24 16:18*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	2.0	U	5.0	1.0	ug/L		05/24/24 14:22	05/25/24 03:52	1

Client Sample ID: OU6-MW-166-20240516

Lab Sample ID: 680-250910-11

Date Collected: 05/16/24 08:58

Matrix: Water

Date Received: 05/17/24 10:29

Method: RSK-175 - Dissolved Gases (GC) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene	2.0	U	5.0	1.0	ug/L		05/24/24 14:22	05/25/24 03:52	1
Methane	6.0	U M	6.5	3.0	ug/L		05/24/24 14:22	05/25/24 03:52	1

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**5.9**	**M**	0.55	0.20	mg/L			05/29/24 23:38	1
Nitrate as N	**0.66**	**M J1**	0.055	0.023	mg/L			05/17/24 18:06	1
Nitrate Nitrite as N	**0.66**		0.055	0.023	mg/L			05/17/24 18:06	1
Sulfate	**3.1**		1.5	0.40	mg/L			05/29/24 23:38	1
Nitrite as N	0.050	U	0.055	0.023	mg/L			05/17/24 18:06	1

Method: SW846 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**28**		10	2.2	ug/L		05/20/24 12:17	05/22/24 11:41	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**26**		5.5	2.2	mg/L			05/20/24 19:55	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	**26**		11	5.0	mg/L			05/20/24 19:55	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	10	U	11	5.0	mg/L			05/20/24 19:55	1
Sulfide (SM 4500 S2 F-2011)	0.86	U	0.86	0.86	mg/L			05/21/24 14:01	1
Sulfide as H2S (SM 4500 S2 F-2011)	0.95	U	0.95	0.95	mg/L			05/21/24 14:01	1
Total Organic Carbon (SW846 9060A)	1.0	U	1.0	0.50	mg/L			05/23/24 13:51	1
Carbon Dioxide, Free (SM 4500 CO2 D)	**35**		11	5.0	mg/L			05/20/24 19:55	1

Client Sample ID: OU6-MW-167-20240516

Lab Sample ID: 680-250910-12

Date Collected: 05/16/24 10:35

Matrix: Water

Date Received: 05/17/24 10:29

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	**180**		25	3.7	ug/L			05/23/24 16:40	1
Benzene	1.0	U	2.0	0.27	ug/L			05/23/24 16:40	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			05/23/24 16:40	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			05/23/24 16:40	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			05/23/24 16:40	1
Bromoform	2.0	U	2.5	0.59	ug/L			05/23/24 16:40	1
Bromomethane	10	U Q	20	3.7	ug/L			05/23/24 16:40	1
2-Butanone (MEK)	**20**	**J**	25	6.4	ug/L			05/23/24 16:40	1
Carbon disulfide	1.0	U	2.0	0.43	ug/L			05/23/24 16:40	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			05/23/24 16:40	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			05/23/24 16:40	1
Chloroethane	10	U	20	4.6	ug/L			05/23/24 16:40	1
Chloroform	1.0	U	2.0	0.27	ug/L			05/23/24 16:40	1
Chloromethane	2.0	U M	2.5	0.54	ug/L			05/23/24 16:40	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			05/23/24 16:40	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			05/23/24 16:40	1
cis-1,2-Dichloroethene	**0.98**	**J**	2.0	0.25	ug/L			05/23/24 16:40	1

Client Sample ID: OU6-MW-167-20240516
Date Collected: 05/16/24 10:35
Date Received: 05/17/24 10:29

Lab Sample ID: 680-250910-12
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			05/23/24 16:40	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			05/23/24 16:40	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			05/23/24 16:40	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			05/23/24 16:40	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			05/23/24 16:40	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			05/23/24 16:40	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/23/24 16:40	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/23/24 16:40	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/23/24 16:40	1
Dichlorodifluoromethane	1.0	U Q	2.0	0.36	ug/L			05/23/24 16:40	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			05/23/24 16:40	1
1,2-Dichloroethane	1.0	U M	2.0	0.25	ug/L			05/23/24 16:40	1
1,1-Dichloroethene	1.0	U	2.0	0.33	ug/L			05/23/24 16:40	1
1,2-Dichloroethene, Total	**0.98**	**J**	2.0	0.37	ug/L			05/23/24 16:40	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			05/23/24 16:40	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			05/23/24 16:40	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			05/23/24 16:40	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			05/23/24 16:40	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			05/23/24 16:40	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			05/23/24 16:40	1
2-Hexanone	10	U M	20	3.2	ug/L			05/23/24 16:40	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			05/23/24 16:40	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			05/23/24 16:40	1
Methyl acetate	10	U	20	3.2	ug/L			05/23/24 16:40	1
Methylcyclohexane	1.0	U	2.0	0.33	ug/L			05/23/24 16:40	1
Methylene Chloride	10	U	20	3.2	ug/L			05/23/24 16:40	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			05/23/24 16:40	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			05/23/24 16:40	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			05/23/24 16:40	1
Naphthalene	5.0	U	10	2.4	ug/L			05/23/24 16:40	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			05/23/24 16:40	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			05/23/24 16:40	1
o-Xylene	1.0	U	2.0	0.26	ug/L			05/23/24 16:40	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			05/23/24 16:40	1
Styrene	1.0	U	2.0	0.27	ug/L			05/23/24 16:40	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			05/23/24 16:40	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			05/23/24 16:40	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			05/23/24 16:40	1
Tetrachloroethene	1.0	U	2.0	0.35	ug/L			05/23/24 16:40	1
Toluene	1.0	U	2.0	0.25	ug/L			05/23/24 16:40	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			05/23/24 16:40	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			05/23/24 16:40	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			05/23/24 16:40	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			05/23/24 16:40	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			05/23/24 16:40	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			05/23/24 16:40	1
Trichloroethene	**3.0**		1.0	0.20	ug/L			05/23/24 16:40	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			05/23/24 16:40	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			05/23/24 16:40	1

Client Sample ID: OU6-MW-167-20240516

Lab Sample ID: 680-250910-12

Date Collected: 05/16/24 10:35

Matrix: Water

Date Received: 05/17/24 10:29

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			05/23/24 16:40	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			05/23/24 16:40	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			05/23/24 16:40	1
Vinyl chloride	1.0	U M	2.0	0.40	ug/L			05/23/24 16:40	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			05/23/24 16:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*85 - 114*		*05/23/24 16:40*	*1*
Dibromofluoromethane (Surr)	*106*		*80 - 119*		*05/23/24 16:40*	*1*
1,2-Dichloroethane-d4 (Surr)	*95*		*81 - 118*		*05/23/24 16:40*	*1*
Toluene-d8 (Surr)	*92*		*89 - 112*		*05/23/24 16:40*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	2.0	U	5.0	1.0	ug/L		05/24/24 14:22	05/25/24 04:07	1
Ethylene	2.0	U	5.0	1.0	ug/L		05/24/24 14:22	05/25/24 04:07	1

Method: RSK-175 - Dissolved Gases (GC) - DL

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	**15000**	**D M**	330	150	ug/L		05/24/24 14:22	05/25/24 04:22	50

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1.7**	**M**	0.55	0.20	mg/L			05/29/24 23:44	1
Nitrate as N	0.050	U	0.055	0.023	mg/L			05/17/24 18:31	1
Nitrate Nitrite as N	0.050	U	0.055	0.023	mg/L			05/17/24 18:31	1
Sulfate	**0.76**	**J**	1.5	0.40	mg/L			05/29/24 23:44	1
Nitrite as N	0.050	U	0.055	0.023	mg/L			05/17/24 18:31	1

Method: SW846 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**330**		10	2.2	ug/L		05/20/24 12:17	05/22/24 11:46	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**59**		5.5	2.2	mg/L			05/20/24 20:14	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	**59**		11	5.0	mg/L			05/20/24 20:14	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	10	U	11	5.0	mg/L			05/20/24 20:14	1
Sulfide (SM 4500 S2 F-2011)	0.83	U	0.83	0.83	mg/L			05/22/24 14:17	1
Sulfide as H2S (SM 4500 S2 F-2011)	0.92	U	0.92	0.92	mg/L			05/22/24 14:17	1
Total Organic Carbon (SW846 9060A)	**62**		1.0	0.50	mg/L			05/23/24 14:10	1
Carbon Dioxide, Free (SM 4500 CO2 D)	**110**		11	5.0	mg/L			05/20/24 20:14	1

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-250910-1

Client Sample ID: OU6-MW-249-20240516
Date Collected: 05/16/24 13:45
Date Received: 05/17/24 10:29

Lab Sample ID: 680-250910-13
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			05/23/24 17:01	1
Benzene	1.0	U	2.0	0.27	ug/L			05/23/24 17:01	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			05/23/24 17:01	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			05/23/24 17:01	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			05/23/24 17:01	1
Bromoform	2.0	U	2.5	0.59	ug/L			05/23/24 17:01	1
Bromomethane	10	U Q	20	3.7	ug/L			05/23/24 17:01	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			05/23/24 17:01	1
Carbon disulfide	1.0	U	2.0	0.43	ug/L			05/23/24 17:01	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			05/23/24 17:01	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			05/23/24 17:01	1
Chloroethane	10	U	20	4.6	ug/L			05/23/24 17:01	1
Chloroform	1.0	U	2.0	0.27	ug/L			05/23/24 17:01	1
Chloromethane	2.0	U	2.5	0.54	ug/L			05/23/24 17:01	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			05/23/24 17:01	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			05/23/24 17:01	1
cis-1,2-Dichloroethene	**0.99**	**J**	2.0	0.25	ug/L			05/23/24 17:01	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			05/23/24 17:01	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			05/23/24 17:01	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			05/23/24 17:01	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			05/23/24 17:01	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			05/23/24 17:01	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			05/23/24 17:01	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/23/24 17:01	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/23/24 17:01	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/23/24 17:01	1
Dichlorodifluoromethane	1.0	U Q	2.0	0.36	ug/L			05/23/24 17:01	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			05/23/24 17:01	1
1,2-Dichloroethane	1.0	U	2.0	0.25	ug/L			05/23/24 17:01	1
1,1-Dichloroethene	1.0	U	2.0	0.33	ug/L			05/23/24 17:01	1
1,2-Dichloroethene, Total	**0.99**	**J**	2.0	0.37	ug/L			05/23/24 17:01	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			05/23/24 17:01	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			05/23/24 17:01	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			05/23/24 17:01	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			05/23/24 17:01	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			05/23/24 17:01	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			05/23/24 17:01	1
2-Hexanone	10	U	20	3.2	ug/L			05/23/24 17:01	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			05/23/24 17:01	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			05/23/24 17:01	1
Methyl acetate	10	U	20	3.2	ug/L			05/23/24 17:01	1
Methylcyclohexane	1.0	U	2.0	0.33	ug/L			05/23/24 17:01	1
Methylene Chloride	10	U	20	3.2	ug/L			05/23/24 17:01	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			05/23/24 17:01	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			05/23/24 17:01	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			05/23/24 17:01	1
Naphthalene	5.0	U	10	2.4	ug/L			05/23/24 17:01	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			05/23/24 17:01	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			05/23/24 17:01	1

Client Sample ID: OU6-MW-249-20240516

Lab Sample ID: 680-250910-13

Date Collected: 05/16/24 13:45

Matrix: Water

Date Received: 05/17/24 10:29

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	1.0	U	2.0	0.26	ug/L			05/23/24 17:01	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			05/23/24 17:01	1
Styrene	1.0	U	2.0	0.27	ug/L			05/23/24 17:01	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			05/23/24 17:01	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			05/23/24 17:01	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			05/23/24 17:01	1
Tetrachloroethene	**0.47**	**J**	2.0	0.35	ug/L			05/23/24 17:01	1
Toluene	1.0	U	2.0	0.25	ug/L			05/23/24 17:01	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			05/23/24 17:01	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			05/23/24 17:01	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			05/23/24 17:01	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			05/23/24 17:01	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			05/23/24 17:01	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			05/23/24 17:01	1
Trichloroethene	**0.34**	**J M**	1.0	0.20	ug/L			05/23/24 17:01	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			05/23/24 17:01	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			05/23/24 17:01	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			05/23/24 17:01	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			05/23/24 17:01	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			05/23/24 17:01	1
Vinyl chloride	1.0	U	2.0	0.40	ug/L			05/23/24 17:01	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			05/23/24 17:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*85 - 114*		*05/23/24 17:01*	*1*
Dibromofluoromethane (Surr)	*102*		*80 - 119*		*05/23/24 17:01*	*1*
1,2-Dichloroethane-d4 (Surr)	*95*		*81 - 118*		*05/23/24 17:01*	*1*
Toluene-d8 (Surr)	*106*		*89 - 112*		*05/23/24 17:01*	*1*

Client Sample ID: OU6-MW-248-20240516

Lab Sample ID: 680-250910-14

Date Collected: 05/16/24 11:05

Matrix: Water

Date Received: 05/17/24 10:29

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			05/29/24 18:02	1
Benzene	1.0	U	2.0	0.27	ug/L			05/29/24 18:02	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			05/29/24 18:02	1
Bromochloromethane	1.0	U Q	2.0	0.34	ug/L			05/29/24 18:02	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			05/29/24 18:02	1
Bromoform	2.0	U	2.5	0.59	ug/L			05/29/24 18:02	1
Bromomethane	10	U	20	3.7	ug/L			05/29/24 18:02	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			05/29/24 18:02	1
Carbon disulfide	1.0	U Q	2.0	0.43	ug/L			05/29/24 18:02	1
Carbon tetrachloride	1.0	U Q	2.0	0.30	ug/L			05/29/24 18:02	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			05/29/24 18:02	1
Chloroethane	10	U	20	4.6	ug/L			05/29/24 18:02	1
Chloroform	1.0	U	2.0	0.27	ug/L			05/29/24 18:02	1
Chloromethane	2.0	U	2.5	0.54	ug/L			05/29/24 18:02	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			05/29/24 18:02	1

Client Sample ID: OU6-MW-248-20240516
Date Collected: 05/16/24 11:05
Date Received: 05/17/24 10:29

Lab Sample ID: 680-250910-14
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			05/29/24 18:02	1
cis-1,2-Dichloroethene	**4.1**		2.0	0.25	ug/L			05/29/24 18:02	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			05/29/24 18:02	1
Cyclohexane	1.0	U Q	2.0	0.28	ug/L			05/29/24 18:02	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			05/29/24 18:02	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			05/29/24 18:02	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			05/29/24 18:02	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			05/29/24 18:02	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/29/24 18:02	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/29/24 18:02	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/29/24 18:02	1
Dichlorodifluoromethane	1.0	U Q	2.0	0.36	ug/L			05/29/24 18:02	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			05/29/24 18:02	1
1,2-Dichloroethane	1.0	U M	2.0	0.25	ug/L			05/29/24 18:02	1
1,1-Dichloroethene	1.0	U	2.0	0.33	ug/L			05/29/24 18:02	1
1,2-Dichloroethene, Total	**4.1**		2.0	0.37	ug/L			05/29/24 18:02	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			05/29/24 18:02	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			05/29/24 18:02	1
2,2-Dichloropropane	1.0	U Q	2.0	0.35	ug/L			05/29/24 18:02	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			05/29/24 18:02	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			05/29/24 18:02	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			05/29/24 18:02	1
2-Hexanone	10	U	20	3.2	ug/L			05/29/24 18:02	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			05/29/24 18:02	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			05/29/24 18:02	1
Methyl acetate	10	U	20	3.2	ug/L			05/29/24 18:02	1
Methylcyclohexane	1.0	U Q	2.0	0.33	ug/L			05/29/24 18:02	1
Methylene Chloride	10	U	20	3.2	ug/L			05/29/24 18:02	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			05/29/24 18:02	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			05/29/24 18:02	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			05/29/24 18:02	1
Naphthalene	5.0	U	10	2.4	ug/L			05/29/24 18:02	1
n-Butylbenzene	2.0	U Q	2.5	0.52	ug/L			05/29/24 18:02	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			05/29/24 18:02	1
o-Xylene	1.0	U	2.0	0.26	ug/L			05/29/24 18:02	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			05/29/24 18:02	1
Styrene	1.0	U	2.0	0.27	ug/L			05/29/24 18:02	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			05/29/24 18:02	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			05/29/24 18:02	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			05/29/24 18:02	1
Tetrachloroethene	**1.6**	**J**	2.0	0.35	ug/L			05/29/24 18:02	1
Toluene	1.0	U	2.0	0.25	ug/L			05/29/24 18:02	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			05/29/24 18:02	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			05/29/24 18:02	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			05/29/24 18:02	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			05/29/24 18:02	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			05/29/24 18:02	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			05/29/24 18:02	1
Trichloroethene	**1.7**		1.0	0.20	ug/L			05/29/24 18:02	1

Client Sample ID: OU6-MW-248-20240516
Date Collected: 05/16/24 11:05
Date Received: 05/17/24 10:29

Lab Sample ID: 680-250910-14
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			05/29/24 18:02	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			05/29/24 18:02	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U Q	1.0	0.23	ug/L			05/29/24 18:02	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			05/29/24 18:02	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			05/29/24 18:02	1
Vinyl chloride	1.0	U	2.0	0.40	ug/L			05/29/24 18:02	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			05/29/24 18:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*113*		*85 - 114*		*05/29/24 18:02*	*1*
Dibromofluoromethane (Surr)	*98*		*80 - 119*		*05/29/24 18:02*	*1*
1,2-Dichloroethane-d4 (Surr)	*101*		*81 - 118*		*05/29/24 18:02*	*1*
Toluene-d8 (Surr)	*103*		*89 - 112*		*05/29/24 18:02*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	2.0	U	5.0	1.0	ug/L		05/24/24 14:22	05/25/24 04:38	1
Ethylene	2.0	U M	5.0	1.0	ug/L		05/24/24 14:22	05/25/24 04:38	1
Methane	6.0	U M	6.5	3.0	ug/L		05/24/24 14:22	05/25/24 04:38	1

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**10**	**M**	0.55	0.20	mg/L			05/29/24 23:51	1
Nitrate as N	**0.75**	**M**	0.055	0.023	mg/L			05/17/24 18:39	1
Nitrate Nitrite as N	**0.75**		0.055	0.023	mg/L			05/17/24 18:39	1
Sulfate	**4.4**		1.5	0.40	mg/L			05/29/24 23:51	1
Nitrite as N	0.050	U M	0.055	0.023	mg/L			05/17/24 18:39	1

Method: SW846 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**31**		10	2.2	ug/L		05/20/24 12:17	05/22/24 11:50	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**13**		5.5	2.2	mg/L			05/21/24 18:18	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	**13**		11	5.0	mg/L			05/21/24 18:18	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	10	U	11	5.0	mg/L			05/21/24 18:18	1
Sulfide (SM 4500 S2 F-2011)	0.81	U	0.81	0.81	mg/L			05/22/24 14:17	1
Sulfide as H2S (SM 4500 S2 F-2011)	0.89	U	0.89	0.89	mg/L			05/22/24 14:17	1
Total Organic Carbon (SW846 9060A)	**0.70**	**J**	1.0	0.50	mg/L			05/23/24 14:34	1
Carbon Dioxide, Free (SM 4500 CO2 D)	**49**		11	5.0	mg/L			05/21/24 18:18	1

Client Sample ID: OU6-MW-298-20240516
Date Collected: 05/16/24 10:10
Date Received: 05/17/24 10:29

Lab Sample ID: 680-250910-15
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			05/23/24 17:44	1
Benzene	1.0	U	2.0	0.27	ug/L			05/23/24 17:44	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			05/23/24 17:44	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			05/23/24 17:44	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			05/23/24 17:44	1
Bromoform	2.0	U	2.5	0.59	ug/L			05/23/24 17:44	1
Bromomethane	10	U Q	20	3.7	ug/L			05/23/24 17:44	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			05/23/24 17:44	1
Carbon disulfide	1.0	U	2.0	0.43	ug/L			05/23/24 17:44	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			05/23/24 17:44	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			05/23/24 17:44	1
Chloroethane	10	U	20	4.6	ug/L			05/23/24 17:44	1
Chloroform	1.0	U	2.0	0.27	ug/L			05/23/24 17:44	1
Chloromethane	2.0	U	2.5	0.54	ug/L			05/23/24 17:44	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			05/23/24 17:44	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			05/23/24 17:44	1
cis-1,2-Dichloroethene	1.0	U	2.0	0.25	ug/L			05/23/24 17:44	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			05/23/24 17:44	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			05/23/24 17:44	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			05/23/24 17:44	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			05/23/24 17:44	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			05/23/24 17:44	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			05/23/24 17:44	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/23/24 17:44	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/23/24 17:44	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/23/24 17:44	1
Dichlorodifluoromethane	1.0	U Q	2.0	0.36	ug/L			05/23/24 17:44	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			05/23/24 17:44	1
1,2-Dichloroethane	1.0	U M	2.0	0.25	ug/L			05/23/24 17:44	1
1,1-Dichloroethene	1.0	U	2.0	0.33	ug/L			05/23/24 17:44	1
1,2-Dichloroethene, Total	1.0	U	2.0	0.37	ug/L			05/23/24 17:44	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			05/23/24 17:44	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			05/23/24 17:44	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			05/23/24 17:44	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			05/23/24 17:44	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			05/23/24 17:44	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			05/23/24 17:44	1
2-Hexanone	10	U	20	3.2	ug/L			05/23/24 17:44	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			05/23/24 17:44	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			05/23/24 17:44	1
Methyl acetate	10	U	20	3.2	ug/L			05/23/24 17:44	1
Methylcyclohexane	1.0	U	2.0	0.33	ug/L			05/23/24 17:44	1
Methylene Chloride	10	U	20	3.2	ug/L			05/23/24 17:44	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			05/23/24 17:44	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			05/23/24 17:44	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			05/23/24 17:44	1
Naphthalene	5.0	U	10	2.4	ug/L			05/23/24 17:44	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			05/23/24 17:44	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			05/23/24 17:44	1

Client Sample ID: OU6-MW-298-20240516

Lab Sample ID: 680-250910-15

Date Collected: 05/16/24 10:10

Matrix: Water

Date Received: 05/17/24 10:29

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	1.0	U	2.0	0.26	ug/L			05/23/24 17:44	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			05/23/24 17:44	1
Styrene	1.0	U	2.0	0.27	ug/L			05/23/24 17:44	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			05/23/24 17:44	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			05/23/24 17:44	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			05/23/24 17:44	1
Tetrachloroethene	1.0	U	2.0	0.35	ug/L			05/23/24 17:44	1
Toluene	1.0	U	2.0	0.25	ug/L			05/23/24 17:44	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			05/23/24 17:44	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			05/23/24 17:44	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			05/23/24 17:44	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			05/23/24 17:44	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			05/23/24 17:44	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			05/23/24 17:44	1
Trichloroethene	0.50	U	1.0	0.20	ug/L			05/23/24 17:44	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			05/23/24 17:44	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			05/23/24 17:44	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			05/23/24 17:44	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			05/23/24 17:44	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			05/23/24 17:44	1
Vinyl chloride	1.0	U	2.0	0.40	ug/L			05/23/24 17:44	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			05/23/24 17:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*85 - 114*		*05/23/24 17:44*	*1*
Dibromofluoromethane (Surr)	*103*		*80 - 119*		*05/23/24 17:44*	*1*
1,2-Dichloroethane-d4 (Surr)	*94*		*81 - 118*		*05/23/24 17:44*	*1*
Toluene-d8 (Surr)	*107*		*89 - 112*		*05/23/24 17:44*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	2.0	U	5.0	1.0	ug/L		05/24/24 14:22	05/25/24 04:53	1
Ethylene	2.0	U M	5.0	1.0	ug/L		05/24/24 14:22	05/25/24 04:53	1
Methane	6.0	U M	6.5	3.0	ug/L		05/24/24 14:22	05/25/24 04:53	1

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**7.1**	**M**	0.55	0.20	mg/L			05/29/24 23:57	1
Nitrate as N	**0.88**		0.055	0.023	mg/L			05/17/24 18:48	1
Nitrate Nitrite as N	**0.93**		0.055	0.023	mg/L			05/17/24 18:48	1
Sulfate	**5.8**		1.5	0.40	mg/L			05/29/24 23:57	1
Nitrite as N	**0.049**	**J**	0.055	0.023	mg/L			05/17/24 18:48	1

Method: SW846 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**23**		10	2.2	ug/L		05/20/24 12:17	05/22/24 11:54	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**97**		5.5	2.2	mg/L			05/21/24 18:28	1

Client Sample ID: OU6-MW-298-20240516

Lab Sample ID: 680-250910-15

Date Collected: 05/16/24 10:10
Matrix: Water
Date Received: 05/17/24 10:29

General Chemistry (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	**97**		11	5.0	mg/L			05/21/24 18:28	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	10	U	11	5.0	mg/L			05/21/24 18:28	1
Sulfide (SM 4500 S2 F-2011)	0.81	U	0.81	0.81	mg/L			05/22/24 14:17	1
Sulfide as H2S (SM 4500 S2 F-2011)	0.89	U	0.89	0.89	mg/L			05/22/24 14:17	1
Total Organic Carbon (SW846 9060A)	**4.8**		1.0	0.50	mg/L			05/23/24 14:57	1
Carbon Dioxide, Free (SM 4500 CO2 D)	**38**		11	5.0	mg/L			05/21/24 18:28	1

Client Sample ID: OU6-MW-257-20240516

Lab Sample ID: 680-250910-16

Date Collected: 05/16/24 09:10
Matrix: Water
Date Received: 05/17/24 10:29

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			05/23/24 18:06	1
Benzene	1.0	U	2.0	0.27	ug/L			05/23/24 18:06	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			05/23/24 18:06	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			05/23/24 18:06	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			05/23/24 18:06	1
Bromoform	2.0	U	2.5	0.59	ug/L			05/23/24 18:06	1
Bromomethane	10	U Q	20	3.7	ug/L			05/23/24 18:06	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			05/23/24 18:06	1
Carbon disulfide	1.0	U	2.0	0.43	ug/L			05/23/24 18:06	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			05/23/24 18:06	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			05/23/24 18:06	1
Chloroethane	10	U	20	4.6	ug/L			05/23/24 18:06	1
Chloroform	1.0	U	2.0	0.27	ug/L			05/23/24 18:06	1
Chloromethane	2.0	U	2.5	0.54	ug/L			05/23/24 18:06	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			05/23/24 18:06	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			05/23/24 18:06	1
cis-1,2-Dichloroethene	**0.62**	**J M**	2.0	0.25	ug/L			05/23/24 18:06	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			05/23/24 18:06	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			05/23/24 18:06	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			05/23/24 18:06	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			05/23/24 18:06	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			05/23/24 18:06	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			05/23/24 18:06	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/23/24 18:06	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/23/24 18:06	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/23/24 18:06	1
Dichlorodifluoromethane	1.0	U Q	2.0	0.36	ug/L			05/23/24 18:06	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			05/23/24 18:06	1
1,2-Dichloroethane	1.0	U M	2.0	0.25	ug/L			05/23/24 18:06	1
1,1-Dichloroethene	1.0	U	2.0	0.33	ug/L			05/23/24 18:06	1
1,2-Dichloroethene, Total	**0.62**	**J**	2.0	0.37	ug/L			05/23/24 18:06	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			05/23/24 18:06	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			05/23/24 18:06	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			05/23/24 18:06	1

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-250910-1

Client Sample ID: OU6-MW-257-20240516
Date Collected: 05/16/24 09:10
Date Received: 05/17/24 10:29

Lab Sample ID: 680-250910-16
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			05/23/24 18:06	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			05/23/24 18:06	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			05/23/24 18:06	1
2-Hexanone	10	U	20	3.2	ug/L			05/23/24 18:06	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			05/23/24 18:06	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			05/23/24 18:06	1
Methyl acetate	10	U	20	3.2	ug/L			05/23/24 18:06	1
Methylcyclohexane	1.0	U	2.0	0.33	ug/L			05/23/24 18:06	1
Methylene Chloride	10	U	20	3.2	ug/L			05/23/24 18:06	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			05/23/24 18:06	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			05/23/24 18:06	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			05/23/24 18:06	1
Naphthalene	5.0	U	10	2.4	ug/L			05/23/24 18:06	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			05/23/24 18:06	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			05/23/24 18:06	1
o-Xylene	1.0	U	2.0	0.26	ug/L			05/23/24 18:06	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			05/23/24 18:06	1
Styrene	1.0	U	2.0	0.27	ug/L			05/23/24 18:06	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			05/23/24 18:06	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			05/23/24 18:06	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			05/23/24 18:06	1
Tetrachloroethene	1.0	U	2.0	0.35	ug/L			05/23/24 18:06	1
Toluene	1.0	U	2.0	0.25	ug/L			05/23/24 18:06	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			05/23/24 18:06	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			05/23/24 18:06	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			05/23/24 18:06	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			05/23/24 18:06	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			05/23/24 18:06	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			05/23/24 18:06	1
Trichloroethene	**0.54**	**J M**	1.0	0.20	ug/L			05/23/24 18:06	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			05/23/24 18:06	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			05/23/24 18:06	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			05/23/24 18:06	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			05/23/24 18:06	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			05/23/24 18:06	1
Vinyl chloride	1.0	U	2.0	0.40	ug/L			05/23/24 18:06	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			05/23/24 18:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*85 - 114*		*05/23/24 18:06*	*1*
Dibromofluoromethane (Surr)	*106*		*80 - 119*		*05/23/24 18:06*	*1*
1,2-Dichloroethane-d4 (Surr)	*97*		*81 - 118*		*05/23/24 18:06*	*1*
Toluene-d8 (Surr)	*105*		*89 - 112*		*05/23/24 18:06*	*1*

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-250910-1

Client Sample ID: OU6-LAWMNQ-20240516
Date Collected: 05/16/24 12:40
Date Received: 05/17/24 10:29

Lab Sample ID: 680-250910-17
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			05/23/24 18:27	1
Benzene	1.0	U	2.0	0.27	ug/L			05/23/24 18:27	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			05/23/24 18:27	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			05/23/24 18:27	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			05/23/24 18:27	1
Bromoform	2.0	U	2.5	0.59	ug/L			05/23/24 18:27	1
Bromomethane	10	U Q	20	3.7	ug/L			05/23/24 18:27	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			05/23/24 18:27	1
Carbon disulfide	1.0	U	2.0	0.43	ug/L			05/23/24 18:27	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			05/23/24 18:27	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			05/23/24 18:27	1
Chloroethane	10	U	20	4.6	ug/L			05/23/24 18:27	1
Chloroform	1.0	U	2.0	0.27	ug/L			05/23/24 18:27	1
Chloromethane	2.0	U	2.5	0.54	ug/L			05/23/24 18:27	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			05/23/24 18:27	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			05/23/24 18:27	1
cis-1,2-Dichloroethene	**0.99**	**J**	2.0	0.25	ug/L			05/23/24 18:27	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			05/23/24 18:27	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			05/23/24 18:27	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			05/23/24 18:27	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			05/23/24 18:27	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			05/23/24 18:27	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			05/23/24 18:27	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/23/24 18:27	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/23/24 18:27	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/23/24 18:27	1
Dichlorodifluoromethane	1.0	U Q	2.0	0.36	ug/L			05/23/24 18:27	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			05/23/24 18:27	1
1,2-Dichloroethane	1.0	U M	2.0	0.25	ug/L			05/23/24 18:27	1
1,1-Dichloroethene	1.0	U	2.0	0.33	ug/L			05/23/24 18:27	1
1,2-Dichloroethene, Total	**0.99**	**J**	2.0	0.37	ug/L			05/23/24 18:27	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			05/23/24 18:27	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			05/23/24 18:27	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			05/23/24 18:27	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			05/23/24 18:27	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			05/23/24 18:27	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			05/23/24 18:27	1
2-Hexanone	10	U	20	3.2	ug/L			05/23/24 18:27	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			05/23/24 18:27	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			05/23/24 18:27	1
Methyl acetate	10	U	20	3.2	ug/L			05/23/24 18:27	1
Methylcyclohexane	1.0	U	2.0	0.33	ug/L			05/23/24 18:27	1
Methylene Chloride	10	U	20	3.2	ug/L			05/23/24 18:27	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			05/23/24 18:27	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			05/23/24 18:27	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			05/23/24 18:27	1
Naphthalene	5.0	U	10	2.4	ug/L			05/23/24 18:27	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			05/23/24 18:27	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			05/23/24 18:27	1

Client Sample ID: OU6-LAWMNQ-20240516

Lab Sample ID: 680-250910-17

Date Collected: 05/16/24 12:40

Matrix: Water

Date Received: 05/17/24 10:29

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	1.0	U	2.0	0.26	ug/L			05/23/24 18:27	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			05/23/24 18:27	1
Styrene	1.0	U	2.0	0.27	ug/L			05/23/24 18:27	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			05/23/24 18:27	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			05/23/24 18:27	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			05/23/24 18:27	1
Tetrachloroethene	1.0	U	2.0	0.35	ug/L			05/23/24 18:27	1
Toluene	1.0	U	2.0	0.25	ug/L			05/23/24 18:27	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			05/23/24 18:27	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			05/23/24 18:27	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			05/23/24 18:27	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			05/23/24 18:27	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			05/23/24 18:27	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			05/23/24 18:27	1
Trichloroethene	**4.8**		1.0	0.20	ug/L			05/23/24 18:27	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			05/23/24 18:27	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			05/23/24 18:27	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			05/23/24 18:27	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			05/23/24 18:27	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			05/23/24 18:27	1
Vinyl chloride	**1.3**	**J**	2.0	0.40	ug/L			05/23/24 18:27	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			05/23/24 18:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*85 - 114*		*05/23/24 18:27*	*1*
Dibromofluoromethane (Surr)	*106*		*80 - 119*		*05/23/24 18:27*	*1*
1,2-Dichloroethane-d4 (Surr)	*96*		*81 - 118*		*05/23/24 18:27*	*1*
Toluene-d8 (Surr)	*94*		*89 - 112*		*05/23/24 18:27*	*1*

Client Sample ID: OU6-MW-299-20240516

Lab Sample ID: 680-250910-18

Date Collected: 05/16/24 14:10

Matrix: Water

Date Received: 05/17/24 10:29

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			05/23/24 18:49	1
Benzene	1.0	U	2.0	0.27	ug/L			05/23/24 18:49	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			05/23/24 18:49	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			05/23/24 18:49	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			05/23/24 18:49	1
Bromoform	2.0	U	2.5	0.59	ug/L			05/23/24 18:49	1
Bromomethane	10	U Q	20	3.7	ug/L			05/23/24 18:49	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			05/23/24 18:49	1
Carbon disulfide	1.0	U	2.0	0.43	ug/L			05/23/24 18:49	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			05/23/24 18:49	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			05/23/24 18:49	1
Chloroethane	10	U	20	4.6	ug/L			05/23/24 18:49	1
Chloroform	1.0	U	2.0	0.27	ug/L			05/23/24 18:49	1
Chloromethane	2.0	U	2.5	0.54	ug/L			05/23/24 18:49	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			05/23/24 18:49	1

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-250910-1

Client Sample ID: OU6-MW-299-20240516
Date Collected: 05/16/24 14:10
Date Received: 05/17/24 10:29

Lab Sample ID: 680-250910-18
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			05/23/24 18:49	1
cis-1,2-Dichloroethene	1.0	U	2.0	0.25	ug/L			05/23/24 18:49	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			05/23/24 18:49	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			05/23/24 18:49	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			05/23/24 18:49	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			05/23/24 18:49	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			05/23/24 18:49	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			05/23/24 18:49	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/23/24 18:49	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/23/24 18:49	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/23/24 18:49	1
Dichlorodifluoromethane	1.0	U Q	2.0	0.36	ug/L			05/23/24 18:49	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			05/23/24 18:49	1
1,2-Dichloroethane	1.0	U M	2.0	0.25	ug/L			05/23/24 18:49	1
1,1-Dichloroethene	1.0	U	2.0	0.33	ug/L			05/23/24 18:49	1
1,2-Dichloroethene, Total	1.0	U	2.0	0.37	ug/L			05/23/24 18:49	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			05/23/24 18:49	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			05/23/24 18:49	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			05/23/24 18:49	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			05/23/24 18:49	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			05/23/24 18:49	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			05/23/24 18:49	1
2-Hexanone	10	U	20	3.2	ug/L			05/23/24 18:49	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			05/23/24 18:49	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			05/23/24 18:49	1
Methyl acetate	10	U	20	3.2	ug/L			05/23/24 18:49	1
Methylcyclohexane	1.0	U	2.0	0.33	ug/L			05/23/24 18:49	1
Methylene Chloride	10	U	20	3.2	ug/L			05/23/24 18:49	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			05/23/24 18:49	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			05/23/24 18:49	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			05/23/24 18:49	1
Naphthalene	5.0	U	10	2.4	ug/L			05/23/24 18:49	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			05/23/24 18:49	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			05/23/24 18:49	1
o-Xylene	1.0	U	2.0	0.26	ug/L			05/23/24 18:49	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			05/23/24 18:49	1
Styrene	1.0	U	2.0	0.27	ug/L			05/23/24 18:49	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			05/23/24 18:49	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			05/23/24 18:49	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			05/23/24 18:49	1
Tetrachloroethene	1.0	U	2.0	0.35	ug/L			05/23/24 18:49	1
Toluene	1.0	U	2.0	0.25	ug/L			05/23/24 18:49	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			05/23/24 18:49	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			05/23/24 18:49	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			05/23/24 18:49	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			05/23/24 18:49	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			05/23/24 18:49	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			05/23/24 18:49	1
Trichloroethene	0.50	U	1.0	0.20	ug/L			05/23/24 18:49	1

Client Sample ID: OU6-MW-299-20240516

Lab Sample ID: 680-250910-18

Date Collected: 05/16/24 14:10

Matrix: Water

Date Received: 05/17/24 10:29

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			05/23/24 18:49	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			05/23/24 18:49	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			05/23/24 18:49	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			05/23/24 18:49	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			05/23/24 18:49	1
Vinyl chloride	1.0	U	2.0	0.40	ug/L			05/23/24 18:49	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			05/23/24 18:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*85 - 114*		*05/23/24 18:49*	*1*
Dibromofluoromethane (Surr)	*106*		*80 - 119*		*05/23/24 18:49*	*1*
1,2-Dichloroethane-d4 (Surr)	*98*		*81 - 118*		*05/23/24 18:49*	*1*
Toluene-d8 (Surr)	*106*		*89 - 112*		*05/23/24 18:49*	*1*

Client Sample ID: OU6-MW-286-20240516

Lab Sample ID: 680-250910-19

Date Collected: 05/16/24 12:00

Matrix: Water

Date Received: 05/17/24 10:29

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			05/23/24 19:10	1
Benzene	1.0	U	2.0	0.27	ug/L			05/23/24 19:10	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			05/23/24 19:10	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			05/23/24 19:10	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			05/23/24 19:10	1
Bromoform	2.0	U	2.5	0.59	ug/L			05/23/24 19:10	1
Bromomethane	10	U Q	20	3.7	ug/L			05/23/24 19:10	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			05/23/24 19:10	1
Carbon disulfide	1.0	U	2.0	0.43	ug/L			05/23/24 19:10	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			05/23/24 19:10	1
Chlorobenzene	**2.1**		1.0	0.15	ug/L			05/23/24 19:10	1
Chloroethane	10	U	20	4.6	ug/L			05/23/24 19:10	1
Chloroform	1.0	U	2.0	0.27	ug/L			05/23/24 19:10	1
Chloromethane	2.0	U	2.5	0.54	ug/L			05/23/24 19:10	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			05/23/24 19:10	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			05/23/24 19:10	1
cis-1,2-Dichloroethene	**130**		2.0	0.25	ug/L			05/23/24 19:10	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			05/23/24 19:10	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			05/23/24 19:10	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			05/23/24 19:10	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			05/23/24 19:10	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			05/23/24 19:10	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			05/23/24 19:10	1
1,2-Dichlorobenzene	**1.3**	**J M**	2.0	0.31	ug/L			05/23/24 19:10	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/23/24 19:10	1
1,4-Dichlorobenzene	**3.3**		2.0	0.31	ug/L			05/23/24 19:10	1
Dichlorodifluoromethane	1.0	U Q	2.0	0.36	ug/L			05/23/24 19:10	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			05/23/24 19:10	1
1,2-Dichloroethane	1.0	U M	2.0	0.25	ug/L			05/23/24 19:10	1
1,1-Dichloroethene	**0.46**	**J M**	2.0	0.33	ug/L			05/23/24 19:10	1

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-250910-1

Client Sample ID: OU6-MW-286-20240516
Date Collected: 05/16/24 12:00
Date Received: 05/17/24 10:29

Lab Sample ID: 680-250910-19
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethene, Total	**130**		2.0	0.37	ug/L			05/23/24 19:10	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			05/23/24 19:10	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			05/23/24 19:10	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			05/23/24 19:10	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			05/23/24 19:10	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			05/23/24 19:10	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			05/23/24 19:10	1
2-Hexanone	10	U	20	3.2	ug/L			05/23/24 19:10	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			05/23/24 19:10	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			05/23/24 19:10	1
Methyl acetate	10	U	20	3.2	ug/L			05/23/24 19:10	1
Methylcyclohexane	1.0	U	2.0	0.33	ug/L			05/23/24 19:10	1
Methylene Chloride	10	U	20	3.2	ug/L			05/23/24 19:10	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			05/23/24 19:10	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			05/23/24 19:10	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			05/23/24 19:10	1
Naphthalene	5.0	U	10	2.4	ug/L			05/23/24 19:10	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			05/23/24 19:10	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			05/23/24 19:10	1
o-Xylene	1.0	U	2.0	0.26	ug/L			05/23/24 19:10	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			05/23/24 19:10	1
Styrene	1.0	U	2.0	0.27	ug/L			05/23/24 19:10	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			05/23/24 19:10	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			05/23/24 19:10	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			05/23/24 19:10	1
Tetrachloroethene	1.0	U	2.0	0.35	ug/L			05/23/24 19:10	1
Toluene	1.0	U	2.0	0.25	ug/L			05/23/24 19:10	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			05/23/24 19:10	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			05/23/24 19:10	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			05/23/24 19:10	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			05/23/24 19:10	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			05/23/24 19:10	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			05/23/24 19:10	1
Trichloroethene	**45**		1.0	0.20	ug/L			05/23/24 19:10	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			05/23/24 19:10	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			05/23/24 19:10	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			05/23/24 19:10	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			05/23/24 19:10	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			05/23/24 19:10	1
Vinyl chloride	**22**		2.0	0.40	ug/L			05/23/24 19:10	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			05/23/24 19:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*85 - 114*		*05/23/24 19:10*	*1*
Dibromofluoromethane (Surr)	*105*		*80 - 119*		*05/23/24 19:10*	*1*
1,2-Dichloroethane-d4 (Surr)	*99*		*81 - 118*		*05/23/24 19:10*	*1*
Toluene-d8 (Surr)	*105*		*89 - 112*		*05/23/24 19:10*	*1*

Client Sample ID: OU6-MW-286-20240516
Lab Sample ID: 680-250910-19
Date Collected: 05/16/24 12:00
Matrix: Water
Date Received: 05/17/24 10:29

Method: SW846 8270E SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	**0.84**	**M**	0.19	0.031	ug/L		05/22/24 08:13	05/22/24 16:10	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*19*	*M*	*10 - 150*	*05/22/24 08:13*	*05/22/24 16:10*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	**1.1**	**J**	5.0	1.0	ug/L		05/24/24 14:22	05/25/24 05:24	1
Ethylene	**2.8**	**J M**	5.0	1.0	ug/L		05/24/24 14:22	05/25/24 05:24	1

Method: RSK-175 - Dissolved Gases (GC) - DL

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	**11000**	**D M**	330	150	ug/L		05/24/24 14:22	05/25/24 05:40	50

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**6.7**		0.55	0.20	mg/L			05/30/24 00:04	1
Nitrate as N	0.050	U	0.055	0.023	mg/L			05/17/24 18:56	1
Nitrate Nitrite as N	0.050	U	0.055	0.023	mg/L			05/17/24 18:56	1
Sulfate	**42**		1.5	0.40	mg/L			05/30/24 00:04	1
Nitrite as N	0.050	U	0.055	0.023	mg/L			05/17/24 18:56	1

Method: SW846 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**230**		10	2.2	ug/L		05/20/24 12:17	05/22/24 12:06	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**70**		5.5	2.2	mg/L			05/21/24 18:45	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	**70**		11	5.0	mg/L			05/21/24 18:45	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	10	U	11	5.0	mg/L			05/21/24 18:45	1
Sulfide (SM 4500 S2 F-2011)	0.89	U	0.89	0.89	mg/L			05/22/24 14:17	1
Sulfide as H2S (SM 4500 S2 F-2011)	0.98	U	0.98	0.98	mg/L			05/22/24 14:17	1
Total Organic Carbon (SW846 9060A)	**0.64**	**J**	1.0	0.50	mg/L			05/23/24 15:20	1
Carbon Dioxide, Free (SM 4500 CO2 D)	**90**		11	5.0	mg/L			05/21/24 18:45	1

Client Sample ID: OU6-DMW-34B-20240516
Lab Sample ID: 680-250910-20
Date Collected: 05/16/24 13:55
Matrix: Water
Date Received: 05/17/24 10:29

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			05/24/24 14:41	1
Benzene	1.0	U	2.0	0.27	ug/L			05/24/24 14:41	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			05/24/24 14:41	1
Bromochloromethane	1.0	U Q	2.0	0.34	ug/L			05/24/24 14:41	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			05/24/24 14:41	1
Bromoform	2.0	U	2.5	0.59	ug/L			05/24/24 14:41	1

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-250910-1

Client Sample ID: OU6-DMW-34B-20240516
Date Collected: 05/16/24 13:55
Date Received: 05/17/24 10:29

Lab Sample ID: 680-250910-20
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Bromomethane	10	U Q	20	3.7	ug/L			05/24/24 14:41	1
2-Butanone (MEK)	20	U Q	25	6.4	ug/L			05/24/24 14:41	1
Carbon disulfide	1.0	U	2.0	0.43	ug/L			05/24/24 14:41	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			05/24/24 14:41	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			05/24/24 14:41	1
Chloroethane	10	U	20	4.6	ug/L			05/24/24 14:41	1
Chloroform	1.0	U	2.0	0.27	ug/L			05/24/24 14:41	1
Chloromethane	2.0	U Q	2.5	0.54	ug/L			05/24/24 14:41	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			05/24/24 14:41	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			05/24/24 14:41	1
cis-1,2-Dichloroethene	1.0	U	2.0	0.25	ug/L			05/24/24 14:41	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			05/24/24 14:41	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			05/24/24 14:41	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			05/24/24 14:41	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			05/24/24 14:41	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			05/24/24 14:41	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			05/24/24 14:41	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/24/24 14:41	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/24/24 14:41	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/24/24 14:41	1
Dichlorodifluoromethane	1.0	U Q	2.0	0.36	ug/L			05/24/24 14:41	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			05/24/24 14:41	1
1,2-Dichloroethane	1.0	U M	2.0	0.25	ug/L			05/24/24 14:41	1
1,1-Dichloroethene	**3.4**		2.0	0.33	ug/L			05/24/24 14:41	1
1,2-Dichloroethene, Total	1.0	U	2.0	0.37	ug/L			05/24/24 14:41	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			05/24/24 14:41	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			05/24/24 14:41	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			05/24/24 14:41	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			05/24/24 14:41	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			05/24/24 14:41	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			05/24/24 14:41	1
2-Hexanone	10	U	20	3.2	ug/L			05/24/24 14:41	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			05/24/24 14:41	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			05/24/24 14:41	1
Methyl acetate	10	U	20	3.2	ug/L			05/24/24 14:41	1
Methylcyclohexane	1.0	U	2.0	0.33	ug/L			05/24/24 14:41	1
Methylene Chloride	10	U	20	3.2	ug/L			05/24/24 14:41	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			05/24/24 14:41	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			05/24/24 14:41	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			05/24/24 14:41	1
Naphthalene	5.0	U	10	2.4	ug/L			05/24/24 14:41	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			05/24/24 14:41	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			05/24/24 14:41	1
o-Xylene	1.0	U	2.0	0.26	ug/L			05/24/24 14:41	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			05/24/24 14:41	1
Styrene	1.0	U	2.0	0.27	ug/L			05/24/24 14:41	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			05/24/24 14:41	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			05/24/24 14:41	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			05/24/24 14:41	1

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-250910-1

Client Sample ID: OU6-DMW-34B-20240516

Date Collected: 05/16/24 13:55
Date Received: 05/17/24 10:29

Lab Sample ID: 680-250910-20
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	**11**	**Q**	2.0	0.35	ug/L			05/24/24 14:41	1
Toluene	1.0	U	2.0	0.25	ug/L			05/24/24 14:41	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			05/24/24 14:41	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			05/24/24 14:41	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			05/24/24 14:41	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			05/24/24 14:41	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			05/24/24 14:41	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			05/24/24 14:41	1
Trichloroethene	**7.0**		1.0	0.20	ug/L			05/24/24 14:41	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			05/24/24 14:41	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			05/24/24 14:41	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			05/24/24 14:41	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			05/24/24 14:41	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			05/24/24 14:41	1
Vinyl chloride	1.0	U	2.0	0.40	ug/L			05/24/24 14:41	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			05/24/24 14:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*85 - 114*		*05/24/24 14:41*	*1*
Dibromofluoromethane (Surr)	*104*		*80 - 119*		*05/24/24 14:41*	*1*
1,2-Dichloroethane-d4 (Surr)	*96*		*81 - 118*		*05/24/24 14:41*	*1*
Toluene-d8 (Surr)	*96*		*89 - 112*		*05/24/24 14:41*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	2.0	U	5.0	1.0	ug/L		05/24/24 14:24	05/25/24 05:55	1
Ethylene	2.0	U M	5.0	1.0	ug/L		05/24/24 14:24	05/25/24 05:55	1
Methane	**3.0**	**J M**	6.5	3.0	ug/L		05/24/24 14:24	05/25/24 05:55	1

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2.5**		0.55	0.20	mg/L			05/30/24 00:11	1
Nitrate as N	**0.16**		0.055	0.023	mg/L			05/17/24 19:04	1
Nitrate Nitrite as N	**0.16**		0.055	0.023	mg/L			05/17/24 19:04	1
Sulfate	**7.3**		1.5	0.40	mg/L			05/30/24 00:11	1
Nitrite as N	0.050	U	0.055	0.023	mg/L			05/17/24 19:04	1

Method: SW846 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**3.6**	**J**	10	2.2	ug/L		05/20/24 12:17	05/22/24 12:10	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**13**		5.5	2.2	mg/L			05/21/24 18:52	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	**13**		11	5.0	mg/L			05/21/24 18:52	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	10	U	11	5.0	mg/L			05/21/24 18:52	1
Sulfide (SM 4500 S2 F-2011)	0.81	U	0.81	0.81	mg/L			05/22/24 14:17	1
Sulfide as H2S (SM 4500 S2 F-2011)	0.89	U	0.89	0.89	mg/L			05/22/24 14:17	1

Client Sample ID: OU6-DMW-34B-20240516
Lab Sample ID: 680-250910-20
Date Collected: 05/16/24 13:55
Matrix: Water
Date Received: 05/17/24 10:29

General Chemistry (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon (SW846 9060A)	1.0	U	1.0	0.50	mg/L			05/23/24 15:43	1
Carbon Dioxide, Free (SM 4500 CO2 D)	**22**		11	5.0	mg/L			05/21/24 18:52	1

Client Sample ID: OU6-MW-94-20240516
Lab Sample ID: 680-250910-21
Date Collected: 05/16/24 10:20
Matrix: Water
Date Received: 05/17/24 10:29

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			05/23/24 19:53	1
Benzene	1.0	U	2.0	0.27	ug/L			05/23/24 19:53	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			05/23/24 19:53	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			05/23/24 19:53	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			05/23/24 19:53	1
Bromoform	2.0	U	2.5	0.59	ug/L			05/23/24 19:53	1
Bromomethane	10	U Q	20	3.7	ug/L			05/23/24 19:53	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			05/23/24 19:53	1
Carbon disulfide	1.0	U	2.0	0.43	ug/L			05/23/24 19:53	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			05/23/24 19:53	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			05/23/24 19:53	1
Chloroethane	10	U	20	4.6	ug/L			05/23/24 19:53	1
Chloroform	1.0	U	2.0	0.27	ug/L			05/23/24 19:53	1
Chloromethane	2.0	U	2.5	0.54	ug/L			05/23/24 19:53	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			05/23/24 19:53	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			05/23/24 19:53	1
cis-1,2-Dichloroethene	**4.7**		2.0	0.25	ug/L			05/23/24 19:53	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			05/23/24 19:53	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			05/23/24 19:53	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			05/23/24 19:53	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			05/23/24 19:53	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			05/23/24 19:53	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			05/23/24 19:53	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/23/24 19:53	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/23/24 19:53	1
1,4-Dichlorobenzene	**0.73**	**J**	2.0	0.31	ug/L			05/23/24 19:53	1
Dichlorodifluoromethane	1.0	U Q	2.0	0.36	ug/L			05/23/24 19:53	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			05/23/24 19:53	1
1,2-Dichloroethane	1.0	U M	2.0	0.25	ug/L			05/23/24 19:53	1
1,1-Dichloroethene	**0.37**	**J M**	2.0	0.33	ug/L			05/23/24 19:53	1
1,2-Dichloroethene, Total	**4.7**		2.0	0.37	ug/L			05/23/24 19:53	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			05/23/24 19:53	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			05/23/24 19:53	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			05/23/24 19:53	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			05/23/24 19:53	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			05/23/24 19:53	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			05/23/24 19:53	1
2-Hexanone	10	U	20	3.2	ug/L			05/23/24 19:53	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			05/23/24 19:53	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			05/23/24 19:53	1

Client Sample ID: OU6-MW-94-20240516

Lab Sample ID: 680-250910-21

Date Collected: 05/16/24 10:20

Matrix: Water

Date Received: 05/17/24 10:29

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl acetate	10	U	20	3.2	ug/L			05/23/24 19:53	1
Methylcyclohexane	1.0	U	2.0	0.33	ug/L			05/23/24 19:53	1
Methylene Chloride	10	U	20	3.2	ug/L			05/23/24 19:53	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			05/23/24 19:53	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			05/23/24 19:53	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			05/23/24 19:53	1
Naphthalene	5.0	U	10	2.4	ug/L			05/23/24 19:53	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			05/23/24 19:53	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			05/23/24 19:53	1
o-Xylene	1.0	U	2.0	0.26	ug/L			05/23/24 19:53	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			05/23/24 19:53	1
Styrene	1.0	U	2.0	0.27	ug/L			05/23/24 19:53	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			05/23/24 19:53	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			05/23/24 19:53	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			05/23/24 19:53	1
Tetrachloroethene	1.0	U	2.0	0.35	ug/L			05/23/24 19:53	1
Toluene	1.0	U	2.0	0.25	ug/L			05/23/24 19:53	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			05/23/24 19:53	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			05/23/24 19:53	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			05/23/24 19:53	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			05/23/24 19:53	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			05/23/24 19:53	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			05/23/24 19:53	1
Trichloroethene	**10**		1.0	0.20	ug/L			05/23/24 19:53	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			05/23/24 19:53	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			05/23/24 19:53	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			05/23/24 19:53	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			05/23/24 19:53	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			05/23/24 19:53	1
Vinyl chloride	1.0	U	2.0	0.40	ug/L			05/23/24 19:53	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			05/23/24 19:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*85 - 114*		*05/23/24 19:53*	*1*
Dibromofluoromethane (Surr)	*107*		*80 - 119*		*05/23/24 19:53*	*1*
1,2-Dichloroethane-d4 (Surr)	*97*		*81 - 118*		*05/23/24 19:53*	*1*
Toluene-d8 (Surr)	*106*		*89 - 112*		*05/23/24 19:53*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	2.0	U	5.0	1.0	ug/L		05/24/24 14:24	05/25/24 06:11	1
Ethylene	2.0	U M	5.0	1.0	ug/L		05/24/24 14:24	05/25/24 06:11	1
Methane	**35**	**M**	6.5	3.0	ug/L		05/24/24 14:24	05/25/24 06:11	1

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2.5**		0.55	0.20	mg/L			05/30/24 00:17	1
Nitrate as N	0.050	U	0.055	0.023	mg/L			05/17/24 19:12	1
Nitrate Nitrite as N	0.050	U	0.055	0.023	mg/L			05/17/24 19:12	1
Sulfate	**13**		1.5	0.40	mg/L			05/30/24 00:17	1

Client Sample ID: OU6-MW-94-20240516

Lab Sample ID: 680-250910-21

Date Collected: 05/16/24 10:20
Matrix: Water
Date Received: 05/17/24 10:29

Method: SW846 9056A - Anions, Ion Chromatography (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrite as N	0.050	U	0.055	0.023	mg/L			05/17/24 19:12	1

Method: SW846 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**48**		10	2.2	ug/L		05/20/24 12:17	05/22/24 12:14	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**26**		5.5	2.2	mg/L			05/21/24 18:36	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	**26**		11	5.0	mg/L			05/21/24 18:36	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	10	U	11	5.0	mg/L			05/21/24 18:36	1
Sulfide (SM 4500 S2 F-2011)	0.86	U	0.86	0.86	mg/L			05/22/24 14:17	1
Sulfide as H2S (SM 4500 S2 F-2011)	0.95	U	0.95	0.95	mg/L			05/22/24 14:17	1
Total Organic Carbon (SW846 9060A)	1.0	U	1.0	0.50	mg/L			05/23/24 16:04	1
Carbon Dioxide, Free (SM 4500 CO2 D)	**35**		11	5.0	mg/L			05/21/24 18:36	1

Client Sample ID: OU6-MW-93-20240516

Lab Sample ID: 680-250910-22

Date Collected: 05/16/24 09:45
Matrix: Water
Date Received: 05/17/24 10:29

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			05/24/24 15:02	1
Benzene	1.0	U	2.0	0.27	ug/L			05/24/24 15:02	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			05/24/24 15:02	1
Bromochloromethane	1.0	U Q	2.0	0.34	ug/L			05/24/24 15:02	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			05/24/24 15:02	1
Bromoform	2.0	U	2.5	0.59	ug/L			05/24/24 15:02	1
Bromomethane	10	U Q	20	3.7	ug/L			05/24/24 15:02	1
2-Butanone (MEK)	20	U Q	25	6.4	ug/L			05/24/24 15:02	1
Carbon disulfide	1.0	U	2.0	0.43	ug/L			05/24/24 15:02	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			05/24/24 15:02	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			05/24/24 15:02	1
Chloroethane	10	U	20	4.6	ug/L			05/24/24 15:02	1
Chloroform	1.0	U	2.0	0.27	ug/L			05/24/24 15:02	1
Chloromethane	2.0	U Q	2.5	0.54	ug/L			05/24/24 15:02	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			05/24/24 15:02	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			05/24/24 15:02	1
cis-1,2-Dichloroethene	1.0	U	2.0	0.25	ug/L			05/24/24 15:02	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			05/24/24 15:02	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			05/24/24 15:02	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			05/24/24 15:02	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			05/24/24 15:02	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			05/24/24 15:02	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			05/24/24 15:02	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/24/24 15:02	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/24/24 15:02	1

Client Sample ID: OU6-MW-93-20240516
Date Collected: 05/16/24 09:45
Date Received: 05/17/24 10:29

Lab Sample ID: 680-250910-22
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/24/24 15:02	1
Dichlorodifluoromethane	1.0	U Q	2.0	0.36	ug/L			05/24/24 15:02	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			05/24/24 15:02	1
1,2-Dichloroethane	1.0	U M	2.0	0.25	ug/L			05/24/24 15:02	1
1,1-Dichloroethene	1.0	U	2.0	0.33	ug/L			05/24/24 15:02	1
1,2-Dichloroethene, Total	1.0	U	2.0	0.37	ug/L			05/24/24 15:02	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			05/24/24 15:02	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			05/24/24 15:02	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			05/24/24 15:02	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			05/24/24 15:02	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			05/24/24 15:02	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			05/24/24 15:02	1
2-Hexanone	10	U	20	3.2	ug/L			05/24/24 15:02	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			05/24/24 15:02	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			05/24/24 15:02	1
Methyl acetate	10	U	20	3.2	ug/L			05/24/24 15:02	1
Methylcyclohexane	1.0	U	2.0	0.33	ug/L			05/24/24 15:02	1
Methylene Chloride	10	U	20	3.2	ug/L			05/24/24 15:02	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			05/24/24 15:02	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			05/24/24 15:02	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			05/24/24 15:02	1
Naphthalene	5.0	U	10	2.4	ug/L			05/24/24 15:02	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			05/24/24 15:02	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			05/24/24 15:02	1
o-Xylene	1.0	U	2.0	0.26	ug/L			05/24/24 15:02	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			05/24/24 15:02	1
Styrene	1.0	U	2.0	0.27	ug/L			05/24/24 15:02	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			05/24/24 15:02	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			05/24/24 15:02	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			05/24/24 15:02	1
Tetrachloroethene	1.0	U Q	2.0	0.35	ug/L			05/24/24 15:02	1
Toluene	1.0	U	2.0	0.25	ug/L			05/24/24 15:02	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			05/24/24 15:02	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			05/24/24 15:02	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			05/24/24 15:02	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			05/24/24 15:02	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			05/24/24 15:02	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			05/24/24 15:02	1
Trichloroethene	0.50	U	1.0	0.20	ug/L			05/24/24 15:02	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			05/24/24 15:02	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			05/24/24 15:02	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			05/24/24 15:02	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			05/24/24 15:02	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			05/24/24 15:02	1
Vinyl chloride	1.0	U	2.0	0.40	ug/L			05/24/24 15:02	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			05/24/24 15:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*116*	*Q*	*85 - 114*		*05/24/24 15:02*	*1*
Dibromofluoromethane (Surr)	*105*		*80 - 119*		*05/24/24 15:02*	*1*

Client Sample ID: OU6-MW-93-20240516

Lab Sample ID: 680-250910-22

Date Collected: 05/16/24 09:45
Matrix: Water
Date Received: 05/17/24 10:29

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*97*		*81 - 118*		*05/24/24 15:02*	*1*
Toluene-d8 (Surr)	*91*		*89 - 112*		*05/24/24 15:02*	*1*

Method: SW846 8270E SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	0.095	U	0.19	0.030	ug/L		05/22/24 08:13	05/22/24 16:32	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*20*	*M*	*10 - 150*	*05/22/24 08:13*	*05/22/24 16:32*	*1*

Client Sample ID: DUP-2-20240516

Lab Sample ID: 680-250910-23

Date Collected: 05/16/24 00:00
Matrix: Water
Date Received: 05/17/24 10:29

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			05/24/24 15:24	1
Benzene	1.0	U	2.0	0.27	ug/L			05/24/24 15:24	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			05/24/24 15:24	1
Bromochloromethane	1.0	U Q	2.0	0.34	ug/L			05/24/24 15:24	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			05/24/24 15:24	1
Bromoform	2.0	U	2.5	0.59	ug/L			05/24/24 15:24	1
Bromomethane	10	U Q	20	3.7	ug/L			05/24/24 15:24	1
2-Butanone (MEK)	20	U Q	25	6.4	ug/L			05/24/24 15:24	1
Carbon disulfide	1.0	U	2.0	0.43	ug/L			05/24/24 15:24	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			05/24/24 15:24	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			05/24/24 15:24	1
Chloroethane	10	U	20	4.6	ug/L			05/24/24 15:24	1
Chloroform	1.0	U	2.0	0.27	ug/L			05/24/24 15:24	1
Chloromethane	2.0	U Q	2.5	0.54	ug/L			05/24/24 15:24	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			05/24/24 15:24	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			05/24/24 15:24	1
cis-1,2-Dichloroethene	1.0	U	2.0	0.25	ug/L			05/24/24 15:24	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			05/24/24 15:24	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			05/24/24 15:24	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			05/24/24 15:24	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			05/24/24 15:24	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			05/24/24 15:24	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			05/24/24 15:24	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/24/24 15:24	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/24/24 15:24	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/24/24 15:24	1
Dichlorodifluoromethane	1.0	U Q	2.0	0.36	ug/L			05/24/24 15:24	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			05/24/24 15:24	1
1,2-Dichloroethane	1.0	U M	2.0	0.25	ug/L			05/24/24 15:24	1
1,1-Dichloroethene	1.0	U	2.0	0.33	ug/L			05/24/24 15:24	1
1,2-Dichloroethene, Total	1.0	U	2.0	0.37	ug/L			05/24/24 15:24	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			05/24/24 15:24	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			05/24/24 15:24	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			05/24/24 15:24	1

Client Sample ID: DUP-2-20240516
Date Collected: 05/16/24 00:00
Date Received: 05/17/24 10:29

Lab Sample ID: 680-250910-23
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			05/24/24 15:24	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			05/24/24 15:24	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			05/24/24 15:24	1
2-Hexanone	10	U	20	3.2	ug/L			05/24/24 15:24	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			05/24/24 15:24	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			05/24/24 15:24	1
Methyl acetate	10	U	20	3.2	ug/L			05/24/24 15:24	1
Methylcyclohexane	1.0	U	2.0	0.33	ug/L			05/24/24 15:24	1
Methylene Chloride	10	U	20	3.2	ug/L			05/24/24 15:24	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			05/24/24 15:24	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			05/24/24 15:24	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			05/24/24 15:24	1
Naphthalene	5.0	U	10	2.4	ug/L			05/24/24 15:24	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			05/24/24 15:24	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			05/24/24 15:24	1
o-Xylene	1.0	U	2.0	0.26	ug/L			05/24/24 15:24	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			05/24/24 15:24	1
Styrene	1.0	U	2.0	0.27	ug/L			05/24/24 15:24	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			05/24/24 15:24	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			05/24/24 15:24	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			05/24/24 15:24	1
Tetrachloroethene	1.0	U Q	2.0	0.35	ug/L			05/24/24 15:24	1
Toluene	1.0	U	2.0	0.25	ug/L			05/24/24 15:24	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			05/24/24 15:24	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			05/24/24 15:24	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			05/24/24 15:24	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			05/24/24 15:24	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			05/24/24 15:24	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			05/24/24 15:24	1
Trichloroethene	0.50	U	1.0	0.20	ug/L			05/24/24 15:24	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			05/24/24 15:24	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			05/24/24 15:24	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			05/24/24 15:24	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			05/24/24 15:24	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			05/24/24 15:24	1
Vinyl chloride	1.0	U	2.0	0.40	ug/L			05/24/24 15:24	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			05/24/24 15:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*85 - 114*		*05/24/24 15:24*	*1*
Dibromofluoromethane (Surr)	*104*		*80 - 119*		*05/24/24 15:24*	*1*
1,2-Dichloroethane-d4 (Surr)	*97*		*81 - 118*		*05/24/24 15:24*	*1*
Toluene-d8 (Surr)	*105*		*89 - 112*		*05/24/24 15:24*	*1*

Method: SW846 8270E SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	0.11	U	0.21	0.034	ug/L		05/22/24 08:13	05/22/24 16:55	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*29*	*M*	*10 - 150*	*05/22/24 08:13*	*05/22/24 16:55*	*1*

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-250910-1

Client Sample ID: TRIP-BLANK-20240516
Date Collected: 05/16/24 00:00
Date Received: 05/17/24 10:29

Lab Sample ID: 680-250910-24
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			05/23/24 13:26	1
Benzene	1.0	U	2.0	0.27	ug/L			05/23/24 13:26	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			05/23/24 13:26	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			05/23/24 13:26	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			05/23/24 13:26	1
Bromoform	2.0	U	2.5	0.59	ug/L			05/23/24 13:26	1
Bromomethane	10	U Q	20	3.7	ug/L			05/23/24 13:26	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			05/23/24 13:26	1
Carbon disulfide	1.0	U	2.0	0.43	ug/L			05/23/24 13:26	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			05/23/24 13:26	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			05/23/24 13:26	1
Chloroethane	10	U	20	4.6	ug/L			05/23/24 13:26	1
Chloroform	1.0	U	2.0	0.27	ug/L			05/23/24 13:26	1
Chloromethane	2.0	U	2.5	0.54	ug/L			05/23/24 13:26	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			05/23/24 13:26	1
4-Chlorotoluene	1.0	U M	2.0	0.41	ug/L			05/23/24 13:26	1
cis-1,2-Dichloroethene	1.0	U	2.0	0.25	ug/L			05/23/24 13:26	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			05/23/24 13:26	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			05/23/24 13:26	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			05/23/24 13:26	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			05/23/24 13:26	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			05/23/24 13:26	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			05/23/24 13:26	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/23/24 13:26	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/23/24 13:26	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/23/24 13:26	1
Dichlorodifluoromethane	1.0	U Q	2.0	0.36	ug/L			05/23/24 13:26	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			05/23/24 13:26	1
1,2-Dichloroethane	1.0	U M	2.0	0.25	ug/L			05/23/24 13:26	1
1,1-Dichloroethene	1.0	U	2.0	0.33	ug/L			05/23/24 13:26	1
1,2-Dichloroethene, Total	1.0	U	2.0	0.37	ug/L			05/23/24 13:26	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			05/23/24 13:26	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			05/23/24 13:26	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			05/23/24 13:26	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			05/23/24 13:26	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			05/23/24 13:26	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			05/23/24 13:26	1
2-Hexanone	10	U	20	3.2	ug/L			05/23/24 13:26	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			05/23/24 13:26	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			05/23/24 13:26	1
Methyl acetate	10	U	20	3.2	ug/L			05/23/24 13:26	1
Methylcyclohexane	1.0	U	2.0	0.33	ug/L			05/23/24 13:26	1
Methylene Chloride	10	U	20	3.2	ug/L			05/23/24 13:26	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			05/23/24 13:26	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			05/23/24 13:26	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			05/23/24 13:26	1
Naphthalene	5.0	U	10	2.4	ug/L			05/23/24 13:26	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			05/23/24 13:26	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			05/23/24 13:26	1

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-250910-1

Client Sample ID: TRIP-BLANK-20240516
Date Collected: 05/16/24 00:00
Date Received: 05/17/24 10:29

Lab Sample ID: 680-250910-24
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	1.0	U	2.0	0.26	ug/L			05/23/24 13:26	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			05/23/24 13:26	1
Styrene	1.0	U	2.0	0.27	ug/L			05/23/24 13:26	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			05/23/24 13:26	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			05/23/24 13:26	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			05/23/24 13:26	1
Tetrachloroethene	1.0	U	2.0	0.35	ug/L			05/23/24 13:26	1
Toluene	1.0	U	2.0	0.25	ug/L			05/23/24 13:26	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			05/23/24 13:26	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			05/23/24 13:26	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			05/23/24 13:26	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			05/23/24 13:26	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			05/23/24 13:26	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			05/23/24 13:26	1
Trichloroethene	0.50	U	1.0	0.20	ug/L			05/23/24 13:26	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			05/23/24 13:26	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			05/23/24 13:26	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			05/23/24 13:26	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			05/23/24 13:26	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			05/23/24 13:26	1
Vinyl chloride	1.0	U	2.0	0.40	ug/L			05/23/24 13:26	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			05/23/24 13:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*85 - 114*		*05/23/24 13:26*	*1*
Dibromofluoromethane (Surr)	*104*		*80 - 119*		*05/23/24 13:26*	*1*
1,2-Dichloroethane-d4 (Surr)	*96*		*81 - 118*		*05/23/24 13:26*	*1*
Toluene-d8 (Surr)	*103*		*89 - 112*		*05/23/24 13:26*	*1*

Isotope Dilution Summary

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-250910-1

Method: 8270E SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Matrix: Water **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)
		DXE
Lab Sample ID	Client Sample ID	(10-150)
680-250910-19	OU6-MW-286-20240516	19 M
680-250910-22	OU6-MW-93-20240516	20 M
680-250910-23	DUP-2-20240516	29 M
LCS 680-839167/2-A	Lab Control Sample	16
MB 680-839167/1-A	Method Blank	24 M

Surrogate Legend

DXE = 1,4-Dioxane-d8

Method: 8260D - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 680-839410/8
Matrix: Water
Analysis Batch: 839410

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			05/23/24 12:45	1
Benzene	1.0	U	2.0	0.27	ug/L			05/23/24 12:45	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			05/23/24 12:45	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			05/23/24 12:45	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			05/23/24 12:45	1
Bromoform	2.0	U	2.5	0.59	ug/L			05/23/24 12:45	1
Bromomethane	10	U	20	3.7	ug/L			05/23/24 12:45	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			05/23/24 12:45	1
Carbon disulfide	1.0	U	2.0	0.43	ug/L			05/23/24 12:45	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			05/23/24 12:45	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			05/23/24 12:45	1
Chloroethane	10	U	20	4.6	ug/L			05/23/24 12:45	1
Chloroform	1.0	U	2.0	0.27	ug/L			05/23/24 12:45	1
Chloromethane	2.0	U	2.5	0.54	ug/L			05/23/24 12:45	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			05/23/24 12:45	1
4-Chlorotoluene	0.523	J	2.0	0.41	ug/L			05/23/24 12:45	1
cis-1,2-Dichloroethene	1.0	U	2.0	0.25	ug/L			05/23/24 12:45	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			05/23/24 12:45	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			05/23/24 12:45	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			05/23/24 12:45	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			05/23/24 12:45	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			05/23/24 12:45	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			05/23/24 12:45	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/23/24 12:45	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/23/24 12:45	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/23/24 12:45	1
Dichlorodifluoromethane	1.0	U	2.0	0.36	ug/L			05/23/24 12:45	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			05/23/24 12:45	1
1,2-Dichloroethane	1.0	U	2.0	0.25	ug/L			05/23/24 12:45	1
1,1-Dichloroethene	1.0	U	2.0	0.33	ug/L			05/23/24 12:45	1
1,2-Dichloroethene, Total	1.0	U	2.0	0.37	ug/L			05/23/24 12:45	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			05/23/24 12:45	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			05/23/24 12:45	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			05/23/24 12:45	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			05/23/24 12:45	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			05/23/24 12:45	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			05/23/24 12:45	1
2-Hexanone	10	U	20	3.2	ug/L			05/23/24 12:45	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			05/23/24 12:45	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			05/23/24 12:45	1
Methyl acetate	10	U	20	3.2	ug/L			05/23/24 12:45	1
Methylcyclohexane	1.0	U	2.0	0.33	ug/L			05/23/24 12:45	1
Methylene Chloride	10	U	20	3.2	ug/L			05/23/24 12:45	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			05/23/24 12:45	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			05/23/24 12:45	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			05/23/24 12:45	1
Naphthalene	5.0	U	10	2.4	ug/L			05/23/24 12:45	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			05/23/24 12:45	1

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-839410/8
Matrix: Water
Analysis Batch: 839410

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			05/23/24 12:45	1
o-Xylene	1.0	U	2.0	0.26	ug/L			05/23/24 12:45	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			05/23/24 12:45	1
Styrene	1.0	U	2.0	0.27	ug/L			05/23/24 12:45	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			05/23/24 12:45	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			05/23/24 12:45	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			05/23/24 12:45	1
Tetrachloroethene	1.0	U	2.0	0.35	ug/L			05/23/24 12:45	1
Toluene	1.0	U	2.0	0.25	ug/L			05/23/24 12:45	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			05/23/24 12:45	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			05/23/24 12:45	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			05/23/24 12:45	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			05/23/24 12:45	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			05/23/24 12:45	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			05/23/24 12:45	1
Trichloroethene	0.50	U	1.0	0.20	ug/L			05/23/24 12:45	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			05/23/24 12:45	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			05/23/24 12:45	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			05/23/24 12:45	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			05/23/24 12:45	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			05/23/24 12:45	1
Vinyl chloride	1.0	U	2.0	0.40	ug/L			05/23/24 12:45	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			05/23/24 12:45	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*85 - 114*		*05/23/24 12:45*	*1*
Dibromofluoromethane (Surr)	*105*		*80 - 119*		*05/23/24 12:45*	*1*
1,2-Dichloroethane-d4 (Surr)	*93*		*81 - 118*		*05/23/24 12:45*	*1*
Toluene-d8 (Surr)	*106*		*89 - 112*		*05/23/24 12:45*	*1*

Lab Sample ID: LCS 680-839410/4
Matrix: Water
Analysis Batch: 839410

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	250	262		ug/L		105	39 - 160
Benzene	50.0	53.4		ug/L		107	79 - 120
Bromobenzene	50.0	54.3		ug/L		109	80 - 120
Bromochloromethane	50.0	57.5		ug/L		115	78 - 123
Bromodichloromethane	50.0	48.1		ug/L		96	79 - 125
Bromoform	50.0	42.5		ug/L		85	66 - 130
Bromomethane	50.0	39.0		ug/L		78	53 - 141
2-Butanone (MEK)	250	283		ug/L		113	56 - 143
Carbon disulfide	50.0	51.8		ug/L		104	64 - 133
Carbon tetrachloride	50.0	49.0		ug/L		98	72 - 136
Chlorobenzene	50.0	50.7		ug/L		101	82 - 118
Chloroethane	50.0	50.8		ug/L		102	60 - 138
Chloroform	50.0	50.5		ug/L		101	79 - 124

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-839410/4
Matrix: Water
Analysis Batch: 839410

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloromethane	50.0	58.5		ug/L		117	50 - 139
2-Chlorotoluene	50.0	50.5		ug/L		101	79 - 122
4-Chlorotoluene	50.0	49.8		ug/L		100	78 - 122
cis-1,2-Dichloroethene	50.0	51.9		ug/L		104	78 - 123
cis-1,3-Dichloropropene	50.0	49.0		ug/L		98	75 - 124
Cyclohexane	50.0	59.6		ug/L		119	71 - 130
Dibromochloromethane	50.0	47.2		ug/L		94	74 - 126
1,2-Dibromo-3-Chloropropane	50.0	44.7		ug/L		89	62 - 128
1,2-Dibromoethane	50.0	48.5		ug/L		97	75 - 127
Dibromomethane	50.0	48.4		ug/L		97	79 - 123
1,2-Dichlorobenzene	50.0	49.2		ug/L		98	80 - 119
1,3-Dichlorobenzene	50.0	53.4		ug/L		107	80 - 119
1,4-Dichlorobenzene	50.0	51.6		ug/L		103	79 - 118
Dichlorodifluoromethane	50.0	42.9		ug/L		86	32 - 152
1,1-Dichloroethane	50.0	53.8		ug/L		108	77 - 125
1,2-Dichloroethane	50.0	49.2		ug/L		98	73 - 128
1,1-Dichloroethene	50.0	52.7		ug/L		105	71 - 131
1,2-Dichloroethene, Total	100	105		ug/L		105	79 - 121
1,2-Dichloropropane	50.0	54.1		ug/L		108	78 - 122
1,3-Dichloropropane	50.0	50.5		ug/L		101	80 - 119
2,2-Dichloropropane	50.0	48.0	M	ug/L		96	60 - 139
1,1-Dichloropropene	50.0	54.6		ug/L		109	79 - 125
Ethylbenzene	50.0	54.8		ug/L		110	79 - 121
Hexachlorobutadiene	50.0	49.9		ug/L		100	66 - 134
2-Hexanone	250	275		ug/L		110	57 - 139
Isopropylbenzene	50.0	52.9		ug/L		106	72 - 131
4-Isopropyltoluene	50.0	52.8		ug/L		106	77 - 127
Methyl acetate	100	93.9		ug/L		94	56 - 136
Methylcyclohexane	50.0	56.4		ug/L		113	72 - 132
Methylene Chloride	50.0	50.8		ug/L		102	74 - 124
4-Methyl-2-pentanone (MIBK)	250	272		ug/L		109	67 - 130
Methyl tert-butyl ether	50.0	48.0		ug/L		96	71 - 124
m-Xylene & p-Xylene	50.0	53.4		ug/L		107	80 - 121
Naphthalene	50.0	46.6		ug/L		93	61 - 128
n-Butylbenzene	50.0	48.5		ug/L		97	75 - 128
N-Propylbenzene	50.0	54.5		ug/L		109	76 - 126
o-Xylene	50.0	53.9		ug/L		108	78 - 122
sec-Butylbenzene	50.0	52.6		ug/L		105	77 - 126
Styrene	50.0	54.7		ug/L		109	78 - 123
tert-Butylbenzene	50.0	51.1		ug/L		102	78 - 124
1,1,1,2-Tetrachloroethane	50.0	48.3		ug/L		97	78 - 124
1,1,2,2-Tetrachloroethane	50.0	53.3		ug/L		107	71 - 121
Tetrachloroethene	50.0	52.4		ug/L		105	74 - 129
Toluene	50.0	48.5		ug/L		97	80 - 121
trans-1,2-Dichloroethene	50.0	53.0		ug/L		106	75 - 124
trans-1,3-Dichloropropene	50.0	46.4		ug/L		93	73 - 127
1,2,3-Trichlorobenzene	50.0	49.4		ug/L		99	69 - 129
1,2,4-Trichlorobenzene	50.0	49.5	M	ug/L		99	69 - 130
1,1,1-Trichloroethane	50.0	49.6		ug/L		99	74 - 131

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-839410/4
Matrix: Water
Analysis Batch: 839410

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,1,2-Trichloroethane			50.0	44.7		ug/L		89	80 - 119		
Trichloroethene			50.0	50.6		ug/L		101	79 - 123		
Trichlorofluoromethane			50.0	46.8		ug/L		94	65 - 141		
1,2,3-Trichloropropane			50.0	50.0		ug/L		100	73 - 122		
1,1,2-Trichloro-1,2,2-trifluoroethane			50.0	54.6		ug/L		109	70 - 136		
1,2,4-Trimethylbenzene			50.0	51.1		ug/L		102	76 - 124		
1,3,5-Trimethylbenzene			50.0	52.5		ug/L		105	75 - 124		
Vinyl chloride			50.0	51.7		ug/L		103	58 - 137		
Xylenes, Total			100	107		ug/L		107	79 - 121		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*92*		*85 - 114*
Dibromofluoromethane (Surr)	*99*		*80 - 119*
1,2-Dichloroethane-d4 (Surr)	*94*		*81 - 118*
Toluene-d8 (Surr)	*93*		*89 - 112*

Lab Sample ID: LCSD 680-839410/5
Matrix: Water
Analysis Batch: 839410

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acetone			250	267		ug/L		107	39 - 160	2	20
Benzene			50.0	53.2		ug/L		106	79 - 120	0	20
Bromobenzene			50.0	50.3		ug/L		101	80 - 120	8	20
Bromochloromethane			50.0	58.4		ug/L		117	78 - 123	2	20
Bromodichloromethane			50.0	47.0		ug/L		94	79 - 125	2	20
Bromoform			50.0	43.8		ug/L		88	66 - 130	3	20
Bromomethane			50.0	38.8		ug/L		78	53 - 141	0	20
2-Butanone (MEK)			250	290		ug/L		116	56 - 143	2	20
Carbon disulfide			50.0	51.3		ug/L		103	64 - 133	1	20
Carbon tetrachloride			50.0	48.6		ug/L		97	72 - 136	1	20
Chlorobenzene			50.0	51.3		ug/L		103	82 - 118	1	20
Chloroethane			50.0	56.2		ug/L		112	60 - 138	10	20
Chloroform			50.0	50.9		ug/L		102	79 - 124	1	20
Chloromethane			50.0	56.9		ug/L		114	50 - 139	3	20
2-Chlorotoluene			50.0	48.1		ug/L		96	79 - 122	5	20
4-Chlorotoluene			50.0	48.3		ug/L		97	78 - 122	3	20
cis-1,2-Dichloroethene			50.0	52.2		ug/L		104	78 - 123	0	20
cis-1,3-Dichloropropene			50.0	46.4		ug/L		93	75 - 124	5	20
Cyclohexane			50.0	57.0		ug/L		114	71 - 130	5	20
Dibromochloromethane			50.0	48.0		ug/L		96	74 - 126	2	20
1,2-Dibromo-3-Chloropropane			50.0	47.2		ug/L		94	62 - 128	5	20
1,2-Dibromoethane			50.0	50.5		ug/L		101	75 - 127	4	20
Dibromomethane			50.0	47.3		ug/L		95	79 - 123	2	20
1,2-Dichlorobenzene			50.0	51.9		ug/L		104	80 - 119	5	20
1,3-Dichlorobenzene			50.0	52.8		ug/L		106	80 - 119	1	20
1,4-Dichlorobenzene			50.0	51.4		ug/L		103	79 - 118	0	20
Dichlorodifluoromethane			50.0	42.4		ug/L		85	32 - 152	1	20

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-839410/5
Matrix: Water
Analysis Batch: 839410

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1-Dichloroethane			50.0	54.0		ug/L		108	77 - 125	0	20
1,2-Dichloroethane			50.0	50.7		ug/L		101	73 - 128	3	20
1,1-Dichloroethene			50.0	51.9		ug/L		104	71 - 131	2	20
1,2-Dichloroethene, Total			100	105		ug/L		105	79 - 121	0	20
1,2-Dichloropropane			50.0	54.0		ug/L		108	78 - 122	0	20
1,3-Dichloropropane			50.0	52.0		ug/L		104	80 - 119	3	20
2,2-Dichloropropane			50.0	47.7	M	ug/L		95	60 - 139	1	20
1,1-Dichloropropene			50.0	53.6		ug/L		107	79 - 125	2	20
Ethylbenzene			50.0	55.3		ug/L		111	79 - 121	1	20
Hexachlorobutadiene			50.0	51.2		ug/L		102	66 - 134	2	20
2-Hexanone			250	284		ug/L		113	57 - 139	3	20
Isopropylbenzene			50.0	53.5		ug/L		107	72 - 131	1	20
4-Isopropyltoluene			50.0	51.8		ug/L		104	77 - 127	2	20
Methyl acetate			100	96.1		ug/L		96	56 - 136	2	20
Methylcyclohexane			50.0	55.3		ug/L		111	72 - 132	2	20
Methylene Chloride			50.0	51.5		ug/L		103	74 - 124	1	20
4-Methyl-2-pentanone (MIBK)			250	269		ug/L		107	67 - 130	1	20
Methyl tert-butyl ether			50.0	49.3		ug/L		99	71 - 124	3	20
m-Xylene & p-Xylene			50.0	53.8		ug/L		108	80 - 121	1	20
Naphthalene			50.0	48.9		ug/L		98	61 - 128	5	20
n-Butylbenzene			50.0	50.2		ug/L		100	75 - 128	3	20
N-Propylbenzene			50.0	50.1		ug/L		100	76 - 126	8	20
o-Xylene			50.0	54.0		ug/L		108	78 - 122	0	20
sec-Butylbenzene			50.0	50.3		ug/L		101	77 - 126	5	20
Styrene			50.0	54.9		ug/L		110	78 - 123	0	20
tert-Butylbenzene			50.0	49.4		ug/L		99	78 - 124	3	20
1,1,1,2-Tetrachloroethane			50.0	48.7		ug/L		97	78 - 124	1	20
1,1,2,2-Tetrachloroethane			50.0	51.2		ug/L		102	71 - 121	4	20
Tetrachloroethene			50.0	54.3		ug/L		109	74 - 129	4	20
Toluene			50.0	51.2		ug/L		102	80 - 121	5	20
trans-1,2-Dichloroethene			50.0	53.1		ug/L		106	75 - 124	0	20
trans-1,3-Dichloropropene			50.0	48.9		ug/L		98	73 - 127	5	20
1,2,3-Trichlorobenzene			50.0	50.4		ug/L		101	69 - 129	2	20
1,2,4-Trichlorobenzene			50.0	50.9		ug/L		102	69 - 130	3	20
1,1,1-Trichloroethane			50.0	49.6		ug/L		99	74 - 131	0	20
1,1,2-Trichloroethane			50.0	49.2		ug/L		98	80 - 119	10	20
Trichloroethene			50.0	50.7		ug/L		101	79 - 123	0	20
Trichlorofluoromethane			50.0	46.7		ug/L		93	65 - 141	0	20
1,2,3-Trichloropropane			50.0	47.3		ug/L		95	73 - 122	6	20
1,1,2-Trichloro-1,2,2-trifluoroethane			50.0	54.5		ug/L		109	70 - 136	0	20
1,2,4-Trimethylbenzene			50.0	48.5		ug/L		97	76 - 124	5	20
1,3,5-Trimethylbenzene			50.0	49.9		ug/L		100	75 - 124	5	20
Vinyl chloride			50.0	51.1		ug/L		102	58 - 137	1	20
Xylenes, Total			100	108		ug/L		108	79 - 121	0	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*91*		*85 - 114*

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-839410/5
Matrix: Water
Analysis Batch: 839410

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Dibromofluoromethane (Surr)	*101*		*80 - 119*
1,2-Dichloroethane-d4 (Surr)	*96*		*81 - 118*
Toluene-d8 (Surr)	*97*		*89 - 112*

Lab Sample ID: MB 680-839604/9
Matrix: Water
Analysis Batch: 839604

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			05/24/24 13:23	1
Benzene	1.0	U	2.0	0.27	ug/L			05/24/24 13:23	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			05/24/24 13:23	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			05/24/24 13:23	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			05/24/24 13:23	1
Bromoform	2.0	U	2.5	0.59	ug/L			05/24/24 13:23	1
Bromomethane	10	U	20	3.7	ug/L			05/24/24 13:23	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			05/24/24 13:23	1
Carbon disulfide	1.0	U	2.0	0.43	ug/L			05/24/24 13:23	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			05/24/24 13:23	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			05/24/24 13:23	1
Chloroethane	10	U	20	4.6	ug/L			05/24/24 13:23	1
Chloroform	1.0	U	2.0	0.27	ug/L			05/24/24 13:23	1
Chloromethane	2.0	U	2.5	0.54	ug/L			05/24/24 13:23	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			05/24/24 13:23	1
4-Chlorotoluene	0.456	J	2.0	0.41	ug/L			05/24/24 13:23	1
cis-1,2-Dichloroethene	1.0	U	2.0	0.25	ug/L			05/24/24 13:23	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			05/24/24 13:23	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			05/24/24 13:23	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			05/24/24 13:23	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			05/24/24 13:23	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			05/24/24 13:23	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			05/24/24 13:23	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/24/24 13:23	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/24/24 13:23	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/24/24 13:23	1
Dichlorodifluoromethane	1.0	U	2.0	0.36	ug/L			05/24/24 13:23	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			05/24/24 13:23	1
1,2-Dichloroethane	1.0	U M	2.0	0.25	ug/L			05/24/24 13:23	1
1,1-Dichloroethene	1.0	U	2.0	0.33	ug/L			05/24/24 13:23	1
1,2-Dichloroethene, Total	1.0	U	2.0	0.37	ug/L			05/24/24 13:23	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			05/24/24 13:23	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			05/24/24 13:23	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			05/24/24 13:23	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			05/24/24 13:23	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			05/24/24 13:23	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			05/24/24 13:23	1
2-Hexanone	10	U	20	3.2	ug/L			05/24/24 13:23	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			05/24/24 13:23	1

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-839604/9
Matrix: Water
Analysis Batch: 839604

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			05/24/24 13:23	1
Methyl acetate	10	U	20	3.2	ug/L			05/24/24 13:23	1
Methylcyclohexane	1.0	U	2.0	0.33	ug/L			05/24/24 13:23	1
Methylene Chloride	10	U	20	3.2	ug/L			05/24/24 13:23	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			05/24/24 13:23	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			05/24/24 13:23	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			05/24/24 13:23	1
Naphthalene	5.0	U	10	2.4	ug/L			05/24/24 13:23	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			05/24/24 13:23	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			05/24/24 13:23	1
o-Xylene	1.0	U	2.0	0.26	ug/L			05/24/24 13:23	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			05/24/24 13:23	1
Styrene	1.0	U	2.0	0.27	ug/L			05/24/24 13:23	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			05/24/24 13:23	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			05/24/24 13:23	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			05/24/24 13:23	1
Tetrachloroethene	1.0	U	2.0	0.35	ug/L			05/24/24 13:23	1
Toluene	1.0	U	2.0	0.25	ug/L			05/24/24 13:23	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			05/24/24 13:23	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			05/24/24 13:23	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			05/24/24 13:23	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			05/24/24 13:23	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			05/24/24 13:23	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			05/24/24 13:23	1
Trichloroethene	0.50	U	1.0	0.20	ug/L			05/24/24 13:23	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			05/24/24 13:23	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			05/24/24 13:23	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			05/24/24 13:23	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			05/24/24 13:23	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			05/24/24 13:23	1
Vinyl chloride	1.0	U	2.0	0.40	ug/L			05/24/24 13:23	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			05/24/24 13:23	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*85 - 114*		*05/24/24 13:23*	*1*
Dibromofluoromethane (Surr)	*103*		*80 - 119*		*05/24/24 13:23*	*1*
1,2-Dichloroethane-d4 (Surr)	*95*		*81 - 118*		*05/24/24 13:23*	*1*
Toluene-d8 (Surr)	*106*		*89 - 112*		*05/24/24 13:23*	*1*

Lab Sample ID: LCS 680-839604/4
Matrix: Water
Analysis Batch: 839604

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	250	308		ug/L		123	39 - 160
Benzene	50.0	54.5		ug/L		109	79 - 120
Bromobenzene	50.0	55.5		ug/L		111	80 - 120
Bromochloromethane	50.0	60.7		ug/L		121	78 - 123

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-839604/4
Matrix: Water
Analysis Batch: 839604

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bromodichloromethane	50.0	50.1		ug/L		100	79 - 125
Bromoform	50.0	40.1		ug/L		80	66 - 130
Bromomethane	50.0	43.2		ug/L		86	53 - 141
2-Butanone (MEK)	250	317		ug/L		127	56 - 143
Carbon disulfide	50.0	57.7		ug/L		115	64 - 133
Carbon tetrachloride	50.0	50.7		ug/L		101	72 - 136
Chlorobenzene	50.0	52.1		ug/L		104	82 - 118
Chloroethane	50.0	58.6		ug/L		117	60 - 138
Chloroform	50.0	53.8		ug/L		108	79 - 124
Chloromethane	50.0	64.6		ug/L		129	50 - 139
2-Chlorotoluene	50.0	50.4		ug/L		101	79 - 122
4-Chlorotoluene	50.0	49.0		ug/L		98	78 - 122
cis-1,2-Dichloroethene	50.0	55.8		ug/L		112	78 - 123
cis-1,3-Dichloropropene	50.0	52.9		ug/L		106	75 - 124
Cyclohexane	50.0	58.8		ug/L		118	71 - 130
Dibromochloromethane	50.0	50.6		ug/L		101	74 - 126
1,2-Dibromo-3-Chloropropane	50.0	42.9		ug/L		86	62 - 128
1,2-Dibromoethane	50.0	54.4		ug/L		109	75 - 127
Dibromomethane	50.0	51.7		ug/L		103	79 - 123
1,2-Dichlorobenzene	50.0	53.3		ug/L		107	80 - 119
1,3-Dichlorobenzene	50.0	51.6		ug/L		103	80 - 119
1,4-Dichlorobenzene	50.0	51.5		ug/L		103	79 - 118
Dichlorodifluoromethane	50.0	43.7		ug/L		87	32 - 152
1,1-Dichloroethane	50.0	58.7		ug/L		117	77 - 125
1,2-Dichloroethane	50.0	55.1		ug/L		110	73 - 128
1,1-Dichloroethene	50.0	60.1		ug/L		120	71 - 131
1,2-Dichloroethene, Total	100	113		ug/L		113	79 - 121
1,2-Dichloropropane	50.0	56.3		ug/L		113	78 - 122
1,3-Dichloropropane	50.0	57.8		ug/L		116	80 - 119
2,2-Dichloropropane	50.0	52.3		ug/L		105	60 - 139
1,1-Dichloropropene	50.0	57.2		ug/L		114	79 - 125
Ethylbenzene	50.0	56.6		ug/L		113	79 - 121
Hexachlorobutadiene	50.0	50.3		ug/L		101	66 - 134
2-Hexanone	250	313		ug/L		125	57 - 139
Isopropylbenzene	50.0	54.6		ug/L		109	72 - 131
4-Isopropyltoluene	50.0	51.0		ug/L		102	77 - 127
Methyl acetate	100	110		ug/L		110	56 - 136
Methylcyclohexane	50.0	57.7		ug/L		115	72 - 132
Methylene Chloride	50.0	58.7		ug/L		117	74 - 124
4-Methyl-2-pentanone (MIBK)	250	316		ug/L		126	67 - 130
Methyl tert-butyl ether	50.0	52.3		ug/L		105	71 - 124
m-Xylene & p-Xylene	50.0	55.1		ug/L		110	80 - 121
Naphthalene	50.0	46.5		ug/L		93	61 - 128
n-Butylbenzene	50.0	52.2		ug/L		104	75 - 128
N-Propylbenzene	50.0	55.2		ug/L		110	76 - 126
o-Xylene	50.0	54.8		ug/L		110	78 - 122
sec-Butylbenzene	50.0	51.3		ug/L		103	77 - 126
Styrene	50.0	55.8		ug/L		112	78 - 123
tert-Butylbenzene	50.0	50.0		ug/L		100	78 - 124

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-839604/4
Matrix: Water
Analysis Batch: 839604

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,1,1,2-Tetrachloroethane			50.0	48.5		ug/L		97	78 - 124		
1,1,2,2-Tetrachloroethane			50.0	53.9		ug/L		108	71 - 121		
Tetrachloroethene			50.0	62.8		ug/L		126	74 - 129		
Toluene			50.0	58.8		ug/L		118	80 - 121		
trans-1,2-Dichloroethene			50.0	57.0		ug/L		114	75 - 124		
trans-1,3-Dichloropropene			50.0	53.7		ug/L		107	73 - 127		
1,2,3-Trichlorobenzene			50.0	49.8		ug/L		100	69 - 129		
1,2,4-Trichlorobenzene			50.0	49.9		ug/L		100	69 - 130		
1,1,1-Trichloroethane			50.0	52.6		ug/L		105	74 - 131		
1,1,2-Trichloroethane			50.0	53.8		ug/L		108	80 - 119		
Trichloroethene			50.0	52.8		ug/L		106	79 - 123		
Trichlorofluoromethane			50.0	52.5		ug/L		105	65 - 141		
1,2,3-Trichloropropane			50.0	50.7		ug/L		101	73 - 122		
1,1,2-Trichloro-1,2,2-trifluoroethane			50.0	61.5		ug/L		123	70 - 136		
1,2,4-Trimethylbenzene			50.0	49.8		ug/L		100	76 - 124		
1,3,5-Trimethylbenzene			50.0	51.6		ug/L		103	75 - 124		
Vinyl chloride			50.0	56.2		ug/L		112	58 - 137		
Xylenes, Total			100	110		ug/L		110	79 - 121		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*94*		*85 - 114*
Dibromofluoromethane (Surr)	*104*		*80 - 119*
1,2-Dichloroethane-d4 (Surr)	*105*		*81 - 118*
Toluene-d8 (Surr)	*112*		*89 - 112*

Lab Sample ID: LCSD 680-839604/5
Matrix: Water
Analysis Batch: 839604

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acetone			250	290		ug/L		116	39 - 160	6	20
Benzene			50.0	54.7		ug/L		109	79 - 120	0	20
Bromobenzene			50.0	55.2		ug/L		110	80 - 120	1	20
Bromochloromethane			50.0	58.3		ug/L		117	78 - 123	4	20
Bromodichloromethane			50.0	48.3		ug/L		97	79 - 125	4	20
Bromoform			50.0	41.8		ug/L		84	66 - 130	4	20
Bromomethane			50.0	34.7	Q	ug/L		69	53 - 141	22	20
2-Butanone (MEK)			250	285		ug/L		114	56 - 143	10	20
Carbon disulfide			50.0	50.4		ug/L		101	64 - 133	13	20
Carbon tetrachloride			50.0	48.2		ug/L		96	72 - 136	5	20
Chlorobenzene			50.0	52.0		ug/L		104	82 - 118	0	20
Chloroethane			50.0	50.9		ug/L		102	60 - 138	14	20
Chloroform			50.0	51.5		ug/L		103	79 - 124	4	20
Chloromethane			50.0	54.4		ug/L		109	50 - 139	17	20
2-Chlorotoluene			50.0	50.4		ug/L		101	79 - 122	0	20
4-Chlorotoluene			50.0	50.9		ug/L		102	78 - 122	4	20
cis-1,2-Dichloroethene			50.0	50.5		ug/L		101	78 - 123	10	20
cis-1,3-Dichloropropene			50.0	48.9		ug/L		98	75 - 124	8	20

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-839604/5
Matrix: Water
Analysis Batch: 839604

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Cyclohexane	50.0	60.0		ug/L		120	71 - 130	2	20
Dibromochloromethane	50.0	46.4		ug/L		93	74 - 126	9	20
1,2-Dibromo-3-Chloropropane	50.0	45.7		ug/L		91	62 - 128	6	20
1,2-Dibromoethane	50.0	50.6		ug/L		101	75 - 127	7	20
Dibromomethane	50.0	50.3		ug/L		101	79 - 123	3	20
1,2-Dichlorobenzene	50.0	50.7		ug/L		101	80 - 119	5	20
1,3-Dichlorobenzene	50.0	53.5		ug/L		107	80 - 119	4	20
1,4-Dichlorobenzene	50.0	51.7		ug/L		103	79 - 118	0	20
Dichlorodifluoromethane	50.0	38.9		ug/L		78	32 - 152	12	20
1,1-Dichloroethane	50.0	52.1		ug/L		104	77 - 125	12	20
1,2-Dichloroethane	50.0	51.2		ug/L		102	73 - 128	7	20
1,1-Dichloroethene	50.0	52.5		ug/L		105	71 - 131	14	20
1,2-Dichloroethene, Total	100	104		ug/L		104	79 - 121	9	20
1,2-Dichloropropane	50.0	56.2		ug/L		112	78 - 122	0	20
1,3-Dichloropropane	50.0	50.3		ug/L		101	80 - 119	14	20
2,2-Dichloropropane	50.0	47.6		ug/L		95	60 - 139	9	20
1,1-Dichloropropene	50.0	55.2		ug/L		110	79 - 125	4	20
Ethylbenzene	50.0	55.5		ug/L		111	79 - 121	2	20
Hexachlorobutadiene	50.0	52.7		ug/L		105	66 - 134	5	20
2-Hexanone	250	274		ug/L		109	57 - 139	14	20
Isopropylbenzene	50.0	52.8		ug/L		106	72 - 131	3	20
4-Isopropyltoluene	50.0	52.4		ug/L		105	77 - 127	3	20
Methyl acetate	100	102		ug/L		102	56 - 136	8	20
Methylcyclohexane	50.0	56.8		ug/L		114	72 - 132	1	20
Methylene Chloride	50.0	52.4		ug/L		105	74 - 124	11	20
4-Methyl-2-pentanone (MIBK)	250	286		ug/L		115	67 - 130	10	20
Methyl tert-butyl ether	50.0	50.4		ug/L		101	71 - 124	4	20
m-Xylene & p-Xylene	50.0	53.8		ug/L		108	80 - 121	2	20
Naphthalene	50.0	51.0		ug/L		102	61 - 128	9	20
n-Butylbenzene	50.0	50.9		ug/L		102	75 - 128	2	20
N-Propylbenzene	50.0	54.3		ug/L		109	76 - 126	2	20
o-Xylene	50.0	53.7		ug/L		107	78 - 122	2	20
sec-Butylbenzene	50.0	48.9		ug/L		98	77 - 126	5	20
Styrene	50.0	54.8		ug/L		110	78 - 123	2	20
tert-Butylbenzene	50.0	50.7		ug/L		101	78 - 124	1	20
1,1,1,2-Tetrachloroethane	50.0	48.1		ug/L		96	78 - 124	1	20
1,1,2,2-Tetrachloroethane	50.0	55.2		ug/L		110	71 - 121	2	20
Tetrachloroethene	50.0	51.1	Q	ug/L		102	74 - 129	21	20
Toluene	50.0	48.5		ug/L		97	80 - 121	19	20
trans-1,2-Dichloroethene	50.0	53.1		ug/L		106	75 - 124	7	20
trans-1,3-Dichloropropene	50.0	47.4		ug/L		95	73 - 127	12	20
1,2,3-Trichlorobenzene	50.0	53.6		ug/L		107	69 - 129	7	20
1,2,4-Trichlorobenzene	50.0	52.6		ug/L		105	69 - 130	5	20
1,1,1-Trichloroethane	50.0	50.1		ug/L		100	74 - 131	5	20
1,1,2-Trichloroethane	50.0	47.3		ug/L		95	80 - 119	13	20
Trichloroethene	50.0	51.7		ug/L		103	79 - 123	2	20
Trichlorofluoromethane	50.0	44.3		ug/L		89	65 - 141	17	20
1,2,3-Trichloropropane	50.0	52.0		ug/L		104	73 - 122	3	20

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-839604/5
Matrix: Water
Analysis Batch: 839604

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1,2-Trichloro-1,2,2-trifluoroethane			50.0	54.1		ug/L		108	70 - 136	13	20
1,2,4-Trimethylbenzene			50.0	50.6		ug/L		101	76 - 124	2	20
1,3,5-Trimethylbenzene			50.0	53.0		ug/L		106	75 - 124	3	20
Vinyl chloride			50.0	49.3		ug/L		99	58 - 137	13	20
Xylenes, Total			100	108		ug/L		108	79 - 121	2	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*97*		*85 - 114*
Dibromofluoromethane (Surr)	*100*		*80 - 119*
1,2-Dichloroethane-d4 (Surr)	*97*		*81 - 118*
Toluene-d8 (Surr)	*94*		*89 - 112*

Lab Sample ID: MB 680-840104/9
Matrix: Water
Analysis Batch: 840104

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			05/29/24 12:47	1
Benzene	1.0	U	2.0	0.27	ug/L			05/29/24 12:47	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			05/29/24 12:47	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			05/29/24 12:47	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			05/29/24 12:47	1
Bromoform	2.0	U	2.5	0.59	ug/L			05/29/24 12:47	1
Bromomethane	10	U	20	3.7	ug/L			05/29/24 12:47	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			05/29/24 12:47	1
Carbon disulfide	1.0	U	2.0	0.43	ug/L			05/29/24 12:47	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			05/29/24 12:47	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			05/29/24 12:47	1
Chloroethane	10	U	20	4.6	ug/L			05/29/24 12:47	1
Chloroform	1.0	U	2.0	0.27	ug/L			05/29/24 12:47	1
Chloromethane	2.0	U	2.5	0.54	ug/L			05/29/24 12:47	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			05/29/24 12:47	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			05/29/24 12:47	1
cis-1,2-Dichloroethene	1.0	U	2.0	0.25	ug/L			05/29/24 12:47	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			05/29/24 12:47	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			05/29/24 12:47	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			05/29/24 12:47	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			05/29/24 12:47	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			05/29/24 12:47	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			05/29/24 12:47	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/29/24 12:47	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/29/24 12:47	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/29/24 12:47	1
Dichlorodifluoromethane	1.0	U	2.0	0.36	ug/L			05/29/24 12:47	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			05/29/24 12:47	1
1,2-Dichloroethane	1.0	U M	2.0	0.25	ug/L			05/29/24 12:47	1
1,1-Dichloroethene	1.0	U	2.0	0.33	ug/L			05/29/24 12:47	1
1,2-Dichloroethene, Total	1.0	U	2.0	0.37	ug/L			05/29/24 12:47	1

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-840104/9
Matrix: Water
Analysis Batch: 840104

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			05/29/24 12:47	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			05/29/24 12:47	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			05/29/24 12:47	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			05/29/24 12:47	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			05/29/24 12:47	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			05/29/24 12:47	1
2-Hexanone	10	U	20	3.2	ug/L			05/29/24 12:47	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			05/29/24 12:47	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			05/29/24 12:47	1
Methyl acetate	10	U	20	3.2	ug/L			05/29/24 12:47	1
Methylcyclohexane	1.0	U	2.0	0.33	ug/L			05/29/24 12:47	1
Methylene Chloride	10	U	20	3.2	ug/L			05/29/24 12:47	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			05/29/24 12:47	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			05/29/24 12:47	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			05/29/24 12:47	1
Naphthalene	5.0	U	10	2.4	ug/L			05/29/24 12:47	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			05/29/24 12:47	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			05/29/24 12:47	1
o-Xylene	1.0	U	2.0	0.26	ug/L			05/29/24 12:47	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			05/29/24 12:47	1
Styrene	1.0	U	2.0	0.27	ug/L			05/29/24 12:47	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			05/29/24 12:47	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			05/29/24 12:47	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			05/29/24 12:47	1
Tetrachloroethene	0.622	J	2.0	0.35	ug/L			05/29/24 12:47	1
Toluene	1.0	U	2.0	0.25	ug/L			05/29/24 12:47	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			05/29/24 12:47	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			05/29/24 12:47	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			05/29/24 12:47	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			05/29/24 12:47	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			05/29/24 12:47	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			05/29/24 12:47	1
Trichloroethene	0.50	U	1.0	0.20	ug/L			05/29/24 12:47	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			05/29/24 12:47	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			05/29/24 12:47	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			05/29/24 12:47	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			05/29/24 12:47	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			05/29/24 12:47	1
Vinyl chloride	1.0	U	2.0	0.40	ug/L			05/29/24 12:47	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			05/29/24 12:47	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*113*		*85 - 114*		*05/29/24 12:47*	*1*
Dibromofluoromethane (Surr)	*96*		*80 - 119*		*05/29/24 12:47*	*1*
1,2-Dichloroethane-d4 (Surr)	*98*		*81 - 118*		*05/29/24 12:47*	*1*
Toluene-d8 (Surr)	*102*		*89 - 112*		*05/29/24 12:47*	*1*

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-840104/4
Matrix: Water
Analysis Batch: 840104

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	250	255		ug/L		102	39 - 160
Benzene	50.0	55.4		ug/L		111	79 - 120
Bromobenzene	50.0	48.3		ug/L		97	80 - 120
Bromochloromethane	50.0	60.6		ug/L		121	78 - 123
Bromodichloromethane	50.0	55.4		ug/L		111	79 - 125
Bromoform	50.0	47.1		ug/L		94	66 - 130
Bromomethane	50.0	46.5		ug/L		93	53 - 141
2-Butanone (MEK)	250	286		ug/L		114	56 - 143
Carbon disulfide	50.0	59.9		ug/L		120	64 - 133
Carbon tetrachloride	50.0	60.6		ug/L		121	72 - 136
Chlorobenzene	50.0	47.2		ug/L		94	82 - 118
Chloroethane	50.0	54.5		ug/L		109	60 - 138
Chloroform	50.0	54.8		ug/L		110	79 - 124
Chloromethane	50.0	46.6		ug/L		93	50 - 139
2-Chlorotoluene	50.0	50.6		ug/L		101	79 - 122
4-Chlorotoluene	50.0	49.9		ug/L		100	78 - 122
cis-1,2-Dichloroethene	50.0	53.5		ug/L		107	78 - 123
cis-1,3-Dichloropropene	50.0	53.9		ug/L		108	75 - 124
Cyclohexane	50.0	63.9		ug/L		128	71 - 130
Dibromochloromethane	50.0	48.6		ug/L		97	74 - 126
1,2-Dibromo-3-Chloropropane	50.0	48.3		ug/L		97	62 - 128
1,2-Dibromoethane	50.0	49.7		ug/L		99	75 - 127
Dibromomethane	50.0	51.2		ug/L		102	79 - 123
1,2-Dichlorobenzene	50.0	54.4		ug/L		109	80 - 119
1,3-Dichlorobenzene	50.0	54.4		ug/L		109	80 - 119
1,4-Dichlorobenzene	50.0	53.7		ug/L		107	79 - 118
Dichlorodifluoromethane	50.0	37.7		ug/L		75	32 - 152
1,1-Dichloroethane	50.0	58.3		ug/L		117	77 - 125
1,2-Dichloroethane	50.0	54.3		ug/L		109	73 - 128
1,1-Dichloroethene	50.0	58.6		ug/L		117	71 - 131
1,2-Dichloroethene, Total	100	110		ug/L		110	79 - 121
1,2-Dichloropropane	50.0	56.4		ug/L		113	78 - 122
1,3-Dichloropropane	50.0	51.9		ug/L		104	80 - 119
2,2-Dichloropropane	50.0	59.5		ug/L		119	60 - 139
1,1-Dichloropropene	50.0	56.7		ug/L		113	79 - 125
Ethylbenzene	50.0	54.3		ug/L		109	79 - 121
Hexachlorobutadiene	50.0	57.9		ug/L		116	66 - 134
2-Hexanone	250	280		ug/L		112	57 - 139
Isopropylbenzene	50.0	52.8		ug/L		106	72 - 131
4-Isopropyltoluene	50.0	58.0		ug/L		116	77 - 127
Methyl acetate	100	97.6		ug/L		98	56 - 136
Methylcyclohexane	50.0	58.7		ug/L		117	72 - 132
Methylene Chloride	50.0	56.0		ug/L		112	74 - 124
4-Methyl-2-pentanone (MIBK)	250	283		ug/L		113	67 - 130
Methyl tert-butyl ether	50.0	53.5		ug/L		107	71 - 124
m-Xylene & p-Xylene	50.0	51.8		ug/L		104	80 - 121
Naphthalene	50.0	53.0		ug/L		106	61 - 128
n-Butylbenzene	50.0	60.9		ug/L		122	75 - 128

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-840104/4
Matrix: Water
Analysis Batch: 840104

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
N-Propylbenzene			50.0	52.6		ug/L		105	76 - 126		
o-Xylene			50.0	49.7		ug/L		99	78 - 122		
sec-Butylbenzene			50.0	54.1		ug/L		108	77 - 126		
Styrene			50.0	48.5		ug/L		97	78 - 123		
tert-Butylbenzene			50.0	52.5		ug/L		105	78 - 124		
1,1,1,2-Tetrachloroethane			50.0	52.1		ug/L		104	78 - 124		
1,1,2,2-Tetrachloroethane			50.0	51.8		ug/L		104	71 - 121		
Tetrachloroethene			50.0	50.6		ug/L		101	74 - 129		
Toluene			50.0	55.0		ug/L		110	80 - 121		
trans-1,2-Dichloroethene			50.0	56.1		ug/L		112	75 - 124		
trans-1,3-Dichloropropene			50.0	53.0		ug/L		106	73 - 127		
1,2,3-Trichlorobenzene			50.0	57.4		ug/L		115	69 - 129		
1,2,4-Trichlorobenzene			50.0	55.3		ug/L		111	69 - 130		
1,1,1-Trichloroethane			50.0	55.9		ug/L		112	74 - 131		
1,1,2-Trichloroethane			50.0	50.8		ug/L		102	80 - 119		
Trichloroethene			50.0	47.1		ug/L		94	79 - 123		
Trichlorofluoromethane			50.0	53.7		ug/L		107	65 - 141		
1,2,3-Trichloropropane			50.0	47.7		ug/L		95	73 - 122		
1,1,2-Trichloro-1,2,2-trifluoroethane			50.0	57.1		ug/L		114	70 - 136		
1,2,4-Trimethylbenzene			50.0	52.9		ug/L		106	76 - 124		
1,3,5-Trimethylbenzene			50.0	52.5		ug/L		105	75 - 124		
Vinyl chloride			50.0	46.3		ug/L		93	58 - 137		
Xylenes, Total			100	102		ug/L		102	79 - 121		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*105*		*85 - 114*
Dibromofluoromethane (Surr)	*107*		*80 - 119*
1,2-Dichloroethane-d4 (Surr)	*107*		*81 - 118*
Toluene-d8 (Surr)	*105*		*89 - 112*

Lab Sample ID: LCSD 680-840104/5
Matrix: Water
Analysis Batch: 840104

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acetone			250	244		ug/L		98	39 - 160	4	20
Benzene			50.0	54.3		ug/L		109	79 - 120	2	20
Bromobenzene			50.0	48.1		ug/L		96	80 - 120	0	20
Bromochloromethane			50.0	56.6		ug/L		113	78 - 123	7	20
Bromodichloromethane			50.0	53.0		ug/L		106	79 - 125	4	20
Bromoform			50.0	47.1		ug/L		94	66 - 130	0	20
Bromomethane			50.0	44.0		ug/L		88	53 - 141	6	20
2-Butanone (MEK)			250	276		ug/L		110	56 - 143	4	20
Carbon disulfide			50.0	63.2		ug/L		126	64 - 133	5	20
Carbon tetrachloride			50.0	66.7		ug/L		133	72 - 136	10	20
Chlorobenzene			50.0	47.4		ug/L		95	82 - 118	0	20
Chloroethane			50.0	53.8		ug/L		108	60 - 138	1	20
Chloroform			50.0	52.7		ug/L		105	79 - 124	4	20

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-840104/5
Matrix: Water
Analysis Batch: 840104

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloromethane	50.0	46.5		ug/L		93	50 - 139	0	20
2-Chlorotoluene	50.0	52.3		ug/L		105	79 - 122	3	20
4-Chlorotoluene	50.0	51.0		ug/L		102	78 - 122	2	20
cis-1,2-Dichloroethene	50.0	51.3		ug/L		103	78 - 123	4	20
cis-1,3-Dichloropropene	50.0	51.4		ug/L		103	75 - 124	5	20
Cyclohexane	50.0	75.1	Q	ug/L		150	71 - 130	16	20
Dibromochloromethane	50.0	47.4		ug/L		95	74 - 126	2	20
1,2-Dibromo-3-Chloropropane	50.0	48.6		ug/L		97	62 - 128	1	20
1,2-Dibromoethane	50.0	47.7		ug/L		95	75 - 127	4	20
Dibromomethane	50.0	48.3		ug/L		97	79 - 123	6	20
1,2-Dichlorobenzene	50.0	54.1		ug/L		108	80 - 119	1	20
1,3-Dichlorobenzene	50.0	55.3		ug/L		111	80 - 119	1	20
1,4-Dichlorobenzene	50.0	54.4		ug/L		109	79 - 118	1	20
Dichlorodifluoromethane	50.0	45.1		ug/L		90	32 - 152	18	20
1,1-Dichloroethane	50.0	56.0		ug/L		112	77 - 125	4	20
1,2-Dichloroethane	50.0	51.5		ug/L		103	73 - 128	5	20
1,1-Dichloroethene	50.0	62.5		ug/L		125	71 - 131	6	20
1,2-Dichloroethene, Total	100	107		ug/L		107	79 - 121	2	20
1,2-Dichloropropane	50.0	53.4		ug/L		107	78 - 122	5	20
1,3-Dichloropropane	50.0	49.8		ug/L		100	80 - 119	4	20
2,2-Dichloropropane	50.0	60.7		ug/L		121	60 - 139	2	20
1,1-Dichloropropene	50.0	61.2		ug/L		122	79 - 125	8	20
Ethylbenzene	50.0	57.0		ug/L		114	79 - 121	5	20
Hexachlorobutadiene	50.0	66.1		ug/L		132	66 - 134	13	20
2-Hexanone	250	266		ug/L		106	57 - 139	5	20
Isopropylbenzene	50.0	57.1		ug/L		114	72 - 131	8	20
4-Isopropyltoluene	50.0	63.5		ug/L		127	77 - 127	9	20
Methyl acetate	100	93.7		ug/L		94	56 - 136	4	20
Methylcyclohexane	50.0	72.2	Q	ug/L		144	72 - 132	21	20
Methylene Chloride	50.0	52.4		ug/L		105	74 - 124	7	20
4-Methyl-2-pentanone (MIBK)	250	272		ug/L		109	67 - 130	4	20
Methyl tert-butyl ether	50.0	51.4		ug/L		103	71 - 124	4	20
m-Xylene & p-Xylene	50.0	54.1		ug/L		108	80 - 121	4	20
Naphthalene	50.0	52.1		ug/L		104	61 - 128	2	20
n-Butylbenzene	50.0	67.7	Q	ug/L		135	75 - 128	11	20
N-Propylbenzene	50.0	57.5		ug/L		115	76 - 126	9	20
o-Xylene	50.0	50.9		ug/L		102	78 - 122	2	20
sec-Butylbenzene	50.0	61.2		ug/L		122	77 - 126	12	20
Styrene	50.0	48.8		ug/L		98	78 - 123	1	20
tert-Butylbenzene	50.0	57.8		ug/L		116	78 - 124	10	20
1,1,1,2-Tetrachloroethane	50.0	53.2		ug/L		106	78 - 124	2	20
1,1,2,2-Tetrachloroethane	50.0	52.0		ug/L		104	71 - 121	0	20
Tetrachloroethene	50.0	54.4		ug/L		109	74 - 129	7	20
Toluene	50.0	54.1		ug/L		108	80 - 121	2	20
trans-1,2-Dichloroethene	50.0	55.9		ug/L		112	75 - 124	0	20
trans-1,3-Dichloropropene	50.0	50.9		ug/L		102	73 - 127	4	20
1,2,3-Trichlorobenzene	50.0	57.4		ug/L		115	69 - 129	0	20
1,2,4-Trichlorobenzene	50.0	55.6		ug/L		111	69 - 130	0	20
1,1,1-Trichloroethane	50.0	58.8		ug/L		118	74 - 131	5	20

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-840104/5
Matrix: Water
Analysis Batch: 840104

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1,2-Trichloroethane			50.0	48.8		ug/L		98	80 - 119	4	20
Trichloroethene			50.0	48.4		ug/L		97	79 - 123	3	20
Trichlorofluoromethane			50.0	61.1		ug/L		122	65 - 141	13	20
1,2,3-Trichloropropane			50.0	47.0		ug/L		94	73 - 122	2	20
1,1,2-Trichloro-1,2,2-trifluoroethane			50.0	68.6	Q	ug/L		137	70 - 136	18	20
1,2,4-Trimethylbenzene			50.0	54.5		ug/L		109	76 - 124	3	20
1,3,5-Trimethylbenzene			50.0	54.8		ug/L		110	75 - 124	4	20
Vinyl chloride			50.0	49.4		ug/L		99	58 - 137	7	20
Xylenes, Total			100	105		ug/L		105	79 - 121	3	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*104*		*85 - 114*
Dibromofluoromethane (Surr)	*101*		*80 - 119*
1,2-Dichloroethane-d4 (Surr)	*102*		*81 - 118*
Toluene-d8 (Surr)	*103*		*89 - 112*

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 680-838752/1-A
Matrix: Water
Analysis Batch: 838829

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 838752

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	10	U M	20	4.6	ug/L		05/20/24 06:53	05/20/24 14:23	1
1,2,4,5-Tetrachlorobenzene	10	U	20	4.5	ug/L		05/20/24 06:53	05/20/24 14:23	1
1,4-Dioxane	10	U	20	4.4	ug/L		05/20/24 06:53	05/20/24 14:23	1
2,3,4,6-Tetrachlorophenol	10	U	20	4.3	ug/L		05/20/24 06:53	05/20/24 14:23	1
2,4,5-Trichlorophenol	10	U	20	3.3	ug/L		05/20/24 06:53	05/20/24 14:23	1
2,4,6-Trichlorophenol	5.0	U	20	2.2	ug/L		05/20/24 06:53	05/20/24 14:23	1
2,4-Dichlorophenol	10	U	20	3.7	ug/L		05/20/24 06:53	05/20/24 14:23	1
2,4-Dimethylphenol	10	U	20	3.0	ug/L		05/20/24 06:53	05/20/24 14:23	1
2,4-Dinitrophenol	40	U	50	16	ug/L		05/20/24 06:53	05/20/24 14:23	1
2,4-Dinitrotoluene	5.0	U	10	2.3	ug/L		05/20/24 06:53	05/20/24 14:23	1
2,6-Dinitrotoluene	10	U	20	2.8	ug/L		05/20/24 06:53	05/20/24 14:23	1
2-Chloronaphthalene	10	U	20	4.8	ug/L		05/20/24 06:53	05/20/24 14:23	1
2-Chlorophenol	10	U	20	3.2	ug/L		05/20/24 06:53	05/20/24 14:23	1
2-Methylphenol	4.0	U	10	1.8	ug/L		05/20/24 06:53	05/20/24 14:23	1
2-Nitroaniline	10	U	20	2.9	ug/L		05/20/24 06:53	05/20/24 14:23	1
2-Nitrophenol	10	U	20	3.9	ug/L		05/20/24 06:53	05/20/24 14:23	1
3 & 4 Methylphenol	4.0	U	10	1.4	ug/L		05/20/24 06:53	05/20/24 14:23	1
3,3'-Dichlorobenzidine	20	U	50	10	ug/L		05/20/24 06:53	05/20/24 14:23	1
3-Nitroaniline	10	U	50	3.0	ug/L		05/20/24 06:53	05/20/24 14:23	1
4,6-Dinitro-2-methylphenol	20	U	50	5.3	ug/L		05/20/24 06:53	05/20/24 14:23	1
4-Bromophenyl phenyl ether	10	U	20	4.7	ug/L		05/20/24 06:53	05/20/24 14:23	1
4-Chloro-3-methylphenol	10	U	20	2.5	ug/L		05/20/24 06:53	05/20/24 14:23	1
4-Chloroaniline	4.0	U	10	1.0	ug/L		05/20/24 06:53	05/20/24 14:23	1
4-Chlorophenyl phenyl ether	12	U	20	5.3	ug/L		05/20/24 06:53	05/20/24 14:23	1
4-Nitroaniline	10	U	50	3.0	ug/L		05/20/24 06:53	05/20/24 14:23	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-838752/1-A
Matrix: Water
Analysis Batch: 838829

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 838752

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	20	U	50	8.1	ug/L		05/20/24 06:53	05/20/24 14:23	1
Acetophenone	5.0	U	10	2.2	ug/L		05/20/24 06:53	05/20/24 14:23	1
Atrazine	5.0	U	10	2.2	ug/L		05/20/24 06:53	05/20/24 14:23	1
Benzaldehyde	10	U	20	4.8	ug/L		05/20/24 06:53	05/20/24 14:23	1
bis (2-chloroisopropyl) ether	10	U	20	3.1	ug/L		05/20/24 06:53	05/20/24 14:23	1
Bis(2-chloroethoxy)methane	4.0	U	10	1.8	ug/L		05/20/24 06:53	05/20/24 14:23	1
Bis(2-chloroethyl)ether	10	U	20	3.6	ug/L		05/20/24 06:53	05/20/24 14:23	1
Bis(2-ethylhexyl) phthalate	10	U	20	3.0	ug/L		05/20/24 06:53	05/20/24 14:23	1
Butyl benzyl phthalate	10	U	20	2.8	ug/L		05/20/24 06:53	05/20/24 14:23	1
Caprolactam	10	U	20	2.8	ug/L		05/20/24 06:53	05/20/24 14:23	1
Carbazole	4.0	U	10	1.8	ug/L		05/20/24 06:53	05/20/24 14:23	1
Dibenzofuran	4.0	U	10	1.9	ug/L		05/20/24 06:53	05/20/24 14:23	1
Diethyl phthalate	5.0	U	10	2.2	ug/L		05/20/24 06:53	05/20/24 14:23	1
Dimethyl phthalate	5.0	U	10	2.1	ug/L		05/20/24 06:53	05/20/24 14:23	1
Di-n-butyl phthalate	5.0	U	10	2.3	ug/L		05/20/24 06:53	05/20/24 14:23	1
Di-n-octyl phthalate	10	U	20	2.8	ug/L		05/20/24 06:53	05/20/24 14:23	1
Hexachlorobenzene	4.0	U	10	1.6	ug/L		05/20/24 06:53	05/20/24 14:23	1
Hexachlorobutadiene	10	U	20	4.0	ug/L		05/20/24 06:53	05/20/24 14:23	1
Hexachlorocyclopentadiene	10	U	20	3.5	ug/L		05/20/24 06:53	05/20/24 14:23	1
Hexachloroethane	10	U	20	3.6	ug/L		05/20/24 06:53	05/20/24 14:23	1
Isophorone	4.0	U	10	2.0	ug/L		05/20/24 06:53	05/20/24 14:23	1
Nitrobenzene	10	U	20	3.5	ug/L		05/20/24 06:53	05/20/24 14:23	1
N-Nitrosodi-n-propylamine	5.0	U	10	2.4	ug/L		05/20/24 06:53	05/20/24 14:23	1
N-Nitrosodiphenylamine	10	U	20	2.9	ug/L		05/20/24 06:53	05/20/24 14:23	1
Pentachlorophenol	20	U	50	9.9	ug/L		05/20/24 06:53	05/20/24 14:23	1
Phenol	4.0	U	10	1.5	ug/L		05/20/24 06:53	05/20/24 14:23	1
Pyridine	20	U	50	7.4	ug/L		05/20/24 06:53	05/20/24 14:23	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*56*		*43 - 140*	*05/20/24 06:53*	*05/20/24 14:23*	*1*
2-Fluorobiphenyl	*54*		*44 - 119*	*05/20/24 06:53*	*05/20/24 14:23*	*1*
2-Fluorophenol	*33*		*19 - 119*	*05/20/24 06:53*	*05/20/24 14:23*	*1*
Nitrobenzene-d5	*58*		*44 - 120*	*05/20/24 06:53*	*05/20/24 14:23*	*1*
Phenol-d5	*20*		*10 - 130*	*05/20/24 06:53*	*05/20/24 14:23*	*1*
Terphenyl-d14	*76*		*50 - 134*	*05/20/24 06:53*	*05/20/24 14:23*	*1*

Lab Sample ID: LCS 680-838752/2-A
Matrix: Water
Analysis Batch: 838829

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 838752

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1'-Biphenyl	200	118		ug/L		59	49 - 115
1,4-Dioxane	200	54.5		ug/L		27	10 - 130
2,3,4,6-Tetrachlorophenol	200	132		ug/L		66	50 - 128
2,4,5-Trichlorophenol	200	121		ug/L		61	53 - 123
2,4,6-Trichlorophenol	200	123		ug/L		62	50 - 125
2,4-Dichlorophenol	200	115		ug/L		58	47 - 121
2,4-Dimethylphenol	200	114		ug/L		57	31 - 124

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-838752/2-A
Matrix: Water
Analysis Batch: 838829

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 838752

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2,4-Dinitrophenol	400	277		ug/L		69	23 - 143
2,4-Dinitrotoluene	200	147		ug/L		73	57 - 128
2,6-Dinitrotoluene	200	133		ug/L		66	57 - 124
2-Chloronaphthalene	200	112		ug/L		56	40 - 116
2-Chlorophenol	200	96.3		ug/L		48	38 - 117
2-Methylphenol	200	94.4		ug/L		47	30 - 117
2-Nitroaniline	200	153		ug/L		76	55 - 127
2-Nitrophenol	200	110		ug/L		55	47 - 123
3 & 4 Methylphenol	200	87.0		ug/L		43	29 - 110
3,3'-Dichlorobenzidine	200	187		ug/L		94	27 - 129
3-Nitroaniline	200	138		ug/L		69	41 - 128
4,6-Dinitro-2-methylphenol	400	320		ug/L		80	44 - 137
4-Bromophenyl phenyl ether	200	144		ug/L		72	55 - 124
4-Chloro-3-methylphenol	200	130		ug/L		65	52 - 119
4-Chloroaniline	200	107		ug/L		53	33 - 117
4-Chlorophenyl phenyl ether	200	126		ug/L		63	53 - 121
4-Nitroaniline	200	152		ug/L		76	55 - 115
4-Nitrophenol	400	147		ug/L		37	13 - 130
Acetophenone	200	113		ug/L		56	46 - 118
Atrazine	200	134		ug/L		67	44 - 142
Benzaldehyde	200	98.2		ug/L		49	25 - 130
bis (2-chloroisopropyl) ether	200	119		ug/L		59	37 - 130
Bis(2-chloroethoxy)methane	200	124		ug/L		62	48 - 120
Bis(2-chloroethyl)ether	200	118		ug/L		59	43 - 118
Bis(2-ethylhexyl) phthalate	200	172		ug/L		86	55 - 135
Butyl benzyl phthalate	200	181		ug/L		90	53 - 134
Caprolactam	200	45.6	M	ug/L		23	13 - 130
Carbazole	200	160		ug/L		80	60 - 122
Dibenzofuran	200	121		ug/L		60	53 - 118
Diethyl phthalate	200	152		ug/L		76	56 - 125
Dimethyl phthalate	200	138		ug/L		69	45 - 127
Di-n-butyl phthalate	200	175		ug/L		87	56 - 122
Di-n-octyl phthalate	200	181		ug/L		90	59 - 128
Hexachlorobenzene	200	143		ug/L		72	53 - 125
Hexachlorobutadiene	200	95.8		ug/L		48	22 - 124
Hexachlorocyclopentadiene	200	73.5		ug/L		37	28 - 130
Hexachloroethane	200	83.7		ug/L		42	21 - 115
Isophorone	200	128		ug/L		64	42 - 124
Nitrobenzene	200	112		ug/L		56	45 - 121
N-Nitrosodi-n-propylamine	200	115		ug/L		58	49 - 119
N-Nitrosodiphenylamine	200	154		ug/L		77	51 - 123
Pentachlorophenol	400	281		ug/L		70	35 - 138
Phenol	200	50.1	M	ug/L		25	14 - 130
Pyridine	400	68.4	M	ug/L		17	10 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol	*58*		*43 - 140*
2-Fluorobiphenyl	*53*		*44 - 119*

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-838752/2-A
Matrix: Water
Analysis Batch: 838829

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 838752

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorophenol	*28*		*19 - 119*
Nitrobenzene-d5	*50*		*44 - 120*
Phenol-d5	*20*		*10 - 130*
Terphenyl-d14	*73*		*50 - 134*

Lab Sample ID: LCSD 680-838752/3-A
Matrix: Water
Analysis Batch: 838829

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 838752

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1'-Biphenyl			200	125		ug/L		63	49 - 115	6	20
1,4-Dioxane			200	59.4		ug/L		30	10 - 130	9	20
2,3,4,6-Tetrachlorophenol			200	140		ug/L		70	50 - 128	6	20
2,4,5-Trichlorophenol			200	127		ug/L		64	53 - 123	5	20
2,4,6-Trichlorophenol			200	131		ug/L		65	50 - 125	6	20
2,4-Dichlorophenol			200	112		ug/L		56	47 - 121	3	20
2,4-Dimethylphenol			200	103		ug/L		51	31 - 124	10	20
2,4-Dinitrophenol			400	293		ug/L		73	23 - 143	6	20
2,4-Dinitrotoluene			200	159		ug/L		79	57 - 128	8	20
2,6-Dinitrotoluene			200	142		ug/L		71	57 - 124	7	20
2-Chloronaphthalene			200	122		ug/L		61	40 - 116	8	20
2-Chlorophenol			200	102		ug/L		51	38 - 117	5	20
2-Methylphenol			200	95.5		ug/L		48	30 - 117	1	20
2-Nitroaniline			200	164		ug/L		82	55 - 127	7	20
2-Nitrophenol			200	105		ug/L		53	47 - 123	4	20
3 & 4 Methylphenol			200	89.6		ug/L		45	29 - 110	3	20
3,3'-Dichlorobenzidine			200	187		ug/L		94	27 - 129	0	20
3-Nitroaniline			200	149		ug/L		74	41 - 128	8	20
4,6-Dinitro-2-methylphenol			400	306		ug/L		76	44 - 137	5	20
4-Bromophenyl phenyl ether			200	137		ug/L		68	55 - 124	5	20
4-Chloro-3-methylphenol			200	124		ug/L		62	52 - 119	4	20
4-Chloroaniline			200	105		ug/L		52	33 - 117	2	20
4-Chlorophenyl phenyl ether			200	136		ug/L		68	53 - 121	8	20
4-Nitroaniline			200	158		ug/L		79	55 - 115	4	20
4-Nitrophenol			400	160		ug/L		40	13 - 130	8	20
Acetophenone			200	108		ug/L		54	46 - 118	5	20
Atrazine			200	123		ug/L		62	44 - 142	8	20
Benzaldehyde			200	104		ug/L		52	25 - 130	5	20
bis (2-chloroisopropyl) ether			200	122		ug/L		61	37 - 130	3	20
Bis(2-chloroethoxy)methane			200	113		ug/L		56	48 - 120	10	20
Bis(2-chloroethyl)ether			200	117		ug/L		58	43 - 118	1	20
Bis(2-ethylhexyl) phthalate			200	169		ug/L		85	55 - 135	2	20
Butyl benzyl phthalate			200	171		ug/L		85	53 - 134	6	20
Caprolactam			200	45.3	M	ug/L		23	13 - 130	1	20
Carbazole			200	163		ug/L		82	60 - 122	2	20
Dibenzofuran			200	134		ug/L		67	53 - 118	10	20
Diethyl phthalate			200	162		ug/L		81	56 - 125	6	20
Dimethyl phthalate			200	147		ug/L		74	45 - 127	6	20

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-838752/3-A
Matrix: Water
Analysis Batch: 838829

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 838752

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Di-n-butyl phthalate			200	171		ug/L		86	56 - 122	2	20
Di-n-octyl phthalate			200	170		ug/L		85	59 - 128	6	20
Hexachlorobenzene			200	138		ug/L		69	53 - 125	4	20
Hexachlorobutadiene			200	93.6		ug/L		47	22 - 124	2	20
Hexachlorocyclopentadiene			200	76.2		ug/L		38	28 - 130	4	20
Hexachloroethane			200	91.9		ug/L		46	21 - 115	9	20
Isophorone			200	121		ug/L		61	42 - 124	6	20
Nitrobenzene			200	107		ug/L		54	45 - 121	5	20
N-Nitrosodi-n-propylamine			200	121		ug/L		60	49 - 119	5	20
N-Nitrosodiphenylamine			200	147		ug/L		74	51 - 123	4	20
Pentachlorophenol			400	268		ug/L		67	35 - 138	5	20
Phenol			200	51.1	M	ug/L		26	14 - 130	2	20
Pyridine			400	72.9	M	ug/L		18	10 - 130	6	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2,4,6-Tribromophenol	*62*		*43 - 140*
2-Fluorobiphenyl	*53*		*44 - 119*
2-Fluorophenol	*28*		*19 - 119*
Nitrobenzene-d5	*49*		*44 - 120*
Phenol-d5	*20*		*10 - 130*
Terphenyl-d14	*72*		*50 - 134*

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 680-838962/1-A
Matrix: Water
Analysis Batch: 838979

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 838962

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	0.050	U M	0.20	0.018	ug/L		05/21/24 07:24	05/21/24 15:17	1
Acenaphthene	0.10	U M	0.20	0.042	ug/L		05/21/24 07:24	05/21/24 15:17	1
Acenaphthylene	0.050	U	0.20	0.017	ug/L		05/21/24 07:24	05/21/24 15:17	1
Pyrene	0.10	U M	0.20	0.027	ug/L		05/21/24 07:24	05/21/24 15:17	1
2-Methylnaphthalene	0.040	U	0.20	0.011	ug/L		05/21/24 07:24	05/21/24 15:17	1
Anthracene	0.050	U	0.20	0.018	ug/L		05/21/24 07:24	05/21/24 15:17	1
Benzo[a]pyrene	0.10	U	0.20	0.026	ug/L		05/21/24 07:24	05/21/24 15:17	1
Benzo[a]anthracene	0.10	U	0.20	0.026	ug/L		05/21/24 07:24	05/21/24 15:17	1
Benzo[b]fluoranthene	0.10	U	0.20	0.026	ug/L		05/21/24 07:24	05/21/24 15:17	1
Benzo[g,h,i]perylene	0.10	U M	0.20	0.026	ug/L		05/21/24 07:24	05/21/24 15:17	1
Benzo[k]fluoranthene	0.10	U	0.20	0.029	ug/L		05/21/24 07:24	05/21/24 15:17	1
Chrysene	0.050	U M	0.20	0.023	ug/L		05/21/24 07:24	05/21/24 15:17	1
Dibenz(a,h)anthracene	0.050	U	0.20	0.024	ug/L		05/21/24 07:24	05/21/24 15:17	1
Phenanthrene	0.20	U	0.40	0.055	ug/L		05/21/24 07:24	05/21/24 15:17	1
Indeno[1,2,3-cd]pyrene	0.10	U	0.20	0.028	ug/L		05/21/24 07:24	05/21/24 15:17	1
Naphthalene	0.0471	J M	0.20	0.014	ug/L		05/21/24 07:24	05/21/24 15:17	1
Fluoranthene	0.10	U M	0.20	0.027	ug/L		05/21/24 07:24	05/21/24 15:17	1
Fluorene	0.10	U M	0.20	0.025	ug/L		05/21/24 07:24	05/21/24 15:17	1

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: MB 680-838962/1-A
Matrix: Water
Analysis Batch: 838979

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 838962

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	57		53 - 106	05/21/24 07:24	05/21/24 15:17	1
2-methylnaphthalene-d10	60		30 - 100	05/21/24 07:24	05/21/24 15:17	1
Fluoranthene-d10	88		42 - 114	05/21/24 07:24	05/21/24 15:17	1
Nitrobenzene-d5	67		42 - 100	05/21/24 07:24	05/21/24 15:17	1
Terphenyl-d14	92		53 - 111	05/21/24 07:24	05/21/24 15:17	1

Lab Sample ID: LCS 680-838962/2-A
Matrix: Water
Analysis Batch: 838979

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 838962

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	10.0	5.02		ug/L		50	41 - 115
Acenaphthene	10.0	5.49		ug/L		55	48 - 114
Acenaphthylene	10.0	5.51		ug/L		55	35 - 121
Pyrene	10.0	8.93		ug/L		89	53 - 121
2-Methylnaphthalene	10.0	5.48		ug/L		55	39 - 114
Anthracene	10.0	6.82		ug/L		68	53 - 119
Benzo[a]pyrene	10.0	9.40		ug/L		94	53 - 120
Benzo[a]anthracene	10.0	9.04		ug/L		90	59 - 120
Benzo[b]fluoranthene	10.0	9.60		ug/L		96	53 - 126
Benzo[g,h,i]perylene	10.0	9.55		ug/L		96	44 - 128
Benzo[k]fluoranthene	10.0	9.23		ug/L		92	54 - 125
Chrysene	10.0	9.35		ug/L		94	57 - 120
Dibenz(a,h)anthracene	10.0	9.66		ug/L		97	44 - 131
Phenanthrene	10.0	6.74		ug/L		67	53 - 115
Indeno[1,2,3-cd]pyrene	10.0	9.56		ug/L		96	48 - 130
Naphthalene	10.0	5.26		ug/L		53	43 - 114
Fluoranthene	10.0	8.70		ug/L		87	58 - 120
Fluorene	10.0	5.65		ug/L		56	50 - 118

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl	55		53 - 106
2-methylnaphthalene-d10	57		30 - 100
Fluoranthene-d10	92		42 - 114
Nitrobenzene-d5	65		42 - 100
Terphenyl-d14	97		53 - 111

Lab Sample ID: LCSD 680-838962/3-A
Matrix: Water
Analysis Batch: 838979

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 838962

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1-Methylnaphthalene	10.0	5.50		ug/L		55	41 - 115	9	20
Acenaphthene	10.0	6.11		ug/L		61	48 - 114	11	20
Acenaphthylene	10.0	6.02		ug/L		60	35 - 121	9	20
Pyrene	10.0	9.24		ug/L		92	53 - 121	3	20
2-Methylnaphthalene	10.0	6.00		ug/L		60	39 - 114	9	20
Anthracene	10.0	7.57		ug/L		76	53 - 119	10	20

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: LCSD 680-838962/3-A
Matrix: Water
Analysis Batch: 838979

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 838962

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzo[a]pyrene			10.0	9.63		ug/L		96	53 - 120	2	20
Benzo[a]anthracene			10.0	9.26		ug/L		93	59 - 120	2	20
Benzo[b]fluoranthene			10.0	9.91		ug/L		99	53 - 126	3	20
Benzo[g,h,i]perylene			10.0	9.86		ug/L		99	44 - 128	3	20
Benzo[k]fluoranthene			10.0	9.42		ug/L		94	54 - 125	2	20
Chrysene			10.0	9.63		ug/L		96	57 - 120	3	20
Dibenz(a,h)anthracene			10.0	9.97		ug/L		100	44 - 131	3	20
Phenanthrene			10.0	7.37		ug/L		74	53 - 115	9	20
Indeno[1,2,3-cd]pyrene			10.0	9.83		ug/L		98	48 - 130	3	20
Naphthalene			10.0	5.61		ug/L		56	43 - 114	6	20
Fluoranthene			10.0	9.05		ug/L		90	58 - 120	4	20
Fluorene			10.0	6.23		ug/L		62	50 - 118	10	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*58*		*53 - 106*
2-methylnaphthalene-d10	*60*		*30 - 100*
Fluoranthene-d10	*94*		*42 - 114*
Nitrobenzene-d5	*68*		*42 - 100*
Terphenyl-d14	*100*		*53 - 111*

Lab Sample ID: MB 680-839376/1-A
Matrix: Water
Analysis Batch: 839636

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 839376

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	0.050	U M	0.20	0.018	ug/L		05/23/24 07:08	05/24/24 15:34	1
Acenaphthene	0.10	U M	0.20	0.042	ug/L		05/23/24 07:08	05/24/24 15:34	1
Acenaphthylene	0.050	U	0.20	0.017	ug/L		05/23/24 07:08	05/24/24 15:34	1
Pyrene	0.10	U M	0.20	0.027	ug/L		05/23/24 07:08	05/24/24 15:34	1
2-Methylnaphthalene	0.040	U	0.20	0.011	ug/L		05/23/24 07:08	05/24/24 15:34	1
Anthracene	0.050	U	0.20	0.018	ug/L		05/23/24 07:08	05/24/24 15:34	1
Benzo[a]pyrene	0.10	U	0.20	0.026	ug/L		05/23/24 07:08	05/24/24 15:34	1
Benzo[a]anthracene	0.10	U	0.20	0.026	ug/L		05/23/24 07:08	05/24/24 15:34	1
Benzo[b]fluoranthene	0.10	U	0.20	0.026	ug/L		05/23/24 07:08	05/24/24 15:34	1
Benzo[g,h,i]perylene	0.10	U M	0.20	0.026	ug/L		05/23/24 07:08	05/24/24 15:34	1
Benzo[k]fluoranthene	0.10	U	0.20	0.029	ug/L		05/23/24 07:08	05/24/24 15:34	1
Chrysene	0.050	U	0.20	0.023	ug/L		05/23/24 07:08	05/24/24 15:34	1
Dibenz(a,h)anthracene	0.050	U	0.20	0.024	ug/L		05/23/24 07:08	05/24/24 15:34	1
Phenanthrene	0.20	U	0.40	0.055	ug/L		05/23/24 07:08	05/24/24 15:34	1
Indeno[1,2,3-cd]pyrene	0.10	U	0.20	0.028	ug/L		05/23/24 07:08	05/24/24 15:34	1
Naphthalene	0.050	U	0.20	0.014	ug/L		05/23/24 07:08	05/24/24 15:34	1
Fluoranthene	0.10	U M	0.20	0.027	ug/L		05/23/24 07:08	05/24/24 15:34	1
Fluorene	0.10	U	0.20	0.025	ug/L		05/23/24 07:08	05/24/24 15:34	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*76*		*53 - 106*	*05/23/24 07:08*	*05/24/24 15:34*	*1*
2-methylnaphthalene-d10	*78*		*30 - 100*	*05/23/24 07:08*	*05/24/24 15:34*	*1*
Fluoranthene-d10	*91*		*42 - 114*	*05/23/24 07:08*	*05/24/24 15:34*	*1*

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: MB 680-839376/1-A
Matrix: Water
Analysis Batch: 839636

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 839376

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	*86*		*42 - 100*	*05/23/24 07:08*	*05/24/24 15:34*	*1*
Terphenyl-d14	*100*		*53 - 111*	*05/23/24 07:08*	*05/24/24 15:34*	*1*

Lab Sample ID: LCS 680-839376/2-A
Matrix: Water
Analysis Batch: 839636

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 839376

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	10.0	6.89		ug/L		69	41 - 115
Acenaphthene	10.0	7.86		ug/L		79	48 - 114
Acenaphthylene	10.0	7.56		ug/L		76	35 - 121
Pyrene	10.0	9.35		ug/L		94	53 - 121
2-Methylnaphthalene	10.0	7.40		ug/L		74	39 - 114
Anthracene	10.0	8.34		ug/L		83	53 - 119
Benzo[a]pyrene	10.0	9.95		ug/L		100	53 - 120
Benzo[a]anthracene	10.0	9.53		ug/L		95	59 - 120
Benzo[b]fluoranthene	10.0	10.3		ug/L		103	53 - 126
Benzo[g,h,i]perylene	10.0	10.2		ug/L		102	44 - 128
Benzo[k]fluoranthene	10.0	9.70		ug/L		97	54 - 125
Chrysene	10.0	9.76		ug/L		98	57 - 120
Dibenz(a,h)anthracene	10.0	10.4		ug/L		104	44 - 131
Phenanthrene	10.0	8.38		ug/L		84	53 - 115
Indeno[1,2,3-cd]pyrene	10.0	10.2		ug/L		102	48 - 130
Naphthalene	10.0	6.94		ug/L		69	43 - 114
Fluoranthene	10.0	9.18		ug/L		92	58 - 120
Fluorene	10.0	7.89		ug/L		79	50 - 118

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl	*76*		*53 - 106*
2-methylnaphthalene-d10	*77*		*30 - 100*
Fluoranthene-d10	*96*		*42 - 114*
Nitrobenzene-d5	*84*		*42 - 100*
Terphenyl-d14	*102*		*53 - 111*

Method: 8270E SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Lab Sample ID: MB 680-839167/1-A
Matrix: Water
Analysis Batch: 839173

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 839167

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	0.10	U	0.20	0.032	ug/L		05/22/24 08:13	05/22/24 12:46	1

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	*24*	*M*	*10 - 150*	*05/22/24 08:13*	*05/22/24 12:46*	*1*

Method: 8270E SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution) (Continued)

Lab Sample ID: LCS 680-839167/2-A
Matrix: Water
Analysis Batch: 839173

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 839167

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,4-Dioxane			10.0	11.6	M	ug/L		116	70 - 130		

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,4-Dioxane-d8	*16*		*10 - 150*

Method: RSK-175 - Dissolved Gases (GC)

Lab Sample ID: MB 410-510325/1-A
Matrix: Water
Analysis Batch: 510310

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 510325

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	2.0	U	5.0	1.0	ug/L		05/24/24 13:13	05/24/24 18:13	1
Ethylene	2.0	U M	5.0	1.0	ug/L		05/24/24 13:13	05/24/24 18:13	1
Methane	6.0	U M	6.5	3.0	ug/L		05/24/24 13:13	05/24/24 18:13	1

Lab Sample ID: LCS 410-510325/2-A
Matrix: Water
Analysis Batch: 510310

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 510325

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Ethane			61.7	65.3		ug/L		106	74 - 131		
Ethylene			58.3	61.4		ug/L		105	72 - 133		
Methane			59.8	64.1	M	ug/L		107	73 - 125		

Lab Sample ID: LCSD 410-510325/3-A
Matrix: Water
Analysis Batch: 510310

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 510325

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ethane			61.7	65.1		ug/L		106	74 - 131	0	20
Ethylene			58.3	61.1		ug/L		105	72 - 133	1	20
Methane			59.8	63.9	M	ug/L		107	73 - 125	0	20

Lab Sample ID: MB 410-510346/1-A
Matrix: Water
Analysis Batch: 510310

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 510346

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	2.0	U	5.0	1.0	ug/L		05/24/24 14:22	05/24/24 23:59	1
Ethylene	2.0	U	5.0	1.0	ug/L		05/24/24 14:22	05/24/24 23:59	1
Methane	6.0	U M	6.5	3.0	ug/L		05/24/24 14:22	05/24/24 23:59	1

Lab Sample ID: LCS 410-510346/2-A
Matrix: Water
Analysis Batch: 510310

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 510346

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Ethane			61.7	65.1		ug/L		106	74 - 131		

Method: RSK-175 - Dissolved Gases (GC) (Continued)

Lab Sample ID: LCS 410-510346/2-A
Matrix: Water
Analysis Batch: 510310

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 510346

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylene	58.3	61.5		ug/L		105	72 - 133
Methane	59.8	64.3	M	ug/L		108	73 - 125

Lab Sample ID: LCSD 410-510346/3-A
Matrix: Water
Analysis Batch: 510310

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 510346

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ethane	61.7	65.8		ug/L		107	74 - 131	1	20
Ethylene	58.3	62.1		ug/L		106	72 - 133	1	20
Methane	59.8	65.2	M	ug/L		109	73 - 125	1	20

Method: 8081B 8082A - Organochlorine Pesticides & PCBs (GC)

Lab Sample ID: MB 680-839075/1-A
Matrix: Water
Analysis Batch: 839253

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 839075

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	0.0040	U	0.050	0.0020	ug/L		05/21/24 12:36	05/22/24 14:48	1
4,4'-DDE	0.0040	U M	0.050	0.0010	ug/L		05/21/24 12:36	05/22/24 14:48	1
4,4'-DDT	0.0040	U	0.050	0.0010	ug/L		05/21/24 12:36	05/22/24 14:48	1
Aldrin	0.0040	U	0.050	0.0020	ug/L		05/21/24 12:36	05/22/24 14:48	1
alpha-BHC	0.0040	U	0.050	0.0010	ug/L		05/21/24 12:36	05/22/24 14:48	1
beta-BHC	0.0040	U	0.050	0.0020	ug/L		05/21/24 12:36	05/22/24 14:48	1
delta-BHC	0.0040	U	0.050	0.0020	ug/L		05/21/24 12:36	05/22/24 14:48	1
Dieldrin	0.0040	U	0.050	0.0020	ug/L		05/21/24 12:36	05/22/24 14:48	1
Endosulfan I	0.0040	U	0.050	0.0020	ug/L		05/21/24 12:36	05/22/24 14:48	1
Endosulfan II	0.0040	U	0.050	0.0020	ug/L		05/21/24 12:36	05/22/24 14:48	1
Endosulfan sulfate	0.0040	U	0.050	0.0020	ug/L		05/21/24 12:36	05/22/24 14:48	1
Endrin	0.0040	U	0.050	0.0010	ug/L		05/21/24 12:36	05/22/24 14:48	1
Endrin aldehyde	0.016	U	0.050	0.0040	ug/L		05/21/24 12:36	05/22/24 14:48	1
Endrin ketone	0.016	U	0.050	0.0040	ug/L		05/21/24 12:36	05/22/24 14:48	1
gamma-BHC (Lindane)	0.0040	U	0.050	0.0010	ug/L		05/21/24 12:36	05/22/24 14:48	1
Heptachlor	0.0040	U	0.050	0.0010	ug/L		05/21/24 12:36	05/22/24 14:48	1
Heptachlor epoxide	0.0040	U	0.050	0.0020	ug/L		05/21/24 12:36	05/22/24 14:48	1
Methoxychlor	0.0040	U	0.050	0.0020	ug/L		05/21/24 12:36	05/22/24 14:48	1
Chlordane (technical)	0.40	U	0.50	0.16	ug/L		05/21/24 12:36	05/22/24 14:48	1
PCB-1016	0.24	U M	0.50	0.10	ug/L		05/21/24 12:36	05/22/24 14:48	1
PCB-1221	0.24	U	0.50	0.10	ug/L		05/21/24 12:36	05/22/24 14:48	1
PCB-1232	0.24	U M	0.50	0.10	ug/L		05/21/24 12:36	05/22/24 14:48	1
PCB-1242	0.24	U	0.50	0.10	ug/L		05/21/24 12:36	05/22/24 14:48	1
PCB-1248	0.24	U	0.50	0.10	ug/L		05/21/24 12:36	05/22/24 14:48	1
PCB-1254	0.24	U M	0.50	0.10	ug/L		05/21/24 12:36	05/22/24 14:48	1
PCB-1260	0.24	U	0.50	0.10	ug/L		05/21/24 12:36	05/22/24 14:48	1
Toxaphene	0.80	U M	5.0	0.31	ug/L		05/21/24 12:36	05/22/24 14:48	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*68*		*14 - 130*	*05/21/24 12:36*	*05/22/24 14:48*	*1*

Method: 8081B 8082A - Organochlorine Pesticides & PCBs (GC) (Continued)

Lab Sample ID: MB 680-839075/1-A
Matrix: Water
Analysis Batch: 839253

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 839075

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	81		44 - 124	05/21/24 12:36	05/22/24 14:48	1

Lab Sample ID: LCS 680-839075/2-A
Matrix: Water
Analysis Batch: 839253

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 839075

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
4,4'-DDD	0.0400	0.0376	J	ug/L		94	56 - 143
4,4'-DDE	0.0400	0.0394	J	ug/L		98	57 - 135
4,4'-DDT	0.0400	0.0390	J	ug/L		97	51 - 143
Aldrin	0.0400	0.0322	J	ug/L		81	45 - 134
alpha-BHC	0.0400	0.0326	J	ug/L		81	54 - 138
beta-BHC	0.0400	0.0378	J	ug/L		95	56 - 136
delta-BHC	0.0400	0.0344	J	ug/L		86	52 - 142
Dieldrin	0.0400	0.0375	J	ug/L		94	60 - 136
Endosulfan I	0.0400	0.0332	J	ug/L		83	62 - 126
Endosulfan II	0.0400	0.0365	J	ug/L		91	52 - 135
Endosulfan sulfate	0.0400	0.0427	J	ug/L		107	62 - 133
Endrin	0.0400	0.0394	J	ug/L		98	60 - 138
Endrin aldehyde	0.0400	0.0406	J	ug/L		102	51 - 132
Endrin ketone	0.0400	0.0499	J	ug/L		125	58 - 134
gamma-BHC (Lindane)	0.0400	0.0345	J	ug/L		86	59 - 134
Heptachlor	0.0400	0.0329	J	ug/L		82	54 - 130
Heptachlor epoxide	0.0400	0.0361	J	ug/L		90	61 - 133
Methoxychlor	0.0400	0.0432	J	ug/L		108	54 - 145

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl	83		14 - 130
Tetrachloro-m-xylene	84		44 - 124

Lab Sample ID: LCS 680-839075/4-A
Matrix: Water
Analysis Batch: 839253

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 839075

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
PCB-1016	2.40	1.62		ug/L		68	46 - 129
PCB-1260	2.40	1.56		ug/L		65	45 - 134

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl	72		14 - 130
Tetrachloro-m-xylene	59		44 - 124

Lab Sample ID: LCSD 680-839075/3-A
Matrix: Water
Analysis Batch: 839253

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 839075

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
4,4'-DDD	0.0400	0.0467	J	ug/L		117	56 - 143	22	30

Method: 8081B 8082A - Organochlorine Pesticides & PCBs (GC) (Continued)

Lab Sample ID: LCSD 680-839075/3-A
Matrix: Water
Analysis Batch: 839253

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 839075

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
4,4'-DDE			0.0400	0.0491	J	ug/L		123	57 - 135	22	30
4,4'-DDT			0.0400	0.0494	J	ug/L		124	51 - 143	24	30
Aldrin			0.0400	0.0416	J	ug/L		104	45 - 134	25	30
alpha-BHC			0.0400	0.0397	J	ug/L		99	54 - 138	20	30
beta-BHC			0.0400	0.0479	J	ug/L		120	56 - 136	24	30
delta-BHC			0.0400	0.0434	J	ug/L		108	52 - 142	23	30
Dieldrin			0.0400	0.0467	J	ug/L		117	60 - 136	22	30
Endosulfan I			0.0400	0.0418	J	ug/L		104	62 - 126	23	30
Endosulfan II			0.0400	0.0459	J	ug/L		115	52 - 135	23	30
Endosulfan sulfate			0.0400	0.0520		ug/L		130	62 - 133	20	30
Endrin			0.0400	0.0495	J	ug/L		124	60 - 138	23	30
Endrin aldehyde			0.0400	0.0521		ug/L		130	51 - 132	25	30
Endrin ketone			0.0400	0.0597	Q	ug/L		149	58 - 134	18	30
gamma-BHC (Lindane)			0.0400	0.0435	J	ug/L		109	59 - 134	23	30
Heptachlor			0.0400	0.0424	J	ug/L		106	54 - 130	25	30
Heptachlor epoxide			0.0400	0.0464	J	ug/L		116	61 - 133	25	30
Methoxychlor			0.0400	0.0563		ug/L		141	54 - 145	26	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
DCB Decachlorobiphenyl	*95*		*14 - 130*
Tetrachloro-m-xylene	*85*		*44 - 124*

Lab Sample ID: LCSD 680-839075/5-A
Matrix: Water
Analysis Batch: 839253

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 839075

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
PCB-1016			2.40	2.30	Q	ug/L		96	46 - 129	35	30
PCB-1260			2.40	2.34	Q	ug/L		98	45 - 134	40	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
DCB Decachlorobiphenyl	*82*		*14 - 130*
Tetrachloro-m-xylene	*78*		*44 - 124*

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 680-838545/2
Matrix: Water
Analysis Batch: 838545

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.050	U	0.055	0.023	mg/L			05/17/24 10:38	1
Nitrate Nitrite as N	0.050	U	0.055	0.023	mg/L			05/17/24 10:38	1
Nitrite as N	0.050	U	0.055	0.023	mg/L			05/17/24 10:38	1

Method: 9056A - Anions, Ion Chromatography (Continued)

Lab Sample ID: MB 680-838545/21
Matrix: Water
Analysis Batch: 838545

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.050	U	0.055	0.023	mg/L			05/17/24 15:38	1
Nitrate Nitrite as N	0.050	U	0.055	0.023	mg/L			05/17/24 15:38	1
Nitrite as N	0.050	U	0.055	0.023	mg/L			05/17/24 15:38	1

Lab Sample ID: LCS 680-838545/3
Matrix: Water
Analysis Batch: 838545

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Nitrate as N			1.00	1.05		mg/L		104	88 - 111		
Nitrate Nitrite as N			2.00	2.06		mg/L		103	88 - 111		
Nitrite as N			1.00	1.01		mg/L		101	87 - 111		

Lab Sample ID: LCSD 680-838545/6
Matrix: Water
Analysis Batch: 838545

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrate as N			1.00	1.04		mg/L		104	88 - 111	1	15
Nitrate Nitrite as N			2.00	2.06		mg/L		103	88 - 111	0	15
Nitrite as N			1.00	1.02		mg/L		102	87 - 111	0	15

Lab Sample ID: 680-250910-1 MS
Matrix: Water
Analysis Batch: 838545

Client Sample ID: OU6-MW-277-20240515
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Nitrate as N	0.92	H H3 J1	1.00	2.04	J1	mg/L		112	88 - 111		
Nitrate Nitrite as N	0.92	H H3	2.00	2.99		mg/L		103	88 - 111		
Nitrite as N	0.050	U H J1 H3 M	1.00	0.947		mg/L		95	87 - 111		

Lab Sample ID: 680-250910-1 MSD
Matrix: Water
Analysis Batch: 838545

Client Sample ID: OU6-MW-277-20240515
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrate as N	0.92	H H3 J1	1.00	1.92		mg/L		100	88 - 111	6	15
Nitrate Nitrite as N	0.92	H H3	2.00	2.77		mg/L		92	88 - 111	8	15
Nitrite as N	0.050	U H J1 H3 M	1.00	0.849	J1	mg/L		85	87 - 111	11	15

Lab Sample ID: 680-250910-11 MS
Matrix: Water
Analysis Batch: 838545

Client Sample ID: OU6-MW-166-20240516
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Nitrate as N	0.66	M J1	1.00	1.82	J1	mg/L		116	88 - 111		
Nitrate Nitrite as N	0.66		2.00	2.87		mg/L		110	88 - 111		
Nitrite as N	0.050	U	1.00	1.05		mg/L		105	87 - 111		

Method: 9056A - Anions, Ion Chromatography (Continued)

Lab Sample ID: 680-250910-11 MSD
Matrix: Water
Analysis Batch: 838545

Client Sample ID: OU6-MW-166-20240516
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrate as N	0.66	M J1	1.00	1.80	J1	mg/L		114	88 - 111	1	15
Nitrate Nitrite as N	0.66		2.00	2.83		mg/L		108	88 - 111	1	15
Nitrite as N	0.050	U	1.00	1.03		mg/L		103	87 - 111	2	15

Lab Sample ID: MB 680-840377/63
Matrix: Water
Analysis Batch: 840377

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.50	U M	0.55	0.20	mg/L			05/29/24 20:25	1
Sulfate	1.0	U	1.5	0.40	mg/L			05/29/24 20:25	1

Lab Sample ID: LCS 680-840377/64
Matrix: Water
Analysis Batch: 840377

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	10.0	10.7		mg/L		107	87 - 111
Sulfate	10.0	10.4		mg/L		104	87 - 112

Lab Sample ID: LCSD 680-840377/65
Matrix: Water
Analysis Batch: 840377

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	10.0	10.6		mg/L		106	87 - 111	0	15
Sulfate	10.0	10.4		mg/L		104	87 - 112	1	15

Lab Sample ID: 680-250910-1 MS
Matrix: Water
Analysis Batch: 840377

Client Sample ID: OU6-MW-277-20240515
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	14		10.0	25.3		mg/L		109	87 - 111
Sulfate	1.2	J	10.0	11.1		mg/L		99	87 - 112

Lab Sample ID: 680-250910-1 MSD
Matrix: Water
Analysis Batch: 840377

Client Sample ID: OU6-MW-277-20240515
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	14		10.0	25.5		mg/L		111	87 - 111	1	15
Sulfate	1.2	J	10.0	11.2		mg/L		100	87 - 112	1	15

Lab Sample ID: 680-250910-8 MS
Matrix: Water
Analysis Batch: 840377

Client Sample ID: OU6-MW-261-20240516
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	8.7	J1	10.0	20.5	J1	mg/L		118	87 - 111

Method: 9056A - Anions, Ion Chromatography (Continued)

Lab Sample ID: 680-250910-8 MS
Matrix: Water
Analysis Batch: 840377

Client Sample ID: OU6-MW-261-20240516
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfate	34	J1	10.0	45.4	J1	mg/L		116	87 - 112

Lab Sample ID: 680-250910-8 MSD
Matrix: Water
Analysis Batch: 840377

Client Sample ID: OU6-MW-261-20240516
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	8.7	J1	10.0	20.6	J1	mg/L		119	87 - 111	0	15
Sulfate	34	J1	10.0	45.5	J1	mg/L		117	87 - 112	0	15

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 680-838865/1-A
Matrix: Water
Analysis Batch: 839420

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 838865

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	1.5	U	5.0	0.34	ug/L		05/20/24 12:17	05/22/24 10:37	1
Arsenic	3.0	U	5.0	0.86	ug/L		05/20/24 12:17	05/22/24 10:37	1
Barium	2.0	U	5.0	0.89	ug/L		05/20/24 12:17	05/22/24 10:37	1
Beryllium	0.40	U	0.50	0.20	ug/L		05/20/24 12:17	05/22/24 10:37	1
Boron	75	U	100	22	ug/L		05/20/24 12:17	05/22/24 10:37	1
Cadmium	0.20	U	0.50	0.078	ug/L		05/20/24 12:17	05/22/24 10:37	1
Calcium	300	U	500	140	ug/L		05/20/24 12:17	05/22/24 10:37	1
Chromium	2.5	U	20	0.81	ug/L		05/20/24 12:17	05/22/24 10:37	1
Cobalt	0.50	U	1.0	0.22	ug/L		05/20/24 12:17	05/22/24 10:37	1
Copper	2.0	U	5.0	1.1	ug/L		05/20/24 12:17	05/22/24 10:37	1
Iron	75	U	100	12	ug/L		05/20/24 12:17	05/22/24 10:37	1
Lead	1.0	U	2.5	0.21	ug/L		05/20/24 12:17	05/22/24 10:37	1
Magnesium	60	U	250	23	ug/L		05/20/24 12:17	05/22/24 10:37	1
Manganese	5.0	U	10	2.2	ug/L		05/20/24 12:17	05/22/24 10:37	1
Nickel	1.0	U Q	10	0.42	ug/L		05/20/24 12:17	05/22/24 10:37	1
Potassium	100	U	1000	44	ug/L		05/20/24 12:17	05/22/24 10:37	1
Selenium	2.5	U	5.0	0.99	ug/L		05/20/24 12:17	05/22/24 10:37	1
Silver	1.0	U	2.0	0.39	ug/L		05/20/24 12:17	05/22/24 10:37	1
Sodium	500	U	1000	200	ug/L		05/20/24 12:17	05/22/24 10:37	1
Thallium	1.0	U	2.0	0.26	ug/L		05/20/24 12:17	05/22/24 10:37	1
Vanadium	2.5	U	10	0.63	ug/L		05/20/24 12:17	05/22/24 10:37	1
Zinc	20	U	25	2.8	ug/L		05/20/24 12:17	05/22/24 10:37	1

Lab Sample ID: MB 680-838865/1-A
Matrix: Water
Analysis Batch: 839543

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 838865

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	100	U	200	35	ug/L		05/20/24 12:17	05/23/24 15:06	1

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 680-838865/2-A
Matrix: Water
Analysis Batch: 839420

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 838865

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	50.0	47.6		ug/L		95	85 - 117
Arsenic	100	96.3		ug/L		96	84 - 116
Barium	100	93.9		ug/L		94	86 - 114
Beryllium	50.0	49.0		ug/L		98	83 - 121
Boron	400	386		ug/L		96	73 - 130
Cadmium	50.0	48.6		ug/L		97	87 - 115
Calcium	5000	4430		ug/L		89	87 - 118
Chromium	100	97.5		ug/L		97	85 - 116
Cobalt	50.0	46.2		ug/L		92	86 - 115
Copper	101	92.2		ug/L		91	85 - 118
Iron	4990	4890		ug/L		98	87 - 118
Lead	500	471		ug/L		94	88 - 115
Magnesium	5000	4220		ug/L		84	83 - 118
Manganese	400	374		ug/L		93	87 - 115
Nickel	100	89.6	Q	ug/L		90	85 - 117
Potassium	7000	6470		ug/L		92	87 - 115
Selenium	100	101		ug/L		101	80 - 120
Silver	50.0	43.1		ug/L		86	85 - 116
Sodium	5030	4260		ug/L		85	85 - 117
Thallium	50.0	47.2		ug/L		94	82 - 116
Vanadium	100	95.4		ug/L		95	86 - 115
Zinc	50.5	46.3		ug/L		92	83 - 119

Lab Sample ID: LCS 680-838865/2-A
Matrix: Water
Analysis Batch: 839543

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 838865

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aluminum	5050	5060		ug/L		100	84 - 117

Lab Sample ID: 680-250910-4 MS
Matrix: Water
Analysis Batch: 839420

Client Sample ID: OU6-MW-279-20240516
Prep Type: Total Recoverable
Prep Batch: 838865

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	1.5	U	50.0	49.6		ug/L		99	85 - 117
Arsenic	9.2		100	108		ug/L		99	84 - 116
Barium	110		100	205		ug/L		95	86 - 114
Beryllium	0.40	U	50.0	49.1		ug/L		98	83 - 121
Boron	26	J	400	403		ug/L		94	73 - 130
Cadmium	0.20	U	50.0	50.3		ug/L		101	87 - 115
Calcium	25000	J1	5000	28000	4	ug/L		67	87 - 118
Chromium	1.1	J	100	101		ug/L		99	85 - 116
Cobalt	3.4		50.0	51.6		ug/L		96	86 - 115
Copper	5.4		101	101		ug/L		95	85 - 118
Iron	70000	J1	4990	70200	4	ug/L		9	87 - 118
Lead	0.81	J	500	477		ug/L		95	88 - 115
Magnesium	4100		5000	8400		ug/L		87	83 - 118
Manganese	470		400	840		ug/L		92	87 - 115

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 680-250910-4 MS
Matrix: Water
Analysis Batch: 839420

Client Sample ID: OU6-MW-279-20240516
Prep Type: Total Recoverable
Prep Batch: 838865

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Nickel	1.4	J Q	100	94.9	Q	ug/L		93	85 - 117
Potassium	7900		7000	15600		ug/L		110	87 - 115
Selenium	2.5	U	100	104		ug/L		104	80 - 120
Silver	1.0	U	50.0	45.2		ug/L		90	85 - 116
Sodium	17000	J1	5030	20100	J1	ug/L		59	85 - 117
Thallium	1.0	U	50.0	48.0		ug/L		96	82 - 116
Vanadium	2.5	U	100	98.6		ug/L		99	86 - 115
Zinc	740	J1	50.5	765	4	ug/L		53	83 - 119

Lab Sample ID: 680-250910-4 MS
Matrix: Water
Analysis Batch: 839543

Client Sample ID: OU6-MW-279-20240516
Prep Type: Total Recoverable
Prep Batch: 838865

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Aluminum	100	U	5050	4980		ug/L		99	84 - 117

Lab Sample ID: 680-250910-4 MSD
Matrix: Water
Analysis Batch: 839420

Client Sample ID: OU6-MW-279-20240516
Prep Type: Total Recoverable
Prep Batch: 838865

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	1.5	U	50.0	49.6		ug/L		99	85 - 117	0	20
Arsenic	9.2		100	109		ug/L		100	84 - 116	1	20
Barium	110		100	204		ug/L		95	86 - 114	0	20
Beryllium	0.40	U	50.0	51.0		ug/L		102	83 - 121	4	20
Boron	26	J	400	421		ug/L		99	73 - 130	4	20
Cadmium	0.20	U	50.0	50.1		ug/L		100	87 - 115	0	20
Calcium	25000	J1	5000	28200	4	ug/L		71	87 - 118	1	20
Chromium	1.1	J	100	101		ug/L		99	85 - 116	0	20
Cobalt	3.4		50.0	52.2		ug/L		98	86 - 115	1	20
Copper	5.4		101	101		ug/L		95	85 - 118	0	20
Iron	70000	J1	4990	71300	4	ug/L		30	87 - 118	1	20
Lead	0.81	J	500	481		ug/L		96	88 - 115	1	20
Magnesium	4100		5000	8390		ug/L		86	83 - 118	0	20
Manganese	470		400	834		ug/L		91	87 - 115	1	20
Nickel	1.4	J Q	100	96.2	Q	ug/L		95	85 - 117	1	20
Potassium	7900		7000	15200		ug/L		104	87 - 115	3	20
Selenium	2.5	U	100	98.0		ug/L		98	80 - 120	6	20
Silver	1.0	U	50.0	45.9		ug/L		92	85 - 116	1	20
Sodium	17000	J1	5030	19900	J1	ug/L		56	85 - 117	1	20
Thallium	1.0	U	50.0	48.9		ug/L		98	82 - 116	2	20
Vanadium	2.5	U	100	98.6		ug/L		99	86 - 115	0	20
Zinc	740	J1	50.5	761	4	ug/L		44	83 - 119	1	20

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 680-250910-4 MSD
Matrix: Water
Analysis Batch: 839543

Client Sample ID: OU6-MW-279-20240516
Prep Type: Total Recoverable
Prep Batch: 838865

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aluminum	100	U	5050	4990		ug/L		99	84 - 117	0	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 680-839689/1-A
Matrix: Water
Analysis Batch: 839734

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 839689

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	0.20	U	0.25	0.080	ug/L		05/24/24 13:35	05/25/24 09:44	1

Lab Sample ID: LCS 680-839689/2-A
Matrix: Water
Analysis Batch: 839734

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 839689

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Hg	2.50	2.23		ug/L		89	80 - 124

Method: 2320B-2011 - Alkalinity, Total

Lab Sample ID: MB 680-839031/4
Matrix: Water
Analysis Batch: 839031

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	5.0	U	5.5	2.2	mg/L			05/20/24 13:36	1
Bicarbonate Alkalinity as CaCO3	10	U	11	5.0	mg/L			05/20/24 13:36	1
Carbonate Alkalinity as CaCO3	10	U	11	5.0	mg/L			05/20/24 13:36	1

Lab Sample ID: LCS 680-839031/6
Matrix: Water
Analysis Batch: 839031

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity as CaCO3 to pH 4.5	250	248		mg/L		99	90 - 112

Lab Sample ID: LCSD 680-839031/31
Matrix: Water
Analysis Batch: 839031

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5	250	226		mg/L		90	90 - 112	9	30

Lab Sample ID: MB 680-839036/4
Matrix: Water
Analysis Batch: 839036

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	5.0	U	5.5	2.2	mg/L			05/20/24 19:12	1

Method: 2320B-2011 - Alkalinity, Total (Continued)

Lab Sample ID: MB 680-839036/4
Matrix: Water
Analysis Batch: 839036

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3	10	U	11	5.0	mg/L			05/20/24 19:12	1
Carbonate Alkalinity as CaCO3	10	U	11	5.0	mg/L			05/20/24 19:12	1

Lab Sample ID: LCS 680-839036/6
Matrix: Water
Analysis Batch: 839036

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Alkalinity as CaCO3 to pH 4.5			250	247		mg/L		99	90 - 112		

Lab Sample ID: LCSD 680-839036/31
Matrix: Water
Analysis Batch: 839036

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5			250	250		mg/L		100	90 - 112	1	30

Lab Sample ID: 680-250910-5 DU
Matrix: Water
Analysis Batch: 839036

Client Sample ID: OU6-MW-270-20240516
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5	62			68.1		mg/L				9	30
Bicarbonate Alkalinity as CaCO3	51			54.4		mg/L				7	30
Carbonate Alkalinity as CaCO3	11			13.7		mg/L				18	30

Lab Sample ID: MB 680-839236/4
Matrix: Water
Analysis Batch: 839236

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	5.0	U	5.5	2.2	mg/L			05/21/24 16:31	1
Bicarbonate Alkalinity as CaCO3	10	U	11	5.0	mg/L			05/21/24 16:31	1
Carbonate Alkalinity as CaCO3	10	U	11	5.0	mg/L			05/21/24 16:31	1

Lab Sample ID: LCS 680-839236/6
Matrix: Water
Analysis Batch: 839236

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Alkalinity as CaCO3 to pH 4.5			250	248		mg/L		99	90 - 112		

Method: 2320B-2011 - Alkalinity, Total (Continued)

Lab Sample ID: LCSD 680-839236/31
Matrix: Water
Analysis Batch: 839236

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5			250	248		mg/L		99	90 - 112	0	30

Method: 4500 S2 F-2011 - Sulfide, Total

Lab Sample ID: MB 680-839093/1
Matrix: Water
Analysis Batch: 839093

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	1.0	U	1.0	1.0	mg/L			05/21/24 14:01	1
Sulfide as H2S	1.1	U	1.1	1.1	mg/L			05/21/24 14:01	1

Lab Sample ID: LCS 680-839093/2
Matrix: Water
Analysis Batch: 839093

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Sulfide			10.0	8.80		mg/L		88	75 - 125		
Sulfide as H2S			10.6	9.35		mg/L		88	75 - 125		

Lab Sample ID: LCSD 680-839093/3
Matrix: Water
Analysis Batch: 839093

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sulfide			10.0	8.42		mg/L		84	75 - 125	4	30
Sulfide as H2S			10.6	8.94		mg/L		84	75 - 125	4	30

Lab Sample ID: 680-250910-4 MS
Matrix: Water
Analysis Batch: 839093

Client Sample ID: OU6-MW-279-20240516
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Sulfide	0.93	U	8.57	7.23		mg/L		84	75 - 125		
Sulfide as H2S	1.0	U	9.11	7.68		mg/L		84	75 - 125		

Lab Sample ID: 680-250910-4 MSD
Matrix: Water
Analysis Batch: 839093

Client Sample ID: OU6-MW-279-20240516
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sulfide	0.93	U	8.57	7.23		mg/L		84	75 - 125	0	30
Sulfide as H2S	1.0	U	9.11	7.68		mg/L		84	75 - 125	0	30

Method: 4500 S2 F-2011 - Sulfide, Total (Continued)

Lab Sample ID: 680-250910-2 DU — **Client Sample ID: OU6-MW-259-20240515**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 839093

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Sulfide	0.89	U		0.93	U	mg/L				NC	30
Sulfide as H2S	0.98	U		1.0	U	mg/L				NC	30

Lab Sample ID: MB 680-839307/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 839307

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	1.0	U	1.0	1.0	mg/L			05/22/24 14:17	1
Sulfide as H2S	1.1	U	1.1	1.1	mg/L			05/22/24 14:17	1

Lab Sample ID: LCS 680-839307/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 839307

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Sulfide			10.0	8.93		mg/L		89	75 - 125		
Sulfide as H2S			10.6	9.49		mg/L		89	75 - 125		

Lab Sample ID: LCSD 680-839307/3 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 839307

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sulfide			10.0	8.78		mg/L		88	75 - 125	2	30
Sulfide as H2S			10.6	9.33		mg/L		88	75 - 125	2	30

Lab Sample ID: 680-250910-20 MS — **Client Sample ID: OU6-DMW-34B-20240516**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 839307

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Sulfide	0.81	U	6.50	7.21		mg/L		111	75 - 125		
Sulfide as H2S	0.89	U	6.91	7.66		mg/L		111	75 - 125		

Lab Sample ID: 680-250910-20 MSD — **Client Sample ID: OU6-DMW-34B-20240516**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 839307

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sulfide	0.81	U	6.50	7.21		mg/L		111	75 - 125	0	30
Sulfide as H2S	0.89	U	6.91	7.66		mg/L		111	75 - 125	0	30

Lab Sample ID: 680-250910-12 DU — **Client Sample ID: OU6-MW-167-20240516**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 839307

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Sulfide	0.83	U		0.86	U	mg/L				NC	30
Sulfide as H2S	0.92	U		0.95	U	mg/L				NC	30

Method: 9060A - Organic Carbon, Total (TOC)

Lab Sample ID: MB 680-839767/1
Matrix: Water
Analysis Batch: 839767

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	1.0	U	1.0	0.50	mg/L			05/23/24 05:35	1

Lab Sample ID: LCS 680-839767/2
Matrix: Water
Analysis Batch: 839767

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Organic Carbon	20.0	21.2		mg/L		106	80 - 120

Lab Sample ID: LCSD 680-839767/3
Matrix: Water
Analysis Batch: 839767

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Organic Carbon	20.0	21.4		mg/L		107	80 - 120	1	25

Lab Sample ID: MB 680-839768/1
Matrix: Water
Analysis Batch: 839768

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	1.0	U	1.0	0.50	mg/L			05/23/24 11:24	1

Lab Sample ID: LCS 680-839768/2
Matrix: Water
Analysis Batch: 839768

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Organic Carbon	20.0	21.2		mg/L		106	80 - 120

Lab Sample ID: LCSD 680-839768/3
Matrix: Water
Analysis Batch: 839768

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Organic Carbon	20.0	21.3		mg/L		106	80 - 120	0	25

Lab Sample ID: 680-250910-9 DU
Matrix: Water
Analysis Batch: 839768

Client Sample ID: OU6-MW-142-20240515
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Organic Carbon	0.72	J	0.747	J	mg/L		4	25

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-250910-1

Method: SM 4500 CO2 D - Carbon Dioxide and Forms of Alkalinity by Calculation

Lab Sample ID: 680-250910-5 DU
Matrix: Water
Analysis Batch: 839036

Client Sample ID: OU6-MW-270-20240516
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Carbon Dioxide, Free	10	U		10	U	mg/L				NC	30

GC/MS VOA

Analysis Batch: 839410

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-250910-4	OU6-MW-279-20240516	Total/NA	Water	8260D	
680-250910-5	OU6-MW-270-20240516	Total/NA	Water	8260D	
680-250910-6	OU6-MW-273-20240516	Total/NA	Water	8260D	
680-250910-7	OU6-MW-281-20240516	Total/NA	Water	8260D	
680-250910-8	OU6-MW-261-20240516	Total/NA	Water	8260D	
680-250910-9	OU6-MW-142-20240515	Total/NA	Water	8260D	
680-250910-10	OU6-MW-278-20240516	Total/NA	Water	8260D	
680-250910-11	OU6-MW-166-20240516	Total/NA	Water	8260D	
680-250910-12	OU6-MW-167-20240516	Total/NA	Water	8260D	
680-250910-13	OU6-MW-249-20240516	Total/NA	Water	8260D	
680-250910-15	OU6-MW-298-20240516	Total/NA	Water	8260D	
680-250910-16	OU6-MW-257-20240516	Total/NA	Water	8260D	
680-250910-17	OU6-LAWMNQ-20240516	Total/NA	Water	8260D	
680-250910-18	OU6-MW-299-20240516	Total/NA	Water	8260D	
680-250910-19	OU6-MW-286-20240516	Total/NA	Water	8260D	
680-250910-21	OU6-MW-94-20240516	Total/NA	Water	8260D	
680-250910-24	TRIP-BLANK-20240516	Total/NA	Water	8260D	
MB 680-839410/8	Method Blank	Total/NA	Water	8260D	
LCS 680-839410/4	Lab Control Sample	Total/NA	Water	8260D	
LCSD 680-839410/5	Lab Control Sample Dup	Total/NA	Water	8260D	

Analysis Batch: 839604

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-250910-20	OU6-DMW-34B-20240516	Total/NA	Water	8260D	
680-250910-22	OU6-MW-93-20240516	Total/NA	Water	8260D	
680-250910-23	DUP-2-20240516	Total/NA	Water	8260D	
MB 680-839604/9	Method Blank	Total/NA	Water	8260D	
LCS 680-839604/4	Lab Control Sample	Total/NA	Water	8260D	
LCSD 680-839604/5	Lab Control Sample Dup	Total/NA	Water	8260D	

Analysis Batch: 840104

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-250910-14	OU6-MW-248-20240516	Total/NA	Water	8260D	
MB 680-840104/9	Method Blank	Total/NA	Water	8260D	
LCS 680-840104/4	Lab Control Sample	Total/NA	Water	8260D	
LCSD 680-840104/5	Lab Control Sample Dup	Total/NA	Water	8260D	

GC/MS Semi VOA

Prep Batch: 838752

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-250910-4	OU6-MW-279-20240516	Total/NA	Water	3510C	
MB 680-838752/1-A	Method Blank	Total/NA	Water	3510C	
LCS 680-838752/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 680-838752/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 838829

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-250910-4	OU6-MW-279-20240516	Total/NA	Water	8270E	838752
MB 680-838752/1-A	Method Blank	Total/NA	Water	8270E	838752
LCS 680-838752/2-A	Lab Control Sample	Total/NA	Water	8270E	838752

GC/MS Semi VOA (Continued)

Analysis Batch: 838829 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 680-838752/3-A	Lab Control Sample Dup	Total/NA	Water	8270E	838752

Prep Batch: 838962

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-250910-4	OU6-MW-279-20240516	Total/NA	Water	3510C	
MB 680-838962/1-A	Method Blank	Total/NA	Water	3510C	
LCS 680-838962/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 680-838962/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 838979

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-250910-4	OU6-MW-279-20240516	Total/NA	Water	8270E SIM	838962
MB 680-838962/1-A	Method Blank	Total/NA	Water	8270E SIM	838962
LCS 680-838962/2-A	Lab Control Sample	Total/NA	Water	8270E SIM	838962
LCSD 680-838962/3-A	Lab Control Sample Dup	Total/NA	Water	8270E SIM	838962

Prep Batch: 839167

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-250910-19	OU6-MW-286-20240516	Total/NA	Water	3510C	
680-250910-22	OU6-MW-93-20240516	Total/NA	Water	3510C	
680-250910-23	DUP-2-20240516	Total/NA	Water	3510C	
MB 680-839167/1-A	Method Blank	Total/NA	Water	3510C	
LCS 680-839167/2-A	Lab Control Sample	Total/NA	Water	3510C	

Analysis Batch: 839173

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-250910-19	OU6-MW-286-20240516	Total/NA	Water	8270E SIM ID	839167
680-250910-22	OU6-MW-93-20240516	Total/NA	Water	8270E SIM ID	839167
680-250910-23	DUP-2-20240516	Total/NA	Water	8270E SIM ID	839167
MB 680-839167/1-A	Method Blank	Total/NA	Water	8270E SIM ID	839167
LCS 680-839167/2-A	Lab Control Sample	Total/NA	Water	8270E SIM ID	839167

Prep Batch: 839376

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-250910-4 - RE	OU6-MW-279-20240516	Total/NA	Water	3510C	
MB 680-839376/1-A	Method Blank	Total/NA	Water	3510C	
LCS 680-839376/2-A	Lab Control Sample	Total/NA	Water	3510C	

Analysis Batch: 839636

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-250910-4 - RE	OU6-MW-279-20240516	Total/NA	Water	8270E SIM	839376
MB 680-839376/1-A	Method Blank	Total/NA	Water	8270E SIM	839376
LCS 680-839376/2-A	Lab Control Sample	Total/NA	Water	8270E SIM	839376

GC VOA

Analysis Batch: 510310

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-250910-4	OU6-MW-279-20240516	Total/NA	Water	RSK-175	510325
680-250910-4 - DL	OU6-MW-279-20240516	Total/NA	Water	RSK-175	510325
680-250910-5	OU6-MW-270-20240516	Total/NA	Water	RSK-175	510325

GC VOA (Continued)

Analysis Batch: 510310 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-250910-6	OU6-MW-273-20240516	Total/NA	Water	RSK-175	510325
680-250910-7	OU6-MW-281-20240516	Total/NA	Water	RSK-175	510346
680-250910-7 - DL	OU6-MW-281-20240516	Total/NA	Water	RSK-175	510346
680-250910-8	OU6-MW-261-20240516	Total/NA	Water	RSK-175	510346
680-250910-9	OU6-MW-142-20240515	Total/NA	Water	RSK-175	510325
680-250910-10	OU6-MW-278-20240516	Total/NA	Water	RSK-175	510325
680-250910-10 - DL	OU6-MW-278-20240516	Total/NA	Water	RSK-175	510325
680-250910-11	OU6-MW-166-20240516	Total/NA	Water	RSK-175	510346
680-250910-12	OU6-MW-167-20240516	Total/NA	Water	RSK-175	510346
680-250910-12 - DL	OU6-MW-167-20240516	Total/NA	Water	RSK-175	510346
680-250910-14	OU6-MW-248-20240516	Total/NA	Water	RSK-175	510346
680-250910-15	OU6-MW-298-20240516	Total/NA	Water	RSK-175	510346
680-250910-19	OU6-MW-286-20240516	Total/NA	Water	RSK-175	510346
680-250910-19 - DL	OU6-MW-286-20240516	Total/NA	Water	RSK-175	510346
680-250910-20	OU6-DMW-34B-20240516	Total/NA	Water	RSK-175	510346
680-250910-21	OU6-MW-94-20240516	Total/NA	Water	RSK-175	510346
MB 410-510325/1-A	Method Blank	Total/NA	Water	RSK-175	510325
MB 410-510346/1-A	Method Blank	Total/NA	Water	RSK-175	510346
LCS 410-510325/2-A	Lab Control Sample	Total/NA	Water	RSK-175	510325
LCS 410-510346/2-A	Lab Control Sample	Total/NA	Water	RSK-175	510346
LCSD 410-510325/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	510325
LCSD 410-510346/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	510346

Prep Batch: 510325

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-250910-4	OU6-MW-279-20240516	Total/NA	Water	RSK-175	
680-250910-4 - DL	OU6-MW-279-20240516	Total/NA	Water	RSK-175	
680-250910-5	OU6-MW-270-20240516	Total/NA	Water	RSK-175	
680-250910-6	OU6-MW-273-20240516	Total/NA	Water	RSK-175	
680-250910-9	OU6-MW-142-20240515	Total/NA	Water	RSK-175	
680-250910-10 - DL	OU6-MW-278-20240516	Total/NA	Water	RSK-175	
680-250910-10	OU6-MW-278-20240516	Total/NA	Water	RSK-175	
MB 410-510325/1-A	Method Blank	Total/NA	Water	RSK-175	
LCS 410-510325/2-A	Lab Control Sample	Total/NA	Water	RSK-175	
LCSD 410-510325/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	

Prep Batch: 510346

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-250910-7	OU6-MW-281-20240516	Total/NA	Water	RSK-175	
680-250910-7 - DL	OU6-MW-281-20240516	Total/NA	Water	RSK-175	
680-250910-8	OU6-MW-261-20240516	Total/NA	Water	RSK-175	
680-250910-11	OU6-MW-166-20240516	Total/NA	Water	RSK-175	
680-250910-12 - DL	OU6-MW-167-20240516	Total/NA	Water	RSK-175	
680-250910-12	OU6-MW-167-20240516	Total/NA	Water	RSK-175	
680-250910-14	OU6-MW-248-20240516	Total/NA	Water	RSK-175	
680-250910-15	OU6-MW-298-20240516	Total/NA	Water	RSK-175	
680-250910-19 - DL	OU6-MW-286-20240516	Total/NA	Water	RSK-175	
680-250910-19	OU6-MW-286-20240516	Total/NA	Water	RSK-175	
680-250910-20	OU6-DMW-34B-20240516	Total/NA	Water	RSK-175	
680-250910-21	OU6-MW-94-20240516	Total/NA	Water	RSK-175	
MB 410-510346/1-A	Method Blank	Total/NA	Water	RSK-175	

GC VOA (Continued)

Prep Batch: 510346 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 410-510346/2-A	Lab Control Sample	Total/NA	Water	RSK-175	
LCSD 410-510346/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	

GC Semi VOA

Prep Batch: 839075

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-250910-4	OU6-MW-279-20240516	Total/NA	Water	3510C	
MB 680-839075/1-A	Method Blank	Total/NA	Water	3510C	
LCS 680-839075/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCS 680-839075/4-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 680-839075/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
LCSD 680-839075/5-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 839253

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-250910-4	OU6-MW-279-20240516	Total/NA	Water	8081B 8082A	839075
MB 680-839075/1-A	Method Blank	Total/NA	Water	8081B 8082A	839075
LCS 680-839075/2-A	Lab Control Sample	Total/NA	Water	8081B 8082A	839075
LCS 680-839075/4-A	Lab Control Sample	Total/NA	Water	8081B 8082A	839075
LCSD 680-839075/3-A	Lab Control Sample Dup	Total/NA	Water	8081B 8082A	839075
LCSD 680-839075/5-A	Lab Control Sample Dup	Total/NA	Water	8081B 8082A	839075

HPLC/IC

Analysis Batch: 838545

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-250910-1	OU6-MW-277-20240515	Total/NA	Water	9056A	
680-250910-2	OU6-MW-259-20240515	Total/NA	Water	9056A	
680-250910-3	OU6-MW-280-20240515	Total/NA	Water	9056A	
680-250910-4	OU6-MW-279-20240516	Total/NA	Water	9056A	
680-250910-5	OU6-MW-270-20240516	Total/NA	Water	9056A	
680-250910-6	OU6-MW-273-20240516	Total/NA	Water	9056A	
680-250910-7	OU6-MW-281-20240516	Total/NA	Water	9056A	
680-250910-8	OU6-MW-261-20240516	Total/NA	Water	9056A	
680-250910-9	OU6-MW-142-20240515	Total/NA	Water	9056A	
680-250910-10	OU6-MW-278-20240516	Total/NA	Water	9056A	
680-250910-11	OU6-MW-166-20240516	Total/NA	Water	9056A	
680-250910-12	OU6-MW-167-20240516	Total/NA	Water	9056A	
680-250910-14	OU6-MW-248-20240516	Total/NA	Water	9056A	
680-250910-15	OU6-MW-298-20240516	Total/NA	Water	9056A	
680-250910-19	OU6-MW-286-20240516	Total/NA	Water	9056A	
680-250910-20	OU6-DMW-34B-20240516	Total/NA	Water	9056A	
680-250910-21	OU6-MW-94-20240516	Total/NA	Water	9056A	
MB 680-838545/2	Method Blank	Total/NA	Water	9056A	
MB 680-838545/21	Method Blank	Total/NA	Water	9056A	
LCS 680-838545/3	Lab Control Sample	Total/NA	Water	9056A	
LCSD 680-838545/6	Lab Control Sample Dup	Total/NA	Water	9056A	
680-250910-1 MS	OU6-MW-277-20240515	Total/NA	Water	9056A	
680-250910-1 MSD	OU6-MW-277-20240515	Total/NA	Water	9056A	
680-250910-11 MS	OU6-MW-166-20240516	Total/NA	Water	9056A	
680-250910-11 MSD	OU6-MW-166-20240516	Total/NA	Water	9056A	

HPLC/IC

Analysis Batch: 840377

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-250910-1	OU6-MW-277-20240515	Total/NA	Water	9056A	
680-250910-2	OU6-MW-259-20240515	Total/NA	Water	9056A	
680-250910-3	OU6-MW-280-20240515	Total/NA	Water	9056A	
680-250910-4	OU6-MW-279-20240516	Total/NA	Water	9056A	
680-250910-5	OU6-MW-270-20240516	Total/NA	Water	9056A	
680-250910-6	OU6-MW-273-20240516	Total/NA	Water	9056A	
680-250910-7	OU6-MW-281-20240516	Total/NA	Water	9056A	
680-250910-8	OU6-MW-261-20240516	Total/NA	Water	9056A	
680-250910-9	OU6-MW-142-20240515	Total/NA	Water	9056A	
680-250910-10	OU6-MW-278-20240516	Total/NA	Water	9056A	
680-250910-11	OU6-MW-166-20240516	Total/NA	Water	9056A	
680-250910-12	OU6-MW-167-20240516	Total/NA	Water	9056A	
680-250910-14	OU6-MW-248-20240516	Total/NA	Water	9056A	
680-250910-15	OU6-MW-298-20240516	Total/NA	Water	9056A	
680-250910-19	OU6-MW-286-20240516	Total/NA	Water	9056A	
680-250910-20	OU6-DMW-34B-20240516	Total/NA	Water	9056A	
680-250910-21	OU6-MW-94-20240516	Total/NA	Water	9056A	
MB 680-840377/63	Method Blank	Total/NA	Water	9056A	
LCS 680-840377/64	Lab Control Sample	Total/NA	Water	9056A	
LCSD 680-840377/65	Lab Control Sample Dup	Total/NA	Water	9056A	
680-250910-1 MS	OU6-MW-277-20240515	Total/NA	Water	9056A	
680-250910-1 MSD	OU6-MW-277-20240515	Total/NA	Water	9056A	
680-250910-8 MS	OU6-MW-261-20240516	Total/NA	Water	9056A	
680-250910-8 MSD	OU6-MW-261-20240516	Total/NA	Water	9056A	

Metals

Prep Batch: 838865

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-250910-4	OU6-MW-279-20240516	Total Recoverable	Water	3005A	
680-250910-5	OU6-MW-270-20240516	Total Recoverable	Water	3005A	
680-250910-6	OU6-MW-273-20240516	Total Recoverable	Water	3005A	
680-250910-7	OU6-MW-281-20240516	Total Recoverable	Water	3005A	
680-250910-8	OU6-MW-261-20240516	Total Recoverable	Water	3005A	
680-250910-9	OU6-MW-142-20240515	Total Recoverable	Water	3005A	
680-250910-10	OU6-MW-278-20240516	Total Recoverable	Water	3005A	
680-250910-11	OU6-MW-166-20240516	Total Recoverable	Water	3005A	
680-250910-12	OU6-MW-167-20240516	Total Recoverable	Water	3005A	
680-250910-14	OU6-MW-248-20240516	Total Recoverable	Water	3005A	
680-250910-15	OU6-MW-298-20240516	Total Recoverable	Water	3005A	
680-250910-19	OU6-MW-286-20240516	Total Recoverable	Water	3005A	
680-250910-20	OU6-DMW-34B-20240516	Total Recoverable	Water	3005A	
680-250910-21	OU6-MW-94-20240516	Total Recoverable	Water	3005A	
MB 680-838865/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 680-838865/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
680-250910-4 MS	OU6-MW-279-20240516	Total Recoverable	Water	3005A	
680-250910-4 MSD	OU6-MW-279-20240516	Total Recoverable	Water	3005A	

Analysis Batch: 839420

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-250910-4	OU6-MW-279-20240516	Total Recoverable	Water	6020A	838865

Metals (Continued)

Analysis Batch: 839420 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-250910-5	OU6-MW-270-20240516	Total Recoverable	Water	6020A	838865
680-250910-6	OU6-MW-273-20240516	Total Recoverable	Water	6020A	838865
680-250910-7	OU6-MW-281-20240516	Total Recoverable	Water	6020A	838865
680-250910-8	OU6-MW-261-20240516	Total Recoverable	Water	6020A	838865
680-250910-9	OU6-MW-142-20240515	Total Recoverable	Water	6020A	838865
680-250910-10	OU6-MW-278-20240516	Total Recoverable	Water	6020A	838865
680-250910-11	OU6-MW-166-20240516	Total Recoverable	Water	6020A	838865
680-250910-12	OU6-MW-167-20240516	Total Recoverable	Water	6020A	838865
680-250910-14	OU6-MW-248-20240516	Total Recoverable	Water	6020A	838865
680-250910-15	OU6-MW-298-20240516	Total Recoverable	Water	6020A	838865
680-250910-19	OU6-MW-286-20240516	Total Recoverable	Water	6020A	838865
680-250910-20	OU6-DMW-34B-20240516	Total Recoverable	Water	6020A	838865
680-250910-21	OU6-MW-94-20240516	Total Recoverable	Water	6020A	838865
MB 680-838865/1-A	Method Blank	Total Recoverable	Water	6020A	838865
LCS 680-838865/2-A	Lab Control Sample	Total Recoverable	Water	6020A	838865
680-250910-4 MS	OU6-MW-279-20240516	Total Recoverable	Water	6020A	838865
680-250910-4 MSD	OU6-MW-279-20240516	Total Recoverable	Water	6020A	838865

Analysis Batch: 839543

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-250910-4	OU6-MW-279-20240516	Total Recoverable	Water	6020A	838865
MB 680-838865/1-A	Method Blank	Total Recoverable	Water	6020A	838865
LCS 680-838865/2-A	Lab Control Sample	Total Recoverable	Water	6020A	838865
680-250910-4 MS	OU6-MW-279-20240516	Total Recoverable	Water	6020A	838865
680-250910-4 MSD	OU6-MW-279-20240516	Total Recoverable	Water	6020A	838865

Prep Batch: 839689

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-250910-4	OU6-MW-279-20240516	Total/NA	Water	7470A	
MB 680-839689/1-A	Method Blank	Total/NA	Water	7470A	
LCS 680-839689/2-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 839734

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-250910-4	OU6-MW-279-20240516	Total/NA	Water	7470A	839689
MB 680-839689/1-A	Method Blank	Total/NA	Water	7470A	839689
LCS 680-839689/2-A	Lab Control Sample	Total/NA	Water	7470A	839689

General Chemistry

Analysis Batch: 839031

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-250910-1	OU6-MW-277-20240515	Total/NA	Water	2320B-2011	
680-250910-1	OU6-MW-277-20240515	Total/NA	Water	SM 4500 CO2 D	
680-250910-2	OU6-MW-259-20240515	Total/NA	Water	2320B-2011	
680-250910-2	OU6-MW-259-20240515	Total/NA	Water	SM 4500 CO2 D	
680-250910-3	OU6-MW-280-20240515	Total/NA	Water	2320B-2011	
680-250910-3	OU6-MW-280-20240515	Total/NA	Water	SM 4500 CO2 D	
680-250910-4	OU6-MW-279-20240516	Total/NA	Water	2320B-2011	
680-250910-4	OU6-MW-279-20240516	Total/NA	Water	SM 4500 CO2 D	
680-250910-6	OU6-MW-273-20240516	Total/NA	Water	2320B-2011	

General Chemistry (Continued)

Analysis Batch: 839031 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-250910-6	OU6-MW-273-20240516	Total/NA	Water	SM 4500 CO2 D	
680-250910-7	OU6-MW-281-20240516	Total/NA	Water	2320B-2011	
680-250910-7	OU6-MW-281-20240516	Total/NA	Water	SM 4500 CO2 D	
680-250910-8	OU6-MW-261-20240516	Total/NA	Water	2320B-2011	
680-250910-8	OU6-MW-261-20240516	Total/NA	Water	SM 4500 CO2 D	
680-250910-9	OU6-MW-142-20240515	Total/NA	Water	2320B-2011	
680-250910-9	OU6-MW-142-20240515	Total/NA	Water	SM 4500 CO2 D	
MB 680-839031/4	Method Blank	Total/NA	Water	2320B-2011	
LCS 680-839031/6	Lab Control Sample	Total/NA	Water	2320B-2011	
LCSD 680-839031/31	Lab Control Sample Dup	Total/NA	Water	2320B-2011	

Analysis Batch: 839036

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-250910-5	OU6-MW-270-20240516	Total/NA	Water	2320B-2011	
680-250910-5	OU6-MW-270-20240516	Total/NA	Water	SM 4500 CO2 D	
680-250910-10	OU6-MW-278-20240516	Total/NA	Water	2320B-2011	
680-250910-10	OU6-MW-278-20240516	Total/NA	Water	SM 4500 CO2 D	
680-250910-11	OU6-MW-166-20240516	Total/NA	Water	2320B-2011	
680-250910-11	OU6-MW-166-20240516	Total/NA	Water	SM 4500 CO2 D	
680-250910-12	OU6-MW-167-20240516	Total/NA	Water	2320B-2011	
680-250910-12	OU6-MW-167-20240516	Total/NA	Water	SM 4500 CO2 D	
MB 680-839036/4	Method Blank	Total/NA	Water	2320B-2011	
LCS 680-839036/6	Lab Control Sample	Total/NA	Water	2320B-2011	
LCSD 680-839036/31	Lab Control Sample Dup	Total/NA	Water	2320B-2011	
680-250910-5 DU	OU6-MW-270-20240516	Total/NA	Water	2320B-2011	
680-250910-5 DU	OU6-MW-270-20240516	Total/NA	Water	SM 4500 CO2 D	

Analysis Batch: 839093

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-250910-1	OU6-MW-277-20240515	Total/NA	Water	4500 S2 F-2011	
680-250910-2	OU6-MW-259-20240515	Total/NA	Water	4500 S2 F-2011	
680-250910-3	OU6-MW-280-20240515	Total/NA	Water	4500 S2 F-2011	
680-250910-4	OU6-MW-279-20240516	Total/NA	Water	4500 S2 F-2011	
680-250910-5	OU6-MW-270-20240516	Total/NA	Water	4500 S2 F-2011	
680-250910-6	OU6-MW-273-20240516	Total/NA	Water	4500 S2 F-2011	
680-250910-7	OU6-MW-281-20240516	Total/NA	Water	4500 S2 F-2011	
680-250910-8	OU6-MW-261-20240516	Total/NA	Water	4500 S2 F-2011	
680-250910-9	OU6-MW-142-20240515	Total/NA	Water	4500 S2 F-2011	
680-250910-10	OU6-MW-278-20240516	Total/NA	Water	4500 S2 F-2011	
680-250910-11	OU6-MW-166-20240516	Total/NA	Water	4500 S2 F-2011	
MB 680-839093/1	Method Blank	Total/NA	Water	4500 S2 F-2011	
LCS 680-839093/2	Lab Control Sample	Total/NA	Water	4500 S2 F-2011	
LCSD 680-839093/3	Lab Control Sample Dup	Total/NA	Water	4500 S2 F-2011	
680-250910-4 MS	OU6-MW-279-20240516	Total/NA	Water	4500 S2 F-2011	
680-250910-4 MSD	OU6-MW-279-20240516	Total/NA	Water	4500 S2 F-2011	
680-250910-2 DU	OU6-MW-259-20240515	Total/NA	Water	4500 S2 F-2011	

Analysis Batch: 839236

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-250910-14	OU6-MW-248-20240516	Total/NA	Water	2320B-2011	
680-250910-14	OU6-MW-248-20240516	Total/NA	Water	SM 4500 CO2 D	

General Chemistry (Continued)

Analysis Batch: 839236 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-250910-15	OU6-MW-298-20240516	Total/NA	Water	2320B-2011	
680-250910-15	OU6-MW-298-20240516	Total/NA	Water	SM 4500 CO2 D	
680-250910-19	OU6-MW-286-20240516	Total/NA	Water	2320B-2011	
680-250910-19	OU6-MW-286-20240516	Total/NA	Water	SM 4500 CO2 D	
680-250910-20	OU6-DMW-34B-20240516	Total/NA	Water	2320B-2011	
680-250910-20	OU6-DMW-34B-20240516	Total/NA	Water	SM 4500 CO2 D	
680-250910-21	OU6-MW-94-20240516	Total/NA	Water	2320B-2011	
680-250910-21	OU6-MW-94-20240516	Total/NA	Water	SM 4500 CO2 D	
MB 680-839236/4	Method Blank	Total/NA	Water	2320B-2011	
LCS 680-839236/6	Lab Control Sample	Total/NA	Water	2320B-2011	
LCSD 680-839236/31	Lab Control Sample Dup	Total/NA	Water	2320B-2011	

Analysis Batch: 839307

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-250910-12	OU6-MW-167-20240516	Total/NA	Water	4500 S2 F-2011	
680-250910-14	OU6-MW-248-20240516	Total/NA	Water	4500 S2 F-2011	
680-250910-15	OU6-MW-298-20240516	Total/NA	Water	4500 S2 F-2011	
680-250910-19	OU6-MW-286-20240516	Total/NA	Water	4500 S2 F-2011	
680-250910-20	OU6-DMW-34B-20240516	Total/NA	Water	4500 S2 F-2011	
680-250910-21	OU6-MW-94-20240516	Total/NA	Water	4500 S2 F-2011	
MB 680-839307/1	Method Blank	Total/NA	Water	4500 S2 F-2011	
LCS 680-839307/2	Lab Control Sample	Total/NA	Water	4500 S2 F-2011	
LCSD 680-839307/3	Lab Control Sample Dup	Total/NA	Water	4500 S2 F-2011	
680-250910-20 MS	OU6-DMW-34B-20240516	Total/NA	Water	4500 S2 F-2011	
680-250910-20 MSD	OU6-DMW-34B-20240516	Total/NA	Water	4500 S2 F-2011	
680-250910-12 DU	OU6-MW-167-20240516	Total/NA	Water	4500 S2 F-2011	

Analysis Batch: 839767

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-250910-4	OU6-MW-279-20240516	Total/NA	Water	9060A	
680-250910-5	OU6-MW-270-20240516	Total/NA	Water	9060A	
680-250910-6	OU6-MW-273-20240516	Total/NA	Water	9060A	
680-250910-7	OU6-MW-281-20240516	Total/NA	Water	9060A	
680-250910-8	OU6-MW-261-20240516	Total/NA	Water	9060A	
MB 680-839767/1	Method Blank	Total/NA	Water	9060A	
LCS 680-839767/2	Lab Control Sample	Total/NA	Water	9060A	
LCSD 680-839767/3	Lab Control Sample Dup	Total/NA	Water	9060A	

Analysis Batch: 839768

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-250910-9	OU6-MW-142-20240515	Total/NA	Water	9060A	
680-250910-10	OU6-MW-278-20240516	Total/NA	Water	9060A	
680-250910-11	OU6-MW-166-20240516	Total/NA	Water	9060A	
680-250910-12	OU6-MW-167-20240516	Total/NA	Water	9060A	
680-250910-14	OU6-MW-248-20240516	Total/NA	Water	9060A	
680-250910-15	OU6-MW-298-20240516	Total/NA	Water	9060A	
680-250910-19	OU6-MW-286-20240516	Total/NA	Water	9060A	
680-250910-20	OU6-DMW-34B-20240516	Total/NA	Water	9060A	
680-250910-21	OU6-MW-94-20240516	Total/NA	Water	9060A	
MB 680-839768/1	Method Blank	Total/NA	Water	9060A	
LCS 680-839768/2	Lab Control Sample	Total/NA	Water	9060A	

General Chemistry (Continued)

Analysis Batch: 839768 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 680-839768/3	Lab Control Sample Dup	Total/NA	Water	9060A	
680-250910-9 DU	OU6-MW-142-20240515	Total/NA	Water	9060A	

Lab Chronicle

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-250910-1

Client Sample ID: OU6-MW-277-20240515

Lab Sample ID: 680-250910-1

Date Collected: 05/15/24 09:35
Matrix: Water
Date Received: 05/17/24 10:29

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	838545	05/17/24 16:11	UI	EET SAV
	Instrument ID: CICP									
Total/NA	Analysis	9056A		1	2 mL	2 mL	840377	05/29/24 21:25	AF	EET SAV
	Instrument ID: CICR									
Total/NA	Analysis	2320B-2011		1			839031	05/20/24 17:14	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	4500 S2 F-2011		1	290 mL	290 mL	839093	05/21/24 14:01	JAS	EET SAV
	Instrument ID: NoEquip									
Total/NA	Analysis	SM 4500 CO2 D		1			839031	05/20/24 17:14	PG	EET SAV
	Instrument ID: MANTECH 2									

Client Sample ID: OU6-MW-259-20240515

Lab Sample ID: 680-250910-2

Date Collected: 05/15/24 08:20
Matrix: Water
Date Received: 05/17/24 10:29

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	838545	05/17/24 16:35	UI	EET SAV
	Instrument ID: CICP									
Total/NA	Analysis	9056A		1	2 mL	2 mL	840377	05/29/24 21:45	AF	EET SAV
	Instrument ID: CICR									
Total/NA	Analysis	2320B-2011		1			839031	05/20/24 17:21	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	4500 S2 F-2011		1	280 mL	280 mL	839093	05/21/24 14:01	JAS	EET SAV
	Instrument ID: NoEquip									
Total/NA	Analysis	SM 4500 CO2 D		1			839031	05/20/24 17:21	PG	EET SAV
	Instrument ID: MANTECH 2									

Client Sample ID: OU6-MW-280-20240515

Lab Sample ID: 680-250910-3

Date Collected: 05/15/24 12:50
Matrix: Water
Date Received: 05/17/24 10:29

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	838545	05/17/24 16:44	UI	EET SAV
	Instrument ID: CICP									
Total/NA	Analysis	9056A		1	2 mL	2 mL	840377	05/29/24 21:52	AF	EET SAV
	Instrument ID: CICR									
Total/NA	Analysis	2320B-2011		1			839031	05/20/24 16:46	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	4500 S2 F-2011		1	290 mL	290 mL	839093	05/21/24 14:01	JAS	EET SAV
	Instrument ID: NoEquip									
Total/NA	Analysis	SM 4500 CO2 D		1			839031	05/20/24 16:46	PG	EET SAV
	Instrument ID: MANTECH 2									

Lab Chronicle

Client: Meadows CMPG, Inc
Job ID: 680-250910-1
Project/Site: DSCR - OU6 Annual

Client Sample ID: OU6-MW-279-20240516
Lab Sample ID: 680-250910-4
Date Collected: 05/16/24 08:00
Matrix: Water
Date Received: 05/17/24 10:29

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	839410	05/23/24 13:48	Y1S	EET SAV
	Instrument ID: CMSAJ									
Total/NA	Prep	3510C			480.3 mL	1 mL	838752	05/20/24 06:53	DS	EET SAV
Total/NA	Analysis	8270E		1	1 mL	1 mL	838829	05/20/24 22:01	T1C	EET SAV
	Instrument ID: CMSD									
Total/NA	Prep	3510C			253.4 mL	1 mL	838962	05/21/24 07:24	DS	EET SAV
Total/NA	Analysis	8270E SIM		1	1 mL	1 mL	838979	05/21/24 18:45	NED	EET SAV
	Instrument ID: CMSY									
Total/NA	Prep	3510C	RE		252.3 mL	1 mL	839376	05/23/24 07:08	DS	EET SAV
Total/NA	Analysis	8270E SIM	RE	1	1 mL	1 mL	839636	05/24/24 19:09	NED	EET SAV
	Instrument ID: CMSY									
Total/NA	Prep	RSK-175			5 mL	5 mL	510325	05/24/24 13:13	WN7O	ELLE
Total/NA	Analysis	RSK-175		1	5 mL	5 mL	510310	05/24/24 21:50	LXF2	ELLE
	Instrument ID: 19506									
Total/NA	Prep	RSK-175	DL		5 mL	5 mL	510325	05/24/24 13:13	WN7O	ELLE
Total/NA	Analysis	RSK-175	DL	10	5 mL	5 mL	510310	05/24/24 22:06	LXF2	ELLE
	Instrument ID: 19506									
Total/NA	Prep	3510C			254.4 mL	1 mL	839075	05/21/24 12:36	RR	EET SAV
Total/NA	Analysis	8081B 8082A		1	1 mL	1 mL	839253	05/22/24 16:17	K1C	EET SAV
	Instrument ID: CSGJ									
Total/NA	Analysis	9056A		1	5 mL	5 mL	838545	05/17/24 16:52	UI	EET SAV
	Instrument ID: CICP									
Total/NA	Analysis	9056A		1	2 mL	2 mL	840377	05/29/24 21:58	AF	EET SAV
	Instrument ID: CICR									
Total Recoverable	Prep	3005A			25 mL	125 mL	838865	05/20/24 12:17	RR	EET SAV
Total Recoverable	Analysis	6020A		1			839420	05/22/24 10:45	BJB	EET SAV
	Instrument ID: ICPMSC									
Total Recoverable	Prep	3005A			25 mL	125 mL	838865	05/20/24 12:17	RR	EET SAV
Total Recoverable	Analysis	6020A		1			839543	05/23/24 15:10	BJB	EET SAV
	Instrument ID: ICPMSD									
Total/NA	Prep	7470A			50 mL	50 mL	839689	05/24/24 13:35	RS	EET SAV
Total/NA	Analysis	7470A		1			839734	05/25/24 10:40	BCB	EET SAV
	Instrument ID: QuickTrace2									
Total/NA	Analysis	2320B-2011		1			839031	05/20/24 16:37	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	4500 S2 F-2011		1	270 mL	270 mL	839093	05/21/24 14:01	JAS	EET SAV
	Instrument ID: NoEquip									
Total/NA	Analysis	9060A		1	40 mL	40 mL	839767	05/23/24 09:10	NVF	EET SAV
	Instrument ID: TOC7									
Total/NA	Analysis	SM 4500 CO2 D		1			839031	05/20/24 16:37	PG	EET SAV
	Instrument ID: MANTECH 2									

Lab Chronicle

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-250910-1

Client Sample ID: OU6-MW-270-20240516

Lab Sample ID: 680-250910-5

Date Collected: 05/16/24 09:10
Matrix: Water
Date Received: 05/17/24 10:29

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	839410	05/23/24 14:09	Y1S	EET SAV
	Instrument ID: CMSAJ									
Total/NA	Prep	RSK-175			5 mL	5 mL	510325	05/24/24 13:13	WN7O	ELLE
Total/NA	Analysis	RSK-175		1	5 mL	5 mL	510310	05/24/24 22:22	LXF2	ELLE
	Instrument ID: 19506									
Total/NA	Analysis	9056A		1	5 mL	5 mL	838545	05/17/24 17:00	UI	EET SAV
	Instrument ID: CICP									
Total/NA	Analysis	9056A		1	2 mL	2 mL	840377	05/29/24 22:05	AF	EET SAV
	Instrument ID: CICR									
Total Recoverable	Prep	3005A			25 mL	125 mL	838865	05/20/24 12:17	RR	EET SAV
Total Recoverable	Analysis	6020A		1			839420	05/22/24 11:17	BJB	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			839036	05/20/24 19:38	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	4500 S2 F-2011		1	280 mL	280 mL	839093	05/21/24 14:01	JAS	EET SAV
	Instrument ID: NoEquip									
Total/NA	Analysis	9060A		1	40 mL	40 mL	839767	05/23/24 09:35	NVF	EET SAV
	Instrument ID: TOC7									
Total/NA	Analysis	SM 4500 CO2 D		1			839036	05/20/24 19:38	PG	EET SAV
	Instrument ID: MANTECH 2									

Client Sample ID: OU6-MW-273-20240516

Lab Sample ID: 680-250910-6

Date Collected: 05/16/24 10:10
Matrix: Water
Date Received: 05/17/24 10:29

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	839410	05/23/24 14:31	Y1S	EET SAV
	Instrument ID: CMSAJ									
Total/NA	Prep	RSK-175			5 mL	5 mL	510325	05/24/24 13:13	WN7O	ELLE
Total/NA	Analysis	RSK-175		1	5 mL	5 mL	510310	05/24/24 22:37	LXF2	ELLE
	Instrument ID: 19506									
Total/NA	Analysis	9056A		1	5 mL	5 mL	838545	05/17/24 17:08	UI	EET SAV
	Instrument ID: CICP									
Total/NA	Analysis	9056A		1	2 mL	2 mL	840377	05/29/24 22:12	AF	EET SAV
	Instrument ID: CICR									
Total Recoverable	Prep	3005A			25 mL	125 mL	838865	05/20/24 12:17	RR	EET SAV
Total Recoverable	Analysis	6020A		1			839420	05/22/24 11:21	BJB	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			839031	05/20/24 17:28	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	4500 S2 F-2011		1	290 mL	290 mL	839093	05/21/24 14:01	JAS	EET SAV
	Instrument ID: NoEquip									
Total/NA	Analysis	9060A		1	40 mL	40 mL	839767	05/23/24 09:58	NVF	EET SAV
	Instrument ID: TOC7									

Lab Chronicle

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-250910-1

Client Sample ID: OU6-MW-273-20240516
Date Collected: 05/16/24 10:10
Date Received: 05/17/24 10:29

Lab Sample ID: 680-250910-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 CO2 D		1			839031	05/20/24 17:28	PG	EET SAV

Client Sample ID: OU6-MW-281-20240516
Date Collected: 05/16/24 13:15
Date Received: 05/17/24 10:29

Lab Sample ID: 680-250910-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	839410	05/23/24 14:52	Y1S	EET SAV
	Instrument ID: CMSAJ									
Total/NA	Prep	RSK-175			5 mL	5 mL	510346	05/24/24 14:22	GM5C	ELLE
Total/NA	Analysis	RSK-175		1	5 mL	5 mL	510310	05/25/24 03:05	LXF2	ELLE
	Instrument ID: 19506									
Total/NA	Prep	RSK-175	DL		5 mL	5 mL	510346	05/24/24 14:22	GM5C	ELLE
Total/NA	Analysis	RSK-175	DL	10	5 mL	5 mL	510310	05/25/24 03:21	LXF2	ELLE
	Instrument ID: 19506									
Total/NA	Analysis	9056A		1	5 mL	5 mL	838545	05/17/24 17:17	UI	EET SAV
	Instrument ID: CICP									
Total/NA	Analysis	9056A		1	2 mL	2 mL	840377	05/29/24 22:18	AF	EET SAV
	Instrument ID: CICR									
Total Recoverable	Prep	3005A			25 mL	125 mL	838865	05/20/24 12:17	RR	EET SAV
Total Recoverable	Analysis	6020A		1			839420	05/22/24 11:25	BJB	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			839031	05/20/24 17:37	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	4500 S2 F-2011		1	260 mL	260 mL	839093	05/21/24 14:01	JAS	EET SAV
	Instrument ID: NoEquip									
Total/NA	Analysis	9060A		1	40 mL	40 mL	839767	05/23/24 10:18	NVF	EET SAV
	Instrument ID: TOC7									
Total/NA	Analysis	SM 4500 CO2 D		1			839031	05/20/24 17:37	PG	EET SAV
	Instrument ID: MANTECH 2									

Client Sample ID: OU6-MW-261-20240516
Date Collected: 05/16/24 11:15
Date Received: 05/17/24 10:29

Lab Sample ID: 680-250910-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	839410	05/23/24 15:14	Y1S	EET SAV
	Instrument ID: CMSAJ									
Total/NA	Prep	RSK-175			5 mL	5 mL	510346	05/24/24 14:22	GM5C	ELLE
Total/NA	Analysis	RSK-175		1	5 mL	5 mL	510310	05/25/24 03:36	LXF2	ELLE
	Instrument ID: 19506									
Total/NA	Analysis	9056A		1	5 mL	5 mL	838545	05/17/24 17:25	UI	EET SAV
	Instrument ID: CICP									
Total/NA	Analysis	9056A		1	2 mL	2 mL	840377	05/29/24 23:04	AF	EET SAV
	Instrument ID: CICR									

Lab Chronicle

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-250910-1

Client Sample ID: OU6-MW-261-20240516

Lab Sample ID: 680-250910-8

Date Collected: 05/16/24 11:15
Matrix: Water
Date Received: 05/17/24 10:29

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			25 mL	125 mL	838865	05/20/24 12:17	RR	EET SAV
Total Recoverable	Analysis	6020A		1			839420	05/22/24 11:29	BJB	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			839031	05/20/24 17:06	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	4500 S2 F-2011		1	310 mL	310 mL	839093	05/21/24 14:01	JAS	EET SAV
	Instrument ID: NoEquip									
Total/NA	Analysis	9060A		1	40 mL	40 mL	839767	05/23/24 10:39	NVF	EET SAV
	Instrument ID: TOC7									
Total/NA	Analysis	SM 4500 CO2 D		1			839031	05/20/24 17:06	PG	EET SAV
	Instrument ID: MANTECH 2									

Client Sample ID: OU6-MW-142-20240515

Lab Sample ID: 680-250910-9

Date Collected: 05/15/24 10:32
Matrix: Water
Date Received: 05/17/24 10:29

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	839410	05/23/24 15:35	Y1S	EET SAV
	Instrument ID: CMSAJ									
Total/NA	Prep	RSK-175			5 mL	5 mL	510325	05/24/24 13:13	WN7O	ELLE
Total/NA	Analysis	RSK-175		1	5 mL	5 mL	510310	05/24/24 22:53	LXF2	ELLE
	Instrument ID: 19506									
Total/NA	Analysis	9056A		1	5 mL	5 mL	838545	05/17/24 17:33	UI	EET SAV
	Instrument ID: CICP									
Total/NA	Analysis	9056A		1	2 mL	2 mL	840377	05/29/24 23:24	AF	EET SAV
	Instrument ID: CICR									
Total Recoverable	Prep	3005A			25 mL	125 mL	838865	05/20/24 12:17	RR	EET SAV
Total Recoverable	Analysis	6020A		1			839420	05/22/24 11:33	BJB	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			839031	05/20/24 16:54	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	4500 S2 F-2011		1	310 mL	310 mL	839093	05/21/24 14:01	JAS	EET SAV
	Instrument ID: NoEquip									
Total/NA	Analysis	9060A		1	40 mL	40 mL	839768	05/23/24 12:48	NVF	EET SAV
	Instrument ID: TOC7									
Total/NA	Analysis	SM 4500 CO2 D		1			839031	05/20/24 16:54	PG	EET SAV
	Instrument ID: MANTECH 2									

Client Sample ID: OU6-MW-278-20240516

Lab Sample ID: 680-250910-10

Date Collected: 05/15/24 12:15
Matrix: Water
Date Received: 05/17/24 10:29

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	839410	05/23/24 15:57	Y1S	EET SAV
	Instrument ID: CMSAJ									

Lab Chronicle

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-250910-1

Client Sample ID: OU6-MW-278-20240516

Lab Sample ID: 680-250910-10

Date Collected: 05/15/24 12:15

Matrix: Water

Date Received: 05/17/24 10:29

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	RSK-175			5 mL	5 mL	510325	05/24/24 13:13	WN7O	ELLE
Total/NA	Analysis	RSK-175		1	5 mL	5 mL	510310	05/24/24 23:08	LXF2	ELLE
	Instrument ID: 19506									
Total/NA	Prep	RSK-175	DL		5 mL	5 mL	510325	05/24/24 13:13	WN7O	ELLE
Total/NA	Analysis	RSK-175	DL	10	5 mL	5 mL	510310	05/24/24 23:24	LXF2	ELLE
	Instrument ID: 19506									
Total/NA	Analysis	9056A		1	5 mL	5 mL	838545	05/17/24 17:41	UI	EET SAV
	Instrument ID: CICP									
Total/NA	Analysis	9056A		1	2 mL	2 mL	840377	05/29/24 23:31	AF	EET SAV
	Instrument ID: CICR									
Total Recoverable	Prep	3005A			25 mL	125 mL	838865	05/20/24 12:17	RR	EET SAV
Total Recoverable	Analysis	6020A		1			839420	05/22/24 11:37	BJB	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			839036	05/20/24 20:04	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	4500 S2 F-2011		1	310 mL	310 mL	839093	05/21/24 14:01	JAS	EET SAV
	Instrument ID: NoEquip									
Total/NA	Analysis	9060A		1	40 mL	40 mL	839768	05/23/24 13:29	NVF	EET SAV
	Instrument ID: TOC7									
Total/NA	Analysis	SM 4500 CO2 D		1			839036	05/20/24 20:04	PG	EET SAV
	Instrument ID: MANTECH 2									

Client Sample ID: OU6-MW-166-20240516

Lab Sample ID: 680-250910-11

Date Collected: 05/16/24 08:58

Matrix: Water

Date Received: 05/17/24 10:29

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	839410	05/23/24 16:18	Y1S	EET SAV
	Instrument ID: CMSAJ									
Total/NA	Prep	RSK-175			5 mL	5 mL	510346	05/24/24 14:22	GM5C	ELLE
Total/NA	Analysis	RSK-175		1	5 mL	5 mL	510310	05/25/24 03:52	LXF2	ELLE
	Instrument ID: 19506									
Total/NA	Analysis	9056A		1	5 mL	5 mL	838545	05/17/24 18:06	UI	EET SAV
	Instrument ID: CICP									
Total/NA	Analysis	9056A		1	2 mL	2 mL	840377	05/29/24 23:38	AF	EET SAV
	Instrument ID: CICR									
Total Recoverable	Prep	3005A			25 mL	125 mL	838865	05/20/24 12:17	RR	EET SAV
Total Recoverable	Analysis	6020A		1			839420	05/22/24 11:41	BJB	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			839036	05/20/24 19:55	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	4500 S2 F-2011		1	290 mL	290 mL	839093	05/21/24 14:01	JAS	EET SAV
	Instrument ID: NoEquip									
Total/NA	Analysis	9060A		1	40 mL	40 mL	839768	05/23/24 13:51	NVF	EET SAV
	Instrument ID: TOC7									

Lab Chronicle

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-250910-1

Client Sample ID: OU6-MW-166-20240516

Lab Sample ID: 680-250910-11

Date Collected: 05/16/24 08:58

Matrix: Water

Date Received: 05/17/24 10:29

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 CO2 D		1			839036	05/20/24 19:55	PG	EET SAV

Client Sample ID: OU6-MW-167-20240516

Lab Sample ID: 680-250910-12

Date Collected: 05/16/24 10:35

Matrix: Water

Date Received: 05/17/24 10:29

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	839410	05/23/24 16:40	Y1S	EET SAV
	Instrument ID: CMSAJ									
Total/NA	Prep	RSK-175			5 mL	5 mL	510346	05/24/24 14:22	GM5C	ELLE
Total/NA	Analysis	RSK-175		1	5 mL	5 mL	510310	05/25/24 04:07	LXF2	ELLE
	Instrument ID: 19506									
Total/NA	Prep	RSK-175	DL		5 mL	5 mL	510346	05/24/24 14:22	GM5C	ELLE
Total/NA	Analysis	RSK-175	DL	50	5 mL	5 mL	510310	05/25/24 04:22	LXF2	ELLE
	Instrument ID: 19506									
Total/NA	Analysis	9056A		1	5 mL	5 mL	838545	05/17/24 18:31	UI	EET SAV
	Instrument ID: CICP									
Total/NA	Analysis	9056A		1	2 mL	2 mL	840377	05/29/24 23:44	AF	EET SAV
	Instrument ID: CICR									
Total Recoverable	Prep	3005A			25 mL	125 mL	838865	05/20/24 12:17	RR	EET SAV
Total Recoverable	Analysis	6020A		1			839420	05/22/24 11:46	BJB	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			839036	05/20/24 20:14	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	4500 S2 F-2011		1	300 mL	300 mL	839307	05/22/24 14:17	JAS	EET SAV
	Instrument ID: NoEquip									
Total/NA	Analysis	9060A		1	40 mL	40 mL	839768	05/23/24 14:10	NVF	EET SAV
	Instrument ID: TOC7									
Total/NA	Analysis	SM 4500 CO2 D		1			839036	05/20/24 20:14	PG	EET SAV
	Instrument ID: MANTECH 2									

Client Sample ID: OU6-MW-249-20240516

Lab Sample ID: 680-250910-13

Date Collected: 05/16/24 13:45

Matrix: Water

Date Received: 05/17/24 10:29

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	839410	05/23/24 17:01	Y1S	EET SAV
	Instrument ID: CMSAJ									

Lab Chronicle

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-250910-1

Client Sample ID: OU6-MW-248-20240516

Lab Sample ID: 680-250910-14

Date Collected: 05/16/24 11:05
Matrix: Water
Date Received: 05/17/24 10:29

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	840104	05/29/24 18:02	P1C	EET SAV
	Instrument ID: CMSAA									
Total/NA	Prep	RSK-175			5 mL	5 mL	510346	05/24/24 14:22	GM5C	ELLE
Total/NA	Analysis	RSK-175		1	5 mL	5 mL	510310	05/25/24 04:38	LXF2	ELLE
	Instrument ID: 19506									
Total/NA	Analysis	9056A		1	5 mL	5 mL	838545	05/17/24 18:39	UI	EET SAV
	Instrument ID: CICP									
Total/NA	Analysis	9056A		1	2 mL	2 mL	840377	05/29/24 23:51	AF	EET SAV
	Instrument ID: CICR									
Total Recoverable	Prep	3005A			25 mL	125 mL	838865	05/20/24 12:17	RR	EET SAV
Total Recoverable	Analysis	6020A		1			839420	05/22/24 11:50	BJB	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			839236	05/21/24 18:18	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	4500 S2 F-2011		1	310 mL	310 mL	839307	05/22/24 14:17	JAS	EET SAV
	Instrument ID: NoEquip									
Total/NA	Analysis	9060A		1	40 mL	40 mL	839768	05/23/24 14:34	NVF	EET SAV
	Instrument ID: TOC7									
Total/NA	Analysis	SM 4500 CO2 D		1			839236	05/21/24 18:18	PG	EET SAV
	Instrument ID: MANTECH 2									

Client Sample ID: OU6-MW-298-20240516

Lab Sample ID: 680-250910-15

Date Collected: 05/16/24 10:10
Matrix: Water
Date Received: 05/17/24 10:29

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	839410	05/23/24 17:44	Y1S	EET SAV
	Instrument ID: CMSAJ									
Total/NA	Prep	RSK-175			5 mL	5 mL	510346	05/24/24 14:22	GM5C	ELLE
Total/NA	Analysis	RSK-175		1	5 mL	5 mL	510310	05/25/24 04:53	LXF2	ELLE
	Instrument ID: 19506									
Total/NA	Analysis	9056A		1	5 mL	5 mL	838545	05/17/24 18:48	UI	EET SAV
	Instrument ID: CICP									
Total/NA	Analysis	9056A		1	2 mL	2 mL	840377	05/29/24 23:57	AF	EET SAV
	Instrument ID: CICR									
Total Recoverable	Prep	3005A			25 mL	125 mL	838865	05/20/24 12:17	RR	EET SAV
Total Recoverable	Analysis	6020A		1			839420	05/22/24 11:54	BJB	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			839236	05/21/24 18:28	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	4500 S2 F-2011		1	310 mL	310 mL	839307	05/22/24 14:17	JAS	EET SAV
	Instrument ID: NoEquip									
Total/NA	Analysis	9060A		1	40 mL	40 mL	839768	05/23/24 14:57	NVF	EET SAV
	Instrument ID: TOC7									

Lab Chronicle

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-250910-1

Client Sample ID: OU6-MW-298-20240516
Lab Sample ID: 680-250910-15
Date Collected: 05/16/24 10:10
Matrix: Water
Date Received: 05/17/24 10:29

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 CO2 D		1			839236	05/21/24 18:28	PG	EET SAV

Client Sample ID: OU6-MW-257-20240516
Lab Sample ID: 680-250910-16
Date Collected: 05/16/24 09:10
Matrix: Water
Date Received: 05/17/24 10:29

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	839410	05/23/24 18:06	Y1S	EET SAV
	Instrument ID: CMSAJ									

Client Sample ID: OU6-LAWMNQ-20240516
Lab Sample ID: 680-250910-17
Date Collected: 05/16/24 12:40
Matrix: Water
Date Received: 05/17/24 10:29

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	839410	05/23/24 18:27	Y1S	EET SAV
	Instrument ID: CMSAJ									

Client Sample ID: OU6-MW-299-20240516
Lab Sample ID: 680-250910-18
Date Collected: 05/16/24 14:10
Matrix: Water
Date Received: 05/17/24 10:29

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	839410	05/23/24 18:49	Y1S	EET SAV
	Instrument ID: CMSAJ									

Client Sample ID: OU6-MW-286-20240516
Lab Sample ID: 680-250910-19
Date Collected: 05/16/24 12:00
Matrix: Water
Date Received: 05/17/24 10:29

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	839410	05/23/24 19:10	Y1S	EET SAV
	Instrument ID: CMSAJ									
Total/NA	Prep	3510C			258.4 mL	1 mL	839167	05/22/24 08:13	DS	EET SAV
Total/NA	Analysis	8270E SIM ID		1	1 mL	1 mL	839173	05/22/24 16:10	NED	EET SAV
	Instrument ID: CMSX									
Total/NA	Prep	RSK-175			5 mL	5 mL	510346	05/24/24 14:22	GM5C	ELLE
Total/NA	Analysis	RSK-175		1	5 mL	5 mL	510310	05/25/24 05:24	LXF2	ELLE
	Instrument ID: 19506									
Total/NA	Prep	RSK-175	DL		5 mL	5 mL	510346	05/24/24 14:22	GM5C	ELLE
Total/NA	Analysis	RSK-175	DL	50	5 mL	5 mL	510310	05/25/24 05:40	LXF2	ELLE
	Instrument ID: 19506									
Total/NA	Analysis	9056A		1	5 mL	5 mL	838545	05/17/24 18:56	UI	EET SAV
	Instrument ID: CICP									
Total/NA	Analysis	9056A		1	2 mL	2 mL	840377	05/30/24 00:04	AF	EET SAV
	Instrument ID: CICR									

Lab Chronicle

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-250910-1

Client Sample ID: OU6-MW-286-20240516

Lab Sample ID: 680-250910-19

Date Collected: 05/16/24 12:00
Matrix: Water
Date Received: 05/17/24 10:29

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			25 mL	125 mL	838865	05/20/24 12:17	RR	EET SAV
Total Recoverable	Analysis	6020A		1			839420	05/22/24 12:06	BJB	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			839236	05/21/24 18:45	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	4500 S2 F-2011		1	280 mL	280 mL	839307	05/22/24 14:17	JAS	EET SAV
	Instrument ID: NoEquip									
Total/NA	Analysis	9060A		1	40 mL	40 mL	839768	05/23/24 15:20	NVF	EET SAV
	Instrument ID: TOC7									
Total/NA	Analysis	SM 4500 CO2 D		1			839236	05/21/24 18:45	PG	EET SAV
	Instrument ID: MANTECH 2									

Client Sample ID: OU6-DMW-34B-20240516

Lab Sample ID: 680-250910-20

Date Collected: 05/16/24 13:55
Matrix: Water
Date Received: 05/17/24 10:29

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	839604	05/24/24 14:41	P1C	EET SAV
	Instrument ID: CMSAJ									
Total/NA	Prep	RSK-175			5 mL	5 mL	510346	05/24/24 14:24	GM5C	ELLE
Total/NA	Analysis	RSK-175		1	5 mL	5 mL	510310	05/25/24 05:55	LXF2	ELLE
	Instrument ID: 19506									
Total/NA	Analysis	9056A		1	5 mL	5 mL	838545	05/17/24 19:04	UI	EET SAV
	Instrument ID: CICP									
Total/NA	Analysis	9056A		1	2 mL	2 mL	840377	05/30/24 00:11	AF	EET SAV
	Instrument ID: CICR									
Total Recoverable	Prep	3005A			25 mL	125 mL	838865	05/20/24 12:17	RR	EET SAV
Total Recoverable	Analysis	6020A		1			839420	05/22/24 12:10	BJB	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			839236	05/21/24 18:52	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	4500 S2 F-2011		1	310 mL	310 mL	839307	05/22/24 14:17	JAS	EET SAV
	Instrument ID: NoEquip									
Total/NA	Analysis	9060A		1	40 mL	40 mL	839768	05/23/24 15:43	NVF	EET SAV
	Instrument ID: TOC7									
Total/NA	Analysis	SM 4500 CO2 D		1			839236	05/21/24 18:52	PG	EET SAV
	Instrument ID: MANTECH 2									

Client Sample ID: OU6-MW-94-20240516

Lab Sample ID: 680-250910-21

Date Collected: 05/16/24 10:20
Matrix: Water
Date Received: 05/17/24 10:29

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	839410	05/23/24 19:53	Y1S	EET SAV
	Instrument ID: CMSAJ									

Lab Chronicle

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-250910-1

Client Sample ID: OU6-MW-94-20240516

Lab Sample ID: 680-250910-21

Date Collected: 05/16/24 10:20
Matrix: Water
Date Received: 05/17/24 10:29

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	RSK-175			5 mL	5 mL	510346	05/24/24 14:24	GM5C	ELLE
Total/NA	Analysis	RSK-175		1	5 mL	5 mL	510310	05/25/24 06:11	LXF2	ELLE
	Instrument ID: 19506									
Total/NA	Analysis	9056A		1	5 mL	5 mL	838545	05/17/24 19:12	UI	EET SAV
	Instrument ID: CICP									
Total/NA	Analysis	9056A		1	2 mL	2 mL	840377	05/30/24 00:17	AF	EET SAV
	Instrument ID: CICR									
Total Recoverable	Prep	3005A			25 mL	125 mL	838865	05/20/24 12:17	RR	EET SAV
Total Recoverable	Analysis	6020A		1			839420	05/22/24 12:14	BJB	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			839236	05/21/24 18:36	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	4500 S2 F-2011		1	290 mL	290 mL	839307	05/22/24 14:17	JAS	EET SAV
	Instrument ID: NoEquip									
Total/NA	Analysis	9060A		1	40 mL	40 mL	839768	05/23/24 16:04	NVF	EET SAV
	Instrument ID: TOC7									
Total/NA	Analysis	SM 4500 CO2 D		1			839236	05/21/24 18:36	PG	EET SAV
	Instrument ID: MANTECH 2									

Client Sample ID: OU6-MW-93-20240516

Lab Sample ID: 680-250910-22

Date Collected: 05/16/24 09:45
Matrix: Water
Date Received: 05/17/24 10:29

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	839604	05/24/24 15:02	P1C	EET SAV
	Instrument ID: CMSAJ									
Total/NA	Prep	3510C			264.3 mL	1 mL	839167	05/22/24 08:13	DS	EET SAV
Total/NA	Analysis	8270E SIM ID		1	1 mL	1 mL	839173	05/22/24 16:32	NED	EET SAV
	Instrument ID: CMSX									

Client Sample ID: DUP-2-20240516

Lab Sample ID: 680-250910-23

Date Collected: 05/16/24 00:00
Matrix: Water
Date Received: 05/17/24 10:29

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	839604	05/24/24 15:24	P1C	EET SAV
	Instrument ID: CMSAJ									
Total/NA	Prep	3510C			237.4 mL	1 mL	839167	05/22/24 08:13	DS	EET SAV
Total/NA	Analysis	8270E SIM ID		1	1 mL	1 mL	839173	05/22/24 16:55	NED	EET SAV
	Instrument ID: CMSX									

Lab Chronicle

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-250910-1

Client Sample ID: TRIP-BLANK-20240516

Date Collected: 05/16/24 00:00
Date Received: 05/17/24 10:29

Lab Sample ID: 680-250910-24

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	839410	05/23/24 13:26	Y1S	EET SAV
	Instrument ID: CMSAJ									

Laboratory References:

EET SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: Meadows CMPG, Inc
Job ID: 680-250910-1
Project/Site: DSCR - OU6 Annual

Laboratory: Eurofins Savannah

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
ANAB	Dept. of Defense ELAP	L2463	09-22-24
Virginia	NELAP	460161	06-14-24

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	0001.01	05-30-24

Method Summary

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-250910-1

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds (GC/MS)	SW846	EET SAV
8270E	Semivolatile Organic Compounds (GC/MS)	SW846	EET SAV
8270E SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	EET SAV
8270E SIM ID	Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)	SW846	EET SAV
RSK-175	Dissolved Gases (GC)	RSK	ELLE
8081B 8082A	Organochlorine Pesticides & PCBs (GC)	SW846	EET SAV
9056A	Anions, Ion Chromatography	SW846	EET SAV
6020A	Metals (ICP/MS)	SW846	EET SAV
7470A	Mercury (CVAA)	SW846	EET SAV
2320B-2011	Alkalinity, Total	SM	EET SAV
4500 S2 F-2011	Sulfide, Total	SM	EET SAV
9060A	Organic Carbon, Total (TOC)	SW846	EET SAV
SM 4500 CO2 D	Carbon Dioxide and Forms of Alkalinity by Calculation	SM	EET SAV
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET SAV
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	EET SAV
5030C	Purge and Trap	SW846	EET SAV
7470A	Preparation, Mercury	SW846	EET SAV
RSK-175	Dissolved Gases Prep	RSK	ELLE

Protocol References:

RSK = Sample Prep And Calculations For Dissolved Gas Analysis In Water Samples Using A GC Headspace Equilibration Technique, RSKSOP-175, Rev. 0, 8/11/94, USEPA Research Lab

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Eurofins Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Phone (912) 354-7858 Phone (912) 352-0165

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: Tim, TJ, Quin and Bruce	Lab PM: Lanier, Jerry	Carrier Tracking No(s):	COC No:
Client Contact: Andrew VanBuesking	Phone: 757-589-5825	E-Mail: Jerry.Lanier@et.eurofinsus.com	State of Origin: VA	Page: Page 1 of 3
Company: Meadows CMPG	PWSID:			Job #:
Address: 2107 Granby St	Due Date Requested:			
City: Norfolk	TAT Requested (days): STD			
State, Zip: VA	Compliance Project: Δ Yes Δ No			
Phone: 757-623-3107	PO #: 0045-0011			
Email: avanbuesking@meadowscmpg	WO #:			
Project Name: OU6 Annual	Project #: 68020891			
Site: DSCR, OU6	SSOW#:			

Analysis Requested

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	8260D_DOD5 - (MOD) Volatiles	RSK_175_DOD5 - Ethane, Ethene, Methane	9060A - TOC	9056A_OF28D_D5 - Chloride & Sulfate 9056A_OF_48H_D5 - Local Method	SM4500_S2_F - Sulfide, Total	6020A_DOD5 - Manganese	SM4500_CO2_D - Carbon Dioxide	2320B - Alkalinity	8270E_DOD5 - (MOD) Semivolatiles (without PAHs)	8270E_SIM_DOD5 - Routine PAH	8081B_8082A_D5 - Routine Pesticides & PCBs	7470A_DOD5 - Mercury 6020A_DOD5- (MOD) TAL Metals	8270E_SIM_ID_D5 Local Method - Dioxane	Total Number of Containers	Special Instructions/Note:
			Preservation Code:			A	A	S	N	CB	D	N	N	N	N	N	D	N		
OU6-MW-277-20240515	5/15/24	0935	G	W					1	2	1	1	1						6	Sample from yesterday
OU6-MW-259-20240515	5/15/24	0820	G	W					1	2	1	1	1						6	Sample from yesterday
OU6-MW-280-20240515	5/15/24	1250	G	W					1	2	1	1	1						6	Sample from yesterday
OU6-MW-279-20240516	5/16/24	0800	G	W		3	3	3	1	2	1	1	1	2	2	2	1		22	
OU6-MW-270-20240516	5/16/24	0910	G	W		3	3	3	1	2	1	1	1						15	
OU6-MW-273-20240516	5/16/24	1010	G	W		3	3	3	1	2	1	1	1						15	
OU6-MW-281-20240516	5/16/24	1315	G	W		3	3	3	1	2	1	1	1						15	
OU6-MW-261-20240516	5/16/24	1115	G	W		3	3	3	1	2	1	1	1						15	
OU6-MW-142-20240515	5/15/24	1032	G	W		3	3	3	1	2	1	1	1						15	Sample from yesterday
OU6-MW-278-20240516	5/15/24	1215	G	W		3	3	3	1	2	1	1	1						15	
OU6-MW-166-20240516	5/16/24	0858	G	W		3	3	3	1	2	1	1	1						15	

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ■ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ■ Disposal By Lab

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by: | Date: | Time: | Method of Shi

Relinquished by: BRUCE DIGGS	Date/Time: 5-16-2024/1600	Company	Received by:	
Relinquished by:	Date/Time:	Company	Received by:	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 5/17/24 1029 Company: Eurofins

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 3.9/4.0 0.8/0.9 0.6/0.7 2.9/3.0

680-250910 Chain of Custody

Ver: 01/16/2019

Eurofins Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Phone (912) 354-7858 Phone (912) 352-0165

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: Tim, TJ, Quin and Bruce	Lab PM: Lanier, Jerry	Carrier Tracking No(s):	COC No:
Client Contact: Andrew VanBuesking	Phone: 757-589-5825	E-Mail: Jerry.Lanier@et.eurofinsus.com	State of Origin: VA	Page: Page 2 of 3
Company: Meadows CMPG	PWSID:			Job #:
Address: 2107 Granby St	Due Date Requested:			
City: Norfolk	TAT Requested (days): STD			
State, Zip: VA	Compliance Project: Δ Yes Δ No			
Phone: 757-623-3107	PO #: 0045-0011			
Email: avanbuesking@meadowscmpg	WO #:			
Project Name: OU6 Annual	Project #: 68020891			
Site: DSCR, OU6	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	8260D_DOD5 - (MOD) Volatiles	RSK_175_DOD5 - Ethane, Ethene, Methane	9060A - TOC	9056A_OF28D_D5 - Chloride & Sulfate 9056A_OF_48H_D5 - Local Method	SM4500_S2_F - Sulfide, Total	6020A_DOD5 - Manganese	SM4500_CO2_D - Carbon Dioxide	2320B - Alkalinity	8270E_DOD5 - (MOD) Semivolatiles (without PAHs)	8270E_SIM_DOD5 - Routine PAH	8081B_8082A_D5 - Routine Pesticides & PCBs	7470A_DOD5 - Mercury 6020A_DOD5- (MOD) TAL Metals	8270E_SIM_ID_D5 Local Method - Dioxane	Total Number of containers	Special Instructions/Note:
			Preservation Code:			A	A	S	N	CB	D	N	N	N	N	N	D	N		
OU6-MW-167-20240516	5/16/24	1035	G	W		3	3	3	1	2	1	1	1						15	
OU6-MW-249-20240516	5/16/24	1345	G	W		3	3	3	1	2	1	1	1						15	VOC analysis only
OU6-MW-248-20240516	5/16/24	1105	G	W		3	3	3	1	2	1	1	1						15	
OU6-MW-298-20240516	5/16/24	1010	G	W		3	3	3	1	2	1	1	1						15	
OU6-MW-257-20240516	5/16/24	0910	G	W		3													3	
OU6-LAWMNQ-20240516	5/16/24	1240	G	W		3													3	Sample ID - LAWMWQ-20240516
OU6-MW-299-20240516	5/16/24	1410	G	W		3													3	
OU6-MW-286-20240516	5/16/24	1200	G	W		3	3	3	1	2	1	1	1					2	17	
OU6-DMW-34B-20240516	5/16/24	1355	G	W		3	3	3	1	2	1	1	1						15	Sampled - DMW-34B-20240516
OU6-MW-94-20240516	5/16/24	1020	G	W		3	3	3	1	2	1	1	1						15	
OU6-MW-93-20240516	5/16/24	0945	G	W		3												2	5	

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ■ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ■ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by: | Date: | Time: | Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	5/17/24 1029	EUN

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 3.9 4.0 0.8 1.0 9 0.6 1.0 7 2.9 3.0

Ver: 01/16/2019

Eurofins Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Phone (912) 354-7858 Phone (912) 352-0165

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: Tim, TJ, Quin and Bruce	Lab PM: Lanier, Jerry	Carrier Tracking No(s):	COC No:
Client Contact: Andrew VanBuesking	Phone: 757-589-5825	E-Mail: Jerry.Lanier@et.eurofinsus.com	State of Origin: VA	Page: Page 3 of 3
Company: Meadows CMPG	PWSID:			Job #:
Address: 2107 Granby St	Due Date Requested:			
City: Norfolk	TAT Requested (days): STD			
State, Zip: VA	Compliance Project: Δ Yes Δ No			
Phone: 757-623-3107	PO #: 0045-0011			
Email: avanbuesking@meadowscmpg	WO #:			
Project Name: OU6 Annual	Project #: 68020891			
Site: DSCR, OU6	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	8260D_DOD5 - (MOD) Volatiles		RSK_175_DOD5 - Ethane, Ethene, Methane	9060A - TOC	9056A_OF28D_D5 - Chloride & Sulfate 9056A_OF_48H_D5 - Local Method	SM4500_S2_F - Sulfide, Total	6020A_DOD5 - Manganese	SM4500_CO2_D - Carbon Dioxide	2320B - Alkalinity		8270E_DOD5 - (MOD) Semivolatiles (without PAHs)	8270E_SIM_DOD5 - Routine PAH	8081B_8082A_D5 - Routine Pesticides & PCBs	7470A_DOD5 - Mercury 6020A_DOD5- (MOD) TAL Metals	8270E_SIM_ID_D5 Local Method - Dioxane	Total Number of containers	Special Instructions/Note:
Preservation Code:						A		A	S	N	CB	D	N	N		N	N	N	D	N		
DUP-2-20240516	5/16/24		G	W		3														2	5	Dioxane should be in here
TRIP-BLANK-20240516	5/16/24		G	W		2															2	
																					0	
																					0	
																					0	
																					0	
																					0	
																					0	
																					0	
																					0	
																					0	

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ■ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ■ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 5/17/24 1029	Company EUROFINS

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 3.9/4.0 0.8/0.9 0.6/0.7 2.9/3.0

Ver: 01/16/2019

Eurofins Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Phone: 912-354-7858 Fax: 912-352-0165

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Lanier, Jerry A	Carrier Tracking No(s):	COC No: 680-772883.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Jerry.Lanier@et.eurofinsus.com	State of Origin: Virginia	Page: Page 1 of 2
Company: Eurofins Lancaster Laboratories Environm		Accreditations Required (See note): Dept. of Defense ELAP - A2LA; DoD - A2LA; DoD ELAP - A2 ...		Job #: 680-250910-1
Address: 2425 New Holland Pike,	Due Date Requested: 6/3/2024	Analysis Requested		Preservation Codes:
City: Lancaster	TAT Requested (days):			
State, Zip: PA, 17601				
Phone: 717-656-2300(Tel)	PO #:			
Email:	WO #:			
Project Name: DSCR - OU6 Annual	Project #: 68020891			Other:
Site: Meadows CMPG	SSOW#:			

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	RSK_175_DOD5/RSK_HS_Prep (MOD) Dissolved Gases (GC)	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
OU6-MW-279-20240516 (680-250910-4)	5/16/24	08:00 Eastern		Water			X	3	
OU6-MW-270-20240516 (680-250910-5)	5/16/24	09:10 Eastern		Water			X	3	
OU6-MW-273-20240516 (680-250910-6)	5/16/24	10:10 Eastern		Water			X	3	
OU6-MW-281-20240516 (680-250910-7)	5/16/24	13:15 Eastern		Water			X	3	
OU6-MW-261-20240516 (680-250910-8)	5/16/24	11:15 Eastern		Water			X	3	
OU6-MW-142-20240515 (680-250910-9)	5/15/24	10:32 Eastern		Water			X	3	
OU6-MW-278-20240516 (680-250910-10)	5/15/24	12:15 Eastern		Water			X	3	
OU6-MW-166-20240516 (680-250910-11)	5/16/24	08:58 Eastern		Water			X	3	
OU6-MW-167-20240516 (680-250910-12)	5/16/24	10:35 Eastern		Water			X	3	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Southeast, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Southeast, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Southeast, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Southeast, LLC

Possible Hazard Identification: Unconfirmed	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time: 5/22/24 0945	Company: ECHET

Custody Seals Intact: X Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: R: 5.5 5.9 C: 5.1 3.5

Ver: 04/02/2024

Eurofins Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Phone: 912-354-7858 Fax: 912-352-0165

Chain of Custody Record

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Client Information (Sub Contract Lab)	Sampler:	Lab PM: Lanier, Jerry A	Carrier Tracking No(s):	COC No: 680-772883 2
Client Contact: Shipping/Receiving	Phone:	E-Mail: Jerry.Lanier@et.eurofinsus.com	State of Origin: Virginia	Page: Page 2 of 2
Company: Eurofins Lancaster Laboratories Environm		Accreditations Required (See note): Dept. of Defense ELAP - A2LA; DoD - A2LA; DoD ELAP - A2 ...		Job #: 680-250910-1
Address: 2425 New Holland Pike,	Due Date Requested: 6/3/2024			Preservation Codes:
City: Lancaster	TAT Requested (days):			
State, Zip: PA, 17601				
Phone: 717-656-2300(Tel)	PO #:			
Email:	WO #:			
Project Name: DSCR - OU6 Annual	Project #: 68020891			
Site: Meadows CMPG	SSOW#:			Other:

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	RSK_175_DOD5/RSK_HS_Prep (MOD) Dissolved Gases (GC)	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
OU6-MW-248-20240516 (680-250910-14)	5/16/24	11:05 Eastern		Water			X	3	
OU6-MW-298-20240516 (680-250910-15)	5/16/24	10:10 Eastern		Water			X	3	
OU6-MW-286-20240516 (680-250910-19)	5/16/24	12:00 Eastern		Water			X	3	
OU6-DMW-34B-20240516 (680-250910-20)	5/16/24	13:55 Eastern		Water			X	3	
OU6-MW-94-20240516 (680-250910-21)	5/16/24	10:20 Eastern		Water			X	3	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Southeast, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Southeast, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Southeast, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Southeast, LLC.

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 5/22/24 0914	Company: EUROT

Custody Seals Intact: X Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: IR:5.5 3.9 C:5.1 3.5

Ver: 04/02/2024

Login Sample Receipt Checklist

Client: Meadows CMPG, Inc

Job Number: 680-250910-1

Login Number: 250910
List Number: 1
Creator: Munro, Caroline

List Source: Eurofins Savannah

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	False	Refer to Job Narrative for details.
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Meadows CMPG, Inc

Job Number: 680-250910-1

Login Number: 250910
List Number: 2
Creator: Santiago, Nathaniel

List Source: Eurofins Lancaster Laboratories Environment Testing, LLC
List Creation: 05/22/24 01:03 PM

Question	Answer	Comment
The cooler's custody seal is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature acceptable,where thermal pres is required(</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV:Container Temp acceptable,where thermal pres is required (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
Sample custody seals are intact.	N/A	
VOA sample vials do not have headspace >6mm in diameter (none, if from WV)?	False	Headspace greater than 6mm in diameter in some but not all containers

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ANALYTICAL REPORT

PREPARED FOR

Attn: Kandyce Keller
Meadows CMPG, Inc
2107 Granby Street
Norfolk, Virginia 23517

Generated 6/3/2024 4:31:58 PM

JOB DESCRIPTION

DSCR - OU6 Annual

JOB NUMBER

680-250965-1

Eurofins Savannah
5102 LaRoche Avenue
Savannah GA 31404

See page two for job notes and contact information.

my EOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Southeast, LLC Project Manager.

Authorization



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Authorized for release by
David Fuller, Project Manager
David.Fuller@et.eurofinsus.com
Designee for
Jerry Lanier, Project Manager I
Jerry.Lanier@et.eurofinsus.com
(912)250-0281

Definitions/Glossary

Client: Meadows CMPG, Inc
Job ID: 680-250965-1
Project/Site: DSCR - OU6 Annual

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Estimated: The analyte was positively identified; the quantitation is an estimation
J1	Estimated: The quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.
M	Manual integrated compound.
Q	One or more quality control criteria failed.
U	Undetected at the Limit of Detection.

GC VOA

Qualifier	Qualifier Description
D	The reported value is from a dilution.
J	Estimated: The analyte was positively identified; the quantitation is an estimation
M	Manual integrated compound.
U	Undetected at the Limit of Detection.

HPLC/IC

Qualifier	Qualifier Description
D	The reported value is from a dilution.
J	Estimated: The analyte was positively identified; the quantitation is an estimation
M	Manual integrated compound.
U	Undetected at the Limit of Detection.

Metals

Qualifier	Qualifier Description
J	Estimated: The analyte was positively identified; the quantitation is an estimation
U	Undetected at the Limit of Detection.

General Chemistry

Qualifier	Qualifier Description
J	Estimated: The analyte was positively identified; the quantitation is an estimation
J1	Estimated: The quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.
U	Undetected at the Limit of Detection.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Sample Summary

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-250965-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-250965-1	OU6-MW-288-20240517	Water	05/17/24 08:35	05/18/24 10:06
680-250965-2	OU6-MW-159-20240517	Water	05/17/24 10:00	05/18/24 10:06
680-250965-3	OU6-MW-258-20240517	Water	05/17/24 08:50	05/18/24 10:06
680-250965-4	OU6-MW-262-20240517	Water	05/17/24 10:00	05/18/24 10:06
680-250965-5	OU6-MW-171-20240517	Water	05/17/24 09:10	05/18/24 10:06
680-250965-6	OU6-MW-165-20240517	Water	05/17/24 10:45	05/18/24 10:06
680-250965-7	TRIP-BLANK-20240517	Water	05/17/24 00:00	05/18/24 10:06

Job Narrative
680-250965-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 5/18/2024 10:06 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.9°C.

GC/MS VOA
Method 8260D_DOD5: The initial calibration verification (ICV) analyzed in batch 680-836351 was outside method criteria for the following analyte(s): Carbon disulfide. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated. The data has been qualified and reported.

Method 8260D_DOD5: The initial calibration verification (ICV) analyzed in batch 680-836362 was outside method criteria for the following analyte(s): Bromoform and Carbon disulfide. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

Method 8260D_DOD5: The continuing calibration verification (CCV) associated with batch 680-840324 recovered above the upper control limit for Bromochloromethane, Carbon disulfide, Carbon tetrachloride, Cyclohexane, 1,1-Dichloroethene, 2,2-Dichloropropane, n-Butylbenzene and 1,1,2-Trichloro-1,2,2-trifluoroethane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8260D_DOD5: The laboratory control sample (LCS) for analytical batch 680-840324 recovered outside control limits for the following analytes: Bromochloromethane. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 8260D_DOD5: The laboratory control sample duplicate (LCSD) for analytical batch 680-840324 recovered outside control limits for the following analytes: Cyclohexane, Methylcyclohexane, n-Butylbenzene and 1,1,2-Trichloro-1,2,2-trifluoroethane. These analytes were biased high in the LCSD and were not detected in the associated samples; therefore, the data have been reported.

Method 8260D_DOD5: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for analytical batch 680-840324 recovered outside control limits for the following analytes: Dichlorodifluoromethane, Methylcyclohexane and 1,1,2-Trichloro-1,2,2-trifluoroethane.

Method 8260D_DOD5: The method blank for 680-840324 contained Methylcyclohexane above the method detection limit (MDL). Associated samples were not re-analyzed because the method blank results were less than the reporting limit (RL) OR practical quantitation limit (PQL).

Method 8260D_DOD5: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with analytical batch 680-840324.

Method 8260D_DOD5: Surrogate recovery for the following sample was outside control limits: OU6-MW-262-20240517 (680-250965-4). Evidence of matrix interference due to high target analytes is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8260D_DOD5: Surrogate recovery for the following sample was outside the upper control limit: TRIP-BLANK-20240517 (680-250965-7). This sample did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

Method 8260D_DOD5: The continuing calibration verification (CCV) associated with batch 680-840504 recovered above the upper control limit for Bromoform. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8260D_DOD5: The laboratory control sample (LCS) for analytical batch 680-840504 recovered outside control limits for the following analytes: Bromoform. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 8260D_DOD5: The laboratory control sample duplicate (LCSD) for analytical batch 680-840504 recovered outside control limits for the following analytes: Bromoform and 1,1,2,2-Tetrachloroethane. These analytes were biased high in the LCSD and were not detected in the associated samples; therefore, the data have been reported.

Method 8260D_DOD5: The method blank for 680-840504 contained Methylcyclohexane above the method detection limit (MDL). Associated samples were not re-analyzed because the method blank results were less than the reporting limit (RL) OR practical quantitation limit (PQL).

Method 8260D_DOD5: The continuing calibration verification (CCV) associated with batch 680-840531 recovered outside acceptance criteria, low biased, for 1,2-Dibromo-3-Chloropropane. A reporting limit (RL) standard was analyzed, and the target analytes are detected. Since the associated samples were non-detect for the analyte(s), the data are reported.

Method 8260D_DOD5: The laboratory control sample (LCS) for analytical batch 680-840531 recovered outside control limits for the following analytes: Bromobenzene, 2-Chlorotoluene, 4-Chlorotoluene, N-Propylbenzene, o-Xylene, Styrene, 1,2,4-Trimethylbenzene, 1,3,5-Trimethylbenzene and Xylenes, Total. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 8260D_DOD5: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for analytical batch 680-840531 recovered outside control limits for the following analytes: Several compound.

Method 8260D_DOD5: The method blank for analytical batch 680-840531 contained 4-Isopropyltoluene and n-Butylbenzene above the method detection limit (MDL). Associated samples were not re-analyzed because the method blank results were less than the reporting limit (RL) OR practical quantitation limit (PQL).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Metals
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
Method 2320B: The sample duplicate precision for the following sample associated with analytical batch 680-839258 was outside control limits: (752-19892-A-1 DU) and (680-250965-E-1 DU). The associated Laboratory Control Sample / Laboratory Control Sample Duplicate (LCS/LCSD) precision met acceptance criteria.

Method SM4500_CO2_D: The sample duplicate precision for the following sample associated with analytical batch 680-839258 was outside control limits: (752-19892-A-1 DU) and (680-250965-E-1 DU). The associated Laboratory Control Sample / Laboratory Control Sample Duplicate (LCS/LCSD) precision met acceptance criteria.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-250965-1

Client Sample ID: OU6-MW-288-20240517
Date Collected: 05/17/24 08:35
Date Received: 05/18/24 10:06

Lab Sample ID: 680-250965-1
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			05/31/24 14:41	1
Benzene	1.0	U	2.0	0.27	ug/L			05/31/24 14:41	1
Bromobenzene	0.50	U Q	1.0	0.24	ug/L			05/31/24 14:41	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			05/31/24 14:41	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			05/31/24 14:41	1
Bromoform	2.0	U	2.5	0.59	ug/L			05/31/24 14:41	1
Bromomethane	10	U	20	3.7	ug/L			05/31/24 14:41	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			05/31/24 14:41	1
Carbon disulfide	1.0	U Q	2.0	0.43	ug/L			05/31/24 14:41	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			05/31/24 14:41	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			05/31/24 14:41	1
Chloroethane	10	U	20	4.6	ug/L			05/31/24 14:41	1
Chloroform	1.0	U	2.0	0.27	ug/L			05/31/24 14:41	1
Chloromethane	2.0	U	2.5	0.54	ug/L			05/31/24 14:41	1
2-Chlorotoluene	0.50	U Q	1.0	0.25	ug/L			05/31/24 14:41	1
4-Chlorotoluene	1.0	U Q	2.0	0.41	ug/L			05/31/24 14:41	1
cis-1,2-Dichloroethene	**0.43**	**J M**	2.0	0.25	ug/L			05/31/24 14:41	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			05/31/24 14:41	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			05/31/24 14:41	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			05/31/24 14:41	1
1,2-Dibromo-3-Chloropropane	5.0	U Q	10	1.8	ug/L			05/31/24 14:41	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			05/31/24 14:41	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			05/31/24 14:41	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/31/24 14:41	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/31/24 14:41	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/31/24 14:41	1
Dichlorodifluoromethane	1.0	U	2.0	0.36	ug/L			05/31/24 14:41	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			05/31/24 14:41	1
1,2-Dichloroethane	1.0	U M	2.0	0.25	ug/L			05/31/24 14:41	1
1,1-Dichloroethene	**0.96**	**J**	2.0	0.33	ug/L			05/31/24 14:41	1
1,2-Dichloroethene, Total	**0.43**	**J**	2.0	0.37	ug/L			05/31/24 14:41	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			05/31/24 14:41	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			05/31/24 14:41	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			05/31/24 14:41	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			05/31/24 14:41	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			05/31/24 14:41	1
Hexachlorobutadiene	1.0	U Q	5.0	0.22	ug/L			05/31/24 14:41	1
2-Hexanone	10	U Q	20	3.2	ug/L			05/31/24 14:41	1
Isopropylbenzene	1.0	U Q	2.0	0.26	ug/L			05/31/24 14:41	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			05/31/24 14:41	1
Methyl acetate	10	U Q	20	3.2	ug/L			05/31/24 14:41	1
Methylcyclohexane	1.0	U	2.0	0.33	ug/L			05/31/24 14:41	1
Methylene Chloride	10	U	20	3.2	ug/L			05/31/24 14:41	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			05/31/24 14:41	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			05/31/24 14:41	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			05/31/24 14:41	1
Naphthalene	5.0	U Q	10	2.4	ug/L			05/31/24 14:41	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			05/31/24 14:41	1
N-Propylbenzene	1.0	U Q	2.0	0.41	ug/L			05/31/24 14:41	1

Client Sample ID: OU6-MW-288-20240517
Date Collected: 05/17/24 08:35
Date Received: 05/18/24 10:06

Lab Sample ID: 680-250965-1
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	1.0	U Q	2.0	0.26	ug/L			05/31/24 14:41	1
sec-Butylbenzene	2.0	U Q	2.5	0.53	ug/L			05/31/24 14:41	1
Styrene	1.0	U Q	2.0	0.27	ug/L			05/31/24 14:41	1
tert-Butylbenzene	1.0	U Q	2.0	0.43	ug/L			05/31/24 14:41	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			05/31/24 14:41	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			05/31/24 14:41	1
Tetrachloroethene	1.0	U	2.0	0.35	ug/L			05/31/24 14:41	1
Toluene	1.0	U	2.0	0.25	ug/L			05/31/24 14:41	1
trans-1,2-Dichloroethene	1.0	U Q	2.0	0.34	ug/L			05/31/24 14:41	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			05/31/24 14:41	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			05/31/24 14:41	1
1,2,4-Trichlorobenzene	2.0	U Q	5.0	0.53	ug/L			05/31/24 14:41	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			05/31/24 14:41	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			05/31/24 14:41	1
Trichloroethene	**2.2**	**M**	1.0	0.20	ug/L			05/31/24 14:41	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			05/31/24 14:41	1
1,2,3-Trichloropropane	1.0	U Q	2.0	0.48	ug/L			05/31/24 14:41	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			05/31/24 14:41	1
1,2,4-Trimethylbenzene	1.0	U Q	2.0	0.43	ug/L			05/31/24 14:41	1
1,3,5-Trimethylbenzene	1.0	U Q	2.0	0.28	ug/L			05/31/24 14:41	1
Vinyl chloride	1.0	U	2.0	0.40	ug/L			05/31/24 14:41	1
Xylenes, Total	1.0	U Q	2.0	0.49	ug/L			05/31/24 14:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*85 - 114*		*05/31/24 14:41*	*1*
Dibromofluoromethane (Surr)	*109*		*80 - 119*		*05/31/24 14:41*	*1*
1,2-Dichloroethane-d4 (Surr)	*92*		*81 - 118*		*05/31/24 14:41*	*1*
Toluene-d8 (Surr)	*106*		*89 - 112*		*05/31/24 14:41*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	2.0	U	5.0	1.0	ug/L		05/27/24 10:58	05/27/24 17:23	1
Ethylene	2.0	U	5.0	1.0	ug/L		05/27/24 10:58	05/27/24 17:23	1
Methane	**8.9**	**M**	6.5	3.0	ug/L		05/27/24 10:58	05/27/24 17:23	1

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2.7**		0.55	0.20	mg/L			05/30/24 20:43	1
Nitrate as N	0.050	U	0.055	0.023	mg/L			05/18/24 15:58	1
Nitrate Nitrite as N	0.050	U	0.055	0.023	mg/L			05/18/24 15:58	1
Sulfate	**9.4**		1.5	0.40	mg/L			05/30/24 20:43	1
Nitrite as N	0.050	U	0.055	0.023	mg/L			05/18/24 15:58	1

Method: SW846 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**48**		10	2.2	ug/L		05/19/24 06:25	05/20/24 20:59	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**17**		5.5	2.2	mg/L			05/22/24 00:02	1

Client Sample ID: OU6-MW-288-20240517

Lab Sample ID: 680-250965-1

Date Collected: 05/17/24 08:35

Matrix: Water

Date Received: 05/18/24 10:06

General Chemistry (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	**17**		11	5.0	mg/L			05/22/24 00:02	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	10	U	11	5.0	mg/L			05/22/24 00:02	1
Sulfide (SM 4500 S2 F-2011)	0.81	U	0.81	0.81	mg/L			05/22/24 15:19	1
Sulfide as H2S (SM 4500 S2 F-2011)	0.89	U	0.89	0.89	mg/L			05/22/24 15:19	1
Total Organic Carbon (SW846 9060A)	**1.6**		1.0	0.50	mg/L			05/23/24 14:28	1
Carbon Dioxide, Free (SM 4500 CO2 D)	**6.0**	**J**	11	5.0	mg/L			05/22/24 00:02	1

Client Sample ID: OU6-MW-159-20240517

Lab Sample ID: 680-250965-2

Date Collected: 05/17/24 10:00

Matrix: Water

Date Received: 05/18/24 10:06

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	**70**		25	3.7	ug/L			05/31/24 14:00	1
Benzene	1.0	U	2.0	0.27	ug/L			05/31/24 14:00	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			05/31/24 14:00	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			05/31/24 14:00	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			05/31/24 14:00	1
Bromoform	2.0	U Q	2.5	0.59	ug/L			05/31/24 14:00	1
Bromomethane	10	U	20	3.7	ug/L			05/31/24 14:00	1
2-Butanone (MEK)	**22**	**J**	25	6.4	ug/L			05/31/24 14:00	1
Carbon disulfide	1.0	U Q	2.0	0.43	ug/L			05/31/24 14:00	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			05/31/24 14:00	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			05/31/24 14:00	1
Chloroethane	10	U	20	4.6	ug/L			05/31/24 14:00	1
Chloroform	1.0	U	2.0	0.27	ug/L			05/31/24 14:00	1
Chloromethane	2.0	U	2.5	0.54	ug/L			05/31/24 14:00	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			05/31/24 14:00	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			05/31/24 14:00	1
cis-1,2-Dichloroethene	**0.68**	**J**	2.0	0.25	ug/L			05/31/24 14:00	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			05/31/24 14:00	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			05/31/24 14:00	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			05/31/24 14:00	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			05/31/24 14:00	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			05/31/24 14:00	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			05/31/24 14:00	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/31/24 14:00	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/31/24 14:00	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/31/24 14:00	1
Dichlorodifluoromethane	1.0	U	2.0	0.36	ug/L			05/31/24 14:00	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			05/31/24 14:00	1
1,2-Dichloroethane	1.0	U	2.0	0.25	ug/L			05/31/24 14:00	1
1,1-Dichloroethene	1.0	U	2.0	0.33	ug/L			05/31/24 14:00	1
1,2-Dichloroethene, Total	**0.68**	**J**	2.0	0.37	ug/L			05/31/24 14:00	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			05/31/24 14:00	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			05/31/24 14:00	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			05/31/24 14:00	1

Client Sample ID: OU6-MW-159-20240517
Date Collected: 05/17/24 10:00
Date Received: 05/18/24 10:06

Lab Sample ID: 680-250965-2
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			05/31/24 14:00	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			05/31/24 14:00	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			05/31/24 14:00	1
2-Hexanone	10	U	20	3.2	ug/L			05/31/24 14:00	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			05/31/24 14:00	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			05/31/24 14:00	1
Methyl acetate	10	U	20	3.2	ug/L			05/31/24 14:00	1
Methylcyclohexane	1.0	U	2.0	0.33	ug/L			05/31/24 14:00	1
Methylene Chloride	10	U	20	3.2	ug/L			05/31/24 14:00	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			05/31/24 14:00	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			05/31/24 14:00	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			05/31/24 14:00	1
Naphthalene	5.0	U	10	2.4	ug/L			05/31/24 14:00	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			05/31/24 14:00	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			05/31/24 14:00	1
o-Xylene	1.0	U	2.0	0.26	ug/L			05/31/24 14:00	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			05/31/24 14:00	1
Styrene	1.0	U	2.0	0.27	ug/L			05/31/24 14:00	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			05/31/24 14:00	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			05/31/24 14:00	1
1,1,2,2-Tetrachloroethane	1.0	U Q	2.0	0.40	ug/L			05/31/24 14:00	1
Tetrachloroethene	1.0	U	2.0	0.35	ug/L			05/31/24 14:00	1
Toluene	1.0	U	2.0	0.25	ug/L			05/31/24 14:00	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			05/31/24 14:00	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			05/31/24 14:00	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			05/31/24 14:00	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			05/31/24 14:00	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			05/31/24 14:00	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			05/31/24 14:00	1
Trichloroethene	**3.5**		1.0	0.20	ug/L			05/31/24 14:00	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			05/31/24 14:00	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			05/31/24 14:00	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			05/31/24 14:00	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			05/31/24 14:00	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			05/31/24 14:00	1
Vinyl chloride	1.0	U M	2.0	0.40	ug/L			05/31/24 14:00	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			05/31/24 14:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*85 - 114*		*05/31/24 14:00*	*1*
Dibromofluoromethane (Surr)	*108*		*80 - 119*		*05/31/24 14:00*	*1*
1,2-Dichloroethane-d4 (Surr)	*99*		*81 - 118*		*05/31/24 14:00*	*1*
Toluene-d8 (Surr)	*95*		*89 - 112*		*05/31/24 14:00*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	2.0	U	5.0	1.0	ug/L		05/23/24 10:18	05/23/24 11:43	1
Ethylene	**1.6**	**J**	5.0	1.0	ug/L		05/23/24 10:18	05/23/24 11:43	1

Client Sample ID: OU6-MW-159-20240517

Lab Sample ID: 680-250965-2

Date Collected: 05/17/24 10:00

Matrix: Water

Date Received: 05/18/24 10:06

Method: RSK-175 - Dissolved Gases (GC) - DL

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	**14000**	**D M**	330	150	ug/L		05/24/24 13:13	05/24/24 19:31	50

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1.9**	**M**	0.55	0.20	mg/L			05/30/24 21:03	1
Nitrate as N	0.050	U	0.055	0.023	mg/L			05/18/24 16:07	1
Nitrate Nitrite as N	0.050	U	0.055	0.023	mg/L			05/18/24 16:07	1
Sulfate	**0.78**	**J**	1.5	0.40	mg/L			05/30/24 21:03	1
Nitrite as N	0.050	U	0.055	0.023	mg/L			05/18/24 16:07	1

Method: SW846 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**430**		10	2.2	ug/L		05/19/24 06:25	05/20/24 21:48	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**31**		5.5	2.2	mg/L			05/21/24 21:37	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	**31**		11	5.0	mg/L			05/21/24 21:37	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	10	U	11	5.0	mg/L			05/21/24 21:37	1
Sulfide (SM 4500 S2 F-2011)	0.81	U	0.81	0.81	mg/L			05/22/24 15:19	1
Sulfide as H2S (SM 4500 S2 F-2011)	0.89	U	0.89	0.89	mg/L			05/22/24 15:19	1
Total Organic Carbon (SW846 9060A)	**26**		1.0	0.50	mg/L			05/23/24 14:46	1
Carbon Dioxide, Free (SM 4500 CO2 D)	**75**		11	5.0	mg/L			05/21/24 21:37	1

Client Sample ID: OU6-MW-258-20240517

Lab Sample ID: 680-250965-3

Date Collected: 05/17/24 08:50

Matrix: Water

Date Received: 05/18/24 10:06

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			05/30/24 14:36	1
Benzene	1.0	U	2.0	0.27	ug/L			05/30/24 14:36	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			05/30/24 14:36	1
Bromochloromethane	1.0	U Q	2.0	0.34	ug/L			05/30/24 14:36	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			05/30/24 14:36	1
Bromoform	2.0	U	2.5	0.59	ug/L			05/30/24 14:36	1
Bromomethane	10	U	20	3.7	ug/L			05/30/24 14:36	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			05/30/24 14:36	1
Carbon disulfide	1.0	U Q	2.0	0.43	ug/L			05/30/24 14:36	1
Carbon tetrachloride	1.0	U Q	2.0	0.30	ug/L			05/30/24 14:36	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			05/30/24 14:36	1
Chloroethane	10	U	20	4.6	ug/L			05/30/24 14:36	1
Chloroform	1.0	U	2.0	0.27	ug/L			05/30/24 14:36	1
Chloromethane	2.0	U	2.5	0.54	ug/L			05/30/24 14:36	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			05/30/24 14:36	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			05/30/24 14:36	1
cis-1,2-Dichloroethene	**13**		2.0	0.25	ug/L			05/30/24 14:36	1

Client Sample ID: OU6-MW-258-20240517
Date Collected: 05/17/24 08:50
Date Received: 05/18/24 10:06

Lab Sample ID: 680-250965-3
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			05/30/24 14:36	1
Cyclohexane	1.0	U Q	2.0	0.28	ug/L			05/30/24 14:36	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			05/30/24 14:36	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			05/30/24 14:36	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			05/30/24 14:36	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			05/30/24 14:36	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/30/24 14:36	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/30/24 14:36	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/30/24 14:36	1
Dichlorodifluoromethane	1.0	U Q	2.0	0.36	ug/L			05/30/24 14:36	1
1,1-Dichloroethane	**1.4**	**J**	2.0	0.33	ug/L			05/30/24 14:36	1
1,2-Dichloroethane	1.0	U M	2.0	0.25	ug/L			05/30/24 14:36	1
1,1-Dichloroethene	**1.2**	**J**	2.0	0.33	ug/L			05/31/24 14:22	1
1,2-Dichloroethene, Total	**13**		2.0	0.37	ug/L			05/30/24 14:36	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			05/30/24 14:36	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			05/30/24 14:36	1
2,2-Dichloropropane	1.0	U Q	2.0	0.35	ug/L			05/30/24 14:36	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			05/30/24 14:36	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			05/30/24 14:36	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			05/30/24 14:36	1
2-Hexanone	10	U	20	3.2	ug/L			05/30/24 14:36	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			05/30/24 14:36	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			05/30/24 14:36	1
Methyl acetate	10	U	20	3.2	ug/L			05/30/24 14:36	1
Methylcyclohexane	1.0	U Q	2.0	0.33	ug/L			05/30/24 14:36	1
Methylene Chloride	10	U	20	3.2	ug/L			05/30/24 14:36	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			05/30/24 14:36	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			05/30/24 14:36	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			05/30/24 14:36	1
Naphthalene	5.0	U	10	2.4	ug/L			05/30/24 14:36	1
n-Butylbenzene	2.0	U Q	2.5	0.52	ug/L			05/30/24 14:36	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			05/30/24 14:36	1
o-Xylene	1.0	U	2.0	0.26	ug/L			05/30/24 14:36	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			05/30/24 14:36	1
Styrene	1.0	U	2.0	0.27	ug/L			05/30/24 14:36	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			05/30/24 14:36	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			05/30/24 14:36	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			05/30/24 14:36	1
Tetrachloroethene	**0.96**	**J**	2.0	0.35	ug/L			05/30/24 14:36	1
Toluene	1.0	U	2.0	0.25	ug/L			05/30/24 14:36	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			05/30/24 14:36	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			05/30/24 14:36	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			05/30/24 14:36	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			05/30/24 14:36	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			05/30/24 14:36	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			05/30/24 14:36	1
Trichloroethene	**3.9**		1.0	0.20	ug/L			05/30/24 14:36	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			05/30/24 14:36	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			05/30/24 14:36	1

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-250965-1

Client Sample ID: OU6-MW-258-20240517
Date Collected: 05/17/24 08:50
Date Received: 05/18/24 10:06

Lab Sample ID: 680-250965-3
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U Q	1.0	0.23	ug/L			05/30/24 14:36	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			05/30/24 14:36	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			05/30/24 14:36	1
Vinyl chloride	1.0	U	2.0	0.40	ug/L			05/30/24 14:36	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			05/30/24 14:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*114*		*85 - 114*		*05/30/24 14:36*	*1*
4-Bromofluorobenzene (Surr)	*107*		*85 - 114*		*05/31/24 14:22*	*1*
Dibromofluoromethane (Surr)	*97*		*80 - 119*		*05/30/24 14:36*	*1*
Dibromofluoromethane (Surr)	*107*		*80 - 119*		*05/31/24 14:22*	*1*
1,2-Dichloroethane-d4 (Surr)	*101*		*81 - 118*		*05/30/24 14:36*	*1*
1,2-Dichloroethane-d4 (Surr)	*98*		*81 - 118*		*05/31/24 14:22*	*1*
Toluene-d8 (Surr)	*103*		*89 - 112*		*05/30/24 14:36*	*1*
Toluene-d8 (Surr)	*96*		*89 - 112*		*05/31/24 14:22*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	2.0	U	5.0	1.0	ug/L		05/23/24 10:18	05/23/24 12:01	1
Ethylene	2.0	U	5.0	1.0	ug/L		05/23/24 10:18	05/23/24 12:01	1
Methane	6.0	U	6.5	3.0	ug/L		05/23/24 10:18	05/23/24 12:01	1

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**8.6**	**M**	0.55	0.20	mg/L			05/30/24 21:09	1
Nitrate as N	**0.83**	**D M**	0.11	0.046	mg/L			05/18/24 16:31	2
Nitrate Nitrite as N	**0.83**	**D**	0.11	0.046	mg/L			05/18/24 16:31	2
Sulfate	**1.8**		1.5	0.40	mg/L			05/30/24 21:09	1
Nitrite as N	0.10	U	0.11	0.046	mg/L			05/18/24 16:31	2

Method: SW846 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**50**		10	2.2	ug/L		05/19/24 06:25	05/20/24 21:44	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**5.8**		5.5	2.2	mg/L			05/21/24 21:51	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	**5.8**	**J**	11	5.0	mg/L			05/21/24 21:51	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	10	U	11	5.0	mg/L			05/21/24 21:51	1
Sulfide (SM 4500 S2 F-2011)	0.81	U	0.81	0.81	mg/L			05/22/24 15:19	1
Sulfide as H2S (SM 4500 S2 F-2011)	0.89	U	0.89	0.89	mg/L			05/22/24 15:19	1
Total Organic Carbon (SW846 9060A)	**0.73**	**J**	1.0	0.50	mg/L			05/23/24 15:04	1
Carbon Dioxide, Free (SM 4500 CO2 D)	**30**		11	5.0	mg/L			05/21/24 21:51	1

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-250965-1

Client Sample ID: OU6-MW-262-20240517
Date Collected: 05/17/24 10:00
Date Received: 05/18/24 10:06

Lab Sample ID: 680-250965-4
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			05/30/24 14:58	1
Benzene	**1.0**	**J**	2.0	0.27	ug/L			05/30/24 14:58	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			05/30/24 14:58	1
Bromochloromethane	1.0	U Q	2.0	0.34	ug/L			05/30/24 14:58	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			05/30/24 14:58	1
Bromoform	2.0	U	2.5	0.59	ug/L			05/30/24 14:58	1
Bromomethane	10	U	20	3.7	ug/L			05/30/24 14:58	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			05/30/24 14:58	1
Carbon disulfide	1.0	U Q	2.0	0.43	ug/L			05/30/24 14:58	1
Carbon tetrachloride	1.0	U Q	2.0	0.30	ug/L			05/30/24 14:58	1
Chlorobenzene	**8.5**		1.0	0.15	ug/L			05/30/24 14:58	1
Chloroethane	10	U	20	4.6	ug/L			05/30/24 14:58	1
Chloroform	**1.3**	**J**	2.0	0.27	ug/L			05/30/24 14:58	1
Chloromethane	2.0	U	2.5	0.54	ug/L			05/30/24 14:58	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			05/30/24 14:58	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			05/30/24 14:58	1
cis-1,2-Dichloroethene	**150**		2.0	0.25	ug/L			05/30/24 14:58	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			05/30/24 14:58	1
Cyclohexane	1.0	U Q	2.0	0.28	ug/L			05/30/24 14:58	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			05/30/24 14:58	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			05/30/24 14:58	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			05/30/24 14:58	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			05/30/24 14:58	1
1,2-Dichlorobenzene	**6.9**		2.0	0.31	ug/L			05/30/24 14:58	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/30/24 14:58	1
1,4-Dichlorobenzene	**3.0**		2.0	0.31	ug/L			05/30/24 14:58	1
Dichlorodifluoromethane	**3.0**	**Q**	2.0	0.36	ug/L			05/30/24 14:58	1
1,1-Dichloroethane	**0.80**	**J**	2.0	0.33	ug/L			05/30/24 14:58	1
1,2-Dichloroethane	**0.68**	**J**	2.0	0.25	ug/L			05/30/24 14:58	1
1,1-Dichloroethene	1.0	U Q	2.0	0.33	ug/L			05/30/24 14:58	1
1,2-Dichloroethene, Total	**150**		2.0	0.37	ug/L			05/30/24 14:58	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			05/30/24 14:58	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			05/30/24 14:58	1
2,2-Dichloropropane	1.0	U Q	2.0	0.35	ug/L			05/30/24 14:58	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			05/30/24 14:58	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			05/30/24 14:58	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			05/30/24 14:58	1
2-Hexanone	10	U	20	3.2	ug/L			05/30/24 14:58	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			05/30/24 14:58	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			05/30/24 14:58	1
Methyl acetate	10	U	20	3.2	ug/L			05/30/24 14:58	1
Methylcyclohexane	1.0	U Q	2.0	0.33	ug/L			05/30/24 14:58	1
Methylene Chloride	10	U	20	3.2	ug/L			05/30/24 14:58	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			05/30/24 14:58	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			05/30/24 14:58	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			05/30/24 14:58	1
Naphthalene	5.0	U	10	2.4	ug/L			05/30/24 14:58	1
n-Butylbenzene	2.0	U Q	2.5	0.52	ug/L			05/30/24 14:58	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			05/30/24 14:58	1

Client Sample ID: OU6-MW-262-20240517
Date Collected: 05/17/24 10:00
Date Received: 05/18/24 10:06

Lab Sample ID: 680-250965-4
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	0.54	J	2.0	0.26	ug/L			05/30/24 14:58	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			05/30/24 14:58	1
Styrene	1.0	U	2.0	0.27	ug/L			05/30/24 14:58	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			05/30/24 14:58	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			05/30/24 14:58	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			05/30/24 14:58	1
Tetrachloroethene	1.3	J	2.0	0.35	ug/L			05/30/24 14:58	1
Toluene	1.0	U	2.0	0.25	ug/L			05/30/24 14:58	1
trans-1,2-Dichloroethene	0.70	J	2.0	0.34	ug/L			05/30/24 14:58	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			05/30/24 14:58	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			05/30/24 14:58	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			05/30/24 14:58	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			05/30/24 14:58	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			05/30/24 14:58	1
Trichloroethene	5.7		1.0	0.20	ug/L			05/30/24 14:58	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			05/30/24 14:58	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			05/30/24 14:58	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U Q	1.0	0.23	ug/L			05/30/24 14:58	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			05/30/24 14:58	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			05/30/24 14:58	1
Vinyl chloride	92		2.0	0.40	ug/L			05/30/24 14:58	1
Xylenes, Total	0.54	J	2.0	0.49	ug/L			05/30/24 14:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*115*	*Q*	*85 - 114*		*05/30/24 14:58*	*1*
Dibromofluoromethane (Surr)	*96*		*80 - 119*		*05/30/24 14:58*	*1*
1,2-Dichloroethane-d4 (Surr)	*101*		*81 - 118*		*05/30/24 14:58*	*1*
Toluene-d8 (Surr)	*103*		*89 - 112*		*05/30/24 14:58*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	160		5.0	1.0	ug/L		05/27/24 10:58	05/27/24 17:38	1
Ethylene	270		5.0	1.0	ug/L		05/27/24 10:58	05/27/24 17:38	1

Method: RSK-175 - Dissolved Gases (GC) - DL

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	14000	D	330	150	ug/L		05/28/24 14:09	05/28/24 21:43	50

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	70	D M	2.8	1.0	mg/L			05/31/24 12:38	5
Nitrate as N	0.10	U	0.11	0.046	mg/L			05/18/24 16:40	2
Nitrate Nitrite as N	0.10	U	0.11	0.046	mg/L			05/18/24 16:40	2
Sulfate	3.3		1.5	0.40	mg/L			05/30/24 21:16	1
Nitrite as N	0.10	U M	0.11	0.046	mg/L			05/18/24 16:40	2

Method: SW846 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	190		10	2.2	ug/L		05/19/24 06:25	05/20/24 21:39	1

Client Sample ID: OU6-MW-262-20240517

Lab Sample ID: 680-250965-4

Date Collected: 05/17/24 10:00

Matrix: Water

Date Received: 05/18/24 10:06

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**4.2**	**J**	5.5	2.2	mg/L			05/21/24 21:57	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	10	U	11	5.0	mg/L			05/21/24 21:57	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	10	U	11	5.0	mg/L			05/21/24 21:57	1
Sulfide (SM 4500 S2 F-2011)	0.81	U	0.81	0.81	mg/L			05/22/24 15:19	1
Sulfide as H2S (SM 4500 S2 F-2011)	0.89	U	0.89	0.89	mg/L			05/22/24 15:19	1
Total Organic Carbon (SW846 9060A)	**2.1**		1.0	0.50	mg/L			05/23/24 15:22	1
Carbon Dioxide, Free (SM 4500 CO2 D)	**66**		11	5.0	mg/L			05/21/24 21:57	1

Client Sample ID: OU6-MW-171-20240517

Lab Sample ID: 680-250965-5

Date Collected: 05/17/24 09:10

Matrix: Water

Date Received: 05/18/24 10:06

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			05/31/24 14:45	1
Benzene	1.0	U	2.0	0.27	ug/L			05/31/24 14:45	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			05/31/24 14:45	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			05/31/24 14:45	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			05/31/24 14:45	1
Bromoform	2.0	U Q	2.5	0.59	ug/L			05/31/24 14:45	1
Bromomethane	10	U	20	3.7	ug/L			05/31/24 14:45	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			05/31/24 14:45	1
Carbon disulfide	1.0	U Q	2.0	0.43	ug/L			05/31/24 14:45	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			05/31/24 14:45	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			05/31/24 14:45	1
Chloroethane	10	U	20	4.6	ug/L			05/31/24 14:45	1
Chloroform	1.0	U	2.0	0.27	ug/L			05/31/24 14:45	1
Chloromethane	2.0	U	2.5	0.54	ug/L			05/31/24 14:45	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			05/31/24 14:45	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			05/31/24 14:45	1
cis-1,2-Dichloroethene	**1.4**	**J**	2.0	0.25	ug/L			05/31/24 14:45	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			05/31/24 14:45	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			05/31/24 14:45	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			05/31/24 14:45	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			05/31/24 14:45	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			05/31/24 14:45	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			05/31/24 14:45	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/31/24 14:45	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/31/24 14:45	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/31/24 14:45	1
Dichlorodifluoromethane	1.0	U	2.0	0.36	ug/L			05/31/24 14:45	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			05/31/24 14:45	1
1,2-Dichloroethane	1.0	U	2.0	0.25	ug/L			05/31/24 14:45	1
1,1-Dichloroethene	**9.6**		2.0	0.33	ug/L			05/31/24 14:45	1
1,2-Dichloroethene, Total	**1.4**	**J**	2.0	0.37	ug/L			05/31/24 14:45	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			05/31/24 14:45	1

Client Sample ID: OU6-MW-171-20240517
Date Collected: 05/17/24 09:10
Date Received: 05/18/24 10:06

Lab Sample ID: 680-250965-5
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			05/31/24 14:45	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			05/31/24 14:45	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			05/31/24 14:45	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			05/31/24 14:45	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			05/31/24 14:45	1
2-Hexanone	10	U	20	3.2	ug/L			05/31/24 14:45	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			05/31/24 14:45	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			05/31/24 14:45	1
Methyl acetate	10	U	20	3.2	ug/L			05/31/24 14:45	1
Methylcyclohexane	1.0	U	2.0	0.33	ug/L			05/31/24 14:45	1
Methylene Chloride	10	U	20	3.2	ug/L			05/31/24 14:45	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			05/31/24 14:45	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			05/31/24 14:45	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			05/31/24 14:45	1
Naphthalene	5.0	U	10	2.4	ug/L			05/31/24 14:45	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			05/31/24 14:45	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			05/31/24 14:45	1
o-Xylene	1.0	U	2.0	0.26	ug/L			05/31/24 14:45	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			05/31/24 14:45	1
Styrene	1.0	U	2.0	0.27	ug/L			05/31/24 14:45	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			05/31/24 14:45	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			05/31/24 14:45	1
1,1,2,2-Tetrachloroethane	1.0	U Q	2.0	0.40	ug/L			05/31/24 14:45	1
Tetrachloroethene	**32**		2.0	0.35	ug/L			05/31/24 14:45	1
Toluene	1.0	U	2.0	0.25	ug/L			05/31/24 14:45	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			05/31/24 14:45	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			05/31/24 14:45	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			05/31/24 14:45	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			05/31/24 14:45	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			05/31/24 14:45	1
1,1,2-Trichloroethane	1.0	U M	2.0	0.32	ug/L			05/31/24 14:45	1
Trichloroethene	**12**		1.0	0.20	ug/L			05/31/24 14:45	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			05/31/24 14:45	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			05/31/24 14:45	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			05/31/24 14:45	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			05/31/24 14:45	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			05/31/24 14:45	1
Vinyl chloride	1.0	U	2.0	0.40	ug/L			05/31/24 14:45	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			05/31/24 14:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*85 - 114*		*05/31/24 14:45*	*1*
Dibromofluoromethane (Surr)	*106*		*80 - 119*		*05/31/24 14:45*	*1*
1,2-Dichloroethane-d4 (Surr)	*98*		*81 - 118*		*05/31/24 14:45*	*1*
Toluene-d8 (Surr)	*96*		*89 - 112*		*05/31/24 14:45*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	2.0	U M	5.0	1.0	ug/L		05/27/24 11:00	05/27/24 17:54	1
Ethylene	2.0	U	5.0	1.0	ug/L		05/27/24 11:00	05/27/24 17:54	1

Client Sample ID: OU6-MW-171-20240517

Lab Sample ID: 680-250965-5

Date Collected: 05/17/24 09:10

Matrix: Water

Date Received: 05/18/24 10:06

Method: RSK-175 - Dissolved Gases (GC) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	**5.3**	**J M**	6.5	3.0	ug/L		05/27/24 11:00	05/27/24 17:54	1

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**5.1**	**M**	0.55	0.20	mg/L			05/30/24 21:23	1
Nitrate as N	**0.50**	**D**	0.11	0.046	mg/L			05/18/24 16:48	2
Nitrate Nitrite as N	**0.50**	**D**	0.11	0.046	mg/L			05/18/24 16:48	2
Sulfate	**2.6**		1.5	0.40	mg/L			05/30/24 21:23	1
Nitrite as N	0.10	U	0.11	0.046	mg/L			05/18/24 16:48	2

Method: SW846 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**6.4**	**J**	10	2.2	ug/L		05/19/24 06:25	05/21/24 05:47	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**7.0**		5.5	2.2	mg/L			05/21/24 21:44	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	**7.0**	**J**	11	5.0	mg/L			05/21/24 21:44	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	10	U	11	5.0	mg/L			05/21/24 21:44	1
Sulfide (SM 4500 S2 F-2011)	0.81	U	0.81	0.81	mg/L			05/22/24 15:19	1
Sulfide as H2S (SM 4500 S2 F-2011)	0.89	U	0.89	0.89	mg/L			05/22/24 15:19	1
Total Organic Carbon (SW846 9060A)	**0.60**	**J**	1.0	0.50	mg/L			05/23/24 15:40	1
Carbon Dioxide, Free (SM 4500 CO2 D)	**26**		11	5.0	mg/L			05/21/24 21:44	1

Client Sample ID: OU6-MW-165-20240517

Lab Sample ID: 680-250965-6

Date Collected: 05/17/24 10:45

Matrix: Water

Date Received: 05/18/24 10:06

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			05/30/24 15:41	1
Benzene	1.0	U	2.0	0.27	ug/L			05/30/24 15:41	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			05/30/24 15:41	1
Bromochloromethane	1.0	U Q	2.0	0.34	ug/L			05/30/24 15:41	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			05/30/24 15:41	1
Bromoform	2.0	U	2.5	0.59	ug/L			05/30/24 15:41	1
Bromomethane	10	U	20	3.7	ug/L			05/30/24 15:41	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			05/30/24 15:41	1
Carbon disulfide	1.0	U Q	2.0	0.43	ug/L			05/30/24 15:41	1
Carbon tetrachloride	1.0	U Q	2.0	0.30	ug/L			05/30/24 15:41	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			05/30/24 15:41	1
Chloroethane	10	U	20	4.6	ug/L			05/30/24 15:41	1
Chloroform	**0.35**	**J**	2.0	0.27	ug/L			05/30/24 15:41	1
Chloromethane	2.0	U	2.5	0.54	ug/L			05/30/24 15:41	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			05/30/24 15:41	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			05/30/24 15:41	1
cis-1,2-Dichloroethene	**0.92**	**J**	2.0	0.25	ug/L			05/30/24 15:41	1

Client Sample ID: OU6-MW-165-20240517
Date Collected: 05/17/24 10:45
Date Received: 05/18/24 10:06

Lab Sample ID: 680-250965-6
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			05/30/24 15:41	1
Cyclohexane	1.0	U Q	2.0	0.28	ug/L			05/30/24 15:41	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			05/30/24 15:41	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			05/30/24 15:41	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			05/30/24 15:41	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			05/30/24 15:41	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/30/24 15:41	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/30/24 15:41	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/30/24 15:41	1
Dichlorodifluoromethane	1.0	U Q	2.0	0.36	ug/L			05/30/24 15:41	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			05/30/24 15:41	1
1,2-Dichloroethane	1.0	U M	2.0	0.25	ug/L			05/30/24 15:41	1
1,1-Dichloroethene	1.0	U Q	2.0	0.33	ug/L			05/30/24 15:41	1
1,2-Dichloroethene, Total	**0.92**	**J**	2.0	0.37	ug/L			05/30/24 15:41	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			05/30/24 15:41	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			05/30/24 15:41	1
2,2-Dichloropropane	1.0	U Q	2.0	0.35	ug/L			05/30/24 15:41	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			05/30/24 15:41	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			05/30/24 15:41	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			05/30/24 15:41	1
2-Hexanone	10	U	20	3.2	ug/L			05/30/24 15:41	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			05/30/24 15:41	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			05/30/24 15:41	1
Methyl acetate	10	U	20	3.2	ug/L			05/30/24 15:41	1
Methylcyclohexane	1.0	U Q	2.0	0.33	ug/L			05/30/24 15:41	1
Methylene Chloride	10	U	20	3.2	ug/L			05/30/24 15:41	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			05/30/24 15:41	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			05/30/24 15:41	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			05/30/24 15:41	1
Naphthalene	5.0	U	10	2.4	ug/L			05/30/24 15:41	1
n-Butylbenzene	2.0	U Q	2.5	0.52	ug/L			05/30/24 15:41	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			05/30/24 15:41	1
o-Xylene	1.0	U	2.0	0.26	ug/L			05/30/24 15:41	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			05/30/24 15:41	1
Styrene	1.0	U	2.0	0.27	ug/L			05/30/24 15:41	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			05/30/24 15:41	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			05/30/24 15:41	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			05/30/24 15:41	1
Tetrachloroethene	**0.80**	**J**	2.0	0.35	ug/L			05/30/24 15:41	1
Toluene	1.0	U	2.0	0.25	ug/L			05/30/24 15:41	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			05/30/24 15:41	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			05/30/24 15:41	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			05/30/24 15:41	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			05/30/24 15:41	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			05/30/24 15:41	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			05/30/24 15:41	1
Trichloroethene	**18**		1.0	0.20	ug/L			05/30/24 15:41	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			05/30/24 15:41	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			05/30/24 15:41	1

Client Sample ID: OU6-MW-165-20240517
Date Collected: 05/17/24 10:45
Date Received: 05/18/24 10:06

Lab Sample ID: 680-250965-6
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloro-1,2,2-trifluoroethane	**1.4**		1.0	0.23	ug/L			05/31/24 15:08	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			05/30/24 15:41	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			05/30/24 15:41	1
Vinyl chloride	1.0	U	2.0	0.40	ug/L			05/30/24 15:41	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			05/30/24 15:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*113*		*85 - 114*		*05/30/24 15:41*	*1*
4-Bromofluorobenzene (Surr)	*107*		*85 - 114*		*05/31/24 15:08*	*1*
Dibromofluoromethane (Surr)	*97*		*80 - 119*		*05/30/24 15:41*	*1*
Dibromofluoromethane (Surr)	*108*		*80 - 119*		*05/31/24 15:08*	*1*
1,2-Dichloroethane-d4 (Surr)	*99*		*81 - 118*		*05/30/24 15:41*	*1*
1,2-Dichloroethane-d4 (Surr)	*98*		*81 - 118*		*05/31/24 15:08*	*1*
Toluene-d8 (Surr)	*102*		*89 - 112*		*05/30/24 15:41*	*1*
Toluene-d8 (Surr)	*95*		*89 - 112*		*05/31/24 15:08*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	2.0	U	5.0	1.0	ug/L		05/27/24 11:00	05/27/24 18:09	1
Ethylene	2.0	U	5.0	1.0	ug/L		05/27/24 11:00	05/27/24 18:09	1
Methane	**3.7**	**J M**	6.5	3.0	ug/L		05/27/24 11:00	05/27/24 18:09	1

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**4.9**	**M**	0.55	0.20	mg/L			05/30/24 21:29	1
Nitrate as N	**0.79**	**D**	0.11	0.046	mg/L			05/18/24 16:56	2
Nitrate Nitrite as N	**0.79**	**D**	0.11	0.046	mg/L			05/18/24 16:56	2
Sulfate	**2.1**		1.5	0.40	mg/L			05/30/24 21:29	1
Nitrite as N	0.10	U	0.11	0.046	mg/L			05/18/24 16:56	2

Method: SW846 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**8.7**	**J**	10	2.2	ug/L		05/19/24 06:25	05/21/24 06:04	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**13**		5.5	2.2	mg/L			05/22/24 00:17	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	**13**		11	5.0	mg/L			05/22/24 00:17	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	10	U	11	5.0	mg/L			05/22/24 00:17	1
Sulfide (SM 4500 S2 F-2011)	0.81	U	0.81	0.81	mg/L			05/22/24 15:19	1
Sulfide as H2S (SM 4500 S2 F-2011)	0.89	U	0.89	0.89	mg/L			05/22/24 15:19	1
Total Organic Carbon (SW846 9060A)	1.0	U	1.0	0.50	mg/L			05/23/24 15:57	1
Carbon Dioxide, Free (SM 4500 CO2 D)	**29**		11	5.0	mg/L			05/22/24 00:17	1

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-250965-1

Client Sample ID: TRIP-BLANK-20240517
Date Collected: 05/17/24 00:00
Date Received: 05/18/24 10:06

Lab Sample ID: 680-250965-7
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			05/30/24 13:30	1
Benzene	1.0	U	2.0	0.27	ug/L			05/30/24 13:30	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			05/30/24 13:30	1
Bromochloromethane	1.0	U Q	2.0	0.34	ug/L			05/30/24 13:30	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			05/30/24 13:30	1
Bromoform	2.0	U	2.5	0.59	ug/L			05/30/24 13:30	1
Bromomethane	10	U	20	3.7	ug/L			05/30/24 13:30	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			05/30/24 13:30	1
Carbon disulfide	1.0	U Q	2.0	0.43	ug/L			05/30/24 13:30	1
Carbon tetrachloride	1.0	U Q	2.0	0.30	ug/L			05/30/24 13:30	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			05/30/24 13:30	1
Chloroethane	10	U	20	4.6	ug/L			05/30/24 13:30	1
Chloroform	1.0	U	2.0	0.27	ug/L			05/30/24 13:30	1
Chloromethane	2.0	U	2.5	0.54	ug/L			05/30/24 13:30	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			05/30/24 13:30	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			05/30/24 13:30	1
cis-1,2-Dichloroethene	1.0	U	2.0	0.25	ug/L			05/30/24 13:30	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			05/30/24 13:30	1
Cyclohexane	1.0	U Q	2.0	0.28	ug/L			05/30/24 13:30	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			05/30/24 13:30	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			05/30/24 13:30	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			05/30/24 13:30	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			05/30/24 13:30	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/30/24 13:30	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/30/24 13:30	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/30/24 13:30	1
Dichlorodifluoromethane	1.0	U Q	2.0	0.36	ug/L			05/30/24 13:30	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			05/30/24 13:30	1
1,2-Dichloroethane	1.0	U M	2.0	0.25	ug/L			05/30/24 13:30	1
1,1-Dichloroethene	1.0	U Q	2.0	0.33	ug/L			05/30/24 13:30	1
1,2-Dichloroethene, Total	1.0	U	2.0	0.37	ug/L			05/30/24 13:30	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			05/30/24 13:30	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			05/30/24 13:30	1
2,2-Dichloropropane	1.0	U Q	2.0	0.35	ug/L			05/30/24 13:30	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			05/30/24 13:30	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			05/30/24 13:30	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			05/30/24 13:30	1
2-Hexanone	10	U	20	3.2	ug/L			05/30/24 13:30	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			05/30/24 13:30	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			05/30/24 13:30	1
Methyl acetate	10	U	20	3.2	ug/L			05/30/24 13:30	1
Methylcyclohexane	1.0	U Q	2.0	0.33	ug/L			05/30/24 13:30	1
Methylene Chloride	10	U	20	3.2	ug/L			05/30/24 13:30	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			05/30/24 13:30	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			05/30/24 13:30	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			05/30/24 13:30	1
Naphthalene	5.0	U	10	2.4	ug/L			05/30/24 13:30	1
n-Butylbenzene	2.0	U Q	2.5	0.52	ug/L			05/30/24 13:30	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			05/30/24 13:30	1

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-250965-1

Client Sample ID: TRIP-BLANK-20240517
Date Collected: 05/17/24 00:00
Date Received: 05/18/24 10:06

Lab Sample ID: 680-250965-7
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	1.0	U	2.0	0.26	ug/L			05/30/24 13:30	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			05/30/24 13:30	1
Styrene	1.0	U	2.0	0.27	ug/L			05/30/24 13:30	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			05/30/24 13:30	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			05/30/24 13:30	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			05/30/24 13:30	1
Tetrachloroethene	1.0	U	2.0	0.35	ug/L			05/31/24 13:14	1
Toluene	1.0	U	2.0	0.25	ug/L			05/30/24 13:30	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			05/30/24 13:30	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			05/30/24 13:30	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			05/30/24 13:30	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			05/30/24 13:30	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			05/30/24 13:30	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			05/30/24 13:30	1
Trichloroethene	0.50	U	1.0	0.20	ug/L			05/30/24 13:30	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			05/30/24 13:30	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			05/30/24 13:30	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U Q	1.0	0.23	ug/L			05/30/24 13:30	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			05/30/24 13:30	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			05/30/24 13:30	1
Vinyl chloride	1.0	U	2.0	0.40	ug/L			05/30/24 13:30	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			05/30/24 13:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*115*	*Q*	*85 - 114*		*05/30/24 13:30*	*1*
4-Bromofluorobenzene (Surr)	*113*		*85 - 114*		*05/31/24 13:14*	*1*
Dibromofluoromethane (Surr)	*96*		*80 - 119*		*05/30/24 13:30*	*1*
Dibromofluoromethane (Surr)	*109*		*80 - 119*		*05/31/24 13:14*	*1*
1,2-Dichloroethane-d4 (Surr)	*99*		*81 - 118*		*05/30/24 13:30*	*1*
1,2-Dichloroethane-d4 (Surr)	*98*		*81 - 118*		*05/31/24 13:14*	*1*
Toluene-d8 (Surr)	*102*		*89 - 112*		*05/30/24 13:30*	*1*
Toluene-d8 (Surr)	*94*		*89 - 112*		*05/31/24 13:14*	*1*

Method: 8260D - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 680-840324/9
Matrix: Water
Analysis Batch: 840324

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			05/30/24 12:58	1
Benzene	1.0	U	2.0	0.27	ug/L			05/30/24 12:58	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			05/30/24 12:58	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			05/30/24 12:58	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			05/30/24 12:58	1
Bromoform	2.0	U	2.5	0.59	ug/L			05/30/24 12:58	1
Bromomethane	10	U	20	3.7	ug/L			05/30/24 12:58	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			05/30/24 12:58	1
Carbon disulfide	1.0	U	2.0	0.43	ug/L			05/30/24 12:58	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			05/30/24 12:58	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			05/30/24 12:58	1
Chloroethane	10	U	20	4.6	ug/L			05/30/24 12:58	1
Chloroform	1.0	U	2.0	0.27	ug/L			05/30/24 12:58	1
Chloromethane	2.0	U	2.5	0.54	ug/L			05/30/24 12:58	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			05/30/24 12:58	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			05/30/24 12:58	1
cis-1,2-Dichloroethene	1.0	U	2.0	0.25	ug/L			05/30/24 12:58	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			05/30/24 12:58	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			05/30/24 12:58	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			05/30/24 12:58	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			05/30/24 12:58	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			05/30/24 12:58	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			05/30/24 12:58	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/30/24 12:58	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/30/24 12:58	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/30/24 12:58	1
Dichlorodifluoromethane	1.0	U	2.0	0.36	ug/L			05/30/24 12:58	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			05/30/24 12:58	1
1,2-Dichloroethane	1.0	U M	2.0	0.25	ug/L			05/30/24 12:58	1
1,1-Dichloroethene	1.0	U	2.0	0.33	ug/L			05/30/24 12:58	1
1,2-Dichloroethene, Total	1.0	U	2.0	0.37	ug/L			05/30/24 12:58	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			05/30/24 12:58	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			05/30/24 12:58	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			05/30/24 12:58	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			05/30/24 12:58	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			05/30/24 12:58	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			05/30/24 12:58	1
2-Hexanone	10	U	20	3.2	ug/L			05/30/24 12:58	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			05/30/24 12:58	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			05/30/24 12:58	1
Methyl acetate	10	U	20	3.2	ug/L			05/30/24 12:58	1
Methylcyclohexane	0.615	J	2.0	0.33	ug/L			05/30/24 12:58	1
Methylene Chloride	10	U	20	3.2	ug/L			05/30/24 12:58	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			05/30/24 12:58	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			05/30/24 12:58	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			05/30/24 12:58	1
Naphthalene	5.0	U	10	2.4	ug/L			05/30/24 12:58	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			05/30/24 12:58	1

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-840324/9
Matrix: Water
Analysis Batch: 840324

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			05/30/24 12:58	1
o-Xylene	1.0	U	2.0	0.26	ug/L			05/30/24 12:58	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			05/30/24 12:58	1
Styrene	1.0	U	2.0	0.27	ug/L			05/30/24 12:58	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			05/30/24 12:58	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			05/30/24 12:58	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			05/30/24 12:58	1
Tetrachloroethene	1.0	U	2.0	0.35	ug/L			05/30/24 12:58	1
Toluene	1.0	U	2.0	0.25	ug/L			05/30/24 12:58	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			05/30/24 12:58	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			05/30/24 12:58	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			05/30/24 12:58	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			05/30/24 12:58	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			05/30/24 12:58	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			05/30/24 12:58	1
Trichloroethene	0.50	U	1.0	0.20	ug/L			05/30/24 12:58	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			05/30/24 12:58	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			05/30/24 12:58	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			05/30/24 12:58	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			05/30/24 12:58	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			05/30/24 12:58	1
Vinyl chloride	1.0	U	2.0	0.40	ug/L			05/30/24 12:58	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			05/30/24 12:58	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*114*		*85 - 114*		*05/30/24 12:58*	*1*
Dibromofluoromethane (Surr)	*97*		*80 - 119*		*05/30/24 12:58*	*1*
1,2-Dichloroethane-d4 (Surr)	*100*		*81 - 118*		*05/30/24 12:58*	*1*
Toluene-d8 (Surr)	*103*		*89 - 112*		*05/30/24 12:58*	*1*

Lab Sample ID: LCS 680-840324/4
Matrix: Water
Analysis Batch: 840324

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	250	253		ug/L		101	39 - 160
Benzene	50.0	55.9		ug/L		112	79 - 120
Bromobenzene	50.0	49.4		ug/L		99	80 - 120
Bromochloromethane	50.0	62.7	Q	ug/L		125	78 - 123
Bromodichloromethane	50.0	56.7		ug/L		113	79 - 125
Bromoform	50.0	46.1		ug/L		92	66 - 130
Bromomethane	50.0	44.6		ug/L		89	53 - 141
2-Butanone (MEK)	250	293		ug/L		117	56 - 143
Carbon disulfide	50.0	60.7		ug/L		121	64 - 133
Carbon tetrachloride	50.0	60.9		ug/L		122	72 - 136
Chlorobenzene	50.0	47.3		ug/L		95	82 - 118
Chloroethane	50.0	54.7		ug/L		109	60 - 138
Chloroform	50.0	56.4		ug/L		113	79 - 124

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-840324/4
Matrix: Water
Analysis Batch: 840324

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloromethane	50.0	55.8		ug/L		112	50 - 139
2-Chlorotoluene	50.0	50.8		ug/L		102	79 - 122
4-Chlorotoluene	50.0	50.0		ug/L		100	78 - 122
cis-1,2-Dichloroethene	50.0	55.3		ug/L		111	78 - 123
cis-1,3-Dichloropropene	50.0	55.3		ug/L		111	75 - 124
Cyclohexane	50.0	64.1		ug/L		128	71 - 130
Dibromochloromethane	50.0	49.4		ug/L		99	74 - 126
1,2-Dibromo-3-Chloropropane	50.0	46.6		ug/L		93	62 - 128
1,2-Dibromoethane	50.0	51.1		ug/L		102	75 - 127
Dibromomethane	50.0	52.6		ug/L		105	79 - 123
1,2-Dichlorobenzene	50.0	55.1		ug/L		110	80 - 119
1,3-Dichlorobenzene	50.0	55.7		ug/L		111	80 - 119
1,4-Dichlorobenzene	50.0	55.2		ug/L		110	79 - 118
Dichlorodifluoromethane	50.0	44.9		ug/L		90	32 - 152
1,1-Dichloroethane	50.0	59.3		ug/L		119	77 - 125
1,2-Dichloroethane	50.0	56.4		ug/L		113	73 - 128
1,1-Dichloroethene	50.0	58.6		ug/L		117	71 - 131
1,2-Dichloroethene, Total	100	112		ug/L		112	79 - 121
1,2-Dichloropropane	50.0	57.4		ug/L		115	78 - 122
1,3-Dichloropropane	50.0	53.4		ug/L		107	80 - 119
2,2-Dichloropropane	50.0	60.6		ug/L		121	60 - 139
1,1-Dichloropropene	50.0	57.1		ug/L		114	79 - 125
Ethylbenzene	50.0	54.6		ug/L		109	79 - 121
Hexachlorobutadiene	50.0	56.6		ug/L		113	66 - 134
2-Hexanone	250	285		ug/L		114	57 - 139
Isopropylbenzene	50.0	52.6		ug/L		105	72 - 131
4-Isopropyltoluene	50.0	58.6		ug/L		117	77 - 127
Methyl acetate	100	98.9		ug/L		99	56 - 136
Methylcyclohexane	50.0	57.6		ug/L		115	72 - 132
Methylene Chloride	50.0	57.5		ug/L		115	74 - 124
4-Methyl-2-pentanone (MIBK)	250	293		ug/L		117	67 - 130
Methyl tert-butyl ether	50.0	54.2		ug/L		108	71 - 124
m-Xylene & p-Xylene	50.0	51.6		ug/L		103	80 - 121
Naphthalene	50.0	51.8		ug/L		104	61 - 128
n-Butylbenzene	50.0	62.1		ug/L		124	75 - 128
N-Propylbenzene	50.0	52.5		ug/L		105	76 - 126
o-Xylene	50.0	49.8		ug/L		100	78 - 122
sec-Butylbenzene	50.0	53.9		ug/L		108	77 - 126
Styrene	50.0	49.4		ug/L		99	78 - 123
tert-Butylbenzene	50.0	52.6		ug/L		105	78 - 124
1,1,1,2-Tetrachloroethane	50.0	51.5		ug/L		103	78 - 124
1,1,2,2-Tetrachloroethane	50.0	52.9		ug/L		106	71 - 121
Tetrachloroethene	50.0	50.8		ug/L		102	74 - 129
Toluene	50.0	55.8		ug/L		112	80 - 121
trans-1,2-Dichloroethene	50.0	56.7		ug/L		113	75 - 124
trans-1,3-Dichloropropene	50.0	54.9		ug/L		110	73 - 127
1,2,3-Trichlorobenzene	50.0	56.7		ug/L		113	69 - 129
1,2,4-Trichlorobenzene	50.0	55.5		ug/L		111	69 - 130
1,1,1-Trichloroethane	50.0	56.1		ug/L		112	74 - 131

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-840324/4
Matrix: Water
Analysis Batch: 840324

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,2-Trichloroethane	50.0	51.8		ug/L		104	80 - 119
Trichloroethene	50.0	47.9		ug/L		96	79 - 123
Trichlorofluoromethane	50.0	53.9		ug/L		108	65 - 141
1,2,3-Trichloropropane	50.0	48.3		ug/L		97	73 - 122
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	56.1		ug/L		112	70 - 136
1,2,4-Trimethylbenzene	50.0	53.0		ug/L		106	76 - 124
1,3,5-Trimethylbenzene	50.0	52.8		ug/L		106	75 - 124
Vinyl chloride	50.0	50.6		ug/L		101	58 - 137
Xylenes, Total	100	101		ug/L		101	79 - 121

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*107*		*85 - 114*
Dibromofluoromethane (Surr)	*110*		*80 - 119*
1,2-Dichloroethane-d4 (Surr)	*110*		*81 - 118*
Toluene-d8 (Surr)	*106*		*89 - 112*

Lab Sample ID: LCSD 680-840324/5
Matrix: Water
Analysis Batch: 840324

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acetone	250	244		ug/L		98	39 - 160	4	20
Benzene	50.0	55.4		ug/L		111	79 - 120	1	20
Bromobenzene	50.0	48.9		ug/L		98	80 - 120	1	20
Bromochloromethane	50.0	59.4		ug/L		119	78 - 123	5	20
Bromodichloromethane	50.0	53.9		ug/L		108	79 - 125	5	20
Bromoform	50.0	45.9		ug/L		92	66 - 130	0	20
Bromomethane	50.0	44.2		ug/L		88	53 - 141	1	20
2-Butanone (MEK)	250	282		ug/L		113	56 - 143	4	20
Carbon disulfide	50.0	64.9		ug/L		130	64 - 133	7	20
Carbon tetrachloride	50.0	67.6		ug/L		135	72 - 136	10	20
Chlorobenzene	50.0	47.4		ug/L		95	82 - 118	0	20
Chloroethane	50.0	54.2		ug/L		108	60 - 138	1	20
Chloroform	50.0	54.7		ug/L		109	79 - 124	3	20
Chloromethane	50.0	54.6		ug/L		109	50 - 139	2	20
2-Chlorotoluene	50.0	53.0		ug/L		106	79 - 122	4	20
4-Chlorotoluene	50.0	51.2		ug/L		102	78 - 122	2	20
cis-1,2-Dichloroethene	50.0	52.9		ug/L		106	78 - 123	4	20
cis-1,3-Dichloropropene	50.0	52.5		ug/L		105	75 - 124	5	20
Cyclohexane	50.0	77.0	Q	ug/L		154	71 - 130	18	20
Dibromochloromethane	50.0	47.2		ug/L		94	74 - 126	5	20
1,2-Dibromo-3-Chloropropane	50.0	46.0		ug/L		92	62 - 128	1	20
1,2-Dibromoethane	50.0	48.9		ug/L		98	75 - 127	4	20
Dibromomethane	50.0	50.7		ug/L		101	79 - 123	4	20
1,2-Dichlorobenzene	50.0	54.4		ug/L		109	80 - 119	1	20
1,3-Dichlorobenzene	50.0	55.4		ug/L		111	80 - 119	1	20
1,4-Dichlorobenzene	50.0	54.3		ug/L		109	79 - 118	2	20
Dichlorodifluoromethane	50.0	55.6	Q	ug/L		111	32 - 152	21	20

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-840324/5
Matrix: Water
Analysis Batch: 840324

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1-Dichloroethane	50.0	57.9		ug/L		116	77 - 125	2	20
1,2-Dichloroethane	50.0	53.5		ug/L		107	73 - 128	5	20
1,1-Dichloroethene	50.0	63.7		ug/L		127	71 - 131	8	20
1,2-Dichloroethene, Total	100	110		ug/L		110	79 - 121	1	20
1,2-Dichloropropane	50.0	54.5		ug/L		109	78 - 122	5	20
1,3-Dichloropropane	50.0	51.2		ug/L		102	80 - 119	4	20
2,2-Dichloropropane	50.0	62.6		ug/L		125	60 - 139	3	20
1,1-Dichloropropene	50.0	61.7		ug/L		123	79 - 125	8	20
Ethylbenzene	50.0	57.1		ug/L		114	79 - 121	4	20
Hexachlorobutadiene	50.0	66.7		ug/L		133	66 - 134	16	20
2-Hexanone	250	278		ug/L		111	57 - 139	3	20
Isopropylbenzene	50.0	56.9		ug/L		114	72 - 131	8	20
4-Isopropyltoluene	50.0	63.1		ug/L		126	77 - 127	7	20
Methyl acetate	100	96.7		ug/L		97	56 - 136	2	20
Methylcyclohexane	50.0	73.6	Q	ug/L		147	72 - 132	24	20
Methylene Chloride	50.0	54.2		ug/L		108	74 - 124	6	20
4-Methyl-2-pentanone (MIBK)	250	285		ug/L		114	67 - 130	2	20
Methyl tert-butyl ether	50.0	51.7		ug/L		103	71 - 124	5	20
m-Xylene & p-Xylene	50.0	54.0		ug/L		108	80 - 121	5	20
Naphthalene	50.0	52.2		ug/L		104	61 - 128	1	20
n-Butylbenzene	50.0	68.5	Q	ug/L		137	75 - 128	10	20
N-Propylbenzene	50.0	56.8		ug/L		114	76 - 126	8	20
o-Xylene	50.0	51.2		ug/L		102	78 - 122	3	20
sec-Butylbenzene	50.0	60.9		ug/L		122	77 - 126	12	20
Styrene	50.0	49.0		ug/L		98	78 - 123	1	20
tert-Butylbenzene	50.0	57.7		ug/L		115	78 - 124	9	20
1,1,1,2-Tetrachloroethane	50.0	51.1		ug/L		102	78 - 124	1	20
1,1,2,2-Tetrachloroethane	50.0	52.2		ug/L		104	71 - 121	1	20
Tetrachloroethene	50.0	55.5		ug/L		111	74 - 129	9	20
Toluene	50.0	55.8		ug/L		112	80 - 121	0	20
trans-1,2-Dichloroethene	50.0	57.5		ug/L		115	75 - 124	1	20
trans-1,3-Dichloropropene	50.0	52.5		ug/L		105	73 - 127	4	20
1,2,3-Trichlorobenzene	50.0	57.5		ug/L		115	69 - 129	1	20
1,2,4-Trichlorobenzene	50.0	57.2		ug/L		114	69 - 130	3	20
1,1,1-Trichloroethane	50.0	60.0		ug/L		120	74 - 131	7	20
1,1,2-Trichloroethane	50.0	50.2		ug/L		100	80 - 119	3	20
Trichloroethene	50.0	48.9		ug/L		98	79 - 123	2	20
Trichlorofluoromethane	50.0	63.0		ug/L		126	65 - 141	16	20
1,2,3-Trichloropropane	50.0	47.1		ug/L		94	73 - 122	3	20
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	69.3	Q	ug/L		139	70 - 136	21	20
1,2,4-Trimethylbenzene	50.0	55.2		ug/L		110	76 - 124	4	20
1,3,5-Trimethylbenzene	50.0	55.5		ug/L		111	75 - 124	5	20
Vinyl chloride	50.0	55.3		ug/L		111	58 - 137	9	20
Xylenes, Total	100	105		ug/L		105	79 - 121	4	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*103*		*85 - 114*

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-840324/5
Matrix: Water
Analysis Batch: 840324

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Dibromofluoromethane (Surr)	*105*		*80 - 119*
1,2-Dichloroethane-d4 (Surr)	*104*		*81 - 118*
Toluene-d8 (Surr)	*106*		*89 - 112*

Lab Sample ID: MB 680-840504/8
Matrix: Water
Analysis Batch: 840504

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			05/31/24 12:39	1
Benzene	1.0	U	2.0	0.27	ug/L			05/31/24 12:39	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			05/31/24 12:39	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			05/31/24 12:39	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			05/31/24 12:39	1
Bromoform	2.0	U	2.5	0.59	ug/L			05/31/24 12:39	1
Bromomethane	10	U	20	3.7	ug/L			05/31/24 12:39	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			05/31/24 12:39	1
Carbon disulfide	1.0	U	2.0	0.43	ug/L			05/31/24 12:39	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			05/31/24 12:39	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			05/31/24 12:39	1
Chloroethane	10	U	20	4.6	ug/L			05/31/24 12:39	1
Chloroform	1.0	U	2.0	0.27	ug/L			05/31/24 12:39	1
Chloromethane	2.0	U	2.5	0.54	ug/L			05/31/24 12:39	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			05/31/24 12:39	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			05/31/24 12:39	1
cis-1,2-Dichloroethene	1.0	U	2.0	0.25	ug/L			05/31/24 12:39	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			05/31/24 12:39	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			05/31/24 12:39	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			05/31/24 12:39	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			05/31/24 12:39	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			05/31/24 12:39	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			05/31/24 12:39	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/31/24 12:39	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/31/24 12:39	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/31/24 12:39	1
Dichlorodifluoromethane	1.0	U	2.0	0.36	ug/L			05/31/24 12:39	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			05/31/24 12:39	1
1,2-Dichloroethane	1.0	U	2.0	0.25	ug/L			05/31/24 12:39	1
1,1-Dichloroethene	1.0	U	2.0	0.33	ug/L			05/31/24 12:39	1
1,2-Dichloroethene, Total	1.0	U	2.0	0.37	ug/L			05/31/24 12:39	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			05/31/24 12:39	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			05/31/24 12:39	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			05/31/24 12:39	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			05/31/24 12:39	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			05/31/24 12:39	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			05/31/24 12:39	1
2-Hexanone	10	U	20	3.2	ug/L			05/31/24 12:39	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			05/31/24 12:39	1

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-840504/8
Matrix: Water
Analysis Batch: 840504

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			05/31/24 12:39	1
Methyl acetate	10	U	20	3.2	ug/L			05/31/24 12:39	1
Methylcyclohexane	0.663	J	2.0	0.33	ug/L			05/31/24 12:39	1
Methylene Chloride	10	U	20	3.2	ug/L			05/31/24 12:39	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			05/31/24 12:39	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			05/31/24 12:39	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			05/31/24 12:39	1
Naphthalene	5.0	U	10	2.4	ug/L			05/31/24 12:39	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			05/31/24 12:39	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			05/31/24 12:39	1
o-Xylene	1.0	U	2.0	0.26	ug/L			05/31/24 12:39	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			05/31/24 12:39	1
Styrene	1.0	U	2.0	0.27	ug/L			05/31/24 12:39	1
tert-Butylbenzene	1.0	U M	2.0	0.43	ug/L			05/31/24 12:39	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			05/31/24 12:39	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			05/31/24 12:39	1
Tetrachloroethene	1.0	U	2.0	0.35	ug/L			05/31/24 12:39	1
Toluene	1.0	U	2.0	0.25	ug/L			05/31/24 12:39	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			05/31/24 12:39	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			05/31/24 12:39	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			05/31/24 12:39	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			05/31/24 12:39	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			05/31/24 12:39	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			05/31/24 12:39	1
Trichloroethene	0.50	U	1.0	0.20	ug/L			05/31/24 12:39	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			05/31/24 12:39	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			05/31/24 12:39	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			05/31/24 12:39	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			05/31/24 12:39	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			05/31/24 12:39	1
Vinyl chloride	1.0	U	2.0	0.40	ug/L			05/31/24 12:39	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			05/31/24 12:39	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*85 - 114*		*05/31/24 12:39*	*1*
Dibromofluoromethane (Surr)	*108*		*80 - 119*		*05/31/24 12:39*	*1*
1,2-Dichloroethane-d4 (Surr)	*96*		*81 - 118*		*05/31/24 12:39*	*1*
Toluene-d8 (Surr)	*96*		*89 - 112*		*05/31/24 12:39*	*1*

Lab Sample ID: LCS 680-840504/4
Matrix: Water
Analysis Batch: 840504

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	250	224		ug/L		89	39 - 160
Benzene	50.0	52.9		ug/L		106	79 - 120
Bromobenzene	50.0	54.5		ug/L		109	80 - 120
Bromochloromethane	50.0	52.3		ug/L		105	78 - 123

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-840504/4
Matrix: Water
Analysis Batch: 840504

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bromodichloromethane	50.0	50.5		ug/L		101	79 - 125
Bromoform	50.0	67.5	J1 Q	ug/L		135	66 - 130
Bromomethane	50.0	46.4		ug/L		93	53 - 141
2-Butanone (MEK)	250	242		ug/L		97	56 - 143
Carbon disulfide	50.0	55.5		ug/L		111	64 - 133
Carbon tetrachloride	50.0	51.3		ug/L		103	72 - 136
Chlorobenzene	50.0	49.9		ug/L		100	82 - 118
Chloroethane	50.0	47.0		ug/L		94	60 - 138
Chloroform	50.0	50.5		ug/L		101	79 - 124
Chloromethane	50.0	45.7		ug/L		91	50 - 139
2-Chlorotoluene	50.0	50.4		ug/L		101	79 - 122
4-Chlorotoluene	50.0	51.6		ug/L		103	78 - 122
cis-1,2-Dichloroethene	50.0	51.8		ug/L		104	78 - 123
cis-1,3-Dichloropropene	50.0	50.5		ug/L		101	75 - 124
Cyclohexane	50.0	57.2		ug/L		114	71 - 130
Dibromochloromethane	50.0	51.5		ug/L		103	74 - 126
1,2-Dibromo-3-Chloropropane	50.0	50.7		ug/L		101	62 - 128
1,2-Dibromoethane	50.0	50.1		ug/L		100	75 - 127
Dibromomethane	50.0	49.4		ug/L		99	79 - 123
1,2-Dichlorobenzene	50.0	50.6		ug/L		101	80 - 119
1,3-Dichlorobenzene	50.0	50.9		ug/L		102	80 - 119
1,4-Dichlorobenzene	50.0	50.8		ug/L		102	79 - 118
Dichlorodifluoromethane	50.0	57.4		ug/L		115	32 - 152
1,1-Dichloroethane	50.0	51.8		ug/L		104	77 - 125
1,2-Dichloroethane	50.0	47.9		ug/L		96	73 - 128
1,1-Dichloroethene	50.0	53.2		ug/L		106	71 - 131
1,2-Dichloroethene, Total	100	106		ug/L		106	79 - 121
1,2-Dichloropropane	50.0	51.9		ug/L		104	78 - 122
1,3-Dichloropropane	50.0	50.0		ug/L		100	80 - 119
2,2-Dichloropropane	50.0	55.6		ug/L		111	60 - 139
1,1-Dichloropropene	50.0	55.2		ug/L		110	79 - 125
Ethylbenzene	50.0	49.9		ug/L		100	79 - 121
Hexachlorobutadiene	50.0	56.3		ug/L		113	66 - 134
2-Hexanone	250	244		ug/L		97	57 - 139
Isopropylbenzene	50.0	50.0		ug/L		100	72 - 131
4-Isopropyltoluene	50.0	49.8		ug/L		100	77 - 127
Methyl acetate	100	79.8		ug/L		80	56 - 136
Methylcyclohexane	50.0	55.7		ug/L		111	72 - 132
Methylene Chloride	50.0	49.8		ug/L		100	74 - 124
4-Methyl-2-pentanone (MIBK)	250	246		ug/L		98	67 - 130
Methyl tert-butyl ether	50.0	51.7		ug/L		103	71 - 124
m-Xylene & p-Xylene	50.0	49.3		ug/L		99	80 - 121
Naphthalene	50.0	48.4		ug/L		97	61 - 128
n-Butylbenzene	50.0	52.1		ug/L		104	75 - 128
N-Propylbenzene	50.0	49.0		ug/L		98	76 - 126
o-Xylene	50.0	49.2		ug/L		98	78 - 122
sec-Butylbenzene	50.0	51.2		ug/L		102	77 - 126
Styrene	50.0	50.5		ug/L		101	78 - 123
tert-Butylbenzene	50.0	50.9		ug/L		102	78 - 124

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-840504/4
Matrix: Water
Analysis Batch: 840504

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1,2-Tetrachloroethane	50.0	52.6		ug/L		105	78 - 124
1,1,2,2-Tetrachloroethane	50.0	58.0		ug/L		116	71 - 121
Tetrachloroethene	50.0	54.0		ug/L		108	74 - 129
Toluene	50.0	50.5		ug/L		101	80 - 121
trans-1,2-Dichloroethene	50.0	54.1		ug/L		108	75 - 124
trans-1,3-Dichloropropene	50.0	49.4		ug/L		99	73 - 127
1,2,3-Trichlorobenzene	50.0	48.7		ug/L		97	69 - 129
1,2,4-Trichlorobenzene	50.0	53.2		ug/L		106	69 - 130
1,1,1-Trichloroethane	50.0	53.2		ug/L		106	74 - 131
1,1,2-Trichloroethane	50.0	50.0		ug/L		100	80 - 119
Trichloroethene	50.0	51.1		ug/L		102	79 - 123
Trichlorofluoromethane	50.0	40.4		ug/L		81	65 - 141
1,2,3-Trichloropropane	50.0	52.6		ug/L		105	73 - 122
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	58.9		ug/L		118	70 - 136
1,2,4-Trimethylbenzene	50.0	54.5		ug/L		109	76 - 124
1,3,5-Trimethylbenzene	50.0	51.6		ug/L		103	75 - 124
Vinyl chloride	50.0	50.4	M	ug/L		101	58 - 137
Xylenes, Total	100	98.5		ug/L		99	79 - 121

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*85 - 114*
Dibromofluoromethane (Surr)	*105*		*80 - 119*
1,2-Dichloroethane-d4 (Surr)	*103*		*81 - 118*
Toluene-d8 (Surr)	*104*		*89 - 112*

Lab Sample ID: LCSD 680-840504/5
Matrix: Water
Analysis Batch: 840504

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acetone	250	236		ug/L		94	39 - 160	5	20
Benzene	50.0	51.9		ug/L		104	79 - 120	2	20
Bromobenzene	50.0	54.0		ug/L		108	80 - 120	1	20
Bromochloromethane	50.0	53.4		ug/L		107	78 - 123	2	20
Bromodichloromethane	50.0	51.2		ug/L		102	79 - 125	1	20
Bromoform	50.0	69.0	J1 Q	ug/L		138	66 - 130	2	20
Bromomethane	50.0	45.3		ug/L		91	53 - 141	2	20
2-Butanone (MEK)	250	261		ug/L		104	56 - 143	8	20
Carbon disulfide	50.0	54.1		ug/L		108	64 - 133	3	20
Carbon tetrachloride	50.0	50.6		ug/L		101	72 - 136	2	20
Chlorobenzene	50.0	49.8		ug/L		100	82 - 118	0	20
Chloroethane	50.0	45.8		ug/L		92	60 - 138	3	20
Chloroform	50.0	50.7		ug/L		101	79 - 124	0	20
Chloromethane	50.0	44.8		ug/L		90	50 - 139	2	20
2-Chlorotoluene	50.0	50.5		ug/L		101	79 - 122	0	20
4-Chlorotoluene	50.0	50.9		ug/L		102	78 - 122	1	20
cis-1,2-Dichloroethene	50.0	51.4		ug/L		103	78 - 123	1	20
cis-1,3-Dichloropropene	50.0	51.9		ug/L		104	75 - 124	3	20

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-840504/5
Matrix: Water
Analysis Batch: 840504

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Cyclohexane	50.0	56.4		ug/L		113	71 - 130	1	20
Dibromochloromethane	50.0	52.0		ug/L		104	74 - 126	1	20
1,2-Dibromo-3-Chloropropane	50.0	54.3		ug/L		109	62 - 128	7	20
1,2-Dibromoethane	50.0	51.1		ug/L		102	75 - 127	2	20
Dibromomethane	50.0	51.1		ug/L		102	79 - 123	3	20
1,2-Dichlorobenzene	50.0	51.5		ug/L		103	80 - 119	2	20
1,3-Dichlorobenzene	50.0	51.5		ug/L		103	80 - 119	1	20
1,4-Dichlorobenzene	50.0	51.6		ug/L		103	79 - 118	2	20
Dichlorodifluoromethane	50.0	55.1		ug/L		110	32 - 152	4	20
1,1-Dichloroethane	50.0	51.6		ug/L		103	77 - 125	1	20
1,2-Dichloroethane	50.0	49.2		ug/L		98	73 - 128	3	20
1,1-Dichloroethene	50.0	52.3		ug/L		105	71 - 131	2	20
1,2-Dichloroethene, Total	100	104		ug/L		104	79 - 121	2	20
1,2-Dichloropropane	50.0	52.3		ug/L		105	78 - 122	1	20
1,3-Dichloropropane	50.0	51.1		ug/L		102	80 - 119	2	20
2,2-Dichloropropane	50.0	54.1		ug/L		108	60 - 139	3	20
1,1-Dichloropropene	50.0	54.4		ug/L		109	79 - 125	1	20
Ethylbenzene	50.0	49.2		ug/L		98	79 - 121	1	20
Hexachlorobutadiene	50.0	56.8		ug/L		114	66 - 134	1	20
2-Hexanone	250	259		ug/L		104	57 - 139	6	20
Isopropylbenzene	50.0	48.8		ug/L		98	72 - 131	2	20
4-Isopropyltoluene	50.0	49.4		ug/L		99	77 - 127	1	20
Methyl acetate	100	84.8		ug/L		85	56 - 136	6	20
Methylcyclohexane	50.0	54.1		ug/L		108	72 - 132	3	20
Methylene Chloride	50.0	49.6		ug/L		99	74 - 124	1	20
4-Methyl-2-pentanone (MIBK)	250	259		ug/L		104	67 - 130	5	20
Methyl tert-butyl ether	50.0	53.0		ug/L		106	71 - 124	3	20
m-Xylene & p-Xylene	50.0	48.5		ug/L		97	80 - 121	2	20
Naphthalene	50.0	51.0		ug/L		102	61 - 128	5	20
n-Butylbenzene	50.0	51.2		ug/L		102	75 - 128	2	20
N-Propylbenzene	50.0	48.3		ug/L		97	76 - 126	1	20
o-Xylene	50.0	48.8		ug/L		98	78 - 122	1	20
sec-Butylbenzene	50.0	50.4		ug/L		101	77 - 126	2	20
Styrene	50.0	49.8		ug/L		100	78 - 123	1	20
tert-Butylbenzene	50.0	49.6		ug/L		99	78 - 124	3	20
1,1,1,2-Tetrachloroethane	50.0	52.3		ug/L		105	78 - 124	0	20
1,1,2,2-Tetrachloroethane	50.0	60.8	Q	ug/L		122	71 - 121	5	20
Tetrachloroethene	50.0	53.4		ug/L		107	74 - 129	1	20
Toluene	50.0	50.0		ug/L		100	80 - 121	1	20
trans-1,2-Dichloroethene	50.0	52.7		ug/L		105	75 - 124	3	20
trans-1,3-Dichloropropene	50.0	50.2		ug/L		100	73 - 127	2	20
1,2,3-Trichlorobenzene	50.0	50.2		ug/L		100	69 - 129	3	20
1,2,4-Trichlorobenzene	50.0	53.9		ug/L		108	69 - 130	1	20
1,1,1-Trichloroethane	50.0	52.2		ug/L		104	74 - 131	2	20
1,1,2-Trichloroethane	50.0	51.0		ug/L		102	80 - 119	2	20
Trichloroethene	50.0	50.5		ug/L		101	79 - 123	1	20
Trichlorofluoromethane	50.0	40.9	M	ug/L		82	65 - 141	1	20
1,2,3-Trichloropropane	50.0	54.4		ug/L		109	73 - 122	3	20

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-840504/5
Matrix: Water
Analysis Batch: 840504

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1,2-Trichloro-1,2,2-trifluoroethane			50.0	57.4		ug/L		115	70 - 136	3	20
1,2,4-Trimethylbenzene			50.0	53.8		ug/L		108	76 - 124	1	20
1,3,5-Trimethylbenzene			50.0	49.8		ug/L		100	75 - 124	4	20
Vinyl chloride			50.0	47.0	M	ug/L		94	58 - 137	7	20
Xylenes, Total			100	97.3		ug/L		97	79 - 121	1	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*85 - 114*
Dibromofluoromethane (Surr)	*106*		*80 - 119*
1,2-Dichloroethane-d4 (Surr)	*105*		*81 - 118*
Toluene-d8 (Surr)	*103*		*89 - 112*

Lab Sample ID: MB 680-840531/8
Matrix: Water
Analysis Batch: 840531

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			05/31/24 12:41	1
Benzene	1.0	U	2.0	0.27	ug/L			05/31/24 12:41	1
Bromobenzene	0.50	U M	1.0	0.24	ug/L			05/31/24 12:41	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			05/31/24 12:41	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			05/31/24 12:41	1
Bromoform	2.0	U	2.5	0.59	ug/L			05/31/24 12:41	1
Bromomethane	10	U	20	3.7	ug/L			05/31/24 12:41	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			05/31/24 12:41	1
Carbon disulfide	1.0	U	2.0	0.43	ug/L			05/31/24 12:41	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			05/31/24 12:41	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			05/31/24 12:41	1
Chloroethane	10	U	20	4.6	ug/L			05/31/24 12:41	1
Chloroform	1.0	U	2.0	0.27	ug/L			05/31/24 12:41	1
Chloromethane	2.0	U	2.5	0.54	ug/L			05/31/24 12:41	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			05/31/24 12:41	1
4-Chlorotoluene	1.0	U M	2.0	0.41	ug/L			05/31/24 12:41	1
cis-1,2-Dichloroethene	1.0	U	2.0	0.25	ug/L			05/31/24 12:41	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			05/31/24 12:41	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			05/31/24 12:41	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			05/31/24 12:41	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			05/31/24 12:41	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			05/31/24 12:41	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			05/31/24 12:41	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/31/24 12:41	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/31/24 12:41	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/31/24 12:41	1
Dichlorodifluoromethane	1.0	U	2.0	0.36	ug/L			05/31/24 12:41	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			05/31/24 12:41	1
1,2-Dichloroethane	1.0	U M	2.0	0.25	ug/L			05/31/24 12:41	1
1,1-Dichloroethene	1.0	U	2.0	0.33	ug/L			05/31/24 12:41	1
1,2-Dichloroethene, Total	1.0	U	2.0	0.37	ug/L			05/31/24 12:41	1

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-840531/8
Matrix: Water
Analysis Batch: 840531

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			05/31/24 12:41	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			05/31/24 12:41	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			05/31/24 12:41	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			05/31/24 12:41	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			05/31/24 12:41	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			05/31/24 12:41	1
2-Hexanone	10	U	20	3.2	ug/L			05/31/24 12:41	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			05/31/24 12:41	1
4-Isopropyltoluene	0.537	J	2.0	0.44	ug/L			05/31/24 12:41	1
Methyl acetate	10	U	20	3.2	ug/L			05/31/24 12:41	1
Methylcyclohexane	1.0	U M	2.0	0.33	ug/L			05/31/24 12:41	1
Methylene Chloride	10	U	20	3.2	ug/L			05/31/24 12:41	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			05/31/24 12:41	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			05/31/24 12:41	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			05/31/24 12:41	1
Naphthalene	5.0	U	10	2.4	ug/L			05/31/24 12:41	1
n-Butylbenzene	0.663	J	2.5	0.52	ug/L			05/31/24 12:41	1
N-Propylbenzene	1.0	U M	2.0	0.41	ug/L			05/31/24 12:41	1
o-Xylene	1.0	U	2.0	0.26	ug/L			05/31/24 12:41	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			05/31/24 12:41	1
Styrene	1.0	U	2.0	0.27	ug/L			05/31/24 12:41	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			05/31/24 12:41	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			05/31/24 12:41	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			05/31/24 12:41	1
Tetrachloroethene	1.0	U	2.0	0.35	ug/L			05/31/24 12:41	1
Toluene	1.0	U	2.0	0.25	ug/L			05/31/24 12:41	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			05/31/24 12:41	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			05/31/24 12:41	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			05/31/24 12:41	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			05/31/24 12:41	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			05/31/24 12:41	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			05/31/24 12:41	1
Trichloroethene	0.50	U	1.0	0.20	ug/L			05/31/24 12:41	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			05/31/24 12:41	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			05/31/24 12:41	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			05/31/24 12:41	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			05/31/24 12:41	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			05/31/24 12:41	1
Vinyl chloride	1.0	U	2.0	0.40	ug/L			05/31/24 12:41	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			05/31/24 12:41	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*85 - 114*		*05/31/24 12:41*	*1*
Dibromofluoromethane (Surr)	*109*		*80 - 119*		*05/31/24 12:41*	*1*
1,2-Dichloroethane-d4 (Surr)	*92*		*81 - 118*		*05/31/24 12:41*	*1*
Toluene-d8 (Surr)	*104*		*89 - 112*		*05/31/24 12:41*	*1*

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-840531/4
Matrix: Water
Analysis Batch: 840531

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	250	204		ug/L		82	39 - 160
Benzene	50.0	55.3		ug/L		111	79 - 120
Bromobenzene	50.0	62.3	Q	ug/L		125	80 - 120
Bromochloromethane	50.0	53.6		ug/L		107	78 - 123
Bromodichloromethane	50.0	47.1		ug/L		94	79 - 125
Bromoform	50.0	52.5		ug/L		105	66 - 130
Bromomethane	50.0	40.0		ug/L		80	53 - 141
2-Butanone (MEK)	250	231		ug/L		93	56 - 143
Carbon disulfide	50.0	53.3		ug/L		107	64 - 133
Carbon tetrachloride	50.0	49.6		ug/L		99	72 - 136
Chlorobenzene	50.0	51.4		ug/L		103	82 - 118
Chloroethane	50.0	40.4		ug/L		81	60 - 138
Chloroform	50.0	54.8		ug/L		110	79 - 124
Chloromethane	50.0	40.7		ug/L		81	50 - 139
2-Chlorotoluene	50.0	62.9	Q	ug/L		126	79 - 122
4-Chlorotoluene	50.0	63.2	Q	ug/L		126	78 - 122
cis-1,2-Dichloroethene	50.0	54.5		ug/L		109	78 - 123
cis-1,3-Dichloropropene	50.0	40.4		ug/L		81	75 - 124
Cyclohexane	50.0	54.4		ug/L		109	71 - 130
Dibromochloromethane	50.0	44.7		ug/L		89	74 - 126
1,2-Dibromo-3-Chloropropane	50.0	41.8		ug/L		84	62 - 128
1,2-Dibromoethane	50.0	39.7		ug/L		79	75 - 127
Dibromomethane	50.0	47.9		ug/L		96	79 - 123
1,2-Dichlorobenzene	50.0	52.6		ug/L		105	80 - 119
1,3-Dichlorobenzene	50.0	54.8		ug/L		110	80 - 119
1,4-Dichlorobenzene	50.0	53.1		ug/L		106	79 - 118
Dichlorodifluoromethane	50.0	42.7		ug/L		85	32 - 152
1,1-Dichloroethane	50.0	50.6		ug/L		101	77 - 125
1,2-Dichloroethane	50.0	53.1		ug/L		106	73 - 128
1,1-Dichloroethene	50.0	44.2		ug/L		88	71 - 131
1,2-Dichloroethene, Total	100	107		ug/L		107	79 - 121
1,2-Dichloropropane	50.0	48.4		ug/L		97	78 - 122
1,3-Dichloropropane	50.0	43.0		ug/L		86	80 - 119
2,2-Dichloropropane	50.0	55.9		ug/L		112	60 - 139
1,1-Dichloropropene	50.0	52.4		ug/L		105	79 - 125
Ethylbenzene	50.0	56.6		ug/L		113	79 - 121
Hexachlorobutadiene	50.0	54.3		ug/L		109	66 - 134
2-Hexanone	250	190		ug/L		76	57 - 139
Isopropylbenzene	50.0	62.0		ug/L		124	72 - 131
4-Isopropyltoluene	50.0	52.8		ug/L		106	77 - 127
Methyl acetate	100	101		ug/L		101	56 - 136
Methylcyclohexane	50.0	52.6		ug/L		105	72 - 132
Methylene Chloride	50.0	48.0		ug/L		96	74 - 124
4-Methyl-2-pentanone (MIBK)	250	211		ug/L		84	67 - 130
Methyl tert-butyl ether	50.0	50.2		ug/L		100	71 - 124
m-Xylene & p-Xylene	50.0	58.9		ug/L		118	80 - 121
Naphthalene	50.0	49.3		ug/L		99	61 - 128
n-Butylbenzene	50.0	51.1		ug/L		102	75 - 128

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-840531/4
Matrix: Water
Analysis Batch: 840531

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
N-Propylbenzene	50.0	64.2	Q	ug/L		128	76 - 126
o-Xylene	50.0	67.2	Q	ug/L		134	78 - 122
sec-Butylbenzene	50.0	62.2		ug/L		124	77 - 126
Styrene	50.0	64.0	Q	ug/L		128	78 - 123
tert-Butylbenzene	50.0	61.5		ug/L		123	78 - 124
1,1,1,2-Tetrachloroethane	50.0	53.3		ug/L		107	78 - 124
1,1,2,2-Tetrachloroethane	50.0	59.2		ug/L		118	71 - 121
Tetrachloroethene	50.0	39.4		ug/L		79	74 - 129
Toluene	50.0	45.3		ug/L		91	80 - 121
trans-1,2-Dichloroethene	50.0	52.8		ug/L		106	75 - 124
trans-1,3-Dichloropropene	50.0	42.2		ug/L		84	73 - 127
1,2,3-Trichlorobenzene	50.0	41.0		ug/L		82	69 - 129
1,2,4-Trichlorobenzene	50.0	53.0		ug/L		106	69 - 130
1,1,1-Trichloroethane	50.0	51.7		ug/L		103	74 - 131
1,1,2-Trichloroethane	50.0	43.4		ug/L		87	80 - 119
Trichloroethene	50.0	50.0		ug/L		100	79 - 123
Trichlorofluoromethane	50.0	44.8		ug/L		90	65 - 141
1,2,3-Trichloropropane	50.0	60.5		ug/L		121	73 - 122
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	45.7		ug/L		91	70 - 136
1,2,4-Trimethylbenzene	50.0	62.8	Q	ug/L		126	76 - 124
1,3,5-Trimethylbenzene	50.0	62.5	Q	ug/L		125	75 - 124
Vinyl chloride	50.0	42.0		ug/L		84	58 - 137
Xylenes, Total	100	126	Q	ug/L		126	79 - 121

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*85 - 114*
Dibromofluoromethane (Surr)	*109*		*80 - 119*
1,2-Dichloroethane-d4 (Surr)	*98*		*81 - 118*
Toluene-d8 (Surr)	*93*		*89 - 112*

Lab Sample ID: LCSD 680-840531/9
Matrix: Water
Analysis Batch: 840531

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acetone	250	203		ug/L		81	39 - 160	0	20
Benzene	50.0	52.7		ug/L		105	79 - 120	5	20
Bromobenzene	50.0	48.4	Q	ug/L		97	80 - 120	25	20
Bromochloromethane	50.0	51.9		ug/L		104	78 - 123	3	20
Bromodichloromethane	50.0	44.2		ug/L		88	79 - 125	6	20
Bromoform	50.0	43.6		ug/L		87	66 - 130	19	20
Bromomethane	50.0	39.1		ug/L		78	53 - 141	2	20
2-Butanone (MEK)	250	238		ug/L		95	56 - 143	3	20
Carbon disulfide	50.0	42.4	Q	ug/L		85	64 - 133	23	20
Carbon tetrachloride	50.0	47.4		ug/L		95	72 - 136	5	20
Chlorobenzene	50.0	47.4		ug/L		95	82 - 118	8	20
Chloroethane	50.0	38.5		ug/L		77	60 - 138	5	20
Chloroform	50.0	52.8		ug/L		106	79 - 124	4	20

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-840531/9
Matrix: Water
Analysis Batch: 840531

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloromethane	50.0	38.0		ug/L		76	50 - 139	7	20
2-Chlorotoluene	50.0	48.9	Q	ug/L		98	79 - 122	25	20
4-Chlorotoluene	50.0	49.0	Q	ug/L		98	78 - 122	25	20
cis-1,2-Dichloroethene	50.0	52.2		ug/L		104	78 - 123	4	20
cis-1,3-Dichloropropene	50.0	43.2		ug/L		86	75 - 124	7	20
Cyclohexane	50.0	53.5		ug/L		107	71 - 130	2	20
Dibromochloromethane	50.0	50.6		ug/L		101	74 - 126	12	20
1,2-Dibromo-3-Chloropropane	50.0	41.6		ug/L		83	62 - 128	0	20
1,2-Dibromoethane	50.0	47.1		ug/L		94	75 - 127	17	20
Dibromomethane	50.0	47.1		ug/L		94	79 - 123	2	20
1,2-Dichlorobenzene	50.0	48.5		ug/L		97	80 - 119	8	20
1,3-Dichlorobenzene	50.0	50.5		ug/L		101	80 - 119	8	20
1,4-Dichlorobenzene	50.0	49.6		ug/L		99	79 - 118	7	20
Dichlorodifluoromethane	50.0	35.6		ug/L		71	32 - 152	18	20
1,1-Dichloroethane	50.0	48.8		ug/L		98	77 - 125	4	20
1,2-Dichloroethane	50.0	52.2		ug/L		104	73 - 128	2	20
1,1-Dichloroethene	50.0	39.4		ug/L		79	71 - 131	11	20
1,2-Dichloroethene, Total	100	94.7		ug/L		95	79 - 121	12	20
1,2-Dichloropropane	50.0	47.4		ug/L		95	78 - 122	2	20
1,3-Dichloropropane	50.0	50.2		ug/L		100	80 - 119	15	20
2,2-Dichloropropane	50.0	52.6		ug/L		105	60 - 139	6	20
1,1-Dichloropropene	50.0	50.1		ug/L		100	79 - 125	4	20
Ethylbenzene	50.0	52.8		ug/L		106	79 - 121	7	20
Hexachlorobutadiene	50.0	38.8	Q	ug/L		78	66 - 134	33	20
2-Hexanone	250	238	Q	ug/L		95	57 - 139	22	20
Isopropylbenzene	50.0	48.9	Q	ug/L		98	72 - 131	24	20
4-Isopropyltoluene	50.0	48.6		ug/L		97	77 - 127	8	20
Methyl acetate	100	82.1	Q	ug/L		82	56 - 136	21	20
Methylcyclohexane	50.0	49.7		ug/L		99	72 - 132	6	20
Methylene Chloride	50.0	39.4		ug/L		79	74 - 124	20	20
4-Methyl-2-pentanone (MIBK)	250	238		ug/L		95	67 - 130	12	20
Methyl tert-butyl ether	50.0	42.1		ug/L		84	71 - 124	18	20
m-Xylene & p-Xylene	50.0	53.9		ug/L		108	80 - 121	9	20
Naphthalene	50.0	36.8	Q	ug/L		74	61 - 128	29	20
n-Butylbenzene	50.0	46.6		ug/L		93	75 - 128	9	20
N-Propylbenzene	50.0	50.4	Q	ug/L		101	76 - 126	24	20
o-Xylene	50.0	52.9	Q	ug/L		106	78 - 122	24	20
sec-Butylbenzene	50.0	48.7	Q	ug/L		97	77 - 126	24	20
Styrene	50.0	50.4	Q	ug/L		101	78 - 123	24	20
tert-Butylbenzene	50.0	48.3	Q	ug/L		97	78 - 124	24	20
1,1,1,2-Tetrachloroethane	50.0	49.2		ug/L		98	78 - 124	8	20
1,1,2,2-Tetrachloroethane	50.0	48.4		ug/L		97	71 - 121	20	20
Tetrachloroethene	50.0	45.6		ug/L		91	74 - 129	14	20
Toluene	50.0	50.5		ug/L		101	80 - 121	11	20
trans-1,2-Dichloroethene	50.0	42.5	Q	ug/L		85	75 - 124	22	20
trans-1,3-Dichloropropene	50.0	44.6		ug/L		89	73 - 127	6	20
1,2,3-Trichlorobenzene	50.0	34.9		ug/L		70	69 - 129	16	20
1,2,4-Trichlorobenzene	50.0	38.3	Q	ug/L		77	69 - 130	32	20
1,1,1-Trichloroethane	50.0	49.2		ug/L		98	74 - 131	5	20

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-840531/9
Matrix: Water
Analysis Batch: 840531

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1,2-Trichloroethane			50.0	46.7		ug/L		93	80 - 119	7	20
Trichloroethene			50.0	47.4		ug/L		95	79 - 123	5	20
Trichlorofluoromethane			50.0	42.0		ug/L		84	65 - 141	6	20
1,2,3-Trichloropropane			50.0	48.8	Q	ug/L		98	73 - 122	21	20
1,1,2-Trichloro-1,2,2-trifluoroethane			50.0	41.5		ug/L		83	70 - 136	10	20
1,2,4-Trimethylbenzene			50.0	49.6	Q	ug/L		99	76 - 124	23	20
1,3,5-Trimethylbenzene			50.0	49.1	Q	ug/L		98	75 - 124	24	20
Vinyl chloride			50.0	40.2		ug/L		80	58 - 137	4	20
Xylenes, Total			100	107		ug/L		107	79 - 121	17	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*96*		*85 - 114*
Dibromofluoromethane (Surr)	*106*		*80 - 119*
1,2-Dichloroethane-d4 (Surr)	*97*		*81 - 118*
Toluene-d8 (Surr)	*99*		*89 - 112*

Method: RSK-175 - Dissolved Gases (GC)

Lab Sample ID: MB 410-509791/1-A
Matrix: Water
Analysis Batch: 509733

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 509791

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	2.0	U	5.0	1.0	ug/L		05/23/24 10:18	05/23/24 10:23	1
Ethylene	2.0	U	5.0	1.0	ug/L		05/23/24 10:18	05/23/24 10:23	1
Methane	6.0	U	6.5	3.0	ug/L		05/23/24 10:18	05/23/24 10:23	1

Lab Sample ID: LCS 410-509791/2-A
Matrix: Water
Analysis Batch: 509733

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 509791

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Ethane			61.7	62.9		ug/L		102	74 - 131
Ethylene			58.3	60.5		ug/L		104	72 - 133
Methane			59.8	62.1		ug/L		104	73 - 125

Lab Sample ID: LCSD 410-509791/3-A
Matrix: Water
Analysis Batch: 509733

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 509791

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ethane			61.7	63.2		ug/L		102	74 - 131	0	20
Ethylene			58.3	61.2		ug/L		105	72 - 133	1	20
Methane			59.8	61.5		ug/L		103	73 - 125	1	20

Method: RSK-175 - Dissolved Gases (GC) (Continued)

Lab Sample ID: MB 410-510325/1-A
Matrix: Water
Analysis Batch: 510310

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 510325

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	2.0	U	5.0	1.0	ug/L		05/24/24 13:13	05/24/24 18:13	1
Ethylene	2.0	U M	5.0	1.0	ug/L		05/24/24 13:13	05/24/24 18:13	1
Methane	6.0	U M	6.5	3.0	ug/L		05/24/24 13:13	05/24/24 18:13	1

Lab Sample ID: LCS 410-510325/2-A
Matrix: Water
Analysis Batch: 510310

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 510325

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Ethane	61.7	65.3		ug/L		106	74 - 131
Ethylene	58.3	61.4		ug/L		105	72 - 133
Methane	59.8	64.1	M	ug/L		107	73 - 125

Lab Sample ID: LCSD 410-510325/3-A
Matrix: Water
Analysis Batch: 510310

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 510325

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ethane	61.7	65.1		ug/L		106	74 - 131	0	20
Ethylene	58.3	61.1		ug/L		105	72 - 133	1	20
Methane	59.8	63.9	M	ug/L		107	73 - 125	0	20

Lab Sample ID: MB 410-510684/1-A
Matrix: Water
Analysis Batch: 510698

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 510684

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	2.0	U	5.0	1.0	ug/L		05/27/24 10:58	05/27/24 13:30	1
Ethylene	2.0	U M	5.0	1.0	ug/L		05/27/24 10:58	05/27/24 13:30	1
Methane	6.0	U M	6.5	3.0	ug/L		05/27/24 10:58	05/27/24 13:30	1

Lab Sample ID: LCS 410-510684/2-A
Matrix: Water
Analysis Batch: 510698

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 510684

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Ethane	61.7	65.0		ug/L		105	74 - 131
Ethylene	58.3	61.3		ug/L		105	72 - 133
Methane	59.8	65.1	M	ug/L		109	73 - 125

Lab Sample ID: MB 410-511075/1-A
Matrix: Water
Analysis Batch: 510891

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 511075

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	2.0	U	5.0	1.0	ug/L		05/28/24 14:09	05/28/24 19:31	1
Ethylene	2.0	U	5.0	1.0	ug/L		05/28/24 14:09	05/28/24 19:31	1
Methane	6.0	U	6.5	3.0	ug/L		05/28/24 14:09	05/28/24 19:31	1

Method: RSK-175 - Dissolved Gases (GC) (Continued)

Lab Sample ID: LCS 410-511075/2-A
Matrix: Water
Analysis Batch: 510891

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 511075

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Ethane	61.7	62.9		ug/L		102	74 - 131
Ethylene	58.3	60.4		ug/L		104	72 - 133
Methane	59.8	62.0		ug/L		104	73 - 125

Lab Sample ID: LCSD 410-511075/3-A
Matrix: Water
Analysis Batch: 510891

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 511075

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ethane	61.7	63.0		ug/L		102	74 - 131	0	20
Ethylene	58.3	60.6		ug/L		104	72 - 133	0	20
Methane	59.8	62.1		ug/L		104	73 - 125	0	20

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 680-838660/2
Matrix: Water
Analysis Batch: 838660

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.050	U	0.055	0.023	mg/L			05/18/24 11:37	1
Nitrate Nitrite as N	0.050	U	0.055	0.023	mg/L			05/18/24 11:37	1
Nitrite as N	0.050	U	0.055	0.023	mg/L			05/18/24 11:37	1

Lab Sample ID: LCS 680-838660/3
Matrix: Water
Analysis Batch: 838660

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrate as N	1.00	1.06		mg/L		106	88 - 111
Nitrate Nitrite as N	2.00	2.09		mg/L		104	88 - 111
Nitrite as N	1.00	1.03		mg/L		103	87 - 111

Lab Sample ID: LCSD 680-838660/4
Matrix: Water
Analysis Batch: 838660

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrate as N	1.00	1.06		mg/L		106	88 - 111	0	15
Nitrate Nitrite as N	2.00	2.09		mg/L		104	88 - 111	0	15
Nitrite as N	1.00	1.03		mg/L		103	87 - 111	0	15

Lab Sample ID: 680-250965-2 MS
Matrix: Water
Analysis Batch: 838660

Client Sample ID: OU6-MW-159-20240517
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrate as N	0.050	U	1.00	1.03		mg/L		103	88 - 111
Nitrate Nitrite as N	0.050	U	2.00	2.00		mg/L		100	88 - 111
Nitrite as N	0.050	U	1.00	0.967		mg/L		97	87 - 111

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: 680-250965-2 MSD — **Client Sample ID: OU6-MW-159-20240517**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 838660

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrate as N	0.050	U	1.00	1.08		mg/L		108	88 - 111	5	15
Nitrate Nitrite as N	0.050	U	2.00	2.09		mg/L		104	88 - 111	5	15
Nitrite as N	0.050	U	1.00	1.01		mg/L		101	87 - 111	5	15

Lab Sample ID: MB 680-840464/94 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 840464

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.50	U M	0.55	0.20	mg/L			05/30/24 20:24	1
Sulfate	1.0	U	1.5	0.40	mg/L			05/30/24 20:24	1

Lab Sample ID: LCS 680-840464/95 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 840464

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	10.0	10.7		mg/L		107	87 - 111
Sulfate	10.0	10.6		mg/L		106	87 - 112

Lab Sample ID: LCSD 680-840464/96 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 840464

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	10.0	10.7		mg/L		107	87 - 111	0	15
Sulfate	10.0	10.6		mg/L		106	87 - 112	0	15

Lab Sample ID: 680-250965-1 MS — **Client Sample ID: OU6-MW-288-20240517**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 840464

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	2.7		10.0	13.4		mg/L		107	87 - 111
Sulfate	9.4		10.0	20.0		mg/L		105	87 - 112

Lab Sample ID: 680-250965-1 MSD — **Client Sample ID: OU6-MW-288-20240517**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 840464

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	2.7		10.0	13.4		mg/L		107	87 - 111	0	15
Sulfate	9.4		10.0	20.1		mg/L		106	87 - 112	0	15

Lab Sample ID: MB 680-840533/2 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 840533

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.50	U	0.55	0.20	mg/L			05/31/24 11:17	1

Method: 9056A - Anions, Ion Chromatography (Continued)

Lab Sample ID: MB 680-840533/2
Matrix: Water
Analysis Batch: 840533

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	1.0	U	1.5	0.40	mg/L			05/31/24 11:17	1

Lab Sample ID: LCS 680-840533/3
Matrix: Water
Analysis Batch: 840533

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	10.0	10.8		mg/L		108	87 - 111
Sulfate	10.0	10.7		mg/L		107	87 - 112

Lab Sample ID: LCSD 680-840533/4
Matrix: Water
Analysis Batch: 840533

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	10.0	10.6		mg/L		106	87 - 111	2	15
Sulfate	10.0	10.5		mg/L		105	87 - 112	2	15

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 680-838686/1-A
Matrix: Water
Analysis Batch: 838963

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 838686

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	5.0	U	10	2.2	ug/L		05/19/24 06:25	05/21/24 04:06	1

Lab Sample ID: LCS 680-838686/2-A
Matrix: Water
Analysis Batch: 838963

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 838686

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Manganese	400	393		ug/L		98	87 - 115

Lab Sample ID: MB 680-838687/1-A
Matrix: Water
Analysis Batch: 838963

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 838687

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	5.0	U	10	2.2	ug/L		05/19/24 06:25	05/20/24 20:51	1

Lab Sample ID: LCS 680-838687/2-A
Matrix: Water
Analysis Batch: 838963

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 838687

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Manganese	400	391		ug/L		98	87 - 115

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 680-250965-1 MS
Matrix: Water
Analysis Batch: 838963

Client Sample ID: OU6-MW-288-20240517
Prep Type: Total Recoverable
Prep Batch: 838687

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Manganese	48		400	448		ug/L		100	87 - 115

Lab Sample ID: 680-250965-1 MSD
Matrix: Water
Analysis Batch: 838963

Client Sample ID: OU6-MW-288-20240517
Prep Type: Total Recoverable
Prep Batch: 838687

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Manganese	48		400	428		ug/L		95	87 - 115	5	20

Method: 2320B-2011 - Alkalinity, Total

Lab Sample ID: MB 680-839236/4
Matrix: Water
Analysis Batch: 839236

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	5.0	U	5.5	2.2	mg/L			05/21/24 16:31	1
Bicarbonate Alkalinity as CaCO3	10	U	11	5.0	mg/L			05/21/24 16:31	1
Carbonate Alkalinity as CaCO3	10	U	11	5.0	mg/L			05/21/24 16:31	1

Lab Sample ID: LCS 680-839236/6
Matrix: Water
Analysis Batch: 839236

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity as CaCO3 to pH 4.5	250	248		mg/L		99	90 - 112

Lab Sample ID: LCSD 680-839236/31
Matrix: Water
Analysis Batch: 839236

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5	250	248		mg/L		99	90 - 112	0	30

Lab Sample ID: MB 680-839258/4
Matrix: Water
Analysis Batch: 839258

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	5.0	U	5.5	2.2	mg/L			05/21/24 23:36	1
Bicarbonate Alkalinity as CaCO3	10	U	11	5.0	mg/L			05/21/24 23:36	1
Carbonate Alkalinity as CaCO3	10	U	11	5.0	mg/L			05/21/24 23:36	1

Method: 2320B-2011 - Alkalinity, Total (Continued)

Lab Sample ID: LCS 680-839258/6
Matrix: Water
Analysis Batch: 839258

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Alkalinity as CaCO3 to pH 4.5			250	244		mg/L		98	90 - 112		

Lab Sample ID: LCSD 680-839258/31
Matrix: Water
Analysis Batch: 839258

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5			250	249		mg/L		100	90 - 112	2	30

Lab Sample ID: 680-250965-1 DU
Matrix: Water
Analysis Batch: 839258

Client Sample ID: OU6-MW-288-20240517
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5	17			15.7		mg/L				8	30
Bicarbonate Alkalinity as CaCO3	17			15.7		mg/L				8	30
Carbonate Alkalinity as CaCO3	10	U		10	U	mg/L				NC	30

Method: 4500 S2 F-2011 - Sulfide, Total

Lab Sample ID: MB 680-839314/1
Matrix: Water
Analysis Batch: 839314

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	1.0	U	1.0	1.0	mg/L			05/22/24 15:19	1
Sulfide as H2S	1.1	U	1.1	1.1	mg/L			05/22/24 15:19	1

Lab Sample ID: LCS 680-839314/2
Matrix: Water
Analysis Batch: 839314

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Sulfide			10.0	8.62		mg/L		86	75 - 125		
Sulfide as H2S			10.6	9.16		mg/L		86	75 - 125		

Lab Sample ID: LCSD 680-839314/3
Matrix: Water
Analysis Batch: 839314

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sulfide			10.0	8.25		mg/L		82	75 - 125	4	30
Sulfide as H2S			10.6	8.76		mg/L		82	75 - 125	4	30

Method: 9060A - Organic Carbon, Total (TOC)

Lab Sample ID: MB 680-839736/3
Matrix: Water
Analysis Batch: 839736

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	1.0	U	1.0	0.50	mg/L			05/23/24 10:02	1

Lab Sample ID: LCS 680-839736/4
Matrix: Water
Analysis Batch: 839736

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Organic Carbon			20.0	19.3		mg/L		96	80 - 120		

Lab Sample ID: LCSD 680-839736/5
Matrix: Water
Analysis Batch: 839736

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Organic Carbon			20.0	19.7		mg/L		98	80 - 120	2	25

Method: SM 4500 CO2 D - Carbon Dioxide and Forms of Alkalinity by Calculation

Lab Sample ID: 680-250965-1 DU
Matrix: Water
Analysis Batch: 839258

Client Sample ID: OU6-MW-288-20240517
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Carbon Dioxide, Free	6.0	J		28.6	J1	mg/L				131	30

GC/MS VOA

Analysis Batch: 840324

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-250965-3	OU6-MW-258-20240517	Total/NA	Water	8260D	
680-250965-4	OU6-MW-262-20240517	Total/NA	Water	8260D	
680-250965-6	OU6-MW-165-20240517	Total/NA	Water	8260D	
680-250965-7	TRIP-BLANK-20240517	Total/NA	Water	8260D	
MB 680-840324/9	Method Blank	Total/NA	Water	8260D	
LCS 680-840324/4	Lab Control Sample	Total/NA	Water	8260D	
LCSD 680-840324/5	Lab Control Sample Dup	Total/NA	Water	8260D	

Analysis Batch: 840504

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-250965-2	OU6-MW-159-20240517	Total/NA	Water	8260D	
680-250965-3	OU6-MW-258-20240517	Total/NA	Water	8260D	
680-250965-5	OU6-MW-171-20240517	Total/NA	Water	8260D	
680-250965-6	OU6-MW-165-20240517	Total/NA	Water	8260D	
680-250965-7	TRIP-BLANK-20240517	Total/NA	Water	8260D	
MB 680-840504/8	Method Blank	Total/NA	Water	8260D	
LCS 680-840504/4	Lab Control Sample	Total/NA	Water	8260D	
LCSD 680-840504/5	Lab Control Sample Dup	Total/NA	Water	8260D	

Analysis Batch: 840531

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-250965-1	OU6-MW-288-20240517	Total/NA	Water	8260D	
MB 680-840531/8	Method Blank	Total/NA	Water	8260D	
LCS 680-840531/4	Lab Control Sample	Total/NA	Water	8260D	
LCSD 680-840531/9	Lab Control Sample Dup	Total/NA	Water	8260D	

GC VOA

Analysis Batch: 509733

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-250965-2	OU6-MW-159-20240517	Total/NA	Water	RSK-175	509791
680-250965-3	OU6-MW-258-20240517	Total/NA	Water	RSK-175	509791
MB 410-509791/1-A	Method Blank	Total/NA	Water	RSK-175	509791
LCS 410-509791/2-A	Lab Control Sample	Total/NA	Water	RSK-175	509791
LCSD 410-509791/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	509791

Prep Batch: 509791

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-250965-2	OU6-MW-159-20240517	Total/NA	Water	RSK-175	
680-250965-3	OU6-MW-258-20240517	Total/NA	Water	RSK-175	
MB 410-509791/1-A	Method Blank	Total/NA	Water	RSK-175	
LCS 410-509791/2-A	Lab Control Sample	Total/NA	Water	RSK-175	
LCSD 410-509791/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	

Analysis Batch: 510310

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-250965-2 - DL	OU6-MW-159-20240517	Total/NA	Water	RSK-175	510325
MB 410-510325/1-A	Method Blank	Total/NA	Water	RSK-175	510325
LCS 410-510325/2-A	Lab Control Sample	Total/NA	Water	RSK-175	510325
LCSD 410-510325/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	510325

GC VOA

Prep Batch: 510325

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-250965-2 - DL	OU6-MW-159-20240517	Total/NA	Water	RSK-175	
MB 410-510325/1-A	Method Blank	Total/NA	Water	RSK-175	
LCS 410-510325/2-A	Lab Control Sample	Total/NA	Water	RSK-175	
LCSD 410-510325/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	

Prep Batch: 510684

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-250965-1	OU6-MW-288-20240517	Total/NA	Water	RSK-175	
680-250965-4	OU6-MW-262-20240517	Total/NA	Water	RSK-175	
680-250965-5	OU6-MW-171-20240517	Total/NA	Water	RSK-175	
680-250965-6	OU6-MW-165-20240517	Total/NA	Water	RSK-175	
MB 410-510684/1-A	Method Blank	Total/NA	Water	RSK-175	
LCS 410-510684/2-A	Lab Control Sample	Total/NA	Water	RSK-175	

Analysis Batch: 510698

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-250965-1	OU6-MW-288-20240517	Total/NA	Water	RSK-175	510684
680-250965-4	OU6-MW-262-20240517	Total/NA	Water	RSK-175	510684
680-250965-5	OU6-MW-171-20240517	Total/NA	Water	RSK-175	510684
680-250965-6	OU6-MW-165-20240517	Total/NA	Water	RSK-175	510684
MB 410-510684/1-A	Method Blank	Total/NA	Water	RSK-175	510684
LCS 410-510684/2-A	Lab Control Sample	Total/NA	Water	RSK-175	510684

Analysis Batch: 510891

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-250965-4 - DL	OU6-MW-262-20240517	Total/NA	Water	RSK-175	511075
MB 410-511075/1-A	Method Blank	Total/NA	Water	RSK-175	511075
LCS 410-511075/2-A	Lab Control Sample	Total/NA	Water	RSK-175	511075
LCSD 410-511075/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	511075

Prep Batch: 511075

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-250965-4 - DL	OU6-MW-262-20240517	Total/NA	Water	RSK-175	
MB 410-511075/1-A	Method Blank	Total/NA	Water	RSK-175	
LCS 410-511075/2-A	Lab Control Sample	Total/NA	Water	RSK-175	
LCSD 410-511075/3-A	Lab Control Sample Dup	Total/NA	Water	RSK-175	

HPLC/IC

Analysis Batch: 838660

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-250965-1	OU6-MW-288-20240517	Total/NA	Water	9056A	
680-250965-2	OU6-MW-159-20240517	Total/NA	Water	9056A	
680-250965-3	OU6-MW-258-20240517	Total/NA	Water	9056A	
680-250965-4	OU6-MW-262-20240517	Total/NA	Water	9056A	
680-250965-5	OU6-MW-171-20240517	Total/NA	Water	9056A	
680-250965-6	OU6-MW-165-20240517	Total/NA	Water	9056A	
MB 680-838660/2	Method Blank	Total/NA	Water	9056A	
LCS 680-838660/3	Lab Control Sample	Total/NA	Water	9056A	
LCSD 680-838660/4	Lab Control Sample Dup	Total/NA	Water	9056A	
680-250965-2 MS	OU6-MW-159-20240517	Total/NA	Water	9056A	

HPLC/IC (Continued)

Analysis Batch: 838660 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-250965-2 MSD	OU6-MW-159-20240517	Total/NA	Water	9056A	

Analysis Batch: 840464

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-250965-1	OU6-MW-288-20240517	Total/NA	Water	9056A	
680-250965-2	OU6-MW-159-20240517	Total/NA	Water	9056A	
680-250965-3	OU6-MW-258-20240517	Total/NA	Water	9056A	
680-250965-4	OU6-MW-262-20240517	Total/NA	Water	9056A	
680-250965-5	OU6-MW-171-20240517	Total/NA	Water	9056A	
680-250965-6	OU6-MW-165-20240517	Total/NA	Water	9056A	
MB 680-840464/94	Method Blank	Total/NA	Water	9056A	
LCS 680-840464/95	Lab Control Sample	Total/NA	Water	9056A	
LCSD 680-840464/96	Lab Control Sample Dup	Total/NA	Water	9056A	
680-250965-1 MS	OU6-MW-288-20240517	Total/NA	Water	9056A	
680-250965-1 MSD	OU6-MW-288-20240517	Total/NA	Water	9056A	

Analysis Batch: 840533

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-250965-4	OU6-MW-262-20240517	Total/NA	Water	9056A	
MB 680-840533/2	Method Blank	Total/NA	Water	9056A	
LCS 680-840533/3	Lab Control Sample	Total/NA	Water	9056A	
LCSD 680-840533/4	Lab Control Sample Dup	Total/NA	Water	9056A	

Metals

Prep Batch: 838686

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-250965-5	OU6-MW-171-20240517	Total Recoverable	Water	3005A	
680-250965-6	OU6-MW-165-20240517	Total Recoverable	Water	3005A	
MB 680-838686/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 680-838686/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 838687

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-250965-1	OU6-MW-288-20240517	Total Recoverable	Water	3005A	
680-250965-2	OU6-MW-159-20240517	Total Recoverable	Water	3005A	
680-250965-3	OU6-MW-258-20240517	Total Recoverable	Water	3005A	
680-250965-4	OU6-MW-262-20240517	Total Recoverable	Water	3005A	
MB 680-838687/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 680-838687/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
680-250965-1 MS	OU6-MW-288-20240517	Total Recoverable	Water	3005A	
680-250965-1 MSD	OU6-MW-288-20240517	Total Recoverable	Water	3005A	

Analysis Batch: 838963

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-250965-1	OU6-MW-288-20240517	Total Recoverable	Water	6020A	838687
680-250965-2	OU6-MW-159-20240517	Total Recoverable	Water	6020A	838687
680-250965-3	OU6-MW-258-20240517	Total Recoverable	Water	6020A	838687
680-250965-4	OU6-MW-262-20240517	Total Recoverable	Water	6020A	838687
680-250965-5	OU6-MW-171-20240517	Total Recoverable	Water	6020A	838686
680-250965-6	OU6-MW-165-20240517	Total Recoverable	Water	6020A	838686

Metals (Continued)

Analysis Batch: 838963 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 680-838686/1-A	Method Blank	Total Recoverable	Water	6020A	838686
MB 680-838687/1-A	Method Blank	Total Recoverable	Water	6020A	838687
LCS 680-838686/2-A	Lab Control Sample	Total Recoverable	Water	6020A	838686
LCS 680-838687/2-A	Lab Control Sample	Total Recoverable	Water	6020A	838687
680-250965-1 MS	OU6-MW-288-20240517	Total Recoverable	Water	6020A	838687
680-250965-1 MSD	OU6-MW-288-20240517	Total Recoverable	Water	6020A	838687

General Chemistry

Analysis Batch: 839236

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-250965-2	OU6-MW-159-20240517	Total/NA	Water	2320B-2011	
680-250965-2	OU6-MW-159-20240517	Total/NA	Water	SM 4500 CO2 D	
680-250965-3	OU6-MW-258-20240517	Total/NA	Water	2320B-2011	
680-250965-3	OU6-MW-258-20240517	Total/NA	Water	SM 4500 CO2 D	
680-250965-4	OU6-MW-262-20240517	Total/NA	Water	2320B-2011	
680-250965-4	OU6-MW-262-20240517	Total/NA	Water	SM 4500 CO2 D	
680-250965-5	OU6-MW-171-20240517	Total/NA	Water	2320B-2011	
680-250965-5	OU6-MW-171-20240517	Total/NA	Water	SM 4500 CO2 D	
MB 680-839236/4	Method Blank	Total/NA	Water	2320B-2011	
LCS 680-839236/6	Lab Control Sample	Total/NA	Water	2320B-2011	
LCSD 680-839236/31	Lab Control Sample Dup	Total/NA	Water	2320B-2011	

Analysis Batch: 839258

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-250965-1	OU6-MW-288-20240517	Total/NA	Water	2320B-2011	
680-250965-1	OU6-MW-288-20240517	Total/NA	Water	SM 4500 CO2 D	
680-250965-6	OU6-MW-165-20240517	Total/NA	Water	2320B-2011	
680-250965-6	OU6-MW-165-20240517	Total/NA	Water	SM 4500 CO2 D	
MB 680-839258/4	Method Blank	Total/NA	Water	2320B-2011	
LCS 680-839258/6	Lab Control Sample	Total/NA	Water	2320B-2011	
LCSD 680-839258/31	Lab Control Sample Dup	Total/NA	Water	2320B-2011	
680-250965-1 DU	OU6-MW-288-20240517	Total/NA	Water	2320B-2011	
680-250965-1 DU	OU6-MW-288-20240517	Total/NA	Water	SM 4500 CO2 D	

Analysis Batch: 839314

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-250965-1	OU6-MW-288-20240517	Total/NA	Water	4500 S2 F-2011	
680-250965-2	OU6-MW-159-20240517	Total/NA	Water	4500 S2 F-2011	
680-250965-3	OU6-MW-258-20240517	Total/NA	Water	4500 S2 F-2011	
680-250965-4	OU6-MW-262-20240517	Total/NA	Water	4500 S2 F-2011	
680-250965-5	OU6-MW-171-20240517	Total/NA	Water	4500 S2 F-2011	
680-250965-6	OU6-MW-165-20240517	Total/NA	Water	4500 S2 F-2011	
MB 680-839314/1	Method Blank	Total/NA	Water	4500 S2 F-2011	
LCS 680-839314/2	Lab Control Sample	Total/NA	Water	4500 S2 F-2011	
LCSD 680-839314/3	Lab Control Sample Dup	Total/NA	Water	4500 S2 F-2011	

Analysis Batch: 839736

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-250965-1	OU6-MW-288-20240517	Total/NA	Water	9060A	
680-250965-2	OU6-MW-159-20240517	Total/NA	Water	9060A	

General Chemistry (Continued)

Analysis Batch: 839736 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-250965-3	OU6-MW-258-20240517	Total/NA	Water	9060A	
680-250965-4	OU6-MW-262-20240517	Total/NA	Water	9060A	
680-250965-5	OU6-MW-171-20240517	Total/NA	Water	9060A	
680-250965-6	OU6-MW-165-20240517	Total/NA	Water	9060A	
MB 680-839736/3	Method Blank	Total/NA	Water	9060A	
LCS 680-839736/4	Lab Control Sample	Total/NA	Water	9060A	
LCSD 680-839736/5	Lab Control Sample Dup	Total/NA	Water	9060A	

Lab Chronicle

Client: Meadows CMPG, Inc
Job ID: 680-250965-1
Project/Site: DSCR - OU6 Annual

Client Sample ID: OU6-MW-288-20240517
Lab Sample ID: 680-250965-1
Date Collected: 05/17/24 08:35
Matrix: Water
Date Received: 05/18/24 10:06

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	840531	05/31/24 14:41	P1C	EET SAV
	Instrument ID: CMSAJ									
Total/NA	Prep	RSK-175			5 mL	5 mL	510684	05/27/24 10:58	GM5C	ELLE
Total/NA	Analysis	RSK-175		1	5 mL	5 mL	510698	05/27/24 17:23	LXF2	ELLE
	Instrument ID: 19506									
Total/NA	Analysis	9056A		1	5 mL	5 mL	838660	05/18/24 15:58	UI	EET SAV
	Instrument ID: CICP									
Total/NA	Analysis	9056A		1	2 mL	2 mL	840464	05/30/24 20:43	KMB	EET SAV
	Instrument ID: CICR									
Total Recoverable	Prep	3005A			25 mL	125 mL	838687	05/19/24 06:25	RR	EET SAV
Total Recoverable	Analysis	6020A		1			838963	05/20/24 20:59	BJB	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			839258	05/22/24 00:02	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	4500 S2 F-2011		1	310 mL	310 mL	839314	05/22/24 15:19	JAS	EET SAV
	Instrument ID: NoEquip									
Total/NA	Analysis	9060A		1	40 mL	40 mL	839736	05/23/24 14:28	NVF	EET SAV
	Instrument ID: TOC7									
Total/NA	Analysis	SM 4500 CO2 D		1			839258	05/22/24 00:02	PG	EET SAV
	Instrument ID: MANTECH 2									

Client Sample ID: OU6-MW-159-20240517
Lab Sample ID: 680-250965-2
Date Collected: 05/17/24 10:00
Matrix: Water
Date Received: 05/18/24 10:06

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	840504	05/31/24 14:00	P1C	EET SAV
	Instrument ID: CMSAB									
Total/NA	Prep	RSK-175	DL		5 mL	5 mL	510325	05/24/24 13:13	WN7O	ELLE
Total/NA	Analysis	RSK-175	DL	50	5 mL	5 mL	510310	05/24/24 19:31	LXF2	ELLE
	Instrument ID: 19506									
Total/NA	Prep	RSK-175			5 mL	5 mL	509791	05/23/24 10:18	HQR6	ELLE
Total/NA	Analysis	RSK-175		1	5 mL	5 mL	509733	05/23/24 11:43	LXF2	ELLE
	Instrument ID: 3145B									
Total/NA	Analysis	9056A		1	5 mL	5 mL	838660	05/18/24 16:07	UI	EET SAV
	Instrument ID: CICP									
Total/NA	Analysis	9056A		1	2 mL	2 mL	840464	05/30/24 21:03	KMB	EET SAV
	Instrument ID: CICR									
Total Recoverable	Prep	3005A			25 mL	125 mL	838687	05/19/24 06:25	RR	EET SAV
Total Recoverable	Analysis	6020A		1			838963	05/20/24 21:48	BJB	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			839236	05/21/24 21:37	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	4500 S2 F-2011		1	310 mL	310 mL	839314	05/22/24 15:19	JAS	EET SAV
	Instrument ID: NoEquip									

Lab Chronicle

Client: Meadows CMPG, Inc
Job ID: 680-250965-1
Project/Site: DSCR - OU6 Annual

Client Sample ID: OU6-MW-159-20240517
Lab Sample ID: 680-250965-2
Date Collected: 05/17/24 10:00
Matrix: Water
Date Received: 05/18/24 10:06

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060A		1	40 mL	40 mL	839736	05/23/24 14:46	NVF	EET SAV
Total/NA	Analysis	SM 4500 CO2 D		1			839236	05/21/24 21:37	PG	EET SAV
	Instrument ID: MANTECH 2									

Client Sample ID: OU6-MW-258-20240517
Lab Sample ID: 680-250965-3
Date Collected: 05/17/24 08:50
Matrix: Water
Date Received: 05/18/24 10:06

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	840324	05/30/24 14:36	P1C	EET SAV
	Instrument ID: CMSAA									
Total/NA	Analysis	8260D		1	5 mL	5 mL	840504	05/31/24 14:22	P1C	EET SAV
	Instrument ID: CMSAB									
Total/NA	Prep	RSK-175			5 mL	5 mL	509791	05/23/24 10:18	HQR6	ELLE
Total/NA	Analysis	RSK-175		1	5 mL	5 mL	509733	05/23/24 12:01	LXF2	ELLE
	Instrument ID: 3145B									
Total/NA	Analysis	9056A		2	5 mL	5 mL	838660	05/18/24 16:31	UI	EET SAV
	Instrument ID: CICP									
Total/NA	Analysis	9056A		1	2 mL	2 mL	840464	05/30/24 21:09	KMB	EET SAV
	Instrument ID: CICR									
Total Recoverable	Prep	3005A			25 mL	125 mL	838687	05/19/24 06:25	RR	EET SAV
Total Recoverable	Analysis	6020A		1			838963	05/20/24 21:44	BJB	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			839236	05/21/24 21:51	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	4500 S2 F-2011		1	310 mL	310 mL	839314	05/22/24 15:19	JAS	EET SAV
	Instrument ID: NoEquip									
Total/NA	Analysis	9060A		1	40 mL	40 mL	839736	05/23/24 15:04	NVF	EET SAV
	Instrument ID: TOC7									
Total/NA	Analysis	SM 4500 CO2 D		1			839236	05/21/24 21:51	PG	EET SAV
	Instrument ID: MANTECH 2									

Client Sample ID: OU6-MW-262-20240517
Lab Sample ID: 680-250965-4
Date Collected: 05/17/24 10:00
Matrix: Water
Date Received: 05/18/24 10:06

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	840324	05/30/24 14:58	P1C	EET SAV
	Instrument ID: CMSAA									
Total/NA	Prep	RSK-175			5 mL	5 mL	510684	05/27/24 10:58	GM5C	ELLE
Total/NA	Analysis	RSK-175		1	5 mL	5 mL	510698	05/27/24 17:38	LXF2	ELLE
	Instrument ID: 19506									
Total/NA	Prep	RSK-175	DL		5 mL	5 mL	511075	05/28/24 14:09	HQR6	ELLE
Total/NA	Analysis	RSK-175	DL	50	5 mL	5 mL	510891	05/28/24 21:43	LXF2	ELLE
	Instrument ID: 3145B									

Client Sample ID: OU6-MW-262-20240517
Lab Sample ID: 680-250965-4

Date Collected: 05/17/24 10:00
Matrix: Water
Date Received: 05/18/24 10:06

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		2	5 mL	5 mL	838660	05/18/24 16:40	UI	EET SAV
Total/NA	Analysis	9056A		1	2 mL	2 mL	840464	05/30/24 21:16	KMB	EET SAV
	Instrument ID: CICR									
Total/NA	Analysis	9056A		5	2 mL	2 mL	840533	05/31/24 12:38	BS	EET SAV
	Instrument ID: CICR									
Total Recoverable	Prep	3005A			25 mL	125 mL	838687	05/19/24 06:25	RR	EET SAV
Total Recoverable	Analysis	6020A		1			838963	05/20/24 21:39	BJB	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			839236	05/21/24 21:57	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	4500 S2 F-2011		1	310 mL	310 mL	839314	05/22/24 15:19	JAS	EET SAV
	Instrument ID: NoEquip									
Total/NA	Analysis	9060A		1	40 mL	40 mL	839736	05/23/24 15:22	NVF	EET SAV
	Instrument ID: TOC7									
Total/NA	Analysis	SM 4500 CO2 D		1			839236	05/21/24 21:57	PG	EET SAV
	Instrument ID: MANTECH 2									

Client Sample ID: OU6-MW-171-20240517
Lab Sample ID: 680-250965-5

Date Collected: 05/17/24 09:10
Matrix: Water
Date Received: 05/18/24 10:06

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	840504	05/31/24 14:45	P1C	EET SAV
	Instrument ID: CMSAB									
Total/NA	Prep	RSK-175			5 mL	5 mL	510684	05/27/24 11:00	GM5C	ELLE
Total/NA	Analysis	RSK-175		1	5 mL	5 mL	510698	05/27/24 17:54	LXF2	ELLE
	Instrument ID: 19506									
Total/NA	Analysis	9056A		2	5 mL	5 mL	838660	05/18/24 16:48	UI	EET SAV
	Instrument ID: CICP									
Total/NA	Analysis	9056A		1	2 mL	2 mL	840464	05/30/24 21:23	KMB	EET SAV
	Instrument ID: CICR									
Total Recoverable	Prep	3005A			25 mL	125 mL	838686	05/19/24 06:25	RR	EET SAV
Total Recoverable	Analysis	6020A		1			838963	05/21/24 05:47	BJB	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			839236	05/21/24 21:44	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	4500 S2 F-2011		1	310 mL	310 mL	839314	05/22/24 15:19	JAS	EET SAV
	Instrument ID: NoEquip									
Total/NA	Analysis	9060A		1	40 mL	40 mL	839736	05/23/24 15:40	NVF	EET SAV
	Instrument ID: TOC7									
Total/NA	Analysis	SM 4500 CO2 D		1			839236	05/21/24 21:44	PG	EET SAV
	Instrument ID: MANTECH 2									

Lab Chronicle

Client: Meadows CMPG, Inc
Job ID: 680-250965-1
Project/Site: DSCR - OU6 Annual

Client Sample ID: OU6-MW-165-20240517
Lab Sample ID: 680-250965-6
Date Collected: 05/17/24 10:45
Matrix: Water
Date Received: 05/18/24 10:06

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	840324	05/30/24 15:41	P1C	EET SAV
	Instrument ID: CMSAA									
Total/NA	Analysis	8260D		1	5 mL	5 mL	840504	05/31/24 15:08	P1C	EET SAV
	Instrument ID: CMSAB									
Total/NA	Prep	RSK-175			5 mL	5 mL	510684	05/27/24 11:00	GM5C	ELLE
Total/NA	Analysis	RSK-175		1	5 mL	5 mL	510698	05/27/24 18:09	LXF2	ELLE
	Instrument ID: 19506									
Total/NA	Analysis	9056A		2	5 mL	5 mL	838660	05/18/24 16:56	UI	EET SAV
	Instrument ID: CICP									
Total/NA	Analysis	9056A		1	2 mL	2 mL	840464	05/30/24 21:29	KMB	EET SAV
	Instrument ID: CICR									
Total Recoverable	Prep	3005A			25 mL	125 mL	838686	05/19/24 06:25	RR	EET SAV
Total Recoverable	Analysis	6020A		1			838963	05/21/24 06:04	BJB	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			839258	05/22/24 00:17	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	4500 S2 F-2011		1	310 mL	310 mL	839314	05/22/24 15:19	JAS	EET SAV
	Instrument ID: NoEquip									
Total/NA	Analysis	9060A		1	40 mL	40 mL	839736	05/23/24 15:57	NVF	EET SAV
	Instrument ID: TOC7									
Total/NA	Analysis	SM 4500 CO2 D		1			839258	05/22/24 00:17	PG	EET SAV
	Instrument ID: MANTECH 2									

Client Sample ID: TRIP-BLANK-20240517
Lab Sample ID: 680-250965-7
Date Collected: 05/17/24 00:00
Matrix: Water
Date Received: 05/18/24 10:06

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	840324	05/30/24 13:30	P1C	EET SAV
	Instrument ID: CMSAA									
Total/NA	Analysis	8260D		1	5 mL	5 mL	840504	05/31/24 13:14	P1C	EET SAV
	Instrument ID: CMSAB									

Laboratory References:

EET SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: Meadows CMPG, Inc
Job ID: 680-250965-1
Project/Site: DSCR - OU6 Annual

Laboratory: Eurofins Savannah

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
ANAB	Dept. of Defense ELAP	L2463	09-22-24
Virginia	NELAP	460161	06-14-24

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	0001.01	05-30-24

Method Summary

Client: Meadows CMPG, Inc
Job ID: 680-250965-1
Project/Site: DSCR - OU6 Annual

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds (GC/MS)	SW846	EET SAV
RSK-175	Dissolved Gases (GC)	RSK	ELLE
9056A	Anions, Ion Chromatography	SW846	EET SAV
6020A	Metals (ICP/MS)	SW846	EET SAV
2320B-2011	Alkalinity, Total	SM	EET SAV
4500 S2 F-2011	Sulfide, Total	SM	EET SAV
9060A	Organic Carbon, Total (TOC)	SW846	EET SAV
SM 4500 CO2 D	Carbon Dioxide and Forms of Alkalinity by Calculation	SM	EET SAV
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET SAV
5030C	Purge and Trap	SW846	EET SAV
RSK-175	Dissolved Gases Prep	RSK	ELLE

Protocol References:

RSK = Sample Prep And Calculations For Dissolved Gas Analysis In Water Samples Using A GC Headspace Equilibration Technique , RSKSOP-175, Rev. 0, 8/11/94, USEPA Research Lab

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Eurofins Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Phone (912) 354-7858 Phone (912) 352-0165

Chain of Custody Record

eurofins Environment Testing America

Client Information	Sampler: Tim, TJ, Quin and Bruce	Lab PM: Lanier, Jerry	Carrier Tracking No(s):	COC No:
Client Contact: Andrew VanBuesking	Phone: 757-589-5825	E-Mail: Jerry.Lanier@et.eurofinsus.com	State of Origin: VA	Page: Page 1 of 1
Company: Meadows CMPG	PWSID:			Job #:
Address: 2107 Granby St	Due Date Requested:			
City: Norfolk	TAT Requested (days): STD			
State, Zip: VA	Compliance Project: Δ Yes Δ No			
Phone: 757-623-3107	PO #: 0045-0011			
Email: avanbuesking@meadowscmpg	WO #:			
Project Name: OU6 Annual	Project #: 68020891			
Site: DSCR, OU6	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260D_DOD5 - (MOD) Volatiles	RSK_175_DOD5 - Ethane, Ethene, Methane	9060A - TOC	9056A_OF28D_D5 - Chloride & Sulfate 9056A_OF_48H_D5 Local Method	SM4500_S2_F - Sulfide, Total	6020A_DOD5 - Manganese	SM4500_CO2_D - Carbon Dioxide	2320B - Alkalinity	DIOX 8270E ID D5	8270E_DOD5 - (MOD) Semivolatiles (without PAHs)	8270E_SIM_DOD5 - Routine PAH	8081B_8082A_D5 - Routine Pesticides & PCBs	7470A_DOD5 - Mercury 6020A_DOD5 - (MOD) TAL Metals	8270E_SIM_ID_D5 Local Method - Dioxane	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A	A	S	N	CB	D	N	N		N	N	N	D	N		
OU6-MW-288-20240517	5/17/24	0835	G	W			3	3	3	1	2	1	1	1							0	
OU6-MW-159-20240517	5/17/24	1000	G	W			3	3	3	1	2	1	1	1							0	
OU6-MW-258-20240517	5/17/24	0850	G	W			3	3	3	1	2	1	1	1							0	
OU6-MW-262-20240517	5/17/24	1000	G	W			3	3	3	1	2	1	1	1							0	
OU6-MW-171-20240517	5/17/24	0910	G	W			3	3	3	1	2	1	1	1							15	
OU6-MW-165-20240517	5/17/24	1045	G	W			3	3	3	1	2	1	1	1							15	
TRIP-BLANK-20240517	5/17/24		G	W			2														2	

680-250965 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ■ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples
☐ Return To Client ■ Disposal By Lab Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:

Method of Shipment:

BRUCE DIGGS	5-17-2024/1600	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by: C. Mmo	Date/Time: 5/18/24 1006	Company Eurofins

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: 0.8/0.9

Eurofins Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Phone: 912-354-7858 Fax: 912-352-0165

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Lanier, Jerry A	Carrier Tracking No(s):	COC No: 680-772883.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Jerry.Lanier@et.eurofinsus.com	State of Origin: Virginia	Page: Page 1 of 1
Company: Eurofins Lancaster Laboratories Environm		Accreditations Required (See note): Dept. of Defense ELAP - A2LA; DoD - A2LA; DoD ELAP - A2		Job #: 680-250965-1
Address: 2425 New Holland Pike,	Due Date Requested: 6/4/2024			
City: Lancaster	TAT Requested (days):			
State, Zip: PA, 17601				
Phone: 717-656-2300(Tel)	PO #:			
Email:	WO #:			
Project Name: DSCR - OU6 Annual	Project #: 68020891			
Site: Meadows CMPG	SSOW#:			

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	RSK_175_DOD5/RSK_HS_Prep (MOD) Dissolved Gases (GC)	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
OU6-MW-288-20240517 (680-250965-1)	5/17/24	08:35 Eastern		Water			X	3	
OU6-MW-159-20240517 (680-250965-2)	5/17/24	10:00 Eastern		Water			X	3	
OU6-MW-258-20240517 (680-250965-3)	5/17/24	08:50 Eastern		Water			X	3	
OU6-MW-262-20240517 (680-250965-4)	5/17/24	10:00 Eastern		Water			X	3	
OU6-MW-171-20240517 (680-250965-5)	5/17/24	09:10 Eastern		Water			X	3	
OU6-MW-165-20240517 (680-250965-6)	5/17/24	10:45 Eastern		Water			X	3	

Preservation Codes:

Other:

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Southeast, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Southeast, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Southeast, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Southeast, LLC.

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time: 5/22/24 09:45	Company: ECLBT

Custody Seals Intact: ☒ Yes ☐ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: R: 5.5 3.9 C: 5.1 3.5

NJ

Ver: 04/02/2024

Login Sample Receipt Checklist

Client: Meadows CMPG, Inc

Job Number: 680-250965-1

Login Number: 250965

List Source: Eurofins Savannah

List Number: 1

Creator: Munro, Caroline

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Meadows CMPG, Inc

Job Number: 680-250965-1

Login Number: 250965
List Number: 2
Creator: Santiago, Nathaniel

List Source: Eurofins Lancaster Laboratories Environment Testing, LLC
List Creation: 05/22/24 01:03 PM

Question	Answer	Comment
The cooler's custody seal is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature acceptable,where thermal pres is required(</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV:Container Temp acceptable,where thermal pres is required (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
Sample custody seals are intact.	N/A	
VOA sample vials do not have headspace >6mm in diameter (none, if from WV)?	N/A	

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Kandyce Keller
Meadows CMPG, Inc
2107 Granby Street
Norfolk, Virginia 23517

Generated 6/4/2024 3:49:21 PM

JOB DESCRIPTION

DSCR - OU6 Annual

JOB NUMBER

680-251033-1

Eurofins Savannah
5102 LaRoche Avenue
Savannah GA 31404

See page two for job notes and contact information.

myEOL

Job Notes

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The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Southeast, LLC Project Manager.

Authorization



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Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
D	The reported value is from a dilution.
J	Estimated: The analyte was positively identified; the quantitation is an estimation
J1	Estimated: The quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.
M	Manual integrated compound.
Q	One or more quality control criteria failed.
U	Undetected at the Limit of Detection.

GC/MS Semi VOA

Qualifier	Qualifier Description
J1	Estimated: The quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.
M	Manual integrated compound.
Q	One or more quality control criteria failed.
U	Undetected at the Limit of Detection.

GC VOA

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
J	Estimated: The analyte was positively identified; the quantitation is an estimation
J1	Estimated: The quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.
U	Undetected at the Limit of Detection.

GC Semi VOA

Qualifier	Qualifier Description
J	Estimated: The analyte was positively identified; the quantitation is an estimation
J1	Estimated: The quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.
M	Manual integrated compound.
Q	One or more quality control criteria failed.
U	Undetected at the Limit of Detection.

HPLC/IC

Qualifier	Qualifier Description
D	The reported value is from a dilution.
J	Estimated: The analyte was positively identified; the quantitation is an estimation
J1	Estimated: The quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.
M	Manual integrated compound.
U	Undetected at the Limit of Detection.

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
J	Estimated: The analyte was positively identified; the quantitation is an estimation
J1	Estimated: The quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.
Q	One or more quality control criteria failed.
U	Undetected at the Limit of Detection.

General Chemistry

Qualifier	Qualifier Description
J	Estimated: The analyte was positively identified; the quantitation is an estimation
J1	Estimated: The quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.
U	Undetected at the Limit of Detection.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Sample Summary

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-251033-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-251033-1	OU6-MW-263-20240520	Water	05/20/24 07:35	05/21/24 10:19
680-251033-2	OU6-MW-269-20240520	Water	05/20/24 09:20	05/21/24 10:19
680-251033-3	OU6-MW-274-20240520	Water	05/20/24 10:35	05/21/24 10:19
680-251033-4	OU6-MW-275-20240520	Water	05/20/24 11:40	05/21/24 10:19
680-251033-5	OU6-MW-222-20240520	Water	05/20/24 13:15	05/21/24 10:19
680-251033-6	OU6-MW-283-20240520	Water	05/20/24 09:10	05/21/24 10:19
680-251033-7	OU6-MW-160-20240520	Water	05/20/24 10:35	05/21/24 10:19
680-251033-8	OU6-MW-95-20240520	Water	05/20/24 13:05	05/21/24 10:19
680-251033-9	OU6-MW-292-20240520	Water	05/20/24 14:15	05/21/24 10:19
680-251033-10	OU6-MW-295-20240520	Water	05/20/24 11:05	05/21/24 10:19
680-251033-11	OU6-MW-145-20240520	Water	05/20/24 12:35	05/21/24 10:19
680-251033-12	DUP-3-20240520	Water	05/20/24 00:00	05/21/24 10:19
680-251033-13	DUP-4-20240520	Water	05/20/24 00:00	05/21/24 10:19
680-251033-14	TRIP-BLANK-20240520	Water	05/20/24 00:00	05/21/24 10:19
680-251033-15	OU6-MW-276-20240520	Water	05/20/24 08:15	05/21/24 10:19
680-251033-16	OU6-MW-266-20240520	Water	05/20/24 10:15	05/21/24 10:19
680-251033-17	OU6-MW-282-20240520	Water	05/20/24 11:55	05/21/24 10:19
680-251033-18	OU6-MW-268-20240520	Water	05/20/24 14:30	05/21/24 10:19

Job Narrative
680-251033-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 5/21/2024 10:19 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 5 coolers at receipt time were 0.4°C, 1.5°C, 2.2°C, 4.4°C and 5.1°C.

Receipt Exceptions
Received 15 containers for OU6-MW-295-20240520 (680-251033-10). Logged in per COC for VOCs only.

GC/MS VOA
Method 8260D_DOD5: The initial calibration verification (ICV) analyzed in batch 680-836362 was outside method criteria for the following analyte(s): Bromoform and Carbon disulfide. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

Method 8260D_DOD5: The continuing calibration verification (CCV) associated with batch 680-840334 recovered above the upper control limit for Bromoform. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8260D_DOD5: The continuing calibration verification (CCV) associated with batch 680-840334 recovered outside acceptance criteria, low biased, for Dichlorodifluoromethane and Methyl acetate. A reporting limit (RL) standard was analyzed, and the target analytes are detected. Since the associated samples were non-detect for the analyte(s), the data are reported.

Method 8260D_DOD5: The laboratory control sample duplicate (LCSD) for analytical batch 680-840334 recovered outside control limits for the following analytes: Bromoform. These analytes were biased high in the LCSD and were not detected in the associated samples; therefore, the data have been reported.

Method 8260D_DOD5: The method blank for analytical batch 680-840334 contained Bromoform, Methylcyclohexane and Toluene above the method detection limit (MDL). Associated samples were not re-analyzed because the method blank results were less than the reporting limit (RL) OR practical quantitation limit (PQL).

Method 8260D_DOD5: The following sample was diluted to bring the concentration of target analytes within the calibration range: OU6-MW-95-20240520 (680-251033-8). Elevated reporting limits (RLs) are provided.

Method 8260D_DOD5: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 680-840334 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

Method 8260D_DOD5: The closing continuing calibration verification (CCVC) associated with batch 680-840334 recovered above the upper control limit for Bromoform. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8260D_DOD5: Surrogate recovery for the following sample was outside control limits: OU6-MW-292-20240520 (680-251033-9). Evidence of matrix interference due to high target analytes is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8260D_DOD5: Surrogate recovery was outside acceptance limits for the following matrix spike/matrix spike duplicate

(MS/MSD) samples: OU6-MW-263-20240520 (680-251033-1[MS]) and OU6-MW-263-20240520 (680-251033-1[MSD]). The parent sample's surrogate recovery was within limits. The MS/MSD sample has been qualified and reported.

Method 8260D_DOD5: The continuing calibration verification (CCV) associated with batch 680-840504 recovered above the upper control limit for Bromoform. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8260D_DOD5: The laboratory control sample (LCS) for analytical batch 680-840504 recovered outside control limits for the following analytes: Bromoform. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 8260D_DOD5: The laboratory control sample duplicate (LCSD) for analytical batch 680-840504 recovered outside control limits for the following analytes: Bromoform and 1,1,2,2-Tetrachloroethane. These analytes were biased high in the LCSD and were not detected in the associated samples; therefore, the data have been reported.

Method 8260D_DOD5: The method blank for 680-840504 contained Methylcyclohexane above the method detection limit (MDL). Associated samples were not re-analyzed because the method blank results were less than the reporting limit (RL) OR practical quantitation limit (PQL).

Method 8260D_DOD5: The closing continuing calibration verification (CCVC) associated with batch 680-840504 recovered above the upper control limit for Bromoform. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8260D_DOD5: The continuing calibration verification (CCV) associated with batch 680-840778 recovered outside acceptance criteria, low biased, for Dichlorodifluoromethane. A reporting limit (RL) standard was analyzed, and the target analytes are detected. Since the associated samples were non-detect for the analyte(s), the data are reported.

Method 8260D_DOD5: The method blank for 680-840778 contained n-Butylbenzene above the method detection limit (MDL). Associated samples were not re-analyzed because the method blank results were less than the reporting limit (RL) OR practical quantitation limit (PQL).

Method 8260D_DOD5: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 680-840778 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

Method 8260D_DOD5: The initial calibration verification (ICV) analyzed in batch 680-840351 was outside method criteria for the following analyte(s): 1,2-Dibromo-3-Chloropropane. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC/MS Semi VOA

Method 8270E_DOD5: The initial calibration verification (ICV) result for batch 680-836548 was above the upper control limit. The affected analytes are: 2,4-Dimethylphenol. Sample results were non-detects, and have been reported as qualified data.

Method 8270E_DOD5: Elevated reporting limits are provided for the following samples due to insufficient sample provided for preparation.

Method 8270E_DOD5: The matrix spike / matrix spike duplicate (MS/MSD) precision for preparation batch 680-839165 and analytical batch 680-839362 was outside control limits. Sample matrix interference and/or non-homogeneity are suspected.

Method 8270E_DOD5: The continuing calibration verification (CCV) associated with batch 680-839362 recovered above the upper control limit for Bis(2-chloroethyl)ether. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8270E_SIM_DOD5: Elevated reporting limits are provided for the following samples due to insufficient sample provided for preparation: OU6-MW-263-20240520 (680-251033-1), OU6-MW-263-20240520 (680-251033-1[MS]), OU6-MW-263-20240520 (680-251033-1[MSD]) and OU6-MW-269-20240520 (680-251033-2).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC VOA
Method RSK_175_DOD5: Due to the high concentration of Methane (TCD), the matrix spike / matrix spike duplicate (MS/MSD) for analytical batch 680-840649 could not be evaluated for accuracy and precision. The associated laboratory control sample / laboratory control sample duplicate (LCS/LCSD) met acceptance criteria.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Pesticides/PCBs
Method 8081B_8082A_D5: Surrogate recovery for the following samples were outside control limits: OU6-MW-263-20240520 (680-251033-1), OU6-MW-263-20240520 (680-251033-1[MS]), OU6-MW-263-20240520 (680-251033-1[MSD]) and OU6-MW-269-20240520 (680-251033-2). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8081B_8082A_D5: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 680-839562 and analytical batch 680-839672 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

Method 8081B_8082A_D5: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for preparation batch 680-839562 and analytical batch 680-839672 recovered outside control limits for the following analyte: Endrin ketone. This analyte was biased high in the LCS and was not detected in the associated samples; therefore, the data has been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC
Method 9056A_OF_28D_D5: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for analytical batch 680-840534 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

Method 9056A_OF_28D_D5: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 680-840653 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

Method 9056A_OF_48H_D5: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 680-839088 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Metals
Method 6020A_DOD5 - Total Recoverable: The interference check standard solution (ICSA) associated with batch 680-839863 had results for one or more elements at a level greater than 2 times the method detection limit (MDL). The vendor acknowledges that these elements are trace impurities in the ICSA standard. These results are not indicative of a matrix interference.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
Method 2320B: The sample duplicate precision for the following sample associated with analytical batch 680-839638 was outside control limits: (680-251033-F-2 DU). The associated Laboratory Control Sample / Laboratory Control Sample Duplicate (LCS/LCSD) precision met acceptance criteria.

Method SM4500_CO2_D: The sample duplicate precision for the following sample associated with analytical batch 680-839638 was outside control limits: (680-251033-F-2 DU). The associated Laboratory Control Sample / Laboratory Control Sample Duplicate (LCS/LCSD) precision met acceptance criteria.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-251033-1

Client Sample ID: OU6-MW-263-20240520
Date Collected: 05/20/24 07:35
Date Received: 05/21/24 10:19

Lab Sample ID: 680-251033-1
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			05/30/24 13:42	1
Benzene	1.0	U	2.0	0.27	ug/L			05/30/24 13:42	1
Bromobenzene	0.50	U J1	1.0	0.24	ug/L			05/30/24 13:42	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			05/30/24 13:42	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			05/30/24 13:42	1
Bromoform	2.0	U Q	2.5	0.59	ug/L			05/31/24 16:38	1
Bromomethane	10	U	20	3.7	ug/L			05/30/24 13:42	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			05/30/24 13:42	1
Carbon disulfide	1.0	U Q	2.0	0.43	ug/L			05/30/24 13:42	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			05/30/24 13:42	1
Chlorobenzene	**6.1**		1.0	0.15	ug/L			05/30/24 13:42	1
Chloroethane	10	U J1	20	4.6	ug/L			05/30/24 13:42	1
Chloroform	1.0	U	2.0	0.27	ug/L			05/30/24 13:42	1
Chloromethane	2.0	U	2.5	0.54	ug/L			05/30/24 13:42	1
2-Chlorotoluene	0.50	U J1	1.0	0.25	ug/L			05/30/24 13:42	1
4-Chlorotoluene	1.0	U J1	2.0	0.41	ug/L			05/30/24 13:42	1
cis-1,2-Dichloroethene	**1.2**	**J**	2.0	0.25	ug/L			05/30/24 13:42	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			05/30/24 13:42	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			05/30/24 13:42	1
Dibromochloromethane	1.0	U J1	2.0	0.39	ug/L			05/30/24 13:42	1
1,2-Dibromo-3-Chloropropane	5.0	U J1	10	1.8	ug/L			05/30/24 13:42	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			05/30/24 13:42	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			05/30/24 13:42	1
1,2-Dichlorobenzene	**1.5**	**J**	2.0	0.31	ug/L			05/30/24 13:42	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/30/24 13:42	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/30/24 13:42	1
Dichlorodifluoromethane	**1.9**	**J**	2.0	0.36	ug/L			05/31/24 16:38	1
1,1-Dichloroethane	**1.3**	**J**	2.0	0.33	ug/L			05/30/24 13:42	1
1,2-Dichloroethane	1.0	U M	2.0	0.25	ug/L			05/30/24 13:42	1
1,1-Dichloroethene	1.0	U	2.0	0.33	ug/L			05/30/24 13:42	1
1,2-Dichloroethene, Total	**1.2**	**J**	2.0	0.37	ug/L			05/30/24 13:42	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			05/30/24 13:42	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			05/30/24 13:42	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			05/30/24 13:42	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			05/30/24 13:42	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			05/30/24 13:42	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			05/30/24 13:42	1
2-Hexanone	10	U J1	20	3.2	ug/L			05/30/24 13:42	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			05/30/24 13:42	1
4-Isopropyltoluene	**0.67**	**J**	2.0	0.44	ug/L			05/30/24 13:42	1
Methyl acetate	10	U Q	20	3.2	ug/L			05/30/24 13:42	1
Methylcyclohexane	1.0	U M	2.0	0.33	ug/L			05/30/24 13:42	1
Methylene Chloride	10	U	20	3.2	ug/L			05/30/24 13:42	1
4-Methyl-2-pentanone (MIBK)	10	U J1	20	2.7	ug/L			05/30/24 13:42	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			05/30/24 13:42	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			05/30/24 13:42	1
Naphthalene	5.0	U	10	2.4	ug/L			05/30/24 13:42	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			05/30/24 13:42	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			05/30/24 13:42	1

Client Sample ID: OU6-MW-263-20240520
Date Collected: 05/20/24 07:35
Date Received: 05/21/24 10:19

Lab Sample ID: 680-251033-1
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	1.0	U	2.0	0.26	ug/L			05/30/24 13:42	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			05/30/24 13:42	1
Styrene	1.0	U J1	2.0	0.27	ug/L			05/30/24 13:42	1
tert-Butylbenzene	1.0	U M J1	2.0	0.43	ug/L			05/30/24 13:42	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			05/30/24 13:42	1
1,1,2,2-Tetrachloroethane	1.0	U J1	2.0	0.40	ug/L			05/30/24 13:42	1
Tetrachloroethene	1.0	U	2.0	0.35	ug/L			05/30/24 13:42	1
Toluene	1.0	U	2.0	0.25	ug/L			05/30/24 13:42	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			05/30/24 13:42	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			05/30/24 13:42	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			05/30/24 13:42	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			05/30/24 13:42	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			05/30/24 13:42	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			05/30/24 13:42	1
Trichloroethene	0.50	U	1.0	0.20	ug/L			05/30/24 13:42	1
Trichlorofluoromethane	1.0	U J1	2.0	0.33	ug/L			05/30/24 13:42	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			05/30/24 13:42	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			05/30/24 13:42	1
1,2,4-Trimethylbenzene	1.0	U J1	2.0	0.43	ug/L			05/30/24 13:42	1
1,3,5-Trimethylbenzene	1.0	U J1	2.0	0.28	ug/L			05/30/24 13:42	1
Vinyl chloride	**1.3**	**J J1**	2.0	0.40	ug/L			05/30/24 13:42	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			05/30/24 13:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*85 - 114*		*05/30/24 13:42*	*1*
4-Bromofluorobenzene (Surr)	*108*		*85 - 114*		*05/31/24 16:38*	*1*
Dibromofluoromethane (Surr)	*107*		*80 - 119*		*05/30/24 13:42*	*1*
Dibromofluoromethane (Surr)	*107*		*80 - 119*		*05/31/24 16:38*	*1*
1,2-Dichloroethane-d4 (Surr)	*98*		*81 - 118*		*05/30/24 13:42*	*1*
1,2-Dichloroethane-d4 (Surr)	*99*		*81 - 118*		*05/31/24 16:38*	*1*
Toluene-d8 (Surr)	*96*		*89 - 112*		*05/30/24 13:42*	*1*
Toluene-d8 (Surr)	*96*		*89 - 112*		*05/31/24 16:38*	*1*

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	0.068	U M	0.27	0.024	ug/L		05/23/24 07:08	05/24/24 18:21	1
Acenaphthene	**0.38**		0.27	0.057	ug/L		05/23/24 07:08	05/24/24 18:21	1
Acenaphthylene	0.068	U	0.27	0.023	ug/L		05/23/24 07:08	05/24/24 18:21	1
Pyrene	**0.68**		0.27	0.037	ug/L		05/23/24 07:08	05/24/24 18:21	1
2-Methylnaphthalene	0.054	U	0.27	0.015	ug/L		05/23/24 07:08	05/24/24 18:21	1
Anthracene	**0.42**		0.27	0.024	ug/L		05/23/24 07:08	05/24/24 18:21	1
Benzo[a]pyrene	0.14	U	0.27	0.035	ug/L		05/23/24 07:08	05/24/24 18:21	1
Benzo[a]anthracene	0.14	U	0.27	0.035	ug/L		05/23/24 07:08	05/24/24 18:21	1
Benzo[b]fluoranthene	0.14	U	0.27	0.035	ug/L		05/23/24 07:08	05/24/24 18:21	1
Benzo[g,h,i]perylene	0.14	U M	0.27	0.035	ug/L		05/23/24 07:08	05/24/24 18:21	1
Benzo[k]fluoranthene	0.14	U	0.27	0.039	ug/L		05/23/24 07:08	05/24/24 18:21	1
Chrysene	0.068	U	0.27	0.031	ug/L		05/23/24 07:08	05/24/24 18:21	1
Dibenz(a,h)anthracene	0.068	U	0.27	0.032	ug/L		05/23/24 07:08	05/24/24 18:21	1
Phenanthrene	0.27	U	0.54	0.074	ug/L		05/23/24 07:08	05/24/24 18:21	1
Indeno[1,2,3-cd]pyrene	0.14	U	0.27	0.038	ug/L		05/23/24 07:08	05/24/24 18:21	1

Client Sample ID: OU6-MW-263-20240520
Date Collected: 05/20/24 07:35
Date Received: 05/21/24 10:19

Lab Sample ID: 680-251033-1
Matrix: Water

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	**0.37**		0.27	0.019	ug/L		05/23/24 07:08	05/24/24 18:21	1
Fluoranthene	**0.97**		0.27	0.037	ug/L		05/23/24 07:08	05/24/24 18:21	1
Fluorene	**0.34**		0.27	0.034	ug/L		05/23/24 07:08	05/24/24 18:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*70*		*53 - 106*	*05/23/24 07:08*	*05/24/24 18:21*	*1*
2-methylnaphthalene-d10	*71*		*30 - 100*	*05/23/24 07:08*	*05/24/24 18:21*	*1*
Fluoranthene-d10	*95*		*42 - 114*	*05/23/24 07:08*	*05/24/24 18:21*	*1*
Nitrobenzene-d5	*76*		*42 - 100*	*05/23/24 07:08*	*05/24/24 18:21*	*1*
Terphenyl-d14	*97*		*53 - 111*	*05/23/24 07:08*	*05/24/24 18:21*	*1*

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	13	U M J1	25	5.8	ug/L		05/22/24 08:09	05/23/24 15:40	1
1,2,4,5-Tetrachlorobenzene	13	U J1	25	5.7	ug/L		05/22/24 08:09	05/23/24 15:40	1
1,4-Dioxane	13	U J1	25	5.6	ug/L		05/22/24 08:09	05/23/24 15:40	1
2,3,4,6-Tetrachlorophenol	13	U	25	5.5	ug/L		05/22/24 08:09	05/23/24 15:40	1
2,4,5-Trichlorophenol	13	U J1	25	4.2	ug/L		05/22/24 08:09	05/23/24 15:40	1
2,4,6-Trichlorophenol	6.4	U J1	25	2.8	ug/L		05/22/24 08:09	05/23/24 15:40	1
2,4-Dichlorophenol	13	U J1	25	4.7	ug/L		05/22/24 08:09	05/23/24 15:40	1
2,4-Dimethylphenol	13	U J1 Q	25	3.8	ug/L		05/22/24 08:09	05/23/24 15:40	1
2,4-Dinitrophenol	51	U	64	20	ug/L		05/22/24 08:09	05/23/24 15:40	1
2,4-Dinitrotoluene	6.4	U J1	13	2.9	ug/L		05/22/24 08:09	05/23/24 15:40	1
2,6-Dinitrotoluene	13	U J1	25	3.6	ug/L		05/22/24 08:09	05/23/24 15:40	1
2-Chloronaphthalene	13	U J1	25	6.1	ug/L		05/22/24 08:09	05/23/24 15:40	1
2-Chlorophenol	13	U J1	25	4.1	ug/L		05/22/24 08:09	05/23/24 15:40	1
2-Methylphenol	5.1	U J1	13	2.3	ug/L		05/22/24 08:09	05/23/24 15:40	1
2-Nitroaniline	13	U M J1	25	3.7	ug/L		05/22/24 08:09	05/23/24 15:40	1
2-Nitrophenol	13	U J1	25	5.0	ug/L		05/22/24 08:09	05/23/24 15:40	1
3 & 4 Methylphenol	5.1	U J1	13	1.8	ug/L		05/22/24 08:09	05/23/24 15:40	1
3,3'-Dichlorobenzidine	25	U	64	13	ug/L		05/22/24 08:09	05/23/24 15:40	1
3-Nitroaniline	13	U	64	3.8	ug/L		05/22/24 08:09	05/23/24 15:40	1
4,6-Dinitro-2-methylphenol	25	U	64	6.7	ug/L		05/22/24 08:09	05/23/24 15:40	1
4-Bromophenyl phenyl ether	13	U M	25	6.0	ug/L		05/22/24 08:09	05/23/24 15:40	1
4-Chloro-3-methylphenol	13	U J1	25	3.2	ug/L		05/22/24 08:09	05/23/24 15:40	1
4-Chloroaniline	5.1	U J1	13	1.3	ug/L		05/22/24 08:09	05/23/24 15:40	1
4-Chlorophenyl phenyl ether	15	U J1	25	6.7	ug/L		05/22/24 08:09	05/23/24 15:40	1
4-Nitroaniline	13	U	64	3.8	ug/L		05/22/24 08:09	05/23/24 15:40	1
4-Nitrophenol	25	U J1	64	10	ug/L		05/22/24 08:09	05/23/24 15:40	1
Acetophenone	6.4	U J1	13	2.8	ug/L		05/22/24 08:09	05/23/24 15:40	1
Atrazine	6.4	U	13	2.8	ug/L		05/22/24 08:09	05/23/24 15:40	1
Benzaldehyde	13	U J1	25	6.1	ug/L		05/22/24 08:09	05/23/24 15:40	1
bis (2-chloroisopropyl) ether	13	U J1	25	3.9	ug/L		05/22/24 08:09	05/23/24 15:40	1
Bis(2-chloroethoxy)methane	5.1	U J1	13	2.3	ug/L		05/22/24 08:09	05/23/24 15:40	1
Bis(2-chloroethyl)ether	13	U Q J1	25	4.6	ug/L		05/22/24 08:09	05/23/24 15:40	1
Bis(2-ethylhexyl) phthalate	13	U	25	3.8	ug/L		05/22/24 08:09	05/23/24 15:40	1
Butyl benzyl phthalate	13	U	25	3.6	ug/L		05/22/24 08:09	05/23/24 15:40	1
Caprolactam	13	U J1	25	3.6	ug/L		05/22/24 08:09	05/23/24 15:40	1
Carbazole	5.1	U	13	2.3	ug/L		05/22/24 08:09	05/23/24 15:40	1
Dibenzofuran	5.1	U J1	13	2.4	ug/L		05/22/24 08:09	05/23/24 15:40	1

Client Sample ID: OU6-MW-263-20240520
Date Collected: 05/20/24 07:35
Date Received: 05/21/24 10:19

Lab Sample ID: 680-251033-1
Matrix: Water

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Diethyl phthalate	6.4	U	13	2.8	ug/L		05/22/24 08:09	05/23/24 15:40	1
Dimethyl phthalate	6.4	U J1	13	2.7	ug/L		05/22/24 08:09	05/23/24 15:40	1
Di-n-butyl phthalate	6.4	U	13	2.9	ug/L		05/22/24 08:09	05/23/24 15:40	1
Di-n-octyl phthalate	13	U	25	3.6	ug/L		05/22/24 08:09	05/23/24 15:40	1
Hexachlorobenzene	5.1	U	13	2.0	ug/L		05/22/24 08:09	05/23/24 15:40	1
Hexachlorobutadiene	13	U J1	25	5.1	ug/L		05/22/24 08:09	05/23/24 15:40	1
Hexachlorocyclopentadiene	13	U J1	25	4.4	ug/L		05/22/24 08:09	05/23/24 15:40	1
Hexachloroethane	13	U J1	25	4.6	ug/L		05/22/24 08:09	05/23/24 15:40	1
Isophorone	5.1	U J1	13	2.5	ug/L		05/22/24 08:09	05/23/24 15:40	1
Nitrobenzene	13	U J1	25	4.4	ug/L		05/22/24 08:09	05/23/24 15:40	1
N-Nitrosodi-n-propylamine	6.4	U J1	13	3.1	ug/L		05/22/24 08:09	05/23/24 15:40	1
N-Nitrosodiphenylamine	13	U M	25	3.7	ug/L		05/22/24 08:09	05/23/24 15:40	1
Pentachlorophenol	25	U	64	13	ug/L		05/22/24 08:09	05/23/24 15:40	1
Phenol	5.1	U M J1	13	1.9	ug/L		05/22/24 08:09	05/23/24 15:40	1
Pyridine	25	U J1	64	9.4	ug/L		05/22/24 08:09	05/23/24 15:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*68*		*43 - 140*	*05/22/24 08:09*	*05/23/24 15:40*	*1*
2-Fluorobiphenyl	*58*		*44 - 119*	*05/22/24 08:09*	*05/23/24 15:40*	*1*
2-Fluorophenol	*35*		*19 - 119*	*05/22/24 08:09*	*05/23/24 15:40*	*1*
Nitrobenzene-d5	*54*		*44 - 120*	*05/22/24 08:09*	*05/23/24 15:40*	*1*
Phenol-d5	*27*		*10 - 130*	*05/22/24 08:09*	*05/23/24 15:40*	*1*
Terphenyl-d14	*84*		*50 - 134*	*05/22/24 08:09*	*05/23/24 15:40*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	**2.4**		1.1	0.30	ug/L			06/01/24 14:08	1
Ethylene	**0.76**	**J**	1.0	0.31	ug/L			06/01/24 14:08	1
Methane (TCD)	**2100**	**J1**	390	39	ug/L			06/01/24 14:08	1

Method: SW846 8081B 8082A - Organochlorine Pesticides & PCBs (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	0.0047	U	0.059	0.0024	ug/L		05/24/24 07:17	05/24/24 19:51	1
4,4'-DDE	0.0047	U M	0.059	0.0012	ug/L		05/24/24 07:17	05/24/24 19:51	1
4,4'-DDT	0.0047	U	0.059	0.0012	ug/L		05/24/24 07:17	05/24/24 19:51	1
Aldrin	0.0047	U	0.059	0.0024	ug/L		05/24/24 07:17	05/24/24 19:51	1
alpha-BHC	0.0047	U J1	0.059	0.0012	ug/L		05/24/24 07:17	05/24/24 19:51	1
beta-BHC	0.0047	U	0.059	0.0024	ug/L		05/24/24 07:17	05/24/24 19:51	1
delta-BHC	0.0047	U	0.059	0.0024	ug/L		05/24/24 07:17	05/24/24 19:51	1
Dieldrin	0.0047	U	0.059	0.0024	ug/L		05/24/24 07:17	05/24/24 19:51	1
Endosulfan I	0.0047	U J1	0.059	0.0024	ug/L		05/24/24 07:17	05/24/24 19:51	1
Endosulfan II	0.0047	U	0.059	0.0024	ug/L		05/24/24 07:17	05/24/24 19:51	1
Endosulfan sulfate	0.0047	U	0.059	0.0024	ug/L		05/24/24 07:17	05/24/24 19:51	1
Endrin	0.0047	U M	0.059	0.0012	ug/L		05/24/24 07:17	05/24/24 19:51	1
Endrin aldehyde	0.019	U	0.059	0.0047	ug/L		05/24/24 07:17	05/24/24 19:51	1
Endrin ketone	0.019	U Q J1	0.059	0.0047	ug/L		05/24/24 07:17	05/24/24 19:51	1
gamma-BHC (Lindane)	0.0047	U J1	0.059	0.0012	ug/L		05/24/24 07:17	05/24/24 19:51	1
Heptachlor	0.0047	U J1	0.059	0.0012	ug/L		05/24/24 07:17	05/24/24 19:51	1
Heptachlor epoxide	0.0047	U	0.059	0.0024	ug/L		05/24/24 07:17	05/24/24 19:51	1
Methoxychlor	0.0047	U	0.059	0.0024	ug/L		05/24/24 07:17	05/24/24 19:51	1

Client Sample ID: OU6-MW-263-20240520
Date Collected: 05/20/24 07:35
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Lab Sample ID: 680-251033-1
Matrix: Water

Method: SW846 8081B 8082A - Organochlorine Pesticides & PCBs (GC) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chlordane (technical)	0.47	U	0.59	0.19	ug/L		05/24/24 07:17	05/24/24 19:51	1
PCB-1016	0.28	U J1	0.59	0.12	ug/L		05/24/24 07:17	05/24/24 19:51	1
PCB-1221	0.28	U	0.59	0.12	ug/L		05/24/24 07:17	05/24/24 19:51	1
PCB-1232	0.28	U	0.59	0.12	ug/L		05/24/24 07:17	05/24/24 19:51	1
PCB-1242	0.28	U	0.59	0.12	ug/L		05/24/24 07:17	05/24/24 19:51	1
PCB-1248	0.28	U	0.59	0.12	ug/L		05/24/24 07:17	05/24/24 19:51	1
PCB-1254	0.28	U M	0.59	0.12	ug/L		05/24/24 07:17	05/24/24 19:51	1
PCB-1260	0.28	U	0.59	0.12	ug/L		05/24/24 07:17	05/24/24 19:51	1
Toxaphene	0.94	U	5.9	0.37	ug/L		05/24/24 07:17	05/24/24 19:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*47*		*14 - 130*	*05/24/24 07:17*	*05/24/24 19:51*	*1*
Tetrachloro-m-xylene	*13*	Q	*44 - 124*	*05/24/24 07:17*	*05/24/24 19:51*	*1*

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**28**	**D**	2.8	1.0	mg/L			05/31/24 18:07	5
Nitrate as N	0.050	U	0.055	0.023	mg/L			05/21/24 16:44	1
Nitrate Nitrite as N	0.050	U	0.055	0.023	mg/L			05/21/24 16:44	1
Sulfate	**150**	**D**	7.5	2.0	mg/L			05/31/24 18:07	5
Nitrite as N	0.050	U M J1	0.055	0.023	mg/L			05/21/24 16:44	1

Method: SW846 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**56**	**J**	200	35	ug/L		05/22/24 08:57	05/25/24 09:39	1
Antimony	1.5	U	5.0	0.34	ug/L		05/22/24 08:57	05/25/24 09:39	1
Arsenic	**5.8**		5.0	0.86	ug/L		05/22/24 08:57	05/25/24 09:39	1
Barium	**51**	**Q**	5.0	0.89	ug/L		05/22/24 08:57	05/25/24 09:39	1
Beryllium	0.40	U	0.50	0.20	ug/L		05/22/24 08:57	05/25/24 09:39	1
Boron	**320**		100	22	ug/L		05/22/24 08:57	05/25/24 09:39	1
Cadmium	0.20	U	0.50	0.078	ug/L		05/22/24 08:57	05/25/24 09:39	1
Calcium	**50000**	**J1**	500	140	ug/L		05/22/24 08:57	05/25/24 09:39	1
Chromium	**0.86**	**J**	20	0.81	ug/L		05/22/24 08:57	05/25/24 09:39	1
Cobalt	**1.4**		1.0	0.22	ug/L		05/22/24 08:57	05/25/24 09:39	1
Copper	2.0	U	5.0	1.1	ug/L		05/22/24 08:57	05/25/24 09:39	1
Iron	**40000**	**J1**	100	12	ug/L		05/22/24 08:57	05/25/24 09:39	1
Lead	1.0	U	2.5	0.21	ug/L		05/22/24 08:57	05/25/24 09:39	1
Magnesium	**75000**	**J1**	250	23	ug/L		05/22/24 08:57	05/25/24 09:39	1
Manganese	**160**	**J1**	10	2.2	ug/L		05/22/24 08:57	05/25/24 09:39	1
Nickel	**2.2**	**J**	10	0.42	ug/L		05/22/24 08:57	05/25/24 09:39	1
Potassium	**4000**		1000	44	ug/L		05/22/24 08:57	05/25/24 09:39	1
Selenium	2.5	U	5.0	0.99	ug/L		05/22/24 08:57	05/25/24 09:39	1
Silver	1.0	U	2.0	0.39	ug/L		05/22/24 08:57	05/25/24 09:39	1
Sodium	**93000**	**J1**	1000	200	ug/L		05/22/24 08:57	05/25/24 09:39	1
Thallium	1.0	U	2.0	0.26	ug/L		05/22/24 08:57	05/25/24 09:39	1
Vanadium	2.5	U	10	0.63	ug/L		05/22/24 08:57	05/25/24 09:39	1
Zinc	**41**	**J1**	25	2.8	ug/L		05/22/24 08:57	05/25/24 09:39	1

Client Sample ID: OU6-MW-263-20240520

Lab Sample ID: 680-251033-1

Date Collected: 05/20/24 07:35

Matrix: Water

Date Received: 05/21/24 10:19

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	0.20	U	0.25	0.080	ug/L		05/29/24 10:24	05/29/24 14:40	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	460		5.5	2.2	mg/L			05/23/24 17:36	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	460		11	5.0	mg/L			05/23/24 17:36	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	10	U	11	5.0	mg/L			05/23/24 17:36	1
Sulfide (SM 4500 S2 F-2011)	0.86	U	0.86	0.86	mg/L			05/22/24 15:19	1
Sulfide as H2S (SM 4500 S2 F-2011)	0.95	U	0.95	0.95	mg/L			05/22/24 15:19	1
Total Organic Carbon (SW846 9060A)	12		1.0	0.50	mg/L			05/23/24 13:19	1
Carbon Dioxide, Free (SM 4500 CO2 D)	150		11	5.0	mg/L			05/23/24 17:36	1

Client Sample ID: OU6-MW-269-20240520

Lab Sample ID: 680-251033-2

Date Collected: 05/20/24 09:20

Matrix: Water

Date Received: 05/21/24 10:19

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			05/30/24 14:04	1
Benzene	1.0	U	2.0	0.27	ug/L			05/30/24 14:04	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			05/30/24 14:04	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			05/30/24 14:04	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			05/30/24 14:04	1
Bromoform	2.0	U Q	2.5	0.59	ug/L			05/30/24 14:04	1
Bromomethane	10	U	20	3.7	ug/L			05/30/24 14:04	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			05/30/24 14:04	1
Carbon disulfide	1.0	U Q	2.0	0.43	ug/L			05/30/24 14:04	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			05/30/24 14:04	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			05/30/24 14:04	1
Chloroethane	10	U	20	4.6	ug/L			05/30/24 14:04	1
Chloroform	1.0	U	2.0	0.27	ug/L			05/30/24 14:04	1
Chloromethane	2.0	U	2.5	0.54	ug/L			05/30/24 14:04	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			05/30/24 14:04	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			05/30/24 14:04	1
cis-1,2-Dichloroethene	1.0	U	2.0	0.25	ug/L			05/30/24 14:04	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			05/30/24 14:04	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			05/30/24 14:04	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			05/30/24 14:04	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			05/30/24 14:04	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			05/30/24 14:04	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			05/30/24 14:04	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/30/24 14:04	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/30/24 14:04	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/30/24 14:04	1
Dichlorodifluoromethane	1.0	U Q	2.0	0.36	ug/L			05/30/24 14:04	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			05/30/24 14:04	1

Client Sample ID: OU6-MW-269-20240520
Date Collected: 05/20/24 09:20
Date Received: 05/21/24 10:19

Lab Sample ID: 680-251033-2
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	1.0	U	2.0	0.25	ug/L			05/30/24 14:04	1
1,1-Dichloroethene	1.0	U	2.0	0.33	ug/L			05/30/24 14:04	1
1,2-Dichloroethene, Total	1.0	U	2.0	0.37	ug/L			05/30/24 14:04	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			05/30/24 14:04	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			05/30/24 14:04	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			05/30/24 14:04	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			05/30/24 14:04	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			05/30/24 14:04	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			05/30/24 14:04	1
2-Hexanone	10	U	20	3.2	ug/L			05/30/24 14:04	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			05/30/24 14:04	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			05/30/24 14:04	1
Methyl acetate	10	U Q	20	3.2	ug/L			05/30/24 14:04	1
Methylcyclohexane	1.0	U	2.0	0.33	ug/L			05/30/24 14:04	1
Methylene Chloride	10	U	20	3.2	ug/L			05/30/24 14:04	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			05/30/24 14:04	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			05/30/24 14:04	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			05/30/24 14:04	1
Naphthalene	5.0	U	10	2.4	ug/L			05/30/24 14:04	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			05/30/24 14:04	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			05/30/24 14:04	1
o-Xylene	1.0	U	2.0	0.26	ug/L			05/30/24 14:04	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			05/30/24 14:04	1
Styrene	1.0	U	2.0	0.27	ug/L			05/30/24 14:04	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			05/30/24 14:04	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			05/30/24 14:04	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			05/30/24 14:04	1
Tetrachloroethene	1.0	U	2.0	0.35	ug/L			05/30/24 14:04	1
Toluene	1.0	U	2.0	0.25	ug/L			05/30/24 14:04	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			05/30/24 14:04	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			05/30/24 14:04	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			05/30/24 14:04	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			05/30/24 14:04	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			05/30/24 14:04	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			05/30/24 14:04	1
Trichloroethene	0.50	U	1.0	0.20	ug/L			05/30/24 14:04	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			05/30/24 14:04	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			05/30/24 14:04	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			05/30/24 14:04	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			05/30/24 14:04	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			05/30/24 14:04	1
Vinyl chloride	1.0	U	2.0	0.40	ug/L			05/30/24 14:04	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			05/30/24 14:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*112*		*85 - 114*		*05/30/24 14:04*	*1*
Dibromofluoromethane (Surr)	*109*		*80 - 119*		*05/30/24 14:04*	*1*
1,2-Dichloroethane-d4 (Surr)	*101*		*81 - 118*		*05/30/24 14:04*	*1*
Toluene-d8 (Surr)	*97*		*89 - 112*		*05/30/24 14:04*	*1*

Client Sample ID: OU6-MW-269-20240520
Date Collected: 05/20/24 09:20
Date Received: 05/21/24 10:19

Lab Sample ID: 680-251033-2
Matrix: Water

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	0.059	U M	0.24	0.021	ug/L		05/23/24 07:08	05/24/24 18:45	1
Acenaphthene	0.12	U M	0.24	0.049	ug/L		05/23/24 07:08	05/24/24 18:45	1
Acenaphthylene	0.059	U M	0.24	0.020	ug/L		05/23/24 07:08	05/24/24 18:45	1
Pyrene	0.12	U M	0.24	0.032	ug/L		05/23/24 07:08	05/24/24 18:45	1
2-Methylnaphthalene	0.047	U	0.24	0.013	ug/L		05/23/24 07:08	05/24/24 18:45	1
Anthracene	0.059	U	0.24	0.021	ug/L		05/23/24 07:08	05/24/24 18:45	1
Benzo[a]pyrene	0.12	U	0.24	0.031	ug/L		05/23/24 07:08	05/24/24 18:45	1
Benzo[a]anthracene	0.12	U	0.24	0.031	ug/L		05/23/24 07:08	05/24/24 18:45	1
Benzo[b]fluoranthene	0.12	U	0.24	0.031	ug/L		05/23/24 07:08	05/24/24 18:45	1
Benzo[g,h,i]perylene	0.12	U M	0.24	0.031	ug/L		05/23/24 07:08	05/24/24 18:45	1
Benzo[k]fluoranthene	0.12	U	0.24	0.034	ug/L		05/23/24 07:08	05/24/24 18:45	1
Chrysene	0.059	U	0.24	0.027	ug/L		05/23/24 07:08	05/24/24 18:45	1
Dibenz(a,h)anthracene	0.059	U	0.24	0.028	ug/L		05/23/24 07:08	05/24/24 18:45	1
Phenanthrene	0.24	U	0.47	0.065	ug/L		05/23/24 07:08	05/24/24 18:45	1
Indeno[1,2,3-cd]pyrene	0.12	U	0.24	0.033	ug/L		05/23/24 07:08	05/24/24 18:45	1
Naphthalene	0.059	U	0.24	0.016	ug/L		05/23/24 07:08	05/24/24 18:45	1
Fluoranthene	0.12	U M	0.24	0.032	ug/L		05/23/24 07:08	05/24/24 18:45	1
Fluorene	0.12	U M	0.24	0.029	ug/L		05/23/24 07:08	05/24/24 18:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*60*		*53 - 106*	*05/23/24 07:08*	*05/24/24 18:45*	*1*
2-methylnaphthalene-d10	*60*		*30 - 100*	*05/23/24 07:08*	*05/24/24 18:45*	*1*
Fluoranthene-d10	*76*		*42 - 114*	*05/23/24 07:08*	*05/24/24 18:45*	*1*
Nitrobenzene-d5	*66*		*42 - 100*	*05/23/24 07:08*	*05/24/24 18:45*	*1*
Terphenyl-d14	*84*		*53 - 111*	*05/23/24 07:08*	*05/24/24 18:45*	*1*

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	11	U M	22	5.1	ug/L		05/22/24 08:09	05/23/24 16:06	1
1,2,4,5-Tetrachlorobenzene	11	U	22	5.0	ug/L		05/22/24 08:09	05/23/24 16:06	1
1,4-Dioxane	11	U	22	4.9	ug/L		05/22/24 08:09	05/23/24 16:06	1
2,3,4,6-Tetrachlorophenol	11	U	22	4.7	ug/L		05/22/24 08:09	05/23/24 16:06	1
2,4,5-Trichlorophenol	11	U	22	3.6	ug/L		05/22/24 08:09	05/23/24 16:06	1
2,4,6-Trichlorophenol	5.5	U	22	2.4	ug/L		05/22/24 08:09	05/23/24 16:06	1
2,4-Dichlorophenol	11	U	22	4.1	ug/L		05/22/24 08:09	05/23/24 16:06	1
2,4-Dimethylphenol	11	U Q	22	3.3	ug/L		05/22/24 08:09	05/23/24 16:06	1
2,4-Dinitrophenol	44	U	55	18	ug/L		05/22/24 08:09	05/23/24 16:06	1
2,4-Dinitrotoluene	5.5	U	11	2.5	ug/L		05/22/24 08:09	05/23/24 16:06	1
2,6-Dinitrotoluene	11	U	22	3.1	ug/L		05/22/24 08:09	05/23/24 16:06	1
2-Chloronaphthalene	11	U	22	5.3	ug/L		05/22/24 08:09	05/23/24 16:06	1
2-Chlorophenol	11	U	22	3.5	ug/L		05/22/24 08:09	05/23/24 16:06	1
2-Methylphenol	4.4	U	11	2.0	ug/L		05/22/24 08:09	05/23/24 16:06	1
2-Nitroaniline	11	U M	22	3.2	ug/L		05/22/24 08:09	05/23/24 16:06	1
2-Nitrophenol	11	U	22	4.3	ug/L		05/22/24 08:09	05/23/24 16:06	1
3 & 4 Methylphenol	4.4	U	11	1.5	ug/L		05/22/24 08:09	05/23/24 16:06	1
3,3'-Dichlorobenzidine	22	U	55	11	ug/L		05/22/24 08:09	05/23/24 16:06	1
3-Nitroaniline	11	U	55	3.3	ug/L		05/22/24 08:09	05/23/24 16:06	1
4,6-Dinitro-2-methylphenol	22	U	55	5.8	ug/L		05/22/24 08:09	05/23/24 16:06	1
4-Bromophenyl phenyl ether	11	U M	22	5.2	ug/L		05/22/24 08:09	05/23/24 16:06	1
4-Chloro-3-methylphenol	11	U	22	2.8	ug/L		05/22/24 08:09	05/23/24 16:06	1

Client Sample ID: OU6-MW-269-20240520
Date Collected: 05/20/24 09:20
Date Received: 05/21/24 10:19

Lab Sample ID: 680-251033-2
Matrix: Water

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chloroaniline	4.4	U	11	1.1	ug/L		05/22/24 08:09	05/23/24 16:06	1
4-Chlorophenyl phenyl ether	13	U	22	5.8	ug/L		05/22/24 08:09	05/23/24 16:06	1
4-Nitroaniline	11	U	55	3.3	ug/L		05/22/24 08:09	05/23/24 16:06	1
4-Nitrophenol	22	U	55	8.9	ug/L		05/22/24 08:09	05/23/24 16:06	1
Acetophenone	5.5	U	11	2.4	ug/L		05/22/24 08:09	05/23/24 16:06	1
Atrazine	5.5	U	11	2.4	ug/L		05/22/24 08:09	05/23/24 16:06	1
Benzaldehyde	11	U M	22	5.3	ug/L		05/22/24 08:09	05/23/24 16:06	1
bis (2-chloroisopropyl) ether	11	U	22	3.4	ug/L		05/22/24 08:09	05/23/24 16:06	1
Bis(2-chloroethoxy)methane	4.4	U	11	2.0	ug/L		05/22/24 08:09	05/23/24 16:06	1
Bis(2-chloroethyl)ether	11	U Q	22	4.0	ug/L		05/22/24 08:09	05/23/24 16:06	1
Bis(2-ethylhexyl) phthalate	11	U	22	3.3	ug/L		05/22/24 08:09	05/23/24 16:06	1
Butyl benzyl phthalate	11	U	22	3.1	ug/L		05/22/24 08:09	05/23/24 16:06	1
Caprolactam	11	U	22	3.1	ug/L		05/22/24 08:09	05/23/24 16:06	1
Carbazole	4.4	U M	11	2.0	ug/L		05/22/24 08:09	05/23/24 16:06	1
Dibenzofuran	4.4	U	11	2.1	ug/L		05/22/24 08:09	05/23/24 16:06	1
Diethyl phthalate	5.5	U	11	2.4	ug/L		05/22/24 08:09	05/23/24 16:06	1
Dimethyl phthalate	5.5	U	11	2.3	ug/L		05/22/24 08:09	05/23/24 16:06	1
Di-n-butyl phthalate	5.5	U	11	2.5	ug/L		05/22/24 08:09	05/23/24 16:06	1
Di-n-octyl phthalate	11	U M	22	3.1	ug/L		05/22/24 08:09	05/23/24 16:06	1
Hexachlorobenzene	4.4	U	11	1.8	ug/L		05/22/24 08:09	05/23/24 16:06	1
Hexachlorobutadiene	11	U	22	4.4	ug/L		05/22/24 08:09	05/23/24 16:06	1
Hexachlorocyclopentadiene	11	U	22	3.9	ug/L		05/22/24 08:09	05/23/24 16:06	1
Hexachloroethane	11	U	22	4.0	ug/L		05/22/24 08:09	05/23/24 16:06	1
Isophorone	4.4	U	11	2.2	ug/L		05/22/24 08:09	05/23/24 16:06	1
Nitrobenzene	11	U	22	3.9	ug/L		05/22/24 08:09	05/23/24 16:06	1
N-Nitrosodi-n-propylamine	5.5	U	11	2.6	ug/L		05/22/24 08:09	05/23/24 16:06	1
N-Nitrosodiphenylamine	11	U M	22	3.2	ug/L		05/22/24 08:09	05/23/24 16:06	1
Pentachlorophenol	22	U	55	11	ug/L		05/22/24 08:09	05/23/24 16:06	1
Phenol	4.4	U M	11	1.7	ug/L		05/22/24 08:09	05/23/24 16:06	1
Pyridine	22	U	55	8.2	ug/L		05/22/24 08:09	05/23/24 16:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*68*		*43 - 140*	*05/22/24 08:09*	*05/23/24 16:06*	*1*
2-Fluorobiphenyl	*63*		*44 - 119*	*05/22/24 08:09*	*05/23/24 16:06*	*1*
2-Fluorophenol	*38*		*19 - 119*	*05/22/24 08:09*	*05/23/24 16:06*	*1*
Nitrobenzene-d5	*57*		*44 - 120*	*05/22/24 08:09*	*05/23/24 16:06*	*1*
Phenol-d5	*28*		*10 - 130*	*05/22/24 08:09*	*05/23/24 16:06*	*1*
Terphenyl-d14	*80*		*50 - 134*	*05/22/24 08:09*	*05/23/24 16:06*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	0.76	U	1.1	0.30	ug/L			06/01/24 14:47	1
Ethylene	0.71	U	1.0	0.31	ug/L			06/01/24 14:47	1
Methane	**44**		1.2	0.57	ug/L			06/01/24 14:47	1

Method: SW846 8081B 8082A - Organochlorine Pesticides & PCBs (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	0.0044	U	0.055	0.0022	ug/L		05/24/24 07:17	05/24/24 20:04	1
4,4'-DDE	0.0044	U M	0.055	0.0011	ug/L		05/24/24 07:17	05/24/24 20:04	1
4,4'-DDT	0.0044	U	0.055	0.0011	ug/L		05/24/24 07:17	05/24/24 20:04	1

Client Sample ID: OU6-MW-269-20240520
Date Collected: 05/20/24 09:20
Date Received: 05/21/24 10:19

Lab Sample ID: 680-251033-2
Matrix: Water

Method: SW846 8081B 8082A - Organochlorine Pesticides & PCBs (GC) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	0.0044	U	0.055	0.0022	ug/L		05/24/24 07:17	05/24/24 20:04	1
alpha-BHC	0.0044	U	0.055	0.0011	ug/L		05/24/24 07:17	05/24/24 20:04	1
beta-BHC	0.0044	U	0.055	0.0022	ug/L		05/24/24 07:17	05/24/24 20:04	1
delta-BHC	0.0044	U	0.055	0.0022	ug/L		05/24/24 07:17	05/24/24 20:04	1
Dieldrin	0.0044	U	0.055	0.0022	ug/L		05/24/24 07:17	05/24/24 20:04	1
Endosulfan I	0.0044	U	0.055	0.0022	ug/L		05/24/24 07:17	05/24/24 20:04	1
Endosulfan II	0.0044	U	0.055	0.0022	ug/L		05/24/24 07:17	05/24/24 20:04	1
Endosulfan sulfate	0.0044	U	0.055	0.0022	ug/L		05/24/24 07:17	05/24/24 20:04	1
Endrin	0.0044	U	0.055	0.0011	ug/L		05/24/24 07:17	05/24/24 20:04	1
Endrin aldehyde	0.018	U M	0.055	0.0044	ug/L		05/24/24 07:17	05/24/24 20:04	1
Endrin ketone	0.018	U Q	0.055	0.0044	ug/L		05/24/24 07:17	05/24/24 20:04	1
gamma-BHC (Lindane)	0.0044	U	0.055	0.0011	ug/L		05/24/24 07:17	05/24/24 20:04	1
Heptachlor	0.0044	U	0.055	0.0011	ug/L		05/24/24 07:17	05/24/24 20:04	1
Heptachlor epoxide	0.0044	U	0.055	0.0022	ug/L		05/24/24 07:17	05/24/24 20:04	1
Methoxychlor	0.0044	U	0.055	0.0022	ug/L		05/24/24 07:17	05/24/24 20:04	1
Chlordane (technical)	0.44	U	0.55	0.18	ug/L		05/24/24 07:17	05/24/24 20:04	1
PCB-1016	0.26	U	0.55	0.11	ug/L		05/24/24 07:17	05/24/24 20:04	1
PCB-1221	0.26	U	0.55	0.11	ug/L		05/24/24 07:17	05/24/24 20:04	1
PCB-1232	0.26	U	0.55	0.11	ug/L		05/24/24 07:17	05/24/24 20:04	1
PCB-1242	0.26	U	0.55	0.11	ug/L		05/24/24 07:17	05/24/24 20:04	1
PCB-1248	0.26	U	0.55	0.11	ug/L		05/24/24 07:17	05/24/24 20:04	1
PCB-1254	0.26	U	0.55	0.11	ug/L		05/24/24 07:17	05/24/24 20:04	1
PCB-1260	0.26	U	0.55	0.11	ug/L		05/24/24 07:17	05/24/24 20:04	1
Toxaphene	0.88	U	5.5	0.34	ug/L		05/24/24 07:17	05/24/24 20:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*76*		*14 - 130*	*05/24/24 07:17*	*05/24/24 20:04*	*1*
Tetrachloro-m-xylene	*28*	*Q*	*44 - 124*	*05/24/24 07:17*	*05/24/24 20:04*	*1*

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**27**		0.55	0.20	mg/L			05/31/24 15:21	1
Nitrate as N	**0.17**		0.055	0.023	mg/L			05/21/24 17:08	1
Nitrate Nitrite as N	**0.17**		0.055	0.023	mg/L			05/21/24 17:08	1
Sulfate	**0.99**	**J**	1.5	0.40	mg/L			05/31/24 15:21	1
Nitrite as N	0.050	U M	0.055	0.023	mg/L			05/21/24 17:08	1

Method: SW846 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**190**	**J**	200	35	ug/L		05/22/24 08:57	05/25/24 09:45	1
Antimony	1.5	U	5.0	0.34	ug/L		05/22/24 08:57	05/25/24 09:45	1
Arsenic	3.0	U	5.0	0.86	ug/L		05/22/24 08:57	05/25/24 09:45	1
Barium	**71**	**Q**	5.0	0.89	ug/L		05/22/24 08:57	05/25/24 09:45	1
Beryllium	0.40	U	0.50	0.20	ug/L		05/22/24 08:57	05/25/24 09:45	1
Boron	**48**	**J**	100	22	ug/L		05/22/24 08:57	05/25/24 09:45	1
Cadmium	0.20	U	0.50	0.078	ug/L		05/22/24 08:57	05/25/24 09:45	1
Calcium	**1700**		500	140	ug/L		05/22/24 08:57	05/25/24 09:45	1
Chromium	2.5	U	20	0.81	ug/L		05/22/24 08:57	05/25/24 09:45	1
Cobalt	**1.8**		1.0	0.22	ug/L		05/22/24 08:57	05/25/24 09:45	1
Copper	2.0	U	5.0	1.1	ug/L		05/22/24 08:57	05/25/24 09:45	1

Client Sample ID: OU6-MW-269-20240520

Lab Sample ID: 680-251033-2

Date Collected: 05/20/24 09:20

Matrix: Water

Date Received: 05/21/24 10:19

Method: SW846 6020A - Metals (ICP/MS) - Total Recoverable (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**2400**		100	12	ug/L		05/22/24 08:57	05/25/24 09:45	1
Lead	**0.88**	**J**	2.5	0.21	ug/L		05/22/24 08:57	05/25/24 09:45	1
Magnesium	**1400**		250	23	ug/L		05/22/24 08:57	05/25/24 09:45	1
Manganese	**47**		10	2.2	ug/L		05/22/24 08:57	05/25/24 09:45	1
Nickel	**1.7**	**J**	10	0.42	ug/L		05/22/24 08:57	05/25/24 09:45	1
Potassium	**1700**		1000	44	ug/L		05/22/24 08:57	05/25/24 09:45	1
Selenium	2.5	U	5.0	0.99	ug/L		05/22/24 08:57	05/25/24 09:45	1
Silver	1.0	U	2.0	0.39	ug/L		05/22/24 08:57	05/25/24 09:45	1
Sodium	**8300**		1000	200	ug/L		05/22/24 08:57	05/25/24 09:45	1
Thallium	1.0	U	2.0	0.26	ug/L		05/22/24 08:57	05/25/24 09:45	1
Vanadium	2.5	U	10	0.63	ug/L		05/22/24 08:57	05/25/24 09:45	1
Zinc	**7.0**	**J**	25	2.8	ug/L		05/22/24 08:57	05/25/24 09:45	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	0.20	U	0.25	0.080	ug/L		05/29/24 10:24	05/29/24 14:46	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**4.8**	**J**	5.5	2.2	mg/L			05/23/24 18:52	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	10	U	11	5.0	mg/L			05/23/24 18:52	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	10	U	11	5.0	mg/L			05/23/24 18:52	1
Sulfide (SM 4500 S2 F-2011)	0.93	U	0.93	0.93	mg/L			05/22/24 15:19	1
Sulfide as H2S (SM 4500 S2 F-2011)	1.0	U	1.0	1.0	mg/L			05/22/24 15:19	1
Total Organic Carbon (SW846 9060A)	**0.82**	**J**	1.0	0.50	mg/L			05/23/24 17:26	1
Carbon Dioxide, Free (SM 4500 CO2 D)	**43**		11	5.0	mg/L			05/23/24 18:52	1

Client Sample ID: OU6-MW-274-20240520

Lab Sample ID: 680-251033-3

Date Collected: 05/20/24 10:35

Matrix: Water

Date Received: 05/21/24 10:19

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			05/30/24 14:27	1
Benzene	**0.89**	**J**	2.0	0.27	ug/L			05/30/24 14:27	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			05/30/24 14:27	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			05/30/24 14:27	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			05/30/24 14:27	1
Bromoform	2.0	U M Q	2.5	0.59	ug/L			05/30/24 14:27	1
Bromomethane	10	U	20	3.7	ug/L			05/30/24 14:27	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			05/30/24 14:27	1
Carbon disulfide	1.0	U Q	2.0	0.43	ug/L			05/30/24 14:27	1
Carbon tetrachloride	1.0	U M	2.0	0.30	ug/L			05/30/24 14:27	1
Chlorobenzene	**76**		1.0	0.15	ug/L			05/30/24 14:27	1
Chloroethane	10	U	20	4.6	ug/L			05/30/24 14:27	1
Chloroform	**3.4**		2.0	0.27	ug/L			05/30/24 14:27	1
Chloromethane	2.0	U	2.5	0.54	ug/L			05/30/24 14:27	1

Client Sample ID: OU6-MW-274-20240520
Date Collected: 05/20/24 10:35
Date Received: 05/21/24 10:19

Lab Sample ID: 680-251033-3
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			05/30/24 14:27	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			05/30/24 14:27	1
cis-1,2-Dichloroethene	**81**		2.0	0.25	ug/L			05/30/24 14:27	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			05/30/24 14:27	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			05/30/24 14:27	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			05/30/24 14:27	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			05/30/24 14:27	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			05/30/24 14:27	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			05/30/24 14:27	1
1,2-Dichlorobenzene	**16**		2.0	0.31	ug/L			05/30/24 14:27	1
1,3-Dichlorobenzene	**4.3**		2.0	0.31	ug/L			05/30/24 14:27	1
1,4-Dichlorobenzene	**63**		2.0	0.31	ug/L			05/30/24 14:27	1
Dichlorodifluoromethane	1.0	U Q	2.0	0.36	ug/L			05/30/24 14:27	1
1,1-Dichloroethane	**5.3**		2.0	0.33	ug/L			05/30/24 14:27	1
1,2-Dichloroethane	**4.3**	**M**	2.0	0.25	ug/L			05/30/24 14:27	1
1,1-Dichloroethene	**1.1**	**J**	2.0	0.33	ug/L			05/30/24 14:27	1
1,2-Dichloroethene, Total	**81**		2.0	0.37	ug/L			05/30/24 14:27	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			05/30/24 14:27	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			05/30/24 14:27	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			05/30/24 14:27	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			05/30/24 14:27	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			05/30/24 14:27	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			05/30/24 14:27	1
2-Hexanone	10	U	20	3.2	ug/L			05/30/24 14:27	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			05/30/24 14:27	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			05/30/24 14:27	1
Methyl acetate	10	U Q	20	3.2	ug/L			05/30/24 14:27	1
Methylcyclohexane	**0.50**	**J**	2.0	0.33	ug/L			05/30/24 14:27	1
Methylene Chloride	10	U	20	3.2	ug/L			05/30/24 14:27	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			05/30/24 14:27	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			05/30/24 14:27	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			05/30/24 14:27	1
Naphthalene	5.0	U	10	2.4	ug/L			05/30/24 14:27	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			05/30/24 14:27	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			05/30/24 14:27	1
o-Xylene	1.0	U	2.0	0.26	ug/L			05/30/24 14:27	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			05/30/24 14:27	1
Styrene	1.0	U	2.0	0.27	ug/L			05/30/24 14:27	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			05/30/24 14:27	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			05/30/24 14:27	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			05/30/24 14:27	1
Tetrachloroethene	**2.2**		2.0	0.35	ug/L			05/30/24 14:27	1
Toluene	1.0	U	2.0	0.25	ug/L			05/30/24 14:27	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			05/30/24 14:27	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			05/30/24 14:27	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			05/30/24 14:27	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			05/30/24 14:27	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			05/30/24 14:27	1
1,1,2-Trichloroethane	**1.1**	**J**	2.0	0.32	ug/L			05/30/24 14:27	1

Client Sample ID: OU6-MW-274-20240520
Date Collected: 05/20/24 10:35
Date Received: 05/21/24 10:19

Lab Sample ID: 680-251033-3
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	**18**		1.0	0.20	ug/L			05/30/24 14:27	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			05/30/24 14:27	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			05/30/24 14:27	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			05/30/24 14:27	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			05/30/24 14:27	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			05/30/24 14:27	1
Vinyl chloride	**27**		2.0	0.40	ug/L			05/30/24 14:27	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			05/30/24 14:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*85 - 114*		*05/30/24 14:27*	*1*
Dibromofluoromethane (Surr)	*106*		*80 - 119*		*05/30/24 14:27*	*1*
1,2-Dichloroethane-d4 (Surr)	*99*		*81 - 118*		*05/30/24 14:27*	*1*
Toluene-d8 (Surr)	*94*		*89 - 112*		*05/30/24 14:27*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	**8.9**		1.1	0.30	ug/L			06/01/24 15:00	1
Ethylene	**6.4**		1.0	0.31	ug/L			06/01/24 15:00	1
Methane	**320**		1.2	0.57	ug/L			06/01/24 15:00	1

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**50**	**D M**	5.5	2.0	mg/L			06/01/24 18:30	10
Nitrate as N	0.050	U	0.055	0.023	mg/L			05/21/24 17:17	1
Nitrate Nitrite as N	0.050	U	0.055	0.023	mg/L			05/21/24 17:17	1
Sulfate	**1.8**		1.5	0.40	mg/L			05/31/24 18:26	1
Nitrite as N	0.050	U M	0.055	0.023	mg/L			05/21/24 17:17	1

Method: SW846 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**230**		10	2.2	ug/L		05/22/24 08:57	05/25/24 09:47	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**15**		5.5	2.2	mg/L			05/23/24 18:01	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	**15**		11	5.0	mg/L			05/23/24 18:01	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	10	U	11	5.0	mg/L			05/23/24 18:01	1
Sulfide (SM 4500 S2 F-2011)	1.0	U	1.0	1.0	mg/L			05/22/24 15:19	1
Sulfide as H2S (SM 4500 S2 F-2011)	1.1	U	1.1	1.1	mg/L			05/22/24 15:19	1
Total Organic Carbon (SW846 9060A)	**0.90**	**J**	1.0	0.50	mg/L			05/23/24 17:44	1
Carbon Dioxide, Free (SM 4500 CO2 D)	**71**		11	5.0	mg/L			05/23/24 18:01	1

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-251033-1

Client Sample ID: OU6-MW-275-20240520
Date Collected: 05/20/24 11:40
Date Received: 05/21/24 10:19

Lab Sample ID: 680-251033-4
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			05/31/24 17:01	1
Benzene	**2.1**		2.0	0.27	ug/L			05/31/24 17:01	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			05/31/24 17:01	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			05/31/24 17:01	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			05/31/24 17:01	1
Bromoform	2.0	U	2.5	0.59	ug/L			06/03/24 13:30	1
Bromomethane	10	U	20	3.7	ug/L			05/31/24 17:01	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			05/31/24 17:01	1
Carbon disulfide	1.0	U Q	2.0	0.43	ug/L			05/31/24 17:01	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			05/31/24 17:01	1
Chlorobenzene	**120**		1.0	0.15	ug/L			05/31/24 17:01	1
Chloroethane	10	U	20	4.6	ug/L			05/31/24 17:01	1
Chloroform	1.0	U	2.0	0.27	ug/L			05/31/24 17:01	1
Chloromethane	2.0	U	2.5	0.54	ug/L			05/31/24 17:01	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			05/31/24 17:01	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			05/31/24 17:01	1
cis-1,2-Dichloroethene	**110**		2.0	0.25	ug/L			05/31/24 17:01	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			05/31/24 17:01	1
Cyclohexane	**1.9**	**J**	2.0	0.28	ug/L			05/31/24 17:01	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			05/31/24 17:01	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			05/31/24 17:01	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			05/31/24 17:01	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			05/31/24 17:01	1
1,2-Dichlorobenzene	**25**		2.0	0.31	ug/L			05/31/24 17:01	1
1,3-Dichlorobenzene	**6.3**		2.0	0.31	ug/L			05/31/24 17:01	1
1,4-Dichlorobenzene	**93**		2.0	0.31	ug/L			05/31/24 17:01	1
Dichlorodifluoromethane	1.0	U	2.0	0.36	ug/L			05/31/24 17:01	1
1,1-Dichloroethane	**8.1**		2.0	0.33	ug/L			05/31/24 17:01	1
1,2-Dichloroethane	**6.2**		2.0	0.25	ug/L			05/31/24 17:01	1
1,1-Dichloroethene	**1.5**	**J**	2.0	0.33	ug/L			05/31/24 17:01	1
1,2-Dichloroethene, Total	**110**		2.0	0.37	ug/L			05/31/24 17:01	1
1,2-Dichloropropane	0.50	U M	1.0	0.22	ug/L			05/31/24 17:01	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			05/31/24 17:01	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			05/31/24 17:01	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			05/31/24 17:01	1
Ethylbenzene	**0.23**	**J**	1.0	0.20	ug/L			05/31/24 17:01	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			05/31/24 17:01	1
2-Hexanone	10	U	20	3.2	ug/L			05/31/24 17:01	1
Isopropylbenzene	**0.36**	**J**	2.0	0.26	ug/L			05/31/24 17:01	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			05/31/24 17:01	1
Methyl acetate	10	U	20	3.2	ug/L			05/31/24 17:01	1
Methylcyclohexane	**6.7**		2.0	0.33	ug/L			05/31/24 17:01	1
Methylene Chloride	10	U	20	3.2	ug/L			05/31/24 17:01	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			05/31/24 17:01	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			05/31/24 17:01	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			05/31/24 17:01	1
Naphthalene	5.0	U	10	2.4	ug/L			05/31/24 17:01	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			05/31/24 17:01	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			05/31/24 17:01	1

Client Sample ID: OU6-MW-275-20240520
Date Collected: 05/20/24 11:40
Date Received: 05/21/24 10:19

Lab Sample ID: 680-251033-4
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	1.0	U	2.0	0.26	ug/L			05/31/24 17:01	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			05/31/24 17:01	1
Styrene	1.0	U	2.0	0.27	ug/L			05/31/24 17:01	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			05/31/24 17:01	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			05/31/24 17:01	1
1,1,2,2-Tetrachloroethane	1.0	U Q	2.0	0.40	ug/L			05/31/24 17:01	1
Tetrachloroethene	**1.6**	**J**	2.0	0.35	ug/L			05/31/24 17:01	1
Toluene	**0.43**	**J**	2.0	0.25	ug/L			05/31/24 17:01	1
trans-1,2-Dichloroethene	**0.50**	**J**	2.0	0.34	ug/L			05/31/24 17:01	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			05/31/24 17:01	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			05/31/24 17:01	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			05/31/24 17:01	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			05/31/24 17:01	1
1,1,2-Trichloroethane	**1.0**	**J**	2.0	0.32	ug/L			05/31/24 17:01	1
Trichloroethene	**20**		1.0	0.20	ug/L			05/31/24 17:01	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			05/31/24 17:01	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			05/31/24 17:01	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			05/31/24 17:01	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			05/31/24 17:01	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			05/31/24 17:01	1
Vinyl chloride	**45**		2.0	0.40	ug/L			05/31/24 17:01	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			05/31/24 17:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*85 - 114*		*05/31/24 17:01*	*1*
4-Bromofluorobenzene (Surr)	*102*		*85 - 114*		*06/03/24 13:30*	*1*
Dibromofluoromethane (Surr)	*106*		*80 - 119*		*05/31/24 17:01*	*1*
Dibromofluoromethane (Surr)	*107*		*80 - 119*		*06/03/24 13:30*	*1*
1,2-Dichloroethane-d4 (Surr)	*98*		*81 - 118*		*05/31/24 17:01*	*1*
1,2-Dichloroethane-d4 (Surr)	*91*		*81 - 118*		*06/03/24 13:30*	*1*
Toluene-d8 (Surr)	*93*		*89 - 112*		*05/31/24 17:01*	*1*
Toluene-d8 (Surr)	*106*		*89 - 112*		*06/03/24 13:30*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	**22**		1.1	0.30	ug/L			06/01/24 15:13	1
Ethylene	**29**		1.0	0.31	ug/L			06/01/24 15:13	1
Methane (TCD)	**2200**		390	39	ug/L			06/01/24 15:13	1

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**68**	**D M J1**	2.8	1.0	mg/L			06/01/24 19:09	5
Nitrate as N	0.050	U	0.055	0.023	mg/L			05/21/24 17:25	1
Nitrate Nitrite as N	0.050	U	0.055	0.023	mg/L			05/21/24 17:25	1
Sulfate	**2.3**		1.5	0.40	mg/L			05/31/24 18:33	1
Nitrite as N	0.050	U	0.055	0.023	mg/L			05/21/24 17:25	1

Method: SW846 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**110**		10	2.2	ug/L		05/22/24 08:57	05/25/24 09:49	1

Client Sample ID: OU6-MW-275-20240520

Lab Sample ID: 680-251033-4

Date Collected: 05/20/24 11:40

Matrix: Water

Date Received: 05/21/24 10:19

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**44**		5.5	2.2	mg/L			05/23/24 18:18	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	**44**		11	5.0	mg/L			05/23/24 18:18	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	10	U	11	5.0	mg/L			05/23/24 18:18	1
Sulfide (SM 4500 S2 F-2011)	0.81	U	0.81	0.81	mg/L			05/22/24 15:19	1
Sulfide as H2S (SM 4500 S2 F-2011)	0.89	U	0.89	0.89	mg/L			05/22/24 15:19	1
Total Organic Carbon (SW846 9060A)	**1.5**		1.0	0.50	mg/L			05/23/24 18:02	1
Carbon Dioxide, Free (SM 4500 CO2 D)	**140**		11	5.0	mg/L			05/23/24 18:18	1

Client Sample ID: OU6-MW-222-20240520

Lab Sample ID: 680-251033-5

Date Collected: 05/20/24 13:15

Matrix: Water

Date Received: 05/21/24 10:19

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			05/30/24 14:50	1
Benzene	1.0	U	2.0	0.27	ug/L			05/30/24 14:50	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			05/30/24 14:50	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			05/30/24 14:50	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			05/30/24 14:50	1
Bromoform	2.0	U Q	2.5	0.59	ug/L			05/30/24 14:50	1
Bromomethane	10	U	20	3.7	ug/L			05/30/24 14:50	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			05/30/24 14:50	1
Carbon disulfide	**1.2**	**J Q**	2.0	0.43	ug/L			05/30/24 14:50	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			05/30/24 14:50	1
Chlorobenzene	**6.2**		1.0	0.15	ug/L			05/30/24 14:50	1
Chloroethane	10	U	20	4.6	ug/L			05/30/24 14:50	1
Chloroform	1.0	U	2.0	0.27	ug/L			05/30/24 14:50	1
Chloromethane	2.0	U	2.5	0.54	ug/L			05/30/24 14:50	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			05/30/24 14:50	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			05/30/24 14:50	1
cis-1,2-Dichloroethene	**26**		2.0	0.25	ug/L			05/30/24 14:50	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			05/30/24 14:50	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			05/30/24 14:50	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			05/30/24 14:50	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			05/30/24 14:50	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			05/30/24 14:50	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			05/30/24 14:50	1
1,2-Dichlorobenzene	**1.7**	**J**	2.0	0.31	ug/L			05/30/24 14:50	1
1,3-Dichlorobenzene	**0.31**	**J**	2.0	0.31	ug/L			05/30/24 14:50	1
1,4-Dichlorobenzene	**6.6**		2.0	0.31	ug/L			05/30/24 14:50	1
Dichlorodifluoromethane	1.0	U Q	2.0	0.36	ug/L			05/30/24 14:50	1
1,1-Dichloroethane	**0.75**	**J**	2.0	0.33	ug/L			05/30/24 14:50	1
1,2-Dichloroethane	1.0	U	2.0	0.25	ug/L			05/30/24 14:50	1
1,1-Dichloroethene	**2.4**		2.0	0.33	ug/L			05/30/24 14:50	1
1,2-Dichloroethene, Total	**27**		2.0	0.37	ug/L			05/30/24 14:50	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			05/30/24 14:50	1

Client Sample ID: OU6-MW-222-20240520
Date Collected: 05/20/24 13:15
Date Received: 05/21/24 10:19

Lab Sample ID: 680-251033-5
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			05/30/24 14:50	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			05/30/24 14:50	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			05/30/24 14:50	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			05/30/24 14:50	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			05/30/24 14:50	1
2-Hexanone	10	U	20	3.2	ug/L			05/30/24 14:50	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			05/30/24 14:50	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			05/30/24 14:50	1
Methyl acetate	10	U Q	20	3.2	ug/L			05/30/24 14:50	1
Methylcyclohexane	**0.52**	**J**	2.0	0.33	ug/L			05/30/24 14:50	1
Methylene Chloride	10	U	20	3.2	ug/L			05/30/24 14:50	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			05/30/24 14:50	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			05/30/24 14:50	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			05/30/24 14:50	1
Naphthalene	5.0	U	10	2.4	ug/L			05/30/24 14:50	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			05/30/24 14:50	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			05/30/24 14:50	1
o-Xylene	1.0	U	2.0	0.26	ug/L			05/30/24 14:50	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			05/30/24 14:50	1
Styrene	1.0	U	2.0	0.27	ug/L			05/30/24 14:50	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			05/30/24 14:50	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			05/30/24 14:50	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			05/30/24 14:50	1
Tetrachloroethene	**3.4**		2.0	0.35	ug/L			05/30/24 14:50	1
Toluene	1.0	U	2.0	0.25	ug/L			05/30/24 14:50	1
trans-1,2-Dichloroethene	**1.3**	**J**	2.0	0.34	ug/L			05/30/24 14:50	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			05/30/24 14:50	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			05/30/24 14:50	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			05/30/24 14:50	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			05/30/24 14:50	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			05/30/24 14:50	1
Trichloroethene	**28**		1.0	0.20	ug/L			05/30/24 14:50	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			05/30/24 14:50	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			05/30/24 14:50	1
1,1,2-Trichloro-1,2,2-trifluoroethane	**43**		1.0	0.23	ug/L			05/30/24 14:50	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			05/30/24 14:50	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			05/30/24 14:50	1
Vinyl chloride	**2.2**	**M**	2.0	0.40	ug/L			05/30/24 14:50	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			05/30/24 14:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*85 - 114*		*05/30/24 14:50*	*1*
Dibromofluoromethane (Surr)	*108*		*80 - 119*		*05/30/24 14:50*	*1*
1,2-Dichloroethane-d4 (Surr)	*99*		*81 - 118*		*05/30/24 14:50*	*1*
Toluene-d8 (Surr)	*95*		*89 - 112*		*05/30/24 14:50*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	0.76	U	1.1	0.30	ug/L			06/01/24 15:26	1

Client Sample ID: OU6-MW-222-20240520

Lab Sample ID: 680-251033-5

Date Collected: 05/20/24 13:15

Matrix: Water

Date Received: 05/21/24 10:19

Method: RSK-175 - Dissolved Gases (GC) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene	**2.1**		1.0	0.31	ug/L			06/01/24 15:26	1
Methane (TCD)	**5000**		390	39	ug/L			06/01/24 15:26	1

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**14**		0.55	0.20	mg/L			05/31/24 18:39	1
Nitrate as N	**0.18**		0.055	0.023	mg/L			05/21/24 17:33	1
Nitrate Nitrite as N	**0.18**		0.055	0.023	mg/L			05/21/24 17:33	1
Sulfate	**5.5**		1.5	0.40	mg/L			05/31/24 18:39	1
Nitrite as N	0.050	U M	0.055	0.023	mg/L			05/21/24 17:33	1

Method: SW846 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**86**		10	2.2	ug/L		05/22/24 08:57	05/25/24 09:51	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**28**		5.5	2.2	mg/L			05/23/24 17:53	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	**28**		11	5.0	mg/L			05/23/24 17:53	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	10	U	11	5.0	mg/L			05/23/24 17:53	1
Sulfide (SM 4500 S2 F-2011)	0.89	U	0.89	0.89	mg/L			05/22/24 15:19	1
Sulfide as H2S (SM 4500 S2 F-2011)	0.98	U	0.98	0.98	mg/L			05/22/24 15:19	1
Total Organic Carbon (SW846 9060A)	**1.8**		1.0	0.50	mg/L			05/23/24 18:19	1
Carbon Dioxide, Free (SM 4500 CO2 D)	**78**		11	5.0	mg/L			05/23/24 17:53	1

Client Sample ID: OU6-MW-283-20240520

Lab Sample ID: 680-251033-6

Date Collected: 05/20/24 09:10

Matrix: Water

Date Received: 05/21/24 10:19

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			05/30/24 15:12	1
Benzene	1.0	U	2.0	0.27	ug/L			05/30/24 15:12	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			05/30/24 15:12	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			05/30/24 15:12	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			05/30/24 15:12	1
Bromoform	2.0	U M Q	2.5	0.59	ug/L			05/30/24 15:12	1
Bromomethane	10	U	20	3.7	ug/L			05/30/24 15:12	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			05/30/24 15:12	1
Carbon disulfide	1.0	U Q	2.0	0.43	ug/L			05/30/24 15:12	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			05/30/24 15:12	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			05/30/24 15:12	1
Chloroethane	10	U	20	4.6	ug/L			05/30/24 15:12	1
Chloroform	1.0	U	2.0	0.27	ug/L			05/30/24 15:12	1
Chloromethane	2.0	U	2.5	0.54	ug/L			05/30/24 15:12	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			05/30/24 15:12	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			05/30/24 15:12	1

Client Sample ID: OU6-MW-283-20240520
Date Collected: 05/20/24 09:10
Date Received: 05/21/24 10:19

Lab Sample ID: 680-251033-6
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	**76**		2.0	0.25	ug/L			05/30/24 15:12	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			05/30/24 15:12	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			05/30/24 15:12	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			05/30/24 15:12	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			05/30/24 15:12	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			05/30/24 15:12	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			05/30/24 15:12	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/30/24 15:12	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/30/24 15:12	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/30/24 15:12	1
Dichlorodifluoromethane	1.0	U Q	2.0	0.36	ug/L			05/30/24 15:12	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			05/30/24 15:12	1
1,2-Dichloroethane	1.0	U	2.0	0.25	ug/L			05/30/24 15:12	1
1,1-Dichloroethene	**1.6**	**J**	2.0	0.33	ug/L			05/30/24 15:12	1
1,2-Dichloroethene, Total	**76**		2.0	0.37	ug/L			05/30/24 15:12	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			05/30/24 15:12	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			05/30/24 15:12	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			05/30/24 15:12	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			05/30/24 15:12	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			05/30/24 15:12	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			05/30/24 15:12	1
2-Hexanone	10	U	20	3.2	ug/L			05/30/24 15:12	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			05/30/24 15:12	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			05/30/24 15:12	1
Methyl acetate	10	U Q	20	3.2	ug/L			05/30/24 15:12	1
Methylcyclohexane	1.0	U	2.0	0.33	ug/L			05/30/24 15:12	1
Methylene Chloride	10	U	20	3.2	ug/L			05/30/24 15:12	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			05/30/24 15:12	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			05/30/24 15:12	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			05/30/24 15:12	1
Naphthalene	5.0	U	10	2.4	ug/L			05/30/24 15:12	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			05/30/24 15:12	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			05/30/24 15:12	1
o-Xylene	1.0	U	2.0	0.26	ug/L			05/30/24 15:12	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			05/30/24 15:12	1
Styrene	1.0	U	2.0	0.27	ug/L			05/30/24 15:12	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			05/30/24 15:12	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			05/30/24 15:12	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			05/30/24 15:12	1
Tetrachloroethene	**0.55**	**J**	2.0	0.35	ug/L			05/30/24 15:12	1
Toluene	1.0	U	2.0	0.25	ug/L			05/30/24 15:12	1
trans-1,2-Dichloroethene	**0.63**	**J**	2.0	0.34	ug/L			05/30/24 15:12	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			05/30/24 15:12	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			05/30/24 15:12	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			05/30/24 15:12	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			05/30/24 15:12	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			05/30/24 15:12	1
Trichloroethene	**130**		1.0	0.20	ug/L			05/30/24 15:12	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			05/30/24 15:12	1

Client Sample ID: OU6-MW-283-20240520
Date Collected: 05/20/24 09:10
Date Received: 05/21/24 10:19

Lab Sample ID: 680-251033-6
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			05/30/24 15:12	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			05/30/24 15:12	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			05/30/24 15:12	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			05/30/24 15:12	1
Vinyl chloride	**14**		2.0	0.40	ug/L			05/30/24 15:12	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			05/30/24 15:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*85 - 114*		*05/30/24 15:12*	*1*
Dibromofluoromethane (Surr)	*109*		*80 - 119*		*05/30/24 15:12*	*1*
1,2-Dichloroethane-d4 (Surr)	*99*		*81 - 118*		*05/30/24 15:12*	*1*
Toluene-d8 (Surr)	*93*		*89 - 112*		*05/30/24 15:12*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	0.76	U	1.1	0.30	ug/L			06/01/24 15:38	1
Ethylene	**1.3**		1.0	0.31	ug/L			06/01/24 15:38	1
Methane	**19**		1.2	0.57	ug/L			06/01/24 15:38	1

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**6.5**		0.55	0.20	mg/L			05/31/24 18:46	1
Nitrate as N	**0.048**	**J M**	0.055	0.023	mg/L			05/21/24 17:41	1
Nitrate Nitrite as N	**0.048**	**J**	0.055	0.023	mg/L			05/21/24 17:41	1
Sulfate	**9.6**		1.5	0.40	mg/L			05/31/24 18:46	1
Nitrite as N	0.050	U	0.055	0.023	mg/L			05/21/24 17:41	1

Method: SW846 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**30**		10	2.2	ug/L		05/22/24 08:57	05/25/24 09:53	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**70**		5.5	2.2	mg/L			05/23/24 17:45	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	**56**		11	5.0	mg/L			05/23/24 17:45	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	**13**		11	5.0	mg/L			05/23/24 17:45	1
Sulfide (SM 4500 S2 F-2011)	0.81	U	0.81	0.81	mg/L			05/22/24 15:19	1
Sulfide as H2S (SM 4500 S2 F-2011)	0.89	U	0.89	0.89	mg/L			05/22/24 15:19	1
Total Organic Carbon (SW846 9060A)	**1.2**		1.0	0.50	mg/L			05/23/24 18:37	1
Carbon Dioxide, Free (SM 4500 CO2 D)	10	U	11	5.0	mg/L			05/23/24 17:45	1

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-251033-1

Client Sample ID: OU6-MW-160-20240520
Date Collected: 05/20/24 10:35
Date Received: 05/21/24 10:19

Lab Sample ID: 680-251033-7
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U J1	25	3.7	ug/L			05/31/24 17:24	1
Benzene	1.0	U J1	2.0	0.27	ug/L			05/31/24 17:24	1
Bromobenzene	0.50	U J1	1.0	0.24	ug/L			05/31/24 17:24	1
Bromochloromethane	1.0	U J1	2.0	0.34	ug/L			05/31/24 17:24	1
Bromodichloromethane	1.0	U J1	2.0	0.25	ug/L			05/31/24 17:24	1
Bromoform	2.0	U Q J1	2.5	0.59	ug/L			05/31/24 17:24	1
Bromomethane	10	U J1	20	3.7	ug/L			05/31/24 17:24	1
2-Butanone (MEK)	20	U J1	25	6.4	ug/L			05/31/24 17:24	1
Carbon disulfide	1.0	U Q J1	2.0	0.43	ug/L			05/31/24 17:24	1
Carbon tetrachloride	1.0	U J1	2.0	0.30	ug/L			05/31/24 17:24	1
Chlorobenzene	0.50	U J1	1.0	0.15	ug/L			05/31/24 17:24	1
Chloroethane	10	U J1	20	4.6	ug/L			05/31/24 17:24	1
Chloroform	1.0	U J1	2.0	0.27	ug/L			05/31/24 17:24	1
Chloromethane	2.0	U J1	2.5	0.54	ug/L			05/31/24 17:24	1
2-Chlorotoluene	0.50	U J1	1.0	0.25	ug/L			05/31/24 17:24	1
4-Chlorotoluene	1.0	U J1	2.0	0.41	ug/L			05/31/24 17:24	1
cis-1,2-Dichloroethene	**0.47**	**J J1**	2.0	0.25	ug/L			05/31/24 17:24	1
cis-1,3-Dichloropropene	1.0	U J1	2.0	0.26	ug/L			05/31/24 17:24	1
Cyclohexane	1.0	U J1	2.0	0.28	ug/L			05/31/24 17:24	1
Dibromochloromethane	1.0	U J1	2.0	0.39	ug/L			05/31/24 17:24	1
1,2-Dibromo-3-Chloropropane	5.0	U J1	10	1.8	ug/L			05/31/24 17:24	1
1,2-Dibromoethane	1.0	U J1	2.0	0.33	ug/L			05/31/24 17:24	1
Dibromomethane	1.0	U J1	2.0	0.34	ug/L			05/31/24 17:24	1
1,2-Dichlorobenzene	1.0	U J1	2.0	0.31	ug/L			05/31/24 17:24	1
1,3-Dichlorobenzene	1.0	U J1	2.0	0.31	ug/L			05/31/24 17:24	1
1,4-Dichlorobenzene	**1.0**	**J J1**	2.0	0.31	ug/L			05/31/24 17:24	1
Dichlorodifluoromethane	1.0	U J1	2.0	0.36	ug/L			05/31/24 17:24	1
1,1-Dichloroethane	1.0	U J1	2.0	0.33	ug/L			05/31/24 17:24	1
1,2-Dichloroethane	1.0	U M J1	2.0	0.25	ug/L			05/31/24 17:24	1
1,1-Dichloroethene	1.0	U J1	2.0	0.33	ug/L			05/31/24 17:24	1
1,2-Dichloroethene, Total	**0.47**	**J J1**	2.0	0.37	ug/L			05/31/24 17:24	1
1,2-Dichloropropane	0.50	U J1	1.0	0.22	ug/L			05/31/24 17:24	1
1,3-Dichloropropane	1.0	U J1	2.0	0.36	ug/L			05/31/24 17:24	1
2,2-Dichloropropane	1.0	U J1	2.0	0.35	ug/L			05/31/24 17:24	1
1,1-Dichloropropene	1.0	U J1	2.0	0.28	ug/L			05/31/24 17:24	1
Ethylbenzene	0.50	U J1	1.0	0.20	ug/L			05/31/24 17:24	1
Hexachlorobutadiene	1.0	U J1	5.0	0.22	ug/L			05/31/24 17:24	1
2-Hexanone	10	U J1	20	3.2	ug/L			05/31/24 17:24	1
Isopropylbenzene	1.0	U J1	2.0	0.26	ug/L			05/31/24 17:24	1
4-Isopropyltoluene	1.0	U J1	2.0	0.44	ug/L			05/31/24 17:24	1
Methyl acetate	10	U J1	20	3.2	ug/L			05/31/24 17:24	1
Methylcyclohexane	1.0	U J1	2.0	0.33	ug/L			05/31/24 17:24	1
Methylene Chloride	10	U J1	20	3.2	ug/L			05/31/24 17:24	1
4-Methyl-2-pentanone (MIBK)	10	U J1	20	2.7	ug/L			05/31/24 17:24	1
Methyl tert-butyl ether	2.0	U J1	5.0	0.81	ug/L			05/31/24 17:24	1
m-Xylene & p-Xylene	1.0	U J1	2.0	0.49	ug/L			05/31/24 17:24	1
Naphthalene	5.0	U J1	10	2.4	ug/L			05/31/24 17:24	1
n-Butylbenzene	2.0	U J1	2.5	0.52	ug/L			05/31/24 17:24	1
N-Propylbenzene	1.0	U J1	2.0	0.41	ug/L			05/31/24 17:24	1

Client Sample ID: OU6-MW-160-20240520
Date Collected: 05/20/24 10:35
Date Received: 05/21/24 10:19

Lab Sample ID: 680-251033-7
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	1.0	U J1	2.0	0.26	ug/L			05/31/24 17:24	1
sec-Butylbenzene	2.0	U J1	2.5	0.53	ug/L			05/31/24 17:24	1
Styrene	1.0	U J1	2.0	0.27	ug/L			05/31/24 17:24	1
tert-Butylbenzene	1.0	U J1	2.0	0.43	ug/L			05/31/24 17:24	1
1,1,1,2-Tetrachloroethane	1.0	U J1	2.0	0.36	ug/L			05/31/24 17:24	1
1,1,2,2-Tetrachloroethane	1.0	U Q J1	2.0	0.40	ug/L			05/31/24 17:24	1
Tetrachloroethene	1.0	U J1	2.0	0.35	ug/L			05/31/24 17:24	1
Toluene	1.0	U J1	2.0	0.25	ug/L			05/31/24 17:24	1
trans-1,2-Dichloroethene	1.0	U J1	2.0	0.34	ug/L			05/31/24 17:24	1
trans-1,3-Dichloropropene	1.0	U J1	2.0	0.23	ug/L			05/31/24 17:24	1
1,2,3-Trichlorobenzene	2.0	U J1	5.0	0.81	ug/L			05/31/24 17:24	1
1,2,4-Trichlorobenzene	2.0	U J1	5.0	0.53	ug/L			05/31/24 17:24	1
1,1,1-Trichloroethane	0.50	U J1	1.0	0.21	ug/L			05/31/24 17:24	1
1,1,2-Trichloroethane	1.0	U J1	2.0	0.32	ug/L			05/31/24 17:24	1
Trichloroethene	**34**	**J1**	1.0	0.20	ug/L			05/31/24 17:24	1
Trichlorofluoromethane	1.0	U J1	2.0	0.33	ug/L			05/31/24 17:24	1
1,2,3-Trichloropropane	1.0	U J1	2.0	0.48	ug/L			05/31/24 17:24	1
1,1,2-Trichloro-1,2,2-trifluoroethane	**2.1**	**J1**	1.0	0.23	ug/L			05/31/24 17:24	1
1,2,4-Trimethylbenzene	1.0	U J1	2.0	0.43	ug/L			05/31/24 17:24	1
1,3,5-Trimethylbenzene	1.0	U J1	2.0	0.28	ug/L			05/31/24 17:24	1
Vinyl chloride	1.0	U J1	2.0	0.40	ug/L			05/31/24 17:24	1
Xylenes, Total	1.0	U J1	2.0	0.49	ug/L			05/31/24 17:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*112*		*85 - 114*		*05/31/24 17:24*	*1*
Dibromofluoromethane (Surr)	*109*		*80 - 119*		*05/31/24 17:24*	*1*
1,2-Dichloroethane-d4 (Surr)	*100*		*81 - 118*		*05/31/24 17:24*	*1*
Toluene-d8 (Surr)	*97*		*89 - 112*		*05/31/24 17:24*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	0.76	U	1.1	0.30	ug/L			06/01/24 17:32	1
Ethylene	0.71	U	1.0	0.31	ug/L			06/01/24 17:32	1
Methane	**0.63**	**J**	1.2	0.57	ug/L			06/01/24 17:32	1

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**12**	**J1**	0.55	0.20	mg/L			05/31/24 19:44	1
Nitrate as N	**0.70**	**J1**	0.055	0.023	mg/L			05/21/24 19:24	1
Nitrate Nitrite as N	**0.70**		0.055	0.023	mg/L			05/21/24 19:24	1
Sulfate	**30**	**J1**	1.5	0.40	mg/L			05/31/24 19:44	1
Nitrite as N	0.050	U	0.055	0.023	mg/L			05/21/24 19:24	1

Method: SW846 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**20**		10	2.2	ug/L		05/22/24 09:04	05/22/24 13:04	1

Client Sample ID: OU6-MW-160-20240520

Lab Sample ID: 680-251033-7

Date Collected: 05/20/24 10:35

Matrix: Water

Date Received: 05/21/24 10:19

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**6.9**		5.5	2.2	mg/L			05/23/24 18:24	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	**6.9**	**J**	11	5.0	mg/L			05/23/24 18:24	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	10	U	11	5.0	mg/L			05/23/24 18:24	1
Sulfide (SM 4500 S2 F-2011)	0.81	U	0.81	0.81	mg/L			05/24/24 12:46	1
Sulfide as H2S (SM 4500 S2 F-2011)	0.89	U	0.89	0.89	mg/L			05/24/24 12:46	1
Total Organic Carbon (SW846 9060A)	1.0	U	1.0	0.50	mg/L			05/23/24 21:46	1
Carbon Dioxide, Free (SM 4500 CO2 D)	**21**		11	5.0	mg/L			05/23/24 18:24	1

Client Sample ID: OU6-MW-95-20240520

Lab Sample ID: 680-251033-8

Date Collected: 05/20/24 13:05

Matrix: Water

Date Received: 05/21/24 10:19

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	100	U	250	37	ug/L			05/30/24 19:02	10
Benzene	10	U	20	2.7	ug/L			05/30/24 19:02	10
Bromobenzene	5.0	U	10	2.4	ug/L			05/30/24 19:02	10
Bromochloromethane	10	U	20	3.4	ug/L			05/30/24 19:02	10
Bromodichloromethane	10	U	20	2.5	ug/L			05/30/24 19:02	10
Bromoform	20	U	25	5.9	ug/L			06/03/24 14:18	10
Bromomethane	100	U	200	37	ug/L			05/30/24 19:02	10
2-Butanone (MEK)	200	U	250	64	ug/L			05/30/24 19:02	10
Carbon disulfide	10	U	20	4.3	ug/L			06/03/24 14:18	10
Carbon tetrachloride	10	U	20	3.0	ug/L			05/30/24 19:02	10
Chlorobenzene	5.0	U	10	1.5	ug/L			05/30/24 19:02	10
Chloroethane	100	U	200	46	ug/L			05/30/24 19:02	10
Chloroform	10	U	20	2.7	ug/L			05/30/24 19:02	10
Chloromethane	20	U	25	5.4	ug/L			05/30/24 19:02	10
2-Chlorotoluene	5.0	U	10	2.5	ug/L			05/30/24 19:02	10
4-Chlorotoluene	10	U	20	4.1	ug/L			05/30/24 19:02	10
cis-1,2-Dichloroethene	**870**	**D**	20	2.5	ug/L			05/30/24 19:02	10
cis-1,3-Dichloropropene	10	U	20	2.6	ug/L			05/30/24 19:02	10
Cyclohexane	10	U	20	2.8	ug/L			05/30/24 19:02	10
Dibromochloromethane	10	U	20	3.9	ug/L			05/30/24 19:02	10
1,2-Dibromo-3-Chloropropane	50	U	100	18	ug/L			05/30/24 19:02	10
1,2-Dibromoethane	10	U	20	3.3	ug/L			05/30/24 19:02	10
Dibromomethane	10	U	20	3.4	ug/L			05/30/24 19:02	10
1,2-Dichlorobenzene	**3.3**	**J D**	20	3.1	ug/L			05/30/24 19:02	10
1,3-Dichlorobenzene	10	U	20	3.1	ug/L			05/30/24 19:02	10
1,4-Dichlorobenzene	**14**	**J D**	20	3.1	ug/L			05/30/24 19:02	10
Dichlorodifluoromethane	10	U M Q	20	3.6	ug/L			06/03/24 14:18	10
1,1-Dichloroethane	**13**	**J D**	20	3.3	ug/L			05/30/24 19:02	10
1,2-Dichloroethane	**3.1**	**J D**	20	2.5	ug/L			05/30/24 19:02	10
1,1-Dichloroethene	**6.4**	**J D**	20	3.3	ug/L			05/30/24 19:02	10
1,2-Dichloroethene, Total	**870**	**D**	20	3.7	ug/L			05/30/24 19:02	10
1,2-Dichloropropane	5.0	U	10	2.2	ug/L			05/30/24 19:02	10
1,3-Dichloropropane	10	U	20	3.6	ug/L			05/30/24 19:02	10

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-251033-1

Client Sample ID: OU6-MW-95-20240520
Date Collected: 05/20/24 13:05
Date Received: 05/21/24 10:19

Lab Sample ID: 680-251033-8
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
2,2-Dichloropropane	10	U	20	3.5	ug/L			05/30/24 19:02	10
1,1-Dichloropropene	10	U	20	2.8	ug/L			05/30/24 19:02	10
Ethylbenzene	5.0	U	10	2.0	ug/L			05/30/24 19:02	10
Hexachlorobutadiene	10	U	50	2.2	ug/L			05/30/24 19:02	10
2-Hexanone	100	U	200	32	ug/L			05/30/24 19:02	10
Isopropylbenzene	10	U	20	2.6	ug/L			05/30/24 19:02	10
4-Isopropyltoluene	10	U	20	4.4	ug/L			05/30/24 19:02	10
Methyl acetate	100	U	200	32	ug/L			06/03/24 14:18	10
Methylcyclohexane	10	U	20	3.3	ug/L			05/30/24 19:02	10
Methylene Chloride	100	U	200	32	ug/L			05/30/24 19:02	10
4-Methyl-2-pentanone (MIBK)	100	U	200	27	ug/L			05/30/24 19:02	10
Methyl tert-butyl ether	20	U	50	8.1	ug/L			05/30/24 19:02	10
m-Xylene & p-Xylene	10	U	20	4.9	ug/L			05/30/24 19:02	10
Naphthalene	50	U	100	24	ug/L			05/30/24 19:02	10
n-Butylbenzene	20	U	25	5.2	ug/L			05/30/24 19:02	10
N-Propylbenzene	10	U	20	4.1	ug/L			05/30/24 19:02	10
o-Xylene	10	U	20	2.6	ug/L			05/30/24 19:02	10
sec-Butylbenzene	20	U	25	5.3	ug/L			05/30/24 19:02	10
Styrene	10	U	20	2.7	ug/L			05/30/24 19:02	10
tert-Butylbenzene	10	U	20	4.3	ug/L			05/30/24 19:02	10
1,1,1,2-Tetrachloroethane	10	U	20	3.6	ug/L			05/30/24 19:02	10
1,1,2,2-Tetrachloroethane	10	U	20	4.0	ug/L			05/30/24 19:02	10
Tetrachloroethene	10	U	20	3.5	ug/L			05/30/24 19:02	10
Toluene	10	U	20	2.5	ug/L			05/30/24 19:02	10
trans-1,2-Dichloroethene	10	U	20	3.4	ug/L			05/30/24 19:02	10
trans-1,3-Dichloropropene	10	U	20	2.3	ug/L			05/30/24 19:02	10
1,2,3-Trichlorobenzene	20	U	50	8.1	ug/L			05/30/24 19:02	10
1,2,4-Trichlorobenzene	20	U	50	5.3	ug/L			05/30/24 19:02	10
1,1,1-Trichloroethane	5.0	U	10	2.1	ug/L			05/30/24 19:02	10
1,1,2-Trichloroethane	10	U	20	3.2	ug/L			05/30/24 19:02	10
Trichloroethene	**6.2**	**J D**	10	2.0	ug/L			05/30/24 19:02	10
Trichlorofluoromethane	10	U	20	3.3	ug/L			05/30/24 19:02	10
1,2,3-Trichloropropane	10	U	20	4.8	ug/L			05/30/24 19:02	10
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	10	2.3	ug/L			05/30/24 19:02	10
1,2,4-Trimethylbenzene	10	U	20	4.3	ug/L			05/30/24 19:02	10
1,3,5-Trimethylbenzene	10	U	20	2.8	ug/L			05/30/24 19:02	10
Vinyl chloride	**220**	**D M**	20	4.0	ug/L			05/30/24 19:02	10
Xylenes, Total	10	U	20	4.9	ug/L			05/30/24 19:02	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*85 - 114*		*05/30/24 19:02*	*10*
4-Bromofluorobenzene (Surr)	*101*		*85 - 114*		*06/03/24 14:18*	*10*
Dibromofluoromethane (Surr)	*112*		*80 - 119*		*05/30/24 19:02*	*10*
Dibromofluoromethane (Surr)	*110*		*80 - 119*		*06/03/24 14:18*	*10*
1,2-Dichloroethane-d4 (Surr)	*106*		*81 - 118*		*05/30/24 19:02*	*10*
1,2-Dichloroethane-d4 (Surr)	*96*		*81 - 118*		*06/03/24 14:18*	*10*
Toluene-d8 (Surr)	*93*		*89 - 112*		*05/30/24 19:02*	*10*
Toluene-d8 (Surr)	*105*		*89 - 112*		*06/03/24 14:18*	*10*

Client Sample ID: OU6-MW-95-20240520

Lab Sample ID: 680-251033-8

Date Collected: 05/20/24 13:05

Matrix: Water

Date Received: 05/21/24 10:19

Method: SW846 8270E SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	**11**		0.19	0.030	ug/L		05/22/24 08:13	05/22/24 17:17	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*21*	*M*	*10 - 150*	*05/22/24 08:13*	*05/22/24 17:17*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	**33**		1.1	0.30	ug/L			06/01/24 15:51	1
Ethylene	**380**		1.0	0.31	ug/L			06/01/24 15:51	1
Methane (TCD)	**640**		390	39	ug/L			06/01/24 15:51	1

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**160**	**D**	5.5	2.0	mg/L			06/01/24 19:29	10
Nitrate as N	0.050	U M	0.055	0.023	mg/L			05/21/24 17:50	1
Nitrate Nitrite as N	0.050	U	0.055	0.023	mg/L			05/21/24 17:50	1
Sulfate	**1.8**		1.5	0.40	mg/L			05/31/24 18:52	1
Nitrite as N	0.050	U M	0.055	0.023	mg/L			05/21/24 17:50	1

Method: SW846 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**280**		10	2.2	ug/L		05/22/24 08:57	05/25/24 09:58	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**52**		5.5	2.2	mg/L			05/23/24 18:09	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	**52**		11	5.0	mg/L			05/23/24 18:09	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	10	U	11	5.0	mg/L			05/23/24 18:09	1
Sulfide (SM 4500 S2 F-2011)	0.81	U	0.81	0.81	mg/L			05/24/24 12:46	1
Sulfide as H2S (SM 4500 S2 F-2011)	0.89	U	0.89	0.89	mg/L			05/24/24 12:46	1
Total Organic Carbon (SW846 9060A)	**1.3**		1.0	0.50	mg/L			05/23/24 18:53	1
Carbon Dioxide, Free (SM 4500 CO2 D)	**140**		11	5.0	mg/L			05/23/24 18:09	1

Client Sample ID: OU6-MW-292-20240520

Lab Sample ID: 680-251033-9

Date Collected: 05/20/24 14:15

Matrix: Water

Date Received: 05/21/24 10:19

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			05/30/24 15:35	1
Benzene	1.0	U	2.0	0.27	ug/L			05/30/24 15:35	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			05/30/24 15:35	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			05/30/24 15:35	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			05/30/24 15:35	1
Bromoform	2.0	U Q	2.5	0.59	ug/L			05/30/24 15:35	1
Bromomethane	10	U	20	3.7	ug/L			05/30/24 15:35	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			05/30/24 15:35	1
Carbon disulfide	1.0	U Q	2.0	0.43	ug/L			05/30/24 15:35	1

Client Sample ID: OU6-MW-292-20240520
Date Collected: 05/20/24 14:15
Date Received: 05/21/24 10:19

Lab Sample ID: 680-251033-9
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			05/30/24 15:35	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			05/30/24 15:35	1
Chloroethane	10	U	20	4.6	ug/L			05/30/24 15:35	1
Chloroform	1.0	U	2.0	0.27	ug/L			05/30/24 15:35	1
Chloromethane	2.0	U	2.5	0.54	ug/L			05/30/24 15:35	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			05/30/24 15:35	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			05/30/24 15:35	1
cis-1,2-Dichloroethene	**140**		2.0	0.25	ug/L			05/30/24 15:35	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			05/30/24 15:35	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			05/30/24 15:35	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			05/30/24 15:35	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			05/30/24 15:35	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			05/30/24 15:35	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			05/30/24 15:35	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/30/24 15:35	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/30/24 15:35	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/30/24 15:35	1
Dichlorodifluoromethane	**1.6**	**J M**	2.0	0.36	ug/L			05/31/24 17:47	1
1,1-Dichloroethane	**0.60**	**J**	2.0	0.33	ug/L			05/30/24 15:35	1
1,2-Dichloroethane	1.0	U	2.0	0.25	ug/L			05/30/24 15:35	1
1,1-Dichloroethene	**1.1**	**J**	2.0	0.33	ug/L			05/30/24 15:35	1
1,2-Dichloroethene, Total	**140**		2.0	0.37	ug/L			05/30/24 15:35	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			05/30/24 15:35	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			05/30/24 15:35	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			05/30/24 15:35	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			05/30/24 15:35	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			05/30/24 15:35	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			05/30/24 15:35	1
2-Hexanone	10	U	20	3.2	ug/L			05/30/24 15:35	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			05/30/24 15:35	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			05/30/24 15:35	1
Methyl acetate	10	U Q	20	3.2	ug/L			05/30/24 15:35	1
Methylcyclohexane	1.0	U	2.0	0.33	ug/L			05/30/24 15:35	1
Methylene Chloride	10	U	20	3.2	ug/L			05/30/24 15:35	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			05/30/24 15:35	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			05/30/24 15:35	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			05/30/24 15:35	1
Naphthalene	5.0	U	10	2.4	ug/L			05/30/24 15:35	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			05/30/24 15:35	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			05/30/24 15:35	1
o-Xylene	1.0	U	2.0	0.26	ug/L			05/30/24 15:35	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			05/30/24 15:35	1
Styrene	1.0	U	2.0	0.27	ug/L			05/30/24 15:35	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			05/30/24 15:35	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			05/30/24 15:35	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			05/30/24 15:35	1
Tetrachloroethene	1.0	U M	2.0	0.35	ug/L			05/30/24 15:35	1
Toluene	1.0	U	2.0	0.25	ug/L			05/30/24 15:35	1
trans-1,2-Dichloroethene	**0.48**	**J**	2.0	0.34	ug/L			05/30/24 15:35	1

Client Sample ID: OU6-MW-292-20240520
Date Collected: 05/20/24 14:15
Date Received: 05/21/24 10:19

Lab Sample ID: 680-251033-9
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			05/30/24 15:35	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			05/30/24 15:35	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			05/30/24 15:35	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			05/30/24 15:35	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			05/30/24 15:35	1
Trichloroethene	**16**		1.0	0.20	ug/L			05/30/24 15:35	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			05/30/24 15:35	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			05/30/24 15:35	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			05/30/24 15:35	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			05/30/24 15:35	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			05/30/24 15:35	1
Vinyl chloride	**18**		2.0	0.40	ug/L			05/30/24 15:35	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			05/30/24 15:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*115*	*Q*	*85 - 114*		*05/30/24 15:35*	*1*
4-Bromofluorobenzene (Surr)	*108*		*85 - 114*		*05/31/24 17:47*	*1*
Dibromofluoromethane (Surr)	*108*		*80 - 119*		*05/30/24 15:35*	*1*
Dibromofluoromethane (Surr)	*107*		*80 - 119*		*05/31/24 17:47*	*1*
1,2-Dichloroethane-d4 (Surr)	*102*		*81 - 118*		*05/30/24 15:35*	*1*
1,2-Dichloroethane-d4 (Surr)	*97*		*81 - 118*		*05/31/24 17:47*	*1*
Toluene-d8 (Surr)	*98*		*89 - 112*		*05/30/24 15:35*	*1*
Toluene-d8 (Surr)	*95*		*89 - 112*		*05/31/24 17:47*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	**1.6**		1.1	0.30	ug/L			06/01/24 16:04	1
Ethylene	0.71	U	1.0	0.31	ug/L			06/01/24 16:04	1
Methane	**79**		1.2	0.57	ug/L			06/01/24 16:04	1

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**45**	**D**	1.1	0.40	mg/L			05/31/24 18:59	2
Nitrate as N	0.050	U	0.055	0.023	mg/L			05/21/24 17:58	1
Nitrate Nitrite as N	0.050	U	0.055	0.023	mg/L			05/21/24 17:58	1
Sulfate	**8.1**	**D**	3.0	0.80	mg/L			05/31/24 18:59	2
Nitrite as N	0.050	U M	0.055	0.023	mg/L			05/21/24 17:58	1

Method: SW846 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**33**		10	2.2	ug/L		05/22/24 08:57	05/25/24 10:00	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**240**		5.5	2.2	mg/L			05/23/24 19:08	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	10	U	11	5.0	mg/L			05/23/24 19:08	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	**24**		11	5.0	mg/L			05/23/24 19:08	1
Sulfide (SM 4500 S2 F-2011)	0.83	U	0.83	0.83	mg/L			05/24/24 12:46	1

Client Sample ID: OU6-MW-292-20240520
Lab Sample ID: 680-251033-9

Date Collected: 05/20/24 14:15
Matrix: Water
Date Received: 05/21/24 10:19

General Chemistry (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide as H2S (SM 4500 S2 F-2011)	0.92	U	0.92	0.92	mg/L			05/24/24 12:46	1
Total Organic Carbon (SW846 9060A)	**1.8**		1.0	0.50	mg/L			05/23/24 19:11	1
Carbon Dioxide, Free (SM 4500 CO2 D)	10	U	11	5.0	mg/L			05/23/24 19:08	1

Client Sample ID: OU6-MW-295-20240520
Lab Sample ID: 680-251033-10

Date Collected: 05/20/24 11:05
Matrix: Water
Date Received: 05/21/24 10:19

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			05/30/24 15:58	1
Benzene	1.0	U	2.0	0.27	ug/L			05/30/24 15:58	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			05/30/24 15:58	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			05/30/24 15:58	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			05/30/24 15:58	1
Bromoform	2.0	U Q	2.5	0.59	ug/L			05/30/24 15:58	1
Bromomethane	10	U	20	3.7	ug/L			05/30/24 15:58	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			05/30/24 15:58	1
Carbon disulfide	1.0	U Q	2.0	0.43	ug/L			05/30/24 15:58	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			05/30/24 15:58	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			05/30/24 15:58	1
Chloroethane	10	U	20	4.6	ug/L			05/30/24 15:58	1
Chloroform	1.0	U	2.0	0.27	ug/L			05/30/24 15:58	1
Chloromethane	2.0	U	2.5	0.54	ug/L			05/30/24 15:58	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			05/30/24 15:58	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			05/30/24 15:58	1
cis-1,2-Dichloroethene	**1.9**	**J**	2.0	0.25	ug/L			05/30/24 15:58	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			05/30/24 15:58	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			05/30/24 15:58	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			05/30/24 15:58	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			05/30/24 15:58	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			05/30/24 15:58	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			05/30/24 15:58	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/30/24 15:58	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/30/24 15:58	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/30/24 15:58	1
Dichlorodifluoromethane	1.0	U M Q	2.0	0.36	ug/L			05/30/24 15:58	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			05/30/24 15:58	1
1,2-Dichloroethane	1.0	U	2.0	0.25	ug/L			05/30/24 15:58	1
1,1-Dichloroethene	1.0	U	2.0	0.33	ug/L			05/30/24 15:58	1
1,2-Dichloroethene, Total	**1.9**	**J**	2.0	0.37	ug/L			05/30/24 15:58	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			05/30/24 15:58	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			05/30/24 15:58	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			05/30/24 15:58	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			05/30/24 15:58	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			05/30/24 15:58	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			05/30/24 15:58	1
2-Hexanone	10	U	20	3.2	ug/L			05/30/24 15:58	1

Client Sample ID: OU6-MW-295-20240520

Lab Sample ID: 680-251033-10

Date Collected: 05/20/24 11:05

Matrix: Water

Date Received: 05/21/24 10:19

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			05/30/24 15:58	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			05/30/24 15:58	1
Methyl acetate	10	U Q	20	3.2	ug/L			05/30/24 15:58	1
Methylcyclohexane	1.0	U	2.0	0.33	ug/L			05/30/24 15:58	1
Methylene Chloride	10	U	20	3.2	ug/L			05/30/24 15:58	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			05/30/24 15:58	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			05/30/24 15:58	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			05/30/24 15:58	1
Naphthalene	5.0	U	10	2.4	ug/L			05/30/24 15:58	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			05/30/24 15:58	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			05/30/24 15:58	1
o-Xylene	1.0	U	2.0	0.26	ug/L			05/30/24 15:58	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			05/30/24 15:58	1
Styrene	1.0	U	2.0	0.27	ug/L			05/30/24 15:58	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			05/30/24 15:58	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			05/30/24 15:58	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			05/30/24 15:58	1
Tetrachloroethene	1.0	U	2.0	0.35	ug/L			05/30/24 15:58	1
Toluene	1.0	U	2.0	0.25	ug/L			05/30/24 15:58	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			05/30/24 15:58	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			05/30/24 15:58	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			05/30/24 15:58	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			05/30/24 15:58	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			05/30/24 15:58	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			05/30/24 15:58	1
Trichloroethene	**0.41**	**J**	1.0	0.20	ug/L			05/30/24 15:58	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			05/30/24 15:58	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			05/30/24 15:58	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			05/30/24 15:58	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			05/30/24 15:58	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			05/30/24 15:58	1
Vinyl chloride	**0.41**	**J**	2.0	0.40	ug/L			05/30/24 15:58	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			05/30/24 15:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*113*		*85 - 114*		*05/30/24 15:58*	*1*
Dibromofluoromethane (Surr)	*108*		*80 - 119*		*05/30/24 15:58*	*1*
1,2-Dichloroethane-d4 (Surr)	*99*		*81 - 118*		*05/30/24 15:58*	*1*
Toluene-d8 (Surr)	*97*		*89 - 112*		*05/30/24 15:58*	*1*

Client Sample ID: OU6-MW-145-20240520

Lab Sample ID: 680-251033-11

Date Collected: 05/20/24 12:35

Matrix: Water

Date Received: 05/21/24 10:19

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			05/30/24 16:20	1
Benzene	1.0	U	2.0	0.27	ug/L			05/30/24 16:20	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			05/30/24 16:20	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			05/30/24 16:20	1

Client Sample ID: OU6-MW-145-20240520
Date Collected: 05/20/24 12:35
Date Received: 05/21/24 10:19

Lab Sample ID: 680-251033-11
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			05/30/24 16:20	1
Bromoform	2.0	U Q	2.5	0.59	ug/L			05/30/24 16:20	1
Bromomethane	10	U	20	3.7	ug/L			05/30/24 16:20	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			05/30/24 16:20	1
Carbon disulfide	1.0	U Q	2.0	0.43	ug/L			05/30/24 16:20	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			05/30/24 16:20	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			05/30/24 16:20	1
Chloroethane	10	U	20	4.6	ug/L			05/30/24 16:20	1
Chloroform	1.0	U	2.0	0.27	ug/L			05/30/24 16:20	1
Chloromethane	2.0	U	2.5	0.54	ug/L			05/30/24 16:20	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			05/30/24 16:20	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			05/30/24 16:20	1
cis-1,2-Dichloroethene	**68**		2.0	0.25	ug/L			05/30/24 16:20	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			05/30/24 16:20	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			05/30/24 16:20	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			05/30/24 16:20	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			05/30/24 16:20	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			05/30/24 16:20	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			05/30/24 16:20	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/30/24 16:20	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/30/24 16:20	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/30/24 16:20	1
Dichlorodifluoromethane	1.0	U Q	2.0	0.36	ug/L			05/30/24 16:20	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			05/30/24 16:20	1
1,2-Dichloroethane	1.0	U	2.0	0.25	ug/L			05/30/24 16:20	1
1,1-Dichloroethene	**0.75**	**J**	2.0	0.33	ug/L			05/30/24 16:20	1
1,2-Dichloroethene, Total	**68**		2.0	0.37	ug/L			05/30/24 16:20	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			05/30/24 16:20	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			05/30/24 16:20	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			05/30/24 16:20	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			05/30/24 16:20	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			05/30/24 16:20	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			05/30/24 16:20	1
2-Hexanone	10	U	20	3.2	ug/L			05/30/24 16:20	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			05/30/24 16:20	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			05/30/24 16:20	1
Methyl acetate	10	U Q	20	3.2	ug/L			05/30/24 16:20	1
Methylcyclohexane	1.0	U	2.0	0.33	ug/L			05/30/24 16:20	1
Methylene Chloride	10	U	20	3.2	ug/L			05/30/24 16:20	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			05/30/24 16:20	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			05/30/24 16:20	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			05/30/24 16:20	1
Naphthalene	5.0	U	10	2.4	ug/L			05/30/24 16:20	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			05/30/24 16:20	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			05/30/24 16:20	1
o-Xylene	1.0	U	2.0	0.26	ug/L			05/30/24 16:20	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			05/30/24 16:20	1
Styrene	1.0	U	2.0	0.27	ug/L			05/30/24 16:20	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			05/30/24 16:20	1

Client Sample ID: OU6-MW-145-20240520
Date Collected: 05/20/24 12:35
Date Received: 05/21/24 10:19

Lab Sample ID: 680-251033-11
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			05/30/24 16:20	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			05/30/24 16:20	1
Tetrachloroethene	1.0	U	2.0	0.35	ug/L			05/30/24 16:20	1
Toluene	1.0	U	2.0	0.25	ug/L			05/30/24 16:20	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			05/30/24 16:20	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			05/30/24 16:20	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			05/30/24 16:20	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			05/30/24 16:20	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			05/30/24 16:20	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			05/30/24 16:20	1
Trichloroethene	**29**		1.0	0.20	ug/L			05/30/24 16:20	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			05/30/24 16:20	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			05/30/24 16:20	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			05/30/24 16:20	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			05/30/24 16:20	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			05/30/24 16:20	1
Vinyl chloride	**6.7**		2.0	0.40	ug/L			05/30/24 16:20	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			05/30/24 16:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*85 - 114*		*05/30/24 16:20*	*1*
Dibromofluoromethane (Surr)	*106*		*80 - 119*		*05/30/24 16:20*	*1*
1,2-Dichloroethane-d4 (Surr)	*99*		*81 - 118*		*05/30/24 16:20*	*1*
Toluene-d8 (Surr)	*95*		*89 - 112*		*05/30/24 16:20*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	0.76	U	1.1	0.30	ug/L			06/01/24 16:17	1
Ethylene	0.71	U	1.0	0.31	ug/L			06/01/24 16:17	1
Methane	**22**		1.2	0.57	ug/L			06/01/24 16:17	1

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**14**		0.55	0.20	mg/L			05/31/24 19:05	1
Nitrate as N	**0.024**	**J M**	0.055	0.023	mg/L			05/21/24 18:14	1
Nitrate Nitrite as N	**0.024**	**J**	0.055	0.023	mg/L			05/21/24 18:14	1
Sulfate	**9.9**		1.5	0.40	mg/L			05/31/24 19:05	1
Nitrite as N	0.050	U	0.055	0.023	mg/L			05/21/24 18:14	1

Method: SW846 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**56**		10	2.2	ug/L		05/22/24 08:57	05/25/24 10:04	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**24**		5.5	2.2	mg/L			05/23/24 19:34	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	**24**		11	5.0	mg/L			05/23/24 19:34	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	10	U	11	5.0	mg/L			05/23/24 19:34	1

Client Sample ID: OU6-MW-145-20240520

Lab Sample ID: 680-251033-11

Date Collected: 05/20/24 12:35

Matrix: Water

Date Received: 05/21/24 10:19

General Chemistry (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide (SM 4500 S2 F-2011)	0.83	U	0.83	0.83	mg/L			05/24/24 12:46	1
Sulfide as H2S (SM 4500 S2 F-2011)	0.92	U	0.92	0.92	mg/L			05/24/24 12:46	1
Total Organic Carbon (SW846 9060A)	1.0	U	1.0	0.50	mg/L			05/23/24 19:29	1
Carbon Dioxide, Free (SM 4500 CO2 D)	**37**		11	5.0	mg/L			05/23/24 19:34	1

Client Sample ID: DUP-3-20240520

Lab Sample ID: 680-251033-12

Date Collected: 05/20/24 00:00

Matrix: Water

Date Received: 05/21/24 10:19

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			05/30/24 16:43	1
Benzene	1.0	U	2.0	0.27	ug/L			05/30/24 16:43	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			05/30/24 16:43	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			05/30/24 16:43	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			05/30/24 16:43	1
Bromoform	2.0	U Q	2.5	0.59	ug/L			05/30/24 16:43	1
Bromomethane	10	U	20	3.7	ug/L			05/30/24 16:43	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			05/30/24 16:43	1
Carbon disulfide	1.0	U Q	2.0	0.43	ug/L			05/30/24 16:43	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			05/30/24 16:43	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			05/30/24 16:43	1
Chloroethane	10	U	20	4.6	ug/L			05/30/24 16:43	1
Chloroform	1.0	U	2.0	0.27	ug/L			05/30/24 16:43	1
Chloromethane	2.0	U	2.5	0.54	ug/L			05/30/24 16:43	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			05/30/24 16:43	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			05/30/24 16:43	1
cis-1,2-Dichloroethene	**68**		2.0	0.25	ug/L			05/30/24 16:43	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			05/30/24 16:43	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			05/30/24 16:43	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			05/30/24 16:43	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			05/30/24 16:43	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			05/30/24 16:43	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			05/30/24 16:43	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/30/24 16:43	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/30/24 16:43	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/30/24 16:43	1
Dichlorodifluoromethane	1.0	U M Q	2.0	0.36	ug/L			05/30/24 16:43	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			05/30/24 16:43	1
1,2-Dichloroethane	1.0	U	2.0	0.25	ug/L			05/30/24 16:43	1
1,1-Dichloroethene	**0.71**	**J**	2.0	0.33	ug/L			05/30/24 16:43	1
1,2-Dichloroethene, Total	**68**		2.0	0.37	ug/L			05/30/24 16:43	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			05/30/24 16:43	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			05/30/24 16:43	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			05/30/24 16:43	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			05/30/24 16:43	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			05/30/24 16:43	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			05/30/24 16:43	1
2-Hexanone	10	U	20	3.2	ug/L			05/30/24 16:43	1

Client Sample ID: DUP-3-20240520
Date Collected: 05/20/24 00:00
Date Received: 05/21/24 10:19

Lab Sample ID: 680-251033-12
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			05/30/24 16:43	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			05/30/24 16:43	1
Methyl acetate	10	U Q	20	3.2	ug/L			05/30/24 16:43	1
Methylcyclohexane	1.0	U	2.0	0.33	ug/L			05/30/24 16:43	1
Methylene Chloride	10	U	20	3.2	ug/L			05/30/24 16:43	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			05/30/24 16:43	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			05/30/24 16:43	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			05/30/24 16:43	1
Naphthalene	5.0	U	10	2.4	ug/L			05/30/24 16:43	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			05/30/24 16:43	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			05/30/24 16:43	1
o-Xylene	1.0	U	2.0	0.26	ug/L			05/30/24 16:43	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			05/30/24 16:43	1
Styrene	1.0	U	2.0	0.27	ug/L			05/30/24 16:43	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			05/30/24 16:43	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			05/30/24 16:43	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			05/30/24 16:43	1
Tetrachloroethene	1.0	U	2.0	0.35	ug/L			05/30/24 16:43	1
Toluene	1.0	U	2.0	0.25	ug/L			05/30/24 16:43	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			05/30/24 16:43	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			05/30/24 16:43	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			05/30/24 16:43	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			05/30/24 16:43	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			05/30/24 16:43	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			05/30/24 16:43	1
Trichloroethene	**30**		1.0	0.20	ug/L			05/30/24 16:43	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			05/30/24 16:43	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			05/30/24 16:43	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			05/30/24 16:43	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			05/30/24 16:43	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			05/30/24 16:43	1
Vinyl chloride	**6.8**	**M**	2.0	0.40	ug/L			05/30/24 16:43	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			05/30/24 16:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*85 - 114*		*05/30/24 16:43*	*1*
Dibromofluoromethane (Surr)	*107*		*80 - 119*		*05/30/24 16:43*	*1*
1,2-Dichloroethane-d4 (Surr)	*99*		*81 - 118*		*05/30/24 16:43*	*1*
Toluene-d8 (Surr)	*95*		*89 - 112*		*05/30/24 16:43*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	0.76	U	1.1	0.30	ug/L			06/01/24 18:11	1
Ethylene	0.71	U	1.0	0.31	ug/L			06/01/24 18:11	1
Methane	**23**		1.2	0.57	ug/L			06/01/24 18:11	1

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**13**		0.55	0.20	mg/L			05/31/24 19:12	1
Nitrate as N	0.050	U	0.055	0.023	mg/L			05/21/24 19:16	1

Client Sample ID: DUP-3-20240520
Lab Sample ID: 680-251033-12

Date Collected: 05/20/24 00:00
Matrix: Water
Date Received: 05/21/24 10:19

Method: SW846 9056A - Anions, Ion Chromatography (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate Nitrite as N	0.050	U	0.055	0.023	mg/L			05/21/24 19:16	1
Sulfate	**10**		1.5	0.40	mg/L			05/31/24 19:12	1
Nitrite as N	0.050	U	0.055	0.023	mg/L			05/21/24 19:16	1

Method: SW846 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**44**		10	2.2	ug/L		05/22/24 08:57	05/25/24 10:06	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**43**		5.5	2.2	mg/L			05/23/24 19:16	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	**43**		11	5.0	mg/L			05/23/24 19:16	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	10	U	11	5.0	mg/L			05/23/24 19:16	1
Sulfide (SM 4500 S2 F-2011)	0.89	U	0.89	0.89	mg/L			05/24/24 12:46	1
Sulfide as H2S (SM 4500 S2 F-2011)	0.98	U	0.98	0.98	mg/L			05/24/24 12:46	1
Total Organic Carbon (SW846 9060A)	1.0	U	1.0	0.50	mg/L			05/23/24 19:46	1
Carbon Dioxide, Free (SM 4500 CO2 D)	10	U	11	5.0	mg/L			05/23/24 19:16	1

Client Sample ID: DUP-4-20240520
Lab Sample ID: 680-251033-13

Date Collected: 05/20/24 00:00
Matrix: Water
Date Received: 05/21/24 10:19

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			05/30/24 17:06	1
Benzene	1.0	U	2.0	0.27	ug/L			05/30/24 17:06	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			05/30/24 17:06	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			05/30/24 17:06	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			05/30/24 17:06	1
Bromoform	2.0	U Q	2.5	0.59	ug/L			05/30/24 17:06	1
Bromomethane	10	U	20	3.7	ug/L			05/30/24 17:06	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			05/30/24 17:06	1
Carbon disulfide	1.0	U Q	2.0	0.43	ug/L			05/30/24 17:06	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			05/30/24 17:06	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			05/30/24 17:06	1
Chloroethane	10	U	20	4.6	ug/L			05/30/24 17:06	1
Chloroform	1.0	U	2.0	0.27	ug/L			05/30/24 17:06	1
Chloromethane	2.0	U	2.5	0.54	ug/L			05/30/24 17:06	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			05/30/24 17:06	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			05/30/24 17:06	1
cis-1,2-Dichloroethene	**130**		2.0	0.25	ug/L			05/30/24 17:06	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			05/30/24 17:06	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			05/30/24 17:06	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			05/30/24 17:06	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			05/30/24 17:06	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			05/30/24 17:06	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			05/30/24 17:06	1

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-251033-1

Client Sample ID: DUP-4-20240520
Date Collected: 05/20/24 00:00
Date Received: 05/21/24 10:19

Lab Sample ID: 680-251033-13
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/30/24 17:06	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/30/24 17:06	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/30/24 17:06	1
Dichlorodifluoromethane	**1.5**	**J M**	2.0	0.36	ug/L			05/31/24 18:09	1
1,1-Dichloroethane	**0.59**	**J**	2.0	0.33	ug/L			05/30/24 17:06	1
1,2-Dichloroethane	1.0	U	2.0	0.25	ug/L			05/30/24 17:06	1
1,1-Dichloroethene	**1.0**	**J**	2.0	0.33	ug/L			05/30/24 17:06	1
1,2-Dichloroethene, Total	**140**		2.0	0.37	ug/L			05/30/24 17:06	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			05/30/24 17:06	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			05/30/24 17:06	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			05/30/24 17:06	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			05/30/24 17:06	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			05/30/24 17:06	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			05/30/24 17:06	1
2-Hexanone	10	U	20	3.2	ug/L			05/30/24 17:06	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			05/30/24 17:06	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			05/30/24 17:06	1
Methyl acetate	10	U Q	20	3.2	ug/L			05/30/24 17:06	1
Methylcyclohexane	1.0	U	2.0	0.33	ug/L			05/30/24 17:06	1
Methylene Chloride	10	U	20	3.2	ug/L			05/30/24 17:06	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			05/30/24 17:06	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			05/30/24 17:06	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			05/30/24 17:06	1
Naphthalene	5.0	U	10	2.4	ug/L			05/30/24 17:06	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			05/30/24 17:06	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			05/30/24 17:06	1
o-Xylene	1.0	U	2.0	0.26	ug/L			05/30/24 17:06	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			05/30/24 17:06	1
Styrene	1.0	U	2.0	0.27	ug/L			05/30/24 17:06	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			05/30/24 17:06	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			05/30/24 17:06	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			05/30/24 17:06	1
Tetrachloroethene	1.0	U	2.0	0.35	ug/L			05/30/24 17:06	1
Toluene	1.0	U	2.0	0.25	ug/L			05/30/24 17:06	1
trans-1,2-Dichloroethene	**0.55**	**J**	2.0	0.34	ug/L			05/30/24 17:06	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			05/30/24 17:06	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			05/30/24 17:06	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			05/30/24 17:06	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			05/30/24 17:06	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			05/30/24 17:06	1
Trichloroethene	**15**		1.0	0.20	ug/L			05/30/24 17:06	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			05/30/24 17:06	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			05/30/24 17:06	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			05/30/24 17:06	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			05/30/24 17:06	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			05/30/24 17:06	1
Vinyl chloride	**16**	**M**	2.0	0.40	ug/L			05/30/24 17:06	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			05/30/24 17:06	1

Client Sample ID: DUP-4-20240520

Lab Sample ID: 680-251033-13

Date Collected: 05/20/24 00:00

Matrix: Water

Date Received: 05/21/24 10:19

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*111*		*85 - 114*		*05/30/24 17:06*	*1*
4-Bromofluorobenzene (Surr)	*109*		*85 - 114*		*05/31/24 18:09*	*1*
Dibromofluoromethane (Surr)	*109*		*80 - 119*		*05/30/24 17:06*	*1*
Dibromofluoromethane (Surr)	*107*		*80 - 119*		*05/31/24 18:09*	*1*
1,2-Dichloroethane-d4 (Surr)	*102*		*81 - 118*		*05/30/24 17:06*	*1*
1,2-Dichloroethane-d4 (Surr)	*97*		*81 - 118*		*05/31/24 18:09*	*1*
Toluene-d8 (Surr)	*96*		*89 - 112*		*05/30/24 17:06*	*1*
Toluene-d8 (Surr)	*94*		*89 - 112*		*05/31/24 18:09*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	**1.4**		1.1	0.30	ug/L			06/01/24 18:24	1
Ethylene	0.71	U	1.0	0.31	ug/L			06/01/24 18:24	1
Methane	**61**		1.2	0.57	ug/L			06/01/24 18:24	1

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**45**		0.55	0.20	mg/L			05/31/24 19:18	1
Nitrate as N	0.050	U	0.055	0.023	mg/L			05/21/24 19:49	1
Nitrate Nitrite as N	0.050	U	0.055	0.023	mg/L			05/21/24 19:49	1
Sulfate	**7.8**		1.5	0.40	mg/L			05/31/24 19:18	1
Nitrite as N	0.050	U	0.055	0.023	mg/L			05/21/24 19:49	1

Method: SW846 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**26**		10	2.2	ug/L		05/22/24 08:57	05/25/24 10:08	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**160**		5.5	2.2	mg/L			05/23/24 19:43	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	10	U	11	5.0	mg/L			05/23/24 19:43	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	**25**		11	5.0	mg/L			05/23/24 19:43	1
Sulfide (SM 4500 S2 F-2011)	0.86	U	0.86	0.86	mg/L			05/24/24 12:46	1
Sulfide as H2S (SM 4500 S2 F-2011)	0.95	U	0.95	0.95	mg/L			05/24/24 12:46	1
Total Organic Carbon (SW846 9060A)	**1.5**		1.0	0.50	mg/L			05/23/24 20:02	1
Carbon Dioxide, Free (SM 4500 CO2 D)	10	U	11	5.0	mg/L			05/23/24 19:43	1

Client Sample ID: TRIP-BLANK-20240520

Lab Sample ID: 680-251033-14

Date Collected: 05/20/24 00:00

Matrix: Water

Date Received: 05/21/24 10:19

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			05/30/24 13:19	1
Benzene	1.0	U	2.0	0.27	ug/L			05/30/24 13:19	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			05/30/24 13:19	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			05/30/24 13:19	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			05/30/24 13:19	1

Client Sample ID: TRIP-BLANK-20240520
Lab Sample ID: 680-251033-14
Date Collected: 05/20/24 00:00
Matrix: Water
Date Received: 05/21/24 10:19

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Bromoform	2.0	U Q	2.5	0.59	ug/L			05/30/24 13:19	1
Bromomethane	10	U	20	3.7	ug/L			05/30/24 13:19	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			05/30/24 13:19	1
Carbon disulfide	1.0	U Q	2.0	0.43	ug/L			05/30/24 13:19	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			05/30/24 13:19	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			05/30/24 13:19	1
Chloroethane	10	U	20	4.6	ug/L			05/30/24 13:19	1
Chloroform	1.0	U	2.0	0.27	ug/L			05/30/24 13:19	1
Chloromethane	2.0	U	2.5	0.54	ug/L			05/30/24 13:19	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			05/30/24 13:19	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			05/30/24 13:19	1
cis-1,2-Dichloroethene	1.0	U	2.0	0.25	ug/L			05/30/24 13:19	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			05/30/24 13:19	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			05/30/24 13:19	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			05/30/24 13:19	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			05/30/24 13:19	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			05/30/24 13:19	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			05/30/24 13:19	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/30/24 13:19	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/30/24 13:19	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/30/24 13:19	1
Dichlorodifluoromethane	1.0	U Q	2.0	0.36	ug/L			05/30/24 13:19	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			05/30/24 13:19	1
1,2-Dichloroethane	1.0	U	2.0	0.25	ug/L			05/30/24 13:19	1
1,1-Dichloroethene	1.0	U	2.0	0.33	ug/L			05/30/24 13:19	1
1,2-Dichloroethene, Total	1.0	U	2.0	0.37	ug/L			05/30/24 13:19	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			05/30/24 13:19	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			05/30/24 13:19	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			05/30/24 13:19	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			05/30/24 13:19	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			05/30/24 13:19	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			05/30/24 13:19	1
2-Hexanone	10	U	20	3.2	ug/L			05/30/24 13:19	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			05/30/24 13:19	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			05/30/24 13:19	1
Methyl acetate	10	U Q	20	3.2	ug/L			05/30/24 13:19	1
Methylcyclohexane	1.0	U	2.0	0.33	ug/L			05/31/24 16:16	1
Methylene Chloride	10	U	20	3.2	ug/L			05/30/24 13:19	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			05/30/24 13:19	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			05/30/24 13:19	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			05/30/24 13:19	1
Naphthalene	5.0	U	10	2.4	ug/L			05/30/24 13:19	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			05/30/24 13:19	1
N-Propylbenzene	1.0	U M	2.0	0.41	ug/L			05/30/24 13:19	1
o-Xylene	1.0	U	2.0	0.26	ug/L			05/30/24 13:19	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			05/30/24 13:19	1
Styrene	1.0	U	2.0	0.27	ug/L			05/30/24 13:19	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			05/30/24 13:19	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			05/30/24 13:19	1

Client Sample ID: TRIP-BLANK-20240520

Lab Sample ID: 680-251033-14

Date Collected: 05/20/24 00:00

Matrix: Water

Date Received: 05/21/24 10:19

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			05/30/24 13:19	1
Tetrachloroethene	1.0	U	2.0	0.35	ug/L			05/30/24 13:19	1
Toluene	1.0	U	2.0	0.25	ug/L			05/31/24 16:16	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			05/30/24 13:19	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			05/30/24 13:19	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			05/30/24 13:19	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			05/30/24 13:19	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			05/30/24 13:19	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			05/30/24 13:19	1
Trichloroethene	0.50	U	1.0	0.20	ug/L			05/30/24 13:19	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			05/30/24 13:19	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			05/30/24 13:19	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			05/30/24 13:19	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			05/30/24 13:19	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			05/30/24 13:19	1
Vinyl chloride	1.0	U	2.0	0.40	ug/L			05/30/24 13:19	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			05/30/24 13:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*85 - 114*		*05/30/24 13:19*	*1*
4-Bromofluorobenzene (Surr)	*112*		*85 - 114*		*05/31/24 16:16*	*1*
Dibromofluoromethane (Surr)	*106*		*80 - 119*		*05/30/24 13:19*	*1*
Dibromofluoromethane (Surr)	*108*		*80 - 119*		*05/31/24 16:16*	*1*
1,2-Dichloroethane-d4 (Surr)	*96*		*81 - 118*		*05/30/24 13:19*	*1*
1,2-Dichloroethane-d4 (Surr)	*100*		*81 - 118*		*05/31/24 16:16*	*1*
Toluene-d8 (Surr)	*93*		*89 - 112*		*05/30/24 13:19*	*1*
Toluene-d8 (Surr)	*96*		*89 - 112*		*05/31/24 16:16*	*1*

Client Sample ID: OU6-MW-276-20240520

Lab Sample ID: 680-251033-15

Date Collected: 05/20/24 08:15

Matrix: Water

Date Received: 05/21/24 10:19

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			05/30/24 17:29	1
Benzene	1.0	U	2.0	0.27	ug/L			05/30/24 17:29	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			05/30/24 17:29	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			05/30/24 17:29	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			05/30/24 17:29	1
Bromoform	2.0	U Q	2.5	0.59	ug/L			05/30/24 17:29	1
Bromomethane	10	U	20	3.7	ug/L			05/30/24 17:29	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			05/30/24 17:29	1
Carbon disulfide	**0.56**	**J Q**	2.0	0.43	ug/L			05/30/24 17:29	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			05/30/24 17:29	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			05/30/24 17:29	1
Chloroethane	10	U	20	4.6	ug/L			05/30/24 17:29	1
Chloroform	**1.6**	**J**	2.0	0.27	ug/L			05/30/24 17:29	1
Chloromethane	2.0	U	2.5	0.54	ug/L			05/30/24 17:29	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			05/30/24 17:29	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			05/30/24 17:29	1

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-251033-1

Client Sample ID: OU6-MW-276-20240520
Date Collected: 05/20/24 08:15
Date Received: 05/21/24 10:19

Lab Sample ID: 680-251033-15
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	**32**		2.0	0.25	ug/L			05/30/24 17:29	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			05/30/24 17:29	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			05/30/24 17:29	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			05/30/24 17:29	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			05/30/24 17:29	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			05/30/24 17:29	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			05/30/24 17:29	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/30/24 17:29	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/30/24 17:29	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/30/24 17:29	1
Dichlorodifluoromethane	1.0	U Q	2.0	0.36	ug/L			05/30/24 17:29	1
1,1-Dichloroethane	**2.3**		2.0	0.33	ug/L			05/30/24 17:29	1
1,2-Dichloroethane	**1.6**	**J**	2.0	0.25	ug/L			05/30/24 17:29	1
1,1-Dichloroethene	**0.62**	**J**	2.0	0.33	ug/L			05/30/24 17:29	1
1,2-Dichloroethene, Total	**33**		2.0	0.37	ug/L			05/30/24 17:29	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			05/30/24 17:29	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			05/30/24 17:29	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			05/30/24 17:29	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			05/30/24 17:29	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			05/30/24 17:29	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			05/30/24 17:29	1
2-Hexanone	10	U	20	3.2	ug/L			05/30/24 17:29	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			05/30/24 17:29	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			05/30/24 17:29	1
Methyl acetate	10	U Q	20	3.2	ug/L			05/30/24 17:29	1
Methylcyclohexane	1.0	U	2.0	0.33	ug/L			05/30/24 17:29	1
Methylene Chloride	10	U	20	3.2	ug/L			05/30/24 17:29	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			05/30/24 17:29	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			05/30/24 17:29	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			05/30/24 17:29	1
Naphthalene	5.0	U	10	2.4	ug/L			05/30/24 17:29	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			05/30/24 17:29	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			05/30/24 17:29	1
o-Xylene	1.0	U	2.0	0.26	ug/L			05/30/24 17:29	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			05/30/24 17:29	1
Styrene	1.0	U	2.0	0.27	ug/L			05/30/24 17:29	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			05/30/24 17:29	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			05/30/24 17:29	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			05/30/24 17:29	1
Tetrachloroethene	**1.2**	**J**	2.0	0.35	ug/L			05/30/24 17:29	1
Toluene	1.0	U	2.0	0.25	ug/L			05/30/24 17:29	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			05/30/24 17:29	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			05/30/24 17:29	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			05/30/24 17:29	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			05/30/24 17:29	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			05/30/24 17:29	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			05/30/24 17:29	1
Trichloroethene	**10**		1.0	0.20	ug/L			05/30/24 17:29	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			05/30/24 17:29	1

Client Sample ID: OU6-MW-276-20240520
Date Collected: 05/20/24 08:15
Date Received: 05/21/24 10:19

Lab Sample ID: 680-251033-15
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			05/30/24 17:29	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			05/30/24 17:29	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			05/30/24 17:29	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			05/30/24 17:29	1
Vinyl chloride	**2.1**		2.0	0.40	ug/L			05/30/24 17:29	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			05/30/24 17:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*85 - 114*		*05/30/24 17:29*	*1*
Dibromofluoromethane (Surr)	*108*		*80 - 119*		*05/30/24 17:29*	*1*
1,2-Dichloroethane-d4 (Surr)	*99*		*81 - 118*		*05/30/24 17:29*	*1*
Toluene-d8 (Surr)	*94*		*89 - 112*		*05/30/24 17:29*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	0.76	U	1.1	0.30	ug/L			06/01/24 18:37	1
Ethylene	0.71	U	1.0	0.31	ug/L			06/01/24 18:37	1
Methane	**0.98**	**J**	1.2	0.57	ug/L			06/01/24 18:37	1

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**26**		0.55	0.20	mg/L			05/31/24 20:04	1
Nitrate as N	**0.026**	**J M**	0.055	0.023	mg/L			05/21/24 19:57	1
Nitrate Nitrite as N	**0.026**	**J**	0.055	0.023	mg/L			05/21/24 19:57	1
Sulfate	**1.4**	**J**	1.5	0.40	mg/L			05/31/24 20:04	1
Nitrite as N	0.050	U	0.055	0.023	mg/L			05/21/24 19:57	1

Method: SW846 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**76**		10	2.2	ug/L		05/22/24 08:57	05/25/24 10:24	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**8.9**		5.5	2.2	mg/L			05/23/24 19:50	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	**8.9**	**J**	11	5.0	mg/L			05/23/24 19:50	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	10	U	11	5.0	mg/L			05/23/24 19:50	1
Sulfide (SM 4500 S2 F-2011)	0.81	U	0.81	0.81	mg/L			05/24/24 12:46	1
Sulfide as H2S (SM 4500 S2 F-2011)	0.89	U	0.89	0.89	mg/L			05/24/24 12:46	1
Total Organic Carbon (SW846 9060A)	**0.66**	**J**	1.0	0.50	mg/L			05/24/24 00:39	1
Carbon Dioxide, Free (SM 4500 CO2 D)	**6.2**	**J**	11	5.0	mg/L			05/23/24 19:50	1

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-251033-1

Client Sample ID: OU6-MW-266-20240520
Date Collected: 05/20/24 10:15
Date Received: 05/21/24 10:19

Lab Sample ID: 680-251033-16
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			05/30/24 17:51	1
Benzene	**0.27**	**J**	2.0	0.27	ug/L			05/30/24 17:51	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			05/30/24 17:51	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			05/30/24 17:51	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			05/30/24 17:51	1
Bromoform	2.0	U Q	2.5	0.59	ug/L			05/30/24 17:51	1
Bromomethane	10	U	20	3.7	ug/L			05/30/24 17:51	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			05/30/24 17:51	1
Carbon disulfide	1.0	U Q	2.0	0.43	ug/L			05/30/24 17:51	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			05/30/24 17:51	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			05/30/24 17:51	1
Chloroethane	10	U	20	4.6	ug/L			05/30/24 17:51	1
Chloroform	1.0	U	2.0	0.27	ug/L			05/30/24 17:51	1
Chloromethane	2.0	U	2.5	0.54	ug/L			05/30/24 17:51	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			05/30/24 17:51	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			05/30/24 17:51	1
cis-1,2-Dichloroethene	**65**		2.0	0.25	ug/L			05/30/24 17:51	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			05/30/24 17:51	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			05/30/24 17:51	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			05/30/24 17:51	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			05/30/24 17:51	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			05/30/24 17:51	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			05/30/24 17:51	1
1,2-Dichlorobenzene	**1.9**	**J**	2.0	0.31	ug/L			05/30/24 17:51	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/30/24 17:51	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/30/24 17:51	1
Dichlorodifluoromethane	**17**		2.0	0.36	ug/L			05/31/24 18:32	1
1,1-Dichloroethane	**0.44**	**J**	2.0	0.33	ug/L			05/30/24 17:51	1
1,2-Dichloroethane	1.0	U	2.0	0.25	ug/L			05/30/24 17:51	1
1,1-Dichloroethene	**0.46**	**J**	2.0	0.33	ug/L			05/30/24 17:51	1
1,2-Dichloroethene, Total	**66**		2.0	0.37	ug/L			05/30/24 17:51	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			05/30/24 17:51	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			05/30/24 17:51	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			05/30/24 17:51	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			05/30/24 17:51	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			05/30/24 17:51	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			05/30/24 17:51	1
2-Hexanone	10	U	20	3.2	ug/L			05/30/24 17:51	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			05/30/24 17:51	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			05/30/24 17:51	1
Methyl acetate	10	U Q	20	3.2	ug/L			05/30/24 17:51	1
Methylcyclohexane	1.0	U	2.0	0.33	ug/L			05/30/24 17:51	1
Methylene Chloride	10	U	20	3.2	ug/L			05/30/24 17:51	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			05/30/24 17:51	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			05/30/24 17:51	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			05/30/24 17:51	1
Naphthalene	5.0	U	10	2.4	ug/L			05/30/24 17:51	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			05/30/24 17:51	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			05/30/24 17:51	1

Client Sample ID: OU6-MW-266-20240520
Date Collected: 05/20/24 10:15
Date Received: 05/21/24 10:19

Lab Sample ID: 680-251033-16
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	1.0	U	2.0	0.26	ug/L			05/30/24 17:51	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			05/30/24 17:51	1
Styrene	1.0	U	2.0	0.27	ug/L			05/30/24 17:51	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			05/30/24 17:51	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			05/30/24 17:51	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			05/30/24 17:51	1
Tetrachloroethene	**3.1**		2.0	0.35	ug/L			05/30/24 17:51	1
Toluene	1.0	U	2.0	0.25	ug/L			05/30/24 17:51	1
trans-1,2-Dichloroethene	**0.50**	**J**	2.0	0.34	ug/L			05/30/24 17:51	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			05/30/24 17:51	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			05/30/24 17:51	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			05/30/24 17:51	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			05/30/24 17:51	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			05/30/24 17:51	1
Trichloroethene	**17**		1.0	0.20	ug/L			05/30/24 17:51	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			05/30/24 17:51	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			05/30/24 17:51	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			05/30/24 17:51	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			05/30/24 17:51	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			05/30/24 17:51	1
Vinyl chloride	**7.3**		2.0	0.40	ug/L			05/30/24 17:51	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			05/30/24 17:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*85 - 114*		*05/30/24 17:51*	*1*
4-Bromofluorobenzene (Surr)	*108*		*85 - 114*		*05/31/24 18:32*	*1*
Dibromofluoromethane (Surr)	*108*		*80 - 119*		*05/30/24 17:51*	*1*
Dibromofluoromethane (Surr)	*108*		*80 - 119*		*05/31/24 18:32*	*1*
1,2-Dichloroethane-d4 (Surr)	*100*		*81 - 118*		*05/30/24 17:51*	*1*
1,2-Dichloroethane-d4 (Surr)	*99*		*81 - 118*		*05/31/24 18:32*	*1*
Toluene-d8 (Surr)	*95*		*89 - 112*		*05/30/24 17:51*	*1*
Toluene-d8 (Surr)	*94*		*89 - 112*		*05/31/24 18:32*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	**16**		1.1	0.30	ug/L			06/01/24 18:50	1
Ethylene	**56**		1.0	0.31	ug/L			06/01/24 18:50	1
Methane (TCD)	**920**		390	39	ug/L			06/01/24 18:50	1

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**64**	**D**	1.1	0.40	mg/L			05/31/24 20:10	2
Nitrate as N	0.050	U	0.055	0.023	mg/L			05/21/24 20:05	1
Nitrate Nitrite as N	0.050	U	0.055	0.023	mg/L			05/21/24 20:05	1
Sulfate	**1.7**	**J D**	3.0	0.80	mg/L			05/31/24 20:10	2
Nitrite as N	0.050	U	0.055	0.023	mg/L			05/21/24 20:05	1

Method: SW846 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**990**		10	2.2	ug/L		05/22/24 08:57	05/25/24 10:26	1

Client Sample ID: OU6-MW-266-20240520

Lab Sample ID: 680-251033-16

Date Collected: 05/20/24 10:15

Matrix: Water

Date Received: 05/21/24 10:19

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**14**		5.5	2.2	mg/L			05/23/24 19:58	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	**14**		11	5.0	mg/L			05/23/24 19:58	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	10	U	11	5.0	mg/L			05/23/24 19:58	1
Sulfide (SM 4500 S2 F-2011)	0.81	U	0.81	0.81	mg/L			05/24/24 12:46	1
Sulfide as H2S (SM 4500 S2 F-2011)	0.89	U	0.89	0.89	mg/L			05/24/24 12:46	1
Total Organic Carbon (SW846 9060A)	**0.83**	**J**	1.0	0.50	mg/L			05/24/24 00:57	1
Carbon Dioxide, Free (SM 4500 CO2 D)	**79**		11	5.0	mg/L			05/23/24 19:58	1

Client Sample ID: OU6-MW-282-20240520

Lab Sample ID: 680-251033-17

Date Collected: 05/20/24 11:55

Matrix: Water

Date Received: 05/21/24 10:19

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			05/30/24 18:14	1
Benzene	**0.51**	**J**	2.0	0.27	ug/L			05/30/24 18:14	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			05/30/24 18:14	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			05/30/24 18:14	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			05/30/24 18:14	1
Bromoform	2.0	U M Q	2.5	0.59	ug/L			05/30/24 18:14	1
Bromomethane	10	U	20	3.7	ug/L			05/30/24 18:14	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			05/30/24 18:14	1
Carbon disulfide	**0.90**	**J Q**	2.0	0.43	ug/L			05/30/24 18:14	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			05/30/24 18:14	1
Chlorobenzene	**13**		1.0	0.15	ug/L			05/30/24 18:14	1
Chloroethane	10	U	20	4.6	ug/L			05/30/24 18:14	1
Chloroform	1.0	U	2.0	0.27	ug/L			05/30/24 18:14	1
Chloromethane	2.0	U	2.5	0.54	ug/L			05/30/24 18:14	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			05/30/24 18:14	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			05/30/24 18:14	1
cis-1,2-Dichloroethene	**21**		2.0	0.25	ug/L			05/30/24 18:14	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			05/30/24 18:14	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			05/30/24 18:14	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			05/30/24 18:14	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			05/30/24 18:14	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			05/30/24 18:14	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			05/30/24 18:14	1
1,2-Dichlorobenzene	**0.81**	**J**	2.0	0.31	ug/L			05/30/24 18:14	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/30/24 18:14	1
1,4-Dichlorobenzene	**2.5**		2.0	0.31	ug/L			05/30/24 18:14	1
Dichlorodifluoromethane	1.0	U M Q	2.0	0.36	ug/L			05/30/24 18:14	1
1,1-Dichloroethane	**1.9**	**J**	2.0	0.33	ug/L			05/30/24 18:14	1
1,2-Dichloroethane	**0.68**	**J**	2.0	0.25	ug/L			05/30/24 18:14	1
1,1-Dichloroethene	**0.95**	**J**	2.0	0.33	ug/L			05/30/24 18:14	1
1,2-Dichloroethene, Total	**22**		2.0	0.37	ug/L			05/30/24 18:14	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			05/30/24 18:14	1

Client Sample ID: OU6-MW-282-20240520
Date Collected: 05/20/24 11:55
Date Received: 05/21/24 10:19

Lab Sample ID: 680-251033-17
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			05/30/24 18:14	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			05/30/24 18:14	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			05/30/24 18:14	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			05/30/24 18:14	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			05/30/24 18:14	1
2-Hexanone	10	U	20	3.2	ug/L			05/30/24 18:14	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			05/30/24 18:14	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			05/30/24 18:14	1
Methyl acetate	10	U Q	20	3.2	ug/L			05/30/24 18:14	1
Methylcyclohexane	**0.47**	**J**	2.0	0.33	ug/L			05/30/24 18:14	1
Methylene Chloride	10	U	20	3.2	ug/L			05/30/24 18:14	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			05/30/24 18:14	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			05/30/24 18:14	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			05/30/24 18:14	1
Naphthalene	5.0	U	10	2.4	ug/L			05/30/24 18:14	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			05/30/24 18:14	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			05/30/24 18:14	1
o-Xylene	1.0	U	2.0	0.26	ug/L			05/30/24 18:14	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			05/30/24 18:14	1
Styrene	1.0	U	2.0	0.27	ug/L			05/30/24 18:14	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			05/30/24 18:14	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			05/30/24 18:14	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			05/30/24 18:14	1
Tetrachloroethene	1.0	U	2.0	0.35	ug/L			05/30/24 18:14	1
Toluene	1.0	U	2.0	0.25	ug/L			05/30/24 18:14	1
trans-1,2-Dichloroethene	**0.59**	**J**	2.0	0.34	ug/L			05/30/24 18:14	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			05/30/24 18:14	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			05/30/24 18:14	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			05/30/24 18:14	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			05/30/24 18:14	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			05/30/24 18:14	1
Trichloroethene	**5.4**		1.0	0.20	ug/L			05/30/24 18:14	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			05/30/24 18:14	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			05/30/24 18:14	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			05/30/24 18:14	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			05/30/24 18:14	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			05/30/24 18:14	1
Vinyl chloride	**5.1**	**M**	2.0	0.40	ug/L			05/30/24 18:14	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			05/30/24 18:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*85 - 114*		*05/30/24 18:14*	*1*
Dibromofluoromethane (Surr)	*108*		*80 - 119*		*05/30/24 18:14*	*1*
1,2-Dichloroethane-d4 (Surr)	*100*		*81 - 118*		*05/30/24 18:14*	*1*
Toluene-d8 (Surr)	*94*		*89 - 112*		*05/30/24 18:14*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	**7.6**		1.1	0.30	ug/L			06/01/24 19:03	1
Ethylene	**0.62**	**J**	1.0	0.31	ug/L			06/01/24 19:03	1

Client Sample ID: OU6-MW-282-20240520

Lab Sample ID: 680-251033-17

Date Collected: 05/20/24 11:55

Matrix: Water

Date Received: 05/21/24 10:19

Method: RSK-175 - Dissolved Gases (GC) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	**120**		1.2	0.57	ug/L			06/01/24 19:03	1

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**38**		0.55	0.20	mg/L			05/31/24 20:17	1
Nitrate as N	0.050	U	0.055	0.023	mg/L			05/21/24 20:14	1
Nitrate Nitrite as N	0.050	U	0.055	0.023	mg/L			05/21/24 20:14	1
Sulfate	**28**		1.5	0.40	mg/L			05/31/24 20:17	1
Nitrite as N	0.050	U M	0.055	0.023	mg/L			05/21/24 20:14	1

Method: SW846 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**150**		10	2.2	ug/L		05/22/24 08:57	05/25/24 10:28	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	5.0	U	5.5	2.2	mg/L			05/23/24 20:03	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	10	U	11	5.0	mg/L			05/23/24 20:03	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	10	U	11	5.0	mg/L			05/23/24 20:03	1
Sulfide (SM 4500 S2 F-2011)	0.81	U	0.81	0.81	mg/L			05/24/24 12:46	1
Sulfide as H2S (SM 4500 S2 F-2011)	0.89	U	0.89	0.89	mg/L			05/24/24 12:46	1
Total Organic Carbon (SW846 9060A)	**1.9**		1.0	0.50	mg/L			05/24/24 02:37	1
Carbon Dioxide, Free (SM 4500 CO2 D)	**31**		11	5.0	mg/L			05/23/24 20:03	1

Client Sample ID: OU6-MW-268-20240520

Lab Sample ID: 680-251033-18

Date Collected: 05/20/24 14:30

Matrix: Water

Date Received: 05/21/24 10:19

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			05/30/24 18:37	1
Benzene	**2.3**		2.0	0.27	ug/L			05/30/24 18:37	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			05/30/24 18:37	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			05/30/24 18:37	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			05/30/24 18:37	1
Bromoform	2.0	U Q	2.5	0.59	ug/L			05/30/24 18:37	1
Bromomethane	10	U	20	3.7	ug/L			05/30/24 18:37	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			05/30/24 18:37	1
Carbon disulfide	1.0	U Q	2.0	0.43	ug/L			05/30/24 18:37	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			05/30/24 18:37	1
Chloroethane	10	U M	20	4.6	ug/L			05/30/24 18:37	1
Chloroform	**3.6**		2.0	0.27	ug/L			05/30/24 18:37	1
Chloromethane	2.0	U M	2.5	0.54	ug/L			05/30/24 18:37	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			05/30/24 18:37	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			05/30/24 18:37	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			05/30/24 18:37	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			05/30/24 18:37	1

Client Sample ID: OU6-MW-268-20240520
Lab Sample ID: 680-251033-18
Date Collected: 05/20/24 14:30
Matrix: Water
Date Received: 05/21/24 10:19

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			05/30/24 18:37	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			05/30/24 18:37	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			05/30/24 18:37	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			05/30/24 18:37	1
1,2-Dichlorobenzene	**52**		2.0	0.31	ug/L			05/30/24 18:37	1
1,3-Dichlorobenzene	**11**		2.0	0.31	ug/L			05/30/24 18:37	1
1,4-Dichlorobenzene	**150**		2.0	0.31	ug/L			05/30/24 18:37	1
1,1-Dichloroethane	**10**		2.0	0.33	ug/L			05/30/24 18:37	1
1,2-Dichloroethane	**8.5**		2.0	0.25	ug/L			05/30/24 18:37	1
1,1-Dichloroethene	**2.2**		2.0	0.33	ug/L			05/30/24 18:37	1
1,2-Dichloropropane	**0.22**	**J**	1.0	0.22	ug/L			05/30/24 18:37	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			05/30/24 18:37	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			05/30/24 18:37	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			05/30/24 18:37	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			05/30/24 18:37	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			05/30/24 18:37	1
2-Hexanone	10	U	20	3.2	ug/L			05/30/24 18:37	1
Isopropylbenzene	**0.28**	**J**	2.0	0.26	ug/L			05/30/24 18:37	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			05/30/24 18:37	1
Methyl acetate	10	U Q	20	3.2	ug/L			05/30/24 18:37	1
Methylcyclohexane	1.0	U	2.0	0.33	ug/L			05/30/24 18:37	1
Methylene Chloride	10	U	20	3.2	ug/L			05/30/24 18:37	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			05/30/24 18:37	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			05/30/24 18:37	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			05/30/24 18:37	1
Naphthalene	5.0	U	10	2.4	ug/L			05/30/24 18:37	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			05/30/24 18:37	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			05/30/24 18:37	1
o-Xylene	**0.40**	**J**	2.0	0.26	ug/L			05/30/24 18:37	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			05/30/24 18:37	1
Styrene	1.0	U	2.0	0.27	ug/L			05/30/24 18:37	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			05/30/24 18:37	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			05/30/24 18:37	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			05/30/24 18:37	1
Tetrachloroethene	**4.5**		2.0	0.35	ug/L			05/30/24 18:37	1
Toluene	**0.70**	**J**	2.0	0.25	ug/L			05/30/24 18:37	1
trans-1,2-Dichloroethene	**1.7**	**J**	2.0	0.34	ug/L			05/30/24 18:37	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			05/30/24 18:37	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			05/30/24 18:37	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			05/30/24 18:37	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			05/30/24 18:37	1
1,1,2-Trichloroethane	**1.5**	**J**	2.0	0.32	ug/L			05/30/24 18:37	1
Trichloroethene	**33**		1.0	0.20	ug/L			05/30/24 18:37	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			05/30/24 18:37	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			05/30/24 18:37	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			05/30/24 18:37	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			05/30/24 18:37	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			05/30/24 18:37	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			05/30/24 18:37	1

Client Sample ID: OU6-MW-268-20240520
Date Collected: 05/20/24 14:30
Date Received: 05/21/24 10:19

Lab Sample ID: 680-251033-18
Matrix: Water

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*85 - 114*		*05/30/24 18:37*	*1*
Dibromofluoromethane (Surr)	*107*		*80 - 119*		*05/30/24 18:37*	*1*
1,2-Dichloroethane-d4 (Surr)	*101*		*81 - 118*		*05/30/24 18:37*	*1*
Toluene-d8 (Surr)	*96*		*89 - 112*		*05/30/24 18:37*	*1*

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorobenzene	**160**	**D**	5.0	0.75	ug/L			06/03/24 13:54	5
cis-1,2-Dichloroethene	**390**	**D**	10	1.3	ug/L			06/03/24 13:54	5
Dichlorodifluoromethane	5.0	U Q	10	1.8	ug/L			06/03/24 13:54	5
1,2-Dichloroethene, Total	**390**	**D**	10	1.9	ug/L			06/03/24 13:54	5
Vinyl chloride	**260**	**D**	10	2.0	ug/L			06/03/24 13:54	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*85 - 114*		*06/03/24 13:54*	*5*
Dibromofluoromethane (Surr)	*108*		*80 - 119*		*06/03/24 13:54*	*5*
1,2-Dichloroethane-d4 (Surr)	*95*		*81 - 118*		*06/03/24 13:54*	*5*
Toluene-d8 (Surr)	*107*		*89 - 112*		*06/03/24 13:54*	*5*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	**250**		1.1	0.30	ug/L			06/01/24 19:16	1
Ethylene	**210**		1.0	0.31	ug/L			06/01/24 19:16	1
Methane (TCD)	**10000**		390	39	ug/L			06/01/24 19:16	1

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**170**	**D**	2.8	1.0	mg/L			05/31/24 20:24	5
Nitrate as N	0.050	U	0.055	0.023	mg/L			05/21/24 20:22	1
Nitrate Nitrite as N	0.050	U	0.055	0.023	mg/L			05/21/24 20:22	1
Sulfate	**19**	**D**	7.5	2.0	mg/L			05/31/24 20:24	5
Nitrite as N	0.050	U M	0.055	0.023	mg/L			05/21/24 20:22	1

Method: SW846 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**2200**		10	2.2	ug/L		05/22/24 09:05	05/22/24 13:10	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**81**		5.5	2.2	mg/L			05/23/24 19:25	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	**81**		11	5.0	mg/L			05/23/24 19:25	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	10	U	11	5.0	mg/L			05/23/24 19:25	1
Sulfide (SM 4500 S2 F-2011)	0.81	U	0.81	0.81	mg/L			05/24/24 12:46	1
Sulfide as H2S (SM 4500 S2 F-2011)	0.89	U	0.89	0.89	mg/L			05/24/24 12:46	1
Total Organic Carbon (SW846 9060A)	**4.5**		1.0	0.50	mg/L			05/24/24 04:19	1
Carbon Dioxide, Free (SM 4500 CO2 D)	**210**		11	5.0	mg/L			05/23/24 19:25	1

Isotope Dilution Summary

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-251033-1

Method: 8270E SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Matrix: Water

Prep Type: Total/NA

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		DXE							
Lab Sample ID	Client Sample ID	(10-150)							
680-251033-8	OU6-MW-95-20240520	21 M							
LCS 680-839167/2-A	Lab Control Sample	16							
MB 680-839167/1-A	Method Blank	24 M							

Surrogate Legend

DXE = 1,4-Dioxane-d8

Method: 8260D - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 680-840334/8
Matrix: Water
Analysis Batch: 840334

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			05/30/24 12:43	1
Benzene	1.0	U	2.0	0.27	ug/L			05/30/24 12:43	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			05/30/24 12:43	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			05/30/24 12:43	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			05/30/24 12:43	1
Bromoform	1.71	J	2.5	0.59	ug/L			05/30/24 12:43	1
Bromomethane	10	U	20	3.7	ug/L			05/30/24 12:43	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			05/30/24 12:43	1
Carbon disulfide	1.0	U	2.0	0.43	ug/L			05/30/24 12:43	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			05/30/24 12:43	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			05/30/24 12:43	1
Chloroethane	10	U	20	4.6	ug/L			05/30/24 12:43	1
Chloroform	1.0	U	2.0	0.27	ug/L			05/30/24 12:43	1
Chloromethane	2.0	U	2.5	0.54	ug/L			05/30/24 12:43	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			05/30/24 12:43	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			05/30/24 12:43	1
cis-1,2-Dichloroethene	1.0	U	2.0	0.25	ug/L			05/30/24 12:43	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			05/30/24 12:43	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			05/30/24 12:43	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			05/30/24 12:43	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			05/30/24 12:43	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			05/30/24 12:43	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			05/30/24 12:43	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/30/24 12:43	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/30/24 12:43	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/30/24 12:43	1
Dichlorodifluoromethane	1.0	U	2.0	0.36	ug/L			05/30/24 12:43	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			05/30/24 12:43	1
1,2-Dichloroethane	1.0	U	2.0	0.25	ug/L			05/30/24 12:43	1
1,1-Dichloroethene	1.0	U	2.0	0.33	ug/L			05/30/24 12:43	1
1,2-Dichloroethene, Total	1.0	U	2.0	0.37	ug/L			05/30/24 12:43	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			05/30/24 12:43	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			05/30/24 12:43	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			05/30/24 12:43	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			05/30/24 12:43	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			05/30/24 12:43	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			05/30/24 12:43	1
2-Hexanone	10	U	20	3.2	ug/L			05/30/24 12:43	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			05/30/24 12:43	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			05/30/24 12:43	1
Methyl acetate	10	U	20	3.2	ug/L			05/30/24 12:43	1
Methylcyclohexane	0.630	J	2.0	0.33	ug/L			05/30/24 12:43	1
Methylene Chloride	10	U	20	3.2	ug/L			05/30/24 12:43	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			05/30/24 12:43	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			05/30/24 12:43	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			05/30/24 12:43	1
Naphthalene	5.0	U	10	2.4	ug/L			05/30/24 12:43	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			05/30/24 12:43	1

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-840334/8
Matrix: Water
Analysis Batch: 840334

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
N-Propylbenzene	1.0	U M	2.0	0.41	ug/L			05/30/24 12:43	1
o-Xylene	1.0	U	2.0	0.26	ug/L			05/30/24 12:43	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			05/30/24 12:43	1
Styrene	1.0	U	2.0	0.27	ug/L			05/30/24 12:43	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			05/30/24 12:43	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			05/30/24 12:43	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			05/30/24 12:43	1
Tetrachloroethene	1.0	U	2.0	0.35	ug/L			05/30/24 12:43	1
Toluene	0.254	J	2.0	0.25	ug/L			05/30/24 12:43	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			05/30/24 12:43	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			05/30/24 12:43	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			05/30/24 12:43	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			05/30/24 12:43	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			05/30/24 12:43	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			05/30/24 12:43	1
Trichloroethene	0.50	U	1.0	0.20	ug/L			05/30/24 12:43	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			05/30/24 12:43	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			05/30/24 12:43	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			05/30/24 12:43	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			05/30/24 12:43	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			05/30/24 12:43	1
Vinyl chloride	1.0	U	2.0	0.40	ug/L			05/30/24 12:43	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			05/30/24 12:43	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*85 - 114*		*05/30/24 12:43*	*1*
Dibromofluoromethane (Surr)	*108*		*80 - 119*		*05/30/24 12:43*	*1*
1,2-Dichloroethane-d4 (Surr)	*98*		*81 - 118*		*05/30/24 12:43*	*1*
Toluene-d8 (Surr)	*95*		*89 - 112*		*05/30/24 12:43*	*1*

Lab Sample ID: LCS 680-840334/4
Matrix: Water
Analysis Batch: 840334

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	250	223		ug/L		89	39 - 160
Benzene	50.0	52.6		ug/L		105	79 - 120
Bromobenzene	50.0	53.1		ug/L		106	80 - 120
Bromochloromethane	50.0	52.2		ug/L		104	78 - 123
Bromodichloromethane	50.0	49.8		ug/L		100	79 - 125
Bromoform	50.0	63.0	J1	ug/L		126	66 - 130
Bromomethane	50.0	46.4		ug/L		93	53 - 141
2-Butanone (MEK)	250	249		ug/L		100	56 - 143
Carbon disulfide	50.0	55.2		ug/L		110	64 - 133
Carbon tetrachloride	50.0	51.0		ug/L		102	72 - 136
Chlorobenzene	50.0	49.9		ug/L		100	82 - 118
Chloroethane	50.0	47.8		ug/L		96	60 - 138
Chloroform	50.0	51.0		ug/L		102	79 - 124

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-840334/4
Matrix: Water
Analysis Batch: 840334

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloromethane	50.0	47.3		ug/L		95	50 - 139
2-Chlorotoluene	50.0	49.7		ug/L		99	79 - 122
4-Chlorotoluene	50.0	49.7		ug/L		99	78 - 122
cis-1,2-Dichloroethene	50.0	51.5		ug/L		103	78 - 123
cis-1,3-Dichloropropene	50.0	51.7		ug/L		103	75 - 124
Cyclohexane	50.0	57.0		ug/L		114	71 - 130
Dibromochloromethane	50.0	50.7		ug/L		101	74 - 126
1,2-Dibromo-3-Chloropropane	50.0	50.4		ug/L		101	62 - 128
1,2-Dibromoethane	50.0	51.2		ug/L		102	75 - 127
Dibromomethane	50.0	49.9		ug/L		100	79 - 123
1,2-Dichlorobenzene	50.0	51.1		ug/L		102	80 - 119
1,3-Dichlorobenzene	50.0	51.2		ug/L		102	80 - 119
1,4-Dichlorobenzene	50.0	50.6		ug/L		101	79 - 118
Dichlorodifluoromethane	50.0	39.4	M	ug/L		79	32 - 152
1,1-Dichloroethane	50.0	52.4		ug/L		105	77 - 125
1,2-Dichloroethane	50.0	48.5		ug/L		97	73 - 128
1,1-Dichloroethene	50.0	53.6		ug/L		107	71 - 131
1,2-Dichloroethene, Total	100	105		ug/L		105	79 - 121
1,2-Dichloropropane	50.0	52.7		ug/L		105	78 - 122
1,3-Dichloropropane	50.0	50.5		ug/L		101	80 - 119
2,2-Dichloropropane	50.0	55.5		ug/L		111	60 - 139
1,1-Dichloropropene	50.0	54.6		ug/L		109	79 - 125
Ethylbenzene	50.0	50.1		ug/L		100	79 - 121
Hexachlorobutadiene	50.0	56.2		ug/L		112	66 - 134
2-Hexanone	250	252		ug/L		101	57 - 139
Isopropylbenzene	50.0	50.3		ug/L		101	72 - 131
4-Isopropyltoluene	50.0	50.4		ug/L		101	77 - 127
Methyl acetate	100	80.7		ug/L		81	56 - 136
Methylcyclohexane	50.0	55.3		ug/L		111	72 - 132
Methylene Chloride	50.0	49.9		ug/L		100	74 - 124
4-Methyl-2-pentanone (MIBK)	250	252		ug/L		101	67 - 130
Methyl tert-butyl ether	50.0	52.2		ug/L		104	71 - 124
m-Xylene & p-Xylene	50.0	50.7		ug/L		101	80 - 121
Naphthalene	50.0	50.1		ug/L		100	61 - 128
n-Butylbenzene	50.0	52.3		ug/L		105	75 - 128
N-Propylbenzene	50.0	49.4		ug/L		99	76 - 126
o-Xylene	50.0	49.7		ug/L		99	78 - 122
sec-Butylbenzene	50.0	51.0		ug/L		102	77 - 126
Styrene	50.0	50.2		ug/L		100	78 - 123
tert-Butylbenzene	50.0	49.9		ug/L		100	78 - 124
1,1,1,2-Tetrachloroethane	50.0	50.2		ug/L		100	78 - 124
1,1,2,2-Tetrachloroethane	50.0	58.2		ug/L		116	71 - 121
Tetrachloroethene	50.0	54.4		ug/L		109	74 - 129
Toluene	50.0	51.1		ug/L		102	80 - 121
trans-1,2-Dichloroethene	50.0	54.0		ug/L		108	75 - 124
trans-1,3-Dichloropropene	50.0	50.0		ug/L		100	73 - 127
1,2,3-Trichlorobenzene	50.0	49.9		ug/L		100	69 - 129
1,2,4-Trichlorobenzene	50.0	53.8		ug/L		108	69 - 130
1,1,1-Trichloroethane	50.0	53.4		ug/L		107	74 - 131

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-840334/4
Matrix: Water
Analysis Batch: 840334

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,1,2-Trichloroethane			50.0	50.6		ug/L		101	80 - 119		
Trichloroethene			50.0	51.1		ug/L		102	79 - 123		
Trichlorofluoromethane			50.0	41.0		ug/L		82	65 - 141		
1,2,3-Trichloropropane			50.0	51.5		ug/L		103	73 - 122		
1,1,2-Trichloro-1,2,2-trifluoroethane			50.0	59.0		ug/L		118	70 - 136		
1,2,4-Trimethylbenzene			50.0	53.3		ug/L		107	76 - 124		
1,3,5-Trimethylbenzene			50.0	50.7		ug/L		101	75 - 124		
Vinyl chloride			50.0	44.9		ug/L		90	58 - 137		
Xylenes, Total			100	100		ug/L		100	79 - 121		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*100*		*85 - 114*
Dibromofluoromethane (Surr)	*106*		*80 - 119*
1,2-Dichloroethane-d4 (Surr)	*98*		*81 - 118*
Toluene-d8 (Surr)	*101*		*89 - 112*

Lab Sample ID: LCSD 680-840334/5
Matrix: Water
Analysis Batch: 840334

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acetone			250	235		ug/L		94	39 - 160	5	20
Benzene			50.0	53.1		ug/L		106	79 - 120	1	20
Bromobenzene			50.0	54.0		ug/L		108	80 - 120	2	20
Bromochloromethane			50.0	52.9		ug/L		106	78 - 123	1	20
Bromodichloromethane			50.0	50.5		ug/L		101	79 - 125	1	20
Bromoform			50.0	66.1	J1 Q	ug/L		132	66 - 130	5	20
Bromomethane			50.0	47.3		ug/L		95	53 - 141	2	20
2-Butanone (MEK)			250	262		ug/L		105	56 - 143	5	20
Carbon disulfide			50.0	54.9		ug/L		110	64 - 133	0	20
Carbon tetrachloride			50.0	50.6		ug/L		101	72 - 136	1	20
Chlorobenzene			50.0	50.0		ug/L		100	82 - 118	0	20
Chloroethane			50.0	47.6		ug/L		95	60 - 138	0	20
Chloroform			50.0	50.9		ug/L		102	79 - 124	0	20
Chloromethane			50.0	47.8		ug/L		96	50 - 139	1	20
2-Chlorotoluene			50.0	50.4		ug/L		101	79 - 122	1	20
4-Chlorotoluene			50.0	50.5		ug/L		101	78 - 122	2	20
cis-1,2-Dichloroethene			50.0	51.7		ug/L		103	78 - 123	1	20
cis-1,3-Dichloropropene			50.0	51.8		ug/L		104	75 - 124	0	20
Cyclohexane			50.0	56.5		ug/L		113	71 - 130	1	20
Dibromochloromethane			50.0	52.0		ug/L		104	74 - 126	3	20
1,2-Dibromo-3-Chloropropane			50.0	54.9		ug/L		110	62 - 128	9	20
1,2-Dibromoethane			50.0	52.3		ug/L		105	75 - 127	2	20
Dibromomethane			50.0	51.7		ug/L		103	79 - 123	3	20
1,2-Dichlorobenzene			50.0	51.8		ug/L		104	80 - 119	1	20
1,3-Dichlorobenzene			50.0	51.5		ug/L		103	80 - 119	0	20
1,4-Dichlorobenzene			50.0	51.3		ug/L		103	79 - 118	1	20
Dichlorodifluoromethane			50.0	40.9		ug/L		82	32 - 152	4	20

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-840334/5
Matrix: Water
Analysis Batch: 840334

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1-Dichloroethane			50.0	51.8		ug/L		104	77 - 125	1	20
1,2-Dichloroethane			50.0	49.5		ug/L		99	73 - 128	2	20
1,1-Dichloroethene			50.0	52.6		ug/L		105	71 - 131	2	20
1,2-Dichloroethene, Total			100	106		ug/L		106	79 - 121	0	20
1,2-Dichloropropane			50.0	52.6		ug/L		105	78 - 122	0	20
1,3-Dichloropropane			50.0	51.9		ug/L		104	80 - 119	3	20
2,2-Dichloropropane			50.0	55.1		ug/L		110	60 - 139	1	20
1,1-Dichloropropene			50.0	55.1		ug/L		110	79 - 125	1	20
Ethylbenzene			50.0	49.8		ug/L		100	79 - 121	1	20
Hexachlorobutadiene			50.0	56.8		ug/L		114	66 - 134	1	20
2-Hexanone			250	260		ug/L		104	57 - 139	3	20
Isopropylbenzene			50.0	49.3		ug/L		99	72 - 131	2	20
4-Isopropyltoluene			50.0	49.3		ug/L		99	77 - 127	2	20
Methyl acetate			100	84.2		ug/L		84	56 - 136	4	20
Methylcyclohexane			50.0	53.9		ug/L		108	72 - 132	3	20
Methylene Chloride			50.0	50.2		ug/L		100	74 - 124	1	20
4-Methyl-2-pentanone (MIBK)			250	261		ug/L		105	67 - 130	4	20
Methyl tert-butyl ether			50.0	53.4		ug/L		107	71 - 124	2	20
m-Xylene & p-Xylene			50.0	49.8		ug/L		100	80 - 121	2	20
Naphthalene			50.0	51.6		ug/L		103	61 - 128	3	20
n-Butylbenzene			50.0	51.4		ug/L		103	75 - 128	2	20
N-Propylbenzene			50.0	48.5		ug/L		97	76 - 126	2	20
o-Xylene			50.0	49.8		ug/L		100	78 - 122	0	20
sec-Butylbenzene			50.0	50.4		ug/L		101	77 - 126	1	20
Styrene			50.0	50.3		ug/L		101	78 - 123	0	20
tert-Butylbenzene			50.0	49.5		ug/L		99	78 - 124	1	20
1,1,1,2-Tetrachloroethane			50.0	52.1		ug/L		104	78 - 124	4	20
1,1,2,2-Tetrachloroethane			50.0	60.3		ug/L		121	71 - 121	4	20
Tetrachloroethene			50.0	55.0		ug/L		110	74 - 129	1	20
Toluene			50.0	51.0		ug/L		102	80 - 121	0	20
trans-1,2-Dichloroethene			50.0	53.8		ug/L		108	75 - 124	0	20
trans-1,3-Dichloropropene			50.0	50.8		ug/L		102	73 - 127	2	20
1,2,3-Trichlorobenzene			50.0	49.6		ug/L		99	69 - 129	1	20
1,2,4-Trichlorobenzene			50.0	54.9		ug/L		110	69 - 130	2	20
1,1,1-Trichloroethane			50.0	53.0		ug/L		106	74 - 131	1	20
1,1,2-Trichloroethane			50.0	52.1		ug/L		104	80 - 119	3	20
Trichloroethene			50.0	50.9		ug/L		102	79 - 123	1	20
Trichlorofluoromethane			50.0	40.4		ug/L		81	65 - 141	1	20
1,2,3-Trichloropropane			50.0	54.3		ug/L		109	73 - 122	5	20
1,1,2-Trichloro-1,2,2-trifluoroethane			50.0	57.6		ug/L		115	70 - 136	2	20
1,2,4-Trimethylbenzene			50.0	53.1		ug/L		106	76 - 124	0	20
1,3,5-Trimethylbenzene			50.0	50.3		ug/L		101	75 - 124	1	20
Vinyl chloride			50.0	45.6	M	ug/L		91	58 - 137	1	20
Xylenes, Total			100	99.6		ug/L		100	79 - 121	1	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*85 - 114*

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-840334/5
Matrix: Water
Analysis Batch: 840334

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Dibromofluoromethane (Surr)	*106*		*80 - 119*
1,2-Dichloroethane-d4 (Surr)	*99*		*81 - 118*
Toluene-d8 (Surr)	*102*		*89 - 112*

Lab Sample ID: 680-251033-1 MS
Matrix: Water
Analysis Batch: 840334

Client Sample ID: OU6-MW-263-20240520
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	10	U	250	256		ug/L		102	39 - 160
Benzene	1.0	U	50.0	52.6		ug/L		105	79 - 120
Bromobenzene	0.50	U J1	50.0	63.1	J1	ug/L		126	80 - 120
Bromochloromethane	1.0	U	50.0	50.9		ug/L		102	78 - 123
Bromodichloromethane	1.0	U	50.0	55.4		ug/L		111	79 - 125
Bromoform	1.7	Q B J1	50.0	82.3	J1	ug/L		161	66 - 130
Bromomethane	10	U	50.0	51.4		ug/L		103	53 - 141
2-Butanone (MEK)	20	U	250	295		ug/L		118	56 - 143
Carbon disulfide	1.0	U Q	50.0	52.0		ug/L		104	64 - 133
Carbon tetrachloride	1.0	U	50.0	55.2		ug/L		110	72 - 136
Chlorobenzene	6.1		50.0	62.0		ug/L		112	82 - 118
Chloroethane	10	U J1	50.0	75.4	J1	ug/L		151	60 - 138
Chloroform	1.0	U	50.0	51.8		ug/L		104	79 - 124
Chloromethane	2.0	U	50.0	50.5		ug/L		101	50 - 139
2-Chlorotoluene	0.50	U J1	50.0	62.6	J1	ug/L		125	79 - 122
4-Chlorotoluene	1.0	U J1	50.0	61.5	J1	ug/L		123	78 - 122
cis-1,2-Dichloroethene	1.2	J	50.0	53.6		ug/L		105	78 - 123
cis-1,3-Dichloropropene	1.0	U	50.0	53.6		ug/L		107	75 - 124
Cyclohexane	1.0	U	50.0	55.5		ug/L		111	71 - 130
Dibromochloromethane	1.0	U J1	50.0	62.2		ug/L		124	74 - 126
1,2-Dibromo-3-Chloropropane	5.0	U J1	50.0	61.7		ug/L		123	62 - 128
1,2-Dibromoethane	1.0	U	50.0	56.7		ug/L		113	75 - 127
Dibromomethane	1.0	U	50.0	52.3		ug/L		105	79 - 123
1,2-Dichlorobenzene	1.5	J	50.0	53.8		ug/L		105	80 - 119
1,3-Dichlorobenzene	1.0	U	50.0	57.3		ug/L		115	80 - 119
1,4-Dichlorobenzene	1.0	U	50.0	54.7		ug/L		109	79 - 118
Dichlorodifluoromethane	2.4	Q J1	50.0	112	J1	ug/L		219	32 - 152
1,1-Dichloroethane	1.3	J	50.0	53.7		ug/L		105	77 - 125
1,2-Dichloroethane	1.0	U M	50.0	49.3		ug/L		99	73 - 128
1,1-Dichloroethene	1.0	U	50.0	52.0		ug/L		104	71 - 131
1,2-Dichloroethene, Total	1.2	J	100	106		ug/L		105	79 - 121
1,2-Dichloropropane	0.50	U	50.0	53.6		ug/L		107	78 - 122
1,3-Dichloropropane	1.0	U	50.0	55.1		ug/L		110	80 - 119
2,2-Dichloropropane	1.0	U	50.0	52.3		ug/L		105	60 - 139
1,1-Dichloropropene	1.0	U	50.0	55.9		ug/L		112	79 - 125
Ethylbenzene	0.50	U	50.0	52.0		ug/L		104	79 - 121
Hexachlorobutadiene	1.0	U	50.0	58.1		ug/L		116	66 - 134
2-Hexanone	10	U J1	250	340		ug/L		136	57 - 139
Isopropylbenzene	1.0	U	50.0	58.7		ug/L		117	72 - 131

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 680-251033-1 MS
Matrix: Water
Analysis Batch: 840334

Client Sample ID: OU6-MW-263-20240520
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
4-Isopropyltoluene	0.67	J	50.0	61.2		ug/L		121	77 - 127
Methyl acetate	10	U Q	100	80.5		ug/L		80	56 - 136
Methylcyclohexane	1.0	U M	50.0	54.4		ug/L		109	72 - 132
Methylene Chloride	10	U	50.0	49.9		ug/L		100	74 - 124
4-Methyl-2-pentanone (MIBK)	10	U J1	250	347	J1	ug/L		139	67 - 130
Methyl tert-butyl ether	2.0	U	50.0	53.2		ug/L		106	71 - 124
m-Xylene & p-Xylene	1.0	U	50.0	53.6		ug/L		107	80 - 121
Naphthalene	5.0	U	50.0	59.6		ug/L		119	61 - 128
n-Butylbenzene	2.0	U	50.0	58.3		ug/L		117	75 - 128
N-Propylbenzene	1.0	U	50.0	61.5		ug/L		123	76 - 126
o-Xylene	1.0	U	50.0	57.5		ug/L		115	78 - 122
sec-Butylbenzene	2.0	U	50.0	63.2		ug/L		126	77 - 126
Styrene	1.0	U J1	50.0	61.3		ug/L		123	78 - 123
tert-Butylbenzene	1.0	U M J1	50.0	62.9	J1	ug/L		126	78 - 124
1,1,1,2-Tetrachloroethane	1.0	U	50.0	55.6		ug/L		111	78 - 124
1,1,2,2-Tetrachloroethane	1.0	U J1	50.0	68.4	J1	ug/L		137	71 - 121
Tetrachloroethene	1.0	U	50.0	57.9		ug/L		116	74 - 129
Toluene	1.0	U	50.0	52.4		ug/L		105	80 - 121
trans-1,2-Dichloroethene	1.0	U	50.0	52.3		ug/L		105	75 - 124
trans-1,3-Dichloropropene	1.0	U	50.0	53.9		ug/L		108	73 - 127
1,2,3-Trichlorobenzene	2.0	U	50.0	53.7		ug/L		107	69 - 129
1,2,4-Trichlorobenzene	2.0	U	50.0	57.4		ug/L		115	69 - 130
1,1,1-Trichloroethane	0.50	U	50.0	55.0		ug/L		110	74 - 131
1,1,2-Trichloroethane	1.0	U	50.0	56.9		ug/L		114	80 - 119
Trichloroethene	0.50	U	50.0	52.9		ug/L		106	79 - 123
Trichlorofluoromethane	1.0	U J1	50.0	112	J1	ug/L		224	65 - 141
1,2,3-Trichloropropane	1.0	U	50.0	58.5		ug/L		117	73 - 122
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	50.0	57.8		ug/L		116	70 - 136
1,2,4-Trimethylbenzene	1.0	U J1	50.0	62.8	J1	ug/L		126	76 - 124
1,3,5-Trimethylbenzene	1.0	U J1	50.0	63.6	J1	ug/L		127	75 - 124
Vinyl chloride	1.3	J1	50.0	77.3	J1	ug/L		152	58 - 137
Xylenes, Total	1.0	U	100	111		ug/L		111	79 - 121

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*127*	*Q*	*85 - 114*
Dibromofluoromethane (Surr)	*109*		*80 - 119*
1,2-Dichloroethane-d4 (Surr)	*99*		*81 - 118*
Toluene-d8 (Surr)	*96*		*89 - 112*

Lab Sample ID: 680-251033-1 MSD
Matrix: Water
Analysis Batch: 840334

Client Sample ID: OU6-MW-263-20240520
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acetone	10	U	250	263		ug/L		105	39 - 160	3	20
Benzene	1.0	U	50.0	53.0		ug/L		106	79 - 120	1	20
Bromobenzene	0.50	U J1	50.0	63.8	J1	ug/L		128	80 - 120	1	20
Bromochloromethane	1.0	U	50.0	51.5		ug/L		103	78 - 123	1	20

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 680-251033-1 MSD
Matrix: Water
Analysis Batch: 840334

Client Sample ID: OU6-MW-263-20240520
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Bromodichloromethane	1.0	U	50.0	56.6		ug/L		113	79 - 125	2	20
Bromoform	1.7	Q B J1	50.0	86.8	J1	ug/L		170	66 - 130	5	20
Bromomethane	10	U	50.0	57.4		ug/L		115	53 - 141	11	20
2-Butanone (MEK)	20	U	250	309		ug/L		123	56 - 143	4	20
Carbon disulfide	1.0	U Q	50.0	51.8		ug/L		104	64 - 133	0	20
Carbon tetrachloride	1.0	U	50.0	56.1		ug/L		112	72 - 136	2	20
Chlorobenzene	6.1		50.0	63.6		ug/L		115	82 - 118	2	20
Chloroethane	10	U J1	50.0	82.2	J1	ug/L		164	60 - 138	9	20
Chloroform	1.0	U	50.0	52.7		ug/L		105	79 - 124	2	20
Chloromethane	2.0	U	50.0	54.5		ug/L		109	50 - 139	7	20
2-Chlorotoluene	0.50	U J1	50.0	62.9	J1	ug/L		126	79 - 122	0	20
4-Chlorotoluene	1.0	U J1	50.0	61.3	J1	ug/L		123	78 - 122	0	20
cis-1,2-Dichloroethene	1.2	J	50.0	54.2		ug/L		106	78 - 123	1	20
cis-1,3-Dichloropropene	1.0	U	50.0	54.4		ug/L		109	75 - 124	1	20
Cyclohexane	1.0	U	50.0	55.0		ug/L		110	71 - 130	1	20
Dibromochloromethane	1.0	U J1	50.0	64.8	J1	ug/L		130	74 - 126	4	20
1,2-Dibromo-3-Chloropropane	5.0	U J1	50.0	65.8	J1	ug/L		132	62 - 128	6	20
1,2-Dibromoethane	1.0	U	50.0	58.5		ug/L		117	75 - 127	3	20
Dibromomethane	1.0	U	50.0	53.4		ug/L		107	79 - 123	2	20
1,2-Dichlorobenzene	1.5	J	50.0	56.5		ug/L		110	80 - 119	5	20
1,3-Dichlorobenzene	1.0	U	50.0	58.8		ug/L		118	80 - 119	3	20
1,4-Dichlorobenzene	1.0	U	50.0	56.4		ug/L		113	79 - 118	3	20
Dichlorodifluoromethane	2.4	Q J1	50.0	112	J1	ug/L		220	32 - 152	0	20
1,1-Dichloroethane	1.3	J	50.0	53.8		ug/L		105	77 - 125	0	20
1,2-Dichloroethane	1.0	U M	50.0	50.1		ug/L		100	73 - 128	2	20
1,1-Dichloroethene	1.0	U	50.0	52.0		ug/L		104	71 - 131	0	20
1,2-Dichloroethene, Total	1.2	J	100	107		ug/L		106	79 - 121	1	20
1,2-Dichloropropane	0.50	U	50.0	54.2		ug/L		108	78 - 122	1	20
1,3-Dichloropropane	1.0	U	50.0	56.4		ug/L		113	80 - 119	2	20
2,2-Dichloropropane	1.0	U	50.0	52.1		ug/L		104	60 - 139	0	20
1,1-Dichloropropene	1.0	U	50.0	56.0		ug/L		112	79 - 125	0	20
Ethylbenzene	0.50	U	50.0	52.6		ug/L		105	79 - 121	1	20
Hexachlorobutadiene	1.0	U	50.0	59.5		ug/L		119	66 - 134	2	20
2-Hexanone	10	U J1	250	349	J1	ug/L		140	57 - 139	3	20
Isopropylbenzene	1.0	U	50.0	59.0		ug/L		118	72 - 131	1	20
4-Isopropyltoluene	0.67	J	50.0	62.3		ug/L		123	77 - 127	2	20
Methyl acetate	10	U Q	100	83.6		ug/L		84	56 - 136	4	20
Methylcyclohexane	1.0	U M	50.0	53.9		ug/L		108	72 - 132	1	20
Methylene Chloride	10	U	50.0	50.9		ug/L		102	74 - 124	2	20
4-Methyl-2-pentanone (MIBK)	10	U J1	250	358	J1	ug/L		143	67 - 130	3	20
Methyl tert-butyl ether	2.0	U	50.0	55.0		ug/L		110	71 - 124	3	20
m-Xylene & p-Xylene	1.0	U	50.0	54.1		ug/L		108	80 - 121	1	20
Naphthalene	5.0	U	50.0	62.0		ug/L		124	61 - 128	4	20
n-Butylbenzene	2.0	U	50.0	59.9		ug/L		120	75 - 128	3	20
N-Propylbenzene	1.0	U	50.0	62.2		ug/L		124	76 - 126	1	20
o-Xylene	1.0	U	50.0	58.5		ug/L		117	78 - 122	2	20
sec-Butylbenzene	2.0	U	50.0	62.7		ug/L		125	77 - 126	1	20
Styrene	1.0	U J1	50.0	62.0	J1	ug/L		124	78 - 123	1	20
tert-Butylbenzene	1.0	U M J1	50.0	63.1	J1	ug/L		126	78 - 124	0	20

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 680-251033-1 MSD
Matrix: Water
Analysis Batch: 840334

Client Sample ID: OU6-MW-263-20240520
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	1.0	U	50.0	57.5		ug/L		115	78 - 124	3	20
1,1,2,2-Tetrachloroethane	1.0	U J1	50.0	72.2	J1	ug/L		144	71 - 121	5	20
Tetrachloroethene	1.0	U	50.0	57.5		ug/L		115	74 - 129	1	20
Toluene	1.0	U	50.0	53.0		ug/L		106	80 - 121	1	20
trans-1,2-Dichloroethene	1.0	U	50.0	53.0		ug/L		106	75 - 124	1	20
trans-1,3-Dichloropropene	1.0	U	50.0	55.5		ug/L		111	73 - 127	3	20
1,2,3-Trichlorobenzene	2.0	U	50.0	56.7		ug/L		113	69 - 129	6	20
1,2,4-Trichlorobenzene	2.0	U	50.0	59.9		ug/L		120	69 - 130	4	20
1,1,1-Trichloroethane	0.50	U	50.0	55.7		ug/L		111	74 - 131	1	20
1,1,2-Trichloroethane	1.0	U	50.0	58.5		ug/L		117	80 - 119	3	20
Trichloroethene	0.50	U	50.0	53.4		ug/L		107	79 - 123	1	20
Trichlorofluoromethane	1.0	U J1	50.0	118	J1	ug/L		236	65 - 141	5	20
1,2,3-Trichloropropane	1.0	U	50.0	60.6		ug/L		121	73 - 122	4	20
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	50.0	56.2		ug/L		112	70 - 136	3	20
1,2,4-Trimethylbenzene	1.0	U J1	50.0	63.5	J1	ug/L		127	76 - 124	1	20
1,3,5-Trimethylbenzene	1.0	U J1	50.0	63.8	J1	ug/L		128	75 - 124	0	20
Vinyl chloride	1.3	J1	50.0	80.6	J1	ug/L		159	58 - 137	4	20
Xylenes, Total	1.0	U	100	113		ug/L		113	79 - 121	1	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*129*	*Q*	*85 - 114*
Dibromofluoromethane (Surr)	*109*		*80 - 119*
1,2-Dichloroethane-d4 (Surr)	*108*		*81 - 118*
Toluene-d8 (Surr)	*96*		*89 - 112*

Lab Sample ID: MB 680-840504/8
Matrix: Water
Analysis Batch: 840504

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			05/31/24 12:39	1
Benzene	1.0	U	2.0	0.27	ug/L			05/31/24 12:39	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			05/31/24 12:39	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			05/31/24 12:39	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			05/31/24 12:39	1
Bromoform	2.0	U	2.5	0.59	ug/L			05/31/24 12:39	1
Bromomethane	10	U	20	3.7	ug/L			05/31/24 12:39	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			05/31/24 12:39	1
Carbon disulfide	1.0	U	2.0	0.43	ug/L			05/31/24 12:39	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			05/31/24 12:39	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			05/31/24 12:39	1
Chloroethane	10	U	20	4.6	ug/L			05/31/24 12:39	1
Chloroform	1.0	U	2.0	0.27	ug/L			05/31/24 12:39	1
Chloromethane	2.0	U	2.5	0.54	ug/L			05/31/24 12:39	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			05/31/24 12:39	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			05/31/24 12:39	1
cis-1,2-Dichloroethene	1.0	U	2.0	0.25	ug/L			05/31/24 12:39	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			05/31/24 12:39	1

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-840504/8
Matrix: Water
Analysis Batch: 840504

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Cyclohexane	1.0	U	2.0	0.28	ug/L			05/31/24 12:39	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			05/31/24 12:39	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			05/31/24 12:39	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			05/31/24 12:39	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			05/31/24 12:39	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/31/24 12:39	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/31/24 12:39	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/31/24 12:39	1
Dichlorodifluoromethane	1.0	U	2.0	0.36	ug/L			05/31/24 12:39	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			05/31/24 12:39	1
1,2-Dichloroethane	1.0	U	2.0	0.25	ug/L			05/31/24 12:39	1
1,1-Dichloroethene	1.0	U	2.0	0.33	ug/L			05/31/24 12:39	1
1,2-Dichloroethene, Total	1.0	U	2.0	0.37	ug/L			05/31/24 12:39	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			05/31/24 12:39	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			05/31/24 12:39	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			05/31/24 12:39	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			05/31/24 12:39	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			05/31/24 12:39	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			05/31/24 12:39	1
2-Hexanone	10	U	20	3.2	ug/L			05/31/24 12:39	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			05/31/24 12:39	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			05/31/24 12:39	1
Methyl acetate	10	U	20	3.2	ug/L			05/31/24 12:39	1
Methylcyclohexane	0.663	J	2.0	0.33	ug/L			05/31/24 12:39	1
Methylene Chloride	10	U	20	3.2	ug/L			05/31/24 12:39	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			05/31/24 12:39	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			05/31/24 12:39	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			05/31/24 12:39	1
Naphthalene	5.0	U	10	2.4	ug/L			05/31/24 12:39	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			05/31/24 12:39	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			05/31/24 12:39	1
o-Xylene	1.0	U	2.0	0.26	ug/L			05/31/24 12:39	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			05/31/24 12:39	1
Styrene	1.0	U	2.0	0.27	ug/L			05/31/24 12:39	1
tert-Butylbenzene	1.0	U M	2.0	0.43	ug/L			05/31/24 12:39	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			05/31/24 12:39	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			05/31/24 12:39	1
Tetrachloroethene	1.0	U	2.0	0.35	ug/L			05/31/24 12:39	1
Toluene	1.0	U	2.0	0.25	ug/L			05/31/24 12:39	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			05/31/24 12:39	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			05/31/24 12:39	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			05/31/24 12:39	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			05/31/24 12:39	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			05/31/24 12:39	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			05/31/24 12:39	1
Trichloroethene	0.50	U	1.0	0.20	ug/L			05/31/24 12:39	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			05/31/24 12:39	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			05/31/24 12:39	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			05/31/24 12:39	1

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-840504/8
Matrix: Water
Analysis Batch: 840504

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			05/31/24 12:39	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			05/31/24 12:39	1
Vinyl chloride	1.0	U	2.0	0.40	ug/L			05/31/24 12:39	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			05/31/24 12:39	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*85 - 114*		*05/31/24 12:39*	*1*
Dibromofluoromethane (Surr)	*108*		*80 - 119*		*05/31/24 12:39*	*1*
1,2-Dichloroethane-d4 (Surr)	*96*		*81 - 118*		*05/31/24 12:39*	*1*
Toluene-d8 (Surr)	*96*		*89 - 112*		*05/31/24 12:39*	*1*

Lab Sample ID: LCS 680-840504/4
Matrix: Water
Analysis Batch: 840504

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	250	224		ug/L		89	39 - 160
Benzene	50.0	52.9		ug/L		106	79 - 120
Bromobenzene	50.0	54.5		ug/L		109	80 - 120
Bromochloromethane	50.0	52.3		ug/L		105	78 - 123
Bromodichloromethane	50.0	50.5		ug/L		101	79 - 125
Bromoform	50.0	67.5	J1 Q	ug/L		135	66 - 130
Bromomethane	50.0	46.4		ug/L		93	53 - 141
2-Butanone (MEK)	250	242		ug/L		97	56 - 143
Carbon disulfide	50.0	55.5		ug/L		111	64 - 133
Carbon tetrachloride	50.0	51.3		ug/L		103	72 - 136
Chlorobenzene	50.0	49.9		ug/L		100	82 - 118
Chloroethane	50.0	47.0		ug/L		94	60 - 138
Chloroform	50.0	50.5		ug/L		101	79 - 124
Chloromethane	50.0	45.7		ug/L		91	50 - 139
2-Chlorotoluene	50.0	50.4		ug/L		101	79 - 122
4-Chlorotoluene	50.0	51.6		ug/L		103	78 - 122
cis-1,2-Dichloroethene	50.0	51.8		ug/L		104	78 - 123
cis-1,3-Dichloropropene	50.0	50.5		ug/L		101	75 - 124
Cyclohexane	50.0	57.2		ug/L		114	71 - 130
Dibromochloromethane	50.0	51.5		ug/L		103	74 - 126
1,2-Dibromo-3-Chloropropane	50.0	50.7		ug/L		101	62 - 128
1,2-Dibromoethane	50.0	50.1		ug/L		100	75 - 127
Dibromomethane	50.0	49.4		ug/L		99	79 - 123
1,2-Dichlorobenzene	50.0	50.6		ug/L		101	80 - 119
1,3-Dichlorobenzene	50.0	50.9		ug/L		102	80 - 119
1,4-Dichlorobenzene	50.0	50.8		ug/L		102	79 - 118
Dichlorodifluoromethane	50.0	57.4		ug/L		115	32 - 152
1,1-Dichloroethane	50.0	51.8		ug/L		104	77 - 125
1,2-Dichloroethane	50.0	47.9		ug/L		96	73 - 128
1,1-Dichloroethene	50.0	53.2		ug/L		106	71 - 131
1,2-Dichloroethene, Total	100	106		ug/L		106	79 - 121
1,2-Dichloropropane	50.0	51.9		ug/L		104	78 - 122

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-840504/4
Matrix: Water
Analysis Batch: 840504

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,3-Dichloropropane	50.0	50.0		ug/L		100	80 - 119
2,2-Dichloropropane	50.0	55.6		ug/L		111	60 - 139
1,1-Dichloropropene	50.0	55.2		ug/L		110	79 - 125
Ethylbenzene	50.0	49.9		ug/L		100	79 - 121
Hexachlorobutadiene	50.0	56.3		ug/L		113	66 - 134
2-Hexanone	250	244		ug/L		97	57 - 139
Isopropylbenzene	50.0	50.0		ug/L		100	72 - 131
4-Isopropyltoluene	50.0	49.8		ug/L		100	77 - 127
Methyl acetate	100	79.8		ug/L		80	56 - 136
Methylcyclohexane	50.0	55.7		ug/L		111	72 - 132
Methylene Chloride	50.0	49.8		ug/L		100	74 - 124
4-Methyl-2-pentanone (MIBK)	250	246		ug/L		98	67 - 130
Methyl tert-butyl ether	50.0	51.7		ug/L		103	71 - 124
m-Xylene & p-Xylene	50.0	49.3		ug/L		99	80 - 121
Naphthalene	50.0	48.4		ug/L		97	61 - 128
n-Butylbenzene	50.0	52.1		ug/L		104	75 - 128
N-Propylbenzene	50.0	49.0		ug/L		98	76 - 126
o-Xylene	50.0	49.2		ug/L		98	78 - 122
sec-Butylbenzene	50.0	51.2		ug/L		102	77 - 126
Styrene	50.0	50.5		ug/L		101	78 - 123
tert-Butylbenzene	50.0	50.9		ug/L		102	78 - 124
1,1,1,2-Tetrachloroethane	50.0	52.6		ug/L		105	78 - 124
1,1,2,2-Tetrachloroethane	50.0	58.0		ug/L		116	71 - 121
Tetrachloroethene	50.0	54.0		ug/L		108	74 - 129
Toluene	50.0	50.5		ug/L		101	80 - 121
trans-1,2-Dichloroethene	50.0	54.1		ug/L		108	75 - 124
trans-1,3-Dichloropropene	50.0	49.4		ug/L		99	73 - 127
1,2,3-Trichlorobenzene	50.0	48.7		ug/L		97	69 - 129
1,2,4-Trichlorobenzene	50.0	53.2		ug/L		106	69 - 130
1,1,1-Trichloroethane	50.0	53.2		ug/L		106	74 - 131
1,1,2-Trichloroethane	50.0	50.0		ug/L		100	80 - 119
Trichloroethene	50.0	51.1		ug/L		102	79 - 123
Trichlorofluoromethane	50.0	40.4		ug/L		81	65 - 141
1,2,3-Trichloropropane	50.0	52.6		ug/L		105	73 - 122
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	58.9		ug/L		118	70 - 136
1,2,4-Trimethylbenzene	50.0	54.5		ug/L		109	76 - 124
1,3,5-Trimethylbenzene	50.0	51.6		ug/L		103	75 - 124
Vinyl chloride	50.0	50.4	M	ug/L		101	58 - 137
Xylenes, Total	100	98.5		ug/L		99	79 - 121

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*85 - 114*
Dibromofluoromethane (Surr)	*105*		*80 - 119*
1,2-Dichloroethane-d4 (Surr)	*103*		*81 - 118*
Toluene-d8 (Surr)	*104*		*89 - 112*

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-840504/5
Matrix: Water
Analysis Batch: 840504

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acetone			250	236		ug/L		94	39 - 160	5	20
Benzene			50.0	51.9		ug/L		104	79 - 120	2	20
Bromobenzene			50.0	54.0		ug/L		108	80 - 120	1	20
Bromochloromethane			50.0	53.4		ug/L		107	78 - 123	2	20
Bromodichloromethane			50.0	51.2		ug/L		102	79 - 125	1	20
Bromoform			50.0	69.0	J1 Q	ug/L		138	66 - 130	2	20
Bromomethane			50.0	45.3		ug/L		91	53 - 141	2	20
2-Butanone (MEK)			250	261		ug/L		104	56 - 143	8	20
Carbon disulfide			50.0	54.1		ug/L		108	64 - 133	3	20
Carbon tetrachloride			50.0	50.6		ug/L		101	72 - 136	2	20
Chlorobenzene			50.0	49.8		ug/L		100	82 - 118	0	20
Chloroethane			50.0	45.8		ug/L		92	60 - 138	3	20
Chloroform			50.0	50.7		ug/L		101	79 - 124	0	20
Chloromethane			50.0	44.8		ug/L		90	50 - 139	2	20
2-Chlorotoluene			50.0	50.5		ug/L		101	79 - 122	0	20
4-Chlorotoluene			50.0	50.9		ug/L		102	78 - 122	1	20
cis-1,2-Dichloroethene			50.0	51.4		ug/L		103	78 - 123	1	20
cis-1,3-Dichloropropene			50.0	51.9		ug/L		104	75 - 124	3	20
Cyclohexane			50.0	56.4		ug/L		113	71 - 130	1	20
Dibromochloromethane			50.0	52.0		ug/L		104	74 - 126	1	20
1,2-Dibromo-3-Chloropropane			50.0	54.3		ug/L		109	62 - 128	7	20
1,2-Dibromoethane			50.0	51.1		ug/L		102	75 - 127	2	20
Dibromomethane			50.0	51.1		ug/L		102	79 - 123	3	20
1,2-Dichlorobenzene			50.0	51.5		ug/L		103	80 - 119	2	20
1,3-Dichlorobenzene			50.0	51.5		ug/L		103	80 - 119	1	20
1,4-Dichlorobenzene			50.0	51.6		ug/L		103	79 - 118	2	20
Dichlorodifluoromethane			50.0	55.1		ug/L		110	32 - 152	4	20
1,1-Dichloroethane			50.0	51.6		ug/L		103	77 - 125	1	20
1,2-Dichloroethane			50.0	49.2		ug/L		98	73 - 128	3	20
1,1-Dichloroethene			50.0	52.3		ug/L		105	71 - 131	2	20
1,2-Dichloroethene, Total			100	104		ug/L		104	79 - 121	2	20
1,2-Dichloropropane			50.0	52.3		ug/L		105	78 - 122	1	20
1,3-Dichloropropane			50.0	51.1		ug/L		102	80 - 119	2	20
2,2-Dichloropropane			50.0	54.1		ug/L		108	60 - 139	3	20
1,1-Dichloropropene			50.0	54.4		ug/L		109	79 - 125	1	20
Ethylbenzene			50.0	49.2		ug/L		98	79 - 121	1	20
Hexachlorobutadiene			50.0	56.8		ug/L		114	66 - 134	1	20
2-Hexanone			250	259		ug/L		104	57 - 139	6	20
Isopropylbenzene			50.0	48.8		ug/L		98	72 - 131	2	20
4-Isopropyltoluene			50.0	49.4		ug/L		99	77 - 127	1	20
Methyl acetate			100	84.8		ug/L		85	56 - 136	6	20
Methylcyclohexane			50.0	54.1		ug/L		108	72 - 132	3	20
Methylene Chloride			50.0	49.6		ug/L		99	74 - 124	1	20
4-Methyl-2-pentanone (MIBK)			250	259		ug/L		104	67 - 130	5	20
Methyl tert-butyl ether			50.0	53.0		ug/L		106	71 - 124	3	20
m-Xylene & p-Xylene			50.0	48.5		ug/L		97	80 - 121	2	20
Naphthalene			50.0	51.0		ug/L		102	61 - 128	5	20
n-Butylbenzene			50.0	51.2		ug/L		102	75 - 128	2	20

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-840504/5
Matrix: Water
Analysis Batch: 840504

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
N-Propylbenzene			50.0	48.3		ug/L		97	76 - 126	1	20
o-Xylene			50.0	48.8		ug/L		98	78 - 122	1	20
sec-Butylbenzene			50.0	50.4		ug/L		101	77 - 126	2	20
Styrene			50.0	49.8		ug/L		100	78 - 123	1	20
tert-Butylbenzene			50.0	49.6		ug/L		99	78 - 124	3	20
1,1,1,2-Tetrachloroethane			50.0	52.3		ug/L		105	78 - 124	0	20
1,1,2,2-Tetrachloroethane			50.0	60.8	Q	ug/L		122	71 - 121	5	20
Tetrachloroethene			50.0	53.4		ug/L		107	74 - 129	1	20
Toluene			50.0	50.0		ug/L		100	80 - 121	1	20
trans-1,2-Dichloroethene			50.0	52.7		ug/L		105	75 - 124	3	20
trans-1,3-Dichloropropene			50.0	50.2		ug/L		100	73 - 127	2	20
1,2,3-Trichlorobenzene			50.0	50.2		ug/L		100	69 - 129	3	20
1,2,4-Trichlorobenzene			50.0	53.9		ug/L		108	69 - 130	1	20
1,1,1-Trichloroethane			50.0	52.2		ug/L		104	74 - 131	2	20
1,1,2-Trichloroethane			50.0	51.0		ug/L		102	80 - 119	2	20
Trichloroethene			50.0	50.5		ug/L		101	79 - 123	1	20
Trichlorofluoromethane			50.0	40.9	M	ug/L		82	65 - 141	1	20
1,2,3-Trichloropropane			50.0	54.4		ug/L		109	73 - 122	3	20
1,1,2-Trichloro-1,2,2-trifluoroethane			50.0	57.4		ug/L		115	70 - 136	3	20
1,2,4-Trimethylbenzene			50.0	53.8		ug/L		108	76 - 124	1	20
1,3,5-Trimethylbenzene			50.0	49.8		ug/L		100	75 - 124	4	20
Vinyl chloride			50.0	47.0	M	ug/L		94	58 - 137	7	20
Xylenes, Total			100	97.3		ug/L		97	79 - 121	1	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*85 - 114*
Dibromofluoromethane (Surr)	*106*		*80 - 119*
1,2-Dichloroethane-d4 (Surr)	*105*		*81 - 118*
Toluene-d8 (Surr)	*103*		*89 - 112*

Lab Sample ID: MB 680-840778/8
Matrix: Water
Analysis Batch: 840778

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			06/03/24 12:02	1
Benzene	1.0	U	2.0	0.27	ug/L			06/03/24 12:02	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			06/03/24 12:02	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			06/03/24 12:02	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			06/03/24 12:02	1
Bromoform	2.0	U	2.5	0.59	ug/L			06/03/24 12:02	1
Bromomethane	10	U	20	3.7	ug/L			06/03/24 12:02	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			06/03/24 12:02	1
Carbon disulfide	1.0	U	2.0	0.43	ug/L			06/03/24 12:02	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			06/03/24 12:02	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			06/03/24 12:02	1
Chloroethane	10	U	20	4.6	ug/L			06/03/24 12:02	1
Chloroform	1.0	U	2.0	0.27	ug/L			06/03/24 12:02	1

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-840778/8
Matrix: Water
Analysis Batch: 840778

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	2.0	U	2.5	0.54	ug/L			06/03/24 12:02	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			06/03/24 12:02	1
4-Chlorotoluene	1.0	U M	2.0	0.41	ug/L			06/03/24 12:02	1
cis-1,2-Dichloroethene	1.0	U	2.0	0.25	ug/L			06/03/24 12:02	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			06/03/24 12:02	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			06/03/24 12:02	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			06/03/24 12:02	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			06/03/24 12:02	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			06/03/24 12:02	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			06/03/24 12:02	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			06/03/24 12:02	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			06/03/24 12:02	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			06/03/24 12:02	1
Dichlorodifluoromethane	1.0	U	2.0	0.36	ug/L			06/03/24 12:02	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			06/03/24 12:02	1
1,2-Dichloroethane	1.0	U M	2.0	0.25	ug/L			06/03/24 12:02	1
1,1-Dichloroethene	1.0	U	2.0	0.33	ug/L			06/03/24 12:02	1
1,2-Dichloroethene, Total	1.0	U	2.0	0.37	ug/L			06/03/24 12:02	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			06/03/24 12:02	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			06/03/24 12:02	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			06/03/24 12:02	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			06/03/24 12:02	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			06/03/24 12:02	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			06/03/24 12:02	1
2-Hexanone	10	U	20	3.2	ug/L			06/03/24 12:02	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			06/03/24 12:02	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			06/03/24 12:02	1
Methyl acetate	10	U	20	3.2	ug/L			06/03/24 12:02	1
Methylcyclohexane	1.0	U	2.0	0.33	ug/L			06/03/24 12:02	1
Methylene Chloride	10	U	20	3.2	ug/L			06/03/24 12:02	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			06/03/24 12:02	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			06/03/24 12:02	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			06/03/24 12:02	1
Naphthalene	5.0	U	10	2.4	ug/L			06/03/24 12:02	1
n-Butylbenzene	0.652	J	2.5	0.52	ug/L			06/03/24 12:02	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			06/03/24 12:02	1
o-Xylene	1.0	U	2.0	0.26	ug/L			06/03/24 12:02	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			06/03/24 12:02	1
Styrene	1.0	U	2.0	0.27	ug/L			06/03/24 12:02	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			06/03/24 12:02	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			06/03/24 12:02	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			06/03/24 12:02	1
Tetrachloroethene	1.0	U	2.0	0.35	ug/L			06/03/24 12:02	1
Toluene	1.0	U	2.0	0.25	ug/L			06/03/24 12:02	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			06/03/24 12:02	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			06/03/24 12:02	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			06/03/24 12:02	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			06/03/24 12:02	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			06/03/24 12:02	1

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-840778/8
Matrix: Water
Analysis Batch: 840778

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			06/03/24 12:02	1
Trichloroethene	0.50	U	1.0	0.20	ug/L			06/03/24 12:02	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			06/03/24 12:02	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			06/03/24 12:02	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			06/03/24 12:02	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			06/03/24 12:02	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			06/03/24 12:02	1
Vinyl chloride	1.0	U	2.0	0.40	ug/L			06/03/24 12:02	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			06/03/24 12:02	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*85 - 114*		*06/03/24 12:02*	*1*
Dibromofluoromethane (Surr)	*109*		*80 - 119*		*06/03/24 12:02*	*1*
1,2-Dichloroethane-d4 (Surr)	*94*		*81 - 118*		*06/03/24 12:02*	*1*
Toluene-d8 (Surr)	*106*		*89 - 112*		*06/03/24 12:02*	*1*

Lab Sample ID: LCS 680-840778/4
Matrix: Water
Analysis Batch: 840778

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	250	237		ug/L		95	39 - 160
Benzene	50.0	53.7		ug/L		107	79 - 120
Bromobenzene	50.0	50.7		ug/L		101	80 - 120
Bromochloromethane	50.0	52.9		ug/L		106	78 - 123
Bromodichloromethane	50.0	44.3		ug/L		89	79 - 125
Bromoform	50.0	45.7		ug/L		91	66 - 130
Bromomethane	50.0	53.9		ug/L		108	53 - 141
2-Butanone (MEK)	250	218		ug/L		87	56 - 143
Carbon disulfide	50.0	49.6		ug/L		99	64 - 133
Carbon tetrachloride	50.0	46.2		ug/L		92	72 - 136
Chlorobenzene	50.0	51.9		ug/L		104	82 - 118
Chloroethane	50.0	54.4		ug/L		109	60 - 138
Chloroform	50.0	52.9		ug/L		106	79 - 124
Chloromethane	50.0	47.6		ug/L		95	50 - 139
2-Chlorotoluene	50.0	54.7		ug/L		109	79 - 122
4-Chlorotoluene	50.0	54.1		ug/L		108	78 - 122
cis-1,2-Dichloroethene	50.0	53.5		ug/L		107	78 - 123
cis-1,3-Dichloropropene	50.0	43.5		ug/L		87	75 - 124
Cyclohexane	50.0	51.5		ug/L		103	71 - 130
Dibromochloromethane	50.0	50.7		ug/L		101	74 - 126
1,2-Dibromo-3-Chloropropane	50.0	40.3		ug/L		81	62 - 128
1,2-Dibromoethane	50.0	46.3		ug/L		93	75 - 127
Dibromomethane	50.0	47.8		ug/L		96	79 - 123
1,2-Dichlorobenzene	50.0	52.4		ug/L		105	80 - 119
1,3-Dichlorobenzene	50.0	55.2		ug/L		110	80 - 119
1,4-Dichlorobenzene	50.0	53.1		ug/L		106	79 - 118
Dichlorodifluoromethane	50.0	31.6		ug/L		63	32 - 152

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-840778/4
Matrix: Water
Analysis Batch: 840778

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1-Dichloroethane	50.0	48.6		ug/L		97	77 - 125
1,2-Dichloroethane	50.0	49.4		ug/L		99	73 - 128
1,1-Dichloroethene	50.0	47.6		ug/L		95	71 - 131
1,2-Dichloroethene, Total	100	104		ug/L		104	79 - 121
1,2-Dichloropropane	50.0	47.7		ug/L		95	78 - 122
1,3-Dichloropropane	50.0	50.7		ug/L		101	80 - 119
2,2-Dichloropropane	50.0	51.0		ug/L		102	60 - 139
1,1-Dichloropropene	50.0	50.7		ug/L		101	79 - 125
Ethylbenzene	50.0	57.1		ug/L		114	79 - 121
Hexachlorobutadiene	50.0	44.9		ug/L		90	66 - 134
2-Hexanone	250	233		ug/L		93	57 - 139
Isopropylbenzene	50.0	52.6		ug/L		105	72 - 131
4-Isopropyltoluene	50.0	52.6		ug/L		105	77 - 127
Methyl acetate	100	95.9		ug/L		96	56 - 136
Methylcyclohexane	50.0	49.7		ug/L		99	72 - 132
Methylene Chloride	50.0	48.3		ug/L		97	74 - 124
4-Methyl-2-pentanone (MIBK)	250	231		ug/L		92	67 - 130
Methyl tert-butyl ether	50.0	46.6		ug/L		93	71 - 124
m-Xylene & p-Xylene	50.0	57.5		ug/L		115	80 - 121
Naphthalene	50.0	45.8		ug/L		92	61 - 128
n-Butylbenzene	50.0	51.0		ug/L		102	75 - 128
N-Propylbenzene	50.0	54.1		ug/L		108	76 - 126
o-Xylene	50.0	57.1		ug/L		114	78 - 122
sec-Butylbenzene	50.0	52.0		ug/L		104	77 - 126
Styrene	50.0	54.6		ug/L		109	78 - 123
tert-Butylbenzene	50.0	50.7		ug/L		101	78 - 124
1,1,1,2-Tetrachloroethane	50.0	53.6		ug/L		107	78 - 124
1,1,2,2-Tetrachloroethane	50.0	52.2		ug/L		104	71 - 121
Tetrachloroethene	50.0	43.7		ug/L		87	74 - 129
Toluene	50.0	50.5		ug/L		101	80 - 121
trans-1,2-Dichloroethene	50.0	50.4		ug/L		101	75 - 124
trans-1,3-Dichloropropene	50.0	43.8		ug/L		88	73 - 127
1,2,3-Trichlorobenzene	50.0	41.6		ug/L		83	69 - 129
1,2,4-Trichlorobenzene	50.0	47.1		ug/L		94	69 - 130
1,1,1-Trichloroethane	50.0	47.4		ug/L		95	74 - 131
1,1,2-Trichloroethane	50.0	46.7		ug/L		93	80 - 119
Trichloroethene	50.0	48.5		ug/L		97	79 - 123
Trichlorofluoromethane	50.0	43.9		ug/L		88	65 - 141
1,2,3-Trichloropropane	50.0	51.8		ug/L		104	73 - 122
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	48.8		ug/L		98	70 - 136
1,2,4-Trimethylbenzene	50.0	52.2		ug/L		104	76 - 124
1,3,5-Trimethylbenzene	50.0	52.2		ug/L		104	75 - 124
Vinyl chloride	50.0	50.1		ug/L		100	58 - 137
Xylenes, Total	100	115		ug/L		115	79 - 121

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*98*		*85 - 114*

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-840778/4
Matrix: Water
Analysis Batch: 840778

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Dibromofluoromethane (Surr)	*106*		*80 - 119*
1,2-Dichloroethane-d4 (Surr)	*93*		*81 - 118*
Toluene-d8 (Surr)	*100*		*89 - 112*

Lab Sample ID: LCSD 680-840778/5
Matrix: Water
Analysis Batch: 840778

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acetone			250	236		ug/L		94	39 - 160	0	20
Benzene			50.0	52.5		ug/L		105	79 - 120	2	20
Bromobenzene			50.0	51.2		ug/L		102	80 - 120	1	20
Bromochloromethane			50.0	52.8		ug/L		106	78 - 123	0	20
Bromodichloromethane			50.0	44.6		ug/L		89	79 - 125	1	20
Bromoform			50.0	47.2		ug/L		94	66 - 130	3	20
Bromomethane			50.0	53.1		ug/L		106	53 - 141	2	20
2-Butanone (MEK)			250	228		ug/L		91	56 - 143	5	20
Carbon disulfide			50.0	48.5		ug/L		97	64 - 133	2	20
Carbon tetrachloride			50.0	46.5		ug/L		93	72 - 136	1	20
Chlorobenzene			50.0	52.4		ug/L		105	82 - 118	1	20
Chloroethane			50.0	55.0		ug/L		110	60 - 138	1	20
Chloroform			50.0	52.5		ug/L		105	79 - 124	1	20
Chloromethane			50.0	46.1		ug/L		92	50 - 139	3	20
2-Chlorotoluene			50.0	53.1		ug/L		106	79 - 122	3	20
4-Chlorotoluene			50.0	54.3		ug/L		109	78 - 122	0	20
cis-1,2-Dichloroethene			50.0	53.3		ug/L		107	78 - 123	0	20
cis-1,3-Dichloropropene			50.0	43.5		ug/L		87	75 - 124	0	20
Cyclohexane			50.0	50.4		ug/L		101	71 - 130	2	20
Dibromochloromethane			50.0	50.1		ug/L		100	74 - 126	1	20
1,2-Dibromo-3-Chloropropane			50.0	41.7		ug/L		83	62 - 128	3	20
1,2-Dibromoethane			50.0	46.9		ug/L		94	75 - 127	1	20
Dibromomethane			50.0	48.4		ug/L		97	79 - 123	1	20
1,2-Dichlorobenzene			50.0	52.2		ug/L		104	80 - 119	0	20
1,3-Dichlorobenzene			50.0	53.9		ug/L		108	80 - 119	2	20
1,4-Dichlorobenzene			50.0	52.8		ug/L		106	79 - 118	1	20
Dichlorodifluoromethane			50.0	30.9		ug/L		62	32 - 152	2	20
1,1-Dichloroethane			50.0	48.0		ug/L		96	77 - 125	1	20
1,2-Dichloroethane			50.0	49.9		ug/L		100	73 - 128	1	20
1,1-Dichloroethene			50.0	46.4		ug/L		93	71 - 131	3	20
1,2-Dichloroethene, Total			100	102		ug/L		102	79 - 121	1	20
1,2-Dichloropropane			50.0	47.0		ug/L		94	78 - 122	1	20
1,3-Dichloropropane			50.0	50.7		ug/L		101	80 - 119	0	20
2,2-Dichloropropane			50.0	49.8		ug/L		100	60 - 139	2	20
1,1-Dichloropropene			50.0	49.3		ug/L		99	79 - 125	3	20
Ethylbenzene			50.0	56.4		ug/L		113	79 - 121	1	20
Hexachlorobutadiene			50.0	44.9		ug/L		90	66 - 134	0	20
2-Hexanone			250	242		ug/L		97	57 - 139	4	20
Isopropylbenzene			50.0	51.5		ug/L		103	72 - 131	2	20

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-840778/5
Matrix: Water
Analysis Batch: 840778

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
4-Isopropyltoluene	50.0	51.8		ug/L		104	77 - 127	1	20
Methyl acetate	100	100		ug/L		100	56 - 136	4	20
Methylcyclohexane	50.0	48.4		ug/L		97	72 - 132	3	20
Methylene Chloride	50.0	47.9		ug/L		96	74 - 124	1	20
4-Methyl-2-pentanone (MIBK)	250	239		ug/L		96	67 - 130	4	20
Methyl tert-butyl ether	50.0	47.7		ug/L		95	71 - 124	2	20
m-Xylene & p-Xylene	50.0	57.8		ug/L		116	80 - 121	0	20
Naphthalene	50.0	47.6		ug/L		95	61 - 128	4	20
n-Butylbenzene	50.0	49.6		ug/L		99	75 - 128	3	20
N-Propylbenzene	50.0	54.1		ug/L		108	76 - 126	0	20
o-Xylene	50.0	57.3		ug/L		115	78 - 122	0	20
sec-Butylbenzene	50.0	51.1		ug/L		102	77 - 126	2	20
Styrene	50.0	54.7		ug/L		109	78 - 123	0	20
tert-Butylbenzene	50.0	50.5		ug/L		101	78 - 124	0	20
1,1,1,2-Tetrachloroethane	50.0	52.8		ug/L		106	78 - 124	2	20
1,1,2,2-Tetrachloroethane	50.0	53.8		ug/L		108	71 - 121	3	20
Tetrachloroethene	50.0	43.4		ug/L		87	74 - 129	1	20
Toluene	50.0	49.9		ug/L		100	80 - 121	1	20
trans-1,2-Dichloroethene	50.0	49.2		ug/L		98	75 - 124	3	20
trans-1,3-Dichloropropene	50.0	43.8		ug/L		88	73 - 127	0	20
1,2,3-Trichlorobenzene	50.0	43.1		ug/L		86	69 - 129	3	20
1,2,4-Trichlorobenzene	50.0	47.3		ug/L		95	69 - 130	0	20
1,1,1-Trichloroethane	50.0	47.2		ug/L		94	74 - 131	0	20
1,1,2-Trichloroethane	50.0	47.2		ug/L		94	80 - 119	1	20
Trichloroethene	50.0	47.8		ug/L		96	79 - 123	1	20
Trichlorofluoromethane	50.0	43.3		ug/L		87	65 - 141	1	20
1,2,3-Trichloropropane	50.0	52.7		ug/L		105	73 - 122	2	20
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	47.8		ug/L		96	70 - 136	2	20
1,2,4-Trimethylbenzene	50.0	51.8		ug/L		104	76 - 124	1	20
1,3,5-Trimethylbenzene	50.0	51.4		ug/L		103	75 - 124	1	20
Vinyl chloride	50.0	48.2		ug/L		96	58 - 137	4	20
Xylenes, Total	100	115		ug/L		115	79 - 121	0	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*97*		*85 - 114*
Dibromofluoromethane (Surr)	*107*		*80 - 119*
1,2-Dichloroethane-d4 (Surr)	*95*		*81 - 118*
Toluene-d8 (Surr)	*98*		*89 - 112*

Lab Sample ID: 680-251033-7 MS
Matrix: Water
Analysis Batch: 840778

Client Sample ID: OU6-MW-160-20240520
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	10	U J1	250	203		ug/L		81	39 - 160
Benzene	1.0	U J1	50.0	55.0		ug/L		110	79 - 120
Bromobenzene	0.50	U J1	50.0	47.7		ug/L		95	80 - 120
Bromochloromethane	1.0	U J1	50.0	53.1		ug/L		106	78 - 123

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 680-251033-7 MS
Matrix: Water
Analysis Batch: 840778

Client Sample ID: OU6-MW-160-20240520
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Bromodichloromethane	1.0	U J1	50.0	46.0		ug/L		92	79 - 125
Bromoform	2.0	U Q J1	50.0	45.6		ug/L		91	66 - 130
Bromomethane	10	U J1	50.0	72.6	J1	ug/L		145	53 - 141
2-Butanone (MEK)	20	U J1	250	198		ug/L		79	56 - 143
Carbon disulfide	1.0	U Q J1	50.0	54.1		ug/L		108	64 - 133
Carbon tetrachloride	1.0	U J1	50.0	49.9		ug/L		100	72 - 136
Chlorobenzene	0.50	U J1	50.0	50.5		ug/L		101	82 - 118
Chloroethane	10	U J1	50.0	59.6		ug/L		119	60 - 138
Chloroform	1.0	U J1	50.0	53.7		ug/L		107	79 - 124
Chloromethane	2.0	U J1	50.0	52.7		ug/L		105	50 - 139
2-Chlorotoluene	0.50	U J1	50.0	52.7		ug/L		105	79 - 122
4-Chlorotoluene	1.0	U J1	50.0	51.8		ug/L		104	78 - 122
cis-1,2-Dichloroethene	0.47	J1	50.0	54.3		ug/L		108	78 - 123
cis-1,3-Dichloropropene	1.0	U J1	50.0	42.9		ug/L		86	75 - 124
Cyclohexane	1.0	U J1	50.0	54.8		ug/L		110	71 - 130
Dibromochloromethane	1.0	U J1	50.0	50.6		ug/L		101	74 - 126
1,2-Dibromo-3-Chloropropane	5.0	U J1	50.0	40.6		ug/L		81	62 - 128
1,2-Dibromoethane	1.0	U J1	50.0	45.4		ug/L		91	75 - 127
Dibromomethane	1.0	U J1	50.0	46.9		ug/L		94	79 - 123
1,2-Dichlorobenzene	1.0	U J1	50.0	50.8		ug/L		102	80 - 119
1,3-Dichlorobenzene	1.0	U J1	50.0	53.7		ug/L		107	80 - 119
1,4-Dichlorobenzene	1.0	J1	50.0	52.0		ug/L		102	79 - 118
Dichlorodifluoromethane	1.0	U J1	50.0	34.6		ug/L		69	32 - 152
1,1-Dichloroethane	1.0	U J1	50.0	50.2		ug/L		100	77 - 125
1,2-Dichloroethane	1.0	U M J1	50.0	49.3		ug/L		99	73 - 128
1,1-Dichloroethene	1.0	U J1	50.0	50.0		ug/L		100	71 - 131
1,2-Dichloroethene, Total	0.47	J1	100	106		ug/L		105	79 - 121
1,2-Dichloropropane	0.50	U J1	50.0	47.2		ug/L		94	78 - 122
1,3-Dichloropropane	1.0	U J1	50.0	49.2		ug/L		98	80 - 119
2,2-Dichloropropane	1.0	U J1	50.0	53.3		ug/L		107	60 - 139
1,1-Dichloropropene	1.0	U J1	50.0	52.7		ug/L		105	79 - 125
Ethylbenzene	0.50	U J1	50.0	56.5		ug/L		113	79 - 121
Hexachlorobutadiene	1.0	U J1	50.0	35.7		ug/L		71	66 - 134
2-Hexanone	10	U J1	250	216		ug/L		86	57 - 139
Isopropylbenzene	1.0	U J1	50.0	50.7		ug/L		101	72 - 131
4-Isopropyltoluene	1.0	U J1	50.0	51.8		ug/L		104	77 - 127
Methyl acetate	10	U J1	100	89.0		ug/L		89	56 - 136
Methylcyclohexane	1.0	U J1	50.0	52.2		ug/L		104	72 - 132
Methylene Chloride	10	U J1	50.0	48.1		ug/L		96	74 - 124
4-Methyl-2-pentanone (MIBK)	10	U J1	250	218		ug/L		87	67 - 130
Methyl tert-butyl ether	2.0	U J1	50.0	46.0		ug/L		92	71 - 124
m-Xylene & p-Xylene	1.0	U J1	50.0	56.8		ug/L		114	80 - 121
Naphthalene	5.0	U J1	50.0	39.0		ug/L		78	61 - 128
n-Butylbenzene	2.0	U J1	50.0	49.0		ug/L		98	75 - 128
N-Propylbenzene	1.0	U J1	50.0	53.5		ug/L		107	76 - 126
o-Xylene	1.0	U J1	50.0	55.8		ug/L		112	78 - 122
sec-Butylbenzene	2.0	U J1	50.0	49.4		ug/L		99	77 - 126
Styrene	1.0	U J1	50.0	52.7		ug/L		105	78 - 123
tert-Butylbenzene	1.0	U J1	50.0	48.2		ug/L		96	78 - 124

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 680-251033-7 MS
Matrix: Water
Analysis Batch: 840778

Client Sample ID: OU6-MW-160-20240520
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1,2-Tetrachloroethane	1.0	U J1	50.0	52.3		ug/L		105	78 - 124
1,1,2,2-Tetrachloroethane	1.0	U Q J1	50.0	50.3		ug/L		101	71 - 121
Tetrachloroethene	1.0	U J1	50.0	43.4		ug/L		87	74 - 129
Toluene	1.0	U J1	50.0	51.5		ug/L		103	80 - 121
trans-1,2-Dichloroethene	1.0	U J1	50.0	51.6		ug/L		103	75 - 124
trans-1,3-Dichloropropene	1.0	U J1	50.0	42.4		ug/L		85	73 - 127
1,2,3-Trichlorobenzene	2.0	U J1	50.0	34.2	J1	ug/L		68	69 - 129
1,2,4-Trichlorobenzene	2.0	U J1	50.0	40.1		ug/L		80	69 - 130
1,1,1-Trichloroethane	0.50	U J1	50.0	49.5		ug/L		99	74 - 131
1,1,2-Trichloroethane	1.0	U J1	50.0	46.4		ug/L		93	80 - 119
Trichloroethene	34	J1	50.0	83.4		ug/L		99	79 - 123
Trichlorofluoromethane	1.0	U J1	50.0	46.0		ug/L		92	65 - 141
1,2,3-Trichloropropane	1.0	U J1	50.0	47.9		ug/L		96	73 - 122
1,1,2-Trichloro-1,2,2-trifluoroethane	2.1	J1	50.0	52.8		ug/L		102	70 - 136
1,2,4-Trimethylbenzene	1.0	U J1	50.0	49.7		ug/L		99	76 - 124
1,3,5-Trimethylbenzene	1.0	U J1	50.0	49.5		ug/L		99	75 - 124
Vinyl chloride	1.0	U J1	50.0	55.4		ug/L		111	58 - 137
Xylenes, Total	1.0	U J1	100	113		ug/L		113	79 - 121

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*85 - 114*
Dibromofluoromethane (Surr)	*106*		*80 - 119*
1,2-Dichloroethane-d4 (Surr)	*93*		*81 - 118*
Toluene-d8 (Surr)	*101*		*89 - 112*

Lab Sample ID: 680-251033-7 MSD
Matrix: Water
Analysis Batch: 840778

Client Sample ID: OU6-MW-160-20240520
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acetone	10	U J1	250	227		ug/L		91	39 - 160	11	20
Benzene	1.0	U J1	50.0	55.6		ug/L		111	79 - 120	1	20
Bromobenzene	0.50	U J1	50.0	49.1		ug/L		98	80 - 120	3	20
Bromochloromethane	1.0	U J1	50.0	54.9		ug/L		110	78 - 123	3	20
Bromodichloromethane	1.0	U J1	50.0	46.5		ug/L		93	79 - 125	1	20
Bromoform	2.0	U Q J1	50.0	45.7		ug/L		91	66 - 130	0	20
Bromomethane	10	U J1	50.0	78.2	J1	ug/L		156	53 - 141	7	20
2-Butanone (MEK)	20	U J1	250	216		ug/L		86	56 - 143	9	20
Carbon disulfide	1.0	U Q J1	50.0	54.8		ug/L		110	64 - 133	1	20
Carbon tetrachloride	1.0	U J1	50.0	51.1		ug/L		102	72 - 136	2	20
Chlorobenzene	0.50	U J1	50.0	51.7		ug/L		103	82 - 118	2	20
Chloroethane	10	U J1	50.0	60.0		ug/L		120	60 - 138	1	20
Chloroform	1.0	U J1	50.0	54.8		ug/L		110	79 - 124	2	20
Chloromethane	2.0	U J1	50.0	53.7		ug/L		107	50 - 139	2	20
2-Chlorotoluene	0.50	U J1	50.0	52.9		ug/L		106	79 - 122	0	20
4-Chlorotoluene	1.0	U J1	50.0	52.4		ug/L		105	78 - 122	1	20
cis-1,2-Dichloroethene	0.47	J1	50.0	55.4		ug/L		110	78 - 123	2	20
cis-1,3-Dichloropropene	1.0	U J1	50.0	45.1		ug/L		90	75 - 124	5	20

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 680-251033-7 MSD
Matrix: Water
Analysis Batch: 840778

Client Sample ID: OU6-MW-160-20240520
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Cyclohexane	1.0	U J1	50.0	55.3		ug/L		111	71 - 130	1	20
Dibromochloromethane	1.0	U J1	50.0	53.5		ug/L		107	74 - 126	6	20
1,2-Dibromo-3-Chloropropane	5.0	U J1	50.0	44.0		ug/L		88	62 - 128	8	20
1,2-Dibromoethane	1.0	U J1	50.0	46.5		ug/L		93	75 - 127	2	20
Dibromomethane	1.0	U J1	50.0	49.9		ug/L		100	79 - 123	6	20
1,2-Dichlorobenzene	1.0	U J1	50.0	51.9		ug/L		104	80 - 119	2	20
1,3-Dichlorobenzene	1.0	U J1	50.0	54.7		ug/L		109	80 - 119	2	20
1,4-Dichlorobenzene	1.0	J1	50.0	53.1		ug/L		104	79 - 118	2	20
Dichlorodifluoromethane	1.0	U J1	50.0	35.3		ug/L		71	32 - 152	2	20
1,1-Dichloroethane	1.0	U J1	50.0	50.4		ug/L		101	77 - 125	0	20
1,2-Dichloroethane	1.0	U M J1	50.0	51.6		ug/L		103	73 - 128	4	20
1,1-Dichloroethene	1.0	U J1	50.0	50.5		ug/L		101	71 - 131	1	20
1,2-Dichloroethene, Total	0.47	J1	100	108		ug/L		107	79 - 121	2	20
1,2-Dichloropropane	0.50	U J1	50.0	48.2		ug/L		96	78 - 122	2	20
1,3-Dichloropropane	1.0	U J1	50.0	52.1		ug/L		104	80 - 119	6	20
2,2-Dichloropropane	1.0	U J1	50.0	53.4		ug/L		107	60 - 139	0	20
1,1-Dichloropropene	1.0	U J1	50.0	53.7		ug/L		107	79 - 125	2	20
Ethylbenzene	0.50	U J1	50.0	57.5		ug/L		115	79 - 121	2	20
Hexachlorobutadiene	1.0	U J1	50.0	37.5		ug/L		75	66 - 134	5	20
2-Hexanone	10	U J1	250	235		ug/L		94	57 - 139	8	20
Isopropylbenzene	1.0	U J1	50.0	51.6		ug/L		103	72 - 131	2	20
4-Isopropyltoluene	1.0	U J1	50.0	52.2		ug/L		104	77 - 127	1	20
Methyl acetate	10	U J1	100	95.9		ug/L		96	56 - 136	8	20
Methylcyclohexane	1.0	U J1	50.0	51.9		ug/L		104	72 - 132	1	20
Methylene Chloride	10	U J1	50.0	48.9		ug/L		98	74 - 124	2	20
4-Methyl-2-pentanone (MIBK)	10	U J1	250	237		ug/L		95	67 - 130	8	20
Methyl tert-butyl ether	2.0	U J1	50.0	48.9		ug/L		98	71 - 124	6	20
m-Xylene & p-Xylene	1.0	U J1	50.0	57.9		ug/L		116	80 - 121	2	20
Naphthalene	5.0	U J1	50.0	42.8		ug/L		86	61 - 128	9	20
n-Butylbenzene	2.0	U J1	50.0	49.7		ug/L		99	75 - 128	1	20
N-Propylbenzene	1.0	U J1	50.0	53.9		ug/L		108	76 - 126	1	20
o-Xylene	1.0	U J1	50.0	56.8		ug/L		114	78 - 122	2	20
sec-Butylbenzene	2.0	U J1	50.0	50.0		ug/L		100	77 - 126	1	20
Styrene	1.0	U J1	50.0	54.0		ug/L		108	78 - 123	2	20
tert-Butylbenzene	1.0	U J1	50.0	49.3		ug/L		99	78 - 124	2	20
1,1,1,2-Tetrachloroethane	1.0	U J1	50.0	54.4		ug/L		109	78 - 124	4	20
1,1,2,2-Tetrachloroethane	1.0	U Q J1	50.0	53.9		ug/L		108	71 - 121	7	20
Tetrachloroethene	1.0	U J1	50.0	44.4		ug/L		89	74 - 129	2	20
Toluene	1.0	U J1	50.0	51.3		ug/L		103	80 - 121	0	20
trans-1,2-Dichloroethene	1.0	U J1	50.0	52.4		ug/L		105	75 - 124	2	20
trans-1,3-Dichloropropene	1.0	U J1	50.0	44.7		ug/L		89	73 - 127	5	20
1,2,3-Trichlorobenzene	2.0	U J1	50.0	36.3		ug/L		73	69 - 129	6	20
1,2,4-Trichlorobenzene	2.0	U J1	50.0	41.0		ug/L		82	69 - 130	2	20
1,1,1-Trichloroethane	0.50	U J1	50.0	50.5		ug/L		101	74 - 131	2	20
1,1,2-Trichloroethane	1.0	U J1	50.0	48.3		ug/L		97	80 - 119	4	20
Trichloroethene	34	J1	50.0	86.1		ug/L		104	79 - 123	3	20
Trichlorofluoromethane	1.0	U J1	50.0	46.3		ug/L		93	65 - 141	1	20
1,2,3-Trichloropropane	1.0	U J1	50.0	50.9		ug/L		102	73 - 122	6	20

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 680-251033-7 MSD
Matrix: Water
Analysis Batch: 840778

Client Sample ID: OU6-MW-160-20240520
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1,2-Trichloro-1,2,2-trifluoroethane	2.1	J1	50.0	53.6		ug/L		103	70 - 136	1	20
1,2,4-Trimethylbenzene	1.0	U J1	50.0	50.1		ug/L		100	76 - 124	1	20
1,3,5-Trimethylbenzene	1.0	U J1	50.0	50.0	M	ug/L		100	75 - 124	1	20
Vinyl chloride	1.0	U J1	50.0	57.4		ug/L		115	58 - 137	4	20
Xylenes, Total	1.0	U J1	100	115		ug/L		115	79 - 121	2	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*85 - 114*
Dibromofluoromethane (Surr)	*110*		*80 - 119*
1,2-Dichloroethane-d4 (Surr)	*97*		*81 - 118*
Toluene-d8 (Surr)	*103*		*89 - 112*

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 680-839165/1-A
Matrix: Water
Analysis Batch: 839362

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 839165

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	10	U M	20	4.6	ug/L		05/22/24 08:09	05/23/24 13:57	1
1,2,4,5-Tetrachlorobenzene	10	U	20	4.5	ug/L		05/22/24 08:09	05/23/24 13:57	1
1,4-Dioxane	10	U	20	4.4	ug/L		05/22/24 08:09	05/23/24 13:57	1
2,3,4,6-Tetrachlorophenol	10	U	20	4.3	ug/L		05/22/24 08:09	05/23/24 13:57	1
2,4,5-Trichlorophenol	10	U	20	3.3	ug/L		05/22/24 08:09	05/23/24 13:57	1
2,4,6-Trichlorophenol	5.0	U	20	2.2	ug/L		05/22/24 08:09	05/23/24 13:57	1
2,4-Dichlorophenol	10	U	20	3.7	ug/L		05/22/24 08:09	05/23/24 13:57	1
2,4-Dimethylphenol	10	U	20	3.0	ug/L		05/22/24 08:09	05/23/24 13:57	1
2,4-Dinitrophenol	40	U	50	16	ug/L		05/22/24 08:09	05/23/24 13:57	1
2,4-Dinitrotoluene	5.0	U	10	2.3	ug/L		05/22/24 08:09	05/23/24 13:57	1
2,6-Dinitrotoluene	10	U	20	2.8	ug/L		05/22/24 08:09	05/23/24 13:57	1
2-Chloronaphthalene	10	U	20	4.8	ug/L		05/22/24 08:09	05/23/24 13:57	1
2-Chlorophenol	10	U	20	3.2	ug/L		05/22/24 08:09	05/23/24 13:57	1
2-Methylphenol	4.0	U	10	1.8	ug/L		05/22/24 08:09	05/23/24 13:57	1
2-Nitroaniline	10	U M	20	2.9	ug/L		05/22/24 08:09	05/23/24 13:57	1
2-Nitrophenol	10	U	20	3.9	ug/L		05/22/24 08:09	05/23/24 13:57	1
3 & 4 Methylphenol	4.0	U	10	1.4	ug/L		05/22/24 08:09	05/23/24 13:57	1
3,3'-Dichlorobenzidine	20	U	50	10	ug/L		05/22/24 08:09	05/23/24 13:57	1
3-Nitroaniline	10	U	50	3.0	ug/L		05/22/24 08:09	05/23/24 13:57	1
4,6-Dinitro-2-methylphenol	20	U	50	5.3	ug/L		05/22/24 08:09	05/23/24 13:57	1
4-Bromophenyl phenyl ether	10	U M	20	4.7	ug/L		05/22/24 08:09	05/23/24 13:57	1
4-Chloro-3-methylphenol	10	U	20	2.5	ug/L		05/22/24 08:09	05/23/24 13:57	1
4-Chloroaniline	4.0	U	10	1.0	ug/L		05/22/24 08:09	05/23/24 13:57	1
4-Chlorophenyl phenyl ether	12	U	20	5.3	ug/L		05/22/24 08:09	05/23/24 13:57	1
4-Nitroaniline	10	U	50	3.0	ug/L		05/22/24 08:09	05/23/24 13:57	1
4-Nitrophenol	20	U	50	8.1	ug/L		05/22/24 08:09	05/23/24 13:57	1
Acetophenone	5.0	U	10	2.2	ug/L		05/22/24 08:09	05/23/24 13:57	1
Atrazine	5.0	U	10	2.2	ug/L		05/22/24 08:09	05/23/24 13:57	1
Benzaldehyde	10	U	20	4.8	ug/L		05/22/24 08:09	05/23/24 13:57	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-839165/1-A
Matrix: Water
Analysis Batch: 839362

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 839165

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
bis (2-chloroisopropyl) ether	10	U	20	3.1	ug/L		05/22/24 08:09	05/23/24 13:57	1
Bis(2-chloroethoxy)methane	4.0	U	10	1.8	ug/L		05/22/24 08:09	05/23/24 13:57	1
Bis(2-chloroethyl)ether	10	U	20	3.6	ug/L		05/22/24 08:09	05/23/24 13:57	1
Bis(2-ethylhexyl) phthalate	10	U	20	3.0	ug/L		05/22/24 08:09	05/23/24 13:57	1
Butyl benzyl phthalate	10	U	20	2.8	ug/L		05/22/24 08:09	05/23/24 13:57	1
Caprolactam	10	U	20	2.8	ug/L		05/22/24 08:09	05/23/24 13:57	1
Carbazole	4.0	U	10	1.8	ug/L		05/22/24 08:09	05/23/24 13:57	1
Dibenzofuran	4.0	U	10	1.9	ug/L		05/22/24 08:09	05/23/24 13:57	1
Diethyl phthalate	5.0	U	10	2.2	ug/L		05/22/24 08:09	05/23/24 13:57	1
Dimethyl phthalate	5.0	U	10	2.1	ug/L		05/22/24 08:09	05/23/24 13:57	1
Di-n-butyl phthalate	5.0	U	10	2.3	ug/L		05/22/24 08:09	05/23/24 13:57	1
Di-n-octyl phthalate	10	U M	20	2.8	ug/L		05/22/24 08:09	05/23/24 13:57	1
Hexachlorobenzene	4.0	U	10	1.6	ug/L		05/22/24 08:09	05/23/24 13:57	1
Hexachlorobutadiene	10	U	20	4.0	ug/L		05/22/24 08:09	05/23/24 13:57	1
Hexachlorocyclopentadiene	10	U	20	3.5	ug/L		05/22/24 08:09	05/23/24 13:57	1
Hexachloroethane	10	U	20	3.6	ug/L		05/22/24 08:09	05/23/24 13:57	1
Isophorone	4.0	U	10	2.0	ug/L		05/22/24 08:09	05/23/24 13:57	1
Nitrobenzene	10	U	20	3.5	ug/L		05/22/24 08:09	05/23/24 13:57	1
N-Nitrosodi-n-propylamine	5.0	U	10	2.4	ug/L		05/22/24 08:09	05/23/24 13:57	1
N-Nitrosodiphenylamine	10	U	20	2.9	ug/L		05/22/24 08:09	05/23/24 13:57	1
Pentachlorophenol	20	U	50	9.9	ug/L		05/22/24 08:09	05/23/24 13:57	1
Phenol	4.0	U	10	1.5	ug/L		05/22/24 08:09	05/23/24 13:57	1
Pyridine	20	U	50	7.4	ug/L		05/22/24 08:09	05/23/24 13:57	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*66*		*43 - 140*	*05/22/24 08:09*	*05/23/24 13:57*	*1*
2-Fluorobiphenyl	*61*		*44 - 119*	*05/22/24 08:09*	*05/23/24 13:57*	*1*
2-Fluorophenol	*34*		*19 - 119*	*05/22/24 08:09*	*05/23/24 13:57*	*1*
Nitrobenzene-d5	*54*		*44 - 120*	*05/22/24 08:09*	*05/23/24 13:57*	*1*
Phenol-d5	*22*		*10 - 130*	*05/22/24 08:09*	*05/23/24 13:57*	*1*
Terphenyl-d14	*75*		*50 - 134*	*05/22/24 08:09*	*05/23/24 13:57*	*1*

Lab Sample ID: LCS 680-839165/2-A
Matrix: Water
Analysis Batch: 839362

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 839165

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1'-Biphenyl	200	151		ug/L		76	49 - 115
1,4-Dioxane	200	65.9		ug/L		33	10 - 130
2,3,4,6-Tetrachlorophenol	200	165		ug/L		82	50 - 128
2,4,5-Trichlorophenol	200	148		ug/L		74	53 - 123
2,4,6-Trichlorophenol	200	151		ug/L		75	50 - 125
2,4-Dichlorophenol	200	140		ug/L		70	47 - 121
2,4-Dimethylphenol	200	129		ug/L		65	31 - 124
2,4-Dinitrophenol	400	340		ug/L		85	23 - 143
2,4-Dinitrotoluene	200	169		ug/L		85	57 - 128
2,6-Dinitrotoluene	200	159		ug/L		80	57 - 124
2-Chloronaphthalene	200	148		ug/L		74	40 - 116

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-839165/2-A
Matrix: Water
Analysis Batch: 839362

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 839165

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2-Chlorophenol	200	117		ug/L		59	38 - 117
2-Methylphenol	200	115		ug/L		57	30 - 117
2-Nitroaniline	200	171		ug/L		86	55 - 127
2-Nitrophenol	200	130		ug/L		65	47 - 123
3 & 4 Methylphenol	200	106		ug/L		53	29 - 110
3,3'-Dichlorobenzidine	200	188		ug/L		94	27 - 129
3-Nitroaniline	200	160		ug/L		80	41 - 128
4,6-Dinitro-2-methylphenol	400	371		ug/L		93	44 - 137
4-Bromophenyl phenyl ether	200	168		ug/L		84	55 - 124
4-Chloro-3-methylphenol	200	149		ug/L		75	52 - 119
4-Chloroaniline	200	126		ug/L		63	33 - 117
4-Chlorophenyl phenyl ether	200	152		ug/L		76	53 - 121
4-Nitroaniline	200	168		ug/L		84	55 - 115
4-Nitrophenol	400	160		ug/L		40	13 - 130
Acetophenone	200	134		ug/L		67	46 - 118
Atrazine	200	143		ug/L		71	44 - 142
Benzaldehyde	200	109		ug/L		55	25 - 130
bis (2-chloroisopropyl) ether	200	139		ug/L		70	37 - 130
Bis(2-chloroethoxy)methane	200	139		ug/L		69	48 - 120
Bis(2-chloroethyl)ether	200	135		ug/L		68	43 - 118
Bis(2-ethylhexyl) phthalate	200	185		ug/L		92	55 - 135
Butyl benzyl phthalate	200	193		ug/L		96	53 - 134
Caprolactam	200	52.5	M	ug/L		26	13 - 130
Carbazole	200	177		ug/L		88	60 - 122
Dibenzofuran	200	155		ug/L		77	53 - 118
Diethyl phthalate	200	166		ug/L		83	56 - 125
Dimethyl phthalate	200	165		ug/L		82	45 - 127
Di-n-butyl phthalate	200	192		ug/L		96	56 - 122
Di-n-octyl phthalate	200	180		ug/L		90	59 - 128
Hexachlorobenzene	200	169		ug/L		85	53 - 125
Hexachlorobutadiene	200	120		ug/L		60	22 - 124
Hexachlorocyclopentadiene	200	90.5		ug/L		45	28 - 130
Hexachloroethane	200	109		ug/L		55	21 - 115
Isophorone	200	145		ug/L		73	42 - 124
Nitrobenzene	200	130		ug/L		65	45 - 121
N-Nitrosodi-n-propylamine	200	145		ug/L		72	49 - 119
N-Nitrosodiphenylamine	200	174		ug/L		87	51 - 123
Pentachlorophenol	400	327		ug/L		82	35 - 138
Phenol	200	59.8		ug/L		30	14 - 130
Pyridine	400	76.2	M	ug/L		19	10 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol	*73*		*43 - 140*
2-Fluorobiphenyl	*68*		*44 - 119*
2-Fluorophenol	*35*		*19 - 119*
Nitrobenzene-d5	*59*		*44 - 120*
Phenol-d5	*25*		*10 - 130*
Terphenyl-d14	*81*		*50 - 134*

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 680-251033-1 MS
Matrix: Water
Analysis Batch: 839362

Client Sample ID: OU6-MW-263-20240520
Prep Type: Total/NA
Prep Batch: 839165

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,1'-Biphenyl	13	U M J1	249	187		ug/L		75	49 - 115
1,4-Dioxane	13	U J1	249	92.6		ug/L		37	10 - 130
2,3,4,6-Tetrachlorophenol	13	U	249	212		ug/L		85	50 - 128
2,4,5-Trichlorophenol	13	U J1	249	200		ug/L		80	53 - 123
2,4,6-Trichlorophenol	6.4	U J1	249	201		ug/L		81	50 - 125
2,4-Dichlorophenol	13	U J1	249	181		ug/L		73	47 - 121
2,4-Dimethylphenol	13	U J1 Q	249	166		ug/L		67	31 - 124
2,4-Dinitrophenol	51	U	498	425		ug/L		85	23 - 143
2,4-Dinitrotoluene	6.4	U J1	249	218		ug/L		87	57 - 128
2,6-Dinitrotoluene	13	U J1	249	207		ug/L		83	57 - 124
2-Chloronaphthalene	13	U J1	249	184		ug/L		74	40 - 116
2-Chlorophenol	13	U J1	249	152		ug/L		61	38 - 117
2-Methylphenol	5.1	U J1	249	150		ug/L		60	30 - 117
2-Nitroaniline	13	U M J1	249	206		ug/L		83	55 - 127
2-Nitrophenol	13	U J1	249	171		ug/L		69	47 - 123
3 & 4 Methylphenol	5.1	U J1	249	144		ug/L		58	29 - 110
3,3'-Dichlorobenzidine	25	U	249	213		ug/L		85	27 - 129
3-Nitroaniline	13	U	249	190		ug/L		76	41 - 128
4,6-Dinitro-2-methylphenol	25	U	498	460		ug/L		92	44 - 137
4-Bromophenyl phenyl ether	13	U M	249	217		ug/L		87	55 - 124
4-Chloro-3-methylphenol	13	U J1	249	199		ug/L		80	52 - 119
4-Chloroaniline	5.1	U J1	249	157		ug/L		63	33 - 117
4-Chlorophenyl phenyl ether	15	U J1	249	198		ug/L		80	53 - 121
4-Nitroaniline	13	U	249	211		ug/L		85	55 - 115
4-Nitrophenol	25	U J1	498	235		ug/L		47	13 - 130
Acetophenone	6.4	U J1	249	167		ug/L		67	46 - 118
Atrazine	6.4	U	249	160		ug/L		64	44 - 142
Benzaldehyde	13	U J1	249	112		ug/L		45	25 - 130
bis (2-chloroisopropyl) ether	13	U J1	249	165		ug/L		66	37 - 130
Bis(2-chloroethoxy)methane	5.1	U J1	249	177		ug/L		71	48 - 120
Bis(2-chloroethyl)ether	13	U Q J1	249	172		ug/L		69	43 - 118
Bis(2-ethylhexyl) phthalate	13	U	249	237		ug/L		95	55 - 135
Butyl benzyl phthalate	13	U	249	225		ug/L		90	53 - 134
Caprolactam	13	U J1	249	77.5	M	ug/L		31	13 - 130
Carbazole	5.1	U	249	230		ug/L		92	60 - 122
Dibenzofuran	5.1	U J1	249	197		ug/L		79	53 - 118
Diethyl phthalate	6.4	U	249	223		ug/L		89	56 - 125
Dimethyl phthalate	6.4	U J1	249	214		ug/L		86	45 - 127
Di-n-butyl phthalate	6.4	U	249	248		ug/L		100	56 - 122
Di-n-octyl phthalate	13	U	249	225		ug/L		90	59 - 128
Hexachlorobenzene	5.1	U	249	212		ug/L		85	53 - 125
Hexachlorobutadiene	13	U J1	249	148		ug/L		59	22 - 124
Hexachlorocyclopentadiene	13	U J1	249	121		ug/L		49	28 - 130
Hexachloroethane	13	U J1	249	130		ug/L		52	21 - 115
Isophorone	5.1	U J1	249	184		ug/L		74	42 - 124
Nitrobenzene	13	U J1	249	164		ug/L		66	45 - 121
N-Nitrosodi-n-propylamine	6.4	U J1	249	169		ug/L		68	49 - 119
N-Nitrosodiphenylamine	13	U M	249	218		ug/L		87	51 - 123

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 680-251033-1 MS
Matrix: Water
Analysis Batch: 839362

Client Sample ID: OU6-MW-263-20240520
Prep Type: Total/NA
Prep Batch: 839165

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Pentachlorophenol	25	U	498	415		ug/L		83	35 - 138
Phenol	5.1	U M J1	249	87.8		ug/L		35	14 - 130
Pyridine	25	U J1	498	112	M	ug/L		22	10 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
2,4,6-Tribromophenol	*75*		*43 - 140*
2-Fluorobiphenyl	*68*		*44 - 119*
2-Fluorophenol	*38*		*19 - 119*
Nitrobenzene-d5	*61*		*44 - 120*
Phenol-d5	*30*		*10 - 130*
Terphenyl-d14	*82*		*50 - 134*

Lab Sample ID: 680-251033-1 MSD
Matrix: Water
Analysis Batch: 839362

Client Sample ID: OU6-MW-263-20240520
Prep Type: Total/NA
Prep Batch: 839165

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1'-Biphenyl	13	U M J1	219	130	J1	ug/L		59	49 - 115	36	20
1,4-Dioxane	13	U J1	219	59.4	J1	ug/L		27	10 - 130	44	20
2,3,4,6-Tetrachlorophenol	13	U	219	173		ug/L		79	50 - 128	20	20
2,4,5-Trichlorophenol	13	U J1	219	150	J1	ug/L		69	53 - 123	28	20
2,4,6-Trichlorophenol	6.4	U J1	219	156	J1	ug/L		71	50 - 125	25	20
2,4-Dichlorophenol	13	U J1	219	132	J1	ug/L		60	47 - 121	31	20
2,4-Dimethylphenol	13	U J1 Q	219	122	J1	ug/L		56	31 - 124	30	20
2,4-Dinitrophenol	51	U	438	372		ug/L		85	23 - 143	13	20
2,4-Dinitrotoluene	6.4	U J1	219	177	J1	ug/L		81	57 - 128	21	20
2,6-Dinitrotoluene	13	U J1	219	166	J1	ug/L		76	57 - 124	22	20
2-Chloronaphthalene	13	U J1	219	133	J1	ug/L		61	40 - 116	32	20
2-Chlorophenol	13	U J1	219	102	J1	ug/L		47	38 - 117	39	20
2-Methylphenol	5.1	U J1	219	105	J1	ug/L		48	30 - 117	35	20
2-Nitroaniline	13	U M J1	219	164	J1	ug/L		75	55 - 127	23	20
2-Nitrophenol	13	U J1	219	119	J1	ug/L		54	47 - 123	36	20
3 & 4 Methylphenol	5.1	U J1	219	97.8	J1	ug/L		45	29 - 110	38	20
3,3'-Dichlorobenzidine	25	U	219	193		ug/L		88	27 - 129	10	20
3-Nitroaniline	13	U	219	161		ug/L		73	41 - 128	17	20
4,6-Dinitro-2-methylphenol	25	U	438	403		ug/L		92	44 - 137	13	20
4-Bromophenyl phenyl ether	13	U M	219	180		ug/L		82	55 - 124	18	20
4-Chloro-3-methylphenol	13	U J1	219	152	J1	ug/L		69	52 - 119	27	20
4-Chloroaniline	5.1	U J1	219	120	J1	ug/L		55	33 - 117	27	20
4-Chlorophenyl phenyl ether	15	U J1	219	160	J1	ug/L		73	53 - 121	21	20
4-Nitroaniline	13	U	219	180		ug/L		82	55 - 115	16	20
4-Nitrophenol	25	U J1	438	181	J1	ug/L		41	13 - 130	26	20
Acetophenone	6.4	U J1	219	119	J1	ug/L		54	46 - 118	34	20
Atrazine	6.4	U	219	142		ug/L		65	44 - 142	12	20
Benzaldehyde	13	U J1	219	89.5	J1	ug/L		41	25 - 130	23	20
bis (2-chloroisopropyl) ether	13	U J1	219	110	J1	ug/L		50	37 - 130	40	20
Bis(2-chloroethoxy)methane	5.1	U J1	219	126	J1	ug/L		57	48 - 120	34	20
Bis(2-chloroethyl)ether	13	U Q J1	219	115	J1	ug/L		53	43 - 118	39	20

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 680-251033-1 MSD
Matrix: Water
Analysis Batch: 839362

Client Sample ID: OU6-MW-263-20240520
Prep Type: Total/NA
Prep Batch: 839165

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Bis(2-ethylhexyl) phthalate	13	U	219	203		ug/L		93	55 - 135	16	20
Butyl benzyl phthalate	13	U	219	207		ug/L		95	53 - 134	8	20
Caprolactam	13	U J1	219	59.7	M J1	ug/L		27	13 - 130	26	20
Carbazole	5.1	U	219	197		ug/L		90	60 - 122	15	20
Dibenzofuran	5.1	U J1	219	148	J1	ug/L		68	53 - 118	28	20
Diethyl phthalate	6.4	U	219	192		ug/L		88	56 - 125	15	20
Dimethyl phthalate	6.4	U J1	219	163	J1	ug/L		74	45 - 127	27	20
Di-n-butyl phthalate	6.4	U	219	203		ug/L		93	56 - 122	20	20
Di-n-octyl phthalate	13	U	219	211		ug/L		97	59 - 128	6	20
Hexachlorobenzene	5.1	U	219	184		ug/L		84	53 - 125	14	20
Hexachlorobutadiene	13	U J1	219	103	J1	ug/L		47	22 - 124	36	20
Hexachlorocyclopentadiene	13	U J1	219	77.6	J1	ug/L		35	28 - 130	44	20
Hexachloroethane	13	U J1	219	86.2	J1	ug/L		39	21 - 115	40	20
Isophorone	5.1	U J1	219	136	J1	ug/L		62	42 - 124	30	20
Nitrobenzene	13	U J1	219	115	J1	ug/L		52	45 - 121	36	20
N-Nitrosodi-n-propylamine	6.4	U J1	219	121	J1	ug/L		55	49 - 119	33	20
N-Nitrosodiphenylamine	13	U M	219	185		ug/L		84	51 - 123	16	20
Pentachlorophenol	25	U	438	380		ug/L		87	35 - 138	9	20
Phenol	5.1	U M J1	219	57.9	J1	ug/L		26	14 - 130	41	20
Pyridine	25	U J1	438	86.8	M J1	ug/L		20	10 - 130	25	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
2,4,6-Tribromophenol	*72*		*43 - 140*
2-Fluorobiphenyl	*55*		*44 - 119*
2-Fluorophenol	*27*		*19 - 119*
Nitrobenzene-d5	*48*		*44 - 120*
Phenol-d5	*22*		*10 - 130*
Terphenyl-d14	*85*		*50 - 134*

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 680-839376/1-A
Matrix: Water
Analysis Batch: 839636

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 839376

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	0.050	U M	0.20	0.018	ug/L		05/23/24 07:08	05/24/24 15:34	1
Acenaphthene	0.10	U M	0.20	0.042	ug/L		05/23/24 07:08	05/24/24 15:34	1
Acenaphthylene	0.050	U	0.20	0.017	ug/L		05/23/24 07:08	05/24/24 15:34	1
Pyrene	0.10	U M	0.20	0.027	ug/L		05/23/24 07:08	05/24/24 15:34	1
2-Methylnaphthalene	0.040	U	0.20	0.011	ug/L		05/23/24 07:08	05/24/24 15:34	1
Anthracene	0.050	U	0.20	0.018	ug/L		05/23/24 07:08	05/24/24 15:34	1
Benzo[a]pyrene	0.10	U	0.20	0.026	ug/L		05/23/24 07:08	05/24/24 15:34	1
Benzo[a]anthracene	0.10	U	0.20	0.026	ug/L		05/23/24 07:08	05/24/24 15:34	1
Benzo[b]fluoranthene	0.10	U	0.20	0.026	ug/L		05/23/24 07:08	05/24/24 15:34	1
Benzo[g,h,i]perylene	0.10	U M	0.20	0.026	ug/L		05/23/24 07:08	05/24/24 15:34	1
Benzo[k]fluoranthene	0.10	U	0.20	0.029	ug/L		05/23/24 07:08	05/24/24 15:34	1
Chrysene	0.050	U	0.20	0.023	ug/L		05/23/24 07:08	05/24/24 15:34	1
Dibenz(a,h)anthracene	0.050	U	0.20	0.024	ug/L		05/23/24 07:08	05/24/24 15:34	1

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: MB 680-839376/1-A
Matrix: Water
Analysis Batch: 839636

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 839376

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Phenanthrene	0.20	U	0.40	0.055	ug/L		05/23/24 07:08	05/24/24 15:34	1
Indeno[1,2,3-cd]pyrene	0.10	U	0.20	0.028	ug/L		05/23/24 07:08	05/24/24 15:34	1
Naphthalene	0.050	U	0.20	0.014	ug/L		05/23/24 07:08	05/24/24 15:34	1
Fluoranthene	0.10	U M	0.20	0.027	ug/L		05/23/24 07:08	05/24/24 15:34	1
Fluorene	0.10	U	0.20	0.025	ug/L		05/23/24 07:08	05/24/24 15:34	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*76*		*53 - 106*	*05/23/24 07:08*	*05/24/24 15:34*	*1*
2-methylnaphthalene-d10	*78*		*30 - 100*	*05/23/24 07:08*	*05/24/24 15:34*	*1*
Fluoranthene-d10	*91*		*42 - 114*	*05/23/24 07:08*	*05/24/24 15:34*	*1*
Nitrobenzene-d5	*86*		*42 - 100*	*05/23/24 07:08*	*05/24/24 15:34*	*1*
Terphenyl-d14	*100*		*53 - 111*	*05/23/24 07:08*	*05/24/24 15:34*	*1*

Lab Sample ID: LCS 680-839376/2-A
Matrix: Water
Analysis Batch: 839636

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 839376

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	10.0	6.89		ug/L		69	41 - 115
Acenaphthene	10.0	7.86		ug/L		79	48 - 114
Acenaphthylene	10.0	7.56		ug/L		76	35 - 121
Pyrene	10.0	9.35		ug/L		94	53 - 121
2-Methylnaphthalene	10.0	7.40		ug/L		74	39 - 114
Anthracene	10.0	8.34		ug/L		83	53 - 119
Benzo[a]pyrene	10.0	9.95		ug/L		100	53 - 120
Benzo[a]anthracene	10.0	9.53		ug/L		95	59 - 120
Benzo[b]fluoranthene	10.0	10.3		ug/L		103	53 - 126
Benzo[g,h,i]perylene	10.0	10.2		ug/L		102	44 - 128
Benzo[k]fluoranthene	10.0	9.70		ug/L		97	54 - 125
Chrysene	10.0	9.76		ug/L		98	57 - 120
Dibenz(a,h)anthracene	10.0	10.4		ug/L		104	44 - 131
Phenanthrene	10.0	8.38		ug/L		84	53 - 115
Indeno[1,2,3-cd]pyrene	10.0	10.2		ug/L		102	48 - 130
Naphthalene	10.0	6.94		ug/L		69	43 - 114
Fluoranthene	10.0	9.18		ug/L		92	58 - 120
Fluorene	10.0	7.89		ug/L		79	50 - 118

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*76*		*53 - 106*
2-methylnaphthalene-d10	*77*		*30 - 100*
Fluoranthene-d10	*96*		*42 - 114*
Nitrobenzene-d5	*84*		*42 - 100*
Terphenyl-d14	*102*		*53 - 111*

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: 680-251033-1 MS
Matrix: Water
Analysis Batch: 839636

Client Sample ID: OU6-MW-263-20240520
Prep Type: Total/NA
Prep Batch: 839376

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	0.068	U M	10.7	7.37		ug/L		69	30 - 130
Acenaphthene	0.38		10.7	8.80		ug/L		79	30 - 130
Acenaphthylene	0.068	U	10.7	8.10		ug/L		76	30 - 130
Pyrene	0.68		10.7	10.7		ug/L		94	30 - 130
2-Methylnaphthalene	0.054	U	10.7	8.01		ug/L		75	30 - 130
Anthracene	0.42		10.7	9.54		ug/L		85	30 - 130
Benzo[a]pyrene	0.14	U	10.7	10.0		ug/L		94	30 - 130
Benzo[a]anthracene	0.14	U	10.7	10.1		ug/L		94	30 - 130
Benzo[b]fluoranthene	0.14	U	10.7	10.6		ug/L		99	30 - 130
Benzo[g,h,i]perylene	0.14	U M	10.7	9.66		ug/L		90	30 - 130
Benzo[k]fluoranthene	0.14	U	10.7	9.35		ug/L		87	30 - 130
Chrysene	0.068	U	10.7	10.0		ug/L		94	30 - 130
Dibenz(a,h)anthracene	0.068	U	10.7	9.75		ug/L		91	30 - 130
Phenanthrene	0.27	U	10.7	9.31		ug/L		87	30 - 130
Indeno[1,2,3-cd]pyrene	0.14	U	10.7	9.78		ug/L		91	30 - 130
Naphthalene	0.37		10.7	7.44		ug/L		66	30 - 130
Fluoranthene	0.97		10.7	10.7		ug/L		91	30 - 130
Fluorene	0.34		10.7	8.99		ug/L		81	30 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
2-Fluorobiphenyl	*73*		*53 - 106*
2-methylnaphthalene-d10	*74*		*30 - 100*
Fluoranthene-d10	*97*		*42 - 114*
Nitrobenzene-d5	*80*		*42 - 100*
Terphenyl-d14	*95*		*53 - 111*

Lab Sample ID: 680-251033-1 MSD
Matrix: Water
Analysis Batch: 839636

Client Sample ID: OU6-MW-263-20240520
Prep Type: Total/NA
Prep Batch: 839376

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1-Methylnaphthalene	0.068	U M	11.6	8.00		ug/L		69	30 - 130	8	30
Acenaphthene	0.38		11.6	9.46		ug/L		78	30 - 130	7	50
Acenaphthylene	0.068	U	11.6	8.74		ug/L		75	30 - 130	8	50
Pyrene	0.68		11.6	12.0		ug/L		98	30 - 130	11	50
2-Methylnaphthalene	0.054	U	11.6	8.73		ug/L		75	30 - 130	9	50
Anthracene	0.42		11.6	10.4		ug/L		86	30 - 130	8	50
Benzo[a]pyrene	0.14	U	11.6	11.6		ug/L		100	30 - 130	14	50
Benzo[a]anthracene	0.14	U	11.6	11.4		ug/L		98	30 - 130	12	50
Benzo[b]fluoranthene	0.14	U	11.6	12.2		ug/L		105	30 - 130	15	50
Benzo[g,h,i]perylene	0.14	U M	11.6	11.4		ug/L		98	30 - 130	16	50
Benzo[k]fluoranthene	0.14	U	11.6	10.8		ug/L		93	30 - 130	15	50
Chrysene	0.068	U	11.6	11.3		ug/L		98	30 - 130	12	50
Dibenz(a,h)anthracene	0.068	U	11.6	11.4		ug/L		99	30 - 130	16	50
Phenanthrene	0.27	U	11.6	10.1		ug/L		87	30 - 130	8	50
Indeno[1,2,3-cd]pyrene	0.14	U	11.6	11.4		ug/L		99	30 - 130	15	50
Naphthalene	0.37		11.6	7.91		ug/L		65	30 - 130	6	50
Fluoranthene	0.97		11.6	12.0		ug/L		95	30 - 130	11	50

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: 680-251033-1 MSD — **Client Sample ID: OU6-MW-263-20240520**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 839636 — **Prep Batch: 839376**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Fluorene	0.34		11.6	9.55		ug/L		80	30 - 130	6	50

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
2-Fluorobiphenyl	*75*		*53 - 106*
2-methylnaphthalene-d10	*74*		*30 - 100*
Fluoranthene-d10	*100*		*42 - 114*
Nitrobenzene-d5	*80*		*42 - 100*
Terphenyl-d14	*101*		*53 - 111*

Method: 8270E SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Lab Sample ID: MB 680-839167/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 839173 — **Prep Batch: 839167**

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	0.10	U	0.20	0.032	ug/L		05/22/24 08:13	05/22/24 12:46	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*24*	*M*	*10 - 150*	*05/22/24 08:13*	*05/22/24 12:46*	*1*

Lab Sample ID: LCS 680-839167/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 839173 — **Prep Batch: 839167**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,4-Dioxane	10.0	11.6	M	ug/L		116	70 - 130

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,4-Dioxane-d8	*16*		*10 - 150*

Method: RSK-175 - Dissolved Gases (GC)

Lab Sample ID: MB 680-840649/8 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 840649

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	0.76	U	1.1	0.30	ug/L			06/01/24 13:01	1
Ethylene	0.71	U	1.0	0.31	ug/L			06/01/24 13:01	1
Methane	1.2	U	1.2	0.57	ug/L			06/01/24 13:01	1

Lab Sample ID: LCS 680-840649/3 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 840649

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Methane (TCD)	1920	2320		ug/L		121	73 - 125

Method: RSK-175 - Dissolved Gases (GC) (Continued)

Lab Sample ID: LCS 680-840649/6
Matrix: Water
Analysis Batch: 840649

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Ethane	288	337		ug/L		117	74 - 131
Ethylene	269	301		ug/L		112	72 - 133
Methane	154	172		ug/L		112	73 - 125

Lab Sample ID: LCSD 680-840649/4
Matrix: Water
Analysis Batch: 840649

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Methane (TCD)	1920	2300		ug/L		119	73 - 125	1	30

Lab Sample ID: LCSD 680-840649/7
Matrix: Water
Analysis Batch: 840649

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ethane	288	317		ug/L		110	74 - 131	6	30
Ethylene	269	283		ug/L		105	72 - 133	6	30
Methane	154	163		ug/L		106	73 - 125	5	30

Lab Sample ID: 680-251033-1 MS
Matrix: Water
Analysis Batch: 840649

Client Sample ID: OU6-MW-263-20240520
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethane	2.4		288	266		ug/L		91	74 - 131
Ethylene	0.76	J	269	235		ug/L		87	72 - 133
Methane (TCD)	2100	J1	154	2620	4	ug/L		321	73 - 125

Lab Sample ID: 680-251033-1 MSD
Matrix: Water
Analysis Batch: 840649

Client Sample ID: OU6-MW-263-20240520
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ethane	2.4		288	279		ug/L		96	74 - 131	5	30
Ethylene	0.76	J	269	245		ug/L		91	72 - 133	4	30
Methane (TCD)	2100	J1	154	3180	4	ug/L		683	73 - 125	19	30

Lab Sample ID: 680-251033-7 MS
Matrix: Water
Analysis Batch: 840649

Client Sample ID: OU6-MW-160-20240520
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethane	0.76	U	288	334		ug/L		116	74 - 131
Ethylene	0.71	U	269	300		ug/L		112	72 - 133
Methane	0.63	J	154	171		ug/L		111	73 - 125

Method: RSK-175 - Dissolved Gases (GC) (Continued)

Lab Sample ID: 680-251033-7 MSD
Matrix: Water
Analysis Batch: 840649

Client Sample ID: OU6-MW-160-20240520
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ethane	0.76	U	288	317		ug/L		110	74 - 131	5	30
Ethylene	0.71	U	269	281		ug/L		104	72 - 133	7	30
Methane	0.63	J	154	163		ug/L		105	73 - 125	5	30

Method: 8081B 8082A - Organochlorine Pesticides & PCBs (GC)

Lab Sample ID: MB 680-839562/1-A
Matrix: Water
Analysis Batch: 839672

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 839562

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	0.0040	U	0.050	0.0020	ug/L		05/24/24 07:17	05/24/24 18:26	1
4,4'-DDE	0.0040	U	0.050	0.0010	ug/L		05/24/24 07:17	05/24/24 18:26	1
4,4'-DDT	0.0040	U	0.050	0.0010	ug/L		05/24/24 07:17	05/24/24 18:26	1
Aldrin	0.0040	U	0.050	0.0020	ug/L		05/24/24 07:17	05/24/24 18:26	1
alpha-BHC	0.0040	U	0.050	0.0010	ug/L		05/24/24 07:17	05/24/24 18:26	1
beta-BHC	0.0040	U M	0.050	0.0020	ug/L		05/24/24 07:17	05/24/24 18:26	1
delta-BHC	0.0040	U	0.050	0.0020	ug/L		05/24/24 07:17	05/24/24 18:26	1
Dieldrin	0.0040	U	0.050	0.0020	ug/L		05/24/24 07:17	05/24/24 18:26	1
Endosulfan I	0.0040	U	0.050	0.0020	ug/L		05/24/24 07:17	05/24/24 18:26	1
Endosulfan II	0.0040	U	0.050	0.0020	ug/L		05/24/24 07:17	05/24/24 18:26	1
Endosulfan sulfate	0.0040	U	0.050	0.0020	ug/L		05/24/24 07:17	05/24/24 18:26	1
Endrin	0.0040	U	0.050	0.0010	ug/L		05/24/24 07:17	05/24/24 18:26	1
Endrin aldehyde	0.016	U	0.050	0.0040	ug/L		05/24/24 07:17	05/24/24 18:26	1
Endrin ketone	0.016	U	0.050	0.0040	ug/L		05/24/24 07:17	05/24/24 18:26	1
gamma-BHC (Lindane)	0.0040	U	0.050	0.0010	ug/L		05/24/24 07:17	05/24/24 18:26	1
Heptachlor	0.0040	U	0.050	0.0010	ug/L		05/24/24 07:17	05/24/24 18:26	1
Heptachlor epoxide	0.0040	U	0.050	0.0020	ug/L		05/24/24 07:17	05/24/24 18:26	1
Methoxychlor	0.0040	U	0.050	0.0020	ug/L		05/24/24 07:17	05/24/24 18:26	1
Chlordane (technical)	0.40	U	0.50	0.16	ug/L		05/24/24 07:17	05/24/24 18:26	1
PCB-1016	0.24	U	0.50	0.10	ug/L		05/24/24 07:17	05/24/24 18:26	1
PCB-1221	0.24	U	0.50	0.10	ug/L		05/24/24 07:17	05/24/24 18:26	1
PCB-1232	0.24	U	0.50	0.10	ug/L		05/24/24 07:17	05/24/24 18:26	1
PCB-1242	0.24	U	0.50	0.10	ug/L		05/24/24 07:17	05/24/24 18:26	1
PCB-1248	0.24	U	0.50	0.10	ug/L		05/24/24 07:17	05/24/24 18:26	1
PCB-1254	0.24	U	0.50	0.10	ug/L		05/24/24 07:17	05/24/24 18:26	1
PCB-1260	0.24	U	0.50	0.10	ug/L		05/24/24 07:17	05/24/24 18:26	1
Toxaphene	0.80	U	5.0	0.31	ug/L		05/24/24 07:17	05/24/24 18:26	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*72*	*M*	*14 - 130*	*05/24/24 07:17*	*05/24/24 18:26*	*1*
Tetrachloro-m-xylene	*51*		*44 - 124*	*05/24/24 07:17*	*05/24/24 18:26*	*1*

Lab Sample ID: LCS 680-839562/2-A
Matrix: Water
Analysis Batch: 839672

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 839562

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
4,4'-DDD	0.0400	0.0352	J	ug/L		88	56 - 143

Method: 8081B 8082A - Organochlorine Pesticides & PCBs (GC) (Continued)

Lab Sample ID: LCS 680-839562/2-A
Matrix: Water
Analysis Batch: 839672

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 839562

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
4,4'-DDE			0.0400	0.0296	J	ug/L		74	57 - 135		
4,4'-DDT			0.0400	0.0395	J	ug/L		99	51 - 143		
Aldrin			0.0400	0.0222	J	ug/L		56	45 - 134		
alpha-BHC			0.0400	0.0302	J	ug/L		75	54 - 138		
beta-BHC			0.0400	0.0321	J	ug/L		80	56 - 136		
delta-BHC			0.0400	0.0342	J	ug/L		86	52 - 142		
Dieldrin			0.0400	0.0327	J	ug/L		82	60 - 136		
Endosulfan I			0.0400	0.0283	J	ug/L		71	62 - 126		
Endosulfan II			0.0400	0.0329	J	ug/L		82	52 - 135		
Endosulfan sulfate			0.0400	0.0349	J	ug/L		87	62 - 133		
Endrin			0.0400	0.0335	J	ug/L		84	60 - 138		
Endrin aldehyde			0.0400	0.0325	J	ug/L		81	51 - 132		
Endrin ketone			0.0400	0.0587	Q	ug/L		147	58 - 134		
gamma-BHC (Lindane)			0.0400	0.0275	J	ug/L		69	59 - 134		
Heptachlor			0.0400	0.0290	J	ug/L		73	54 - 130		
Heptachlor epoxide			0.0400	0.0294	J	ug/L		74	61 - 133		
Methoxychlor			0.0400	0.0419	J	ug/L		105	54 - 145		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*75*		*14 - 130*
Tetrachloro-m-xylene	*49*		*44 - 124*

Lab Sample ID: LCS 680-839562/5-A
Matrix: Water
Analysis Batch: 839672

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 839562

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
PCB-1016			2.40	1.25		ug/L		52	46 - 129		
PCB-1260			2.40	1.33	M	ug/L		56	45 - 134		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*66*		*14 - 130*
Tetrachloro-m-xylene	*46*		*44 - 124*

Lab Sample ID: 680-251033-1 MS
Matrix: Water
Analysis Batch: 839672

Client Sample ID: OU6-MW-263-20240520
Prep Type: Total/NA
Prep Batch: 839562

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
4,4'-DDD	0.0047	U	0.0397	0.0396	J	ug/L		100	56 - 143		
4,4'-DDE	0.0047	U M	0.0397	0.0303	J	ug/L		76	57 - 135		
4,4'-DDT	0.0047	U	0.0397	0.0392	J	ug/L		99	51 - 143		
Aldrin	0.0047	U	0.0397	0.0275	J	ug/L		69	45 - 134		
alpha-BHC	0.0047	U J1	0.0397	0.0227	J	ug/L		57	54 - 138		
beta-BHC	0.0047	U	0.0397	0.0280	J	ug/L		71	56 - 136		
delta-BHC	0.0047	U	0.0397	0.0344	J	ug/L		87	52 - 142		
Dieldrin	0.0047	U	0.0397	0.0306	J	ug/L		77	60 - 136		
Endosulfan I	0.0047	U J1	0.0397	0.0279	J	ug/L		70	62 - 126		

Method: 8081B 8082A - Organochlorine Pesticides & PCBs (GC) (Continued)

Lab Sample ID: 680-251033-1 MS
Matrix: Water
Analysis Batch: 839672

Client Sample ID: OU6-MW-263-20240520
Prep Type: Total/NA
Prep Batch: 839562

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Endosulfan II	0.0047	U	0.0397	0.0317	J	ug/L		80	52 - 135
Endosulfan sulfate	0.0047	U	0.0397	0.0299	J	ug/L		75	62 - 133
Endrin	0.0047	U M	0.0397	0.0327	J	ug/L		82	60 - 138
Endrin aldehyde	0.019	U	0.0397	0.0311	J	ug/L		78	51 - 132
Endrin ketone	0.019	U Q J1	0.0397	0.0618	J1	ug/L		156	58 - 134
gamma-BHC (Lindane)	0.0047	U J1	0.0397	0.0253	J	ug/L		64	59 - 134
Heptachlor	0.0047	U J1	0.0397	0.0246	J	ug/L		62	54 - 130
Heptachlor epoxide	0.0047	U	0.0397	0.0288	J	ug/L		73	61 - 133
Methoxychlor	0.0047	U	0.0397	0.0456	J	ug/L		115	54 - 145

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*53*		*14 - 130*
Tetrachloro-m-xylene	*39*	*Q*	*44 - 124*

Lab Sample ID: 680-251033-1 MS
Matrix: Water
Analysis Batch: 839672

Client Sample ID: OU6-MW-263-20240520
Prep Type: Total/NA
Prep Batch: 839562

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
PCB-1016	0.28	U J1	2.66	1.19	M J1	ug/L		45	46 - 129
PCB-1260	0.28	U	2.66	1.39		ug/L		52	45 - 134

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*47*		*14 - 130*
Tetrachloro-m-xylene	*29*	*Q*	*44 - 124*

Lab Sample ID: 680-251033-1 MSD
Matrix: Water
Analysis Batch: 839672

Client Sample ID: OU6-MW-263-20240520
Prep Type: Total/NA
Prep Batch: 839562

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
4,4'-DDD	0.0047	U	0.0506	0.0459	J	ug/L		91	56 - 143	15	30
4,4'-DDE	0.0047	U M	0.0506	0.0334	J	ug/L		66	57 - 135	10	30
4,4'-DDT	0.0047	U	0.0506	0.0455	J	ug/L		90	51 - 143	15	30
Aldrin	0.0047	U	0.0506	0.0276	J	ug/L		54	45 - 134	0	30
alpha-BHC	0.0047	U J1	0.0506	0.0241	J J1	ug/L		48	54 - 138	6	30
beta-BHC	0.0047	U	0.0506	0.0285	J	ug/L		56	56 - 136	2	30
delta-BHC	0.0047	U	0.0506	0.0403	J	ug/L		79	52 - 142	16	30
Dieldrin	0.0047	U	0.0506	0.0369	J	ug/L		73	60 - 136	19	30
Endosulfan I	0.0047	U J1	0.0506	0.0288	J J1	ug/L		57	62 - 126	3	30
Endosulfan II	0.0047	U	0.0506	0.0385	J	ug/L		76	52 - 135	19	30
Endosulfan sulfate	0.0047	U	0.0506	0.0359	J	ug/L		71	62 - 133	18	30
Endrin	0.0047	U M	0.0506	0.0371	J M	ug/L		73	60 - 138	13	30
Endrin aldehyde	0.019	U	0.0506	0.0333	J	ug/L		66	51 - 132	7	30
Endrin ketone	0.019	U Q J1	0.0506	0.0649		ug/L		128	58 - 134	5	30
gamma-BHC (Lindane)	0.0047	U J1	0.0506	0.0260	J J1	ug/L		51	59 - 134	3	30
Heptachlor	0.0047	U J1	0.0506	0.0237	J J1	ug/L		47	54 - 130	4	30
Heptachlor epoxide	0.0047	U	0.0506	0.0347	J	ug/L		69	61 - 133	19	30

Method: 8081B 8082A - Organochlorine Pesticides & PCBs (GC) (Continued)

Lab Sample ID: 680-251033-1 MSD — **Client Sample ID: OU6-MW-263-20240520**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 839672 — **Prep Batch: 839562**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Methoxychlor	0.0047	U	0.0506	0.0513	J	ug/L		101	54 - 145	12	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
DCB Decachlorobiphenyl	*53*		*14 - 130*
Tetrachloro-m-xylene	*32*	*Q*	*44 - 124*

Lab Sample ID: 680-251033-1 MSD — **Client Sample ID: OU6-MW-263-20240520**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 839672 — **Prep Batch: 839562**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
PCB-1016	0.28	U J1	3.00	1.20	J1	ug/L		40	46 - 129	1	30
PCB-1260	0.28	U	3.00	1.68		ug/L		56	45 - 134	19	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
DCB Decachlorobiphenyl	*58*		*14 - 130*
Tetrachloro-m-xylene	*29*	*Q*	*44 - 124*

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 680-839088/2 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 839088

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.050	U	0.055	0.023	mg/L			05/21/24 10:06	1
Nitrate Nitrite as N	0.050	U	0.055	0.023	mg/L			05/21/24 10:06	1
Nitrite as N	0.050	U	0.055	0.023	mg/L			05/21/24 10:06	1

Lab Sample ID: LCS 680-839088/4 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 839088

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrate as N	1.00	1.02	M	mg/L		102	88 - 111
Nitrate Nitrite as N	2.00	2.05		mg/L		102	88 - 111
Nitrite as N	1.00	1.03		mg/L		103	87 - 111

Lab Sample ID: LCSD 680-839088/5 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 839088

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrate as N	1.00	1.03	M	mg/L		103	88 - 111	1	15
Nitrate Nitrite as N	2.00	2.06		mg/L		103	88 - 111	0	15
Nitrite as N	1.00	1.03		mg/L		103	87 - 111	0	15

Method: 9056A - Anions, Ion Chromatography (Continued)

Lab Sample ID: 680-251033-1 MS — **Client Sample ID: OU6-MW-263-20240520**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 839088

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrate as N	0.050	U	1.00	1.05	M	mg/L		105	88 - 111
Nitrate Nitrite as N	0.050	U	2.00	1.82		mg/L		91	88 - 111
Nitrite as N	0.050	U M J1	1.00	0.774	J1	mg/L		77	87 - 111

Lab Sample ID: 680-251033-1 MSD — **Client Sample ID: OU6-MW-263-20240520**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 839088

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrate as N	0.050	U	1.00	1.08	M	mg/L		108	88 - 111	2	15
Nitrate Nitrite as N	0.050	U	2.00	1.87		mg/L		93	88 - 111	2	15
Nitrite as N	0.050	U M J1	1.00	0.785	J1	mg/L		79	87 - 111	1	15

Lab Sample ID: 680-251033-7 MS — **Client Sample ID: OU6-MW-160-20240520**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 839088

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrate as N	0.70	J1	1.00	1.79		mg/L		109	88 - 111
Nitrate Nitrite as N	0.70		2.00	2.80		mg/L		105	88 - 111
Nitrite as N	0.050	U	1.00	1.01		mg/L		101	87 - 111

Lab Sample ID: 680-251033-7 MSD — **Client Sample ID: OU6-MW-160-20240520**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 839088

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrate as N	0.70	J1	1.00	1.83	J1	mg/L		113	88 - 111	2	15
Nitrate Nitrite as N	0.70		2.00	2.85		mg/L		107	88 - 111	2	15
Nitrite as N	0.050	U	1.00	1.02		mg/L		102	87 - 111	1	15

Lab Sample ID: MB 680-840533/2 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 840533

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.50	U	0.55	0.20	mg/L			05/31/24 11:17	1
Sulfate	1.0	U	1.5	0.40	mg/L			05/31/24 11:17	1

Lab Sample ID: LCS 680-840533/3 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 840533

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	10.0	10.8		mg/L		108	87 - 111
Sulfate	10.0	10.7		mg/L		107	87 - 112

Method: 9056A - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 680-840533/4
Matrix: Water
Analysis Batch: 840533

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			10.0	10.6		mg/L		106	87 - 111	2	15
Sulfate			10.0	10.5		mg/L		105	87 - 112	2	15

Lab Sample ID: LLCS 680-840533/5
Matrix: Water
Analysis Batch: 840533

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			0.500	0.506	J M	mg/L		101			
Sulfate			1.00	1.11	J	mg/L		111			

Lab Sample ID: MB 680-840534/33
Matrix: Water
Analysis Batch: 840534

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.50	U M	0.55	0.20	mg/L			05/31/24 15:48	1
Sulfate	1.0	U	1.5	0.40	mg/L			05/31/24 15:48	1

Lab Sample ID: LCS 680-840534/34
Matrix: Water
Analysis Batch: 840534

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			10.0	10.4		mg/L		104	87 - 111		
Sulfate			10.0	10.5		mg/L		105	87 - 112		

Lab Sample ID: LCSD 680-840534/35
Matrix: Water
Analysis Batch: 840534

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			10.0	10.3		mg/L		103	87 - 111	1	15
Sulfate			10.0	10.4		mg/L		104	87 - 112	1	15

Lab Sample ID: 680-251033-1 MS
Matrix: Water
Analysis Batch: 840534

Client Sample ID: OU6-MW-263-20240520
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	28	D	50.0	77.3	D	mg/L		98	87 - 111		
Sulfate	150	D	50.0	202	D	mg/L		109	87 - 112		

Lab Sample ID: 680-251033-1 MSD
Matrix: Water
Analysis Batch: 840534

Client Sample ID: OU6-MW-263-20240520
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	28	D	50.0	77.7	D	mg/L		99	87 - 111	1	15
Sulfate	150	D	50.0	204	D	mg/L		112	87 - 112	1	15

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: 680-251033-7 MS
Matrix: Water
Analysis Batch: 840534

Client Sample ID: OU6-MW-160-20240520
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	12	J1	10.0	15.7	J1	mg/L		40	87 - 111
Sulfate	30	J1	10.0	11.6	J1	mg/L		-186	87 - 112

Lab Sample ID: 680-251033-7 MSD
Matrix: Water
Analysis Batch: 840534

Client Sample ID: OU6-MW-160-20240520
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	12	J1	10.0	15.6	J1	mg/L		39	87 - 111	0	15
Sulfate	30	J1	10.0	11.5	J1	mg/L		-187	87 - 112	1	15

Lab Sample ID: MB 680-840652/2
Matrix: Water
Analysis Batch: 840652

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.50	U	0.55	0.20	mg/L			06/01/24 13:40	1
Sulfate	1.0	U	1.5	0.40	mg/L			06/01/24 13:40	1

Lab Sample ID: LCS 680-840652/3
Matrix: Water
Analysis Batch: 840652

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	10.0	10.5		mg/L		105	87 - 111
Sulfate	10.0	10.6		mg/L		106	87 - 112

Lab Sample ID: LCSD 680-840652/4
Matrix: Water
Analysis Batch: 840652

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	10.0	10.4		mg/L		104	87 - 111	0	15
Sulfate	10.0	10.5		mg/L		105	87 - 112	1	15

Lab Sample ID: MB 680-840653/33
Matrix: Water
Analysis Batch: 840653

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.50	U	0.55	0.20	mg/L			06/01/24 18:50	1
Sulfate	1.0	U	1.5	0.40	mg/L			06/01/24 18:50	1

Lab Sample ID: LCS 680-840653/34
Matrix: Water
Analysis Batch: 840653

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	10.0	10.4		mg/L		104	87 - 111
Sulfate	10.0	10.6		mg/L		106	87 - 112

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: LCSD 680-840653/35
Matrix: Water
Analysis Batch: 840653

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			10.0	10.5		mg/L		105	87 - 111	0	15
Sulfate			10.0	10.6		mg/L		106	87 - 112	1	15

Lab Sample ID: 680-251033-4 MS
Matrix: Water
Analysis Batch: 840653

Client Sample ID: OU6-MW-275-20240520
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	68	D M J1	50.0	124	D J1	mg/L		113	87 - 111		
Sulfate	2.4	J D	50.0	55.5	D	mg/L		106	87 - 112		

Lab Sample ID: 680-251033-4 MSD
Matrix: Water
Analysis Batch: 840653

Client Sample ID: OU6-MW-275-20240520
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	68	D M J1	50.0	124	D J1	mg/L		112	87 - 111	0	15
Sulfate	2.4	J D	50.0	55.1	D	mg/L		105	87 - 112	1	15

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 680-839176/1-A
Matrix: Water
Analysis Batch: 839863

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 839176

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	100	U	200	35	ug/L		05/22/24 08:57	05/25/24 09:35	1
Antimony	1.5	U	5.0	0.34	ug/L		05/22/24 08:57	05/25/24 09:35	1
Arsenic	3.0	U	5.0	0.86	ug/L		05/22/24 08:57	05/25/24 09:35	1
Barium	2.0	U Q	5.0	0.89	ug/L		05/22/24 08:57	05/25/24 09:35	1
Beryllium	0.40	U	0.50	0.20	ug/L		05/22/24 08:57	05/25/24 09:35	1
Boron	75	U	100	22	ug/L		05/22/24 08:57	05/25/24 09:35	1
Cadmium	0.20	U	0.50	0.078	ug/L		05/22/24 08:57	05/25/24 09:35	1
Calcium	300	U	500	140	ug/L		05/22/24 08:57	05/25/24 09:35	1
Chromium	2.5	U	20	0.81	ug/L		05/22/24 08:57	05/25/24 09:35	1
Cobalt	0.50	U	1.0	0.22	ug/L		05/22/24 08:57	05/25/24 09:35	1
Copper	2.0	U	5.0	1.1	ug/L		05/22/24 08:57	05/25/24 09:35	1
Iron	75	U	100	12	ug/L		05/22/24 08:57	05/25/24 09:35	1
Lead	1.0	U	2.5	0.21	ug/L		05/22/24 08:57	05/25/24 09:35	1
Magnesium	60	U	250	23	ug/L		05/22/24 08:57	05/25/24 09:35	1
Manganese	5.0	U	10	2.2	ug/L		05/22/24 08:57	05/25/24 09:35	1
Nickel	1.0	U	10	0.42	ug/L		05/22/24 08:57	05/25/24 09:35	1
Potassium	100	U	1000	44	ug/L		05/22/24 08:57	05/25/24 09:35	1
Selenium	2.5	U	5.0	0.99	ug/L		05/22/24 08:57	05/25/24 09:35	1
Silver	1.0	U	2.0	0.39	ug/L		05/22/24 08:57	05/25/24 09:35	1
Sodium	500	U	1000	200	ug/L		05/22/24 08:57	05/25/24 09:35	1
Thallium	1.0	U	2.0	0.26	ug/L		05/22/24 08:57	05/25/24 09:35	1
Vanadium	2.5	U	10	0.63	ug/L		05/22/24 08:57	05/25/24 09:35	1
Zinc	20	U	25	2.8	ug/L		05/22/24 08:57	05/25/24 09:35	1

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 680-839176/2-A
Matrix: Water
Analysis Batch: 839863

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 839176

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aluminum	5050	5150		ug/L		102	84 - 117
Antimony	50.0	55.3		ug/L		111	85 - 117
Arsenic	100	100		ug/L		100	84 - 116
Barium	100	96.5	Q	ug/L		97	86 - 114
Beryllium	50.0	55.6		ug/L		111	83 - 121
Boron	400	442		ug/L		110	73 - 130
Cadmium	50.0	50.1		ug/L		100	87 - 115
Calcium	5000	5090		ug/L		102	87 - 118
Chromium	100	105		ug/L		104	85 - 116
Cobalt	50.0	53.1		ug/L		106	86 - 115
Copper	101	99.4		ug/L		98	85 - 118
Iron	4990	5140		ug/L		103	87 - 118
Lead	500	520		ug/L		104	88 - 115
Magnesium	5000	5200		ug/L		104	83 - 118
Manganese	400	399		ug/L		100	87 - 115
Nickel	100	103		ug/L		103	85 - 117
Potassium	7000	7240		ug/L		103	87 - 115
Selenium	100	97.0		ug/L		97	80 - 120
Silver	50.0	51.4		ug/L		103	85 - 116
Sodium	5030	5220		ug/L		104	85 - 117
Thallium	50.0	54.2		ug/L		108	82 - 116
Vanadium	100	101		ug/L		101	86 - 115
Zinc	50.5	53.0		ug/L		105	83 - 119

Lab Sample ID: 680-251033-1 MS
Matrix: Water
Analysis Batch: 839863

Client Sample ID: OU6-MW-263-20240520
Prep Type: Total Recoverable
Prep Batch: 839176

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Aluminum	56	J	5050	5050		ug/L		99	84 - 117
Antimony	1.5	U	50.0	55.2		ug/L		110	85 - 117
Arsenic	5.8		100	103		ug/L		97	84 - 116
Barium	51	Q	100	143	Q	ug/L		92	86 - 114
Beryllium	0.40	U	50.0	51.7		ug/L		103	83 - 121
Boron	320		400	712		ug/L		98	73 - 130
Cadmium	0.20	U	50.0	49.6		ug/L		99	87 - 115
Calcium	50000	J1	5000	50600	4	ug/L		8	87 - 118
Chromium	0.86	J	100	100		ug/L		99	85 - 116
Cobalt	1.4		50.0	51.8		ug/L		101	86 - 115
Copper	2.0	U	101	97.0		ug/L		96	85 - 118
Iron	40000	J1	4990	39800	4	ug/L		-5	87 - 118
Lead	1.0	U	500	493		ug/L		99	88 - 115
Magnesium	75000	J1	5000	73500	4	ug/L		-24	83 - 118
Manganese	160	J1	400	517		ug/L		89	87 - 115
Nickel	2.2	J	100	100		ug/L		98	85 - 117
Potassium	4000		7000	10500		ug/L		93	87 - 115
Selenium	2.5	U	100	95.8		ug/L		96	80 - 120
Silver	1.0	U	50.0	49.8		ug/L		100	85 - 116
Sodium	93000	J1	5030	82500	4	ug/L		-217	85 - 117

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 680-251033-1 MS
Matrix: Water
Analysis Batch: 839863

Client Sample ID: OU6-MW-263-20240520
Prep Type: Total Recoverable
Prep Batch: 839176

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Thallium	1.0	U	50.0	51.2		ug/L		102	82 - 116
Vanadium	2.5	U	100	99.2		ug/L		99	86 - 115
Zinc	41	J1	50.5	90.7		ug/L		98	83 - 119

Lab Sample ID: 680-251033-1 MSD
Matrix: Water
Analysis Batch: 839863

Client Sample ID: OU6-MW-263-20240520
Prep Type: Total Recoverable
Prep Batch: 839176

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aluminum	56	J	5050	5050		ug/L		99	84 - 117	0	20
Antimony	1.5	U	50.0	54.4		ug/L		109	85 - 117	2	20
Arsenic	5.8		100	100		ug/L		95	84 - 116	2	20
Barium	51	Q	100	139	Q	ug/L		88	86 - 114	3	20
Beryllium	0.40	U	50.0	49.6		ug/L		99	83 - 121	4	20
Boron	320		400	728		ug/L		102	73 - 130	2	20
Cadmium	0.20	U	50.0	49.5		ug/L		99	87 - 115	0	20
Calcium	50000	J1	5000	52600	4	ug/L		47	87 - 118	4	20
Chromium	0.86	J	100	98.8		ug/L		98	85 - 116	2	20
Cobalt	1.4		50.0	50.3		ug/L		98	86 - 115	3	20
Copper	2.0	U	101	95.7		ug/L		95	85 - 118	1	20
Iron	40000	J1	4990	33900	4	ug/L		-123	87 - 118	16	20
Lead	1.0	U	500	488		ug/L		98	88 - 115	1	20
Magnesium	75000	J1	5000	76700	4	ug/L		40	83 - 118	4	20
Manganese	160	J1	400	491	J1	ug/L		82	87 - 115	5	20
Nickel	2.2	J	100	97.1		ug/L		95	85 - 117	3	20
Potassium	4000		7000	10500		ug/L		92	87 - 115	1	20
Selenium	2.5	U	100	93.7		ug/L		94	80 - 120	2	20
Silver	1.0	U	50.0	49.8		ug/L		100	85 - 116	0	20
Sodium	93000	J1	5030	58400	4 J1	ug/L		-696	85 - 117	34	20
Thallium	1.0	U	50.0	51.0		ug/L		102	82 - 116	0	20
Vanadium	2.5	U	100	98.6		ug/L		99	86 - 115	1	20
Zinc	41	J1	50.5	108	J1	ug/L		133	83 - 119	18	20

Lab Sample ID: MB 680-839177/1-A
Matrix: Water
Analysis Batch: 839381

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 839177

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	5.0	U	10	2.2	ug/L		05/22/24 09:04	05/22/24 13:00	1

Lab Sample ID: LCS 680-839177/2-A
Matrix: Water
Analysis Batch: 839381

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 839177

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Manganese	400	454		ug/L		113	87 - 115

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 680-251033-7 MS — **Client Sample ID: OU6-MW-160-20240520**
Matrix: Water — **Prep Type: Total Recoverable**
Analysis Batch: 839381 — **Prep Batch: 839177**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Manganese	20		400	453		ug/L		108	87 - 115

Lab Sample ID: 680-251033-7 MSD — **Client Sample ID: OU6-MW-160-20240520**
Matrix: Water — **Prep Type: Total Recoverable**
Analysis Batch: 839381 — **Prep Batch: 839177**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Manganese	20		400	472		ug/L		113	87 - 115	4	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 680-840140/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 840431 — **Prep Batch: 840140**

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	0.20	U	0.25	0.080	ug/L		05/29/24 10:24	05/29/24 14:35	1

Lab Sample ID: LCS 680-840140/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 840431 — **Prep Batch: 840140**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Hg	2.50	2.55		ug/L		102	80 - 124

Lab Sample ID: 680-251033-1 MS — **Client Sample ID: OU6-MW-263-20240520**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 840431 — **Prep Batch: 840140**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Hg	0.20	U	1.00	1.00		ug/L		100	80 - 124

Lab Sample ID: 680-251033-1 MSD — **Client Sample ID: OU6-MW-263-20240520**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 840431 — **Prep Batch: 840140**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Hg	0.20	U	1.00	1.03		ug/L		103	80 - 124	2	20

Method: 2320B-2011 - Alkalinity, Total

Lab Sample ID: MB 680-839638/4 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 839638

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	5.0	U	5.5	2.2	mg/L			05/23/24 16:31	1
Bicarbonate Alkalinity as CaCO3	10	U	11	5.0	mg/L			05/23/24 16:31	1
Carbonate Alkalinity as CaCO3	10	U	11	5.0	mg/L			05/23/24 16:31	1

Method: 2320B-2011 - Alkalinity, Total (Continued)

Lab Sample ID: LCS 680-839638/6
Matrix: Water
Analysis Batch: 839638

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Alkalinity as CaCO3 to pH 4.5			250	243		mg/L		97	90 - 112		

Lab Sample ID: LCSD 680-839638/31
Matrix: Water
Analysis Batch: 839638

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5			250	246		mg/L		98	90 - 112	1	30

Lab Sample ID: 680-251033-2 DU
Matrix: Water
Analysis Batch: 839638

Client Sample ID: OU6-MW-269-20240520
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5	4.8	J		5.0	U	mg/L				NC	30
Bicarbonate Alkalinity as CaCO3	10	U		10	U	mg/L				NC	30
Carbonate Alkalinity as CaCO3	10	U		10	U	mg/L				NC	30

Method: 4500 S2 F-2011 - Sulfide, Total

Lab Sample ID: MB 680-839314/1
Matrix: Water
Analysis Batch: 839314

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	1.0	U	1.0	1.0	mg/L			05/22/24 15:19	1
Sulfide as H2S	1.1	U	1.1	1.1	mg/L			05/22/24 15:19	1

Lab Sample ID: LCS 680-839314/2
Matrix: Water
Analysis Batch: 839314

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Sulfide			10.0	8.62		mg/L		86	75 - 125		
Sulfide as H2S			10.6	9.16		mg/L		86	75 - 125		

Lab Sample ID: LCSD 680-839314/3
Matrix: Water
Analysis Batch: 839314

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sulfide			10.0	8.25		mg/L		82	75 - 125	4	30
Sulfide as H2S			10.6	8.76		mg/L		82	75 - 125	4	30

Method: 4500 S2 F-2011 - Sulfide, Total (Continued)

Lab Sample ID: 680-251033-1 MS — **Client Sample ID: OU6-MW-263-20240520**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 839314

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Sulfide	0.86	U	9.24	7.14		mg/L		77	75 - 125		
Sulfide as H2S	0.95	U	9.82	7.59		mg/L		77	75 - 125		

Lab Sample ID: 680-251033-1 MSD — **Client Sample ID: OU6-MW-263-20240520**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 839314

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sulfide	0.86	U	9.24	7.89		mg/L		85	75 - 125	10	30
Sulfide as H2S	0.95	U	9.82	8.38		mg/L		85	75 - 125	10	30

Lab Sample ID: 680-251033-4 DU — **Client Sample ID: OU6-MW-275-20240520**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 839314

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Sulfide	0.81	U	0.89	U	mg/L		NC	30
Sulfide as H2S	0.89	U	0.98	U	mg/L		NC	30

Lab Sample ID: MB 680-839678/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 839678

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	1.0	U	1.0	1.0	mg/L			05/24/24 12:46	1
Sulfide as H2S	1.1	U	1.1	1.1	mg/L			05/24/24 12:46	1

Lab Sample ID: LCS 680-839678/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 839678

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfide	10.0	8.16		mg/L		82	75 - 125
Sulfide as H2S	10.6	8.67		mg/L		82	75 - 125

Lab Sample ID: LCSD 680-839678/3 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 839678

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sulfide	10.0	8.07		mg/L		81	75 - 125	1	30
Sulfide as H2S	10.6	8.57		mg/L		81	75 - 125	1	30

Lab Sample ID: 680-251033-7 MS — **Client Sample ID: OU6-MW-160-20240520**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 839678

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Sulfide	0.81	U	6.50	7.15		mg/L		110	75 - 125		
Sulfide as H2S	0.89	U	6.91	7.59		mg/L		110	75 - 125		

Method: 4500 S2 F-2011 - Sulfide, Total

Lab Sample ID: 680-251033-7 MSD — **Client Sample ID: OU6-MW-160-20240520**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 839678

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sulfide	0.81	U	6.50	6.78		mg/L		104	75 - 125	5	30
Sulfide as H2S	0.89	U	6.91	7.21		mg/L		104	75 - 125	5	30

Lab Sample ID: 680-251033-8 DU — **Client Sample ID: OU6-MW-95-20240520**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 839678

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Sulfide	0.81	U	0.81	U	mg/L		NC	30
Sulfide as H2S	0.89	U	0.89	U	mg/L		NC	30

Method: 9060A - Organic Carbon, Total (TOC)

Lab Sample ID: MB 680-839736/3 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 839736

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	1.0	U	1.0	0.50	mg/L			05/23/24 10:02	1

Lab Sample ID: LCS 680-839736/4 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 839736

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Organic Carbon	20.0	19.3		mg/L		96	80 - 120

Lab Sample ID: LCSD 680-839736/5 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 839736

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Organic Carbon	20.0	19.7		mg/L		98	80 - 120	2	25

Lab Sample ID: 680-251033-1 MS — **Client Sample ID: OU6-MW-263-20240520**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 839736

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Total Organic Carbon	12		25.0	32.7		mg/L		82	80 - 120

Lab Sample ID: 680-251033-1 MSD — **Client Sample ID: OU6-MW-263-20240520**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 839736

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Organic Carbon	12		25.0	32.6		mg/L		82	80 - 120	1	25

Method: 9060A - Organic Carbon, Total (TOC) (Continued)

Lab Sample ID: MB 680-839737/1
Matrix: Water
Analysis Batch: 839737

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	1.0	U	1.0	0.50	mg/L			05/23/24 20:38	1

Lab Sample ID: LCS 680-839737/2
Matrix: Water
Analysis Batch: 839737

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Organic Carbon			20.0	21.0		mg/L		105	80 - 120		

Lab Sample ID: LCSD 680-839737/3
Matrix: Water
Analysis Batch: 839737

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Organic Carbon			20.0	20.4		mg/L		102	80 - 120	3	25

Lab Sample ID: 680-251033-7 MS
Matrix: Water
Analysis Batch: 839737

Client Sample ID: OU6-MW-160-20240520
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Organic Carbon	1.0	U	25.0	21.1		mg/L		84	80 - 120		

Lab Sample ID: 680-251033-7 MSD
Matrix: Water
Analysis Batch: 839737

Client Sample ID: OU6-MW-160-20240520
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Organic Carbon	1.0	U	25.0	21.7		mg/L		87	80 - 120	3	25

Lab Sample ID: MB 680-839738/1
Matrix: Water
Analysis Batch: 839738

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	1.0	U	1.0	0.50	mg/L			05/24/24 01:29	1

Lab Sample ID: LCS 680-839738/2
Matrix: Water
Analysis Batch: 839738

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Organic Carbon			20.0	21.0		mg/L		105	80 - 120		

Lab Sample ID: LCSD 680-839738/3
Matrix: Water
Analysis Batch: 839738

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Organic Carbon			20.0	20.5		mg/L		103	80 - 120	2	25

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-251033-1

Method: 9060A - Organic Carbon, Total (TOC)

Lab Sample ID: 680-251033-17 DU
Matrix: Water
Analysis Batch: 839738

Client Sample ID: OU6-MW-282-20240520
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Organic Carbon	1.9			1.99		mg/L				3	25

Method: SM 4500 CO2 D - Carbon Dioxide and Forms of Alkalinity by Calculation

Lab Sample ID: 680-251033-2 DU
Matrix: Water
Analysis Batch: 839638

Client Sample ID: OU6-MW-269-20240520
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Carbon Dioxide, Free	43			15.3	J1	mg/L				96	30

GC/MS VOA

Analysis Batch: 840334

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251033-1	OU6-MW-263-20240520	Total/NA	Water	8260D	
680-251033-2	OU6-MW-269-20240520	Total/NA	Water	8260D	
680-251033-3	OU6-MW-274-20240520	Total/NA	Water	8260D	
680-251033-5	OU6-MW-222-20240520	Total/NA	Water	8260D	
680-251033-6	OU6-MW-283-20240520	Total/NA	Water	8260D	
680-251033-8	OU6-MW-95-20240520	Total/NA	Water	8260D	
680-251033-9	OU6-MW-292-20240520	Total/NA	Water	8260D	
680-251033-10	OU6-MW-295-20240520	Total/NA	Water	8260D	
680-251033-11	OU6-MW-145-20240520	Total/NA	Water	8260D	
680-251033-12	DUP-3-20240520	Total/NA	Water	8260D	
680-251033-13	DUP-4-20240520	Total/NA	Water	8260D	
680-251033-14	TRIP-BLANK-20240520	Total/NA	Water	8260D	
680-251033-15	OU6-MW-276-20240520	Total/NA	Water	8260D	
680-251033-16	OU6-MW-266-20240520	Total/NA	Water	8260D	
680-251033-17	OU6-MW-282-20240520	Total/NA	Water	8260D	
680-251033-18	OU6-MW-268-20240520	Total/NA	Water	8260D	
MB 680-840334/8	Method Blank	Total/NA	Water	8260D	
LCS 680-840334/4	Lab Control Sample	Total/NA	Water	8260D	
LCSD 680-840334/5	Lab Control Sample Dup	Total/NA	Water	8260D	
680-251033-1 MS	OU6-MW-263-20240520	Total/NA	Water	8260D	
680-251033-1 MSD	OU6-MW-263-20240520	Total/NA	Water	8260D	

Analysis Batch: 840504

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251033-1	OU6-MW-263-20240520	Total/NA	Water	8260D	
680-251033-4	OU6-MW-275-20240520	Total/NA	Water	8260D	
680-251033-7	OU6-MW-160-20240520	Total/NA	Water	8260D	
680-251033-9	OU6-MW-292-20240520	Total/NA	Water	8260D	
680-251033-13	DUP-4-20240520	Total/NA	Water	8260D	
680-251033-14	TRIP-BLANK-20240520	Total/NA	Water	8260D	
680-251033-16	OU6-MW-266-20240520	Total/NA	Water	8260D	
MB 680-840504/8	Method Blank	Total/NA	Water	8260D	
LCS 680-840504/4	Lab Control Sample	Total/NA	Water	8260D	
LCSD 680-840504/5	Lab Control Sample Dup	Total/NA	Water	8260D	

Analysis Batch: 840778

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251033-4	OU6-MW-275-20240520	Total/NA	Water	8260D	
680-251033-8	OU6-MW-95-20240520	Total/NA	Water	8260D	
680-251033-18 - DL	OU6-MW-268-20240520	Total/NA	Water	8260D	
MB 680-840778/8	Method Blank	Total/NA	Water	8260D	
LCS 680-840778/4	Lab Control Sample	Total/NA	Water	8260D	
LCSD 680-840778/5	Lab Control Sample Dup	Total/NA	Water	8260D	
680-251033-7 MS	OU6-MW-160-20240520	Total/NA	Water	8260D	
680-251033-7 MSD	OU6-MW-160-20240520	Total/NA	Water	8260D	

GC/MS Semi VOA

Prep Batch: 839165

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251033-1	OU6-MW-263-20240520	Total/NA	Water	3510C	

GC/MS Semi VOA (Continued)

Prep Batch: 839165 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251033-2	OU6-MW-269-20240520	Total/NA	Water	3510C	
MB 680-839165/1-A	Method Blank	Total/NA	Water	3510C	
LCS 680-839165/2-A	Lab Control Sample	Total/NA	Water	3510C	
680-251033-1 MS	OU6-MW-263-20240520	Total/NA	Water	3510C	
680-251033-1 MSD	OU6-MW-263-20240520	Total/NA	Water	3510C	

Prep Batch: 839167

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251033-8	OU6-MW-95-20240520	Total/NA	Water	3510C	
MB 680-839167/1-A	Method Blank	Total/NA	Water	3510C	
LCS 680-839167/2-A	Lab Control Sample	Total/NA	Water	3510C	

Analysis Batch: 839173

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251033-8	OU6-MW-95-20240520	Total/NA	Water	8270E SIM ID	839167
MB 680-839167/1-A	Method Blank	Total/NA	Water	8270E SIM ID	839167
LCS 680-839167/2-A	Lab Control Sample	Total/NA	Water	8270E SIM ID	839167

Analysis Batch: 839362

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251033-1	OU6-MW-263-20240520	Total/NA	Water	8270E	839165
680-251033-2	OU6-MW-269-20240520	Total/NA	Water	8270E	839165
MB 680-839165/1-A	Method Blank	Total/NA	Water	8270E	839165
LCS 680-839165/2-A	Lab Control Sample	Total/NA	Water	8270E	839165
680-251033-1 MS	OU6-MW-263-20240520	Total/NA	Water	8270E	839165
680-251033-1 MSD	OU6-MW-263-20240520	Total/NA	Water	8270E	839165

Prep Batch: 839376

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251033-1	OU6-MW-263-20240520	Total/NA	Water	3510C	
680-251033-2	OU6-MW-269-20240520	Total/NA	Water	3510C	
MB 680-839376/1-A	Method Blank	Total/NA	Water	3510C	
LCS 680-839376/2-A	Lab Control Sample	Total/NA	Water	3510C	
680-251033-1 MS	OU6-MW-263-20240520	Total/NA	Water	3510C	
680-251033-1 MSD	OU6-MW-263-20240520	Total/NA	Water	3510C	

Analysis Batch: 839636

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251033-1	OU6-MW-263-20240520	Total/NA	Water	8270E SIM	839376
680-251033-2	OU6-MW-269-20240520	Total/NA	Water	8270E SIM	839376
MB 680-839376/1-A	Method Blank	Total/NA	Water	8270E SIM	839376
LCS 680-839376/2-A	Lab Control Sample	Total/NA	Water	8270E SIM	839376
680-251033-1 MS	OU6-MW-263-20240520	Total/NA	Water	8270E SIM	839376
680-251033-1 MSD	OU6-MW-263-20240520	Total/NA	Water	8270E SIM	839376

GC VOA

Analysis Batch: 840649

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251033-1	OU6-MW-263-20240520	Total/NA	Water	RSK-175	
680-251033-2	OU6-MW-269-20240520	Total/NA	Water	RSK-175	

GC VOA (Continued)

Analysis Batch: 840649 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251033-3	OU6-MW-274-20240520	Total/NA	Water	RSK-175	
680-251033-4	OU6-MW-275-20240520	Total/NA	Water	RSK-175	
680-251033-5	OU6-MW-222-20240520	Total/NA	Water	RSK-175	
680-251033-6	OU6-MW-283-20240520	Total/NA	Water	RSK-175	
680-251033-7	OU6-MW-160-20240520	Total/NA	Water	RSK-175	
680-251033-8	OU6-MW-95-20240520	Total/NA	Water	RSK-175	
680-251033-9	OU6-MW-292-20240520	Total/NA	Water	RSK-175	
680-251033-11	OU6-MW-145-20240520	Total/NA	Water	RSK-175	
680-251033-12	DUP-3-20240520	Total/NA	Water	RSK-175	
680-251033-13	DUP-4-20240520	Total/NA	Water	RSK-175	
680-251033-15	OU6-MW-276-20240520	Total/NA	Water	RSK-175	
680-251033-16	OU6-MW-266-20240520	Total/NA	Water	RSK-175	
680-251033-17	OU6-MW-282-20240520	Total/NA	Water	RSK-175	
680-251033-18	OU6-MW-268-20240520	Total/NA	Water	RSK-175	
MB 680-840649/8	Method Blank	Total/NA	Water	RSK-175	
LCS 680-840649/3	Lab Control Sample	Total/NA	Water	RSK-175	
LCS 680-840649/6	Lab Control Sample	Total/NA	Water	RSK-175	
LCSD 680-840649/4	Lab Control Sample Dup	Total/NA	Water	RSK-175	
LCSD 680-840649/7	Lab Control Sample Dup	Total/NA	Water	RSK-175	
680-251033-1 MS	OU6-MW-263-20240520	Total/NA	Water	RSK-175	
680-251033-1 MSD	OU6-MW-263-20240520	Total/NA	Water	RSK-175	
680-251033-7 MS	OU6-MW-160-20240520	Total/NA	Water	RSK-175	
680-251033-7 MSD	OU6-MW-160-20240520	Total/NA	Water	RSK-175	

GC Semi VOA

Prep Batch: 839562

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251033-1	OU6-MW-263-20240520	Total/NA	Water	3510C	
680-251033-2	OU6-MW-269-20240520	Total/NA	Water	3510C	
MB 680-839562/1-A	Method Blank	Total/NA	Water	3510C	
LCS 680-839562/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCS 680-839562/5-A	Lab Control Sample	Total/NA	Water	3510C	
680-251033-1 MS	OU6-MW-263-20240520	Total/NA	Water	3510C	
680-251033-1 MS	OU6-MW-263-20240520	Total/NA	Water	3510C	
680-251033-1 MSD	OU6-MW-263-20240520	Total/NA	Water	3510C	
680-251033-1 MSD	OU6-MW-263-20240520	Total/NA	Water	3510C	

Analysis Batch: 839672

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251033-1	OU6-MW-263-20240520	Total/NA	Water	8081B 8082A	839562
680-251033-2	OU6-MW-269-20240520	Total/NA	Water	8081B 8082A	839562
MB 680-839562/1-A	Method Blank	Total/NA	Water	8081B 8082A	839562
LCS 680-839562/2-A	Lab Control Sample	Total/NA	Water	8081B 8082A	839562
LCS 680-839562/5-A	Lab Control Sample	Total/NA	Water	8081B 8082A	839562
680-251033-1 MS	OU6-MW-263-20240520	Total/NA	Water	8081B 8082A	839562
680-251033-1 MS	OU6-MW-263-20240520	Total/NA	Water	8081B 8082A	839562
680-251033-1 MSD	OU6-MW-263-20240520	Total/NA	Water	8081B 8082A	839562
680-251033-1 MSD	OU6-MW-263-20240520	Total/NA	Water	8081B 8082A	839562

HPLC/IC

Analysis Batch: 839088

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251033-1	OU6-MW-263-20240520	Total/NA	Water	9056A	
680-251033-2	OU6-MW-269-20240520	Total/NA	Water	9056A	
680-251033-3	OU6-MW-274-20240520	Total/NA	Water	9056A	
680-251033-4	OU6-MW-275-20240520	Total/NA	Water	9056A	
680-251033-5	OU6-MW-222-20240520	Total/NA	Water	9056A	
680-251033-6	OU6-MW-283-20240520	Total/NA	Water	9056A	
680-251033-7	OU6-MW-160-20240520	Total/NA	Water	9056A	
680-251033-8	OU6-MW-95-20240520	Total/NA	Water	9056A	
680-251033-9	OU6-MW-292-20240520	Total/NA	Water	9056A	
680-251033-11	OU6-MW-145-20240520	Total/NA	Water	9056A	
680-251033-12	DUP-3-20240520	Total/NA	Water	9056A	
680-251033-13	DUP-4-20240520	Total/NA	Water	9056A	
680-251033-15	OU6-MW-276-20240520	Total/NA	Water	9056A	
680-251033-16	OU6-MW-266-20240520	Total/NA	Water	9056A	
680-251033-17	OU6-MW-282-20240520	Total/NA	Water	9056A	
680-251033-18	OU6-MW-268-20240520	Total/NA	Water	9056A	
MB 680-839088/2	Method Blank	Total/NA	Water	9056A	
LCS 680-839088/4	Lab Control Sample	Total/NA	Water	9056A	
LCSD 680-839088/5	Lab Control Sample Dup	Total/NA	Water	9056A	
680-251033-1 MS	OU6-MW-263-20240520	Total/NA	Water	9056A	
680-251033-1 MSD	OU6-MW-263-20240520	Total/NA	Water	9056A	
680-251033-7 MS	OU6-MW-160-20240520	Total/NA	Water	9056A	
680-251033-7 MSD	OU6-MW-160-20240520	Total/NA	Water	9056A	

Analysis Batch: 840533

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251033-2	OU6-MW-269-20240520	Total/NA	Water	9056A	
MB 680-840533/2	Method Blank	Total/NA	Water	9056A	
LCS 680-840533/3	Lab Control Sample	Total/NA	Water	9056A	
LCSD 680-840533/4	Lab Control Sample Dup	Total/NA	Water	9056A	
LLCS 680-840533/5	Lab Control Sample	Total/NA	Water	9056A	

Analysis Batch: 840534

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251033-1	OU6-MW-263-20240520	Total/NA	Water	9056A	
680-251033-3	OU6-MW-274-20240520	Total/NA	Water	9056A	
680-251033-4	OU6-MW-275-20240520	Total/NA	Water	9056A	
680-251033-5	OU6-MW-222-20240520	Total/NA	Water	9056A	
680-251033-6	OU6-MW-283-20240520	Total/NA	Water	9056A	
680-251033-7	OU6-MW-160-20240520	Total/NA	Water	9056A	
680-251033-8	OU6-MW-95-20240520	Total/NA	Water	9056A	
680-251033-9	OU6-MW-292-20240520	Total/NA	Water	9056A	
680-251033-11	OU6-MW-145-20240520	Total/NA	Water	9056A	
680-251033-12	DUP-3-20240520	Total/NA	Water	9056A	
680-251033-13	DUP-4-20240520	Total/NA	Water	9056A	
680-251033-15	OU6-MW-276-20240520	Total/NA	Water	9056A	
680-251033-16	OU6-MW-266-20240520	Total/NA	Water	9056A	
680-251033-17	OU6-MW-282-20240520	Total/NA	Water	9056A	
680-251033-18	OU6-MW-268-20240520	Total/NA	Water	9056A	
MB 680-840534/33	Method Blank	Total/NA	Water	9056A	
LCS 680-840534/34	Lab Control Sample	Total/NA	Water	9056A	

HPLC/IC (Continued)

Analysis Batch: 840534 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 680-840534/35	Lab Control Sample Dup	Total/NA	Water	9056A	
680-251033-1 MS	OU6-MW-263-20240520	Total/NA	Water	9056A	
680-251033-1 MSD	OU6-MW-263-20240520	Total/NA	Water	9056A	
680-251033-7 MS	OU6-MW-160-20240520	Total/NA	Water	9056A	
680-251033-7 MSD	OU6-MW-160-20240520	Total/NA	Water	9056A	

Analysis Batch: 840652

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251033-3	OU6-MW-274-20240520	Total/NA	Water	9056A	
MB 680-840652/2	Method Blank	Total/NA	Water	9056A	
LCS 680-840652/3	Lab Control Sample	Total/NA	Water	9056A	
LCSD 680-840652/4	Lab Control Sample Dup	Total/NA	Water	9056A	

Analysis Batch: 840653

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251033-4	OU6-MW-275-20240520	Total/NA	Water	9056A	
680-251033-8	OU6-MW-95-20240520	Total/NA	Water	9056A	
MB 680-840653/33	Method Blank	Total/NA	Water	9056A	
LCS 680-840653/34	Lab Control Sample	Total/NA	Water	9056A	
LCSD 680-840653/35	Lab Control Sample Dup	Total/NA	Water	9056A	
680-251033-4 MS	OU6-MW-275-20240520	Total/NA	Water	9056A	
680-251033-4 MSD	OU6-MW-275-20240520	Total/NA	Water	9056A	

Metals

Prep Batch: 839176

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251033-1	OU6-MW-263-20240520	Total Recoverable	Water	3005A	
680-251033-2	OU6-MW-269-20240520	Total Recoverable	Water	3005A	
680-251033-3	OU6-MW-274-20240520	Total Recoverable	Water	3005A	
680-251033-4	OU6-MW-275-20240520	Total Recoverable	Water	3005A	
680-251033-5	OU6-MW-222-20240520	Total Recoverable	Water	3005A	
680-251033-6	OU6-MW-283-20240520	Total Recoverable	Water	3005A	
680-251033-8	OU6-MW-95-20240520	Total Recoverable	Water	3005A	
680-251033-9	OU6-MW-292-20240520	Total Recoverable	Water	3005A	
680-251033-11	OU6-MW-145-20240520	Total Recoverable	Water	3005A	
680-251033-12	DUP-3-20240520	Total Recoverable	Water	3005A	
680-251033-13	DUP-4-20240520	Total Recoverable	Water	3005A	
680-251033-15	OU6-MW-276-20240520	Total Recoverable	Water	3005A	
680-251033-16	OU6-MW-266-20240520	Total Recoverable	Water	3005A	
680-251033-17	OU6-MW-282-20240520	Total Recoverable	Water	3005A	
MB 680-839176/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 680-839176/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
680-251033-1 MS	OU6-MW-263-20240520	Total Recoverable	Water	3005A	
680-251033-1 MSD	OU6-MW-263-20240520	Total Recoverable	Water	3005A	

Prep Batch: 839177

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251033-7	OU6-MW-160-20240520	Total Recoverable	Water	3005A	
680-251033-18	OU6-MW-268-20240520	Total Recoverable	Water	3005A	
MB 680-839177/1-A	Method Blank	Total Recoverable	Water	3005A	

Metals (Continued)

Prep Batch: 839177 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 680-839177/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
680-251033-7 MS	OU6-MW-160-20240520	Total Recoverable	Water	3005A	
680-251033-7 MSD	OU6-MW-160-20240520	Total Recoverable	Water	3005A	

Analysis Batch: 839381

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251033-7	OU6-MW-160-20240520	Total Recoverable	Water	6020A	839177
680-251033-18	OU6-MW-268-20240520	Total Recoverable	Water	6020A	839177
MB 680-839177/1-A	Method Blank	Total Recoverable	Water	6020A	839177
LCS 680-839177/2-A	Lab Control Sample	Total Recoverable	Water	6020A	839177
680-251033-7 MS	OU6-MW-160-20240520	Total Recoverable	Water	6020A	839177
680-251033-7 MSD	OU6-MW-160-20240520	Total Recoverable	Water	6020A	839177

Analysis Batch: 839863

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251033-1	OU6-MW-263-20240520	Total Recoverable	Water	6020A	839176
680-251033-2	OU6-MW-269-20240520	Total Recoverable	Water	6020A	839176
680-251033-3	OU6-MW-274-20240520	Total Recoverable	Water	6020A	839176
680-251033-4	OU6-MW-275-20240520	Total Recoverable	Water	6020A	839176
680-251033-5	OU6-MW-222-20240520	Total Recoverable	Water	6020A	839176
680-251033-6	OU6-MW-283-20240520	Total Recoverable	Water	6020A	839176
680-251033-8	OU6-MW-95-20240520	Total Recoverable	Water	6020A	839176
680-251033-9	OU6-MW-292-20240520	Total Recoverable	Water	6020A	839176
680-251033-11	OU6-MW-145-20240520	Total Recoverable	Water	6020A	839176
680-251033-12	DUP-3-20240520	Total Recoverable	Water	6020A	839176
680-251033-13	DUP-4-20240520	Total Recoverable	Water	6020A	839176
680-251033-15	OU6-MW-276-20240520	Total Recoverable	Water	6020A	839176
680-251033-16	OU6-MW-266-20240520	Total Recoverable	Water	6020A	839176
680-251033-17	OU6-MW-282-20240520	Total Recoverable	Water	6020A	839176
MB 680-839176/1-A	Method Blank	Total Recoverable	Water	6020A	839176
LCS 680-839176/2-A	Lab Control Sample	Total Recoverable	Water	6020A	839176
680-251033-1 MS	OU6-MW-263-20240520	Total Recoverable	Water	6020A	839176
680-251033-1 MSD	OU6-MW-263-20240520	Total Recoverable	Water	6020A	839176

Prep Batch: 840140

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251033-1	OU6-MW-263-20240520	Total/NA	Water	7470A	
680-251033-2	OU6-MW-269-20240520	Total/NA	Water	7470A	
MB 680-840140/1-A	Method Blank	Total/NA	Water	7470A	
LCS 680-840140/2-A	Lab Control Sample	Total/NA	Water	7470A	
680-251033-1 MS	OU6-MW-263-20240520	Total/NA	Water	7470A	
680-251033-1 MSD	OU6-MW-263-20240520	Total/NA	Water	7470A	

Analysis Batch: 840431

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251033-1	OU6-MW-263-20240520	Total/NA	Water	7470A	840140
680-251033-2	OU6-MW-269-20240520	Total/NA	Water	7470A	840140
MB 680-840140/1-A	Method Blank	Total/NA	Water	7470A	840140
LCS 680-840140/2-A	Lab Control Sample	Total/NA	Water	7470A	840140
680-251033-1 MS	OU6-MW-263-20240520	Total/NA	Water	7470A	840140
680-251033-1 MSD	OU6-MW-263-20240520	Total/NA	Water	7470A	840140

General Chemistry

Analysis Batch: 839314

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251033-1	OU6-MW-263-20240520	Total/NA	Water	4500 S2 F-2011	
680-251033-2	OU6-MW-269-20240520	Total/NA	Water	4500 S2 F-2011	
680-251033-3	OU6-MW-274-20240520	Total/NA	Water	4500 S2 F-2011	
680-251033-4	OU6-MW-275-20240520	Total/NA	Water	4500 S2 F-2011	
680-251033-5	OU6-MW-222-20240520	Total/NA	Water	4500 S2 F-2011	
680-251033-6	OU6-MW-283-20240520	Total/NA	Water	4500 S2 F-2011	
MB 680-839314/1	Method Blank	Total/NA	Water	4500 S2 F-2011	
LCS 680-839314/2	Lab Control Sample	Total/NA	Water	4500 S2 F-2011	
LCSD 680-839314/3	Lab Control Sample Dup	Total/NA	Water	4500 S2 F-2011	
680-251033-1 MS	OU6-MW-263-20240520	Total/NA	Water	4500 S2 F-2011	
680-251033-1 MSD	OU6-MW-263-20240520	Total/NA	Water	4500 S2 F-2011	
680-251033-4 DU	OU6-MW-275-20240520	Total/NA	Water	4500 S2 F-2011	

Analysis Batch: 839638

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251033-1	OU6-MW-263-20240520	Total/NA	Water	2320B-2011	
680-251033-1	OU6-MW-263-20240520	Total/NA	Water	SM 4500 CO2 D	
680-251033-2	OU6-MW-269-20240520	Total/NA	Water	2320B-2011	
680-251033-2	OU6-MW-269-20240520	Total/NA	Water	SM 4500 CO2 D	
680-251033-3	OU6-MW-274-20240520	Total/NA	Water	2320B-2011	
680-251033-3	OU6-MW-274-20240520	Total/NA	Water	SM 4500 CO2 D	
680-251033-4	OU6-MW-275-20240520	Total/NA	Water	2320B-2011	
680-251033-4	OU6-MW-275-20240520	Total/NA	Water	SM 4500 CO2 D	
680-251033-5	OU6-MW-222-20240520	Total/NA	Water	2320B-2011	
680-251033-5	OU6-MW-222-20240520	Total/NA	Water	SM 4500 CO2 D	
680-251033-6	OU6-MW-283-20240520	Total/NA	Water	2320B-2011	
680-251033-6	OU6-MW-283-20240520	Total/NA	Water	SM 4500 CO2 D	
680-251033-7	OU6-MW-160-20240520	Total/NA	Water	2320B-2011	
680-251033-7	OU6-MW-160-20240520	Total/NA	Water	SM 4500 CO2 D	
680-251033-8	OU6-MW-95-20240520	Total/NA	Water	2320B-2011	
680-251033-8	OU6-MW-95-20240520	Total/NA	Water	SM 4500 CO2 D	
680-251033-9	OU6-MW-292-20240520	Total/NA	Water	2320B-2011	
680-251033-9	OU6-MW-292-20240520	Total/NA	Water	SM 4500 CO2 D	
680-251033-11	OU6-MW-145-20240520	Total/NA	Water	2320B-2011	
680-251033-11	OU6-MW-145-20240520	Total/NA	Water	SM 4500 CO2 D	
680-251033-12	DUP-3-20240520	Total/NA	Water	2320B-2011	
680-251033-12	DUP-3-20240520	Total/NA	Water	SM 4500 CO2 D	
680-251033-13	DUP-4-20240520	Total/NA	Water	2320B-2011	
680-251033-13	DUP-4-20240520	Total/NA	Water	SM 4500 CO2 D	
680-251033-15	OU6-MW-276-20240520	Total/NA	Water	2320B-2011	
680-251033-15	OU6-MW-276-20240520	Total/NA	Water	SM 4500 CO2 D	
680-251033-16	OU6-MW-266-20240520	Total/NA	Water	2320B-2011	
680-251033-16	OU6-MW-266-20240520	Total/NA	Water	SM 4500 CO2 D	
680-251033-17	OU6-MW-282-20240520	Total/NA	Water	2320B-2011	
680-251033-17	OU6-MW-282-20240520	Total/NA	Water	SM 4500 CO2 D	
680-251033-18	OU6-MW-268-20240520	Total/NA	Water	2320B-2011	
680-251033-18	OU6-MW-268-20240520	Total/NA	Water	SM 4500 CO2 D	
MB 680-839638/4	Method Blank	Total/NA	Water	2320B-2011	
LCS 680-839638/6	Lab Control Sample	Total/NA	Water	2320B-2011	
LCSD 680-839638/31	Lab Control Sample Dup	Total/NA	Water	2320B-2011	
680-251033-2 DU	OU6-MW-269-20240520	Total/NA	Water	2320B-2011	

General Chemistry (Continued)

Analysis Batch: 839638 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251033-2 DU	OU6-MW-269-20240520	Total/NA	Water	SM 4500 CO2 D	

Analysis Batch: 839678

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251033-7	OU6-MW-160-20240520	Total/NA	Water	4500 S2 F-2011	
680-251033-8	OU6-MW-95-20240520	Total/NA	Water	4500 S2 F-2011	
680-251033-9	OU6-MW-292-20240520	Total/NA	Water	4500 S2 F-2011	
680-251033-11	OU6-MW-145-20240520	Total/NA	Water	4500 S2 F-2011	
680-251033-12	DUP-3-20240520	Total/NA	Water	4500 S2 F-2011	
680-251033-13	DUP-4-20240520	Total/NA	Water	4500 S2 F-2011	
680-251033-15	OU6-MW-276-20240520	Total/NA	Water	4500 S2 F-2011	
680-251033-16	OU6-MW-266-20240520	Total/NA	Water	4500 S2 F-2011	
680-251033-17	OU6-MW-282-20240520	Total/NA	Water	4500 S2 F-2011	
680-251033-18	OU6-MW-268-20240520	Total/NA	Water	4500 S2 F-2011	
MB 680-839678/1	Method Blank	Total/NA	Water	4500 S2 F-2011	
LCS 680-839678/2	Lab Control Sample	Total/NA	Water	4500 S2 F-2011	
LCSD 680-839678/3	Lab Control Sample Dup	Total/NA	Water	4500 S2 F-2011	
680-251033-7 MS	OU6-MW-160-20240520	Total/NA	Water	4500 S2 F-2011	
680-251033-7 MSD	OU6-MW-160-20240520	Total/NA	Water	4500 S2 F-2011	
680-251033-8 DU	OU6-MW-95-20240520	Total/NA	Water	4500 S2 F-2011	

Analysis Batch: 839736

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251033-1	OU6-MW-263-20240520	Total/NA	Water	9060A	
680-251033-2	OU6-MW-269-20240520	Total/NA	Water	9060A	
680-251033-3	OU6-MW-274-20240520	Total/NA	Water	9060A	
680-251033-4	OU6-MW-275-20240520	Total/NA	Water	9060A	
680-251033-5	OU6-MW-222-20240520	Total/NA	Water	9060A	
680-251033-6	OU6-MW-283-20240520	Total/NA	Water	9060A	
680-251033-8	OU6-MW-95-20240520	Total/NA	Water	9060A	
680-251033-9	OU6-MW-292-20240520	Total/NA	Water	9060A	
680-251033-11	OU6-MW-145-20240520	Total/NA	Water	9060A	
680-251033-12	DUP-3-20240520	Total/NA	Water	9060A	
680-251033-13	DUP-4-20240520	Total/NA	Water	9060A	
MB 680-839736/3	Method Blank	Total/NA	Water	9060A	
LCS 680-839736/4	Lab Control Sample	Total/NA	Water	9060A	
LCSD 680-839736/5	Lab Control Sample Dup	Total/NA	Water	9060A	
680-251033-1 MS	OU6-MW-263-20240520	Total/NA	Water	9060A	
680-251033-1 MSD	OU6-MW-263-20240520	Total/NA	Water	9060A	

Analysis Batch: 839737

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251033-7	OU6-MW-160-20240520	Total/NA	Water	9060A	
680-251033-15	OU6-MW-276-20240520	Total/NA	Water	9060A	
680-251033-16	OU6-MW-266-20240520	Total/NA	Water	9060A	
MB 680-839737/1	Method Blank	Total/NA	Water	9060A	
LCS 680-839737/2	Lab Control Sample	Total/NA	Water	9060A	
LCSD 680-839737/3	Lab Control Sample Dup	Total/NA	Water	9060A	
680-251033-7 MS	OU6-MW-160-20240520	Total/NA	Water	9060A	
680-251033-7 MSD	OU6-MW-160-20240520	Total/NA	Water	9060A	

QC Association Summary

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-251033-1

General Chemistry

Analysis Batch: 839738

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251033-17	OU6-MW-282-20240520	Total/NA	Water	9060A	
680-251033-18	OU6-MW-268-20240520	Total/NA	Water	9060A	
MB 680-839738/1	Method Blank	Total/NA	Water	9060A	
LCS 680-839738/2	Lab Control Sample	Total/NA	Water	9060A	
LCSD 680-839738/3	Lab Control Sample Dup	Total/NA	Water	9060A	
680-251033-17 DU	OU6-MW-282-20240520	Total/NA	Water	9060A	

Lab Chronicle

Client: Meadows CMPG, Inc
Job ID: 680-251033-1
Project/Site: DSCR - OU6 Annual

Client Sample ID: OU6-MW-263-20240520
Lab Sample ID: 680-251033-1
Date Collected: 05/20/24 07:35
Matrix: Water
Date Received: 05/21/24 10:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	840334	05/30/24 13:42	P1C	EET SAV
	Instrument ID: CMSAB									
Total/NA	Analysis	8260D		1	5 mL	5 mL	840504	05/31/24 16:38	P1C	EET SAV
	Instrument ID: CMSAB									
Total/NA	Prep	3510C			393.4 mL	1 mL	839165	05/22/24 08:09	DS	EET SAV
Total/NA	Analysis	8270E		1	1 mL	1 mL	839362	05/23/24 15:40	T1C	EET SAV
	Instrument ID: CMSD									
Total/NA	Prep	3510C			184.8 mL	1 mL	839376	05/23/24 07:08	DS	EET SAV
Total/NA	Analysis	8270E SIM		1	1 mL	1 mL	839636	05/24/24 18:21	NED	EET SAV
	Instrument ID: CMSY									
Total/NA	Analysis	RSK-175		1	17 mL	17 mL	840649	06/01/24 14:08	OK	EET SAV
	Instrument ID: CVGU									
Total/NA	Prep	3510C			212 mL	1 mL	839562	05/24/24 07:17	DS	EET SAV
Total/NA	Analysis	8081B 8082A		1	1 mL	1 mL	839672	05/24/24 19:51	K1C	EET SAV
	Instrument ID: CSGAE									
Total/NA	Analysis	9056A		1	5 mL	5 mL	839088	05/21/24 16:44	UI	EET SAV
	Instrument ID: CICP									
Total/NA	Analysis	9056A		5	2 mL	2 mL	840534	05/31/24 18:07	AF	EET SAV
	Instrument ID: CICR									
Total Recoverable	Prep	3005A			25 mL	125 mL	839176	05/22/24 08:57	RR	EET SAV
Total Recoverable	Analysis	6020A		1			839863	05/25/24 09:39	BJB	EET SAV
	Instrument ID: ICPMSD									
Total/NA	Prep	7470A			50 mL	50 mL	840140	05/29/24 10:24	RS	EET SAV
Total/NA	Analysis	7470A		1			840431	05/29/24 14:40	BCB	EET SAV
	Instrument ID: QuickTrace2									
Total/NA	Analysis	2320B-2011		1			839638	05/23/24 17:36	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	4500 S2 F-2011		1	290 mL	290 mL	839314	05/22/24 15:19	JAS	EET SAV
	Instrument ID: NoEquip									
Total/NA	Analysis	9060A		1	40 mL	40 mL	839736	05/23/24 13:19	NVF	EET SAV
	Instrument ID: TOC7									
Total/NA	Analysis	SM 4500 CO2 D		1			839638	05/23/24 17:36	PG	EET SAV
	Instrument ID: MANTECH 2									

Client Sample ID: OU6-MW-269-20240520
Lab Sample ID: 680-251033-2
Date Collected: 05/20/24 09:20
Matrix: Water
Date Received: 05/21/24 10:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	840334	05/30/24 14:04	P1C	EET SAV
	Instrument ID: CMSAB									
Total/NA	Prep	3510C			453.5 mL	1 mL	839165	05/22/24 08:09	DS	EET SAV
Total/NA	Analysis	8270E		1	1 mL	1 mL	839362	05/23/24 16:06	T1C	EET SAV
	Instrument ID: CMSD									

Client Sample ID: OU6-MW-269-20240520
Lab Sample ID: 680-251033-2

Date Collected: 05/20/24 09:20
Matrix: Water

Date Received: 05/21/24 10:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			212.2 mL	1 mL	839376	05/23/24 07:08	DS	EET SAV
Total/NA	Analysis	8270E SIM		1	1 mL	1 mL	839636	05/24/24 18:45	NED	EET SAV
	Instrument ID: CMSY									
Total/NA	Analysis	RSK-175		1	17 mL	17 mL	840649	06/01/24 14:47	OK	EET SAV
	Instrument ID: CVGU									
Total/NA	Prep	3510C			227.2 mL	1 mL	839562	05/24/24 07:17	DS	EET SAV
Total/NA	Analysis	8081B 8082A		1	1 mL	1 mL	839672	05/24/24 20:04	K1C	EET SAV
	Instrument ID: CSGAE									
Total/NA	Analysis	9056A		1	5 mL	5 mL	839088	05/21/24 17:08	UI	EET SAV
	Instrument ID: CICP									
Total/NA	Analysis	9056A		1	2 mL	2 mL	840533	05/31/24 15:21	BS	EET SAV
	Instrument ID: CICR									
Total Recoverable	Prep	3005A			25 mL	125 mL	839176	05/22/24 08:57	RR	EET SAV
Total Recoverable	Analysis	6020A		1			839863	05/25/24 09:45	BJB	EET SAV
	Instrument ID: ICPMSD									
Total/NA	Prep	7470A			50 mL	50 mL	840140	05/29/24 10:24	RS	EET SAV
Total/NA	Analysis	7470A		1			840431	05/29/24 14:46	BCB	EET SAV
	Instrument ID: QuickTrace2									
Total/NA	Analysis	2320B-2011		1			839638	05/23/24 18:52	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	4500 S2 F-2011		1	270 mL	270 mL	839314	05/22/24 15:19	JAS	EET SAV
	Instrument ID: NoEquip									
Total/NA	Analysis	9060A		1	40 mL	40 mL	839736	05/23/24 17:26	NVF	EET SAV
	Instrument ID: TOC7									
Total/NA	Analysis	SM 4500 CO2 D		1			839638	05/23/24 18:52	PG	EET SAV
	Instrument ID: MANTECH 2									

Client Sample ID: OU6-MW-274-20240520
Lab Sample ID: 680-251033-3

Date Collected: 05/20/24 10:35
Matrix: Water

Date Received: 05/21/24 10:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	840334	05/30/24 14:27	P1C	EET SAV
	Instrument ID: CMSAB									
Total/NA	Analysis	RSK-175		1	17 mL	17 mL	840649	06/01/24 15:00	OK	EET SAV
	Instrument ID: CVGU									
Total/NA	Analysis	9056A		1	5 mL	5 mL	839088	05/21/24 17:17	UI	EET SAV
	Instrument ID: CICP									
Total/NA	Analysis	9056A		1	2 mL	2 mL	840534	05/31/24 18:26	AF	EET SAV
	Instrument ID: CICR									
Total/NA	Analysis	9056A		10	2 mL	2 mL	840652	06/01/24 18:30	AF	EET SAV
	Instrument ID: CICR									
Total Recoverable	Prep	3005A			25 mL	125 mL	839176	05/22/24 08:57	RR	EET SAV
Total Recoverable	Analysis	6020A		1			839863	05/25/24 09:47	BJB	EET SAV
	Instrument ID: ICPMSD									

Client Sample ID: OU6-MW-274-20240520
Lab Sample ID: 680-251033-3

Date Collected: 05/20/24 10:35
Matrix: Water
Date Received: 05/21/24 10:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2320B-2011		1			839638	05/23/24 18:01	PG	EET SAV
Total/NA	Analysis	4500 S2 F-2011		1	250 mL	250 mL	839314	05/22/24 15:19	JAS	EET SAV
	Instrument ID: NoEquip									
Total/NA	Analysis	9060A		1	40 mL	40 mL	839736	05/23/24 17:44	NVF	EET SAV
	Instrument ID: TOC7									
Total/NA	Analysis	SM 4500 CO2 D		1			839638	05/23/24 18:01	PG	EET SAV
	Instrument ID: MANTECH 2									

Client Sample ID: OU6-MW-275-20240520
Lab Sample ID: 680-251033-4

Date Collected: 05/20/24 11:40
Matrix: Water
Date Received: 05/21/24 10:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	840504	05/31/24 17:01	P1C	EET SAV
	Instrument ID: CMSAB									
Total/NA	Analysis	8260D		1	5 mL	5 mL	840778	06/03/24 13:30	P1C	EET SAV
	Instrument ID: CMSAJ									
Total/NA	Analysis	RSK-175		1	17 mL	17 mL	840649	06/01/24 15:13	OK	EET SAV
	Instrument ID: CVGU									
Total/NA	Analysis	9056A		1	5 mL	5 mL	839088	05/21/24 17:25	UI	EET SAV
	Instrument ID: CICP									
Total/NA	Analysis	9056A		1	2 mL	2 mL	840534	05/31/24 18:33	AF	EET SAV
	Instrument ID: CICR									
Total/NA	Analysis	9056A		5	2 mL	2 mL	840653	06/01/24 19:09	AF	EET SAV
	Instrument ID: CICR									
Total Recoverable	Prep	3005A			25 mL	125 mL	839176	05/22/24 08:57	RR	EET SAV
Total Recoverable	Analysis	6020A		1			839863	05/25/24 09:49	BJB	EET SAV
	Instrument ID: ICPMSD									
Total/NA	Analysis	2320B-2011		1			839638	05/23/24 18:18	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	4500 S2 F-2011		1	310 mL	310 mL	839314	05/22/24 15:19	JAS	EET SAV
	Instrument ID: NoEquip									
Total/NA	Analysis	9060A		1	40 mL	40 mL	839736	05/23/24 18:02	NVF	EET SAV
	Instrument ID: TOC7									
Total/NA	Analysis	SM 4500 CO2 D		1			839638	05/23/24 18:18	PG	EET SAV
	Instrument ID: MANTECH 2									

Client Sample ID: OU6-MW-222-20240520
Lab Sample ID: 680-251033-5

Date Collected: 05/20/24 13:15
Matrix: Water
Date Received: 05/21/24 10:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	840334	05/30/24 14:50	P1C	EET SAV
	Instrument ID: CMSAB									

Lab Chronicle

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-251033-1

Client Sample ID: OU6-MW-222-20240520

Lab Sample ID: 680-251033-5

Date Collected: 05/20/24 13:15

Matrix: Water

Date Received: 05/21/24 10:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	RSK-175		1	17 mL	17 mL	840649	06/01/24 15:26	OK	EET SAV
Total/NA	Analysis	9056A		1	5 mL	5 mL	839088	05/21/24 17:33	UI	EET SAV
	Instrument ID: CICP									
Total/NA	Analysis	9056A		1	2 mL	2 mL	840534	05/31/24 18:39	AF	EET SAV
	Instrument ID: CICR									
Total Recoverable	Prep	3005A			25 mL	125 mL	839176	05/22/24 08:57	RR	EET SAV
Total Recoverable	Analysis	6020A		1			839863	05/25/24 09:51	BJB	EET SAV
	Instrument ID: ICPMSD									
Total/NA	Analysis	2320B-2011		1			839638	05/23/24 17:53	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	4500 S2 F-2011		1	280 mL	280 mL	839314	05/22/24 15:19	JAS	EET SAV
	Instrument ID: NoEquip									
Total/NA	Analysis	9060A		1	40 mL	40 mL	839736	05/23/24 18:19	NVF	EET SAV
	Instrument ID: TOC7									
Total/NA	Analysis	SM 4500 CO2 D		1			839638	05/23/24 17:53	PG	EET SAV
	Instrument ID: MANTECH 2									

Client Sample ID: OU6-MW-283-20240520

Lab Sample ID: 680-251033-6

Date Collected: 05/20/24 09:10

Matrix: Water

Date Received: 05/21/24 10:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	840334	05/30/24 15:12	P1C	EET SAV
	Instrument ID: CMSAB									
Total/NA	Analysis	RSK-175		1	17 mL	17 mL	840649	06/01/24 15:38	OK	EET SAV
	Instrument ID: CVGU									
Total/NA	Analysis	9056A		1	5 mL	5 mL	839088	05/21/24 17:41	UI	EET SAV
	Instrument ID: CICP									
Total/NA	Analysis	9056A		1	2 mL	2 mL	840534	05/31/24 18:46	AF	EET SAV
	Instrument ID: CICR									
Total Recoverable	Prep	3005A			25 mL	125 mL	839176	05/22/24 08:57	RR	EET SAV
Total Recoverable	Analysis	6020A		1			839863	05/25/24 09:53	BJB	EET SAV
	Instrument ID: ICPMSD									
Total/NA	Analysis	2320B-2011		1			839638	05/23/24 17:45	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	4500 S2 F-2011		1	310 mL	310 mL	839314	05/22/24 15:19	JAS	EET SAV
	Instrument ID: NoEquip									
Total/NA	Analysis	9060A		1	40 mL	40 mL	839736	05/23/24 18:37	NVF	EET SAV
	Instrument ID: TOC7									
Total/NA	Analysis	SM 4500 CO2 D		1			839638	05/23/24 17:45	PG	EET SAV
	Instrument ID: MANTECH 2									

Lab Chronicle

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-251033-1

Client Sample ID: OU6-MW-160-20240520

Lab Sample ID: 680-251033-7

Date Collected: 05/20/24 10:35
Matrix: Water
Date Received: 05/21/24 10:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	840504	05/31/24 17:24	P1C	EET SAV
	Instrument ID: CMSAB									
Total/NA	Analysis	RSK-175		1	17 mL	17 mL	840649	06/01/24 17:32	OK	EET SAV
	Instrument ID: CVGU									
Total/NA	Analysis	9056A		1	5 mL	5 mL	839088	05/21/24 19:24	UI	EET SAV
	Instrument ID: CICP									
Total/NA	Analysis	9056A		1	2 mL	2 mL	840534	05/31/24 19:44	AF	EET SAV
	Instrument ID: CICR									
Total Recoverable	Prep	3005A			25 mL	125 mL	839177	05/22/24 09:04	RR	EET SAV
Total Recoverable	Analysis	6020A		1			839381	05/22/24 13:04	BJB	EET SAV
	Instrument ID: ICPMSD									
Total/NA	Analysis	2320B-2011		1			839638	05/23/24 18:24	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	4500 S2 F-2011		1	310 mL	310 mL	839678	05/24/24 12:46	JAS	EET SAV
	Instrument ID: NoEquip									
Total/NA	Analysis	9060A		1	40 mL	40 mL	839737	05/23/24 21:46	NVF	EET SAV
	Instrument ID: TOC7									
Total/NA	Analysis	SM 4500 CO2 D		1			839638	05/23/24 18:24	PG	EET SAV
	Instrument ID: MANTECH 2									

Client Sample ID: OU6-MW-95-20240520

Lab Sample ID: 680-251033-8

Date Collected: 05/20/24 13:05
Matrix: Water
Date Received: 05/21/24 10:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		10	5 mL	5 mL	840334	05/30/24 19:02	P1C	EET SAV
	Instrument ID: CMSAB									
Total/NA	Analysis	8260D		10	5 mL	5 mL	840778	06/03/24 14:18	P1C	EET SAV
	Instrument ID: CMSAJ									
Total/NA	Prep	3510C			264.7 mL	1 mL	839167	05/22/24 08:13	DS	EET SAV
Total/NA	Analysis	8270E SIM ID		1	1 mL	1 mL	839173	05/22/24 17:17	NED	EET SAV
	Instrument ID: CMSX									
Total/NA	Analysis	RSK-175		1	17 mL	17 mL	840649	06/01/24 15:51	OK	EET SAV
	Instrument ID: CVGU									
Total/NA	Analysis	9056A		1	5 mL	5 mL	839088	05/21/24 17:50	UI	EET SAV
	Instrument ID: CICP									
Total/NA	Analysis	9056A		1	2 mL	2 mL	840534	05/31/24 18:52	AF	EET SAV
	Instrument ID: CICR									
Total/NA	Analysis	9056A		10	2 mL	2 mL	840653	06/01/24 19:29	AF	EET SAV
	Instrument ID: CICR									
Total Recoverable	Prep	3005A			25 mL	125 mL	839176	05/22/24 08:57	RR	EET SAV
Total Recoverable	Analysis	6020A		1			839863	05/25/24 09:58	BJB	EET SAV
	Instrument ID: ICPMSD									

Lab Chronicle

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-251033-1

Client Sample ID: OU6-MW-95-20240520

Lab Sample ID: 680-251033-8

Date Collected: 05/20/24 13:05

Matrix: Water

Date Received: 05/21/24 10:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2320B-2011		1			839638	05/23/24 18:09	PG	EET SAV
Total/NA	Analysis	4500 S2 F-2011		1	310 mL	310 mL	839678	05/24/24 12:46	JAS	EET SAV
	Instrument ID: NoEquip									
Total/NA	Analysis	9060A		1	40 mL	40 mL	839736	05/23/24 18:53	NVF	EET SAV
	Instrument ID: TOC7									
Total/NA	Analysis	SM 4500 CO2 D		1			839638	05/23/24 18:09	PG	EET SAV
	Instrument ID: MANTECH 2									

Client Sample ID: OU6-MW-292-20240520

Lab Sample ID: 680-251033-9

Date Collected: 05/20/24 14:15

Matrix: Water

Date Received: 05/21/24 10:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	840334	05/30/24 15:35	P1C	EET SAV
	Instrument ID: CMSAB									
Total/NA	Analysis	8260D		1	5 mL	5 mL	840504	05/31/24 17:47	P1C	EET SAV
	Instrument ID: CMSAB									
Total/NA	Analysis	RSK-175		1	17 mL	17 mL	840649	06/01/24 16:04	OK	EET SAV
	Instrument ID: CVGU									
Total/NA	Analysis	9056A		1	5 mL	5 mL	839088	05/21/24 17:58	UI	EET SAV
	Instrument ID: CICP									
Total/NA	Analysis	9056A		2	2 mL	2 mL	840534	05/31/24 18:59	AF	EET SAV
	Instrument ID: CICR									
Total Recoverable	Prep	3005A			25 mL	125 mL	839176	05/22/24 08:57	RR	EET SAV
Total Recoverable	Analysis	6020A		1			839863	05/25/24 10:00	BJB	EET SAV
	Instrument ID: ICPMSD									
Total/NA	Analysis	2320B-2011		1			839638	05/23/24 19:08	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	4500 S2 F-2011		1	300 mL	300 mL	839678	05/24/24 12:46	JAS	EET SAV
	Instrument ID: NoEquip									
Total/NA	Analysis	9060A		1	40 mL	40 mL	839736	05/23/24 19:11	NVF	EET SAV
	Instrument ID: TOC7									
Total/NA	Analysis	SM 4500 CO2 D		1			839638	05/23/24 19:08	PG	EET SAV
	Instrument ID: MANTECH 2									

Client Sample ID: OU6-MW-295-20240520

Lab Sample ID: 680-251033-10

Date Collected: 05/20/24 11:05

Matrix: Water

Date Received: 05/21/24 10:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	840334	05/30/24 15:58	P1C	EET SAV
	Instrument ID: CMSAB									

Lab Chronicle

Client: Meadows CMPG, Inc
Job ID: 680-251033-1
Project/Site: DSCR - OU6 Annual

Client Sample ID: OU6-MW-145-20240520
Lab Sample ID: 680-251033-11
Date Collected: 05/20/24 12:35
Matrix: Water
Date Received: 05/21/24 10:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	840334	05/30/24 16:20	P1C	EET SAV
	Instrument ID: CMSAB									
Total/NA	Analysis	RSK-175		1	17 mL	17 mL	840649	06/01/24 16:17	OK	EET SAV
	Instrument ID: CVGU									
Total/NA	Analysis	9056A		1	5 mL	5 mL	839088	05/21/24 18:14	UI	EET SAV
	Instrument ID: CICP									
Total/NA	Analysis	9056A		1	2 mL	2 mL	840534	05/31/24 19:05	AF	EET SAV
	Instrument ID: CICR									
Total Recoverable	Prep	3005A			25 mL	125 mL	839176	05/22/24 08:57	RR	EET SAV
Total Recoverable	Analysis	6020A		1			839863	05/25/24 10:04	BJB	EET SAV
	Instrument ID: ICPMSD									
Total/NA	Analysis	2320B-2011		1			839638	05/23/24 19:34	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	4500 S2 F-2011		1	300 mL	300 mL	839678	05/24/24 12:46	JAS	EET SAV
	Instrument ID: NoEquip									
Total/NA	Analysis	9060A		1	40 mL	40 mL	839736	05/23/24 19:29	NVF	EET SAV
	Instrument ID: TOC7									
Total/NA	Analysis	SM 4500 CO2 D		1			839638	05/23/24 19:34	PG	EET SAV
	Instrument ID: MANTECH 2									

Client Sample ID: DUP-3-20240520
Lab Sample ID: 680-251033-12
Date Collected: 05/20/24 00:00
Matrix: Water
Date Received: 05/21/24 10:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	840334	05/30/24 16:43	P1C	EET SAV
	Instrument ID: CMSAB									
Total/NA	Analysis	RSK-175		1	17 mL	17 mL	840649	06/01/24 18:11	OK	EET SAV
	Instrument ID: CVGU									
Total/NA	Analysis	9056A		1	5 mL	5 mL	839088	05/21/24 19:16	UI	EET SAV
	Instrument ID: CICP									
Total/NA	Analysis	9056A		1	2 mL	2 mL	840534	05/31/24 19:12	AF	EET SAV
	Instrument ID: CICR									
Total Recoverable	Prep	3005A			25 mL	125 mL	839176	05/22/24 08:57	RR	EET SAV
Total Recoverable	Analysis	6020A		1			839863	05/25/24 10:06	BJB	EET SAV
	Instrument ID: ICPMSD									
Total/NA	Analysis	2320B-2011		1			839638	05/23/24 19:16	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	4500 S2 F-2011		1	280 mL	280 mL	839678	05/24/24 12:46	JAS	EET SAV
	Instrument ID: NoEquip									
Total/NA	Analysis	9060A		1	40 mL	40 mL	839736	05/23/24 19:46	NVF	EET SAV
	Instrument ID: TOC7									
Total/NA	Analysis	SM 4500 CO2 D		1			839638	05/23/24 19:16	PG	EET SAV
	Instrument ID: MANTECH 2									

Client Sample ID: DUP-4-20240520
Lab Sample ID: 680-251033-13

Date Collected: 05/20/24 00:00
Matrix: Water
Date Received: 05/21/24 10:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	840334	05/30/24 17:06	P1C	EET SAV
	Instrument ID: CMSAB									
Total/NA	Analysis	8260D		1	5 mL	5 mL	840504	05/31/24 18:09	P1C	EET SAV
	Instrument ID: CMSAB									
Total/NA	Analysis	RSK-175		1	17 mL	17 mL	840649	06/01/24 18:24	OK	EET SAV
	Instrument ID: CVGU									
Total/NA	Analysis	9056A		1	5 mL	5 mL	839088	05/21/24 19:49	UI	EET SAV
	Instrument ID: CICP									
Total/NA	Analysis	9056A		1	2 mL	2 mL	840534	05/31/24 19:18	AF	EET SAV
	Instrument ID: CICR									
Total Recoverable	Prep	3005A			25 mL	125 mL	839176	05/22/24 08:57	RR	EET SAV
Total Recoverable	Analysis	6020A		1			839863	05/25/24 10:08	BJB	EET SAV
	Instrument ID: ICPMSD									
Total/NA	Analysis	2320B-2011		1			839638	05/23/24 19:43	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	4500 S2 F-2011		1	290 mL	290 mL	839678	05/24/24 12:46	JAS	EET SAV
	Instrument ID: NoEquip									
Total/NA	Analysis	9060A		1	40 mL	40 mL	839736	05/23/24 20:02	NVF	EET SAV
	Instrument ID: TOC7									
Total/NA	Analysis	SM 4500 CO2 D		1			839638	05/23/24 19:43	PG	EET SAV
	Instrument ID: MANTECH 2									

Client Sample ID: TRIP-BLANK-20240520
Lab Sample ID: 680-251033-14

Date Collected: 05/20/24 00:00
Matrix: Water
Date Received: 05/21/24 10:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	840334	05/30/24 13:19	P1C	EET SAV
	Instrument ID: CMSAB									
Total/NA	Analysis	8260D		1	5 mL	5 mL	840504	05/31/24 16:16	P1C	EET SAV
	Instrument ID: CMSAB									

Client Sample ID: OU6-MW-276-20240520
Lab Sample ID: 680-251033-15

Date Collected: 05/20/24 08:15
Matrix: Water
Date Received: 05/21/24 10:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	840334	05/30/24 17:29	P1C	EET SAV
	Instrument ID: CMSAB									
Total/NA	Analysis	RSK-175		1	17 mL	17 mL	840649	06/01/24 18:37	OK	EET SAV
	Instrument ID: CVGU									
Total/NA	Analysis	9056A		1	5 mL	5 mL	839088	05/21/24 19:57	UI	EET SAV
	Instrument ID: CICP									
Total/NA	Analysis	9056A		1	2 mL	2 mL	840534	05/31/24 20:04	AF	EET SAV
	Instrument ID: CICR									

Lab Chronicle

Client: Meadows CMPG, Inc
Job ID: 680-251033-1
Project/Site: DSCR - OU6 Annual

Client Sample ID: OU6-MW-276-20240520
Lab Sample ID: 680-251033-15
Date Collected: 05/20/24 08:15
Matrix: Water
Date Received: 05/21/24 10:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			25 mL	125 mL	839176	05/22/24 08:57	RR	EET SAV
Total Recoverable	Analysis	6020A		1			839863	05/25/24 10:24	BJB	EET SAV
	Instrument ID: ICPMSD									
Total/NA	Analysis	2320B-2011		1			839638	05/23/24 19:50	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	4500 S2 F-2011		1	310 mL	310 mL	839678	05/24/24 12:46	JAS	EET SAV
	Instrument ID: NoEquip									
Total/NA	Analysis	9060A		1	40 mL	40 mL	839737	05/24/24 00:39	NVF	EET SAV
	Instrument ID: TOC7									
Total/NA	Analysis	SM 4500 CO2 D		1			839638	05/23/24 19:50	PG	EET SAV
	Instrument ID: MANTECH 2									

Client Sample ID: OU6-MW-266-20240520
Lab Sample ID: 680-251033-16
Date Collected: 05/20/24 10:15
Matrix: Water
Date Received: 05/21/24 10:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	840334	05/30/24 17:51	P1C	EET SAV
	Instrument ID: CMSAB									
Total/NA	Analysis	8260D		1	5 mL	5 mL	840504	05/31/24 18:32	P1C	EET SAV
	Instrument ID: CMSAB									
Total/NA	Analysis	RSK-175		1	17 mL	17 mL	840649	06/01/24 18:50	OK	EET SAV
	Instrument ID: CVGU									
Total/NA	Analysis	9056A		1	5 mL	5 mL	839088	05/21/24 20:05	UI	EET SAV
	Instrument ID: CICP									
Total/NA	Analysis	9056A		2	2 mL	2 mL	840534	05/31/24 20:10	AF	EET SAV
	Instrument ID: CICR									
Total Recoverable	Prep	3005A			25 mL	125 mL	839176	05/22/24 08:57	RR	EET SAV
Total Recoverable	Analysis	6020A		1			839863	05/25/24 10:26	BJB	EET SAV
	Instrument ID: ICPMSD									
Total/NA	Analysis	2320B-2011		1			839638	05/23/24 19:58	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	4500 S2 F-2011		1	310 mL	310 mL	839678	05/24/24 12:46	JAS	EET SAV
	Instrument ID: NoEquip									
Total/NA	Analysis	9060A		1	40 mL	40 mL	839737	05/24/24 00:57	NVF	EET SAV
	Instrument ID: TOC7									
Total/NA	Analysis	SM 4500 CO2 D		1			839638	05/23/24 19:58	PG	EET SAV
	Instrument ID: MANTECH 2									

Lab Chronicle

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-251033-1

Client Sample ID: OU6-MW-282-20240520

Lab Sample ID: 680-251033-17

Date Collected: 05/20/24 11:55
Matrix: Water
Date Received: 05/21/24 10:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	840334	05/30/24 18:14	P1C	EET SAV
	Instrument ID: CMSAB									
Total/NA	Analysis	RSK-175		1	17 mL	17 mL	840649	06/01/24 19:03	OK	EET SAV
	Instrument ID: CVGU									
Total/NA	Analysis	9056A		1	5 mL	5 mL	839088	05/21/24 20:14	UI	EET SAV
	Instrument ID: CICP									
Total/NA	Analysis	9056A		1	2 mL	2 mL	840534	05/31/24 20:17	AF	EET SAV
	Instrument ID: CICR									
Total Recoverable	Prep	3005A			25 mL	125 mL	839176	05/22/24 08:57	RR	EET SAV
Total Recoverable	Analysis	6020A		1			839863	05/25/24 10:28	BJB	EET SAV
	Instrument ID: ICPMSD									
Total/NA	Analysis	2320B-2011		1			839638	05/23/24 20:03	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	4500 S2 F-2011		1	310 mL	310 mL	839678	05/24/24 12:46	JAS	EET SAV
	Instrument ID: NoEquip									
Total/NA	Analysis	9060A		1	40 mL	40 mL	839738	05/24/24 02:37	NVF	EET SAV
	Instrument ID: TOC7									
Total/NA	Analysis	SM 4500 CO2 D		1			839638	05/23/24 20:03	PG	EET SAV
	Instrument ID: MANTECH 2									

Client Sample ID: OU6-MW-268-20240520

Lab Sample ID: 680-251033-18

Date Collected: 05/20/24 14:30
Matrix: Water
Date Received: 05/21/24 10:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	840334	05/30/24 18:37	P1C	EET SAV
	Instrument ID: CMSAB									
Total/NA	Analysis	8260D	DL	5	5 mL	5 mL	840778	06/03/24 13:54	P1C	EET SAV
	Instrument ID: CMSAJ									
Total/NA	Analysis	RSK-175		1	17 mL	17 mL	840649	06/01/24 19:16	OK	EET SAV
	Instrument ID: CVGU									
Total/NA	Analysis	9056A		1	5 mL	5 mL	839088	05/21/24 20:22	UI	EET SAV
	Instrument ID: CICP									
Total/NA	Analysis	9056A		5	2 mL	2 mL	840534	05/31/24 20:24	AF	EET SAV
	Instrument ID: CICR									
Total Recoverable	Prep	3005A			25 mL	125 mL	839177	05/22/24 09:05	RR	EET SAV
Total Recoverable	Analysis	6020A		1			839381	05/22/24 13:10	BJB	EET SAV
	Instrument ID: ICPMSD									
Total/NA	Analysis	2320B-2011		1			839638	05/23/24 19:25	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	4500 S2 F-2011		1	310 mL	310 mL	839678	05/24/24 12:46	JAS	EET SAV
	Instrument ID: NoEquip									
Total/NA	Analysis	9060A		1	40 mL	40 mL	839738	05/24/24 04:19	NVF	EET SAV
	Instrument ID: TOC7									

Lab Chronicle

Client: Meadows CMPG, Inc
Job ID: 680-251033-1
Project/Site: DSCR - OU6 Annual

Client Sample ID: OU6-MW-268-20240520
Lab Sample ID: 680-251033-18
Date Collected: 05/20/24 14:30
Matrix: Water
Date Received: 05/21/24 10:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 CO2 D		1			839638	05/23/24 19:25	PG	EET SAV

Laboratory References:

EET SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Accreditation/Certification Summary

Client: Meadows CMPG, Inc
Job ID: 680-251033-1
Project/Site: DSCR - OU6 Annual

Laboratory: Eurofins Savannah

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
ANAB	Dept. of Defense ELAP	L2463	09-22-24
Virginia	NELAP	460161	06-14-24

Method Summary

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-251033-1

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds (GC/MS)	SW846	EET SAV
8270E	Semivolatile Organic Compounds (GC/MS)	SW846	EET SAV
8270E SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	EET SAV
8270E SIM ID	Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)	SW846	EET SAV
RSK-175	Dissolved Gases (GC)	RSK	EET SAV
8081B 8082A	Organochlorine Pesticides & PCBs (GC)	SW846	EET SAV
9056A	Anions, Ion Chromatography	SW846	EET SAV
6020A	Metals (ICP/MS)	SW846	EET SAV
7470A	Mercury (CVAA)	SW846	EET SAV
2320B-2011	Alkalinity, Total	SM	EET SAV
4500 S2 F-2011	Sulfide, Total	SM	EET SAV
9060A	Organic Carbon, Total (TOC)	SW846	EET SAV
SM 4500 CO2 D	Carbon Dioxide and Forms of Alkalinity by Calculation	SM	EET SAV
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET SAV
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	EET SAV
5030C	Purge and Trap	SW846	EET SAV
7470A	Preparation, Mercury	SW846	EET SAV

Protocol References:

RSK = Sample Prep And Calculations For Dissolved Gas Analysis In Water Samples Using A GC Headspace Equilibration Technique , RSKSOP-175, Rev. 0, 8/11/94, USEPA Research Lab
SM = "Standard Methods For The Examination Of Water And Wastewater"
SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Eurofins Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Phone (912) 354-7858 Phone (912) 352-0165

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: Tim, TJ, Quin and Bruce	Lab PM: Lanier, Jerry	Carrier Tracking No(s):	COC No:
Client Contact: Andrew VanBuesking	Phone: 757-589-5825	E-Mail: Jerry.Lanier@et.eurofinsus.com	State of Origin: VA	Page: Page 1 of 2
Company: Meadows CMPG	PWSID:			Job #:
Address: 2107 Granby St	Due Date Requested:			
City: Norfolk	TAT Requested (days): STD			
State, Zip: VA	Compliance Project: Δ Yes Δ No			
Phone: 757-623-3107	PO #: 0045-0011			
Email: avanbuesking@meadowscmpg	WO #:			
Project Name: OU6 Annual	Project #:			
Site: DSCR, OU6	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260D_DOD5 - (MOD) Volatiles	RSK_175_DOD5 - Ethane, Ethene, Methane	9060A - TOC	9056A_OF28D_D5 - Chloride & Sulfate 9056A_OF_48H_D5 - Local Method	SM4500_S2_F - Sulfide, Total	6020A_DOD5 - Manganese	SM4500_CO2_D - Carbon Dioxide	2320B - Alkalinity	DIOX 8270E ID D5	8270E_DOD5 - (MOD) Semivolatiles (without PAHs)	8270E_SIM_DOD5 - Routine PAH	8081B_8082A_D5 - Routine Pesticides & PCBs	7470A_DOD5 - Mercury 6020A_DOD5- (MOD) TAL Metals	8270E_SIM_ID_D5 Local Method - Dioxane	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A	A	S	N	CB	D	N	N		N	N	N	D	N		
OU6-MW-263-20240520	5/20/24	0735	G	W			9	9	9	3	6	3	3	3		6	6	6	3		66	MS/MSD
OU6-MW-269-20240520	5/20/24	0920	G	W			3	3	3	1	2	1	1	1		2	2	2	1		22	
OU6-MW-274-20240520	5/20/24	1035	G	W			3	3	3	1	2	1	1	1							15	
OU6-MW-275-20240520	5/20/24	1140	G	W			3	3	3	1	2	1	1	1							15	
OU6-MW-222-20240520	5/20/24	1315	G	W			3	3	3	1	2	1	1	1							15	
OU6-MW-283-20240520	5/20/24	0910	G	W			3	3	3	1	2	1	1	1							15	
OU6-MW-160-20240520	5/20/24	1035	G	W			9	9	9	3	6	3	3	3							45	MS/MSD
OU6-MW-95-20240520	5/20/24	1305	G	W			3	3	3	1	2	1	1	1						2	17	
OU6-MW-292-20240520	5/20/24	1415	G	W			3	3	3	1	2	1	1	1							15	
OU6-MW-295-20240520	5/20/24	1105	G	W			3														8	
OU6-MW-145-20240520	5/20/24	1235	G	W			3	3	3	1	2	1	1	1							15	

680-251033 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ■ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 mont
☐ Return To Client ■ Disposal By Lab ☐ Archive For _____ M

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:

Method of Shipment:

BRUCE DIGGS	5-16-2024/1600	Company	Received by:	Date/Time: 5-21-24 1019	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 2/2.2 1.4/1.5 5.6/5.1 0.3/0.4 4.3/4.4

Ver: 01/16/2019

Eurofins Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Phone (912) 354-7858 Phone (912) 352-0165

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler:	Lab PM: Lanier, Jerry	Carrier Tracking No(s):	COC No:
Client Contact: Andrew VanBuesking	Phone: 757-589-5825	E-Mail: Jerry.Lanier@et.eurofinsus.com	State of Origin: VA	Page: Page 2 of 2
Company: Meadows CMPG	PWSID:			Job #:
Address: 2107 Granby St	Due Date Requested:			
City: Norfolk	TAT Requested (days): STD			
State, Zip: VA	Compliance Project: Δ Yes Δ No			
Phone: 757-623-3107	PO #: 0045-0011			
Email: avanbuesking@meadowscmpg	WO #:			
Project Name: OU6 Annual	Project #:			
Site: DSCR, OU6	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260D_DOD5 - (MOD) Volatiles	RSK_176_DOD5 - Ethane, Ethene, Methane	9060A - TOC	9056A_OF28D_D5 - Chloride & Sulfate 9056A_OF_48H_D5 - Local Method	SM4500_S2_F - Sulfide, Total	6020A_DOD5 - Manganese	SM4500_CO2_D - Carbon Dioxide	2320B - Alkalinity	8270E_DOD5 - (MOD) Semivolatiles (without PAHs)	8270E_SIM_DOD5 - Routine PAH	8081B_8082A_D5 - Routine Pesticides & PCBs	7470A_DOD5 - Mercury 6020A_DOD5 - (MOD) TAL Metals	8270E_SIM_ID_D5 Local Method - Dioxane	Total Number of containers	Special Instructions/Note:
Preservation Code:							A	A	S	N	CB	D	N	N	N	N	N	D	N		
DUP-3-20240520	5/20/24	0000	G	W			3	3	3	1	2	1	1	1						15	
DUP-4-20240520	5/20/24	0000	G	W			3	3	3	1	2	1	1	1						15	
TRIP-BLANK-20240520	5/20/24		G	W			2													2	
OU6-MW-276-20240520	5/20/24	0815	G	W			3	3	3	1	2	1	1	1						15	
OU6-MW-266-20240520	5/20/24	1015	G	W			3	3	3	1	2	1	1	1						15	
OU6-MW-282-20240520	5/20/24	1155	G	W			3	3	3	1	2	1	1	1						15	
OU6-MW-268-20240520	5/20/24	1430	G	W			3	3	3	1	2	1	1	1						15	
			G	W																0	
			G	W																0	
			G	W																0	
			G	W																0	

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ■ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ■ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1					5-21-24 1615	TVA
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

Login Sample Receipt Checklist

Client: Meadows CMPG, Inc

Job Number: 680-251033-1

Login Number: 251033

List Source: Eurofins Savannah

List Number: 1

Creator: Sims, Robert D

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	Received extra samples not listed on COC.
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

PREPARED FOR

Attn: Kandyce Keller
Meadows CMPG, Inc
2107 Granby Street
Norfolk, Virginia 23517

Generated 6/10/2024 9:46:56 AM

JOB DESCRIPTION

DSCR - OU6 Annual

JOB NUMBER

680-251090-1

Eurofins Savannah
5102 LaRoche Avenue
Savannah GA 31404

See page two for job notes and contact information.

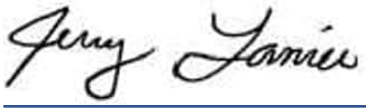
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Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Southeast, LLC Project Manager.

Authorization



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6/10/2024 9:46:56 AM

Authorized for release by
Jerry Lanier, Project Manager I
Jerry.Lanier@et.eurofinsus.com
(912)250-0281

Definitions/Glossary

Client: Meadows CMPG, Inc
Job ID: 680-251090-1
Project/Site: DSCR - OU6 Annual

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
D	The reported value is from a dilution.
H	Sample was prepped or analyzed beyond the specified holding time. This does not meet regulatory requirements.
J	Estimated: The analyte was positively identified; the quantitation is an estimation
J1	Estimated: The quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.
M	Manual integrated compound.
Q	One or more quality control criteria failed.
U	Undetected at the Limit of Detection.

GC/MS Semi VOA

Qualifier	Qualifier Description
M	Manual integrated compound.
U	Undetected at the Limit of Detection.

GC VOA

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
J	Estimated: The analyte was positively identified; the quantitation is an estimation
J1	Estimated: The quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.
M	Manual integrated compound.
U	Undetected at the Limit of Detection.

HPLC/IC

Qualifier	Qualifier Description
D	The reported value is from a dilution.
J	Estimated: The analyte was positively identified; the quantitation is an estimation
J1	Estimated: The quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.
M	Manual integrated compound.
U	Undetected at the Limit of Detection.

Metals

Qualifier	Qualifier Description
J	Estimated: The analyte was positively identified; the quantitation is an estimation
U	Undetected at the Limit of Detection.

General Chemistry

Qualifier	Qualifier Description
D	The reported value is from a dilution.
J	Estimated: The analyte was positively identified; the quantitation is an estimation
J1	Estimated: The quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.
U	Undetected at the Limit of Detection.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Sample Summary

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-251090-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-251090-1	OU6-MW-223-20240521	Water	05/21/24 08:50	05/22/24 09:30
680-251090-2	OU6-MW-237-20240521	Water	05/21/24 10:00	05/22/24 09:30
680-251090-3	OU6-MW-254-20240521	Water	05/21/24 09:00	05/22/24 09:30
680-251090-4	OU6-MW-253-20240521	Water	05/21/24 10:05	05/22/24 09:30
680-251090-5	OU6-MW-256-20240521	Water	05/21/24 07:55	05/22/24 09:30
680-251090-6	OU6-MW-252-20240521	Water	05/21/24 11:10	05/22/24 09:30
680-251090-7	OU6-MW-240-20240521	Water	05/21/24 13:10	05/22/24 09:30
680-251090-8	OU6-MW-238-20240521	Water	05/21/24 12:10	05/22/24 09:30
680-251090-9	OU6-MW-290-20240521	Water	05/21/24 12:00	05/22/24 09:30
680-251090-10	OU6-MW-294-20240521	Water	05/21/24 10:27	05/22/24 09:30
680-251090-11	OU6-MW-293-20240521	Water	05/21/24 08:50	05/22/24 09:30
680-251090-12	EB-20240521	Water	05/21/24 00:00	05/22/24 09:30
680-251090-13	TRIP-BLANK-20240521	Water	05/21/24 00:00	05/22/24 09:30
680-251090-14	OU6-MW-236-20240521	Water	05/21/24 10:15	05/22/24 09:30
680-251090-15	OU6-MW-287-20240521	Water	05/21/24 13:15	05/22/24 09:30
680-251090-16	OU6-MW-170-20240521	Water	05/21/24 08:30	05/22/24 09:30
680-251090-17	OU6-MW-241-20240521	Water	05/21/24 13:45	05/22/24 09:30
680-251090-18	OU6-MW-239-20240521	Water	05/21/24 11:30	05/22/24 09:30
680-251090-19	OU6-MW-244-20240521	Water	05/21/24 14:30	05/22/24 09:30

Job Narrative
680-251090-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 5/22/2024 9:30 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 0.7°C, 1.9°C and 3.3°C.

GC/MS VOA
Method 8260D_DOD5: The method blank for analytical batch 680-840531 contained 4-Isopropyltoluene and n-Butylbenzene above the method detection limit (MDL). Associated samples were not re-analyzed because the method blank results were less than the reporting limit (RL) OR practical quantitation limit (PQL).

Method 8260D_DOD5: The following sample was diluted to bring the concentration of target analytes within the calibration range: OU6-MW-239-20240521 (680-251090-18). Elevated reporting limits (RLs) are provided.

Method 8260D_DOD5: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for analytical batch 680-840514 recovered outside control limits for the following analytes: Chloroethane and Vinyl chloride. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 8260D_DOD5: The method blank for 680-840514 contained Carbon disulfide and Chlorobenzene above the method detection limit (MDL). Associated samples were not re-analyzed because the method blank results were less than the reporting limit (RL) OR practical quantitation limit (PQL).

Method 8260D_DOD5: Surrogate recovery for the following sample was outside control limits: OU6-MW-254-20240521 (680-251090-3). Evidence of matrix interference due to high target analytes is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8260D_DOD5: The method blank for 680-840778 contained n-Butylbenzene above the method detection limit (MDL). Associated samples were not re-analyzed because the method blank results were less than the reporting limit (RL) OR practical quantitation limit (PQL).

Method 8260D_DOD5: The following samples were diluted to bring the concentration of target analytes within the calibration range: OU6-MW-238-20240521 (680-251090-8) and OU6-MW-290-20240521 (680-251090-9). Elevated reporting limits (RLs) are provided.

Method 8260D_DOD5: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for analytical batch 680-840966 recovered outside control limits for the following analytes: Bromomethane and Dichlorodifluoromethane. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 8260D_DOD5: The laboratory control sample duplicate (LCSD) for analytical batch 680-840966 recovered outside control limits for the following analytes: Methylcyclohexane. This analyte was biased high in the LCSD and was not detected in the associated samples; therefore, the data have been reported.

Method 8260D_DOD5: The method blank for analytical batch 680-840966 contained 1,3-Dichlorobenzene, Hexachlorobutadiene, n-Butylbenzene and 1,2,4-Trichlorobenzene above the method detection limit (MDL). Associated samples were not re-analyzed because the method blank results were less than 1/2 of the reporting limit (RL) OR practical quantitation limit (PQL).

Method 8260D_DOD5: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for analytical

batch 680-840928 recovered outside control limits for the following analytes: Bromoform and Trichlorofluoromethane. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 8260D_DOD5: The method blank for 680-840928 contained Methylcyclohexane above the method detection limit (MDL). Associated samples were not re-analyzed because the method blank results were less than the reporting limit (RL) OR practical quantitation limit (PQL).

Method 8260D_DOD5: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 680-840928 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

Method 8260D_DOD5: The matrix spike / matrix spike duplicate (MS/MSD) precision for analytical batch 680-840928 was outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory control sample duplicate (LCS/LCSD) precision was within acceptance limits.

Method 8260D_DOD5: Surrogate recovery was outside acceptance limits for the following matrix spike/matrix spike duplicate (MS/MSD) samples: OU6-MW-236-20240521 (680-251090-14[MS]) and OU6-MW-236-20240521 (680-251090-14[MSD]). The parent sample's surrogate recovery was within limits. The MS/MSD sample has been qualified and reported.

Method 8260D_DOD5: Surrogate recovery for the following sample was outside of acceptance limits: OU6-MW-253-20240521 (680-251090-4). There was insufficient sample to perform a re-extraction; therefore, the data have been reported.

Method 8260D_DOD5: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for analytical batch 680-840531 recovered outside control limits for the following analytes: Bromomethane, Chloroethane, 1,3-Dichloropropane, Hexachlorobutadiene, 2-Hexanone, 4-Methyl-2-pentanone (MIBK), Tetrachloroethene, Toluene, trans-1,3-Dichloropropene, 1,2,4-Trichlorobenzene and 1,1,2-Trichloroethane.

Method 8260D_DOD5: The laboratory control sample (LCS) for analytical batch 680-840531 recovered outside control limits for the following analytes: Bromobenzene, 2-Chlorotoluene, 4-Chlorotoluene, N-Propylbenzene, o-Xylene, Styrene, 1,2,4-Trichlorobenzene and 1,3,5-Trimethylbenzene. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 8260D_DOD5: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for analytical batch 680-841121 recovered outside control limits for the following analytes: Bromoform and Trichlorofluoromethane. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 8260D_DOD5: Reanalysis of the following sample(s) was performed outside of the analytical holding time due to failure of quality control parameters in the initial analysis. OU6-MW-253-20240521 (680-251090-4) and OU6-MW-294-20240521 (680-251090-10)

Method 8260D_DOD5: The method requirement for no headspace was not met. The following volatile samples were analyzed with significant headspace in the sample container(s): OU6-MW-253-20240521 (680-251090-4) and OU6-MW-294-20240521 (680-251090-10). Significant headspace is defined as a bubble greater than 6 mm in diameter.

Method 8260D_DOD5: Internal standard (ISTD) response for the following samples were outside of acceptance limits: OU6-MW-253-20240521 (680-251090-4) and OU6-MW-294-20240521 (680-251090-10). The sample(s) was re-analyzed out of hold and both results have been reported.

Method 8260D_DOD5: The method blank for 680-841121 contained Methylcyclohexane above the method detection limit (MDL). Associated samples were not re-analyzed because the method blank results were less than the reporting limit (RL) OR practical quantitation limit (PQL).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC/MS Semi VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC VOA
Method RSK_175_DOD5: Due to the high concentration of Methane (TCD), the matrix spike / matrix spike duplicate (MS/MSD) for analytical batch 680-840831 could not be evaluated for accuracy and precision. The associated laboratory control sample /

laboratory control sample duplicate (LCS/LCSD) met acceptance criteria.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC
Method 9056A_OF_48H_D5: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 680-839256 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

Method 9056A_OF_48H_D5: The following samples were diluted due to color.: OU6-MW-253-20240521 (680-251090-4), OU6-MW-240-20240521 (680-251090-7) and OU6-MW-238-20240521 (680-251090-8). Elevated reporting limits (RL) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Metals
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
Method 2320B: The sample duplicate precision for the following sample associated with analytical batch 680-839930 was outside control limits: (680-251090-D-14 DU). The associated Laboratory Control Sample / Laboratory Control Sample Duplicate (LCS/LCSD) precision met acceptance criteria.

Method SM4500_CO2_D: The sample duplicate precision for the following sample associated with analytical batch 680-839930 was outside control limits: (680-251090-D-14 DU). The associated Laboratory Control Sample / Laboratory Control Sample Duplicate (LCS/LCSD) precision met acceptance criteria.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-251090-1

Client Sample ID: OU6-MW-223-20240521
Date Collected: 05/21/24 08:50
Date Received: 05/22/24 09:30

Lab Sample ID: 680-251090-1
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U Q	25	3.7	ug/L			05/31/24 17:05	1
Benzene	1.0	U	2.0	0.27	ug/L			05/31/24 17:05	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			05/31/24 17:05	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			05/31/24 17:05	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			05/31/24 17:05	1
Bromoform	2.0	U	2.5	0.59	ug/L			05/31/24 17:05	1
Bromomethane	10	U Q	20	3.7	ug/L			05/31/24 17:05	1
2-Butanone (MEK)	20	U M	25	6.4	ug/L			05/31/24 17:05	1
Carbon disulfide	1.0	U Q	2.0	0.43	ug/L			05/31/24 17:05	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			05/31/24 17:05	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			05/31/24 17:05	1
Chloroethane	10	U Q	20	4.6	ug/L			05/31/24 17:05	1
Chloroform	1.0	U	2.0	0.27	ug/L			05/31/24 17:05	1
Chloromethane	2.0	U	2.5	0.54	ug/L			05/31/24 17:05	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			05/31/24 17:05	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			05/31/24 17:05	1
cis-1,2-Dichloroethene	**58**		2.0	0.25	ug/L			05/31/24 17:05	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			05/31/24 17:05	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			05/31/24 17:05	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			05/31/24 17:05	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			05/31/24 17:05	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			05/31/24 17:05	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			05/31/24 17:05	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/31/24 17:05	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/31/24 17:05	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/31/24 17:05	1
Dichlorodifluoromethane	1.0	U Q	2.0	0.36	ug/L			05/31/24 17:05	1
1,1-Dichloroethane	**6.1**		2.0	0.33	ug/L			05/31/24 17:05	1
1,2-Dichloroethane	1.0	U M	2.0	0.25	ug/L			05/31/24 17:05	1
1,1-Dichloroethene	**1.2**	**J**	2.0	0.33	ug/L			05/31/24 17:05	1
1,2-Dichloroethene, Total	**59**		2.0	0.37	ug/L			05/31/24 17:05	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			05/31/24 17:05	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			05/31/24 17:05	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			05/31/24 17:05	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			05/31/24 17:05	1
Ethylbenzene	0.50	U M	1.0	0.20	ug/L			05/31/24 17:05	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			05/31/24 17:05	1
2-Hexanone	10	U	20	3.2	ug/L			05/31/24 17:05	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			05/31/24 17:05	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			05/31/24 17:05	1
Methyl acetate	10	U Q	20	3.2	ug/L			05/31/24 17:05	1
Methylcyclohexane	1.0	U Q	2.0	0.33	ug/L			05/31/24 17:05	1
Methylene Chloride	10	U	20	3.2	ug/L			05/31/24 17:05	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			05/31/24 17:05	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			05/31/24 17:05	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			05/31/24 17:05	1
Naphthalene	5.0	U	10	2.4	ug/L			05/31/24 17:05	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			05/31/24 17:05	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			05/31/24 17:05	1

Client Sample ID: OU6-MW-223-20240521
Date Collected: 05/21/24 08:50
Date Received: 05/22/24 09:30

Lab Sample ID: 680-251090-1
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	1.0	U	2.0	0.26	ug/L			05/31/24 17:05	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			05/31/24 17:05	1
Styrene	1.0	U	2.0	0.27	ug/L			05/31/24 17:05	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			05/31/24 17:05	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			05/31/24 17:05	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			05/31/24 17:05	1
Tetrachloroethene	**12**		2.0	0.35	ug/L			05/31/24 17:05	1
Toluene	1.0	U	2.0	0.25	ug/L			05/31/24 17:05	1
trans-1,2-Dichloroethene	**0.73**	**J**	2.0	0.34	ug/L			05/31/24 17:05	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			05/31/24 17:05	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			05/31/24 17:05	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			05/31/24 17:05	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			05/31/24 17:05	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			05/31/24 17:05	1
Trichloroethene	**5.5**		1.0	0.20	ug/L			05/31/24 17:05	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			05/31/24 17:05	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			05/31/24 17:05	1
1,1,2-Trichloro-1,2,2-trifluoroethane	**2.2**		1.0	0.23	ug/L			05/31/24 17:05	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			05/31/24 17:05	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			05/31/24 17:05	1
Vinyl chloride	**4.1**		2.0	0.40	ug/L			06/03/24 16:22	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			05/31/24 17:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*85 - 114*		*05/31/24 17:05*	*1*
4-Bromofluorobenzene (Surr)	*105*		*85 - 114*		*06/03/24 16:22*	*1*
Dibromofluoromethane (Surr)	*111*		*80 - 119*		*05/31/24 17:05*	*1*
Dibromofluoromethane (Surr)	*109*		*80 - 119*		*06/03/24 16:22*	*1*
1,2-Dichloroethane-d4 (Surr)	*108*		*81 - 118*		*05/31/24 17:05*	*1*
1,2-Dichloroethane-d4 (Surr)	*93*		*81 - 118*		*06/03/24 16:22*	*1*
Toluene-d8 (Surr)	*104*		*89 - 112*		*05/31/24 17:05*	*1*
Toluene-d8 (Surr)	*105*		*89 - 112*		*06/03/24 16:22*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	0.76	U	1.1	0.30	ug/L			06/01/24 19:29	1
Ethylene	**0.57**	**J**	1.0	0.31	ug/L			06/01/24 19:29	1
Methane (TCD)	**760**	**M**	390	39	ug/L			06/01/24 19:29	1

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**7.6**	**M**	0.55	0.20	mg/L			06/03/24 15:33	1
Nitrate as N	**0.042**	**J M**	0.055	0.023	mg/L			05/22/24 15:30	1
Nitrate Nitrite as N	**0.042**	**J**	0.055	0.023	mg/L			05/22/24 15:30	1
Sulfate	**0.52**	**J**	1.5	0.40	mg/L			06/03/24 15:33	1
Nitrite as N	0.050	U M	0.055	0.023	mg/L			05/22/24 15:30	1

Method: SW846 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**160**		10	2.2	ug/L		05/23/24 05:06	05/23/24 17:45	1

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-251090-1

Client Sample ID: OU6-MW-223-20240521

Lab Sample ID: 680-251090-1

Date Collected: 05/21/24 08:50

Matrix: Water

Date Received: 05/22/24 09:30

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**67**		5.5	2.2	mg/L			05/24/24 00:08	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	**67**		11	5.0	mg/L			05/24/24 00:08	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	10	U	11	5.0	mg/L			05/24/24 00:08	1
Sulfide (SM 4500 S2 F-2011)	0.86	U	0.86	0.86	mg/L			05/24/24 12:46	1
Sulfide as H2S (SM 4500 S2 F-2011)	0.95	U	0.95	0.95	mg/L			05/24/24 12:46	1
Total Organic Carbon (SW846 9060A)	**4.8**		1.0	0.50	mg/L			05/24/24 04:37	1
Carbon Dioxide, Free (SM 4500 CO2 D)	**55**		11	5.0	mg/L			05/24/24 00:08	1

Client Sample ID: OU6-MW-237-20240521

Lab Sample ID: 680-251090-2

Date Collected: 05/21/24 10:00

Matrix: Water

Date Received: 05/22/24 09:30

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			06/03/24 16:44	1
Benzene	1.0	U	2.0	0.27	ug/L			06/03/24 16:44	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			06/03/24 16:44	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			06/03/24 16:44	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			06/03/24 16:44	1
Bromoform	2.0	U	2.5	0.59	ug/L			06/03/24 16:44	1
Bromomethane	10	U	20	3.7	ug/L			06/03/24 16:44	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			06/03/24 16:44	1
Carbon disulfide	1.0	U	2.0	0.43	ug/L			06/03/24 16:44	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			06/03/24 16:44	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			06/03/24 16:44	1
Chloroethane	10	U	20	4.6	ug/L			06/03/24 16:44	1
Chloroform	**0.41**	**J M**	2.0	0.27	ug/L			06/03/24 16:44	1
Chloromethane	2.0	U	2.5	0.54	ug/L			06/03/24 16:44	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			06/03/24 16:44	1
4-Chlorotoluene	1.0	U M	2.0	0.41	ug/L			06/03/24 16:44	1
cis-1,2-Dichloroethene	**43**		2.0	0.25	ug/L			06/03/24 16:44	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			06/03/24 16:44	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			06/03/24 16:44	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			06/03/24 16:44	1
1,2-Dibromo-3-Chloropropane	5.0	U Q	10	1.8	ug/L			06/03/24 16:44	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			06/03/24 16:44	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			06/03/24 16:44	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			06/03/24 16:44	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			06/03/24 16:44	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			06/03/24 16:44	1
Dichlorodifluoromethane	1.0	U Q	2.0	0.36	ug/L			06/03/24 16:44	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			06/03/24 16:44	1
1,2-Dichloroethane	1.0	U M	2.0	0.25	ug/L			06/03/24 16:44	1
1,1-Dichloroethene	**4.3**		2.0	0.33	ug/L			06/03/24 16:44	1
1,2-Dichloroethene, Total	**44**		2.0	0.37	ug/L			06/03/24 16:44	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			06/03/24 16:44	1

Client Sample ID: OU6-MW-237-20240521
Date Collected: 05/21/24 10:00
Date Received: 05/22/24 09:30

Lab Sample ID: 680-251090-2
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			06/03/24 16:44	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			06/03/24 16:44	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			06/03/24 16:44	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			06/03/24 16:44	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			06/03/24 16:44	1
2-Hexanone	10	U	20	3.2	ug/L			06/03/24 16:44	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			06/03/24 16:44	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			06/03/24 16:44	1
Methyl acetate	10	U	20	3.2	ug/L			06/03/24 16:44	1
Methylcyclohexane	1.0	U	2.0	0.33	ug/L			06/03/24 16:44	1
Methylene Chloride	10	U	20	3.2	ug/L			06/03/24 16:44	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			06/03/24 16:44	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			06/03/24 16:44	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			06/03/24 16:44	1
Naphthalene	5.0	U	10	2.4	ug/L			06/03/24 16:44	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			06/03/24 16:44	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			06/03/24 16:44	1
o-Xylene	1.0	U	2.0	0.26	ug/L			06/03/24 16:44	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			06/03/24 16:44	1
Styrene	1.0	U	2.0	0.27	ug/L			06/03/24 16:44	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			06/03/24 16:44	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			06/03/24 16:44	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			06/03/24 16:44	1
Tetrachloroethene	**9.4**		2.0	0.35	ug/L			06/03/24 16:44	1
Toluene	1.0	U	2.0	0.25	ug/L			06/03/24 16:44	1
trans-1,2-Dichloroethene	**1.0**	**J**	2.0	0.34	ug/L			06/03/24 16:44	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			06/03/24 16:44	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			06/03/24 16:44	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			06/03/24 16:44	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			06/03/24 16:44	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			06/03/24 16:44	1
Trichloroethene	**110**		1.0	0.20	ug/L			06/03/24 16:44	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			06/03/24 16:44	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			06/03/24 16:44	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			06/03/24 16:44	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			06/03/24 16:44	1
1,3,5-Trimethylbenzene	1.0	U M	2.0	0.28	ug/L			06/03/24 16:44	1
Vinyl chloride	**1.6**	**J**	2.0	0.40	ug/L			06/03/24 16:44	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			06/03/24 16:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*85 - 114*		*06/03/24 16:44*	*1*
Dibromofluoromethane (Surr)	*108*		*80 - 119*		*06/03/24 16:44*	*1*
1,2-Dichloroethane-d4 (Surr)	*93*		*81 - 118*		*06/03/24 16:44*	*1*
Toluene-d8 (Surr)	*105*		*89 - 112*		*06/03/24 16:44*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	0.76	U	1.1	0.30	ug/L			06/01/24 19:42	1
Ethylene	0.71	U	1.0	0.31	ug/L			06/01/24 19:42	1

Client Sample ID: OU6-MW-237-20240521
Lab Sample ID: 680-251090-2

Date Collected: 05/21/24 10:00
Matrix: Water
Date Received: 05/22/24 09:30

Method: RSK-175 - Dissolved Gases (GC) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	**99**		1.2	0.57	ug/L			06/01/24 19:42	1

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**8.0**	**M**	0.55	0.20	mg/L			06/03/24 15:39	1
Nitrate as N	**0.32**	**M**	0.055	0.023	mg/L			05/22/24 15:38	1
Nitrate Nitrite as N	**0.32**		0.055	0.023	mg/L			05/22/24 15:38	1
Sulfate	**0.59**	**J**	1.5	0.40	mg/L			06/03/24 15:39	1
Nitrite as N	0.050	U	0.055	0.023	mg/L			05/22/24 15:38	1

Method: SW846 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**6.9**	**J**	10	2.2	ug/L		05/23/24 05:06	05/23/24 17:43	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**33**		5.5	2.2	mg/L			05/24/24 00:17	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	**33**		11	5.0	mg/L			05/24/24 00:17	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	10	U	11	5.0	mg/L			05/24/24 00:17	1
Sulfide (SM 4500 S2 F-2011)	0.86	U	0.86	0.86	mg/L			05/24/24 12:46	1
Sulfide as H2S (SM 4500 S2 F-2011)	0.95	U	0.95	0.95	mg/L			05/24/24 12:46	1
Total Organic Carbon (SW846 9060A)	**1.0**		1.0	0.50	mg/L			05/24/24 04:55	1
Carbon Dioxide, Free (SM 4500 CO2 D)	**30**		11	5.0	mg/L			05/24/24 00:17	1

Client Sample ID: OU6-MW-254-20240521
Lab Sample ID: 680-251090-3

Date Collected: 05/21/24 09:00
Matrix: Water
Date Received: 05/22/24 09:30

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U Q	25	3.7	ug/L			05/31/24 16:43	1
Benzene	1.0	U	2.0	0.27	ug/L			05/31/24 16:43	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			05/31/24 16:43	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			05/31/24 16:43	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			05/31/24 16:43	1
Bromoform	2.0	U	2.5	0.59	ug/L			05/31/24 16:43	1
Bromomethane	10	U Q	20	3.7	ug/L			05/31/24 16:43	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			05/31/24 16:43	1
Carbon disulfide	1.0	U Q	2.0	0.43	ug/L			05/31/24 16:43	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			05/31/24 16:43	1
Chlorobenzene	**0.90**	**J**	1.0	0.15	ug/L			05/31/24 16:43	1
Chloroethane	10	U Q	20	4.6	ug/L			05/31/24 16:43	1
Chloroform	1.0	U	2.0	0.27	ug/L			05/31/24 16:43	1
Chloromethane	2.0	U	2.5	0.54	ug/L			05/31/24 16:43	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			05/31/24 16:43	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			05/31/24 16:43	1
cis-1,2-Dichloroethene	**180**		2.0	0.25	ug/L			05/31/24 16:43	1

Client Sample ID: OU6-MW-254-20240521
Date Collected: 05/21/24 09:00
Date Received: 05/22/24 09:30

Lab Sample ID: 680-251090-3
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			05/31/24 16:43	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			05/31/24 16:43	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			05/31/24 16:43	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			05/31/24 16:43	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			05/31/24 16:43	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			05/31/24 16:43	1
1,2-Dichlorobenzene	**0.58**	**J**	2.0	0.31	ug/L			05/31/24 16:43	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/31/24 16:43	1
1,4-Dichlorobenzene	**1.5**	**J**	2.0	0.31	ug/L			05/31/24 16:43	1
Dichlorodifluoromethane	1.0	U Q M	2.0	0.36	ug/L			05/31/24 16:43	1
1,1-Dichloroethane	**10**		2.0	0.33	ug/L			05/31/24 16:43	1
1,2-Dichloroethane	1.0	U M	2.0	0.25	ug/L			05/31/24 16:43	1
1,1-Dichloroethene	**2.9**		2.0	0.33	ug/L			05/31/24 16:43	1
1,2-Dichloroethene, Total	**180**		2.0	0.37	ug/L			05/31/24 16:43	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			05/31/24 16:43	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			05/31/24 16:43	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			05/31/24 16:43	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			05/31/24 16:43	1
Ethylbenzene	0.50	U M	1.0	0.20	ug/L			05/31/24 16:43	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			05/31/24 16:43	1
2-Hexanone	10	U	20	3.2	ug/L			05/31/24 16:43	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			05/31/24 16:43	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			05/31/24 16:43	1
Methyl acetate	10	U Q	20	3.2	ug/L			05/31/24 16:43	1
Methylcyclohexane	1.0	U Q	2.0	0.33	ug/L			05/31/24 16:43	1
Methylene Chloride	10	U	20	3.2	ug/L			05/31/24 16:43	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			05/31/24 16:43	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			05/31/24 16:43	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			05/31/24 16:43	1
Naphthalene	5.0	U	10	2.4	ug/L			05/31/24 16:43	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			05/31/24 16:43	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			05/31/24 16:43	1
o-Xylene	1.0	U	2.0	0.26	ug/L			05/31/24 16:43	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			05/31/24 16:43	1
Styrene	1.0	U	2.0	0.27	ug/L			05/31/24 16:43	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			05/31/24 16:43	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			05/31/24 16:43	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			05/31/24 16:43	1
Tetrachloroethene	**8.7**		2.0	0.35	ug/L			05/31/24 16:43	1
Toluene	1.0	U	2.0	0.25	ug/L			05/31/24 16:43	1
trans-1,2-Dichloroethene	**4.8**		2.0	0.34	ug/L			05/31/24 16:43	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			05/31/24 16:43	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			05/31/24 16:43	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			05/31/24 16:43	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			05/31/24 16:43	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			05/31/24 16:43	1
Trichloroethene	**21**		1.0	0.20	ug/L			05/31/24 16:43	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			05/31/24 16:43	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			05/31/24 16:43	1

Client Sample ID: OU6-MW-254-20240521
Date Collected: 05/21/24 09:00
Date Received: 05/22/24 09:30

Lab Sample ID: 680-251090-3
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloro-1,2,2-trifluoroethane	**2.3**		1.0	0.23	ug/L			05/31/24 16:43	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			05/31/24 16:43	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			05/31/24 16:43	1
Vinyl chloride	**18**		2.0	0.40	ug/L			06/03/24 17:05	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			05/31/24 16:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*85 - 114*		*05/31/24 16:43*	*1*
4-Bromofluorobenzene (Surr)	*101*		*85 - 114*		*06/03/24 17:05*	*1*
Dibromofluoromethane (Surr)	*116*		*80 - 119*		*05/31/24 16:43*	*1*
Dibromofluoromethane (Surr)	*107*		*80 - 119*		*06/03/24 17:05*	*1*
1,2-Dichloroethane-d4 (Surr)	*110*		*81 - 118*		*05/31/24 16:43*	*1*
1,2-Dichloroethane-d4 (Surr)	*92*		*81 - 118*		*06/03/24 17:05*	*1*
Toluene-d8 (Surr)	*123*	*Q*	*89 - 112*		*05/31/24 16:43*	*1*
Toluene-d8 (Surr)	*106*		*89 - 112*		*06/03/24 17:05*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	**0.47**	**J**	1.1	0.30	ug/L			06/01/24 19:54	1
Ethylene	**6.9**		1.0	0.31	ug/L			06/01/24 19:54	1
Methane (TCD)	**3900**		390	39	ug/L			06/01/24 19:54	1

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**12**		0.55	0.20	mg/L			06/03/24 15:46	1
Nitrate as N	**0.046**	**J M**	0.055	0.023	mg/L			05/22/24 15:46	1
Nitrate Nitrite as N	**0.046**	**J**	0.055	0.023	mg/L			05/22/24 15:46	1
Sulfate	**0.56**	**J**	1.5	0.40	mg/L			06/03/24 15:46	1
Nitrite as N	0.050	U M	0.055	0.023	mg/L			05/22/24 15:46	1

Method: SW846 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**65**		10	2.2	ug/L		05/23/24 05:06	05/23/24 17:47	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**120**		5.5	2.2	mg/L			05/24/24 13:49	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	**120**		11	5.0	mg/L			05/24/24 13:49	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	10	U	11	5.0	mg/L			05/24/24 13:49	1
Sulfide (SM 4500 S2 F-2011)	0.86	U	0.86	0.86	mg/L			05/24/24 12:46	1
Sulfide as H2S (SM 4500 S2 F-2011)	0.95	U	0.95	0.95	mg/L			05/24/24 12:46	1
Total Organic Carbon (SW846 9060A)	**2.8**		1.0	0.50	mg/L			05/24/24 05:11	1
Carbon Dioxide, Free (SM 4500 CO2 D)	**220**		11	5.0	mg/L			05/24/24 13:49	1

Client Sample ID: OU6-MW-253-20240521
Date Collected: 05/21/24 10:05
Date Received: 05/22/24 09:30

Lab Sample ID: 680-251090-4
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			05/31/24 15:03	1
Acetone	10	U H	25	3.7	ug/L			06/05/24 15:14	1
Benzene	1.0	U	2.0	0.27	ug/L			05/31/24 15:03	1
Benzene	1.0	U H	2.0	0.27	ug/L			06/05/24 15:14	1
Bromobenzene	0.50	U Q	1.0	0.24	ug/L			05/31/24 15:03	1
Bromobenzene	0.50	U H	1.0	0.24	ug/L			06/05/24 15:14	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			05/31/24 15:03	1
Bromochloromethane	1.0	U H	2.0	0.34	ug/L			06/05/24 15:14	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			05/31/24 15:03	1
Bromodichloromethane	1.0	U H	2.0	0.25	ug/L			06/05/24 15:14	1
Bromoform	2.0	U	2.5	0.59	ug/L			05/31/24 15:03	1
Bromoform	2.0	U H Q	2.5	0.59	ug/L			06/05/24 15:14	1
Bromomethane	10	U Q	20	3.7	ug/L			05/31/24 15:03	1
Bromomethane	10	U H	20	3.7	ug/L			06/05/24 15:14	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			05/31/24 15:03	1
2-Butanone (MEK)	20	U H	25	6.4	ug/L			06/05/24 15:14	1
Carbon disulfide	**1.5**	**J**	2.0	0.43	ug/L			05/31/24 15:03	1
Carbon disulfide	**0.64**	**J H Q**	2.0	0.43	ug/L			06/05/24 15:14	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			05/31/24 15:03	1
Carbon tetrachloride	1.0	U H	2.0	0.30	ug/L			06/05/24 15:14	1
Chlorobenzene	0.50	U M	1.0	0.15	ug/L			05/31/24 15:03	1
Chlorobenzene	0.50	U H	1.0	0.15	ug/L			06/05/24 15:14	1
Chloroethane	10	U Q	20	4.6	ug/L			05/31/24 15:03	1
Chloroethane	10	U H Q	20	4.6	ug/L			06/05/24 15:14	1
Chloroform	1.0	U	2.0	0.27	ug/L			05/31/24 15:03	1
Chloroform	1.0	U H	2.0	0.27	ug/L			06/05/24 15:14	1
Chloromethane	2.0	U	2.5	0.54	ug/L			05/31/24 15:03	1
Chloromethane	2.0	U H Q	2.5	0.54	ug/L			06/05/24 15:14	1
2-Chlorotoluene	0.50	U Q	1.0	0.25	ug/L			05/31/24 15:03	1
2-Chlorotoluene	0.50	U H	1.0	0.25	ug/L			06/05/24 15:14	1
4-Chlorotoluene	1.0	U Q	2.0	0.41	ug/L			05/31/24 15:03	1
4-Chlorotoluene	1.0	U H	2.0	0.41	ug/L			06/05/24 15:14	1
cis-1,2-Dichloroethene	**22**		2.0	0.25	ug/L			05/31/24 15:03	1
cis-1,2-Dichloroethene	**17**	**H**	2.0	0.25	ug/L			06/05/24 15:14	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			05/31/24 15:03	1
cis-1,3-Dichloropropene	1.0	U H	2.0	0.26	ug/L			06/05/24 15:14	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			05/31/24 15:03	1
Cyclohexane	1.0	U H	2.0	0.28	ug/L			06/05/24 15:14	1
Dibromochloromethane	1.0	U Q	2.0	0.39	ug/L			05/31/24 15:03	1
Dibromochloromethane	1.0	U H	2.0	0.39	ug/L			06/05/24 15:14	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			06/04/24 13:50	1
1,2-Dibromo-3-Chloropropane	5.0	U H	10	1.8	ug/L			06/05/24 15:14	1
1,2-Dibromoethane	1.0	U Q	2.0	0.33	ug/L			05/31/24 15:03	1
1,2-Dibromoethane	1.0	U H	2.0	0.33	ug/L			06/05/24 15:14	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			05/31/24 15:03	1
Dibromomethane	1.0	U H	2.0	0.34	ug/L			06/05/24 15:14	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/31/24 15:03	1
1,2-Dichlorobenzene	1.0	U H	2.0	0.31	ug/L			06/05/24 15:14	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/31/24 15:03	1

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-251090-1

Client Sample ID: OU6-MW-253-20240521
Date Collected: 05/21/24 10:05
Date Received: 05/22/24 09:30

Lab Sample ID: 680-251090-4
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichlorobenzene	1.0	U H	2.0	0.31	ug/L			06/05/24 15:14	1
1,4-Dichlorobenzene	**0.68**	**J**	2.0	0.31	ug/L			05/31/24 15:03	1
1,4-Dichlorobenzene	**0.33**	**J H**	2.0	0.31	ug/L			06/05/24 15:14	1
Dichlorodifluoromethane	1.0	U	2.0	0.36	ug/L			05/31/24 15:03	1
Dichlorodifluoromethane	1.0	U H	2.0	0.36	ug/L			06/05/24 15:14	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			05/31/24 15:03	1
1,1-Dichloroethane	1.0	U H	2.0	0.33	ug/L			06/05/24 15:14	1
1,2-Dichloroethane	1.0	U M	2.0	0.25	ug/L			05/31/24 15:03	1
1,2-Dichloroethane	1.0	U H	2.0	0.25	ug/L			06/05/24 15:14	1
1,1-Dichloroethene	1.0	U	2.0	0.33	ug/L			05/31/24 15:03	1
1,1-Dichloroethene	1.0	U H	2.0	0.33	ug/L			06/05/24 15:14	1
1,2-Dichloroethene, Total	**22**		2.0	0.37	ug/L			05/31/24 15:03	1
1,2-Dichloroethene, Total	**17**	**H**	2.0	0.37	ug/L			06/05/24 15:14	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			05/31/24 15:03	1
1,2-Dichloropropane	0.50	U H	1.0	0.22	ug/L			06/05/24 15:14	1
1,3-Dichloropropane	1.0	U Q	2.0	0.36	ug/L			05/31/24 15:03	1
1,3-Dichloropropane	1.0	U H	2.0	0.36	ug/L			06/05/24 15:14	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			05/31/24 15:03	1
2,2-Dichloropropane	1.0	U H	2.0	0.35	ug/L			06/05/24 15:14	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			05/31/24 15:03	1
1,1-Dichloropropene	1.0	U H	2.0	0.28	ug/L			06/05/24 15:14	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			05/31/24 15:03	1
Ethylbenzene	0.50	U H	1.0	0.20	ug/L			06/05/24 15:14	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			06/04/24 13:50	1
Hexachlorobutadiene	1.0	U H	5.0	0.22	ug/L			06/05/24 15:14	1
2-Hexanone	10	U Q	20	3.2	ug/L			05/31/24 15:03	1
2-Hexanone	10	U H Q	20	3.2	ug/L			06/05/24 15:14	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			05/31/24 15:03	1
Isopropylbenzene	1.0	U H	2.0	0.26	ug/L			06/05/24 15:14	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			05/31/24 15:03	1
4-Isopropyltoluene	1.0	U H	2.0	0.44	ug/L			06/05/24 15:14	1
Methyl acetate	10	U	20	3.2	ug/L			05/31/24 15:03	1
Methyl acetate	10	U H	20	3.2	ug/L			06/05/24 15:14	1
Methylcyclohexane	1.0	U	2.0	0.33	ug/L			05/31/24 15:03	1
Methylcyclohexane	1.0	U H	2.0	0.33	ug/L			06/05/24 15:14	1
Methylene Chloride	10	U	20	3.2	ug/L			05/31/24 15:03	1
Methylene Chloride	10	U H	20	3.2	ug/L			06/05/24 15:14	1
4-Methyl-2-pentanone (MIBK)	10	U Q	20	2.7	ug/L			05/31/24 15:03	1
4-Methyl-2-pentanone (MIBK)	10	U H Q	20	2.7	ug/L			06/05/24 15:14	1
Methyl tert-butyl ether	2.0	U M	5.0	0.81	ug/L			05/31/24 15:03	1
Methyl tert-butyl ether	2.0	U H	5.0	0.81	ug/L			06/05/24 15:14	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			05/31/24 15:03	1
m-Xylene & p-Xylene	1.0	U H	2.0	0.49	ug/L			06/05/24 15:14	1
Naphthalene	5.0	U	10	2.4	ug/L			06/04/24 13:50	1
Naphthalene	5.0	U H	10	2.4	ug/L			06/05/24 15:14	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			05/31/24 15:03	1
n-Butylbenzene	2.0	U H	2.5	0.52	ug/L			06/05/24 15:14	1
N-Propylbenzene	1.0	U Q	2.0	0.41	ug/L			05/31/24 15:03	1
N-Propylbenzene	1.0	U H	2.0	0.41	ug/L			06/05/24 15:14	1

Client Sample ID: OU6-MW-253-20240521
Date Collected: 05/21/24 10:05
Date Received: 05/22/24 09:30

Lab Sample ID: 680-251090-4
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	1.0	U Q	2.0	0.26	ug/L			05/31/24 15:03	1
o-Xylene	1.0	U H	2.0	0.26	ug/L			06/05/24 15:14	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			05/31/24 15:03	1
sec-Butylbenzene	2.0	U H	2.5	0.53	ug/L			06/05/24 15:14	1
Styrene	1.0	U Q	2.0	0.27	ug/L			05/31/24 15:03	1
Styrene	1.0	U H	2.0	0.27	ug/L			06/05/24 15:14	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			05/31/24 15:03	1
tert-Butylbenzene	1.0	U H	2.0	0.43	ug/L			06/05/24 15:14	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			05/31/24 15:03	1
1,1,1,2-Tetrachloroethane	1.0	U H	2.0	0.36	ug/L			06/05/24 15:14	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			05/31/24 15:03	1
1,1,2,2-Tetrachloroethane	1.0	U H	2.0	0.40	ug/L			06/05/24 15:14	1
Tetrachloroethene	**2.6**	**Q**	2.0	0.35	ug/L			05/31/24 15:03	1
Tetrachloroethene	**1.6**	**J H**	2.0	0.35	ug/L			06/05/24 15:14	1
Toluene	1.0	U Q	2.0	0.25	ug/L			05/31/24 15:03	1
Toluene	1.0	U H	2.0	0.25	ug/L			06/05/24 15:14	1
trans-1,2-Dichloroethene	**0.82**	**J**	2.0	0.34	ug/L			05/31/24 15:03	1
trans-1,2-Dichloroethene	**0.35**	**J H**	2.0	0.34	ug/L			06/05/24 15:14	1
trans-1,3-Dichloropropene	1.0	U Q	2.0	0.23	ug/L			05/31/24 15:03	1
trans-1,3-Dichloropropene	1.0	U H	2.0	0.23	ug/L			06/05/24 15:14	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			05/31/24 15:03	1
1,2,3-Trichlorobenzene	2.0	U H	5.0	0.81	ug/L			06/05/24 15:14	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			06/04/24 13:50	1
1,2,4-Trichlorobenzene	2.0	U H	5.0	0.53	ug/L			06/05/24 15:14	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			05/31/24 15:03	1
1,1,1-Trichloroethane	0.50	U H	1.0	0.21	ug/L			06/05/24 15:14	1
1,1,2-Trichloroethane	1.0	U Q	2.0	0.32	ug/L			05/31/24 15:03	1
1,1,2-Trichloroethane	1.0	U H	2.0	0.32	ug/L			06/05/24 15:14	1
Trichloroethene	**5.8**		1.0	0.20	ug/L			05/31/24 15:03	1
Trichloroethene	**4.1**	**H**	1.0	0.20	ug/L			06/05/24 15:14	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			05/31/24 15:03	1
Trichlorofluoromethane	1.0	U H Q	2.0	0.33	ug/L			06/05/24 15:14	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			05/31/24 15:03	1
1,2,3-Trichloropropane	1.0	U H	2.0	0.48	ug/L			06/05/24 15:14	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			05/31/24 15:03	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U H	1.0	0.23	ug/L			06/05/24 15:14	1
1,2,4-Trimethylbenzene	1.0	U Q	2.0	0.43	ug/L			05/31/24 15:03	1
1,2,4-Trimethylbenzene	1.0	U H	2.0	0.43	ug/L			06/05/24 15:14	1
1,3,5-Trimethylbenzene	1.0	U Q	2.0	0.28	ug/L			05/31/24 15:03	1
1,3,5-Trimethylbenzene	1.0	U H	2.0	0.28	ug/L			06/05/24 15:14	1
Vinyl chloride	**2.1**		2.0	0.40	ug/L			05/31/24 15:03	1
Vinyl chloride	**2.3**	**H**	2.0	0.40	ug/L			06/05/24 15:14	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			06/04/24 13:50	1
Xylenes, Total	1.0	U H	2.0	0.49	ug/L			06/05/24 15:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*85 - 114*		*05/31/24 15:03*	*1*
4-Bromofluorobenzene (Surr)	*98*		*85 - 114*		*06/04/24 13:50*	*1*
4-Bromofluorobenzene (Surr)	*111*		*85 - 114*		*06/05/24 15:14*	*1*
Dibromofluoromethane (Surr)	*108*		*80 - 119*		*05/31/24 15:03*	*1*

Client Sample ID: OU6-MW-253-20240521

Lab Sample ID: 680-251090-4

Date Collected: 05/21/24 10:05

Matrix: Water

Date Received: 05/22/24 09:30

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*104*		*80 - 119*		*06/05/24 15:14*	*1*
1,2-Dichloroethane-d4 (Surr)	*95*		*81 - 118*		*05/31/24 15:03*	*1*
1,2-Dichloroethane-d4 (Surr)	*94*		*81 - 118*		*06/05/24 15:14*	*1*
Toluene-d8 (Surr)	*86*	*Q*	*89 - 112*		*05/31/24 15:03*	*1*
Toluene-d8 (Surr)	*98*		*89 - 112*		*06/05/24 15:14*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	0.76	U	1.1	0.30	ug/L			06/03/24 15:18	1
Ethylene	**0.91**	**J**	1.0	0.31	ug/L			06/03/24 15:18	1
Methane (TCD)	**1500**		390	39	ug/L			06/03/24 15:18	1

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**16**		0.55	0.20	mg/L			06/03/24 15:52	1
Nitrate as N	0.10	U	0.11	0.046	mg/L			05/22/24 16:36	2
Nitrate Nitrite as N	0.10	U	0.11	0.046	mg/L			05/22/24 16:36	2
Sulfate	**0.56**	**J**	1.5	0.40	mg/L			06/03/24 15:52	1
Nitrite as N	0.10	U	0.11	0.046	mg/L			05/22/24 16:36	2

Method: SW846 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**220**		10	2.2	ug/L		05/23/24 05:06	05/23/24 17:49	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**47**		5.5	2.2	mg/L			05/24/24 13:58	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	**47**		11	5.0	mg/L			05/24/24 13:58	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	10	U	11	5.0	mg/L			05/24/24 13:58	1
Sulfide (SM 4500 S2 F-2011)	0.81	U	0.81	0.81	mg/L			05/24/24 12:46	1
Sulfide as H2S (SM 4500 S2 F-2011)	0.89	U	0.89	0.89	mg/L			05/24/24 12:46	1
Total Organic Carbon (SW846 9060A)	**3.2**		1.0	0.50	mg/L			05/24/24 05:31	1
Carbon Dioxide, Free (SM 4500 CO2 D)	**170**		11	5.0	mg/L			05/24/24 13:58	1

Client Sample ID: OU6-MW-256-20240521

Lab Sample ID: 680-251090-5

Date Collected: 05/21/24 07:55

Matrix: Water

Date Received: 05/22/24 09:30

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			05/31/24 15:24	1
Benzene	1.0	U	2.0	0.27	ug/L			05/31/24 15:24	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			06/04/24 14:13	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			05/31/24 15:24	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			05/31/24 15:24	1
Bromoform	2.0	U	2.5	0.59	ug/L			05/31/24 15:24	1
Bromomethane	10	U Q	20	3.7	ug/L			05/31/24 15:24	1

Client Sample ID: OU6-MW-256-20240521
Date Collected: 05/21/24 07:55
Date Received: 05/22/24 09:30

Lab Sample ID: 680-251090-5
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
2-Butanone (MEK)	20	U	25	6.4	ug/L			05/31/24 15:24	1
Carbon disulfide	1.0	U Q	2.0	0.43	ug/L			06/04/24 14:13	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			05/31/24 15:24	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			05/31/24 15:24	1
Chloroethane	10	U Q	20	4.6	ug/L			05/31/24 15:24	1
Chloroform	1.0	U	2.0	0.27	ug/L			05/31/24 15:24	1
Chloromethane	2.0	U	2.5	0.54	ug/L			05/31/24 15:24	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			06/04/24 14:13	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			06/04/24 14:13	1
cis-1,2-Dichloroethene	**36**		2.0	0.25	ug/L			05/31/24 15:24	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			05/31/24 15:24	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			05/31/24 15:24	1
Dibromochloromethane	1.0	U Q	2.0	0.39	ug/L			05/31/24 15:24	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			06/04/24 14:13	1
1,2-Dibromoethane	1.0	U Q	2.0	0.33	ug/L			05/31/24 15:24	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			05/31/24 15:24	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/31/24 15:24	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/31/24 15:24	1
1,4-Dichlorobenzene	**0.79**	**J**	2.0	0.31	ug/L			05/31/24 15:24	1
Dichlorodifluoromethane	1.0	U	2.0	0.36	ug/L			05/31/24 15:24	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			05/31/24 15:24	1
1,2-Dichloroethane	1.0	U M	2.0	0.25	ug/L			05/31/24 15:24	1
1,1-Dichloroethene	1.0	U	2.0	0.33	ug/L			05/31/24 15:24	1
1,2-Dichloroethene, Total	**37**		2.0	0.37	ug/L			05/31/24 15:24	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			05/31/24 15:24	1
1,3-Dichloropropane	1.0	U Q	2.0	0.36	ug/L			05/31/24 15:24	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			05/31/24 15:24	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			05/31/24 15:24	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			05/31/24 15:24	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			06/04/24 14:13	1
2-Hexanone	10	U	20	3.2	ug/L			06/04/24 14:13	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			06/04/24 14:13	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			05/31/24 15:24	1
Methyl acetate	10	U	20	3.2	ug/L			06/04/24 14:13	1
Methylcyclohexane	1.0	U	2.0	0.33	ug/L			05/31/24 15:24	1
Methylene Chloride	10	U	20	3.2	ug/L			05/31/24 15:24	1
4-Methyl-2-pentanone (MIBK)	10	U Q	20	2.7	ug/L			05/31/24 15:24	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			05/31/24 15:24	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			05/31/24 15:24	1
Naphthalene	5.0	U	10	2.4	ug/L			06/04/24 14:13	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			05/31/24 15:24	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			06/04/24 14:13	1
o-Xylene	1.0	U	2.0	0.26	ug/L			06/04/24 14:13	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			06/04/24 14:13	1
Styrene	1.0	U	2.0	0.27	ug/L			06/04/24 14:13	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			06/04/24 14:13	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			05/31/24 15:24	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			05/31/24 15:24	1
Tetrachloroethene	**11**	**Q**	2.0	0.35	ug/L			05/31/24 15:24	1

Client Sample ID: OU6-MW-256-20240521
Date Collected: 05/21/24 07:55
Date Received: 05/22/24 09:30

Lab Sample ID: 680-251090-5
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	1.0	U Q	2.0	0.25	ug/L			05/31/24 15:24	1
trans-1,2-Dichloroethene	**0.72**	**J**	2.0	0.34	ug/L			06/04/24 14:13	1
trans-1,3-Dichloropropene	1.0	U Q	2.0	0.23	ug/L			05/31/24 15:24	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			05/31/24 15:24	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			06/04/24 14:13	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			05/31/24 15:24	1
1,1,2-Trichloroethane	1.0	U Q	2.0	0.32	ug/L			05/31/24 15:24	1
Trichloroethene	**37**		1.0	0.20	ug/L			05/31/24 15:24	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			05/31/24 15:24	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			06/04/24 14:13	1
1,1,2-Trichloro-1,2,2-trifluoroethane	**30**		1.0	0.23	ug/L			05/31/24 15:24	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			06/04/24 14:13	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			06/04/24 14:13	1
Vinyl chloride	**1.8**	**J**	2.0	0.40	ug/L			05/31/24 15:24	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			06/04/24 14:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*85 - 114*		*05/31/24 15:24*	*1*
4-Bromofluorobenzene (Surr)	*107*		*85 - 114*		*06/04/24 14:13*	*1*
Dibromofluoromethane (Surr)	*110*		*80 - 119*		*05/31/24 15:24*	*1*
Dibromofluoromethane (Surr)	*103*		*80 - 119*		*06/04/24 14:13*	*1*
1,2-Dichloroethane-d4 (Surr)	*94*		*81 - 118*		*05/31/24 15:24*	*1*
1,2-Dichloroethane-d4 (Surr)	*93*		*81 - 118*		*06/04/24 14:13*	*1*
Toluene-d8 (Surr)	*107*		*89 - 112*		*05/31/24 15:24*	*1*
Toluene-d8 (Surr)	*96*		*89 - 112*		*06/04/24 14:13*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	0.76	U	1.1	0.30	ug/L			06/03/24 15:31	1
Ethylene	**1.2**		1.0	0.31	ug/L			06/03/24 15:31	1
Methane (TCD)	**1600**		390	39	ug/L			06/03/24 15:31	1

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**8.5**	**M**	0.55	0.20	mg/L			06/03/24 15:59	1
Nitrate as N	**0.95**		0.055	0.023	mg/L			05/22/24 16:44	1
Nitrate Nitrite as N	**0.95**		0.055	0.023	mg/L			05/22/24 16:44	1
Sulfate	**4.0**		1.5	0.40	mg/L			06/03/24 15:59	1
Nitrite as N	0.050	U M	0.055	0.023	mg/L			05/22/24 16:44	1

Method: SW846 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**6.1**	**J**	10	2.2	ug/L		05/23/24 05:06	05/23/24 17:51	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**6.6**		5.5	2.2	mg/L			05/24/24 13:40	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	**6.6**	**J**	11	5.0	mg/L			05/24/24 13:40	1

Client Sample ID: OU6-MW-256-20240521

Lab Sample ID: 680-251090-5

Date Collected: 05/21/24 07:55

Matrix: Water

Date Received: 05/22/24 09:30

General Chemistry (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	10	U	11	5.0	mg/L			05/24/24 13:40	1
Sulfide (SM 4500 S2 F-2011)	0.83	U	0.83	0.83	mg/L			05/24/24 12:46	1
Sulfide as H2S (SM 4500 S2 F-2011)	0.92	U	0.92	0.92	mg/L			05/24/24 12:46	1
Total Organic Carbon (SW846 9060A)	**0.83**	**J**	1.0	0.50	mg/L			05/24/24 07:13	1
Carbon Dioxide, Free (SM 4500 CO2 D)	**58**		11	5.0	mg/L			05/24/24 13:40	1

Client Sample ID: OU6-MW-252-20240521

Lab Sample ID: 680-251090-6

Date Collected: 05/21/24 11:10

Matrix: Water

Date Received: 05/22/24 09:30

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			05/31/24 15:46	1
Benzene	1.0	U	2.0	0.27	ug/L			05/31/24 15:46	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			06/04/24 14:36	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			05/31/24 15:46	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			05/31/24 15:46	1
Bromoform	2.0	U	2.5	0.59	ug/L			05/31/24 15:46	1
Bromomethane	10	U Q	20	3.7	ug/L			05/31/24 15:46	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			05/31/24 15:46	1
Carbon disulfide	1.0	U Q	2.0	0.43	ug/L			06/04/24 14:36	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			05/31/24 15:46	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			05/31/24 15:46	1
Chloroethane	10	U Q	20	4.6	ug/L			05/31/24 15:46	1
Chloroform	1.0	U	2.0	0.27	ug/L			05/31/24 15:46	1
Chloromethane	2.0	U	2.5	0.54	ug/L			05/31/24 15:46	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			06/04/24 14:36	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			06/04/24 14:36	1
cis-1,2-Dichloroethene	1.0	U	2.0	0.25	ug/L			05/31/24 15:46	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			05/31/24 15:46	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			05/31/24 15:46	1
Dibromochloromethane	1.0	U Q	2.0	0.39	ug/L			05/31/24 15:46	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			06/04/24 14:36	1
1,2-Dibromoethane	1.0	U Q	2.0	0.33	ug/L			05/31/24 15:46	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			05/31/24 15:46	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/31/24 15:46	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/31/24 15:46	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/31/24 15:46	1
Dichlorodifluoromethane	1.0	U	2.0	0.36	ug/L			05/31/24 15:46	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			05/31/24 15:46	1
1,2-Dichloroethane	1.0	U M	2.0	0.25	ug/L			05/31/24 15:46	1
1,1-Dichloroethene	1.0	U	2.0	0.33	ug/L			05/31/24 15:46	1
1,2-Dichloroethene, Total	1.0	U	2.0	0.37	ug/L			05/31/24 15:46	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			05/31/24 15:46	1
1,3-Dichloropropane	1.0	U Q	2.0	0.36	ug/L			05/31/24 15:46	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			05/31/24 15:46	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			05/31/24 15:46	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			05/31/24 15:46	1

Client Sample ID: OU6-MW-252-20240521
Date Collected: 05/21/24 11:10
Date Received: 05/22/24 09:30

Lab Sample ID: 680-251090-6
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			06/04/24 14:36	1
2-Hexanone	10	U	20	3.2	ug/L			06/04/24 14:36	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			06/04/24 14:36	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			05/31/24 15:46	1
Methyl acetate	10	U	20	3.2	ug/L			06/04/24 14:36	1
Methylcyclohexane	1.0	U	2.0	0.33	ug/L			05/31/24 15:46	1
Methylene Chloride	10	U	20	3.2	ug/L			05/31/24 15:46	1
4-Methyl-2-pentanone (MIBK)	10	U Q	20	2.7	ug/L			05/31/24 15:46	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			05/31/24 15:46	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			05/31/24 15:46	1
Naphthalene	5.0	U	10	2.4	ug/L			06/04/24 14:36	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			05/31/24 15:46	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			06/04/24 14:36	1
o-Xylene	1.0	U	2.0	0.26	ug/L			06/04/24 14:36	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			06/04/24 14:36	1
Styrene	1.0	U	2.0	0.27	ug/L			06/04/24 14:36	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			06/04/24 14:36	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			05/31/24 15:46	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			05/31/24 15:46	1
Tetrachloroethene	1.0	U M Q	2.0	0.35	ug/L			05/31/24 15:46	1
Toluene	1.0	U Q	2.0	0.25	ug/L			05/31/24 15:46	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			06/04/24 14:36	1
trans-1,3-Dichloropropene	1.0	U Q	2.0	0.23	ug/L			05/31/24 15:46	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			05/31/24 15:46	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			06/04/24 14:36	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			05/31/24 15:46	1
1,1,2-Trichloroethane	1.0	U Q	2.0	0.32	ug/L			05/31/24 15:46	1
Trichloroethene	**0.65**	**J**	1.0	0.20	ug/L			05/31/24 15:46	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			05/31/24 15:46	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			06/04/24 14:36	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			05/31/24 15:46	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			06/04/24 14:36	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			06/04/24 14:36	1
Vinyl chloride	1.0	U	2.0	0.40	ug/L			05/31/24 15:46	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			06/04/24 14:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*85 - 114*		*05/31/24 15:46*	*1*
4-Bromofluorobenzene (Surr)	*107*		*85 - 114*		*06/04/24 14:36*	*1*
Dibromofluoromethane (Surr)	*108*		*80 - 119*		*05/31/24 15:46*	*1*
Dibromofluoromethane (Surr)	*105*		*80 - 119*		*06/04/24 14:36*	*1*
1,2-Dichloroethane-d4 (Surr)	*97*		*81 - 118*		*05/31/24 15:46*	*1*
1,2-Dichloroethane-d4 (Surr)	*96*		*81 - 118*		*06/04/24 14:36*	*1*
Toluene-d8 (Surr)	*103*		*89 - 112*		*05/31/24 15:46*	*1*
Toluene-d8 (Surr)	*96*		*89 - 112*		*06/04/24 14:36*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	0.76	U	1.1	0.30	ug/L			06/03/24 15:44	1
Ethylene	0.71	U	1.0	0.31	ug/L			06/03/24 15:44	1

Client Sample ID: OU6-MW-252-20240521

Lab Sample ID: 680-251090-6

Date Collected: 05/21/24 11:10

Matrix: Water

Date Received: 05/22/24 09:30

Method: RSK-175 - Dissolved Gases (GC) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	**4.0**		1.2	0.57	ug/L			06/03/24 15:44	1

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1.1**	**M**	0.55	0.20	mg/L			06/03/24 18:36	1
Nitrate as N	**0.14**		0.055	0.023	mg/L			05/22/24 16:53	1
Nitrate Nitrite as N	**0.14**		0.055	0.023	mg/L			05/22/24 16:53	1
Sulfate	**5.9**		1.5	0.40	mg/L			06/03/24 18:36	1
Nitrite as N	0.050	U	0.055	0.023	mg/L			05/22/24 16:53	1

Method: SW846 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**130**		10	2.2	ug/L		05/23/24 05:06	05/23/24 17:53	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**200**		5.5	2.2	mg/L			05/24/24 23:20	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	**170**		11	5.0	mg/L			05/24/24 23:20	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	**27**		11	5.0	mg/L			05/24/24 23:20	1
Sulfide (SM 4500 S2 F-2011)	0.83	U	0.83	0.83	mg/L			05/24/24 12:46	1
Sulfide as H2S (SM 4500 S2 F-2011)	0.92	U	0.92	0.92	mg/L			05/24/24 12:46	1
Total Organic Carbon (SW846 9060A)	**9.6**		1.0	0.50	mg/L			05/24/24 07:47	1
Carbon Dioxide, Free (SM 4500 CO2 D)	10	U	11	5.0	mg/L			05/24/24 23:20	1

Client Sample ID: OU6-MW-240-20240521

Lab Sample ID: 680-251090-7

Date Collected: 05/21/24 13:10

Matrix: Water

Date Received: 05/22/24 09:30

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	**15**	**J**	25	3.7	ug/L			05/31/24 16:07	1
Benzene	1.0	U	2.0	0.27	ug/L			05/31/24 16:07	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			05/31/24 16:07	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			05/31/24 16:07	1
Bromoform	2.0	U	2.5	0.59	ug/L			05/31/24 16:07	1
Bromomethane	10	U Q	20	3.7	ug/L			05/31/24 16:07	1
2-Butanone (MEK)	20	U M	25	6.4	ug/L			05/31/24 16:07	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			05/31/24 16:07	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			05/31/24 16:07	1
Chloroethane	10	U M Q	20	4.6	ug/L			05/31/24 16:07	1
Chloroform	1.0	U	2.0	0.27	ug/L			05/31/24 16:07	1
Chloromethane	2.0	U	2.5	0.54	ug/L			05/31/24 16:07	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			05/31/24 16:07	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			05/31/24 16:07	1
Dibromochloromethane	1.0	U Q	2.0	0.39	ug/L			05/31/24 16:07	1
1,2-Dibromoethane	1.0	U Q	2.0	0.33	ug/L			05/31/24 16:07	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			05/31/24 16:07	1

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-251090-1

Client Sample ID: OU6-MW-240-20240521
Date Collected: 05/21/24 13:10
Date Received: 05/22/24 09:30

Lab Sample ID: 680-251090-7
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/31/24 16:07	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/31/24 16:07	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/31/24 16:07	1
Dichlorodifluoromethane	1.0	U	2.0	0.36	ug/L			05/31/24 16:07	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			05/31/24 16:07	1
1,2-Dichloroethane	1.0	U M	2.0	0.25	ug/L			05/31/24 16:07	1
1,1-Dichloroethene	1.0	U M	2.0	0.33	ug/L			05/31/24 16:07	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			05/31/24 16:07	1
1,3-Dichloropropane	1.0	U Q	2.0	0.36	ug/L			05/31/24 16:07	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			05/31/24 16:07	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			05/31/24 16:07	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			05/31/24 16:07	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			05/31/24 16:07	1
Methylcyclohexane	1.0	U	2.0	0.33	ug/L			05/31/24 16:07	1
Methylene Chloride	10	U	20	3.2	ug/L			05/31/24 16:07	1
4-Methyl-2-pentanone (MIBK)	**4.2**	**J Q**	20	2.7	ug/L			05/31/24 16:07	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			05/31/24 16:07	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			05/31/24 16:07	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			05/31/24 16:07	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			05/31/24 16:07	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			05/31/24 16:07	1
Tetrachloroethene	**5.1**	**Q**	2.0	0.35	ug/L			05/31/24 16:07	1
Toluene	1.0	U Q	2.0	0.25	ug/L			05/31/24 16:07	1
trans-1,3-Dichloropropene	1.0	U Q	2.0	0.23	ug/L			05/31/24 16:07	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			05/31/24 16:07	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			05/31/24 16:07	1
1,1,2-Trichloroethane	1.0	U Q	2.0	0.32	ug/L			05/31/24 16:07	1
Trichloroethene	**150**		1.0	0.20	ug/L			05/31/24 16:07	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			05/31/24 16:07	1
1,1,2-Trichloro-1,2,2-trifluoroethane	**8.5**		1.0	0.23	ug/L			05/31/24 16:07	1
Vinyl chloride	**80**		2.0	0.40	ug/L			05/31/24 16:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*85 - 114*		*05/31/24 16:07*	*1*
Dibromofluoromethane (Surr)	*108*		*80 - 119*		*05/31/24 16:07*	*1*
1,2-Dichloroethane-d4 (Surr)	*92*		*81 - 118*		*05/31/24 16:07*	*1*
Toluene-d8 (Surr)	*106*		*89 - 112*		*05/31/24 16:07*	*1*

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Bromobenzene	2.5	U	5.0	1.2	ug/L			06/03/24 18:15	5
Carbon disulfide	5.0	U	10	2.2	ug/L			06/03/24 18:15	5
2-Chlorotoluene	2.5	U	5.0	1.3	ug/L			06/03/24 18:15	5
4-Chlorotoluene	5.0	U	10	2.1	ug/L			06/03/24 18:15	5
cis-1,2-Dichloroethene	**210**	**D**	10	1.3	ug/L			06/03/24 18:15	5
1,2-Dibromo-3-Chloropropane	25	U Q	50	9.0	ug/L			06/03/24 18:15	5
1,2-Dichloroethene, Total	**210**	**D**	10	1.9	ug/L			06/03/24 18:15	5
Hexachlorobutadiene	5.0	U	25	1.1	ug/L			06/03/24 18:15	5
2-Hexanone	50	U	100	16	ug/L			06/03/24 18:15	5

Client Sample ID: OU6-MW-240-20240521
Date Collected: 05/21/24 13:10
Date Received: 05/22/24 09:30

Lab Sample ID: 680-251090-7
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) - DL (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	5.0	U	10	1.3	ug/L			06/03/24 18:15	5
Methyl acetate	50	U	100	16	ug/L			06/03/24 18:15	5
Naphthalene	25	U	50	12	ug/L			06/03/24 18:15	5
N-Propylbenzene	5.0	U	10	2.1	ug/L			06/03/24 18:15	5
o-Xylene	5.0	U	10	1.3	ug/L			06/03/24 18:15	5
sec-Butylbenzene	10	U	13	2.7	ug/L			06/03/24 18:15	5
Styrene	5.0	U	10	1.4	ug/L			06/03/24 18:15	5
tert-Butylbenzene	5.0	U	10	2.2	ug/L			06/03/24 18:15	5
trans-1,2-Dichloroethene	5.0	U	10	1.7	ug/L			06/03/24 18:15	5
1,2,4-Trichlorobenzene	10	U	25	2.7	ug/L			06/03/24 18:15	5
1,2,3-Trichloropropane	5.0	U	10	2.4	ug/L			06/03/24 18:15	5
1,2,4-Trimethylbenzene	5.0	U	10	2.2	ug/L			06/03/24 18:15	5
1,3,5-Trimethylbenzene	5.0	U	10	1.4	ug/L			06/03/24 18:15	5
Xylenes, Total	5.0	U	10	2.5	ug/L			06/03/24 18:15	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*85 - 114*		*06/03/24 18:15*	*5*
Dibromofluoromethane (Surr)	*108*		*80 - 119*		*06/03/24 18:15*	*5*
1,2-Dichloroethane-d4 (Surr)	*94*		*81 - 118*		*06/03/24 18:15*	*5*
Toluene-d8 (Surr)	*109*		*89 - 112*		*06/03/24 18:15*	*5*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	0.76	U	1.1	0.30	ug/L			06/03/24 15:57	1
Ethylene	**130**		1.0	0.31	ug/L			06/03/24 15:57	1
Methane (TCD)	**11000**		390	39	ug/L			06/03/24 15:57	1

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**20**		0.55	0.20	mg/L			06/03/24 16:45	1
Nitrate as N	0.10	U	0.11	0.046	mg/L			05/22/24 17:01	2
Nitrate Nitrite as N	0.10	U	0.11	0.046	mg/L			05/22/24 17:01	2
Sulfate	**0.49**	**J**	1.5	0.40	mg/L			06/03/24 16:45	1
Nitrite as N	0.10	U	0.11	0.046	mg/L			05/22/24 17:01	2

Method: SW846 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**740**		10	2.2	ug/L		05/23/24 05:06	05/23/24 17:55	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**330**		5.5	2.2	mg/L			05/24/24 13:33	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	**330**		11	5.0	mg/L			05/24/24 13:33	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	10	U	11	5.0	mg/L			05/24/24 13:33	1
Sulfide (SM 4500 S2 F-2011)	0.81	U	0.81	0.81	mg/L			05/24/24 12:47	1
Sulfide as H2S (SM 4500 S2 F-2011)	0.89	U	0.89	0.89	mg/L			05/24/24 12:47	1
Total Organic Carbon (SW846 9060A)	**85**		1.0	0.50	mg/L			05/24/24 08:06	1

Client Sample ID: OU6-MW-240-20240521

Lab Sample ID: 680-251090-7

Date Collected: 05/21/24 13:10

Matrix: Water

Date Received: 05/22/24 09:30

General Chemistry (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon Dioxide, Free (SM 4500 CO2 D)	340		11	5.0	mg/L			05/24/24 13:33	1

Client Sample ID: OU6-MW-238-20240521

Lab Sample ID: 680-251090-8

Date Collected: 05/21/24 12:10

Matrix: Water

Date Received: 05/22/24 09:30

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	500	U	1300	190	ug/L			06/03/24 19:26	50
Benzene	50	U	100	14	ug/L			06/03/24 19:26	50
Bromobenzene	25	U	50	12	ug/L			06/03/24 19:26	50
Bromochloromethane	50	U	100	17	ug/L			06/03/24 19:26	50
Bromodichloromethane	50	U	100	13	ug/L			06/03/24 19:26	50
Bromoform	100	U	130	30	ug/L			06/03/24 19:26	50
Bromomethane	500	U	1000	190	ug/L			06/03/24 19:26	50
2-Butanone (MEK)	1000	U	1300	320	ug/L			06/03/24 19:26	50
Carbon disulfide	50	U	100	22	ug/L			06/03/24 19:26	50
Carbon tetrachloride	50	U	100	15	ug/L			06/03/24 19:26	50
Chlorobenzene	25	U	50	7.5	ug/L			06/03/24 19:26	50
Chloroethane	500	U	1000	230	ug/L			06/03/24 19:26	50
Chloroform	50	U	100	14	ug/L			06/03/24 19:26	50
Chloromethane	100	U	130	27	ug/L			06/03/24 19:26	50
2-Chlorotoluene	25	U	50	13	ug/L			06/03/24 19:26	50
4-Chlorotoluene	50	U	100	21	ug/L			06/03/24 19:26	50
cis-1,2-Dichloroethene	88	J D M	100	13	ug/L			06/03/24 19:26	50
cis-1,3-Dichloropropene	50	U	100	13	ug/L			06/03/24 19:26	50
Cyclohexane	50	U	100	14	ug/L			06/03/24 19:26	50
Dibromochloromethane	50	U	100	20	ug/L			06/03/24 19:26	50
1,2-Dibromo-3-Chloropropane	250	U Q	500	90	ug/L			06/03/24 19:26	50
1,2-Dibromoethane	50	U	100	17	ug/L			06/03/24 19:26	50
Dibromomethane	50	U	100	17	ug/L			06/03/24 19:26	50
1,2-Dichlorobenzene	50	U	100	16	ug/L			06/03/24 19:26	50
1,3-Dichlorobenzene	50	U	100	16	ug/L			06/03/24 19:26	50
1,4-Dichlorobenzene	50	U	100	16	ug/L			06/03/24 19:26	50
Dichlorodifluoromethane	50	U Q	100	18	ug/L			06/03/24 19:26	50
1,1-Dichloroethane	50	U	100	17	ug/L			06/03/24 19:26	50
1,2-Dichloroethane	50	U M	100	13	ug/L			06/03/24 19:26	50
1,1-Dichloroethene	50	U	100	17	ug/L			06/03/24 19:26	50
1,2-Dichloroethene, Total	88	J D	100	19	ug/L			06/03/24 19:26	50
1,2-Dichloropropane	25	U	50	11	ug/L			06/03/24 19:26	50
1,3-Dichloropropane	50	U	100	18	ug/L			06/03/24 19:26	50
2,2-Dichloropropane	50	U	100	18	ug/L			06/03/24 19:26	50
1,1-Dichloropropene	50	U	100	14	ug/L			06/03/24 19:26	50
Ethylbenzene	25	U	50	10	ug/L			06/03/24 19:26	50
Hexachlorobutadiene	50	U	250	11	ug/L			06/03/24 19:26	50
2-Hexanone	500	U	1000	160	ug/L			06/03/24 19:26	50
Isopropylbenzene	50	U	100	13	ug/L			06/03/24 19:26	50
4-Isopropyltoluene	50	U	100	22	ug/L			06/03/24 19:26	50
Methyl acetate	500	U	1000	160	ug/L			06/03/24 19:26	50

Client Sample ID: OU6-MW-238-20240521
Date Collected: 05/21/24 12:10
Date Received: 05/22/24 09:30

Lab Sample ID: 680-251090-8
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Methylcyclohexane	50	U	100	17	ug/L			06/03/24 19:26	50
Methylene Chloride	500	U	1000	160	ug/L			06/03/24 19:26	50
4-Methyl-2-pentanone (MIBK)	500	U	1000	140	ug/L			06/03/24 19:26	50
Methyl tert-butyl ether	100	U	250	41	ug/L			06/03/24 19:26	50
m-Xylene & p-Xylene	50	U	100	25	ug/L			06/03/24 19:26	50
Naphthalene	250	U	500	120	ug/L			06/03/24 19:26	50
n-Butylbenzene	100	U	130	26	ug/L			06/03/24 19:26	50
N-Propylbenzene	50	U	100	21	ug/L			06/03/24 19:26	50
o-Xylene	50	U	100	13	ug/L			06/03/24 19:26	50
sec-Butylbenzene	100	U	130	27	ug/L			06/03/24 19:26	50
Styrene	50	U	100	14	ug/L			06/03/24 19:26	50
tert-Butylbenzene	50	U	100	22	ug/L			06/03/24 19:26	50
1,1,1,2-Tetrachloroethane	50	U	100	18	ug/L			06/03/24 19:26	50
1,1,2,2-Tetrachloroethane	50	U	100	20	ug/L			06/03/24 19:26	50
Tetrachloroethene	**75**	**J D**	100	18	ug/L			06/03/24 19:26	50
Toluene	50	U	100	13	ug/L			06/03/24 19:26	50
trans-1,2-Dichloroethene	50	U	100	17	ug/L			06/03/24 19:26	50
trans-1,3-Dichloropropene	50	U	100	12	ug/L			06/03/24 19:26	50
1,2,3-Trichlorobenzene	100	U	250	41	ug/L			06/03/24 19:26	50
1,2,4-Trichlorobenzene	100	U	250	27	ug/L			06/03/24 19:26	50
1,1,1-Trichloroethane	25	U	50	11	ug/L			06/03/24 19:26	50
1,1,2-Trichloroethane	50	U	100	16	ug/L			06/03/24 19:26	50
Trichloroethene	**2800**	**D**	50	10	ug/L			06/03/24 19:26	50
Trichlorofluoromethane	50	U	100	17	ug/L			06/03/24 19:26	50
1,2,3-Trichloropropane	50	U	100	24	ug/L			06/03/24 19:26	50
1,1,2-Trichloro-1,2,2-trifluoroethane	25	U	50	12	ug/L			06/03/24 19:26	50
1,2,4-Trimethylbenzene	50	U	100	22	ug/L			06/03/24 19:26	50
1,3,5-Trimethylbenzene	50	U	100	14	ug/L			06/03/24 19:26	50
Vinyl chloride	50	U	100	20	ug/L			06/03/24 19:26	50
Xylenes, Total	50	U	100	25	ug/L			06/03/24 19:26	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*85 - 114*		*06/03/24 19:26*	*50*
Dibromofluoromethane (Surr)	*105*		*80 - 119*		*06/03/24 19:26*	*50*
1,2-Dichloroethane-d4 (Surr)	*97*		*81 - 118*		*06/03/24 19:26*	*50*
Toluene-d8 (Surr)	*109*		*89 - 112*		*06/03/24 19:26*	*50*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	**1.3**		1.1	0.30	ug/L			06/03/24 16:42	1
Ethylene	**49**		1.0	0.31	ug/L			06/03/24 16:42	1
Methane (TCD)	**7800**		390	39	ug/L			06/03/24 16:42	1

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**11**		0.55	0.20	mg/L			06/03/24 16:51	1
Nitrate as N	0.10	U	0.11	0.046	mg/L			05/22/24 17:09	2
Nitrate Nitrite as N	0.10	U	0.11	0.046	mg/L			05/22/24 17:09	2
Sulfate	**3.2**		1.5	0.40	mg/L			06/03/24 16:51	1
Nitrite as N	0.10	U	0.11	0.046	mg/L			05/22/24 17:09	2

Client Sample ID: OU6-MW-238-20240521
Lab Sample ID: 680-251090-8

Date Collected: 05/21/24 12:10
Matrix: Water
Date Received: 05/22/24 09:30

Method: SW846 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**150**		10	2.2	ug/L		05/23/24 05:06	05/23/24 17:57	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**140**		5.5	2.2	mg/L			05/24/24 13:22	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	**140**		11	5.0	mg/L			05/24/24 13:22	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	10	U	11	5.0	mg/L			05/24/24 13:22	1
Sulfide (SM 4500 S2 F-2011)	0.93	U	0.93	0.93	mg/L			05/24/24 13:30	1
Sulfide as H2S (SM 4500 S2 F-2011)	1.0	U	1.0	1.0	mg/L			05/24/24 13:30	1
Total Organic Carbon (SW846 9060A)	**4.1**		1.0	0.50	mg/L			05/24/24 08:24	1
Carbon Dioxide, Free (SM 4500 CO2 D)	**160**		11	5.0	mg/L			05/24/24 13:22	1

Client Sample ID: OU6-MW-290-20240521
Lab Sample ID: 680-251090-9

Date Collected: 05/21/24 12:00
Matrix: Water
Date Received: 05/22/24 09:30

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	100	U	250	37	ug/L			06/03/24 18:39	10
Benzene	10	U	20	2.7	ug/L			06/03/24 18:39	10
Bromobenzene	5.0	U	10	2.4	ug/L			06/03/24 18:39	10
Bromochloromethane	10	U	20	3.4	ug/L			06/03/24 18:39	10
Bromodichloromethane	10	U	20	2.5	ug/L			06/03/24 18:39	10
Bromoform	20	U	25	5.9	ug/L			06/03/24 18:39	10
Bromomethane	100	U	200	37	ug/L			06/03/24 18:39	10
2-Butanone (MEK)	200	U	250	64	ug/L			06/03/24 18:39	10
Carbon disulfide	10	U	20	4.3	ug/L			06/03/24 18:39	10
Carbon tetrachloride	10	U	20	3.0	ug/L			06/03/24 18:39	10
Chlorobenzene	**5.4**	**J D**	10	1.5	ug/L			06/03/24 18:39	10
Chloroethane	100	U	200	46	ug/L			06/03/24 18:39	10
Chloroform	10	U	20	2.7	ug/L			06/03/24 18:39	10
Chloromethane	20	U	25	5.4	ug/L			06/03/24 18:39	10
2-Chlorotoluene	5.0	U	10	2.5	ug/L			06/03/24 18:39	10
4-Chlorotoluene	10	U	20	4.1	ug/L			06/03/24 18:39	10
cis-1,2-Dichloroethene	**680**	**D**	20	2.5	ug/L			06/03/24 18:39	10
cis-1,3-Dichloropropene	10	U	20	2.6	ug/L			06/03/24 18:39	10
Cyclohexane	10	U	20	2.8	ug/L			06/03/24 18:39	10
Dibromochloromethane	10	U	20	3.9	ug/L			06/03/24 18:39	10
1,2-Dibromo-3-Chloropropane	50	U Q	100	18	ug/L			06/03/24 18:39	10
1,2-Dibromoethane	10	U	20	3.3	ug/L			06/03/24 18:39	10
Dibromomethane	10	U	20	3.4	ug/L			06/03/24 18:39	10
1,2-Dichlorobenzene	10	U	20	3.1	ug/L			06/03/24 18:39	10
1,3-Dichlorobenzene	10	U	20	3.1	ug/L			06/03/24 18:39	10
1,4-Dichlorobenzene	10	U	20	3.1	ug/L			06/03/24 18:39	10
Dichlorodifluoromethane	10	U Q	20	3.6	ug/L			06/03/24 18:39	10
1,1-Dichloroethane	10	U	20	3.3	ug/L			06/03/24 18:39	10

Client Sample ID: OU6-MW-290-20240521
Date Collected: 05/21/24 12:00
Date Received: 05/22/24 09:30

Lab Sample ID: 680-251090-9
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	10	U M	20	2.5	ug/L			06/03/24 18:39	10
1,1-Dichloroethene	10	U	20	3.3	ug/L			06/03/24 18:39	10
1,2-Dichloroethene, Total	**680**	**D**	20	3.7	ug/L			06/03/24 18:39	10
1,2-Dichloropropane	5.0	U	10	2.2	ug/L			06/03/24 18:39	10
1,3-Dichloropropane	10	U	20	3.6	ug/L			06/03/24 18:39	10
2,2-Dichloropropane	10	U	20	3.5	ug/L			06/03/24 18:39	10
1,1-Dichloropropene	10	U	20	2.8	ug/L			06/03/24 18:39	10
Ethylbenzene	5.0	U	10	2.0	ug/L			06/03/24 18:39	10
Hexachlorobutadiene	10	U	50	2.2	ug/L			06/03/24 18:39	10
2-Hexanone	100	U	200	32	ug/L			06/03/24 18:39	10
Isopropylbenzene	10	U	20	2.6	ug/L			06/03/24 18:39	10
4-Isopropyltoluene	10	U	20	4.4	ug/L			06/03/24 18:39	10
Methyl acetate	100	U	200	32	ug/L			06/03/24 18:39	10
Methylcyclohexane	10	U	20	3.3	ug/L			06/03/24 18:39	10
Methylene Chloride	100	U	200	32	ug/L			06/03/24 18:39	10
4-Methyl-2-pentanone (MIBK)	100	U	200	27	ug/L			06/03/24 18:39	10
Methyl tert-butyl ether	20	U	50	8.1	ug/L			06/03/24 18:39	10
m-Xylene & p-Xylene	10	U	20	4.9	ug/L			06/03/24 18:39	10
Naphthalene	50	U	100	24	ug/L			06/03/24 18:39	10
n-Butylbenzene	20	U	25	5.2	ug/L			06/03/24 18:39	10
N-Propylbenzene	10	U	20	4.1	ug/L			06/03/24 18:39	10
o-Xylene	10	U	20	2.6	ug/L			06/03/24 18:39	10
sec-Butylbenzene	20	U	25	5.3	ug/L			06/03/24 18:39	10
Styrene	10	U	20	2.7	ug/L			06/03/24 18:39	10
tert-Butylbenzene	10	U	20	4.3	ug/L			06/03/24 18:39	10
1,1,1,2-Tetrachloroethane	10	U	20	3.6	ug/L			06/03/24 18:39	10
1,1,2,2-Tetrachloroethane	10	U	20	4.0	ug/L			06/03/24 18:39	10
Tetrachloroethene	**7.8**	**J D**	20	3.5	ug/L			06/03/24 18:39	10
Toluene	10	U	20	2.5	ug/L			06/03/24 18:39	10
trans-1,2-Dichloroethene	10	U	20	3.4	ug/L			06/03/24 18:39	10
trans-1,3-Dichloropropene	10	U	20	2.3	ug/L			06/03/24 18:39	10
1,2,3-Trichlorobenzene	20	U	50	8.1	ug/L			06/03/24 18:39	10
1,2,4-Trichlorobenzene	20	U	50	5.3	ug/L			06/03/24 18:39	10
1,1,1-Trichloroethane	5.0	U	10	2.1	ug/L			06/03/24 18:39	10
1,1,2-Trichloroethane	10	U	20	3.2	ug/L			06/03/24 18:39	10
Trichloroethene	**75**	**D**	10	2.0	ug/L			06/03/24 18:39	10
Trichlorofluoromethane	10	U	20	3.3	ug/L			06/03/24 18:39	10
1,2,3-Trichloropropane	10	U	20	4.8	ug/L			06/03/24 18:39	10
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	10	2.3	ug/L			06/03/24 18:39	10
1,2,4-Trimethylbenzene	10	U	20	4.3	ug/L			06/03/24 18:39	10
1,3,5-Trimethylbenzene	10	U	20	2.8	ug/L			06/03/24 18:39	10
Vinyl chloride	**42**	**D**	20	4.0	ug/L			06/03/24 18:39	10
Xylenes, Total	10	U	20	4.9	ug/L			06/03/24 18:39	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*85 - 114*		*06/03/24 18:39*	*10*
Dibromofluoromethane (Surr)	*109*		*80 - 119*		*06/03/24 18:39*	*10*
1,2-Dichloroethane-d4 (Surr)	*97*		*81 - 118*		*06/03/24 18:39*	*10*
Toluene-d8 (Surr)	*107*		*89 - 112*		*06/03/24 18:39*	*10*

Client Sample ID: OU6-MW-290-20240521

Lab Sample ID: 680-251090-9

Date Collected: 05/21/24 12:00

Matrix: Water

Date Received: 05/22/24 09:30

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	**7.5**		1.1	0.30	ug/L			06/03/24 16:55	1
Ethylene	**0.34**	**J**	1.0	0.31	ug/L			06/03/24 16:55	1
Methane	**270**		1.2	0.57	ug/L			06/03/24 16:55	1

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**88**	**D**	1.1	0.40	mg/L			06/03/24 16:58	2
Nitrate as N	0.050	U	0.055	0.023	mg/L			05/22/24 17:17	1
Nitrate Nitrite as N	0.050	U	0.055	0.023	mg/L			05/22/24 17:17	1
Sulfate	**6.2**	**D**	3.0	0.80	mg/L			06/03/24 16:58	2
Nitrite as N	0.050	U M	0.055	0.023	mg/L			05/22/24 17:17	1

Method: SW846 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**230**		10	2.2	ug/L		05/23/24 05:06	05/23/24 17:59	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**59**		5.5	2.2	mg/L			05/24/24 14:15	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	**59**		11	5.0	mg/L			05/24/24 14:15	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	10	U	11	5.0	mg/L			05/24/24 14:15	1
Sulfide (SM 4500 S2 F-2011)	0.81	U	0.81	0.81	mg/L			05/24/24 13:30	1
Sulfide as H2S (SM 4500 S2 F-2011)	0.89	U	0.89	0.89	mg/L			05/24/24 13:30	1
Total Organic Carbon (SW846 9060A)	**0.92**	**J**	1.0	0.50	mg/L			05/24/24 08:42	1
Carbon Dioxide, Free (SM 4500 CO2 D)	**80**		11	5.0	mg/L			05/24/24 14:15	1

Client Sample ID: OU6-MW-294-20240521

Lab Sample ID: 680-251090-10

Date Collected: 05/21/24 10:27

Matrix: Water

Date Received: 05/22/24 09:30

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	50	U	130	19	ug/L			06/04/24 13:28	5
Acetone	50	U H	130	19	ug/L			06/05/24 15:40	5
Benzene	5.0	U	10	1.4	ug/L			06/04/24 13:28	5
Benzene	5.0	U H	10	1.4	ug/L			06/05/24 15:40	5
Bromobenzene	2.5	U Q	5.0	1.2	ug/L			05/31/24 19:08	5
Bromobenzene	2.5	U H	5.0	1.2	ug/L			06/05/24 15:40	5
Bromochloromethane	5.0	U	10	1.7	ug/L			06/04/24 13:28	5
Bromochloromethane	5.0	U H	10	1.7	ug/L			06/05/24 15:40	5
Bromodichloromethane	5.0	U	10	1.3	ug/L			06/04/24 13:28	5
Bromodichloromethane	5.0	U H	10	1.3	ug/L			06/05/24 15:40	5
Bromoform	10	U	13	3.0	ug/L			05/31/24 19:08	5
Bromoform	10	U H Q	13	3.0	ug/L			06/05/24 15:40	5
Bromomethane	50	U	100	19	ug/L			06/04/24 13:28	5
Bromomethane	50	U H	100	19	ug/L			06/05/24 15:40	5
2-Butanone (MEK)	100	U	130	32	ug/L			06/04/24 13:28	5

Client Sample ID: OU6-MW-294-20240521
Date Collected: 05/21/24 10:27
Date Received: 05/22/24 09:30

Lab Sample ID: 680-251090-10
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
2-Butanone (MEK)	100	U H	130	32	ug/L			06/05/24 15:40	5
Carbon disulfide	5.0	U	10	2.2	ug/L			05/31/24 19:08	5
Carbon disulfide	5.0	U H Q	10	2.2	ug/L			06/05/24 15:40	5
Carbon tetrachloride	5.0	U	10	1.5	ug/L			06/04/24 13:28	5
Carbon tetrachloride	5.0	U H	10	1.5	ug/L			06/05/24 15:40	5
Chlorobenzene	2.5	U	5.0	0.75	ug/L			05/31/24 19:08	5
Chlorobenzene	2.5	U H	5.0	0.75	ug/L			06/05/24 15:40	5
Chloroethane	50	U	100	23	ug/L			06/04/24 13:28	5
Chloroethane	50	U H Q	100	23	ug/L			06/05/24 15:40	5
Chloroform	5.0	U	10	1.4	ug/L			06/04/24 13:28	5
Chloroform	5.0	U H	10	1.4	ug/L			06/05/24 15:40	5
Chloromethane	10	U	13	2.7	ug/L			06/04/24 13:28	5
Chloromethane	10	U H Q	13	2.7	ug/L			06/05/24 15:40	5
2-Chlorotoluene	2.5	U Q	5.0	1.3	ug/L			05/31/24 19:08	5
2-Chlorotoluene	2.5	U H	5.0	1.3	ug/L			06/05/24 15:40	5
4-Chlorotoluene	5.0	U Q	10	2.1	ug/L			05/31/24 19:08	5
4-Chlorotoluene	5.0	U H	10	2.1	ug/L			06/05/24 15:40	5
cis-1,2-Dichloroethene	**310**	**D**	10	1.3	ug/L			06/04/24 13:28	5
cis-1,2-Dichloroethene	**280**	**D H**	10	1.3	ug/L			06/05/24 15:40	5
cis-1,3-Dichloropropene	5.0	U	10	1.3	ug/L			06/04/24 13:28	5
cis-1,3-Dichloropropene	5.0	U H	10	1.3	ug/L			06/05/24 15:40	5
Cyclohexane	5.0	U	10	1.4	ug/L			06/04/24 13:28	5
Cyclohexane	5.0	U H	10	1.4	ug/L			06/05/24 15:40	5
Dibromochloromethane	5.0	U	10	2.0	ug/L			06/04/24 13:28	5
Dibromochloromethane	5.0	U H	10	2.0	ug/L			06/05/24 15:40	5
1,2-Dibromo-3-Chloropropane	25	U	50	9.0	ug/L			06/04/24 13:28	5
1,2-Dibromo-3-Chloropropane	25	U H	50	9.0	ug/L			06/05/24 15:40	5
1,2-Dibromoethane	5.0	U	10	1.7	ug/L			06/04/24 13:28	5
1,2-Dibromoethane	5.0	U H	10	1.7	ug/L			06/05/24 15:40	5
Dibromomethane	5.0	U	10	1.7	ug/L			06/04/24 13:28	5
Dibromomethane	5.0	U H	10	1.7	ug/L			06/05/24 15:40	5
1,2-Dichlorobenzene	5.0	U	10	1.6	ug/L			06/04/24 13:28	5
1,2-Dichlorobenzene	5.0	U H	10	1.6	ug/L			06/05/24 15:40	5
1,3-Dichlorobenzene	5.0	U	10	1.6	ug/L			06/04/24 13:28	5
1,3-Dichlorobenzene	5.0	U H	10	1.6	ug/L			06/05/24 15:40	5
1,4-Dichlorobenzene	5.0	U	10	1.6	ug/L			06/04/24 13:28	5
1,4-Dichlorobenzene	5.0	U H	10	1.6	ug/L			06/05/24 15:40	5
Dichlorodifluoromethane	5.0	U	10	1.8	ug/L			05/31/24 19:08	5
Dichlorodifluoromethane	5.0	U H	10	1.8	ug/L			06/05/24 15:40	5
1,1-Dichloroethane	5.0	U	10	1.7	ug/L			06/04/24 13:28	5
1,1-Dichloroethane	5.0	U H	10	1.7	ug/L			06/05/24 15:40	5
1,2-Dichloroethane	5.0	U	10	1.3	ug/L			06/04/24 13:28	5
1,2-Dichloroethane	5.0	U H	10	1.3	ug/L			06/05/24 15:40	5
1,1-Dichloroethene	**3.5**	**J D**	10	1.7	ug/L			06/04/24 13:28	5
1,1-Dichloroethene	**3.3**	**J D H**	10	1.7	ug/L			06/05/24 15:40	5
1,2-Dichloroethene, Total	**310**	**D**	10	1.9	ug/L			06/04/24 13:28	5
1,2-Dichloroethene, Total	**280**	**D H**	10	1.9	ug/L			06/05/24 15:40	5
1,2-Dichloropropane	2.5	U	5.0	1.1	ug/L			06/04/24 13:28	5
1,2-Dichloropropane	2.5	U H	5.0	1.1	ug/L			06/05/24 15:40	5

Client Sample ID: OU6-MW-294-20240521
Date Collected: 05/21/24 10:27
Date Received: 05/22/24 09:30

Lab Sample ID: 680-251090-10
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichloropropane	5.0	U	10	1.8	ug/L			06/04/24 13:28	5
1,3-Dichloropropane	5.0	U H	10	1.8	ug/L			06/05/24 15:40	5
2,2-Dichloropropane	5.0	U	10	1.8	ug/L			06/04/24 13:28	5
2,2-Dichloropropane	5.0	U H	10	1.8	ug/L			06/05/24 15:40	5
1,1-Dichloropropene	5.0	U	10	1.4	ug/L			06/04/24 13:28	5
1,1-Dichloropropene	5.0	U H	10	1.4	ug/L			06/05/24 15:40	5
Ethylbenzene	2.5	U	5.0	1.0	ug/L			05/31/24 19:08	5
Ethylbenzene	2.5	U H	5.0	1.0	ug/L			06/05/24 15:40	5
Hexachlorobutadiene	5.0	U	25	1.1	ug/L			06/04/24 13:28	5
Hexachlorobutadiene	5.0	U H	25	1.1	ug/L			06/05/24 15:40	5
2-Hexanone	50	U	100	16	ug/L			06/04/24 13:28	5
2-Hexanone	50	U H Q	100	16	ug/L			06/05/24 15:40	5
Isopropylbenzene	5.0	U	10	1.3	ug/L			05/31/24 19:08	5
Isopropylbenzene	5.0	U H	10	1.3	ug/L			06/05/24 15:40	5
4-Isopropyltoluene	5.0	U	10	2.2	ug/L			06/04/24 13:28	5
4-Isopropyltoluene	5.0	U H	10	2.2	ug/L			06/05/24 15:40	5
Methyl acetate	50	U	100	16	ug/L			06/04/24 13:28	5
Methyl acetate	50	U H	100	16	ug/L			06/05/24 15:40	5
Methylcyclohexane	5.0	U	10	1.7	ug/L			06/04/24 13:28	5
Methylcyclohexane	5.0	U H	10	1.7	ug/L			06/05/24 15:40	5
Methylene Chloride	50	U	100	16	ug/L			06/04/24 13:28	5
Methylene Chloride	50	U H	100	16	ug/L			06/05/24 15:40	5
4-Methyl-2-pentanone (MIBK)	50	U	100	14	ug/L			06/04/24 13:28	5
4-Methyl-2-pentanone (MIBK)	50	U H Q	100	14	ug/L			06/05/24 15:40	5
Methyl tert-butyl ether	10	U	25	4.1	ug/L			06/04/24 13:28	5
Methyl tert-butyl ether	10	U H	25	4.1	ug/L			06/05/24 15:40	5
m-Xylene & p-Xylene	5.0	U	10	2.5	ug/L			05/31/24 19:08	5
m-Xylene & p-Xylene	5.0	U H	10	2.5	ug/L			06/05/24 15:40	5
Naphthalene	25	U	50	12	ug/L			06/04/24 13:28	5
Naphthalene	25	U H	50	12	ug/L			06/05/24 15:40	5
n-Butylbenzene	10	U	13	2.6	ug/L			06/04/24 13:28	5
n-Butylbenzene	10	U H	13	2.6	ug/L			06/05/24 15:40	5
N-Propylbenzene	5.0	U Q	10	2.1	ug/L			05/31/24 19:08	5
N-Propylbenzene	5.0	U H	10	2.1	ug/L			06/05/24 15:40	5
o-Xylene	5.0	U Q	10	1.3	ug/L			05/31/24 19:08	5
o-Xylene	5.0	U H	10	1.3	ug/L			06/05/24 15:40	5
sec-Butylbenzene	10	U	13	2.7	ug/L			05/31/24 19:08	5
sec-Butylbenzene	10	U H	13	2.7	ug/L			06/05/24 15:40	5
Styrene	5.0	U Q	10	1.4	ug/L			05/31/24 19:08	5
Styrene	5.0	U H	10	1.4	ug/L			06/05/24 15:40	5
tert-Butylbenzene	5.0	U	10	2.2	ug/L			05/31/24 19:08	5
tert-Butylbenzene	5.0	U H	10	2.2	ug/L			06/05/24 15:40	5
1,1,1,2-Tetrachloroethane	5.0	U	10	1.8	ug/L			05/31/24 19:08	5
1,1,1,2-Tetrachloroethane	5.0	U H	10	1.8	ug/L			06/05/24 15:40	5
1,1,2,2-Tetrachloroethane	5.0	U	10	2.0	ug/L			05/31/24 19:08	5
1,1,2,2-Tetrachloroethane	5.0	U H	10	2.0	ug/L			06/05/24 15:40	5
Tetrachloroethene	5.0	U	10	1.8	ug/L			06/04/24 13:28	5
Tetrachloroethene	5.0	U H	10	1.8	ug/L			06/05/24 15:40	5
Toluene	5.0	U	10	1.3	ug/L			06/04/24 13:28	5

Client Sample ID: OU6-MW-294-20240521
Date Collected: 05/21/24 10:27
Date Received: 05/22/24 09:30

Lab Sample ID: 680-251090-10
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	5.0	U H	10	1.3	ug/L			06/05/24 15:40	5
trans-1,2-Dichloroethene	**3.9**	**J D**	10	1.7	ug/L			06/04/24 13:28	5
trans-1,2-Dichloroethene	**3.2**	**J D H**	10	1.7	ug/L			06/05/24 15:40	5
trans-1,3-Dichloropropene	5.0	U	10	1.2	ug/L			06/04/24 13:28	5
trans-1,3-Dichloropropene	5.0	U H	10	1.2	ug/L			06/05/24 15:40	5
1,2,3-Trichlorobenzene	10	U	25	4.1	ug/L			06/04/24 13:28	5
1,2,3-Trichlorobenzene	10	U H	25	4.1	ug/L			06/05/24 15:40	5
1,2,4-Trichlorobenzene	10	U	25	2.7	ug/L			06/04/24 13:28	5
1,2,4-Trichlorobenzene	10	U H	25	2.7	ug/L			06/05/24 15:40	5
1,1,1-Trichloroethane	2.5	U	5.0	1.1	ug/L			06/04/24 13:28	5
1,1,1-Trichloroethane	2.5	U H	5.0	1.1	ug/L			06/05/24 15:40	5
1,1,2-Trichloroethane	5.0	U	10	1.6	ug/L			06/04/24 13:28	5
1,1,2-Trichloroethane	5.0	U H	10	1.6	ug/L			06/05/24 15:40	5
Trichloroethene	**84**	**D**	5.0	1.0	ug/L			06/04/24 13:28	5
Trichloroethene	**64**	**D H**	5.0	1.0	ug/L			06/05/24 15:40	5
Trichlorofluoromethane	5.0	U	10	1.7	ug/L			05/31/24 19:08	5
Trichlorofluoromethane	5.0	U H Q	10	1.7	ug/L			06/05/24 15:40	5
1,2,3-Trichloropropane	5.0	U	10	2.4	ug/L			05/31/24 19:08	5
1,2,3-Trichloropropane	5.0	U H	10	2.4	ug/L			06/05/24 15:40	5
1,1,2-Trichloro-1,2,2-trifluoroethane	2.5	U	5.0	1.2	ug/L			06/04/24 13:28	5
1,1,2-Trichloro-1,2,2-trifluoroethane	2.5	U H	5.0	1.2	ug/L			06/05/24 15:40	5
1,2,4-Trimethylbenzene	5.0	U Q	10	2.2	ug/L			05/31/24 19:08	5
1,2,4-Trimethylbenzene	5.0	U H	10	2.2	ug/L			06/05/24 15:40	5
1,3,5-Trimethylbenzene	5.0	U Q	10	1.4	ug/L			05/31/24 19:08	5
1,3,5-Trimethylbenzene	5.0	U H	10	1.4	ug/L			06/05/24 15:40	5
Vinyl chloride	**56**	**D**	10	2.0	ug/L			06/04/24 13:28	5
Vinyl chloride	**47**	**D H**	10	2.0	ug/L			06/05/24 15:40	5
Xylenes, Total	5.0	U	10	2.5	ug/L			06/04/24 13:28	5
Xylenes, Total	5.0	U H	10	2.5	ug/L			06/05/24 15:40	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*85 - 114*		*05/31/24 19:08*	*5*
4-Bromofluorobenzene (Surr)	*79*	*Q*	*85 - 114*		*06/04/24 13:28*	*5*
4-Bromofluorobenzene (Surr)	*110*		*85 - 114*		*06/05/24 15:40*	*5*
Dibromofluoromethane (Surr)	*98*		*80 - 119*		*05/31/24 19:08*	*5*
Dibromofluoromethane (Surr)	*105*		*80 - 119*		*06/04/24 13:28*	*5*
Dibromofluoromethane (Surr)	*105*		*80 - 119*		*06/05/24 15:40*	*5*
1,2-Dichloroethane-d4 (Surr)	*85*		*81 - 118*		*05/31/24 19:08*	*5*
1,2-Dichloroethane-d4 (Surr)	*95*		*81 - 118*		*06/04/24 13:28*	*5*
1,2-Dichloroethane-d4 (Surr)	*96*		*81 - 118*		*06/05/24 15:40*	*5*
Toluene-d8 (Surr)	*117*	*Q*	*89 - 112*		*05/31/24 19:08*	*5*
Toluene-d8 (Surr)	*94*		*89 - 112*		*06/05/24 15:40*	*5*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	**0.65**	**J**	1.1	0.30	ug/L			06/03/24 17:08	1
Ethylene	**1.8**		1.0	0.31	ug/L			06/03/24 17:08	1
Methane (TCD)	**810**		390	39	ug/L			06/03/24 17:08	1

Client Sample ID: OU6-MW-294-20240521

Lab Sample ID: 680-251090-10

Date Collected: 05/21/24 10:27

Matrix: Water

Date Received: 05/22/24 09:30

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**18**		0.55	0.20	mg/L			06/03/24 17:04	1
Nitrate as N	0.050	U	0.055	0.023	mg/L			05/22/24 17:26	1
Nitrate Nitrite as N	0.050	U	0.055	0.023	mg/L			05/22/24 17:26	1
Sulfate	**43**		1.5	0.40	mg/L			06/03/24 17:04	1
Nitrite as N	0.050	U M	0.055	0.023	mg/L			05/22/24 17:26	1

Method: SW846 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**230**		10	2.2	ug/L		05/23/24 05:06	05/23/24 18:04	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**35**		5.5	2.2	mg/L			05/24/24 14:24	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	**35**		11	5.0	mg/L			05/24/24 14:24	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	10	U	11	5.0	mg/L			05/24/24 14:24	1
Sulfide (SM 4500 S2 F-2011)	0.81	U	0.81	0.81	mg/L			05/24/24 13:30	1
Sulfide as H2S (SM 4500 S2 F-2011)	0.89	U	0.89	0.89	mg/L			05/24/24 13:30	1
Total Organic Carbon (SW846 9060A)	**0.80**	**J**	1.0	0.50	mg/L			05/24/24 09:00	1
Carbon Dioxide, Free (SM 4500 CO2 D)	**56**		11	5.0	mg/L			05/24/24 14:24	1

Client Sample ID: OU6-MW-293-20240521

Lab Sample ID: 680-251090-11

Date Collected: 05/21/24 08:50

Matrix: Water

Date Received: 05/22/24 09:30

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			05/31/24 16:29	1
Benzene	1.0	U	2.0	0.27	ug/L			05/31/24 16:29	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			06/04/24 14:58	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			05/31/24 16:29	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			05/31/24 16:29	1
Bromoform	2.0	U	2.5	0.59	ug/L			05/31/24 16:29	1
Bromomethane	10	U Q	20	3.7	ug/L			05/31/24 16:29	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			05/31/24 16:29	1
Carbon disulfide	1.0	U Q	2.0	0.43	ug/L			06/04/24 14:58	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			05/31/24 16:29	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			05/31/24 16:29	1
Chloroethane	10	U Q	20	4.6	ug/L			05/31/24 16:29	1
Chloroform	1.0	U	2.0	0.27	ug/L			05/31/24 16:29	1
Chloromethane	2.0	U	2.5	0.54	ug/L			05/31/24 16:29	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			06/04/24 14:58	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			06/04/24 14:58	1
cis-1,2-Dichloroethene	**6.5**		2.0	0.25	ug/L			06/04/24 14:58	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			05/31/24 16:29	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			05/31/24 16:29	1
Dibromochloromethane	1.0	U Q	2.0	0.39	ug/L			05/31/24 16:29	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			06/04/24 14:58	1

Client Sample ID: OU6-MW-293-20240521
Date Collected: 05/21/24 08:50
Date Received: 05/22/24 09:30

Lab Sample ID: 680-251090-11
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	1.0	U Q	2.0	0.33	ug/L			05/31/24 16:29	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			05/31/24 16:29	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/31/24 16:29	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/31/24 16:29	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/31/24 16:29	1
Dichlorodifluoromethane	1.0	U	2.0	0.36	ug/L			05/31/24 16:29	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			05/31/24 16:29	1
1,2-Dichloroethane	1.0	U M	2.0	0.25	ug/L			05/31/24 16:29	1
1,1-Dichloroethene	1.0	U	2.0	0.33	ug/L			05/31/24 16:29	1
1,2-Dichloroethene, Total	**6.5**		2.0	0.37	ug/L			06/04/24 14:58	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			05/31/24 16:29	1
1,3-Dichloropropane	1.0	U Q	2.0	0.36	ug/L			05/31/24 16:29	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			05/31/24 16:29	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			05/31/24 16:29	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			05/31/24 16:29	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			06/04/24 14:58	1
2-Hexanone	10	U	20	3.2	ug/L			06/04/24 14:58	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			06/04/24 14:58	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			05/31/24 16:29	1
Methyl acetate	10	U	20	3.2	ug/L			06/04/24 14:58	1
Methylcyclohexane	1.0	U	2.0	0.33	ug/L			05/31/24 16:29	1
Methylene Chloride	10	U	20	3.2	ug/L			05/31/24 16:29	1
4-Methyl-2-pentanone (MIBK)	10	U Q	20	2.7	ug/L			05/31/24 16:29	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			05/31/24 16:29	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			05/31/24 16:29	1
Naphthalene	5.0	U	10	2.4	ug/L			06/04/24 14:58	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			05/31/24 16:29	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			06/04/24 14:58	1
o-Xylene	1.0	U	2.0	0.26	ug/L			06/04/24 14:58	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			06/04/24 14:58	1
Styrene	1.0	U	2.0	0.27	ug/L			06/04/24 14:58	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			06/04/24 14:58	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			05/31/24 16:29	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			05/31/24 16:29	1
Tetrachloroethene	1.0	U Q	2.0	0.35	ug/L			05/31/24 16:29	1
Toluene	1.0	U Q	2.0	0.25	ug/L			05/31/24 16:29	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			06/04/24 14:58	1
trans-1,3-Dichloropropene	1.0	U Q	2.0	0.23	ug/L			05/31/24 16:29	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			05/31/24 16:29	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			06/04/24 14:58	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			05/31/24 16:29	1
1,1,2-Trichloroethane	1.0	U Q	2.0	0.32	ug/L			05/31/24 16:29	1
Trichloroethene	**5.1**		1.0	0.20	ug/L			05/31/24 16:29	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			05/31/24 16:29	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			06/04/24 14:58	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			05/31/24 16:29	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			06/04/24 14:58	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			06/04/24 14:58	1
Vinyl chloride	**0.83**	**J**	2.0	0.40	ug/L			05/31/24 16:29	1

Client Sample ID: OU6-MW-293-20240521

Lab Sample ID: 680-251090-11

Date Collected: 05/21/24 08:50

Matrix: Water

Date Received: 05/22/24 09:30

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	1.0	U	2.0	0.49	ug/L			06/04/24 14:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*85 - 114*		*05/31/24 16:29*	*1*
4-Bromofluorobenzene (Surr)	*107*		*85 - 114*		*06/04/24 14:58*	*1*
Dibromofluoromethane (Surr)	*109*		*80 - 119*		*05/31/24 16:29*	*1*
Dibromofluoromethane (Surr)	*104*		*80 - 119*		*06/04/24 14:58*	*1*
1,2-Dichloroethane-d4 (Surr)	*91*		*81 - 118*		*05/31/24 16:29*	*1*
1,2-Dichloroethane-d4 (Surr)	*94*		*81 - 118*		*06/04/24 14:58*	*1*
Toluene-d8 (Surr)	*105*		*89 - 112*		*05/31/24 16:29*	*1*
Toluene-d8 (Surr)	*95*		*89 - 112*		*06/04/24 14:58*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	0.76	U	1.1	0.30	ug/L			06/03/24 17:21	1
Ethylene	0.71	U	1.0	0.31	ug/L			06/03/24 17:21	1
Methane	**48**		1.2	0.57	ug/L			06/03/24 17:21	1

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**13**		0.55	0.20	mg/L			06/03/24 17:11	1
Nitrate as N	0.050	U	0.055	0.023	mg/L			05/22/24 17:34	1
Nitrate Nitrite as N	0.050	U	0.055	0.023	mg/L			05/22/24 17:34	1
Sulfate	**15**		1.5	0.40	mg/L			06/03/24 17:11	1
Nitrite as N	0.050	U M	0.055	0.023	mg/L			05/22/24 17:34	1

Method: SW846 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**110**		10	2.2	ug/L		05/23/24 05:06	05/23/24 18:06	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**20**		5.5	2.2	mg/L			05/24/24 14:07	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	**20**		11	5.0	mg/L			05/24/24 14:07	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	10	U	11	5.0	mg/L			05/24/24 14:07	1
Sulfide (SM 4500 S2 F-2011)	0.81	U	0.81	0.81	mg/L			05/24/24 13:30	1
Sulfide as H2S (SM 4500 S2 F-2011)	0.89	U	0.89	0.89	mg/L			05/24/24 13:30	1
Total Organic Carbon (SW846 9060A)	**1.5**		1.0	0.50	mg/L			05/24/24 09:18	1
Carbon Dioxide, Free (SM 4500 CO2 D)	**45**		11	5.0	mg/L			05/24/24 14:07	1

Client Sample ID: EB-20240521

Lab Sample ID: 680-251090-12

Date Collected: 05/21/24 00:00

Matrix: Water

Date Received: 05/22/24 09:30

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			05/31/24 13:37	1

Client Sample ID: EB-20240521
Date Collected: 05/21/24 00:00
Date Received: 05/22/24 09:30

Lab Sample ID: 680-251090-12
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	2.0	0.27	ug/L			05/31/24 13:37	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			06/03/24 12:47	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			05/31/24 13:37	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			05/31/24 13:37	1
Bromoform	2.0	U	2.5	0.59	ug/L			05/31/24 13:37	1
Bromomethane	10	U Q	20	3.7	ug/L			05/31/24 13:37	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			05/31/24 13:37	1
Carbon disulfide	**27**		2.0	0.43	ug/L			06/03/24 12:47	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			05/31/24 13:37	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			05/31/24 13:37	1
Chloroethane	10	U Q	20	4.6	ug/L			05/31/24 13:37	1
Chloroform	1.0	U	2.0	0.27	ug/L			05/31/24 13:37	1
Chloromethane	2.0	U	2.5	0.54	ug/L			05/31/24 13:37	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			06/03/24 12:47	1
4-Chlorotoluene	1.0	U M	2.0	0.41	ug/L			06/03/24 12:47	1
cis-1,2-Dichloroethene	1.0	U	2.0	0.25	ug/L			05/31/24 13:37	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			05/31/24 13:37	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			05/31/24 13:37	1
Dibromochloromethane	1.0	U Q	2.0	0.39	ug/L			05/31/24 13:37	1
1,2-Dibromo-3-Chloropropane	5.0	U Q	10	1.8	ug/L			06/03/24 12:47	1
1,2-Dibromoethane	1.0	U Q	2.0	0.33	ug/L			05/31/24 13:37	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			05/31/24 13:37	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			06/03/24 12:47	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			06/03/24 12:47	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			06/03/24 12:47	1
Dichlorodifluoromethane	1.0	U	2.0	0.36	ug/L			05/31/24 13:37	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			05/31/24 13:37	1
1,2-Dichloroethane	1.0	U M	2.0	0.25	ug/L			05/31/24 13:37	1
1,1-Dichloroethene	1.0	U	2.0	0.33	ug/L			05/31/24 13:37	1
1,2-Dichloroethene, Total	1.0	U	2.0	0.37	ug/L			05/31/24 13:37	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			05/31/24 13:37	1
1,3-Dichloropropane	1.0	U Q	2.0	0.36	ug/L			05/31/24 13:37	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			05/31/24 13:37	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			05/31/24 13:37	1
Ethylbenzene	0.50	U M	1.0	0.20	ug/L			05/31/24 13:37	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			06/03/24 12:47	1
2-Hexanone	10	U	20	3.2	ug/L			06/03/24 12:47	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			06/03/24 12:47	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			06/03/24 12:47	1
Methyl acetate	10	U	20	3.2	ug/L			06/03/24 12:47	1
Methylcyclohexane	1.0	U	2.0	0.33	ug/L			05/31/24 13:37	1
Methylene Chloride	10	U	20	3.2	ug/L			05/31/24 13:37	1
4-Methyl-2-pentanone (MIBK)	10	U Q	20	2.7	ug/L			05/31/24 13:37	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			05/31/24 13:37	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			05/31/24 13:37	1
Naphthalene	5.0	U	10	2.4	ug/L			06/03/24 12:47	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			06/03/24 12:47	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			06/03/24 12:47	1
o-Xylene	1.0	U	2.0	0.26	ug/L			06/03/24 12:47	1

Client Sample ID: EB-20240521
Lab Sample ID: 680-251090-12

Date Collected: 05/21/24 00:00
Matrix: Water
Date Received: 05/22/24 09:30

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			06/03/24 12:47	1
Styrene	1.0	U	2.0	0.27	ug/L			06/03/24 12:47	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			06/03/24 12:47	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			05/31/24 13:37	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			05/31/24 13:37	1
Tetrachloroethene	1.0	U Q	2.0	0.35	ug/L			05/31/24 13:37	1
Toluene	1.0	U Q	2.0	0.25	ug/L			05/31/24 13:37	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			06/03/24 12:47	1
trans-1,3-Dichloropropene	1.0	U Q	2.0	0.23	ug/L			05/31/24 13:37	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			06/03/24 12:47	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			06/03/24 12:47	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			05/31/24 13:37	1
1,1,2-Trichloroethane	1.0	U Q	2.0	0.32	ug/L			05/31/24 13:37	1
Trichloroethene	0.50	U M	1.0	0.20	ug/L			05/31/24 13:37	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			05/31/24 13:37	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			06/03/24 12:47	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			05/31/24 13:37	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			06/03/24 12:47	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			06/03/24 12:47	1
Vinyl chloride	1.0	U	2.0	0.40	ug/L			05/31/24 13:37	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			06/03/24 12:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*85 - 114*		*05/31/24 13:37*	*1*
4-Bromofluorobenzene (Surr)	*104*		*85 - 114*		*06/03/24 12:47*	*1*
Dibromofluoromethane (Surr)	*108*		*80 - 119*		*05/31/24 13:37*	*1*
Dibromofluoromethane (Surr)	*107*		*80 - 119*		*06/03/24 12:47*	*1*
1,2-Dichloroethane-d4 (Surr)	*96*		*81 - 118*		*05/31/24 13:37*	*1*
1,2-Dichloroethane-d4 (Surr)	*90*		*81 - 118*		*06/03/24 12:47*	*1*
Toluene-d8 (Surr)	*104*		*89 - 112*		*05/31/24 13:37*	*1*
Toluene-d8 (Surr)	*108*		*89 - 112*		*06/03/24 12:47*	*1*

Client Sample ID: TRIP-BLANK-20240521
Lab Sample ID: 680-251090-13

Date Collected: 05/21/24 00:00
Matrix: Water
Date Received: 05/22/24 09:30

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			05/31/24 13:58	1
Benzene	1.0	U	2.0	0.27	ug/L			05/31/24 13:58	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			06/03/24 13:09	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			05/31/24 13:58	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			05/31/24 13:58	1
Bromoform	2.0	U	2.5	0.59	ug/L			05/31/24 13:58	1
Bromomethane	10	U Q	20	3.7	ug/L			05/31/24 13:58	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			05/31/24 13:58	1
Carbon disulfide	1.0	U	2.0	0.43	ug/L			06/03/24 13:09	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			05/31/24 13:58	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			05/31/24 13:58	1
Chloroethane	10	U Q	20	4.6	ug/L			05/31/24 13:58	1

Client Sample ID: TRIP-BLANK-20240521
Lab Sample ID: 680-251090-13
Date Collected: 05/21/24 00:00
Matrix: Water
Date Received: 05/22/24 09:30

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroform	1.0	U	2.0	0.27	ug/L			05/31/24 13:58	1
Chloromethane	2.0	U	2.5	0.54	ug/L			05/31/24 13:58	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			06/03/24 13:09	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			06/03/24 13:09	1
cis-1,2-Dichloroethene	1.0	U	2.0	0.25	ug/L			05/31/24 13:58	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			05/31/24 13:58	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			05/31/24 13:58	1
Dibromochloromethane	1.0	U Q	2.0	0.39	ug/L			05/31/24 13:58	1
1,2-Dibromo-3-Chloropropane	5.0	U Q	10	1.8	ug/L			06/03/24 13:09	1
1,2-Dibromoethane	1.0	U Q	2.0	0.33	ug/L			05/31/24 13:58	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			05/31/24 13:58	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/31/24 13:58	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/31/24 13:58	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/31/24 13:58	1
Dichlorodifluoromethane	1.0	U	2.0	0.36	ug/L			05/31/24 13:58	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			05/31/24 13:58	1
1,2-Dichloroethane	1.0	U M	2.0	0.25	ug/L			05/31/24 13:58	1
1,1-Dichloroethene	1.0	U	2.0	0.33	ug/L			05/31/24 13:58	1
1,2-Dichloroethene, Total	1.0	U	2.0	0.37	ug/L			05/31/24 13:58	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			05/31/24 13:58	1
1,3-Dichloropropane	1.0	U Q	2.0	0.36	ug/L			05/31/24 13:58	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			05/31/24 13:58	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			05/31/24 13:58	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			05/31/24 13:58	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			06/03/24 13:09	1
2-Hexanone	10	U	20	3.2	ug/L			06/03/24 13:09	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			06/03/24 13:09	1
4-Isopropyltoluene	1.0	U M	2.0	0.44	ug/L			05/31/24 13:58	1
Methyl acetate	10	U	20	3.2	ug/L			06/03/24 13:09	1
Methylcyclohexane	1.0	U	2.0	0.33	ug/L			05/31/24 13:58	1
Methylene Chloride	10	U	20	3.2	ug/L			05/31/24 13:58	1
4-Methyl-2-pentanone (MIBK)	10	U Q	20	2.7	ug/L			05/31/24 13:58	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			05/31/24 13:58	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			05/31/24 13:58	1
Naphthalene	5.0	U	10	2.4	ug/L			06/03/24 13:09	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			06/03/24 13:09	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			06/03/24 13:09	1
o-Xylene	1.0	U	2.0	0.26	ug/L			06/03/24 13:09	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			06/03/24 13:09	1
Styrene	1.0	U	2.0	0.27	ug/L			06/03/24 13:09	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			06/03/24 13:09	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			05/31/24 13:58	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			05/31/24 13:58	1
Tetrachloroethene	1.0	U Q	2.0	0.35	ug/L			05/31/24 13:58	1
Toluene	1.0	U Q	2.0	0.25	ug/L			05/31/24 13:58	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			06/03/24 13:09	1
trans-1,3-Dichloropropene	1.0	U Q	2.0	0.23	ug/L			05/31/24 13:58	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			05/31/24 13:58	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			06/03/24 13:09	1

Client Sample ID: TRIP-BLANK-20240521

Lab Sample ID: 680-251090-13

Date Collected: 05/21/24 00:00

Matrix: Water

Date Received: 05/22/24 09:30

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			05/31/24 13:58	1
1,1,2-Trichloroethane	1.0	U Q	2.0	0.32	ug/L			05/31/24 13:58	1
Trichloroethene	0.50	U	1.0	0.20	ug/L			05/31/24 13:58	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			05/31/24 13:58	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			06/03/24 13:09	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			05/31/24 13:58	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			06/03/24 13:09	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			06/03/24 13:09	1
Vinyl chloride	1.0	U	2.0	0.40	ug/L			05/31/24 13:58	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			06/03/24 13:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*85 - 114*		*05/31/24 13:58*	*1*
4-Bromofluorobenzene (Surr)	*106*		*85 - 114*		*06/03/24 13:09*	*1*
Dibromofluoromethane (Surr)	*109*		*80 - 119*		*05/31/24 13:58*	*1*
Dibromofluoromethane (Surr)	*107*		*80 - 119*		*06/03/24 13:09*	*1*
1,2-Dichloroethane-d4 (Surr)	*92*		*81 - 118*		*05/31/24 13:58*	*1*
1,2-Dichloroethane-d4 (Surr)	*92*		*81 - 118*		*06/03/24 13:09*	*1*
Toluene-d8 (Surr)	*105*		*89 - 112*		*05/31/24 13:58*	*1*
Toluene-d8 (Surr)	*106*		*89 - 112*		*06/03/24 13:09*	*1*

Client Sample ID: OU6-MW-236-20240521

Lab Sample ID: 680-251090-14

Date Collected: 05/21/24 10:15

Matrix: Water

Date Received: 05/22/24 09:30

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			06/04/24 15:21	1
Benzene	1.0	U	2.0	0.27	ug/L			06/04/24 15:21	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			06/04/24 15:21	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			06/04/24 15:21	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			06/04/24 15:21	1
Bromoform	2.0	U J1 Q	2.5	0.59	ug/L			06/04/24 15:21	1
Bromomethane	10	U	20	3.7	ug/L			06/04/24 15:21	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			06/04/24 15:21	1
Carbon disulfide	1.0	U Q	2.0	0.43	ug/L			06/04/24 15:21	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			06/04/24 15:21	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			06/04/24 15:21	1
Chloroethane	10	U J1 Q	20	4.6	ug/L			06/04/24 15:21	1
Chloroform	1.0	U	2.0	0.27	ug/L			06/04/24 15:21	1
Chloromethane	2.0	U Q	2.5	0.54	ug/L			06/04/24 15:21	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			06/04/24 15:21	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			06/04/24 15:21	1
cis-1,2-Dichloroethene	**130**	**J1**	2.0	0.25	ug/L			06/04/24 15:21	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			06/04/24 15:21	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			06/04/24 15:21	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			06/04/24 15:21	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			06/04/24 15:21	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			06/04/24 15:21	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			06/04/24 15:21	1

Client Sample ID: OU6-MW-236-20240521
Date Collected: 05/21/24 10:15
Date Received: 05/22/24 09:30

Lab Sample ID: 680-251090-14
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			06/04/24 15:21	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			06/04/24 15:21	1
1,4-Dichlorobenzene	**0.35**	**J**	2.0	0.31	ug/L			06/04/24 15:21	1
Dichlorodifluoromethane	**0.61**	**J**	2.0	0.36	ug/L			06/04/24 15:21	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			06/04/24 15:21	1
1,2-Dichloroethane	1.0	U	2.0	0.25	ug/L			06/04/24 15:21	1
1,1-Dichloroethene	**1.0**	**J**	2.0	0.33	ug/L			06/04/24 15:21	1
1,2-Dichloroethene, Total	**130**		2.0	0.37	ug/L			06/04/24 15:21	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			06/04/24 15:21	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			06/04/24 15:21	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			06/04/24 15:21	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			06/04/24 15:21	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			06/04/24 15:21	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			06/04/24 15:21	1
2-Hexanone	10	U	20	3.2	ug/L			06/04/24 15:21	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			06/04/24 15:21	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			06/04/24 15:21	1
Methyl acetate	10	U	20	3.2	ug/L			06/04/24 15:21	1
Methylcyclohexane	1.0	U	2.0	0.33	ug/L			06/04/24 15:21	1
Methylene Chloride	10	U	20	3.2	ug/L			06/04/24 15:21	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			06/04/24 15:21	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			06/04/24 15:21	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			06/04/24 15:21	1
Naphthalene	5.0	U	10	2.4	ug/L			06/04/24 15:21	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			06/04/24 15:21	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			06/04/24 15:21	1
o-Xylene	1.0	U	2.0	0.26	ug/L			06/04/24 15:21	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			06/04/24 15:21	1
Styrene	1.0	U	2.0	0.27	ug/L			06/04/24 15:21	1
tert-Butylbenzene	1.0	U M	2.0	0.43	ug/L			06/04/24 15:21	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			06/04/24 15:21	1
1,1,2,2-Tetrachloroethane	1.0	U J1 Q	2.0	0.40	ug/L			06/04/24 15:21	1
Tetrachloroethene	1.0	U	2.0	0.35	ug/L			06/04/24 15:21	1
Toluene	1.0	U	2.0	0.25	ug/L			06/04/24 15:21	1
trans-1,2-Dichloroethene	**0.87**	**J**	2.0	0.34	ug/L			06/04/24 15:21	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			06/04/24 15:21	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			06/04/24 15:21	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			06/04/24 15:21	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			06/04/24 15:21	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			06/04/24 15:21	1
Trichloroethene	**150**	**J1**	1.0	0.20	ug/L			06/04/24 15:21	1
Trichlorofluoromethane	1.0	U J1 Q	2.0	0.33	ug/L			06/04/24 15:21	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			06/04/24 15:21	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			06/04/24 15:21	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			06/04/24 15:21	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			06/04/24 15:21	1
Vinyl chloride	**16**	**J1**	2.0	0.40	ug/L			06/04/24 15:21	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			06/04/24 15:21	1

Client Sample ID: OU6-MW-236-20240521

Lab Sample ID: 680-251090-14

Date Collected: 05/21/24 10:15

Matrix: Water

Date Received: 05/22/24 09:30

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*85 - 114*		*06/04/24 15:21*	*1*
Dibromofluoromethane (Surr)	*102*		*80 - 119*		*06/04/24 15:21*	*1*
1,2-Dichloroethane-d4 (Surr)	*94*		*81 - 118*		*06/04/24 15:21*	*1*
Toluene-d8 (Surr)	*96*		*89 - 112*		*06/04/24 15:21*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	**0.66**	**J**	1.1	0.30	ug/L			06/03/24 18:39	1
Ethylene	**2.0**		1.0	0.31	ug/L			06/03/24 18:39	1
Methane (TCD)	**5400**	**J1**	390	39	ug/L			06/03/24 18:39	1

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**23**		0.55	0.20	mg/L			06/03/24 16:25	1
Nitrate as N	0.050	U M	0.055	0.023	mg/L			05/22/24 16:11	1
Nitrate Nitrite as N	0.050	U	0.055	0.023	mg/L			05/22/24 16:11	1
Sulfate	**15**		1.5	0.40	mg/L			06/03/24 16:25	1
Nitrite as N	0.050	U M J1	0.055	0.023	mg/L			05/22/24 16:11	1

Method: SW846 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**56**		10	2.2	ug/L		05/23/24 05:06	05/23/24 19:13	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**44**		5.5	2.2	mg/L			05/24/24 15:11	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	**44**		11	5.0	mg/L			05/24/24 15:11	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	10	U	11	5.0	mg/L			05/24/24 15:11	1
Sulfide (SM 4500 S2 F-2011)	0.81	U	0.81	0.81	mg/L			05/24/24 13:30	1
Sulfide as H2S (SM 4500 S2 F-2011)	0.89	U	0.89	0.89	mg/L			05/24/24 13:30	1
Total Organic Carbon (SW846 9060A)	1.0	U	1.0	0.50	mg/L			05/28/24 14:27	1
Carbon Dioxide, Free (SM 4500 CO2 D)	**28**		11	5.0	mg/L			05/24/24 15:11	1

Client Sample ID: OU6-MW-287-20240521

Lab Sample ID: 680-251090-15

Date Collected: 05/21/24 13:15

Matrix: Water

Date Received: 05/22/24 09:30

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			06/04/24 15:38	1
Benzene	1.0	U	2.0	0.27	ug/L			06/04/24 15:38	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			06/04/24 15:38	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			06/04/24 15:38	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			06/04/24 15:38	1
Bromoform	2.0	U	2.5	0.59	ug/L			06/04/24 15:38	1
Bromomethane	10	U Q	20	3.7	ug/L			06/04/24 15:38	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			06/04/24 15:38	1
Carbon disulfide	1.0	U	2.0	0.43	ug/L			06/04/24 15:38	1

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-251090-1

Client Sample ID: OU6-MW-287-20240521
Date Collected: 05/21/24 13:15
Date Received: 05/22/24 09:30

Lab Sample ID: 680-251090-15
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			06/04/24 15:38	1
Chlorobenzene	**1.2**		1.0	0.15	ug/L			06/04/24 15:38	1
Chloroethane	10	U	20	4.6	ug/L			06/04/24 15:38	1
Chloroform	1.0	U	2.0	0.27	ug/L			06/04/24 15:38	1
Chloromethane	2.0	U	2.5	0.54	ug/L			06/04/24 15:38	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			06/04/24 15:38	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			06/04/24 15:38	1
cis-1,2-Dichloroethene	**29**		2.0	0.25	ug/L			06/04/24 15:38	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			06/04/24 15:38	1
Cyclohexane	1.0	U Q	2.0	0.28	ug/L			06/04/24 15:38	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			06/04/24 15:38	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			06/04/24 15:38	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			06/04/24 15:38	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			06/04/24 15:38	1
1,2-Dichlorobenzene	**0.59**	**J**	2.0	0.31	ug/L			06/04/24 15:38	1
1,3-Dichlorobenzene	**0.31**	**J**	2.0	0.31	ug/L			06/04/24 15:38	1
1,4-Dichlorobenzene	**1.5**	**J**	2.0	0.31	ug/L			06/04/24 15:38	1
Dichlorodifluoromethane	1.0	U Q	2.0	0.36	ug/L			06/04/24 15:38	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			06/04/24 15:38	1
1,2-Dichloroethane	1.0	U M	2.0	0.25	ug/L			06/04/24 15:38	1
1,1-Dichloroethene	**0.38**	**J**	2.0	0.33	ug/L			06/04/24 15:38	1
1,2-Dichloroethene, Total	**29**		2.0	0.37	ug/L			06/04/24 15:38	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			06/04/24 15:38	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			06/04/24 15:38	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			06/04/24 15:38	1
1,1-Dichloropropene	1.0	U Q	2.0	0.28	ug/L			06/04/24 15:38	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			06/04/24 15:38	1
Hexachlorobutadiene	**0.47**	**J Q**	5.0	0.22	ug/L			06/04/24 15:38	1
2-Hexanone	10	U	20	3.2	ug/L			06/04/24 15:38	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			06/04/24 15:38	1
4-Isopropyltoluene	1.0	U M	2.0	0.44	ug/L			06/04/24 15:38	1
Methyl acetate	10	U	20	3.2	ug/L			06/04/24 15:38	1
Methylcyclohexane	1.0	U Q	2.0	0.33	ug/L			06/04/24 15:38	1
Methylene Chloride	10	U	20	3.2	ug/L			06/04/24 15:38	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			06/04/24 15:38	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			06/04/24 15:38	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			06/04/24 15:38	1
Naphthalene	5.0	U	10	2.4	ug/L			06/04/24 15:38	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			06/04/24 15:38	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			06/04/24 15:38	1
o-Xylene	1.0	U	2.0	0.26	ug/L			06/04/24 15:38	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			06/04/24 15:38	1
Styrene	1.0	U	2.0	0.27	ug/L			06/04/24 15:38	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			06/04/24 15:38	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			06/04/24 15:38	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			06/04/24 15:38	1
Tetrachloroethene	**0.42**	**J**	2.0	0.35	ug/L			06/04/24 15:38	1
Toluene	1.0	U	2.0	0.25	ug/L			06/04/24 15:38	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			06/04/24 15:38	1

Client Sample ID: OU6-MW-287-20240521
Date Collected: 05/21/24 13:15
Date Received: 05/22/24 09:30

Lab Sample ID: 680-251090-15
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			06/04/24 15:38	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			06/04/24 15:38	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			06/04/24 15:38	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			06/04/24 15:38	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			06/04/24 15:38	1
Trichloroethene	**35**		1.0	0.20	ug/L			06/04/24 15:38	1
Trichlorofluoromethane	1.0	U Q	2.0	0.33	ug/L			06/04/24 15:38	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			06/04/24 15:38	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U Q	1.0	0.23	ug/L			06/04/24 15:38	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			06/04/24 15:38	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			06/04/24 15:38	1
Vinyl chloride	**0.95**	**J Q**	2.0	0.40	ug/L			06/04/24 15:38	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			06/04/24 15:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*85 - 114*		*06/04/24 15:38*	*1*
Dibromofluoromethane (Surr)	*91*		*80 - 119*		*06/04/24 15:38*	*1*
1,2-Dichloroethane-d4 (Surr)	*91*		*81 - 118*		*06/04/24 15:38*	*1*
Toluene-d8 (Surr)	*96*		*89 - 112*		*06/04/24 15:38*	*1*

Method: SW846 8270E SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	0.11	U	0.21	0.034	ug/L		05/23/24 07:08	05/27/24 18:55	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*18*	*M*	*10 - 150*	*05/23/24 07:08*	*05/27/24 18:55*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	0.76	U	1.1	0.30	ug/L			06/03/24 17:34	1
Ethylene	0.71	U	1.0	0.31	ug/L			06/03/24 17:34	1
Methane	**11**		1.2	0.57	ug/L			06/03/24 17:34	1

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**3.2**		0.55	0.20	mg/L			06/03/24 17:18	1
Nitrate as N	0.050	U	0.055	0.023	mg/L			05/22/24 17:42	1
Nitrate Nitrite as N	0.050	U	0.055	0.023	mg/L			05/22/24 17:42	1
Sulfate	**14**		1.5	0.40	mg/L			06/03/24 17:18	1
Nitrite as N	0.050	U	0.055	0.023	mg/L			05/22/24 17:42	1

Method: SW846 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**48**		10	2.2	ug/L		05/23/24 05:06	05/23/24 18:08	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**39**		5.5	2.2	mg/L			05/24/24 15:27	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	**39**		11	5.0	mg/L			05/24/24 15:27	1

Client Sample ID: OU6-MW-287-20240521

Lab Sample ID: 680-251090-15

Date Collected: 05/21/24 13:15

Matrix: Water

Date Received: 05/22/24 09:30

General Chemistry (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	10	U	11	5.0	mg/L			05/24/24 15:27	1
Sulfide (SM 4500 S2 F-2011)	0.83	U	0.83	0.83	mg/L			05/24/24 13:30	1
Sulfide as H2S (SM 4500 S2 F-2011)	0.92	U	0.92	0.92	mg/L			05/24/24 13:30	1
Total Organic Carbon (SW846 9060A)	1.0	U	1.0	0.50	mg/L			05/24/24 09:35	1
Carbon Dioxide, Free (SM 4500 CO2 D)	**64**		11	5.0	mg/L			05/24/24 15:27	1

Client Sample ID: OU6-MW-170-20240521

Lab Sample ID: 680-251090-16

Date Collected: 05/21/24 08:30

Matrix: Water

Date Received: 05/22/24 09:30

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	2.0	0.27	ug/L			05/31/24 17:33	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			05/31/24 17:33	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			05/31/24 17:33	1
Bromoform	2.0	U	2.5	0.59	ug/L			05/31/24 17:33	1
Bromomethane	10	U Q	20	3.7	ug/L			05/31/24 17:33	1
2-Butanone (MEK)	**590**		25	6.4	ug/L			05/31/24 17:33	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			05/31/24 17:33	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			05/31/24 17:33	1
Chloroethane	10	U Q	20	4.6	ug/L			05/31/24 17:33	1
Chloroform	1.0	U	2.0	0.27	ug/L			05/31/24 17:33	1
Chloromethane	2.0	U	2.5	0.54	ug/L			05/31/24 17:33	1
cis-1,2-Dichloroethene	**1.3**	**J**	2.0	0.25	ug/L			05/31/24 17:33	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			05/31/24 17:33	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			05/31/24 17:33	1
Dibromochloromethane	1.0	U Q	2.0	0.39	ug/L			05/31/24 17:33	1
1,2-Dibromoethane	1.0	U Q	2.0	0.33	ug/L			05/31/24 17:33	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			05/31/24 17:33	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/31/24 17:33	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/31/24 17:33	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/31/24 17:33	1
Dichlorodifluoromethane	1.0	U	2.0	0.36	ug/L			05/31/24 17:33	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			05/31/24 17:33	1
1,2-Dichloroethane	1.0	U M	2.0	0.25	ug/L			05/31/24 17:33	1
1,1-Dichloroethene	1.0	U	2.0	0.33	ug/L			05/31/24 17:33	1
1,2-Dichloroethene, Total	**1.3**	**J**	2.0	0.37	ug/L			05/31/24 17:33	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			05/31/24 17:33	1
1,3-Dichloropropane	1.0	U Q	2.0	0.36	ug/L			05/31/24 17:33	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			05/31/24 17:33	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			05/31/24 17:33	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			05/31/24 17:33	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			05/31/24 17:33	1
Methylcyclohexane	1.0	U	2.0	0.33	ug/L			05/31/24 17:33	1
Methylene Chloride	10	U	20	3.2	ug/L			05/31/24 17:33	1
4-Methyl-2-pentanone (MIBK)	**9.5**	**J Q**	20	2.7	ug/L			05/31/24 17:33	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			05/31/24 17:33	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			05/31/24 17:33	1

Client Sample ID: OU6-MW-170-20240521
Date Collected: 05/21/24 08:30
Date Received: 05/22/24 09:30

Lab Sample ID: 680-251090-16
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			05/31/24 17:33	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			05/31/24 17:33	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			05/31/24 17:33	1
Tetrachloroethene	1.0	U Q	2.0	0.35	ug/L			05/31/24 17:33	1
Toluene	1.0	U Q	2.0	0.25	ug/L			05/31/24 17:33	1
trans-1,3-Dichloropropene	1.0	U Q	2.0	0.23	ug/L			05/31/24 17:33	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			05/31/24 17:33	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			05/31/24 17:33	1
1,1,2-Trichloroethane	1.0	U Q	2.0	0.32	ug/L			05/31/24 17:33	1
Trichloroethene	**2.2**		1.0	0.20	ug/L			05/31/24 17:33	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			05/31/24 17:33	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			05/31/24 17:33	1
Vinyl chloride	**1.1**	**J**	2.0	0.40	ug/L			05/31/24 17:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*85 - 114*		*05/31/24 17:33*	*1*
Dibromofluoromethane (Surr)	*111*		*80 - 119*		*05/31/24 17:33*	*1*
1,2-Dichloroethane-d4 (Surr)	*92*		*81 - 118*		*05/31/24 17:33*	*1*
Toluene-d8 (Surr)	*105*		*89 - 112*		*05/31/24 17:33*	*1*

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	**1800**	**D**	130	19	ug/L			06/03/24 17:51	5
Bromobenzene	2.5	U	5.0	1.2	ug/L			06/03/24 17:51	5
Carbon disulfide	5.0	U	10	2.2	ug/L			06/03/24 17:51	5
2-Chlorotoluene	2.5	U	5.0	1.3	ug/L			06/03/24 17:51	5
4-Chlorotoluene	5.0	U	10	2.1	ug/L			06/03/24 17:51	5
1,2-Dibromo-3-Chloropropane	25	U Q	50	9.0	ug/L			06/03/24 17:51	5
Hexachlorobutadiene	5.0	U	25	1.1	ug/L			06/03/24 17:51	5
2-Hexanone	50	U	100	16	ug/L			06/03/24 17:51	5
Isopropylbenzene	5.0	U	10	1.3	ug/L			06/03/24 17:51	5
Methyl acetate	50	U	100	16	ug/L			06/03/24 17:51	5
Naphthalene	25	U	50	12	ug/L			06/03/24 17:51	5
N-Propylbenzene	5.0	U	10	2.1	ug/L			06/03/24 17:51	5
o-Xylene	5.0	U	10	1.3	ug/L			06/03/24 17:51	5
sec-Butylbenzene	10	U	13	2.7	ug/L			06/03/24 17:51	5
Styrene	5.0	U	10	1.4	ug/L			06/03/24 17:51	5
tert-Butylbenzene	5.0	U	10	2.2	ug/L			06/03/24 17:51	5
trans-1,2-Dichloroethene	5.0	U	10	1.7	ug/L			06/03/24 17:51	5
1,2,4-Trichlorobenzene	10	U	25	2.7	ug/L			06/03/24 17:51	5
1,2,3-Trichloropropane	5.0	U	10	2.4	ug/L			06/03/24 17:51	5
1,2,4-Trimethylbenzene	5.0	U	10	2.2	ug/L			06/03/24 17:51	5
1,3,5-Trimethylbenzene	5.0	U	10	1.4	ug/L			06/03/24 17:51	5
Xylenes, Total	5.0	U	10	2.5	ug/L			06/03/24 17:51	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*85 - 114*		*06/03/24 17:51*	*5*
Dibromofluoromethane (Surr)	*110*		*80 - 119*		*06/03/24 17:51*	*5*
1,2-Dichloroethane-d4 (Surr)	*94*		*81 - 118*		*06/03/24 17:51*	*5*
Toluene-d8 (Surr)	*109*		*89 - 112*		*06/03/24 17:51*	*5*

Client Sample ID: OU6-MW-170-20240521

Lab Sample ID: 680-251090-16

Date Collected: 05/21/24 08:30

Matrix: Water

Date Received: 05/22/24 09:30

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	**0.66**	**J**	1.1	0.30	ug/L			06/03/24 17:47	1
Ethylene	**4.5**		1.0	0.31	ug/L			06/03/24 17:47	1
Methane (TCD)	**21000**		390	39	ug/L			06/03/24 17:47	1

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.50	U	0.55	0.20	mg/L			06/03/24 17:24	1
Nitrate as N	0.050	U	0.055	0.023	mg/L			05/22/24 18:57	1
Nitrate Nitrite as N	0.050	U	0.055	0.023	mg/L			05/22/24 18:57	1
Sulfate	1.0	U	1.5	0.40	mg/L			06/03/24 17:24	1
Nitrite as N	0.050	U	0.055	0.023	mg/L			05/22/24 18:57	1

Method: SW846 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**54**		10	2.2	ug/L		05/23/24 05:06	05/23/24 18:10	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**950**		5.5	2.2	mg/L			05/24/24 14:41	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	**950**		11	5.0	mg/L			05/24/24 14:41	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	10	U	11	5.0	mg/L			05/24/24 14:41	1
Sulfide (SM 4500 S2 F-2011)	0.81	U	0.81	0.81	mg/L			05/24/24 13:30	1
Sulfide as H2S (SM 4500 S2 F-2011)	0.89	U	0.89	0.89	mg/L			05/24/24 13:30	1
Total Organic Carbon (SW846 9060A)	**450**	**D**	10	5.0	mg/L			05/24/24 15:44	10
Carbon Dioxide, Free (SM 4500 CO2 D)	**190**		11	5.0	mg/L			05/24/24 14:41	1

Client Sample ID: OU6-MW-241-20240521

Lab Sample ID: 680-251090-17

Date Collected: 05/21/24 13:45

Matrix: Water

Date Received: 05/22/24 09:30

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	**6.8**	**J**	25	3.7	ug/L			06/04/24 16:00	1
Benzene	1.0	U	2.0	0.27	ug/L			06/04/24 16:00	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			06/04/24 16:00	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			06/04/24 16:00	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			06/04/24 16:00	1
Bromoform	2.0	U	2.5	0.59	ug/L			06/04/24 16:00	1
Bromomethane	10	U Q	20	3.7	ug/L			06/04/24 16:00	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			06/04/24 16:00	1
Carbon disulfide	1.0	U	2.0	0.43	ug/L			06/04/24 16:00	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			06/04/24 16:00	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			06/04/24 16:00	1
Chloroethane	10	U	20	4.6	ug/L			06/04/24 16:00	1
Chloroform	1.0	U	2.0	0.27	ug/L			06/04/24 16:00	1
Chloromethane	2.0	U	2.5	0.54	ug/L			06/04/24 16:00	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			06/04/24 16:00	1

Client Sample ID: OU6-MW-241-20240521
Date Collected: 05/21/24 13:45
Date Received: 05/22/24 09:30

Lab Sample ID: 680-251090-17
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			06/04/24 16:00	1
cis-1,2-Dichloroethene	**1.4**	**J**	2.0	0.25	ug/L			06/04/24 16:00	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			06/04/24 16:00	1
Cyclohexane	1.0	U Q	2.0	0.28	ug/L			06/04/24 16:00	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			06/04/24 16:00	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			06/04/24 16:00	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			06/04/24 16:00	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			06/04/24 16:00	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			06/04/24 16:00	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			06/04/24 16:00	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			06/04/24 16:00	1
Dichlorodifluoromethane	1.0	U Q	2.0	0.36	ug/L			06/04/24 16:00	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			06/04/24 16:00	1
1,2-Dichloroethane	1.0	U M	2.0	0.25	ug/L			06/04/24 16:00	1
1,1-Dichloroethene	1.0	U	2.0	0.33	ug/L			06/04/24 16:00	1
1,2-Dichloroethene, Total	**2.0**		2.0	0.37	ug/L			06/04/24 16:00	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			06/04/24 16:00	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			06/04/24 16:00	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			06/04/24 16:00	1
1,1-Dichloropropene	1.0	U Q	2.0	0.28	ug/L			06/04/24 16:00	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			06/04/24 16:00	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			05/31/24 17:27	1
2-Hexanone	10	U	20	3.2	ug/L			06/04/24 16:00	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			06/04/24 16:00	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			06/04/24 16:00	1
Methyl acetate	10	U	20	3.2	ug/L			06/04/24 16:00	1
Methylcyclohexane	1.0	U Q	2.0	0.33	ug/L			06/04/24 16:00	1
Methylene Chloride	10	U	20	3.2	ug/L			06/04/24 16:00	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			06/04/24 16:00	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			06/04/24 16:00	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			06/04/24 16:00	1
Naphthalene	5.0	U	10	2.4	ug/L			06/04/24 16:00	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			06/04/24 16:00	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			06/04/24 16:00	1
o-Xylene	1.0	U	2.0	0.26	ug/L			06/04/24 16:00	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			06/04/24 16:00	1
Styrene	1.0	U	2.0	0.27	ug/L			06/04/24 16:00	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			06/04/24 16:00	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			06/04/24 16:00	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			06/04/24 16:00	1
Tetrachloroethene	1.0	U	2.0	0.35	ug/L			06/04/24 16:00	1
Toluene	1.0	U	2.0	0.25	ug/L			06/04/24 16:00	1
trans-1,2-Dichloroethene	**0.66**	**J**	2.0	0.34	ug/L			06/04/24 16:00	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			06/04/24 16:00	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			06/04/24 16:00	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			06/04/24 16:00	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			06/04/24 16:00	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			06/04/24 16:00	1
Trichloroethene	0.50	U	1.0	0.20	ug/L			06/04/24 16:00	1

Client Sample ID: OU6-MW-241-20240521
Lab Sample ID: 680-251090-17
Date Collected: 05/21/24 13:45
Matrix: Water
Date Received: 05/22/24 09:30

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Trichlorofluoromethane	1.0	U Q	2.0	0.33	ug/L			06/04/24 16:00	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			06/04/24 16:00	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U Q	1.0	0.23	ug/L			06/04/24 16:00	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			06/04/24 16:00	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			06/04/24 16:00	1
Vinyl chloride	**0.94**	**J Q**	2.0	0.40	ug/L			06/04/24 16:00	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			06/04/24 16:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*85 - 114*		*05/31/24 17:27*	*1*
4-Bromofluorobenzene (Surr)	*107*		*85 - 114*		*06/04/24 16:00*	*1*
Dibromofluoromethane (Surr)	*116*		*80 - 119*		*05/31/24 17:27*	*1*
Dibromofluoromethane (Surr)	*90*		*80 - 119*		*06/04/24 16:00*	*1*
1,2-Dichloroethane-d4 (Surr)	*109*		*81 - 118*		*05/31/24 17:27*	*1*
1,2-Dichloroethane-d4 (Surr)	*93*		*81 - 118*		*06/04/24 16:00*	*1*
Toluene-d8 (Surr)	*141*	*Q*	*89 - 112*		*05/31/24 17:27*	*1*
Toluene-d8 (Surr)	*96*		*89 - 112*		*06/04/24 16:00*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	**6.0**		1.1	0.30	ug/L			06/03/24 18:00	1
Ethylene	**8.4**		1.0	0.31	ug/L			06/03/24 18:00	1
Methane (TCD)	**17000**		390	39	ug/L			06/03/24 18:00	1

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**9.8**		0.55	0.20	mg/L			06/03/24 17:31	1
Nitrate as N	0.10	U	0.11	0.046	mg/L			05/22/24 18:48	2
Nitrate Nitrite as N	0.10	U	0.11	0.046	mg/L			05/22/24 18:48	2
Sulfate	**0.98**	**J M**	1.5	0.40	mg/L			06/03/24 17:31	1
Nitrite as N	0.10	U	0.11	0.046	mg/L			05/22/24 18:48	2

Method: SW846 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**1000**		10	2.2	ug/L		05/23/24 05:06	05/23/24 19:19	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**270**		5.5	2.2	mg/L			05/24/24 15:37	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	**270**		11	5.0	mg/L			05/24/24 15:37	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	10	U	11	5.0	mg/L			05/24/24 15:37	1
Sulfide (SM 4500 S2 F-2011)	0.81	U	0.81	0.81	mg/L			05/24/24 13:30	1
Sulfide as H2S (SM 4500 S2 F-2011)	0.89	U	0.89	0.89	mg/L			05/24/24 13:30	1
Total Organic Carbon (SW846 9060A)	**27**		1.0	0.50	mg/L			05/28/24 15:32	1
Carbon Dioxide, Free (SM 4500 CO2 D)	**220**		11	5.0	mg/L			05/24/24 15:37	1

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-251090-1

Client Sample ID: OU6-MW-239-20240521
Date Collected: 05/21/24 11:30
Date Received: 05/22/24 09:30

Lab Sample ID: 680-251090-18
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	250	U	630	93	ug/L			05/31/24 18:21	25
Benzene	25	U	50	6.8	ug/L			05/31/24 18:21	25
Bromobenzene	13	U	25	6.0	ug/L			06/03/24 19:02	25
Bromochloromethane	25	U	50	8.5	ug/L			05/31/24 18:21	25
Bromodichloromethane	25	U	50	6.3	ug/L			05/31/24 18:21	25
Bromoform	50	U	63	15	ug/L			05/31/24 18:21	25
Bromomethane	250	U Q	500	93	ug/L			05/31/24 18:21	25
2-Butanone (MEK)	500	U	630	160	ug/L			05/31/24 18:21	25
Carbon disulfide	25	U	50	11	ug/L			06/03/24 19:02	25
Carbon tetrachloride	25	U	50	7.5	ug/L			05/31/24 18:21	25
Chlorobenzene	13	U	25	3.8	ug/L			05/31/24 18:21	25
Chloroethane	250	U Q	500	120	ug/L			05/31/24 18:21	25
Chloroform	25	U	50	6.8	ug/L			05/31/24 18:21	25
Chloromethane	50	U	63	14	ug/L			05/31/24 18:21	25
2-Chlorotoluene	13	U	25	6.3	ug/L			06/03/24 19:02	25
4-Chlorotoluene	25	U	50	10	ug/L			06/03/24 19:02	25
cis-1,2-Dichloroethene	**45**	**J D**	50	6.3	ug/L			05/31/24 18:21	25
cis-1,3-Dichloropropene	25	U	50	6.5	ug/L			05/31/24 18:21	25
Cyclohexane	25	U	50	7.0	ug/L			05/31/24 18:21	25
Dibromochloromethane	25	U Q	50	9.8	ug/L			05/31/24 18:21	25
1,2-Dibromo-3-Chloropropane	130	U Q	250	45	ug/L			06/03/24 19:02	25
1,2-Dibromoethane	25	U Q	50	8.3	ug/L			05/31/24 18:21	25
Dibromomethane	25	U	50	8.5	ug/L			05/31/24 18:21	25
1,2-Dichlorobenzene	25	U	50	7.8	ug/L			05/31/24 18:21	25
1,3-Dichlorobenzene	25	U	50	7.8	ug/L			05/31/24 18:21	25
1,4-Dichlorobenzene	25	U	50	7.8	ug/L			05/31/24 18:21	25
Dichlorodifluoromethane	25	U	50	9.0	ug/L			05/31/24 18:21	25
1,1-Dichloroethane	25	U	50	8.3	ug/L			05/31/24 18:21	25
1,2-Dichloroethane	25	U M	50	6.3	ug/L			05/31/24 18:21	25
1,1-Dichloroethene	25	U	50	8.3	ug/L			05/31/24 18:21	25
1,2-Dichloroethene, Total	**45**	**J D**	50	9.3	ug/L			05/31/24 18:21	25
1,2-Dichloropropane	13	U	25	5.5	ug/L			05/31/24 18:21	25
1,3-Dichloropropane	25	U Q	50	9.0	ug/L			05/31/24 18:21	25
2,2-Dichloropropane	25	U	50	8.8	ug/L			05/31/24 18:21	25
1,1-Dichloropropene	25	U	50	7.0	ug/L			05/31/24 18:21	25
Ethylbenzene	13	U	25	5.0	ug/L			05/31/24 18:21	25
Hexachlorobutadiene	25	U	130	5.5	ug/L			06/03/24 19:02	25
2-Hexanone	250	U	500	80	ug/L			06/03/24 19:02	25
Isopropylbenzene	25	U	50	6.5	ug/L			06/03/24 19:02	25
4-Isopropyltoluene	25	U	50	11	ug/L			05/31/24 18:21	25
Methyl acetate	250	U	500	80	ug/L			06/03/24 19:02	25
Methylcyclohexane	25	U	50	8.3	ug/L			05/31/24 18:21	25
Methylene Chloride	250	U	500	80	ug/L			05/31/24 18:21	25
4-Methyl-2-pentanone (MIBK)	250	U Q	500	68	ug/L			05/31/24 18:21	25
Methyl tert-butyl ether	50	U	130	20	ug/L			05/31/24 18:21	25
m-Xylene & p-Xylene	25	U	50	12	ug/L			05/31/24 18:21	25
Naphthalene	130	U	250	60	ug/L			06/03/24 19:02	25
n-Butylbenzene	50	U	63	13	ug/L			05/31/24 18:21	25
N-Propylbenzene	25	U	50	10	ug/L			06/03/24 19:02	25

Client Sample ID: OU6-MW-239-20240521
Date Collected: 05/21/24 11:30
Date Received: 05/22/24 09:30

Lab Sample ID: 680-251090-18
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	25	U	50	6.5	ug/L			06/03/24 19:02	25
sec-Butylbenzene	50	U	63	13	ug/L			06/03/24 19:02	25
Styrene	25	U	50	6.8	ug/L			06/03/24 19:02	25
tert-Butylbenzene	25	U	50	11	ug/L			06/03/24 19:02	25
1,1,1,2-Tetrachloroethane	25	U	50	9.0	ug/L			05/31/24 18:21	25
1,1,2,2-Tetrachloroethane	25	U	50	10	ug/L			05/31/24 18:21	25
Tetrachloroethene	**29**	**J D M Q**	50	8.8	ug/L			05/31/24 18:21	25
Toluene	25	U Q	50	6.3	ug/L			05/31/24 18:21	25
trans-1,2-Dichloroethene	25	U	50	8.5	ug/L			06/03/24 19:02	25
trans-1,3-Dichloropropene	25	U Q	50	5.8	ug/L			05/31/24 18:21	25
1,2,3-Trichlorobenzene	50	U	130	20	ug/L			05/31/24 18:21	25
1,2,4-Trichlorobenzene	50	U	130	13	ug/L			06/03/24 19:02	25
1,1,1-Trichloroethane	13	U	25	5.3	ug/L			05/31/24 18:21	25
1,1,2-Trichloroethane	25	U Q	50	8.0	ug/L			05/31/24 18:21	25
Trichloroethene	**1500**	**D**	25	5.0	ug/L			05/31/24 18:21	25
Trichlorofluoromethane	25	U	50	8.3	ug/L			05/31/24 18:21	25
1,2,3-Trichloropropane	25	U	50	12	ug/L			06/03/24 19:02	25
1,1,2-Trichloro-1,2,2-trifluoroethane	13	U	25	5.8	ug/L			05/31/24 18:21	25
1,2,4-Trimethylbenzene	25	U	50	11	ug/L			06/03/24 19:02	25
1,3,5-Trimethylbenzene	25	U	50	7.0	ug/L			06/03/24 19:02	25
Vinyl chloride	25	U	50	10	ug/L			05/31/24 18:21	25
Xylenes, Total	25	U	50	12	ug/L			06/03/24 19:02	25

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*85 - 114*		*05/31/24 18:21*	*25*
4-Bromofluorobenzene (Surr)	*102*		*85 - 114*		*06/03/24 19:02*	*25*
Dibromofluoromethane (Surr)	*99*		*80 - 119*		*05/31/24 18:21*	*25*
Dibromofluoromethane (Surr)	*108*		*80 - 119*		*06/03/24 19:02*	*25*
1,2-Dichloroethane-d4 (Surr)	*99*		*81 - 118*		*05/31/24 18:21*	*25*
1,2-Dichloroethane-d4 (Surr)	*95*		*81 - 118*		*06/03/24 19:02*	*25*
Toluene-d8 (Surr)	*105*		*89 - 112*		*05/31/24 18:21*	*25*
Toluene-d8 (Surr)	*106*		*89 - 112*		*06/03/24 19:02*	*25*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	0.76	U	1.1	0.30	ug/L			06/03/24 18:13	1
Ethylene	**22**		1.0	0.31	ug/L			06/03/24 18:13	1
Methane (TCD)	**4300**		390	39	ug/L			06/03/24 18:13	1

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**9.7**	**M**	0.55	0.20	mg/L			06/03/24 17:37	1
Nitrate as N	**0.94**		0.055	0.023	mg/L			05/22/24 19:05	1
Nitrate Nitrite as N	**0.94**		0.055	0.023	mg/L			05/22/24 19:05	1
Sulfate	**3.4**		1.5	0.40	mg/L			06/03/24 17:37	1
Nitrite as N	0.050	U	0.055	0.023	mg/L			05/22/24 19:05	1

Method: SW846 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**82**		10	2.2	ug/L		05/23/24 05:06	05/23/24 19:21	1

Client Sample ID: OU6-MW-239-20240521

Lab Sample ID: 680-251090-18

Date Collected: 05/21/24 11:30

Matrix: Water

Date Received: 05/22/24 09:30

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**10**		5.5	2.2	mg/L			05/24/24 15:45	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	**10**	**J**	11	5.0	mg/L			05/24/24 15:45	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	10	U	11	5.0	mg/L			05/24/24 15:45	1
Sulfide (SM 4500 S2 F-2011)	0.81	U	0.81	0.81	mg/L			05/24/24 13:30	1
Sulfide as H2S (SM 4500 S2 F-2011)	0.89	U	0.89	0.89	mg/L			05/24/24 13:30	1
Total Organic Carbon (SW846 9060A)	**0.72**	**J**	1.0	0.50	mg/L			05/28/24 15:52	1
Carbon Dioxide, Free (SM 4500 CO2 D)	**32**		11	5.0	mg/L			05/24/24 15:45	1

Client Sample ID: OU6-MW-244-20240521

Lab Sample ID: 680-251090-19

Date Collected: 05/21/24 14:30

Matrix: Water

Date Received: 05/22/24 09:30

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U Q	25	3.7	ug/L			05/31/24 17:49	1
Benzene	1.0	U	2.0	0.27	ug/L			05/31/24 17:49	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			05/31/24 17:49	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			05/31/24 17:49	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			05/31/24 17:49	1
Bromoform	2.0	U	2.5	0.59	ug/L			05/31/24 17:49	1
Bromomethane	10	U Q	20	3.7	ug/L			05/31/24 17:49	1
2-Butanone (MEK)	20	U M	25	6.4	ug/L			05/31/24 17:49	1
Carbon disulfide	1.0	U Q	2.0	0.43	ug/L			05/31/24 17:49	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			05/31/24 17:49	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			05/31/24 17:49	1
Chloroethane	10	U Q	20	4.6	ug/L			05/31/24 17:49	1
Chloroform	1.0	U	2.0	0.27	ug/L			05/31/24 17:49	1
Chloromethane	2.0	U	2.5	0.54	ug/L			05/31/24 17:49	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			05/31/24 17:49	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			05/31/24 17:49	1
cis-1,2-Dichloroethene	**13**		2.0	0.25	ug/L			05/31/24 17:49	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			05/31/24 17:49	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			05/31/24 17:49	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			05/31/24 17:49	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			05/31/24 17:49	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			05/31/24 17:49	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			05/31/24 17:49	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/31/24 17:49	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/31/24 17:49	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/31/24 17:49	1
Dichlorodifluoromethane	1.0	U Q	2.0	0.36	ug/L			05/31/24 17:49	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			05/31/24 17:49	1
1,2-Dichloroethane	1.0	U M	2.0	0.25	ug/L			05/31/24 17:49	1
1,1-Dichloroethene	**4.5**		2.0	0.33	ug/L			05/31/24 17:49	1
1,2-Dichloroethene, Total	**13**		2.0	0.37	ug/L			05/31/24 17:49	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			05/31/24 17:49	1

Client Sample ID: OU6-MW-244-20240521
Date Collected: 05/21/24 14:30
Date Received: 05/22/24 09:30

Lab Sample ID: 680-251090-19
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			05/31/24 17:49	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			05/31/24 17:49	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			05/31/24 17:49	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			05/31/24 17:49	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			05/31/24 17:49	1
2-Hexanone	10	U M	20	3.2	ug/L			05/31/24 17:49	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			05/31/24 17:49	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			05/31/24 17:49	1
Methyl acetate	10	U Q	20	3.2	ug/L			05/31/24 17:49	1
Methylcyclohexane	1.0	U Q	2.0	0.33	ug/L			05/31/24 17:49	1
Methylene Chloride	10	U	20	3.2	ug/L			05/31/24 17:49	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			05/31/24 17:49	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			05/31/24 17:49	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			05/31/24 17:49	1
Naphthalene	5.0	U	10	2.4	ug/L			05/31/24 17:49	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			05/31/24 17:49	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			05/31/24 17:49	1
o-Xylene	1.0	U	2.0	0.26	ug/L			05/31/24 17:49	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			05/31/24 17:49	1
Styrene	1.0	U	2.0	0.27	ug/L			05/31/24 17:49	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			05/31/24 17:49	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			05/31/24 17:49	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			05/31/24 17:49	1
Tetrachloroethene	**3.7**		2.0	0.35	ug/L			05/31/24 17:49	1
Toluene	1.0	U	2.0	0.25	ug/L			05/31/24 17:49	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			05/31/24 17:49	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			05/31/24 17:49	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			05/31/24 17:49	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			05/31/24 17:49	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			05/31/24 17:49	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			05/31/24 17:49	1
Trichloroethene	**11**		1.0	0.20	ug/L			05/31/24 17:49	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			05/31/24 17:49	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			05/31/24 17:49	1
1,1,2-Trichloro-1,2,2-trifluoroethane	**55**		1.0	0.23	ug/L			05/31/24 17:49	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			05/31/24 17:49	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			05/31/24 17:49	1
Vinyl chloride	**2.6**		2.0	0.40	ug/L			06/03/24 17:27	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			05/31/24 17:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*85 - 114*		*05/31/24 17:49*	*1*
4-Bromofluorobenzene (Surr)	*108*		*85 - 114*		*06/03/24 17:27*	*1*
Dibromofluoromethane (Surr)	*111*		*80 - 119*		*05/31/24 17:49*	*1*
Dibromofluoromethane (Surr)	*108*		*80 - 119*		*06/03/24 17:27*	*1*
1,2-Dichloroethane-d4 (Surr)	*108*		*81 - 118*		*05/31/24 17:49*	*1*
1,2-Dichloroethane-d4 (Surr)	*96*		*81 - 118*		*06/03/24 17:27*	*1*
Toluene-d8 (Surr)	*105*		*89 - 112*		*05/31/24 17:49*	*1*
Toluene-d8 (Surr)	*107*		*89 - 112*		*06/03/24 17:27*	*1*

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-251090-1

Client Sample ID: OU6-MW-244-20240521
Date Collected: 05/21/24 14:30
Date Received: 05/22/24 09:30

Lab Sample ID: 680-251090-19
Matrix: Water

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	0.31	J	1.1	0.30	ug/L			06/03/24 18:26	1
Ethylene	13		1.0	0.31	ug/L			06/03/24 18:26	1
Methane (TCD)	9100		390	39	ug/L			06/03/24 18:26	1

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	10	M	0.55	0.20	mg/L			06/03/24 18:17	1
Nitrate as N	0.12		0.055	0.023	mg/L			05/22/24 18:24	1
Nitrate Nitrite as N	0.12		0.055	0.023	mg/L			05/22/24 18:24	1
Sulfate	10		1.5	0.40	mg/L			06/03/24 18:17	1
Nitrite as N	0.050	U	0.055	0.023	mg/L			05/22/24 18:24	1

Method: SW846 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	120		10	2.2	ug/L		05/23/24 05:06	05/23/24 19:23	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	310		5.5	2.2	mg/L			05/24/24 15:52	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	10	J	11	5.0	mg/L			05/24/24 15:52	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	10	U	11	5.0	mg/L			05/24/24 15:52	1
Sulfide (SM 4500 S2 F-2011)	0.81	U	0.81	0.81	mg/L			05/24/24 13:30	1
Sulfide as H2S (SM 4500 S2 F-2011)	0.89	U	0.89	0.89	mg/L			05/24/24 13:30	1
Total Organic Carbon (SW846 9060A)	1.3		1.0	0.50	mg/L			05/28/24 16:10	1
Carbon Dioxide, Free (SM 4500 CO2 D)	52		11	5.0	mg/L			05/24/24 15:52	1

Isotope Dilution Summary

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-251090-1

Method: 8270E SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Matrix: Water

Prep Type: Total/NA

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		DXE							
Lab Sample ID	Client Sample ID	(10-150)							
680-251090-15	OU6-MW-287-20240521	18 M							
LCS 680-839376/2-A	Lab Control Sample	23							
MB 680-839376/1-A	Method Blank	26 M							

Surrogate Legend

DXE = 1,4-Dioxane-d8

Method: 8260D - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 680-840514/9
Matrix: Water
Analysis Batch: 840514

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			05/31/24 13:07	1
Benzene	1.0	U	2.0	0.27	ug/L			05/31/24 13:07	1
Bromobenzene	0.50	U M	1.0	0.24	ug/L			05/31/24 13:07	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			05/31/24 13:07	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			05/31/24 13:07	1
Bromoform	2.0	U	2.5	0.59	ug/L			05/31/24 13:07	1
Bromomethane	10	U	20	3.7	ug/L			05/31/24 13:07	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			05/31/24 13:07	1
Carbon disulfide	1.02	J	2.0	0.43	ug/L			05/31/24 13:07	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			05/31/24 13:07	1
Chlorobenzene	0.357	J	1.0	0.15	ug/L			05/31/24 13:07	1
Chloroethane	10	U	20	4.6	ug/L			05/31/24 13:07	1
Chloroform	1.0	U	2.0	0.27	ug/L			05/31/24 13:07	1
Chloromethane	2.0	U	2.5	0.54	ug/L			05/31/24 13:07	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			05/31/24 13:07	1
4-Chlorotoluene	1.0	U M	2.0	0.41	ug/L			05/31/24 13:07	1
cis-1,2-Dichloroethene	1.0	U	2.0	0.25	ug/L			05/31/24 13:07	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			05/31/24 13:07	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			05/31/24 13:07	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			05/31/24 13:07	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			05/31/24 13:07	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			05/31/24 13:07	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			05/31/24 13:07	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/31/24 13:07	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/31/24 13:07	1
1,4-Dichlorobenzene	1.0	U M	2.0	0.31	ug/L			05/31/24 13:07	1
Dichlorodifluoromethane	1.0	U	2.0	0.36	ug/L			05/31/24 13:07	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			05/31/24 13:07	1
1,2-Dichloroethane	1.0	U M	2.0	0.25	ug/L			05/31/24 13:07	1
1,1-Dichloroethene	1.0	U	2.0	0.33	ug/L			05/31/24 13:07	1
1,2-Dichloroethene, Total	1.0	U	2.0	0.37	ug/L			05/31/24 13:07	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			05/31/24 13:07	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			05/31/24 13:07	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			05/31/24 13:07	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			05/31/24 13:07	1
Ethylbenzene	0.50	U M	1.0	0.20	ug/L			05/31/24 13:07	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			05/31/24 13:07	1
2-Hexanone	10	U	20	3.2	ug/L			05/31/24 13:07	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			05/31/24 13:07	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			05/31/24 13:07	1
Methyl acetate	10	U	20	3.2	ug/L			05/31/24 13:07	1
Methylcyclohexane	1.0	U	2.0	0.33	ug/L			05/31/24 13:07	1
Methylene Chloride	10	U	20	3.2	ug/L			05/31/24 13:07	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			05/31/24 13:07	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			05/31/24 13:07	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			05/31/24 13:07	1
Naphthalene	5.0	U	10	2.4	ug/L			05/31/24 13:07	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			05/31/24 13:07	1

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-840514/9
Matrix: Water
Analysis Batch: 840514

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			05/31/24 13:07	1
o-Xylene	1.0	U M	2.0	0.26	ug/L			05/31/24 13:07	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			05/31/24 13:07	1
Styrene	1.0	U	2.0	0.27	ug/L			05/31/24 13:07	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			05/31/24 13:07	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			05/31/24 13:07	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			05/31/24 13:07	1
Tetrachloroethene	1.0	U	2.0	0.35	ug/L			05/31/24 13:07	1
Toluene	1.0	U	2.0	0.25	ug/L			05/31/24 13:07	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			05/31/24 13:07	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			05/31/24 13:07	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			05/31/24 13:07	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			05/31/24 13:07	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			05/31/24 13:07	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			05/31/24 13:07	1
Trichloroethene	0.50	U	1.0	0.20	ug/L			05/31/24 13:07	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			05/31/24 13:07	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			05/31/24 13:07	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			05/31/24 13:07	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			05/31/24 13:07	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			05/31/24 13:07	1
Vinyl chloride	1.0	U	2.0	0.40	ug/L			05/31/24 13:07	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			05/31/24 13:07	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*85 - 114*		*05/31/24 13:07*	*1*
Dibromofluoromethane (Surr)	*115*		*80 - 119*		*05/31/24 13:07*	*1*
1,2-Dichloroethane-d4 (Surr)	*105*		*81 - 118*		*05/31/24 13:07*	*1*
Toluene-d8 (Surr)	*104*		*89 - 112*		*05/31/24 13:07*	*1*

Lab Sample ID: LCS 680-840514/4
Matrix: Water
Analysis Batch: 840514

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	250	199		ug/L		80	39 - 160
Benzene	50.0	50.5		ug/L		101	79 - 120
Bromobenzene	50.0	54.9		ug/L		110	80 - 120
Bromochloromethane	50.0	55.1		ug/L		110	78 - 123
Bromodichloromethane	50.0	50.4		ug/L		101	79 - 125
Bromoform	50.0	55.9		ug/L		112	66 - 130
Bromomethane	50.0	58.3	M	ug/L		117	53 - 141
2-Butanone (MEK)	250	229		ug/L		91	56 - 143
Carbon disulfide	50.0	44.3		ug/L		89	64 - 133
Carbon tetrachloride	50.0	53.8		ug/L		108	72 - 136
Chlorobenzene	50.0	53.2		ug/L		106	82 - 118
Chloroethane	50.0	84.6	Q	ug/L		169	60 - 138
Chloroform	50.0	53.6		ug/L		107	79 - 124

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-840514/4
Matrix: Water
Analysis Batch: 840514

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloromethane	50.0	57.1		ug/L		114	50 - 139
2-Chlorotoluene	50.0	53.7		ug/L		107	79 - 122
4-Chlorotoluene	50.0	54.1		ug/L		108	78 - 122
cis-1,2-Dichloroethene	50.0	52.5		ug/L		105	78 - 123
cis-1,3-Dichloropropene	50.0	48.7		ug/L		97	75 - 124
Cyclohexane	50.0	46.6		ug/L		93	71 - 130
Dibromochloromethane	50.0	54.0		ug/L		108	74 - 126
1,2-Dibromo-3-Chloropropane	50.0	48.7		ug/L		97	62 - 128
1,2-Dibromoethane	50.0	52.0		ug/L		104	75 - 127
Dibromomethane	50.0	50.1		ug/L		100	79 - 123
1,2-Dichlorobenzene	50.0	50.3		ug/L		101	80 - 119
1,3-Dichlorobenzene	50.0	50.8		ug/L		102	80 - 119
1,4-Dichlorobenzene	50.0	51.0		ug/L		102	79 - 118
Dichlorodifluoromethane	50.0	56.3		ug/L		113	32 - 152
1,1-Dichloroethane	50.0	47.8		ug/L		96	77 - 125
1,2-Dichloroethane	50.0	49.3		ug/L		99	73 - 128
1,1-Dichloroethene	50.0	51.4		ug/L		103	71 - 131
1,2-Dichloroethene, Total	100	104		ug/L		104	79 - 121
1,2-Dichloropropane	50.0	46.0		ug/L		92	78 - 122
1,3-Dichloropropane	50.0	49.2		ug/L		98	80 - 119
2,2-Dichloropropane	50.0	53.3		ug/L		107	60 - 139
1,1-Dichloropropene	50.0	50.2		ug/L		100	79 - 125
Ethylbenzene	50.0	52.1		ug/L		104	79 - 121
Hexachlorobutadiene	50.0	58.4		ug/L		117	66 - 134
2-Hexanone	250	205		ug/L		82	57 - 139
Isopropylbenzene	50.0	53.5		ug/L		107	72 - 131
4-Isopropyltoluene	50.0	50.1		ug/L		100	77 - 127
Methyl acetate	100	76.9		ug/L		77	56 - 136
Methylcyclohexane	50.0	49.9		ug/L		100	72 - 132
Methylene Chloride	50.0	53.6		ug/L		107	74 - 124
4-Methyl-2-pentanone (MIBK)	250	194		ug/L		78	67 - 130
Methyl tert-butyl ether	50.0	52.1		ug/L		104	71 - 124
m-Xylene & p-Xylene	50.0	52.6		ug/L		105	80 - 121
Naphthalene	50.0	48.7		ug/L		97	61 - 128
n-Butylbenzene	50.0	52.7		ug/L		105	75 - 128
N-Propylbenzene	50.0	53.8		ug/L		108	76 - 126
o-Xylene	50.0	51.5		ug/L		103	78 - 122
sec-Butylbenzene	50.0	57.5		ug/L		115	77 - 126
Styrene	50.0	53.1		ug/L		106	78 - 123
tert-Butylbenzene	50.0	59.7		ug/L		119	78 - 124
1,1,1,2-Tetrachloroethane	50.0	56.8		ug/L		114	78 - 124
1,1,2,2-Tetrachloroethane	50.0	50.1		ug/L		100	71 - 121
Tetrachloroethene	50.0	53.5		ug/L		107	74 - 129
Toluene	50.0	49.2		ug/L		98	80 - 121
trans-1,2-Dichloroethene	50.0	51.1		ug/L		102	75 - 124
trans-1,3-Dichloropropene	50.0	49.6		ug/L		99	73 - 127
1,2,3-Trichlorobenzene	50.0	53.9		ug/L		108	69 - 129
1,2,4-Trichlorobenzene	50.0	50.7		ug/L		101	69 - 130
1,1,1-Trichloroethane	50.0	53.9		ug/L		108	74 - 131

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-840514/4
Matrix: Water
Analysis Batch: 840514

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,1,2-Trichloroethane			50.0	50.0		ug/L		100	80 - 119		
Trichloroethene			50.0	56.4		ug/L		113	79 - 123		
Trichlorofluoromethane			50.0	58.8		ug/L		118	65 - 141		
1,2,3-Trichloropropane			50.0	53.6		ug/L		107	73 - 122		
1,1,2-Trichloro-1,2,2-trifluoroethane			50.0	50.6		ug/L		101	70 - 136		
1,2,4-Trimethylbenzene			50.0	52.9		ug/L		106	76 - 124		
1,3,5-Trimethylbenzene			50.0	58.0		ug/L		116	75 - 124		
Vinyl chloride			50.0	90.6	M Q	ug/L		181	58 - 137		
Xylenes, Total			100	104		ug/L		104	79 - 121		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*85 - 114*
Dibromofluoromethane (Surr)	*113*		*80 - 119*
1,2-Dichloroethane-d4 (Surr)	*104*		*81 - 118*
Toluene-d8 (Surr)	*106*		*89 - 112*

Lab Sample ID: LCSD 680-840514/5
Matrix: Water
Analysis Batch: 840514

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acetone			250	193		ug/L		77	39 - 160	3	20
Benzene			50.0	50.1		ug/L		100	79 - 120	1	20
Bromobenzene			50.0	55.4		ug/L		111	80 - 120	1	20
Bromochloromethane			50.0	56.5		ug/L		113	78 - 123	3	20
Bromodichloromethane			50.0	49.4		ug/L		99	79 - 125	2	20
Bromoform			50.0	55.0		ug/L		110	66 - 130	1	20
Bromomethane			50.0	56.3		ug/L		113	53 - 141	4	20
2-Butanone (MEK)			250	221		ug/L		88	56 - 143	3	20
Carbon disulfide			50.0	44.6		ug/L		89	64 - 133	1	20
Carbon tetrachloride			50.0	52.8		ug/L		106	72 - 136	2	20
Chlorobenzene			50.0	52.9		ug/L		106	82 - 118	0	20
Chloroethane			50.0	87.4	Q	ug/L		175	60 - 138	3	20
Chloroform			50.0	51.8		ug/L		104	79 - 124	3	20
Chloromethane			50.0	58.6		ug/L		117	50 - 139	3	20
2-Chlorotoluene			50.0	53.6		ug/L		107	79 - 122	0	20
4-Chlorotoluene			50.0	52.7		ug/L		105	78 - 122	3	20
cis-1,2-Dichloroethene			50.0	51.9		ug/L		104	78 - 123	1	20
cis-1,3-Dichloropropene			50.0	49.0		ug/L		98	75 - 124	1	20
Cyclohexane			50.0	46.7		ug/L		93	71 - 130	0	20
Dibromochloromethane			50.0	53.1		ug/L		106	74 - 126	2	20
1,2-Dibromo-3-Chloropropane			50.0	48.7		ug/L		97	62 - 128	0	20
1,2-Dibromoethane			50.0	50.3		ug/L		101	75 - 127	3	20
Dibromomethane			50.0	49.3		ug/L		99	79 - 123	2	20
1,2-Dichlorobenzene			50.0	51.1		ug/L		102	80 - 119	2	20
1,3-Dichlorobenzene			50.0	51.7		ug/L		103	80 - 119	2	20
1,4-Dichlorobenzene			50.0	50.9		ug/L		102	79 - 118	0	20
Dichlorodifluoromethane			50.0	50.1	M	ug/L		100	32 - 152	12	20

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-840514/5
Matrix: Water
Analysis Batch: 840514

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1-Dichloroethane	50.0	47.1		ug/L		94	77 - 125	1	20
1,2-Dichloroethane	50.0	49.0		ug/L		98	73 - 128	1	20
1,1-Dichloroethene	50.0	50.1		ug/L		100	71 - 131	3	20
1,2-Dichloroethene, Total	100	103		ug/L		103	79 - 121	1	20
1,2-Dichloropropane	50.0	46.5		ug/L		93	78 - 122	1	20
1,3-Dichloropropane	50.0	49.2		ug/L		98	80 - 119	0	20
2,2-Dichloropropane	50.0	51.8		ug/L		104	60 - 139	3	20
1,1-Dichloropropene	50.0	50.0		ug/L		100	79 - 125	0	20
Ethylbenzene	50.0	51.2		ug/L		102	79 - 121	2	20
Hexachlorobutadiene	50.0	55.9		ug/L		112	66 - 134	4	20
2-Hexanone	250	200		ug/L		80	57 - 139	2	20
Isopropylbenzene	50.0	51.7		ug/L		103	72 - 131	3	20
4-Isopropyltoluene	50.0	49.8		ug/L		100	77 - 127	1	20
Methyl acetate	100	77.5		ug/L		78	56 - 136	1	20
Methylcyclohexane	50.0	47.7		ug/L		95	72 - 132	5	20
Methylene Chloride	50.0	51.8		ug/L		104	74 - 124	4	20
4-Methyl-2-pentanone (MIBK)	250	194		ug/L		78	67 - 130	0	20
Methyl tert-butyl ether	50.0	52.1		ug/L		104	71 - 124	0	20
m-Xylene & p-Xylene	50.0	51.5		ug/L		103	80 - 121	2	20
Naphthalene	50.0	49.1		ug/L		98	61 - 128	1	20
n-Butylbenzene	50.0	51.2		ug/L		102	75 - 128	3	20
N-Propylbenzene	50.0	52.1		ug/L		104	76 - 126	3	20
o-Xylene	50.0	52.4		ug/L		105	78 - 122	2	20
sec-Butylbenzene	50.0	56.2		ug/L		112	77 - 126	2	20
Styrene	50.0	53.2		ug/L		106	78 - 123	0	20
tert-Butylbenzene	50.0	57.5		ug/L		115	78 - 124	4	20
1,1,1,2-Tetrachloroethane	50.0	55.9		ug/L		112	78 - 124	2	20
1,1,2,2-Tetrachloroethane	50.0	50.1		ug/L		100	71 - 121	0	20
Tetrachloroethene	50.0	52.0		ug/L		104	74 - 129	3	20
Toluene	50.0	47.8		ug/L		96	80 - 121	3	20
trans-1,2-Dichloroethene	50.0	50.9		ug/L		102	75 - 124	0	20
trans-1,3-Dichloropropene	50.0	48.8		ug/L		98	73 - 127	2	20
1,2,3-Trichlorobenzene	50.0	53.9		ug/L		108	69 - 129	0	20
1,2,4-Trichlorobenzene	50.0	51.1		ug/L		102	69 - 130	1	20
1,1,1-Trichloroethane	50.0	52.2		ug/L		104	74 - 131	3	20
1,1,2-Trichloroethane	50.0	48.7		ug/L		97	80 - 119	3	20
Trichloroethene	50.0	55.1		ug/L		110	79 - 123	2	20
Trichlorofluoromethane	50.0	56.0		ug/L		112	65 - 141	5	20
1,2,3-Trichloropropane	50.0	53.3		ug/L		107	73 - 122	1	20
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	51.0		ug/L		102	70 - 136	1	20
1,2,4-Trimethylbenzene	50.0	51.3		ug/L		103	76 - 124	3	20
1,3,5-Trimethylbenzene	50.0	56.1		ug/L		112	75 - 124	3	20
Vinyl chloride	50.0	82.7	Q	ug/L		165	58 - 137	9	20
Xylenes, Total	100	104		ug/L		104	79 - 121	0	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*85 - 114*

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-840514/5
Matrix: Water
Analysis Batch: 840514

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Dibromofluoromethane (Surr)	*110*		*80 - 119*
1,2-Dichloroethane-d4 (Surr)	*102*		*81 - 118*
Toluene-d8 (Surr)	*106*		*89 - 112*

Lab Sample ID: MB 680-840531/8
Matrix: Water
Analysis Batch: 840531

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			05/31/24 12:41	1
Benzene	1.0	U	2.0	0.27	ug/L			05/31/24 12:41	1
Bromobenzene	0.50	U M	1.0	0.24	ug/L			05/31/24 12:41	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			05/31/24 12:41	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			05/31/24 12:41	1
Bromoform	2.0	U	2.5	0.59	ug/L			05/31/24 12:41	1
Bromomethane	10	U	20	3.7	ug/L			05/31/24 12:41	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			05/31/24 12:41	1
Carbon disulfide	1.0	U	2.0	0.43	ug/L			05/31/24 12:41	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			05/31/24 12:41	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			05/31/24 12:41	1
Chloroethane	10	U	20	4.6	ug/L			05/31/24 12:41	1
Chloroform	1.0	U	2.0	0.27	ug/L			05/31/24 12:41	1
Chloromethane	2.0	U	2.5	0.54	ug/L			05/31/24 12:41	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			05/31/24 12:41	1
4-Chlorotoluene	1.0	U M	2.0	0.41	ug/L			05/31/24 12:41	1
cis-1,2-Dichloroethene	1.0	U	2.0	0.25	ug/L			05/31/24 12:41	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			05/31/24 12:41	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			05/31/24 12:41	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			05/31/24 12:41	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			05/31/24 12:41	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			05/31/24 12:41	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			05/31/24 12:41	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/31/24 12:41	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/31/24 12:41	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			05/31/24 12:41	1
Dichlorodifluoromethane	1.0	U	2.0	0.36	ug/L			05/31/24 12:41	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			05/31/24 12:41	1
1,2-Dichloroethane	1.0	U M	2.0	0.25	ug/L			05/31/24 12:41	1
1,1-Dichloroethene	1.0	U	2.0	0.33	ug/L			05/31/24 12:41	1
1,2-Dichloroethene, Total	1.0	U	2.0	0.37	ug/L			05/31/24 12:41	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			05/31/24 12:41	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			05/31/24 12:41	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			05/31/24 12:41	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			05/31/24 12:41	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			05/31/24 12:41	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			05/31/24 12:41	1
2-Hexanone	10	U	20	3.2	ug/L			05/31/24 12:41	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			05/31/24 12:41	1

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-840531/8
Matrix: Water
Analysis Batch: 840531

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
4-Isopropyltoluene	0.537	J	2.0	0.44	ug/L			05/31/24 12:41	1
Methyl acetate	10	U	20	3.2	ug/L			05/31/24 12:41	1
Methylcyclohexane	1.0	U M	2.0	0.33	ug/L			05/31/24 12:41	1
Methylene Chloride	10	U	20	3.2	ug/L			05/31/24 12:41	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			05/31/24 12:41	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			05/31/24 12:41	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			05/31/24 12:41	1
Naphthalene	5.0	U	10	2.4	ug/L			05/31/24 12:41	1
n-Butylbenzene	0.663	J	2.5	0.52	ug/L			05/31/24 12:41	1
N-Propylbenzene	1.0	U M	2.0	0.41	ug/L			05/31/24 12:41	1
o-Xylene	1.0	U	2.0	0.26	ug/L			05/31/24 12:41	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			05/31/24 12:41	1
Styrene	1.0	U	2.0	0.27	ug/L			05/31/24 12:41	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			05/31/24 12:41	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			05/31/24 12:41	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			05/31/24 12:41	1
Tetrachloroethene	1.0	U	2.0	0.35	ug/L			05/31/24 12:41	1
Toluene	1.0	U	2.0	0.25	ug/L			05/31/24 12:41	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			05/31/24 12:41	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			05/31/24 12:41	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			05/31/24 12:41	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			05/31/24 12:41	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			05/31/24 12:41	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			05/31/24 12:41	1
Trichloroethene	0.50	U	1.0	0.20	ug/L			05/31/24 12:41	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			05/31/24 12:41	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			05/31/24 12:41	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			05/31/24 12:41	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			05/31/24 12:41	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			05/31/24 12:41	1
Vinyl chloride	1.0	U	2.0	0.40	ug/L			05/31/24 12:41	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			05/31/24 12:41	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*85 - 114*		*05/31/24 12:41*	*1*
Dibromofluoromethane (Surr)	*109*		*80 - 119*		*05/31/24 12:41*	*1*
1,2-Dichloroethane-d4 (Surr)	*92*		*81 - 118*		*05/31/24 12:41*	*1*
Toluene-d8 (Surr)	*104*		*89 - 112*		*05/31/24 12:41*	*1*

Lab Sample ID: LCS 680-840531/4
Matrix: Water
Analysis Batch: 840531

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	250	204		ug/L		82	39 - 160
Benzene	50.0	55.3		ug/L		111	79 - 120
Bromobenzene	50.0	62.3	Q	ug/L		125	80 - 120
Bromochloromethane	50.0	53.6		ug/L		107	78 - 123

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-840531/4
Matrix: Water
Analysis Batch: 840531

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bromodichloromethane	50.0	47.1		ug/L		94	79 - 125
Bromoform	50.0	52.5		ug/L		105	66 - 130
Bromomethane	50.0	40.0		ug/L		80	53 - 141
2-Butanone (MEK)	250	231		ug/L		93	56 - 143
Carbon disulfide	50.0	53.3		ug/L		107	64 - 133
Carbon tetrachloride	50.0	49.6		ug/L		99	72 - 136
Chlorobenzene	50.0	51.4		ug/L		103	82 - 118
Chloroethane	50.0	40.4		ug/L		81	60 - 138
Chloroform	50.0	54.8		ug/L		110	79 - 124
Chloromethane	50.0	40.7		ug/L		81	50 - 139
2-Chlorotoluene	50.0	62.9	Q	ug/L		126	79 - 122
4-Chlorotoluene	50.0	63.2	Q	ug/L		126	78 - 122
cis-1,2-Dichloroethene	50.0	54.5		ug/L		109	78 - 123
cis-1,3-Dichloropropene	50.0	40.4		ug/L		81	75 - 124
Cyclohexane	50.0	54.4		ug/L		109	71 - 130
Dibromochloromethane	50.0	44.7		ug/L		89	74 - 126
1,2-Dibromo-3-Chloropropane	50.0	41.8		ug/L		84	62 - 128
1,2-Dibromoethane	50.0	39.7		ug/L		79	75 - 127
Dibromomethane	50.0	47.9		ug/L		96	79 - 123
1,2-Dichlorobenzene	50.0	52.6		ug/L		105	80 - 119
1,3-Dichlorobenzene	50.0	54.8		ug/L		110	80 - 119
1,4-Dichlorobenzene	50.0	53.1		ug/L		106	79 - 118
Dichlorodifluoromethane	50.0	42.7		ug/L		85	32 - 152
1,1-Dichloroethane	50.0	50.6		ug/L		101	77 - 125
1,2-Dichloroethane	50.0	53.1		ug/L		106	73 - 128
1,1-Dichloroethene	50.0	44.2		ug/L		88	71 - 131
1,2-Dichloroethene, Total	100	107		ug/L		107	79 - 121
1,2-Dichloropropane	50.0	48.4		ug/L		97	78 - 122
1,3-Dichloropropane	50.0	43.0		ug/L		86	80 - 119
2,2-Dichloropropane	50.0	55.9		ug/L		112	60 - 139
1,1-Dichloropropene	50.0	52.4		ug/L		105	79 - 125
Ethylbenzene	50.0	56.6		ug/L		113	79 - 121
Hexachlorobutadiene	50.0	54.3		ug/L		109	66 - 134
2-Hexanone	250	190		ug/L		76	57 - 139
Isopropylbenzene	50.0	62.0		ug/L		124	72 - 131
4-Isopropyltoluene	50.0	52.8		ug/L		106	77 - 127
Methyl acetate	100	101		ug/L		101	56 - 136
Methylcyclohexane	50.0	52.6		ug/L		105	72 - 132
Methylene Chloride	50.0	48.0		ug/L		96	74 - 124
4-Methyl-2-pentanone (MIBK)	250	211		ug/L		84	67 - 130
Methyl tert-butyl ether	50.0	50.2		ug/L		100	71 - 124
m-Xylene & p-Xylene	50.0	58.9		ug/L		118	80 - 121
Naphthalene	50.0	49.3		ug/L		99	61 - 128
n-Butylbenzene	50.0	51.1		ug/L		102	75 - 128
N-Propylbenzene	50.0	64.2	Q	ug/L		128	76 - 126
o-Xylene	50.0	67.2	Q	ug/L		134	78 - 122
sec-Butylbenzene	50.0	62.2		ug/L		124	77 - 126
Styrene	50.0	64.0	Q	ug/L		128	78 - 123
tert-Butylbenzene	50.0	61.5		ug/L		123	78 - 124

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-840531/4
Matrix: Water
Analysis Batch: 840531

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1,2-Tetrachloroethane	50.0	53.3		ug/L		107	78 - 124
1,1,2,2-Tetrachloroethane	50.0	59.2		ug/L		118	71 - 121
Tetrachloroethene	50.0	39.4		ug/L		79	74 - 129
Toluene	50.0	45.3		ug/L		91	80 - 121
trans-1,2-Dichloroethene	50.0	52.8		ug/L		106	75 - 124
trans-1,3-Dichloropropene	50.0	42.2		ug/L		84	73 - 127
1,2,3-Trichlorobenzene	50.0	41.0		ug/L		82	69 - 129
1,2,4-Trichlorobenzene	50.0	53.0		ug/L		106	69 - 130
1,1,1-Trichloroethane	50.0	51.7		ug/L		103	74 - 131
1,1,2-Trichloroethane	50.0	43.4		ug/L		87	80 - 119
Trichloroethene	50.0	50.0		ug/L		100	79 - 123
Trichlorofluoromethane	50.0	44.8		ug/L		90	65 - 141
1,2,3-Trichloropropane	50.0	60.5		ug/L		121	73 - 122
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	45.7		ug/L		91	70 - 136
1,2,4-Trimethylbenzene	50.0	62.8	Q	ug/L		126	76 - 124
1,3,5-Trimethylbenzene	50.0	62.5	Q	ug/L		125	75 - 124
Vinyl chloride	50.0	42.0		ug/L		84	58 - 137
Xylenes, Total	100	126	Q	ug/L		126	79 - 121

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*85 - 114*
Dibromofluoromethane (Surr)	*109*		*80 - 119*
1,2-Dichloroethane-d4 (Surr)	*98*		*81 - 118*
Toluene-d8 (Surr)	*93*		*89 - 112*

Lab Sample ID: LCSD 680-840531/28
Matrix: Water
Analysis Batch: 840531

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acetone	250	240		ug/L		96	39 - 160	16	20
Benzene	50.0	55.0		ug/L		110	79 - 120	0	20
Bromobenzene	50.0	51.3		ug/L		103	80 - 120	19	20
Bromochloromethane	50.0	55.4		ug/L		111	78 - 123	3	20
Bromodichloromethane	50.0	47.2		ug/L		94	79 - 125	0	20
Bromoform	50.0	46.1		ug/L		92	66 - 130	13	20
Bromomethane	50.0	56.8	Q	ug/L		114	53 - 141	35	20
2-Butanone (MEK)	250	236		ug/L		94	56 - 143	2	20
Carbon disulfide	50.0	54.2		ug/L		108	64 - 133	2	20
Carbon tetrachloride	50.0	49.8		ug/L		100	72 - 136	0	20
Chlorobenzene	50.0	49.9		ug/L		100	82 - 118	3	20
Chloroethane	50.0	56.9	Q	ug/L		114	60 - 138	34	20
Chloroform	50.0	56.1		ug/L		112	79 - 124	2	20
Chloromethane	50.0	49.4		ug/L		99	50 - 139	19	20
2-Chlorotoluene	50.0	52.6		ug/L		105	79 - 122	18	20
4-Chlorotoluene	50.0	52.3		ug/L		105	78 - 122	19	20
cis-1,2-Dichloroethene	50.0	56.3		ug/L		113	78 - 123	3	20
cis-1,3-Dichloropropene	50.0	45.6		ug/L		91	75 - 124	12	20

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-840531/28
Matrix: Water
Analysis Batch: 840531

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Cyclohexane	50.0	52.6		ug/L		105	71 - 130	3	20
Dibromochloromethane	50.0	63.1	Q	ug/L		126	74 - 126	34	20
1,2-Dibromo-3-Chloropropane	50.0	43.3		ug/L		87	62 - 128	4	20
1,2-Dibromoethane	50.0	60.7	Q	ug/L		121	75 - 127	42	20
Dibromomethane	50.0	50.6		ug/L		101	79 - 123	6	20
1,2-Dichlorobenzene	50.0	52.0		ug/L		104	80 - 119	1	20
1,3-Dichlorobenzene	50.0	53.7		ug/L		107	80 - 119	2	20
1,4-Dichlorobenzene	50.0	52.3		ug/L		105	79 - 118	2	20
Dichlorodifluoromethane	50.0	47.4		ug/L		95	32 - 152	11	20
1,1-Dichloroethane	50.0	51.6		ug/L		103	77 - 125	2	20
1,2-Dichloroethane	50.0	54.7		ug/L		109	73 - 128	3	20
1,1-Dichloroethene	50.0	50.6		ug/L		101	71 - 131	14	20
1,2-Dichloroethene, Total	100	109		ug/L		109	79 - 121	2	20
1,2-Dichloropropane	50.0	49.8		ug/L		100	78 - 122	3	20
1,3-Dichloropropane	50.0	65.0	Q	ug/L		130	80 - 119	41	20
2,2-Dichloropropane	50.0	49.5	M	ug/L		99	60 - 139	12	20
1,1-Dichloropropene	50.0	52.4		ug/L		105	79 - 125	0	20
Ethylbenzene	50.0	55.3		ug/L		111	79 - 121	2	20
Hexachlorobutadiene	50.0	43.6	Q	ug/L		87	66 - 134	22	20
2-Hexanone	250	315	Q	ug/L		126	57 - 139	49	20
Isopropylbenzene	50.0	51.5		ug/L		103	72 - 131	18	20
4-Isopropyltoluene	50.0	51.2		ug/L		102	77 - 127	3	20
Methyl acetate	100	117		ug/L		117	56 - 136	15	20
Methylcyclohexane	50.0	51.5		ug/L		103	72 - 132	2	20
Methylene Chloride	50.0	50.4		ug/L		101	74 - 124	5	20
4-Methyl-2-pentanone (MIBK)	250	261	Q	ug/L		104	67 - 130	21	20
Methyl tert-butyl ether	50.0	50.4		ug/L		101	71 - 124	0	20
m-Xylene & p-Xylene	50.0	56.2		ug/L		112	80 - 121	5	20
Naphthalene	50.0	42.8		ug/L		86	61 - 128	14	20
n-Butylbenzene	50.0	49.6		ug/L		99	75 - 128	3	20
N-Propylbenzene	50.0	53.6		ug/L		107	76 - 126	18	20
o-Xylene	50.0	55.9		ug/L		112	78 - 122	18	20
sec-Butylbenzene	50.0	51.4		ug/L		103	77 - 126	19	20
Styrene	50.0	53.4		ug/L		107	78 - 123	18	20
tert-Butylbenzene	50.0	50.9		ug/L		102	78 - 124	19	20
1,1,1,2-Tetrachloroethane	50.0	52.3		ug/L		105	78 - 124	2	20
1,1,2,2-Tetrachloroethane	50.0	50.7		ug/L		101	71 - 121	15	20
Tetrachloroethene	50.0	57.2	Q	ug/L		114	74 - 129	37	20
Toluene	50.0	56.5	Q	ug/L		113	80 - 121	22	20
trans-1,2-Dichloroethene	50.0	53.0		ug/L		106	75 - 124	0	20
trans-1,3-Dichloropropene	50.0	56.4	Q	ug/L		113	73 - 127	29	20
1,2,3-Trichlorobenzene	50.0	45.7		ug/L		91	69 - 129	11	20
1,2,4-Trichlorobenzene	50.0	42.8	Q	ug/L		86	69 - 130	21	20
1,1,1-Trichloroethane	50.0	51.5		ug/L		103	74 - 131	0	20
1,1,2-Trichloroethane	50.0	59.7	Q	ug/L		119	80 - 119	32	20
Trichloroethene	50.0	52.1		ug/L		104	79 - 123	4	20
Trichlorofluoromethane	50.0	52.0		ug/L		104	65 - 141	15	20
1,2,3-Trichloropropane	50.0	52.4		ug/L		105	73 - 122	14	20

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-840531/28
Matrix: Water
Analysis Batch: 840531

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1,2-Trichloro-1,2,2-trifluoroethane			50.0	51.6		ug/L		103	70 - 136	12	20
1,2,4-Trimethylbenzene			50.0	52.3		ug/L		105	76 - 124	18	20
1,3,5-Trimethylbenzene			50.0	52.0		ug/L		104	75 - 124	18	20
Vinyl chloride			50.0	50.8		ug/L		102	58 - 137	19	20
Xylenes, Total			100	112		ug/L		112	79 - 121	12	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*85 - 114*
Dibromofluoromethane (Surr)	*113*		*80 - 119*
1,2-Dichloroethane-d4 (Surr)	*101*		*81 - 118*
Toluene-d8 (Surr)	*111*		*89 - 112*

Lab Sample ID: MB 680-840778/8
Matrix: Water
Analysis Batch: 840778

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			06/03/24 12:02	1
Benzene	1.0	U	2.0	0.27	ug/L			06/03/24 12:02	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			06/03/24 12:02	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			06/03/24 12:02	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			06/03/24 12:02	1
Bromoform	2.0	U	2.5	0.59	ug/L			06/03/24 12:02	1
Bromomethane	10	U	20	3.7	ug/L			06/03/24 12:02	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			06/03/24 12:02	1
Carbon disulfide	1.0	U	2.0	0.43	ug/L			06/03/24 12:02	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			06/03/24 12:02	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			06/03/24 12:02	1
Chloroethane	10	U	20	4.6	ug/L			06/03/24 12:02	1
Chloroform	1.0	U	2.0	0.27	ug/L			06/03/24 12:02	1
Chloromethane	2.0	U	2.5	0.54	ug/L			06/03/24 12:02	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			06/03/24 12:02	1
4-Chlorotoluene	1.0	U M	2.0	0.41	ug/L			06/03/24 12:02	1
cis-1,2-Dichloroethene	1.0	U	2.0	0.25	ug/L			06/03/24 12:02	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			06/03/24 12:02	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			06/03/24 12:02	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			06/03/24 12:02	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			06/03/24 12:02	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			06/03/24 12:02	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			06/03/24 12:02	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			06/03/24 12:02	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			06/03/24 12:02	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			06/03/24 12:02	1
Dichlorodifluoromethane	1.0	U	2.0	0.36	ug/L			06/03/24 12:02	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			06/03/24 12:02	1
1,2-Dichloroethane	1.0	U M	2.0	0.25	ug/L			06/03/24 12:02	1
1,1-Dichloroethene	1.0	U	2.0	0.33	ug/L			06/03/24 12:02	1
1,2-Dichloroethene, Total	1.0	U	2.0	0.37	ug/L			06/03/24 12:02	1

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-840778/8
Matrix: Water
Analysis Batch: 840778

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			06/03/24 12:02	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			06/03/24 12:02	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			06/03/24 12:02	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			06/03/24 12:02	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			06/03/24 12:02	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			06/03/24 12:02	1
2-Hexanone	10	U	20	3.2	ug/L			06/03/24 12:02	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			06/03/24 12:02	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			06/03/24 12:02	1
Methyl acetate	10	U	20	3.2	ug/L			06/03/24 12:02	1
Methylcyclohexane	1.0	U	2.0	0.33	ug/L			06/03/24 12:02	1
Methylene Chloride	10	U	20	3.2	ug/L			06/03/24 12:02	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			06/03/24 12:02	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			06/03/24 12:02	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			06/03/24 12:02	1
Naphthalene	5.0	U	10	2.4	ug/L			06/03/24 12:02	1
n-Butylbenzene	0.652	J	2.5	0.52	ug/L			06/03/24 12:02	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			06/03/24 12:02	1
o-Xylene	1.0	U	2.0	0.26	ug/L			06/03/24 12:02	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			06/03/24 12:02	1
Styrene	1.0	U	2.0	0.27	ug/L			06/03/24 12:02	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			06/03/24 12:02	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			06/03/24 12:02	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			06/03/24 12:02	1
Tetrachloroethene	1.0	U	2.0	0.35	ug/L			06/03/24 12:02	1
Toluene	1.0	U	2.0	0.25	ug/L			06/03/24 12:02	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			06/03/24 12:02	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			06/03/24 12:02	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			06/03/24 12:02	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			06/03/24 12:02	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			06/03/24 12:02	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			06/03/24 12:02	1
Trichloroethene	0.50	U	1.0	0.20	ug/L			06/03/24 12:02	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			06/03/24 12:02	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			06/03/24 12:02	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			06/03/24 12:02	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			06/03/24 12:02	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			06/03/24 12:02	1
Vinyl chloride	1.0	U	2.0	0.40	ug/L			06/03/24 12:02	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			06/03/24 12:02	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*85 - 114*		*06/03/24 12:02*	*1*
Dibromofluoromethane (Surr)	*109*		*80 - 119*		*06/03/24 12:02*	*1*
1,2-Dichloroethane-d4 (Surr)	*94*		*81 - 118*		*06/03/24 12:02*	*1*
Toluene-d8 (Surr)	*106*		*89 - 112*		*06/03/24 12:02*	*1*

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-840778/4
Matrix: Water
Analysis Batch: 840778

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	250	237		ug/L		95	39 - 160
Benzene	50.0	53.7		ug/L		107	79 - 120
Bromobenzene	50.0	50.7		ug/L		101	80 - 120
Bromochloromethane	50.0	52.9		ug/L		106	78 - 123
Bromodichloromethane	50.0	44.3		ug/L		89	79 - 125
Bromoform	50.0	45.7		ug/L		91	66 - 130
Bromomethane	50.0	53.9		ug/L		108	53 - 141
2-Butanone (MEK)	250	218		ug/L		87	56 - 143
Carbon disulfide	50.0	49.6		ug/L		99	64 - 133
Carbon tetrachloride	50.0	46.2		ug/L		92	72 - 136
Chlorobenzene	50.0	51.9		ug/L		104	82 - 118
Chloroethane	50.0	54.4		ug/L		109	60 - 138
Chloroform	50.0	52.9		ug/L		106	79 - 124
Chloromethane	50.0	47.6		ug/L		95	50 - 139
2-Chlorotoluene	50.0	54.7		ug/L		109	79 - 122
4-Chlorotoluene	50.0	54.1		ug/L		108	78 - 122
cis-1,2-Dichloroethene	50.0	53.5		ug/L		107	78 - 123
cis-1,3-Dichloropropene	50.0	43.5		ug/L		87	75 - 124
Cyclohexane	50.0	51.5		ug/L		103	71 - 130
Dibromochloromethane	50.0	50.7		ug/L		101	74 - 126
1,2-Dibromo-3-Chloropropane	50.0	40.3		ug/L		81	62 - 128
1,2-Dibromoethane	50.0	46.3		ug/L		93	75 - 127
Dibromomethane	50.0	47.8		ug/L		96	79 - 123
1,2-Dichlorobenzene	50.0	52.4		ug/L		105	80 - 119
1,3-Dichlorobenzene	50.0	55.2		ug/L		110	80 - 119
1,4-Dichlorobenzene	50.0	53.1		ug/L		106	79 - 118
Dichlorodifluoromethane	50.0	31.6		ug/L		63	32 - 152
1,1-Dichloroethane	50.0	48.6		ug/L		97	77 - 125
1,2-Dichloroethane	50.0	49.4		ug/L		99	73 - 128
1,1-Dichloroethene	50.0	47.6		ug/L		95	71 - 131
1,2-Dichloroethene, Total	100	104		ug/L		104	79 - 121
1,2-Dichloropropane	50.0	47.7		ug/L		95	78 - 122
1,3-Dichloropropane	50.0	50.7		ug/L		101	80 - 119
2,2-Dichloropropane	50.0	51.0		ug/L		102	60 - 139
1,1-Dichloropropene	50.0	50.7		ug/L		101	79 - 125
Ethylbenzene	50.0	57.1		ug/L		114	79 - 121
Hexachlorobutadiene	50.0	44.9		ug/L		90	66 - 134
2-Hexanone	250	233		ug/L		93	57 - 139
Isopropylbenzene	50.0	52.6		ug/L		105	72 - 131
4-Isopropyltoluene	50.0	52.6		ug/L		105	77 - 127
Methyl acetate	100	95.9		ug/L		96	56 - 136
Methylcyclohexane	50.0	49.7		ug/L		99	72 - 132
Methylene Chloride	50.0	48.3		ug/L		97	74 - 124
4-Methyl-2-pentanone (MIBK)	250	231		ug/L		92	67 - 130
Methyl tert-butyl ether	50.0	46.6		ug/L		93	71 - 124
m-Xylene & p-Xylene	50.0	57.5		ug/L		115	80 - 121
Naphthalene	50.0	45.8		ug/L		92	61 - 128
n-Butylbenzene	50.0	51.0		ug/L		102	75 - 128

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-840778/4
Matrix: Water
Analysis Batch: 840778

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
N-Propylbenzene	50.0	54.1		ug/L		108	76 - 126
o-Xylene	50.0	57.1		ug/L		114	78 - 122
sec-Butylbenzene	50.0	52.0		ug/L		104	77 - 126
Styrene	50.0	54.6		ug/L		109	78 - 123
tert-Butylbenzene	50.0	50.7		ug/L		101	78 - 124
1,1,1,2-Tetrachloroethane	50.0	53.6		ug/L		107	78 - 124
1,1,2,2-Tetrachloroethane	50.0	52.2		ug/L		104	71 - 121
Tetrachloroethene	50.0	43.7		ug/L		87	74 - 129
Toluene	50.0	50.5		ug/L		101	80 - 121
trans-1,2-Dichloroethene	50.0	50.4		ug/L		101	75 - 124
trans-1,3-Dichloropropene	50.0	43.8		ug/L		88	73 - 127
1,2,3-Trichlorobenzene	50.0	41.6		ug/L		83	69 - 129
1,2,4-Trichlorobenzene	50.0	47.1		ug/L		94	69 - 130
1,1,1-Trichloroethane	50.0	47.4		ug/L		95	74 - 131
1,1,2-Trichloroethane	50.0	46.7		ug/L		93	80 - 119
Trichloroethene	50.0	48.5		ug/L		97	79 - 123
Trichlorofluoromethane	50.0	43.9		ug/L		88	65 - 141
1,2,3-Trichloropropane	50.0	51.8		ug/L		104	73 - 122
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	48.8		ug/L		98	70 - 136
1,2,4-Trimethylbenzene	50.0	52.2		ug/L		104	76 - 124
1,3,5-Trimethylbenzene	50.0	52.2		ug/L		104	75 - 124
Vinyl chloride	50.0	50.1		ug/L		100	58 - 137
Xylenes, Total	100	115		ug/L		115	79 - 121

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*98*		*85 - 114*
Dibromofluoromethane (Surr)	*106*		*80 - 119*
1,2-Dichloroethane-d4 (Surr)	*93*		*81 - 118*
Toluene-d8 (Surr)	*100*		*89 - 112*

Lab Sample ID: LCSD 680-840778/5
Matrix: Water
Analysis Batch: 840778

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acetone	250	236		ug/L		94	39 - 160	0	20
Benzene	50.0	52.5		ug/L		105	79 - 120	2	20
Bromobenzene	50.0	51.2		ug/L		102	80 - 120	1	20
Bromochloromethane	50.0	52.8		ug/L		106	78 - 123	0	20
Bromodichloromethane	50.0	44.6		ug/L		89	79 - 125	1	20
Bromoform	50.0	47.2		ug/L		94	66 - 130	3	20
Bromomethane	50.0	53.1		ug/L		106	53 - 141	2	20
2-Butanone (MEK)	250	228		ug/L		91	56 - 143	5	20
Carbon disulfide	50.0	48.5		ug/L		97	64 - 133	2	20
Carbon tetrachloride	50.0	46.5		ug/L		93	72 - 136	1	20
Chlorobenzene	50.0	52.4		ug/L		105	82 - 118	1	20
Chloroethane	50.0	55.0		ug/L		110	60 - 138	1	20
Chloroform	50.0	52.5		ug/L		105	79 - 124	1	20

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-840778/5
Matrix: Water
Analysis Batch: 840778

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloromethane	50.0	46.1		ug/L		92	50 - 139	3	20
2-Chlorotoluene	50.0	53.1		ug/L		106	79 - 122	3	20
4-Chlorotoluene	50.0	54.3		ug/L		109	78 - 122	0	20
cis-1,2-Dichloroethene	50.0	53.3		ug/L		107	78 - 123	0	20
cis-1,3-Dichloropropene	50.0	43.5		ug/L		87	75 - 124	0	20
Cyclohexane	50.0	50.4		ug/L		101	71 - 130	2	20
Dibromochloromethane	50.0	50.1		ug/L		100	74 - 126	1	20
1,2-Dibromo-3-Chloropropane	50.0	41.7		ug/L		83	62 - 128	3	20
1,2-Dibromoethane	50.0	46.9		ug/L		94	75 - 127	1	20
Dibromomethane	50.0	48.4		ug/L		97	79 - 123	1	20
1,2-Dichlorobenzene	50.0	52.2		ug/L		104	80 - 119	0	20
1,3-Dichlorobenzene	50.0	53.9		ug/L		108	80 - 119	2	20
1,4-Dichlorobenzene	50.0	52.8		ug/L		106	79 - 118	1	20
Dichlorodifluoromethane	50.0	30.9		ug/L		62	32 - 152	2	20
1,1-Dichloroethane	50.0	48.0		ug/L		96	77 - 125	1	20
1,2-Dichloroethane	50.0	49.9		ug/L		100	73 - 128	1	20
1,1-Dichloroethene	50.0	46.4		ug/L		93	71 - 131	3	20
1,2-Dichloroethene, Total	100	102		ug/L		102	79 - 121	1	20
1,2-Dichloropropane	50.0	47.0		ug/L		94	78 - 122	1	20
1,3-Dichloropropane	50.0	50.7		ug/L		101	80 - 119	0	20
2,2-Dichloropropane	50.0	49.8		ug/L		100	60 - 139	2	20
1,1-Dichloropropene	50.0	49.3		ug/L		99	79 - 125	3	20
Ethylbenzene	50.0	56.4		ug/L		113	79 - 121	1	20
Hexachlorobutadiene	50.0	44.9		ug/L		90	66 - 134	0	20
2-Hexanone	250	242		ug/L		97	57 - 139	4	20
Isopropylbenzene	50.0	51.5		ug/L		103	72 - 131	2	20
4-Isopropyltoluene	50.0	51.8		ug/L		104	77 - 127	1	20
Methyl acetate	100	100		ug/L		100	56 - 136	4	20
Methylcyclohexane	50.0	48.4		ug/L		97	72 - 132	3	20
Methylene Chloride	50.0	47.9		ug/L		96	74 - 124	1	20
4-Methyl-2-pentanone (MIBK)	250	239		ug/L		96	67 - 130	4	20
Methyl tert-butyl ether	50.0	47.7		ug/L		95	71 - 124	2	20
m-Xylene & p-Xylene	50.0	57.8		ug/L		116	80 - 121	0	20
Naphthalene	50.0	47.6		ug/L		95	61 - 128	4	20
n-Butylbenzene	50.0	49.6		ug/L		99	75 - 128	3	20
N-Propylbenzene	50.0	54.1		ug/L		108	76 - 126	0	20
o-Xylene	50.0	57.3		ug/L		115	78 - 122	0	20
sec-Butylbenzene	50.0	51.1		ug/L		102	77 - 126	2	20
Styrene	50.0	54.7		ug/L		109	78 - 123	0	20
tert-Butylbenzene	50.0	50.5		ug/L		101	78 - 124	0	20
1,1,1,2-Tetrachloroethane	50.0	52.8		ug/L		106	78 - 124	2	20
1,1,2,2-Tetrachloroethane	50.0	53.8		ug/L		108	71 - 121	3	20
Tetrachloroethene	50.0	43.4		ug/L		87	74 - 129	1	20
Toluene	50.0	49.9		ug/L		100	80 - 121	1	20
trans-1,2-Dichloroethene	50.0	49.2		ug/L		98	75 - 124	3	20
trans-1,3-Dichloropropene	50.0	43.8		ug/L		88	73 - 127	0	20
1,2,3-Trichlorobenzene	50.0	43.1		ug/L		86	69 - 129	3	20
1,2,4-Trichlorobenzene	50.0	47.3		ug/L		95	69 - 130	0	20
1,1,1-Trichloroethane	50.0	47.2		ug/L		94	74 - 131	0	20

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-840778/5
Matrix: Water
Analysis Batch: 840778

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1,2-Trichloroethane			50.0	47.2		ug/L		94	80 - 119	1	20
Trichloroethene			50.0	47.8		ug/L		96	79 - 123	1	20
Trichlorofluoromethane			50.0	43.3		ug/L		87	65 - 141	1	20
1,2,3-Trichloropropane			50.0	52.7		ug/L		105	73 - 122	2	20
1,1,2-Trichloro-1,2,2-trifluoroethane			50.0	47.8		ug/L		96	70 - 136	2	20
1,2,4-Trimethylbenzene			50.0	51.8		ug/L		104	76 - 124	1	20
1,3,5-Trimethylbenzene			50.0	51.4		ug/L		103	75 - 124	1	20
Vinyl chloride			50.0	48.2		ug/L		96	58 - 137	4	20
Xylenes, Total			100	115		ug/L		115	79 - 121	0	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*97*		*85 - 114*
Dibromofluoromethane (Surr)	*107*		*80 - 119*
1,2-Dichloroethane-d4 (Surr)	*95*		*81 - 118*
Toluene-d8 (Surr)	*98*		*89 - 112*

Lab Sample ID: MB 680-840928/10
Matrix: Water
Analysis Batch: 840928

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			06/04/24 12:50	1
Benzene	1.0	U	2.0	0.27	ug/L			06/04/24 12:50	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			06/04/24 12:50	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			06/04/24 12:50	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			06/04/24 12:50	1
Bromoform	2.0	U	2.5	0.59	ug/L			06/04/24 12:50	1
Bromomethane	10	U	20	3.7	ug/L			06/04/24 12:50	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			06/04/24 12:50	1
Carbon disulfide	1.0	U	2.0	0.43	ug/L			06/04/24 12:50	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			06/04/24 12:50	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			06/04/24 12:50	1
Chloroethane	10	U	20	4.6	ug/L			06/04/24 12:50	1
Chloroform	1.0	U	2.0	0.27	ug/L			06/04/24 12:50	1
Chloromethane	2.0	U	2.5	0.54	ug/L			06/04/24 12:50	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			06/04/24 12:50	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			06/04/24 12:50	1
cis-1,2-Dichloroethene	1.0	U	2.0	0.25	ug/L			06/04/24 12:50	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			06/04/24 12:50	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			06/04/24 12:50	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			06/04/24 12:50	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			06/04/24 12:50	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			06/04/24 12:50	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			06/04/24 12:50	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			06/04/24 12:50	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			06/04/24 12:50	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			06/04/24 12:50	1
Dichlorodifluoromethane	1.0	U	2.0	0.36	ug/L			06/04/24 12:50	1

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-840928/10
Matrix: Water
Analysis Batch: 840928

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			06/04/24 12:50	1
1,2-Dichloroethane	1.0	U M	2.0	0.25	ug/L			06/04/24 12:50	1
1,1-Dichloroethene	1.0	U	2.0	0.33	ug/L			06/04/24 12:50	1
1,2-Dichloroethene, Total	1.0	U	2.0	0.37	ug/L			06/04/24 12:50	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			06/04/24 12:50	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			06/04/24 12:50	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			06/04/24 12:50	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			06/04/24 12:50	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			06/04/24 12:50	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			06/04/24 12:50	1
2-Hexanone	10	U	20	3.2	ug/L			06/04/24 12:50	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			06/04/24 12:50	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			06/04/24 12:50	1
Methyl acetate	10	U	20	3.2	ug/L			06/04/24 12:50	1
Methylcyclohexane	0.594	J	2.0	0.33	ug/L			06/04/24 12:50	1
Methylene Chloride	10	U	20	3.2	ug/L			06/04/24 12:50	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			06/04/24 12:50	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			06/04/24 12:50	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			06/04/24 12:50	1
Naphthalene	5.0	U	10	2.4	ug/L			06/04/24 12:50	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			06/04/24 12:50	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			06/04/24 12:50	1
o-Xylene	1.0	U	2.0	0.26	ug/L			06/04/24 12:50	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			06/04/24 12:50	1
Styrene	1.0	U	2.0	0.27	ug/L			06/04/24 12:50	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			06/04/24 12:50	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			06/04/24 12:50	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			06/04/24 12:50	1
Tetrachloroethene	1.0	U	2.0	0.35	ug/L			06/04/24 12:50	1
Toluene	1.0	U	2.0	0.25	ug/L			06/04/24 12:50	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			06/04/24 12:50	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			06/04/24 12:50	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			06/04/24 12:50	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			06/04/24 12:50	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			06/04/24 12:50	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			06/04/24 12:50	1
Trichloroethene	0.50	U	1.0	0.20	ug/L			06/04/24 12:50	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			06/04/24 12:50	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			06/04/24 12:50	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			06/04/24 12:50	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			06/04/24 12:50	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			06/04/24 12:50	1
Vinyl chloride	1.0	U	2.0	0.40	ug/L			06/04/24 12:50	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			06/04/24 12:50	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*85 - 114*		*06/04/24 12:50*	*1*
Dibromofluoromethane (Surr)	*104*		*80 - 119*		*06/04/24 12:50*	*1*

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-840928/10
Matrix: Water
Analysis Batch: 840928

Client Sample ID: Method Blank
Prep Type: Total/NA

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	93		81 - 118		06/04/24 12:50	1
Toluene-d8 (Surr)	97		89 - 112		06/04/24 12:50	1

Lab Sample ID: LCS 680-840928/6
Matrix: Water
Analysis Batch: 840928

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	250	234		ug/L		94	39 - 160
Benzene	50.0	52.0		ug/L		104	79 - 120
Bromobenzene	50.0	54.3		ug/L		109	80 - 120
Bromochloromethane	50.0	50.9		ug/L		102	78 - 123
Bromodichloromethane	50.0	49.8		ug/L		100	79 - 125
Bromoform	50.0	67.9	J1 Q	ug/L		136	66 - 130
Bromomethane	50.0	51.5		ug/L		103	53 - 141
2-Butanone (MEK)	250	254		ug/L		101	56 - 143
Carbon disulfide	50.0	49.4		ug/L		99	64 - 133
Carbon tetrachloride	50.0	50.4		ug/L		101	72 - 136
Chlorobenzene	50.0	50.5		ug/L		101	82 - 118
Chloroethane	50.0	55.4		ug/L		111	60 - 138
Chloroform	50.0	49.8		ug/L		100	79 - 124
Chloromethane	50.0	52.8		ug/L		106	50 - 139
2-Chlorotoluene	50.0	50.8		ug/L		102	79 - 122
4-Chlorotoluene	50.0	49.6		ug/L		99	78 - 122
cis-1,2-Dichloroethene	50.0	50.3		ug/L		101	78 - 123
cis-1,3-Dichloropropene	50.0	50.9		ug/L		102	75 - 124
Cyclohexane	50.0	56.5		ug/L		113	71 - 130
Dibromochloromethane	50.0	52.7		ug/L		105	74 - 126
1,2-Dibromo-3-Chloropropane	50.0	53.5		ug/L		107	62 - 128
1,2-Dibromoethane	50.0	50.8		ug/L		102	75 - 127
Dibromomethane	50.0	49.3		ug/L		99	79 - 123
1,2-Dichlorobenzene	50.0	51.8		ug/L		104	80 - 119
1,3-Dichlorobenzene	50.0	51.1		ug/L		102	80 - 119
1,4-Dichlorobenzene	50.0	50.6		ug/L		101	79 - 118
Dichlorodifluoromethane	50.0	44.5	M	ug/L		89	32 - 152
1,1-Dichloroethane	50.0	51.3		ug/L		103	77 - 125
1,2-Dichloroethane	50.0	46.4		ug/L		93	73 - 128
1,1-Dichloroethene	50.0	51.8		ug/L		104	71 - 131
1,2-Dichloroethene, Total	100	103		ug/L		103	79 - 121
1,2-Dichloropropane	50.0	52.3		ug/L		105	78 - 122
1,3-Dichloropropane	50.0	51.1		ug/L		102	80 - 119
2,2-Dichloropropane	50.0	52.4		ug/L		105	60 - 139
1,1-Dichloropropene	50.0	54.1		ug/L		108	79 - 125
Ethylbenzene	50.0	50.4		ug/L		101	79 - 121
Hexachlorobutadiene	50.0	58.8		ug/L		118	66 - 134
2-Hexanone	250	265		ug/L		106	57 - 139
Isopropylbenzene	50.0	51.2		ug/L		102	72 - 131
4-Isopropyltoluene	50.0	50.1		ug/L		100	77 - 127

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-840928/6
Matrix: Water
Analysis Batch: 840928

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Methyl acetate	100	85.2		ug/L		85	56 - 136
Methylcyclohexane	50.0	54.4		ug/L		109	72 - 132
Methylene Chloride	50.0	49.3		ug/L		99	74 - 124
4-Methyl-2-pentanone (MIBK)	250	263		ug/L		105	67 - 130
Methyl tert-butyl ether	50.0	51.5		ug/L		103	71 - 124
m-Xylene & p-Xylene	50.0	50.2		ug/L		100	80 - 121
Naphthalene	50.0	51.4		ug/L		103	61 - 128
n-Butylbenzene	50.0	50.2		ug/L		100	75 - 128
N-Propylbenzene	50.0	50.7		ug/L		101	76 - 126
o-Xylene	50.0	51.2		ug/L		102	78 - 122
sec-Butylbenzene	50.0	50.4		ug/L		101	77 - 126
Styrene	50.0	51.6		ug/L		103	78 - 123
tert-Butylbenzene	50.0	50.5		ug/L		101	78 - 124
1,1,1,2-Tetrachloroethane	50.0	51.5		ug/L		103	78 - 124
1,1,2,2-Tetrachloroethane	50.0	59.9		ug/L		120	71 - 121
Tetrachloroethene	50.0	54.0		ug/L		108	74 - 129
Toluene	50.0	50.3		ug/L		101	80 - 121
trans-1,2-Dichloroethene	50.0	52.6		ug/L		105	75 - 124
trans-1,3-Dichloropropene	50.0	49.1		ug/L		98	73 - 127
1,2,3-Trichlorobenzene	50.0	51.0		ug/L		102	69 - 129
1,2,4-Trichlorobenzene	50.0	55.5		ug/L		111	69 - 130
1,1,1-Trichloroethane	50.0	51.9		ug/L		104	74 - 131
1,1,2-Trichloroethane	50.0	51.1		ug/L		102	80 - 119
Trichloroethene	50.0	51.8		ug/L		104	79 - 123
Trichlorofluoromethane	50.0	95.4	M Q	ug/L		191	65 - 141
1,2,3-Trichloropropane	50.0	52.5		ug/L		105	73 - 122
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	57.0		ug/L		114	70 - 136
1,2,4-Trimethylbenzene	50.0	51.5		ug/L		103	76 - 124
1,3,5-Trimethylbenzene	50.0	50.6		ug/L		101	75 - 124
Vinyl chloride	50.0	53.3	M	ug/L		107	58 - 137
Xylenes, Total	100	101		ug/L		101	79 - 121

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*104*		*85 - 114*
Dibromofluoromethane (Surr)	*103*		*80 - 119*
1,2-Dichloroethane-d4 (Surr)	*93*		*81 - 118*
Toluene-d8 (Surr)	*99*		*89 - 112*

Lab Sample ID: LCSD 680-840928/7
Matrix: Water
Analysis Batch: 840928

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acetone	250	243		ug/L		97	39 - 160	4	20
Benzene	50.0	52.1		ug/L		104	79 - 120	0	20
Bromobenzene	50.0	54.5		ug/L		109	80 - 120	0	20
Bromochloromethane	50.0	51.9		ug/L		104	78 - 123	2	20
Bromodichloromethane	50.0	50.3		ug/L		101	79 - 125	1	20

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-840928/7
Matrix: Water
Analysis Batch: 840928

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Bromoform	50.0	69.7	J1 Q	ug/L		139	66 - 130	3	20
Bromomethane	50.0	51.3		ug/L		103	53 - 141	1	20
2-Butanone (MEK)	250	270		ug/L		108	56 - 143	6	20
Carbon disulfide	50.0	48.5		ug/L		97	64 - 133	2	20
Carbon tetrachloride	50.0	50.2		ug/L		100	72 - 136	0	20
Chlorobenzene	50.0	50.2		ug/L		100	82 - 118	1	20
Chloroethane	50.0	53.3		ug/L		107	60 - 138	4	20
Chloroform	50.0	49.9		ug/L		100	79 - 124	0	20
Chloromethane	50.0	51.3		ug/L		103	50 - 139	3	20
2-Chlorotoluene	50.0	50.1		ug/L		100	79 - 122	1	20
4-Chlorotoluene	50.0	49.1		ug/L		98	78 - 122	1	20
cis-1,2-Dichloroethene	50.0	50.8		ug/L		102	78 - 123	1	20
cis-1,3-Dichloropropene	50.0	51.9		ug/L		104	75 - 124	2	20
Cyclohexane	50.0	56.3		ug/L		113	71 - 130	0	20
Dibromochloromethane	50.0	53.8		ug/L		108	74 - 126	2	20
1,2-Dibromo-3-Chloropropane	50.0	54.0		ug/L		108	62 - 128	1	20
1,2-Dibromoethane	50.0	52.6		ug/L		105	75 - 127	4	20
Dibromomethane	50.0	50.4		ug/L		101	79 - 123	2	20
1,2-Dichlorobenzene	50.0	51.5		ug/L		103	80 - 119	1	20
1,3-Dichlorobenzene	50.0	51.5		ug/L		103	80 - 119	1	20
1,4-Dichlorobenzene	50.0	50.8		ug/L		102	79 - 118	1	20
Dichlorodifluoromethane	50.0	42.9	M	ug/L		86	32 - 152	4	20
1,1-Dichloroethane	50.0	50.9		ug/L		102	77 - 125	1	20
1,2-Dichloroethane	50.0	47.6		ug/L		95	73 - 128	2	20
1,1-Dichloroethene	50.0	51.7		ug/L		103	71 - 131	0	20
1,2-Dichloroethene, Total	100	103		ug/L		103	79 - 121	0	20
1,2-Dichloropropane	50.0	52.5		ug/L		105	78 - 122	1	20
1,3-Dichloropropane	50.0	51.9		ug/L		104	80 - 119	1	20
2,2-Dichloropropane	50.0	52.1		ug/L		104	60 - 139	1	20
1,1-Dichloropropene	50.0	54.3		ug/L		109	79 - 125	0	20
Ethylbenzene	50.0	49.5		ug/L		99	79 - 121	2	20
Hexachlorobutadiene	50.0	57.9		ug/L		116	66 - 134	2	20
2-Hexanone	250	277		ug/L		111	57 - 139	4	20
Isopropylbenzene	50.0	50.7		ug/L		101	72 - 131	1	20
4-Isopropyltoluene	50.0	49.3		ug/L		99	77 - 127	2	20
Methyl acetate	100	89.4		ug/L		89	56 - 136	5	20
Methylcyclohexane	50.0	54.0		ug/L		108	72 - 132	1	20
Methylene Chloride	50.0	49.9		ug/L		100	74 - 124	1	20
4-Methyl-2-pentanone (MIBK)	250	274		ug/L		110	67 - 130	4	20
Methyl tert-butyl ether	50.0	53.0		ug/L		106	71 - 124	3	20
m-Xylene & p-Xylene	50.0	49.3		ug/L		99	80 - 121	2	20
Naphthalene	50.0	52.6		ug/L		105	61 - 128	2	20
n-Butylbenzene	50.0	50.5		ug/L		101	75 - 128	1	20
N-Propylbenzene	50.0	49.7		ug/L		99	76 - 126	2	20
o-Xylene	50.0	50.8		ug/L		102	78 - 122	1	20
sec-Butylbenzene	50.0	49.5		ug/L		99	77 - 126	2	20
Styrene	50.0	51.2		ug/L		102	78 - 123	1	20
tert-Butylbenzene	50.0	49.6		ug/L		99	78 - 124	2	20
1,1,1,2-Tetrachloroethane	50.0	51.4		ug/L		103	78 - 124	0	20

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-840928/7
Matrix: Water
Analysis Batch: 840928

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1,2,2-Tetrachloroethane			50.0	59.8		ug/L		120	71 - 121	0	20
Tetrachloroethene			50.0	53.5		ug/L		107	74 - 129	1	20
Toluene			50.0	50.6		ug/L		101	80 - 121	1	20
trans-1,2-Dichloroethene			50.0	52.2		ug/L		104	75 - 124	1	20
trans-1,3-Dichloropropene			50.0	50.3		ug/L		101	73 - 127	2	20
1,2,3-Trichlorobenzene			50.0	51.7		ug/L		103	69 - 129	1	20
1,2,4-Trichlorobenzene			50.0	55.7		ug/L		111	69 - 130	0	20
1,1,1-Trichloroethane			50.0	52.1		ug/L		104	74 - 131	0	20
1,1,2-Trichloroethane			50.0	52.7		ug/L		105	80 - 119	3	20
Trichloroethene			50.0	52.4		ug/L		105	79 - 123	1	20
Trichlorofluoromethane			50.0	92.9	M Q	ug/L		186	65 - 141	3	20
1,2,3-Trichloropropane			50.0	54.4		ug/L		109	73 - 122	4	20
1,1,2-Trichloro-1,2,2-trifluoroethane			50.0	56.7		ug/L		113	70 - 136	1	20
1,2,4-Trimethylbenzene			50.0	51.3		ug/L		103	76 - 124	0	20
1,3,5-Trimethylbenzene			50.0	50.0		ug/L		100	75 - 124	1	20
Vinyl chloride			50.0	53.9	M	ug/L		108	58 - 137	1	20
Xylenes, Total			100	100		ug/L		100	79 - 121	1	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*103*		*85 - 114*
Dibromofluoromethane (Surr)	*105*		*80 - 119*
1,2-Dichloroethane-d4 (Surr)	*103*		*81 - 118*
Toluene-d8 (Surr)	*98*		*89 - 112*

Lab Sample ID: 680-251090-14 MS
Matrix: Water
Analysis Batch: 840928

Client Sample ID: OU6-MW-236-20240521
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	10	U	250	225		ug/L		90	39 - 160
Benzene	1.0	U	50.0	52.3		ug/L		105	79 - 120
Bromobenzene	0.50	U	50.0	58.4		ug/L		117	80 - 120
Bromochloromethane	1.0	U	50.0	49.6		ug/L		99	78 - 123
Bromodichloromethane	1.0	U	50.0	50.3		ug/L		101	79 - 125
Bromoform	2.0	U J1 Q	50.0	70.6	J1	ug/L		141	66 - 130
Bromomethane	10	U	50.0	33.1		ug/L		66	53 - 141
2-Butanone (MEK)	20	U	250	253		ug/L		101	56 - 143
Carbon disulfide	1.0	U Q	50.0	55.6		ug/L		111	64 - 133
Carbon tetrachloride	1.0	U	50.0	52.6		ug/L		105	72 - 136
Chlorobenzene	0.50	U	50.0	49.8		ug/L		100	82 - 118
Chloroethane	10	U J1 Q	50.0	87.9	J1	ug/L		176	60 - 138
Chloroform	1.0	U	50.0	50.0		ug/L		100	79 - 124
Chloromethane	2.0	U Q	50.0	49.6		ug/L		99	50 - 139
2-Chlorotoluene	0.50	U	50.0	58.1		ug/L		116	79 - 122
4-Chlorotoluene	1.0	U	50.0	56.5		ug/L		113	78 - 122
cis-1,2-Dichloroethene	130	J1	50.0	162	J1	ug/L		71	78 - 123
cis-1,3-Dichloropropene	1.0	U	50.0	50.7		ug/L		101	75 - 124
Cyclohexane	1.0	U	50.0	57.6		ug/L		115	71 - 130

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 680-251090-14 MS
Matrix: Water
Analysis Batch: 840928

Client Sample ID: OU6-MW-236-20240521
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Dibromochloromethane	1.0	U	50.0	54.4		ug/L		109	74 - 126
1,2-Dibromo-3-Chloropropane	5.0	U	50.0	49.3		ug/L		99	62 - 128
1,2-Dibromoethane	1.0	U	50.0	51.7		ug/L		103	75 - 127
Dibromomethane	1.0	U	50.0	47.9		ug/L		96	79 - 123
1,2-Dichlorobenzene	1.0	U	50.0	47.1		ug/L		94	80 - 119
1,3-Dichlorobenzene	1.0	U	50.0	52.2		ug/L		104	80 - 119
1,4-Dichlorobenzene	0.35	J	50.0	50.4		ug/L		100	79 - 118
Dichlorodifluoromethane	0.61	J	50.0	43.8		ug/L		86	32 - 152
1,1-Dichloroethane	1.0	U	50.0	51.6		ug/L		103	77 - 125
1,2-Dichloroethane	1.0	U	50.0	45.4		ug/L		91	73 - 128
1,1-Dichloroethene	1.0	J	50.0	54.9		ug/L		108	71 - 131
1,2-Dichloroethene, Total	130		100	216		ug/L		88	79 - 121
1,2-Dichloropropane	0.50	U	50.0	51.3		ug/L		103	78 - 122
1,3-Dichloropropane	1.0	U	50.0	50.6		ug/L		101	80 - 119
2,2-Dichloropropane	1.0	U	50.0	55.2		ug/L		110	60 - 139
1,1-Dichloropropene	1.0	U	50.0	55.9		ug/L		112	79 - 125
Ethylbenzene	0.50	U	50.0	49.0		ug/L		98	79 - 121
Hexachlorobutadiene	1.0	U	50.0	53.1		ug/L		106	66 - 134
2-Hexanone	10	U	250	274		ug/L		110	57 - 139
Isopropylbenzene	1.0	U	50.0	54.0		ug/L		108	72 - 131
4-Isopropyltoluene	1.0	U	50.0	55.5		ug/L		111	77 - 127
Methyl acetate	10	U	100	75.7		ug/L		76	56 - 136
Methylcyclohexane	1.0	U	50.0	55.2		ug/L		110	72 - 132
Methylene Chloride	10	U	50.0	50.6		ug/L		101	74 - 124
4-Methyl-2-pentanone (MIBK)	10	U	250	288		ug/L		115	67 - 130
Methyl tert-butyl ether	2.0	U	50.0	50.7		ug/L		101	71 - 124
m-Xylene & p-Xylene	1.0	U	50.0	50.3		ug/L		101	80 - 121
Naphthalene	5.0	U	50.0	48.8		ug/L		98	61 - 128
n-Butylbenzene	2.0	U	50.0	53.0		ug/L		106	75 - 128
N-Propylbenzene	1.0	U	50.0	57.0		ug/L		114	76 - 126
o-Xylene	1.0	U	50.0	53.7		ug/L		107	78 - 122
sec-Butylbenzene	2.0	U	50.0	58.0		ug/L		116	77 - 126
Styrene	1.0	U	50.0	57.1		ug/L		114	78 - 123
tert-Butylbenzene	1.0	U M	50.0	58.2		ug/L		116	78 - 124
1,1,1,2-Tetrachloroethane	1.0	U	50.0	50.3		ug/L		101	78 - 124
1,1,2,2-Tetrachloroethane	1.0	U J1 Q	50.0	58.8		ug/L		118	71 - 121
Tetrachloroethene	1.0	U	50.0	54.2		ug/L		108	74 - 129
Toluene	1.0	U	50.0	50.3		ug/L		101	80 - 121
trans-1,2-Dichloroethene	0.87	J	50.0	53.8		ug/L		106	75 - 124
trans-1,3-Dichloropropene	1.0	U	50.0	48.9		ug/L		98	73 - 127
1,2,3-Trichlorobenzene	2.0	U	50.0	47.9		ug/L		96	69 - 129
1,2,4-Trichlorobenzene	2.0	U	50.0	51.1		ug/L		102	69 - 130
1,1,1-Trichloroethane	0.50	U	50.0	53.9		ug/L		108	74 - 131
1,1,2-Trichloroethane	1.0	U	50.0	50.9		ug/L		102	80 - 119
Trichloroethene	150	J1	50.0	176	J1	ug/L		58	79 - 123
Trichlorofluoromethane	1.0	U J1 Q	50.0	93.3	J1	ug/L		187	65 - 141
1,2,3-Trichloropropane	1.0	U	50.0	51.5		ug/L		103	73 - 122
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	50.0	59.2		ug/L		118	70 - 136

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 680-251090-14 MS
Matrix: Water
Analysis Batch: 840928

Client Sample ID: OU6-MW-236-20240521
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,2,4-Trimethylbenzene	1.0	U	50.0	57.6		ug/L		115	76 - 124
1,3,5-Trimethylbenzene	1.0	U	50.0	58.3		ug/L		117	75 - 124
Vinyl chloride	16	J1	50.0	85.8	J1	ug/L		140	58 - 137
Xylenes, Total	1.0	U	100	104		ug/L		104	79 - 121

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*117*	*Q*	*85 - 114*
Dibromofluoromethane (Surr)	*103*		*80 - 119*
1,2-Dichloroethane-d4 (Surr)	*99*		*81 - 118*
Toluene-d8 (Surr)	*94*		*89 - 112*

Lab Sample ID: 680-251090-14 MSD
Matrix: Water
Analysis Batch: 840928

Client Sample ID: OU6-MW-236-20240521
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acetone	10	U	250	238		ug/L		95	39 - 160	6	20
Benzene	1.0	U	50.0	52.6		ug/L		105	79 - 120	1	20
Bromobenzene	0.50	U	50.0	58.8		ug/L		118	80 - 120	1	20
Bromochloromethane	1.0	U	50.0	51.6		ug/L		103	78 - 123	4	20
Bromodichloromethane	1.0	U	50.0	52.4		ug/L		105	79 - 125	4	20
Bromoform	2.0	U J1 Q	50.0	73.8	J1	ug/L		148	66 - 130	4	20
Bromomethane	10	U	50.0	35.0		ug/L		70	53 - 141	6	20
2-Butanone (MEK)	20	U	250	273		ug/L		109	56 - 143	8	20
Carbon disulfide	1.0	U Q	50.0	55.3		ug/L		111	64 - 133	0	20
Carbon tetrachloride	1.0	U	50.0	53.4		ug/L		107	72 - 136	1	20
Chlorobenzene	0.50	U	50.0	50.2		ug/L		100	82 - 118	1	20
Chloroethane	10	U J1 Q	50.0	82.4	J1	ug/L		165	60 - 138	6	20
Chloroform	1.0	U	50.0	50.2		ug/L		100	79 - 124	0	20
Chloromethane	2.0	U Q	50.0	51.9		ug/L		104	50 - 139	4	20
2-Chlorotoluene	0.50	U	50.0	57.2		ug/L		114	79 - 122	2	20
4-Chlorotoluene	1.0	U	50.0	55.7		ug/L		111	78 - 122	1	20
cis-1,2-Dichloroethene	130	J1	50.0	164	J1	ug/L		74	78 - 123	1	20
cis-1,3-Dichloropropene	1.0	U	50.0	52.3		ug/L		105	75 - 124	3	20
Cyclohexane	1.0	U	50.0	56.7		ug/L		113	71 - 130	1	20
Dibromochloromethane	1.0	U	50.0	57.2		ug/L		114	74 - 126	5	20
1,2-Dibromo-3-Chloropropane	5.0	U	50.0	52.6		ug/L		105	62 - 128	6	20
1,2-Dibromoethane	1.0	U	50.0	53.8		ug/L		108	75 - 127	4	20
Dibromomethane	1.0	U	50.0	50.3		ug/L		101	79 - 123	5	20
1,2-Dichlorobenzene	1.0	U	50.0	48.7		ug/L		97	80 - 119	3	20
1,3-Dichlorobenzene	1.0	U	50.0	53.3		ug/L		107	80 - 119	2	20
1,4-Dichlorobenzene	0.35	J	50.0	51.3		ug/L		102	79 - 118	2	20
Dichlorodifluoromethane	0.61	J	50.0	45.0		ug/L		89	32 - 152	3	20
1,1-Dichloroethane	1.0	U	50.0	52.5		ug/L		105	77 - 125	2	20
1,2-Dichloroethane	1.0	U	50.0	47.5		ug/L		95	73 - 128	5	20
1,1-Dichloroethene	1.0	J	50.0	54.8		ug/L		108	71 - 131	0	20
1,2-Dichloroethene, Total	130		100	218		ug/L		90	79 - 121	1	20
1,2-Dichloropropane	0.50	U	50.0	52.5		ug/L		105	78 - 122	2	20

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 680-251090-14 MSD
Matrix: Water
Analysis Batch: 840928

Client Sample ID: OU6-MW-236-20240521
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,3-Dichloropropane	1.0	U	50.0	53.1		ug/L		106	80 - 119	5	20
2,2-Dichloropropane	1.0	U	50.0	54.7		ug/L		109	60 - 139	1	20
1,1-Dichloropropene	1.0	U	50.0	55.5		ug/L		111	79 - 125	1	20
Ethylbenzene	0.50	U	50.0	49.3		ug/L		99	79 - 121	1	20
Hexachlorobutadiene	1.0	U	50.0	53.3		ug/L		107	66 - 134	0	20
2-Hexanone	10	U	250	293		ug/L		117	57 - 139	7	20
Isopropylbenzene	1.0	U	50.0	54.1		ug/L		108	72 - 131	0	20
4-Isopropyltoluene	1.0	U	50.0	55.5		ug/L		111	77 - 127	0	20
Methyl acetate	10	U	100	79.6		ug/L		80	56 - 136	5	20
Methylcyclohexane	1.0	U	50.0	54.3		ug/L		109	72 - 132	2	20
Methylene Chloride	10	U	50.0	52.3		ug/L		105	74 - 124	3	20
4-Methyl-2-pentanone (MIBK)	10	U	250	304		ug/L		122	67 - 130	5	20
Methyl tert-butyl ether	2.0	U	50.0	54.1		ug/L		108	71 - 124	7	20
m-Xylene & p-Xylene	1.0	U	50.0	50.6		ug/L		101	80 - 121	1	20
Naphthalene	5.0	U	50.0	51.1		ug/L		102	61 - 128	5	20
n-Butylbenzene	2.0	U	50.0	52.6		ug/L		105	75 - 128	1	20
N-Propylbenzene	1.0	U	50.0	56.0		ug/L		112	76 - 126	2	20
o-Xylene	1.0	U	50.0	53.7		ug/L		107	78 - 122	0	20
sec-Butylbenzene	2.0	U	50.0	57.4		ug/L		115	77 - 126	1	20
Styrene	1.0	U	50.0	57.0		ug/L		114	78 - 123	0	20
tert-Butylbenzene	1.0	U M	50.0	57.5		ug/L		115	78 - 124	1	20
1,1,1,2-Tetrachloroethane	1.0	U	50.0	52.2		ug/L		104	78 - 124	4	20
1,1,2,2-Tetrachloroethane	1.0	U J1 Q	50.0	62.9	J1	ug/L		126	71 - 121	7	20
Tetrachloroethene	1.0	U	50.0	55.5		ug/L		111	74 - 129	2	20
Toluene	1.0	U	50.0	51.2		ug/L		102	80 - 121	2	20
trans-1,2-Dichloroethene	0.87	J	50.0	54.3		ug/L		107	75 - 124	1	20
trans-1,3-Dichloropropene	1.0	U	50.0	51.3		ug/L		103	73 - 127	5	20
1,2,3-Trichlorobenzene	2.0	U	50.0	49.7		ug/L		99	69 - 129	4	20
1,2,4-Trichlorobenzene	2.0	U	50.0	52.6		ug/L		105	69 - 130	3	20
1,1,1-Trichloroethane	0.50	U	50.0	53.6		ug/L		107	74 - 131	1	20
1,1,2-Trichloroethane	1.0	U	50.0	53.3		ug/L		107	80 - 119	5	20
Trichloroethene	150	J1	50.0	177	J1	ug/L		60	79 - 123	1	20
Trichlorofluoromethane	1.0	U J1 Q	50.0	97.4	J1	ug/L		195	65 - 141	4	20
1,2,3-Trichloropropane	1.0	U	50.0	53.3		ug/L		107	73 - 122	3	20
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	50.0	58.8		ug/L		118	70 - 136	1	20
1,2,4-Trimethylbenzene	1.0	U	50.0	57.5		ug/L		115	76 - 124	0	20
1,3,5-Trimethylbenzene	1.0	U	50.0	57.7		ug/L		115	75 - 124	1	20
Vinyl chloride	16	J1	50.0	63.4	M J1	ug/L		95	58 - 137	30	20
Xylenes, Total	1.0	U	100	104		ug/L		104	79 - 121	0	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*115*	*Q*	*85 - 114*
Dibromofluoromethane (Surr)	*105*		*80 - 119*
1,2-Dichloroethane-d4 (Surr)	*102*		*81 - 118*
Toluene-d8 (Surr)	*94*		*89 - 112*

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-840966/10
Matrix: Water
Analysis Batch: 840966

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			06/04/24 14:43	1
Benzene	1.0	U	2.0	0.27	ug/L			06/04/24 14:43	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			06/04/24 14:43	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			06/04/24 14:43	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			06/04/24 14:43	1
Bromoform	2.0	U	2.5	0.59	ug/L			06/04/24 14:43	1
Bromomethane	10	U	20	3.7	ug/L			06/04/24 14:43	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			06/04/24 14:43	1
Carbon disulfide	1.0	U	2.0	0.43	ug/L			06/04/24 14:43	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			06/04/24 14:43	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			06/04/24 14:43	1
Chloroethane	10	U	20	4.6	ug/L			06/04/24 14:43	1
Chloroform	1.0	U	2.0	0.27	ug/L			06/04/24 14:43	1
Chloromethane	2.0	U	2.5	0.54	ug/L			06/04/24 14:43	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			06/04/24 14:43	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			06/04/24 14:43	1
cis-1,2-Dichloroethene	1.0	U	2.0	0.25	ug/L			06/04/24 14:43	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			06/04/24 14:43	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			06/04/24 14:43	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			06/04/24 14:43	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			06/04/24 14:43	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			06/04/24 14:43	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			06/04/24 14:43	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			06/04/24 14:43	1
1,3-Dichlorobenzene	0.334	J	2.0	0.31	ug/L			06/04/24 14:43	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			06/04/24 14:43	1
Dichlorodifluoromethane	1.0	U	2.0	0.36	ug/L			06/04/24 14:43	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			06/04/24 14:43	1
1,2-Dichloroethane	1.0	U M	2.0	0.25	ug/L			06/04/24 14:43	1
1,1-Dichloroethene	1.0	U	2.0	0.33	ug/L			06/04/24 14:43	1
1,2-Dichloroethene, Total	1.0	U	2.0	0.37	ug/L			06/04/24 14:43	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			06/04/24 14:43	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			06/04/24 14:43	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			06/04/24 14:43	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			06/04/24 14:43	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			06/04/24 14:43	1
Hexachlorobutadiene	0.583	J	5.0	0.22	ug/L			06/04/24 14:43	1
2-Hexanone	10	U	20	3.2	ug/L			06/04/24 14:43	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			06/04/24 14:43	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			06/04/24 14:43	1
Methyl acetate	10	U	20	3.2	ug/L			06/04/24 14:43	1
Methylcyclohexane	1.0	U	2.0	0.33	ug/L			06/04/24 14:43	1
Methylene Chloride	10	U	20	3.2	ug/L			06/04/24 14:43	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			06/04/24 14:43	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			06/04/24 14:43	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			06/04/24 14:43	1
Naphthalene	5.0	U	10	2.4	ug/L			06/04/24 14:43	1
n-Butylbenzene	0.576	J	2.5	0.52	ug/L			06/04/24 14:43	1

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-840966/10
Matrix: Water
Analysis Batch: 840966

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			06/04/24 14:43	1
o-Xylene	1.0	U	2.0	0.26	ug/L			06/04/24 14:43	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			06/04/24 14:43	1
Styrene	1.0	U	2.0	0.27	ug/L			06/04/24 14:43	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			06/04/24 14:43	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			06/04/24 14:43	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			06/04/24 14:43	1
Tetrachloroethene	1.0	U	2.0	0.35	ug/L			06/04/24 14:43	1
Toluene	1.0	U	2.0	0.25	ug/L			06/04/24 14:43	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			06/04/24 14:43	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			06/04/24 14:43	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			06/04/24 14:43	1
1,2,4-Trichlorobenzene	0.654	J	5.0	0.53	ug/L			06/04/24 14:43	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			06/04/24 14:43	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			06/04/24 14:43	1
Trichloroethene	0.50	U	1.0	0.20	ug/L			06/04/24 14:43	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			06/04/24 14:43	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			06/04/24 14:43	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			06/04/24 14:43	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			06/04/24 14:43	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			06/04/24 14:43	1
Vinyl chloride	1.0	U	2.0	0.40	ug/L			06/04/24 14:43	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			06/04/24 14:43	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*85 - 114*		*06/04/24 14:43*	*1*
Dibromofluoromethane (Surr)	*90*		*80 - 119*		*06/04/24 14:43*	*1*
1,2-Dichloroethane-d4 (Surr)	*91*		*81 - 118*		*06/04/24 14:43*	*1*
Toluene-d8 (Surr)	*96*		*89 - 112*		*06/04/24 14:43*	*1*

Lab Sample ID: LCS 680-840966/6
Matrix: Water
Analysis Batch: 840966

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	250	253		ug/L		101	39 - 160
Benzene	50.0	50.3		ug/L		101	79 - 120
Bromobenzene	50.0	49.1		ug/L		98	80 - 120
Bromochloromethane	50.0	45.2		ug/L		90	78 - 123
Bromodichloromethane	50.0	52.5		ug/L		105	79 - 125
Bromoform	50.0	48.1		ug/L		96	66 - 130
Bromomethane	50.0	75.8	Q	ug/L		152	53 - 141
2-Butanone (MEK)	250	253		ug/L		101	56 - 143
Carbon disulfide	50.0	50.9		ug/L		102	64 - 133
Carbon tetrachloride	50.0	53.4		ug/L		107	72 - 136
Chlorobenzene	50.0	50.3		ug/L		101	82 - 118
Chloroethane	50.0	50.6		ug/L		101	60 - 138
Chloroform	50.0	47.8		ug/L		96	79 - 124

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-840966/6
Matrix: Water
Analysis Batch: 840966

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloromethane	50.0	53.1		ug/L		106	50 - 139
2-Chlorotoluene	50.0	49.6		ug/L		99	79 - 122
4-Chlorotoluene	50.0	48.3		ug/L		97	78 - 122
cis-1,2-Dichloroethene	50.0	48.1		ug/L		96	78 - 123
cis-1,3-Dichloropropene	50.0	53.3		ug/L		107	75 - 124
Cyclohexane	50.0	55.1		ug/L		110	71 - 130
Dibromochloromethane	50.0	46.8		ug/L		94	74 - 126
1,2-Dibromo-3-Chloropropane	50.0	53.8		ug/L		108	62 - 128
1,2-Dibromoethane	50.0	51.7		ug/L		103	75 - 127
Dibromomethane	50.0	48.5		ug/L		97	79 - 123
1,2-Dichlorobenzene	50.0	50.6		ug/L		101	80 - 119
1,3-Dichlorobenzene	50.0	50.0		ug/L		100	80 - 119
1,4-Dichlorobenzene	50.0	50.1		ug/L		100	79 - 118
Dichlorodifluoromethane	50.0	82.3	Q	ug/L		165	32 - 152
1,1-Dichloroethane	50.0	47.2		ug/L		94	77 - 125
1,2-Dichloroethane	50.0	46.2		ug/L		92	73 - 128
1,1-Dichloroethene	50.0	52.5		ug/L		105	71 - 131
1,2-Dichloroethene, Total	100	99.2		ug/L		99	79 - 121
1,2-Dichloropropane	50.0	51.6		ug/L		103	78 - 122
1,3-Dichloropropane	50.0	50.5		ug/L		101	80 - 119
2,2-Dichloropropane	50.0	49.2		ug/L		98	60 - 139
1,1-Dichloropropene	50.0	55.3		ug/L		111	79 - 125
Ethylbenzene	50.0	50.7		ug/L		101	79 - 121
Hexachlorobutadiene	50.0	53.8		ug/L		108	66 - 134
2-Hexanone	250	265		ug/L		106	57 - 139
Isopropylbenzene	50.0	50.4		ug/L		101	72 - 131
4-Isopropyltoluene	50.0	52.0		ug/L		104	77 - 127
Methyl acetate	100	102		ug/L		102	56 - 136
Methylcyclohexane	50.0	55.8		ug/L		112	72 - 132
Methylene Chloride	50.0	45.3		ug/L		91	74 - 124
4-Methyl-2-pentanone (MIBK)	250	270		ug/L		108	67 - 130
Methyl tert-butyl ether	50.0	53.0		ug/L		106	71 - 124
m-Xylene & p-Xylene	50.0	49.3		ug/L		99	80 - 121
Naphthalene	50.0	56.7		ug/L		113	61 - 128
n-Butylbenzene	50.0	52.8		ug/L		106	75 - 128
N-Propylbenzene	50.0	50.6		ug/L		101	76 - 126
o-Xylene	50.0	50.0		ug/L		100	78 - 122
sec-Butylbenzene	50.0	51.2		ug/L		102	77 - 126
Styrene	50.0	50.1		ug/L		100	78 - 123
tert-Butylbenzene	50.0	50.6		ug/L		101	78 - 124
1,1,1,2-Tetrachloroethane	50.0	52.7		ug/L		105	78 - 124
1,1,2,2-Tetrachloroethane	50.0	53.0		ug/L		106	71 - 121
Tetrachloroethene	50.0	51.0		ug/L		102	74 - 129
Toluene	50.0	49.5		ug/L		99	80 - 121
trans-1,2-Dichloroethene	50.0	51.1		ug/L		102	75 - 124
trans-1,3-Dichloropropene	50.0	53.5		ug/L		107	73 - 127
1,2,3-Trichlorobenzene	50.0	53.8		ug/L		108	69 - 129
1,2,4-Trichlorobenzene	50.0	51.8		ug/L		104	69 - 130
1,1,1-Trichloroethane	50.0	53.4		ug/L		107	74 - 131

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-840966/6
Matrix: Water
Analysis Batch: 840966

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,1,2-Trichloroethane			50.0	52.5		ug/L		105	80 - 119		
Trichloroethene			50.0	54.9		ug/L		110	79 - 123		
Trichlorofluoromethane			50.0	61.4		ug/L		123	65 - 141		
1,2,3-Trichloropropane			50.0	54.5		ug/L		109	73 - 122		
1,1,2-Trichloro-1,2,2-trifluoroethane			50.0	54.9		ug/L		110	70 - 136		
1,2,4-Trimethylbenzene			50.0	50.4		ug/L		101	76 - 124		
1,3,5-Trimethylbenzene			50.0	50.7		ug/L		101	75 - 124		
Vinyl chloride			50.0	52.8		ug/L		106	58 - 137		
Xylenes, Total			100	99.3		ug/L		99	79 - 121		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*85 - 114*
Dibromofluoromethane (Surr)	*97*		*80 - 119*
1,2-Dichloroethane-d4 (Surr)	*99*		*81 - 118*
Toluene-d8 (Surr)	*98*		*89 - 112*

Lab Sample ID: LCSD 680-840966/7
Matrix: Water
Analysis Batch: 840966

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acetone			250	249		ug/L		100	39 - 160	1	20
Benzene			50.0	49.9		ug/L		100	79 - 120	1	20
Bromobenzene			50.0	49.3		ug/L		99	80 - 120	0	20
Bromochloromethane			50.0	44.9		ug/L		90	78 - 123	1	20
Bromodichloromethane			50.0	51.3		ug/L		103	79 - 125	2	20
Bromoform			50.0	48.0		ug/L		96	66 - 130	0	20
Bromomethane			50.0	74.1	Q	ug/L		148	53 - 141	2	20
2-Butanone (MEK)			250	250		ug/L		100	56 - 143	1	20
Carbon disulfide			50.0	53.5		ug/L		107	64 - 133	5	20
Carbon tetrachloride			50.0	59.1		ug/L		118	72 - 136	10	20
Chlorobenzene			50.0	50.8		ug/L		102	82 - 118	1	20
Chloroethane			50.0	51.5		ug/L		103	60 - 138	2	20
Chloroform			50.0	46.8		ug/L		94	79 - 124	2	20
Chloromethane			50.0	52.6		ug/L		105	50 - 139	1	20
2-Chlorotoluene			50.0	50.5		ug/L		101	79 - 122	2	20
4-Chlorotoluene			50.0	49.5		ug/L		99	78 - 122	2	20
cis-1,2-Dichloroethene			50.0	46.8		ug/L		94	78 - 123	3	20
cis-1,3-Dichloropropene			50.0	52.0		ug/L		104	75 - 124	3	20
Cyclohexane			50.0	65.2		ug/L		130	71 - 130	17	20
Dibromochloromethane			50.0	47.1		ug/L		94	74 - 126	0	20
1,2-Dibromo-3-Chloropropane			50.0	52.9		ug/L		106	62 - 128	2	20
1,2-Dibromoethane			50.0	51.2		ug/L		102	75 - 127	1	20
Dibromomethane			50.0	47.4		ug/L		95	79 - 123	2	20
1,2-Dichlorobenzene			50.0	50.7		ug/L		101	80 - 119	0	20
1,3-Dichlorobenzene			50.0	50.3		ug/L		101	80 - 119	1	20
1,4-Dichlorobenzene			50.0	49.9		ug/L		100	79 - 118	0	20
Dichlorodifluoromethane			50.0	97.3	Q	ug/L		195	32 - 152	17	20

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-840966/7
Matrix: Water
Analysis Batch: 840966

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1-Dichloroethane	50.0	46.3		ug/L		93	77 - 125	2	20
1,2-Dichloroethane	50.0	44.8		ug/L		90	73 - 128	3	20
1,1-Dichloroethene	50.0	55.7		ug/L		111	71 - 131	6	20
1,2-Dichloroethene, Total	100	98.0		ug/L		98	79 - 121	1	20
1,2-Dichloropropane	50.0	50.1		ug/L		100	78 - 122	3	20
1,3-Dichloropropane	50.0	49.6		ug/L		99	80 - 119	2	20
2,2-Dichloropropane	50.0	50.6		ug/L		101	60 - 139	3	20
1,1-Dichloropropene	50.0	60.0		ug/L		120	79 - 125	8	20
Ethylbenzene	50.0	52.4		ug/L		105	79 - 121	3	20
Hexachlorobutadiene	50.0	61.5		ug/L		123	66 - 134	13	20
2-Hexanone	250	264		ug/L		106	57 - 139	0	20
Isopropylbenzene	50.0	54.1		ug/L		108	72 - 131	7	20
4-Isopropyltoluene	50.0	56.1		ug/L		112	77 - 127	8	20
Methyl acetate	100	101		ug/L		101	56 - 136	1	20
Methylcyclohexane	50.0	67.9	Q	ug/L		136	72 - 132	20	20
Methylene Chloride	50.0	43.9		ug/L		88	74 - 124	3	20
4-Methyl-2-pentanone (MIBK)	250	267		ug/L		107	67 - 130	1	20
Methyl tert-butyl ether	50.0	51.6		ug/L		103	71 - 124	3	20
m-Xylene & p-Xylene	50.0	51.2		ug/L		102	80 - 121	4	20
Naphthalene	50.0	57.4		ug/L		115	61 - 128	1	20
n-Butylbenzene	50.0	58.5		ug/L		117	75 - 128	10	20
N-Propylbenzene	50.0	54.4		ug/L		109	76 - 126	7	20
o-Xylene	50.0	50.4		ug/L		101	78 - 122	1	20
sec-Butylbenzene	50.0	56.9		ug/L		114	77 - 126	11	20
Styrene	50.0	49.9		ug/L		100	78 - 123	0	20
tert-Butylbenzene	50.0	54.2		ug/L		108	78 - 124	7	20
1,1,1,2-Tetrachloroethane	50.0	52.5		ug/L		105	78 - 124	0	20
1,1,2,2-Tetrachloroethane	50.0	52.6		ug/L		105	71 - 121	1	20
Tetrachloroethene	50.0	55.6		ug/L		111	74 - 129	9	20
Toluene	50.0	49.8		ug/L		100	80 - 121	1	20
trans-1,2-Dichloroethene	50.0	51.2		ug/L		102	75 - 124	0	20
trans-1,3-Dichloropropene	50.0	52.6		ug/L		105	73 - 127	2	20
1,2,3-Trichlorobenzene	50.0	54.6		ug/L		109	69 - 129	1	20
1,2,4-Trichlorobenzene	50.0	52.8		ug/L		106	69 - 130	2	20
1,1,1-Trichloroethane	50.0	56.4		ug/L		113	74 - 131	5	20
1,1,2-Trichloroethane	50.0	51.1		ug/L		102	80 - 119	3	20
Trichloroethene	50.0	57.0		ug/L		114	79 - 123	4	20
Trichlorofluoromethane	50.0	69.3		ug/L		139	65 - 141	12	20
1,2,3-Trichloropropane	50.0	54.7		ug/L		109	73 - 122	0	20
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	65.6		ug/L		131	70 - 136	18	20
1,2,4-Trimethylbenzene	50.0	52.1		ug/L		104	76 - 124	3	20
1,3,5-Trimethylbenzene	50.0	53.0		ug/L		106	75 - 124	5	20
Vinyl chloride	50.0	55.9		ug/L		112	58 - 137	6	20
Xylenes, Total	100	102		ug/L		102	79 - 121	2	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*85 - 114*

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-840966/7
Matrix: Water
Analysis Batch: 840966

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Dibromofluoromethane (Surr)	*95*		*80 - 119*
1,2-Dichloroethane-d4 (Surr)	*96*		*81 - 118*
Toluene-d8 (Surr)	*98*		*89 - 112*

Lab Sample ID: MB 680-841121/10
Matrix: Water
Analysis Batch: 841121

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			06/05/24 13:39	1
Benzene	1.0	U	2.0	0.27	ug/L			06/05/24 13:39	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			06/05/24 13:39	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			06/05/24 13:39	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			06/05/24 13:39	1
Bromoform	2.0	U	2.5	0.59	ug/L			06/05/24 13:39	1
Bromomethane	10	U	20	3.7	ug/L			06/05/24 13:39	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			06/05/24 13:39	1
Carbon disulfide	1.0	U	2.0	0.43	ug/L			06/05/24 13:39	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			06/05/24 13:39	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			06/05/24 13:39	1
Chloroethane	10	U	20	4.6	ug/L			06/05/24 13:39	1
Chloroform	1.0	U	2.0	0.27	ug/L			06/05/24 13:39	1
Chloromethane	2.0	U	2.5	0.54	ug/L			06/05/24 13:39	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			06/05/24 13:39	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			06/05/24 13:39	1
cis-1,2-Dichloroethene	1.0	U	2.0	0.25	ug/L			06/05/24 13:39	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			06/05/24 13:39	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			06/05/24 13:39	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			06/05/24 13:39	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			06/05/24 13:39	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			06/05/24 13:39	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			06/05/24 13:39	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			06/05/24 13:39	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			06/05/24 13:39	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			06/05/24 13:39	1
Dichlorodifluoromethane	1.0	U	2.0	0.36	ug/L			06/05/24 13:39	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			06/05/24 13:39	1
1,2-Dichloroethane	1.0	U	2.0	0.25	ug/L			06/05/24 13:39	1
1,1-Dichloroethene	1.0	U	2.0	0.33	ug/L			06/05/24 13:39	1
1,2-Dichloroethene, Total	1.0	U	2.0	0.37	ug/L			06/05/24 13:39	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			06/05/24 13:39	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			06/05/24 13:39	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			06/05/24 13:39	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			06/05/24 13:39	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			06/05/24 13:39	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			06/05/24 13:39	1
2-Hexanone	10	U	20	3.2	ug/L			06/05/24 13:39	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			06/05/24 13:39	1

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-841121/10
Matrix: Water
Analysis Batch: 841121

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			06/05/24 13:39	1
Methyl acetate	10	U	20	3.2	ug/L			06/05/24 13:39	1
Methylcyclohexane	0.604	J	2.0	0.33	ug/L			06/05/24 13:39	1
Methylene Chloride	10	U	20	3.2	ug/L			06/05/24 13:39	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			06/05/24 13:39	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			06/05/24 13:39	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			06/05/24 13:39	1
Naphthalene	5.0	U	10	2.4	ug/L			06/05/24 13:39	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			06/05/24 13:39	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			06/05/24 13:39	1
o-Xylene	1.0	U	2.0	0.26	ug/L			06/05/24 13:39	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			06/05/24 13:39	1
Styrene	1.0	U	2.0	0.27	ug/L			06/05/24 13:39	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			06/05/24 13:39	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			06/05/24 13:39	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			06/05/24 13:39	1
Tetrachloroethene	1.0	U	2.0	0.35	ug/L			06/05/24 13:39	1
Toluene	1.0	U	2.0	0.25	ug/L			06/05/24 13:39	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			06/05/24 13:39	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			06/05/24 13:39	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			06/05/24 13:39	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			06/05/24 13:39	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			06/05/24 13:39	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			06/05/24 13:39	1
Trichloroethene	0.50	U	1.0	0.20	ug/L			06/05/24 13:39	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			06/05/24 13:39	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			06/05/24 13:39	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			06/05/24 13:39	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			06/05/24 13:39	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			06/05/24 13:39	1
Vinyl chloride	1.0	U	2.0	0.40	ug/L			06/05/24 13:39	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			06/05/24 13:39	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*85 - 114*		*06/05/24 13:39*	*1*
Dibromofluoromethane (Surr)	*103*		*80 - 119*		*06/05/24 13:39*	*1*
1,2-Dichloroethane-d4 (Surr)	*92*		*81 - 118*		*06/05/24 13:39*	*1*
Toluene-d8 (Surr)	*97*		*89 - 112*		*06/05/24 13:39*	*1*

Lab Sample ID: LCS 680-841121/6
Matrix: Water
Analysis Batch: 841121

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	250	262		ug/L		105	39 - 160
Benzene	50.0	52.2		ug/L		104	79 - 120
Bromobenzene	50.0	57.9		ug/L		116	80 - 120
Bromochloromethane	50.0	50.9		ug/L		102	78 - 123

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-841121/6
Matrix: Water
Analysis Batch: 841121

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bromodichloromethane	50.0	50.9		ug/L		102	79 - 125
Bromoform	50.0	70.2	J1 Q	ug/L		140	66 - 130
Bromomethane	50.0	53.6		ug/L		107	53 - 141
2-Butanone (MEK)	250	283		ug/L		113	56 - 143
Carbon disulfide	50.0	51.7		ug/L		103	64 - 133
Carbon tetrachloride	50.0	51.0		ug/L		102	72 - 136
Chlorobenzene	50.0	49.0		ug/L		98	82 - 118
Chloroethane	50.0	46.2		ug/L		92	60 - 138
Chloroform	50.0	50.3		ug/L		101	79 - 124
Chloromethane	50.0	53.3		ug/L		107	50 - 139
2-Chlorotoluene	50.0	56.2		ug/L		112	79 - 122
4-Chlorotoluene	50.0	54.9		ug/L		110	78 - 122
cis-1,2-Dichloroethene	50.0	50.4		ug/L		101	78 - 123
cis-1,3-Dichloropropene	50.0	51.5		ug/L		103	75 - 124
Cyclohexane	50.0	55.0		ug/L		110	71 - 130
Dibromochloromethane	50.0	55.9		ug/L		112	74 - 126
1,2-Dibromo-3-Chloropropane	50.0	50.9		ug/L		102	62 - 128
1,2-Dibromoethane	50.0	52.9		ug/L		106	75 - 127
Dibromomethane	50.0	49.6		ug/L		99	79 - 123
1,2-Dichlorobenzene	50.0	47.0		ug/L		94	80 - 119
1,3-Dichlorobenzene	50.0	51.5		ug/L		103	80 - 119
1,4-Dichlorobenzene	50.0	49.2		ug/L		98	79 - 118
Dichlorodifluoromethane	50.0	52.1	M	ug/L		104	32 - 152
1,1-Dichloroethane	50.0	51.1		ug/L		102	77 - 125
1,2-Dichloroethane	50.0	46.0		ug/L		92	73 - 128
1,1-Dichloroethene	50.0	51.2		ug/L		102	71 - 131
1,2-Dichloroethene, Total	100	103		ug/L		103	79 - 121
1,2-Dichloropropane	50.0	52.5		ug/L		105	78 - 122
1,3-Dichloropropane	50.0	52.5		ug/L		105	80 - 119
2,2-Dichloropropane	50.0	52.5		ug/L		105	60 - 139
1,1-Dichloropropene	50.0	54.3		ug/L		109	79 - 125
Ethylbenzene	50.0	47.3		ug/L		95	79 - 121
Hexachlorobutadiene	50.0	50.7		ug/L		101	66 - 134
2-Hexanone	250	301		ug/L		120	57 - 139
Isopropylbenzene	50.0	52.3		ug/L		105	72 - 131
4-Isopropyltoluene	50.0	53.8		ug/L		108	77 - 127
Methyl acetate	100	81.9		ug/L		82	56 - 136
Methylcyclohexane	50.0	53.7		ug/L		107	72 - 132
Methylene Chloride	50.0	50.4		ug/L		101	74 - 124
4-Methyl-2-pentanone (MIBK)	250	306		ug/L		122	67 - 130
Methyl tert-butyl ether	50.0	52.3		ug/L		105	71 - 124
m-Xylene & p-Xylene	50.0	48.5		ug/L		97	80 - 121
Naphthalene	50.0	49.4		ug/L		99	61 - 128
n-Butylbenzene	50.0	49.9		ug/L		100	75 - 128
N-Propylbenzene	50.0	54.5		ug/L		109	76 - 126
o-Xylene	50.0	52.2		ug/L		104	78 - 122
sec-Butylbenzene	50.0	55.2		ug/L		110	77 - 126
Styrene	50.0	56.7		ug/L		113	78 - 123
tert-Butylbenzene	50.0	55.6		ug/L		111	78 - 124

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-841121/6
Matrix: Water
Analysis Batch: 841121

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1,2-Tetrachloroethane	50.0	49.9		ug/L		100	78 - 124
1,1,2,2-Tetrachloroethane	50.0	56.9		ug/L		114	71 - 121
Tetrachloroethene	50.0	54.0		ug/L		108	74 - 129
Toluene	50.0	50.5		ug/L		101	80 - 121
trans-1,2-Dichloroethene	50.0	52.3		ug/L		105	75 - 124
trans-1,3-Dichloropropene	50.0	50.3		ug/L		101	73 - 127
1,2,3-Trichlorobenzene	50.0	48.2		ug/L		96	69 - 129
1,2,4-Trichlorobenzene	50.0	51.4		ug/L		103	69 - 130
1,1,1-Trichloroethane	50.0	51.5		ug/L		103	74 - 131
1,1,2-Trichloroethane	50.0	52.8		ug/L		106	80 - 119
Trichloroethene	50.0	52.2		ug/L		104	79 - 123
Trichlorofluoromethane	50.0	105	Q	ug/L		209	65 - 141
1,2,3-Trichloropropane	50.0	51.0		ug/L		102	73 - 122
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	55.6		ug/L		111	70 - 136
1,2,4-Trimethylbenzene	50.0	56.0		ug/L		112	76 - 124
1,3,5-Trimethylbenzene	50.0	56.9		ug/L		114	75 - 124
Vinyl chloride	50.0	53.6	M	ug/L		107	58 - 137
Xylenes, Total	100	101		ug/L		101	79 - 121

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*111*		*85 - 114*
Dibromofluoromethane (Surr)	*102*		*80 - 119*
1,2-Dichloroethane-d4 (Surr)	*92*		*81 - 118*
Toluene-d8 (Surr)	*89*		*89 - 112*

Lab Sample ID: LCSD 680-841121/7
Matrix: Water
Analysis Batch: 841121

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acetone	250	259		ug/L		103	39 - 160	1	20
Benzene	50.0	51.2		ug/L		102	79 - 120	2	20
Bromobenzene	50.0	58.9		ug/L		118	80 - 120	2	20
Bromochloromethane	50.0	51.0		ug/L		102	78 - 123	0	20
Bromodichloromethane	50.0	50.9		ug/L		102	79 - 125	0	20
Bromoform	50.0	72.5	J1 Q	ug/L		145	66 - 130	3	20
Bromomethane	50.0	52.9		ug/L		106	53 - 141	1	20
2-Butanone (MEK)	250	282		ug/L		113	56 - 143	0	20
Carbon disulfide	50.0	51.0		ug/L		102	64 - 133	1	20
Carbon tetrachloride	50.0	50.6		ug/L		101	72 - 136	1	20
Chlorobenzene	50.0	49.8		ug/L		100	82 - 118	1	20
Chloroethane	50.0	46.7		ug/L		93	60 - 138	1	20
Chloroform	50.0	50.0		ug/L		100	79 - 124	1	20
Chloromethane	50.0	52.0		ug/L		104	50 - 139	2	20
2-Chlorotoluene	50.0	56.2		ug/L		112	79 - 122	0	20
4-Chlorotoluene	50.0	55.4		ug/L		111	78 - 122	1	20
cis-1,2-Dichloroethene	50.0	49.5		ug/L		99	78 - 123	2	20
cis-1,3-Dichloropropene	50.0	51.7		ug/L		103	75 - 124	0	20

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-841121/7
Matrix: Water
Analysis Batch: 841121

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Cyclohexane	50.0	53.8		ug/L		108	71 - 130	2	20
Dibromochloromethane	50.0	56.3		ug/L		113	74 - 126	1	20
1,2-Dibromo-3-Chloropropane	50.0	50.9		ug/L		102	62 - 128	0	20
1,2-Dibromoethane	50.0	53.6		ug/L		107	75 - 127	1	20
Dibromomethane	50.0	49.4		ug/L		99	79 - 123	1	20
1,2-Dichlorobenzene	50.0	46.6		ug/L		93	80 - 119	1	20
1,3-Dichlorobenzene	50.0	50.4		ug/L		101	80 - 119	2	20
1,4-Dichlorobenzene	50.0	49.1		ug/L		98	79 - 118	0	20
Dichlorodifluoromethane	50.0	50.2	M	ug/L		100	32 - 152	4	20
1,1-Dichloroethane	50.0	50.3		ug/L		101	77 - 125	2	20
1,2-Dichloroethane	50.0	46.5		ug/L		93	73 - 128	1	20
1,1-Dichloroethene	50.0	49.9		ug/L		100	71 - 131	2	20
1,2-Dichloroethene, Total	100	101		ug/L		101	79 - 121	2	20
1,2-Dichloropropane	50.0	51.8		ug/L		104	78 - 122	1	20
1,3-Dichloropropane	50.0	52.8		ug/L		106	80 - 119	1	20
2,2-Dichloropropane	50.0	51.1		ug/L		102	60 - 139	3	20
1,1-Dichloropropene	50.0	53.3		ug/L		107	79 - 125	2	20
Ethylbenzene	50.0	48.3		ug/L		97	79 - 121	2	20
Hexachlorobutadiene	50.0	49.2		ug/L		98	66 - 134	3	20
2-Hexanone	250	305		ug/L		122	57 - 139	1	20
Isopropylbenzene	50.0	52.7		ug/L		105	72 - 131	1	20
4-Isopropyltoluene	50.0	52.0		ug/L		104	77 - 127	3	20
Methyl acetate	100	82.2		ug/L		82	56 - 136	0	20
Methylcyclohexane	50.0	52.4		ug/L		105	72 - 132	3	20
Methylene Chloride	50.0	50.2		ug/L		100	74 - 124	0	20
4-Methyl-2-pentanone (MIBK)	250	305		ug/L		122	67 - 130	0	20
Methyl tert-butyl ether	50.0	52.7		ug/L		105	71 - 124	1	20
m-Xylene & p-Xylene	50.0	49.6		ug/L		99	80 - 121	2	20
Naphthalene	50.0	48.8		ug/L		98	61 - 128	1	20
n-Butylbenzene	50.0	49.4		ug/L		99	75 - 128	1	20
N-Propylbenzene	50.0	54.9		ug/L		110	76 - 126	1	20
o-Xylene	50.0	53.2		ug/L		106	78 - 122	2	20
sec-Butylbenzene	50.0	55.7		ug/L		111	77 - 126	1	20
Styrene	50.0	57.3		ug/L		115	78 - 123	1	20
tert-Butylbenzene	50.0	56.1		ug/L		112	78 - 124	1	20
1,1,1,2-Tetrachloroethane	50.0	51.3		ug/L		103	78 - 124	3	20
1,1,2,2-Tetrachloroethane	50.0	56.6		ug/L		113	71 - 121	1	20
Tetrachloroethene	50.0	53.0		ug/L		106	74 - 129	2	20
Toluene	50.0	50.3		ug/L		101	80 - 121	1	20
trans-1,2-Dichloroethene	50.0	51.5		ug/L		103	75 - 124	2	20
trans-1,3-Dichloropropene	50.0	51.1		ug/L		102	73 - 127	2	20
1,2,3-Trichlorobenzene	50.0	47.7		ug/L		95	69 - 129	1	20
1,2,4-Trichlorobenzene	50.0	50.4		ug/L		101	69 - 130	2	20
1,1,1-Trichloroethane	50.0	51.1		ug/L		102	74 - 131	1	20
1,1,2-Trichloroethane	50.0	53.0		ug/L		106	80 - 119	0	20
Trichloroethene	50.0	51.8		ug/L		104	79 - 123	1	20
Trichlorofluoromethane	50.0	93.9	Q	ug/L		188	65 - 141	11	20
1,2,3-Trichloropropane	50.0	54.1		ug/L		108	73 - 122	6	20

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-841121/7
Matrix: Water
Analysis Batch: 841121

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1,2-Trichloro-1,2,2-trifluoroethane			50.0	54.5		ug/L		109	70 - 136	2	20
1,2,4-Trimethylbenzene			50.0	57.2		ug/L		114	76 - 124	2	20
1,3,5-Trimethylbenzene			50.0	57.2		ug/L		114	75 - 124	0	20
Vinyl chloride			50.0	54.4		ug/L		109	58 - 137	1	20
Xylenes, Total			100	103		ug/L		103	79 - 121	2	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*109*		*85 - 114*
Dibromofluoromethane (Surr)	*102*		*80 - 119*
1,2-Dichloroethane-d4 (Surr)	*94*		*81 - 118*
Toluene-d8 (Surr)	*91*		*89 - 112*

Method: 8270E SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Lab Sample ID: MB 680-839376/1-A
Matrix: Water
Analysis Batch: 839813

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 839376

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	0.10	U	0.20	0.032	ug/L		05/23/24 07:08	05/27/24 18:08	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*26*	*M*	*10 - 150*	*05/23/24 07:08*	*05/27/24 18:08*	*1*

Lab Sample ID: LCS 680-839376/2-A
Matrix: Water
Analysis Batch: 839813

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 839376

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,4-Dioxane			10.0	11.0	M	ug/L		110	70 - 130

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,4-Dioxane-d8	*23*		*10 - 150*

Method: RSK-175 - Dissolved Gases (GC)

Lab Sample ID: MB 680-840649/8
Matrix: Water
Analysis Batch: 840649

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	0.76	U	1.1	0.30	ug/L			06/01/24 13:01	1
Ethylene	0.71	U	1.0	0.31	ug/L			06/01/24 13:01	1
Methane	1.2	U	1.2	0.57	ug/L			06/01/24 13:01	1

Method: RSK-175 - Dissolved Gases (GC) (Continued)

Lab Sample ID: LCS 680-840649/3
Matrix: Water
Analysis Batch: 840649

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Methane (TCD)	1920	2320		ug/L		121	73 - 125

Lab Sample ID: LCS 680-840649/6
Matrix: Water
Analysis Batch: 840649

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Ethane	288	337		ug/L		117	74 - 131
Ethylene	269	301		ug/L		112	72 - 133
Methane	154	172		ug/L		112	73 - 125

Lab Sample ID: LCSD 680-840649/4
Matrix: Water
Analysis Batch: 840649

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Methane (TCD)	1920	2300		ug/L		119	73 - 125	1	30

Lab Sample ID: LCSD 680-840649/7
Matrix: Water
Analysis Batch: 840649

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ethane	288	317		ug/L		110	74 - 131	6	30
Ethylene	269	283		ug/L		105	72 - 133	6	30
Methane	154	163		ug/L		106	73 - 125	5	30

Lab Sample ID: MB 680-840831/8
Matrix: Water
Analysis Batch: 840831

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	0.76	U	1.1	0.30	ug/L			06/03/24 13:29	1
Ethylene	0.71	U	1.0	0.31	ug/L			06/03/24 13:29	1
Methane	1.2	U	1.2	0.57	ug/L			06/03/24 13:29	1

Lab Sample ID: LCS 680-840831/3
Matrix: Water
Analysis Batch: 840831

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Methane (TCD)	1920	2030		ug/L		106	73 - 125

Lab Sample ID: LCS 680-840831/6
Matrix: Water
Analysis Batch: 840831

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Ethane	288	303		ug/L		105	74 - 131
Ethylene	269	270		ug/L		100	72 - 133

Method: RSK-175 - Dissolved Gases (GC) (Continued)

Lab Sample ID: LCS 680-840831/6
Matrix: Water
Analysis Batch: 840831

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Methane			154	156		ug/L		101	73 - 125		

Lab Sample ID: LCSD 680-840831/4
Matrix: Water
Analysis Batch: 840831

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Methane (TCD)			1920	2050		ug/L		106	73 - 125	1	30

Lab Sample ID: LCSD 680-840831/7
Matrix: Water
Analysis Batch: 840831

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ethane			288	274		ug/L		95	74 - 131	10	30
Ethylene			269	245		ug/L		91	72 - 133	10	30
Methane			154	141		ug/L		92	73 - 125	10	30

Lab Sample ID: 680-251090-14 MS
Matrix: Water
Analysis Batch: 840831

Client Sample ID: OU6-MW-236-20240521
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Ethane	0.66	J	288	284		ug/L		98	74 - 131		
Ethylene	2.0		269	254		ug/L		94	72 - 133		
Methane (TCD)	5400	J1	154	8440	4	ug/L		1948	73 - 125		

Lab Sample ID: 680-251090-14 MSD
Matrix: Water
Analysis Batch: 840831

Client Sample ID: OU6-MW-236-20240521
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ethane	0.66	J	288	284		ug/L		98	74 - 131	0	30
Ethylene	2.0		269	259		ug/L		95	72 - 133	2	30
Methane (TCD)	5400	J1	154	5980	4 J1	ug/L		350	73 - 125	34	30

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 680-839256/7
Matrix: Water
Analysis Batch: 839256

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.050	U	0.055	0.023	mg/L			05/22/24 12:55	1
Nitrate Nitrite as N	0.050	U	0.055	0.023	mg/L			05/22/24 12:55	1
Nitrite as N	0.050	U	0.055	0.023	mg/L			05/22/24 12:55	1

Method: 9056A - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 680-839256/8
Matrix: Water
Analysis Batch: 839256

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Nitrate as N			1.00	1.02	M	mg/L		102	88 - 111		
Nitrate Nitrite as N			2.00	2.04		mg/L		102	88 - 111		
Nitrite as N			1.00	1.02		mg/L		102	87 - 111		

Lab Sample ID: LCSD 680-839256/9
Matrix: Water
Analysis Batch: 839256

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrate as N			1.00	1.03	M	mg/L		103	88 - 111	0	15
Nitrate Nitrite as N			2.00	2.05		mg/L		102	88 - 111	0	15
Nitrite as N			1.00	1.02		mg/L		102	87 - 111	0	15

Lab Sample ID: 680-251090-14 MS
Matrix: Water
Analysis Batch: 839256

Client Sample ID: OU6-MW-236-20240521
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Nitrate as N	0.050	U M	1.00	1.01		mg/L		101	88 - 111		
Nitrate Nitrite as N	0.050	U	2.00	1.77		mg/L		89	88 - 111		
Nitrite as N	0.050	U M J1	1.00	0.763	J1	mg/L		76	87 - 111		

Lab Sample ID: 680-251090-14 MSD
Matrix: Water
Analysis Batch: 839256

Client Sample ID: OU6-MW-236-20240521
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrate as N	0.050	U M	1.00	1.02		mg/L		102	88 - 111	1	15
Nitrate Nitrite as N	0.050	U	2.00	1.80		mg/L		90	88 - 111	1	15
Nitrite as N	0.050	U M J1	1.00	0.777	J1	mg/L		78	87 - 111	2	15

Lab Sample ID: MB 680-839316/39
Matrix: Water
Analysis Batch: 839316

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.050	U	0.055	0.023	mg/L			05/22/24 17:59	1
Nitrate Nitrite as N	0.050	U	0.055	0.023	mg/L			05/22/24 17:59	1
Nitrite as N	0.050	U	0.055	0.023	mg/L			05/22/24 17:59	1

Lab Sample ID: LCS 680-839316/40
Matrix: Water
Analysis Batch: 839316

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Nitrate as N			1.00	1.03	M	mg/L		103	88 - 111		
Nitrate Nitrite as N			2.00	2.07		mg/L		103	88 - 111		
Nitrite as N			1.00	1.04		mg/L		103	87 - 111		

Method: 9056A - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 680-839316/41
Matrix: Water
Analysis Batch: 839316

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrate as N			1.00	1.04	M	mg/L		104	88 - 111	0	15
Nitrate Nitrite as N			2.00	2.08		mg/L		104	88 - 111	0	15
Nitrite as N			1.00	1.04		mg/L		104	87 - 111	0	15

Lab Sample ID: 680-251090-19 MS
Matrix: Water
Analysis Batch: 839316

Client Sample ID: OU6-MW-244-20240521
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Nitrate as N	0.12		1.00	1.13		mg/L		101	88 - 111		
Nitrate Nitrite as N	0.12		2.00	2.01		mg/L		94	88 - 111		
Nitrite as N	0.050	U	1.00	0.876		mg/L		88	87 - 111		

Lab Sample ID: 680-251090-19 MSD
Matrix: Water
Analysis Batch: 839316

Client Sample ID: OU6-MW-244-20240521
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrate as N	0.12		1.00	1.15		mg/L		103	88 - 111	2	15
Nitrate Nitrite as N	0.12		2.00	2.04		mg/L		96	88 - 111	2	15
Nitrite as N	0.050	U	1.00	0.893		mg/L		89	87 - 111	2	15

Lab Sample ID: MB 680-840826/2
Matrix: Water
Analysis Batch: 840826

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.50	U M	0.55	0.20	mg/L			06/03/24 10:36	1
Sulfate	1.0	U	1.5	0.40	mg/L			06/03/24 10:36	1

Lab Sample ID: LCS 680-840826/3
Matrix: Water
Analysis Batch: 840826

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			10.0	10.2		mg/L		102	87 - 111		
Sulfate			10.0	10.4		mg/L		104	87 - 112		

Lab Sample ID: LCSD 680-840826/4
Matrix: Water
Analysis Batch: 840826

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			10.0	10.2		mg/L		102	87 - 111	0	15
Sulfate			10.0	10.5		mg/L		105	87 - 112	1	15

Method: 9056A - Anions, Ion Chromatography (Continued)

Lab Sample ID: 680-251090-14 MS
Matrix: Water
Analysis Batch: 840826

Client Sample ID: OU6-MW-236-20240521
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	23		10.0	33.5		mg/L		107	87 - 111		
Sulfate	15		10.0	24.9		mg/L		103	87 - 112		

Lab Sample ID: 680-251090-14 MSD
Matrix: Water
Analysis Batch: 840826

Client Sample ID: OU6-MW-236-20240521
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	23		10.0	33.6		mg/L		108	87 - 111	0	15
Sulfate	15		10.0	25.0		mg/L		104	87 - 112	0	15

Lab Sample ID: MB 680-840871/101
Matrix: Water
Analysis Batch: 840871

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.50	U M	0.55	0.20	mg/L			06/03/24 17:57	1
Sulfate	1.0	U	1.5	0.40	mg/L			06/03/24 17:57	1

Lab Sample ID: LCS 680-840871/102
Matrix: Water
Analysis Batch: 840871

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			10.0	10.2		mg/L		102	87 - 111		
Sulfate			10.0	10.5		mg/L		105	87 - 112		

Lab Sample ID: LCSD 680-840871/103
Matrix: Water
Analysis Batch: 840871

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			10.0	10.3		mg/L		103	87 - 111	0	15
Sulfate			10.0	10.5		mg/L		105	87 - 112	1	15

Lab Sample ID: 680-251090-19 MS
Matrix: Water
Analysis Batch: 840871

Client Sample ID: OU6-MW-244-20240521
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	10	M	10.0	20.6		mg/L		103	87 - 111		
Sulfate	10		10.0	20.7		mg/L		104	87 - 112		

Lab Sample ID: 680-251090-19 MSD
Matrix: Water
Analysis Batch: 840871

Client Sample ID: OU6-MW-244-20240521
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	10	M	10.0	20.5		mg/L		102	87 - 111	0	15
Sulfate	10		10.0	20.6		mg/L		103	87 - 112	1	15

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 680-839364/1-A
Matrix: Water
Analysis Batch: 839543

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 839364

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	5.0	U	10	2.2	ug/L		05/23/24 05:06	05/23/24 17:17	1

Lab Sample ID: LCS 680-839364/2-A
Matrix: Water
Analysis Batch: 839543

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 839364

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Manganese	400	389		ug/L		97	87 - 115

Lab Sample ID: MB 680-839365/1-A
Matrix: Water
Analysis Batch: 839543

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 839365

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	5.0	U	10	2.2	ug/L		05/23/24 05:06	05/23/24 19:09	1

Lab Sample ID: LCS 680-839365/2-A
Matrix: Water
Analysis Batch: 839543

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 839365

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Manganese	400	453		ug/L		113	87 - 115

Lab Sample ID: 680-251090-14 MS
Matrix: Water
Analysis Batch: 839543

Client Sample ID: OU6-MW-236-20240521
Prep Type: Total Recoverable
Prep Batch: 839365

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Manganese	56		400	496		ug/L		110	87 - 115

Lab Sample ID: 680-251090-14 MSD
Matrix: Water
Analysis Batch: 839543

Client Sample ID: OU6-MW-236-20240521
Prep Type: Total Recoverable
Prep Batch: 839365

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Manganese	56		400	447		ug/L		98	87 - 115	10	20

Method: 2320B-2011 - Alkalinity, Total

Lab Sample ID: MB 680-839641/4
Matrix: Water
Analysis Batch: 839641

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	5.0	U	5.5	2.2	mg/L			05/23/24 22:09	1
Bicarbonate Alkalinity as CaCO3	10	U	11	5.0	mg/L			05/23/24 22:09	1
Carbonate Alkalinity as CaCO3	10	U	11	5.0	mg/L			05/23/24 22:09	1

Method: 2320B-2011 - Alkalinity, Total (Continued)

Lab Sample ID: LCS 680-839641/6
Matrix: Water
Analysis Batch: 839641

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity as CaCO3 to pH 4.5	250	244		mg/L		98	90 - 112

Lab Sample ID: LCSD 680-839641/31
Matrix: Water
Analysis Batch: 839641

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5	250	247		mg/L		99	90 - 112	1	30

Lab Sample ID: MB 680-839930/4
Matrix: Water
Analysis Batch: 839930

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	5.0	U	5.5	2.2	mg/L			05/24/24 12:34	1
Bicarbonate Alkalinity as CaCO3	10	U	11	5.0	mg/L			05/24/24 12:34	1
Carbonate Alkalinity as CaCO3	10	U	11	5.0	mg/L			05/24/24 12:34	1

Lab Sample ID: LCS 680-839930/6
Matrix: Water
Analysis Batch: 839930

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity as CaCO3 to pH 4.5	250	246		mg/L		98	90 - 112

Lab Sample ID: LCSD 680-839930/31
Matrix: Water
Analysis Batch: 839930

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5	250	252		mg/L		101	90 - 112	3	30

Lab Sample ID: 680-251090-14 DU
Matrix: Water
Analysis Batch: 839930

Client Sample ID: OU6-MW-236-20240521
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5	44		45.0		mg/L		1	30
Bicarbonate Alkalinity as CaCO3	44		45.0		mg/L		1	30
Carbonate Alkalinity as CaCO3	10	U	10	U	mg/L		NC	30

Method: 2320B-2011 - Alkalinity, Total (Continued)

Lab Sample ID: MB 680-839938/4
Matrix: Water
Analysis Batch: 839938

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	5.0	U	5.5	2.2	mg/L			05/24/24 18:45	1
Bicarbonate Alkalinity as CaCO3	10	U	11	5.0	mg/L			05/24/24 18:45	1
Carbonate Alkalinity as CaCO3	10	U	11	5.0	mg/L			05/24/24 18:45	1

Lab Sample ID: LCS 680-839938/6
Matrix: Water
Analysis Batch: 839938

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity as CaCO3 to pH 4.5	250	245		mg/L		98	90 - 112

Lab Sample ID: LCSD 680-839938/31
Matrix: Water
Analysis Batch: 839938

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5	250	249		mg/L		99	90 - 112	2	30

Method: 4500 S2 F-2011 - Sulfide, Total

Lab Sample ID: MB 680-839678/1
Matrix: Water
Analysis Batch: 839678

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	1.0	U	1.0	1.0	mg/L			05/24/24 12:46	1
Sulfide as H2S	1.1	U	1.1	1.1	mg/L			05/24/24 12:46	1

Lab Sample ID: LCS 680-839678/2
Matrix: Water
Analysis Batch: 839678

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfide	10.0	8.16		mg/L		82	75 - 125
Sulfide as H2S	10.6	8.67		mg/L		82	75 - 125

Lab Sample ID: LCSD 680-839678/3
Matrix: Water
Analysis Batch: 839678

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sulfide	10.0	8.07		mg/L		81	75 - 125	1	30
Sulfide as H2S	10.6	8.57		mg/L		81	75 - 125	1	30

Method: 4500 S2 F-2011 - Sulfide, Total (Continued)

Lab Sample ID: MB 680-839686/1
Matrix: Water
Analysis Batch: 839686

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	1.0	U	1.0	1.0	mg/L			05/24/24 13:30	1
Sulfide as H2S	1.1	U	1.1	1.1	mg/L			05/24/24 13:30	1

Lab Sample ID: LCS 680-839686/2
Matrix: Water
Analysis Batch: 839686

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfide	10.0	8.67		mg/L		87	75 - 125
Sulfide as H2S	10.6	9.21		mg/L		87	75 - 125

Lab Sample ID: LCSD 680-839686/3
Matrix: Water
Analysis Batch: 839686

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sulfide	10.0	8.77		mg/L		88	75 - 125	1	30
Sulfide as H2S	10.6	9.32		mg/L		88	75 - 125	1	30

Lab Sample ID: 680-251090-14 MS
Matrix: Water
Analysis Batch: 839686

Client Sample ID: OU6-MW-236-20240521
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfide	0.81	U	7.97	8.35		mg/L		105	75 - 125
Sulfide as H2S	0.89	U	8.47	8.87		mg/L		105	75 - 125

Lab Sample ID: 680-251090-14 MSD
Matrix: Water
Analysis Batch: 839686

Client Sample ID: OU6-MW-236-20240521
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sulfide	0.81	U	7.43	8.34		mg/L		112	75 - 125	0	30
Sulfide as H2S	0.89	U	7.89	8.86		mg/L		112	75 - 125	0	30

Lab Sample ID: 680-251090-8 DU
Matrix: Water
Analysis Batch: 839686

Client Sample ID: OU6-MW-238-20240521
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Sulfide	0.93	U	0.96	U	mg/L		NC	30
Sulfide as H2S	1.0	U	1.1	U	mg/L		NC	30

Method: 9060A - Organic Carbon, Total (TOC)

Lab Sample ID: MB 680-839738/1
Matrix: Water
Analysis Batch: 839738

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	1.0	U	1.0	0.50	mg/L			05/24/24 01:29	1

Lab Sample ID: LCS 680-839738/2
Matrix: Water
Analysis Batch: 839738

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Organic Carbon	20.0	21.0		mg/L		105	80 - 120

Lab Sample ID: LCSD 680-839738/3
Matrix: Water
Analysis Batch: 839738

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Organic Carbon	20.0	20.5		mg/L		103	80 - 120	2	25

Lab Sample ID: MB 680-839739/1
Matrix: Water
Analysis Batch: 839739

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	1.0	U	1.0	0.50	mg/L			05/24/24 06:06	1

Lab Sample ID: LCS 680-839739/2
Matrix: Water
Analysis Batch: 839739

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Organic Carbon	20.0	21.4		mg/L		107	80 - 120

Lab Sample ID: LCSD 680-839739/3
Matrix: Water
Analysis Batch: 839739

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Organic Carbon	20.0	21.6		mg/L		108	80 - 120	1	25

Lab Sample ID: 680-251090-5 DU
Matrix: Water
Analysis Batch: 839739

Client Sample ID: OU6-MW-256-20240521
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Organic Carbon	0.83	J	0.832	J	mg/L		0.6	25

Lab Sample ID: MB 680-840410/3
Matrix: Water
Analysis Batch: 840410

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	1.0	U	1.0	0.50	mg/L			05/28/24 13:20	1

Method: 9060A - Organic Carbon, Total (TOC)

Lab Sample ID: LCS 680-840410/4
Matrix: Water
Analysis Batch: 840410

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Organic Carbon	20.0	21.3		mg/L		107	80 - 120

Lab Sample ID: LCSD 680-840410/5
Matrix: Water
Analysis Batch: 840410

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Organic Carbon	20.0	20.8		mg/L		104	80 - 120	2	25

Lab Sample ID: 680-251090-14 MS
Matrix: Water
Analysis Batch: 840410

Client Sample ID: OU6-MW-236-20240521
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Total Organic Carbon	1.0	U	25.0	20.2		mg/L		81	80 - 120

Lab Sample ID: 680-251090-14 MSD
Matrix: Water
Analysis Batch: 840410

Client Sample ID: OU6-MW-236-20240521
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Organic Carbon	1.0	U	25.0	20.5		mg/L		82	80 - 120	2	25

Method: SM 4500 CO2 D - Carbon Dioxide and Forms of Alkalinity by Calculation

Lab Sample ID: 680-251090-14 DU
Matrix: Water
Analysis Batch: 839930

Client Sample ID: OU6-MW-236-20240521
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Carbon Dioxide, Free	28		50.7	J1	mg/L		57	30

GC/MS VOA

Analysis Batch: 840514

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251090-1	OU6-MW-223-20240521	Total/NA	Water	8260D	
680-251090-3	OU6-MW-254-20240521	Total/NA	Water	8260D	
680-251090-17	OU6-MW-241-20240521	Total/NA	Water	8260D	
680-251090-19	OU6-MW-244-20240521	Total/NA	Water	8260D	
MB 680-840514/9	Method Blank	Total/NA	Water	8260D	
LCS 680-840514/4	Lab Control Sample	Total/NA	Water	8260D	
LCSD 680-840514/5	Lab Control Sample Dup	Total/NA	Water	8260D	

Analysis Batch: 840531

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251090-4	OU6-MW-253-20240521	Total/NA	Water	8260D	
680-251090-5	OU6-MW-256-20240521	Total/NA	Water	8260D	
680-251090-6	OU6-MW-252-20240521	Total/NA	Water	8260D	
680-251090-7	OU6-MW-240-20240521	Total/NA	Water	8260D	
680-251090-10	OU6-MW-294-20240521	Total/NA	Water	8260D	
680-251090-11	OU6-MW-293-20240521	Total/NA	Water	8260D	
680-251090-12	EB-20240521	Total/NA	Water	8260D	
680-251090-13	TRIP-BLANK-20240521	Total/NA	Water	8260D	
680-251090-16	OU6-MW-170-20240521	Total/NA	Water	8260D	
680-251090-18	OU6-MW-239-20240521	Total/NA	Water	8260D	
MB 680-840531/8	Method Blank	Total/NA	Water	8260D	
LCS 680-840531/4	Lab Control Sample	Total/NA	Water	8260D	
LCSD 680-840531/28	Lab Control Sample Dup	Total/NA	Water	8260D	

Analysis Batch: 840778

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251090-1	OU6-MW-223-20240521	Total/NA	Water	8260D	
680-251090-2	OU6-MW-237-20240521	Total/NA	Water	8260D	
680-251090-3	OU6-MW-254-20240521	Total/NA	Water	8260D	
680-251090-7 - DL	OU6-MW-240-20240521	Total/NA	Water	8260D	
680-251090-8	OU6-MW-238-20240521	Total/NA	Water	8260D	
680-251090-9	OU6-MW-290-20240521	Total/NA	Water	8260D	
680-251090-12	EB-20240521	Total/NA	Water	8260D	
680-251090-13	TRIP-BLANK-20240521	Total/NA	Water	8260D	
680-251090-16 - DL	OU6-MW-170-20240521	Total/NA	Water	8260D	
680-251090-18	OU6-MW-239-20240521	Total/NA	Water	8260D	
680-251090-19	OU6-MW-244-20240521	Total/NA	Water	8260D	
MB 680-840778/8	Method Blank	Total/NA	Water	8260D	
LCS 680-840778/4	Lab Control Sample	Total/NA	Water	8260D	
LCSD 680-840778/5	Lab Control Sample Dup	Total/NA	Water	8260D	

Analysis Batch: 840928

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251090-4	OU6-MW-253-20240521	Total/NA	Water	8260D	
680-251090-5	OU6-MW-256-20240521	Total/NA	Water	8260D	
680-251090-6	OU6-MW-252-20240521	Total/NA	Water	8260D	
680-251090-10	OU6-MW-294-20240521	Total/NA	Water	8260D	
680-251090-11	OU6-MW-293-20240521	Total/NA	Water	8260D	
680-251090-14	OU6-MW-236-20240521	Total/NA	Water	8260D	
MB 680-840928/10	Method Blank	Total/NA	Water	8260D	
LCS 680-840928/6	Lab Control Sample	Total/NA	Water	8260D	

GC/MS VOA (Continued)

Analysis Batch: 840928 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 680-840928/7	Lab Control Sample Dup	Total/NA	Water	8260D	
680-251090-14 MS	OU6-MW-236-20240521	Total/NA	Water	8260D	
680-251090-14 MSD	OU6-MW-236-20240521	Total/NA	Water	8260D	

Analysis Batch: 840966

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251090-15	OU6-MW-287-20240521	Total/NA	Water	8260D	
680-251090-17	OU6-MW-241-20240521	Total/NA	Water	8260D	
MB 680-840966/10	Method Blank	Total/NA	Water	8260D	
LCS 680-840966/6	Lab Control Sample	Total/NA	Water	8260D	
LCSD 680-840966/7	Lab Control Sample Dup	Total/NA	Water	8260D	

Analysis Batch: 841121

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251090-4	OU6-MW-253-20240521	Total/NA	Water	8260D	
680-251090-10	OU6-MW-294-20240521	Total/NA	Water	8260D	
MB 680-841121/10	Method Blank	Total/NA	Water	8260D	
LCS 680-841121/6	Lab Control Sample	Total/NA	Water	8260D	
LCSD 680-841121/7	Lab Control Sample Dup	Total/NA	Water	8260D	

GC/MS Semi VOA

Prep Batch: 839376

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251090-15	OU6-MW-287-20240521	Total/NA	Water	3510C	
MB 680-839376/1-A	Method Blank	Total/NA	Water	3510C	
LCS 680-839376/2-A	Lab Control Sample	Total/NA	Water	3510C	

Analysis Batch: 839813

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251090-15	OU6-MW-287-20240521	Total/NA	Water	8270E SIM ID	839376
MB 680-839376/1-A	Method Blank	Total/NA	Water	8270E SIM ID	839376
LCS 680-839376/2-A	Lab Control Sample	Total/NA	Water	8270E SIM ID	839376

GC VOA

Analysis Batch: 840649

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251090-1	OU6-MW-223-20240521	Total/NA	Water	RSK-175	
680-251090-2	OU6-MW-237-20240521	Total/NA	Water	RSK-175	
680-251090-3	OU6-MW-254-20240521	Total/NA	Water	RSK-175	
MB 680-840649/8	Method Blank	Total/NA	Water	RSK-175	
LCS 680-840649/3	Lab Control Sample	Total/NA	Water	RSK-175	
LCS 680-840649/6	Lab Control Sample	Total/NA	Water	RSK-175	
LCSD 680-840649/4	Lab Control Sample Dup	Total/NA	Water	RSK-175	
LCSD 680-840649/7	Lab Control Sample Dup	Total/NA	Water	RSK-175	

Analysis Batch: 840831

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251090-4	OU6-MW-253-20240521	Total/NA	Water	RSK-175	
680-251090-5	OU6-MW-256-20240521	Total/NA	Water	RSK-175	
680-251090-6	OU6-MW-252-20240521	Total/NA	Water	RSK-175	

GC VOA (Continued)

Analysis Batch: 840831 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251090-7	OU6-MW-240-20240521	Total/NA	Water	RSK-175	
680-251090-8	OU6-MW-238-20240521	Total/NA	Water	RSK-175	
680-251090-9	OU6-MW-290-20240521	Total/NA	Water	RSK-175	
680-251090-10	OU6-MW-294-20240521	Total/NA	Water	RSK-175	
680-251090-11	OU6-MW-293-20240521	Total/NA	Water	RSK-175	
680-251090-14	OU6-MW-236-20240521	Total/NA	Water	RSK-175	
680-251090-15	OU6-MW-287-20240521	Total/NA	Water	RSK-175	
680-251090-16	OU6-MW-170-20240521	Total/NA	Water	RSK-175	
680-251090-17	OU6-MW-241-20240521	Total/NA	Water	RSK-175	
680-251090-18	OU6-MW-239-20240521	Total/NA	Water	RSK-175	
680-251090-19	OU6-MW-244-20240521	Total/NA	Water	RSK-175	
MB 680-840831/8	Method Blank	Total/NA	Water	RSK-175	
LCS 680-840831/3	Lab Control Sample	Total/NA	Water	RSK-175	
LCS 680-840831/6	Lab Control Sample	Total/NA	Water	RSK-175	
LCSD 680-840831/4	Lab Control Sample Dup	Total/NA	Water	RSK-175	
LCSD 680-840831/7	Lab Control Sample Dup	Total/NA	Water	RSK-175	
680-251090-14 MS	OU6-MW-236-20240521	Total/NA	Water	RSK-175	
680-251090-14 MSD	OU6-MW-236-20240521	Total/NA	Water	RSK-175	

HPLC/IC

Analysis Batch: 839256

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251090-1	OU6-MW-223-20240521	Total/NA	Water	9056A	
680-251090-2	OU6-MW-237-20240521	Total/NA	Water	9056A	
680-251090-3	OU6-MW-254-20240521	Total/NA	Water	9056A	
680-251090-4	OU6-MW-253-20240521	Total/NA	Water	9056A	
680-251090-5	OU6-MW-256-20240521	Total/NA	Water	9056A	
680-251090-6	OU6-MW-252-20240521	Total/NA	Water	9056A	
680-251090-7	OU6-MW-240-20240521	Total/NA	Water	9056A	
680-251090-8	OU6-MW-238-20240521	Total/NA	Water	9056A	
680-251090-9	OU6-MW-290-20240521	Total/NA	Water	9056A	
680-251090-10	OU6-MW-294-20240521	Total/NA	Water	9056A	
680-251090-11	OU6-MW-293-20240521	Total/NA	Water	9056A	
680-251090-14	OU6-MW-236-20240521	Total/NA	Water	9056A	
680-251090-15	OU6-MW-287-20240521	Total/NA	Water	9056A	
MB 680-839256/7	Method Blank	Total/NA	Water	9056A	
LCS 680-839256/8	Lab Control Sample	Total/NA	Water	9056A	
LCSD 680-839256/9	Lab Control Sample Dup	Total/NA	Water	9056A	
680-251090-14 MS	OU6-MW-236-20240521	Total/NA	Water	9056A	
680-251090-14 MSD	OU6-MW-236-20240521	Total/NA	Water	9056A	

Analysis Batch: 839316

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251090-16	OU6-MW-170-20240521	Total/NA	Water	9056A	
680-251090-17	OU6-MW-241-20240521	Total/NA	Water	9056A	
680-251090-18	OU6-MW-239-20240521	Total/NA	Water	9056A	
680-251090-19	OU6-MW-244-20240521	Total/NA	Water	9056A	
MB 680-839316/39	Method Blank	Total/NA	Water	9056A	
LCS 680-839316/40	Lab Control Sample	Total/NA	Water	9056A	
LCSD 680-839316/41	Lab Control Sample Dup	Total/NA	Water	9056A	

HPLC/IC (Continued)

Analysis Batch: 839316 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251090-19 MS	OU6-MW-244-20240521	Total/NA	Water	9056A	
680-251090-19 MSD	OU6-MW-244-20240521	Total/NA	Water	9056A	

Analysis Batch: 840826

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251090-1	OU6-MW-223-20240521	Total/NA	Water	9056A	
680-251090-2	OU6-MW-237-20240521	Total/NA	Water	9056A	
680-251090-3	OU6-MW-254-20240521	Total/NA	Water	9056A	
680-251090-4	OU6-MW-253-20240521	Total/NA	Water	9056A	
680-251090-5	OU6-MW-256-20240521	Total/NA	Water	9056A	
680-251090-7	OU6-MW-240-20240521	Total/NA	Water	9056A	
680-251090-8	OU6-MW-238-20240521	Total/NA	Water	9056A	
680-251090-9	OU6-MW-290-20240521	Total/NA	Water	9056A	
680-251090-10	OU6-MW-294-20240521	Total/NA	Water	9056A	
680-251090-11	OU6-MW-293-20240521	Total/NA	Water	9056A	
680-251090-14	OU6-MW-236-20240521	Total/NA	Water	9056A	
680-251090-15	OU6-MW-287-20240521	Total/NA	Water	9056A	
680-251090-16	OU6-MW-170-20240521	Total/NA	Water	9056A	
680-251090-17	OU6-MW-241-20240521	Total/NA	Water	9056A	
680-251090-18	OU6-MW-239-20240521	Total/NA	Water	9056A	
MB 680-840826/2	Method Blank	Total/NA	Water	9056A	
LCS 680-840826/3	Lab Control Sample	Total/NA	Water	9056A	
LCSD 680-840826/4	Lab Control Sample Dup	Total/NA	Water	9056A	
680-251090-14 MS	OU6-MW-236-20240521	Total/NA	Water	9056A	
680-251090-14 MSD	OU6-MW-236-20240521	Total/NA	Water	9056A	

Analysis Batch: 840871

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251090-6	OU6-MW-252-20240521	Total/NA	Water	9056A	
680-251090-19	OU6-MW-244-20240521	Total/NA	Water	9056A	
MB 680-840871/101	Method Blank	Total/NA	Water	9056A	
LCS 680-840871/102	Lab Control Sample	Total/NA	Water	9056A	
LCSD 680-840871/103	Lab Control Sample Dup	Total/NA	Water	9056A	
680-251090-19 MS	OU6-MW-244-20240521	Total/NA	Water	9056A	
680-251090-19 MSD	OU6-MW-244-20240521	Total/NA	Water	9056A	

Metals

Prep Batch: 839364

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251090-1	OU6-MW-223-20240521	Total Recoverable	Water	3005A	
680-251090-2	OU6-MW-237-20240521	Total Recoverable	Water	3005A	
680-251090-3	OU6-MW-254-20240521	Total Recoverable	Water	3005A	
680-251090-4	OU6-MW-253-20240521	Total Recoverable	Water	3005A	
680-251090-5	OU6-MW-256-20240521	Total Recoverable	Water	3005A	
680-251090-6	OU6-MW-252-20240521	Total Recoverable	Water	3005A	
680-251090-7	OU6-MW-240-20240521	Total Recoverable	Water	3005A	
680-251090-8	OU6-MW-238-20240521	Total Recoverable	Water	3005A	
680-251090-9	OU6-MW-290-20240521	Total Recoverable	Water	3005A	
680-251090-10	OU6-MW-294-20240521	Total Recoverable	Water	3005A	
680-251090-11	OU6-MW-293-20240521	Total Recoverable	Water	3005A	

Metals (Continued)

Prep Batch: 839364 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251090-15	OU6-MW-287-20240521	Total Recoverable	Water	3005A	
680-251090-16	OU6-MW-170-20240521	Total Recoverable	Water	3005A	
MB 680-839364/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 680-839364/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 839365

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251090-14	OU6-MW-236-20240521	Total Recoverable	Water	3005A	
680-251090-17	OU6-MW-241-20240521	Total Recoverable	Water	3005A	
680-251090-18	OU6-MW-239-20240521	Total Recoverable	Water	3005A	
680-251090-19	OU6-MW-244-20240521	Total Recoverable	Water	3005A	
MB 680-839365/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 680-839365/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
680-251090-14 MS	OU6-MW-236-20240521	Total Recoverable	Water	3005A	
680-251090-14 MSD	OU6-MW-236-20240521	Total Recoverable	Water	3005A	

Analysis Batch: 839543

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251090-1	OU6-MW-223-20240521	Total Recoverable	Water	6020A	839364
680-251090-2	OU6-MW-237-20240521	Total Recoverable	Water	6020A	839364
680-251090-3	OU6-MW-254-20240521	Total Recoverable	Water	6020A	839364
680-251090-4	OU6-MW-253-20240521	Total Recoverable	Water	6020A	839364
680-251090-5	OU6-MW-256-20240521	Total Recoverable	Water	6020A	839364
680-251090-6	OU6-MW-252-20240521	Total Recoverable	Water	6020A	839364
680-251090-7	OU6-MW-240-20240521	Total Recoverable	Water	6020A	839364
680-251090-8	OU6-MW-238-20240521	Total Recoverable	Water	6020A	839364
680-251090-9	OU6-MW-290-20240521	Total Recoverable	Water	6020A	839364
680-251090-10	OU6-MW-294-20240521	Total Recoverable	Water	6020A	839364
680-251090-11	OU6-MW-293-20240521	Total Recoverable	Water	6020A	839364
680-251090-14	OU6-MW-236-20240521	Total Recoverable	Water	6020A	839365
680-251090-15	OU6-MW-287-20240521	Total Recoverable	Water	6020A	839364
680-251090-16	OU6-MW-170-20240521	Total Recoverable	Water	6020A	839364
680-251090-17	OU6-MW-241-20240521	Total Recoverable	Water	6020A	839365
680-251090-18	OU6-MW-239-20240521	Total Recoverable	Water	6020A	839365
680-251090-19	OU6-MW-244-20240521	Total Recoverable	Water	6020A	839365
MB 680-839364/1-A	Method Blank	Total Recoverable	Water	6020A	839364
MB 680-839365/1-A	Method Blank	Total Recoverable	Water	6020A	839365
LCS 680-839364/2-A	Lab Control Sample	Total Recoverable	Water	6020A	839364
LCS 680-839365/2-A	Lab Control Sample	Total Recoverable	Water	6020A	839365
680-251090-14 MS	OU6-MW-236-20240521	Total Recoverable	Water	6020A	839365
680-251090-14 MSD	OU6-MW-236-20240521	Total Recoverable	Water	6020A	839365

General Chemistry

Analysis Batch: 839641

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251090-1	OU6-MW-223-20240521	Total/NA	Water	2320B-2011	
680-251090-1	OU6-MW-223-20240521	Total/NA	Water	SM 4500 CO2 D	
680-251090-2	OU6-MW-237-20240521	Total/NA	Water	2320B-2011	
680-251090-2	OU6-MW-237-20240521	Total/NA	Water	SM 4500 CO2 D	
MB 680-839641/4	Method Blank	Total/NA	Water	2320B-2011	

General Chemistry (Continued)

Analysis Batch: 839641 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 680-839641/6	Lab Control Sample	Total/NA	Water	2320B-2011	
LCSD 680-839641/31	Lab Control Sample Dup	Total/NA	Water	2320B-2011	

Analysis Batch: 839678

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251090-1	OU6-MW-223-20240521	Total/NA	Water	4500 S2 F-2011	
680-251090-2	OU6-MW-237-20240521	Total/NA	Water	4500 S2 F-2011	
680-251090-3	OU6-MW-254-20240521	Total/NA	Water	4500 S2 F-2011	
680-251090-4	OU6-MW-253-20240521	Total/NA	Water	4500 S2 F-2011	
680-251090-5	OU6-MW-256-20240521	Total/NA	Water	4500 S2 F-2011	
680-251090-6	OU6-MW-252-20240521	Total/NA	Water	4500 S2 F-2011	
680-251090-7	OU6-MW-240-20240521	Total/NA	Water	4500 S2 F-2011	
MB 680-839678/1	Method Blank	Total/NA	Water	4500 S2 F-2011	
LCS 680-839678/2	Lab Control Sample	Total/NA	Water	4500 S2 F-2011	
LCSD 680-839678/3	Lab Control Sample Dup	Total/NA	Water	4500 S2 F-2011	

Analysis Batch: 839686

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251090-8	OU6-MW-238-20240521	Total/NA	Water	4500 S2 F-2011	
680-251090-9	OU6-MW-290-20240521	Total/NA	Water	4500 S2 F-2011	
680-251090-10	OU6-MW-294-20240521	Total/NA	Water	4500 S2 F-2011	
680-251090-11	OU6-MW-293-20240521	Total/NA	Water	4500 S2 F-2011	
680-251090-14	OU6-MW-236-20240521	Total/NA	Water	4500 S2 F-2011	
680-251090-15	OU6-MW-287-20240521	Total/NA	Water	4500 S2 F-2011	
680-251090-16	OU6-MW-170-20240521	Total/NA	Water	4500 S2 F-2011	
680-251090-17	OU6-MW-241-20240521	Total/NA	Water	4500 S2 F-2011	
680-251090-18	OU6-MW-239-20240521	Total/NA	Water	4500 S2 F-2011	
680-251090-19	OU6-MW-244-20240521	Total/NA	Water	4500 S2 F-2011	
MB 680-839686/1	Method Blank	Total/NA	Water	4500 S2 F-2011	
LCS 680-839686/2	Lab Control Sample	Total/NA	Water	4500 S2 F-2011	
LCSD 680-839686/3	Lab Control Sample Dup	Total/NA	Water	4500 S2 F-2011	
680-251090-14 MS	OU6-MW-236-20240521	Total/NA	Water	4500 S2 F-2011	
680-251090-14 MSD	OU6-MW-236-20240521	Total/NA	Water	4500 S2 F-2011	
680-251090-8 DU	OU6-MW-238-20240521	Total/NA	Water	4500 S2 F-2011	

Analysis Batch: 839738

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251090-1	OU6-MW-223-20240521	Total/NA	Water	9060A	
680-251090-2	OU6-MW-237-20240521	Total/NA	Water	9060A	
680-251090-3	OU6-MW-254-20240521	Total/NA	Water	9060A	
680-251090-4	OU6-MW-253-20240521	Total/NA	Water	9060A	
MB 680-839738/1	Method Blank	Total/NA	Water	9060A	
LCS 680-839738/2	Lab Control Sample	Total/NA	Water	9060A	
LCSD 680-839738/3	Lab Control Sample Dup	Total/NA	Water	9060A	

Analysis Batch: 839739

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251090-5	OU6-MW-256-20240521	Total/NA	Water	9060A	
680-251090-6	OU6-MW-252-20240521	Total/NA	Water	9060A	
680-251090-7	OU6-MW-240-20240521	Total/NA	Water	9060A	
680-251090-8	OU6-MW-238-20240521	Total/NA	Water	9060A	

General Chemistry (Continued)

Analysis Batch: 839739 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251090-9	OU6-MW-290-20240521	Total/NA	Water	9060A	
680-251090-10	OU6-MW-294-20240521	Total/NA	Water	9060A	
680-251090-11	OU6-MW-293-20240521	Total/NA	Water	9060A	
680-251090-15	OU6-MW-287-20240521	Total/NA	Water	9060A	
680-251090-16	OU6-MW-170-20240521	Total/NA	Water	9060A	
MB 680-839739/1	Method Blank	Total/NA	Water	9060A	
LCS 680-839739/2	Lab Control Sample	Total/NA	Water	9060A	
LCSD 680-839739/3	Lab Control Sample Dup	Total/NA	Water	9060A	
680-251090-5 DU	OU6-MW-256-20240521	Total/NA	Water	9060A	

Analysis Batch: 839930

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251090-3	OU6-MW-254-20240521	Total/NA	Water	2320B-2011	
680-251090-3	OU6-MW-254-20240521	Total/NA	Water	SM 4500 CO2 D	
680-251090-4	OU6-MW-253-20240521	Total/NA	Water	2320B-2011	
680-251090-4	OU6-MW-253-20240521	Total/NA	Water	SM 4500 CO2 D	
680-251090-5	OU6-MW-256-20240521	Total/NA	Water	2320B-2011	
680-251090-5	OU6-MW-256-20240521	Total/NA	Water	SM 4500 CO2 D	
680-251090-7	OU6-MW-240-20240521	Total/NA	Water	2320B-2011	
680-251090-7	OU6-MW-240-20240521	Total/NA	Water	SM 4500 CO2 D	
680-251090-8	OU6-MW-238-20240521	Total/NA	Water	2320B-2011	
680-251090-8	OU6-MW-238-20240521	Total/NA	Water	SM 4500 CO2 D	
680-251090-9	OU6-MW-290-20240521	Total/NA	Water	2320B-2011	
680-251090-9	OU6-MW-290-20240521	Total/NA	Water	SM 4500 CO2 D	
680-251090-10	OU6-MW-294-20240521	Total/NA	Water	2320B-2011	
680-251090-10	OU6-MW-294-20240521	Total/NA	Water	SM 4500 CO2 D	
680-251090-11	OU6-MW-293-20240521	Total/NA	Water	2320B-2011	
680-251090-11	OU6-MW-293-20240521	Total/NA	Water	SM 4500 CO2 D	
680-251090-14	OU6-MW-236-20240521	Total/NA	Water	2320B-2011	
680-251090-14	OU6-MW-236-20240521	Total/NA	Water	SM 4500 CO2 D	
680-251090-15	OU6-MW-287-20240521	Total/NA	Water	2320B-2011	
680-251090-15	OU6-MW-287-20240521	Total/NA	Water	SM 4500 CO2 D	
680-251090-16	OU6-MW-170-20240521	Total/NA	Water	2320B-2011	
680-251090-16	OU6-MW-170-20240521	Total/NA	Water	SM 4500 CO2 D	
680-251090-17	OU6-MW-241-20240521	Total/NA	Water	2320B-2011	
680-251090-17	OU6-MW-241-20240521	Total/NA	Water	SM 4500 CO2 D	
680-251090-18	OU6-MW-239-20240521	Total/NA	Water	2320B-2011	
680-251090-18	OU6-MW-239-20240521	Total/NA	Water	SM 4500 CO2 D	
680-251090-19	OU6-MW-244-20240521	Total/NA	Water	2320B-2011	
680-251090-19	OU6-MW-244-20240521	Total/NA	Water	SM 4500 CO2 D	
MB 680-839930/4	Method Blank	Total/NA	Water	2320B-2011	
LCS 680-839930/6	Lab Control Sample	Total/NA	Water	2320B-2011	
LCSD 680-839930/31	Lab Control Sample Dup	Total/NA	Water	2320B-2011	
680-251090-14 DU	OU6-MW-236-20240521	Total/NA	Water	2320B-2011	
680-251090-14 DU	OU6-MW-236-20240521	Total/NA	Water	SM 4500 CO2 D	

Analysis Batch: 839938

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251090-6	OU6-MW-252-20240521	Total/NA	Water	2320B-2011	
680-251090-6	OU6-MW-252-20240521	Total/NA	Water	SM 4500 CO2 D	
MB 680-839938/4	Method Blank	Total/NA	Water	2320B-2011	

General Chemistry (Continued)

Analysis Batch: 839938 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 680-839938/6	Lab Control Sample	Total/NA	Water	2320B-2011	
LCSD 680-839938/31	Lab Control Sample Dup	Total/NA	Water	2320B-2011	

Analysis Batch: 840410

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251090-14	OU6-MW-236-20240521	Total/NA	Water	9060A	
680-251090-17	OU6-MW-241-20240521	Total/NA	Water	9060A	
680-251090-18	OU6-MW-239-20240521	Total/NA	Water	9060A	
680-251090-19	OU6-MW-244-20240521	Total/NA	Water	9060A	
MB 680-840410/3	Method Blank	Total/NA	Water	9060A	
LCS 680-840410/4	Lab Control Sample	Total/NA	Water	9060A	
LCSD 680-840410/5	Lab Control Sample Dup	Total/NA	Water	9060A	
680-251090-14 MS	OU6-MW-236-20240521	Total/NA	Water	9060A	
680-251090-14 MSD	OU6-MW-236-20240521	Total/NA	Water	9060A	

Lab Chronicle

Client: Meadows CMPG, Inc
Job ID: 680-251090-1
Project/Site: DSCR - OU6 Annual

Client Sample ID: OU6-MW-223-20240521
Lab Sample ID: 680-251090-1
Date Collected: 05/21/24 08:50
Matrix: Water
Date Received: 05/22/24 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	840514	05/31/24 17:05	P1C	EET SAV
	Instrument ID: CMSAH									
Total/NA	Analysis	8260D		1	5 mL	5 mL	840778	06/03/24 16:22	P1C	EET SAV
	Instrument ID: CMSAJ									
Total/NA	Analysis	RSK-175		1	17 mL	17 mL	840649	06/01/24 19:29	OK	EET SAV
	Instrument ID: CVGU									
Total/NA	Analysis	9056A		1	5 mL	5 mL	839256	05/22/24 15:30	UI	EET SAV
	Instrument ID: CICP									
Total/NA	Analysis	9056A		1	2 mL	2 mL	840826	06/03/24 15:33	AF	EET SAV
	Instrument ID: CICR									
Total Recoverable	Prep	3005A			25 mL	125 mL	839364	05/23/24 05:06	RR	EET SAV
Total Recoverable	Analysis	6020A		1			839543	05/23/24 17:45	BJB	EET SAV
	Instrument ID: ICPMSD									
Total/NA	Analysis	2320B-2011		1			839641	05/24/24 00:08	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	4500 S2 F-2011		1	290 mL	290 mL	839678	05/24/24 12:46	JAS	EET SAV
	Instrument ID: NoEquip									
Total/NA	Analysis	9060A		1	40 mL	40 mL	839738	05/24/24 04:37	NVF	EET SAV
	Instrument ID: TOC7									
Total/NA	Analysis	SM 4500 CO2 D		1			839641	05/24/24 00:08	PG	EET SAV
	Instrument ID: MANTECH 2									

Client Sample ID: OU6-MW-237-20240521
Lab Sample ID: 680-251090-2
Date Collected: 05/21/24 10:00
Matrix: Water
Date Received: 05/22/24 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	840778	06/03/24 16:44	P1C	EET SAV
	Instrument ID: CMSAJ									
Total/NA	Analysis	RSK-175		1	17 mL	17 mL	840649	06/01/24 19:42	OK	EET SAV
	Instrument ID: CVGU									
Total/NA	Analysis	9056A		1	5 mL	5 mL	839256	05/22/24 15:38	UI	EET SAV
	Instrument ID: CICP									
Total/NA	Analysis	9056A		1	2 mL	2 mL	840826	06/03/24 15:39	AF	EET SAV
	Instrument ID: CICR									
Total Recoverable	Prep	3005A			25 mL	125 mL	839364	05/23/24 05:06	RR	EET SAV
Total Recoverable	Analysis	6020A		1			839543	05/23/24 17:43	BJB	EET SAV
	Instrument ID: ICPMSD									
Total/NA	Analysis	2320B-2011		1			839641	05/24/24 00:17	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	4500 S2 F-2011		1	290 mL	290 mL	839678	05/24/24 12:46	JAS	EET SAV
	Instrument ID: NoEquip									
Total/NA	Analysis	9060A		1	40 mL	40 mL	839738	05/24/24 04:55	NVF	EET SAV
	Instrument ID: TOC7									

Lab Chronicle

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-251090-1

Client Sample ID: OU6-MW-237-20240521

Lab Sample ID: 680-251090-2

Date Collected: 05/21/24 10:00

Matrix: Water

Date Received: 05/22/24 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 CO2 D		1			839641	05/24/24 00:17	PG	EET SAV

Client Sample ID: OU6-MW-254-20240521

Lab Sample ID: 680-251090-3

Date Collected: 05/21/24 09:00

Matrix: Water

Date Received: 05/22/24 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	840514	05/31/24 16:43	P1C	EET SAV
	Instrument ID: CMSAH									
Total/NA	Analysis	8260D		1	5 mL	5 mL	840778	06/03/24 17:05	P1C	EET SAV
	Instrument ID: CMSAJ									
Total/NA	Analysis	RSK-175		1	17 mL	17 mL	840649	06/01/24 19:54	OK	EET SAV
	Instrument ID: CVGU									
Total/NA	Analysis	9056A		1	5 mL	5 mL	839256	05/22/24 15:46	UI	EET SAV
	Instrument ID: CICP									
Total/NA	Analysis	9056A		1	2 mL	2 mL	840826	06/03/24 15:46	AF	EET SAV
	Instrument ID: CICR									
Total Recoverable	Prep	3005A			25 mL	125 mL	839364	05/23/24 05:06	RR	EET SAV
Total Recoverable	Analysis	6020A		1			839543	05/23/24 17:47	BJB	EET SAV
	Instrument ID: ICPMSD									
Total/NA	Analysis	2320B-2011		1			839930	05/24/24 13:49	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	4500 S2 F-2011		1	290 mL	290 mL	839678	05/24/24 12:46	JAS	EET SAV
	Instrument ID: NoEquip									
Total/NA	Analysis	9060A		1	40 mL	40 mL	839738	05/24/24 05:11	NVF	EET SAV
	Instrument ID: TOC7									
Total/NA	Analysis	SM 4500 CO2 D		1			839930	05/24/24 13:49	PG	EET SAV
	Instrument ID: MANTECH 2									

Client Sample ID: OU6-MW-253-20240521

Lab Sample ID: 680-251090-4

Date Collected: 05/21/24 10:05

Matrix: Water

Date Received: 05/22/24 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	840928	06/04/24 13:50	P1C	EET SAV
	Instrument ID: CMSAB									
Total/NA	Analysis	8260D		1	5 mL	5 mL	841121	06/05/24 15:14	NTA	EET SAV
	Instrument ID: CMSAB									
Total/NA	Analysis	8260D		1	5 mL	5 mL	840531	05/31/24 15:03	P1C	EET SAV
	Instrument ID: CMSAJ									
Total/NA	Analysis	RSK-175		1	17 mL	17 mL	840831	06/03/24 15:18	OK	EET SAV
	Instrument ID: CVGU									
Total/NA	Analysis	9056A		2	5 mL	5 mL	839256	05/22/24 16:36	UI	EET SAV
	Instrument ID: CICP									

Lab Chronicle

Client: Meadows CMPG, Inc
Job ID: 680-251090-1
Project/Site: DSCR - OU6 Annual

Client Sample ID: OU6-MW-253-20240521
Lab Sample ID: 680-251090-4
Date Collected: 05/21/24 10:05
Matrix: Water
Date Received: 05/22/24 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	2 mL	2 mL	840826	06/03/24 15:52	AF	EET SAV
Total Recoverable	Prep	3005A			25 mL	125 mL	839364	05/23/24 05:06	RR	EET SAV
Total Recoverable	Analysis	6020A		1			839543	05/23/24 17:49	BJB	EET SAV
	Instrument ID: ICPMSD									
Total/NA	Analysis	2320B-2011		1			839930	05/24/24 13:58	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	4500 S2 F-2011		1	310 mL	310 mL	839678	05/24/24 12:46	JAS	EET SAV
	Instrument ID: NoEquip									
Total/NA	Analysis	9060A		1	40 mL	40 mL	839738	05/24/24 05:31	NVF	EET SAV
	Instrument ID: TOC7									
Total/NA	Analysis	SM 4500 CO2 D		1			839930	05/24/24 13:58	PG	EET SAV
	Instrument ID: MANTECH 2									

Client Sample ID: OU6-MW-256-20240521
Lab Sample ID: 680-251090-5
Date Collected: 05/21/24 07:55
Matrix: Water
Date Received: 05/22/24 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	840928	06/04/24 14:13	P1C	EET SAV
	Instrument ID: CMSAB									
Total/NA	Analysis	8260D		1	5 mL	5 mL	840531	05/31/24 15:24	P1C	EET SAV
	Instrument ID: CMSAJ									
Total/NA	Analysis	RSK-175		1	17 mL	17 mL	840831	06/03/24 15:31	OK	EET SAV
	Instrument ID: CVGU									
Total/NA	Analysis	9056A		1	5 mL	5 mL	839256	05/22/24 16:44	UI	EET SAV
	Instrument ID: CICP									
Total/NA	Analysis	9056A		1	2 mL	2 mL	840826	06/03/24 15:59	AF	EET SAV
	Instrument ID: CICR									
Total Recoverable	Prep	3005A			25 mL	125 mL	839364	05/23/24 05:06	RR	EET SAV
Total Recoverable	Analysis	6020A		1			839543	05/23/24 17:51	BJB	EET SAV
	Instrument ID: ICPMSD									
Total/NA	Analysis	2320B-2011		1			839930	05/24/24 13:40	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	4500 S2 F-2011		1	300 mL	300 mL	839678	05/24/24 12:46	JAS	EET SAV
	Instrument ID: NoEquip									
Total/NA	Analysis	9060A		1	40 mL	40 mL	839739	05/24/24 07:13	NVF	EET SAV
	Instrument ID: TOC7									
Total/NA	Analysis	SM 4500 CO2 D		1			839930	05/24/24 13:40	PG	EET SAV
	Instrument ID: MANTECH 2									

Lab Chronicle

Client: Meadows CMPG, Inc
Job ID: 680-251090-1
Project/Site: DSCR - OU6 Annual

Client Sample ID: OU6-MW-252-20240521
Lab Sample ID: 680-251090-6
Date Collected: 05/21/24 11:10
Matrix: Water
Date Received: 05/22/24 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	840928	06/04/24 14:36	P1C	EET SAV
	Instrument ID: CMSAB									
Total/NA	Analysis	8260D		1	5 mL	5 mL	840531	05/31/24 15:46	P1C	EET SAV
	Instrument ID: CMSAJ									
Total/NA	Analysis	RSK-175		1	17 mL	17 mL	840831	06/03/24 15:44	OK	EET SAV
	Instrument ID: CVGU									
Total/NA	Analysis	9056A		1	5 mL	5 mL	839256	05/22/24 16:53	UI	EET SAV
	Instrument ID: CICP									
Total/NA	Analysis	9056A		1	2 mL	2 mL	840871	06/03/24 18:36	AF	EET SAV
	Instrument ID: CICR									
Total Recoverable	Prep	3005A			25 mL	125 mL	839364	05/23/24 05:06	RR	EET SAV
Total Recoverable	Analysis	6020A		1			839543	05/23/24 17:53	BJB	EET SAV
	Instrument ID: ICPMSD									
Total/NA	Analysis	2320B-2011		1			839938	05/24/24 23:20	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	4500 S2 F-2011		1	300 mL	300 mL	839678	05/24/24 12:46	JAS	EET SAV
	Instrument ID: NoEquip									
Total/NA	Analysis	9060A		1	40 mL	40 mL	839739	05/24/24 07:47	NVF	EET SAV
	Instrument ID: TOC7									
Total/NA	Analysis	SM 4500 CO2 D		1			839938	05/24/24 23:20	PG	EET SAV
	Instrument ID: MANTECH 2									

Client Sample ID: OU6-MW-240-20240521
Lab Sample ID: 680-251090-7
Date Collected: 05/21/24 13:10
Matrix: Water
Date Received: 05/22/24 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	840531	05/31/24 16:07	P1C	EET SAV
	Instrument ID: CMSAJ									
Total/NA	Analysis	8260D	DL	5	5 mL	5 mL	840778	06/03/24 18:15	P1C	EET SAV
	Instrument ID: CMSAJ									
Total/NA	Analysis	RSK-175		1	17 mL	17 mL	840831	06/03/24 15:57	OK	EET SAV
	Instrument ID: CVGU									
Total/NA	Analysis	9056A		2	5 mL	5 mL	839256	05/22/24 17:01	UI	EET SAV
	Instrument ID: CICP									
Total/NA	Analysis	9056A		1	2 mL	2 mL	840826	06/03/24 16:45	AF	EET SAV
	Instrument ID: CICR									
Total Recoverable	Prep	3005A			25 mL	125 mL	839364	05/23/24 05:06	RR	EET SAV
Total Recoverable	Analysis	6020A		1			839543	05/23/24 17:55	BJB	EET SAV
	Instrument ID: ICPMSD									
Total/NA	Analysis	2320B-2011		1			839930	05/24/24 13:33	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	4500 S2 F-2011		1	310 mL	310 mL	839678	05/24/24 12:47	JAS	EET SAV
	Instrument ID: NoEquip									

Lab Chronicle

Client: Meadows CMPG, Inc
Job ID: 680-251090-1
Project/Site: DSCR - OU6 Annual

Client Sample ID: OU6-MW-240-20240521
Lab Sample ID: 680-251090-7
Date Collected: 05/21/24 13:10
Matrix: Water
Date Received: 05/22/24 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060A		1	40 mL	40 mL	839739	05/24/24 08:06	NVF	EET SAV
Total/NA	Analysis	SM 4500 CO2 D		1			839930	05/24/24 13:33	PG	EET SAV
	Instrument ID: MANTECH 2									

Client Sample ID: OU6-MW-238-20240521
Lab Sample ID: 680-251090-8
Date Collected: 05/21/24 12:10
Matrix: Water
Date Received: 05/22/24 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		50	5 mL	5 mL	840778	06/03/24 19:26	P1C	EET SAV
	Instrument ID: CMSAJ									
Total/NA	Analysis	RSK-175		1	17 mL	17 mL	840831	06/03/24 16:42	OK	EET SAV
	Instrument ID: CVGU									
Total/NA	Analysis	9056A		2	5 mL	5 mL	839256	05/22/24 17:09	UI	EET SAV
	Instrument ID: CICP									
Total/NA	Analysis	9056A		1	2 mL	2 mL	840826	06/03/24 16:51	AF	EET SAV
	Instrument ID: CICR									
Total Recoverable	Prep	3005A			25 mL	125 mL	839364	05/23/24 05:06	RR	EET SAV
Total Recoverable	Analysis	6020A		1			839543	05/23/24 17:57	BJB	EET SAV
	Instrument ID: ICPMSD									
Total/NA	Analysis	2320B-2011		1			839930	05/24/24 13:22	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	4500 S2 F-2011		1	270 mL	270 mL	839686	05/24/24 13:30	JAS	EET SAV
	Instrument ID: NoEquip									
Total/NA	Analysis	9060A		1	40 mL	40 mL	839739	05/24/24 08:24	NVF	EET SAV
	Instrument ID: TOC7									
Total/NA	Analysis	SM 4500 CO2 D		1			839930	05/24/24 13:22	PG	EET SAV
	Instrument ID: MANTECH 2									

Client Sample ID: OU6-MW-290-20240521
Lab Sample ID: 680-251090-9
Date Collected: 05/21/24 12:00
Matrix: Water
Date Received: 05/22/24 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		10	5 mL	5 mL	840778	06/03/24 18:39	P1C	EET SAV
	Instrument ID: CMSAJ									
Total/NA	Analysis	RSK-175		1	17 mL	17 mL	840831	06/03/24 16:55	OK	EET SAV
	Instrument ID: CVGU									
Total/NA	Analysis	9056A		1	5 mL	5 mL	839256	05/22/24 17:17	UI	EET SAV
	Instrument ID: CICP									
Total/NA	Analysis	9056A		2	2 mL	2 mL	840826	06/03/24 16:58	AF	EET SAV
	Instrument ID: CICR									
Total Recoverable	Prep	3005A			25 mL	125 mL	839364	05/23/24 05:06	RR	EET SAV
Total Recoverable	Analysis	6020A		1			839543	05/23/24 17:59	BJB	EET SAV
	Instrument ID: ICPMSD									

Client Sample ID: OU6-MW-290-20240521
Lab Sample ID: 680-251090-9

Date Collected: 05/21/24 12:00
Matrix: Water
Date Received: 05/22/24 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2320B-2011		1			839930	05/24/24 14:15	PG	EET SAV
Total/NA	Analysis	4500 S2 F-2011		1	310 mL	310 mL	839686	05/24/24 13:30	JAS	EET SAV
	Instrument ID: NoEquip									
Total/NA	Analysis	9060A		1	40 mL	40 mL	839739	05/24/24 08:42	NVF	EET SAV
	Instrument ID: TOC7									
Total/NA	Analysis	SM 4500 CO2 D		1			839930	05/24/24 14:15	PG	EET SAV
	Instrument ID: MANTECH 2									

Client Sample ID: OU6-MW-294-20240521
Lab Sample ID: 680-251090-10

Date Collected: 05/21/24 10:27
Matrix: Water
Date Received: 05/22/24 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		5	5 mL	5 mL	840928	06/04/24 13:28	P1C	EET SAV
	Instrument ID: CMSAB									
Total/NA	Analysis	8260D		5	5 mL	5 mL	841121	06/05/24 15:40	NTA	EET SAV
	Instrument ID: CMSAB									
Total/NA	Analysis	8260D		5	5 mL	5 mL	840531	05/31/24 19:08	P1C	EET SAV
	Instrument ID: CMSAJ									
Total/NA	Analysis	RSK-175		1	17 mL	17 mL	840831	06/03/24 17:08	OK	EET SAV
	Instrument ID: CVGU									
Total/NA	Analysis	9056A		1	5 mL	5 mL	839256	05/22/24 17:26	UI	EET SAV
	Instrument ID: CICP									
Total/NA	Analysis	9056A		1	2 mL	2 mL	840826	06/03/24 17:04	AF	EET SAV
	Instrument ID: CICR									
Total Recoverable	Prep	3005A			25 mL	125 mL	839364	05/23/24 05:06	RR	EET SAV
Total Recoverable	Analysis	6020A		1			839543	05/23/24 18:04	BJB	EET SAV
	Instrument ID: ICPMSD									
Total/NA	Analysis	2320B-2011		1			839930	05/24/24 14:24	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	4500 S2 F-2011		1	310 mL	310 mL	839686	05/24/24 13:30	JAS	EET SAV
	Instrument ID: NoEquip									
Total/NA	Analysis	9060A		1	40 mL	40 mL	839739	05/24/24 09:00	NVF	EET SAV
	Instrument ID: TOC7									
Total/NA	Analysis	SM 4500 CO2 D		1			839930	05/24/24 14:24	PG	EET SAV
	Instrument ID: MANTECH 2									

Client Sample ID: OU6-MW-293-20240521
Lab Sample ID: 680-251090-11

Date Collected: 05/21/24 08:50
Matrix: Water
Date Received: 05/22/24 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	840928	06/04/24 14:58	P1C	EET SAV
	Instrument ID: CMSAB									

Lab Chronicle

Client: Meadows CMPG, Inc
Job ID: 680-251090-1
Project/Site: DSCR - OU6 Annual

Client Sample ID: OU6-MW-293-20240521
Lab Sample ID: 680-251090-11
Date Collected: 05/21/24 08:50
Matrix: Water
Date Received: 05/22/24 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	840531	05/31/24 16:29	P1C	EET SAV
Total/NA	Analysis	RSK-175		1	17 mL	17 mL	840831	06/03/24 17:21	OK	EET SAV
	Instrument ID: CVGU									
Total/NA	Analysis	9056A		1	5 mL	5 mL	839256	05/22/24 17:34	UI	EET SAV
	Instrument ID: CICP									
Total/NA	Analysis	9056A		1	2 mL	2 mL	840826	06/03/24 17:11	AF	EET SAV
	Instrument ID: CICR									
Total Recoverable	Prep	3005A			25 mL	125 mL	839364	05/23/24 05:06	RR	EET SAV
Total Recoverable	Analysis	6020A		1			839543	05/23/24 18:06	BJB	EET SAV
	Instrument ID: ICPMSD									
Total/NA	Analysis	2320B-2011		1			839930	05/24/24 14:07	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	4500 S2 F-2011		1	310 mL	310 mL	839686	05/24/24 13:30	JAS	EET SAV
	Instrument ID: NoEquip									
Total/NA	Analysis	9060A		1	40 mL	40 mL	839739	05/24/24 09:18	NVF	EET SAV
	Instrument ID: TOC7									
Total/NA	Analysis	SM 4500 CO2 D		1			839930	05/24/24 14:07	PG	EET SAV
	Instrument ID: MANTECH 2									

Client Sample ID: EB-20240521
Lab Sample ID: 680-251090-12
Date Collected: 05/21/24 00:00
Matrix: Water
Date Received: 05/22/24 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	840531	05/31/24 13:37	P1C	EET SAV
	Instrument ID: CMSAJ									
Total/NA	Analysis	8260D		1	5 mL	5 mL	840778	06/03/24 12:47	P1C	EET SAV
	Instrument ID: CMSAJ									

Client Sample ID: TRIP-BLANK-20240521
Lab Sample ID: 680-251090-13
Date Collected: 05/21/24 00:00
Matrix: Water
Date Received: 05/22/24 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	840531	05/31/24 13:58	P1C	EET SAV
	Instrument ID: CMSAJ									
Total/NA	Analysis	8260D		1	5 mL	5 mL	840778	06/03/24 13:09	P1C	EET SAV
	Instrument ID: CMSAJ									

Client Sample ID: OU6-MW-236-20240521
Lab Sample ID: 680-251090-14

Date Collected: 05/21/24 10:15
Matrix: Water
Date Received: 05/22/24 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	840928	06/04/24 15:21	P1C	EET SAV
	Instrument ID: CMSAB									
Total/NA	Analysis	RSK-175		1	17 mL	17 mL	840831	06/03/24 18:39	OK	EET SAV
	Instrument ID: CVGU									
Total/NA	Analysis	9056A		1	5 mL	5 mL	839256	05/22/24 16:11	UI	EET SAV
	Instrument ID: CICP									
Total/NA	Analysis	9056A		1	2 mL	2 mL	840826	06/03/24 16:25	AF	EET SAV
	Instrument ID: CICR									
Total Recoverable	Prep	3005A			25 mL	125 mL	839365	05/23/24 05:06	RR	EET SAV
Total Recoverable	Analysis	6020A		1			839543	05/23/24 19:13	BJB	EET SAV
	Instrument ID: ICPMSD									
Total/NA	Analysis	2320B-2011		1			839930	05/24/24 15:11	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	4500 S2 F-2011		1	310 mL	310 mL	839686	05/24/24 13:30	JAS	EET SAV
	Instrument ID: NoEquip									
Total/NA	Analysis	9060A		1	40 mL	40 mL	840410	05/28/24 14:27	NVF	EET SAV
	Instrument ID: TOC8									
Total/NA	Analysis	SM 4500 CO2 D		1			839930	05/24/24 15:11	PG	EET SAV
	Instrument ID: MANTECH 2									

Client Sample ID: OU6-MW-287-20240521
Lab Sample ID: 680-251090-15

Date Collected: 05/21/24 13:15
Matrix: Water
Date Received: 05/22/24 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	840966	06/04/24 15:38	Y1S	EET SAV
	Instrument ID: CMSAA									
Total/NA	Prep	3510C			232.6 mL	1 mL	839376	05/23/24 07:08	DS	EET SAV
Total/NA	Analysis	8270E SIM ID		1	1 mL	1 mL	839813	05/27/24 18:55	NED	EET SAV
	Instrument ID: CMSX									
Total/NA	Analysis	RSK-175		1	17 mL	17 mL	840831	06/03/24 17:34	OK	EET SAV
	Instrument ID: CVGU									
Total/NA	Analysis	9056A		1	5 mL	5 mL	839256	05/22/24 17:42	UI	EET SAV
	Instrument ID: CICP									
Total/NA	Analysis	9056A		1	2 mL	2 mL	840826	06/03/24 17:18	AF	EET SAV
	Instrument ID: CICR									
Total Recoverable	Prep	3005A			25 mL	125 mL	839364	05/23/24 05:06	RR	EET SAV
Total Recoverable	Analysis	6020A		1			839543	05/23/24 18:08	BJB	EET SAV
	Instrument ID: ICPMSD									
Total/NA	Analysis	2320B-2011		1			839930	05/24/24 15:27	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	4500 S2 F-2011		1	300 mL	300 mL	839686	05/24/24 13:30	JAS	EET SAV
	Instrument ID: NoEquip									

Lab Chronicle

Client: Meadows CMPG, Inc
Job ID: 680-251090-1
Project/Site: DSCR - OU6 Annual

Client Sample ID: OU6-MW-287-20240521
Lab Sample ID: 680-251090-15
Date Collected: 05/21/24 13:15
Matrix: Water
Date Received: 05/22/24 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060A		1	40 mL	40 mL	839739	05/24/24 09:35	NVF	EET SAV
Total/NA	Analysis	SM 4500 CO2 D		1			839930	05/24/24 15:27	PG	EET SAV
	Instrument ID: MANTECH 2									

Client Sample ID: OU6-MW-170-20240521
Lab Sample ID: 680-251090-16
Date Collected: 05/21/24 08:30
Matrix: Water
Date Received: 05/22/24 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	840531	05/31/24 17:33	P1C	EET SAV
	Instrument ID: CMSAJ									
Total/NA	Analysis	8260D	DL	5	5 mL	5 mL	840778	06/03/24 17:51	P1C	EET SAV
	Instrument ID: CMSAJ									
Total/NA	Analysis	RSK-175		1	17 mL	17 mL	840831	06/03/24 17:47	OK	EET SAV
	Instrument ID: CVGU									
Total/NA	Analysis	9056A		1	5 mL	5 mL	839316	05/22/24 18:57	AF	EET SAV
	Instrument ID: CICP									
Total/NA	Analysis	9056A		1	2 mL	2 mL	840826	06/03/24 17:24	AF	EET SAV
	Instrument ID: CICR									
Total Recoverable	Prep	3005A			25 mL	125 mL	839364	05/23/24 05:06	RR	EET SAV
Total Recoverable	Analysis	6020A		1			839543	05/23/24 18:10	BJB	EET SAV
	Instrument ID: ICPMSD									
Total/NA	Analysis	2320B-2011		1			839930	05/24/24 14:41	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	4500 S2 F-2011		1	310 mL	310 mL	839686	05/24/24 13:30	JAS	EET SAV
	Instrument ID: NoEquip									
Total/NA	Analysis	9060A		10	40 mL	40 mL	839739	05/24/24 15:44	NVF	EET SAV
	Instrument ID: TOC7									
Total/NA	Analysis	SM 4500 CO2 D		1			839930	05/24/24 14:41	PG	EET SAV
	Instrument ID: MANTECH 2									

Client Sample ID: OU6-MW-241-20240521
Lab Sample ID: 680-251090-17
Date Collected: 05/21/24 13:45
Matrix: Water
Date Received: 05/22/24 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	840966	06/04/24 16:00	Y1S	EET SAV
	Instrument ID: CMSAA									
Total/NA	Analysis	8260D		1	5 mL	5 mL	840514	05/31/24 17:27	P1C	EET SAV
	Instrument ID: CMSAH									
Total/NA	Analysis	RSK-175		1	17 mL	17 mL	840831	06/03/24 18:00	OK	EET SAV
	Instrument ID: CVGU									
Total/NA	Analysis	9056A		2	5 mL	5 mL	839316	05/22/24 18:48	AF	EET SAV
	Instrument ID: CICP									

Lab Chronicle

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-251090-1

Client Sample ID: OU6-MW-241-20240521

Lab Sample ID: 680-251090-17

Date Collected: 05/21/24 13:45
Matrix: Water
Date Received: 05/22/24 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	2 mL	2 mL	840826	06/03/24 17:31	AF	EET SAV
Total Recoverable	Prep	3005A			25 mL	125 mL	839365	05/23/24 05:06	RR	EET SAV
Total Recoverable	Analysis	6020A		1			839543	05/23/24 19:19	BJB	EET SAV
	Instrument ID: ICPMSD									
Total/NA	Analysis	2320B-2011		1			839930	05/24/24 15:37	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	4500 S2 F-2011		1	310 mL	310 mL	839686	05/24/24 13:30	JAS	EET SAV
	Instrument ID: NoEquip									
Total/NA	Analysis	9060A		1	40 mL	40 mL	840410	05/28/24 15:32	NVF	EET SAV
	Instrument ID: TOC8									
Total/NA	Analysis	SM 4500 CO2 D		1			839930	05/24/24 15:37	PG	EET SAV
	Instrument ID: MANTECH 2									

Client Sample ID: OU6-MW-239-20240521

Lab Sample ID: 680-251090-18

Date Collected: 05/21/24 11:30
Matrix: Water
Date Received: 05/22/24 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		25	5 mL	5 mL	840531	05/31/24 18:21	P1C	EET SAV
	Instrument ID: CMSAJ									
Total/NA	Analysis	8260D		25	5 mL	5 mL	840778	06/03/24 19:02	P1C	EET SAV
	Instrument ID: CMSAJ									
Total/NA	Analysis	RSK-175		1	17 mL	17 mL	840831	06/03/24 18:13	OK	EET SAV
	Instrument ID: CVGU									
Total/NA	Analysis	9056A		1	5 mL	5 mL	839316	05/22/24 19:05	AF	EET SAV
	Instrument ID: CICP									
Total/NA	Analysis	9056A		1	2 mL	2 mL	840826	06/03/24 17:37	AF	EET SAV
	Instrument ID: CICR									
Total Recoverable	Prep	3005A			25 mL	125 mL	839365	05/23/24 05:06	RR	EET SAV
Total Recoverable	Analysis	6020A		1			839543	05/23/24 19:21	BJB	EET SAV
	Instrument ID: ICPMSD									
Total/NA	Analysis	2320B-2011		1			839930	05/24/24 15:45	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	4500 S2 F-2011		1	310 mL	310 mL	839686	05/24/24 13:30	JAS	EET SAV
	Instrument ID: NoEquip									
Total/NA	Analysis	9060A		1	40 mL	40 mL	840410	05/28/24 15:52	NVF	EET SAV
	Instrument ID: TOC8									
Total/NA	Analysis	SM 4500 CO2 D		1			839930	05/24/24 15:45	PG	EET SAV
	Instrument ID: MANTECH 2									

Lab Chronicle

Client: Meadows CMPG, Inc
Job ID: 680-251090-1
Project/Site: DSCR - OU6 Annual

Client Sample ID: OU6-MW-244-20240521
Lab Sample ID: 680-251090-19
Date Collected: 05/21/24 14:30
Matrix: Water
Date Received: 05/22/24 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	840514	05/31/24 17:49	P1C	EET SAV
	Instrument ID: CMSAH									
Total/NA	Analysis	8260D		1	5 mL	5 mL	840778	06/03/24 17:27	P1C	EET SAV
	Instrument ID: CMSAJ									
Total/NA	Analysis	RSK-175		1	17 mL	17 mL	840831	06/03/24 18:26	OK	EET SAV
	Instrument ID: CVGU									
Total/NA	Analysis	9056A		1	5 mL	5 mL	839316	05/22/24 18:24	AF	EET SAV
	Instrument ID: CICP									
Total/NA	Analysis	9056A		1	2 mL	2 mL	840871	06/03/24 18:17	AF	EET SAV
	Instrument ID: CICR									
Total Recoverable	Prep	3005A			25 mL	125 mL	839365	05/23/24 05:06	RR	EET SAV
Total Recoverable	Analysis	6020A		1			839543	05/23/24 19:23	BJB	EET SAV
	Instrument ID: ICPMSD									
Total/NA	Analysis	2320B-2011		1			839930	05/24/24 15:52	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	4500 S2 F-2011		1	310 mL	310 mL	839686	05/24/24 13:30	JAS	EET SAV
	Instrument ID: NoEquip									
Total/NA	Analysis	9060A		1	40 mL	40 mL	840410	05/28/24 16:10	NVF	EET SAV
	Instrument ID: TOC8									
Total/NA	Analysis	SM 4500 CO2 D		1			839930	05/24/24 15:52	PG	EET SAV
	Instrument ID: MANTECH 2									

Laboratory References:

EET SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Accreditation/Certification Summary

Client: Meadows CMPG, Inc
Job ID: 680-251090-1
Project/Site: DSCR - OU6 Annual

Laboratory: Eurofins Savannah

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
ANAB	Dept. of Defense ELAP	L2463	09-22-24
Virginia	NELAP	460161	06-14-24

Method Summary

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-251090-1

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds (GC/MS)	SW846	EET SAV
8270E SIM ID	Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)	SW846	EET SAV
RSK-175	Dissolved Gases (GC)	RSK	EET SAV
9056A	Anions, Ion Chromatography	SW846	EET SAV
6020A	Metals (ICP/MS)	SW846	EET SAV
2320B-2011	Alkalinity, Total	SM	EET SAV
4500 S2 F-2011	Sulfide, Total	SM	EET SAV
9060A	Organic Carbon, Total (TOC)	SW846	EET SAV
SM 4500 CO2 D	Carbon Dioxide and Forms of Alkalinity by Calculation	SM	EET SAV
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET SAV
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	EET SAV
5030C	Purge and Trap	SW846	EET SAV

Protocol References:

RSK = Sample Prep And Calculations For Dissolved Gas Analysis In Water Samples Using A GC Headspace Equilibration Technique , RSKSOP-175, Rev. 0, 8/11/94, USEPA Research Lab

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Eurofins Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Phone (912) 354-7858 Phone (912) 352-0165

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: Tim, TJ, Quin and Bruce	Lab PM: Lanier, Jerry	Carrier Tracking No(s):	COC No:
Client Contact: Andrew VanBuesking	Phone: 757-589-5825	E-Mail: Jerry.Lanier@et.eurofinsus.com	State of Origin: VA	Page: Page 1 of 2
Company: Meadows CMPG	PWSID:			Job #:
Address: 2107 Granby St	Due Date Requested:			
City: Norfolk	TAT Requested (days): STD			
State, Zip: VA	Compliance Project: Δ Yes Δ No			
Phone: 757-623-3107	PO #: 0045-0011			
Email: avanbuesking@meadowscmpg	WO #:			
Project Name: OU6 Annual	Project #:			
Site: DSCR, OU6	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260D_DOD5 - (MOD) Volatiles		RSK_175_DOD5 - Ethane, Ethene, Methane	9060A - TOC	9056A_OF28D_D5 - Chloride & Sulfate 9056A_OF_48H_D5 - Local Method	SM4500_S2_F - Sulfide, Total	6020A_DOD5 - Manganese	SM4500_CO2_D - Carbon Dioxide	2320B - Alkalinity		8270E_DOD5 - (MOD) Semivolatiles (without PAHs)	8270E_SIM_DOD5 - Routine PAH	8081B_8082A_D5 - Routine Pesticides & PCBs	7470A_DOD5 - Mercury 6020A_DOD5- (MOD) TAL Metals	8270E_SIM_ID_D5 Local Method - Dioxane	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A		A	S	N	CB	D	N	N		N	N	N	D	N		
OU6-MW-223-20240521	5/21/24	0850	G	W			3		3	3	1	2	1	1	1							15	
OU6-MW-237-20240521	5/21/24	1000	G	W			3		3	3	1	2	1	1	1							15	
OU6-MW-254-20240521	5/21/24	0900	G	W			3		3	3	1	2	1	1	1							15	
OU6-MW-253-20240521	5/21/24	1005	G	W			3		3	3	1	2	1	1	1							15	
OU6-MW-256-20240521	5/21/24	0755	G	W			3		3	3	1	2	1	1	1							15	
OU6-MW-252-20240521	5/21/24	1110	G	W			3		3	3	1	2	1	1	1							15	
OU6-MW-240-20240521	5/21/24	1310	G	W			3		3	3	1	2	1	1	1							15	
OU6-MW-238-20240521	5/21/24	1210	G	W			3		3	3	1	2	1	1	1							15	
OU6-MW-290-20240521	5/21/24	1200	G	W			3		3	3	1	2	1	1	1							15	
OU6-MW-294-20240521	5/21/24	1027	G	W			3		3	3	1	2	1	1	1							15	
OU6-MW-293-20240521	5/21/24	0850	G	W			3		3	3	1	2	1	1	1							15	680-251090

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ■ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ■ Disposal By Lab Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:			Method of Shipment:	
BRUCE DIGGS	5-21-2024/1600	Company	Received by:	Date/Time: Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: Company
Relinquished by:	Date/Time:	Company	Received by: Dutha Daughtry	Date/Time: 5-22-24 @ 930 Company: EET-SAV

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: 3.2/3.3 1.8/1.9 0.2/0.7

Ver: 01/16/2019

Eurofins Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Phone (912) 354-7858 Phone (912) 352-0165

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler:	Lab PM: Lanier, Jerry	Carrier Tracking No(s):	COC No:
Client Contact: Andrew VanBuesking	Phone: 757-589-5825	E-Mail: Jerry.Lanier@et.eurofinsus.com	State of Origin: VA	Page: Page 2 of 2
Company: Meadows CMPG	PWSID:			Job #:
Address: 2107 Granby St	Due Date Requested:			
City: Norfolk	TAT Requested (days): STD			
State, Zip: VA	Compliance Project: Δ Yes Δ No			
Phone: 757-623-3107	PO #: 0045-0011			
Email: avanbuesking@meadowscmpg	WO #:			
Project Name: OU6 Annual	Project #:			
Site: DSCR, OU6	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260D_DOD5 - (MOD) Volatiles		RSK_175_DOD5 - Ethane, Ethene, Methane	9060A - TOC	9056A_OF28D_D5 - Chloride & Sulfate 9056A_OF_48H_D5 - Local Method	SM4500_S2_F - Sulfide, Total	6020A_DOD5 - Manganese	SM4500_CO2_D - Carbon Dioxide	2320B - Alkalinity		8270E_DOD5 - (MOD) Semivolatiles (without PAHs)	8270E_SIM_DOD5 - Routine PAH	8081B_8082A_D5 - Routine Pesticides & PCBs	7470A_DOD5 - Mercury 6020A_DOD5- (MOD) TAL Metals	8270E_SIM_ID_D6 Local Method - Dioxane	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A		A	S	N	CB	D	N	N		N	N	N	D	N		
EB-20240521	5/21/24	0000	G	W			3															3	
TRIP-BLANK-20240521	5/21/24		G	W			2															0	
OU6-MW-236-20240521	5/21/24	1015	G	W			9		9	9	3	6	3	3	3							45	MS/MSD
OU6-MW-287-20240521	5/21/24	1315	G	W			3		3	3	1	2	1	1	1						2	17	
OU6-MW-170-20240521	5/21/24	0830	G	W			3		3	3	1	2	1	1	1							15	
OU6-MW-241-20240521	5/21/24	1345	G	W			3		3	3	1	2	1	1	1							15	
OU6-MW-239-20240521	5/21/24	1130	G	W			3		3	3	1	2	1	1	1							0	
OU6-MW-244-20240521	5/21/24	1430	G	W			3		3	3	1	2	1	1	1							15	
																						0	
																						0	
																						0	

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ■ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ■ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:
BRUCE DiGGS	5-21-2024/1600	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by: Ruth Q Drumtry	Date/Time: 5-22-24 0930	Company EET-SAV

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: 3.2/3.3 0.6/0.7 1.8/1.9

Ver: 01/16/2019

Login Sample Receipt Checklist

Client: Meadows CMPG, Inc

Job Number: 680-251090-1

Login Number: 251090

List Source: Eurofins Savannah

List Number: 1

Creator: Sims, Robert D

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

PREPARED FOR

Attn: Kandyce Keller
Meadows CMPG, Inc
2107 Granby Street
Norfolk, Virginia 23517

Generated 6/10/2024 11:40:24 PM

JOB DESCRIPTION

DSCR - OU6 Annual

JOB NUMBER

680-251152-1

Eurofins Savannah
5102 LaRoche Avenue
Savannah GA 31404

See page two for job notes and contact information.

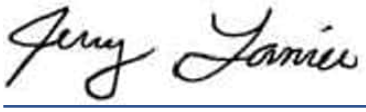
my EOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Southeast, LLC Project Manager.

Authorization



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Authorized for release by
Jerry Lanier, Project Manager I
Jerry.Lanier@et.eurofinsus.com
(912)250-0281

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
D	The reported value is from a dilution.
H	Sample was prepped or analyzed beyond the specified holding time. This does not meet regulatory requirements.
J	Estimated: The analyte was positively identified; the quantitation is an estimation
M	Manual integrated compound.
Q	One or more quality control criteria failed.
U	Undetected at the Limit of Detection.

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Estimated: The analyte was positively identified; the quantitation is an estimation
M	Manual integrated compound.
Q	One or more quality control criteria failed.
U	Undetected at the Limit of Detection.

GC VOA

Qualifier	Qualifier Description
J	Estimated: The analyte was positively identified; the quantitation is an estimation
U	Undetected at the Limit of Detection.

GC Semi VOA

Qualifier	Qualifier Description
J	Estimated: The analyte was positively identified; the quantitation is an estimation
M	Manual integrated compound.
Q	One or more quality control criteria failed.
U	Undetected at the Limit of Detection.

HPLC/IC

Qualifier	Qualifier Description
D	The reported value is from a dilution.
J	Estimated: The analyte was positively identified; the quantitation is an estimation
J1	Estimated: The quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.
M	Manual integrated compound.
U	Undetected at the Limit of Detection.

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
J	Estimated: The analyte was positively identified; the quantitation is an estimation
Q	One or more quality control criteria failed.
U	Undetected at the Limit of Detection.

General Chemistry

Qualifier	Qualifier Description
D	The reported value is from a dilution.
J	Estimated: The analyte was positively identified; the quantitation is an estimation
U	Undetected at the Limit of Detection.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Sample Summary

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-251152-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-251152-1	OU6-MW-130-20240522	Water	05/22/24 12:25	05/23/24 09:29
680-251152-2	OU6-MW-272-20240522	Water	05/22/24 08:05	05/23/24 09:29
680-251152-3	OU6-DUP-5-20240522	Water	05/22/24 00:00	05/23/24 09:29
680-251152-4	OU6-MW-88-20240522	Water	05/22/24 10:05	05/23/24 09:29
680-251152-5	OU6-MW-271-20240522	Water	05/22/24 07:55	05/23/24 09:29
680-251152-6	OU6-MW-247-20240522	Water	05/22/24 09:20	05/23/24 09:29
680-251152-7	OU6-MW-251-20240522	Water	05/22/24 12:10	05/23/24 09:29
680-251152-8	OU6-MW-250-20240522	Water	05/22/24 10:50	05/23/24 09:29
680-251152-9	OU6-MW-157-20240522	Water	05/22/24 11:25	05/23/24 09:29
680-251152-10	OU6-MW-289-20240522	Water	05/22/24 13:10	05/23/24 09:29
680-251152-11	OU6-MW-291-20240522	Water	05/22/24 10:02	05/23/24 09:29
680-251152-12	Dup-06-20240522	Water	05/22/24 00:00	05/23/24 09:29
680-251152-13	TRIP-BLANK-20240522	Water	05/22/24 00:00	05/23/24 09:29
680-251152-14	OU6-DMW-9B-20240522	Water	05/22/24 08:45	05/23/24 09:29
680-251152-15	OU6-MW-217-20240522	Water	05/22/24 10:20	05/23/24 09:29
680-251152-16	OU6-EBF-08D-20240522	Water	05/22/24 11:30	05/23/24 09:29
680-251152-17	OU6-MW-285-20240522	Water	05/22/24 13:35	05/23/24 09:29
680-251152-18	OU6-MW-255-20240522	Water	05/22/24 14:35	05/23/24 09:29

Job ID: 680-251152-1 — Eurofins Savannah

Job Narrative
680-251152-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 5/23/2024 9:29 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 1.2°C, 2.8°C and 4.7°C.

GC/MS VOA
Method 8260D_DOD5: The method blank for 680-840706 contained n-Butylbenzene above the method detection limit (MDL). Associated samples were not re-analyzed because the method blank results were less than the reporting limit (RL) OR practical quantitation limit (PQL).

Method 8260D_DOD5: The following samples were diluted to bring the concentration of target analytes within the calibration range: OU6-MW-271-20240522 (680-251152-5), OU6-MW-251-20240522 (680-251152-7), OU6-MW-157-20240522 (680-251152-9), OU6-MW-289-20240522 (680-251152-10), OU6-MW-291-20240522 (680-251152-11), Dup-06-20240522 (680-251152-12), OU6-DMW-9B-20240522 (680-251152-14), OU6-MW-285-20240522 (680-251152-17) and OU6-MW-255-20240522 (680-251152-18). Elevated reporting limits (RLs) are provided.

Method 8260D_DOD5: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with analytical batch 680-840706.

Method 8260D_DOD5: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for analytical batch 680-840935 recovered outside control limits for the following analytes: Bromomethane. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 8260D_DOD5: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with analytical batch 680-840935.

Method 8260D_DOD5: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for analytical batch 680-841256 recovered outside control limits for the following analytes: Dichlorodifluoromethane. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 8260D_DOD5: Reanalysis of the following sample was performed outside of the analytical holding time for dichlorodifluoromethane due to instrumental failure during lab-wide technical difficulties: OU6-MW-285-20240522 (680-251152-17).

Method 8260D_DOD5: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for analytical batch 680-841256 recovered outside control limits for the following analytes: Dichlorodifluoromethane and Methylcyclohexane.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC/MS Semi VOA
Method 8270E_DOD5: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 680-839856 and analytical batch 680-839928 recovered outside control limits for the following analytes: 4-Chloroaniline and Pyridine.

Method 8270E_SIM_DOD5: Elevated reporting limits are provided for the following sample due to insufficient sample provided for preparation: OU6-DUP-5-20240522 (680-251152-3).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Pesticides/PCBs
Method 8081B_8082A_D5: Surrogate recovery for the following samples were outside control limits: OU6-MW-272-20240522 (680-251152-2), (680-251033-U-1-A), (680-251033-T-1-A MS), (680-251033-V-1-A MS), (680-251033-T-1-B MSD) and (680-251033-V-1-B MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8081B_8082A_D5: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for preparation batch 680-839562 and analytical batch 680-839672 recovered outside control limits for the following analyte: Endrin ketone. This analyte was biased high in the LCS and was not detected in the associated samples; therefore, the data has been reported.

Method 8081B_8082A_D5: Two surrogates are used for this analysis. The laboratory's SOP allows one of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following sample contained an allowable number of surrogate compounds outside limits: OU6-DUP-5-20240522 (680-251152-3) and (LCS 680-839861/2-A). Re-extraction of the sample would have been outside of holding time. These results have been reported and qualified.

Method 8081B_8082A_D5: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for preparation batch 680-839861 and analytical batch 680-840047 recovered outside control limits for the following analytes: Endrin ketone and Methoxychlor. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data has been reported.

Method 8081B_8082A_D5: The following analytes recovered outside control limits for the LCS associated with preparation batch 680-839861 and analytical batch 680-840047: Endosulfan I and gamma-BHC (Lindane). This is not indicative of a systematic control problem because these were random marginal exceedances. Qualified results have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC
Method 9056A_OF_48H_D5: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 680-839434 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Metals
Method 6020A_DOD5 - Total Recoverable: The interference check standard solution (ICSA) associated with batch 680-840087 had results for one or more elements at a level greater than 2 times the method detection limit (MDL). The vendor acknowledges that these elements are trace impurities in the ICSA standard. These results are not indicative of a matrix interference.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-251152-1

Client Sample ID: OU6-MW-130-20240522
Date Collected: 05/22/24 12:25
Date Received: 05/23/24 09:29

Lab Sample ID: 680-251152-1
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			06/02/24 14:46	1
Benzene	1.0	U	2.0	0.27	ug/L			06/02/24 14:46	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			06/02/24 14:46	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			06/02/24 14:46	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			06/02/24 14:46	1
Bromoform	2.0	U	2.5	0.59	ug/L			06/02/24 14:46	1
Bromomethane	10	U	20	3.7	ug/L			06/02/24 14:46	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			06/02/24 14:46	1
Carbon disulfide	1.0	U	2.0	0.43	ug/L			06/02/24 14:46	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			06/02/24 14:46	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			06/02/24 14:46	1
Chloroethane	10	U	20	4.6	ug/L			06/02/24 14:46	1
Chloroform	1.0	U	2.0	0.27	ug/L			06/02/24 14:46	1
Chloromethane	2.0	U	2.5	0.54	ug/L			06/02/24 14:46	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			06/02/24 14:46	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			06/02/24 14:46	1
cis-1,2-Dichloroethene	**8.7**		2.0	0.25	ug/L			06/02/24 14:46	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			06/02/24 14:46	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			06/02/24 14:46	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			06/02/24 14:46	1
1,2-Dibromo-3-Chloropropane	5.0	U Q	10	1.8	ug/L			06/02/24 14:46	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			06/02/24 14:46	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			06/02/24 14:46	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			06/02/24 14:46	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			06/02/24 14:46	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			06/02/24 14:46	1
Dichlorodifluoromethane	1.0	U Q	2.0	0.36	ug/L			06/02/24 14:46	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			06/02/24 14:46	1
1,2-Dichloroethane	1.0	U M	2.0	0.25	ug/L			06/02/24 14:46	1
1,1-Dichloroethene	1.0	U	2.0	0.33	ug/L			06/02/24 14:46	1
1,2-Dichloroethene, Total	**9.9**		2.0	0.37	ug/L			06/02/24 14:46	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			06/02/24 14:46	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			06/02/24 14:46	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			06/02/24 14:46	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			06/02/24 14:46	1
Ethylbenzene	0.50	U M	1.0	0.20	ug/L			06/02/24 14:46	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			06/02/24 14:46	1
2-Hexanone	10	U	20	3.2	ug/L			06/02/24 14:46	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			06/02/24 14:46	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			06/02/24 14:46	1
Methyl acetate	10	U	20	3.2	ug/L			06/02/24 14:46	1
Methylcyclohexane	1.0	U	2.0	0.33	ug/L			06/02/24 14:46	1
Methylene Chloride	10	U	20	3.2	ug/L			06/02/24 14:46	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			06/02/24 14:46	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			06/02/24 14:46	1
m-Xylene & p-Xylene	1.0	U M	2.0	0.49	ug/L			06/02/24 14:46	1
Naphthalene	5.0	U	10	2.4	ug/L			06/02/24 14:46	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			06/02/24 14:46	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			06/02/24 14:46	1

Client Sample ID: OU6-MW-130-20240522
Date Collected: 05/22/24 12:25
Date Received: 05/23/24 09:29

Lab Sample ID: 680-251152-1
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	1.0	U	2.0	0.26	ug/L			06/02/24 14:46	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			06/02/24 14:46	1
Styrene	1.0	U	2.0	0.27	ug/L			06/02/24 14:46	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			06/02/24 14:46	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			06/02/24 14:46	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			06/02/24 14:46	1
Tetrachloroethene	**0.97**	**J**	2.0	0.35	ug/L			06/02/24 14:46	1
Toluene	1.0	U	2.0	0.25	ug/L			06/02/24 14:46	1
trans-1,2-Dichloroethene	**1.2**	**J M**	2.0	0.34	ug/L			06/02/24 14:46	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			06/02/24 14:46	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			06/02/24 14:46	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			06/02/24 14:46	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			06/02/24 14:46	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			06/02/24 14:46	1
Trichloroethene	**6.0**		1.0	0.20	ug/L			06/02/24 14:46	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			06/02/24 14:46	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			06/02/24 14:46	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			06/02/24 14:46	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			06/02/24 14:46	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			06/02/24 14:46	1
Vinyl chloride	**3.7**		2.0	0.40	ug/L			06/02/24 14:46	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			06/02/24 14:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*85 - 114*		*06/02/24 14:46*	*1*
Dibromofluoromethane (Surr)	*109*		*80 - 119*		*06/02/24 14:46*	*1*
1,2-Dichloroethane-d4 (Surr)	*91*		*81 - 118*		*06/02/24 14:46*	*1*
Toluene-d8 (Surr)	*105*		*89 - 112*		*06/02/24 14:46*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	**4.9**		1.1	0.30	ug/L			06/04/24 15:48	1
Ethylene	**88**		1.0	0.31	ug/L			06/04/24 15:48	1
Methane (TCD)	**13000**		390	39	ug/L			06/04/24 15:48	1

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**12**		0.55	0.20	mg/L			06/04/24 18:26	1
Nitrate as N	0.10	U	0.11	0.046	mg/L			05/23/24 15:10	2
Nitrate Nitrite as N	0.10	U	0.11	0.046	mg/L			05/23/24 15:10	2
Sulfate	**1.3**	**J**	1.5	0.40	mg/L			06/04/24 18:26	1
Nitrite as N	0.10	U M	0.11	0.046	mg/L			05/23/24 15:10	2

Method: SW846 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**270**		10	2.2	ug/L		05/24/24 05:51	05/28/24 10:37	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**190**		5.5	2.2	mg/L			05/24/24 20:39	1

Client Sample ID: OU6-MW-130-20240522

Lab Sample ID: 680-251152-1

Date Collected: 05/22/24 12:25

Matrix: Water

Date Received: 05/23/24 09:29

General Chemistry (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	**190**		11	5.0	mg/L			05/24/24 20:39	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	10	U	11	5.0	mg/L			05/24/24 20:39	1
Sulfide (SM 4500 S2 F-2011)	0.89	U	0.89	0.89	mg/L			05/28/24 15:15	1
Sulfide as H2S (SM 4500 S2 F-2011)	0.98	U	0.98	0.98	mg/L			05/28/24 15:15	1
Total Organic Carbon (SW846 9060A)	**2.9**		1.0	0.50	mg/L			05/28/24 20:06	1
Carbon Dioxide, Free (SM 4500 CO2 D)	**240**		11	5.0	mg/L			05/24/24 20:39	1

Client Sample ID: OU6-MW-272-20240522

Lab Sample ID: 680-251152-2

Date Collected: 05/22/24 08:05

Matrix: Water

Date Received: 05/23/24 09:29

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			06/02/24 15:07	1
Benzene	1.0	U	2.0	0.27	ug/L			06/02/24 15:07	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			06/02/24 15:07	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			06/02/24 15:07	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			06/02/24 15:07	1
Bromoform	2.0	U	2.5	0.59	ug/L			06/02/24 15:07	1
Bromomethane	10	U	20	3.7	ug/L			06/02/24 15:07	1
2-Butanone (MEK)	20	U M	25	6.4	ug/L			06/02/24 15:07	1
Carbon disulfide	1.0	U	2.0	0.43	ug/L			06/02/24 15:07	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			06/02/24 15:07	1
Chlorobenzene	**45**		1.0	0.15	ug/L			06/02/24 15:07	1
Chloroethane	10	U	20	4.6	ug/L			06/02/24 15:07	1
Chloroform	**1.6**	**J**	2.0	0.27	ug/L			06/02/24 15:07	1
Chloromethane	2.0	U	2.5	0.54	ug/L			06/02/24 15:07	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			06/02/24 15:07	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			06/02/24 15:07	1
cis-1,2-Dichloroethene	**44**		2.0	0.25	ug/L			06/02/24 15:07	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			06/02/24 15:07	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			06/02/24 15:07	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			06/02/24 15:07	1
1,2-Dibromo-3-Chloropropane	5.0	U Q	10	1.8	ug/L			06/02/24 15:07	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			06/02/24 15:07	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			06/02/24 15:07	1
1,2-Dichlorobenzene	**8.1**		2.0	0.31	ug/L			06/02/24 15:07	1
1,3-Dichlorobenzene	**1.9**	**J**	2.0	0.31	ug/L			06/02/24 15:07	1
1,4-Dichlorobenzene	**31**		2.0	0.31	ug/L			06/02/24 15:07	1
Dichlorodifluoromethane	1.0	U Q	2.0	0.36	ug/L			06/02/24 15:07	1
1,1-Dichloroethane	**2.6**		2.0	0.33	ug/L			06/02/24 15:07	1
1,2-Dichloroethane	1.0	U M	2.0	0.25	ug/L			06/02/24 15:07	1
1,1-Dichloroethene	1.0	U M	2.0	0.33	ug/L			06/02/24 15:07	1
1,2-Dichloroethene, Total	**44**		2.0	0.37	ug/L			06/02/24 15:07	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			06/02/24 15:07	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			06/02/24 15:07	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			06/02/24 15:07	1

Client Sample ID: OU6-MW-272-20240522
Date Collected: 05/22/24 08:05
Date Received: 05/23/24 09:29

Lab Sample ID: 680-251152-2
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			06/02/24 15:07	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			06/02/24 15:07	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			06/02/24 15:07	1
2-Hexanone	10	U	20	3.2	ug/L			06/02/24 15:07	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			06/02/24 15:07	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			06/02/24 15:07	1
Methyl acetate	10	U	20	3.2	ug/L			06/02/24 15:07	1
Methylcyclohexane	1.0	U	2.0	0.33	ug/L			06/02/24 15:07	1
Methylene Chloride	10	U	20	3.2	ug/L			06/02/24 15:07	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			06/02/24 15:07	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			06/02/24 15:07	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			06/02/24 15:07	1
Naphthalene	5.0	U	10	2.4	ug/L			06/02/24 15:07	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			06/02/24 15:07	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			06/02/24 15:07	1
o-Xylene	1.0	U	2.0	0.26	ug/L			06/02/24 15:07	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			06/02/24 15:07	1
Styrene	1.0	U	2.0	0.27	ug/L			06/02/24 15:07	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			06/02/24 15:07	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			06/02/24 15:07	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			06/02/24 15:07	1
Tetrachloroethene	**1.7**	**J**	2.0	0.35	ug/L			06/02/24 15:07	1
Toluene	1.0	U	2.0	0.25	ug/L			06/02/24 15:07	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			06/02/24 15:07	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			06/02/24 15:07	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			06/02/24 15:07	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			06/02/24 15:07	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			06/02/24 15:07	1
1,1,2-Trichloroethane	1.0	U M	2.0	0.32	ug/L			06/02/24 15:07	1
Trichloroethene	**45**		1.0	0.20	ug/L			06/02/24 15:07	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			06/02/24 15:07	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			06/02/24 15:07	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			06/02/24 15:07	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			06/02/24 15:07	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			06/02/24 15:07	1
Vinyl chloride	**15**		2.0	0.40	ug/L			06/02/24 15:07	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			06/02/24 15:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*85 - 114*		*06/02/24 15:07*	*1*
Dibromofluoromethane (Surr)	*110*		*80 - 119*		*06/02/24 15:07*	*1*
1,2-Dichloroethane-d4 (Surr)	*91*		*81 - 118*		*06/02/24 15:07*	*1*
Toluene-d8 (Surr)	*104*		*89 - 112*		*06/02/24 15:07*	*1*

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	0.053	U M	0.21	0.019	ug/L		05/24/24 11:32	05/24/24 21:10	1
Acenaphthene	0.11	U M	0.21	0.045	ug/L		05/24/24 11:32	05/24/24 21:10	1
Acenaphthylene	0.053	U	0.21	0.018	ug/L		05/24/24 11:32	05/24/24 21:10	1
Pyrene	0.11	U M	0.21	0.029	ug/L		05/24/24 11:32	05/24/24 21:10	1

Client Sample ID: OU6-MW-272-20240522
Date Collected: 05/22/24 08:05
Date Received: 05/23/24 09:29

Lab Sample ID: 680-251152-2
Matrix: Water

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	0.042	U	0.21	0.012	ug/L		05/24/24 11:32	05/24/24 21:10	1
Anthracene	0.053	U	0.21	0.019	ug/L		05/24/24 11:32	05/24/24 21:10	1
Benzo[a]pyrene	0.11	U	0.21	0.028	ug/L		05/24/24 11:32	05/24/24 21:10	1
Benzo[a]anthracene	0.11	U	0.21	0.028	ug/L		05/24/24 11:32	05/24/24 21:10	1
Benzo[b]fluoranthene	0.11	U	0.21	0.028	ug/L		05/24/24 11:32	05/24/24 21:10	1
Benzo[g,h,i]perylene	0.11	U M	0.21	0.028	ug/L		05/24/24 11:32	05/24/24 21:10	1
Benzo[k]fluoranthene	0.11	U	0.21	0.031	ug/L		05/24/24 11:32	05/24/24 21:10	1
Chrysene	0.053	U	0.21	0.024	ug/L		05/24/24 11:32	05/24/24 21:10	1
Dibenz(a,h)anthracene	0.053	U	0.21	0.025	ug/L		05/24/24 11:32	05/24/24 21:10	1
Phenanthrene	0.21	U	0.42	0.058	ug/L		05/24/24 11:32	05/24/24 21:10	1
Indeno[1,2,3-cd]pyrene	0.11	U	0.21	0.030	ug/L		05/24/24 11:32	05/24/24 21:10	1
Naphthalene	**0.062**	**J M**	0.21	0.015	ug/L		05/24/24 11:32	05/24/24 21:10	1
Fluoranthene	0.11	U M	0.21	0.029	ug/L		05/24/24 11:32	05/24/24 21:10	1
Fluorene	0.11	U M	0.21	0.027	ug/L		05/24/24 11:32	05/24/24 21:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*62*		*53 - 106*	*05/24/24 11:32*	*05/24/24 21:10*	*1*
2-methylnaphthalene-d10	*63*		*30 - 100*	*05/24/24 11:32*	*05/24/24 21:10*	*1*
Fluoranthene-d10	*83*		*42 - 114*	*05/24/24 11:32*	*05/24/24 21:10*	*1*
Nitrobenzene-d5	*71*		*42 - 100*	*05/24/24 11:32*	*05/24/24 21:10*	*1*
Terphenyl-d14	*88*		*53 - 111*	*05/24/24 11:32*	*05/24/24 21:10*	*1*

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	11	U M	22	5.1	ug/L		05/24/24 07:12	05/26/24 22:45	1
1,2,4,5-Tetrachlorobenzene	11	U	22	5.0	ug/L		05/24/24 07:12	05/26/24 22:45	1
1,4-Dioxane	11	U	22	4.9	ug/L		05/24/24 07:12	05/26/24 22:45	1
2,3,4,6-Tetrachlorophenol	11	U	22	4.8	ug/L		05/24/24 07:12	05/26/24 22:45	1
2,4,5-Trichlorophenol	11	U	22	3.7	ug/L		05/24/24 07:12	05/26/24 22:45	1
2,4,6-Trichlorophenol	5.6	U	22	2.4	ug/L		05/24/24 07:12	05/26/24 22:45	1
2,4-Dichlorophenol	11	U	22	4.1	ug/L		05/24/24 07:12	05/26/24 22:45	1
2,4-Dimethylphenol	11	U Q	22	3.3	ug/L		05/24/24 07:12	05/26/24 22:45	1
2,4-Dinitrophenol	44	U	56	18	ug/L		05/24/24 07:12	05/26/24 22:45	1
2,4-Dinitrotoluene	5.6	U	11	2.6	ug/L		05/24/24 07:12	05/26/24 22:45	1
2,6-Dinitrotoluene	11	U	22	3.1	ug/L		05/24/24 07:12	05/26/24 22:45	1
2-Chloronaphthalene	11	U	22	5.3	ug/L		05/24/24 07:12	05/26/24 22:45	1
2-Chlorophenol	11	U	22	3.6	ug/L		05/24/24 07:12	05/26/24 22:45	1
2-Methylphenol	4.4	U	11	2.0	ug/L		05/24/24 07:12	05/26/24 22:45	1
2-Nitroaniline	11	U	22	3.2	ug/L		05/24/24 07:12	05/26/24 22:45	1
2-Nitrophenol	11	U	22	4.3	ug/L		05/24/24 07:12	05/26/24 22:45	1
3 & 4 Methylphenol	4.4	U	11	1.6	ug/L		05/24/24 07:12	05/26/24 22:45	1
3,3'-Dichlorobenzidine	22	U	56	11	ug/L		05/24/24 07:12	05/26/24 22:45	1
3-Nitroaniline	11	U	56	3.3	ug/L		05/24/24 07:12	05/26/24 22:45	1
4,6-Dinitro-2-methylphenol	22	U	56	5.9	ug/L		05/24/24 07:12	05/26/24 22:45	1
4-Bromophenyl phenyl ether	11	U	22	5.2	ug/L		05/24/24 07:12	05/26/24 22:45	1
4-Chloro-3-methylphenol	11	U	22	2.8	ug/L		05/24/24 07:12	05/26/24 22:45	1
4-Chloroaniline	4.4	U	11	1.1	ug/L		05/24/24 07:12	05/26/24 22:45	1
4-Chlorophenyl phenyl ether	13	U	22	5.9	ug/L		05/24/24 07:12	05/26/24 22:45	1
4-Nitroaniline	11	U	56	3.3	ug/L		05/24/24 07:12	05/26/24 22:45	1
4-Nitrophenol	22	U	56	9.0	ug/L		05/24/24 07:12	05/26/24 22:45	1

Client Sample ID: OU6-MW-272-20240522
Date Collected: 05/22/24 08:05
Date Received: 05/23/24 09:29

Lab Sample ID: 680-251152-2
Matrix: Water

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetophenone	5.6	U	11	2.4	ug/L		05/24/24 07:12	05/26/24 22:45	1
Atrazine	5.6	U	11	2.4	ug/L		05/24/24 07:12	05/26/24 22:45	1
Benzaldehyde	11	U M	22	5.3	ug/L		05/24/24 07:12	05/26/24 22:45	1
bis (2-chloroisopropyl) ether	11	U	22	3.4	ug/L		05/24/24 07:12	05/26/24 22:45	1
Bis(2-chloroethoxy)methane	4.4	U	11	2.0	ug/L		05/24/24 07:12	05/26/24 22:45	1
Bis(2-chloroethyl)ether	11	U	22	4.0	ug/L		05/24/24 07:12	05/26/24 22:45	1
Bis(2-ethylhexyl) phthalate	11	U	22	3.3	ug/L		05/24/24 07:12	05/26/24 22:45	1
Butyl benzyl phthalate	11	U	22	3.1	ug/L		05/24/24 07:12	05/26/24 22:45	1
Caprolactam	11	U	22	3.1	ug/L		05/24/24 07:12	05/26/24 22:45	1
Carbazole	4.4	U M	11	2.0	ug/L		05/24/24 07:12	05/26/24 22:45	1
Dibenzofuran	4.4	U	11	2.1	ug/L		05/24/24 07:12	05/26/24 22:45	1
Diethyl phthalate	5.6	U	11	2.4	ug/L		05/24/24 07:12	05/26/24 22:45	1
Dimethyl phthalate	5.6	U	11	2.3	ug/L		05/24/24 07:12	05/26/24 22:45	1
Di-n-butyl phthalate	5.6	U	11	2.6	ug/L		05/24/24 07:12	05/26/24 22:45	1
Di-n-octyl phthalate	11	U	22	3.1	ug/L		05/24/24 07:12	05/26/24 22:45	1
Hexachlorobenzene	4.4	U	11	1.8	ug/L		05/24/24 07:12	05/26/24 22:45	1
Hexachlorobutadiene	11	U	22	4.4	ug/L		05/24/24 07:12	05/26/24 22:45	1
Hexachlorocyclopentadiene	11	U	22	3.9	ug/L		05/24/24 07:12	05/26/24 22:45	1
Hexachloroethane	11	U	22	4.0	ug/L		05/24/24 07:12	05/26/24 22:45	1
Isophorone	4.4	U	11	2.2	ug/L		05/24/24 07:12	05/26/24 22:45	1
Nitrobenzene	11	U	22	3.9	ug/L		05/24/24 07:12	05/26/24 22:45	1
N-Nitrosodi-n-propylamine	5.6	U	11	2.7	ug/L		05/24/24 07:12	05/26/24 22:45	1
N-Nitrosodiphenylamine	11	U	22	3.2	ug/L		05/24/24 07:12	05/26/24 22:45	1
Pentachlorophenol	22	U	56	11	ug/L		05/24/24 07:12	05/26/24 22:45	1
Phenol	4.4	U	11	1.7	ug/L		05/24/24 07:12	05/26/24 22:45	1
Pyridine	22	U	56	8.2	ug/L		05/24/24 07:12	05/26/24 22:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*58*		*43 - 140*	*05/24/24 07:12*	*05/26/24 22:45*	*1*
2-Fluorobiphenyl	*48*		*44 - 119*	*05/24/24 07:12*	*05/26/24 22:45*	*1*
2-Fluorophenol	*31*		*19 - 119*	*05/24/24 07:12*	*05/26/24 22:45*	*1*
Nitrobenzene-d5	*48*		*44 - 120*	*05/24/24 07:12*	*05/26/24 22:45*	*1*
Phenol-d5	*21*		*10 - 130*	*05/24/24 07:12*	*05/26/24 22:45*	*1*
Terphenyl-d14	*69*		*50 - 134*	*05/24/24 07:12*	*05/26/24 22:45*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	**6.3**		1.1	0.30	ug/L			06/04/24 16:01	1
Ethylene	**8.2**		1.0	0.31	ug/L			06/04/24 16:01	1
Methane	**190**		1.2	0.57	ug/L			06/04/24 16:01	1

Method: SW846 8081B 8082A - Organochlorine Pesticides & PCBs (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	0.0043	U	0.054	0.0022	ug/L		05/24/24 07:17	05/24/24 20:28	1
4,4'-DDE	0.0043	U M	0.054	0.0011	ug/L		05/24/24 07:17	05/24/24 20:28	1
4,4'-DDT	0.0043	U	0.054	0.0011	ug/L		05/24/24 07:17	05/24/24 20:28	1
Aldrin	0.0043	U	0.054	0.0022	ug/L		05/24/24 07:17	05/24/24 20:28	1
alpha-BHC	0.0043	U M	0.054	0.0011	ug/L		05/24/24 07:17	05/24/24 20:28	1
beta-BHC	0.0043	U M	0.054	0.0022	ug/L		05/24/24 07:17	05/24/24 20:28	1
delta-BHC	0.0043	U	0.054	0.0022	ug/L		05/24/24 07:17	05/24/24 20:28	1

Client Sample ID: OU6-MW-272-20240522
Date Collected: 05/22/24 08:05
Date Received: 05/23/24 09:29

Lab Sample ID: 680-251152-2
Matrix: Water

Method: SW846 8081B 8082A - Organochlorine Pesticides & PCBs (GC) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Dieldrin	0.0043	U	0.054	0.0022	ug/L		05/24/24 07:17	05/24/24 20:28	1
Endosulfan I	0.0043	U	0.054	0.0022	ug/L		05/24/24 07:17	05/24/24 20:28	1
Endosulfan II	0.0043	U	0.054	0.0022	ug/L		05/24/24 07:17	05/24/24 20:28	1
Endosulfan sulfate	0.0043	U M	0.054	0.0022	ug/L		05/24/24 07:17	05/24/24 20:28	1
Endrin	0.0043	U	0.054	0.0011	ug/L		05/24/24 07:17	05/24/24 20:28	1
Endrin aldehyde	0.017	U M	0.054	0.0043	ug/L		05/24/24 07:17	05/24/24 20:28	1
Endrin ketone	0.017	U Q	0.054	0.0043	ug/L		05/24/24 07:17	05/24/24 20:28	1
gamma-BHC (Lindane)	0.0043	U	0.054	0.0011	ug/L		05/24/24 07:17	05/24/24 20:28	1
Heptachlor	0.0043	U	0.054	0.0011	ug/L		05/24/24 07:17	05/24/24 20:28	1
Heptachlor epoxide	0.0043	U	0.054	0.0022	ug/L		05/24/24 07:17	05/24/24 20:28	1
Methoxychlor	0.0043	U	0.054	0.0022	ug/L		05/24/24 07:17	05/24/24 20:28	1
Chlordane (technical)	0.43	U	0.54	0.17	ug/L		05/24/24 07:17	05/24/24 20:28	1
PCB-1016	0.26	U M	0.54	0.11	ug/L		05/24/24 07:17	05/24/24 20:28	1
PCB-1221	0.26	U	0.54	0.11	ug/L		05/24/24 07:17	05/24/24 20:28	1
PCB-1232	0.26	U	0.54	0.11	ug/L		05/24/24 07:17	05/24/24 20:28	1
PCB-1242	0.26	U M	0.54	0.11	ug/L		05/24/24 07:17	05/24/24 20:28	1
PCB-1248	0.26	U	0.54	0.11	ug/L		05/24/24 07:17	05/24/24 20:28	1
PCB-1254	0.26	U	0.54	0.11	ug/L		05/24/24 07:17	05/24/24 20:28	1
PCB-1260	0.26	U	0.54	0.11	ug/L		05/24/24 07:17	05/24/24 20:28	1
Toxaphene	0.87	U	5.4	0.34	ug/L		05/24/24 07:17	05/24/24 20:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*71*		*14 - 130*	*05/24/24 07:17*	*05/24/24 20:28*	*1*
Tetrachloro-m-xylene	*31*	*Q*	*44 - 124*	*05/24/24 07:17*	*05/24/24 20:28*	*1*

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**34**	**M**	0.55	0.20	mg/L			06/04/24 18:34	1
Nitrate as N	**0.14**		0.055	0.023	mg/L			05/23/24 15:18	1
Nitrate Nitrite as N	**0.14**		0.055	0.023	mg/L			05/23/24 15:18	1
Sulfate	**3.4**		1.5	0.40	mg/L			06/04/24 18:34	1
Nitrite as N	0.050	U M	0.055	0.023	mg/L			05/23/24 15:18	1

Method: SW846 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**200**		200	35	ug/L		05/24/24 05:51	05/28/24 10:35	1
Antimony	1.5	U	5.0	0.34	ug/L		05/24/24 05:51	05/28/24 10:35	1
Arsenic	3.0	U	5.0	0.86	ug/L		05/24/24 05:51	05/28/24 10:35	1
Barium	**100**	**Q**	5.0	0.89	ug/L		05/24/24 05:51	05/28/24 10:35	1
Beryllium	**0.41**	**J**	0.50	0.20	ug/L		05/24/24 05:51	05/28/24 10:35	1
Boron	**27**	**J**	100	22	ug/L		05/24/24 05:51	05/28/24 10:35	1
Cadmium	0.20	U	0.50	0.078	ug/L		05/24/24 05:51	05/28/24 10:35	1
Calcium	**3800**		500	140	ug/L		05/24/24 05:51	05/28/24 10:35	1
Chromium	**0.94**	**J**	20	0.81	ug/L		05/24/24 05:51	05/28/24 10:35	1
Cobalt	**17**		1.0	0.22	ug/L		05/24/24 05:51	05/28/24 10:35	1
Copper	2.0	U	5.0	1.1	ug/L		05/24/24 05:51	05/28/24 10:35	1
Iron	**160**		100	12	ug/L		05/24/24 05:51	05/28/24 10:35	1
Lead	**0.27**	**J**	2.5	0.21	ug/L		05/24/24 05:51	05/28/24 10:35	1
Magnesium	**2400**		250	23	ug/L		05/24/24 05:51	05/28/24 10:35	1
Manganese	**680**		10	2.2	ug/L		05/24/24 05:51	05/28/24 10:35	1

Client Sample ID: OU6-MW-272-20240522

Lab Sample ID: 680-251152-2

Date Collected: 05/22/24 08:05

Matrix: Water

Date Received: 05/23/24 09:29

Method: SW846 6020A - Metals (ICP/MS) - Total Recoverable (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Nickel	**2.8**	**J**	10	0.42	ug/L		05/24/24 05:51	05/28/24 10:35	1
Potassium	**1700**		1000	44	ug/L		05/24/24 05:51	05/28/24 10:35	1
Selenium	2.5	U Q	5.0	0.99	ug/L		05/24/24 05:51	05/28/24 10:35	1
Silver	1.0	U	2.0	0.39	ug/L		05/24/24 05:51	05/28/24 10:35	1
Sodium	**26000**		1000	200	ug/L		05/24/24 05:51	05/28/24 10:35	1
Thallium	1.0	U Q	2.0	0.26	ug/L		05/24/24 05:51	05/28/24 10:35	1
Vanadium	2.5	U	10	0.63	ug/L		05/24/24 05:51	05/28/24 10:35	1
Zinc	**12**	**J**	25	2.8	ug/L		05/24/24 05:51	05/28/24 10:35	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	0.20	U	0.25	0.080	ug/L		05/29/24 12:00	05/29/24 16:17	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**5.7**		5.5	2.2	mg/L			05/24/24 20:17	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	**5.7**	**J**	11	5.0	mg/L			05/24/24 20:17	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	10	U	11	5.0	mg/L			05/24/24 20:17	1
Sulfide (SM 4500 S2 F-2011)	0.96	U	0.96	0.96	mg/L			05/28/24 15:15	1
Sulfide as H2S (SM 4500 S2 F-2011)	1.1	U	1.1	1.1	mg/L			05/28/24 15:15	1
Total Organic Carbon (SW846 9060A)	**1.2**		1.0	0.50	mg/L			05/28/24 20:24	1
Carbon Dioxide, Free (SM 4500 CO2 D)	**26**		11	5.0	mg/L			05/24/24 20:17	1

Client Sample ID: OU6-DUP-5-20240522

Lab Sample ID: 680-251152-3

Date Collected: 05/22/24 00:00

Matrix: Water

Date Received: 05/23/24 09:29

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			06/02/24 15:29	1
Benzene	**0.87**	**J**	2.0	0.27	ug/L			06/02/24 15:29	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			06/02/24 15:29	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			06/02/24 15:29	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			06/02/24 15:29	1
Bromoform	2.0	U	2.5	0.59	ug/L			06/02/24 15:29	1
Bromomethane	10	U	20	3.7	ug/L			06/02/24 15:29	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			06/02/24 15:29	1
Carbon disulfide	1.0	U	2.0	0.43	ug/L			06/02/24 15:29	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			06/02/24 15:29	1
Chlorobenzene	**120**		1.0	0.15	ug/L			06/02/24 15:29	1
Chloroethane	10	U	20	4.6	ug/L			06/02/24 15:29	1
Chloroform	**3.8**		2.0	0.27	ug/L			06/02/24 15:29	1
Chloromethane	2.0	U	2.5	0.54	ug/L			06/02/24 15:29	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			06/02/24 15:29	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			06/02/24 15:29	1
cis-1,2-Dichloroethene	**110**		2.0	0.25	ug/L			06/02/24 15:29	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			06/02/24 15:29	1

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-251152-1

Client Sample ID: OU6-DUP-5-20240522
Date Collected: 05/22/24 00:00
Date Received: 05/23/24 09:29

Lab Sample ID: 680-251152-3
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Cyclohexane	1.0	U	2.0	0.28	ug/L			06/02/24 15:29	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			06/02/24 15:29	1
1,2-Dibromo-3-Chloropropane	5.0	U Q	10	1.8	ug/L			06/02/24 15:29	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			06/02/24 15:29	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			06/02/24 15:29	1
1,2-Dichlorobenzene	**24**		2.0	0.31	ug/L			06/02/24 15:29	1
1,3-Dichlorobenzene	**5.8**		2.0	0.31	ug/L			06/02/24 15:29	1
1,4-Dichlorobenzene	**94**		2.0	0.31	ug/L			06/02/24 15:29	1
Dichlorodifluoromethane	1.0	U Q	2.0	0.36	ug/L			06/02/24 15:29	1
1,1-Dichloroethane	**5.8**		2.0	0.33	ug/L			06/02/24 15:29	1
1,2-Dichloroethane	**4.6**		2.0	0.25	ug/L			06/02/24 15:29	1
1,1-Dichloroethene	**1.6**	**J**	2.0	0.33	ug/L			06/02/24 15:29	1
1,2-Dichloroethene, Total	**110**		2.0	0.37	ug/L			06/02/24 15:29	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			06/02/24 15:29	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			06/02/24 15:29	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			06/02/24 15:29	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			06/02/24 15:29	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			06/02/24 15:29	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			06/02/24 15:29	1
2-Hexanone	10	U	20	3.2	ug/L			06/02/24 15:29	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			06/02/24 15:29	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			06/02/24 15:29	1
Methyl acetate	10	U	20	3.2	ug/L			06/02/24 15:29	1
Methylcyclohexane	1.0	U	2.0	0.33	ug/L			06/02/24 15:29	1
Methylene Chloride	10	U	20	3.2	ug/L			06/02/24 15:29	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			06/02/24 15:29	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			06/02/24 15:29	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			06/02/24 15:29	1
Naphthalene	5.0	U	10	2.4	ug/L			06/02/24 15:29	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			06/02/24 15:29	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			06/02/24 15:29	1
o-Xylene	1.0	U	2.0	0.26	ug/L			06/02/24 15:29	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			06/02/24 15:29	1
Styrene	1.0	U	2.0	0.27	ug/L			06/02/24 15:29	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			06/02/24 15:29	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			06/02/24 15:29	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			06/02/24 15:29	1
Tetrachloroethene	**2.6**		2.0	0.35	ug/L			06/02/24 15:29	1
Toluene	1.0	U	2.0	0.25	ug/L			06/02/24 15:29	1
trans-1,2-Dichloroethene	1.0	U M	2.0	0.34	ug/L			06/02/24 15:29	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			06/02/24 15:29	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			06/02/24 15:29	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			06/02/24 15:29	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			06/02/24 15:29	1
1,1,2-Trichloroethane	1.0	U M	2.0	0.32	ug/L			06/02/24 15:29	1
Trichloroethene	**29**		1.0	0.20	ug/L			06/02/24 15:29	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			06/02/24 15:29	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			06/02/24 15:29	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			06/02/24 15:29	1

Client Sample ID: OU6-DUP-5-20240522

Date Collected: 05/22/24 00:00
Date Received: 05/23/24 09:29

Lab Sample ID: 680-251152-3

Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			06/02/24 15:29	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			06/02/24 15:29	1
Vinyl chloride	**38**		2.0	0.40	ug/L			06/02/24 15:29	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			06/02/24 15:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*85 - 114*		*06/02/24 15:29*	*1*
Dibromofluoromethane (Surr)	*110*		*80 - 119*		*06/02/24 15:29*	*1*
1,2-Dichloroethane-d4 (Surr)	*91*		*81 - 118*		*06/02/24 15:29*	*1*
Toluene-d8 (Surr)	*104*		*89 - 112*		*06/02/24 15:29*	*1*

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	0.061	U M	0.24	0.022	ug/L		05/25/24 07:20	05/28/24 16:29	1
Acenaphthene	0.12	U M	0.24	0.051	ug/L		05/25/24 07:20	05/28/24 16:29	1
Acenaphthylene	0.061	U M	0.24	0.021	ug/L		05/25/24 07:20	05/28/24 16:29	1
Pyrene	0.12	U M	0.24	0.033	ug/L		05/25/24 07:20	05/28/24 16:29	1
2-Methylnaphthalene	0.048	U M	0.24	0.013	ug/L		05/25/24 07:20	05/28/24 16:29	1
Anthracene	0.061	U	0.24	0.022	ug/L		05/25/24 07:20	05/28/24 16:29	1
Benzo[a]pyrene	0.12	U	0.24	0.031	ug/L		05/25/24 07:20	05/28/24 16:29	1
Benzo[a]anthracene	0.12	U	0.24	0.031	ug/L		05/25/24 07:20	05/28/24 16:29	1
Benzo[b]fluoranthene	0.12	U	0.24	0.031	ug/L		05/25/24 07:20	05/28/24 16:29	1
Benzo[g,h,i]perylene	0.12	U M	0.24	0.031	ug/L		05/25/24 07:20	05/28/24 16:29	1
Benzo[k]fluoranthene	0.12	U	0.24	0.035	ug/L		05/25/24 07:20	05/28/24 16:29	1
Chrysene	0.061	U	0.24	0.028	ug/L		05/25/24 07:20	05/28/24 16:29	1
Dibenz(a,h)anthracene	0.061	U	0.24	0.029	ug/L		05/25/24 07:20	05/28/24 16:29	1
Phenanthrene	0.24	U	0.48	0.067	ug/L		05/25/24 07:20	05/28/24 16:29	1
Indeno[1,2,3-cd]pyrene	0.12	U	0.24	0.034	ug/L		05/25/24 07:20	05/28/24 16:29	1
Naphthalene	**0.17**	**J M**	0.24	0.017	ug/L		05/25/24 07:20	05/28/24 16:29	1
Fluoranthene	0.12	U M	0.24	0.033	ug/L		05/25/24 07:20	05/28/24 16:29	1
Fluorene	0.12	U	0.24	0.030	ug/L		05/25/24 07:20	05/28/24 16:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*55*		*53 - 106*	*05/25/24 07:20*	*05/28/24 16:29*	*1*
2-methylnaphthalene-d10	*53*		*30 - 100*	*05/25/24 07:20*	*05/28/24 16:29*	*1*
Fluoranthene-d10	*85*		*42 - 114*	*05/25/24 07:20*	*05/28/24 16:29*	*1*
Nitrobenzene-d5	*53*		*42 - 100*	*05/25/24 07:20*	*05/28/24 16:29*	*1*
Terphenyl-d14	*90*		*53 - 111*	*05/25/24 07:20*	*05/28/24 16:29*	*1*

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	11	U M	22	5.1	ug/L		05/28/24 07:00	05/28/24 19:41	1
1,2,4,5-Tetrachlorobenzene	11	U	22	5.0	ug/L		05/28/24 07:00	05/28/24 19:41	1
1,4-Dioxane	11	U	22	4.9	ug/L		05/28/24 07:00	05/28/24 19:41	1
2,3,4,6-Tetrachlorophenol	11	U	22	4.8	ug/L		05/28/24 07:00	05/28/24 19:41	1
2,4,5-Trichlorophenol	11	U	22	3.7	ug/L		05/28/24 07:00	05/28/24 19:41	1
2,4,6-Trichlorophenol	5.6	U	22	2.5	ug/L		05/28/24 07:00	05/28/24 19:41	1
2,4-Dichlorophenol	11	U	22	4.1	ug/L		05/28/24 07:00	05/28/24 19:41	1
2,4-Dimethylphenol	11	U Q	22	3.4	ug/L		05/28/24 07:00	05/28/24 19:41	1
2,4-Dinitrophenol	45	U	56	18	ug/L		05/28/24 07:00	05/28/24 19:41	1

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-251152-1

Client Sample ID: OU6-DUP-5-20240522
Date Collected: 05/22/24 00:00
Date Received: 05/23/24 09:29

Lab Sample ID: 680-251152-3
Matrix: Water

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrotoluene	5.6	U	11	2.6	ug/L		05/28/24 07:00	05/28/24 19:41	1
2,6-Dinitrotoluene	11	U	22	3.1	ug/L		05/28/24 07:00	05/28/24 19:41	1
2-Chloronaphthalene	11	U	22	5.4	ug/L		05/28/24 07:00	05/28/24 19:41	1
2-Chlorophenol	11	U	22	3.6	ug/L		05/28/24 07:00	05/28/24 19:41	1
2-Methylphenol	4.5	U	11	2.0	ug/L		05/28/24 07:00	05/28/24 19:41	1
2-Nitroaniline	11	U	22	3.2	ug/L		05/28/24 07:00	05/28/24 19:41	1
2-Nitrophenol	11	U	22	4.4	ug/L		05/28/24 07:00	05/28/24 19:41	1
3 & 4 Methylphenol	4.5	U	11	1.6	ug/L		05/28/24 07:00	05/28/24 19:41	1
3,3'-Dichlorobenzidine	22	U	56	11	ug/L		05/28/24 07:00	05/28/24 19:41	1
3-Nitroaniline	11	U	56	3.4	ug/L		05/28/24 07:00	05/28/24 19:41	1
4,6-Dinitro-2-methylphenol	22	U	56	5.9	ug/L		05/28/24 07:00	05/28/24 19:41	1
4-Bromophenyl phenyl ether	11	U	22	5.3	ug/L		05/28/24 07:00	05/28/24 19:41	1
4-Chloro-3-methylphenol	11	U	22	2.8	ug/L		05/28/24 07:00	05/28/24 19:41	1
4-Chloroaniline	4.5	U Q	11	1.1	ug/L		05/28/24 07:00	05/28/24 19:41	1
4-Chlorophenyl phenyl ether	13	U	22	5.9	ug/L		05/28/24 07:00	05/28/24 19:41	1
4-Nitroaniline	11	U	56	3.4	ug/L		05/28/24 07:00	05/28/24 19:41	1
4-Nitrophenol	22	U	56	9.1	ug/L		05/28/24 07:00	05/28/24 19:41	1
Acetophenone	5.6	U	11	2.5	ug/L		05/28/24 07:00	05/28/24 19:41	1
Atrazine	5.6	U	11	2.5	ug/L		05/28/24 07:00	05/28/24 19:41	1
Benzaldehyde	11	U	22	5.4	ug/L		05/28/24 07:00	05/28/24 19:41	1
bis (2-chloroisopropyl) ether	11	U	22	3.5	ug/L		05/28/24 07:00	05/28/24 19:41	1
Bis(2-chloroethoxy)methane	4.5	U	11	2.0	ug/L		05/28/24 07:00	05/28/24 19:41	1
Bis(2-chloroethyl)ether	11	U	22	4.0	ug/L		05/28/24 07:00	05/28/24 19:41	1
Bis(2-ethylhexyl) phthalate	11	U	22	3.4	ug/L		05/28/24 07:00	05/28/24 19:41	1
Butyl benzyl phthalate	11	U	22	3.1	ug/L		05/28/24 07:00	05/28/24 19:41	1
Caprolactam	11	U	22	3.1	ug/L		05/28/24 07:00	05/28/24 19:41	1
Carbazole	4.5	U M	11	2.0	ug/L		05/28/24 07:00	05/28/24 19:41	1
Dibenzofuran	4.5	U	11	2.1	ug/L		05/28/24 07:00	05/28/24 19:41	1
Diethyl phthalate	5.6	U M	11	2.5	ug/L		05/28/24 07:00	05/28/24 19:41	1
Dimethyl phthalate	5.6	U	11	2.3	ug/L		05/28/24 07:00	05/28/24 19:41	1
Di-n-butyl phthalate	5.6	U	11	2.6	ug/L		05/28/24 07:00	05/28/24 19:41	1
Di-n-octyl phthalate	11	U	22	3.1	ug/L		05/28/24 07:00	05/28/24 19:41	1
Hexachlorobenzene	4.5	U	11	1.8	ug/L		05/28/24 07:00	05/28/24 19:41	1
Hexachlorobutadiene	11	U	22	4.5	ug/L		05/28/24 07:00	05/28/24 19:41	1
Hexachlorocyclopentadiene	11	U Q	22	3.9	ug/L		05/28/24 07:00	05/28/24 19:41	1
Hexachloroethane	11	U	22	4.0	ug/L		05/28/24 07:00	05/28/24 19:41	1
Isophorone	4.5	U	11	2.2	ug/L		05/28/24 07:00	05/28/24 19:41	1
Nitrobenzene	11	U	22	3.9	ug/L		05/28/24 07:00	05/28/24 19:41	1
N-Nitrosodi-n-propylamine	5.6	U	11	2.7	ug/L		05/28/24 07:00	05/28/24 19:41	1
N-Nitrosodiphenylamine	11	U	22	3.2	ug/L		05/28/24 07:00	05/28/24 19:41	1
Pentachlorophenol	22	U	56	11	ug/L		05/28/24 07:00	05/28/24 19:41	1
Phenol	4.5	U	11	1.7	ug/L		05/28/24 07:00	05/28/24 19:41	1
Pyridine	22	U Q	56	8.3	ug/L		05/28/24 07:00	05/28/24 19:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*63*		*43 - 140*	*05/28/24 07:00*	*05/28/24 19:41*	*1*
2-Fluorobiphenyl	*52*		*44 - 119*	*05/28/24 07:00*	*05/28/24 19:41*	*1*
2-Fluorophenol	*30*		*19 - 119*	*05/28/24 07:00*	*05/28/24 19:41*	*1*
Nitrobenzene-d5	*45*		*44 - 120*	*05/28/24 07:00*	*05/28/24 19:41*	*1*
Phenol-d5	*20*		*10 - 130*	*05/28/24 07:00*	*05/28/24 19:41*	*1*

Client Sample ID: OU6-DUP-5-20240522
Lab Sample ID: 680-251152-3

Date Collected: 05/22/24 00:00
Matrix: Water
Date Received: 05/23/24 09:29

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*75*		*50 - 134*	*05/28/24 07:00*	*05/28/24 19:41*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	**20**		1.1	0.30	ug/L			06/04/24 16:14	1
Ethylene	**28**		1.0	0.31	ug/L			06/04/24 16:14	1
Methane (TCD)	**720**		390	39	ug/L			06/04/24 16:14	1

Method: SW846 8081B 8082A - Organochlorine Pesticides & PCBs (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	0.0041	U M	0.052	0.0021	ug/L		05/28/24 07:28	05/28/24 19:06	1
4,4'-DDE	0.0041	U	0.052	0.0010	ug/L		05/28/24 07:28	05/28/24 19:06	1
4,4'-DDT	0.0041	U	0.052	0.0010	ug/L		05/28/24 07:28	05/28/24 19:06	1
Aldrin	0.0041	U	0.052	0.0021	ug/L		05/28/24 07:28	05/28/24 19:06	1
alpha-BHC	0.0041	U	0.052	0.0010	ug/L		05/28/24 07:28	05/28/24 19:06	1
beta-BHC	0.0041	U M	0.052	0.0021	ug/L		05/28/24 07:28	05/28/24 19:06	1
delta-BHC	0.0041	U	0.052	0.0021	ug/L		05/28/24 07:28	05/28/24 19:06	1
Dieldrin	0.0041	U	0.052	0.0021	ug/L		05/28/24 07:28	05/28/24 19:06	1
Endosulfan I	0.0041	U Q	0.052	0.0021	ug/L		05/28/24 07:28	05/28/24 19:06	1
Endosulfan II	0.0041	U M	0.052	0.0021	ug/L		05/28/24 07:28	05/28/24 19:06	1
Endosulfan sulfate	0.0041	U M	0.052	0.0021	ug/L		05/28/24 07:28	05/28/24 19:06	1
Endrin	0.0041	U	0.052	0.0010	ug/L		05/28/24 07:28	05/28/24 19:06	1
Endrin aldehyde	0.017	U	0.052	0.0041	ug/L		05/28/24 07:28	05/28/24 19:06	1
Endrin ketone	0.017	U Q	0.052	0.0041	ug/L		05/28/24 07:28	05/28/24 19:06	1
gamma-BHC (Lindane)	0.0041	U Q	0.052	0.0010	ug/L		05/28/24 07:28	05/28/24 19:06	1
Heptachlor	0.0041	U	0.052	0.0010	ug/L		05/28/24 07:28	05/28/24 19:06	1
Heptachlor epoxide	0.0041	U	0.052	0.0021	ug/L		05/28/24 07:28	05/28/24 19:06	1
Methoxychlor	0.0041	U Q	0.052	0.0021	ug/L		05/28/24 07:28	05/28/24 19:06	1
Chlordane (technical)	0.41	U M	0.52	0.17	ug/L		05/28/24 07:28	05/28/24 19:06	1
PCB-1016	0.25	U M	0.52	0.10	ug/L		05/28/24 07:28	05/28/24 19:06	1
PCB-1221	0.25	U	0.52	0.10	ug/L		05/28/24 07:28	05/28/24 19:06	1
PCB-1232	0.25	U	0.52	0.10	ug/L		05/28/24 07:28	05/28/24 19:06	1
PCB-1242	0.25	U	0.52	0.10	ug/L		05/28/24 07:28	05/28/24 19:06	1
PCB-1248	0.25	U M	0.52	0.10	ug/L		05/28/24 07:28	05/28/24 19:06	1
PCB-1254	0.25	U	0.52	0.10	ug/L		05/28/24 07:28	05/28/24 19:06	1
PCB-1260	0.25	U	0.52	0.10	ug/L		05/28/24 07:28	05/28/24 19:06	1
Toxaphene	0.83	U	5.2	0.32	ug/L		05/28/24 07:28	05/28/24 19:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*79*		*14 - 130*	*05/28/24 07:28*	*05/28/24 19:06*	*1*
Tetrachloro-m-xylene	*41*	*Q*	*44 - 124*	*05/28/24 07:28*	*05/28/24 19:06*	*1*

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**62**	**D M**	5.5	2.0	mg/L			06/05/24 13:59	10
Nitrate as N	**0.094**	**M**	0.055	0.023	mg/L			05/23/24 15:26	1
Nitrate Nitrite as N	**0.094**		0.055	0.023	mg/L			05/23/24 15:26	1
Sulfate	**2.8**		1.5	0.40	mg/L			06/04/24 18:40	1
Nitrite as N	0.050	U M	0.055	0.023	mg/L			05/23/24 15:26	1

Client Sample ID: OU6-DUP-5-20240522

Lab Sample ID: 680-251152-3

Date Collected: 05/22/24 00:00

Matrix: Water

Date Received: 05/23/24 09:29

Method: SW846 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**200**		200	35	ug/L		05/24/24 05:51	05/28/24 10:39	1
Antimony	1.5	U	5.0	0.34	ug/L		05/24/24 05:51	05/28/24 10:39	1
Arsenic	3.0	U	5.0	0.86	ug/L		05/24/24 05:51	05/28/24 10:39	1
Barium	**110**	**Q**	5.0	0.89	ug/L		05/24/24 05:51	05/28/24 10:39	1
Beryllium	**0.26**	**J**	0.50	0.20	ug/L		05/24/24 05:51	05/28/24 10:39	1
Boron	**23**	**J**	100	22	ug/L		05/24/24 05:51	05/28/24 10:39	1
Cadmium	0.20	U	0.50	0.078	ug/L		05/24/24 05:51	05/28/24 10:39	1
Calcium	**4300**		500	140	ug/L		05/24/24 05:51	05/28/24 10:39	1
Chromium	2.5	U	20	0.81	ug/L		05/24/24 05:51	05/28/24 10:39	1
Cobalt	**20**		1.0	0.22	ug/L		05/24/24 05:51	05/28/24 10:39	1
Copper	2.0	U	5.0	1.1	ug/L		05/24/24 05:51	05/28/24 10:39	1
Iron	**170**		100	12	ug/L		05/24/24 05:51	05/28/24 10:39	1
Lead	**0.23**	**J**	2.5	0.21	ug/L		05/24/24 05:51	05/28/24 10:39	1
Magnesium	**2600**		250	23	ug/L		05/24/24 05:51	05/28/24 10:39	1
Manganese	**770**		10	2.2	ug/L		05/24/24 05:51	05/28/24 10:39	1
Nickel	**3.1**	**J**	10	0.42	ug/L		05/24/24 05:51	05/28/24 10:39	1
Potassium	**1800**		1000	44	ug/L		05/24/24 05:51	05/28/24 10:39	1
Selenium	2.5	U Q	5.0	0.99	ug/L		05/24/24 05:51	05/28/24 10:39	1
Silver	1.0	U	2.0	0.39	ug/L		05/24/24 05:51	05/28/24 10:39	1
Sodium	**34000**		1000	200	ug/L		05/24/24 05:51	05/28/24 10:39	1
Thallium	1.0	U Q	2.0	0.26	ug/L		05/24/24 05:51	05/28/24 10:39	1
Vanadium	2.5	U	10	0.63	ug/L		05/24/24 05:51	05/28/24 10:39	1
Zinc	**55**		25	2.8	ug/L		05/24/24 05:51	05/28/24 10:39	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	0.20	U	0.25	0.080	ug/L		05/29/24 12:00	05/29/24 16:19	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**4.1**	**J**	5.5	2.2	mg/L			05/24/24 20:23	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	10	U	11	5.0	mg/L			05/24/24 20:23	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	10	U	11	5.0	mg/L			05/24/24 20:23	1
Sulfide (SM 4500 S2 F-2011)	1.0	U	1.0	1.0	mg/L			05/28/24 15:15	1
Sulfide as H2S (SM 4500 S2 F-2011)	1.1	U	1.1	1.1	mg/L			05/28/24 15:15	1
Total Organic Carbon (SW846 9060A)	**1.1**		1.0	0.50	mg/L			05/28/24 20:42	1
Carbon Dioxide, Free (SM 4500 CO2 D)	**61**		11	5.0	mg/L			05/24/24 20:23	1

Client Sample ID: OU6-MW-88-20240522

Lab Sample ID: 680-251152-4

Date Collected: 05/22/24 10:05

Matrix: Water

Date Received: 05/23/24 09:29

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			06/02/24 15:50	1
Benzene	1.0	U	2.0	0.27	ug/L			06/02/24 15:50	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			06/02/24 15:50	1

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-251152-1

Client Sample ID: OU6-MW-88-20240522
Date Collected: 05/22/24 10:05
Date Received: 05/23/24 09:29

Lab Sample ID: 680-251152-4
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Bromochloromethane	1.0	U	2.0	0.34	ug/L			06/02/24 15:50	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			06/02/24 15:50	1
Bromoform	2.0	U	2.5	0.59	ug/L			06/02/24 15:50	1
Bromomethane	10	U	20	3.7	ug/L			06/02/24 15:50	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			06/02/24 15:50	1
Carbon disulfide	1.0	U	2.0	0.43	ug/L			06/02/24 15:50	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			06/02/24 15:50	1
Chlorobenzene	**19**		1.0	0.15	ug/L			06/02/24 15:50	1
Chloroethane	10	U	20	4.6	ug/L			06/02/24 15:50	1
Chloroform	1.0	U M	2.0	0.27	ug/L			06/02/24 15:50	1
Chloromethane	2.0	U	2.5	0.54	ug/L			06/02/24 15:50	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			06/02/24 15:50	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			06/02/24 15:50	1
cis-1,2-Dichloroethene	**84**		2.0	0.25	ug/L			06/02/24 15:50	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			06/02/24 15:50	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			06/02/24 15:50	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			06/02/24 15:50	1
1,2-Dibromo-3-Chloropropane	5.0	U Q	10	1.8	ug/L			06/02/24 15:50	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			06/02/24 15:50	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			06/02/24 15:50	1
1,2-Dichlorobenzene	**5.0**		2.0	0.31	ug/L			06/02/24 15:50	1
1,3-Dichlorobenzene	**1.0**	**J**	2.0	0.31	ug/L			06/02/24 15:50	1
1,4-Dichlorobenzene	**17**		2.0	0.31	ug/L			06/02/24 15:50	1
Dichlorodifluoromethane	1.0	U Q	2.0	0.36	ug/L			06/02/24 15:50	1
1,1-Dichloroethane	**1.2**	**J**	2.0	0.33	ug/L			06/02/24 15:50	1
1,2-Dichloroethane	**0.47**	**J M**	2.0	0.25	ug/L			06/02/24 15:50	1
1,1-Dichloroethene	1.0	U M	2.0	0.33	ug/L			06/02/24 15:50	1
1,2-Dichloroethene, Total	**85**		2.0	0.37	ug/L			06/02/24 15:50	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			06/02/24 15:50	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			06/02/24 15:50	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			06/02/24 15:50	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			06/02/24 15:50	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			06/02/24 15:50	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			06/02/24 15:50	1
2-Hexanone	10	U	20	3.2	ug/L			06/02/24 15:50	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			06/02/24 15:50	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			06/02/24 15:50	1
Methyl acetate	10	U	20	3.2	ug/L			06/02/24 15:50	1
Methylcyclohexane	1.0	U	2.0	0.33	ug/L			06/02/24 15:50	1
Methylene Chloride	10	U	20	3.2	ug/L			06/02/24 15:50	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			06/02/24 15:50	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			06/02/24 15:50	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			06/02/24 15:50	1
Naphthalene	5.0	U	10	2.4	ug/L			06/02/24 15:50	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			06/02/24 15:50	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			06/02/24 15:50	1
o-Xylene	1.0	U	2.0	0.26	ug/L			06/02/24 15:50	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			06/02/24 15:50	1
Styrene	1.0	U	2.0	0.27	ug/L			06/02/24 15:50	1

Client Sample ID: OU6-MW-88-20240522
Date Collected: 05/22/24 10:05
Date Received: 05/23/24 09:29

Lab Sample ID: 680-251152-4
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			06/02/24 15:50	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			06/02/24 15:50	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			06/02/24 15:50	1
Tetrachloroethene	**8.6**		2.0	0.35	ug/L			06/02/24 15:50	1
Toluene	1.0	U	2.0	0.25	ug/L			06/02/24 15:50	1
trans-1,2-Dichloroethene	**0.78**	**J**	2.0	0.34	ug/L			06/02/24 15:50	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			06/02/24 15:50	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			06/02/24 15:50	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			06/02/24 15:50	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			06/02/24 15:50	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			06/02/24 15:50	1
Trichloroethene	**43**		1.0	0.20	ug/L			06/02/24 15:50	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			06/02/24 15:50	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			06/02/24 15:50	1
1,1,2-Trichloro-1,2,2-trifluoroethane	**1.7**		1.0	0.23	ug/L			06/02/24 15:50	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			06/02/24 15:50	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			06/02/24 15:50	1
Vinyl chloride	**2.9**		2.0	0.40	ug/L			06/02/24 15:50	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			06/02/24 15:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*85 - 114*		*06/02/24 15:50*	*1*
Dibromofluoromethane (Surr)	*109*		*80 - 119*		*06/02/24 15:50*	*1*
1,2-Dichloroethane-d4 (Surr)	*91*		*81 - 118*		*06/02/24 15:50*	*1*
Toluene-d8 (Surr)	*103*		*89 - 112*		*06/02/24 15:50*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	**0.79**	**J**	1.1	0.30	ug/L			06/04/24 16:27	1
Ethylene	**0.79**	**J**	1.0	0.31	ug/L			06/04/24 16:27	1
Methane	**190**		1.2	0.57	ug/L			06/04/24 16:27	1

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**10**	**M**	0.55	0.20	mg/L			06/04/24 18:47	1
Nitrate as N	0.050	U	0.055	0.023	mg/L			05/23/24 15:35	1
Nitrate Nitrite as N	0.050	U	0.055	0.023	mg/L			05/23/24 15:35	1
Sulfate	**2.7**		1.5	0.40	mg/L			06/04/24 18:47	1
Nitrite as N	0.050	U M	0.055	0.023	mg/L			05/23/24 15:35	1

Method: SW846 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**28**		10	2.2	ug/L		05/24/24 05:51	05/28/24 10:33	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**8.2**		5.5	2.2	mg/L			05/24/24 23:10	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	**8.2**	**J**	11	5.0	mg/L			05/24/24 23:10	1

Client Sample ID: OU6-MW-88-20240522

Lab Sample ID: 680-251152-4

Date Collected: 05/22/24 10:05

Matrix: Water

Date Received: 05/23/24 09:29

General Chemistry (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	10	U	11	5.0	mg/L			05/24/24 23:10	1
Sulfide (SM 4500 S2 F-2011)	0.83	U	0.83	0.83	mg/L			05/28/24 15:15	1
Sulfide as H2S (SM 4500 S2 F-2011)	0.92	U	0.92	0.92	mg/L			05/28/24 15:15	1
Total Organic Carbon (SW846 9060A)	**1.4**		1.0	0.50	mg/L			05/28/24 20:59	1
Carbon Dioxide, Free (SM 4500 CO2 D)	**55**		11	5.0	mg/L			05/24/24 23:10	1

Client Sample ID: OU6-MW-271-20240522

Lab Sample ID: 680-251152-5

Date Collected: 05/22/24 07:55

Matrix: Water

Date Received: 05/23/24 09:29

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	50	U	130	19	ug/L			06/02/24 18:51	5
Benzene	**2.3**	**J D**	10	1.4	ug/L			06/02/24 18:51	5
Bromobenzene	2.5	U	5.0	1.2	ug/L			06/02/24 18:51	5
Bromochloromethane	5.0	U	10	1.7	ug/L			06/02/24 18:51	5
Bromodichloromethane	5.0	U	10	1.3	ug/L			06/02/24 18:51	5
Bromoform	10	U	13	3.0	ug/L			06/02/24 18:51	5
Bromomethane	50	U	100	19	ug/L			06/02/24 18:51	5
2-Butanone (MEK)	100	U	130	32	ug/L			06/02/24 18:51	5
Carbon disulfide	5.0	U	10	2.2	ug/L			06/02/24 18:51	5
Carbon tetrachloride	5.0	U	10	1.5	ug/L			06/02/24 18:51	5
Chlorobenzene	**200**	**D**	5.0	0.75	ug/L			06/02/24 18:51	5
Chloroethane	50	U	100	23	ug/L			06/02/24 18:51	5
Chloroform	**7.6**	**J D M**	10	1.4	ug/L			06/02/24 18:51	5
Chloromethane	10	U	13	2.7	ug/L			06/02/24 18:51	5
2-Chlorotoluene	2.5	U	5.0	1.3	ug/L			06/02/24 18:51	5
4-Chlorotoluene	5.0	U	10	2.1	ug/L			06/02/24 18:51	5
cis-1,2-Dichloroethene	**530**	**D**	10	1.3	ug/L			06/02/24 18:51	5
cis-1,3-Dichloropropene	5.0	U	10	1.3	ug/L			06/02/24 18:51	5
Cyclohexane	5.0	U	10	1.4	ug/L			06/02/24 18:51	5
Dibromochloromethane	5.0	U	10	2.0	ug/L			06/02/24 18:51	5
1,2-Dibromo-3-Chloropropane	25	U Q	50	9.0	ug/L			06/02/24 18:51	5
1,2-Dibromoethane	5.0	U	10	1.7	ug/L			06/02/24 18:51	5
Dibromomethane	5.0	U	10	1.7	ug/L			06/02/24 18:51	5
1,2-Dichlorobenzene	**43**	**D**	10	1.6	ug/L			06/02/24 18:51	5
1,3-Dichlorobenzene	**8.8**	**J D**	10	1.6	ug/L			06/02/24 18:51	5
1,4-Dichlorobenzene	**150**	**D**	10	1.6	ug/L			06/02/24 18:51	5
Dichlorodifluoromethane	5.0	U	10	1.8	ug/L			06/04/24 15:28	5
1,1-Dichloroethane	**18**	**D**	10	1.7	ug/L			06/02/24 18:51	5
1,2-Dichloroethane	**12**	**D**	10	1.3	ug/L			06/02/24 18:51	5
1,1-Dichloroethene	5.0	U M	10	1.7	ug/L			06/02/24 18:51	5
1,2-Dichloroethene, Total	**530**	**D**	10	1.9	ug/L			06/02/24 18:51	5
1,2-Dichloropropane	2.5	U	5.0	1.1	ug/L			06/02/24 18:51	5
1,3-Dichloropropane	5.0	U	10	1.8	ug/L			06/02/24 18:51	5
2,2-Dichloropropane	5.0	U	10	1.8	ug/L			06/02/24 18:51	5
1,1-Dichloropropene	5.0	U	10	1.4	ug/L			06/02/24 18:51	5
Ethylbenzene	2.5	U	5.0	1.0	ug/L			06/02/24 18:51	5

Client Sample ID: OU6-MW-271-20240522
Date Collected: 05/22/24 07:55
Date Received: 05/23/24 09:29

Lab Sample ID: 680-251152-5
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobutadiene	5.0	U	25	1.1	ug/L			06/02/24 18:51	5
2-Hexanone	50	U	100	16	ug/L			06/02/24 18:51	5
Isopropylbenzene	5.0	U	10	1.3	ug/L			06/02/24 18:51	5
4-Isopropyltoluene	5.0	U	10	2.2	ug/L			06/02/24 18:51	5
Methyl acetate	50	U	100	16	ug/L			06/02/24 18:51	5
Methylcyclohexane	5.0	U	10	1.7	ug/L			06/02/24 18:51	5
Methylene Chloride	50	U	100	16	ug/L			06/02/24 18:51	5
4-Methyl-2-pentanone (MIBK)	50	U	100	14	ug/L			06/02/24 18:51	5
Methyl tert-butyl ether	10	U	25	4.1	ug/L			06/02/24 18:51	5
m-Xylene & p-Xylene	5.0	U	10	2.5	ug/L			06/02/24 18:51	5
Naphthalene	25	U	50	12	ug/L			06/02/24 18:51	5
n-Butylbenzene	10	U	13	2.6	ug/L			06/02/24 18:51	5
N-Propylbenzene	5.0	U	10	2.1	ug/L			06/02/24 18:51	5
o-Xylene	5.0	U	10	1.3	ug/L			06/02/24 18:51	5
sec-Butylbenzene	10	U	13	2.7	ug/L			06/02/24 18:51	5
Styrene	5.0	U	10	1.4	ug/L			06/02/24 18:51	5
tert-Butylbenzene	5.0	U	10	2.2	ug/L			06/02/24 18:51	5
1,1,1,2-Tetrachloroethane	5.0	U	10	1.8	ug/L			06/02/24 18:51	5
1,1,2,2-Tetrachloroethane	5.0	U	10	2.0	ug/L			06/02/24 18:51	5
Tetrachloroethene	**12**	**D**	10	1.8	ug/L			06/02/24 18:51	5
Toluene	5.0	U	10	1.3	ug/L			06/02/24 18:51	5
trans-1,2-Dichloroethene	5.0	U M	10	1.7	ug/L			06/02/24 18:51	5
trans-1,3-Dichloropropene	5.0	U	10	1.2	ug/L			06/02/24 18:51	5
1,2,3-Trichlorobenzene	10	U	25	4.1	ug/L			06/02/24 18:51	5
1,2,4-Trichlorobenzene	10	U	25	2.7	ug/L			06/02/24 18:51	5
1,1,1-Trichloroethane	2.5	U	5.0	1.1	ug/L			06/02/24 18:51	5
1,1,2-Trichloroethane	5.0	U M	10	1.6	ug/L			06/02/24 18:51	5
Trichloroethene	**73**	**D**	5.0	1.0	ug/L			06/02/24 18:51	5
Trichlorofluoromethane	5.0	U	10	1.7	ug/L			06/02/24 18:51	5
1,2,3-Trichloropropane	5.0	U	10	2.4	ug/L			06/02/24 18:51	5
1,1,2-Trichloro-1,2,2-trifluoroethane	2.5	U	5.0	1.2	ug/L			06/02/24 18:51	5
1,2,4-Trimethylbenzene	5.0	U	10	2.2	ug/L			06/02/24 18:51	5
1,3,5-Trimethylbenzene	5.0	U	10	1.4	ug/L			06/02/24 18:51	5
Vinyl chloride	**120**	**D**	10	2.0	ug/L			06/02/24 18:51	5
Xylenes, Total	5.0	U	10	2.5	ug/L			06/02/24 18:51	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*85 - 114*		*06/02/24 18:51*	*5*
4-Bromofluorobenzene (Surr)	*105*		*85 - 114*		*06/04/24 15:28*	*5*
Dibromofluoromethane (Surr)	*111*		*80 - 119*		*06/02/24 18:51*	*5*
Dibromofluoromethane (Surr)	*108*		*80 - 119*		*06/04/24 15:28*	*5*
1,2-Dichloroethane-d4 (Surr)	*92*		*81 - 118*		*06/02/24 18:51*	*5*
1,2-Dichloroethane-d4 (Surr)	*98*		*81 - 118*		*06/04/24 15:28*	*5*
Toluene-d8 (Surr)	*107*		*89 - 112*		*06/02/24 18:51*	*5*
Toluene-d8 (Surr)	*108*		*89 - 112*		*06/04/24 15:28*	*5*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	**110**		1.1	0.30	ug/L			06/04/24 16:40	1
Ethylene	**120**		1.0	0.31	ug/L			06/04/24 16:40	1

Client Sample ID: OU6-MW-271-20240522

Lab Sample ID: 680-251152-5

Date Collected: 05/22/24 07:55

Matrix: Water

Date Received: 05/23/24 09:29

Method: RSK-175 - Dissolved Gases (GC) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Methane (TCD)	**4100**		390	39	ug/L			06/04/24 16:40	1

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**170**	**D M**	11	4.0	mg/L			06/05/24 14:19	20
Nitrate as N	0.050	U M	0.055	0.023	mg/L			05/23/24 15:43	1
Nitrate Nitrite as N	0.050	U	0.055	0.023	mg/L			05/23/24 15:43	1
Sulfate	**2.4**	**J D M**	3.0	0.80	mg/L			06/04/24 19:06	2
Nitrite as N	0.050	U M	0.055	0.023	mg/L			05/23/24 15:43	1

Method: SW846 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**940**		10	2.2	ug/L		05/24/24 05:51	05/28/24 11:18	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	5.0	U	5.5	2.2	mg/L			05/24/24 20:29	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	10	U	11	5.0	mg/L			05/24/24 20:29	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	10	U	11	5.0	mg/L			05/24/24 20:29	1
Sulfide (SM 4500 S2 F-2011)	0.86	U	0.86	0.86	mg/L			05/28/24 15:15	1
Sulfide as H2S (SM 4500 S2 F-2011)	0.95	U	0.95	0.95	mg/L			05/28/24 15:15	1
Total Organic Carbon (SW846 9060A)	**1.6**		1.0	0.50	mg/L			05/28/24 21:17	1
Carbon Dioxide, Free (SM 4500 CO2 D)	10	U	11	5.0	mg/L			05/24/24 20:29	1

Client Sample ID: OU6-MW-247-20240522

Lab Sample ID: 680-251152-6

Date Collected: 05/22/24 09:20

Matrix: Water

Date Received: 05/23/24 09:29

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	**200**		25	3.7	ug/L			06/02/24 16:12	1
Benzene	1.0	U	2.0	0.27	ug/L			06/02/24 16:12	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			06/02/24 16:12	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			06/02/24 16:12	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			06/02/24 16:12	1
Bromoform	2.0	U	2.5	0.59	ug/L			06/02/24 16:12	1
Bromomethane	10	U	20	3.7	ug/L			06/02/24 16:12	1
2-Butanone (MEK)	**93**		25	6.4	ug/L			06/02/24 16:12	1
Carbon disulfide	1.0	U	2.0	0.43	ug/L			06/02/24 16:12	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			06/02/24 16:12	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			06/02/24 16:12	1
Chloroethane	10	U	20	4.6	ug/L			06/02/24 16:12	1
Chloroform	1.0	U	2.0	0.27	ug/L			06/02/24 16:12	1
Chloromethane	2.0	U	2.5	0.54	ug/L			06/02/24 16:12	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			06/02/24 16:12	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			06/02/24 16:12	1
cis-1,2-Dichloroethene	**5.4**		2.0	0.25	ug/L			06/02/24 16:12	1

Client Sample ID: OU6-MW-247-20240522
Date Collected: 05/22/24 09:20
Date Received: 05/23/24 09:29

Lab Sample ID: 680-251152-6
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			06/02/24 16:12	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			06/02/24 16:12	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			06/02/24 16:12	1
1,2-Dibromo-3-Chloropropane	5.0	U Q	10	1.8	ug/L			06/02/24 16:12	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			06/02/24 16:12	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			06/02/24 16:12	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			06/02/24 16:12	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			06/02/24 16:12	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			06/02/24 16:12	1
Dichlorodifluoromethane	1.0	U Q	2.0	0.36	ug/L			06/02/24 16:12	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			06/02/24 16:12	1
1,2-Dichloroethane	1.0	U	2.0	0.25	ug/L			06/02/24 16:12	1
1,1-Dichloroethene	1.0	U	2.0	0.33	ug/L			06/02/24 16:12	1
1,2-Dichloroethene, Total	**5.4**		2.0	0.37	ug/L			06/02/24 16:12	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			06/02/24 16:12	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			06/02/24 16:12	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			06/02/24 16:12	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			06/02/24 16:12	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			06/02/24 16:12	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			06/02/24 16:12	1
2-Hexanone	10	U	20	3.2	ug/L			06/02/24 16:12	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			06/02/24 16:12	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			06/02/24 16:12	1
Methyl acetate	10	U	20	3.2	ug/L			06/02/24 16:12	1
Methylcyclohexane	1.0	U	2.0	0.33	ug/L			06/02/24 16:12	1
Methylene Chloride	10	U	20	3.2	ug/L			06/02/24 16:12	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			06/02/24 16:12	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			06/02/24 16:12	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			06/02/24 16:12	1
Naphthalene	5.0	U	10	2.4	ug/L			06/02/24 16:12	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			06/02/24 16:12	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			06/02/24 16:12	1
o-Xylene	1.0	U	2.0	0.26	ug/L			06/02/24 16:12	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			06/02/24 16:12	1
Styrene	1.0	U	2.0	0.27	ug/L			06/02/24 16:12	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			06/02/24 16:12	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			06/02/24 16:12	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			06/02/24 16:12	1
Tetrachloroethene	1.0	U	2.0	0.35	ug/L			06/02/24 16:12	1
Toluene	1.0	U	2.0	0.25	ug/L			06/02/24 16:12	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			06/02/24 16:12	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			06/02/24 16:12	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			06/02/24 16:12	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			06/02/24 16:12	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			06/02/24 16:12	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			06/02/24 16:12	1
Trichloroethene	0.50	U M	1.0	0.20	ug/L			06/02/24 16:12	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			06/02/24 16:12	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			06/02/24 16:12	1

Client Sample ID: OU6-MW-247-20240522

Lab Sample ID: 680-251152-6

Date Collected: 05/22/24 09:20

Matrix: Water

Date Received: 05/23/24 09:29

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			06/02/24 16:12	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			06/02/24 16:12	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			06/02/24 16:12	1
Vinyl chloride	1.0	U M	2.0	0.40	ug/L			06/02/24 16:12	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			06/02/24 16:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*85 - 114*		*06/02/24 16:12*	*1*
Dibromofluoromethane (Surr)	*106*		*80 - 119*		*06/02/24 16:12*	*1*
1,2-Dichloroethane-d4 (Surr)	*86*		*81 - 118*		*06/02/24 16:12*	*1*
Toluene-d8 (Surr)	*106*		*89 - 112*		*06/02/24 16:12*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	0.76	U	1.1	0.30	ug/L			06/04/24 17:30	1
Ethylene	**2.1**		1.0	0.31	ug/L			06/04/24 17:30	1
Methane (TCD)	**6500**		390	39	ug/L			06/04/24 17:30	1

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**7.5**		0.55	0.20	mg/L			06/04/24 19:12	1
Nitrate as N	0.050	U	0.055	0.023	mg/L			05/23/24 15:51	1
Nitrate Nitrite as N	0.050	U	0.055	0.023	mg/L			05/23/24 15:51	1
Sulfate	**0.85**	**J M**	1.5	0.40	mg/L			06/04/24 19:12	1
Nitrite as N	0.050	U	0.055	0.023	mg/L			05/23/24 15:51	1

Method: SW846 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**190**		10	2.2	ug/L		05/24/24 05:51	05/28/24 11:16	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	5.0	U	5.5	2.2	mg/L			05/24/24 21:03	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	10	U	11	5.0	mg/L			05/24/24 21:03	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	10	U	11	5.0	mg/L			05/24/24 21:03	1
Sulfide (SM 4500 S2 F-2011)	**1.6**		1.0	1.0	mg/L			05/28/24 15:15	1
Sulfide as H2S (SM 4500 S2 F-2011)	**1.7**		1.1	1.1	mg/L			05/28/24 15:15	1
Total Organic Carbon (SW846 9060A)	**760**	**D**	15	7.5	mg/L			05/29/24 13:33	15
Carbon Dioxide, Free (SM 4500 CO2 D)	10	U	11	5.0	mg/L			05/24/24 21:03	1

Client Sample ID: OU6-MW-251-20240522

Lab Sample ID: 680-251152-7

Date Collected: 05/22/24 12:10

Matrix: Water

Date Received: 05/23/24 09:29

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	20	U	50	7.4	ug/L			06/02/24 17:39	2

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-251152-1

Client Sample ID: OU6-MW-251-20240522
Date Collected: 05/22/24 12:10
Date Received: 05/23/24 09:29

Lab Sample ID: 680-251152-7
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	2.0	U	4.0	0.54	ug/L			06/02/24 17:39	2
Bromobenzene	1.0	U	2.0	0.48	ug/L			06/02/24 17:39	2
Bromochloromethane	2.0	U	4.0	0.68	ug/L			06/02/24 17:39	2
Bromodichloromethane	2.0	U	4.0	0.50	ug/L			06/02/24 17:39	2
Bromoform	4.0	U	5.0	1.2	ug/L			06/02/24 17:39	2
Bromomethane	20	U	40	7.4	ug/L			06/02/24 17:39	2
2-Butanone (MEK)	40	U	50	13	ug/L			06/02/24 17:39	2
Carbon disulfide	2.0	U	4.0	0.86	ug/L			06/02/24 17:39	2
Carbon tetrachloride	2.0	U	4.0	0.60	ug/L			06/02/24 17:39	2
Chlorobenzene	1.0	U	2.0	0.30	ug/L			06/02/24 17:39	2
Chloroethane	20	U	40	9.2	ug/L			06/02/24 17:39	2
Chloroform	2.0	U	4.0	0.54	ug/L			06/02/24 17:39	2
Chloromethane	4.0	U	5.0	1.1	ug/L			06/02/24 17:39	2
2-Chlorotoluene	1.0	U	2.0	0.50	ug/L			06/02/24 17:39	2
4-Chlorotoluene	2.0	U	4.0	0.82	ug/L			06/02/24 17:39	2
cis-1,2-Dichloroethene	**180**	**D**	4.0	0.50	ug/L			06/02/24 17:39	2
cis-1,3-Dichloropropene	2.0	U	4.0	0.52	ug/L			06/02/24 17:39	2
Cyclohexane	2.0	U	4.0	0.56	ug/L			06/02/24 17:39	2
Dibromochloromethane	2.0	U	4.0	0.78	ug/L			06/02/24 17:39	2
1,2-Dibromo-3-Chloropropane	10	U Q	20	3.6	ug/L			06/02/24 17:39	2
1,2-Dibromoethane	2.0	U	4.0	0.66	ug/L			06/02/24 17:39	2
Dibromomethane	2.0	U	4.0	0.68	ug/L			06/02/24 17:39	2
1,2-Dichlorobenzene	2.0	U	4.0	0.62	ug/L			06/02/24 17:39	2
1,3-Dichlorobenzene	2.0	U	4.0	0.62	ug/L			06/02/24 17:39	2
1,4-Dichlorobenzene	2.0	U	4.0	0.62	ug/L			06/02/24 17:39	2
Dichlorodifluoromethane	2.0	U Q	4.0	0.72	ug/L			06/02/24 17:39	2
1,1-Dichloroethane	**4.5**	**D M**	4.0	0.66	ug/L			06/02/24 17:39	2
1,2-Dichloroethane	2.0	U M	4.0	0.50	ug/L			06/02/24 17:39	2
1,1-Dichloroethene	2.0	U M	4.0	0.66	ug/L			06/02/24 17:39	2
1,2-Dichloroethene, Total	**190**	**D**	4.0	0.74	ug/L			06/02/24 17:39	2
1,2-Dichloropropane	1.0	U	2.0	0.44	ug/L			06/02/24 17:39	2
1,3-Dichloropropane	2.0	U	4.0	0.72	ug/L			06/02/24 17:39	2
2,2-Dichloropropane	2.0	U	4.0	0.70	ug/L			06/02/24 17:39	2
1,1-Dichloropropene	2.0	U	4.0	0.56	ug/L			06/02/24 17:39	2
Ethylbenzene	1.0	U	2.0	0.40	ug/L			06/02/24 17:39	2
Hexachlorobutadiene	2.0	U	10	0.44	ug/L			06/02/24 17:39	2
2-Hexanone	20	U	40	6.4	ug/L			06/02/24 17:39	2
Isopropylbenzene	2.0	U	4.0	0.52	ug/L			06/02/24 17:39	2
4-Isopropyltoluene	2.0	U	4.0	0.88	ug/L			06/02/24 17:39	2
Methyl acetate	20	U	40	6.4	ug/L			06/02/24 17:39	2
Methylcyclohexane	2.0	U	4.0	0.66	ug/L			06/02/24 17:39	2
Methylene Chloride	20	U	40	6.4	ug/L			06/02/24 17:39	2
4-Methyl-2-pentanone (MIBK)	20	U	40	5.4	ug/L			06/02/24 17:39	2
Methyl tert-butyl ether	4.0	U	10	1.6	ug/L			06/02/24 17:39	2
m-Xylene & p-Xylene	2.0	U	4.0	0.98	ug/L			06/02/24 17:39	2
Naphthalene	10	U	20	4.8	ug/L			06/02/24 17:39	2
n-Butylbenzene	4.0	U	5.0	1.0	ug/L			06/02/24 17:39	2
N-Propylbenzene	2.0	U	4.0	0.82	ug/L			06/02/24 17:39	2
o-Xylene	2.0	U	4.0	0.52	ug/L			06/02/24 17:39	2

Client Sample ID: OU6-MW-251-20240522
Date Collected: 05/22/24 12:10
Date Received: 05/23/24 09:29

Lab Sample ID: 680-251152-7
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	4.0	U	5.0	1.1	ug/L			06/02/24 17:39	2
Styrene	2.0	U	4.0	0.54	ug/L			06/02/24 17:39	2
tert-Butylbenzene	2.0	U	4.0	0.86	ug/L			06/02/24 17:39	2
1,1,1,2-Tetrachloroethane	2.0	U	4.0	0.72	ug/L			06/02/24 17:39	2
1,1,2,2-Tetrachloroethane	2.0	U	4.0	0.80	ug/L			06/02/24 17:39	2
Tetrachloroethene	**13**	**D**	4.0	0.70	ug/L			06/02/24 17:39	2
Toluene	2.0	U	4.0	0.50	ug/L			06/02/24 17:39	2
trans-1,2-Dichloroethene	**11**	**D**	4.0	0.68	ug/L			06/02/24 17:39	2
trans-1,3-Dichloropropene	2.0	U	4.0	0.46	ug/L			06/02/24 17:39	2
1,2,3-Trichlorobenzene	4.0	U	10	1.6	ug/L			06/02/24 17:39	2
1,2,4-Trichlorobenzene	4.0	U	10	1.1	ug/L			06/02/24 17:39	2
1,1,1-Trichloroethane	1.0	U	2.0	0.42	ug/L			06/02/24 17:39	2
1,1,2-Trichloroethane	2.0	U	4.0	0.64	ug/L			06/02/24 17:39	2
Trichloroethene	**76**	**D**	2.0	0.40	ug/L			06/02/24 17:39	2
Trichlorofluoromethane	2.0	U	4.0	0.66	ug/L			06/02/24 17:39	2
1,2,3-Trichloropropane	2.0	U	4.0	0.96	ug/L			06/02/24 17:39	2
1,1,2-Trichloro-1,2,2-trifluoroethane	**240**	**D**	2.0	0.46	ug/L			06/02/24 17:39	2
1,2,4-Trimethylbenzene	2.0	U	4.0	0.86	ug/L			06/02/24 17:39	2
1,3,5-Trimethylbenzene	2.0	U	4.0	0.56	ug/L			06/02/24 17:39	2
Vinyl chloride	**5.8**	**D**	4.0	0.80	ug/L			06/02/24 17:39	2
Xylenes, Total	2.0	U	4.0	0.98	ug/L			06/02/24 17:39	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*85 - 114*		*06/02/24 17:39*	*2*
Dibromofluoromethane (Surr)	*112*		*80 - 119*		*06/02/24 17:39*	*2*
1,2-Dichloroethane-d4 (Surr)	*93*		*81 - 118*		*06/02/24 17:39*	*2*
Toluene-d8 (Surr)	*107*		*89 - 112*		*06/02/24 17:39*	*2*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	**0.82**	**J**	1.1	0.30	ug/L			06/04/24 17:43	1
Ethylene	**4.7**		1.0	0.31	ug/L			06/04/24 17:43	1
Methane (TCD)	**7000**		390	39	ug/L			06/04/24 17:43	1

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**11**	**M**	0.55	0.20	mg/L			06/04/24 19:19	1
Nitrate as N	0.10	U M	0.11	0.046	mg/L			05/23/24 16:00	2
Nitrate Nitrite as N	0.10	U	0.11	0.046	mg/L			05/23/24 16:00	2
Sulfate	**2.3**		1.5	0.40	mg/L			06/04/24 19:19	1
Nitrite as N	0.10	U M	0.11	0.046	mg/L			05/23/24 16:00	2

Method: SW846 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**300**		10	2.2	ug/L		05/24/24 06:46	05/28/24 11:38	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**58**		5.5	2.2	mg/L			05/24/24 20:11	1

Client Sample ID: OU6-MW-251-20240522

Lab Sample ID: 680-251152-7

Date Collected: 05/22/24 12:10

Matrix: Water

Date Received: 05/23/24 09:29

General Chemistry (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	**58**		11	5.0	mg/L			05/24/24 20:11	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	10	U	11	5.0	mg/L			05/24/24 20:11	1
Sulfide (SM 4500 S2 F-2011)	0.81	U	0.81	0.81	mg/L			05/28/24 15:15	1
Sulfide as H2S (SM 4500 S2 F-2011)	0.89	U	0.89	0.89	mg/L			05/28/24 15:15	1
Total Organic Carbon (SW846 9060A)	**2.0**		1.0	0.50	mg/L			05/29/24 00:11	1
Carbon Dioxide, Free (SM 4500 CO2 D)	**69**		11	5.0	mg/L			05/24/24 20:11	1

Client Sample ID: OU6-MW-250-20240522

Lab Sample ID: 680-251152-8

Date Collected: 05/22/24 10:50

Matrix: Water

Date Received: 05/23/24 09:29

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			06/02/24 16:33	1
Benzene	1.0	U	2.0	0.27	ug/L			06/02/24 16:33	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			06/02/24 16:33	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			06/02/24 16:33	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			06/02/24 16:33	1
Bromoform	2.0	U	2.5	0.59	ug/L			06/02/24 16:33	1
Bromomethane	10	U	20	3.7	ug/L			06/02/24 16:33	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			06/02/24 16:33	1
Carbon disulfide	1.0	U	2.0	0.43	ug/L			06/02/24 16:33	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			06/02/24 16:33	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			06/02/24 16:33	1
Chloroethane	10	U	20	4.6	ug/L			06/02/24 16:33	1
Chloroform	1.0	U	2.0	0.27	ug/L			06/02/24 16:33	1
Chloromethane	2.0	U	2.5	0.54	ug/L			06/02/24 16:33	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			06/02/24 16:33	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			06/02/24 16:33	1
cis-1,2-Dichloroethene	**110**		2.0	0.25	ug/L			06/02/24 16:33	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			06/02/24 16:33	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			06/02/24 16:33	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			06/02/24 16:33	1
1,2-Dibromo-3-Chloropropane	5.0	U Q	10	1.8	ug/L			06/02/24 16:33	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			06/02/24 16:33	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			06/02/24 16:33	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			06/02/24 16:33	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			06/02/24 16:33	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			06/02/24 16:33	1
Dichlorodifluoromethane	1.0	U Q	2.0	0.36	ug/L			06/02/24 16:33	1
1,1-Dichloroethane	**2.1**		2.0	0.33	ug/L			06/02/24 16:33	1
1,2-Dichloroethane	1.0	U M	2.0	0.25	ug/L			06/02/24 16:33	1
1,1-Dichloroethene	**6.3**		2.0	0.33	ug/L			06/02/24 16:33	1
1,2-Dichloroethene, Total	**110**		2.0	0.37	ug/L			06/02/24 16:33	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			06/02/24 16:33	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			06/02/24 16:33	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			06/02/24 16:33	1

Client Sample ID: OU6-MW-250-20240522
Date Collected: 05/22/24 10:50
Date Received: 05/23/24 09:29

Lab Sample ID: 680-251152-8
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			06/02/24 16:33	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			06/02/24 16:33	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			06/02/24 16:33	1
2-Hexanone	10	U	20	3.2	ug/L			06/02/24 16:33	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			06/02/24 16:33	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			06/02/24 16:33	1
Methyl acetate	10	U	20	3.2	ug/L			06/02/24 16:33	1
Methylcyclohexane	1.0	U	2.0	0.33	ug/L			06/02/24 16:33	1
Methylene Chloride	10	U	20	3.2	ug/L			06/02/24 16:33	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			06/02/24 16:33	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			06/02/24 16:33	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			06/02/24 16:33	1
Naphthalene	5.0	U	10	2.4	ug/L			06/02/24 16:33	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			06/02/24 16:33	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			06/02/24 16:33	1
o-Xylene	1.0	U	2.0	0.26	ug/L			06/02/24 16:33	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			06/02/24 16:33	1
Styrene	1.0	U	2.0	0.27	ug/L			06/02/24 16:33	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			06/02/24 16:33	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			06/02/24 16:33	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			06/02/24 16:33	1
Tetrachloroethene	**11**		2.0	0.35	ug/L			06/02/24 16:33	1
Toluene	1.0	U	2.0	0.25	ug/L			06/02/24 16:33	1
trans-1,2-Dichloroethene	**2.2**	**M**	2.0	0.34	ug/L			06/02/24 16:33	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			06/02/24 16:33	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			06/02/24 16:33	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			06/02/24 16:33	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			06/02/24 16:33	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			06/02/24 16:33	1
Trichloroethene	**19**		1.0	0.20	ug/L			06/02/24 16:33	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			06/02/24 16:33	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			06/02/24 16:33	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			06/02/24 16:33	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			06/02/24 16:33	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			06/02/24 16:33	1
Vinyl chloride	**19**		2.0	0.40	ug/L			06/02/24 16:33	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			06/02/24 16:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*85 - 114*		*06/02/24 16:33*	*1*
Dibromofluoromethane (Surr)	*107*		*80 - 119*		*06/02/24 16:33*	*1*
1,2-Dichloroethane-d4 (Surr)	*89*		*81 - 118*		*06/02/24 16:33*	*1*
Toluene-d8 (Surr)	*104*		*89 - 112*		*06/02/24 16:33*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	**1.2**		1.1	0.30	ug/L			06/04/24 17:56	1
Ethylene	**44**		1.0	0.31	ug/L			06/04/24 17:56	1
Methane (TCD)	**14000**		390	39	ug/L			06/04/24 17:56	1

Client: Meadows CMPG, Inc
Job ID: 680-251152-1
Project/Site: DSCR - OU6 Annual

Client Sample ID: OU6-MW-250-20240522
Lab Sample ID: 680-251152-8
Date Collected: 05/22/24 10:50
Matrix: Water
Date Received: 05/23/24 09:29

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**12**		0.55	0.20	mg/L			06/04/24 19:25	1
Nitrate as N	0.10	U	0.11	0.046	mg/L			05/23/24 16:08	2
Nitrate Nitrite as N	0.10	U	0.11	0.046	mg/L			05/23/24 16:08	2
Sulfate	**2.1**		1.5	0.40	mg/L			06/04/24 19:25	1
Nitrite as N	0.10	U	0.11	0.046	mg/L			05/23/24 16:08	2

Method: SW846 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**310**		10	2.2	ug/L		05/24/24 05:51	05/28/24 10:27	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**270**		5.5	2.2	mg/L			05/24/24 21:14	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	**270**		11	5.0	mg/L			05/24/24 21:14	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	10	U	11	5.0	mg/L			05/24/24 21:14	1
Sulfide (SM 4500 S2 F-2011)	0.81	U	0.81	0.81	mg/L			05/28/24 15:15	1
Sulfide as H2S (SM 4500 S2 F-2011)	0.89	U	0.89	0.89	mg/L			05/28/24 15:15	1
Total Organic Carbon (SW846 9060A)	**6.0**		1.0	0.50	mg/L			05/29/24 00:29	1
Carbon Dioxide, Free (SM 4500 CO2 D)	**230**		11	5.0	mg/L			05/24/24 21:14	1

Client Sample ID: OU6-MW-157-20240522
Lab Sample ID: 680-251152-9
Date Collected: 05/22/24 11:25
Matrix: Water
Date Received: 05/23/24 09:29

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	100	U	250	37	ug/L			06/02/24 19:39	10
Benzene	10	U	20	2.7	ug/L			06/02/24 19:39	10
Bromobenzene	5.0	U	10	2.4	ug/L			06/02/24 19:39	10
Bromochloromethane	10	U	20	3.4	ug/L			06/02/24 19:39	10
Bromodichloromethane	10	U	20	2.5	ug/L			06/02/24 19:39	10
Bromoform	20	U	25	5.9	ug/L			06/02/24 19:39	10
Bromomethane	100	U	200	37	ug/L			06/02/24 19:39	10
2-Butanone (MEK)	200	U	250	64	ug/L			06/02/24 19:39	10
Carbon disulfide	10	U	20	4.3	ug/L			06/02/24 19:39	10
Carbon tetrachloride	10	U	20	3.0	ug/L			06/02/24 19:39	10
Chlorobenzene	**18**	**D M**	10	1.5	ug/L			06/02/24 19:39	10
Chloroethane	100	U	200	46	ug/L			06/02/24 19:39	10
Chloroform	10	U	20	2.7	ug/L			06/02/24 19:39	10
Chloromethane	20	U	25	5.4	ug/L			06/02/24 19:39	10
2-Chlorotoluene	5.0	U	10	2.5	ug/L			06/02/24 19:39	10
4-Chlorotoluene	10	U	20	4.1	ug/L			06/02/24 19:39	10
cis-1,2-Dichloroethene	**1200**	**D**	20	2.5	ug/L			06/02/24 19:39	10
cis-1,3-Dichloropropene	10	U	20	2.6	ug/L			06/02/24 19:39	10
Cyclohexane	10	U	20	2.8	ug/L			06/02/24 19:39	10
Dibromochloromethane	10	U	20	3.9	ug/L			06/02/24 19:39	10
1,2-Dibromo-3-Chloropropane	50	U Q	100	18	ug/L			06/02/24 19:39	10

Client Sample ID: OU6-MW-157-20240522
Date Collected: 05/22/24 11:25
Date Received: 05/23/24 09:29

Lab Sample ID: 680-251152-9
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	10	U	20	3.3	ug/L			06/02/24 19:39	10
Dibromomethane	10	U	20	3.4	ug/L			06/02/24 19:39	10
1,2-Dichlorobenzene	10	U	20	3.1	ug/L			06/02/24 19:39	10
1,3-Dichlorobenzene	10	U	20	3.1	ug/L			06/02/24 19:39	10
1,4-Dichlorobenzene	**3.9**	**J D**	20	3.1	ug/L			06/02/24 19:39	10
Dichlorodifluoromethane	10	U Q	20	3.6	ug/L			06/02/24 19:39	10
1,1-Dichloroethane	10	U	20	3.3	ug/L			06/02/24 19:39	10
1,2-Dichloroethane	10	U	20	2.5	ug/L			06/02/24 19:39	10
1,1-Dichloroethene	10	U M	20	3.3	ug/L			06/02/24 19:39	10
1,2-Dichloroethene, Total	**1200**	**D**	20	3.7	ug/L			06/02/24 19:39	10
1,2-Dichloropropane	5.0	U	10	2.2	ug/L			06/02/24 19:39	10
1,3-Dichloropropane	10	U	20	3.6	ug/L			06/02/24 19:39	10
2,2-Dichloropropane	10	U	20	3.5	ug/L			06/02/24 19:39	10
1,1-Dichloropropene	10	U	20	2.8	ug/L			06/02/24 19:39	10
Ethylbenzene	5.0	U	10	2.0	ug/L			06/02/24 19:39	10
Hexachlorobutadiene	10	U	50	2.2	ug/L			06/02/24 19:39	10
2-Hexanone	100	U	200	32	ug/L			06/02/24 19:39	10
Isopropylbenzene	10	U	20	2.6	ug/L			06/02/24 19:39	10
4-Isopropyltoluene	10	U	20	4.4	ug/L			06/02/24 19:39	10
Methyl acetate	100	U	200	32	ug/L			06/02/24 19:39	10
Methylcyclohexane	10	U	20	3.3	ug/L			06/02/24 19:39	10
Methylene Chloride	100	U	200	32	ug/L			06/02/24 19:39	10
4-Methyl-2-pentanone (MIBK)	100	U	200	27	ug/L			06/02/24 19:39	10
Methyl tert-butyl ether	20	U	50	8.1	ug/L			06/02/24 19:39	10
m-Xylene & p-Xylene	10	U	20	4.9	ug/L			06/02/24 19:39	10
Naphthalene	50	U	100	24	ug/L			06/02/24 19:39	10
n-Butylbenzene	20	U	25	5.2	ug/L			06/02/24 19:39	10
N-Propylbenzene	10	U	20	4.1	ug/L			06/02/24 19:39	10
o-Xylene	10	U	20	2.6	ug/L			06/02/24 19:39	10
sec-Butylbenzene	20	U	25	5.3	ug/L			06/02/24 19:39	10
Styrene	10	U	20	2.7	ug/L			06/02/24 19:39	10
tert-Butylbenzene	10	U	20	4.3	ug/L			06/02/24 19:39	10
1,1,1,2-Tetrachloroethane	10	U	20	3.6	ug/L			06/02/24 19:39	10
1,1,2,2-Tetrachloroethane	10	U	20	4.0	ug/L			06/02/24 19:39	10
Tetrachloroethene	10	U M	20	3.5	ug/L			06/02/24 19:39	10
Toluene	10	U	20	2.5	ug/L			06/02/24 19:39	10
trans-1,2-Dichloroethene	10	U M	20	3.4	ug/L			06/02/24 19:39	10
trans-1,3-Dichloropropene	10	U	20	2.3	ug/L			06/02/24 19:39	10
1,2,3-Trichlorobenzene	20	U	50	8.1	ug/L			06/02/24 19:39	10
1,2,4-Trichlorobenzene	20	U	50	5.3	ug/L			06/02/24 19:39	10
1,1,1-Trichloroethane	5.0	U	10	2.1	ug/L			06/02/24 19:39	10
1,1,2-Trichloroethane	10	U	20	3.2	ug/L			06/02/24 19:39	10
Trichloroethene	**200**	**D**	10	2.0	ug/L			06/02/24 19:39	10
Trichlorofluoromethane	10	U	20	3.3	ug/L			06/02/24 19:39	10
1,2,3-Trichloropropane	10	U	20	4.8	ug/L			06/02/24 19:39	10
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	10	2.3	ug/L			06/02/24 19:39	10
1,2,4-Trimethylbenzene	10	U	20	4.3	ug/L			06/02/24 19:39	10
1,3,5-Trimethylbenzene	10	U	20	2.8	ug/L			06/02/24 19:39	10
Vinyl chloride	**80**	**D**	20	4.0	ug/L			06/02/24 19:39	10

Client Sample ID: OU6-MW-157-20240522
Lab Sample ID: 680-251152-9

Date Collected: 05/22/24 11:25
Matrix: Water
Date Received: 05/23/24 09:29

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	10	U	20	4.9	ug/L			06/02/24 19:39	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*85 - 114*		*06/02/24 19:39*	*10*
Dibromofluoromethane (Surr)	*111*		*80 - 119*		*06/02/24 19:39*	*10*
1,2-Dichloroethane-d4 (Surr)	*94*		*81 - 118*		*06/02/24 19:39*	*10*
Toluene-d8 (Surr)	*105*		*89 - 112*		*06/02/24 19:39*	*10*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	**9.6**		1.1	0.30	ug/L			06/04/24 18:09	1
Ethylene	**0.80**	**J**	1.0	0.31	ug/L			06/04/24 18:09	1
Methane	**330**		1.2	0.57	ug/L			06/04/24 18:09	1

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**110**	**D M**	5.5	2.0	mg/L			06/05/24 14:25	10
Nitrate as N	0.10	U	0.11	0.046	mg/L			05/23/24 16:16	2
Nitrate Nitrite as N	0.10	U	0.11	0.046	mg/L			05/23/24 16:16	2
Sulfate	**4.5**		1.5	0.40	mg/L			06/04/24 19:52	1
Nitrite as N	0.10	U M	0.11	0.046	mg/L			05/23/24 16:16	2

Method: SW846 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**200**		10	2.2	ug/L		05/24/24 06:46	05/28/24 11:34	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**67**		5.5	2.2	mg/L			05/24/24 21:23	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	**67**		11	5.0	mg/L			05/24/24 21:23	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	10	U	11	5.0	mg/L			05/24/24 21:23	1
Sulfide (SM 4500 S2 F-2011)	0.81	U	0.81	0.81	mg/L			05/28/24 15:15	1
Sulfide as H2S (SM 4500 S2 F-2011)	0.89	U	0.89	0.89	mg/L			05/28/24 15:15	1
Total Organic Carbon (SW846 9060A)	**0.86**	**J**	1.0	0.50	mg/L			05/29/24 00:47	1
Carbon Dioxide, Free (SM 4500 CO2 D)	**85**		11	5.0	mg/L			05/24/24 21:23	1

Client Sample ID: OU6-MW-289-20240522
Lab Sample ID: 680-251152-10

Date Collected: 05/22/24 13:10
Matrix: Water
Date Received: 05/23/24 09:29

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	50	U	130	19	ug/L			06/02/24 18:27	5
Benzene	5.0	U	10	1.4	ug/L			06/02/24 18:27	5
Bromobenzene	2.5	U	5.0	1.2	ug/L			06/02/24 18:27	5
Bromochloromethane	5.0	U	10	1.7	ug/L			06/02/24 18:27	5
Bromodichloromethane	5.0	U	10	1.3	ug/L			06/02/24 18:27	5

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-251152-1

Client Sample ID: OU6-MW-289-20240522
Date Collected: 05/22/24 13:10
Date Received: 05/23/24 09:29

Lab Sample ID: 680-251152-10
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Bromoform	10	U	13	3.0	ug/L			06/02/24 18:27	5
Bromomethane	50	U	100	19	ug/L			06/02/24 18:27	5
2-Butanone (MEK)	100	U	130	32	ug/L			06/02/24 18:27	5
Carbon disulfide	5.0	U	10	2.2	ug/L			06/02/24 18:27	5
Carbon tetrachloride	5.0	U	10	1.5	ug/L			06/02/24 18:27	5
Chlorobenzene	**9.6**	**D**	5.0	0.75	ug/L			06/02/24 18:27	5
Chloroethane	50	U	100	23	ug/L			06/02/24 18:27	5
Chloroform	5.0	U	10	1.4	ug/L			06/02/24 18:27	5
Chloromethane	10	U	13	2.7	ug/L			06/02/24 18:27	5
2-Chlorotoluene	2.5	U	5.0	1.3	ug/L			06/02/24 18:27	5
4-Chlorotoluene	5.0	U	10	2.1	ug/L			06/02/24 18:27	5
cis-1,2-Dichloroethene	**630**	**D**	10	1.3	ug/L			06/02/24 18:27	5
cis-1,3-Dichloropropene	5.0	U	10	1.3	ug/L			06/02/24 18:27	5
Cyclohexane	5.0	U	10	1.4	ug/L			06/02/24 18:27	5
Dibromochloromethane	5.0	U	10	2.0	ug/L			06/02/24 18:27	5
1,2-Dibromo-3-Chloropropane	25	U Q	50	9.0	ug/L			06/02/24 18:27	5
1,2-Dibromoethane	5.0	U	10	1.7	ug/L			06/02/24 18:27	5
Dibromomethane	5.0	U	10	1.7	ug/L			06/02/24 18:27	5
1,2-Dichlorobenzene	5.0	U M	10	1.6	ug/L			06/02/24 18:27	5
1,3-Dichlorobenzene	5.0	U	10	1.6	ug/L			06/02/24 18:27	5
1,4-Dichlorobenzene	**4.2**	**J D**	10	1.6	ug/L			06/02/24 18:27	5
Dichlorodifluoromethane	**11**	**D**	10	1.8	ug/L			06/04/24 15:52	5
1,1-Dichloroethane	5.0	U	10	1.7	ug/L			06/02/24 18:27	5
1,2-Dichloroethane	5.0	U M	10	1.3	ug/L			06/02/24 18:27	5
1,1-Dichloroethene	5.0	U	10	1.7	ug/L			06/02/24 18:27	5
1,2-Dichloroethene, Total	**630**	**D**	10	1.9	ug/L			06/02/24 18:27	5
1,2-Dichloropropane	2.5	U	5.0	1.1	ug/L			06/02/24 18:27	5
1,3-Dichloropropane	5.0	U	10	1.8	ug/L			06/02/24 18:27	5
2,2-Dichloropropane	5.0	U	10	1.8	ug/L			06/02/24 18:27	5
1,1-Dichloropropene	5.0	U	10	1.4	ug/L			06/02/24 18:27	5
Ethylbenzene	2.5	U	5.0	1.0	ug/L			06/02/24 18:27	5
Hexachlorobutadiene	5.0	U	25	1.1	ug/L			06/02/24 18:27	5
2-Hexanone	50	U	100	16	ug/L			06/02/24 18:27	5
Isopropylbenzene	5.0	U	10	1.3	ug/L			06/02/24 18:27	5
4-Isopropyltoluene	5.0	U	10	2.2	ug/L			06/02/24 18:27	5
Methyl acetate	50	U	100	16	ug/L			06/02/24 18:27	5
Methylcyclohexane	5.0	U	10	1.7	ug/L			06/02/24 18:27	5
Methylene Chloride	50	U	100	16	ug/L			06/02/24 18:27	5
4-Methyl-2-pentanone (MIBK)	50	U	100	14	ug/L			06/02/24 18:27	5
Methyl tert-butyl ether	10	U	25	4.1	ug/L			06/02/24 18:27	5
m-Xylene & p-Xylene	5.0	U	10	2.5	ug/L			06/02/24 18:27	5
Naphthalene	25	U	50	12	ug/L			06/02/24 18:27	5
n-Butylbenzene	10	U	13	2.6	ug/L			06/02/24 18:27	5
N-Propylbenzene	5.0	U	10	2.1	ug/L			06/02/24 18:27	5
o-Xylene	5.0	U	10	1.3	ug/L			06/02/24 18:27	5
sec-Butylbenzene	10	U	13	2.7	ug/L			06/02/24 18:27	5
Styrene	5.0	U	10	1.4	ug/L			06/02/24 18:27	5
tert-Butylbenzene	5.0	U	10	2.2	ug/L			06/02/24 18:27	5
1,1,1,2-Tetrachloroethane	5.0	U	10	1.8	ug/L			06/02/24 18:27	5

Client Sample ID: OU6-MW-289-20240522
Date Collected: 05/22/24 13:10
Date Received: 05/23/24 09:29

Lab Sample ID: 680-251152-10
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	5.0	U	10	2.0	ug/L			06/02/24 18:27	5
Tetrachloroethene	**7.6**	**J D M**	10	1.8	ug/L			06/02/24 18:27	5
Toluene	5.0	U	10	1.3	ug/L			06/02/24 18:27	5
trans-1,2-Dichloroethene	5.0	U M	10	1.7	ug/L			06/02/24 18:27	5
trans-1,3-Dichloropropene	5.0	U	10	1.2	ug/L			06/02/24 18:27	5
1,2,3-Trichlorobenzene	10	U	25	4.1	ug/L			06/02/24 18:27	5
1,2,4-Trichlorobenzene	10	U	25	2.7	ug/L			06/02/24 18:27	5
1,1,1-Trichloroethane	2.5	U	5.0	1.1	ug/L			06/02/24 18:27	5
1,1,2-Trichloroethane	5.0	U	10	1.6	ug/L			06/02/24 18:27	5
Trichloroethene	**130**	**D**	5.0	1.0	ug/L			06/02/24 18:27	5
Trichlorofluoromethane	5.0	U	10	1.7	ug/L			06/02/24 18:27	5
1,2,3-Trichloropropane	5.0	U	10	2.4	ug/L			06/02/24 18:27	5
1,1,2-Trichloro-1,2,2-trifluoroethane	2.5	U	5.0	1.2	ug/L			06/02/24 18:27	5
1,2,4-Trimethylbenzene	5.0	U	10	2.2	ug/L			06/02/24 18:27	5
1,3,5-Trimethylbenzene	5.0	U	10	1.4	ug/L			06/02/24 18:27	5
Vinyl chloride	**41**	**D**	10	2.0	ug/L			06/02/24 18:27	5
Xylenes, Total	5.0	U	10	2.5	ug/L			06/02/24 18:27	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*85 - 114*		*06/02/24 18:27*	*5*
4-Bromofluorobenzene (Surr)	*104*		*85 - 114*		*06/04/24 15:52*	*5*
Dibromofluoromethane (Surr)	*111*		*80 - 119*		*06/02/24 18:27*	*5*
Dibromofluoromethane (Surr)	*109*		*80 - 119*		*06/04/24 15:52*	*5*
1,2-Dichloroethane-d4 (Surr)	*94*		*81 - 118*		*06/02/24 18:27*	*5*
1,2-Dichloroethane-d4 (Surr)	*97*		*81 - 118*		*06/04/24 15:52*	*5*
Toluene-d8 (Surr)	*107*		*89 - 112*		*06/02/24 18:27*	*5*
Toluene-d8 (Surr)	*107*		*89 - 112*		*06/04/24 15:52*	*5*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	**16**		1.1	0.30	ug/L			06/04/24 18:22	1
Ethylene	**1.1**		1.0	0.31	ug/L			06/04/24 18:22	1
Methane (TCD)	**640**		390	39	ug/L			06/04/24 18:22	1

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**85**	**D M**	2.8	1.0	mg/L			06/04/24 19:58	5
Nitrate as N	0.050	U	0.055	0.023	mg/L			05/23/24 16:24	1
Nitrate Nitrite as N	0.050	U J1	0.055	0.023	mg/L			05/23/24 16:24	1
Sulfate	**34**	**D**	7.5	2.0	mg/L			06/04/24 19:58	5
Nitrite as N	0.050	U M J1	0.055	0.023	mg/L			05/23/24 16:24	1

Method: SW846 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**290**		10	2.2	ug/L		05/24/24 06:46	05/28/24 11:36	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**80**		5.5	2.2	mg/L			05/24/24 22:21	1

Client Sample ID: OU6-MW-289-20240522

Lab Sample ID: 680-251152-10

Date Collected: 05/22/24 13:10

Matrix: Water

Date Received: 05/23/24 09:29

General Chemistry (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	**80**		11	5.0	mg/L			05/24/24 22:21	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	10	U	11	5.0	mg/L			05/24/24 22:21	1
Sulfide (SM 4500 S2 F-2011)	0.81	U	0.81	0.81	mg/L			05/28/24 15:15	1
Sulfide as H2S (SM 4500 S2 F-2011)	0.89	U	0.89	0.89	mg/L			05/28/24 15:15	1
Total Organic Carbon (SW846 9060A)	**8.8**		1.0	0.50	mg/L			05/29/24 01:05	1
Carbon Dioxide, Free (SM 4500 CO2 D)	**91**		11	5.0	mg/L			05/24/24 22:21	1

Client Sample ID: OU6-MW-291-20240522

Lab Sample ID: 680-251152-11

Date Collected: 05/22/24 10:02

Matrix: Water

Date Received: 05/23/24 09:29

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	**53**	**J D**	250	37	ug/L			06/02/24 19:15	10
Benzene	10	U	20	2.7	ug/L			06/02/24 19:15	10
Bromobenzene	5.0	U	10	2.4	ug/L			06/02/24 19:15	10
Bromochloromethane	10	U	20	3.4	ug/L			06/02/24 19:15	10
Bromodichloromethane	10	U	20	2.5	ug/L			06/02/24 19:15	10
Bromoform	20	U	25	5.9	ug/L			06/02/24 19:15	10
Bromomethane	100	U	200	37	ug/L			06/02/24 19:15	10
2-Butanone (MEK)	200	U	250	64	ug/L			06/02/24 19:15	10
Carbon disulfide	10	U	20	4.3	ug/L			06/02/24 19:15	10
Carbon tetrachloride	10	U	20	3.0	ug/L			06/02/24 19:15	10
Chlorobenzene	**30**	**D**	10	1.5	ug/L			06/02/24 19:15	10
Chloroethane	100	U	200	46	ug/L			06/02/24 19:15	10
Chloroform	10	U	20	2.7	ug/L			06/02/24 19:15	10
Chloromethane	20	U	25	5.4	ug/L			06/02/24 19:15	10
2-Chlorotoluene	5.0	U	10	2.5	ug/L			06/02/24 19:15	10
4-Chlorotoluene	10	U	20	4.1	ug/L			06/02/24 19:15	10
cis-1,2-Dichloroethene	**1300**	**D**	20	2.5	ug/L			06/02/24 19:15	10
cis-1,3-Dichloropropene	10	U	20	2.6	ug/L			06/02/24 19:15	10
Cyclohexane	10	U	20	2.8	ug/L			06/02/24 19:15	10
Dibromochloromethane	10	U	20	3.9	ug/L			06/02/24 19:15	10
1,2-Dibromo-3-Chloropropane	50	U Q	100	18	ug/L			06/02/24 19:15	10
1,2-Dibromoethane	10	U	20	3.3	ug/L			06/02/24 19:15	10
Dibromomethane	10	U	20	3.4	ug/L			06/02/24 19:15	10
1,2-Dichlorobenzene	10	U M	20	3.1	ug/L			06/02/24 19:15	10
1,3-Dichlorobenzene	10	U	20	3.1	ug/L			06/02/24 19:15	10
1,4-Dichlorobenzene	10	U M	20	3.1	ug/L			06/02/24 19:15	10
Dichlorodifluoromethane	10	U Q	20	3.6	ug/L			06/02/24 19:15	10
1,1-Dichloroethane	10	U	20	3.3	ug/L			06/02/24 19:15	10
1,2-Dichloroethane	**3.2**	**J D**	20	2.5	ug/L			06/02/24 19:15	10
1,1-Dichloroethene	10	U M	20	3.3	ug/L			06/02/24 19:15	10
1,2-Dichloroethene, Total	**1300**	**D**	20	3.7	ug/L			06/02/24 19:15	10
1,2-Dichloropropane	5.0	U	10	2.2	ug/L			06/02/24 19:15	10
1,3-Dichloropropane	10	U	20	3.6	ug/L			06/02/24 19:15	10
2,2-Dichloropropane	10	U	20	3.5	ug/L			06/02/24 19:15	10

Client Sample ID: OU6-MW-291-20240522
Date Collected: 05/22/24 10:02
Date Received: 05/23/24 09:29

Lab Sample ID: 680-251152-11
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloropropene	10	U	20	2.8	ug/L			06/02/24 19:15	10
Ethylbenzene	5.0	U	10	2.0	ug/L			06/02/24 19:15	10
Hexachlorobutadiene	10	U	50	2.2	ug/L			06/02/24 19:15	10
2-Hexanone	100	U	200	32	ug/L			06/02/24 19:15	10
Isopropylbenzene	10	U	20	2.6	ug/L			06/02/24 19:15	10
4-Isopropyltoluene	10	U	20	4.4	ug/L			06/02/24 19:15	10
Methyl acetate	100	U	200	32	ug/L			06/02/24 19:15	10
Methylcyclohexane	10	U	20	3.3	ug/L			06/02/24 19:15	10
Methylene Chloride	100	U	200	32	ug/L			06/02/24 19:15	10
4-Methyl-2-pentanone (MIBK)	100	U	200	27	ug/L			06/02/24 19:15	10
Methyl tert-butyl ether	20	U	50	8.1	ug/L			06/02/24 19:15	10
m-Xylene & p-Xylene	10	U	20	4.9	ug/L			06/02/24 19:15	10
Naphthalene	50	U	100	24	ug/L			06/02/24 19:15	10
n-Butylbenzene	20	U	25	5.2	ug/L			06/02/24 19:15	10
N-Propylbenzene	10	U	20	4.1	ug/L			06/02/24 19:15	10
o-Xylene	10	U	20	2.6	ug/L			06/02/24 19:15	10
sec-Butylbenzene	20	U	25	5.3	ug/L			06/02/24 19:15	10
Styrene	10	U	20	2.7	ug/L			06/02/24 19:15	10
tert-Butylbenzene	10	U	20	4.3	ug/L			06/02/24 19:15	10
1,1,1,2-Tetrachloroethane	10	U	20	3.6	ug/L			06/02/24 19:15	10
1,1,2,2-Tetrachloroethane	10	U	20	4.0	ug/L			06/02/24 19:15	10
Tetrachloroethene	10	U M	20	3.5	ug/L			06/02/24 19:15	10
Toluene	10	U	20	2.5	ug/L			06/02/24 19:15	10
trans-1,2-Dichloroethene	10	U	20	3.4	ug/L			06/02/24 19:15	10
trans-1,3-Dichloropropene	10	U	20	2.3	ug/L			06/02/24 19:15	10
1,2,3-Trichlorobenzene	20	U	50	8.1	ug/L			06/02/24 19:15	10
1,2,4-Trichlorobenzene	20	U	50	5.3	ug/L			06/02/24 19:15	10
1,1,1-Trichloroethane	5.0	U	10	2.1	ug/L			06/02/24 19:15	10
1,1,2-Trichloroethane	10	U	20	3.2	ug/L			06/02/24 19:15	10
Trichloroethene	**100**	**D**	10	2.0	ug/L			06/02/24 19:15	10
Trichlorofluoromethane	10	U	20	3.3	ug/L			06/02/24 19:15	10
1,2,3-Trichloropropane	10	U	20	4.8	ug/L			06/02/24 19:15	10
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	10	2.3	ug/L			06/02/24 19:15	10
1,2,4-Trimethylbenzene	10	U	20	4.3	ug/L			06/02/24 19:15	10
1,3,5-Trimethylbenzene	10	U	20	2.8	ug/L			06/02/24 19:15	10
Vinyl chloride	**250**	**D**	20	4.0	ug/L			06/02/24 19:15	10
Xylenes, Total	10	U	20	4.9	ug/L			06/02/24 19:15	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*85 - 114*		*06/02/24 19:15*	*10*
Dibromofluoromethane (Surr)	*114*		*80 - 119*		*06/02/24 19:15*	*10*
1,2-Dichloroethane-d4 (Surr)	*97*		*81 - 118*		*06/02/24 19:15*	*10*
Toluene-d8 (Surr)	*107*		*89 - 112*		*06/02/24 19:15*	*10*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	**12**		1.1	0.30	ug/L			06/04/24 18:34	1
Ethylene	**33**		1.0	0.31	ug/L			06/04/24 18:34	1
Methane (TCD)	**2100**		390	39	ug/L			06/04/24 18:34	1

Client Sample ID: OU6-MW-291-20240522

Lab Sample ID: 680-251152-11

Date Collected: 05/22/24 10:02

Matrix: Water

Date Received: 05/23/24 09:29

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**98**	**D M**	2.8	1.0	mg/L			06/04/24 20:05	5
Nitrate as N	0.050	U M	0.055	0.023	mg/L			05/23/24 17:15	1
Nitrate Nitrite as N	0.050	U	0.055	0.023	mg/L			05/23/24 17:15	1
Sulfate	**2.5**	**J D**	7.5	2.0	mg/L			06/04/24 20:05	5
Nitrite as N	0.050	U M	0.055	0.023	mg/L			05/23/24 17:15	1

Method: SW846 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**170**		10	2.2	ug/L		05/24/24 05:51	05/28/24 10:54	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**60**		5.5	2.2	mg/L			05/24/24 22:12	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	**60**		11	5.0	mg/L			05/24/24 22:12	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	10	U	11	5.0	mg/L			05/24/24 22:12	1
Sulfide (SM 4500 S2 F-2011)	**2.5**		0.81	0.81	mg/L			05/28/24 15:15	1
Sulfide as H2S (SM 4500 S2 F-2011)	**2.6**		0.89	0.89	mg/L			05/28/24 15:15	1
Total Organic Carbon (SW846 9060A)	**0.71**	**J**	1.0	0.50	mg/L			05/29/24 01:23	1
Carbon Dioxide, Free (SM 4500 CO2 D)	**100**		11	5.0	mg/L			05/24/24 22:12	1

Client Sample ID: Dup-06-20240522

Lab Sample ID: 680-251152-12

Date Collected: 05/22/24 00:00

Matrix: Water

Date Received: 05/23/24 09:29

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	100	U	250	37	ug/L			06/02/24 20:03	10
Benzene	10	U	20	2.7	ug/L			06/02/24 20:03	10
Bromobenzene	5.0	U	10	2.4	ug/L			06/02/24 20:03	10
Bromochloromethane	10	U	20	3.4	ug/L			06/02/24 20:03	10
Bromodichloromethane	10	U	20	2.5	ug/L			06/02/24 20:03	10
Bromoform	20	U	25	5.9	ug/L			06/02/24 20:03	10
Bromomethane	100	U	200	37	ug/L			06/02/24 20:03	10
2-Butanone (MEK)	200	U	250	64	ug/L			06/02/24 20:03	10
Carbon disulfide	10	U	20	4.3	ug/L			06/02/24 20:03	10
Carbon tetrachloride	10	U	20	3.0	ug/L			06/02/24 20:03	10
Chlorobenzene	**18**	**D**	10	1.5	ug/L			06/02/24 20:03	10
Chloroethane	100	U	200	46	ug/L			06/02/24 20:03	10
Chloroform	10	U	20	2.7	ug/L			06/02/24 20:03	10
Chloromethane	20	U	25	5.4	ug/L			06/02/24 20:03	10
2-Chlorotoluene	5.0	U	10	2.5	ug/L			06/02/24 20:03	10
4-Chlorotoluene	10	U	20	4.1	ug/L			06/02/24 20:03	10
cis-1,2-Dichloroethene	**1200**	**D**	20	2.5	ug/L			06/02/24 20:03	10
cis-1,3-Dichloropropene	10	U	20	2.6	ug/L			06/02/24 20:03	10
Cyclohexane	10	U	20	2.8	ug/L			06/02/24 20:03	10
Dibromochloromethane	10	U	20	3.9	ug/L			06/02/24 20:03	10
1,2-Dibromo-3-Chloropropane	50	U Q	100	18	ug/L			06/02/24 20:03	10

Client Sample ID: Dup-06-20240522
Date Collected: 05/22/24 00:00
Date Received: 05/23/24 09:29

Lab Sample ID: 680-251152-12
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	10	U	20	3.3	ug/L			06/02/24 20:03	10
Dibromomethane	10	U	20	3.4	ug/L			06/02/24 20:03	10
1,2-Dichlorobenzene	10	U	20	3.1	ug/L			06/02/24 20:03	10
1,3-Dichlorobenzene	10	U	20	3.1	ug/L			06/02/24 20:03	10
1,4-Dichlorobenzene	10	U	20	3.1	ug/L			06/02/24 20:03	10
Dichlorodifluoromethane	**16**	**J D**	20	3.6	ug/L			06/04/24 16:15	10
1,1-Dichloroethane	10	U	20	3.3	ug/L			06/02/24 20:03	10
1,2-Dichloroethane	10	U	20	2.5	ug/L			06/02/24 20:03	10
1,1-Dichloroethene	**10**	**J D**	20	3.3	ug/L			06/02/24 20:03	10
1,2-Dichloroethene, Total	**1200**	**D**	20	3.7	ug/L			06/02/24 20:03	10
1,2-Dichloropropane	5.0	U	10	2.2	ug/L			06/02/24 20:03	10
1,3-Dichloropropane	10	U	20	3.6	ug/L			06/02/24 20:03	10
2,2-Dichloropropane	10	U	20	3.5	ug/L			06/02/24 20:03	10
1,1-Dichloropropene	10	U	20	2.8	ug/L			06/02/24 20:03	10
Ethylbenzene	5.0	U	10	2.0	ug/L			06/02/24 20:03	10
Hexachlorobutadiene	10	U	50	2.2	ug/L			06/02/24 20:03	10
2-Hexanone	100	U	200	32	ug/L			06/02/24 20:03	10
Isopropylbenzene	10	U	20	2.6	ug/L			06/02/24 20:03	10
4-Isopropyltoluene	10	U	20	4.4	ug/L			06/02/24 20:03	10
Methyl acetate	100	U	200	32	ug/L			06/02/24 20:03	10
Methylcyclohexane	10	U	20	3.3	ug/L			06/02/24 20:03	10
Methylene Chloride	100	U	200	32	ug/L			06/02/24 20:03	10
4-Methyl-2-pentanone (MIBK)	100	U	200	27	ug/L			06/02/24 20:03	10
Methyl tert-butyl ether	20	U	50	8.1	ug/L			06/02/24 20:03	10
m-Xylene & p-Xylene	10	U	20	4.9	ug/L			06/02/24 20:03	10
Naphthalene	50	U	100	24	ug/L			06/02/24 20:03	10
n-Butylbenzene	20	U	25	5.2	ug/L			06/02/24 20:03	10
N-Propylbenzene	10	U	20	4.1	ug/L			06/02/24 20:03	10
o-Xylene	10	U	20	2.6	ug/L			06/02/24 20:03	10
sec-Butylbenzene	20	U	25	5.3	ug/L			06/02/24 20:03	10
Styrene	10	U	20	2.7	ug/L			06/02/24 20:03	10
tert-Butylbenzene	10	U	20	4.3	ug/L			06/02/24 20:03	10
1,1,1,2-Tetrachloroethane	10	U	20	3.6	ug/L			06/02/24 20:03	10
1,1,2,2-Tetrachloroethane	10	U	20	4.0	ug/L			06/02/24 20:03	10
Tetrachloroethene	10	U M	20	3.5	ug/L			06/02/24 20:03	10
Toluene	10	U	20	2.5	ug/L			06/02/24 20:03	10
trans-1,2-Dichloroethene	10	U	20	3.4	ug/L			06/02/24 20:03	10
trans-1,3-Dichloropropene	10	U	20	2.3	ug/L			06/02/24 20:03	10
1,2,3-Trichlorobenzene	20	U	50	8.1	ug/L			06/02/24 20:03	10
1,2,4-Trichlorobenzene	20	U	50	5.3	ug/L			06/02/24 20:03	10
1,1,1-Trichloroethane	5.0	U	10	2.1	ug/L			06/02/24 20:03	10
1,1,2-Trichloroethane	10	U	20	3.2	ug/L			06/02/24 20:03	10
Trichloroethene	**210**	**D**	10	2.0	ug/L			06/02/24 20:03	10
Trichlorofluoromethane	10	U	20	3.3	ug/L			06/02/24 20:03	10
1,2,3-Trichloropropane	10	U	20	4.8	ug/L			06/02/24 20:03	10
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	10	2.3	ug/L			06/02/24 20:03	10
1,2,4-Trimethylbenzene	10	U	20	4.3	ug/L			06/02/24 20:03	10
1,3,5-Trimethylbenzene	10	U	20	2.8	ug/L			06/02/24 20:03	10
Vinyl chloride	**81**	**D**	20	4.0	ug/L			06/02/24 20:03	10

Client Sample ID: Dup-06-20240522
Lab Sample ID: 680-251152-12

Date Collected: 05/22/24 00:00
Matrix: Water
Date Received: 05/23/24 09:29

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	10	U	20	4.9	ug/L			06/02/24 20:03	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*85 - 114*		*06/02/24 20:03*	*10*
4-Bromofluorobenzene (Surr)	*103*		*85 - 114*		*06/04/24 16:15*	*10*
Dibromofluoromethane (Surr)	*112*		*80 - 119*		*06/02/24 20:03*	*10*
Dibromofluoromethane (Surr)	*108*		*80 - 119*		*06/04/24 16:15*	*10*
1,2-Dichloroethane-d4 (Surr)	*94*		*81 - 118*		*06/02/24 20:03*	*10*
1,2-Dichloroethane-d4 (Surr)	*100*		*81 - 118*		*06/04/24 16:15*	*10*
Toluene-d8 (Surr)	*105*		*89 - 112*		*06/02/24 20:03*	*10*
Toluene-d8 (Surr)	*105*		*89 - 112*		*06/04/24 16:15*	*10*

Client Sample ID: TRIP-BLANK-20240522
Lab Sample ID: 680-251152-13

Date Collected: 05/22/24 00:00
Matrix: Water
Date Received: 05/23/24 09:29

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			06/02/24 14:24	1
Benzene	1.0	U	2.0	0.27	ug/L			06/02/24 14:24	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			06/02/24 14:24	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			06/02/24 14:24	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			06/02/24 14:24	1
Bromoform	2.0	U	2.5	0.59	ug/L			06/02/24 14:24	1
Bromomethane	10	U	20	3.7	ug/L			06/02/24 14:24	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			06/02/24 14:24	1
Carbon disulfide	1.0	U	2.0	0.43	ug/L			06/02/24 14:24	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			06/02/24 14:24	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			06/02/24 14:24	1
Chloroethane	10	U	20	4.6	ug/L			06/02/24 14:24	1
Chloroform	1.0	U	2.0	0.27	ug/L			06/02/24 14:24	1
Chloromethane	2.0	U	2.5	0.54	ug/L			06/02/24 14:24	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			06/02/24 14:24	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			06/02/24 14:24	1
cis-1,2-Dichloroethene	1.0	U	2.0	0.25	ug/L			06/02/24 14:24	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			06/02/24 14:24	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			06/02/24 14:24	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			06/02/24 14:24	1
1,2-Dibromo-3-Chloropropane	5.0	U Q	10	1.8	ug/L			06/02/24 14:24	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			06/02/24 14:24	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			06/02/24 14:24	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			06/02/24 14:24	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			06/02/24 14:24	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			06/02/24 14:24	1
Dichlorodifluoromethane	1.0	U Q	2.0	0.36	ug/L			06/02/24 14:24	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			06/02/24 14:24	1
1,2-Dichloroethane	1.0	U M	2.0	0.25	ug/L			06/02/24 14:24	1
1,1-Dichloroethene	1.0	U	2.0	0.33	ug/L			06/02/24 14:24	1
1,2-Dichloroethene, Total	1.0	U	2.0	0.37	ug/L			06/02/24 14:24	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			06/02/24 14:24	1

Client Sample ID: TRIP-BLANK-20240522
Date Collected: 05/22/24 00:00
Date Received: 05/23/24 09:29

Lab Sample ID: 680-251152-13
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			06/02/24 14:24	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			06/02/24 14:24	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			06/02/24 14:24	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			06/02/24 14:24	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			06/02/24 14:24	1
2-Hexanone	10	U	20	3.2	ug/L			06/02/24 14:24	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			06/02/24 14:24	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			06/02/24 14:24	1
Methyl acetate	10	U	20	3.2	ug/L			06/02/24 14:24	1
Methylcyclohexane	1.0	U	2.0	0.33	ug/L			06/02/24 14:24	1
Methylene Chloride	10	U	20	3.2	ug/L			06/02/24 14:24	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			06/02/24 14:24	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			06/02/24 14:24	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			06/02/24 14:24	1
Naphthalene	5.0	U	10	2.4	ug/L			06/02/24 14:24	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			06/02/24 14:24	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			06/02/24 14:24	1
o-Xylene	1.0	U	2.0	0.26	ug/L			06/02/24 14:24	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			06/02/24 14:24	1
Styrene	1.0	U	2.0	0.27	ug/L			06/02/24 14:24	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			06/02/24 14:24	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			06/02/24 14:24	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			06/02/24 14:24	1
Tetrachloroethene	1.0	U	2.0	0.35	ug/L			06/02/24 14:24	1
Toluene	1.0	U	2.0	0.25	ug/L			06/02/24 14:24	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			06/02/24 14:24	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			06/02/24 14:24	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			06/02/24 14:24	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			06/02/24 14:24	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			06/02/24 14:24	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			06/02/24 14:24	1
Trichloroethene	0.50	U	1.0	0.20	ug/L			06/02/24 14:24	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			06/02/24 14:24	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			06/02/24 14:24	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			06/02/24 14:24	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			06/02/24 14:24	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			06/02/24 14:24	1
Vinyl chloride	1.0	U	2.0	0.40	ug/L			06/02/24 14:24	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			06/02/24 14:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*85 - 114*		*06/02/24 14:24*	*1*
Dibromofluoromethane (Surr)	*105*		*80 - 119*		*06/02/24 14:24*	*1*
1,2-Dichloroethane-d4 (Surr)	*88*		*81 - 118*		*06/02/24 14:24*	*1*
Toluene-d8 (Surr)	*105*		*89 - 112*		*06/02/24 14:24*	*1*

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-251152-1

Client Sample ID: OU6-DMW-9B-20240522
Date Collected: 05/22/24 08:45
Date Received: 05/23/24 09:29

Lab Sample ID: 680-251152-14
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	**3300**	**D**	630	93	ug/L			06/02/24 20:51	25
Benzene	25	U	50	6.8	ug/L			06/02/24 20:51	25
Bromobenzene	13	U	25	6.0	ug/L			06/02/24 20:51	25
Bromochloromethane	25	U	50	8.5	ug/L			06/02/24 20:51	25
Bromodichloromethane	25	U	50	6.3	ug/L			06/02/24 20:51	25
Bromoform	50	U	63	15	ug/L			06/02/24 20:51	25
Bromomethane	250	U	500	93	ug/L			06/02/24 20:51	25
2-Butanone (MEK)	**5900**	**D**	630	160	ug/L			06/02/24 20:51	25
Carbon disulfide	25	U	50	11	ug/L			06/02/24 20:51	25
Carbon tetrachloride	25	U	50	7.5	ug/L			06/02/24 20:51	25
Chlorobenzene	13	U	25	3.8	ug/L			06/02/24 20:51	25
Chloroethane	250	U	500	120	ug/L			06/02/24 20:51	25
Chloroform	25	U	50	6.8	ug/L			06/02/24 20:51	25
Chloromethane	50	U	63	14	ug/L			06/02/24 20:51	25
2-Chlorotoluene	13	U	25	6.3	ug/L			06/02/24 20:51	25
4-Chlorotoluene	25	U	50	10	ug/L			06/02/24 20:51	25
cis-1,2-Dichloroethene	**20**	**J D M**	50	6.3	ug/L			06/02/24 20:51	25
cis-1,3-Dichloropropene	25	U	50	6.5	ug/L			06/02/24 20:51	25
Cyclohexane	25	U	50	7.0	ug/L			06/02/24 20:51	25
Dibromochloromethane	25	U	50	9.8	ug/L			06/02/24 20:51	25
1,2-Dibromo-3-Chloropropane	130	U Q	250	45	ug/L			06/02/24 20:51	25
1,2-Dibromoethane	25	U	50	8.3	ug/L			06/02/24 20:51	25
Dibromomethane	25	U	50	8.5	ug/L			06/02/24 20:51	25
1,2-Dichlorobenzene	25	U	50	7.8	ug/L			06/02/24 20:51	25
1,3-Dichlorobenzene	25	U	50	7.8	ug/L			06/02/24 20:51	25
1,4-Dichlorobenzene	25	U	50	7.8	ug/L			06/02/24 20:51	25
Dichlorodifluoromethane	25	U Q	50	9.0	ug/L			06/02/24 20:51	25
1,1-Dichloroethane	25	U	50	8.3	ug/L			06/02/24 20:51	25
1,2-Dichloroethane	25	U M	50	6.3	ug/L			06/02/24 20:51	25
1,1-Dichloroethene	25	U	50	8.3	ug/L			06/02/24 20:51	25
1,2-Dichloroethene, Total	**20**	**J D**	50	9.3	ug/L			06/02/24 20:51	25
1,2-Dichloropropane	13	U	25	5.5	ug/L			06/02/24 20:51	25
1,3-Dichloropropane	25	U	50	9.0	ug/L			06/02/24 20:51	25
2,2-Dichloropropane	25	U	50	8.8	ug/L			06/02/24 20:51	25
1,1-Dichloropropene	25	U	50	7.0	ug/L			06/02/24 20:51	25
Ethylbenzene	13	U	25	5.0	ug/L			06/02/24 20:51	25
Hexachlorobutadiene	25	U	130	5.5	ug/L			06/02/24 20:51	25
2-Hexanone	250	U	500	80	ug/L			06/02/24 20:51	25
Isopropylbenzene	25	U	50	6.5	ug/L			06/02/24 20:51	25
4-Isopropyltoluene	25	U	50	11	ug/L			06/02/24 20:51	25
Methyl acetate	250	U	500	80	ug/L			06/02/24 20:51	25
Methylcyclohexane	25	U	50	8.3	ug/L			06/02/24 20:51	25
Methylene Chloride	250	U	500	80	ug/L			06/02/24 20:51	25
4-Methyl-2-pentanone (MIBK)	250	U	500	68	ug/L			06/02/24 20:51	25
Methyl tert-butyl ether	50	U	130	20	ug/L			06/02/24 20:51	25
m-Xylene & p-Xylene	25	U	50	12	ug/L			06/02/24 20:51	25
Naphthalene	130	U	250	60	ug/L			06/02/24 20:51	25
n-Butylbenzene	50	U	63	13	ug/L			06/02/24 20:51	25
N-Propylbenzene	25	U	50	10	ug/L			06/02/24 20:51	25

Client Sample ID: OU6-DMW-9B-20240522
Lab Sample ID: 680-251152-14

Date Collected: 05/22/24 08:45
Matrix: Water
Date Received: 05/23/24 09:29

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	25	U	50	6.5	ug/L			06/02/24 20:51	25
sec-Butylbenzene	50	U	63	13	ug/L			06/02/24 20:51	25
Styrene	25	U	50	6.8	ug/L			06/02/24 20:51	25
tert-Butylbenzene	25	U	50	11	ug/L			06/02/24 20:51	25
1,1,1,2-Tetrachloroethane	25	U	50	9.0	ug/L			06/02/24 20:51	25
1,1,2,2-Tetrachloroethane	25	U	50	10	ug/L			06/02/24 20:51	25
Tetrachloroethene	25	U	50	8.8	ug/L			06/02/24 20:51	25
Toluene	25	U	50	6.3	ug/L			06/02/24 20:51	25
trans-1,2-Dichloroethene	25	U	50	8.5	ug/L			06/02/24 20:51	25
trans-1,3-Dichloropropene	25	U	50	5.8	ug/L			06/02/24 20:51	25
1,2,3-Trichlorobenzene	50	U	130	20	ug/L			06/02/24 20:51	25
1,2,4-Trichlorobenzene	50	U	130	13	ug/L			06/02/24 20:51	25
1,1,1-Trichloroethane	13	U	25	5.3	ug/L			06/02/24 20:51	25
1,1,2-Trichloroethane	25	U	50	8.0	ug/L			06/02/24 20:51	25
Trichloroethene	13	U M	25	5.0	ug/L			06/02/24 20:51	25
Trichlorofluoromethane	25	U	50	8.3	ug/L			06/02/24 20:51	25
1,2,3-Trichloropropane	25	U	50	12	ug/L			06/02/24 20:51	25
1,1,2-Trichloro-1,2,2-trifluoroethane	13	U	25	5.8	ug/L			06/02/24 20:51	25
1,2,4-Trimethylbenzene	25	U	50	11	ug/L			06/02/24 20:51	25
1,3,5-Trimethylbenzene	25	U	50	7.0	ug/L			06/02/24 20:51	25
Vinyl chloride	25	U	50	10	ug/L			06/02/24 20:51	25
Xylenes, Total	25	U	50	12	ug/L			06/02/24 20:51	25

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*85 - 114*		*06/02/24 20:51*	*25*
Dibromofluoromethane (Surr)	*110*		*80 - 119*		*06/02/24 20:51*	*25*
1,2-Dichloroethane-d4 (Surr)	*94*		*81 - 118*		*06/02/24 20:51*	*25*
Toluene-d8 (Surr)	*108*		*89 - 112*		*06/02/24 20:51*	*25*

Client Sample ID: OU6-MW-217-20240522
Lab Sample ID: 680-251152-15

Date Collected: 05/22/24 10:20
Matrix: Water
Date Received: 05/23/24 09:29

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	72		25	3.7	ug/L			06/02/24 16:55	1
Benzene	1.0	U	2.0	0.27	ug/L			06/02/24 16:55	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			06/02/24 16:55	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			06/02/24 16:55	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			06/02/24 16:55	1
Bromoform	2.0	U	2.5	0.59	ug/L			06/02/24 16:55	1
Bromomethane	10	U	20	3.7	ug/L			06/02/24 16:55	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			06/02/24 16:55	1
Carbon disulfide	1.0	U	2.0	0.43	ug/L			06/02/24 16:55	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			06/02/24 16:55	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			06/02/24 16:55	1
Chloroethane	10	U	20	4.6	ug/L			06/02/24 16:55	1
Chloroform	1.0	U	2.0	0.27	ug/L			06/02/24 16:55	1
Chloromethane	2.0	U	2.5	0.54	ug/L			06/02/24 16:55	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			06/02/24 16:55	1

Client Sample ID: OU6-MW-217-20240522
Date Collected: 05/22/24 10:20
Date Received: 05/23/24 09:29

Lab Sample ID: 680-251152-15
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			06/02/24 16:55	1
cis-1,2-Dichloroethene	**51**		2.0	0.25	ug/L			06/02/24 16:55	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			06/02/24 16:55	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			06/02/24 16:55	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			06/02/24 16:55	1
1,2-Dibromo-3-Chloropropane	5.0	U Q	10	1.8	ug/L			06/02/24 16:55	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			06/02/24 16:55	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			06/02/24 16:55	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			06/02/24 16:55	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			06/02/24 16:55	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			06/02/24 16:55	1
Dichlorodifluoromethane	1.0	U Q	2.0	0.36	ug/L			06/02/24 16:55	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			06/02/24 16:55	1
1,2-Dichloroethane	1.0	U M	2.0	0.25	ug/L			06/02/24 16:55	1
1,1-Dichloroethene	1.0	U	2.0	0.33	ug/L			06/02/24 16:55	1
1,2-Dichloroethene, Total	**51**		2.0	0.37	ug/L			06/02/24 16:55	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			06/02/24 16:55	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			06/02/24 16:55	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			06/02/24 16:55	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			06/02/24 16:55	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			06/02/24 16:55	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			06/02/24 16:55	1
2-Hexanone	10	U	20	3.2	ug/L			06/02/24 16:55	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			06/02/24 16:55	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			06/02/24 16:55	1
Methyl acetate	10	U	20	3.2	ug/L			06/02/24 16:55	1
Methylcyclohexane	1.0	U	2.0	0.33	ug/L			06/02/24 16:55	1
Methylene Chloride	10	U	20	3.2	ug/L			06/02/24 16:55	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			06/02/24 16:55	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			06/02/24 16:55	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			06/02/24 16:55	1
Naphthalene	5.0	U	10	2.4	ug/L			06/02/24 16:55	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			06/02/24 16:55	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			06/02/24 16:55	1
o-Xylene	1.0	U	2.0	0.26	ug/L			06/02/24 16:55	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			06/02/24 16:55	1
Styrene	1.0	U	2.0	0.27	ug/L			06/02/24 16:55	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			06/02/24 16:55	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			06/02/24 16:55	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			06/02/24 16:55	1
Tetrachloroethene	1.0	U	2.0	0.35	ug/L			06/02/24 16:55	1
Toluene	1.0	U	2.0	0.25	ug/L			06/02/24 16:55	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			06/02/24 16:55	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			06/02/24 16:55	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			06/02/24 16:55	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			06/02/24 16:55	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			06/02/24 16:55	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			06/02/24 16:55	1
Trichloroethene	0.50	U M	1.0	0.20	ug/L			06/02/24 16:55	1

Client Sample ID: OU6-MW-217-20240522
Date Collected: 05/22/24 10:20
Date Received: 05/23/24 09:29

Lab Sample ID: 680-251152-15
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			06/02/24 16:55	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			06/02/24 16:55	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			06/02/24 16:55	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			06/02/24 16:55	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			06/02/24 16:55	1
Vinyl chloride	**10**		2.0	0.40	ug/L			06/02/24 16:55	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			06/02/24 16:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*85 - 114*		*06/02/24 16:55*	*1*
Dibromofluoromethane (Surr)	*109*		*80 - 119*		*06/02/24 16:55*	*1*
1,2-Dichloroethane-d4 (Surr)	*89*		*81 - 118*		*06/02/24 16:55*	*1*
Toluene-d8 (Surr)	*106*		*89 - 112*		*06/02/24 16:55*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	**1.9**		1.1	0.30	ug/L			06/04/24 18:47	1
Ethylene	**6.1**		1.0	0.31	ug/L			06/04/24 18:47	1
Methane (TCD)	**8100**		390	39	ug/L			06/04/24 18:47	1

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2.4**		0.55	0.20	mg/L			06/04/24 20:11	1
Nitrate as N	0.050	U	0.055	0.023	mg/L			05/23/24 17:32	1
Nitrate Nitrite as N	0.050	U	0.055	0.023	mg/L			05/23/24 17:32	1
Sulfate	**0.48**	**J**	1.5	0.40	mg/L			06/04/24 20:11	1
Nitrite as N	0.050	U	0.055	0.023	mg/L			05/23/24 17:32	1

Method: SW846 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**41**		10	2.2	ug/L		05/24/24 05:51	05/28/24 10:51	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**200**		5.5	2.2	mg/L			05/24/24 21:54	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	**200**		11	5.0	mg/L			05/24/24 21:54	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	10	U	11	5.0	mg/L			05/24/24 21:54	1
Sulfide (SM 4500 S2 F-2011)	**2.6**		0.81	0.81	mg/L			05/28/24 15:15	1
Sulfide as H2S (SM 4500 S2 F-2011)	**2.7**		0.89	0.89	mg/L			05/28/24 15:15	1
Total Organic Carbon (SW846 9060A)	**34**		1.0	0.50	mg/L			05/29/24 01:39	1
Carbon Dioxide, Free (SM 4500 CO2 D)	**100**		11	5.0	mg/L			05/24/24 21:54	1

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-251152-1

Client Sample ID: OU6-EBF-08D-20240522
Date Collected: 05/22/24 11:30
Date Received: 05/23/24 09:29

Lab Sample ID: 680-251152-16
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			06/02/24 17:15	1
Benzene	1.0	U	2.0	0.27	ug/L			06/02/24 17:15	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			06/02/24 17:15	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			06/02/24 17:15	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			06/02/24 17:15	1
Bromoform	2.0	U	2.5	0.59	ug/L			06/02/24 17:15	1
Bromomethane	10	U	20	3.7	ug/L			06/02/24 17:15	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			06/02/24 17:15	1
Carbon disulfide	1.0	U	2.0	0.43	ug/L			06/02/24 17:15	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			06/02/24 17:15	1
Chlorobenzene	**3.0**		1.0	0.15	ug/L			06/02/24 17:15	1
Chloroethane	10	U	20	4.6	ug/L			06/02/24 17:15	1
Chloroform	1.0	U	2.0	0.27	ug/L			06/02/24 17:15	1
Chloromethane	2.0	U	2.5	0.54	ug/L			06/02/24 17:15	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			06/02/24 17:15	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			06/02/24 17:15	1
cis-1,2-Dichloroethene	**75**		2.0	0.25	ug/L			06/02/24 17:15	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			06/02/24 17:15	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			06/02/24 17:15	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			06/02/24 17:15	1
1,2-Dibromo-3-Chloropropane	5.0	U Q	10	1.8	ug/L			06/02/24 17:15	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			06/02/24 17:15	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			06/02/24 17:15	1
1,2-Dichlorobenzene	**1.8**	**J**	2.0	0.31	ug/L			06/02/24 17:15	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			06/02/24 17:15	1
1,4-Dichlorobenzene	**1.6**	**J**	2.0	0.31	ug/L			06/02/24 17:15	1
Dichlorodifluoromethane	1.0	U M Q	2.0	0.36	ug/L			06/02/24 17:15	1
1,1-Dichloroethane	**4.0**		2.0	0.33	ug/L			06/02/24 17:15	1
1,2-Dichloroethane	**2.1**		2.0	0.25	ug/L			06/02/24 17:15	1
1,1-Dichloroethene	1.0	U M	2.0	0.33	ug/L			06/02/24 17:15	1
1,2-Dichloroethene, Total	**75**		2.0	0.37	ug/L			06/02/24 17:15	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			06/02/24 17:15	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			06/02/24 17:15	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			06/02/24 17:15	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			06/02/24 17:15	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			06/02/24 17:15	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			06/02/24 17:15	1
2-Hexanone	10	U	20	3.2	ug/L			06/02/24 17:15	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			06/02/24 17:15	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			06/02/24 17:15	1
Methyl acetate	10	U	20	3.2	ug/L			06/02/24 17:15	1
Methylcyclohexane	1.0	U	2.0	0.33	ug/L			06/02/24 17:15	1
Methylene Chloride	10	U	20	3.2	ug/L			06/02/24 17:15	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			06/02/24 17:15	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			06/02/24 17:15	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			06/02/24 17:15	1
Naphthalene	5.0	U	10	2.4	ug/L			06/02/24 17:15	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			06/02/24 17:15	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			06/02/24 17:15	1

Client Sample ID: OU6-EBF-08D-20240522
Date Collected: 05/22/24 11:30
Date Received: 05/23/24 09:29

Lab Sample ID: 680-251152-16
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	1.0	U	2.0	0.26	ug/L			06/02/24 17:15	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			06/02/24 17:15	1
Styrene	1.0	U	2.0	0.27	ug/L			06/02/24 17:15	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			06/02/24 17:15	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			06/02/24 17:15	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			06/02/24 17:15	1
Tetrachloroethene	**2.3**		2.0	0.35	ug/L			06/02/24 17:15	1
Toluene	1.0	U	2.0	0.25	ug/L			06/02/24 17:15	1
trans-1,2-Dichloroethene	1.0	U M	2.0	0.34	ug/L			06/02/24 17:15	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			06/02/24 17:15	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			06/02/24 17:15	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			06/02/24 17:15	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			06/02/24 17:15	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			06/02/24 17:15	1
Trichloroethene	**19**		1.0	0.20	ug/L			06/02/24 17:15	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			06/02/24 17:15	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			06/02/24 17:15	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			06/02/24 17:15	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			06/02/24 17:15	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			06/02/24 17:15	1
Vinyl chloride	**4.1**		2.0	0.40	ug/L			06/02/24 17:15	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			06/02/24 17:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*85 - 114*		*06/02/24 17:15*	*1*
Dibromofluoromethane (Surr)	*111*		*80 - 119*		*06/02/24 17:15*	*1*
1,2-Dichloroethane-d4 (Surr)	*88*		*81 - 118*		*06/02/24 17:15*	*1*
Toluene-d8 (Surr)	*104*		*89 - 112*		*06/02/24 17:15*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	**1.5**		1.1	0.30	ug/L			06/04/24 19:00	1
Ethylene	**0.86**	**J**	1.0	0.31	ug/L			06/04/24 19:00	1
Methane	**47**		1.2	0.57	ug/L			06/04/24 19:00	1

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**26**	**M**	0.55	0.20	mg/L			06/04/24 20:18	1
Nitrate as N	**0.14**		0.055	0.023	mg/L			05/23/24 17:40	1
Nitrate Nitrite as N	**0.14**		0.055	0.023	mg/L			05/23/24 17:40	1
Sulfate	**2.3**		1.5	0.40	mg/L			06/04/24 20:18	1
Nitrite as N	0.050	U M	0.055	0.023	mg/L			05/23/24 17:40	1

Method: SW846 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**41**		10	2.2	ug/L		05/24/24 05:51	05/28/24 10:52	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**37**		5.5	2.2	mg/L			05/24/24 22:46	1

Client Sample ID: OU6-EBF-08D-20240522

Lab Sample ID: 680-251152-16

Date Collected: 05/22/24 11:30

Matrix: Water

Date Received: 05/23/24 09:29

General Chemistry (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	**37**		11	5.0	mg/L			05/24/24 22:46	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	10	U	11	5.0	mg/L			05/24/24 22:46	1
Sulfide (SM 4500 S2 F-2011)	0.89	U	0.89	0.89	mg/L			05/28/24 15:15	1
Sulfide as H2S (SM 4500 S2 F-2011)	0.98	U	0.98	0.98	mg/L			05/28/24 15:15	1
Total Organic Carbon (SW846 9060A)	**1.8**		1.0	0.50	mg/L			05/29/24 01:57	1
Carbon Dioxide, Free (SM 4500 CO2 D)	**45**		11	5.0	mg/L			05/24/24 22:46	1

Client Sample ID: OU6-MW-285-20240522

Lab Sample ID: 680-251152-17

Date Collected: 05/22/24 13:35

Matrix: Water

Date Received: 05/23/24 09:29

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	100	U	250	37	ug/L			06/02/24 20:27	10
Benzene	10	U	20	2.7	ug/L			06/02/24 20:27	10
Bromobenzene	5.0	U	10	2.4	ug/L			06/02/24 20:27	10
Bromochloromethane	10	U	20	3.4	ug/L			06/02/24 20:27	10
Bromodichloromethane	10	U	20	2.5	ug/L			06/02/24 20:27	10
Bromoform	20	U M	25	5.9	ug/L			06/02/24 20:27	10
Bromomethane	100	U	200	37	ug/L			06/02/24 20:27	10
2-Butanone (MEK)	200	U	250	64	ug/L			06/02/24 20:27	10
Carbon disulfide	10	U	20	4.3	ug/L			06/02/24 20:27	10
Carbon tetrachloride	10	U	20	3.0	ug/L			06/02/24 20:27	10
Chlorobenzene	**17**	**D**	10	1.5	ug/L			06/02/24 20:27	10
Chloroethane	100	U	200	46	ug/L			06/02/24 20:27	10
Chloroform	10	U	20	2.7	ug/L			06/02/24 20:27	10
Chloromethane	20	U	25	5.4	ug/L			06/02/24 20:27	10
2-Chlorotoluene	5.0	U	10	2.5	ug/L			06/02/24 20:27	10
4-Chlorotoluene	10	U	20	4.1	ug/L			06/02/24 20:27	10
cis-1,2-Dichloroethene	**810**	**D**	20	2.5	ug/L			06/02/24 20:27	10
cis-1,3-Dichloropropene	10	U	20	2.6	ug/L			06/02/24 20:27	10
Cyclohexane	10	U	20	2.8	ug/L			06/02/24 20:27	10
Dibromochloromethane	10	U	20	3.9	ug/L			06/02/24 20:27	10
1,2-Dibromo-3-Chloropropane	50	U Q	100	18	ug/L			06/02/24 20:27	10
1,2-Dibromoethane	10	U	20	3.3	ug/L			06/02/24 20:27	10
Dibromomethane	10	U	20	3.4	ug/L			06/02/24 20:27	10
1,2-Dichlorobenzene	**6.7**	**J D**	20	3.1	ug/L			06/02/24 20:27	10
1,3-Dichlorobenzene	10	U	20	3.1	ug/L			06/02/24 20:27	10
1,4-Dichlorobenzene	**10**	**J D M**	20	3.1	ug/L			06/02/24 20:27	10
Dichlorodifluoromethane	10	U H Q	20	3.6	ug/L			06/06/24 19:35	10
1,1-Dichloroethane	10	U	20	3.3	ug/L			06/02/24 20:27	10
1,2-Dichloroethane	10	U M	20	2.5	ug/L			06/02/24 20:27	10
1,1-Dichloroethene	10	U	20	3.3	ug/L			06/02/24 20:27	10
1,2-Dichloroethene, Total	**810**	**D**	20	3.7	ug/L			06/02/24 20:27	10
1,2-Dichloropropane	5.0	U	10	2.2	ug/L			06/02/24 20:27	10
1,3-Dichloropropane	10	U	20	3.6	ug/L			06/02/24 20:27	10
2,2-Dichloropropane	10	U	20	3.5	ug/L			06/02/24 20:27	10

Client Sample ID: OU6-MW-285-20240522
Date Collected: 05/22/24 13:35
Date Received: 05/23/24 09:29

Lab Sample ID: 680-251152-17
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloropropene	10	U	20	2.8	ug/L			06/02/24 20:27	10
Ethylbenzene	5.0	U	10	2.0	ug/L			06/02/24 20:27	10
Hexachlorobutadiene	10	U	50	2.2	ug/L			06/02/24 20:27	10
2-Hexanone	100	U	200	32	ug/L			06/02/24 20:27	10
Isopropylbenzene	10	U	20	2.6	ug/L			06/02/24 20:27	10
4-Isopropyltoluene	10	U	20	4.4	ug/L			06/02/24 20:27	10
Methyl acetate	100	U	200	32	ug/L			06/02/24 20:27	10
Methylcyclohexane	10	U	20	3.3	ug/L			06/02/24 20:27	10
Methylene Chloride	100	U	200	32	ug/L			06/02/24 20:27	10
4-Methyl-2-pentanone (MIBK)	100	U	200	27	ug/L			06/02/24 20:27	10
Methyl tert-butyl ether	20	U	50	8.1	ug/L			06/02/24 20:27	10
m-Xylene & p-Xylene	10	U	20	4.9	ug/L			06/02/24 20:27	10
Naphthalene	50	U	100	24	ug/L			06/02/24 20:27	10
n-Butylbenzene	20	U	25	5.2	ug/L			06/02/24 20:27	10
N-Propylbenzene	10	U	20	4.1	ug/L			06/02/24 20:27	10
o-Xylene	10	U	20	2.6	ug/L			06/02/24 20:27	10
sec-Butylbenzene	20	U	25	5.3	ug/L			06/02/24 20:27	10
Styrene	10	U	20	2.7	ug/L			06/02/24 20:27	10
tert-Butylbenzene	10	U	20	4.3	ug/L			06/02/24 20:27	10
1,1,1,2-Tetrachloroethane	10	U	20	3.6	ug/L			06/02/24 20:27	10
1,1,2,2-Tetrachloroethane	10	U	20	4.0	ug/L			06/02/24 20:27	10
Tetrachloroethene	**13**	**J D**	20	3.5	ug/L			06/02/24 20:27	10
Toluene	10	U	20	2.5	ug/L			06/02/24 20:27	10
trans-1,2-Dichloroethene	10	U	20	3.4	ug/L			06/02/24 20:27	10
trans-1,3-Dichloropropene	10	U	20	2.3	ug/L			06/02/24 20:27	10
1,2,3-Trichlorobenzene	20	U	50	8.1	ug/L			06/02/24 20:27	10
1,2,4-Trichlorobenzene	20	U	50	5.3	ug/L			06/02/24 20:27	10
1,1,1-Trichloroethane	5.0	U	10	2.1	ug/L			06/02/24 20:27	10
1,1,2-Trichloroethane	10	U	20	3.2	ug/L			06/02/24 20:27	10
Trichloroethene	**150**	**D**	10	2.0	ug/L			06/02/24 20:27	10
Trichlorofluoromethane	10	U	20	3.3	ug/L			06/02/24 20:27	10
1,2,3-Trichloropropane	10	U	20	4.8	ug/L			06/02/24 20:27	10
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	10	2.3	ug/L			06/02/24 20:27	10
1,2,4-Trimethylbenzene	10	U	20	4.3	ug/L			06/02/24 20:27	10
1,3,5-Trimethylbenzene	10	U	20	2.8	ug/L			06/02/24 20:27	10
Vinyl chloride	**34**	**D**	20	4.0	ug/L			06/02/24 20:27	10
Xylenes, Total	10	U	20	4.9	ug/L			06/02/24 20:27	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*85 - 114*		*06/02/24 20:27*	*10*
4-Bromofluorobenzene (Surr)	*109*		*85 - 114*		*06/06/24 19:35*	*10*
Dibromofluoromethane (Surr)	*110*		*80 - 119*		*06/02/24 20:27*	*10*
Dibromofluoromethane (Surr)	*92*		*80 - 119*		*06/06/24 19:35*	*10*
1,2-Dichloroethane-d4 (Surr)	*95*		*81 - 118*		*06/02/24 20:27*	*10*
1,2-Dichloroethane-d4 (Surr)	*96*		*81 - 118*		*06/06/24 19:35*	*10*
Toluene-d8 (Surr)	*105*		*89 - 112*		*06/02/24 20:27*	*10*
Toluene-d8 (Surr)	*97*		*89 - 112*		*06/06/24 19:35*	*10*

Client Sample ID: OU6-MW-285-20240522

Lab Sample ID: 680-251152-17

Date Collected: 05/22/24 13:35

Matrix: Water

Date Received: 05/23/24 09:29

Method: SW846 8270E SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	7.1	M	0.20	0.032	ug/L		05/24/24 11:32	05/27/24 20:30	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*29*	*M*	*10 - 150*	*05/24/24 11:32*	*05/27/24 20:30*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	13		1.1	0.30	ug/L			06/04/24 19:13	1
Ethylene	0.95	J	1.0	0.31	ug/L			06/04/24 19:13	1
Methane (TCD)	750		390	39	ug/L			06/04/24 19:13	1

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	86	D M	2.8	1.0	mg/L			06/04/24 20:37	5
Nitrate as N	0.023	J M	0.055	0.023	mg/L			05/23/24 17:48	1
Nitrate Nitrite as N	0.023	J	0.055	0.023	mg/L			05/23/24 17:48	1
Sulfate	14	D	7.5	2.0	mg/L			06/04/24 20:37	5
Nitrite as N	0.050	U M	0.055	0.023	mg/L			05/23/24 17:48	1

Method: SW846 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	60		10	2.2	ug/L		05/24/24 05:51	05/28/24 11:14	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	55		5.5	2.2	mg/L			05/24/24 22:54	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	55		11	5.0	mg/L			05/24/24 22:54	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	10	U	11	5.0	mg/L			05/24/24 22:54	1
Sulfide (SM 4500 S2 F-2011)	0.81	U	0.81	0.81	mg/L			05/28/24 15:15	1
Sulfide as H2S (SM 4500 S2 F-2011)	0.89	U	0.89	0.89	mg/L			05/28/24 15:15	1
Total Organic Carbon (SW846 9060A)	2.6		1.0	0.50	mg/L			05/29/24 02:15	1
Carbon Dioxide, Free (SM 4500 CO2 D)	66		11	5.0	mg/L			05/24/24 22:54	1

Client Sample ID: OU6-MW-255-20240522

Lab Sample ID: 680-251152-18

Date Collected: 05/22/24 14:35

Matrix: Water

Date Received: 05/23/24 09:29

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	20	U	50	7.4	ug/L			06/02/24 18:03	2
Benzene	2.0	U	4.0	0.54	ug/L			06/02/24 18:03	2
Bromobenzene	1.0	U	2.0	0.48	ug/L			06/02/24 18:03	2
Bromochloromethane	2.0	U	4.0	0.68	ug/L			06/02/24 18:03	2
Bromodichloromethane	2.0	U	4.0	0.50	ug/L			06/02/24 18:03	2
Bromoform	4.0	U	5.0	1.2	ug/L			06/02/24 18:03	2
Bromomethane	20	U	40	7.4	ug/L			06/02/24 18:03	2
2-Butanone (MEK)	40	U	50	13	ug/L			06/02/24 18:03	2
Carbon disulfide	2.0	U	4.0	0.86	ug/L			06/02/24 18:03	2

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-251152-1

Client Sample ID: OU6-MW-255-20240522
Date Collected: 05/22/24 14:35
Date Received: 05/23/24 09:29

Lab Sample ID: 680-251152-18
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon tetrachloride	2.0	U	4.0	0.60	ug/L			06/02/24 18:03	2
Chlorobenzene	1.0	U	2.0	0.30	ug/L			06/02/24 18:03	2
Chloroethane	20	U	40	9.2	ug/L			06/02/24 18:03	2
Chloroform	2.0	U	4.0	0.54	ug/L			06/02/24 18:03	2
Chloromethane	4.0	U	5.0	1.1	ug/L			06/02/24 18:03	2
2-Chlorotoluene	1.0	U	2.0	0.50	ug/L			06/02/24 18:03	2
4-Chlorotoluene	2.0	U	4.0	0.82	ug/L			06/02/24 18:03	2
cis-1,2-Dichloroethene	**180**	**D**	4.0	0.50	ug/L			06/02/24 18:03	2
cis-1,3-Dichloropropene	2.0	U	4.0	0.52	ug/L			06/02/24 18:03	2
Cyclohexane	2.0	U	4.0	0.56	ug/L			06/02/24 18:03	2
Dibromochloromethane	2.0	U	4.0	0.78	ug/L			06/02/24 18:03	2
1,2-Dibromo-3-Chloropropane	10	U Q	20	3.6	ug/L			06/02/24 18:03	2
1,2-Dibromoethane	2.0	U	4.0	0.66	ug/L			06/02/24 18:03	2
Dibromomethane	2.0	U	4.0	0.68	ug/L			06/02/24 18:03	2
1,2-Dichlorobenzene	2.0	U	4.0	0.62	ug/L			06/02/24 18:03	2
1,3-Dichlorobenzene	2.0	U	4.0	0.62	ug/L			06/02/24 18:03	2
1,4-Dichlorobenzene	2.0	U	4.0	0.62	ug/L			06/02/24 18:03	2
Dichlorodifluoromethane	2.0	U Q	4.0	0.72	ug/L			06/02/24 18:03	2
1,1-Dichloroethane	**8.6**	**D M**	4.0	0.66	ug/L			06/02/24 18:03	2
1,2-Dichloroethane	2.0	U M	4.0	0.50	ug/L			06/02/24 18:03	2
1,1-Dichloroethene	2.0	U M	4.0	0.66	ug/L			06/02/24 18:03	2
1,2-Dichloroethene, Total	**180**	**D**	4.0	0.74	ug/L			06/02/24 18:03	2
1,2-Dichloropropane	1.0	U	2.0	0.44	ug/L			06/02/24 18:03	2
1,3-Dichloropropane	2.0	U	4.0	0.72	ug/L			06/02/24 18:03	2
2,2-Dichloropropane	2.0	U	4.0	0.70	ug/L			06/02/24 18:03	2
1,1-Dichloropropene	2.0	U	4.0	0.56	ug/L			06/02/24 18:03	2
Ethylbenzene	1.0	U	2.0	0.40	ug/L			06/02/24 18:03	2
Hexachlorobutadiene	2.0	U	10	0.44	ug/L			06/02/24 18:03	2
2-Hexanone	20	U	40	6.4	ug/L			06/02/24 18:03	2
Isopropylbenzene	2.0	U	4.0	0.52	ug/L			06/02/24 18:03	2
4-Isopropyltoluene	2.0	U	4.0	0.88	ug/L			06/02/24 18:03	2
Methyl acetate	20	U	40	6.4	ug/L			06/02/24 18:03	2
Methylcyclohexane	2.0	U	4.0	0.66	ug/L			06/02/24 18:03	2
Methylene Chloride	20	U	40	6.4	ug/L			06/02/24 18:03	2
4-Methyl-2-pentanone (MIBK)	20	U	40	5.4	ug/L			06/02/24 18:03	2
Methyl tert-butyl ether	4.0	U	10	1.6	ug/L			06/02/24 18:03	2
m-Xylene & p-Xylene	2.0	U	4.0	0.98	ug/L			06/02/24 18:03	2
Naphthalene	10	U	20	4.8	ug/L			06/02/24 18:03	2
n-Butylbenzene	4.0	U	5.0	1.0	ug/L			06/02/24 18:03	2
N-Propylbenzene	2.0	U	4.0	0.82	ug/L			06/02/24 18:03	2
o-Xylene	2.0	U	4.0	0.52	ug/L			06/02/24 18:03	2
sec-Butylbenzene	4.0	U	5.0	1.1	ug/L			06/02/24 18:03	2
Styrene	2.0	U	4.0	0.54	ug/L			06/02/24 18:03	2
tert-Butylbenzene	2.0	U	4.0	0.86	ug/L			06/02/24 18:03	2
1,1,1,2-Tetrachloroethane	2.0	U	4.0	0.72	ug/L			06/02/24 18:03	2
1,1,2,2-Tetrachloroethane	2.0	U	4.0	0.80	ug/L			06/02/24 18:03	2
Tetrachloroethene	**40**	**D**	4.0	0.70	ug/L			06/02/24 18:03	2
Toluene	2.0	U	4.0	0.50	ug/L			06/02/24 18:03	2
trans-1,2-Dichloroethene	**6.0**	**D**	4.0	0.68	ug/L			06/02/24 18:03	2

Client Sample ID: OU6-MW-255-20240522
Date Collected: 05/22/24 14:35
Date Received: 05/23/24 09:29

Lab Sample ID: 680-251152-18
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	2.0	U	4.0	0.46	ug/L			06/02/24 18:03	2
1,2,3-Trichlorobenzene	4.0	U	10	1.6	ug/L			06/02/24 18:03	2
1,2,4-Trichlorobenzene	4.0	U	10	1.1	ug/L			06/02/24 18:03	2
1,1,1-Trichloroethane	1.0	U	2.0	0.42	ug/L			06/02/24 18:03	2
1,1,2-Trichloroethane	2.0	U M	4.0	0.64	ug/L			06/02/24 18:03	2
Trichloroethene	**100**	**D**	2.0	0.40	ug/L			06/02/24 18:03	2
Trichlorofluoromethane	2.0	U	4.0	0.66	ug/L			06/02/24 18:03	2
1,2,3-Trichloropropane	2.0	U	4.0	0.96	ug/L			06/02/24 18:03	2
1,1,2-Trichloro-1,2,2-trifluoroethane	**170**	**D**	2.0	0.46	ug/L			06/02/24 18:03	2
1,2,4-Trimethylbenzene	2.0	U	4.0	0.86	ug/L			06/02/24 18:03	2
1,3,5-Trimethylbenzene	2.0	U	4.0	0.56	ug/L			06/02/24 18:03	2
Vinyl chloride	**38**	**D**	4.0	0.80	ug/L			06/02/24 18:03	2
Xylenes, Total	2.0	U	4.0	0.98	ug/L			06/02/24 18:03	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*85 - 114*		*06/02/24 18:03*	*2*
Dibromofluoromethane (Surr)	*109*		*80 - 119*		*06/02/24 18:03*	*2*
1,2-Dichloroethane-d4 (Surr)	*92*		*81 - 118*		*06/02/24 18:03*	*2*
Toluene-d8 (Surr)	*105*		*89 - 112*		*06/02/24 18:03*	*2*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	**1.4**		1.1	0.30	ug/L			06/04/24 19:26	1
Ethylene	**79**		1.0	0.31	ug/L			06/04/24 19:26	1
Methane (TCD)	**7400**		390	39	ug/L			06/04/24 19:26	1

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**11**	**M**	0.55	0.20	mg/L			06/04/24 20:44	1
Nitrate as N	0.050	U	0.055	0.023	mg/L			05/23/24 17:57	1
Nitrate Nitrite as N	0.050	U	0.055	0.023	mg/L			05/23/24 17:57	1
Sulfate	**4.1**		1.5	0.40	mg/L			06/04/24 20:44	1
Nitrite as N	0.050	U J1	0.055	0.023	mg/L			05/23/24 17:57	1

Method: SW846 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**3.5**	**J**	10	2.2	ug/L		05/24/24 05:51	05/28/24 10:41	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**76**		5.5	2.2	mg/L			05/24/24 22:29	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	**76**		11	5.0	mg/L			05/24/24 22:29	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	10	U	11	5.0	mg/L			05/24/24 22:29	1
Sulfide (SM 4500 S2 F-2011)	0.81	U	0.81	0.81	mg/L			05/28/24 15:15	1
Sulfide as H2S (SM 4500 S2 F-2011)	0.89	U	0.89	0.89	mg/L			05/28/24 15:15	1
Total Organic Carbon (SW846 9060A)	**0.87**	**J**	1.0	0.50	mg/L			05/29/24 03:06	1

Client: Meadows CMPG, Inc
Job ID: 680-251152-1
Project/Site: DSCR - OU6 Annual

Client Sample ID: OU6-MW-255-20240522
Lab Sample ID: 680-251152-18
Date Collected: 05/22/24 14:35
Matrix: Water
Date Received: 05/23/24 09:29

General Chemistry (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon Dioxide, Free (SM 4500 CO2 D)	80		11	5.0	mg/L			05/24/24 22:29	1

Isotope Dilution Summary

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-251152-1

Method: 8270E SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Matrix: Water

Prep Type: Total/NA

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		DXE							
Lab Sample ID	Client Sample ID	(10-150)							
680-251152-17	OU6-MW-285-20240522	29 M							
LCS 680-839648/2-A	Lab Control Sample	16							
LCSD 680-839648/3-A	Lab Control Sample Dup	15							
MB 680-839648/1-A	Method Blank	18 M							

Surrogate Legend

DXE = 1,4-Dioxane-d8

Method: 8260D - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 680-840706/8
Matrix: Water
Analysis Batch: 840706

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			06/02/24 13:28	1
Benzene	1.0	U	2.0	0.27	ug/L			06/02/24 13:28	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			06/02/24 13:28	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			06/02/24 13:28	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			06/02/24 13:28	1
Bromoform	2.0	U	2.5	0.59	ug/L			06/02/24 13:28	1
Bromomethane	10	U	20	3.7	ug/L			06/02/24 13:28	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			06/02/24 13:28	1
Carbon disulfide	1.0	U	2.0	0.43	ug/L			06/02/24 13:28	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			06/02/24 13:28	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			06/02/24 13:28	1
Chloroethane	10	U	20	4.6	ug/L			06/02/24 13:28	1
Chloroform	1.0	U	2.0	0.27	ug/L			06/02/24 13:28	1
Chloromethane	2.0	U	2.5	0.54	ug/L			06/02/24 13:28	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			06/02/24 13:28	1
4-Chlorotoluene	1.0	U M	2.0	0.41	ug/L			06/02/24 13:28	1
cis-1,2-Dichloroethene	1.0	U	2.0	0.25	ug/L			06/02/24 13:28	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			06/02/24 13:28	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			06/02/24 13:28	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			06/02/24 13:28	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			06/02/24 13:28	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			06/02/24 13:28	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			06/02/24 13:28	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			06/02/24 13:28	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			06/02/24 13:28	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			06/02/24 13:28	1
Dichlorodifluoromethane	1.0	U	2.0	0.36	ug/L			06/02/24 13:28	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			06/02/24 13:28	1
1,2-Dichloroethane	1.0	U M	2.0	0.25	ug/L			06/02/24 13:28	1
1,1-Dichloroethene	1.0	U	2.0	0.33	ug/L			06/02/24 13:28	1
1,2-Dichloroethene, Total	1.0	U	2.0	0.37	ug/L			06/02/24 13:28	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			06/02/24 13:28	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			06/02/24 13:28	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			06/02/24 13:28	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			06/02/24 13:28	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			06/02/24 13:28	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			06/02/24 13:28	1
2-Hexanone	10	U	20	3.2	ug/L			06/02/24 13:28	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			06/02/24 13:28	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			06/02/24 13:28	1
Methyl acetate	10	U	20	3.2	ug/L			06/02/24 13:28	1
Methylcyclohexane	1.0	U	2.0	0.33	ug/L			06/02/24 13:28	1
Methylene Chloride	10	U	20	3.2	ug/L			06/02/24 13:28	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			06/02/24 13:28	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			06/02/24 13:28	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			06/02/24 13:28	1
Naphthalene	5.0	U	10	2.4	ug/L			06/02/24 13:28	1
n-Butylbenzene	0.614	J	2.5	0.52	ug/L			06/02/24 13:28	1

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-840706/8
Matrix: Water
Analysis Batch: 840706

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			06/02/24 13:28	1
o-Xylene	1.0	U	2.0	0.26	ug/L			06/02/24 13:28	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			06/02/24 13:28	1
Styrene	1.0	U	2.0	0.27	ug/L			06/02/24 13:28	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			06/02/24 13:28	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			06/02/24 13:28	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			06/02/24 13:28	1
Tetrachloroethene	1.0	U	2.0	0.35	ug/L			06/02/24 13:28	1
Toluene	1.0	U	2.0	0.25	ug/L			06/02/24 13:28	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			06/02/24 13:28	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			06/02/24 13:28	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			06/02/24 13:28	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			06/02/24 13:28	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			06/02/24 13:28	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			06/02/24 13:28	1
Trichloroethene	0.50	U	1.0	0.20	ug/L			06/02/24 13:28	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			06/02/24 13:28	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			06/02/24 13:28	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			06/02/24 13:28	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			06/02/24 13:28	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			06/02/24 13:28	1
Vinyl chloride	1.0	U	2.0	0.40	ug/L			06/02/24 13:28	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			06/02/24 13:28	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*85 - 114*		*06/02/24 13:28*	*1*
Dibromofluoromethane (Surr)	*110*		*80 - 119*		*06/02/24 13:28*	*1*
1,2-Dichloroethane-d4 (Surr)	*90*		*81 - 118*		*06/02/24 13:28*	*1*
Toluene-d8 (Surr)	*104*		*89 - 112*		*06/02/24 13:28*	*1*

Lab Sample ID: LCS 680-840706/4
Matrix: Water
Analysis Batch: 840706

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	250	229		ug/L		91	39 - 160
Benzene	50.0	54.5		ug/L		109	79 - 120
Bromobenzene	50.0	50.7		ug/L		101	80 - 120
Bromochloromethane	50.0	54.2		ug/L		108	78 - 123
Bromodichloromethane	50.0	44.3		ug/L		89	79 - 125
Bromoform	50.0	43.8		ug/L		88	66 - 130
Bromomethane	50.0	47.5		ug/L		95	53 - 141
2-Butanone (MEK)	250	217		ug/L		87	56 - 143
Carbon disulfide	50.0	54.2		ug/L		108	64 - 133
Carbon tetrachloride	50.0	47.3		ug/L		95	72 - 136
Chlorobenzene	50.0	51.6		ug/L		103	82 - 118
Chloroethane	50.0	61.1		ug/L		122	60 - 138
Chloroform	50.0	54.7		ug/L		109	79 - 124

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-840706/4
Matrix: Water
Analysis Batch: 840706

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloromethane	50.0	51.3		ug/L		103	50 - 139
2-Chlorotoluene	50.0	53.4		ug/L		107	79 - 122
4-Chlorotoluene	50.0	53.4		ug/L		107	78 - 122
cis-1,2-Dichloroethene	50.0	55.1		ug/L		110	78 - 123
cis-1,3-Dichloropropene	50.0	44.2		ug/L		88	75 - 124
Cyclohexane	50.0	52.2		ug/L		104	71 - 130
Dibromochloromethane	50.0	50.7		ug/L		101	74 - 126
1,2-Dibromo-3-Chloropropane	50.0	39.4		ug/L		79	62 - 128
1,2-Dibromoethane	50.0	46.3		ug/L		93	75 - 127
Dibromomethane	50.0	48.9		ug/L		98	79 - 123
1,2-Dichlorobenzene	50.0	51.5		ug/L		103	80 - 119
1,3-Dichlorobenzene	50.0	53.6		ug/L		107	80 - 119
1,4-Dichlorobenzene	50.0	52.5		ug/L		105	79 - 118
Dichlorodifluoromethane	50.0	35.3		ug/L		71	32 - 152
1,1-Dichloroethane	50.0	50.7		ug/L		101	77 - 125
1,2-Dichloroethane	50.0	50.3		ug/L		101	73 - 128
1,1-Dichloroethene	50.0	50.5		ug/L		101	71 - 131
1,2-Dichloroethene, Total	100	107		ug/L		107	79 - 121
1,2-Dichloropropane	50.0	48.3		ug/L		97	78 - 122
1,3-Dichloropropane	50.0	50.6		ug/L		101	80 - 119
2,2-Dichloropropane	50.0	52.7		ug/L		105	60 - 139
1,1-Dichloropropene	50.0	51.5		ug/L		103	79 - 125
Ethylbenzene	50.0	56.6		ug/L		113	79 - 121
Hexachlorobutadiene	50.0	47.4		ug/L		95	66 - 134
2-Hexanone	250	230		ug/L		92	57 - 139
Isopropylbenzene	50.0	52.2		ug/L		104	72 - 131
4-Isopropyltoluene	50.0	51.7		ug/L		103	77 - 127
Methyl acetate	100	92.6		ug/L		93	56 - 136
Methylcyclohexane	50.0	51.8		ug/L		104	72 - 132
Methylene Chloride	50.0	50.4		ug/L		101	74 - 124
4-Methyl-2-pentanone (MIBK)	250	229		ug/L		92	67 - 130
Methyl tert-butyl ether	50.0	47.2		ug/L		94	71 - 124
m-Xylene & p-Xylene	50.0	57.5		ug/L		115	80 - 121
Naphthalene	50.0	45.6		ug/L		91	61 - 128
n-Butylbenzene	50.0	50.0		ug/L		100	75 - 128
N-Propylbenzene	50.0	54.6		ug/L		109	76 - 126
o-Xylene	50.0	56.7		ug/L		113	78 - 122
sec-Butylbenzene	50.0	52.0		ug/L		104	77 - 126
Styrene	50.0	53.9		ug/L		108	78 - 123
tert-Butylbenzene	50.0	51.3		ug/L		103	78 - 124
1,1,1,2-Tetrachloroethane	50.0	52.8		ug/L		106	78 - 124
1,1,2,2-Tetrachloroethane	50.0	51.2		ug/L		102	71 - 121
Tetrachloroethene	50.0	46.3		ug/L		93	74 - 129
Toluene	50.0	52.1		ug/L		104	80 - 121
trans-1,2-Dichloroethene	50.0	52.0		ug/L		104	75 - 124
trans-1,3-Dichloropropene	50.0	43.6		ug/L		87	73 - 127
1,2,3-Trichlorobenzene	50.0	42.9		ug/L		86	69 - 129
1,2,4-Trichlorobenzene	50.0	48.8		ug/L		98	69 - 130
1,1,1-Trichloroethane	50.0	49.1		ug/L		98	74 - 131

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-840706/4
Matrix: Water
Analysis Batch: 840706

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,1,2-Trichloroethane			50.0	47.9		ug/L		96	80 - 119		
Trichloroethene			50.0	48.2		ug/L		96	79 - 123		
Trichlorofluoromethane			50.0	46.9		ug/L		94	65 - 141		
1,2,3-Trichloropropane			50.0	50.0		ug/L		100	73 - 122		
1,1,2-Trichloro-1,2,2-trifluoroethane			50.0	50.7		ug/L		101	70 - 136		
1,2,4-Trimethylbenzene			50.0	52.2		ug/L		104	76 - 124		
1,3,5-Trimethylbenzene			50.0	51.9		ug/L		104	75 - 124		
Vinyl chloride			50.0	52.4		ug/L		105	58 - 137		
Xylenes, Total			100	114		ug/L		114	79 - 121		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*95*		*85 - 114*
Dibromofluoromethane (Surr)	*111*		*80 - 119*
1,2-Dichloroethane-d4 (Surr)	*96*		*81 - 118*
Toluene-d8 (Surr)	*102*		*89 - 112*

Lab Sample ID: LCSD 680-840706/5
Matrix: Water
Analysis Batch: 840706

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acetone			250	237		ug/L		95	39 - 160	4	20
Benzene			50.0	54.6		ug/L		109	79 - 120	0	20
Bromobenzene			50.0	51.8		ug/L		104	80 - 120	2	20
Bromochloromethane			50.0	55.5		ug/L		111	78 - 123	3	20
Bromodichloromethane			50.0	45.0		ug/L		90	79 - 125	1	20
Bromoform			50.0	44.0		ug/L		88	66 - 130	1	20
Bromomethane			50.0	45.2		ug/L		90	53 - 141	5	20
2-Butanone (MEK)			250	225		ug/L		90	56 - 143	4	20
Carbon disulfide			50.0	53.2		ug/L		106	64 - 133	2	20
Carbon tetrachloride			50.0	47.3		ug/L		95	72 - 136	0	20
Chlorobenzene			50.0	51.1		ug/L		102	82 - 118	1	20
Chloroethane			50.0	60.0		ug/L		120	60 - 138	2	20
Chloroform			50.0	55.8		ug/L		112	79 - 124	2	20
Chloromethane			50.0	51.2		ug/L		102	50 - 139	0	20
2-Chlorotoluene			50.0	54.5		ug/L		109	79 - 122	2	20
4-Chlorotoluene			50.0	53.6		ug/L		107	78 - 122	0	20
cis-1,2-Dichloroethene			50.0	56.4		ug/L		113	78 - 123	2	20
cis-1,3-Dichloropropene			50.0	44.0		ug/L		88	75 - 124	1	20
Cyclohexane			50.0	52.6		ug/L		105	71 - 130	1	20
Dibromochloromethane			50.0	51.9		ug/L		104	74 - 126	2	20
1,2-Dibromo-3-Chloropropane			50.0	41.1		ug/L		82	62 - 128	4	20
1,2-Dibromoethane			50.0	47.7		ug/L		95	75 - 127	3	20
Dibromomethane			50.0	48.7		ug/L		97	79 - 123	0	20
1,2-Dichlorobenzene			50.0	52.4		ug/L		105	80 - 119	2	20
1,3-Dichlorobenzene			50.0	55.2		ug/L		110	80 - 119	3	20
1,4-Dichlorobenzene			50.0	52.8		ug/L		106	79 - 118	1	20
Dichlorodifluoromethane			50.0	34.0		ug/L		68	32 - 152	4	20

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-840706/5
Matrix: Water
Analysis Batch: 840706

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1-Dichloroethane	50.0	50.6		ug/L		101	77 - 125	0	20
1,2-Dichloroethane	50.0	51.8		ug/L		104	73 - 128	3	20
1,1-Dichloroethene	50.0	50.0		ug/L		100	71 - 131	1	20
1,2-Dichloroethene, Total	100	109		ug/L		109	79 - 121	2	20
1,2-Dichloropropane	50.0	48.3		ug/L		97	78 - 122	0	20
1,3-Dichloropropane	50.0	52.9		ug/L		106	80 - 119	4	20
2,2-Dichloropropane	50.0	52.5	M	ug/L		105	60 - 139	0	20
1,1-Dichloropropene	50.0	50.6		ug/L		101	79 - 125	2	20
Ethylbenzene	50.0	56.0		ug/L		112	79 - 121	1	20
Hexachlorobutadiene	50.0	47.3		ug/L		95	66 - 134	0	20
2-Hexanone	250	239		ug/L		96	57 - 139	4	20
Isopropylbenzene	50.0	51.9		ug/L		104	72 - 131	1	20
4-Isopropyltoluene	50.0	52.1		ug/L		104	77 - 127	1	20
Methyl acetate	100	96.9		ug/L		97	56 - 136	5	20
Methylcyclohexane	50.0	51.4		ug/L		103	72 - 132	1	20
Methylene Chloride	50.0	49.6		ug/L		99	74 - 124	1	20
4-Methyl-2-pentanone (MIBK)	250	238		ug/L		95	67 - 130	4	20
Methyl tert-butyl ether	50.0	49.3		ug/L		99	71 - 124	4	20
m-Xylene & p-Xylene	50.0	56.6		ug/L		113	80 - 121	2	20
Naphthalene	50.0	46.9		ug/L		94	61 - 128	3	20
n-Butylbenzene	50.0	49.9		ug/L		100	75 - 128	0	20
N-Propylbenzene	50.0	53.7		ug/L		107	76 - 126	2	20
o-Xylene	50.0	56.8		ug/L		114	78 - 122	0	20
sec-Butylbenzene	50.0	51.8		ug/L		104	77 - 126	0	20
Styrene	50.0	53.7		ug/L		107	78 - 123	0	20
tert-Butylbenzene	50.0	50.9		ug/L		102	78 - 124	1	20
1,1,1,2-Tetrachloroethane	50.0	51.5		ug/L		103	78 - 124	2	20
1,1,2,2-Tetrachloroethane	50.0	52.8		ug/L		106	71 - 121	3	20
Tetrachloroethene	50.0	45.5		ug/L		91	74 - 129	2	20
Toluene	50.0	51.9		ug/L		104	80 - 121	0	20
trans-1,2-Dichloroethene	50.0	52.6		ug/L		105	75 - 124	1	20
trans-1,3-Dichloropropene	50.0	44.6		ug/L		89	73 - 127	2	20
1,2,3-Trichlorobenzene	50.0	43.7		ug/L		87	69 - 129	2	20
1,2,4-Trichlorobenzene	50.0	49.8		ug/L		100	69 - 130	2	20
1,1,1-Trichloroethane	50.0	48.4		ug/L		97	74 - 131	1	20
1,1,2-Trichloroethane	50.0	48.9		ug/L		98	80 - 119	2	20
Trichloroethene	50.0	49.3		ug/L		99	79 - 123	2	20
Trichlorofluoromethane	50.0	46.1		ug/L		92	65 - 141	2	20
1,2,3-Trichloropropane	50.0	50.1		ug/L		100	73 - 122	0	20
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	51.0		ug/L		102	70 - 136	1	20
1,2,4-Trimethylbenzene	50.0	52.0		ug/L		104	76 - 124	0	20
1,3,5-Trimethylbenzene	50.0	51.3		ug/L		103	75 - 124	1	20
Vinyl chloride	50.0	52.4		ug/L		105	58 - 137	0	20
Xylenes, Total	100	113		ug/L		113	79 - 121	1	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*97*		*85 - 114*

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-840706/5
Matrix: Water
Analysis Batch: 840706

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Dibromofluoromethane (Surr)	*110*		*80 - 119*
1,2-Dichloroethane-d4 (Surr)	*98*		*81 - 118*
Toluene-d8 (Surr)	*102*		*89 - 112*

Lab Sample ID: MB 680-840935/8
Matrix: Water
Analysis Batch: 840935

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			06/04/24 12:01	1
Benzene	1.0	U	2.0	0.27	ug/L			06/04/24 12:01	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			06/04/24 12:01	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			06/04/24 12:01	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			06/04/24 12:01	1
Bromoform	2.0	U	2.5	0.59	ug/L			06/04/24 12:01	1
Bromomethane	10	U	20	3.7	ug/L			06/04/24 12:01	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			06/04/24 12:01	1
Carbon disulfide	1.0	U	2.0	0.43	ug/L			06/04/24 12:01	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			06/04/24 12:01	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			06/04/24 12:01	1
Chloroethane	10	U	20	4.6	ug/L			06/04/24 12:01	1
Chloroform	1.0	U	2.0	0.27	ug/L			06/04/24 12:01	1
Chloromethane	2.0	U	2.5	0.54	ug/L			06/04/24 12:01	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			06/04/24 12:01	1
4-Chlorotoluene	1.0	U M	2.0	0.41	ug/L			06/04/24 12:01	1
cis-1,2-Dichloroethene	1.0	U	2.0	0.25	ug/L			06/04/24 12:01	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			06/04/24 12:01	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			06/04/24 12:01	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			06/04/24 12:01	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			06/04/24 12:01	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			06/04/24 12:01	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			06/04/24 12:01	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			06/04/24 12:01	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			06/04/24 12:01	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			06/04/24 12:01	1
Dichlorodifluoromethane	1.0	U	2.0	0.36	ug/L			06/04/24 12:01	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			06/04/24 12:01	1
1,2-Dichloroethane	1.0	U M	2.0	0.25	ug/L			06/04/24 12:01	1
1,1-Dichloroethene	1.0	U	2.0	0.33	ug/L			06/04/24 12:01	1
1,2-Dichloroethene, Total	1.0	U	2.0	0.37	ug/L			06/04/24 12:01	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			06/04/24 12:01	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			06/04/24 12:01	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			06/04/24 12:01	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			06/04/24 12:01	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			06/04/24 12:01	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			06/04/24 12:01	1
2-Hexanone	10	U	20	3.2	ug/L			06/04/24 12:01	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			06/04/24 12:01	1

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-840935/8
Matrix: Water
Analysis Batch: 840935

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			06/04/24 12:01	1
Methyl acetate	10	U	20	3.2	ug/L			06/04/24 12:01	1
Methylcyclohexane	1.0	U	2.0	0.33	ug/L			06/04/24 12:01	1
Methylene Chloride	10	U	20	3.2	ug/L			06/04/24 12:01	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			06/04/24 12:01	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			06/04/24 12:01	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			06/04/24 12:01	1
Naphthalene	5.0	U	10	2.4	ug/L			06/04/24 12:01	1
n-Butylbenzene	2.0	U M	2.5	0.52	ug/L			06/04/24 12:01	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			06/04/24 12:01	1
o-Xylene	1.0	U	2.0	0.26	ug/L			06/04/24 12:01	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			06/04/24 12:01	1
Styrene	1.0	U	2.0	0.27	ug/L			06/04/24 12:01	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			06/04/24 12:01	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			06/04/24 12:01	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			06/04/24 12:01	1
Tetrachloroethene	1.0	U	2.0	0.35	ug/L			06/04/24 12:01	1
Toluene	1.0	U	2.0	0.25	ug/L			06/04/24 12:01	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			06/04/24 12:01	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			06/04/24 12:01	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			06/04/24 12:01	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			06/04/24 12:01	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			06/04/24 12:01	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			06/04/24 12:01	1
Trichloroethene	0.50	U	1.0	0.20	ug/L			06/04/24 12:01	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			06/04/24 12:01	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			06/04/24 12:01	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			06/04/24 12:01	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			06/04/24 12:01	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			06/04/24 12:01	1
Vinyl chloride	1.0	U	2.0	0.40	ug/L			06/04/24 12:01	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			06/04/24 12:01	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*85 - 114*		*06/04/24 12:01*	*1*
Dibromofluoromethane (Surr)	*106*		*80 - 119*		*06/04/24 12:01*	*1*
1,2-Dichloroethane-d4 (Surr)	*95*		*81 - 118*		*06/04/24 12:01*	*1*
Toluene-d8 (Surr)	*107*		*89 - 112*		*06/04/24 12:01*	*1*

Lab Sample ID: LCS 680-840935/4
Matrix: Water
Analysis Batch: 840935

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	250	222		ug/L		89	39 - 160
Benzene	50.0	53.6		ug/L		107	79 - 120
Bromobenzene	50.0	49.0		ug/L		98	80 - 120
Bromochloromethane	50.0	52.8		ug/L		106	78 - 123

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-840935/4
Matrix: Water
Analysis Batch: 840935

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bromodichloromethane	50.0	44.0		ug/L		88	79 - 125
Bromoform	50.0	44.3		ug/L		89	66 - 130
Bromomethane	50.0	97.2	Q	ug/L		194	53 - 141
2-Butanone (MEK)	250	217		ug/L		87	56 - 143
Carbon disulfide	50.0	52.2		ug/L		104	64 - 133
Carbon tetrachloride	50.0	47.4		ug/L		95	72 - 136
Chlorobenzene	50.0	51.3		ug/L		103	82 - 118
Chloroethane	50.0	62.6		ug/L		125	60 - 138
Chloroform	50.0	52.9		ug/L		106	79 - 124
Chloromethane	50.0	52.5		ug/L		105	50 - 139
2-Chlorotoluene	50.0	54.5		ug/L		109	79 - 122
4-Chlorotoluene	50.0	54.5		ug/L		109	78 - 122
cis-1,2-Dichloroethene	50.0	53.4		ug/L		107	78 - 123
cis-1,3-Dichloropropene	50.0	43.5		ug/L		87	75 - 124
Cyclohexane	50.0	51.6		ug/L		103	71 - 130
Dibromochloromethane	50.0	50.5		ug/L		101	74 - 126
1,2-Dibromo-3-Chloropropane	50.0	41.3		ug/L		83	62 - 128
1,2-Dibromoethane	50.0	45.8		ug/L		92	75 - 127
Dibromomethane	50.0	48.4		ug/L		97	79 - 123
1,2-Dichlorobenzene	50.0	51.1		ug/L		102	80 - 119
1,3-Dichlorobenzene	50.0	53.6		ug/L		107	80 - 119
1,4-Dichlorobenzene	50.0	52.7		ug/L		105	79 - 118
Dichlorodifluoromethane	50.0	50.7		ug/L		101	32 - 152
1,1-Dichloroethane	50.0	49.2		ug/L		98	77 - 125
1,2-Dichloroethane	50.0	49.4		ug/L		99	73 - 128
1,1-Dichloroethene	50.0	48.1		ug/L		96	71 - 131
1,2-Dichloroethene, Total	100	104		ug/L		104	79 - 121
1,2-Dichloropropane	50.0	47.4		ug/L		95	78 - 122
1,3-Dichloropropane	50.0	50.2		ug/L		100	80 - 119
2,2-Dichloropropane	50.0	51.1		ug/L		102	60 - 139
1,1-Dichloropropene	50.0	49.9		ug/L		100	79 - 125
Ethylbenzene	50.0	56.6		ug/L		113	79 - 121
Hexachlorobutadiene	50.0	44.5		ug/L		89	66 - 134
2-Hexanone	250	230		ug/L		92	57 - 139
Isopropylbenzene	50.0	52.2		ug/L		104	72 - 131
4-Isopropyltoluene	50.0	52.0		ug/L		104	77 - 127
Methyl acetate	100	96.9		ug/L		97	56 - 136
Methylcyclohexane	50.0	50.1		ug/L		100	72 - 132
Methylene Chloride	50.0	48.2		ug/L		96	74 - 124
4-Methyl-2-pentanone (MIBK)	250	229		ug/L		92	67 - 130
Methyl tert-butyl ether	50.0	47.3		ug/L		95	71 - 124
m-Xylene & p-Xylene	50.0	58.4		ug/L		117	80 - 121
Naphthalene	50.0	45.5		ug/L		91	61 - 128
n-Butylbenzene	50.0	50.7		ug/L		101	75 - 128
N-Propylbenzene	50.0	54.7		ug/L		109	76 - 126
o-Xylene	50.0	57.1		ug/L		114	78 - 122
sec-Butylbenzene	50.0	52.0		ug/L		104	77 - 126
Styrene	50.0	54.3		ug/L		109	78 - 123
tert-Butylbenzene	50.0	51.1		ug/L		102	78 - 124

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-840935/4
Matrix: Water
Analysis Batch: 840935

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1,2-Tetrachloroethane	50.0	52.5		ug/L		105	78 - 124
1,1,2,2-Tetrachloroethane	50.0	51.6		ug/L		103	71 - 121
Tetrachloroethene	50.0	42.9		ug/L		86	74 - 129
Toluene	50.0	50.7		ug/L		101	80 - 121
trans-1,2-Dichloroethene	50.0	50.4		ug/L		101	75 - 124
trans-1,3-Dichloropropene	50.0	44.1		ug/L		88	73 - 127
1,2,3-Trichlorobenzene	50.0	41.0	M	ug/L		82	69 - 129
1,2,4-Trichlorobenzene	50.0	46.1		ug/L		92	69 - 130
1,1,1-Trichloroethane	50.0	47.8		ug/L		96	74 - 131
1,1,2-Trichloroethane	50.0	47.1		ug/L		94	80 - 119
Trichloroethene	50.0	48.9		ug/L		98	79 - 123
Trichlorofluoromethane	50.0	51.6		ug/L		103	65 - 141
1,2,3-Trichloropropane	50.0	50.1		ug/L		100	73 - 122
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	49.0		ug/L		98	70 - 136
1,2,4-Trimethylbenzene	50.0	52.0		ug/L		104	76 - 124
1,3,5-Trimethylbenzene	50.0	51.7		ug/L		103	75 - 124
Vinyl chloride	50.0	54.8		ug/L		110	58 - 137
Xylenes, Total	100	116		ug/L		116	79 - 121

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*96*		*85 - 114*
Dibromofluoromethane (Surr)	*106*		*80 - 119*
1,2-Dichloroethane-d4 (Surr)	*92*		*81 - 118*
Toluene-d8 (Surr)	*100*		*89 - 112*

Lab Sample ID: LCSD 680-840935/5
Matrix: Water
Analysis Batch: 840935

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acetone	250	238		ug/L		95	39 - 160	7	20
Benzene	50.0	54.0		ug/L		108	79 - 120	1	20
Bromobenzene	50.0	50.5		ug/L		101	80 - 120	3	20
Bromochloromethane	50.0	53.8		ug/L		108	78 - 123	2	20
Bromodichloromethane	50.0	45.3		ug/L		91	79 - 125	3	20
Bromoform	50.0	46.5		ug/L		93	66 - 130	5	20
Bromomethane	50.0	96.1	Q	ug/L		192	53 - 141	1	20
2-Butanone (MEK)	250	223		ug/L		89	56 - 143	3	20
Carbon disulfide	50.0	51.2		ug/L		102	64 - 133	2	20
Carbon tetrachloride	50.0	47.3		ug/L		95	72 - 136	0	20
Chlorobenzene	50.0	52.4		ug/L		105	82 - 118	2	20
Chloroethane	50.0	59.8		ug/L		120	60 - 138	4	20
Chloroform	50.0	53.3		ug/L		107	79 - 124	1	20
Chloromethane	50.0	52.3		ug/L		105	50 - 139	0	20
2-Chlorotoluene	50.0	54.7		ug/L		109	79 - 122	0	20
4-Chlorotoluene	50.0	54.9		ug/L		110	78 - 122	1	20
cis-1,2-Dichloroethene	50.0	53.9		ug/L		108	78 - 123	1	20
cis-1,3-Dichloropropene	50.0	44.1		ug/L		88	75 - 124	1	20

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-840935/5
Matrix: Water
Analysis Batch: 840935

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Cyclohexane	50.0	50.9		ug/L		102	71 - 130	1	20
Dibromochloromethane	50.0	51.6		ug/L		103	74 - 126	2	20
1,2-Dibromo-3-Chloropropane	50.0	43.0	M	ug/L		86	62 - 128	4	20
1,2-Dibromoethane	50.0	47.0		ug/L		94	75 - 127	3	20
Dibromomethane	50.0	50.0		ug/L		100	79 - 123	3	20
1,2-Dichlorobenzene	50.0	52.6		ug/L		105	80 - 119	3	20
1,3-Dichlorobenzene	50.0	54.1		ug/L		108	80 - 119	1	20
1,4-Dichlorobenzene	50.0	53.6		ug/L		107	79 - 118	2	20
Dichlorodifluoromethane	50.0	50.7		ug/L		101	32 - 152	0	20
1,1-Dichloroethane	50.0	48.9		ug/L		98	77 - 125	1	20
1,2-Dichloroethane	50.0	50.8		ug/L		102	73 - 128	3	20
1,1-Dichloroethene	50.0	48.4		ug/L		97	71 - 131	1	20
1,2-Dichloroethene, Total	100	104		ug/L		104	79 - 121	0	20
1,2-Dichloropropane	50.0	48.0		ug/L		96	78 - 122	1	20
1,3-Dichloropropane	50.0	51.7		ug/L		103	80 - 119	3	20
2,2-Dichloropropane	50.0	51.5		ug/L		103	60 - 139	1	20
1,1-Dichloropropene	50.0	50.6		ug/L		101	79 - 125	1	20
Ethylbenzene	50.0	57.4		ug/L		115	79 - 121	2	20
Hexachlorobutadiene	50.0	43.6		ug/L		87	66 - 134	2	20
2-Hexanone	250	236		ug/L		94	57 - 139	3	20
Isopropylbenzene	50.0	52.3		ug/L		105	72 - 131	0	20
4-Isopropyltoluene	50.0	52.6		ug/L		105	77 - 127	1	20
Methyl acetate	100	104		ug/L		104	56 - 136	7	20
Methylcyclohexane	50.0	50.8		ug/L		102	72 - 132	2	20
Methylene Chloride	50.0	48.6		ug/L		97	74 - 124	1	20
4-Methyl-2-pentanone (MIBK)	250	235		ug/L		94	67 - 130	2	20
Methyl tert-butyl ether	50.0	48.4		ug/L		97	71 - 124	2	20
m-Xylene & p-Xylene	50.0	57.8		ug/L		116	80 - 121	1	20
Naphthalene	50.0	47.3		ug/L		95	61 - 128	4	20
n-Butylbenzene	50.0	51.0		ug/L		102	75 - 128	1	20
N-Propylbenzene	50.0	54.3		ug/L		109	76 - 126	1	20
o-Xylene	50.0	57.9		ug/L		116	78 - 122	1	20
sec-Butylbenzene	50.0	51.7		ug/L		103	77 - 126	1	20
Styrene	50.0	54.5		ug/L		109	78 - 123	0	20
tert-Butylbenzene	50.0	50.9		ug/L		102	78 - 124	0	20
1,1,1,2-Tetrachloroethane	50.0	54.5		ug/L		109	78 - 124	4	20
1,1,2,2-Tetrachloroethane	50.0	52.5		ug/L		105	71 - 121	2	20
Tetrachloroethene	50.0	42.8		ug/L		86	74 - 129	0	20
Toluene	50.0	50.7		ug/L		101	80 - 121	0	20
trans-1,2-Dichloroethene	50.0	50.3		ug/L		101	75 - 124	0	20
trans-1,3-Dichloropropene	50.0	45.4		ug/L		91	73 - 127	3	20
1,2,3-Trichlorobenzene	50.0	41.2		ug/L		82	69 - 129	0	20
1,2,4-Trichlorobenzene	50.0	46.4		ug/L		93	69 - 130	1	20
1,1,1-Trichloroethane	50.0	48.2		ug/L		96	74 - 131	1	20
1,1,2-Trichloroethane	50.0	47.9		ug/L		96	80 - 119	2	20
Trichloroethene	50.0	48.9		ug/L		98	79 - 123	0	20
Trichlorofluoromethane	50.0	51.5		ug/L		103	65 - 141	0	20
1,2,3-Trichloropropane	50.0	53.1		ug/L		106	73 - 122	6	20

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-840935/5
Matrix: Water
Analysis Batch: 840935

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1,2-Trichloro-1,2,2-trifluoroethane			50.0	50.1		ug/L		100	70 - 136	2	20
1,2,4-Trimethylbenzene			50.0	52.3		ug/L		105	76 - 124	1	20
1,3,5-Trimethylbenzene			50.0	52.0		ug/L		104	75 - 124	0	20
Vinyl chloride			50.0	55.1		ug/L		110	58 - 137	1	20
Xylenes, Total			100	116		ug/L		116	79 - 121	0	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*85 - 114*
Dibromofluoromethane (Surr)	*109*		*80 - 119*
1,2-Dichloroethane-d4 (Surr)	*95*		*81 - 118*
Toluene-d8 (Surr)	*101*		*89 - 112*

Lab Sample ID: MB 680-841256/9
Matrix: Water
Analysis Batch: 841256

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			06/06/24 14:47	1
Benzene	1.0	U	2.0	0.27	ug/L			06/06/24 14:47	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			06/06/24 14:47	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			06/06/24 14:47	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			06/06/24 14:47	1
Bromoform	2.0	U	2.5	0.59	ug/L			06/06/24 14:47	1
Bromomethane	10	U	20	3.7	ug/L			06/06/24 14:47	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			06/06/24 14:47	1
Carbon disulfide	1.0	U	2.0	0.43	ug/L			06/06/24 14:47	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			06/06/24 14:47	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			06/06/24 14:47	1
Chloroethane	10	U	20	4.6	ug/L			06/06/24 14:47	1
Chloroform	1.0	U	2.0	0.27	ug/L			06/06/24 14:47	1
Chloromethane	2.0	U	2.5	0.54	ug/L			06/06/24 14:47	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			06/06/24 14:47	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			06/06/24 14:47	1
cis-1,2-Dichloroethene	1.0	U	2.0	0.25	ug/L			06/06/24 14:47	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			06/06/24 14:47	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			06/06/24 14:47	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			06/06/24 14:47	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			06/06/24 14:47	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			06/06/24 14:47	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			06/06/24 14:47	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			06/06/24 14:47	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			06/06/24 14:47	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			06/06/24 14:47	1
Dichlorodifluoromethane	1.0	U	2.0	0.36	ug/L			06/06/24 14:47	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			06/06/24 14:47	1
1,2-Dichloroethane	1.0	U M	2.0	0.25	ug/L			06/06/24 14:47	1
1,1-Dichloroethene	1.0	U	2.0	0.33	ug/L			06/06/24 14:47	1
1,2-Dichloroethene, Total	1.0	U	2.0	0.37	ug/L			06/06/24 14:47	1

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-841256/9
Matrix: Water
Analysis Batch: 841256

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			06/06/24 14:47	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			06/06/24 14:47	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			06/06/24 14:47	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			06/06/24 14:47	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			06/06/24 14:47	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			06/06/24 14:47	1
2-Hexanone	10	U	20	3.2	ug/L			06/06/24 14:47	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			06/06/24 14:47	1
4-Isopropyltoluene	1.0	U M	2.0	0.44	ug/L			06/06/24 14:47	1
Methyl acetate	10	U	20	3.2	ug/L			06/06/24 14:47	1
Methylcyclohexane	1.0	U M	2.0	0.33	ug/L			06/06/24 14:47	1
Methylene Chloride	10	U	20	3.2	ug/L			06/06/24 14:47	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			06/06/24 14:47	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			06/06/24 14:47	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			06/06/24 14:47	1
Naphthalene	5.0	U	10	2.4	ug/L			06/06/24 14:47	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			06/06/24 14:47	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			06/06/24 14:47	1
o-Xylene	1.0	U	2.0	0.26	ug/L			06/06/24 14:47	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			06/06/24 14:47	1
Styrene	1.0	U	2.0	0.27	ug/L			06/06/24 14:47	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			06/06/24 14:47	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			06/06/24 14:47	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			06/06/24 14:47	1
Tetrachloroethene	1.0	U	2.0	0.35	ug/L			06/06/24 14:47	1
Toluene	1.0	U	2.0	0.25	ug/L			06/06/24 14:47	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			06/06/24 14:47	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			06/06/24 14:47	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			06/06/24 14:47	1
1,2,4-Trichlorobenzene	2.0	U M	5.0	0.53	ug/L			06/06/24 14:47	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			06/06/24 14:47	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			06/06/24 14:47	1
Trichloroethene	0.50	U	1.0	0.20	ug/L			06/06/24 14:47	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			06/06/24 14:47	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			06/06/24 14:47	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			06/06/24 14:47	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			06/06/24 14:47	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			06/06/24 14:47	1
Vinyl chloride	1.0	U	2.0	0.40	ug/L			06/06/24 14:47	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			06/06/24 14:47	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*85 - 114*		*06/06/24 14:47*	*1*
Dibromofluoromethane (Surr)	*90*		*80 - 119*		*06/06/24 14:47*	*1*
1,2-Dichloroethane-d4 (Surr)	*92*		*81 - 118*		*06/06/24 14:47*	*1*
Toluene-d8 (Surr)	*96*		*89 - 112*		*06/06/24 14:47*	*1*

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-841256/4
Matrix: Water
Analysis Batch: 841256

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	250	268		ug/L		107	39 - 160
Benzene	50.0	50.4		ug/L		101	79 - 120
Bromobenzene	50.0	49.9		ug/L		100	80 - 120
Bromochloromethane	50.0	46.7		ug/L		93	78 - 123
Bromodichloromethane	50.0	54.1		ug/L		108	79 - 125
Bromoform	50.0	48.8		ug/L		98	66 - 130
2-Butanone (MEK)	250	268		ug/L		107	56 - 143
Carbon disulfide	50.0	49.9		ug/L		100	64 - 133
Carbon tetrachloride	50.0	54.2		ug/L		108	72 - 136
Chlorobenzene	50.0	50.9		ug/L		102	82 - 118
Chloroethane	50.0	49.3		ug/L		99	60 - 138
Chloroform	50.0	47.9		ug/L		96	79 - 124
Chloromethane	50.0	51.1		ug/L		102	50 - 139
2-Chlorotoluene	50.0	49.6		ug/L		99	79 - 122
4-Chlorotoluene	50.0	48.6		ug/L		97	78 - 122
cis-1,2-Dichloroethene	50.0	48.1		ug/L		96	78 - 123
cis-1,3-Dichloropropene	50.0	54.2		ug/L		108	75 - 124
Cyclohexane	50.0	55.5		ug/L		111	71 - 130
Dibromochloromethane	50.0	48.2		ug/L		96	74 - 126
1,2-Dibromo-3-Chloropropane	50.0	53.3		ug/L		107	62 - 128
1,2-Dibromoethane	50.0	53.3		ug/L		107	75 - 127
Dibromomethane	50.0	49.4		ug/L		99	79 - 123
1,2-Dichlorobenzene	50.0	51.3		ug/L		103	80 - 119
1,3-Dichlorobenzene	50.0	50.3		ug/L		101	80 - 119
1,4-Dichlorobenzene	50.0	50.0		ug/L		100	79 - 118
Dichlorodifluoromethane	50.0	46.0	M	ug/L		92	32 - 152
1,1-Dichloroethane	50.0	47.3		ug/L		95	77 - 125
1,2-Dichloroethane	50.0	47.4		ug/L		95	73 - 128
1,1-Dichloroethene	50.0	51.8		ug/L		104	71 - 131
1,2-Dichloroethene, Total	100	98.0		ug/L		98	79 - 121
1,2-Dichloropropane	50.0	52.7		ug/L		105	78 - 122
1,3-Dichloropropane	50.0	52.3		ug/L		105	80 - 119
2,2-Dichloropropane	50.0	49.2		ug/L		98	60 - 139
1,1-Dichloropropene	50.0	55.3		ug/L		111	79 - 125
Ethylbenzene	50.0	51.1		ug/L		102	79 - 121
Hexachlorobutadiene	50.0	53.0		ug/L		106	66 - 134
2-Hexanone	250	279		ug/L		112	57 - 139
Isopropylbenzene	50.0	50.6		ug/L		101	72 - 131
4-Isopropyltoluene	50.0	52.1		ug/L		104	77 - 127
Methyl acetate	100	109		ug/L		109	56 - 136
Methylcyclohexane	50.0	55.7		ug/L		111	72 - 132
Methylene Chloride	50.0	45.7		ug/L		91	74 - 124
4-Methyl-2-pentanone (MIBK)	250	284		ug/L		114	67 - 130
Methyl tert-butyl ether	50.0	54.8		ug/L		110	71 - 124
m-Xylene & p-Xylene	50.0	49.4		ug/L		99	80 - 121
Naphthalene	50.0	58.4		ug/L		117	61 - 128
n-Butylbenzene	50.0	53.0		ug/L		106	75 - 128
N-Propylbenzene	50.0	50.2		ug/L		100	76 - 126

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-841256/4
Matrix: Water
Analysis Batch: 841256

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
o-Xylene			50.0	49.5		ug/L		99	78 - 122		
sec-Butylbenzene			50.0	51.2		ug/L		102	77 - 126		
Styrene			50.0	50.0		ug/L		100	78 - 123		
tert-Butylbenzene			50.0	50.6		ug/L		101	78 - 124		
1,1,1,2-Tetrachloroethane			50.0	53.3		ug/L		107	78 - 124		
1,1,2,2-Tetrachloroethane			50.0	52.7		ug/L		105	71 - 121		
Tetrachloroethene			50.0	50.1		ug/L		100	74 - 129		
Toluene			50.0	49.5		ug/L		99	80 - 121		
trans-1,2-Dichloroethene			50.0	49.9		ug/L		100	75 - 124		
trans-1,3-Dichloropropene			50.0	54.6		ug/L		109	73 - 127		
1,2,3-Trichlorobenzene			50.0	54.2		ug/L		108	69 - 129		
1,2,4-Trichlorobenzene			50.0	52.0		ug/L		104	69 - 130		
1,1,1-Trichloroethane			50.0	53.5		ug/L		107	74 - 131		
1,1,2-Trichloroethane			50.0	53.6		ug/L		107	80 - 119		
Trichloroethene			50.0	56.0		ug/L		112	79 - 123		
Trichlorofluoromethane			50.0	60.3		ug/L		121	65 - 141		
1,2,3-Trichloropropane			50.0	55.8		ug/L		112	73 - 122		
1,1,2-Trichloro-1,2,2-trifluoroethane			50.0	55.1		ug/L		110	70 - 136		
1,2,4-Trimethylbenzene			50.0	50.6		ug/L		101	76 - 124		
1,3,5-Trimethylbenzene			50.0	50.6		ug/L		101	75 - 124		
Vinyl chloride			50.0	51.2		ug/L		102	58 - 137		
Xylenes, Total			100	98.9		ug/L		99	79 - 121		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*103*		*85 - 114*
Dibromofluoromethane (Surr)	*97*		*80 - 119*
1,2-Dichloroethane-d4 (Surr)	*102*		*81 - 118*
Toluene-d8 (Surr)	*98*		*89 - 112*

Lab Sample ID: LCSD 680-841256/5
Matrix: Water
Analysis Batch: 841256

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acetone			250	260		ug/L		104	39 - 160	3	20
Benzene			50.0	50.5		ug/L		101	79 - 120	0	20
Bromobenzene			50.0	49.4		ug/L		99	80 - 120	1	20
Bromochloromethane			50.0	45.5		ug/L		91	78 - 123	3	20
Bromodichloromethane			50.0	52.1		ug/L		104	79 - 125	4	20
Bromoform			50.0	47.8		ug/L		96	66 - 130	2	20
2-Butanone (MEK)			250	261		ug/L		104	56 - 143	3	20
Carbon disulfide			50.0	54.0		ug/L		108	64 - 133	8	20
Carbon tetrachloride			50.0	59.8		ug/L		120	72 - 136	10	20
Chlorobenzene			50.0	50.6		ug/L		101	82 - 118	1	20
Chloroethane			50.0	51.6		ug/L		103	60 - 138	5	20
Chloroform			50.0	47.5		ug/L		95	79 - 124	1	20
Chloromethane			50.0	51.4		ug/L		103	50 - 139	1	20
2-Chlorotoluene			50.0	50.9		ug/L		102	79 - 122	2	20

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-841256/5
Matrix: Water
Analysis Batch: 841256

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
4-Chlorotoluene	50.0	49.2		ug/L		98	78 - 122	1	20
cis-1,2-Dichloroethene	50.0	47.6		ug/L		95	78 - 123	1	20
cis-1,3-Dichloropropene	50.0	53.0		ug/L		106	75 - 124	2	20
Dibromochloromethane	50.0	47.0		ug/L		94	74 - 126	3	20
1,2-Dibromo-3-Chloropropane	50.0	53.3		ug/L		107	62 - 128	0	20
1,2-Dibromoethane	50.0	51.4		ug/L		103	75 - 127	4	20
Dibromomethane	50.0	47.4		ug/L		95	79 - 123	4	20
1,2-Dichlorobenzene	50.0	51.1		ug/L		102	80 - 119	0	20
1,3-Dichlorobenzene	50.0	50.5		ug/L		101	80 - 119	0	20
1,4-Dichlorobenzene	50.0	50.5		ug/L		101	79 - 118	1	20
Dichlorodifluoromethane	50.0	57.1	M Q	ug/L		114	32 - 152	21	20
1,1-Dichloroethane	50.0	47.4		ug/L		95	77 - 125	0	20
1,2-Dichloroethane	50.0	45.7		ug/L		91	73 - 128	4	20
1,1-Dichloroethene	50.0	56.1		ug/L		112	71 - 131	8	20
1,2-Dichloroethene, Total	100	99.5		ug/L		99	79 - 121	1	20
1,2-Dichloropropane	50.0	51.1		ug/L		102	78 - 122	3	20
1,3-Dichloropropane	50.0	50.7		ug/L		101	80 - 119	3	20
2,2-Dichloropropane	50.0	51.2		ug/L		102	60 - 139	4	20
1,1-Dichloropropene	50.0	60.5		ug/L		121	79 - 125	9	20
Ethylbenzene	50.0	52.7		ug/L		105	79 - 121	3	20
Hexachlorobutadiene	50.0	61.7		ug/L		123	66 - 134	15	20
2-Hexanone	250	271		ug/L		108	57 - 139	3	20
Isopropylbenzene	50.0	54.3		ug/L		109	72 - 131	7	20
4-Isopropyltoluene	50.0	57.1		ug/L		114	77 - 127	9	20
Methyl acetate	100	105		ug/L		105	56 - 136	4	20
Methylene Chloride	50.0	44.3		ug/L		89	74 - 124	3	20
4-Methyl-2-pentanone (MIBK)	250	275		ug/L		110	67 - 130	3	20
Methyl tert-butyl ether	50.0	53.0		ug/L		106	71 - 124	3	20
m-Xylene & p-Xylene	50.0	51.0		ug/L		102	80 - 121	3	20
Naphthalene	50.0	58.1		ug/L		116	61 - 128	0	20
n-Butylbenzene	50.0	59.7		ug/L		119	75 - 128	12	20
N-Propylbenzene	50.0	54.6		ug/L		109	76 - 126	8	20
o-Xylene	50.0	50.3		ug/L		101	78 - 122	2	20
sec-Butylbenzene	50.0	56.7		ug/L		113	77 - 126	10	20
Styrene	50.0	49.7		ug/L		99	78 - 123	1	20
tert-Butylbenzene	50.0	54.5		ug/L		109	78 - 124	7	20
1,1,1,2-Tetrachloroethane	50.0	52.0		ug/L		104	78 - 124	2	20
1,1,2,2-Tetrachloroethane	50.0	51.6		ug/L		103	71 - 121	2	20
Tetrachloroethene	50.0	55.3		ug/L		111	74 - 129	10	20
Toluene	50.0	50.1		ug/L		100	80 - 121	1	20
trans-1,2-Dichloroethene	50.0	51.8		ug/L		104	75 - 124	4	20
trans-1,3-Dichloropropene	50.0	52.8		ug/L		106	73 - 127	3	20
1,2,3-Trichlorobenzene	50.0	55.4		ug/L		111	69 - 129	2	20
1,2,4-Trichlorobenzene	50.0	53.8		ug/L		108	69 - 130	3	20
1,1,1-Trichloroethane	50.0	57.0		ug/L		114	74 - 131	6	20
1,1,2-Trichloroethane	50.0	52.0		ug/L		104	80 - 119	3	20
Trichloroethene	50.0	58.9		ug/L		118	79 - 123	5	20
Trichlorofluoromethane	50.0	69.6		ug/L		139	65 - 141	14	20
1,2,3-Trichloropropane	50.0	55.4		ug/L		111	73 - 122	1	20

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-841256/5
Matrix: Water
Analysis Batch: 841256

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1,2-Trichloro-1,2,2-trifluoroethane			50.0	67.3		ug/L		135	70 - 136	20	20
1,2,4-Trimethylbenzene			50.0	51.8		ug/L		104	76 - 124	2	20
1,3,5-Trimethylbenzene			50.0	53.4		ug/L		107	75 - 124	5	20
Vinyl chloride			50.0	56.1		ug/L		112	58 - 137	9	20
Xylenes, Total			100	101		ug/L		101	79 - 121	2	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*103*		*85 - 114*
Dibromofluoromethane (Surr)	*95*		*80 - 119*
1,2-Dichloroethane-d4 (Surr)	*97*		*81 - 118*
Toluene-d8 (Surr)	*99*		*89 - 112*

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 680-839561/1-A
Matrix: Water
Analysis Batch: 839803

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 839561

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	10	U M	20	4.6	ug/L		05/24/24 07:12	05/26/24 17:19	1
1,2,4,5-Tetrachlorobenzene	10	U	20	4.5	ug/L		05/24/24 07:12	05/26/24 17:19	1
1,4-Dioxane	10	U	20	4.4	ug/L		05/24/24 07:12	05/26/24 17:19	1
2,3,4,6-Tetrachlorophenol	10	U	20	4.3	ug/L		05/24/24 07:12	05/26/24 17:19	1
2,4,5-Trichlorophenol	10	U	20	3.3	ug/L		05/24/24 07:12	05/26/24 17:19	1
2,4,6-Trichlorophenol	5.0	U	20	2.2	ug/L		05/24/24 07:12	05/26/24 17:19	1
2,4-Dichlorophenol	10	U	20	3.7	ug/L		05/24/24 07:12	05/26/24 17:19	1
2,4-Dimethylphenol	10	U	20	3.0	ug/L		05/24/24 07:12	05/26/24 17:19	1
2,4-Dinitrophenol	40	U	50	16	ug/L		05/24/24 07:12	05/26/24 17:19	1
2,4-Dinitrotoluene	5.0	U	10	2.3	ug/L		05/24/24 07:12	05/26/24 17:19	1
2,6-Dinitrotoluene	10	U	20	2.8	ug/L		05/24/24 07:12	05/26/24 17:19	1
2-Chloronaphthalene	10	U	20	4.8	ug/L		05/24/24 07:12	05/26/24 17:19	1
2-Chlorophenol	10	U	20	3.2	ug/L		05/24/24 07:12	05/26/24 17:19	1
2-Methylphenol	4.0	U	10	1.8	ug/L		05/24/24 07:12	05/26/24 17:19	1
2-Nitroaniline	10	U	20	2.9	ug/L		05/24/24 07:12	05/26/24 17:19	1
2-Nitrophenol	10	U	20	3.9	ug/L		05/24/24 07:12	05/26/24 17:19	1
3 & 4 Methylphenol	4.0	U	10	1.4	ug/L		05/24/24 07:12	05/26/24 17:19	1
3,3'-Dichlorobenzidine	20	U	50	10	ug/L		05/24/24 07:12	05/26/24 17:19	1
3-Nitroaniline	10	U	50	3.0	ug/L		05/24/24 07:12	05/26/24 17:19	1
4,6-Dinitro-2-methylphenol	20	U	50	5.3	ug/L		05/24/24 07:12	05/26/24 17:19	1
4-Bromophenyl phenyl ether	10	U M	20	4.7	ug/L		05/24/24 07:12	05/26/24 17:19	1
4-Chloro-3-methylphenol	10	U	20	2.5	ug/L		05/24/24 07:12	05/26/24 17:19	1
4-Chloroaniline	4.0	U	10	1.0	ug/L		05/24/24 07:12	05/26/24 17:19	1
4-Chlorophenyl phenyl ether	12	U	20	5.3	ug/L		05/24/24 07:12	05/26/24 17:19	1
4-Nitroaniline	10	U	50	3.0	ug/L		05/24/24 07:12	05/26/24 17:19	1
4-Nitrophenol	20	U	50	8.1	ug/L		05/24/24 07:12	05/26/24 17:19	1
Acetophenone	5.0	U	10	2.2	ug/L		05/24/24 07:12	05/26/24 17:19	1
Atrazine	5.0	U	10	2.2	ug/L		05/24/24 07:12	05/26/24 17:19	1
Benzaldehyde	10	U	20	4.8	ug/L		05/24/24 07:12	05/26/24 17:19	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-839561/1-A
Matrix: Water
Analysis Batch: 839803

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 839561

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
bis (2-chloroisopropyl) ether	10	U	20	3.1	ug/L		05/24/24 07:12	05/26/24 17:19	1
Bis(2-chloroethoxy)methane	4.0	U	10	1.8	ug/L		05/24/24 07:12	05/26/24 17:19	1
Bis(2-chloroethyl)ether	10	U	20	3.6	ug/L		05/24/24 07:12	05/26/24 17:19	1
Bis(2-ethylhexyl) phthalate	10	U	20	3.0	ug/L		05/24/24 07:12	05/26/24 17:19	1
Butyl benzyl phthalate	10	U	20	2.8	ug/L		05/24/24 07:12	05/26/24 17:19	1
Caprolactam	10	U	20	2.8	ug/L		05/24/24 07:12	05/26/24 17:19	1
Carbazole	4.0	U	10	1.8	ug/L		05/24/24 07:12	05/26/24 17:19	1
Dibenzofuran	4.0	U	10	1.9	ug/L		05/24/24 07:12	05/26/24 17:19	1
Diethyl phthalate	5.0	U	10	2.2	ug/L		05/24/24 07:12	05/26/24 17:19	1
Dimethyl phthalate	5.0	U	10	2.1	ug/L		05/24/24 07:12	05/26/24 17:19	1
Di-n-butyl phthalate	5.0	U	10	2.3	ug/L		05/24/24 07:12	05/26/24 17:19	1
Di-n-octyl phthalate	10	U	20	2.8	ug/L		05/24/24 07:12	05/26/24 17:19	1
Hexachlorobenzene	4.0	U	10	1.6	ug/L		05/24/24 07:12	05/26/24 17:19	1
Hexachlorobutadiene	10	U	20	4.0	ug/L		05/24/24 07:12	05/26/24 17:19	1
Hexachlorocyclopentadiene	10	U	20	3.5	ug/L		05/24/24 07:12	05/26/24 17:19	1
Hexachloroethane	10	U	20	3.6	ug/L		05/24/24 07:12	05/26/24 17:19	1
Isophorone	4.0	U	10	2.0	ug/L		05/24/24 07:12	05/26/24 17:19	1
Nitrobenzene	10	U	20	3.5	ug/L		05/24/24 07:12	05/26/24 17:19	1
N-Nitrosodi-n-propylamine	5.0	U	10	2.4	ug/L		05/24/24 07:12	05/26/24 17:19	1
N-Nitrosodiphenylamine	10	U	20	2.9	ug/L		05/24/24 07:12	05/26/24 17:19	1
Pentachlorophenol	20	U	50	9.9	ug/L		05/24/24 07:12	05/26/24 17:19	1
Phenol	4.0	U	10	1.5	ug/L		05/24/24 07:12	05/26/24 17:19	1
Pyridine	20	U	50	7.4	ug/L		05/24/24 07:12	05/26/24 17:19	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*61*		*43 - 140*	*05/24/24 07:12*	*05/26/24 17:19*	*1*
2-Fluorobiphenyl	*56*		*44 - 119*	*05/24/24 07:12*	*05/26/24 17:19*	*1*
2-Fluorophenol	*34*		*19 - 119*	*05/24/24 07:12*	*05/26/24 17:19*	*1*
Nitrobenzene-d5	*53*		*44 - 120*	*05/24/24 07:12*	*05/26/24 17:19*	*1*
Phenol-d5	*21*		*10 - 130*	*05/24/24 07:12*	*05/26/24 17:19*	*1*
Terphenyl-d14	*77*		*50 - 134*	*05/24/24 07:12*	*05/26/24 17:19*	*1*

Lab Sample ID: LCS 680-839561/2-A
Matrix: Water
Analysis Batch: 839803

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 839561

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1'-Biphenyl	200	134		ug/L		67	49 - 115
1,4-Dioxane	200	64.5		ug/L		32	10 - 130
2,3,4,6-Tetrachlorophenol	200	146		ug/L		73	50 - 128
2,4,5-Trichlorophenol	200	138		ug/L		69	53 - 123
2,4,6-Trichlorophenol	200	145		ug/L		73	50 - 125
2,4-Dichlorophenol	200	140		ug/L		70	47 - 121
2,4-Dimethylphenol	200	131		ug/L		66	31 - 124
2,4-Dinitrophenol	400	297		ug/L		74	23 - 143
2,4-Dinitrotoluene	200	158		ug/L		79	57 - 128
2,6-Dinitrotoluene	200	151		ug/L		75	57 - 124
2-Chloronaphthalene	200	144		ug/L		72	40 - 116

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-839561/2-A
Matrix: Water
Analysis Batch: 839803

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 839561

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2-Chlorophenol	200	116		ug/L		58	38 - 117
2-Methylphenol	200	110		ug/L		55	30 - 117
2-Nitroaniline	200	150		ug/L		75	55 - 127
2-Nitrophenol	200	129		ug/L		65	47 - 123
3 & 4 Methylphenol	200	97.0		ug/L		48	29 - 110
3,3'-Dichlorobenzidine	200	189		ug/L		94	27 - 129
3-Nitroaniline	200	149		ug/L		74	41 - 128
4,6-Dinitro-2-methylphenol	400	348		ug/L		87	44 - 137
4-Bromophenyl phenyl ether	200	164		ug/L		82	55 - 124
4-Chloro-3-methylphenol	200	145		ug/L		72	52 - 119
4-Chloroaniline	200	127		ug/L		64	33 - 117
4-Chlorophenyl phenyl ether	200	148		ug/L		74	53 - 121
4-Nitroaniline	200	155		ug/L		78	55 - 115
4-Nitrophenol	400	140	M	ug/L		35	13 - 130
Acetophenone	200	129		ug/L		64	46 - 118
Atrazine	200	149		ug/L		75	44 - 142
Benzaldehyde	200	108		ug/L		54	25 - 130
bis (2-chloroisopropyl) ether	200	130		ug/L		65	37 - 130
Bis(2-chloroethoxy)methane	200	142		ug/L		71	48 - 120
Bis(2-chloroethyl)ether	200	130		ug/L		65	43 - 118
Bis(2-ethylhexyl) phthalate	200	175		ug/L		87	55 - 135
Butyl benzyl phthalate	200	180		ug/L		90	53 - 134
Caprolactam	200	50.6	M	ug/L		25	13 - 130
Carbazole	200	174		ug/L		87	60 - 122
Dibenzofuran	200	146		ug/L		73	53 - 118
Diethyl phthalate	200	164		ug/L		82	56 - 125
Dimethyl phthalate	200	153		ug/L		77	45 - 127
Di-n-butyl phthalate	200	181		ug/L		90	56 - 122
Di-n-octyl phthalate	200	177		ug/L		88	59 - 128
Hexachlorobenzene	200	169		ug/L		84	53 - 125
Hexachlorobutadiene	200	127		ug/L		64	22 - 124
Hexachlorocyclopentadiene	200	84.4		ug/L		42	28 - 130
Hexachloroethane	200	111		ug/L		55	21 - 115
Isophorone	200	137		ug/L		69	42 - 124
Nitrobenzene	200	131		ug/L		65	45 - 121
N-Nitrosodi-n-propylamine	200	126		ug/L		63	49 - 119
N-Nitrosodiphenylamine	200	172		ug/L		86	51 - 123
Pentachlorophenol	400	298		ug/L		74	35 - 138
Phenol	200	58.8		ug/L		29	14 - 130
Pyridine	400	43.5	J M	ug/L		11	10 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol	*66*		*43 - 140*
2-Fluorobiphenyl	*64*		*44 - 119*
2-Fluorophenol	*33*		*19 - 119*
Nitrobenzene-d5	*58*		*44 - 120*
Phenol-d5	*24*		*10 - 130*
Terphenyl-d14	*79*		*50 - 134*

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-839856/1-A
Matrix: Water
Analysis Batch: 839928

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 839856

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	10	U M	20	4.6	ug/L		05/28/24 07:00	05/28/24 14:11	1
1,2,4,5-Tetrachlorobenzene	10	U	20	4.5	ug/L		05/28/24 07:00	05/28/24 14:11	1
1,4-Dioxane	10	U	20	4.4	ug/L		05/28/24 07:00	05/28/24 14:11	1
2,3,4,6-Tetrachlorophenol	10	U	20	4.3	ug/L		05/28/24 07:00	05/28/24 14:11	1
2,4,5-Trichlorophenol	10	U	20	3.3	ug/L		05/28/24 07:00	05/28/24 14:11	1
2,4,6-Trichlorophenol	5.0	U	20	2.2	ug/L		05/28/24 07:00	05/28/24 14:11	1
2,4-Dichlorophenol	10	U	20	3.7	ug/L		05/28/24 07:00	05/28/24 14:11	1
2,4-Dimethylphenol	10	U	20	3.0	ug/L		05/28/24 07:00	05/28/24 14:11	1
2,4-Dinitrophenol	40	U	50	16	ug/L		05/28/24 07:00	05/28/24 14:11	1
2,4-Dinitrotoluene	5.0	U	10	2.3	ug/L		05/28/24 07:00	05/28/24 14:11	1
2,6-Dinitrotoluene	10	U	20	2.8	ug/L		05/28/24 07:00	05/28/24 14:11	1
2-Chloronaphthalene	10	U	20	4.8	ug/L		05/28/24 07:00	05/28/24 14:11	1
2-Chlorophenol	10	U	20	3.2	ug/L		05/28/24 07:00	05/28/24 14:11	1
2-Methylphenol	4.0	U	10	1.8	ug/L		05/28/24 07:00	05/28/24 14:11	1
2-Nitroaniline	10	U M	20	2.9	ug/L		05/28/24 07:00	05/28/24 14:11	1
2-Nitrophenol	10	U	20	3.9	ug/L		05/28/24 07:00	05/28/24 14:11	1
3 & 4 Methylphenol	4.0	U	10	1.4	ug/L		05/28/24 07:00	05/28/24 14:11	1
3,3'-Dichlorobenzidine	20	U	50	10	ug/L		05/28/24 07:00	05/28/24 14:11	1
3-Nitroaniline	10	U	50	3.0	ug/L		05/28/24 07:00	05/28/24 14:11	1
4,6-Dinitro-2-methylphenol	20	U	50	5.3	ug/L		05/28/24 07:00	05/28/24 14:11	1
4-Bromophenyl phenyl ether	10	U	20	4.7	ug/L		05/28/24 07:00	05/28/24 14:11	1
4-Chloro-3-methylphenol	10	U	20	2.5	ug/L		05/28/24 07:00	05/28/24 14:11	1
4-Chloroaniline	4.0	U	10	1.0	ug/L		05/28/24 07:00	05/28/24 14:11	1
4-Chlorophenyl phenyl ether	12	U	20	5.3	ug/L		05/28/24 07:00	05/28/24 14:11	1
4-Nitroaniline	10	U	50	3.0	ug/L		05/28/24 07:00	05/28/24 14:11	1
4-Nitrophenol	20	U	50	8.1	ug/L		05/28/24 07:00	05/28/24 14:11	1
Acetophenone	5.0	U	10	2.2	ug/L		05/28/24 07:00	05/28/24 14:11	1
Atrazine	5.0	U	10	2.2	ug/L		05/28/24 07:00	05/28/24 14:11	1
Benzaldehyde	10	U	20	4.8	ug/L		05/28/24 07:00	05/28/24 14:11	1
bis (2-chloroisopropyl) ether	10	U	20	3.1	ug/L		05/28/24 07:00	05/28/24 14:11	1
Bis(2-chloroethoxy)methane	4.0	U	10	1.8	ug/L		05/28/24 07:00	05/28/24 14:11	1
Bis(2-chloroethyl)ether	10	U	20	3.6	ug/L		05/28/24 07:00	05/28/24 14:11	1
Bis(2-ethylhexyl) phthalate	10	U	20	3.0	ug/L		05/28/24 07:00	05/28/24 14:11	1
Butyl benzyl phthalate	10	U	20	2.8	ug/L		05/28/24 07:00	05/28/24 14:11	1
Caprolactam	10	U	20	2.8	ug/L		05/28/24 07:00	05/28/24 14:11	1
Carbazole	4.0	U	10	1.8	ug/L		05/28/24 07:00	05/28/24 14:11	1
Dibenzofuran	4.0	U	10	1.9	ug/L		05/28/24 07:00	05/28/24 14:11	1
Diethyl phthalate	5.0	U	10	2.2	ug/L		05/28/24 07:00	05/28/24 14:11	1
Dimethyl phthalate	5.0	U	10	2.1	ug/L		05/28/24 07:00	05/28/24 14:11	1
Di-n-butyl phthalate	5.0	U	10	2.3	ug/L		05/28/24 07:00	05/28/24 14:11	1
Di-n-octyl phthalate	10	U M	20	2.8	ug/L		05/28/24 07:00	05/28/24 14:11	1
Hexachlorobenzene	4.0	U	10	1.6	ug/L		05/28/24 07:00	05/28/24 14:11	1
Hexachlorobutadiene	10	U	20	4.0	ug/L		05/28/24 07:00	05/28/24 14:11	1
Hexachlorocyclopentadiene	10	U	20	3.5	ug/L		05/28/24 07:00	05/28/24 14:11	1
Hexachloroethane	10	U	20	3.6	ug/L		05/28/24 07:00	05/28/24 14:11	1
Isophorone	4.0	U	10	2.0	ug/L		05/28/24 07:00	05/28/24 14:11	1
Nitrobenzene	10	U	20	3.5	ug/L		05/28/24 07:00	05/28/24 14:11	1
N-Nitrosodi-n-propylamine	5.0	U	10	2.4	ug/L		05/28/24 07:00	05/28/24 14:11	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-839856/1-A
Matrix: Water
Analysis Batch: 839928

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 839856

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodiphenylamine	10	U	20	2.9	ug/L		05/28/24 07:00	05/28/24 14:11	1
Pentachlorophenol	20	U	50	9.9	ug/L		05/28/24 07:00	05/28/24 14:11	1
Phenol	4.0	U	10	1.5	ug/L		05/28/24 07:00	05/28/24 14:11	1
Pyridine	20	U	50	7.4	ug/L		05/28/24 07:00	05/28/24 14:11	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*75*		*43 - 140*	*05/28/24 07:00*	*05/28/24 14:11*	*1*
2-Fluorobiphenyl	*71*		*44 - 119*	*05/28/24 07:00*	*05/28/24 14:11*	*1*
2-Fluorophenol	*37*		*19 - 119*	*05/28/24 07:00*	*05/28/24 14:11*	*1*
Nitrobenzene-d5	*63*		*44 - 120*	*05/28/24 07:00*	*05/28/24 14:11*	*1*
Phenol-d5	*24*		*10 - 130*	*05/28/24 07:00*	*05/28/24 14:11*	*1*
Terphenyl-d14	*85*		*50 - 134*	*05/28/24 07:00*	*05/28/24 14:11*	*1*

Lab Sample ID: LCS 680-839856/2-A
Matrix: Water
Analysis Batch: 839928

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 839856

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1'-Biphenyl	200	131		ug/L		66	49 - 115
1,4-Dioxane	200	59.7		ug/L		30	10 - 130
2,3,4,6-Tetrachlorophenol	200	148		ug/L		74	50 - 128
2,4,5-Trichlorophenol	200	143		ug/L		72	53 - 123
2,4,6-Trichlorophenol	200	138		ug/L		69	50 - 125
2,4-Dichlorophenol	200	132		ug/L		66	47 - 121
2,4-Dimethylphenol	200	124		ug/L		62	31 - 124
2,4-Dinitrophenol	400	321		ug/L		80	23 - 143
2,4-Dinitrotoluene	200	167		ug/L		84	57 - 128
2,6-Dinitrotoluene	200	148		ug/L		74	57 - 124
2-Chloronaphthalene	200	130		ug/L		65	40 - 116
2-Chlorophenol	200	107		ug/L		53	38 - 117
2-Methylphenol	200	102		ug/L		51	30 - 117
2-Nitroaniline	200	147		ug/L		73	55 - 127
2-Nitrophenol	200	132		ug/L		66	47 - 123
3 & 4 Methylphenol	200	94.3		ug/L		47	29 - 110
3,3'-Dichlorobenzidine	200	239		ug/L		120	27 - 129
3-Nitroaniline	200	156		ug/L		78	41 - 128
4,6-Dinitro-2-methylphenol	400	365		ug/L		91	44 - 137
4-Bromophenyl phenyl ether	200	168		ug/L		84	55 - 124
4-Chloro-3-methylphenol	200	135		ug/L		67	52 - 119
4-Chloroaniline	200	125		ug/L		62	33 - 117
4-Chlorophenyl phenyl ether	200	145		ug/L		72	53 - 121
4-Nitroaniline	200	169		ug/L		85	55 - 115
4-Nitrophenol	400	141		ug/L		35	13 - 130
Acetophenone	200	126		ug/L		63	46 - 118
Atrazine	200	151		ug/L		75	44 - 142
Benzaldehyde	200	104		ug/L		52	25 - 130
bis (2-chloroisopropyl) ether	200	106		ug/L		53	37 - 130
Bis(2-chloroethoxy)methane	200	128		ug/L		64	48 - 120

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-839856/2-A
Matrix: Water
Analysis Batch: 839928

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 839856

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Bis(2-chloroethyl)ether			200	112		ug/L		56	43 - 118		
Bis(2-ethylhexyl) phthalate			200	182		ug/L		91	55 - 135		
Butyl benzyl phthalate			200	185		ug/L		93	53 - 134		
Caprolactam			200	53.8	M	ug/L		27	13 - 130		
Carbazole			200	179		ug/L		90	60 - 122		
Dibenzofuran			200	140		ug/L		70	53 - 118		
Diethyl phthalate			200	165		ug/L		83	56 - 125		
Dimethyl phthalate			200	155		ug/L		78	45 - 127		
Di-n-butyl phthalate			200	187		ug/L		94	56 - 122		
Di-n-octyl phthalate			200	183		ug/L		91	59 - 128		
Hexachlorobenzene			200	170		ug/L		85	53 - 125		
Hexachlorobutadiene			200	117		ug/L		58	22 - 124		
Hexachlorocyclopentadiene			200	74.9		ug/L		37	28 - 130		
Hexachloroethane			200	102		ug/L		51	21 - 115		
Isophorone			200	125		ug/L		63	42 - 124		
Nitrobenzene			200	120		ug/L		60	45 - 121		
N-Nitrosodi-n-propylamine			200	121		ug/L		60	49 - 119		
N-Nitrosodiphenylamine			200	166		ug/L		83	51 - 123		
Pentachlorophenol			400	315		ug/L		79	35 - 138		
Phenol			200	55.4		ug/L		28	14 - 130		
Pyridine			400	80.1		ug/L		20	10 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol	*77*		*43 - 140*
2-Fluorobiphenyl	*63*		*44 - 119*
2-Fluorophenol	*33*		*19 - 119*
Nitrobenzene-d5	*57*		*44 - 120*
Phenol-d5	*23*		*10 - 130*
Terphenyl-d14	*84*		*50 - 134*

Lab Sample ID: LCSD 680-839856/3-A
Matrix: Water
Analysis Batch: 839928

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 839856

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1'-Biphenyl			200	127		ug/L		63	49 - 115	4	20
1,4-Dioxane			200	61.6		ug/L		31	10 - 130	3	20
2,3,4,6-Tetrachlorophenol			200	149		ug/L		75	50 - 128	1	20
2,4,5-Trichlorophenol			200	138		ug/L		69	53 - 123	4	20
2,4,6-Trichlorophenol			200	137		ug/L		69	50 - 125	1	20
2,4-Dichlorophenol			200	119		ug/L		60	47 - 121	10	20
2,4-Dimethylphenol			200	113		ug/L		57	31 - 124	9	20
2,4-Dinitrophenol			400	328		ug/L		82	23 - 143	2	20
2,4-Dinitrotoluene			200	165		ug/L		82	57 - 128	2	20
2,6-Dinitrotoluene			200	149		ug/L		75	57 - 124	1	20
2-Chloronaphthalene			200	129		ug/L		65	40 - 116	1	20
2-Chlorophenol			200	108		ug/L		54	38 - 117	1	20
2-Methylphenol			200	102		ug/L		51	30 - 117	0	20

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-839856/3-A
Matrix: Water
Analysis Batch: 839928

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 839856

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2-Nitroaniline			200	138		ug/L		69	55 - 127	7	20
2-Nitrophenol			200	121		ug/L		60	47 - 123	9	20
3 & 4 Methylphenol			200	93.3		ug/L		47	29 - 110	1	20
3,3'-Dichlorobenzidine			200	203		ug/L		102	27 - 129	16	20
3-Nitroaniline			200	141		ug/L		71	41 - 128	10	20
4,6-Dinitro-2-methylphenol			400	345		ug/L		86	44 - 137	6	20
4-Bromophenyl phenyl ether			200	162		ug/L		81	55 - 124	3	20
4-Chloro-3-methylphenol			200	126		ug/L		63	52 - 119	7	20
4-Chloroaniline			200	99.9	Q	ug/L		50	33 - 117	22	20
4-Chlorophenyl phenyl ether			200	144		ug/L		72	53 - 121	0	20
4-Nitroaniline			200	165		ug/L		82	55 - 115	3	20
4-Nitrophenol			400	140		ug/L		35	13 - 130	1	20
Acetophenone			200	111		ug/L		55	46 - 118	13	20
Atrazine			200	135		ug/L		68	44 - 142	11	20
Benzaldehyde			200	110		ug/L		55	25 - 130	5	20
bis (2-chloroisopropyl) ether			200	108		ug/L		54	37 - 130	1	20
Bis(2-chloroethoxy)methane			200	123		ug/L		61	48 - 120	4	20
Bis(2-chloroethyl)ether			200	111		ug/L		56	43 - 118	1	20
Bis(2-ethylhexyl) phthalate			200	174		ug/L		87	55 - 135	5	20
Butyl benzyl phthalate			200	171		ug/L		86	53 - 134	8	20
Caprolactam			200	49.1	M	ug/L		25	13 - 130	9	20
Carbazole			200	169		ug/L		84	60 - 122	6	20
Dibenzofuran			200	141		ug/L		70	53 - 118	0	20
Diethyl phthalate			200	168		ug/L		84	56 - 125	2	20
Dimethyl phthalate			200	153		ug/L		76	45 - 127	1	20
Di-n-butyl phthalate			200	178		ug/L		89	56 - 122	5	20
Di-n-octyl phthalate			200	179		ug/L		89	59 - 128	2	20
Hexachlorobenzene			200	165		ug/L		82	53 - 125	3	20
Hexachlorobutadiene			200	105		ug/L		53	22 - 124	10	20
Hexachlorocyclopentadiene			200	76.3		ug/L		38	28 - 130	2	20
Hexachloroethane			200	98.8		ug/L		49	21 - 115	3	20
Isophorone			200	114		ug/L		57	42 - 124	9	20
Nitrobenzene			200	107		ug/L		54	45 - 121	12	20
N-Nitrosodi-n-propylamine			200	113		ug/L		57	49 - 119	6	20
N-Nitrosodiphenylamine			200	153		ug/L		76	51 - 123	8	20
Pentachlorophenol			400	311		ug/L		78	35 - 138	1	20
Phenol			200	53.1		ug/L		27	14 - 130	4	20
Pyridine			400	61.2	Q	ug/L		15	10 - 130	27	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2,4,6-Tribromophenol	*74*		*43 - 140*
2-Fluorobiphenyl	*61*		*44 - 119*
2-Fluorophenol	*31*		*19 - 119*
Nitrobenzene-d5	*50*		*44 - 120*
Phenol-d5	*22*		*10 - 130*
Terphenyl-d14	*77*		*50 - 134*

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 680-839648/1-A
Matrix: Water
Analysis Batch: 839636

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 839648

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	0.050	U M	0.20	0.018	ug/L		05/24/24 11:32	05/24/24 15:58	1
Acenaphthene	0.10	U M	0.20	0.042	ug/L		05/24/24 11:32	05/24/24 15:58	1
Acenaphthylene	0.050	U M	0.20	0.017	ug/L		05/24/24 11:32	05/24/24 15:58	1
Pyrene	0.10	U M	0.20	0.027	ug/L		05/24/24 11:32	05/24/24 15:58	1
2-Methylnaphthalene	0.040	U	0.20	0.011	ug/L		05/24/24 11:32	05/24/24 15:58	1
Anthracene	0.050	U	0.20	0.018	ug/L		05/24/24 11:32	05/24/24 15:58	1
Benzo[a]pyrene	0.10	U	0.20	0.026	ug/L		05/24/24 11:32	05/24/24 15:58	1
Benzo[a]anthracene	0.10	U	0.20	0.026	ug/L		05/24/24 11:32	05/24/24 15:58	1
Benzo[b]fluoranthene	0.10	U	0.20	0.026	ug/L		05/24/24 11:32	05/24/24 15:58	1
Benzo[g,h,i]perylene	0.10	U M	0.20	0.026	ug/L		05/24/24 11:32	05/24/24 15:58	1
Benzo[k]fluoranthene	0.10	U	0.20	0.029	ug/L		05/24/24 11:32	05/24/24 15:58	1
Chrysene	0.050	U	0.20	0.023	ug/L		05/24/24 11:32	05/24/24 15:58	1
Dibenz(a,h)anthracene	0.050	U	0.20	0.024	ug/L		05/24/24 11:32	05/24/24 15:58	1
Phenanthrene	0.20	U	0.40	0.055	ug/L		05/24/24 11:32	05/24/24 15:58	1
Indeno[1,2,3-cd]pyrene	0.10	U	0.20	0.028	ug/L		05/24/24 11:32	05/24/24 15:58	1
Naphthalene	0.050	U	0.20	0.014	ug/L		05/24/24 11:32	05/24/24 15:58	1
Fluoranthene	0.10	U M	0.20	0.027	ug/L		05/24/24 11:32	05/24/24 15:58	1
Fluorene	0.10	U	0.20	0.025	ug/L		05/24/24 11:32	05/24/24 15:58	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*58*		*53 - 106*	*05/24/24 11:32*	*05/24/24 15:58*	*1*
2-methylnaphthalene-d10	*59*		*30 - 100*	*05/24/24 11:32*	*05/24/24 15:58*	*1*
Fluoranthene-d10	*79*		*42 - 114*	*05/24/24 11:32*	*05/24/24 15:58*	*1*
Nitrobenzene-d5	*67*		*42 - 100*	*05/24/24 11:32*	*05/24/24 15:58*	*1*
Terphenyl-d14	*84*		*53 - 111*	*05/24/24 11:32*	*05/24/24 15:58*	*1*

Lab Sample ID: LCS 680-839648/2-A
Matrix: Water
Analysis Batch: 839636

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 839648

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	10.0	5.85		ug/L		58	41 - 115
Acenaphthene	10.0	6.77		ug/L		68	48 - 114
Acenaphthylene	10.0	6.51		ug/L		65	35 - 121
Pyrene	10.0	8.15		ug/L		81	53 - 121
2-Methylnaphthalene	10.0	6.27		ug/L		63	39 - 114
Anthracene	10.0	7.52		ug/L		75	53 - 119
Benzo[a]pyrene	10.0	8.40		ug/L		84	53 - 120
Benzo[a]anthracene	10.0	7.95		ug/L		80	59 - 120
Benzo[b]fluoranthene	10.0	8.77		ug/L		88	53 - 126
Benzo[g,h,i]perylene	10.0	8.66		ug/L		87	44 - 128
Benzo[k]fluoranthene	10.0	8.28		ug/L		83	54 - 125
Chrysene	10.0	8.32		ug/L		83	57 - 120
Dibenz(a,h)anthracene	10.0	8.74		ug/L		87	44 - 131
Phenanthrene	10.0	7.53		ug/L		75	53 - 115
Indeno[1,2,3-cd]pyrene	10.0	8.60		ug/L		86	48 - 130
Naphthalene	10.0	5.76		ug/L		58	43 - 114
Fluoranthene	10.0	8.06		ug/L		81	58 - 120

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: LCS 680-839648/2-A
Matrix: Water
Analysis Batch: 839636

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 839648

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Fluorene			10.0	6.91		ug/L		69	50 - 118		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*66*		*53 - 106*
2-methylnaphthalene-d10	*66*		*30 - 100*
Fluoranthene-d10	*86*		*42 - 114*
Nitrobenzene-d5	*74*		*42 - 100*
Terphenyl-d14	*90*		*53 - 111*

Lab Sample ID: LCSD 680-839648/3-A
Matrix: Water
Analysis Batch: 839636

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 839648

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1-Methylnaphthalene			10.0	5.26		ug/L		53	41 - 115	11	20
Acenaphthene			10.0	6.07		ug/L		61	48 - 114	11	20
Acenaphthylene			10.0	5.89		ug/L		59	35 - 121	10	20
Pyrene			10.0	8.25		ug/L		82	53 - 121	1	20
2-Methylnaphthalene			10.0	5.63		ug/L		56	39 - 114	11	20
Anthracene			10.0	7.18		ug/L		72	53 - 119	5	20
Benzo[a]pyrene			10.0	8.60		ug/L		86	53 - 120	2	20
Benzo[a]anthracene			10.0	8.30		ug/L		83	59 - 120	4	20
Benzo[b]fluoranthene			10.0	8.93		ug/L		89	53 - 126	2	20
Benzo[g,h,i]perylene			10.0	8.62		ug/L		86	44 - 128	0	20
Benzo[k]fluoranthene			10.0	8.38		ug/L		84	54 - 125	1	20
Chrysene			10.0	8.68		ug/L		87	57 - 120	4	20
Dibenz(a,h)anthracene			10.0	8.79		ug/L		88	44 - 131	1	20
Phenanthrene			10.0	7.04		ug/L		70	53 - 115	7	20
Indeno[1,2,3-cd]pyrene			10.0	8.68		ug/L		87	48 - 130	1	20
Naphthalene			10.0	5.16		ug/L		52	43 - 114	11	20
Fluoranthene			10.0	8.14		ug/L		81	58 - 120	1	20
Fluorene			10.0	6.28		ug/L		63	50 - 118	10	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*59*		*53 - 106*
2-methylnaphthalene-d10	*58*		*30 - 100*
Fluoranthene-d10	*84*		*42 - 114*
Nitrobenzene-d5	*64*		*42 - 100*
Terphenyl-d14	*89*		*53 - 111*

Lab Sample ID: MB 680-839715/1-A
Matrix: Water
Analysis Batch: 839809

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 839715

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	0.050	U	0.20	0.018	ug/L		05/25/24 07:20	05/28/24 10:07	1
Acenaphthene	0.10	U M	0.20	0.042	ug/L		05/25/24 07:20	05/28/24 10:07	1
Acenaphthylene	0.050	U M	0.20	0.017	ug/L		05/25/24 07:20	05/28/24 10:07	1

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: MB 680-839715/1-A
Matrix: Water
Analysis Batch: 839809

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 839715

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Pyrene	0.10	U M	0.20	0.027	ug/L		05/25/24 07:20	05/28/24 10:07	1
2-Methylnaphthalene	0.040	U M	0.20	0.011	ug/L		05/25/24 07:20	05/28/24 10:07	1
Anthracene	0.050	U	0.20	0.018	ug/L		05/25/24 07:20	05/28/24 10:07	1
Benzo[a]pyrene	0.10	U	0.20	0.026	ug/L		05/25/24 07:20	05/28/24 10:07	1
Benzo[a]anthracene	0.10	U	0.20	0.026	ug/L		05/25/24 07:20	05/28/24 10:07	1
Benzo[b]fluoranthene	0.10	U	0.20	0.026	ug/L		05/25/24 07:20	05/28/24 10:07	1
Benzo[g,h,i]perylene	0.10	U M	0.20	0.026	ug/L		05/25/24 07:20	05/28/24 10:07	1
Benzo[k]fluoranthene	0.10	U	0.20	0.029	ug/L		05/25/24 07:20	05/28/24 10:07	1
Chrysene	0.050	U	0.20	0.023	ug/L		05/25/24 07:20	05/28/24 10:07	1
Dibenz(a,h)anthracene	0.050	U	0.20	0.024	ug/L		05/25/24 07:20	05/28/24 10:07	1
Phenanthrene	0.20	U	0.40	0.055	ug/L		05/25/24 07:20	05/28/24 10:07	1
Indeno[1,2,3-cd]pyrene	0.10	U	0.20	0.028	ug/L		05/25/24 07:20	05/28/24 10:07	1
Naphthalene	0.050	U	0.20	0.014	ug/L		05/25/24 07:20	05/28/24 10:07	1
Fluoranthene	0.10	U M	0.20	0.027	ug/L		05/25/24 07:20	05/28/24 10:07	1
Fluorene	0.10	U	0.20	0.025	ug/L		05/25/24 07:20	05/28/24 10:07	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*67*		*53 - 106*	*05/25/24 07:20*	*05/28/24 10:07*	*1*
2-methylnaphthalene-d10	*67*		*30 - 100*	*05/25/24 07:20*	*05/28/24 10:07*	*1*
Fluoranthene-d10	*89*		*42 - 114*	*05/25/24 07:20*	*05/28/24 10:07*	*1*
Nitrobenzene-d5	*69*		*42 - 100*	*05/25/24 07:20*	*05/28/24 10:07*	*1*
Terphenyl-d14	*98*		*53 - 111*	*05/25/24 07:20*	*05/28/24 10:07*	*1*

Lab Sample ID: LCS 680-839715/2-A
Matrix: Water
Analysis Batch: 839809

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 839715

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	10.0	6.30		ug/L		63	41 - 115
Acenaphthene	10.0	7.27		ug/L		73	48 - 114
Acenaphthylene	10.0	6.98		ug/L		70	35 - 121
Pyrene	10.0	8.97		ug/L		90	53 - 121
2-Methylnaphthalene	10.0	6.61		ug/L		66	39 - 114
Anthracene	10.0	7.88		ug/L		79	53 - 119
Benzo[a]pyrene	10.0	9.25		ug/L		93	53 - 120
Benzo[a]anthracene	10.0	8.86		ug/L		89	59 - 120
Benzo[b]fluoranthene	10.0	9.41		ug/L		94	53 - 126
Benzo[g,h,i]perylene	10.0	9.40		ug/L		94	44 - 128
Benzo[k]fluoranthene	10.0	9.29		ug/L		93	54 - 125
Chrysene	10.0	9.50		ug/L		95	57 - 120
Dibenz(a,h)anthracene	10.0	9.62		ug/L		96	44 - 131
Phenanthrene	10.0	7.97		ug/L		80	53 - 115
Indeno[1,2,3-cd]pyrene	10.0	9.43		ug/L		94	48 - 130
Naphthalene	10.0	6.09		ug/L		61	43 - 114
Fluoranthene	10.0	8.84		ug/L		88	58 - 120
Fluorene	10.0	7.32		ug/L		73	50 - 118

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: LCS 680-839715/2-A
Matrix: Water
Analysis Batch: 839809

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 839715

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*70*		*53 - 106*
2-methylnaphthalene-d10	*68*		*30 - 100*
Fluoranthene-d10	*93*		*42 - 114*
Nitrobenzene-d5	*69*		*42 - 100*
Terphenyl-d14	*100*		*53 - 111*

Lab Sample ID: LCSD 680-839715/3-A
Matrix: Water
Analysis Batch: 839809

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 839715

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1-Methylnaphthalene			10.0	7.29		ug/L		73	41 - 115	15	20
Acenaphthene			10.0	8.22		ug/L		82	48 - 114	12	20
Acenaphthylene			10.0	7.89		ug/L		79	35 - 121	12	20
Pyrene			10.0	9.52		ug/L		95	53 - 121	6	20
2-Methylnaphthalene			10.0	7.71		ug/L		77	39 - 114	15	20
Anthracene			10.0	8.70		ug/L		87	53 - 119	10	20
Benzo[a]pyrene			10.0	9.30		ug/L		93	53 - 120	0	20
Benzo[a]anthracene			10.0	9.00		ug/L		90	59 - 120	2	20
Benzo[b]fluoranthene			10.0	9.43		ug/L		94	53 - 126	0	20
Benzo[g,h,i]perylene			10.0	9.39		ug/L		94	44 - 128	0	20
Benzo[k]fluoranthene			10.0	9.35		ug/L		94	54 - 125	1	20
Chrysene			10.0	9.63		ug/L		96	57 - 120	1	20
Dibenz(a,h)anthracene			10.0	9.55		ug/L		96	44 - 131	1	20
Phenanthrene			10.0	8.90		ug/L		89	53 - 115	11	20
Indeno[1,2,3-cd]pyrene			10.0	9.39		ug/L		94	48 - 130	0	20
Naphthalene			10.0	7.02		ug/L		70	43 - 114	14	20
Fluoranthene			10.0	9.38		ug/L		94	58 - 120	6	20
Fluorene			10.0	8.25		ug/L		83	50 - 118	12	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*81*		*53 - 106*
2-methylnaphthalene-d10	*79*		*30 - 100*
Fluoranthene-d10	*99*		*42 - 114*
Nitrobenzene-d5	*76*		*42 - 100*
Terphenyl-d14	*102*		*53 - 111*

Method: 8270E SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Lab Sample ID: MB 680-839648/1-A
Matrix: Water
Analysis Batch: 839813

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 839648

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	0.10	U	0.20	0.032	ug/L		05/24/24 11:32	05/27/24 19:19	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*18*	*M*	*10 - 150*	*05/24/24 11:32*	*05/27/24 19:19*	*1*

Method: 8270E SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution) (Continued)

Lab Sample ID: LCS 680-839648/2-A
Matrix: Water
Analysis Batch: 839813

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 839648

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,4-Dioxane			10.0	10.5		ug/L		105	70 - 130		

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,4-Dioxane-d8	*16*		*10 - 150*

Lab Sample ID: LCSD 680-839648/3-A
Matrix: Water
Analysis Batch: 839813

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 839648

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,4-Dioxane			10.0	11.6	M	ug/L		116	70 - 130	10	30

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,4-Dioxane-d8	*15*		*10 - 150*

Method: RSK-175 - Dissolved Gases (GC)

Lab Sample ID: MB 680-840990/8
Matrix: Water
Analysis Batch: 840990

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	0.76	U	1.1	0.30	ug/L			06/04/24 14:03	1
Ethylene	0.71	U	1.0	0.31	ug/L			06/04/24 14:03	1
Methane	1.2	U	1.2	0.57	ug/L			06/04/24 14:03	1

Lab Sample ID: LCS 680-840990/3
Matrix: Water
Analysis Batch: 840990

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Methane (TCD)			1920	2090		ug/L		108	73 - 125		

Lab Sample ID: LCS 680-840990/6
Matrix: Water
Analysis Batch: 840990

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Ethane			288	279		ug/L		97	74 - 131		
Ethylene			269	251		ug/L		93	72 - 133		
Methane			154	144		ug/L		94	73 - 125		

Lab Sample ID: LCSD 680-840990/4
Matrix: Water
Analysis Batch: 840990

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Methane (TCD)			1920	1960		ug/L		102	73 - 125	6	30

Method: RSK-175 - Dissolved Gases (GC) (Continued)

Lab Sample ID: LCSD 680-840990/7
Matrix: Water
Analysis Batch: 840990

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ethane			288	333		ug/L		115	74 - 131	18	30
Ethylene			269	300		ug/L		111	72 - 133	18	30
Methane			154	172		ug/L		112	73 - 125	18	30

Method: 8081B 8082A - Organochlorine Pesticides & PCBs (GC)

Lab Sample ID: MB 680-839562/1-A
Matrix: Water
Analysis Batch: 839672

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 839562

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	0.0040	U	0.050	0.0020	ug/L		05/24/24 07:17	05/24/24 18:26	1
4,4'-DDE	0.0040	U	0.050	0.0010	ug/L		05/24/24 07:17	05/24/24 18:26	1
4,4'-DDT	0.0040	U	0.050	0.0010	ug/L		05/24/24 07:17	05/24/24 18:26	1
Aldrin	0.0040	U	0.050	0.0020	ug/L		05/24/24 07:17	05/24/24 18:26	1
alpha-BHC	0.0040	U	0.050	0.0010	ug/L		05/24/24 07:17	05/24/24 18:26	1
beta-BHC	0.0040	U M	0.050	0.0020	ug/L		05/24/24 07:17	05/24/24 18:26	1
delta-BHC	0.0040	U	0.050	0.0020	ug/L		05/24/24 07:17	05/24/24 18:26	1
Dieldrin	0.0040	U	0.050	0.0020	ug/L		05/24/24 07:17	05/24/24 18:26	1
Endosulfan I	0.0040	U	0.050	0.0020	ug/L		05/24/24 07:17	05/24/24 18:26	1
Endosulfan II	0.0040	U	0.050	0.0020	ug/L		05/24/24 07:17	05/24/24 18:26	1
Endosulfan sulfate	0.0040	U	0.050	0.0020	ug/L		05/24/24 07:17	05/24/24 18:26	1
Endrin	0.0040	U	0.050	0.0010	ug/L		05/24/24 07:17	05/24/24 18:26	1
Endrin aldehyde	0.016	U	0.050	0.0040	ug/L		05/24/24 07:17	05/24/24 18:26	1
Endrin ketone	0.016	U	0.050	0.0040	ug/L		05/24/24 07:17	05/24/24 18:26	1
gamma-BHC (Lindane)	0.0040	U	0.050	0.0010	ug/L		05/24/24 07:17	05/24/24 18:26	1
Heptachlor	0.0040	U	0.050	0.0010	ug/L		05/24/24 07:17	05/24/24 18:26	1
Heptachlor epoxide	0.0040	U	0.050	0.0020	ug/L		05/24/24 07:17	05/24/24 18:26	1
Methoxychlor	0.0040	U	0.050	0.0020	ug/L		05/24/24 07:17	05/24/24 18:26	1
Chlordane (technical)	0.40	U	0.50	0.16	ug/L		05/24/24 07:17	05/24/24 18:26	1
PCB-1016	0.24	U	0.50	0.10	ug/L		05/24/24 07:17	05/24/24 18:26	1
PCB-1221	0.24	U	0.50	0.10	ug/L		05/24/24 07:17	05/24/24 18:26	1
PCB-1232	0.24	U	0.50	0.10	ug/L		05/24/24 07:17	05/24/24 18:26	1
PCB-1242	0.24	U	0.50	0.10	ug/L		05/24/24 07:17	05/24/24 18:26	1
PCB-1248	0.24	U	0.50	0.10	ug/L		05/24/24 07:17	05/24/24 18:26	1
PCB-1254	0.24	U	0.50	0.10	ug/L		05/24/24 07:17	05/24/24 18:26	1
PCB-1260	0.24	U	0.50	0.10	ug/L		05/24/24 07:17	05/24/24 18:26	1
Toxaphene	0.80	U	5.0	0.31	ug/L		05/24/24 07:17	05/24/24 18:26	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*72*	*M*	*14 - 130*	*05/24/24 07:17*	*05/24/24 18:26*	*1*
Tetrachloro-m-xylene	*51*		*44 - 124*	*05/24/24 07:17*	*05/24/24 18:26*	*1*

Lab Sample ID: LCS 680-839562/2-A
Matrix: Water
Analysis Batch: 839672

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 839562

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
4,4'-DDD			0.0400	0.0352	J	ug/L		88	56 - 143		

Method: 8081B 8082A - Organochlorine Pesticides & PCBs (GC) (Continued)

Lab Sample ID: LCS 680-839562/2-A
Matrix: Water
Analysis Batch: 839672

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 839562

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
4,4'-DDE	0.0400	0.0296	J	ug/L		74	57 - 135
4,4'-DDT	0.0400	0.0395	J	ug/L		99	51 - 143
Aldrin	0.0400	0.0222	J	ug/L		56	45 - 134
alpha-BHC	0.0400	0.0302	J	ug/L		75	54 - 138
beta-BHC	0.0400	0.0321	J	ug/L		80	56 - 136
delta-BHC	0.0400	0.0342	J	ug/L		86	52 - 142
Dieldrin	0.0400	0.0327	J	ug/L		82	60 - 136
Endosulfan I	0.0400	0.0283	J	ug/L		71	62 - 126
Endosulfan II	0.0400	0.0329	J	ug/L		82	52 - 135
Endosulfan sulfate	0.0400	0.0349	J	ug/L		87	62 - 133
Endrin	0.0400	0.0335	J	ug/L		84	60 - 138
Endrin aldehyde	0.0400	0.0325	J	ug/L		81	51 - 132
Endrin ketone	0.0400	0.0587	Q	ug/L		147	58 - 134
gamma-BHC (Lindane)	0.0400	0.0275	J	ug/L		69	59 - 134
Heptachlor	0.0400	0.0290	J	ug/L		73	54 - 130
Heptachlor epoxide	0.0400	0.0294	J	ug/L		74	61 - 133
Methoxychlor	0.0400	0.0419	J	ug/L		105	54 - 145

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*75*		*14 - 130*
Tetrachloro-m-xylene	*49*		*44 - 124*

Lab Sample ID: LCS 680-839562/5-A
Matrix: Water
Analysis Batch: 839672

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 839562

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
PCB-1016	2.40	1.25		ug/L		52	46 - 129
PCB-1260	2.40	1.33	M	ug/L		56	45 - 134

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*66*		*14 - 130*
Tetrachloro-m-xylene	*46*		*44 - 124*

Lab Sample ID: MB 680-839861/1-A
Matrix: Water
Analysis Batch: 840047

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 839861

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	0.0040	U	0.050	0.0020	ug/L		05/28/24 07:28	05/28/24 18:05	1
4,4'-DDE	0.0040	U	0.050	0.0010	ug/L		05/28/24 07:28	05/28/24 18:05	1
4,4'-DDT	0.0040	U	0.050	0.0010	ug/L		05/28/24 07:28	05/28/24 18:05	1
Aldrin	0.0040	U	0.050	0.0020	ug/L		05/28/24 07:28	05/28/24 18:05	1
alpha-BHC	0.0040	U	0.050	0.0010	ug/L		05/28/24 07:28	05/28/24 18:05	1
beta-BHC	0.0040	U	0.050	0.0020	ug/L		05/28/24 07:28	05/28/24 18:05	1
delta-BHC	0.0040	U	0.050	0.0020	ug/L		05/28/24 07:28	05/28/24 18:05	1
Dieldrin	0.0040	U	0.050	0.0020	ug/L		05/28/24 07:28	05/28/24 18:05	1
Endosulfan I	0.0040	U	0.050	0.0020	ug/L		05/28/24 07:28	05/28/24 18:05	1

Method: 8081B 8082A - Organochlorine Pesticides & PCBs (GC) (Continued)

Lab Sample ID: MB 680-839861/1-A
Matrix: Water
Analysis Batch: 840047

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 839861

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Endosulfan II	0.0040	U	0.050	0.0020	ug/L		05/28/24 07:28	05/28/24 18:05	1
Endosulfan sulfate	0.0040	U	0.050	0.0020	ug/L		05/28/24 07:28	05/28/24 18:05	1
Endrin	0.0040	U	0.050	0.0010	ug/L		05/28/24 07:28	05/28/24 18:05	1
Endrin aldehyde	0.016	U	0.050	0.0040	ug/L		05/28/24 07:28	05/28/24 18:05	1
Endrin ketone	0.016	U	0.050	0.0040	ug/L		05/28/24 07:28	05/28/24 18:05	1
gamma-BHC (Lindane)	0.0040	U	0.050	0.0010	ug/L		05/28/24 07:28	05/28/24 18:05	1
Heptachlor	0.0040	U	0.050	0.0010	ug/L		05/28/24 07:28	05/28/24 18:05	1
Heptachlor epoxide	0.0040	U	0.050	0.0020	ug/L		05/28/24 07:28	05/28/24 18:05	1
Methoxychlor	0.0040	U	0.050	0.0020	ug/L		05/28/24 07:28	05/28/24 18:05	1
Chlordane (technical)	0.40	U M	0.50	0.16	ug/L		05/28/24 07:28	05/28/24 18:05	1
PCB-1016	0.24	U M	0.50	0.10	ug/L		05/28/24 07:28	05/28/24 18:05	1
PCB-1221	0.24	U	0.50	0.10	ug/L		05/28/24 07:28	05/28/24 18:05	1
PCB-1232	0.24	U M	0.50	0.10	ug/L		05/28/24 07:28	05/28/24 18:05	1
PCB-1242	0.24	U M	0.50	0.10	ug/L		05/28/24 07:28	05/28/24 18:05	1
PCB-1248	0.24	U	0.50	0.10	ug/L		05/28/24 07:28	05/28/24 18:05	1
PCB-1254	0.24	U	0.50	0.10	ug/L		05/28/24 07:28	05/28/24 18:05	1
PCB-1260	0.24	U	0.50	0.10	ug/L		05/28/24 07:28	05/28/24 18:05	1
Toxaphene	0.80	U	5.0	0.31	ug/L		05/28/24 07:28	05/28/24 18:05	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*81*		*14 - 130*	*05/28/24 07:28*	*05/28/24 18:05*	*1*
Tetrachloro-m-xylene	*53*		*44 - 124*	*05/28/24 07:28*	*05/28/24 18:05*	*1*

Lab Sample ID: LCS 680-839861/2-A
Matrix: Water
Analysis Batch: 840047

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 839861

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
4,4'-DDD	0.0400	0.0328	J	ug/L		82	56 - 143
4,4'-DDE	0.0400	0.0260	J	ug/L		65	57 - 135
4,4'-DDT	0.0400	0.0377	J	ug/L		94	51 - 143
Aldrin	0.0400	0.0185	J	ug/L		46	45 - 134
alpha-BHC	0.0400	0.0233	J	ug/L		58	54 - 138
beta-BHC	0.0400	0.0270	J	ug/L		68	56 - 136
delta-BHC	0.0400	0.0267	J	ug/L		67	52 - 142
Dieldrin	0.0400	0.0280	J	ug/L		70	60 - 136
Endosulfan I	0.0400	0.0245	J Q	ug/L		61	62 - 126
Endosulfan II	0.0400	0.0299	J	ug/L		75	52 - 135
Endosulfan sulfate	0.0400	0.0332	J	ug/L		83	62 - 133
Endrin	0.0400	0.0283	J	ug/L		71	60 - 138
Endrin aldehyde	0.0400	0.0323	J	ug/L		81	51 - 132
Endrin ketone	0.0400	0.0539	Q	ug/L		135	58 - 134
gamma-BHC (Lindane)	0.0400	0.0225	J Q	ug/L		56	59 - 134
Heptachlor	0.0400	0.0243	J	ug/L		61	54 - 130
Heptachlor epoxide	0.0400	0.0250	J	ug/L		63	61 - 133
Methoxychlor	0.0400	0.0391	J	ug/L		98	54 - 145

Method: 8081B 8082A - Organochlorine Pesticides & PCBs (GC) (Continued)

Lab Sample ID: LCS 680-839861/2-A
Matrix: Water
Analysis Batch: 840047

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 839861

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl	75		14 - 130
Tetrachloro-m-xylene	41	Q	44 - 124

Lab Sample ID: LCS 680-839861/4-A
Matrix: Water
Analysis Batch: 840047

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 839861

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
PCB-1016			2.40	1.44	M	ug/L		60	46 - 129		
PCB-1260			2.40	1.59	M	ug/L		66	45 - 134		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl	78		14 - 130
Tetrachloro-m-xylene	44		44 - 124

Lab Sample ID: LCSD 680-839861/3-A
Matrix: Water
Analysis Batch: 840047

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 839861

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
4,4'-DDD			0.0400	0.0373	J	ug/L		93	56 - 143	13	30
4,4'-DDE			0.0400	0.0310	J	ug/L		77	57 - 135	18	30
4,4'-DDT			0.0400	0.0425	J	ug/L		106	51 - 143	12	30
Aldrin			0.0400	0.0232	J	ug/L		58	45 - 134	22	30
alpha-BHC			0.0400	0.0277	J	ug/L		69	54 - 138	17	30
beta-BHC			0.0400	0.0280	J	ug/L		70	56 - 136	3	30
delta-BHC			0.0400	0.0346	J	ug/L		87	52 - 142	26	30
Dieldrin			0.0400	0.0333	J	ug/L		83	60 - 136	17	30
Endosulfan I			0.0400	0.0279	J	ug/L		70	62 - 126	13	30
Endosulfan II			0.0400	0.0341	J	ug/L		85	52 - 135	13	30
Endosulfan sulfate			0.0400	0.0368	J	ug/L		92	62 - 133	10	30
Endrin			0.0400	0.0332	J	ug/L		83	60 - 138	16	30
Endrin aldehyde			0.0400	0.0352	J	ug/L		88	51 - 132	8	30
Endrin ketone			0.0400	0.0652	Q	ug/L		163	58 - 134	19	30
gamma-BHC (Lindane)			0.0400	0.0271	J	ug/L		68	59 - 134	19	30
Heptachlor			0.0400	0.0290	J	ug/L		72	54 - 130	18	30
Heptachlor epoxide			0.0400	0.0291	J	ug/L		73	61 - 133	15	30
Methoxychlor			0.0400	0.0560	Q	ug/L		140	54 - 145	36	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
DCB Decachlorobiphenyl	71		14 - 130
Tetrachloro-m-xylene	52		44 - 124

Method: 8081B 8082A - Organochlorine Pesticides & PCBs (GC) (Continued)

Lab Sample ID: LCSD 680-839861/5-A
Matrix: Water
Analysis Batch: 840047

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 839861

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
PCB-1016			2.40	1.50	M	ug/L		63	46 - 129	4	30
PCB-1260			2.40	1.64	M	ug/L		68	45 - 134	3	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
DCB Decachlorobiphenyl	*76*		*14 - 130*
Tetrachloro-m-xylene	*51*		*44 - 124*

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 680-839434/2
Matrix: Water
Analysis Batch: 839434

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.050	U	0.055	0.023	mg/L			05/23/24 10:09	1
Nitrate Nitrite as N	0.050	U	0.055	0.023	mg/L			05/23/24 10:09	1
Nitrite as N	0.050	U	0.055	0.023	mg/L			05/23/24 10:09	1

Lab Sample ID: LCSD 680-839434/4
Matrix: Water
Analysis Batch: 839434

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrate as N			1.00	1.05		mg/L		105	88 - 111	0	15
Nitrate Nitrite as N			2.00	2.07		mg/L		103	88 - 111	0	15
Nitrite as N			1.00	1.02		mg/L		102	87 - 111	0	15

Lab Sample ID: 680-251152-10 MS
Matrix: Water
Analysis Batch: 839434

Client Sample ID: OU6-MW-289-20240522
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrate as N	0.050	U	1.00	0.887		mg/L		89	88 - 111
Nitrate Nitrite as N	0.050	U J1	2.00	1.48	J1	mg/L		74	88 - 111
Nitrite as N	0.050	U M J1	1.00	0.591	J1	mg/L		59	87 - 111

Lab Sample ID: 680-251152-10 MSD
Matrix: Water
Analysis Batch: 839434

Client Sample ID: OU6-MW-289-20240522
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrate as N	0.050	U	1.00	0.921		mg/L		92	88 - 111	4	15
Nitrate Nitrite as N	0.050	U J1	2.00	1.53	J1	mg/L		77	88 - 111	4	15
Nitrite as N	0.050	U M J1	1.00	0.610	J1	mg/L		61	87 - 111	3	15

Method: 9056A - Anions, Ion Chromatography (Continued)

Lab Sample ID: 680-251152-18 MS
Matrix: Water
Analysis Batch: 839434

Client Sample ID: OU6-MW-255-20240522
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Nitrate as N	0.050	U	1.00	0.989		mg/L		99	88 - 111		
Nitrate Nitrite as N	0.050	U	2.00	1.84		mg/L		92	88 - 111		
Nitrite as N	0.050	U J1	1.00	0.853	J1	mg/L		85	87 - 111		

Lab Sample ID: 680-251152-18 MSD
Matrix: Water
Analysis Batch: 839434

Client Sample ID: OU6-MW-255-20240522
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrate as N	0.050	U	1.00	1.04		mg/L		104	88 - 111	5	15
Nitrate Nitrite as N	0.050	U	2.00	1.93		mg/L		96	88 - 111	5	15
Nitrite as N	0.050	U J1	1.00	0.889		mg/L		89	87 - 111	4	15

Lab Sample ID: MB 680-841024/35
Matrix: Water
Analysis Batch: 841024

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.50	U M	0.55	0.20	mg/L			06/04/24 17:49	1
Sulfate	1.0	U	1.5	0.40	mg/L			06/04/24 17:49	1

Lab Sample ID: LCS 680-841024/36
Matrix: Water
Analysis Batch: 841024

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			10.0	10.3		mg/L		103	87 - 111		
Sulfate			10.0	10.3		mg/L		103	87 - 112		

Lab Sample ID: LCSD 680-841024/37
Matrix: Water
Analysis Batch: 841024

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			10.0	10.3		mg/L		103	87 - 111	0	15
Sulfate			10.0	10.3		mg/L		103	87 - 112	1	15

Lab Sample ID: 680-251152-4 MS
Matrix: Water
Analysis Batch: 841024

Client Sample ID: OU6-MW-88-20240522
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	10	M	10.0	20.6		mg/L		104	87 - 111		
Sulfate	2.7		10.0	12.3		mg/L		96	87 - 112		

Method: 9056A - Anions, Ion Chromatography (Continued)

Lab Sample ID: 680-251152-4 MSD
Matrix: Water
Analysis Batch: 841024

Client Sample ID: OU6-MW-88-20240522
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	10	M	10.0	20.6		mg/L		103	87 - 111	0	15
Sulfate	2.7		10.0	12.3		mg/L		95	87 - 112	0	15

Lab Sample ID: 680-251152-16 MS
Matrix: Water
Analysis Batch: 841024

Client Sample ID: OU6-EBF-08D-20240522
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	26	M	10.0	36.7		mg/L		105	87 - 111
Sulfate	2.3		10.0	12.3		mg/L		99	87 - 112

Lab Sample ID: 680-251152-16 MSD
Matrix: Water
Analysis Batch: 841024

Client Sample ID: OU6-EBF-08D-20240522
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	26	M	10.0	36.7		mg/L		105	87 - 111	0	15
Sulfate	2.3		10.0	12.3		mg/L		99	87 - 112	0	15

Lab Sample ID: MB 680-841151/4
Matrix: Water
Analysis Batch: 841151

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.50	U M	0.55	0.20	mg/L			06/05/24 11:52	1
Sulfate	1.0	U	1.5	0.40	mg/L			06/05/24 11:52	1

Lab Sample ID: LCS 680-841151/5
Matrix: Water
Analysis Batch: 841151

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	10.0	10.2		mg/L		102	87 - 111
Sulfate	10.0	10.8		mg/L		108	87 - 112

Lab Sample ID: LCSD 680-841151/6
Matrix: Water
Analysis Batch: 841151

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	10.0	10.2		mg/L		102	87 - 111	0	15
Sulfate	10.0	10.8		mg/L		108	87 - 112	0	15

Lab Sample ID: 680-251152-3 MS
Matrix: Water
Analysis Batch: 841151

Client Sample ID: OU6-DUP-5-20240522
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	62	D M	100	159	D	mg/L		97	87 - 111
Sulfate	12	J D M	100	103	D	mg/L		91	87 - 112

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: 680-251152-3 MSD
Matrix: Water
Analysis Batch: 841151

Client Sample ID: OU6-DUP-5-20240522
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	62	D M	100	160	D	mg/L		97	87 - 111	0	15
Sulfate	12	J D M	100	103	D	mg/L		91	87 - 112	0	15

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 680-839552/1-A
Matrix: Water
Analysis Batch: 840087

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 839552

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	100	U	200	35	ug/L		05/24/24 05:51	05/28/24 10:23	1
Antimony	1.5	U	5.0	0.34	ug/L		05/24/24 05:51	05/28/24 10:23	1
Arsenic	3.0	U	5.0	0.86	ug/L		05/24/24 05:51	05/28/24 10:23	1
Barium	2.0	U Q	5.0	0.89	ug/L		05/24/24 05:51	05/28/24 10:23	1
Beryllium	0.40	U	0.50	0.20	ug/L		05/24/24 05:51	05/28/24 10:23	1
Boron	75	U	100	22	ug/L		05/24/24 05:51	05/28/24 10:23	1
Cadmium	0.20	U	0.50	0.078	ug/L		05/24/24 05:51	05/28/24 10:23	1
Calcium	300	U	500	140	ug/L		05/24/24 05:51	05/28/24 10:23	1
Chromium	2.5	U	20	0.81	ug/L		05/24/24 05:51	05/28/24 10:23	1
Cobalt	0.50	U	1.0	0.22	ug/L		05/24/24 05:51	05/28/24 10:23	1
Copper	2.0	U	5.0	1.1	ug/L		05/24/24 05:51	05/28/24 10:23	1
Iron	75	U	100	12	ug/L		05/24/24 05:51	05/28/24 10:23	1
Lead	1.0	U	2.5	0.21	ug/L		05/24/24 05:51	05/28/24 10:23	1
Magnesium	60	U	250	23	ug/L		05/24/24 05:51	05/28/24 10:23	1
Manganese	5.0	U	10	2.2	ug/L		05/24/24 05:51	05/28/24 10:23	1
Nickel	1.0	U	10	0.42	ug/L		05/24/24 05:51	05/28/24 10:23	1
Potassium	100	U	1000	44	ug/L		05/24/24 05:51	05/28/24 10:23	1
Selenium	2.5	U Q	5.0	0.99	ug/L		05/24/24 05:51	05/28/24 10:23	1
Silver	1.0	U	2.0	0.39	ug/L		05/24/24 05:51	05/28/24 10:23	1
Sodium	500	U	1000	200	ug/L		05/24/24 05:51	05/28/24 10:23	1
Thallium	1.0	U Q	2.0	0.26	ug/L		05/24/24 05:51	05/28/24 10:23	1
Vanadium	2.5	U	10	0.63	ug/L		05/24/24 05:51	05/28/24 10:23	1
Zinc	20	U	25	2.8	ug/L		05/24/24 05:51	05/28/24 10:23	1

Lab Sample ID: LCS 680-839552/2-A
Matrix: Water
Analysis Batch: 840087

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 839552

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aluminum	5050	5170		ug/L		102	84 - 117
Antimony	50.0	50.7		ug/L		101	85 - 117
Arsenic	100	97.5		ug/L		97	84 - 116
Barium	100	96.8	Q	ug/L		97	86 - 114
Beryllium	50.0	52.2		ug/L		104	83 - 121
Boron	400	414		ug/L		103	73 - 130
Cadmium	50.0	50.3		ug/L		101	87 - 115
Calcium	5000	5140		ug/L		103	87 - 118
Chromium	100	102		ug/L		102	85 - 116
Cobalt	50.0	52.3		ug/L		105	86 - 115

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 680-839552/2-A
Matrix: Water
Analysis Batch: 840087

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 839552

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Copper	101	105		ug/L		104	85 - 118
Iron	4990	5110		ug/L		102	87 - 118
Lead	500	507		ug/L		101	88 - 115
Magnesium	5000	5160		ug/L		103	83 - 118
Manganese	400	394		ug/L		98	87 - 115
Nickel	100	103		ug/L		103	85 - 117
Potassium	7000	7230		ug/L		103	87 - 115
Selenium	100	95.8	Q	ug/L		96	80 - 120
Silver	50.0	50.0		ug/L		100	85 - 116
Sodium	5030	5180		ug/L		103	85 - 117
Thallium	50.0	51.8	Q	ug/L		104	82 - 116
Vanadium	100	98.5		ug/L		99	86 - 115
Zinc	50.5	51.7		ug/L		102	83 - 119

Lab Sample ID: 680-251152-8 MS
Matrix: Water
Analysis Batch: 840087

Client Sample ID: OU6-MW-250-20240522
Prep Type: Total Recoverable
Prep Batch: 839552

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Aluminum	310		5050	5570		ug/L		104	84 - 117
Antimony	1.5	U	50.0	52.5		ug/L		105	85 - 117
Arsenic	11		100	110		ug/L		99	84 - 116
Barium	93	Q	100	186	Q	ug/L		92	86 - 114
Beryllium	0.40	U	50.0	50.8		ug/L		102	83 - 121
Boron	32	J	400	444		ug/L		103	73 - 130
Cadmium	0.20	U	50.0	50.9		ug/L		102	87 - 115
Calcium	20000	J1	5000	23800	4	ug/L		69	87 - 118
Chromium	2.5	U	100	103		ug/L		103	85 - 116
Cobalt	3.0		50.0	56.2		ug/L		106	86 - 115
Copper	1.4	J	101	106		ug/L		104	85 - 118
Iron	72000	J1	4990	70400	4	ug/L		-24	87 - 118
Lead	0.33	J	500	509		ug/L		102	88 - 115
Magnesium	7900		5000	12300		ug/L		88	83 - 118
Manganese	310		400	679		ug/L		92	87 - 115
Nickel	1.7	J	100	105		ug/L		103	85 - 117
Potassium	5300		7000	12100		ug/L		98	87 - 115
Selenium	2.5	U Q	100	94.9	Q	ug/L		95	80 - 120
Silver	1.0	U	50.0	49.8		ug/L		100	85 - 116
Sodium	65000	J1	5030	63700	4	ug/L		-25	85 - 117
Thallium	1.0	U Q	50.0	51.9	Q	ug/L		104	82 - 116
Vanadium	0.91	J	100	101		ug/L		100	86 - 115
Zinc	390	J1	50.5	400	4	ug/L		29	83 - 119

Lab Sample ID: 680-251152-8 MSD
Matrix: Water
Analysis Batch: 840087

Client Sample ID: OU6-MW-250-20240522
Prep Type: Total Recoverable
Prep Batch: 839552

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aluminum	310		5050	5670		ug/L		106	84 - 117	2	20

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 680-251152-8 MSD
Matrix: Water
Analysis Batch: 840087

Client Sample ID: OU6-MW-250-20240522
Prep Type: Total Recoverable
Prep Batch: 839552

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	1.5	U	50.0	53.7		ug/L		107	85 - 117	2	20
Arsenic	11		100	112		ug/L		101	84 - 116	2	20
Barium	93	Q	100	189	Q	ug/L		95	86 - 114	2	20
Beryllium	0.40	U	50.0	51.8		ug/L		104	83 - 121	2	20
Boron	32	J	400	471		ug/L		110	73 - 130	6	20
Cadmium	0.20	U	50.0	51.9		ug/L		104	87 - 115	2	20
Calcium	20000	J1	5000	24200	4	ug/L		77	87 - 118	2	20
Chromium	2.5	U	100	106		ug/L		105	85 - 116	3	20
Cobalt	3.0		50.0	57.0		ug/L		108	86 - 115	1	20
Copper	1.4	J	101	107		ug/L		105	85 - 118	1	20
Iron	72000	J1	4990	71000	4	ug/L		-10	87 - 118	1	20
Lead	0.33	J	500	516		ug/L		103	88 - 115	1	20
Magnesium	7900		5000	12600		ug/L		93	83 - 118	2	20
Manganese	310		400	693		ug/L		95	87 - 115	2	20
Nickel	1.7	J	100	105		ug/L		103	85 - 117	0	20
Potassium	5300		7000	12400		ug/L		102	87 - 115	2	20
Selenium	2.5	U Q	100	96.7	Q	ug/L		97	80 - 120	2	20
Silver	1.0	U	50.0	51.1		ug/L		102	85 - 116	3	20
Sodium	65000	J1	5030	64700	4	ug/L		-5	85 - 117	2	20
Thallium	1.0	U Q	50.0	52.8	Q	ug/L		106	82 - 116	2	20
Vanadium	0.91	J	100	104		ug/L		103	86 - 115	3	20
Zinc	390	J1	50.5	405	4	ug/L		39	83 - 119	1	20

Lab Sample ID: MB 680-839558/1-A
Matrix: Water
Analysis Batch: 840087

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 839558

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	5.0	U	10	2.2	ug/L		05/24/24 06:46	05/28/24 11:24	1

Lab Sample ID: LCS 680-839558/2-A
Matrix: Water
Analysis Batch: 840087

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 839558

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Manganese	400	410		ug/L		102	87 - 115

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 680-840176/1-A
Matrix: Water
Analysis Batch: 840431

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 840176

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	0.20	U	0.25	0.080	ug/L		05/29/24 12:00	05/29/24 15:50	1

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: LCS 680-840176/2-A
Matrix: Water
Analysis Batch: 840431

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 840176

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Hg	2.50	2.92		ug/L		117	80 - 124

Method: 2320B-2011 - Alkalinity, Total

Lab Sample ID: MB 680-839938/4
Matrix: Water
Analysis Batch: 839938

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	5.0	U	5.5	2.2	mg/L			05/24/24 18:45	1
Bicarbonate Alkalinity as CaCO3	10	U	11	5.0	mg/L			05/24/24 18:45	1
Carbonate Alkalinity as CaCO3	10	U	11	5.0	mg/L			05/24/24 18:45	1

Lab Sample ID: LCS 680-839938/6
Matrix: Water
Analysis Batch: 839938

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity as CaCO3 to pH 4.5	250	245		mg/L		98	90 - 112

Lab Sample ID: LCSD 680-839938/31
Matrix: Water
Analysis Batch: 839938

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5	250	249		mg/L		99	90 - 112	2	30

Lab Sample ID: 680-251152-15 DU
Matrix: Water
Analysis Batch: 839938

Client Sample ID: OU6-MW-217-20240522
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5	200		192		mg/L		3	30
Bicarbonate Alkalinity as CaCO3	200		192		mg/L		3	30
Carbonate Alkalinity as CaCO3	10	U	10	U	mg/L		NC	30

Method: 4500 S2 F-2011 - Sulfide, Total

Lab Sample ID: MB 680-840038/1
Matrix: Water
Analysis Batch: 840038

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	1.0	U	1.0	1.0	mg/L			05/28/24 15:15	1
Sulfide as H2S	1.1	U	1.1	1.1	mg/L			05/28/24 15:15	1

Method: 4500 S2 F-2011 - Sulfide, Total (Continued)

Lab Sample ID: LCS 680-840038/2
Matrix: Water
Analysis Batch: 840038

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Sulfide			10.0	9.48		mg/L		95	75 - 125		
Sulfide as H2S			10.6	10.1		mg/L		95	75 - 125		

Lab Sample ID: LCSD 680-840038/3
Matrix: Water
Analysis Batch: 840038

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sulfide			10.0	8.96		mg/L		90	75 - 125	6	30
Sulfide as H2S			10.6	9.52		mg/L		90	75 - 125	6	30

Lab Sample ID: 680-251152-2 MS
Matrix: Water
Analysis Batch: 840038

Client Sample ID: OU6-MW-272-20240522
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Sulfide	0.96	U	10.0	8.91		mg/L		89	75 - 125		
Sulfide as H2S	1.1	U	10.6	9.47		mg/L		89	75 - 125		

Lab Sample ID: 680-251152-2 MSD
Matrix: Water
Analysis Batch: 840038

Client Sample ID: OU6-MW-272-20240522
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sulfide	0.96	U	10.0	8.91		mg/L		89	75 - 125	0	30
Sulfide as H2S	1.1	U	10.6	9.47		mg/L		89	75 - 125	0	30

Lab Sample ID: 680-251152-1 DU
Matrix: Water
Analysis Batch: 840038

Client Sample ID: OU6-MW-130-20240522
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Sulfide	0.89	U	0.86	U	mg/L		NC	30
Sulfide as H2S	0.98	U	0.95	U	mg/L		NC	30

Method: 9060A - Organic Carbon, Total (TOC)

Lab Sample ID: MB 680-840410/3
Matrix: Water
Analysis Batch: 840410

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	1.0	U	1.0	0.50	mg/L			05/28/24 13:20	1

Lab Sample ID: LCS 680-840410/4
Matrix: Water
Analysis Batch: 840410

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Organic Carbon			20.0	21.3		mg/L		107	80 - 120		

Method: 9060A - Organic Carbon, Total (TOC) (Continued)

Lab Sample ID: LCSD 680-840410/5
Matrix: Water
Analysis Batch: 840410

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Organic Carbon			20.0	20.8		mg/L		104	80 - 120	2	25

Lab Sample ID: MB 680-840411/1
Matrix: Water
Analysis Batch: 840411

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	1.0	U	1.0	0.50	mg/L			05/28/24 21:52	1

Lab Sample ID: LCS 680-840411/2
Matrix: Water
Analysis Batch: 840411

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Organic Carbon			20.0	20.4		mg/L		102	80 - 120		

Lab Sample ID: LCSD 680-840411/3
Matrix: Water
Analysis Batch: 840411

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Organic Carbon			20.0	20.5		mg/L		102	80 - 120	0	25

Method: SM 4500 CO2 D - Carbon Dioxide and Forms of Alkalinity by Calculation

Lab Sample ID: 680-251152-15 DU
Matrix: Water
Analysis Batch: 839938

Client Sample ID: OU6-MW-217-20240522
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Carbon Dioxide, Free	100			135		mg/L				25	30

GC/MS VOA

Analysis Batch: 840706

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251152-1	OU6-MW-130-20240522	Total/NA	Water	8260D	
680-251152-2	OU6-MW-272-20240522	Total/NA	Water	8260D	
680-251152-3	OU6-DUP-5-20240522	Total/NA	Water	8260D	
680-251152-4	OU6-MW-88-20240522	Total/NA	Water	8260D	
680-251152-5	OU6-MW-271-20240522	Total/NA	Water	8260D	
680-251152-6	OU6-MW-247-20240522	Total/NA	Water	8260D	
680-251152-7	OU6-MW-251-20240522	Total/NA	Water	8260D	
680-251152-8	OU6-MW-250-20240522	Total/NA	Water	8260D	
680-251152-9	OU6-MW-157-20240522	Total/NA	Water	8260D	
680-251152-10	OU6-MW-289-20240522	Total/NA	Water	8260D	
680-251152-11	OU6-MW-291-20240522	Total/NA	Water	8260D	
680-251152-12	Dup-06-20240522	Total/NA	Water	8260D	
680-251152-13	TRIP-BLANK-20240522	Total/NA	Water	8260D	
680-251152-14	OU6-DMW-9B-20240522	Total/NA	Water	8260D	
680-251152-15	OU6-MW-217-20240522	Total/NA	Water	8260D	
680-251152-16	OU6-EBF-08D-20240522	Total/NA	Water	8260D	
680-251152-17	OU6-MW-285-20240522	Total/NA	Water	8260D	
680-251152-18	OU6-MW-255-20240522	Total/NA	Water	8260D	
MB 680-840706/8	Method Blank	Total/NA	Water	8260D	
LCS 680-840706/4	Lab Control Sample	Total/NA	Water	8260D	
LCSD 680-840706/5	Lab Control Sample Dup	Total/NA	Water	8260D	

Analysis Batch: 840935

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251152-5	OU6-MW-271-20240522	Total/NA	Water	8260D	
680-251152-10	OU6-MW-289-20240522	Total/NA	Water	8260D	
680-251152-12	Dup-06-20240522	Total/NA	Water	8260D	
MB 680-840935/8	Method Blank	Total/NA	Water	8260D	
LCS 680-840935/4	Lab Control Sample	Total/NA	Water	8260D	
LCSD 680-840935/5	Lab Control Sample Dup	Total/NA	Water	8260D	

Analysis Batch: 841256

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251152-17	OU6-MW-285-20240522	Total/NA	Water	8260D	
MB 680-841256/9	Method Blank	Total/NA	Water	8260D	
LCS 680-841256/4	Lab Control Sample	Total/NA	Water	8260D	
LCSD 680-841256/5	Lab Control Sample Dup	Total/NA	Water	8260D	

GC/MS Semi VOA

Prep Batch: 839561

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251152-2	OU6-MW-272-20240522	Total/NA	Water	3510C	
MB 680-839561/1-A	Method Blank	Total/NA	Water	3510C	
LCS 680-839561/2-A	Lab Control Sample	Total/NA	Water	3510C	

Analysis Batch: 839636

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251152-2	OU6-MW-272-20240522	Total/NA	Water	8270E SIM	839648
MB 680-839648/1-A	Method Blank	Total/NA	Water	8270E SIM	839648
LCS 680-839648/2-A	Lab Control Sample	Total/NA	Water	8270E SIM	839648

GC/MS Semi VOA (Continued)

Analysis Batch: 839636 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 680-839648/3-A	Lab Control Sample Dup	Total/NA	Water	8270E SIM	839648

Prep Batch: 839648

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251152-2	OU6-MW-272-20240522	Total/NA	Water	3510C	
680-251152-17	OU6-MW-285-20240522	Total/NA	Water	3510C	
MB 680-839648/1-A	Method Blank	Total/NA	Water	3510C	
LCS 680-839648/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 680-839648/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Prep Batch: 839715

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251152-3	OU6-DUP-5-20240522	Total/NA	Water	3510C	
MB 680-839715/1-A	Method Blank	Total/NA	Water	3510C	
LCS 680-839715/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 680-839715/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 839803

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251152-2	OU6-MW-272-20240522	Total/NA	Water	8270E	839561
MB 680-839561/1-A	Method Blank	Total/NA	Water	8270E	839561
LCS 680-839561/2-A	Lab Control Sample	Total/NA	Water	8270E	839561

Analysis Batch: 839809

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251152-3	OU6-DUP-5-20240522	Total/NA	Water	8270E SIM	839715
MB 680-839715/1-A	Method Blank	Total/NA	Water	8270E SIM	839715
LCS 680-839715/2-A	Lab Control Sample	Total/NA	Water	8270E SIM	839715
LCSD 680-839715/3-A	Lab Control Sample Dup	Total/NA	Water	8270E SIM	839715

Analysis Batch: 839813

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251152-17	OU6-MW-285-20240522	Total/NA	Water	8270E SIM ID	839648
MB 680-839648/1-A	Method Blank	Total/NA	Water	8270E SIM ID	839648
LCS 680-839648/2-A	Lab Control Sample	Total/NA	Water	8270E SIM ID	839648
LCSD 680-839648/3-A	Lab Control Sample Dup	Total/NA	Water	8270E SIM ID	839648

Prep Batch: 839856

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251152-3	OU6-DUP-5-20240522	Total/NA	Water	3510C	
MB 680-839856/1-A	Method Blank	Total/NA	Water	3510C	
LCS 680-839856/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 680-839856/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 839928

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251152-3	OU6-DUP-5-20240522	Total/NA	Water	8270E	839856
MB 680-839856/1-A	Method Blank	Total/NA	Water	8270E	839856
LCS 680-839856/2-A	Lab Control Sample	Total/NA	Water	8270E	839856
LCSD 680-839856/3-A	Lab Control Sample Dup	Total/NA	Water	8270E	839856

QC Association Summary

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-251152-1

GC VOA

Analysis Batch: 840990

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251152-1	OU6-MW-130-20240522	Total/NA	Water	RSK-175	
680-251152-2	OU6-MW-272-20240522	Total/NA	Water	RSK-175	
680-251152-3	OU6-DUP-5-20240522	Total/NA	Water	RSK-175	
680-251152-4	OU6-MW-88-20240522	Total/NA	Water	RSK-175	
680-251152-5	OU6-MW-271-20240522	Total/NA	Water	RSK-175	
680-251152-6	OU6-MW-247-20240522	Total/NA	Water	RSK-175	
680-251152-7	OU6-MW-251-20240522	Total/NA	Water	RSK-175	
680-251152-8	OU6-MW-250-20240522	Total/NA	Water	RSK-175	
680-251152-9	OU6-MW-157-20240522	Total/NA	Water	RSK-175	
680-251152-10	OU6-MW-289-20240522	Total/NA	Water	RSK-175	
680-251152-11	OU6-MW-291-20240522	Total/NA	Water	RSK-175	
680-251152-15	OU6-MW-217-20240522	Total/NA	Water	RSK-175	
680-251152-16	OU6-EBF-08D-20240522	Total/NA	Water	RSK-175	
680-251152-17	OU6-MW-285-20240522	Total/NA	Water	RSK-175	
680-251152-18	OU6-MW-255-20240522	Total/NA	Water	RSK-175	
MB 680-840990/8	Method Blank	Total/NA	Water	RSK-175	
LCS 680-840990/3	Lab Control Sample	Total/NA	Water	RSK-175	
LCS 680-840990/6	Lab Control Sample	Total/NA	Water	RSK-175	
LCSD 680-840990/4	Lab Control Sample Dup	Total/NA	Water	RSK-175	
LCSD 680-840990/7	Lab Control Sample Dup	Total/NA	Water	RSK-175	

GC Semi VOA

Prep Batch: 839562

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251152-2	OU6-MW-272-20240522	Total/NA	Water	3510C	
MB 680-839562/1-A	Method Blank	Total/NA	Water	3510C	
LCS 680-839562/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCS 680-839562/5-A	Lab Control Sample	Total/NA	Water	3510C	

Analysis Batch: 839672

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251152-2	OU6-MW-272-20240522	Total/NA	Water	8081B 8082A	839562
MB 680-839562/1-A	Method Blank	Total/NA	Water	8081B 8082A	839562
LCS 680-839562/2-A	Lab Control Sample	Total/NA	Water	8081B 8082A	839562
LCS 680-839562/5-A	Lab Control Sample	Total/NA	Water	8081B 8082A	839562

Prep Batch: 839861

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251152-3	OU6-DUP-5-20240522	Total/NA	Water	3510C	
MB 680-839861/1-A	Method Blank	Total/NA	Water	3510C	
LCS 680-839861/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCS 680-839861/4-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 680-839861/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
LCSD 680-839861/5-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 840047

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251152-3	OU6-DUP-5-20240522	Total/NA	Water	8081B 8082A	839861
MB 680-839861/1-A	Method Blank	Total/NA	Water	8081B 8082A	839861
LCS 680-839861/2-A	Lab Control Sample	Total/NA	Water	8081B 8082A	839861

GC Semi VOA (Continued)

Analysis Batch: 840047 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 680-839861/4-A	Lab Control Sample	Total/NA	Water	8081B 8082A	839861
LCSD 680-839861/3-A	Lab Control Sample Dup	Total/NA	Water	8081B 8082A	839861
LCSD 680-839861/5-A	Lab Control Sample Dup	Total/NA	Water	8081B 8082A	839861

HPLC/IC

Analysis Batch: 839434

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251152-1	OU6-MW-130-20240522	Total/NA	Water	9056A	
680-251152-2	OU6-MW-272-20240522	Total/NA	Water	9056A	
680-251152-3	OU6-DUP-5-20240522	Total/NA	Water	9056A	
680-251152-4	OU6-MW-88-20240522	Total/NA	Water	9056A	
680-251152-5	OU6-MW-271-20240522	Total/NA	Water	9056A	
680-251152-6	OU6-MW-247-20240522	Total/NA	Water	9056A	
680-251152-7	OU6-MW-251-20240522	Total/NA	Water	9056A	
680-251152-8	OU6-MW-250-20240522	Total/NA	Water	9056A	
680-251152-9	OU6-MW-157-20240522	Total/NA	Water	9056A	
680-251152-10	OU6-MW-289-20240522	Total/NA	Water	9056A	
680-251152-11	OU6-MW-291-20240522	Total/NA	Water	9056A	
680-251152-15	OU6-MW-217-20240522	Total/NA	Water	9056A	
680-251152-16	OU6-EBF-08D-20240522	Total/NA	Water	9056A	
680-251152-17	OU6-MW-285-20240522	Total/NA	Water	9056A	
680-251152-18	OU6-MW-255-20240522	Total/NA	Water	9056A	
MB 680-839434/2	Method Blank	Total/NA	Water	9056A	
LCSD 680-839434/4	Lab Control Sample Dup	Total/NA	Water	9056A	
680-251152-10 MS	OU6-MW-289-20240522	Total/NA	Water	9056A	
680-251152-10 MSD	OU6-MW-289-20240522	Total/NA	Water	9056A	
680-251152-18 MS	OU6-MW-255-20240522	Total/NA	Water	9056A	
680-251152-18 MSD	OU6-MW-255-20240522	Total/NA	Water	9056A	

Analysis Batch: 841024

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251152-1	OU6-MW-130-20240522	Total/NA	Water	9056A	
680-251152-2	OU6-MW-272-20240522	Total/NA	Water	9056A	
680-251152-3	OU6-DUP-5-20240522	Total/NA	Water	9056A	
680-251152-4	OU6-MW-88-20240522	Total/NA	Water	9056A	
680-251152-5	OU6-MW-271-20240522	Total/NA	Water	9056A	
680-251152-6	OU6-MW-247-20240522	Total/NA	Water	9056A	
680-251152-7	OU6-MW-251-20240522	Total/NA	Water	9056A	
680-251152-8	OU6-MW-250-20240522	Total/NA	Water	9056A	
680-251152-9	OU6-MW-157-20240522	Total/NA	Water	9056A	
680-251152-10	OU6-MW-289-20240522	Total/NA	Water	9056A	
680-251152-11	OU6-MW-291-20240522	Total/NA	Water	9056A	
680-251152-15	OU6-MW-217-20240522	Total/NA	Water	9056A	
680-251152-16	OU6-EBF-08D-20240522	Total/NA	Water	9056A	
680-251152-17	OU6-MW-285-20240522	Total/NA	Water	9056A	
680-251152-18	OU6-MW-255-20240522	Total/NA	Water	9056A	
MB 680-841024/35	Method Blank	Total/NA	Water	9056A	
LCS 680-841024/36	Lab Control Sample	Total/NA	Water	9056A	
LCSD 680-841024/37	Lab Control Sample Dup	Total/NA	Water	9056A	
680-251152-4 MS	OU6-MW-88-20240522	Total/NA	Water	9056A	

HPLC/IC (Continued)

Analysis Batch: 841024 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251152-4 MSD	OU6-MW-88-20240522	Total/NA	Water	9056A	
680-251152-16 MS	OU6-EBF-08D-20240522	Total/NA	Water	9056A	
680-251152-16 MSD	OU6-EBF-08D-20240522	Total/NA	Water	9056A	

Analysis Batch: 841151

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251152-3	OU6-DUP-5-20240522	Total/NA	Water	9056A	
680-251152-5	OU6-MW-271-20240522	Total/NA	Water	9056A	
680-251152-9	OU6-MW-157-20240522	Total/NA	Water	9056A	
MB 680-841151/4	Method Blank	Total/NA	Water	9056A	
LCS 680-841151/5	Lab Control Sample	Total/NA	Water	9056A	
LCSD 680-841151/6	Lab Control Sample Dup	Total/NA	Water	9056A	
680-251152-3 MS	OU6-DUP-5-20240522	Total/NA	Water	9056A	
680-251152-3 MSD	OU6-DUP-5-20240522	Total/NA	Water	9056A	

Metals

Prep Batch: 839552

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251152-1	OU6-MW-130-20240522	Total Recoverable	Water	3005A	
680-251152-2	OU6-MW-272-20240522	Total Recoverable	Water	3005A	
680-251152-3	OU6-DUP-5-20240522	Total Recoverable	Water	3005A	
680-251152-4	OU6-MW-88-20240522	Total Recoverable	Water	3005A	
680-251152-5	OU6-MW-271-20240522	Total Recoverable	Water	3005A	
680-251152-6	OU6-MW-247-20240522	Total Recoverable	Water	3005A	
680-251152-8	OU6-MW-250-20240522	Total Recoverable	Water	3005A	
680-251152-11	OU6-MW-291-20240522	Total Recoverable	Water	3005A	
680-251152-15	OU6-MW-217-20240522	Total Recoverable	Water	3005A	
680-251152-16	OU6-EBF-08D-20240522	Total Recoverable	Water	3005A	
680-251152-17	OU6-MW-285-20240522	Total Recoverable	Water	3005A	
680-251152-18	OU6-MW-255-20240522	Total Recoverable	Water	3005A	
MB 680-839552/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 680-839552/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
680-251152-8 MS	OU6-MW-250-20240522	Total Recoverable	Water	3005A	
680-251152-8 MSD	OU6-MW-250-20240522	Total Recoverable	Water	3005A	

Prep Batch: 839558

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251152-7	OU6-MW-251-20240522	Total Recoverable	Water	3005A	
680-251152-9	OU6-MW-157-20240522	Total Recoverable	Water	3005A	
680-251152-10	OU6-MW-289-20240522	Total Recoverable	Water	3005A	
MB 680-839558/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 680-839558/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 840087

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251152-1	OU6-MW-130-20240522	Total Recoverable	Water	6020A	839552
680-251152-2	OU6-MW-272-20240522	Total Recoverable	Water	6020A	839552
680-251152-3	OU6-DUP-5-20240522	Total Recoverable	Water	6020A	839552
680-251152-4	OU6-MW-88-20240522	Total Recoverable	Water	6020A	839552
680-251152-5	OU6-MW-271-20240522	Total Recoverable	Water	6020A	839552

Metals (Continued)

Analysis Batch: 840087 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251152-6	OU6-MW-247-20240522	Total Recoverable	Water	6020A	839552
680-251152-7	OU6-MW-251-20240522	Total Recoverable	Water	6020A	839558
680-251152-8	OU6-MW-250-20240522	Total Recoverable	Water	6020A	839552
680-251152-9	OU6-MW-157-20240522	Total Recoverable	Water	6020A	839558
680-251152-10	OU6-MW-289-20240522	Total Recoverable	Water	6020A	839558
680-251152-11	OU6-MW-291-20240522	Total Recoverable	Water	6020A	839552
680-251152-15	OU6-MW-217-20240522	Total Recoverable	Water	6020A	839552
680-251152-16	OU6-EBF-08D-20240522	Total Recoverable	Water	6020A	839552
680-251152-17	OU6-MW-285-20240522	Total Recoverable	Water	6020A	839552
680-251152-18	OU6-MW-255-20240522	Total Recoverable	Water	6020A	839552
MB 680-839552/1-A	Method Blank	Total Recoverable	Water	6020A	839552
MB 680-839558/1-A	Method Blank	Total Recoverable	Water	6020A	839558
LCS 680-839552/2-A	Lab Control Sample	Total Recoverable	Water	6020A	839552
LCS 680-839558/2-A	Lab Control Sample	Total Recoverable	Water	6020A	839558
680-251152-8 MS	OU6-MW-250-20240522	Total Recoverable	Water	6020A	839552
680-251152-8 MSD	OU6-MW-250-20240522	Total Recoverable	Water	6020A	839552

Prep Batch: 840176

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251152-2	OU6-MW-272-20240522	Total/NA	Water	7470A	
680-251152-3	OU6-DUP-5-20240522	Total/NA	Water	7470A	
MB 680-840176/1-A	Method Blank	Total/NA	Water	7470A	
LCS 680-840176/2-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 840431

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251152-2	OU6-MW-272-20240522	Total/NA	Water	7470A	840176
680-251152-3	OU6-DUP-5-20240522	Total/NA	Water	7470A	840176
MB 680-840176/1-A	Method Blank	Total/NA	Water	7470A	840176
LCS 680-840176/2-A	Lab Control Sample	Total/NA	Water	7470A	840176

General Chemistry

Analysis Batch: 839938

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251152-1	OU6-MW-130-20240522	Total/NA	Water	2320B-2011	
680-251152-1	OU6-MW-130-20240522	Total/NA	Water	SM 4500 CO2 D	
680-251152-2	OU6-MW-272-20240522	Total/NA	Water	2320B-2011	
680-251152-2	OU6-MW-272-20240522	Total/NA	Water	SM 4500 CO2 D	
680-251152-3	OU6-DUP-5-20240522	Total/NA	Water	2320B-2011	
680-251152-3	OU6-DUP-5-20240522	Total/NA	Water	SM 4500 CO2 D	
680-251152-4	OU6-MW-88-20240522	Total/NA	Water	2320B-2011	
680-251152-4	OU6-MW-88-20240522	Total/NA	Water	SM 4500 CO2 D	
680-251152-5	OU6-MW-271-20240522	Total/NA	Water	2320B-2011	
680-251152-5	OU6-MW-271-20240522	Total/NA	Water	SM 4500 CO2 D	
680-251152-6	OU6-MW-247-20240522	Total/NA	Water	2320B-2011	
680-251152-6	OU6-MW-247-20240522	Total/NA	Water	SM 4500 CO2 D	
680-251152-7	OU6-MW-251-20240522	Total/NA	Water	2320B-2011	
680-251152-7	OU6-MW-251-20240522	Total/NA	Water	SM 4500 CO2 D	
680-251152-8	OU6-MW-250-20240522	Total/NA	Water	2320B-2011	
680-251152-8	OU6-MW-250-20240522	Total/NA	Water	SM 4500 CO2 D	

General Chemistry (Continued)

Analysis Batch: 839938 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251152-9	OU6-MW-157-20240522	Total/NA	Water	2320B-2011	
680-251152-9	OU6-MW-157-20240522	Total/NA	Water	SM 4500 CO2 D	
680-251152-10	OU6-MW-289-20240522	Total/NA	Water	2320B-2011	
680-251152-10	OU6-MW-289-20240522	Total/NA	Water	SM 4500 CO2 D	
680-251152-11	OU6-MW-291-20240522	Total/NA	Water	2320B-2011	
680-251152-11	OU6-MW-291-20240522	Total/NA	Water	SM 4500 CO2 D	
680-251152-15	OU6-MW-217-20240522	Total/NA	Water	2320B-2011	
680-251152-15	OU6-MW-217-20240522	Total/NA	Water	SM 4500 CO2 D	
680-251152-16	OU6-EBF-08D-20240522	Total/NA	Water	2320B-2011	
680-251152-16	OU6-EBF-08D-20240522	Total/NA	Water	SM 4500 CO2 D	
680-251152-17	OU6-MW-285-20240522	Total/NA	Water	2320B-2011	
680-251152-17	OU6-MW-285-20240522	Total/NA	Water	SM 4500 CO2 D	
680-251152-18	OU6-MW-255-20240522	Total/NA	Water	2320B-2011	
680-251152-18	OU6-MW-255-20240522	Total/NA	Water	SM 4500 CO2 D	
MB 680-839938/4	Method Blank	Total/NA	Water	2320B-2011	
LCS 680-839938/6	Lab Control Sample	Total/NA	Water	2320B-2011	
LCSD 680-839938/31	Lab Control Sample Dup	Total/NA	Water	2320B-2011	
680-251152-15 DU	OU6-MW-217-20240522	Total/NA	Water	2320B-2011	
680-251152-15 DU	OU6-MW-217-20240522	Total/NA	Water	SM 4500 CO2 D	

Analysis Batch: 840038

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251152-1	OU6-MW-130-20240522	Total/NA	Water	4500 S2 F-2011	
680-251152-2	OU6-MW-272-20240522	Total/NA	Water	4500 S2 F-2011	
680-251152-3	OU6-DUP-5-20240522	Total/NA	Water	4500 S2 F-2011	
680-251152-4	OU6-MW-88-20240522	Total/NA	Water	4500 S2 F-2011	
680-251152-5	OU6-MW-271-20240522	Total/NA	Water	4500 S2 F-2011	
680-251152-6	OU6-MW-247-20240522	Total/NA	Water	4500 S2 F-2011	
680-251152-7	OU6-MW-251-20240522	Total/NA	Water	4500 S2 F-2011	
680-251152-8	OU6-MW-250-20240522	Total/NA	Water	4500 S2 F-2011	
680-251152-9	OU6-MW-157-20240522	Total/NA	Water	4500 S2 F-2011	
680-251152-10	OU6-MW-289-20240522	Total/NA	Water	4500 S2 F-2011	
680-251152-11	OU6-MW-291-20240522	Total/NA	Water	4500 S2 F-2011	
680-251152-15	OU6-MW-217-20240522	Total/NA	Water	4500 S2 F-2011	
680-251152-16	OU6-EBF-08D-20240522	Total/NA	Water	4500 S2 F-2011	
680-251152-17	OU6-MW-285-20240522	Total/NA	Water	4500 S2 F-2011	
680-251152-18	OU6-MW-255-20240522	Total/NA	Water	4500 S2 F-2011	
MB 680-840038/1	Method Blank	Total/NA	Water	4500 S2 F-2011	
LCS 680-840038/2	Lab Control Sample	Total/NA	Water	4500 S2 F-2011	
LCSD 680-840038/3	Lab Control Sample Dup	Total/NA	Water	4500 S2 F-2011	
680-251152-2 MS	OU6-MW-272-20240522	Total/NA	Water	4500 S2 F-2011	
680-251152-2 MSD	OU6-MW-272-20240522	Total/NA	Water	4500 S2 F-2011	
680-251152-1 DU	OU6-MW-130-20240522	Total/NA	Water	4500 S2 F-2011	

Analysis Batch: 840410

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251152-1	OU6-MW-130-20240522	Total/NA	Water	9060A	
680-251152-2	OU6-MW-272-20240522	Total/NA	Water	9060A	
680-251152-3	OU6-DUP-5-20240522	Total/NA	Water	9060A	
680-251152-4	OU6-MW-88-20240522	Total/NA	Water	9060A	
680-251152-5	OU6-MW-271-20240522	Total/NA	Water	9060A	

General Chemistry (Continued)

Analysis Batch: 840410 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 680-840410/3	Method Blank	Total/NA	Water	9060A	
LCS 680-840410/4	Lab Control Sample	Total/NA	Water	9060A	
LCSD 680-840410/5	Lab Control Sample Dup	Total/NA	Water	9060A	

Analysis Batch: 840411

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251152-6	OU6-MW-247-20240522	Total/NA	Water	9060A	
680-251152-7	OU6-MW-251-20240522	Total/NA	Water	9060A	
680-251152-8	OU6-MW-250-20240522	Total/NA	Water	9060A	
680-251152-9	OU6-MW-157-20240522	Total/NA	Water	9060A	
680-251152-10	OU6-MW-289-20240522	Total/NA	Water	9060A	
680-251152-11	OU6-MW-291-20240522	Total/NA	Water	9060A	
680-251152-15	OU6-MW-217-20240522	Total/NA	Water	9060A	
680-251152-16	OU6-EBF-08D-20240522	Total/NA	Water	9060A	
680-251152-17	OU6-MW-285-20240522	Total/NA	Water	9060A	
680-251152-18	OU6-MW-255-20240522	Total/NA	Water	9060A	
MB 680-840411/1	Method Blank	Total/NA	Water	9060A	
LCS 680-840411/2	Lab Control Sample	Total/NA	Water	9060A	
LCSD 680-840411/3	Lab Control Sample Dup	Total/NA	Water	9060A	

Lab Chronicle

Client: Meadows CMPG, Inc
Job ID: 680-251152-1
Project/Site: DSCR - OU6 Annual

Client Sample ID: OU6-MW-130-20240522
Lab Sample ID: 680-251152-1
Date Collected: 05/22/24 12:25
Matrix: Water
Date Received: 05/23/24 09:29

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	840706	06/02/24 14:46	P1C	EET SAV
	Instrument ID: CMSAJ									
Total/NA	Analysis	RSK-175		1	17 mL	17 mL	840990	06/04/24 15:48	OK	EET SAV
	Instrument ID: CVGU									
Total/NA	Analysis	9056A		2	5 mL	5 mL	839434	05/23/24 15:10	UI	EET SAV
	Instrument ID: CICP									
Total/NA	Analysis	9056A		1	2 mL	2 mL	841024	06/04/24 18:26	BS	EET SAV
	Instrument ID: CICR									
Total Recoverable	Prep	3005A			25 mL	125 mL	839552	05/24/24 05:51	RR	EET SAV
Total Recoverable	Analysis	6020A		1			840087	05/28/24 10:37	BJB	EET SAV
	Instrument ID: ICPMSD									
Total/NA	Analysis	2320B-2011		1			839938	05/24/24 20:39	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	4500 S2 F-2011		1	280 mL	280 mL	840038	05/28/24 15:15	JAS	EET SAV
	Instrument ID: NoEquip									
Total/NA	Analysis	9060A		1	40 mL	40 mL	840410	05/28/24 20:06	NVF	EET SAV
	Instrument ID: TOC8									
Total/NA	Analysis	SM 4500 CO2 D		1			839938	05/24/24 20:39	PG	EET SAV
	Instrument ID: MANTECH 2									

Client Sample ID: OU6-MW-272-20240522
Lab Sample ID: 680-251152-2
Date Collected: 05/22/24 08:05
Matrix: Water
Date Received: 05/23/24 09:29

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	840706	06/02/24 15:07	P1C	EET SAV
	Instrument ID: CMSAJ									
Total/NA	Prep	3510C			450.3 mL	1 mL	839561	05/24/24 07:12	DS	EET SAV
Total/NA	Analysis	8270E		1	1 mL	1 mL	839803	05/26/24 22:45	T1C	EET SAV
	Instrument ID: CMSD									
Total/NA	Prep	3510C			235.7 mL	1 mL	839648	05/24/24 11:32	RR	EET SAV
Total/NA	Analysis	8270E SIM		1	1 mL	1 mL	839636	05/24/24 21:10	NED	EET SAV
	Instrument ID: CMSY									
Total/NA	Analysis	RSK-175		1	17 mL	17 mL	840990	06/04/24 16:01	OK	EET SAV
	Instrument ID: CVGU									
Total/NA	Prep	3510C			231.2 mL	1 mL	839562	05/24/24 07:17	DS	EET SAV
Total/NA	Analysis	8081B 8082A		1	1 mL	1 mL	839672	05/24/24 20:28	K1C	EET SAV
	Instrument ID: CSGAE									
Total/NA	Analysis	9056A		1	5 mL	5 mL	839434	05/23/24 15:18	UI	EET SAV
	Instrument ID: CICP									
Total/NA	Analysis	9056A		1	2 mL	2 mL	841024	06/04/24 18:34	BS	EET SAV
	Instrument ID: CICR									
Total Recoverable	Prep	3005A			25 mL	125 mL	839552	05/24/24 05:51	RR	EET SAV
Total Recoverable	Analysis	6020A		1			840087	05/28/24 10:35	BJB	EET SAV
	Instrument ID: ICPMSD									

Client Sample ID: OU6-MW-272-20240522
Lab Sample ID: 680-251152-2

Date Collected: 05/22/24 08:05
Matrix: Water

Date Received: 05/23/24 09:29

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7470A			50 mL	50 mL	840176	05/29/24 12:00	RS	EET SAV
Total/NA	Analysis	7470A		1			840431	05/29/24 16:17	BCB	EET SAV
	Instrument ID: QuickTrace2									
Total/NA	Analysis	2320B-2011		1			839938	05/24/24 20:17	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	4500 S2 F-2011		1	260 mL	260 mL	840038	05/28/24 15:15	JAS	EET SAV
	Instrument ID: NoEquip									
Total/NA	Analysis	9060A		1	40 mL	40 mL	840410	05/28/24 20:24	NVF	EET SAV
	Instrument ID: TOC8									
Total/NA	Analysis	SM 4500 CO2 D		1			839938	05/24/24 20:17	PG	EET SAV
	Instrument ID: MANTECH 2									

Client Sample ID: OU6-DUP-5-20240522
Lab Sample ID: 680-251152-3

Date Collected: 05/22/24 00:00
Matrix: Water

Date Received: 05/23/24 09:29

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	840706	06/02/24 15:29	P1C	EET SAV
	Instrument ID: CMSAJ									
Total/NA	Prep	3510C			447.2 mL	1 mL	839856	05/28/24 07:00	DS	EET SAV
Total/NA	Analysis	8270E		1	1 mL	1 mL	839928	05/28/24 19:41	T1C	EET SAV
	Instrument ID: CMSD									
Total/NA	Prep	3510C			206.6 mL	1 mL	839715	05/25/24 07:20	DS	EET SAV
Total/NA	Analysis	8270E SIM		1	1 mL	1 mL	839809	05/28/24 16:29	NED	EET SAV
	Instrument ID: CMSY									
Total/NA	Analysis	RSK-175		1	17 mL	17 mL	840990	06/04/24 16:14	OK	EET SAV
	Instrument ID: CVGU									
Total/NA	Prep	3510C			241.8 mL	1 mL	839861	05/28/24 07:28	DS	EET SAV
Total/NA	Analysis	8081B 8082A		1	1 mL	1 mL	840047	05/28/24 19:06	K1C	EET SAV
	Instrument ID: CSGAE									
Total/NA	Analysis	9056A		1	5 mL	5 mL	839434	05/23/24 15:26	UI	EET SAV
	Instrument ID: CICP									
Total/NA	Analysis	9056A		1	2 mL	2 mL	841024	06/04/24 18:40	BS	EET SAV
	Instrument ID: CICR									
Total/NA	Analysis	9056A		10	2 mL	2 mL	841151	06/05/24 13:59	BS	EET SAV
	Instrument ID: CICR									
Total Recoverable	Prep	3005A			25 mL	125 mL	839552	05/24/24 05:51	RR	EET SAV
Total Recoverable	Analysis	6020A		1			840087	05/28/24 10:39	BJB	EET SAV
	Instrument ID: ICPMSD									
Total/NA	Prep	7470A			50 mL	50 mL	840176	05/29/24 12:00	RS	EET SAV
Total/NA	Analysis	7470A		1			840431	05/29/24 16:19	BCB	EET SAV
	Instrument ID: QuickTrace2									
Total/NA	Analysis	2320B-2011		1			839938	05/24/24 20:23	PG	EET SAV
	Instrument ID: MANTECH 2									

Lab Chronicle

Client: Meadows CMPG, Inc
Job ID: 680-251152-1
Project/Site: DSCR - OU6 Annual

Client Sample ID: OU6-DUP-5-20240522
Lab Sample ID: 680-251152-3
Date Collected: 05/22/24 00:00
Matrix: Water
Date Received: 05/23/24 09:29

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	4500 S2 F-2011		1	250 mL	250 mL	840038	05/28/24 15:15	JAS	EET SAV
Total/NA	Analysis	9060A		1	40 mL	40 mL	840410	05/28/24 20:42	NVF	EET SAV
	Instrument ID: TOC8									
Total/NA	Analysis	SM 4500 CO2 D		1			839938	05/24/24 20:23	PG	EET SAV
	Instrument ID: MANTECH 2									

Client Sample ID: OU6-MW-88-20240522
Lab Sample ID: 680-251152-4
Date Collected: 05/22/24 10:05
Matrix: Water
Date Received: 05/23/24 09:29

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	840706	06/02/24 15:50	P1C	EET SAV
	Instrument ID: CMSAJ									
Total/NA	Analysis	RSK-175		1	17 mL	17 mL	840990	06/04/24 16:27	OK	EET SAV
	Instrument ID: CVGU									
Total/NA	Analysis	9056A		1	5 mL	5 mL	839434	05/23/24 15:35	UI	EET SAV
	Instrument ID: CICP									
Total/NA	Analysis	9056A		1	2 mL	2 mL	841024	06/04/24 18:47	BS	EET SAV
	Instrument ID: CICR									
Total Recoverable	Prep	3005A			25 mL	125 mL	839552	05/24/24 05:51	RR	EET SAV
Total Recoverable	Analysis	6020A		1			840087	05/28/24 10:33	BJB	EET SAV
	Instrument ID: ICPMSD									
Total/NA	Analysis	2320B-2011		1			839938	05/24/24 23:10	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	4500 S2 F-2011		1	300 mL	300 mL	840038	05/28/24 15:15	JAS	EET SAV
	Instrument ID: NoEquip									
Total/NA	Analysis	9060A		1	40 mL	40 mL	840410	05/28/24 20:59	NVF	EET SAV
	Instrument ID: TOC8									
Total/NA	Analysis	SM 4500 CO2 D		1			839938	05/24/24 23:10	PG	EET SAV
	Instrument ID: MANTECH 2									

Client Sample ID: OU6-MW-271-20240522
Lab Sample ID: 680-251152-5
Date Collected: 05/22/24 07:55
Matrix: Water
Date Received: 05/23/24 09:29

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		5	5 mL	5 mL	840706	06/02/24 18:51	P1C	EET SAV
	Instrument ID: CMSAJ									
Total/NA	Analysis	8260D		5	5 mL	5 mL	840935	06/04/24 15:28	P1C	EET SAV
	Instrument ID: CMSAJ									
Total/NA	Analysis	RSK-175		1	17 mL	17 mL	840990	06/04/24 16:40	OK	EET SAV
	Instrument ID: CVGU									
Total/NA	Analysis	9056A		1	5 mL	5 mL	839434	05/23/24 15:43	UI	EET SAV
	Instrument ID: CICP									

Lab Chronicle

Client: Meadows CMPG, Inc
Job ID: 680-251152-1
Project/Site: DSCR - OU6 Annual

Client Sample ID: OU6-MW-271-20240522
Lab Sample ID: 680-251152-5
Date Collected: 05/22/24 07:55
Matrix: Water
Date Received: 05/23/24 09:29

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		2	2 mL	2 mL	841024	06/04/24 19:06	BS	EET SAV
Total/NA	Analysis	9056A		20	2 mL	2 mL	841151	06/05/24 14:19	BS	EET SAV
	Instrument ID: CICR									
Total Recoverable	Prep	3005A			25 mL	125 mL	839552	05/24/24 05:51	RR	EET SAV
Total Recoverable	Analysis	6020A		1			840087	05/28/24 11:18	BJB	EET SAV
	Instrument ID: ICPMSD									
Total/NA	Analysis	2320B-2011		1			839938	05/24/24 20:29	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	4500 S2 F-2011		1	290 mL	290 mL	840038	05/28/24 15:15	JAS	EET SAV
	Instrument ID: NoEquip									
Total/NA	Analysis	9060A		1	40 mL	40 mL	840410	05/28/24 21:17	NVF	EET SAV
	Instrument ID: TOC8									
Total/NA	Analysis	SM 4500 CO2 D		1			839938	05/24/24 20:29	PG	EET SAV
	Instrument ID: MANTECH 2									

Client Sample ID: OU6-MW-247-20240522
Lab Sample ID: 680-251152-6
Date Collected: 05/22/24 09:20
Matrix: Water
Date Received: 05/23/24 09:29

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	840706	06/02/24 16:12	P1C	EET SAV
	Instrument ID: CMSAJ									
Total/NA	Analysis	RSK-175		1	17 mL	17 mL	840990	06/04/24 17:30	OK	EET SAV
	Instrument ID: CVGU									
Total/NA	Analysis	9056A		1	5 mL	5 mL	839434	05/23/24 15:51	UI	EET SAV
	Instrument ID: CICP									
Total/NA	Analysis	9056A		1	2 mL	2 mL	841024	06/04/24 19:12	BS	EET SAV
	Instrument ID: CICR									
Total Recoverable	Prep	3005A			25 mL	125 mL	839552	05/24/24 05:51	RR	EET SAV
Total Recoverable	Analysis	6020A		1			840087	05/28/24 11:16	BJB	EET SAV
	Instrument ID: ICPMSD									
Total/NA	Analysis	2320B-2011		1			839938	05/24/24 21:03	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	4500 S2 F-2011		1	240 mL	240 mL	840038	05/28/24 15:15	JAS	EET SAV
	Instrument ID: NoEquip									
Total/NA	Analysis	9060A		15	40 mL	40 mL	840411	05/29/24 13:33	NVF	EET SAV
	Instrument ID: TOC8									
Total/NA	Analysis	SM 4500 CO2 D		1			839938	05/24/24 21:03	PG	EET SAV
	Instrument ID: MANTECH 2									

Client Sample ID: OU6-MW-251-20240522
Lab Sample ID: 680-251152-7

Date Collected: 05/22/24 12:10
Matrix: Water
Date Received: 05/23/24 09:29

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		2	5 mL	5 mL	840706	06/02/24 17:39	P1C	EET SAV
	Instrument ID: CMSAJ									
Total/NA	Analysis	RSK-175		1	17 mL	17 mL	840990	06/04/24 17:43	OK	EET SAV
	Instrument ID: CVGU									
Total/NA	Analysis	9056A		2	5 mL	5 mL	839434	05/23/24 16:00	UI	EET SAV
	Instrument ID: CICP									
Total/NA	Analysis	9056A		1	2 mL	2 mL	841024	06/04/24 19:19	BS	EET SAV
	Instrument ID: CICR									
Total Recoverable	Prep	3005A			25 mL	125 mL	839558	05/24/24 06:46	RR	EET SAV
Total Recoverable	Analysis	6020A		1			840087	05/28/24 11:38	BJB	EET SAV
	Instrument ID: ICPMSD									
Total/NA	Analysis	2320B-2011		1			839938	05/24/24 20:11	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	4500 S2 F-2011		1	310 mL	310 mL	840038	05/28/24 15:15	JAS	EET SAV
	Instrument ID: NoEquip									
Total/NA	Analysis	9060A		1	40 mL	40 mL	840411	05/29/24 00:11	NVF	EET SAV
	Instrument ID: TOC8									
Total/NA	Analysis	SM 4500 CO2 D		1			839938	05/24/24 20:11	PG	EET SAV
	Instrument ID: MANTECH 2									

Client Sample ID: OU6-MW-250-20240522
Lab Sample ID: 680-251152-8

Date Collected: 05/22/24 10:50
Matrix: Water
Date Received: 05/23/24 09:29

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	840706	06/02/24 16:33	P1C	EET SAV
	Instrument ID: CMSAJ									
Total/NA	Analysis	RSK-175		1	17 mL	17 mL	840990	06/04/24 17:56	OK	EET SAV
	Instrument ID: CVGU									
Total/NA	Analysis	9056A		2	5 mL	5 mL	839434	05/23/24 16:08	UI	EET SAV
	Instrument ID: CICP									
Total/NA	Analysis	9056A		1	2 mL	2 mL	841024	06/04/24 19:25	BS	EET SAV
	Instrument ID: CICR									
Total Recoverable	Prep	3005A			25 mL	125 mL	839552	05/24/24 05:51	RR	EET SAV
Total Recoverable	Analysis	6020A		1			840087	05/28/24 10:27	BJB	EET SAV
	Instrument ID: ICPMSD									
Total/NA	Analysis	2320B-2011		1			839938	05/24/24 21:14	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	4500 S2 F-2011		1	310 mL	310 mL	840038	05/28/24 15:15	JAS	EET SAV
	Instrument ID: NoEquip									
Total/NA	Analysis	9060A		1	40 mL	40 mL	840411	05/29/24 00:29	NVF	EET SAV
	Instrument ID: TOC8									
Total/NA	Analysis	SM 4500 CO2 D		1			839938	05/24/24 21:14	PG	EET SAV
	Instrument ID: MANTECH 2									

Client Sample ID: OU6-MW-157-20240522
Lab Sample ID: 680-251152-9

Date Collected: 05/22/24 11:25
Matrix: Water
Date Received: 05/23/24 09:29

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		10	5 mL	5 mL	840706	06/02/24 19:39	P1C	EET SAV
	Instrument ID: CMSAJ									
Total/NA	Analysis	RSK-175		1	17 mL	17 mL	840990	06/04/24 18:09	OK	EET SAV
	Instrument ID: CVGU									
Total/NA	Analysis	9056A		2	5 mL	5 mL	839434	05/23/24 16:16	UI	EET SAV
	Instrument ID: CICP									
Total/NA	Analysis	9056A		1	2 mL	2 mL	841024	06/04/24 19:52	BS	EET SAV
	Instrument ID: CICR									
Total/NA	Analysis	9056A		10	2 mL	2 mL	841151	06/05/24 14:25	BS	EET SAV
	Instrument ID: CICR									
Total Recoverable	Prep	3005A			25 mL	125 mL	839558	05/24/24 06:46	RR	EET SAV
Total Recoverable	Analysis	6020A		1			840087	05/28/24 11:34	BJB	EET SAV
	Instrument ID: ICPMSD									
Total/NA	Analysis	2320B-2011		1			839938	05/24/24 21:23	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	4500 S2 F-2011		1	310 mL	310 mL	840038	05/28/24 15:15	JAS	EET SAV
	Instrument ID: NoEquip									
Total/NA	Analysis	9060A		1	40 mL	40 mL	840411	05/29/24 00:47	NVF	EET SAV
	Instrument ID: TOC8									
Total/NA	Analysis	SM 4500 CO2 D		1			839938	05/24/24 21:23	PG	EET SAV
	Instrument ID: MANTECH 2									

Client Sample ID: OU6-MW-289-20240522
Lab Sample ID: 680-251152-10

Date Collected: 05/22/24 13:10
Matrix: Water
Date Received: 05/23/24 09:29

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		5	5 mL	5 mL	840706	06/02/24 18:27	P1C	EET SAV
	Instrument ID: CMSAJ									
Total/NA	Analysis	8260D		5	5 mL	5 mL	840935	06/04/24 15:52	P1C	EET SAV
	Instrument ID: CMSAJ									
Total/NA	Analysis	RSK-175		1	17 mL	17 mL	840990	06/04/24 18:22	OK	EET SAV
	Instrument ID: CVGU									
Total/NA	Analysis	9056A		1	5 mL	5 mL	839434	05/23/24 16:24	UI	EET SAV
	Instrument ID: CICP									
Total/NA	Analysis	9056A		5	2 mL	2 mL	841024	06/04/24 19:58	BS	EET SAV
	Instrument ID: CICR									
Total Recoverable	Prep	3005A			25 mL	125 mL	839558	05/24/24 06:46	RR	EET SAV
Total Recoverable	Analysis	6020A		1			840087	05/28/24 11:36	BJB	EET SAV
	Instrument ID: ICPMSD									
Total/NA	Analysis	2320B-2011		1			839938	05/24/24 22:21	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	4500 S2 F-2011		1	310 mL	310 mL	840038	05/28/24 15:15	JAS	EET SAV
	Instrument ID: NoEquip									

Lab Chronicle

Client: Meadows CMPG, Inc
Job ID: 680-251152-1
Project/Site: DSCR - OU6 Annual

Client Sample ID: OU6-MW-289-20240522
Lab Sample ID: 680-251152-10
Date Collected: 05/22/24 13:10
Matrix: Water
Date Received: 05/23/24 09:29

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060A		1	40 mL	40 mL	840411	05/29/24 01:05	NVF	EET SAV
Total/NA	Analysis	SM 4500 CO2 D		1			839938	05/24/24 22:21	PG	EET SAV
	Instrument ID: MANTECH 2									

Client Sample ID: OU6-MW-291-20240522
Lab Sample ID: 680-251152-11
Date Collected: 05/22/24 10:02
Matrix: Water
Date Received: 05/23/24 09:29

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		10	5 mL	5 mL	840706	06/02/24 19:15	P1C	EET SAV
	Instrument ID: CMSAJ									
Total/NA	Analysis	RSK-175		1	17 mL	17 mL	840990	06/04/24 18:34	OK	EET SAV
	Instrument ID: CVGU									
Total/NA	Analysis	9056A		1	5 mL	5 mL	839434	05/23/24 17:15	UI	EET SAV
	Instrument ID: CICP									
Total/NA	Analysis	9056A		5	2 mL	2 mL	841024	06/04/24 20:05	BS	EET SAV
	Instrument ID: CICR									
Total Recoverable	Prep	3005A			25 mL	125 mL	839552	05/24/24 05:51	RR	EET SAV
Total Recoverable	Analysis	6020A		1			840087	05/28/24 10:54	BJB	EET SAV
	Instrument ID: ICPMSD									
Total/NA	Analysis	2320B-2011		1			839938	05/24/24 22:12	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	4500 S2 F-2011		1	310 mL	310 mL	840038	05/28/24 15:15	JAS	EET SAV
	Instrument ID: NoEquip									
Total/NA	Analysis	9060A		1	40 mL	40 mL	840411	05/29/24 01:23	NVF	EET SAV
	Instrument ID: TOC8									
Total/NA	Analysis	SM 4500 CO2 D		1			839938	05/24/24 22:12	PG	EET SAV
	Instrument ID: MANTECH 2									

Client Sample ID: Dup-06-20240522
Lab Sample ID: 680-251152-12
Date Collected: 05/22/24 00:00
Matrix: Water
Date Received: 05/23/24 09:29

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		10	5 mL	5 mL	840706	06/02/24 20:03	P1C	EET SAV
	Instrument ID: CMSAJ									
Total/NA	Analysis	8260D		10	5 mL	5 mL	840935	06/04/24 16:15	P1C	EET SAV
	Instrument ID: CMSAJ									

Lab Chronicle

Client: Meadows CMPG, Inc
Job ID: 680-251152-1
Project/Site: DSCR - OU6 Annual

Client Sample ID: TRIP-BLANK-20240522
Lab Sample ID: 680-251152-13
Date Collected: 05/22/24 00:00
Matrix: Water
Date Received: 05/23/24 09:29

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	840706	06/02/24 14:24	P1C	EET SAV
	Instrument ID: CMSAJ									

Client Sample ID: OU6-DMW-9B-20240522
Lab Sample ID: 680-251152-14
Date Collected: 05/22/24 08:45
Matrix: Water
Date Received: 05/23/24 09:29

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		25	5 mL	5 mL	840706	06/02/24 20:51	P1C	EET SAV
	Instrument ID: CMSAJ									

Client Sample ID: OU6-MW-217-20240522
Lab Sample ID: 680-251152-15
Date Collected: 05/22/24 10:20
Matrix: Water
Date Received: 05/23/24 09:29

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	840706	06/02/24 16:55	P1C	EET SAV
	Instrument ID: CMSAJ									
Total/NA	Analysis	RSK-175		1	17 mL	17 mL	840990	06/04/24 18:47	OK	EET SAV
	Instrument ID: CVGU									
Total/NA	Analysis	9056A		1	5 mL	5 mL	839434	05/23/24 17:32	UI	EET SAV
	Instrument ID: CICP									
Total/NA	Analysis	9056A		1	2 mL	2 mL	841024	06/04/24 20:11	BS	EET SAV
	Instrument ID: CICR									
Total Recoverable	Prep	3005A			25 mL	125 mL	839552	05/24/24 05:51	RR	EET SAV
Total Recoverable	Analysis	6020A		1			840087	05/28/24 10:51	BJB	EET SAV
	Instrument ID: ICPMSD									
Total/NA	Analysis	2320B-2011		1			839938	05/24/24 21:54	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	4500 S2 F-2011		1	310 mL	310 mL	840038	05/28/24 15:15	JAS	EET SAV
	Instrument ID: NoEquip									
Total/NA	Analysis	9060A		1	40 mL	40 mL	840411	05/29/24 01:39	NVF	EET SAV
	Instrument ID: TOC8									
Total/NA	Analysis	SM 4500 CO2 D		1			839938	05/24/24 21:54	PG	EET SAV
	Instrument ID: MANTECH 2									

Client Sample ID: OU6-EBF-08D-20240522
Lab Sample ID: 680-251152-16
Date Collected: 05/22/24 11:30
Matrix: Water
Date Received: 05/23/24 09:29

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	840706	06/02/24 17:15	P1C	EET SAV
	Instrument ID: CMSAJ									
Total/NA	Analysis	RSK-175		1	17 mL	17 mL	840990	06/04/24 19:00	OK	EET SAV
	Instrument ID: CVGU									

Lab Chronicle

Client: Meadows CMPG, Inc
Job ID: 680-251152-1
Project/Site: DSCR - OU6 Annual

Client Sample ID: OU6-EBF-08D-20240522
Lab Sample ID: 680-251152-16
Date Collected: 05/22/24 11:30
Matrix: Water
Date Received: 05/23/24 09:29

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	839434	05/23/24 17:40	UI	EET SAV
Total/NA	Analysis	9056A		1	2 mL	2 mL	841024	06/04/24 20:18	BS	EET SAV
	Instrument ID:	CICR								
Total Recoverable	Prep	3005A			25 mL	125 mL	839552	05/24/24 05:51	RR	EET SAV
Total Recoverable	Analysis	6020A		1			840087	05/28/24 10:52	BJB	EET SAV
	Instrument ID:	ICPMSD								
Total/NA	Analysis	2320B-2011		1			839938	05/24/24 22:46	PG	EET SAV
	Instrument ID:	MANTECH 2								
Total/NA	Analysis	4500 S2 F-2011		1	280 mL	280 mL	840038	05/28/24 15:15	JAS	EET SAV
	Instrument ID:	NoEquip								
Total/NA	Analysis	9060A		1	40 mL	40 mL	840411	05/29/24 01:57	NVF	EET SAV
	Instrument ID:	TOC8								
Total/NA	Analysis	SM 4500 CO2 D		1			839938	05/24/24 22:46	PG	EET SAV
	Instrument ID:	MANTECH 2								

Client Sample ID: OU6-MW-285-20240522
Lab Sample ID: 680-251152-17
Date Collected: 05/22/24 13:35
Matrix: Water
Date Received: 05/23/24 09:29

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		10	5 mL	5 mL	841256	06/06/24 19:35	MLL	EET SAV
	Instrument ID:	CMSAA								
Total/NA	Analysis	8260D		10	5 mL	5 mL	840706	06/02/24 20:27	P1C	EET SAV
	Instrument ID:	CMSAJ								
Total/NA	Prep	3510C			250 mL	1 mL	839648	05/24/24 11:32	RR	EET SAV
Total/NA	Analysis	8270E SIM ID		1	1 mL	1 mL	839813	05/27/24 20:30	NED	EET SAV
	Instrument ID:	CMSX								
Total/NA	Analysis	RSK-175		1	17 mL	17 mL	840990	06/04/24 19:13	OK	EET SAV
	Instrument ID:	CVGU								
Total/NA	Analysis	9056A		1	5 mL	5 mL	839434	05/23/24 17:48	UI	EET SAV
	Instrument ID:	CICP								
Total/NA	Analysis	9056A		5	2 mL	2 mL	841024	06/04/24 20:37	BS	EET SAV
	Instrument ID:	CICR								
Total Recoverable	Prep	3005A			25 mL	125 mL	839552	05/24/24 05:51	RR	EET SAV
Total Recoverable	Analysis	6020A		1			840087	05/28/24 11:14	BJB	EET SAV
	Instrument ID:	ICPMSD								
Total/NA	Analysis	2320B-2011		1			839938	05/24/24 22:54	PG	EET SAV
	Instrument ID:	MANTECH 2								
Total/NA	Analysis	4500 S2 F-2011		1	310 mL	310 mL	840038	05/28/24 15:15	JAS	EET SAV
	Instrument ID:	NoEquip								
Total/NA	Analysis	9060A		1	40 mL	40 mL	840411	05/29/24 02:15	NVF	EET SAV
	Instrument ID:	TOC8								
Total/NA	Analysis	SM 4500 CO2 D		1			839938	05/24/24 22:54	PG	EET SAV
	Instrument ID:	MANTECH 2								

Lab Chronicle

Client: Meadows CMPG, Inc
Job ID: 680-251152-1
Project/Site: DSCR - OU6 Annual

Client Sample ID: OU6-MW-255-20240522
Lab Sample ID: 680-251152-18
Date Collected: 05/22/24 14:35
Matrix: Water
Date Received: 05/23/24 09:29

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		2	5 mL	5 mL	840706	06/02/24 18:03	P1C	EET SAV
	Instrument ID: CMSAJ									
Total/NA	Analysis	RSK-175		1	17 mL	17 mL	840990	06/04/24 19:26	OK	EET SAV
	Instrument ID: CVGU									
Total/NA	Analysis	9056A		1	5 mL	5 mL	839434	05/23/24 17:57	UI	EET SAV
	Instrument ID: CICP									
Total/NA	Analysis	9056A		1	2 mL	2 mL	841024	06/04/24 20:44	BS	EET SAV
	Instrument ID: CICR									
Total Recoverable	Prep	3005A			25 mL	125 mL	839552	05/24/24 05:51	RR	EET SAV
Total Recoverable	Analysis	6020A		1			840087	05/28/24 10:41	BJB	EET SAV
	Instrument ID: ICPMSD									
Total/NA	Analysis	2320B-2011		1			839938	05/24/24 22:29	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	4500 S2 F-2011		1	310 mL	310 mL	840038	05/28/24 15:15	JAS	EET SAV
	Instrument ID: NoEquip									
Total/NA	Analysis	9060A		1	40 mL	40 mL	840411	05/29/24 03:06	NVF	EET SAV
	Instrument ID: TOC8									
Total/NA	Analysis	SM 4500 CO2 D		1			839938	05/24/24 22:29	PG	EET SAV
	Instrument ID: MANTECH 2									

Laboratory References:

EET SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Accreditation/Certification Summary

Client: Meadows CMPG, Inc
Job ID: 680-251152-1
Project/Site: DSCR - OU6 Annual

Laboratory: Eurofins Savannah

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
ANAB	Dept. of Defense ELAP	L2463	09-22-24
Virginia	NELAP	460161	06-14-24

Method Summary

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-251152-1

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds (GC/MS)	SW846	EET SAV
8270E	Semivolatile Organic Compounds (GC/MS)	SW846	EET SAV
8270E SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	EET SAV
8270E SIM ID	Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)	SW846	EET SAV
RSK-175	Dissolved Gases (GC)	RSK	EET SAV
8081B 8082A	Organochlorine Pesticides & PCBs (GC)	SW846	EET SAV
9056A	Anions, Ion Chromatography	SW846	EET SAV
6020A	Metals (ICP/MS)	SW846	EET SAV
7470A	Mercury (CVAA)	SW846	EET SAV
2320B-2011	Alkalinity, Total	SM	EET SAV
4500 S2 F-2011	Sulfide, Total	SM	EET SAV
9060A	Organic Carbon, Total (TOC)	SW846	EET SAV
SM 4500 CO2 D	Carbon Dioxide and Forms of Alkalinity by Calculation	SM	EET SAV
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET SAV
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	EET SAV
5030C	Purge and Trap	SW846	EET SAV
7470A	Preparation, Mercury	SW846	EET SAV

Protocol References:

RSK = Sample Prep And Calculations For Dissolved Gas Analysis In Water Samples Using A GC Headspace Equilibration Technique , RSKSOP-175, Rev. 0, 8/11/94, USEPA Research Lab
SM = "Standard Methods For The Examination Of Water And Wastewater"
SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Eurofins Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Phone (912) 354-7858 Phone (912) 352-0165

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: Tim, TJ, Quin and Bruce	Lab PM: Lanier, Jerry	Carrier Tracking No(s):	COC No:
Client Contact: Andrew VanBuesking	Phone: 757-589-5825	E-Mail: Jerry.Lanier@et.eurofinsus.com	State of Origin: VA	Page: Page 1 of 2
Company: Meadows CMPG	PWSID:			Job #:
Address: 2107 Granby St	Due Date Requested:			
City: Norfolk	TAT Requested (days): STD			
State, Zip: VA	Compliance Project: Δ Yes Δ No			
Phone: 757-623-3107	PO #: 0045-0011			
Email: avanbuesking@meadowscmpg	WO #:			
Project Name: OU6 Annual	Project #:			
Site: DSCR, OU6	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260D_DOD5 - (MOD) Volatiles	RSK_175_DOD5 - Ethane, Ethene, Methane	9060A - TOC	9056A_OF28D_D5 - Chloride & Sulfate 9056A_OF_48H_D5 - Local Method	SM4500_S2_F - Sulfide, Total	6020A_DOD5 - Manganese	SM4500_CO2_D - Carbon Dioxide	2320B - Alkalinity	8270E_DOD5 - (MOD) Semivolatiles (without PAHs)	8270E_SIM_DOD5 - Routine PAH	8081B_8082A_D5 - Routine Pesticides & PCBs	7470A_DOD5 - Mercury 6020A_DOD5- (MOD) TAL Metals	8270E_SIM_ID_D5 Local Method - Dioxane	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A	A	S	N	CB	D	N	N	N	N	N	D	N		
OU6-MW-130-20240522	5/22/24	1225	G	W			3	3	3	1	2	1	1	1						15	
OU6-MW-272-20240522	5/22/24	0805	G	W			3	3	3	1	2	1	1	1	2	2	2	1		22	
OU6-DUP-5-20240522	5/22/24		G	W			3	3	3	1	2	1	1	1						15	
OU6-MW-88-20240522	5/22/24	1005	G	W			3	3	3	1	2	1	1	1						15	
OU6-MW-271-20240522	5/22/24	0755	G	W			3	3	3	1	2	1	1	1						15	
OU6-MW-247-20240522	5/22/24	920	G	W			3	3	3	1	2	1	1	1						15	
OU6-MW-251-20240522	5/22/24	1210	G	W			3	3	3	1	2	1	1	1						15	
OU6-MW-250-20240522	5/22/24	1050	G	W			3	3	3	1	2	1	1	1						15	
OU6-MW-157-20240522	5/22/24	1125	G	W			3	3	3	1	2	1	1	1						15	
OU6-MW-289-20240522	5/22/24	1310	G	W			3	3	3	1	2	1	1	1						15	
OU6-MW-291-20240522	5/22/24	1002	G	W			3	3	3	1	2	1	1	1						15	

680-251152 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ■ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 mon...
☐ Return To Client ■ Disposal By Lab ☐ Archive For ____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:			Method of Shipment:	
BRUCE DIGGS	5-22-2024/1600	Company	Received by:	Date/Time: Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: Company
Relinquished by:	Date/Time:	Company	Received by: C Munns	Date/Time: 5/23/24 0929 Company: Eurofins

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 1/1-2 4.0 4.7 2.7 2.8

Ver: 01/16/2019

Eurofins Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Phone (912) 354-7858 Phone (912) 352-0165

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler:	Lab PM: Lanier, Jerry	Carrier Tracking No(s):	COC No:
Client Contact: Andrew VanBuesking	Phone: 757-589-5825	E-Mail: Jerry.Lanier@et.eurofinsus.com	State of Origin: VA	Page: Page 2 of 2
Company: Meadows CMPG	PWSID:			Job #:
Address: 2107 Granby St	Due Date Requested:			
City: Norfolk	TAT Requested (days): STD			
State, Zip: VA	Compliance Project: Δ Yes Δ No			
Phone: 757-623-3107	PO #: 0045-0011			
Email: avanbuesking@meadowscmpg	WO #:			
Project Name: OU6 Annual	Project #:			
Site: DSCR, OU6	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260D_DOD5 - (MOD) Volatiles	RSK_175_DOD5 - Ethane, Ethene, Methane	9060A - TOC	9056A_OF28D_D5 - Chloride & Sulfate 9056A_OF_48H_D5 - Local Method	SM4500_S2_F - Sulfide, Total	6020A_DOD5 - Mangenese	SM4500_CO2_D - Carbon Dioxide	2320B - Alkalinity	8270E_DOD5 - (MOD) Semivolatiles (without PAHs)	8270E_SIM_DOD5 - Routine PAH	8081B_8082A_D5 - Routine Pesticides & PCBs	7470A_DOD5 - Mercury 6020A_DOD5- (MOD) TAL Metals	8270E_SIM_ID_D5 Local Method - Dioxane	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A	A	S	N	CB	D	N	N	N	N	N	p	N	
Dup-06-20240522	5/22/24	0000	G	W			3													3	
TRIP-BLANK-20240522	5/22/24		G	W			2													0	
OU6-DMW-9B-20240522	5/22/24	0845	G	W			3													3	
OU6-MW-217-20240522	5/22/24	1020	G	W			3	3	3	1	2	1	1	1						15	
OU6-EBF-08D-20240522	5/22/24	1130	G	W			3	3	3	1	2	1	1	1						15	
OU6-MW-285-20240522	5/22/24	1335	G	W			3	3	3	1	2	1	1	1					2	17	
OU6-MW-255-20240522	5/22/24	1435	G	W			3	3	3	1	2	1	1	1						15	
																				0	
																				0	
																				0	

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ■ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ■ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:
BRUCE DIGGS	5-21-2024/1600	Company	Received by:
Relinquished by:	Date/Time:	Company	Received by:
Relinquished by:	Date/Time:	Company	Received by: C. Mrus

Date/Time:	Company
Date/Time:	Company
Date/Time: 5/23/24 0929	Company EUROFINS

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 1.1/1.2 4.6/4.7 2.7/2.8

Ver: 01/16/2019

6/10/2024

Login Sample Receipt Checklist

Client: Meadows CMPG, Inc

Job Number: 680-251152-1

Login Number: 251152

List Source: Eurofins Savannah

List Number: 1

Creator: Munro, Caroline

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	Refer to Job Narrative for details.
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

PREPARED FOR

Attn: Kandyce Keller
Meadows CMPG, Inc
2107 Granby Street
Norfolk, Virginia 23517

Generated 6/12/2024 5:22:20 PM

JOB DESCRIPTION

DSCR - OU6 Annual

JOB NUMBER

680-251210-1

Eurofins Savannah
5102 LaRoche Avenue
Savannah GA 31404

See page two for job notes and contact information.

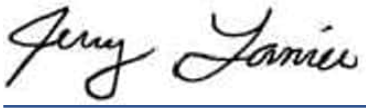
myEOL

Job Notes

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The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Southeast, LLC Project Manager.

Authorization



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Definitions/Glossary

Client: Meadows CMPG, Inc
Job ID: 680-251210-1
Project/Site: DSCR - OU6 Annual

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
D	The reported value is from a dilution.
H	Sample was prepped or analyzed beyond the specified holding time. This does not meet regulatory requirements.
J	Estimated: The analyte was positively identified; the quantitation is an estimation
J1	Estimated: The quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.
M	Manual integrated compound.
Q	One or more quality control criteria failed.
U	Undetected at the Limit of Detection.

GC/MS Semi VOA

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time. This does not meet regulatory requirements.
J	Estimated: The analyte was positively identified; the quantitation is an estimation
M	Manual integrated compound.
Q	One or more quality control criteria failed.
U	Undetected at the Limit of Detection.

GC VOA

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
D	The reported value is from a dilution.
H	Sample was prepped or analyzed beyond the specified holding time. This does not meet regulatory requirements.
J	Estimated: The analyte was positively identified; the quantitation is an estimation
J1	Estimated: The quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.
U	Undetected at the Limit of Detection.

GC Semi VOA

Qualifier	Qualifier Description
J	Estimated: The analyte was positively identified; the quantitation is an estimation
M	Manual integrated compound.
Q	One or more quality control criteria failed.
U	Undetected at the Limit of Detection.

HPLC/IC

Qualifier	Qualifier Description
D	The reported value is from a dilution.
J	Estimated: The analyte was positively identified; the quantitation is an estimation
J1	Estimated: The quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.
M	Manual integrated compound.
U	Undetected at the Limit of Detection.

Metals

Qualifier	Qualifier Description
J	Estimated: The analyte was positively identified; the quantitation is an estimation
J1	Estimated: The quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.
Q	One or more quality control criteria failed.
U	Undetected at the Limit of Detection.

General Chemistry

Qualifier	Qualifier Description
D	The reported value is from a dilution.
U	Undetected at the Limit of Detection.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Sample Summary

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-251210-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-251210-1	OU6-MW-260-20240523	Water	05/23/24 09:20	05/24/24 09:55
680-251210-2	OU6-MW-264-20240523	Water	05/23/24 08:10	05/24/24 09:55
680-251210-3	OU6-MW-89-20240523	Water	05/23/24 10:15	05/24/24 09:55
680-251210-4	OU6-MW-129-20240523	Water	05/23/24 08:30	05/24/24 09:55
680-251210-5	OU6-MW-131-20240523	Water	05/23/24 09:40	05/24/24 09:55
680-251210-6	OU6-MW-242-20240523	Water	05/23/24 08:25	05/24/24 09:55
680-251210-7	OU6-MW-243-20240523	Water	05/23/24 10:35	05/24/24 09:55
680-251210-8	OU6-MW-245-20240523	Water	05/23/24 14:00	05/24/24 09:55
680-251210-9	OU6-MW-126-20240523	Water	05/23/24 10:40	05/24/24 09:55
680-251210-10	OU6-NNC-3-20240523	Water	05/23/24 13:35	05/24/24 09:55
680-251210-11	Dup-8-20242523	Water	05/23/24 00:00	05/24/24 09:55
680-251210-12	TRIP-BLANK-20240523	Water	05/23/24 00:00	05/24/24 09:55
680-251210-13	OU6-NNC-1-20240523	Water	05/23/24 11:40	05/24/24 09:55
680-251210-14	OU6-NNC-2-20240523	Water	05/23/24 14:20	05/24/24 09:55

Job Narrative
680-251210-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 5/24/2024 9:55 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 0.2°C, 2.6°C and 3.1°C.

GC/MS VOA
Method 8260D_DOD5: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for analytical batch 680-840966 recovered outside control limits for the following analytes: Bromomethane and Dichlorodifluoromethane. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 8260D_DOD5: The laboratory control sample duplicate (LCSD) for analytical batch 680-840966 recovered outside control limits for the following analytes: Methylcyclohexane. This analyte was biased high in the LCSD and was not detected in the associated samples; therefore, the data have been reported.

Method 8260D_DOD5: The method blank for analytical batch 680-840966 contained 1,3-Dichlorobenzene, Hexachlorobutadiene, n-Butylbenzene and 1,2,4-Trichlorobenzene above the method detection limit (MDL). Associated samples were not re-analyzed because the method blank results were less than 1/2 of the reporting limit (RL) OR practical quantitation limit (PQL).

Method 8260D_DOD5: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 680-840966 were outside control limits. Sample matrix interference is suspected.

Method 8260D_DOD5: The matrix spike / matrix spike duplicate (MS/MSD) precision for analytical batch 680-840966 was outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory control sample duplicate (LCS/LCSD) precision was within acceptance limits.

Method 8260D_DOD5: The following samples were diluted to bring the concentration of target analytes within the calibration range: OU6-MW-260-20240523 (680-251210-1), OU6-MW-129-20240523 (680-251210-4), OU6-MW-131-20240523 (680-251210-5), OU6-MW-242-20240523 (680-251210-6), OU6-MW-243-20240523 (680-251210-7) and OU6-MW-126-20240523 (680-251210-9). Elevated reporting limits (RLs) are provided.

Method 8260D_DOD5: The matrix spike (MS) for this batch failed for internal standard. The matrix spike duplicate (MSD), laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) passed internal standard within control limits. The data has been reported.

OU6-NNC-1-20240523 (680-251210-13[MS])

Method 8260D_DOD5: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for analytical batch 680-840928 recovered outside control limits for the following analytes: Bromoform and Trichlorofluoromethane. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 8260D_DOD5: The method blank for 680-840928 contained Methylcyclohexane above the method detection limit (MDL). Associated samples were not re-analyzed because the method blank results were less than the reporting limit (RL) OR practical quantitation limit (PQL).

Method 8260D_DOD5: Due to the high concentration of Chloroethane, cis-1,2-Dichloroethene and 1,2-Dichloroethene, Total, the matrix spike / matrix spike duplicate (MS/MSD) for analytical batch 680-841256 could not be evaluated for accuracy and precision.

The associated laboratory control sample (LCS) met acceptance criteria.

Method 8260D_DOD5: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 680-841256 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

Method 8260D_DOD5: The matrix spike / matrix spike duplicate / sample duplicate (MS/MSD/DUP) precision for analytical batch 680-841256 was outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory control sample duplicate (LCS/LCSD) precision was within acceptance limits.

Method 8260D_DOD5: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for analytical batch 680-841256 recovered outside control limits for the following analytes: Bromomethane, Cyclohexane, Dichlorodifluoromethane and Methylcyclohexane. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 8260D_DOD5: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for analytical batch 680-841256 recovered outside control limits for the following analytes: Dichlorodifluoromethane and Methylcyclohexane.

Method 8260D_DOD5: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for analytical batch 680-841505 recovered outside control limits for the following analytes: Bromomethane and Chloroethane. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 8260D_DOD5: The method blank for 680-841505 contained n-Butylbenzene above the method detection limit (MDL). Associated samples were not re-analyzed because the method blank results were less than the reporting limit (RL) OR practical quantitation limit (PQL).

Method 8260D_DOD5: Reanalysis of the following samples were performed outside of the analytical holding time due to lab-wide technical issues: OU6-MW-260-20240523 (680-251210-1) and OU6-MW-242-20240523 (680-251210-6).

Method 8260D_DOD5: Reanalysis of the following samples were performed outside of the analytical holding time due to lab-wide technical issues: OU6-MW-260-20240523 (680-251210-1), OU6-MW-129-20240523 (680-251210-4) and OU6-MW-131-20240523 (680-251210-5).

Method 8260D_DOD5: Sample was over diluted; analysts were unable to read screening data or review previous analyses. Lab-wide technical issues made data inaccessible. Data reported.

OU6-MW-260-20240523 (680-251210-1), OU6-MW-129-20240523 (680-251210-4) and OU6-MW-131-20240523 (680-251210-5)

Method 8260D_DOD5: Sample was over diluted; analysts were unable to read screening data or review previous analyses. Lab-wide technical issues made data inaccessible. Data reported.

OU6-MW-242-20240523 (680-251210-6)

Method 8260D_DOD5: Sample was over diluted; analysts were unable to read screening data or review previous analyses. Lab-wide technical issues made data inaccessible. Data reported.

OU6-MW-131-20240523 (680-251210-5)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC/MS Semi VOA

Method 8270E_DOD5: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 680-839856 and analytical batch 680-839928 recovered outside control limits for the following analytes: 4-Chloroaniline and Pyridine.

Method 8270E_DOD5: The continuing calibration verification (CCV) associated with batch 680-840584 recovered outside acceptance criteria, low biased, for bis (2-chloroisopropyl) ether. A reporting limit (RL) standard was analyzed, and the target analytes are detected. Since the associated samples were non-detect for the analyte(s), the data are reported.

Method 8270E_DOD5: The laboratory control sample (LCS) for preparation batch 680-840567 and analytical batch 680-840584 recovered outside control limits for the following analytes: Nitrobenzene-d5 (Surr), N-Nitrosodi-n-propylamine, Pyridine and Bis(2-chloroethyl)ether. Batch precision also exceeded control limits for Pyridine. The associated sample(s) was re-prepared and/or re-analyzed outside holding time. Both sets of data have been reported.

Method 8270E_DOD5: Surrogate recovery for the following sample was outside control limits: OU6-MW-243-20240523 (680-251210-7). Re-extraction and/or re-analysis was performed and surrogate recovery was outside control limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC VOA

Method RSK_175_DOD5: Due to the high concentration of Methane (TCD), the matrix spike / matrix spike duplicate (MS/MSD) for analytical batch 680-841249 could not be evaluated for accuracy and precision. The associated laboratory control sample / laboratory control sample duplicate (LCS/LCSD) met acceptance criteria.

Method RSK_175_DOD5: Reanalysis of the following samples were performed outside of the analytical holding time for Ethylene due to a lab power outage: OU6-MW-260-20240523 (680-251210-1), OU6-MW-129-20240523 (680-251210-4) and OU6-MW-243-20240523 (680-251210-7). The in hold analysis was above the calibration curve. Both sets of data have been reported for Ethylene.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Pesticides/PCBs

Method 8081B_8082A_D5: Two surrogates are used for this analysis. The laboratory's SOP allows one of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following sample contained an allowable number of surrogate compounds outside limits: OU6-MW-243-20240523 (680-251210-7) and (LCS 680-839861/2-A). Re-extraction of the sample would have been outside of holding time. These results have been reported and qualified.

Method 8081B_8082A_D5: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for preparation batch 680-839861 and analytical batch 680-840047 recovered outside control limits for the following analytes: Endrin ketone and Methoxychlor. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data has been reported.

Method 8081B_8082A_D5: The following analytes recovered outside control limits for the LCS associated with preparation batch 680-839861 and analytical batch 680-840047: Endosulfan I and gamma-BHC (Lindane). This is not indicative of a systematic control problem because these were random marginal exceedances. Qualified results have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC

Method 9056A_OF_48H_D5: The following samples were diluted due to color: OU6-MW-89-20240523 (680-251210-3), OU6-MW-131-20240523 (680-251210-5), OU6-MW-242-20240523 (680-251210-6), OU6-MW-243-20240523 (680-251210-7) and OU6-MW-245-20240523 (680-251210-8). Elevated reporting limits (RL) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Metals

Method 6020A_DOD5 - Total Recoverable: The interference check standard solution (ICSA) associated with batch 680-840087 had results for one or more elements at a level greater than 2 times the method detection limit (MDL). The vendor acknowledges that these elements are trace impurities in the ICSA standard. These results are not indicative of a matrix interference.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-251210-1

Client Sample ID: OU6-MW-260-20240523
Date Collected: 05/23/24 09:20
Date Received: 05/24/24 09:55

Lab Sample ID: 680-251210-1
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	**16**	**J**	25	3.7	ug/L			06/04/24 18:55	1
Benzene	**3.9**		2.0	0.27	ug/L			06/04/24 18:55	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			06/04/24 18:55	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			06/04/24 18:55	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			06/04/24 18:55	1
Bromoform	2.0	U	2.5	0.59	ug/L			06/04/24 18:55	1
Bromomethane	10	U Q	20	3.7	ug/L			06/04/24 18:55	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			06/04/24 18:55	1
Carbon disulfide	1.0	U	2.0	0.43	ug/L			06/04/24 18:55	1
Carbon tetrachloride	**11**		2.0	0.30	ug/L			06/04/24 18:55	1
Chlorobenzene	**290**	**D**	25	3.8	ug/L			06/05/24 16:50	25
Chlorobenzene	**330**	**H D**	10	1.5	ug/L			06/11/24 18:40	10
Chloroethane	**15**	**J**	20	4.6	ug/L			06/04/24 18:55	1
Chloroform	**19**		2.0	0.27	ug/L			06/04/24 18:55	1
Chloromethane	2.0	U	2.5	0.54	ug/L			06/04/24 18:55	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			06/04/24 18:55	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			06/04/24 18:55	1
cis-1,2-Dichloroethene	**120**		2.0	0.25	ug/L			06/04/24 18:55	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			06/04/24 18:55	1
Cyclohexane	1.0	U Q	2.0	0.28	ug/L			06/04/24 18:55	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			06/04/24 18:55	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			06/04/24 18:55	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			06/04/24 18:55	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			06/04/24 18:55	1
1,2-Dichlorobenzene	**58**		2.0	0.31	ug/L			06/04/24 18:55	1
1,3-Dichlorobenzene	**11**		2.0	0.31	ug/L			06/04/24 18:55	1
1,4-Dichlorobenzene	**180**		2.0	0.31	ug/L			06/04/24 18:55	1
Dichlorodifluoromethane	1.0	U Q	2.0	0.36	ug/L			06/04/24 18:55	1
1,1-Dichloroethane	**36**		2.0	0.33	ug/L			06/04/24 18:55	1
1,2-Dichloroethane	**18**		2.0	0.25	ug/L			06/04/24 18:55	1
1,1-Dichloroethene	**1.5**	**J**	2.0	0.33	ug/L			06/04/24 18:55	1
1,2-Dichloroethene, Total	**120**		2.0	0.37	ug/L			06/04/24 18:55	1
1,2-Dichloropropane	**0.31**	**J**	1.0	0.22	ug/L			06/04/24 18:55	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			06/04/24 18:55	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			06/04/24 18:55	1
1,1-Dichloropropene	1.0	U Q	2.0	0.28	ug/L			06/04/24 18:55	1
Ethylbenzene	**1.4**		1.0	0.20	ug/L			06/04/24 18:55	1
Hexachlorobutadiene	1.0	U Q	5.0	0.22	ug/L			06/04/24 18:55	1
2-Hexanone	10	U	20	3.2	ug/L			06/04/24 18:55	1
Isopropylbenzene	**0.33**	**J**	2.0	0.26	ug/L			06/04/24 18:55	1
4-Isopropyltoluene	**0.49**	**J**	2.0	0.44	ug/L			06/04/24 18:55	1
Methyl acetate	10	U	20	3.2	ug/L			06/04/24 18:55	1
Methylcyclohexane	**0.36**	**J Q**	2.0	0.33	ug/L			06/04/24 18:55	1
Methylene Chloride	10	U	20	3.2	ug/L			06/04/24 18:55	1
4-Methyl-2-pentanone (MIBK)	**8.6**	**J**	20	2.7	ug/L			06/04/24 18:55	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			06/04/24 18:55	1
m-Xylene & p-Xylene	**1.6**	**J**	2.0	0.49	ug/L			06/04/24 18:55	1
Naphthalene	**9.2**	**J**	10	2.4	ug/L			06/04/24 18:55	1
n-Butylbenzene	**0.70**	**J M**	2.5	0.52	ug/L			06/04/24 18:55	1

Client Sample ID: OU6-MW-260-20240523
Date Collected: 05/23/24 09:20
Date Received: 05/24/24 09:55

Lab Sample ID: 680-251210-1
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
N-Propylbenzene	**0.78**	**J**	2.0	0.41	ug/L			06/04/24 18:55	1
o-Xylene	**2.3**		2.0	0.26	ug/L			06/04/24 18:55	1
sec-Butylbenzene	2.0	U M	2.5	0.53	ug/L			06/04/24 18:55	1
Styrene	1.0	U M	2.0	0.27	ug/L			06/04/24 18:55	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			06/04/24 18:55	1
1,1,1,2-Tetrachloroethane	**0.92**	**J**	2.0	0.36	ug/L			06/04/24 18:55	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			06/04/24 18:55	1
Tetrachloroethene	**14**		2.0	0.35	ug/L			06/04/24 18:55	1
Toluene	**17**		2.0	0.25	ug/L			06/04/24 18:55	1
trans-1,2-Dichloroethene	**2.2**		2.0	0.34	ug/L			06/04/24 18:55	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			06/04/24 18:55	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			06/04/24 18:55	1
1,2,4-Trichlorobenzene	**0.54**	**J**	5.0	0.53	ug/L			06/04/24 18:55	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			06/04/24 18:55	1
1,1,2-Trichloroethane	**6.3**		2.0	0.32	ug/L			06/04/24 18:55	1
Trichloroethene	**190**		1.0	0.20	ug/L			06/04/24 18:55	1
Trichlorofluoromethane	1.0	U Q	2.0	0.33	ug/L			06/04/24 18:55	1
1,2,3-Trichloropropane	**0.93**	**J**	2.0	0.48	ug/L			06/04/24 18:55	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U Q	1.0	0.23	ug/L			06/04/24 18:55	1
1,2,4-Trimethylbenzene	**2.4**		2.0	0.43	ug/L			06/04/24 18:55	1
1,3,5-Trimethylbenzene	**1.2**	**J M**	2.0	0.28	ug/L			06/04/24 18:55	1
Vinyl chloride	**550**	**D**	50	10	ug/L			06/05/24 16:50	25
Vinyl chloride	**310**	**H D**	20	4.0	ug/L			06/11/24 18:40	10
Xylenes, Total	**3.9**		2.0	0.49	ug/L			06/04/24 18:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*85 - 114*		*06/04/24 18:55*	*1*
4-Bromofluorobenzene (Surr)	*105*		*85 - 114*		*06/05/24 16:50*	*25*
4-Bromofluorobenzene (Surr)	*108*		*85 - 114*		*06/11/24 18:40*	*10*
Dibromofluoromethane (Surr)	*90*		*80 - 119*		*06/04/24 18:55*	*1*
Dibromofluoromethane (Surr)	*104*		*80 - 119*		*06/05/24 16:50*	*25*
Dibromofluoromethane (Surr)	*91*		*80 - 119*		*06/11/24 18:40*	*10*
1,2-Dichloroethane-d4 (Surr)	*96*		*81 - 118*		*06/04/24 18:55*	*1*
1,2-Dichloroethane-d4 (Surr)	*96*		*81 - 118*		*06/05/24 16:50*	*25*
1,2-Dichloroethane-d4 (Surr)	*98*		*81 - 118*		*06/11/24 18:40*	*10*
Toluene-d8 (Surr)	*98*		*89 - 112*		*06/04/24 18:55*	*1*
Toluene-d8 (Surr)	*94*		*89 - 112*		*06/05/24 16:50*	*25*
Toluene-d8 (Surr)	*97*		*89 - 112*		*06/11/24 18:40*	*10*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	**570**		1.1	0.30	ug/L			06/06/24 12:04	1
Ethylene	**1000**	**J1**	1.0	0.31	ug/L			06/06/24 12:04	1
Methane (TCD)	**5700**		390	39	ug/L			06/06/24 12:04	1

Method: RSK-175 - Dissolved Gases (GC) - RA

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene	**980**	**H D**	10	3.1	ug/L			06/11/24 17:49	10

Client Sample ID: OU6-MW-260-20240523

Lab Sample ID: 680-251210-1

Date Collected: 05/23/24 09:20

Matrix: Water

Date Received: 05/24/24 09:55

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**870**	**D M**	14	5.0	mg/L			06/05/24 16:37	25
Nitrate as N	0.050	U	0.055	0.023	mg/L			05/24/24 17:45	1
Nitrate Nitrite as N	0.050	U	0.055	0.023	mg/L			05/24/24 17:45	1
Sulfate	**8.7**		1.5	0.40	mg/L			06/05/24 15:30	1
Nitrite as N	0.050	U	0.055	0.023	mg/L			05/24/24 17:45	1

Method: SW846 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**330**		10	2.2	ug/L		05/28/24 06:17	05/28/24 15:18	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**45**		5.5	2.2	mg/L			05/31/24 13:04	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	**45**		11	5.0	mg/L			05/31/24 13:04	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	10	U	11	5.0	mg/L			05/31/24 13:04	1
Sulfide (SM 4500 S2 F-2011)	0.89	U	0.89	0.89	mg/L			05/30/24 12:33	1
Sulfide as H2S (SM 4500 S2 F-2011)	0.98	U	0.98	0.98	mg/L			05/30/24 12:33	1
Total Organic Carbon (SW846 9060A)	**15**		1.0	0.50	mg/L			05/29/24 08:38	1
Carbon Dioxide, Free (SM 4500 CO2 D)	**510**		11	5.0	mg/L			05/31/24 13:04	1

Client Sample ID: OU6-MW-264-20240523

Lab Sample ID: 680-251210-2

Date Collected: 05/23/24 08:10

Matrix: Water

Date Received: 05/24/24 09:55

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			06/04/24 16:22	1
Benzene	**0.37**	**J**	2.0	0.27	ug/L			06/04/24 16:22	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			06/04/24 16:22	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			06/04/24 16:22	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			06/04/24 16:22	1
Bromoform	2.0	U	2.5	0.59	ug/L			06/04/24 16:22	1
Bromomethane	10	U Q	20	3.7	ug/L			06/04/24 16:22	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			06/04/24 16:22	1
Carbon disulfide	1.0	U	2.0	0.43	ug/L			06/04/24 16:22	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			06/04/24 16:22	1
Chlorobenzene	**8.5**		1.0	0.15	ug/L			06/04/24 16:22	1
Chloroethane	10	U	20	4.6	ug/L			06/04/24 16:22	1
Chloroform	1.0	U	2.0	0.27	ug/L			06/04/24 16:22	1
Chloromethane	2.0	U	2.5	0.54	ug/L			06/04/24 16:22	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			06/04/24 16:22	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			06/04/24 16:22	1
cis-1,2-Dichloroethene	**130**		2.0	0.25	ug/L			06/04/24 16:22	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			06/04/24 16:22	1
Cyclohexane	1.0	U Q	2.0	0.28	ug/L			06/04/24 16:22	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			06/04/24 16:22	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			06/04/24 16:22	1

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-251210-1

Client Sample ID: OU6-MW-264-20240523
Date Collected: 05/23/24 08:10
Date Received: 05/24/24 09:55

Lab Sample ID: 680-251210-2
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			06/04/24 16:22	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			06/04/24 16:22	1
1,2-Dichlorobenzene	**5.3**		2.0	0.31	ug/L			06/04/24 16:22	1
1,3-Dichlorobenzene	**0.50**	**J**	2.0	0.31	ug/L			06/04/24 16:22	1
1,4-Dichlorobenzene	**5.5**		2.0	0.31	ug/L			06/04/24 16:22	1
Dichlorodifluoromethane	1.0	U Q	2.0	0.36	ug/L			06/04/24 16:22	1
1,1-Dichloroethane	**0.47**	**J M**	2.0	0.33	ug/L			06/04/24 16:22	1
1,2-Dichloroethane	**0.56**	**J**	2.0	0.25	ug/L			06/04/24 16:22	1
1,1-Dichloroethene	1.0	U	2.0	0.33	ug/L			06/04/24 16:22	1
1,2-Dichloroethene, Total	**130**		2.0	0.37	ug/L			06/04/24 16:22	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			06/04/24 16:22	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			06/04/24 16:22	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			06/04/24 16:22	1
1,1-Dichloropropene	1.0	U Q	2.0	0.28	ug/L			06/04/24 16:22	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			06/04/24 16:22	1
Hexachlorobutadiene	1.0	U Q	5.0	0.22	ug/L			06/04/24 16:22	1
2-Hexanone	10	U	20	3.2	ug/L			06/04/24 16:22	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			06/04/24 16:22	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			06/04/24 16:22	1
Methyl acetate	10	U	20	3.2	ug/L			06/04/24 16:22	1
Methylcyclohexane	1.0	U Q	2.0	0.33	ug/L			06/04/24 16:22	1
Methylene Chloride	10	U	20	3.2	ug/L			06/04/24 16:22	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			06/04/24 16:22	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			06/04/24 16:22	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			06/04/24 16:22	1
Naphthalene	5.0	U	10	2.4	ug/L			06/04/24 16:22	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			06/04/24 16:22	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			06/04/24 16:22	1
o-Xylene	1.0	U	2.0	0.26	ug/L			06/04/24 16:22	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			06/04/24 16:22	1
Styrene	1.0	U	2.0	0.27	ug/L			06/04/24 16:22	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			06/04/24 16:22	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			06/04/24 16:22	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			06/04/24 16:22	1
Tetrachloroethene	**0.77**	**J**	2.0	0.35	ug/L			06/04/24 16:22	1
Toluene	1.0	U	2.0	0.25	ug/L			06/04/24 16:22	1
trans-1,2-Dichloroethene	**0.38**	**J**	2.0	0.34	ug/L			06/04/24 16:22	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			06/04/24 16:22	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			06/04/24 16:22	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			06/04/24 16:22	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			06/04/24 16:22	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			06/04/24 16:22	1
Trichloroethene	**15**		1.0	0.20	ug/L			06/04/24 16:22	1
Trichlorofluoromethane	1.0	U Q	2.0	0.33	ug/L			06/04/24 16:22	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			06/04/24 16:22	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U Q	1.0	0.23	ug/L			06/04/24 16:22	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			06/04/24 16:22	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			06/04/24 16:22	1
Vinyl chloride	**63**	**J1**	2.0	0.40	ug/L			06/06/24 17:44	1

Client Sample ID: OU6-MW-264-20240523

Lab Sample ID: 680-251210-2

Date Collected: 05/23/24 08:10

Matrix: Water

Date Received: 05/24/24 09:55

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	1.0	U	2.0	0.49	ug/L			06/04/24 16:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*85 - 114*		*06/04/24 16:22*	*1*
4-Bromofluorobenzene (Surr)	*108*		*85 - 114*		*06/06/24 17:44*	*1*
Dibromofluoromethane (Surr)	*90*		*80 - 119*		*06/04/24 16:22*	*1*
Dibromofluoromethane (Surr)	*91*		*80 - 119*		*06/06/24 17:44*	*1*
1,2-Dichloroethane-d4 (Surr)	*92*		*81 - 118*		*06/04/24 16:22*	*1*
1,2-Dichloroethane-d4 (Surr)	*95*		*81 - 118*		*06/06/24 17:44*	*1*
Toluene-d8 (Surr)	*96*		*89 - 112*		*06/04/24 16:22*	*1*
Toluene-d8 (Surr)	*97*		*89 - 112*		*06/06/24 17:44*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	**88**		1.1	0.30	ug/L			06/06/24 16:06	1
Ethylene	**60**		1.0	0.31	ug/L			06/06/24 16:06	1
Methane (TCD)	**2100**	**J1**	390	39	ug/L			06/06/24 16:06	1

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**88**	**D M**	5.5	2.0	mg/L			06/10/24 16:45	10
Nitrate as N	0.050	U J1	0.055	0.023	mg/L			05/24/24 17:54	1
Nitrate Nitrite as N	0.050	U J1	0.055	0.023	mg/L			05/24/24 17:54	1
Sulfate	**39**	**D J1**	7.5	2.0	mg/L			06/05/24 15:37	5
Nitrite as N	0.050	U J1	0.055	0.023	mg/L			05/24/24 17:54	1

Method: SW846 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**530**	**J1**	10	2.2	ug/L		05/28/24 06:17	05/28/24 15:10	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**50**		5.5	2.2	mg/L			05/31/24 12:30	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	**50**		11	5.0	mg/L			05/31/24 12:30	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	10	U	11	5.0	mg/L			05/31/24 12:30	1
Sulfide (SM 4500 S2 F-2011)	0.89	U	0.89	0.89	mg/L			05/30/24 12:33	1
Sulfide as H2S (SM 4500 S2 F-2011)	0.98	U	0.98	0.98	mg/L			05/30/24 12:33	1
Total Organic Carbon (SW846 9060A)	**3.2**		1.0	0.50	mg/L			05/28/24 22:57	1
Carbon Dioxide, Free (SM 4500 CO2 D)	**150**		11	5.0	mg/L			05/31/24 12:30	1

Client Sample ID: OU6-MW-89-20240523

Lab Sample ID: 680-251210-3

Date Collected: 05/23/24 10:15

Matrix: Water

Date Received: 05/24/24 09:55

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			06/04/24 18:22	1

Client Sample ID: OU6-MW-89-20240523
Date Collected: 05/23/24 10:15
Date Received: 05/24/24 09:55

Lab Sample ID: 680-251210-3
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	2.0	0.27	ug/L			06/04/24 18:22	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			06/04/24 18:22	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			06/04/24 18:22	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			06/04/24 18:22	1
Bromoform	2.0	U Q	2.5	0.59	ug/L			06/04/24 18:22	1
Bromomethane	10	U	20	3.7	ug/L			06/04/24 18:22	1
2-Butanone (MEK)	**8.8**	**J**	25	6.4	ug/L			06/04/24 18:22	1
Carbon disulfide	1.0	U Q	2.0	0.43	ug/L			06/04/24 18:22	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			06/04/24 18:22	1
Chlorobenzene	**1.5**		1.0	0.15	ug/L			06/04/24 18:22	1
Chloroethane	10	U	20	4.6	ug/L			06/04/24 18:22	1
Chloroform	1.0	U	2.0	0.27	ug/L			06/04/24 18:22	1
Chloromethane	2.0	U	2.5	0.54	ug/L			06/04/24 18:22	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			06/04/24 18:22	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			06/04/24 18:22	1
cis-1,2-Dichloroethene	**140**		2.0	0.25	ug/L			06/04/24 18:22	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			06/04/24 18:22	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			06/04/24 18:22	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			06/04/24 18:22	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			06/04/24 18:22	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			06/04/24 18:22	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			06/04/24 18:22	1
1,2-Dichlorobenzene	**0.83**	**J**	2.0	0.31	ug/L			06/04/24 18:22	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			06/04/24 18:22	1
1,4-Dichlorobenzene	**3.3**		2.0	0.31	ug/L			06/04/24 18:22	1
Dichlorodifluoromethane	1.0	U Q	2.0	0.36	ug/L			06/04/24 18:22	1
1,1-Dichloroethane	**1.5**	**J**	2.0	0.33	ug/L			06/04/24 18:22	1
1,2-Dichloroethane	1.0	U	2.0	0.25	ug/L			06/04/24 18:22	1
1,1-Dichloroethene	**1.0**	**J**	2.0	0.33	ug/L			06/04/24 18:22	1
1,2-Dichloroethene, Total	**140**		2.0	0.37	ug/L			06/04/24 18:22	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			06/04/24 18:22	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			06/04/24 18:22	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			06/04/24 18:22	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			06/04/24 18:22	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			06/04/24 18:22	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			06/04/24 18:22	1
2-Hexanone	10	U	20	3.2	ug/L			06/04/24 18:22	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			06/04/24 18:22	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			06/04/24 18:22	1
Methyl acetate	10	U	20	3.2	ug/L			06/04/24 18:22	1
Methylcyclohexane	1.0	U	2.0	0.33	ug/L			06/04/24 18:22	1
Methylene Chloride	10	U	20	3.2	ug/L			06/04/24 18:22	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			06/04/24 18:22	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			06/04/24 18:22	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			06/04/24 18:22	1
Naphthalene	5.0	U	10	2.4	ug/L			06/04/24 18:22	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			06/04/24 18:22	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			06/04/24 18:22	1
o-Xylene	1.0	U	2.0	0.26	ug/L			06/04/24 18:22	1

Client Sample ID: OU6-MW-89-20240523
Date Collected: 05/23/24 10:15
Date Received: 05/24/24 09:55

Lab Sample ID: 680-251210-3
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			06/04/24 18:22	1
Styrene	1.0	U	2.0	0.27	ug/L			06/04/24 18:22	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			06/04/24 18:22	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			06/04/24 18:22	1
1,1,2,2-Tetrachloroethane	1.0	U Q	2.0	0.40	ug/L			06/04/24 18:22	1
Tetrachloroethene	**22**		2.0	0.35	ug/L			06/04/24 18:22	1
Toluene	1.0	U	2.0	0.25	ug/L			06/04/24 18:22	1
trans-1,2-Dichloroethene	**0.91**	**J**	2.0	0.34	ug/L			06/04/24 18:22	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			06/04/24 18:22	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			06/04/24 18:22	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			06/04/24 18:22	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			06/04/24 18:22	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			06/04/24 18:22	1
Trichloroethene	**39**		1.0	0.20	ug/L			06/04/24 18:22	1
Trichlorofluoromethane	1.0	U Q	2.0	0.33	ug/L			06/04/24 18:22	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			06/04/24 18:22	1
1,1,2-Trichloro-1,2,2-trifluoroethane	**1.1**		1.0	0.23	ug/L			06/04/24 18:22	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			06/04/24 18:22	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			06/04/24 18:22	1
Vinyl chloride	**4.9**	**M**	2.0	0.40	ug/L			06/04/24 18:22	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			06/04/24 18:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*85 - 114*		*06/04/24 18:22*	*1*
Dibromofluoromethane (Surr)	*103*		*80 - 119*		*06/04/24 18:22*	*1*
1,2-Dichloroethane-d4 (Surr)	*94*		*81 - 118*		*06/04/24 18:22*	*1*
Toluene-d8 (Surr)	*96*		*89 - 112*		*06/04/24 18:22*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	0.76	U	1.1	0.30	ug/L			06/06/24 12:17	1
Ethylene	**0.83**	**J**	1.0	0.31	ug/L			06/06/24 12:17	1
Methane	**150**		1.2	0.57	ug/L			06/06/24 12:17	1

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**10**	**M**	0.55	0.20	mg/L			06/05/24 15:56	1
Nitrate as N	0.10	U	0.11	0.046	mg/L			05/24/24 18:18	2
Nitrate Nitrite as N	0.10	U	0.11	0.046	mg/L			05/24/24 18:18	2
Sulfate	**2.3**		1.5	0.40	mg/L			06/05/24 15:56	1
Nitrite as N	0.10	U	0.11	0.046	mg/L			05/24/24 18:18	2

Method: SW846 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**26**		10	2.2	ug/L		05/28/24 06:17	05/28/24 15:16	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**48**		5.5	2.2	mg/L			05/31/24 12:46	1

Client Sample ID: OU6-MW-89-20240523

Lab Sample ID: 680-251210-3

Date Collected: 05/23/24 10:15

Matrix: Water

Date Received: 05/24/24 09:55

General Chemistry (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	**48**		11	5.0	mg/L			05/31/24 12:46	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	10	U	11	5.0	mg/L			05/31/24 12:46	1
Sulfide (SM 4500 S2 F-2011)	0.86	U	0.86	0.86	mg/L			05/30/24 12:33	1
Sulfide as H2S (SM 4500 S2 F-2011)	0.95	U	0.95	0.95	mg/L			05/30/24 12:33	1
Total Organic Carbon (SW846 9060A)	**1.3**		1.0	0.50	mg/L			05/29/24 03:24	1
Carbon Dioxide, Free (SM 4500 CO2 D)	**140**		11	5.0	mg/L			05/31/24 12:46	1

Client Sample ID: OU6-MW-129-20240523

Lab Sample ID: 680-251210-4

Date Collected: 05/23/24 08:30

Matrix: Water

Date Received: 05/24/24 09:55

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	**8.2**	**J**	25	3.7	ug/L			06/04/24 17:27	1
Benzene	**0.35**	**J**	2.0	0.27	ug/L			06/04/24 17:27	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			06/04/24 17:27	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			06/04/24 17:27	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			06/04/24 17:27	1
Bromoform	2.0	U	2.5	0.59	ug/L			06/04/24 17:27	1
Bromomethane	10	U Q	20	3.7	ug/L			06/04/24 17:27	1
2-Butanone (MEK)	20	U M	25	6.4	ug/L			06/04/24 17:27	1
Carbon disulfide	1.0	U	2.0	0.43	ug/L			06/04/24 17:27	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			06/04/24 17:27	1
Chlorobenzene	**0.71**	**J**	1.0	0.15	ug/L			06/04/24 17:27	1
Chloroethane	10	U	20	4.6	ug/L			06/04/24 17:27	1
Chloroform	1.0	U	2.0	0.27	ug/L			06/04/24 17:27	1
Chloromethane	2.0	U	2.5	0.54	ug/L			06/04/24 17:27	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			06/04/24 17:27	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			06/04/24 17:27	1
cis-1,2-Dichloroethene	**6400**	**D**	2000	250	ug/L			06/05/24 17:13	1000
cis-1,2-Dichloroethene	**2200**	**H D**	100	13	ug/L			06/10/24 16:55	50
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			06/04/24 17:27	1
Cyclohexane	1.0	U Q	2.0	0.28	ug/L			06/04/24 17:27	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			06/04/24 17:27	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			06/04/24 17:27	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			06/04/24 17:27	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			06/04/24 17:27	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			06/04/24 17:27	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			06/04/24 17:27	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			06/04/24 17:27	1
Dichlorodifluoromethane	1.0	U Q	2.0	0.36	ug/L			06/04/24 17:27	1
1,1-Dichloroethane	**1.0**	**J**	2.0	0.33	ug/L			06/04/24 17:27	1
1,2-Dichloroethane	**1.3**	**J**	2.0	0.25	ug/L			06/04/24 17:27	1
1,1-Dichloroethene	**9.2**		2.0	0.33	ug/L			06/04/24 17:27	1
1,2-Dichloroethene, Total	**6400**	**D**	2000	370	ug/L			06/05/24 17:13	1000
1,2-Dichloroethene, Total	**2200**	**H D**	100	19	ug/L			06/10/24 16:55	50
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			06/04/24 17:27	1

Client Sample ID: OU6-MW-129-20240523
Date Collected: 05/23/24 08:30
Date Received: 05/24/24 09:55

Lab Sample ID: 680-251210-4
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			06/04/24 17:27	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			06/04/24 17:27	1
1,1-Dichloropropene	1.0	U Q	2.0	0.28	ug/L			06/04/24 17:27	1
Ethylbenzene	**1.4**		1.0	0.20	ug/L			06/04/24 17:27	1
Hexachlorobutadiene	1.0	U Q	5.0	0.22	ug/L			06/04/24 17:27	1
2-Hexanone	10	U	20	3.2	ug/L			06/04/24 17:27	1
Isopropylbenzene	**0.46**	**J**	2.0	0.26	ug/L			06/04/24 17:27	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			06/04/24 17:27	1
Methyl acetate	10	U	20	3.2	ug/L			06/04/24 17:27	1
Methylcyclohexane	1.0	U Q	2.0	0.33	ug/L			06/04/24 17:27	1
Methylene Chloride	10	U	20	3.2	ug/L			06/04/24 17:27	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			06/04/24 17:27	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			06/04/24 17:27	1
m-Xylene & p-Xylene	**1.7**	**J**	2.0	0.49	ug/L			06/04/24 17:27	1
Naphthalene	**55**		10	2.4	ug/L			06/04/24 17:27	1
n-Butylbenzene	**1.3**	**J**	2.5	0.52	ug/L			06/04/24 17:27	1
N-Propylbenzene	**0.53**	**J**	2.0	0.41	ug/L			06/04/24 17:27	1
o-Xylene	**3.4**		2.0	0.26	ug/L			06/04/24 17:27	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			06/04/24 17:27	1
Styrene	1.0	U M	2.0	0.27	ug/L			06/04/24 17:27	1
tert-Butylbenzene	1.0	U M	2.0	0.43	ug/L			06/04/24 17:27	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			06/04/24 17:27	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			06/04/24 17:27	1
Tetrachloroethene	**30**		2.0	0.35	ug/L			06/04/24 17:27	1
Toluene	**4.4**		2.0	0.25	ug/L			06/04/24 17:27	1
trans-1,2-Dichloroethene	**31**		2.0	0.34	ug/L			06/04/24 17:27	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			06/04/24 17:27	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			06/04/24 17:27	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			06/04/24 17:27	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			06/04/24 17:27	1
1,1,2-Trichloroethane	**0.52**	**J**	2.0	0.32	ug/L			06/04/24 17:27	1
Trichloroethene	**39**		1.0	0.20	ug/L			06/04/24 17:27	1
Trichlorofluoromethane	1.0	U Q	2.0	0.33	ug/L			06/04/24 17:27	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			06/04/24 17:27	1
1,1,2-Trichloro-1,2,2-trifluoroethane	25	U H	50	12	ug/L			06/10/24 16:55	50
1,2,4-Trimethylbenzene	**1.4**	**J**	2.0	0.43	ug/L			06/04/24 17:27	1
1,3,5-Trimethylbenzene	**0.61**	**J M**	2.0	0.28	ug/L			06/04/24 17:27	1
Vinyl chloride	**2300**	**D**	2000	400	ug/L			06/05/24 17:13	1000
Vinyl chloride	**930**	**H D**	100	20	ug/L			06/10/24 16:55	50
Xylenes, Total	**5.1**		2.0	0.49	ug/L			06/04/24 17:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*85 - 114*		*06/04/24 17:27*	*1*
4-Bromofluorobenzene (Surr)	*95*		*85 - 114*		*06/10/24 16:55*	*50*
Dibromofluoromethane (Surr)	*88*		*80 - 119*		*06/04/24 17:27*	*1*
Dibromofluoromethane (Surr)	*105*		*80 - 119*		*06/10/24 16:55*	*50*
1,2-Dichloroethane-d4 (Surr)	*93*		*81 - 118*		*06/04/24 17:27*	*1*
1,2-Dichloroethane-d4 (Surr)	*97*		*81 - 118*		*06/10/24 16:55*	*50*
Toluene-d8 (Surr)	*97*		*89 - 112*		*06/04/24 17:27*	*1*
Toluene-d8 (Surr)	*102*		*89 - 112*		*06/10/24 16:55*	*50*

Client Sample ID: OU6-MW-129-20240523

Lab Sample ID: 680-251210-4

Date Collected: 05/23/24 08:30

Matrix: Water

Date Received: 05/24/24 09:55

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	0.76	U	1.1	0.30	ug/L			06/06/24 12:30	1
Ethylene	**4900**	**J1**	1.0	0.31	ug/L			06/06/24 12:30	1
Methane (TCD)	**16000**		390	39	ug/L			06/06/24 12:30	1

Method: RSK-175 - Dissolved Gases (GC) - RA

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene	**5200**	**H D**	10	3.1	ug/L			06/11/24 18:02	10

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**56**	**D**	5.5	2.0	mg/L			06/10/24 17:04	10
Nitrate as N	0.050	U	0.055	0.023	mg/L			05/24/24 18:27	1
Nitrate Nitrite as N	0.050	U	0.055	0.023	mg/L			05/24/24 18:27	1
Sulfate	**1.0**	**J M**	1.5	0.40	mg/L			06/05/24 16:03	1
Nitrite as N	0.050	U	0.055	0.023	mg/L			05/24/24 18:27	1

Method: SW846 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**460**		10	2.2	ug/L		05/28/24 06:17	05/28/24 15:31	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**220**		5.5	2.2	mg/L			05/31/24 13:42	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	**220**		11	5.0	mg/L			05/31/24 13:42	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	10	U	11	5.0	mg/L			05/31/24 13:42	1
Sulfide (SM 4500 S2 F-2011)	0.83	U	0.83	0.83	mg/L			05/30/24 12:33	1
Sulfide as H2S (SM 4500 S2 F-2011)	0.92	U	0.92	0.92	mg/L			05/30/24 12:33	1
Total Organic Carbon (SW846 9060A)	**18**		1.0	0.50	mg/L			05/29/24 03:40	1
Carbon Dioxide, Free (SM 4500 CO2 D)	**180**		11	5.0	mg/L			05/31/24 13:42	1

Client Sample ID: OU6-MW-131-20240523

Lab Sample ID: 680-251210-5

Date Collected: 05/23/24 09:40

Matrix: Water

Date Received: 05/24/24 09:55

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			06/04/24 18:11	1
Benzene	1.0	U	2.0	0.27	ug/L			06/04/24 18:11	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			06/04/24 18:11	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			06/04/24 18:11	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			06/04/24 18:11	1
Bromoform	2.0	U	2.5	0.59	ug/L			06/04/24 18:11	1
Bromomethane	10	U Q	20	3.7	ug/L			06/04/24 18:11	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			06/04/24 18:11	1
Carbon disulfide	1.0	U	2.0	0.43	ug/L			06/04/24 18:11	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			06/04/24 18:11	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			06/04/24 18:11	1

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-251210-1

Client Sample ID: OU6-MW-131-20240523
Date Collected: 05/23/24 09:40
Date Received: 05/24/24 09:55

Lab Sample ID: 680-251210-5
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroethane	10	U	20	4.6	ug/L			06/04/24 18:11	1
Chloroform	**4.3**		2.0	0.27	ug/L			06/04/24 18:11	1
Chloromethane	2.0	U	2.5	0.54	ug/L			06/04/24 18:11	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			06/04/24 18:11	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			06/04/24 18:11	1
cis-1,2-Dichloroethene	**530**	**D**	200	25	ug/L			06/06/24 18:27	100
cis-1,2-Dichloroethene	**540**	**H D**	20	2.5	ug/L			06/10/24 17:19	10
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			06/04/24 18:11	1
Cyclohexane	1.0	U Q	2.0	0.28	ug/L			06/04/24 18:11	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			06/04/24 18:11	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			06/04/24 18:11	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			06/04/24 18:11	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			06/04/24 18:11	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			06/04/24 18:11	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			06/04/24 18:11	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			06/04/24 18:11	1
Dichlorodifluoromethane	1.0	U Q	2.0	0.36	ug/L			06/04/24 18:11	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			06/04/24 18:11	1
1,2-Dichloroethane	**0.50**	**J**	2.0	0.25	ug/L			06/04/24 18:11	1
1,1-Dichloroethene	**2.9**		2.0	0.33	ug/L			06/04/24 18:11	1
1,2-Dichloroethene, Total	**530**	**D**	200	37	ug/L			06/06/24 18:27	100
1,2-Dichloroethene, Total	**540**	**H D**	20	3.7	ug/L			06/10/24 17:19	10
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			06/04/24 18:11	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			06/04/24 18:11	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			06/04/24 18:11	1
1,1-Dichloropropene	1.0	U Q	2.0	0.28	ug/L			06/04/24 18:11	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			06/04/24 18:11	1
Hexachlorobutadiene	1.0	U Q	5.0	0.22	ug/L			06/04/24 18:11	1
2-Hexanone	10	U	20	3.2	ug/L			06/04/24 18:11	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			06/04/24 18:11	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			06/04/24 18:11	1
Methyl acetate	10	U	20	3.2	ug/L			06/04/24 18:11	1
Methylcyclohexane	1.0	U Q	2.0	0.33	ug/L			06/04/24 18:11	1
Methylene Chloride	10	U	20	3.2	ug/L			06/04/24 18:11	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			06/04/24 18:11	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			06/04/24 18:11	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			06/04/24 18:11	1
Naphthalene	5.0	U	10	2.4	ug/L			06/04/24 18:11	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			06/04/24 18:11	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			06/04/24 18:11	1
o-Xylene	1.0	U	2.0	0.26	ug/L			06/04/24 18:11	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			06/04/24 18:11	1
Styrene	1.0	U	2.0	0.27	ug/L			06/04/24 18:11	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			06/04/24 18:11	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			06/04/24 18:11	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			06/04/24 18:11	1
Tetrachloroethene	**17**		2.0	0.35	ug/L			06/04/24 18:11	1
Toluene	1.0	U	2.0	0.25	ug/L			06/04/24 18:11	1
trans-1,2-Dichloroethene	**1.8**	**J**	2.0	0.34	ug/L			06/04/24 18:11	1

Client Sample ID: OU6-MW-131-20240523
Date Collected: 05/23/24 09:40
Date Received: 05/24/24 09:55

Lab Sample ID: 680-251210-5
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			06/04/24 18:11	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			06/04/24 18:11	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			06/04/24 18:11	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			06/04/24 18:11	1
1,1,2-Trichloroethane	**0.82**	**J**	2.0	0.32	ug/L			06/04/24 18:11	1
Trichloroethene	**1100**	**D**	100	20	ug/L			06/06/24 18:27	100
Trichloroethene	**980**	**H Q D**	10	2.0	ug/L			06/10/24 17:19	10
Trichlorofluoromethane	1.0	U Q	2.0	0.33	ug/L			06/04/24 18:11	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			06/04/24 18:11	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U Q	1.0	0.23	ug/L			06/04/24 18:11	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			06/04/24 18:11	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			06/04/24 18:11	1
Vinyl chloride	100	U	200	40	ug/L			06/06/24 18:27	100
Xylenes, Total	1.0	U	2.0	0.49	ug/L			06/04/24 18:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*85 - 114*		*06/04/24 18:11*	*1*
4-Bromofluorobenzene (Surr)	*110*		*85 - 114*		*06/06/24 18:27*	*100*
4-Bromofluorobenzene (Surr)	*97*		*85 - 114*		*06/10/24 17:19*	*10*
Dibromofluoromethane (Surr)	*90*		*80 - 119*		*06/04/24 18:11*	*1*
Dibromofluoromethane (Surr)	*90*		*80 - 119*		*06/06/24 18:27*	*100*
Dibromofluoromethane (Surr)	*105*		*80 - 119*		*06/10/24 17:19*	*10*
1,2-Dichloroethane-d4 (Surr)	*93*		*81 - 118*		*06/04/24 18:11*	*1*
1,2-Dichloroethane-d4 (Surr)	*94*		*81 - 118*		*06/06/24 18:27*	*100*
1,2-Dichloroethane-d4 (Surr)	*101*		*81 - 118*		*06/10/24 17:19*	*10*
Toluene-d8 (Surr)	*97*		*89 - 112*		*06/04/24 18:11*	*1*
Toluene-d8 (Surr)	*96*		*89 - 112*		*06/06/24 18:27*	*100*
Toluene-d8 (Surr)	*101*		*89 - 112*		*06/10/24 17:19*	*10*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	**2.5**		1.1	0.30	ug/L			06/06/24 12:43	1
Ethylene	**9.9**		1.0	0.31	ug/L			06/06/24 12:43	1
Methane (TCD)	**11000**		390	39	ug/L			06/06/24 12:43	1

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**7.2**	**M**	0.55	0.20	mg/L			06/05/24 16:09	1
Nitrate as N	**0.33**	**D**	0.11	0.046	mg/L			05/24/24 18:35	2
Nitrate Nitrite as N	**0.33**	**D**	0.11	0.046	mg/L			05/24/24 18:35	2
Sulfate	**1.3**	**J M**	1.5	0.40	mg/L			06/05/24 16:09	1
Nitrite as N	0.10	U	0.11	0.046	mg/L			05/24/24 18:35	2

Method: SW846 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**44**		10	2.2	ug/L		05/28/24 06:17	05/28/24 15:29	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**11**		5.5	2.2	mg/L			05/31/24 13:12	1

Client Sample ID: OU6-MW-131-20240523

Lab Sample ID: 680-251210-5

Date Collected: 05/23/24 09:40

Matrix: Water

Date Received: 05/24/24 09:55

General Chemistry (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	**11**		11	5.0	mg/L			05/31/24 13:12	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	10	U	11	5.0	mg/L			05/31/24 13:12	1
Sulfide (SM 4500 S2 F-2011)	0.83	U	0.83	0.83	mg/L			05/30/24 12:33	1
Sulfide as H2S (SM 4500 S2 F-2011)	0.92	U	0.92	0.92	mg/L			05/30/24 12:33	1
Total Organic Carbon (SW846 9060A)	**1.3**		1.0	0.50	mg/L			05/29/24 03:58	1
Carbon Dioxide, Free (SM 4500 CO2 D)	**44**		11	5.0	mg/L			05/31/24 13:12	1

Client Sample ID: OU6-MW-242-20240523

Lab Sample ID: 680-251210-6

Date Collected: 05/23/24 08:25

Matrix: Water

Date Received: 05/24/24 09:55

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			06/04/24 17:49	1
Benzene	1.0	U	2.0	0.27	ug/L			06/04/24 17:49	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			06/04/24 17:49	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			06/04/24 17:49	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			06/04/24 17:49	1
Bromoform	2.0	U	2.5	0.59	ug/L			06/04/24 17:49	1
Bromomethane	10	U Q	20	3.7	ug/L			06/04/24 17:49	1
2-Butanone (MEK)	20	U M	25	6.4	ug/L			06/04/24 17:49	1
Carbon disulfide	1.0	U	2.0	0.43	ug/L			06/04/24 17:49	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			06/04/24 17:49	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			06/04/24 17:49	1
Chloroethane	10	U	20	4.6	ug/L			06/04/24 17:49	1
Chloroform	**1.2**	**J**	2.0	0.27	ug/L			06/04/24 17:49	1
Chloromethane	2.0	U	2.5	0.54	ug/L			06/04/24 17:49	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			06/04/24 17:49	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			06/04/24 17:49	1
cis-1,2-Dichloroethene	**3600**	**D**	1000	130	ug/L			06/06/24 18:49	500
cis-1,2-Dichloroethene	**5800**	**H D**	100	13	ug/L			06/11/24 18:16	50
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			06/04/24 17:49	1
Cyclohexane	1.0	U Q	2.0	0.28	ug/L			06/04/24 17:49	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			06/04/24 17:49	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			06/04/24 17:49	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			06/04/24 17:49	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			06/04/24 17:49	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			06/04/24 17:49	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			06/04/24 17:49	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			06/04/24 17:49	1
Dichlorodifluoromethane	1.0	U Q	2.0	0.36	ug/L			06/04/24 17:49	1
1,1-Dichloroethane	**25**		2.0	0.33	ug/L			06/04/24 17:49	1
1,2-Dichloroethane	**1.3**	**J**	2.0	0.25	ug/L			06/04/24 17:49	1
1,1-Dichloroethene	**220**	**J D**	1000	170	ug/L			06/06/24 18:49	500
1,1-Dichloroethene	**430**	**H D**	100	17	ug/L			06/11/24 18:16	50
1,2-Dichloroethene, Total	**3600**	**D**	1000	190	ug/L			06/06/24 18:49	500
1,2-Dichloroethene, Total	**5800**	**H D**	100	19	ug/L			06/11/24 18:16	50

Client Sample ID: OU6-MW-242-20240523
Date Collected: 05/23/24 08:25
Date Received: 05/24/24 09:55

Lab Sample ID: 680-251210-6
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			06/04/24 17:49	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			06/04/24 17:49	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			06/04/24 17:49	1
1,1-Dichloropropene	1.0	U Q	2.0	0.28	ug/L			06/04/24 17:49	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			06/04/24 17:49	1
Hexachlorobutadiene	1.0	U Q	5.0	0.22	ug/L			06/04/24 17:49	1
2-Hexanone	10	U M	20	3.2	ug/L			06/04/24 17:49	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			06/04/24 17:49	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			06/04/24 17:49	1
Methyl acetate	10	U	20	3.2	ug/L			06/04/24 17:49	1
Methylcyclohexane	1.0	U Q	2.0	0.33	ug/L			06/04/24 17:49	1
Methylene Chloride	10	U	20	3.2	ug/L			06/04/24 17:49	1
4-Methyl-2-pentanone (MIBK)	10	U M	20	2.7	ug/L			06/04/24 17:49	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			06/04/24 17:49	1
m-Xylene & p-Xylene	1.0	U M	2.0	0.49	ug/L			06/04/24 17:49	1
Naphthalene	**2.9**	**J**	10	2.4	ug/L			06/04/24 17:49	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			06/04/24 17:49	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			06/04/24 17:49	1
o-Xylene	**0.43**	**J**	2.0	0.26	ug/L			06/04/24 17:49	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			06/04/24 17:49	1
Styrene	1.0	U M	2.0	0.27	ug/L			06/04/24 17:49	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			06/04/24 17:49	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			06/04/24 17:49	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			06/04/24 17:49	1
Tetrachloroethene	**0.77**	**J**	2.0	0.35	ug/L			06/04/24 17:49	1
Toluene	**0.33**	**J**	2.0	0.25	ug/L			06/04/24 17:49	1
trans-1,2-Dichloroethene	**6.1**		2.0	0.34	ug/L			06/04/24 17:49	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			06/04/24 17:49	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			06/04/24 17:49	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			06/04/24 17:49	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			06/04/24 17:49	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			06/04/24 17:49	1
Trichloroethene	**0.80**	**J**	1.0	0.20	ug/L			06/04/24 17:49	1
Trichlorofluoromethane	1.0	U Q	2.0	0.33	ug/L			06/04/24 17:49	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			06/04/24 17:49	1
1,1,2-Trichloro-1,2,2-trifluoroethane	25	U H Q	50	12	ug/L			06/11/24 18:16	50
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			06/04/24 17:49	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			06/04/24 17:49	1
Vinyl chloride	500	U	1000	200	ug/L			06/06/24 18:49	500
Vinyl chloride	**490**	**H D**	100	20	ug/L			06/11/24 18:16	50
Xylenes, Total	1.0	U	2.0	0.49	ug/L			06/04/24 17:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*85 - 114*		*06/04/24 17:49*	*1*
4-Bromofluorobenzene (Surr)	*111*		*85 - 114*		*06/11/24 18:16*	*50*
Dibromofluoromethane (Surr)	*89*		*80 - 119*		*06/04/24 17:49*	*1*
Dibromofluoromethane (Surr)	*90*		*80 - 119*		*06/11/24 18:16*	*50*
1,2-Dichloroethane-d4 (Surr)	*92*		*81 - 118*		*06/04/24 17:49*	*1*
1,2-Dichloroethane-d4 (Surr)	*96*		*81 - 118*		*06/11/24 18:16*	*50*
Toluene-d8 (Surr)	*98*		*89 - 112*		*06/04/24 17:49*	*1*

Client Sample ID: OU6-MW-242-20240523

Lab Sample ID: 680-251210-6

Date Collected: 05/23/24 08:25

Matrix: Water

Date Received: 05/24/24 09:55

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*96*		*89 - 112*		*06/11/24 18:16*	*50*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	**3.8**		1.1	0.30	ug/L			06/06/24 16:45	1
Ethylene	**260**		1.0	0.31	ug/L			06/06/24 16:45	1
Methane (TCD)	**23000**		390	39	ug/L			06/06/24 16:45	1

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**15**		0.55	0.20	mg/L			06/05/24 16:16	1
Nitrate as N	0.10	U	0.11	0.046	mg/L			05/24/24 18:43	2
Nitrate Nitrite as N	0.10	U	0.11	0.046	mg/L			05/24/24 18:43	2
Sulfate	**0.77**	**J M**	1.5	0.40	mg/L			06/05/24 16:16	1
Nitrite as N	0.10	U	0.11	0.046	mg/L			05/24/24 18:43	2

Method: SW846 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**4900**		10	2.2	ug/L		05/28/24 06:17	05/28/24 15:33	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**170**		5.5	2.2	mg/L			05/31/24 12:56	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	**170**		11	5.0	mg/L			05/31/24 12:56	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	10	U	11	5.0	mg/L			05/31/24 12:56	1
Sulfide (SM 4500 S2 F-2011)	0.83	U	0.83	0.83	mg/L			05/30/24 12:33	1
Sulfide as H2S (SM 4500 S2 F-2011)	0.92	U	0.92	0.92	mg/L			05/30/24 12:33	1
Total Organic Carbon (SW846 9060A)	**12**		1.0	0.50	mg/L			05/29/24 04:14	1
Carbon Dioxide, Free (SM 4500 CO2 D)	**180**		11	5.0	mg/L			05/31/24 12:56	1

Client Sample ID: OU6-MW-243-20240523

Lab Sample ID: 680-251210-7

Date Collected: 05/23/24 10:35

Matrix: Water

Date Received: 05/24/24 09:55

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	1000	U	2500	370	ug/L			06/04/24 17:06	100
Benzene	100	U	200	27	ug/L			06/04/24 17:06	100
Bromobenzene	50	U	100	24	ug/L			06/04/24 17:06	100
Bromochloromethane	100	U	200	34	ug/L			06/04/24 17:06	100
Bromodichloromethane	100	U	200	25	ug/L			06/04/24 17:06	100
Bromoform	200	U	250	59	ug/L			06/04/24 17:06	100
Bromomethane	1000	U Q	2000	370	ug/L			06/04/24 17:06	100
2-Butanone (MEK)	2000	U	2500	640	ug/L			06/04/24 17:06	100
Carbon disulfide	100	U	200	43	ug/L			06/04/24 17:06	100
Carbon tetrachloride	100	U	200	30	ug/L			06/04/24 17:06	100
Chlorobenzene	**31**	**J D M**	100	15	ug/L			06/04/24 17:06	100

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-251210-1

Client Sample ID: OU6-MW-243-20240523
Date Collected: 05/23/24 10:35
Date Received: 05/24/24 09:55

Lab Sample ID: 680-251210-7
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroethane	1000	U	2000	460	ug/L			06/04/24 17:06	100
Chloroform	100	U	200	27	ug/L			06/04/24 17:06	100
Chloromethane	200	U	250	54	ug/L			06/04/24 17:06	100
2-Chlorotoluene	50	U	100	25	ug/L			06/04/24 17:06	100
4-Chlorotoluene	100	U	200	41	ug/L			06/04/24 17:06	100
cis-1,2-Dichloroethene	**14000**	**D**	200	25	ug/L			06/04/24 17:06	100
cis-1,3-Dichloropropene	100	U	200	26	ug/L			06/04/24 17:06	100
Cyclohexane	100	U Q	200	28	ug/L			06/04/24 17:06	100
Dibromochloromethane	100	U	200	39	ug/L			06/04/24 17:06	100
1,2-Dibromo-3-Chloropropane	500	U	1000	180	ug/L			06/04/24 17:06	100
1,2-Dibromoethane	100	U	200	33	ug/L			06/04/24 17:06	100
Dibromomethane	100	U	200	34	ug/L			06/04/24 17:06	100
1,2-Dichlorobenzene	100	U	200	31	ug/L			06/04/24 17:06	100
1,3-Dichlorobenzene	100	U	200	31	ug/L			06/04/24 17:06	100
1,4-Dichlorobenzene	100	U	200	31	ug/L			06/04/24 17:06	100
Dichlorodifluoromethane	100	U Q	200	36	ug/L			06/04/24 17:06	100
1,1-Dichloroethane	100	U	200	33	ug/L			06/04/24 17:06	100
1,2-Dichloroethane	100	U M	200	25	ug/L			06/04/24 17:06	100
1,1-Dichloroethene	**410**	**D**	200	33	ug/L			06/04/24 17:06	100
1,2-Dichloroethene, Total	**14000**	**D**	200	37	ug/L			06/04/24 17:06	100
1,2-Dichloropropane	50	U	100	22	ug/L			06/04/24 17:06	100
1,3-Dichloropropane	100	U	200	36	ug/L			06/04/24 17:06	100
2,2-Dichloropropane	100	U	200	35	ug/L			06/04/24 17:06	100
1,1-Dichloropropene	100	U Q	200	28	ug/L			06/04/24 17:06	100
Ethylbenzene	**24**	**J D**	100	20	ug/L			06/04/24 17:06	100
Hexachlorobutadiene	100	U Q	500	22	ug/L			06/04/24 17:06	100
2-Hexanone	1000	U	2000	320	ug/L			06/04/24 17:06	100
Isopropylbenzene	100	U	200	26	ug/L			06/04/24 17:06	100
4-Isopropyltoluene	100	U	200	44	ug/L			06/04/24 17:06	100
Methyl acetate	1000	U	2000	320	ug/L			06/04/24 17:06	100
Methylcyclohexane	100	U Q	200	33	ug/L			06/04/24 17:06	100
Methylene Chloride	1000	U	2000	320	ug/L			06/04/24 17:06	100
4-Methyl-2-pentanone (MIBK)	1000	U	2000	270	ug/L			06/04/24 17:06	100
Methyl tert-butyl ether	200	U	500	81	ug/L			06/04/24 17:06	100
m-Xylene & p-Xylene	**110**	**J D**	200	49	ug/L			06/04/24 17:06	100
Naphthalene	500	U	1000	240	ug/L			06/04/24 17:06	100
n-Butylbenzene	200	U	250	52	ug/L			06/04/24 17:06	100
N-Propylbenzene	100	U M	200	41	ug/L			06/04/24 17:06	100
o-Xylene	**41**	**J D**	200	26	ug/L			06/04/24 17:06	100
sec-Butylbenzene	200	U	250	53	ug/L			06/04/24 17:06	100
Styrene	100	U M	200	27	ug/L			06/04/24 17:06	100
tert-Butylbenzene	100	U	200	43	ug/L			06/04/24 17:06	100
1,1,1,2-Tetrachloroethane	100	U	200	36	ug/L			06/04/24 17:06	100
1,1,2,2-Tetrachloroethane	100	U	200	40	ug/L			06/04/24 17:06	100
Tetrachloroethene	**4300**	**D**	200	35	ug/L			06/04/24 17:06	100
Toluene	100	U	200	25	ug/L			06/04/24 17:06	100
trans-1,2-Dichloroethene	100	U	200	34	ug/L			06/04/24 17:06	100
trans-1,3-Dichloropropene	100	U	200	23	ug/L			06/04/24 17:06	100
1,2,3-Trichlorobenzene	200	U	500	81	ug/L			06/04/24 17:06	100

Client Sample ID: OU6-MW-243-20240523

Lab Sample ID: 680-251210-7

Date Collected: 05/23/24 10:35

Matrix: Water

Date Received: 05/24/24 09:55

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	200	U	500	53	ug/L			06/04/24 17:06	100
1,1,1-Trichloroethane	50	U	100	21	ug/L			06/04/24 17:06	100
1,1,2-Trichloroethane	100	U M	200	32	ug/L			06/04/24 17:06	100
Trichloroethene	**3900**	**D**	100	20	ug/L			06/04/24 17:06	100
Trichlorofluoromethane	100	U Q	200	33	ug/L			06/04/24 17:06	100
1,2,3-Trichloropropane	100	U	200	48	ug/L			06/04/24 17:06	100
1,1,2-Trichloro-1,2,2-trifluoroethane	50	U Q	100	23	ug/L			06/04/24 17:06	100
1,2,4-Trimethylbenzene	**130**	**J D**	200	43	ug/L			06/04/24 17:06	100
1,3,5-Trimethylbenzene	**46**	**J D M**	200	28	ug/L			06/04/24 17:06	100
Vinyl chloride	**1700**	**D**	200	40	ug/L			06/06/24 19:11	100
Xylenes, Total	**150**	**J D**	200	49	ug/L			06/04/24 17:06	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*85 - 114*		*06/04/24 17:06*	*100*
4-Bromofluorobenzene (Surr)	*109*		*85 - 114*		*06/06/24 19:11*	*100*
Dibromofluoromethane (Surr)	*90*		*80 - 119*		*06/04/24 17:06*	*100*
Dibromofluoromethane (Surr)	*90*		*80 - 119*		*06/06/24 19:11*	*100*
1,2-Dichloroethane-d4 (Surr)	*93*		*81 - 118*		*06/04/24 17:06*	*100*
1,2-Dichloroethane-d4 (Surr)	*94*		*81 - 118*		*06/06/24 19:11*	*100*
Toluene-d8 (Surr)	*96*		*89 - 112*		*06/04/24 17:06*	*100*
Toluene-d8 (Surr)	*97*		*89 - 112*		*06/06/24 19:11*	*100*

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	**0.37**		0.20	0.018	ug/L		05/25/24 07:20	05/28/24 16:53	1
Acenaphthene	**0.080**	**J**	0.20	0.042	ug/L		05/25/24 07:20	05/28/24 16:53	1
Acenaphthylene	0.050	U M	0.20	0.017	ug/L		05/25/24 07:20	05/28/24 16:53	1
Pyrene	0.10	U	0.20	0.027	ug/L		05/25/24 07:20	05/28/24 16:53	1
2-Methylnaphthalene	**0.65**		0.20	0.011	ug/L		05/25/24 07:20	05/28/24 16:53	1
Anthracene	0.050	U	0.20	0.018	ug/L		05/25/24 07:20	05/28/24 16:53	1
Benzo[a]pyrene	0.10	U	0.20	0.026	ug/L		05/25/24 07:20	05/28/24 16:53	1
Benzo[a]anthracene	0.10	U	0.20	0.026	ug/L		05/25/24 07:20	05/28/24 16:53	1
Benzo[b]fluoranthene	0.10	U	0.20	0.026	ug/L		05/25/24 07:20	05/28/24 16:53	1
Benzo[g,h,i]perylene	0.10	U M	0.20	0.026	ug/L		05/25/24 07:20	05/28/24 16:53	1
Benzo[k]fluoranthene	0.10	U	0.20	0.029	ug/L		05/25/24 07:20	05/28/24 16:53	1
Chrysene	0.050	U	0.20	0.023	ug/L		05/25/24 07:20	05/28/24 16:53	1
Dibenz(a,h)anthracene	0.050	U	0.20	0.024	ug/L		05/25/24 07:20	05/28/24 16:53	1
Phenanthrene	0.20	U	0.40	0.056	ug/L		05/25/24 07:20	05/28/24 16:53	1
Indeno[1,2,3-cd]pyrene	0.10	U	0.20	0.028	ug/L		05/25/24 07:20	05/28/24 16:53	1
Naphthalene	**29**		0.20	0.014	ug/L		05/25/24 07:20	05/28/24 16:53	1
Fluoranthene	0.10	U M	0.20	0.027	ug/L		05/25/24 07:20	05/28/24 16:53	1
Fluorene	**0.044**	**J**	0.20	0.025	ug/L		05/25/24 07:20	05/28/24 16:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*63*		*53 - 106*	*05/25/24 07:20*	*05/28/24 16:53*	*1*
2-methylnaphthalene-d10	*64*		*30 - 100*	*05/25/24 07:20*	*05/28/24 16:53*	*1*
Fluoranthene-d10	*82*		*42 - 114*	*05/25/24 07:20*	*05/28/24 16:53*	*1*
Nitrobenzene-d5	*62*		*42 - 100*	*05/25/24 07:20*	*05/28/24 16:53*	*1*
Terphenyl-d14	*81*		*53 - 111*	*05/25/24 07:20*	*05/28/24 16:53*	*1*

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-251210-1

Client Sample ID: OU6-MW-243-20240523
Date Collected: 05/23/24 10:35
Date Received: 05/24/24 09:55

Lab Sample ID: 680-251210-7
Matrix: Water

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	9.8	U	20	4.5	ug/L		05/28/24 07:00	05/28/24 20:09	1
1,2,4,5-Tetrachlorobenzene	9.8	U Q	20	4.4	ug/L		05/28/24 07:00	05/28/24 20:09	1
1,4-Dioxane	**27**		20	4.3	ug/L		05/28/24 07:00	05/28/24 20:09	1
2,3,4,6-Tetrachlorophenol	9.8	U	20	4.2	ug/L		05/28/24 07:00	05/28/24 20:09	1
2,4,5-Trichlorophenol	9.8	U	20	3.2	ug/L		05/28/24 07:00	05/28/24 20:09	1
2,4,6-Trichlorophenol	4.9	U	20	2.2	ug/L		05/28/24 07:00	05/28/24 20:09	1
2,4-Dichlorophenol	9.8	U M	20	3.6	ug/L		05/28/24 07:00	05/28/24 20:09	1
2,4-Dimethylphenol	9.8	U Q	20	2.9	ug/L		05/28/24 07:00	05/28/24 20:09	1
2,4-Dinitrophenol	39	U	49	16	ug/L		05/28/24 07:00	05/28/24 20:09	1
2,4-Dinitrotoluene	4.9	U	9.8	2.2	ug/L		05/28/24 07:00	05/28/24 20:09	1
2,6-Dinitrotoluene	9.8	U M	20	2.7	ug/L		05/28/24 07:00	05/28/24 20:09	1
2-Chloronaphthalene	9.8	U	20	4.7	ug/L		05/28/24 07:00	05/28/24 20:09	1
2-Chlorophenol	9.8	U M	20	3.1	ug/L		05/28/24 07:00	05/28/24 20:09	1
2-Methylphenol	3.9	U M	9.8	1.8	ug/L		05/28/24 07:00	05/28/24 20:09	1
2-Nitroaniline	9.8	U	20	2.8	ug/L		05/28/24 07:00	05/28/24 20:09	1
2-Nitrophenol	9.8	U	20	3.8	ug/L		05/28/24 07:00	05/28/24 20:09	1
3 & 4 Methylphenol	**21**		9.8	1.4	ug/L		05/28/24 07:00	05/28/24 20:09	1
3,3'-Dichlorobenzidine	20	U	49	9.8	ug/L		05/28/24 07:00	05/28/24 20:09	1
3-Nitroaniline	9.8	U	49	2.9	ug/L		05/28/24 07:00	05/28/24 20:09	1
4,6-Dinitro-2-methylphenol	20	U	49	5.2	ug/L		05/28/24 07:00	05/28/24 20:09	1
4-Bromophenyl phenyl ether	9.8	U	20	4.6	ug/L		05/28/24 07:00	05/28/24 20:09	1
4-Chloro-3-methylphenol	9.8	U	20	2.4	ug/L		05/28/24 07:00	05/28/24 20:09	1
4-Chloroaniline	3.9	U M Q	9.8	0.98	ug/L		05/28/24 07:00	05/28/24 20:09	1
4-Chlorophenyl phenyl ether	12	U	20	5.2	ug/L		05/28/24 07:00	05/28/24 20:09	1
4-Nitroaniline	9.8	U	49	2.9	ug/L		05/28/24 07:00	05/28/24 20:09	1
4-Nitrophenol	20	U M	49	7.9	ug/L		05/28/24 07:00	05/28/24 20:09	1
Acetophenone	4.9	U M	9.8	2.2	ug/L		05/28/24 07:00	05/28/24 20:09	1
Atrazine	4.9	U	9.8	2.2	ug/L		05/28/24 07:00	05/28/24 20:09	1
Benzaldehyde	9.8	U	20	4.7	ug/L		05/28/24 07:00	05/28/24 20:09	1
bis (2-chloroisopropyl) ether	9.8	U M Q	20	3.0	ug/L		05/28/24 07:00	05/28/24 20:09	1
Bis(2-chloroethoxy)methane	3.9	U Q	9.8	1.8	ug/L		05/28/24 07:00	05/28/24 20:09	1
Bis(2-chloroethyl)ether	9.8	U M Q	20	3.5	ug/L		05/28/24 07:00	05/28/24 20:09	1
Bis(2-ethylhexyl) phthalate	9.8	U	20	2.9	ug/L		05/28/24 07:00	05/28/24 20:09	1
Butyl benzyl phthalate	9.8	U	20	2.7	ug/L		05/28/24 07:00	05/28/24 20:09	1
Caprolactam	9.8	U	20	2.7	ug/L		05/28/24 07:00	05/28/24 20:09	1
Carbazole	3.9	U	9.8	1.8	ug/L		05/28/24 07:00	05/28/24 20:09	1
Dibenzofuran	3.9	U	9.8	1.9	ug/L		05/28/24 07:00	05/28/24 20:09	1
Diethyl phthalate	4.9	U	9.8	2.2	ug/L		05/28/24 07:00	05/28/24 20:09	1
Dimethyl phthalate	4.9	U	9.8	2.1	ug/L		05/28/24 07:00	05/28/24 20:09	1
Di-n-butyl phthalate	4.9	U	9.8	2.2	ug/L		05/28/24 07:00	05/28/24 20:09	1
Di-n-octyl phthalate	9.8	U M	20	2.7	ug/L		05/28/24 07:00	05/28/24 20:09	1
Hexachlorobenzene	3.9	U	9.8	1.6	ug/L		05/28/24 07:00	05/28/24 20:09	1
Hexachlorobutadiene	9.8	U Q	20	3.9	ug/L		05/28/24 07:00	05/28/24 20:09	1
Hexachlorocyclopentadiene	9.8	U Q	20	3.4	ug/L		05/28/24 07:00	05/28/24 20:09	1
Hexachloroethane	9.8	U M Q	20	3.5	ug/L		05/28/24 07:00	05/28/24 20:09	1
Isophorone	3.9	U M Q	9.8	2.0	ug/L		05/28/24 07:00	05/28/24 20:09	1
Nitrobenzene	9.8	U M Q	20	3.4	ug/L		05/28/24 07:00	05/28/24 20:09	1
N-Nitrosodi-n-propylamine	4.9	U M Q	9.8	2.3	ug/L		05/28/24 07:00	05/28/24 20:09	1
N-Nitrosodiphenylamine	9.8	U	20	2.8	ug/L		05/28/24 07:00	05/28/24 20:09	1

Client Sample ID: OU6-MW-243-20240523
Date Collected: 05/23/24 10:35
Date Received: 05/24/24 09:55

Lab Sample ID: 680-251210-7
Matrix: Water

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	20	U	49	9.7	ug/L		05/28/24 07:00	05/28/24 20:09	1
Phenol	3.9	U M	9.8	1.5	ug/L		05/28/24 07:00	05/28/24 20:09	1
Pyridine	20	U M Q	49	7.2	ug/L		05/28/24 07:00	05/28/24 20:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*59*		*43 - 140*	*05/28/24 07:00*	*05/28/24 20:09*	*1*
2-Fluorobiphenyl	*48*		*44 - 119*	*05/28/24 07:00*	*05/28/24 20:09*	*1*
2-Fluorophenol	*22*		*19 - 119*	*05/28/24 07:00*	*05/28/24 20:09*	*1*
Nitrobenzene-d5	*43*	*Q*	*44 - 120*	*05/28/24 07:00*	*05/28/24 20:09*	*1*
Phenol-d5	*17*		*10 - 130*	*05/28/24 07:00*	*05/28/24 20:09*	*1*
Terphenyl-d14	*78*		*50 - 134*	*05/28/24 07:00*	*05/28/24 20:09*	*1*

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS) - RE

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	9.7	U M H	19	4.5	ug/L		05/31/24 11:30	05/31/24 23:33	1
1,2,4,5-Tetrachlorobenzene	9.7	U H Q	19	4.4	ug/L		05/31/24 11:30	05/31/24 23:33	1
1,4-Dioxane	**25**	**H**	19	4.3	ug/L		05/31/24 11:30	05/31/24 23:33	1
2,3,4,6-Tetrachlorophenol	9.7	U H	19	4.2	ug/L		05/31/24 11:30	05/31/24 23:33	1
2,4,5-Trichlorophenol	9.7	U H	19	3.2	ug/L		05/31/24 11:30	05/31/24 23:33	1
2,4,6-Trichlorophenol	4.8	U H	19	2.1	ug/L		05/31/24 11:30	05/31/24 23:33	1
2,4-Dichlorophenol	9.7	U H	19	3.6	ug/L		05/31/24 11:30	05/31/24 23:33	1
2,4-Dimethylphenol	9.7	U H Q	19	2.9	ug/L		05/31/24 11:30	05/31/24 23:33	1
2,4-Dinitrophenol	39	U H	48	15	ug/L		05/31/24 11:30	05/31/24 23:33	1
2,4-Dinitrotoluene	4.8	U H	9.7	2.2	ug/L		05/31/24 11:30	05/31/24 23:33	1
2,6-Dinitrotoluene	9.7	U M H	19	2.7	ug/L		05/31/24 11:30	05/31/24 23:33	1
2-Chloronaphthalene	9.7	U H	19	4.6	ug/L		05/31/24 11:30	05/31/24 23:33	1
2-Chlorophenol	9.7	U H	19	3.1	ug/L		05/31/24 11:30	05/31/24 23:33	1
2-Methylphenol	3.9	U H	9.7	1.7	ug/L		05/31/24 11:30	05/31/24 23:33	1
2-Nitroaniline	9.7	U H	19	2.8	ug/L		05/31/24 11:30	05/31/24 23:33	1
2-Nitrophenol	9.7	U H	19	3.8	ug/L		05/31/24 11:30	05/31/24 23:33	1
3 & 4 Methylphenol	**28**	**H**	9.7	1.4	ug/L		05/31/24 11:30	05/31/24 23:33	1
3,3'-Dichlorobenzidine	19	U H	48	9.7	ug/L		05/31/24 11:30	05/31/24 23:33	1
3-Nitroaniline	9.7	U H	48	2.9	ug/L		05/31/24 11:30	05/31/24 23:33	1
4,6-Dinitro-2-methylphenol	19	U H	48	5.1	ug/L		05/31/24 11:30	05/31/24 23:33	1
4-Bromophenyl phenyl ether	9.7	U H	19	4.6	ug/L		05/31/24 11:30	05/31/24 23:33	1
4-Chloro-3-methylphenol	9.7	U H	19	2.4	ug/L		05/31/24 11:30	05/31/24 23:33	1
4-Chloroaniline	3.9	U M H Q	9.7	0.97	ug/L		05/31/24 11:30	05/31/24 23:33	1
4-Chlorophenyl phenyl ether	12	U H	19	5.1	ug/L		05/31/24 11:30	05/31/24 23:33	1
4-Nitroaniline	9.7	U H	48	2.9	ug/L		05/31/24 11:30	05/31/24 23:33	1
4-Nitrophenol	19	U H	48	7.8	ug/L		05/31/24 11:30	05/31/24 23:33	1
Acetophenone	4.8	U M H	9.7	2.1	ug/L		05/31/24 11:30	05/31/24 23:33	1
Atrazine	4.8	U H	9.7	2.1	ug/L		05/31/24 11:30	05/31/24 23:33	1
Benzaldehyde	9.7	U M H	19	4.6	ug/L		05/31/24 11:30	05/31/24 23:33	1
bis (2-chloroisopropyl) ether	9.7	U M H Q	19	3.0	ug/L		05/31/24 11:30	05/31/24 23:33	1
Bis(2-chloroethoxy)methane	3.9	U H Q	9.7	1.7	ug/L		05/31/24 11:30	05/31/24 23:33	1
Bis(2-chloroethyl)ether	9.7	U H Q	19	3.5	ug/L		05/31/24 11:30	05/31/24 23:33	1
Bis(2-ethylhexyl) phthalate	9.7	U H	19	2.9	ug/L		05/31/24 11:30	05/31/24 23:33	1
Butyl benzyl phthalate	9.7	U H	19	2.7	ug/L		05/31/24 11:30	05/31/24 23:33	1
Caprolactam	9.7	U H	19	2.7	ug/L		05/31/24 11:30	05/31/24 23:33	1
Carbazole	3.9	U H	9.7	1.7	ug/L		05/31/24 11:30	05/31/24 23:33	1

Client Sample ID: OU6-MW-243-20240523
Date Collected: 05/23/24 10:35
Date Received: 05/24/24 09:55

Lab Sample ID: 680-251210-7
Matrix: Water

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS) - RE (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Dibenzofuran	3.9	U H	9.7	1.8	ug/L		05/31/24 11:30	05/31/24 23:33	1
Diethyl phthalate	4.8	U H	9.7	2.1	ug/L		05/31/24 11:30	05/31/24 23:33	1
Dimethyl phthalate	4.8	U H	9.7	2.0	ug/L		05/31/24 11:30	05/31/24 23:33	1
Di-n-butyl phthalate	4.8	U H	9.7	2.2	ug/L		05/31/24 11:30	05/31/24 23:33	1
Di-n-octyl phthalate	9.7	U H	19	2.7	ug/L		05/31/24 11:30	05/31/24 23:33	1
Hexachlorobenzene	3.9	U H	9.7	1.5	ug/L		05/31/24 11:30	05/31/24 23:33	1
Hexachlorobutadiene	9.7	U H Q	19	3.9	ug/L		05/31/24 11:30	05/31/24 23:33	1
Hexachlorocyclopentadiene	9.7	U H	19	3.4	ug/L		05/31/24 11:30	05/31/24 23:33	1
Hexachloroethane	9.7	U H Q	19	3.5	ug/L		05/31/24 11:30	05/31/24 23:33	1
Isophorone	3.9	U M H Q	9.7	1.9	ug/L		05/31/24 11:30	05/31/24 23:33	1
Nitrobenzene	9.7	U H Q	19	3.4	ug/L		05/31/24 11:30	05/31/24 23:33	1
N-Nitrosodi-n-propylamine	4.8	U M H Q	9.7	2.3	ug/L		05/31/24 11:30	05/31/24 23:33	1
N-Nitrosodiphenylamine	9.7	U H	19	2.8	ug/L		05/31/24 11:30	05/31/24 23:33	1
Pentachlorophenol	19	U H	48	9.6	ug/L		05/31/24 11:30	05/31/24 23:33	1
Phenol	3.9	U M H	9.7	1.5	ug/L		05/31/24 11:30	05/31/24 23:33	1
Pyridine	19	U H Q	48	7.2	ug/L		05/31/24 11:30	05/31/24 23:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*64*		*43 - 140*	*05/31/24 11:30*	*05/31/24 23:33*	*1*
2-Fluorobiphenyl	*56*		*44 - 119*	*05/31/24 11:30*	*05/31/24 23:33*	*1*
2-Fluorophenol	*30*		*19 - 119*	*05/31/24 11:30*	*05/31/24 23:33*	*1*
Nitrobenzene-d5	*40*	*Q*	*44 - 120*	*05/31/24 11:30*	*05/31/24 23:33*	*1*
Phenol-d5	*21*	*M*	*10 - 130*	*05/31/24 11:30*	*05/31/24 23:33*	*1*
Terphenyl-d14	*65*		*50 - 134*	*05/31/24 11:30*	*05/31/24 23:33*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	0.76	U	1.1	0.30	ug/L			06/06/24 16:57	1
Ethylene	**900**	**J1**	1.0	0.31	ug/L			06/06/24 16:57	1
Methane (TCD)	**12000**		390	39	ug/L			06/06/24 16:57	1

Method: RSK-175 - Dissolved Gases (GC) - RA

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene	**1100**	**H D**	10	3.1	ug/L			06/11/24 18:15	10

Method: SW846 8081B 8082A - Organochlorine Pesticides & PCBs (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	0.0039	U	0.049	0.0019	ug/L		05/28/24 07:28	05/28/24 19:18	1
4,4'-DDE	0.0039	U	0.049	0.00097	ug/L		05/28/24 07:28	05/28/24 19:18	1
4,4'-DDT	0.0039	U Q	0.049	0.00097	ug/L		05/28/24 07:28	05/28/24 19:18	1
Aldrin	0.0039	U	0.049	0.0019	ug/L		05/28/24 07:28	05/28/24 19:18	1
alpha-BHC	0.0039	U	0.049	0.00097	ug/L		05/28/24 07:28	05/28/24 19:18	1
beta-BHC	0.0039	U M Q	0.049	0.0019	ug/L		05/28/24 07:28	05/28/24 19:18	1
delta-BHC	0.0039	U	0.049	0.0019	ug/L		05/28/24 07:28	05/28/24 19:18	1
Dieldrin	0.0039	U	0.049	0.0019	ug/L		05/28/24 07:28	05/28/24 19:18	1
Endosulfan I	0.0039	U Q	0.049	0.0019	ug/L		05/28/24 07:28	05/28/24 19:18	1
Endosulfan II	0.0039	U	0.049	0.0019	ug/L		05/28/24 07:28	05/28/24 19:18	1
Endosulfan sulfate	0.0039	U	0.049	0.0019	ug/L		05/28/24 07:28	05/28/24 19:18	1
Endrin	0.0039	U	0.049	0.00097	ug/L		05/28/24 07:28	05/28/24 19:18	1
Endrin aldehyde	0.016	U M	0.049	0.0039	ug/L		05/28/24 07:28	05/28/24 19:18	1

Client Sample ID: OU6-MW-243-20240523
Date Collected: 05/23/24 10:35
Date Received: 05/24/24 09:55

Lab Sample ID: 680-251210-7
Matrix: Water

Method: SW846 8081B 8082A - Organochlorine Pesticides & PCBs (GC) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Endrin ketone	0.016	U Q	0.049	0.0039	ug/L		05/28/24 07:28	05/28/24 19:18	1
gamma-BHC (Lindane)	0.0039	U Q	0.049	0.00097	ug/L		05/28/24 07:28	05/28/24 19:18	1
Heptachlor	0.0039	U M	0.049	0.00097	ug/L		05/28/24 07:28	05/28/24 19:18	1
Heptachlor epoxide	0.0039	U M	0.049	0.0019	ug/L		05/28/24 07:28	05/28/24 19:18	1
Methoxychlor	0.0039	U Q	0.049	0.0019	ug/L		05/28/24 07:28	05/28/24 19:18	1
Chlordane (technical)	0.39	U	0.49	0.16	ug/L		05/28/24 07:28	05/28/24 19:18	1
PCB-1016	0.23	U	0.49	0.097	ug/L		05/28/24 07:28	05/28/24 19:18	1
PCB-1221	0.23	U	0.49	0.097	ug/L		05/28/24 07:28	05/28/24 19:18	1
PCB-1232	0.23	U	0.49	0.097	ug/L		05/28/24 07:28	05/28/24 19:18	1
PCB-1242	0.23	U	0.49	0.097	ug/L		05/28/24 07:28	05/28/24 19:18	1
PCB-1248	0.23	U	0.49	0.097	ug/L		05/28/24 07:28	05/28/24 19:18	1
PCB-1254	0.23	U	0.49	0.097	ug/L		05/28/24 07:28	05/28/24 19:18	1
PCB-1260	0.23	U	0.49	0.097	ug/L		05/28/24 07:28	05/28/24 19:18	1
Toxaphene	0.78	U	4.9	0.30	ug/L		05/28/24 07:28	05/28/24 19:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*39*		*14 - 130*	*05/28/24 07:28*	*05/28/24 19:18*	*1*
Tetrachloro-m-xylene	*36*	*Q*	*44 - 124*	*05/28/24 07:28*	*05/28/24 19:18*	*1*

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**41**		0.55	0.20	mg/L			06/05/24 16:22	1
Nitrate as N	0.10	U	0.11	0.046	mg/L			05/24/24 18:52	2
Nitrate Nitrite as N	0.10	U	0.11	0.046	mg/L			05/24/24 18:52	2
Sulfate	**0.75**	**J M**	1.5	0.40	mg/L			06/05/24 16:22	1
Nitrite as N	0.10	U	0.11	0.046	mg/L			05/24/24 18:52	2

Method: SW846 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**57**	**J**	200	35	ug/L		05/28/24 06:17	05/28/24 15:35	1
Antimony	1.5	U	5.0	0.34	ug/L		05/28/24 06:17	05/28/24 15:35	1
Arsenic	**7.7**		5.0	0.86	ug/L		05/28/24 06:17	05/28/24 15:35	1
Barium	**98**	**Q**	5.0	0.89	ug/L		05/28/24 06:17	05/28/24 15:35	1
Beryllium	0.40	U	0.50	0.20	ug/L		05/28/24 06:17	05/28/24 15:35	1
Boron	75	U	100	22	ug/L		05/28/24 06:17	05/28/24 15:35	1
Cadmium	0.20	U	0.50	0.078	ug/L		05/28/24 06:17	05/28/24 15:35	1
Calcium	**13000**		500	140	ug/L		05/28/24 06:17	05/28/24 15:35	1
Chromium	2.5	U	20	0.81	ug/L		05/28/24 06:17	05/28/24 15:35	1
Cobalt	**36**		1.0	0.22	ug/L		05/28/24 06:17	05/28/24 15:35	1
Copper	2.0	U	5.0	1.1	ug/L		05/28/24 06:17	05/28/24 15:35	1
Iron	**67000**		100	12	ug/L		05/28/24 06:17	05/28/24 15:35	1
Lead	1.0	U	2.5	0.21	ug/L		05/28/24 06:17	05/28/24 15:35	1
Magnesium	**7500**		250	23	ug/L		05/28/24 06:17	05/28/24 15:35	1
Manganese	**1800**		10	2.2	ug/L		05/28/24 06:17	05/28/24 15:35	1
Nickel	**9.4**	**J**	10	0.42	ug/L		05/28/24 06:17	05/28/24 15:35	1
Potassium	**1700**		1000	44	ug/L		05/28/24 06:17	05/28/24 15:35	1
Selenium	2.5	U Q	5.0	0.99	ug/L		05/28/24 06:17	05/28/24 15:35	1
Silver	1.0	U	2.0	0.39	ug/L		05/28/24 06:17	05/28/24 15:35	1
Sodium	**83000**		1000	200	ug/L		05/28/24 06:17	05/28/24 15:35	1
Thallium	1.0	U	2.0	0.26	ug/L		05/28/24 06:17	05/29/24 12:25	1

Client Sample ID: OU6-MW-243-20240523

Lab Sample ID: 680-251210-7

Date Collected: 05/23/24 10:35

Matrix: Water

Date Received: 05/24/24 09:55

Method: SW846 6020A - Metals (ICP/MS) - Total Recoverable (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Vanadium	2.5	U	10	0.63	ug/L		05/28/24 06:17	05/28/24 15:35	1
Zinc	20	U	25	2.8	ug/L		05/28/24 06:17	05/28/24 15:35	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	0.20	U	0.25	0.080	ug/L		05/31/24 11:29	05/31/24 16:22	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**220**		5.5	2.2	mg/L			05/31/24 13:32	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	**220**		11	5.0	mg/L			05/31/24 13:32	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	10	U	11	5.0	mg/L			05/31/24 13:32	1
Sulfide (SM 4500 S2 F-2011)	0.83	U	0.83	0.83	mg/L			05/30/24 12:33	1
Sulfide as H2S (SM 4500 S2 F-2011)	0.92	U	0.92	0.92	mg/L			05/30/24 12:33	1
Total Organic Carbon (SW846 9060A)	**130**	**D**	3.0	1.5	mg/L			05/29/24 13:51	3
Carbon Dioxide, Free (SM 4500 CO2 D)	**320**		11	5.0	mg/L			05/31/24 13:32	1

Client Sample ID: OU6-MW-245-20240523

Lab Sample ID: 680-251210-8

Date Collected: 05/23/24 14:00

Matrix: Water

Date Received: 05/24/24 09:55

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			06/04/24 17:14	1
Benzene	1.0	U	2.0	0.27	ug/L			06/04/24 17:14	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			06/04/24 17:14	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			06/04/24 17:14	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			06/04/24 17:14	1
Bromoform	2.0	U Q	2.5	0.59	ug/L			06/04/24 17:14	1
Bromomethane	10	U	20	3.7	ug/L			06/04/24 17:14	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			06/04/24 17:14	1
Carbon disulfide	1.0	U Q	2.0	0.43	ug/L			06/04/24 17:14	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			06/04/24 17:14	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			06/04/24 17:14	1
Chloroethane	**24**		20	4.6	ug/L			06/04/24 17:14	1
Chloroform	1.0	U	2.0	0.27	ug/L			06/04/24 17:14	1
Chloromethane	**0.57**	**J**	2.5	0.54	ug/L			06/04/24 17:14	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			06/04/24 17:14	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			06/04/24 17:14	1
cis-1,2-Dichloroethene	**1.9**	**J**	2.0	0.25	ug/L			06/04/24 17:14	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			06/04/24 17:14	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			06/04/24 17:14	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			06/04/24 17:14	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			06/04/24 17:14	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			06/04/24 17:14	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			06/04/24 17:14	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			06/04/24 17:14	1

Client Sample ID: OU6-MW-245-20240523
Date Collected: 05/23/24 14:00
Date Received: 05/24/24 09:55

Lab Sample ID: 680-251210-8
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			06/04/24 17:14	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			06/04/24 17:14	1
Dichlorodifluoromethane	1.0	U Q	2.0	0.36	ug/L			06/04/24 17:14	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			06/04/24 17:14	1
1,2-Dichloroethane	**0.27**	**J**	2.0	0.25	ug/L			06/04/24 17:14	1
1,1-Dichloroethene	**0.47**	**J**	2.0	0.33	ug/L			06/04/24 17:14	1
1,2-Dichloroethene, Total	**4.7**		2.0	0.37	ug/L			06/04/24 17:14	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			06/04/24 17:14	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			06/04/24 17:14	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			06/04/24 17:14	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			06/04/24 17:14	1
Ethylbenzene	**0.24**	**J**	1.0	0.20	ug/L			06/04/24 17:14	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			06/04/24 17:14	1
2-Hexanone	10	U	20	3.2	ug/L			06/04/24 17:14	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			06/04/24 17:14	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			06/04/24 17:14	1
Methyl acetate	10	U	20	3.2	ug/L			06/04/24 17:14	1
Methylcyclohexane	1.0	U M	2.0	0.33	ug/L			06/04/24 17:14	1
Methylene Chloride	10	U	20	3.2	ug/L			06/04/24 17:14	1
4-Methyl-2-pentanone (MIBK)	**4.6**	**J**	20	2.7	ug/L			06/04/24 17:14	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			06/04/24 17:14	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			06/04/24 17:14	1
Naphthalene	**2.9**	**J**	10	2.4	ug/L			06/04/24 17:14	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			06/04/24 17:14	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			06/04/24 17:14	1
o-Xylene	**0.77**	**J**	2.0	0.26	ug/L			06/04/24 17:14	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			06/04/24 17:14	1
Styrene	1.0	U	2.0	0.27	ug/L			06/04/24 17:14	1
tert-Butylbenzene	1.0	U M	2.0	0.43	ug/L			06/04/24 17:14	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			06/04/24 17:14	1
1,1,2,2-Tetrachloroethane	1.0	U Q	2.0	0.40	ug/L			06/04/24 17:14	1
Tetrachloroethene	1.0	U	2.0	0.35	ug/L			06/04/24 17:14	1
Toluene	**0.63**	**J**	2.0	0.25	ug/L			06/04/24 17:14	1
trans-1,2-Dichloroethene	**2.8**		2.0	0.34	ug/L			06/04/24 17:14	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			06/04/24 17:14	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			06/04/24 17:14	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			06/04/24 17:14	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			06/04/24 17:14	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			06/04/24 17:14	1
Trichloroethene	**0.38**	**J**	1.0	0.20	ug/L			06/04/24 17:14	1
Trichlorofluoromethane	1.0	U Q	2.0	0.33	ug/L			06/04/24 17:14	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			06/04/24 17:14	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			06/04/24 17:14	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			06/04/24 17:14	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			06/04/24 17:14	1
Vinyl chloride	**0.97**	**J**	2.0	0.40	ug/L			06/04/24 17:14	1
Xylenes, Total	**0.77**	**J**	2.0	0.49	ug/L			06/04/24 17:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*85 - 114*		*06/04/24 17:14*	*1*

Client Sample ID: OU6-MW-245-20240523

Lab Sample ID: 680-251210-8

Date Collected: 05/23/24 14:00

Matrix: Water

Date Received: 05/24/24 09:55

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*105*		*80 - 119*		*06/04/24 17:14*	*1*
1,2-Dichloroethane-d4 (Surr)	*94*		*81 - 118*		*06/04/24 17:14*	*1*
Toluene-d8 (Surr)	*99*		*89 - 112*		*06/04/24 17:14*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	**1.9**		1.1	0.30	ug/L			06/06/24 17:10	1
Ethylene	**32**		1.0	0.31	ug/L			06/06/24 17:10	1
Methane (TCD)	**21000**		390	39	ug/L			06/06/24 17:10	1

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**20**		0.55	0.20	mg/L			06/05/24 16:29	1
Nitrate as N	0.10	U	0.11	0.046	mg/L			05/24/24 19:00	2
Nitrate Nitrite as N	0.10	U	0.11	0.046	mg/L			05/24/24 19:00	2
Sulfate	**0.61**	**J M**	1.5	0.40	mg/L			06/05/24 16:29	1
Nitrite as N	0.10	U	0.11	0.046	mg/L			05/24/24 19:00	2

Method: SW846 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**270**		10	2.2	ug/L		05/28/24 06:17	05/28/24 15:37	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**250**		5.5	2.2	mg/L			05/31/24 13:22	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	**250**		11	5.0	mg/L			05/31/24 13:22	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	10	U	11	5.0	mg/L			05/31/24 13:22	1
Sulfide (SM 4500 S2 F-2011)	0.83	U	0.83	0.83	mg/L			05/30/24 12:33	1
Sulfide as H2S (SM 4500 S2 F-2011)	0.92	U	0.92	0.92	mg/L			05/30/24 12:33	1
Total Organic Carbon (SW846 9060A)	**55**		1.0	0.50	mg/L			05/29/24 04:49	1
Carbon Dioxide, Free (SM 4500 CO2 D)	**240**		11	5.0	mg/L			05/31/24 13:22	1

Client Sample ID: OU6-MW-126-20240523

Lab Sample ID: 680-251210-9

Date Collected: 05/23/24 10:40

Matrix: Water

Date Received: 05/24/24 09:55

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	**25**		25	3.7	ug/L			06/04/24 18:33	1
Benzene	1.0	U	2.0	0.27	ug/L			06/04/24 18:33	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			06/04/24 18:33	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			06/04/24 18:33	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			06/04/24 18:33	1
Bromoform	2.0	U	2.5	0.59	ug/L			06/04/24 18:33	1
Bromomethane	10	U Q	20	3.7	ug/L			06/04/24 18:33	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			06/04/24 18:33	1
Carbon disulfide	1.0	U	2.0	0.43	ug/L			06/04/24 18:33	1

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-251210-1

Client Sample ID: OU6-MW-126-20240523
Date Collected: 05/23/24 10:40
Date Received: 05/24/24 09:55

Lab Sample ID: 680-251210-9
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			06/04/24 18:33	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			06/04/24 18:33	1
Chloroethane	**9.6**	**J**	20	4.6	ug/L			06/04/24 18:33	1
Chloroform	1.0	U	2.0	0.27	ug/L			06/04/24 18:33	1
Chloromethane	2.0	U	2.5	0.54	ug/L			06/04/24 18:33	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			06/04/24 18:33	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			06/04/24 18:33	1
cis-1,2-Dichloroethene	**370**	**D**	10	1.3	ug/L			06/06/24 19:59	5
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			06/04/24 18:33	1
Cyclohexane	1.0	U Q	2.0	0.28	ug/L			06/04/24 18:33	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			06/04/24 18:33	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			06/04/24 18:33	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			06/04/24 18:33	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			06/04/24 18:33	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			06/04/24 18:33	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			06/04/24 18:33	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			06/04/24 18:33	1
Dichlorodifluoromethane	1.0	U Q	2.0	0.36	ug/L			06/04/24 18:33	1
1,1-Dichloroethane	**1.3**	**J**	2.0	0.33	ug/L			06/04/24 18:33	1
1,2-Dichloroethane	**0.59**	**J**	2.0	0.25	ug/L			06/04/24 18:33	1
1,1-Dichloroethene	**20**		2.0	0.33	ug/L			06/04/24 18:33	1
1,2-Dichloroethene, Total	**370**	**D**	10	1.9	ug/L			06/06/24 19:59	5
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			06/04/24 18:33	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			06/04/24 18:33	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			06/04/24 18:33	1
1,1-Dichloropropene	1.0	U Q	2.0	0.28	ug/L			06/04/24 18:33	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			06/04/24 18:33	1
Hexachlorobutadiene	1.0	U Q	5.0	0.22	ug/L			06/04/24 18:33	1
2-Hexanone	10	U	20	3.2	ug/L			06/04/24 18:33	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			06/04/24 18:33	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			06/04/24 18:33	1
Methyl acetate	10	U	20	3.2	ug/L			06/04/24 18:33	1
Methylcyclohexane	1.0	U Q	2.0	0.33	ug/L			06/04/24 18:33	1
Methylene Chloride	10	U	20	3.2	ug/L			06/04/24 18:33	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			06/04/24 18:33	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			06/04/24 18:33	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			06/04/24 18:33	1
Naphthalene	5.0	U	10	2.4	ug/L			06/04/24 18:33	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			06/04/24 18:33	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			06/04/24 18:33	1
o-Xylene	1.0	U	2.0	0.26	ug/L			06/04/24 18:33	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			06/04/24 18:33	1
Styrene	1.0	U	2.0	0.27	ug/L			06/04/24 18:33	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			06/04/24 18:33	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			06/04/24 18:33	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			06/04/24 18:33	1
Tetrachloroethene	**0.99**	**J**	2.0	0.35	ug/L			06/04/24 18:33	1
Toluene	1.0	U	2.0	0.25	ug/L			06/04/24 18:33	1
trans-1,2-Dichloroethene	**0.89**	**J**	2.0	0.34	ug/L			06/04/24 18:33	1

Client Sample ID: OU6-MW-126-20240523

Lab Sample ID: 680-251210-9

Date Collected: 05/23/24 10:40

Matrix: Water

Date Received: 05/24/24 09:55

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			06/04/24 18:33	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			06/04/24 18:33	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			06/04/24 18:33	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			06/04/24 18:33	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			06/04/24 18:33	1
Trichloroethene	**5.1**		1.0	0.20	ug/L			06/04/24 18:33	1
Trichlorofluoromethane	1.0	U Q	2.0	0.33	ug/L			06/04/24 18:33	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			06/04/24 18:33	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U Q	1.0	0.23	ug/L			06/04/24 18:33	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			06/04/24 18:33	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			06/04/24 18:33	1
Vinyl chloride	**13**	**D**	10	2.0	ug/L			06/06/24 19:59	5
Xylenes, Total	1.0	U	2.0	0.49	ug/L			06/04/24 18:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*85 - 114*		*06/04/24 18:33*	*1*
4-Bromofluorobenzene (Surr)	*109*		*85 - 114*		*06/06/24 19:59*	*5*
Dibromofluoromethane (Surr)	*90*		*80 - 119*		*06/04/24 18:33*	*1*
Dibromofluoromethane (Surr)	*92*		*80 - 119*		*06/06/24 19:59*	*5*
1,2-Dichloroethane-d4 (Surr)	*92*		*81 - 118*		*06/04/24 18:33*	*1*
1,2-Dichloroethane-d4 (Surr)	*97*		*81 - 118*		*06/06/24 19:59*	*5*
Toluene-d8 (Surr)	*97*		*89 - 112*		*06/04/24 18:33*	*1*
Toluene-d8 (Surr)	*98*		*89 - 112*		*06/06/24 19:59*	*5*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	**1.6**		1.1	0.30	ug/L			06/06/24 17:23	1
Ethylene	**82**		1.0	0.31	ug/L			06/06/24 17:23	1
Methane (TCD)	**13000**		390	39	ug/L			06/06/24 17:23	1

Client Sample ID: OU6-NNC-3-20240523

Lab Sample ID: 680-251210-10

Date Collected: 05/23/24 13:35

Matrix: Water

Date Received: 05/24/24 09:55

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			06/04/24 17:37	1
Benzene	1.0	U	2.0	0.27	ug/L			06/04/24 17:37	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			06/04/24 17:37	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			06/04/24 17:37	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			06/04/24 17:37	1
Bromoform	2.0	U Q	2.5	0.59	ug/L			06/04/24 17:37	1
Bromomethane	10	U	20	3.7	ug/L			06/04/24 17:37	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			06/04/24 17:37	1
Carbon disulfide	1.0	U Q	2.0	0.43	ug/L			06/04/24 17:37	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			06/04/24 17:37	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			06/04/24 17:37	1
Chloroethane	10	U	20	4.6	ug/L			06/04/24 17:37	1
Chloroform	1.0	U	2.0	0.27	ug/L			06/04/24 17:37	1
Chloromethane	2.0	U	2.5	0.54	ug/L			06/04/24 17:37	1

Client Sample ID: OU6-NNC-3-20240523
Date Collected: 05/23/24 13:35
Date Received: 05/24/24 09:55

Lab Sample ID: 680-251210-10
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			06/04/24 17:37	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			06/04/24 17:37	1
cis-1,2-Dichloroethene	**1.2**	**J**	2.0	0.25	ug/L			06/04/24 17:37	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			06/04/24 17:37	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			06/04/24 17:37	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			06/04/24 17:37	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			06/04/24 17:37	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			06/04/24 17:37	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			06/04/24 17:37	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			06/04/24 17:37	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			06/04/24 17:37	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			06/04/24 17:37	1
Dichlorodifluoromethane	1.0	U Q	2.0	0.36	ug/L			06/04/24 17:37	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			06/04/24 17:37	1
1,2-Dichloroethane	1.0	U M	2.0	0.25	ug/L			06/04/24 17:37	1
1,1-Dichloroethene	1.0	U	2.0	0.33	ug/L			06/04/24 17:37	1
1,2-Dichloroethene, Total	**1.2**	**J**	2.0	0.37	ug/L			06/04/24 17:37	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			06/04/24 17:37	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			06/04/24 17:37	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			06/04/24 17:37	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			06/04/24 17:37	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			06/04/24 17:37	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			06/04/24 17:37	1
2-Hexanone	10	U	20	3.2	ug/L			06/04/24 17:37	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			06/04/24 17:37	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			06/04/24 17:37	1
Methyl acetate	10	U	20	3.2	ug/L			06/04/24 17:37	1
Methylcyclohexane	1.0	U	2.0	0.33	ug/L			06/04/24 17:37	1
Methylene Chloride	10	U	20	3.2	ug/L			06/04/24 17:37	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			06/04/24 17:37	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			06/04/24 17:37	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			06/04/24 17:37	1
Naphthalene	5.0	U	10	2.4	ug/L			06/04/24 17:37	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			06/04/24 17:37	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			06/04/24 17:37	1
o-Xylene	1.0	U	2.0	0.26	ug/L			06/04/24 17:37	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			06/04/24 17:37	1
Styrene	1.0	U	2.0	0.27	ug/L			06/04/24 17:37	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			06/04/24 17:37	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			06/04/24 17:37	1
1,1,2,2-Tetrachloroethane	1.0	U Q	2.0	0.40	ug/L			06/04/24 17:37	1
Tetrachloroethene	**0.41**	**J**	2.0	0.35	ug/L			06/04/24 17:37	1
Toluene	1.0	U	2.0	0.25	ug/L			06/04/24 17:37	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			06/04/24 17:37	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			06/04/24 17:37	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			06/04/24 17:37	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			06/04/24 17:37	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			06/04/24 17:37	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			06/04/24 17:37	1

Client Sample ID: OU6-NNC-3-20240523
Lab Sample ID: 680-251210-10

Date Collected: 05/23/24 13:35
Matrix: Water
Date Received: 05/24/24 09:55

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	**1.3**		1.0	0.20	ug/L			06/04/24 17:37	1
Trichlorofluoromethane	1.0	U Q	2.0	0.33	ug/L			06/04/24 17:37	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			06/04/24 17:37	1
1,1,2-Trichloro-1,2,2-trifluoroethane	**0.32**	**J**	1.0	0.23	ug/L			06/04/24 17:37	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			06/04/24 17:37	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			06/04/24 17:37	1
Vinyl chloride	1.0	U M	2.0	0.40	ug/L			06/04/24 17:37	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			06/04/24 17:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*85 - 114*		*06/04/24 17:37*	*1*
Dibromofluoromethane (Surr)	*104*		*80 - 119*		*06/04/24 17:37*	*1*
1,2-Dichloroethane-d4 (Surr)	*97*		*81 - 118*		*06/04/24 17:37*	*1*
Toluene-d8 (Surr)	*99*		*89 - 112*		*06/04/24 17:37*	*1*

Client Sample ID: Dup-8-20242523
Lab Sample ID: 680-251210-11

Date Collected: 05/23/24 00:00
Matrix: Water
Date Received: 05/24/24 09:55

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			06/04/24 17:59	1
Benzene	1.0	U	2.0	0.27	ug/L			06/04/24 17:59	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			06/04/24 17:59	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			06/04/24 17:59	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			06/04/24 17:59	1
Bromoform	2.0	U Q	2.5	0.59	ug/L			06/04/24 17:59	1
Bromomethane	10	U	20	3.7	ug/L			06/04/24 17:59	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			06/04/24 17:59	1
Carbon disulfide	1.0	U Q	2.0	0.43	ug/L			06/04/24 17:59	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			06/04/24 17:59	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			06/04/24 17:59	1
Chloroethane	10	U	20	4.6	ug/L			06/04/24 17:59	1
Chloroform	1.0	U	2.0	0.27	ug/L			06/04/24 17:59	1
Chloromethane	2.0	U	2.5	0.54	ug/L			06/04/24 17:59	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			06/04/24 17:59	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			06/04/24 17:59	1
cis-1,2-Dichloroethene	**0.73**	**J**	2.0	0.25	ug/L			06/04/24 17:59	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			06/04/24 17:59	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			06/04/24 17:59	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			06/04/24 17:59	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			06/04/24 17:59	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			06/04/24 17:59	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			06/04/24 17:59	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			06/04/24 17:59	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			06/04/24 17:59	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			06/04/24 17:59	1
Dichlorodifluoromethane	1.0	U Q	2.0	0.36	ug/L			06/04/24 17:59	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			06/04/24 17:59	1

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-251210-1

Client Sample ID: Dup-8-20242523
Date Collected: 05/23/24 00:00
Date Received: 05/24/24 09:55

Lab Sample ID: 680-251210-11
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	1.0	U M	2.0	0.25	ug/L			06/04/24 17:59	1
1,1-Dichloroethene	1.0	U	2.0	0.33	ug/L			06/04/24 17:59	1
1,2-Dichloroethene, Total	**0.73**	**J**	2.0	0.37	ug/L			06/04/24 17:59	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			06/04/24 17:59	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			06/04/24 17:59	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			06/04/24 17:59	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			06/04/24 17:59	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			06/04/24 17:59	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			06/04/24 17:59	1
2-Hexanone	10	U	20	3.2	ug/L			06/04/24 17:59	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			06/04/24 17:59	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			06/04/24 17:59	1
Methyl acetate	10	U	20	3.2	ug/L			06/04/24 17:59	1
Methylcyclohexane	1.0	U	2.0	0.33	ug/L			06/04/24 17:59	1
Methylene Chloride	10	U	20	3.2	ug/L			06/04/24 17:59	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			06/04/24 17:59	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			06/04/24 17:59	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			06/04/24 17:59	1
Naphthalene	5.0	U	10	2.4	ug/L			06/04/24 17:59	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			06/04/24 17:59	1
N-Propylbenzene	1.0	U M	2.0	0.41	ug/L			06/04/24 17:59	1
o-Xylene	1.0	U	2.0	0.26	ug/L			06/04/24 17:59	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			06/04/24 17:59	1
Styrene	1.0	U	2.0	0.27	ug/L			06/04/24 17:59	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			06/04/24 17:59	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			06/04/24 17:59	1
1,1,2,2-Tetrachloroethane	1.0	U Q	2.0	0.40	ug/L			06/04/24 17:59	1
Tetrachloroethene	1.0	U	2.0	0.35	ug/L			06/04/24 17:59	1
Toluene	1.0	U	2.0	0.25	ug/L			06/04/24 17:59	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			06/04/24 17:59	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			06/04/24 17:59	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			06/04/24 17:59	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			06/04/24 17:59	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			06/04/24 17:59	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			06/04/24 17:59	1
Trichloroethene	**0.79**	**J**	1.0	0.20	ug/L			06/04/24 17:59	1
Trichlorofluoromethane	1.0	U Q	2.0	0.33	ug/L			06/04/24 17:59	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			06/04/24 17:59	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			06/04/24 17:59	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			06/04/24 17:59	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			06/04/24 17:59	1
Vinyl chloride	1.0	U	2.0	0.40	ug/L			06/04/24 17:59	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			06/04/24 17:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*85 - 114*		*06/04/24 17:59*	*1*
Dibromofluoromethane (Surr)	*104*		*80 - 119*		*06/04/24 17:59*	*1*
1,2-Dichloroethane-d4 (Surr)	*95*		*81 - 118*		*06/04/24 17:59*	*1*
Toluene-d8 (Surr)	*96*		*89 - 112*		*06/04/24 17:59*	*1*

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-251210-1

Client Sample ID: TRIP-BLANK-20240523
Date Collected: 05/23/24 00:00
Date Received: 05/24/24 09:55

Lab Sample ID: 680-251210-12
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			06/04/24 15:17	1
Benzene	1.0	U	2.0	0.27	ug/L			06/04/24 15:17	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			06/04/24 15:17	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			06/04/24 15:17	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			06/04/24 15:17	1
Bromoform	2.0	U	2.5	0.59	ug/L			06/04/24 15:17	1
Bromomethane	10	U Q	20	3.7	ug/L			06/04/24 15:17	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			06/04/24 15:17	1
Carbon disulfide	1.0	U	2.0	0.43	ug/L			06/04/24 15:17	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			06/04/24 15:17	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			06/04/24 15:17	1
Chloroethane	10	U	20	4.6	ug/L			06/04/24 15:17	1
Chloroform	1.0	U	2.0	0.27	ug/L			06/04/24 15:17	1
Chloromethane	2.0	U	2.5	0.54	ug/L			06/04/24 15:17	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			06/04/24 15:17	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			06/04/24 15:17	1
cis-1,2-Dichloroethene	1.0	U	2.0	0.25	ug/L			06/04/24 15:17	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			06/04/24 15:17	1
Cyclohexane	1.0	U Q	2.0	0.28	ug/L			06/04/24 15:17	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			06/04/24 15:17	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			06/04/24 15:17	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			06/04/24 15:17	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			06/04/24 15:17	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			06/04/24 15:17	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			06/04/24 15:17	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			06/04/24 15:17	1
Dichlorodifluoromethane	1.0	U Q	2.0	0.36	ug/L			06/04/24 15:17	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			06/04/24 15:17	1
1,2-Dichloroethane	1.0	U M	2.0	0.25	ug/L			06/04/24 15:17	1
1,1-Dichloroethene	1.0	U	2.0	0.33	ug/L			06/04/24 15:17	1
1,2-Dichloroethene, Total	1.0	U	2.0	0.37	ug/L			06/04/24 15:17	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			06/04/24 15:17	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			06/04/24 15:17	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			06/04/24 15:17	1
1,1-Dichloropropene	1.0	U Q	2.0	0.28	ug/L			06/04/24 15:17	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			06/04/24 15:17	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			06/06/24 15:09	1
2-Hexanone	10	U	20	3.2	ug/L			06/04/24 15:17	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			06/04/24 15:17	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			06/04/24 15:17	1
Methyl acetate	10	U	20	3.2	ug/L			06/04/24 15:17	1
Methylcyclohexane	1.0	U Q	2.0	0.33	ug/L			06/04/24 15:17	1
Methylene Chloride	10	U	20	3.2	ug/L			06/04/24 15:17	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			06/04/24 15:17	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			06/04/24 15:17	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			06/04/24 15:17	1
Naphthalene	5.0	U	10	2.4	ug/L			06/04/24 15:17	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			06/04/24 15:17	1
N-Propylbenzene	1.0	U M	2.0	0.41	ug/L			06/04/24 15:17	1

Client Sample ID: TRIP-BLANK-20240523

Lab Sample ID: 680-251210-12

Date Collected: 05/23/24 00:00

Matrix: Water

Date Received: 05/24/24 09:55

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	1.0	U	2.0	0.26	ug/L			06/04/24 15:17	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			06/04/24 15:17	1
Styrene	1.0	U	2.0	0.27	ug/L			06/04/24 15:17	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			06/04/24 15:17	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			06/04/24 15:17	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			06/04/24 15:17	1
Tetrachloroethene	1.0	U	2.0	0.35	ug/L			06/04/24 15:17	1
Toluene	1.0	U	2.0	0.25	ug/L			06/04/24 15:17	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			06/04/24 15:17	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			06/04/24 15:17	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			06/04/24 15:17	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			06/06/24 15:09	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			06/04/24 15:17	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			06/04/24 15:17	1
Trichloroethene	0.50	U	1.0	0.20	ug/L			06/04/24 15:17	1
Trichlorofluoromethane	1.0	U Q	2.0	0.33	ug/L			06/04/24 15:17	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			06/04/24 15:17	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U Q	1.0	0.23	ug/L			06/04/24 15:17	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			06/04/24 15:17	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			06/04/24 15:17	1
Vinyl chloride	1.0	U Q	2.0	0.40	ug/L			06/04/24 15:17	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			06/04/24 15:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*85 - 114*		*06/04/24 15:17*	*1*
4-Bromofluorobenzene (Surr)	*109*		*85 - 114*		*06/06/24 15:09*	*1*
Dibromofluoromethane (Surr)	*91*		*80 - 119*		*06/04/24 15:17*	*1*
Dibromofluoromethane (Surr)	*90*		*80 - 119*		*06/06/24 15:09*	*1*
1,2-Dichloroethane-d4 (Surr)	*91*		*81 - 118*		*06/04/24 15:17*	*1*
1,2-Dichloroethane-d4 (Surr)	*92*		*81 - 118*		*06/06/24 15:09*	*1*
Toluene-d8 (Surr)	*96*		*89 - 112*		*06/04/24 15:17*	*1*
Toluene-d8 (Surr)	*95*		*89 - 112*		*06/06/24 15:09*	*1*

Client Sample ID: OU6-NNC-1-20240523

Lab Sample ID: 680-251210-13

Date Collected: 05/23/24 11:40

Matrix: Water

Date Received: 05/24/24 09:55

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			06/04/24 16:44	1
Benzene	1.0	U	2.0	0.27	ug/L			06/04/24 16:44	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			06/04/24 16:44	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			06/04/24 16:44	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			06/04/24 16:44	1
Bromoform	2.0	U	2.5	0.59	ug/L			06/04/24 16:44	1
Bromomethane	10	U J1 Q	20	3.7	ug/L			06/04/24 16:44	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			06/04/24 16:44	1
Carbon disulfide	1.0	U	2.0	0.43	ug/L			06/04/24 16:44	1
Carbon tetrachloride	1.0	U J1	2.0	0.30	ug/L			06/04/24 16:44	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			06/04/24 16:44	1

Client Sample ID: OU6-NNC-1-20240523
Date Collected: 05/23/24 11:40
Date Received: 05/24/24 09:55

Lab Sample ID: 680-251210-13
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroethane	10	U J1	20	4.6	ug/L			06/04/24 16:44	1
Chloroform	1.0	U	2.0	0.27	ug/L			06/04/24 16:44	1
Chloromethane	2.0	U J1	2.5	0.54	ug/L			06/04/24 16:44	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			06/04/24 16:44	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			06/04/24 16:44	1
cis-1,2-Dichloroethene	**0.81**	**J**	2.0	0.25	ug/L			06/04/24 16:44	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			06/04/24 16:44	1
Cyclohexane	1.0	U Q J1	2.0	0.28	ug/L			06/04/24 16:44	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			06/04/24 16:44	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			06/04/24 16:44	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			06/04/24 16:44	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			06/04/24 16:44	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			06/04/24 16:44	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			06/04/24 16:44	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			06/04/24 16:44	1
Dichlorodifluoromethane	1.0	U Q J1	2.0	0.36	ug/L			06/04/24 16:44	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			06/04/24 16:44	1
1,2-Dichloroethane	1.0	U M	2.0	0.25	ug/L			06/04/24 16:44	1
1,1-Dichloroethene	1.0	U	2.0	0.33	ug/L			06/04/24 16:44	1
1,2-Dichloroethene, Total	**0.81**	**J**	2.0	0.37	ug/L			06/04/24 16:44	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			06/04/24 16:44	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			06/04/24 16:44	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			06/04/24 16:44	1
1,1-Dichloropropene	1.0	U Q	2.0	0.28	ug/L			06/04/24 16:44	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			06/04/24 16:44	1
Hexachlorobutadiene	1.0	U Q J1	5.0	0.22	ug/L			06/04/24 16:44	1
2-Hexanone	10	U	20	3.2	ug/L			06/04/24 16:44	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			06/04/24 16:44	1
4-Isopropyltoluene	1.0	U J1	2.0	0.44	ug/L			06/04/24 16:44	1
Methyl acetate	10	U	20	3.2	ug/L			06/04/24 16:44	1
Methylcyclohexane	1.0	U Q J1	2.0	0.33	ug/L			06/04/24 16:44	1
Methylene Chloride	10	U	20	3.2	ug/L			06/04/24 16:44	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			06/04/24 16:44	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			06/04/24 16:44	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			06/04/24 16:44	1
Naphthalene	5.0	U	10	2.4	ug/L			06/04/24 16:44	1
n-Butylbenzene	2.0	U J1	2.5	0.52	ug/L			06/04/24 16:44	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			06/04/24 16:44	1
o-Xylene	1.0	U	2.0	0.26	ug/L			06/04/24 16:44	1
sec-Butylbenzene	2.0	U J1	2.5	0.53	ug/L			06/04/24 16:44	1
Styrene	1.0	U	2.0	0.27	ug/L			06/04/24 16:44	1
tert-Butylbenzene	1.0	U J1	2.0	0.43	ug/L			06/04/24 16:44	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			06/04/24 16:44	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			06/04/24 16:44	1
Tetrachloroethene	1.0	U	2.0	0.35	ug/L			06/04/24 16:44	1
Toluene	1.0	U	2.0	0.25	ug/L			06/04/24 16:44	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			06/04/24 16:44	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			06/04/24 16:44	1
1,2,3-Trichlorobenzene	2.0	U J1	5.0	0.81	ug/L			06/04/24 16:44	1

Client Sample ID: OU6-NNC-1-20240523

Lab Sample ID: 680-251210-13

Date Collected: 05/23/24 11:40

Matrix: Water

Date Received: 05/24/24 09:55

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	2.0	U J1	5.0	0.53	ug/L			06/04/24 16:44	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			06/04/24 16:44	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			06/04/24 16:44	1
Trichloroethene	**0.55**	**J**	1.0	0.20	ug/L			06/04/24 16:44	1
Trichlorofluoromethane	1.0	U Q J1	2.0	0.33	ug/L			06/04/24 16:44	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			06/04/24 16:44	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U Q J1	1.0	0.23	ug/L			06/04/24 16:44	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			06/04/24 16:44	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			06/04/24 16:44	1
Vinyl chloride	1.0	U Q J1	2.0	0.40	ug/L			06/04/24 16:44	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			06/04/24 16:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*85 - 114*		*06/04/24 16:44*	*1*
Dibromofluoromethane (Surr)	*90*		*80 - 119*		*06/04/24 16:44*	*1*
1,2-Dichloroethane-d4 (Surr)	*93*		*81 - 118*		*06/04/24 16:44*	*1*
Toluene-d8 (Surr)	*97*		*89 - 112*		*06/04/24 16:44*	*1*

Client Sample ID: OU6-NNC-2-20240523

Lab Sample ID: 680-251210-14

Date Collected: 05/23/24 14:20

Matrix: Water

Date Received: 05/24/24 09:55

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			06/04/24 18:45	1
Benzene	1.0	U	2.0	0.27	ug/L			06/04/24 18:45	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			06/04/24 18:45	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			06/04/24 18:45	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			06/04/24 18:45	1
Bromoform	2.0	U Q	2.5	0.59	ug/L			06/04/24 18:45	1
Bromomethane	10	U	20	3.7	ug/L			06/04/24 18:45	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			06/04/24 18:45	1
Carbon disulfide	1.0	U Q	2.0	0.43	ug/L			06/04/24 18:45	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			06/04/24 18:45	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			06/04/24 18:45	1
Chloroethane	10	U	20	4.6	ug/L			06/04/24 18:45	1
Chloroform	1.0	U	2.0	0.27	ug/L			06/04/24 18:45	1
Chloromethane	**0.64**	**J**	2.5	0.54	ug/L			06/04/24 18:45	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			06/04/24 18:45	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			06/04/24 18:45	1
cis-1,2-Dichloroethene	**0.99**	**J**	2.0	0.25	ug/L			06/04/24 18:45	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			06/04/24 18:45	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			06/04/24 18:45	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			06/04/24 18:45	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			06/04/24 18:45	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			06/04/24 18:45	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			06/04/24 18:45	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			06/04/24 18:45	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			06/04/24 18:45	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			06/04/24 18:45	1

Client Sample ID: OU6-NNC-2-20240523
Date Collected: 05/23/24 14:20
Date Received: 05/24/24 09:55

Lab Sample ID: 680-251210-14
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	1.0	U Q	2.0	0.36	ug/L			06/04/24 18:45	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			06/04/24 18:45	1
1,2-Dichloroethane	1.0	U	2.0	0.25	ug/L			06/04/24 18:45	1
1,1-Dichloroethene	1.0	U	2.0	0.33	ug/L			06/04/24 18:45	1
1,2-Dichloroethene, Total	**0.99**	**J**	2.0	0.37	ug/L			06/04/24 18:45	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			06/04/24 18:45	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			06/04/24 18:45	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			06/04/24 18:45	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			06/04/24 18:45	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			06/04/24 18:45	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			06/04/24 18:45	1
2-Hexanone	10	U	20	3.2	ug/L			06/04/24 18:45	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			06/04/24 18:45	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			06/04/24 18:45	1
Methyl acetate	10	U	20	3.2	ug/L			06/04/24 18:45	1
Methylcyclohexane	1.0	U	2.0	0.33	ug/L			06/04/24 18:45	1
Methylene Chloride	10	U	20	3.2	ug/L			06/04/24 18:45	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			06/04/24 18:45	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			06/04/24 18:45	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			06/04/24 18:45	1
Naphthalene	5.0	U	10	2.4	ug/L			06/04/24 18:45	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			06/04/24 18:45	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			06/04/24 18:45	1
o-Xylene	1.0	U	2.0	0.26	ug/L			06/04/24 18:45	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			06/04/24 18:45	1
Styrene	1.0	U	2.0	0.27	ug/L			06/04/24 18:45	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			06/04/24 18:45	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			06/04/24 18:45	1
1,1,2,2-Tetrachloroethane	1.0	U Q	2.0	0.40	ug/L			06/04/24 18:45	1
Tetrachloroethene	1.0	U	2.0	0.35	ug/L			06/04/24 18:45	1
Toluene	1.0	U	2.0	0.25	ug/L			06/04/24 18:45	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			06/04/24 18:45	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			06/04/24 18:45	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			06/04/24 18:45	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			06/04/24 18:45	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			06/04/24 18:45	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			06/04/24 18:45	1
Trichloroethene	**0.87**	**J**	1.0	0.20	ug/L			06/04/24 18:45	1
Trichlorofluoromethane	1.0	U Q	2.0	0.33	ug/L			06/04/24 18:45	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			06/04/24 18:45	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			06/04/24 18:45	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			06/04/24 18:45	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			06/04/24 18:45	1
Vinyl chloride	1.0	U	2.0	0.40	ug/L			06/04/24 18:45	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			06/04/24 18:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*85 - 114*		*06/04/24 18:45*	*1*
Dibromofluoromethane (Surr)	*105*		*80 - 119*		*06/04/24 18:45*	*1*
1,2-Dichloroethane-d4 (Surr)	*97*		*81 - 118*		*06/04/24 18:45*	*1*

Client: Meadows CMPG, Inc
Job ID: 680-251210-1
Project/Site: DSCR - OU6 Annual

Client Sample ID: OU6-NNC-2-20240523
Lab Sample ID: 680-251210-14
Date Collected: 05/23/24 14:20
Matrix: Water
Date Received: 05/24/24 09:55

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	99		89 - 112		06/04/24 18:45	1

Method: 8260D - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 680-840928/10
Matrix: Water
Analysis Batch: 840928

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			06/04/24 12:50	1
Benzene	1.0	U	2.0	0.27	ug/L			06/04/24 12:50	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			06/04/24 12:50	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			06/04/24 12:50	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			06/04/24 12:50	1
Bromoform	2.0	U	2.5	0.59	ug/L			06/04/24 12:50	1
Bromomethane	10	U	20	3.7	ug/L			06/04/24 12:50	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			06/04/24 12:50	1
Carbon disulfide	1.0	U	2.0	0.43	ug/L			06/04/24 12:50	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			06/04/24 12:50	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			06/04/24 12:50	1
Chloroethane	10	U	20	4.6	ug/L			06/04/24 12:50	1
Chloroform	1.0	U	2.0	0.27	ug/L			06/04/24 12:50	1
Chloromethane	2.0	U	2.5	0.54	ug/L			06/04/24 12:50	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			06/04/24 12:50	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			06/04/24 12:50	1
cis-1,2-Dichloroethene	1.0	U	2.0	0.25	ug/L			06/04/24 12:50	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			06/04/24 12:50	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			06/04/24 12:50	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			06/04/24 12:50	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			06/04/24 12:50	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			06/04/24 12:50	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			06/04/24 12:50	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			06/04/24 12:50	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			06/04/24 12:50	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			06/04/24 12:50	1
Dichlorodifluoromethane	1.0	U	2.0	0.36	ug/L			06/04/24 12:50	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			06/04/24 12:50	1
1,2-Dichloroethane	1.0	U M	2.0	0.25	ug/L			06/04/24 12:50	1
1,1-Dichloroethene	1.0	U	2.0	0.33	ug/L			06/04/24 12:50	1
1,2-Dichloroethene, Total	1.0	U	2.0	0.37	ug/L			06/04/24 12:50	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			06/04/24 12:50	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			06/04/24 12:50	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			06/04/24 12:50	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			06/04/24 12:50	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			06/04/24 12:50	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			06/04/24 12:50	1
2-Hexanone	10	U	20	3.2	ug/L			06/04/24 12:50	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			06/04/24 12:50	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			06/04/24 12:50	1
Methyl acetate	10	U	20	3.2	ug/L			06/04/24 12:50	1
Methylcyclohexane	0.594	J	2.0	0.33	ug/L			06/04/24 12:50	1
Methylene Chloride	10	U	20	3.2	ug/L			06/04/24 12:50	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			06/04/24 12:50	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			06/04/24 12:50	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			06/04/24 12:50	1
Naphthalene	5.0	U	10	2.4	ug/L			06/04/24 12:50	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			06/04/24 12:50	1

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-840928/10
Matrix: Water
Analysis Batch: 840928

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			06/04/24 12:50	1
o-Xylene	1.0	U	2.0	0.26	ug/L			06/04/24 12:50	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			06/04/24 12:50	1
Styrene	1.0	U	2.0	0.27	ug/L			06/04/24 12:50	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			06/04/24 12:50	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			06/04/24 12:50	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			06/04/24 12:50	1
Tetrachloroethene	1.0	U	2.0	0.35	ug/L			06/04/24 12:50	1
Toluene	1.0	U	2.0	0.25	ug/L			06/04/24 12:50	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			06/04/24 12:50	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			06/04/24 12:50	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			06/04/24 12:50	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			06/04/24 12:50	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			06/04/24 12:50	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			06/04/24 12:50	1
Trichloroethene	0.50	U	1.0	0.20	ug/L			06/04/24 12:50	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			06/04/24 12:50	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			06/04/24 12:50	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			06/04/24 12:50	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			06/04/24 12:50	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			06/04/24 12:50	1
Vinyl chloride	1.0	U	2.0	0.40	ug/L			06/04/24 12:50	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			06/04/24 12:50	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*85 - 114*		*06/04/24 12:50*	*1*
Dibromofluoromethane (Surr)	*104*		*80 - 119*		*06/04/24 12:50*	*1*
1,2-Dichloroethane-d4 (Surr)	*93*		*81 - 118*		*06/04/24 12:50*	*1*
Toluene-d8 (Surr)	*97*		*89 - 112*		*06/04/24 12:50*	*1*

Lab Sample ID: LCS 680-840928/6
Matrix: Water
Analysis Batch: 840928

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	250	234		ug/L		94	39 - 160
Benzene	50.0	52.0		ug/L		104	79 - 120
Bromobenzene	50.0	54.3		ug/L		109	80 - 120
Bromochloromethane	50.0	50.9		ug/L		102	78 - 123
Bromodichloromethane	50.0	49.8		ug/L		100	79 - 125
Bromoform	50.0	67.9	J1 Q	ug/L		136	66 - 130
Bromomethane	50.0	51.5		ug/L		103	53 - 141
2-Butanone (MEK)	250	254		ug/L		101	56 - 143
Carbon disulfide	50.0	49.4		ug/L		99	64 - 133
Carbon tetrachloride	50.0	50.4		ug/L		101	72 - 136
Chlorobenzene	50.0	50.5		ug/L		101	82 - 118
Chloroethane	50.0	55.4		ug/L		111	60 - 138
Chloroform	50.0	49.8		ug/L		100	79 - 124

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-840928/6
Matrix: Water
Analysis Batch: 840928

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloromethane	50.0	52.8		ug/L		106	50 - 139
2-Chlorotoluene	50.0	50.8		ug/L		102	79 - 122
4-Chlorotoluene	50.0	49.6		ug/L		99	78 - 122
cis-1,2-Dichloroethene	50.0	50.3		ug/L		101	78 - 123
cis-1,3-Dichloropropene	50.0	50.9		ug/L		102	75 - 124
Cyclohexane	50.0	56.5		ug/L		113	71 - 130
Dibromochloromethane	50.0	52.7		ug/L		105	74 - 126
1,2-Dibromo-3-Chloropropane	50.0	53.5		ug/L		107	62 - 128
1,2-Dibromoethane	50.0	50.8		ug/L		102	75 - 127
Dibromomethane	50.0	49.3		ug/L		99	79 - 123
1,2-Dichlorobenzene	50.0	51.8		ug/L		104	80 - 119
1,3-Dichlorobenzene	50.0	51.1		ug/L		102	80 - 119
1,4-Dichlorobenzene	50.0	50.6		ug/L		101	79 - 118
Dichlorodifluoromethane	50.0	44.5	M	ug/L		89	32 - 152
1,1-Dichloroethane	50.0	51.3		ug/L		103	77 - 125
1,2-Dichloroethane	50.0	46.4		ug/L		93	73 - 128
1,1-Dichloroethene	50.0	51.8		ug/L		104	71 - 131
1,2-Dichloroethene, Total	100	103		ug/L		103	79 - 121
1,2-Dichloropropane	50.0	52.3		ug/L		105	78 - 122
1,3-Dichloropropane	50.0	51.1		ug/L		102	80 - 119
2,2-Dichloropropane	50.0	52.4		ug/L		105	60 - 139
1,1-Dichloropropene	50.0	54.1		ug/L		108	79 - 125
Ethylbenzene	50.0	50.4		ug/L		101	79 - 121
Hexachlorobutadiene	50.0	58.8		ug/L		118	66 - 134
2-Hexanone	250	265		ug/L		106	57 - 139
Isopropylbenzene	50.0	51.2		ug/L		102	72 - 131
4-Isopropyltoluene	50.0	50.1		ug/L		100	77 - 127
Methyl acetate	100	85.2		ug/L		85	56 - 136
Methylcyclohexane	50.0	54.4		ug/L		109	72 - 132
Methylene Chloride	50.0	49.3		ug/L		99	74 - 124
4-Methyl-2-pentanone (MIBK)	250	263		ug/L		105	67 - 130
Methyl tert-butyl ether	50.0	51.5		ug/L		103	71 - 124
m-Xylene & p-Xylene	50.0	50.2		ug/L		100	80 - 121
Naphthalene	50.0	51.4		ug/L		103	61 - 128
n-Butylbenzene	50.0	50.2		ug/L		100	75 - 128
N-Propylbenzene	50.0	50.7		ug/L		101	76 - 126
o-Xylene	50.0	51.2		ug/L		102	78 - 122
sec-Butylbenzene	50.0	50.4		ug/L		101	77 - 126
Styrene	50.0	51.6		ug/L		103	78 - 123
tert-Butylbenzene	50.0	50.5		ug/L		101	78 - 124
1,1,1,2-Tetrachloroethane	50.0	51.5		ug/L		103	78 - 124
1,1,2,2-Tetrachloroethane	50.0	59.9		ug/L		120	71 - 121
Tetrachloroethene	50.0	54.0		ug/L		108	74 - 129
Toluene	50.0	50.3		ug/L		101	80 - 121
trans-1,2-Dichloroethene	50.0	52.6		ug/L		105	75 - 124
trans-1,3-Dichloropropene	50.0	49.1		ug/L		98	73 - 127
1,2,3-Trichlorobenzene	50.0	51.0		ug/L		102	69 - 129
1,2,4-Trichlorobenzene	50.0	55.5		ug/L		111	69 - 130
1,1,1-Trichloroethane	50.0	51.9		ug/L		104	74 - 131

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-840928/6
Matrix: Water
Analysis Batch: 840928

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,1,2-Trichloroethane			50.0	51.1		ug/L		102	80 - 119		
Trichloroethene			50.0	51.8		ug/L		104	79 - 123		
Trichlorofluoromethane			50.0	95.4	M Q	ug/L		191	65 - 141		
1,2,3-Trichloropropane			50.0	52.5		ug/L		105	73 - 122		
1,1,2-Trichloro-1,2,2-trifluoroethane			50.0	57.0		ug/L		114	70 - 136		
1,2,4-Trimethylbenzene			50.0	51.5		ug/L		103	76 - 124		
1,3,5-Trimethylbenzene			50.0	50.6		ug/L		101	75 - 124		
Vinyl chloride			50.0	53.3	M	ug/L		107	58 - 137		
Xylenes, Total			100	101		ug/L		101	79 - 121		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*104*		*85 - 114*
Dibromofluoromethane (Surr)	*103*		*80 - 119*
1,2-Dichloroethane-d4 (Surr)	*93*		*81 - 118*
Toluene-d8 (Surr)	*99*		*89 - 112*

Lab Sample ID: LCSD 680-840928/7
Matrix: Water
Analysis Batch: 840928

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acetone			250	243		ug/L		97	39 - 160	4	20
Benzene			50.0	52.1		ug/L		104	79 - 120	0	20
Bromobenzene			50.0	54.5		ug/L		109	80 - 120	0	20
Bromochloromethane			50.0	51.9		ug/L		104	78 - 123	2	20
Bromodichloromethane			50.0	50.3		ug/L		101	79 - 125	1	20
Bromoform			50.0	69.7	J1 Q	ug/L		139	66 - 130	3	20
Bromomethane			50.0	51.3		ug/L		103	53 - 141	1	20
2-Butanone (MEK)			250	270		ug/L		108	56 - 143	6	20
Carbon disulfide			50.0	48.5		ug/L		97	64 - 133	2	20
Carbon tetrachloride			50.0	50.2		ug/L		100	72 - 136	0	20
Chlorobenzene			50.0	50.2		ug/L		100	82 - 118	1	20
Chloroethane			50.0	53.3		ug/L		107	60 - 138	4	20
Chloroform			50.0	49.9		ug/L		100	79 - 124	0	20
Chloromethane			50.0	51.3		ug/L		103	50 - 139	3	20
2-Chlorotoluene			50.0	50.1		ug/L		100	79 - 122	1	20
4-Chlorotoluene			50.0	49.1		ug/L		98	78 - 122	1	20
cis-1,2-Dichloroethene			50.0	50.8		ug/L		102	78 - 123	1	20
cis-1,3-Dichloropropene			50.0	51.9		ug/L		104	75 - 124	2	20
Cyclohexane			50.0	56.3		ug/L		113	71 - 130	0	20
Dibromochloromethane			50.0	53.8		ug/L		108	74 - 126	2	20
1,2-Dibromo-3-Chloropropane			50.0	54.0		ug/L		108	62 - 128	1	20
1,2-Dibromoethane			50.0	52.6		ug/L		105	75 - 127	4	20
Dibromomethane			50.0	50.4		ug/L		101	79 - 123	2	20
1,2-Dichlorobenzene			50.0	51.5		ug/L		103	80 - 119	1	20
1,3-Dichlorobenzene			50.0	51.5		ug/L		103	80 - 119	1	20
1,4-Dichlorobenzene			50.0	50.8		ug/L		102	79 - 118	1	20
Dichlorodifluoromethane			50.0	42.9	M	ug/L		86	32 - 152	4	20

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-840928/7
Matrix: Water
Analysis Batch: 840928

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1-Dichloroethane	50.0	50.9		ug/L		102	77 - 125	1	20
1,2-Dichloroethane	50.0	47.6		ug/L		95	73 - 128	2	20
1,1-Dichloroethene	50.0	51.7		ug/L		103	71 - 131	0	20
1,2-Dichloroethene, Total	100	103		ug/L		103	79 - 121	0	20
1,2-Dichloropropane	50.0	52.5		ug/L		105	78 - 122	1	20
1,3-Dichloropropane	50.0	51.9		ug/L		104	80 - 119	1	20
2,2-Dichloropropane	50.0	52.1		ug/L		104	60 - 139	1	20
1,1-Dichloropropene	50.0	54.3		ug/L		109	79 - 125	0	20
Ethylbenzene	50.0	49.5		ug/L		99	79 - 121	2	20
Hexachlorobutadiene	50.0	57.9		ug/L		116	66 - 134	2	20
2-Hexanone	250	277		ug/L		111	57 - 139	4	20
Isopropylbenzene	50.0	50.7		ug/L		101	72 - 131	1	20
4-Isopropyltoluene	50.0	49.3		ug/L		99	77 - 127	2	20
Methyl acetate	100	89.4		ug/L		89	56 - 136	5	20
Methylcyclohexane	50.0	54.0		ug/L		108	72 - 132	1	20
Methylene Chloride	50.0	49.9		ug/L		100	74 - 124	1	20
4-Methyl-2-pentanone (MIBK)	250	274		ug/L		110	67 - 130	4	20
Methyl tert-butyl ether	50.0	53.0		ug/L		106	71 - 124	3	20
m-Xylene & p-Xylene	50.0	49.3		ug/L		99	80 - 121	2	20
Naphthalene	50.0	52.6		ug/L		105	61 - 128	2	20
n-Butylbenzene	50.0	50.5		ug/L		101	75 - 128	1	20
N-Propylbenzene	50.0	49.7		ug/L		99	76 - 126	2	20
o-Xylene	50.0	50.8		ug/L		102	78 - 122	1	20
sec-Butylbenzene	50.0	49.5		ug/L		99	77 - 126	2	20
Styrene	50.0	51.2		ug/L		102	78 - 123	1	20
tert-Butylbenzene	50.0	49.6		ug/L		99	78 - 124	2	20
1,1,1,2-Tetrachloroethane	50.0	51.4		ug/L		103	78 - 124	0	20
1,1,2,2-Tetrachloroethane	50.0	59.8		ug/L		120	71 - 121	0	20
Tetrachloroethene	50.0	53.5		ug/L		107	74 - 129	1	20
Toluene	50.0	50.6		ug/L		101	80 - 121	1	20
trans-1,2-Dichloroethene	50.0	52.2		ug/L		104	75 - 124	1	20
trans-1,3-Dichloropropene	50.0	50.3		ug/L		101	73 - 127	2	20
1,2,3-Trichlorobenzene	50.0	51.7		ug/L		103	69 - 129	1	20
1,2,4-Trichlorobenzene	50.0	55.7		ug/L		111	69 - 130	0	20
1,1,1-Trichloroethane	50.0	52.1		ug/L		104	74 - 131	0	20
1,1,2-Trichloroethane	50.0	52.7		ug/L		105	80 - 119	3	20
Trichloroethene	50.0	52.4		ug/L		105	79 - 123	1	20
Trichlorofluoromethane	50.0	92.9	M Q	ug/L		186	65 - 141	3	20
1,2,3-Trichloropropane	50.0	54.4		ug/L		109	73 - 122	4	20
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	56.7		ug/L		113	70 - 136	1	20
1,2,4-Trimethylbenzene	50.0	51.3		ug/L		103	76 - 124	0	20
1,3,5-Trimethylbenzene	50.0	50.0		ug/L		100	75 - 124	1	20
Vinyl chloride	50.0	53.9	M	ug/L		108	58 - 137	1	20
Xylenes, Total	100	100		ug/L		100	79 - 121	1	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*103*		*85 - 114*

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-840928/7
Matrix: Water
Analysis Batch: 840928

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Dibromofluoromethane (Surr)	*105*		*80 - 119*
1,2-Dichloroethane-d4 (Surr)	*103*		*81 - 118*
Toluene-d8 (Surr)	*98*		*89 - 112*

Lab Sample ID: MB 680-840966/10
Matrix: Water
Analysis Batch: 840966

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			06/04/24 14:43	1
Benzene	1.0	U	2.0	0.27	ug/L			06/04/24 14:43	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			06/04/24 14:43	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			06/04/24 14:43	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			06/04/24 14:43	1
Bromoform	2.0	U	2.5	0.59	ug/L			06/04/24 14:43	1
Bromomethane	10	U	20	3.7	ug/L			06/04/24 14:43	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			06/04/24 14:43	1
Carbon disulfide	1.0	U	2.0	0.43	ug/L			06/04/24 14:43	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			06/04/24 14:43	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			06/04/24 14:43	1
Chloroethane	10	U	20	4.6	ug/L			06/04/24 14:43	1
Chloroform	1.0	U	2.0	0.27	ug/L			06/04/24 14:43	1
Chloromethane	2.0	U	2.5	0.54	ug/L			06/04/24 14:43	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			06/04/24 14:43	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			06/04/24 14:43	1
cis-1,2-Dichloroethene	1.0	U	2.0	0.25	ug/L			06/04/24 14:43	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			06/04/24 14:43	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			06/04/24 14:43	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			06/04/24 14:43	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			06/04/24 14:43	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			06/04/24 14:43	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			06/04/24 14:43	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			06/04/24 14:43	1
1,3-Dichlorobenzene	0.334	J	2.0	0.31	ug/L			06/04/24 14:43	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			06/04/24 14:43	1
Dichlorodifluoromethane	1.0	U	2.0	0.36	ug/L			06/04/24 14:43	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			06/04/24 14:43	1
1,2-Dichloroethane	1.0	U M	2.0	0.25	ug/L			06/04/24 14:43	1
1,1-Dichloroethene	1.0	U	2.0	0.33	ug/L			06/04/24 14:43	1
1,2-Dichloroethene, Total	1.0	U	2.0	0.37	ug/L			06/04/24 14:43	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			06/04/24 14:43	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			06/04/24 14:43	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			06/04/24 14:43	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			06/04/24 14:43	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			06/04/24 14:43	1
Hexachlorobutadiene	0.583	J	5.0	0.22	ug/L			06/04/24 14:43	1
2-Hexanone	10	U	20	3.2	ug/L			06/04/24 14:43	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			06/04/24 14:43	1

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-840966/10
Matrix: Water
Analysis Batch: 840966

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			06/04/24 14:43	1
Methyl acetate	10	U	20	3.2	ug/L			06/04/24 14:43	1
Methylcyclohexane	1.0	U	2.0	0.33	ug/L			06/04/24 14:43	1
Methylene Chloride	10	U	20	3.2	ug/L			06/04/24 14:43	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			06/04/24 14:43	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			06/04/24 14:43	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			06/04/24 14:43	1
Naphthalene	5.0	U	10	2.4	ug/L			06/04/24 14:43	1
n-Butylbenzene	0.576	J	2.5	0.52	ug/L			06/04/24 14:43	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			06/04/24 14:43	1
o-Xylene	1.0	U	2.0	0.26	ug/L			06/04/24 14:43	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			06/04/24 14:43	1
Styrene	1.0	U	2.0	0.27	ug/L			06/04/24 14:43	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			06/04/24 14:43	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			06/04/24 14:43	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			06/04/24 14:43	1
Tetrachloroethene	1.0	U	2.0	0.35	ug/L			06/04/24 14:43	1
Toluene	1.0	U	2.0	0.25	ug/L			06/04/24 14:43	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			06/04/24 14:43	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			06/04/24 14:43	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			06/04/24 14:43	1
1,2,4-Trichlorobenzene	0.654	J	5.0	0.53	ug/L			06/04/24 14:43	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			06/04/24 14:43	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			06/04/24 14:43	1
Trichloroethene	0.50	U	1.0	0.20	ug/L			06/04/24 14:43	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			06/04/24 14:43	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			06/04/24 14:43	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			06/04/24 14:43	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			06/04/24 14:43	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			06/04/24 14:43	1
Vinyl chloride	1.0	U	2.0	0.40	ug/L			06/04/24 14:43	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			06/04/24 14:43	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*85 - 114*		*06/04/24 14:43*	*1*
Dibromofluoromethane (Surr)	*90*		*80 - 119*		*06/04/24 14:43*	*1*
1,2-Dichloroethane-d4 (Surr)	*91*		*81 - 118*		*06/04/24 14:43*	*1*
Toluene-d8 (Surr)	*96*		*89 - 112*		*06/04/24 14:43*	*1*

Lab Sample ID: LCS 680-840966/6
Matrix: Water
Analysis Batch: 840966

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	250	253		ug/L		101	39 - 160
Benzene	50.0	50.3		ug/L		101	79 - 120
Bromobenzene	50.0	49.1		ug/L		98	80 - 120
Bromochloromethane	50.0	45.2		ug/L		90	78 - 123

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-840966/6
Matrix: Water
Analysis Batch: 840966

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bromodichloromethane	50.0	52.5		ug/L		105	79 - 125
Bromoform	50.0	48.1		ug/L		96	66 - 130
Bromomethane	50.0	75.8	Q	ug/L		152	53 - 141
2-Butanone (MEK)	250	253		ug/L		101	56 - 143
Carbon disulfide	50.0	50.9		ug/L		102	64 - 133
Carbon tetrachloride	50.0	53.4		ug/L		107	72 - 136
Chlorobenzene	50.0	50.3		ug/L		101	82 - 118
Chloroethane	50.0	50.6		ug/L		101	60 - 138
Chloroform	50.0	47.8		ug/L		96	79 - 124
Chloromethane	50.0	53.1		ug/L		106	50 - 139
2-Chlorotoluene	50.0	49.6		ug/L		99	79 - 122
4-Chlorotoluene	50.0	48.3		ug/L		97	78 - 122
cis-1,2-Dichloroethene	50.0	48.1		ug/L		96	78 - 123
cis-1,3-Dichloropropene	50.0	53.3		ug/L		107	75 - 124
Cyclohexane	50.0	55.1		ug/L		110	71 - 130
Dibromochloromethane	50.0	46.8		ug/L		94	74 - 126
1,2-Dibromo-3-Chloropropane	50.0	53.8		ug/L		108	62 - 128
1,2-Dibromoethane	50.0	51.7		ug/L		103	75 - 127
Dibromomethane	50.0	48.5		ug/L		97	79 - 123
1,2-Dichlorobenzene	50.0	50.6		ug/L		101	80 - 119
1,3-Dichlorobenzene	50.0	50.0		ug/L		100	80 - 119
1,4-Dichlorobenzene	50.0	50.1		ug/L		100	79 - 118
Dichlorodifluoromethane	50.0	82.3	Q	ug/L		165	32 - 152
1,1-Dichloroethane	50.0	47.2		ug/L		94	77 - 125
1,2-Dichloroethane	50.0	46.2		ug/L		92	73 - 128
1,1-Dichloroethene	50.0	52.5		ug/L		105	71 - 131
1,2-Dichloroethene, Total	100	99.2		ug/L		99	79 - 121
1,2-Dichloropropane	50.0	51.6		ug/L		103	78 - 122
1,3-Dichloropropane	50.0	50.5		ug/L		101	80 - 119
2,2-Dichloropropane	50.0	49.2		ug/L		98	60 - 139
1,1-Dichloropropene	50.0	55.3		ug/L		111	79 - 125
Ethylbenzene	50.0	50.7		ug/L		101	79 - 121
Hexachlorobutadiene	50.0	53.8		ug/L		108	66 - 134
2-Hexanone	250	265		ug/L		106	57 - 139
Isopropylbenzene	50.0	50.4		ug/L		101	72 - 131
4-Isopropyltoluene	50.0	52.0		ug/L		104	77 - 127
Methyl acetate	100	102		ug/L		102	56 - 136
Methylcyclohexane	50.0	55.8		ug/L		112	72 - 132
Methylene Chloride	50.0	45.3		ug/L		91	74 - 124
4-Methyl-2-pentanone (MIBK)	250	270		ug/L		108	67 - 130
Methyl tert-butyl ether	50.0	53.0		ug/L		106	71 - 124
m-Xylene & p-Xylene	50.0	49.3		ug/L		99	80 - 121
Naphthalene	50.0	56.7		ug/L		113	61 - 128
n-Butylbenzene	50.0	52.8		ug/L		106	75 - 128
N-Propylbenzene	50.0	50.6		ug/L		101	76 - 126
o-Xylene	50.0	50.0		ug/L		100	78 - 122
sec-Butylbenzene	50.0	51.2		ug/L		102	77 - 126
Styrene	50.0	50.1		ug/L		100	78 - 123
tert-Butylbenzene	50.0	50.6		ug/L		101	78 - 124

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-840966/6
Matrix: Water
Analysis Batch: 840966

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1,2-Tetrachloroethane	50.0	52.7		ug/L		105	78 - 124
1,1,2,2-Tetrachloroethane	50.0	53.0		ug/L		106	71 - 121
Tetrachloroethene	50.0	51.0		ug/L		102	74 - 129
Toluene	50.0	49.5		ug/L		99	80 - 121
trans-1,2-Dichloroethene	50.0	51.1		ug/L		102	75 - 124
trans-1,3-Dichloropropene	50.0	53.5		ug/L		107	73 - 127
1,2,3-Trichlorobenzene	50.0	53.8		ug/L		108	69 - 129
1,2,4-Trichlorobenzene	50.0	51.8		ug/L		104	69 - 130
1,1,1-Trichloroethane	50.0	53.4		ug/L		107	74 - 131
1,1,2-Trichloroethane	50.0	52.5		ug/L		105	80 - 119
Trichloroethene	50.0	54.9		ug/L		110	79 - 123
Trichlorofluoromethane	50.0	61.4		ug/L		123	65 - 141
1,2,3-Trichloropropane	50.0	54.5		ug/L		109	73 - 122
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	54.9		ug/L		110	70 - 136
1,2,4-Trimethylbenzene	50.0	50.4		ug/L		101	76 - 124
1,3,5-Trimethylbenzene	50.0	50.7		ug/L		101	75 - 124
Vinyl chloride	50.0	52.8		ug/L		106	58 - 137
Xylenes, Total	100	99.3		ug/L		99	79 - 121

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*85 - 114*
Dibromofluoromethane (Surr)	*97*		*80 - 119*
1,2-Dichloroethane-d4 (Surr)	*99*		*81 - 118*
Toluene-d8 (Surr)	*98*		*89 - 112*

Lab Sample ID: LCSD 680-840966/7
Matrix: Water
Analysis Batch: 840966

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acetone	250	249		ug/L		100	39 - 160	1	20
Benzene	50.0	49.9		ug/L		100	79 - 120	1	20
Bromobenzene	50.0	49.3		ug/L		99	80 - 120	0	20
Bromochloromethane	50.0	44.9		ug/L		90	78 - 123	1	20
Bromodichloromethane	50.0	51.3		ug/L		103	79 - 125	2	20
Bromoform	50.0	48.0		ug/L		96	66 - 130	0	20
Bromomethane	50.0	74.1	Q	ug/L		148	53 - 141	2	20
2-Butanone (MEK)	250	250		ug/L		100	56 - 143	1	20
Carbon disulfide	50.0	53.5		ug/L		107	64 - 133	5	20
Carbon tetrachloride	50.0	59.1		ug/L		118	72 - 136	10	20
Chlorobenzene	50.0	50.8		ug/L		102	82 - 118	1	20
Chloroethane	50.0	51.5		ug/L		103	60 - 138	2	20
Chloroform	50.0	46.8		ug/L		94	79 - 124	2	20
Chloromethane	50.0	52.6		ug/L		105	50 - 139	1	20
2-Chlorotoluene	50.0	50.5		ug/L		101	79 - 122	2	20
4-Chlorotoluene	50.0	49.5		ug/L		99	78 - 122	2	20
cis-1,2-Dichloroethene	50.0	46.8		ug/L		94	78 - 123	3	20
cis-1,3-Dichloropropene	50.0	52.0		ug/L		104	75 - 124	3	20

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-840966/7
Matrix: Water
Analysis Batch: 840966

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Cyclohexane	50.0	65.2		ug/L		130	71 - 130	17	20
Dibromochloromethane	50.0	47.1		ug/L		94	74 - 126	0	20
1,2-Dibromo-3-Chloropropane	50.0	52.9		ug/L		106	62 - 128	2	20
1,2-Dibromoethane	50.0	51.2		ug/L		102	75 - 127	1	20
Dibromomethane	50.0	47.4		ug/L		95	79 - 123	2	20
1,2-Dichlorobenzene	50.0	50.7		ug/L		101	80 - 119	0	20
1,3-Dichlorobenzene	50.0	50.3		ug/L		101	80 - 119	1	20
1,4-Dichlorobenzene	50.0	49.9		ug/L		100	79 - 118	0	20
Dichlorodifluoromethane	50.0	97.3	Q	ug/L		195	32 - 152	17	20
1,1-Dichloroethane	50.0	46.3		ug/L		93	77 - 125	2	20
1,2-Dichloroethane	50.0	44.8		ug/L		90	73 - 128	3	20
1,1-Dichloroethene	50.0	55.7		ug/L		111	71 - 131	6	20
1,2-Dichloroethene, Total	100	98.0		ug/L		98	79 - 121	1	20
1,2-Dichloropropane	50.0	50.1		ug/L		100	78 - 122	3	20
1,3-Dichloropropane	50.0	49.6		ug/L		99	80 - 119	2	20
2,2-Dichloropropane	50.0	50.6		ug/L		101	60 - 139	3	20
1,1-Dichloropropene	50.0	60.0		ug/L		120	79 - 125	8	20
Ethylbenzene	50.0	52.4		ug/L		105	79 - 121	3	20
Hexachlorobutadiene	50.0	61.5		ug/L		123	66 - 134	13	20
2-Hexanone	250	264		ug/L		106	57 - 139	0	20
Isopropylbenzene	50.0	54.1		ug/L		108	72 - 131	7	20
4-Isopropyltoluene	50.0	56.1		ug/L		112	77 - 127	8	20
Methyl acetate	100	101		ug/L		101	56 - 136	1	20
Methylcyclohexane	50.0	67.9	Q	ug/L		136	72 - 132	20	20
Methylene Chloride	50.0	43.9		ug/L		88	74 - 124	3	20
4-Methyl-2-pentanone (MIBK)	250	267		ug/L		107	67 - 130	1	20
Methyl tert-butyl ether	50.0	51.6		ug/L		103	71 - 124	3	20
m-Xylene & p-Xylene	50.0	51.2		ug/L		102	80 - 121	4	20
Naphthalene	50.0	57.4		ug/L		115	61 - 128	1	20
n-Butylbenzene	50.0	58.5		ug/L		117	75 - 128	10	20
N-Propylbenzene	50.0	54.4		ug/L		109	76 - 126	7	20
o-Xylene	50.0	50.4		ug/L		101	78 - 122	1	20
sec-Butylbenzene	50.0	56.9		ug/L		114	77 - 126	11	20
Styrene	50.0	49.9		ug/L		100	78 - 123	0	20
tert-Butylbenzene	50.0	54.2		ug/L		108	78 - 124	7	20
1,1,1,2-Tetrachloroethane	50.0	52.5		ug/L		105	78 - 124	0	20
1,1,2,2-Tetrachloroethane	50.0	52.6		ug/L		105	71 - 121	1	20
Tetrachloroethene	50.0	55.6		ug/L		111	74 - 129	9	20
Toluene	50.0	49.8		ug/L		100	80 - 121	1	20
trans-1,2-Dichloroethene	50.0	51.2		ug/L		102	75 - 124	0	20
trans-1,3-Dichloropropene	50.0	52.6		ug/L		105	73 - 127	2	20
1,2,3-Trichlorobenzene	50.0	54.6		ug/L		109	69 - 129	1	20
1,2,4-Trichlorobenzene	50.0	52.8		ug/L		106	69 - 130	2	20
1,1,1-Trichloroethane	50.0	56.4		ug/L		113	74 - 131	5	20
1,1,2-Trichloroethane	50.0	51.1		ug/L		102	80 - 119	3	20
Trichloroethene	50.0	57.0		ug/L		114	79 - 123	4	20
Trichlorofluoromethane	50.0	69.3		ug/L		139	65 - 141	12	20
1,2,3-Trichloropropane	50.0	54.7		ug/L		109	73 - 122	0	20

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-840966/7
Matrix: Water
Analysis Batch: 840966

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1,2-Trichloro-1,2,2-trifluoroethane			50.0	65.6		ug/L		131	70 - 136	18	20
1,2,4-Trimethylbenzene			50.0	52.1		ug/L		104	76 - 124	3	20
1,3,5-Trimethylbenzene			50.0	53.0		ug/L		106	75 - 124	5	20
Vinyl chloride			50.0	55.9		ug/L		112	58 - 137	6	20
Xylenes, Total			100	102		ug/L		102	79 - 121	2	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*85 - 114*
Dibromofluoromethane (Surr)	*95*		*80 - 119*
1,2-Dichloroethane-d4 (Surr)	*96*		*81 - 118*
Toluene-d8 (Surr)	*98*		*89 - 112*

Lab Sample ID: 680-251210-13 MS
Matrix: Water
Analysis Batch: 840966

Client Sample ID: OU6-NNC-1-20240523
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Acetone	10	U	250	239	Q	ug/L		96	39 - 160		
Benzene	1.0	U	50.0	46.5	Q	ug/L		93	79 - 120		
Bromobenzene	0.50	U	50.0	42.8		ug/L		86	80 - 120		
Bromochloromethane	1.0	U	50.0	42.8	Q	ug/L		86	78 - 123		
Bromodichloromethane	1.0	U	50.0	48.9	Q	ug/L		98	79 - 125		
Bromoform	2.0	U	50.0	43.6		ug/L		87	66 - 130		
Bromomethane	10	U J1 Q	50.0	193	Q J1	ug/L		385	53 - 141		
2-Butanone (MEK)	20	U	250	249	Q	ug/L		99	56 - 143		
Carbon disulfide	1.0	U	50.0	49.0	Q	ug/L		98	64 - 133		
Carbon tetrachloride	1.0	U J1	50.0	50.7	Q	ug/L		101	72 - 136		
Chlorobenzene	0.50	U	50.0	45.4		ug/L		91	82 - 118		
Chloroethane	10	U J1	50.0	260	J1 Q	ug/L		520	60 - 138		
Chloroform	1.0	U	50.0	43.9	Q	ug/L		88	79 - 124		
Chloromethane	2.0	U J1	50.0	34.5	Q	ug/L		69	50 - 139		
2-Chlorotoluene	0.50	U	50.0	42.8		ug/L		86	79 - 122		
4-Chlorotoluene	1.0	U	50.0	42.2		ug/L		84	78 - 122		
cis-1,2-Dichloroethene	0.81	J	50.0	48.7	Q	ug/L		96	78 - 123		
cis-1,3-Dichloropropene	1.0	U	50.0	47.5	Q	ug/L		95	75 - 124		
Cyclohexane	1.0	U Q J1	50.0	52.0	Q	ug/L		104	71 - 130		
Dibromochloromethane	1.0	U	50.0	43.1	Q	ug/L		86	74 - 126		
1,2-Dibromo-3-Chloropropane	5.0	U	50.0	47.6		ug/L		95	62 - 128		
1,2-Dibromoethane	1.0	U	50.0	47.6	Q	ug/L		95	75 - 127		
Dibromomethane	1.0	U	50.0	45.3	Q	ug/L		91	79 - 123		
1,2-Dichlorobenzene	1.0	U	50.0	44.2		ug/L		88	80 - 119		
1,3-Dichlorobenzene	1.0	U	50.0	44.1		ug/L		88	80 - 119		
1,4-Dichlorobenzene	1.0	U	50.0	44.3		ug/L		89	79 - 118		
Dichlorodifluoromethane	1.0	U Q J1	50.0	58.0	Q	ug/L		116	32 - 152		
1,1-Dichloroethane	1.0	U	50.0	43.7	Q	ug/L		87	77 - 125		
1,2-Dichloroethane	1.0	U M	50.0	44.0	Q	ug/L		88	73 - 128		
1,1-Dichloroethene	1.0	U	50.0	48.5	Q	ug/L		97	71 - 131		
1,2-Dichloroethene, Total	0.81	J	100	96.3		ug/L		95	79 - 121		

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 680-251210-13 MS
Matrix: Water
Analysis Batch: 840966

Client Sample ID: OU6-NNC-1-20240523
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,2-Dichloropropane	0.50	U	50.0	47.1	Q	ug/L		94	78 - 122
1,3-Dichloropropane	1.0	U	50.0	46.4	Q	ug/L		93	80 - 119
2,2-Dichloropropane	1.0	U	50.0	42.2	Q	ug/L		84	60 - 139
1,1-Dichloropropene	1.0	U Q	50.0	52.4	Q	ug/L		105	79 - 125
Ethylbenzene	0.50	U	50.0	46.1		ug/L		92	79 - 121
Hexachlorobutadiene	1.0	U Q J1	50.0	45.3		ug/L		91	66 - 134
2-Hexanone	10	U	250	260	Q	ug/L		104	57 - 139
Isopropylbenzene	1.0	U	50.0	44.9		ug/L		90	72 - 131
4-Isopropyltoluene	1.0	U J1	50.0	45.3		ug/L		91	77 - 127
Methyl acetate	10	U	100	87.8	Q	ug/L		88	56 - 136
Methylcyclohexane	1.0	U Q J1	50.0	52.7	Q	ug/L		105	72 - 132
Methylene Chloride	10	U	50.0	42.0	Q	ug/L		84	74 - 124
4-Methyl-2-pentanone (MIBK)	10	U	250	266	Q	ug/L		106	67 - 130
Methyl tert-butyl ether	2.0	U	50.0	50.6	Q	ug/L		101	71 - 124
m-Xylene & p-Xylene	1.0	U	50.0	44.3		ug/L		89	80 - 121
Naphthalene	5.0	U	50.0	48.7		ug/L		97	61 - 128
n-Butylbenzene	2.0	U J1	50.0	45.2		ug/L		90	75 - 128
N-Propylbenzene	1.0	U	50.0	44.0		ug/L		88	76 - 126
o-Xylene	1.0	U	50.0	43.8		ug/L		88	78 - 122
sec-Butylbenzene	2.0	U J1	50.0	44.4		ug/L		89	77 - 126
Styrene	1.0	U	50.0	44.4		ug/L		89	78 - 123
tert-Butylbenzene	1.0	U J1	50.0	43.7		ug/L		87	78 - 124
1,1,1,2-Tetrachloroethane	1.0	U	50.0	47.1		ug/L		94	78 - 124
1,1,2,2-Tetrachloroethane	1.0	U	50.0	51.5		ug/L		103	71 - 121
Tetrachloroethene	1.0	U	50.0	46.3	Q	ug/L		93	74 - 129
Toluene	1.0	U	50.0	45.3	Q	ug/L		91	80 - 121
trans-1,2-Dichloroethene	1.0	U	50.0	47.6	Q	ug/L		95	75 - 124
trans-1,3-Dichloropropene	1.0	U	50.0	48.1	Q	ug/L		96	73 - 127
1,2,3-Trichlorobenzene	2.0	U J1	50.0	43.9		ug/L		88	69 - 129
1,2,4-Trichlorobenzene	2.0	U J1	50.0	42.1		ug/L		84	69 - 130
1,1,1-Trichloroethane	0.50	U	50.0	49.2	Q	ug/L		98	74 - 131
1,1,2-Trichloroethane	1.0	U	50.0	48.0	Q	ug/L		96	80 - 119
Trichloroethene	0.55	J	50.0	49.5	Q	ug/L		98	79 - 123
Trichlorofluoromethane	1.0	U Q J1	50.0	40.6	Q	ug/L		81	65 - 141
1,2,3-Trichloropropane	1.0	U	50.0	48.7		ug/L		97	73 - 122
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U Q J1	50.0	54.5	Q	ug/L		109	70 - 136
1,2,4-Trimethylbenzene	1.0	U	50.0	42.5		ug/L		85	76 - 124
1,3,5-Trimethylbenzene	1.0	U	50.0	43.6		ug/L		87	75 - 124
Vinyl chloride	1.0	U Q J1	50.0	32.9	Q	ug/L		66	58 - 137
Xylenes, Total	1.0	U	100	88.1		ug/L		88	79 - 121

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*98*		*85 - 114*
Dibromofluoromethane (Surr)	*94*	*Q*	*80 - 119*
1,2-Dichloroethane-d4 (Surr)	*100*	*Q*	*81 - 118*
Toluene-d8 (Surr)	*94*	*Q*	*89 - 112*

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 680-251210-13 MSD
Matrix: Water
Analysis Batch: 840966

Client Sample ID: OU6-NNC-1-20240523
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acetone	10	U	250	248		ug/L		99	39 - 160	4	20
Benzene	1.0	U	50.0	51.5		ug/L		103	79 - 120	10	20
Bromobenzene	0.50	U	50.0	48.5		ug/L		97	80 - 120	12	20
Bromochloromethane	1.0	U	50.0	45.7		ug/L		91	78 - 123	7	20
Bromodichloromethane	1.0	U	50.0	54.3		ug/L		109	79 - 125	11	20
Bromoform	2.0	U	50.0	50.9		ug/L		102	66 - 130	15	20
Bromomethane	10	U J1 Q	50.0	81.8	J1	ug/L		164	53 - 141	81	20
2-Butanone (MEK)	20	U	250	258		ug/L		103	56 - 143	4	20
Carbon disulfide	1.0	U	50.0	55.3		ug/L		111	64 - 133	12	20
Carbon tetrachloride	1.0	U J1	50.0	63.4	J1	ug/L		127	72 - 136	22	20
Chlorobenzene	0.50	U	50.0	50.4		ug/L		101	82 - 118	11	20
Chloroethane	10	U J1	50.0	396	J1	ug/L		791	60 - 138	41	20
Chloroform	1.0	U	50.0	47.9		ug/L		96	79 - 124	9	20
Chloromethane	2.0	U J1	50.0	54.5	J1	ug/L		109	50 - 139	45	20
2-Chlorotoluene	0.50	U	50.0	49.3		ug/L		99	79 - 122	14	20
4-Chlorotoluene	1.0	U	50.0	47.5		ug/L		95	78 - 122	12	20
cis-1,2-Dichloroethene	0.81	J	50.0	48.7		ug/L		96	78 - 123	0	20
cis-1,3-Dichloropropene	1.0	U	50.0	53.5		ug/L		107	75 - 124	12	20
Cyclohexane	1.0	U Q J1	50.0	68.5	J1	ug/L		137	71 - 130	28	20
Dibromochloromethane	1.0	U	50.0	49.2		ug/L		98	74 - 126	13	20
1,2-Dibromo-3-Chloropropane	5.0	U	50.0	58.3		ug/L		117	62 - 128	20	20
1,2-Dibromoethane	1.0	U	50.0	52.1		ug/L		104	75 - 127	9	20
Dibromomethane	1.0	U	50.0	48.5		ug/L		97	79 - 123	7	20
1,2-Dichlorobenzene	1.0	U	50.0	51.1		ug/L		102	80 - 119	14	20
1,3-Dichlorobenzene	1.0	U	50.0	50.6		ug/L		101	80 - 119	14	20
1,4-Dichlorobenzene	1.0	U	50.0	50.0		ug/L		100	79 - 118	12	20
Dichlorodifluoromethane	1.0	U Q J1	50.0	114	J1	ug/L		229	32 - 152	65	20
1,1-Dichloroethane	1.0	U	50.0	47.6		ug/L		95	77 - 125	8	20
1,2-Dichloroethane	1.0	U M	50.0	46.2		ug/L		92	73 - 128	5	20
1,1-Dichloroethene	1.0	U	50.0	57.9		ug/L		116	71 - 131	18	20
1,2-Dichloroethene, Total	0.81	J	100	101		ug/L		100	79 - 121	5	20
1,2-Dichloropropane	0.50	U	50.0	52.1		ug/L		104	78 - 122	10	20
1,3-Dichloropropane	1.0	U	50.0	50.5		ug/L		101	80 - 119	8	20
2,2-Dichloropropane	1.0	U	50.0	49.0		ug/L		98	60 - 139	15	20
1,1-Dichloropropene	1.0	U Q	50.0	62.2		ug/L		124	79 - 125	17	20
Ethylbenzene	0.50	U	50.0	53.5		ug/L		107	79 - 121	15	20
Hexachlorobutadiene	1.0	U Q J1	50.0	61.9	J1	ug/L		124	66 - 134	31	20
2-Hexanone	10	U	250	274		ug/L		109	57 - 139	5	20
Isopropylbenzene	1.0	U	50.0	54.2		ug/L		108	72 - 131	19	20
4-Isopropyltoluene	1.0	U J1	50.0	56.9	J1	ug/L		114	77 - 127	23	20
Methyl acetate	10	U	100	86.6		ug/L		87	56 - 136	1	20
Methylcyclohexane	1.0	U Q J1	50.0	71.1	J1	ug/L		142	72 - 132	30	20
Methylene Chloride	10	U	50.0	44.6		ug/L		89	74 - 124	6	20
4-Methyl-2-pentanone (MIBK)	10	U	250	281		ug/L		113	67 - 130	6	20
Methyl tert-butyl ether	2.0	U	50.0	53.9		ug/L		108	71 - 124	6	20
m-Xylene & p-Xylene	1.0	U	50.0	50.9		ug/L		102	80 - 121	14	20
Naphthalene	5.0	U	50.0	59.6		ug/L		119	61 - 128	20	20
n-Butylbenzene	2.0	U J1	50.0	58.1	J1	ug/L		116	75 - 128	25	20

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 680-251210-13 MSD
Matrix: Water
Analysis Batch: 840966

Client Sample ID: OU6-NNC-1-20240523
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
N-Propylbenzene	1.0	U	50.0	53.0		ug/L		106	76 - 126	19	20
o-Xylene	1.0	U	50.0	50.2		ug/L		100	78 - 122	14	20
sec-Butylbenzene	2.0	U J1	50.0	55.9	J1	ug/L		112	77 - 126	23	20
Styrene	1.0	U	50.0	49.4		ug/L		99	78 - 123	11	20
tert-Butylbenzene	1.0	U J1	50.0	54.1	J1	ug/L		108	78 - 124	21	20
1,1,1,2-Tetrachloroethane	1.0	U	50.0	54.4		ug/L		109	78 - 124	14	20
1,1,2,2-Tetrachloroethane	1.0	U	50.0	58.1		ug/L		116	71 - 121	12	20
Tetrachloroethene	1.0	U	50.0	56.1		ug/L		112	74 - 129	19	20
Toluene	1.0	U	50.0	51.1		ug/L		102	80 - 121	12	20
trans-1,2-Dichloroethene	1.0	U	50.0	52.4		ug/L		105	75 - 124	10	20
trans-1,3-Dichloropropene	1.0	U	50.0	53.0		ug/L		106	73 - 127	10	20
1,2,3-Trichlorobenzene	2.0	U J1	50.0	55.7	J1	ug/L		111	69 - 129	24	20
1,2,4-Trichlorobenzene	2.0	U J1	50.0	53.3	J1	ug/L		107	69 - 130	24	20
1,1,1-Trichloroethane	0.50	U	50.0	59.3		ug/L		119	74 - 131	19	20
1,1,2-Trichloroethane	1.0	U	50.0	52.6		ug/L		105	80 - 119	9	20
Trichloroethene	0.55	J	50.0	55.8		ug/L		110	79 - 123	12	20
Trichlorofluoromethane	1.0	U Q J1	50.0	76.5	J1	ug/L		153	65 - 141	61	20
1,2,3-Trichloropropane	1.0	U	50.0	54.8		ug/L		110	73 - 122	12	20
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U Q J1	50.0	68.9	J1	ug/L		138	70 - 136	23	20
1,2,4-Trimethylbenzene	1.0	U	50.0	50.3		ug/L		101	76 - 124	17	20
1,3,5-Trimethylbenzene	1.0	U	50.0	52.0		ug/L		104	75 - 124	17	20
Vinyl chloride	1.0	U Q J1	50.0	58.3	J1	ug/L		117	58 - 137	56	20
Xylenes, Total	1.0	U	100	101		ug/L		101	79 - 121	14	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*104*		*85 - 114*
Dibromofluoromethane (Surr)	*97*		*80 - 119*
1,2-Dichloroethane-d4 (Surr)	*98*		*81 - 118*
Toluene-d8 (Surr)	*100*		*89 - 112*

Lab Sample ID: MB 680-841121/10
Matrix: Water
Analysis Batch: 841121

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			06/05/24 13:39	1
Benzene	1.0	U	2.0	0.27	ug/L			06/05/24 13:39	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			06/05/24 13:39	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			06/05/24 13:39	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			06/05/24 13:39	1
Bromoform	2.0	U	2.5	0.59	ug/L			06/05/24 13:39	1
Bromomethane	10	U	20	3.7	ug/L			06/05/24 13:39	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			06/05/24 13:39	1
Carbon disulfide	1.0	U	2.0	0.43	ug/L			06/05/24 13:39	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			06/05/24 13:39	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			06/05/24 13:39	1
Chloroethane	10	U	20	4.6	ug/L			06/05/24 13:39	1
Chloroform	1.0	U	2.0	0.27	ug/L			06/05/24 13:39	1

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-841121/10
Matrix: Water
Analysis Batch: 841121

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	2.0	U	2.5	0.54	ug/L			06/05/24 13:39	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			06/05/24 13:39	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			06/05/24 13:39	1
cis-1,2-Dichloroethene	1.0	U	2.0	0.25	ug/L			06/05/24 13:39	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			06/05/24 13:39	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			06/05/24 13:39	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			06/05/24 13:39	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			06/05/24 13:39	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			06/05/24 13:39	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			06/05/24 13:39	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			06/05/24 13:39	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			06/05/24 13:39	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			06/05/24 13:39	1
Dichlorodifluoromethane	1.0	U	2.0	0.36	ug/L			06/05/24 13:39	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			06/05/24 13:39	1
1,2-Dichloroethane	1.0	U	2.0	0.25	ug/L			06/05/24 13:39	1
1,1-Dichloroethene	1.0	U	2.0	0.33	ug/L			06/05/24 13:39	1
1,2-Dichloroethene, Total	1.0	U	2.0	0.37	ug/L			06/05/24 13:39	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			06/05/24 13:39	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			06/05/24 13:39	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			06/05/24 13:39	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			06/05/24 13:39	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			06/05/24 13:39	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			06/05/24 13:39	1
2-Hexanone	10	U	20	3.2	ug/L			06/05/24 13:39	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			06/05/24 13:39	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			06/05/24 13:39	1
Methyl acetate	10	U	20	3.2	ug/L			06/05/24 13:39	1
Methylcyclohexane	0.604	J	2.0	0.33	ug/L			06/05/24 13:39	1
Methylene Chloride	10	U	20	3.2	ug/L			06/05/24 13:39	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			06/05/24 13:39	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			06/05/24 13:39	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			06/05/24 13:39	1
Naphthalene	5.0	U	10	2.4	ug/L			06/05/24 13:39	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			06/05/24 13:39	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			06/05/24 13:39	1
o-Xylene	1.0	U	2.0	0.26	ug/L			06/05/24 13:39	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			06/05/24 13:39	1
Styrene	1.0	U	2.0	0.27	ug/L			06/05/24 13:39	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			06/05/24 13:39	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			06/05/24 13:39	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			06/05/24 13:39	1
Tetrachloroethene	1.0	U	2.0	0.35	ug/L			06/05/24 13:39	1
Toluene	1.0	U	2.0	0.25	ug/L			06/05/24 13:39	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			06/05/24 13:39	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			06/05/24 13:39	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			06/05/24 13:39	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			06/05/24 13:39	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			06/05/24 13:39	1

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-841121/10
Matrix: Water
Analysis Batch: 841121

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			06/05/24 13:39	1
Trichloroethene	0.50	U	1.0	0.20	ug/L			06/05/24 13:39	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			06/05/24 13:39	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			06/05/24 13:39	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			06/05/24 13:39	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			06/05/24 13:39	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			06/05/24 13:39	1
Vinyl chloride	1.0	U	2.0	0.40	ug/L			06/05/24 13:39	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			06/05/24 13:39	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*85 - 114*		*06/05/24 13:39*	*1*
Dibromofluoromethane (Surr)	*103*		*80 - 119*		*06/05/24 13:39*	*1*
1,2-Dichloroethane-d4 (Surr)	*92*		*81 - 118*		*06/05/24 13:39*	*1*
Toluene-d8 (Surr)	*97*		*89 - 112*		*06/05/24 13:39*	*1*

Lab Sample ID: LCS 680-841121/6
Matrix: Water
Analysis Batch: 841121

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	250	262		ug/L		105	39 - 160
Benzene	50.0	52.2		ug/L		104	79 - 120
Bromobenzene	50.0	57.9		ug/L		116	80 - 120
Bromochloromethane	50.0	50.9		ug/L		102	78 - 123
Bromodichloromethane	50.0	50.9		ug/L		102	79 - 125
Bromomethane	50.0	53.6		ug/L		107	53 - 141
2-Butanone (MEK)	250	283		ug/L		113	56 - 143
Carbon disulfide	50.0	51.7		ug/L		103	64 - 133
Carbon tetrachloride	50.0	51.0		ug/L		102	72 - 136
Chlorobenzene	50.0	49.0		ug/L		98	82 - 118
Chloroethane	50.0	46.2		ug/L		92	60 - 138
Chloroform	50.0	50.3		ug/L		101	79 - 124
Chloromethane	50.0	53.3		ug/L		107	50 - 139
2-Chlorotoluene	50.0	56.2		ug/L		112	79 - 122
4-Chlorotoluene	50.0	54.9		ug/L		110	78 - 122
cis-1,2-Dichloroethene	50.0	50.4		ug/L		101	78 - 123
cis-1,3-Dichloropropene	50.0	51.5		ug/L		103	75 - 124
Cyclohexane	50.0	55.0		ug/L		110	71 - 130
Dibromochloromethane	50.0	55.9		ug/L		112	74 - 126
1,2-Dibromo-3-Chloropropane	50.0	50.9		ug/L		102	62 - 128
1,2-Dibromoethane	50.0	52.9		ug/L		106	75 - 127
Dibromomethane	50.0	49.6		ug/L		99	79 - 123
1,2-Dichlorobenzene	50.0	47.0		ug/L		94	80 - 119
1,3-Dichlorobenzene	50.0	51.5		ug/L		103	80 - 119
1,4-Dichlorobenzene	50.0	49.2		ug/L		98	79 - 118
Dichlorodifluoromethane	50.0	52.1	M	ug/L		104	32 - 152
1,1-Dichloroethane	50.0	51.1		ug/L		102	77 - 125

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-841121/6
Matrix: Water
Analysis Batch: 841121

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2-Dichloroethane	50.0	46.0		ug/L		92	73 - 128
1,1-Dichloroethene	50.0	51.2		ug/L		102	71 - 131
1,2-Dichloroethene, Total	100	103		ug/L		103	79 - 121
1,2-Dichloropropane	50.0	52.5		ug/L		105	78 - 122
1,3-Dichloropropane	50.0	52.5		ug/L		105	80 - 119
2,2-Dichloropropane	50.0	52.5		ug/L		105	60 - 139
1,1-Dichloropropene	50.0	54.3		ug/L		109	79 - 125
Ethylbenzene	50.0	47.3		ug/L		95	79 - 121
Hexachlorobutadiene	50.0	50.7		ug/L		101	66 - 134
2-Hexanone	250	301		ug/L		120	57 - 139
Isopropylbenzene	50.0	52.3		ug/L		105	72 - 131
4-Isopropyltoluene	50.0	53.8		ug/L		108	77 - 127
Methyl acetate	100	81.9		ug/L		82	56 - 136
Methylcyclohexane	50.0	53.7		ug/L		107	72 - 132
Methylene Chloride	50.0	50.4		ug/L		101	74 - 124
4-Methyl-2-pentanone (MIBK)	250	306		ug/L		122	67 - 130
Methyl tert-butyl ether	50.0	52.3		ug/L		105	71 - 124
m-Xylene & p-Xylene	50.0	48.5		ug/L		97	80 - 121
Naphthalene	50.0	49.4		ug/L		99	61 - 128
n-Butylbenzene	50.0	49.9		ug/L		100	75 - 128
N-Propylbenzene	50.0	54.5		ug/L		109	76 - 126
o-Xylene	50.0	52.2		ug/L		104	78 - 122
sec-Butylbenzene	50.0	55.2		ug/L		110	77 - 126
Styrene	50.0	56.7		ug/L		113	78 - 123
tert-Butylbenzene	50.0	55.6		ug/L		111	78 - 124
1,1,1,2-Tetrachloroethane	50.0	49.9		ug/L		100	78 - 124
1,1,2,2-Tetrachloroethane	50.0	56.9		ug/L		114	71 - 121
Tetrachloroethene	50.0	54.0		ug/L		108	74 - 129
Toluene	50.0	50.5		ug/L		101	80 - 121
trans-1,2-Dichloroethene	50.0	52.3		ug/L		105	75 - 124
trans-1,3-Dichloropropene	50.0	50.3		ug/L		101	73 - 127
1,2,3-Trichlorobenzene	50.0	48.2		ug/L		96	69 - 129
1,2,4-Trichlorobenzene	50.0	51.4		ug/L		103	69 - 130
1,1,1-Trichloroethane	50.0	51.5		ug/L		103	74 - 131
1,1,2-Trichloroethane	50.0	52.8		ug/L		106	80 - 119
Trichloroethene	50.0	52.2		ug/L		104	79 - 123
1,2,3-Trichloropropane	50.0	51.0		ug/L		102	73 - 122
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	55.6		ug/L		111	70 - 136
1,2,4-Trimethylbenzene	50.0	56.0		ug/L		112	76 - 124
1,3,5-Trimethylbenzene	50.0	56.9		ug/L		114	75 - 124
Vinyl chloride	50.0	53.6	M	ug/L		107	58 - 137
Xylenes, Total	100	101		ug/L		101	79 - 121

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*111*		*85 - 114*
Dibromofluoromethane (Surr)	*102*		*80 - 119*
1,2-Dichloroethane-d4 (Surr)	*92*		*81 - 118*

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-841121/6
Matrix: Water
Analysis Batch: 841121

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Toluene-d8 (Surr)	89		89 - 112

Lab Sample ID: LCSD 680-841121/7
Matrix: Water
Analysis Batch: 841121

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acetone			250	259		ug/L		103	39 - 160	1	20
Benzene			50.0	51.2		ug/L		102	79 - 120	2	20
Bromobenzene			50.0	58.9		ug/L		118	80 - 120	2	20
Bromochloromethane			50.0	51.0		ug/L		102	78 - 123	0	20
Bromodichloromethane			50.0	50.9		ug/L		102	79 - 125	0	20
Bromomethane			50.0	52.9		ug/L		106	53 - 141	1	20
2-Butanone (MEK)			250	282		ug/L		113	56 - 143	0	20
Carbon disulfide			50.0	51.0		ug/L		102	64 - 133	1	20
Carbon tetrachloride			50.0	50.6		ug/L		101	72 - 136	1	20
Chlorobenzene			50.0	49.8		ug/L		100	82 - 118	1	20
Chloroethane			50.0	46.7		ug/L		93	60 - 138	1	20
Chloroform			50.0	50.0		ug/L		100	79 - 124	1	20
Chloromethane			50.0	52.0		ug/L		104	50 - 139	2	20
2-Chlorotoluene			50.0	56.2		ug/L		112	79 - 122	0	20
4-Chlorotoluene			50.0	55.4		ug/L		111	78 - 122	1	20
cis-1,2-Dichloroethene			50.0	49.5		ug/L		99	78 - 123	2	20
cis-1,3-Dichloropropene			50.0	51.7		ug/L		103	75 - 124	0	20
Cyclohexane			50.0	53.8		ug/L		108	71 - 130	2	20
Dibromochloromethane			50.0	56.3		ug/L		113	74 - 126	1	20
1,2-Dibromo-3-Chloropropane			50.0	50.9		ug/L		102	62 - 128	0	20
1,2-Dibromoethane			50.0	53.6		ug/L		107	75 - 127	1	20
Dibromomethane			50.0	49.4		ug/L		99	79 - 123	1	20
1,2-Dichlorobenzene			50.0	46.6		ug/L		93	80 - 119	1	20
1,3-Dichlorobenzene			50.0	50.4		ug/L		101	80 - 119	2	20
1,4-Dichlorobenzene			50.0	49.1		ug/L		98	79 - 118	0	20
Dichlorodifluoromethane			50.0	50.2	M	ug/L		100	32 - 152	4	20
1,1-Dichloroethane			50.0	50.3		ug/L		101	77 - 125	2	20
1,2-Dichloroethane			50.0	46.5		ug/L		93	73 - 128	1	20
1,1-Dichloroethene			50.0	49.9		ug/L		100	71 - 131	2	20
1,2-Dichloroethene, Total			100	101		ug/L		101	79 - 121	2	20
1,2-Dichloropropane			50.0	51.8		ug/L		104	78 - 122	1	20
1,3-Dichloropropane			50.0	52.8		ug/L		106	80 - 119	1	20
2,2-Dichloropropane			50.0	51.1		ug/L		102	60 - 139	3	20
1,1-Dichloropropene			50.0	53.3		ug/L		107	79 - 125	2	20
Ethylbenzene			50.0	48.3		ug/L		97	79 - 121	2	20
Hexachlorobutadiene			50.0	49.2		ug/L		98	66 - 134	3	20
2-Hexanone			250	305		ug/L		122	57 - 139	1	20
Isopropylbenzene			50.0	52.7		ug/L		105	72 - 131	1	20
4-Isopropyltoluene			50.0	52.0		ug/L		104	77 - 127	3	20
Methyl acetate			100	82.2		ug/L		82	56 - 136	0	20
Methylcyclohexane			50.0	52.4		ug/L		105	72 - 132	3	20

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-841121/7
Matrix: Water
Analysis Batch: 841121

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Methylene Chloride			50.0	50.2		ug/L		100	74 - 124	0	20
4-Methyl-2-pentanone (MIBK)			250	305		ug/L		122	67 - 130	0	20
Methyl tert-butyl ether			50.0	52.7		ug/L		105	71 - 124	1	20
m-Xylene & p-Xylene			50.0	49.6		ug/L		99	80 - 121	2	20
Naphthalene			50.0	48.8		ug/L		98	61 - 128	1	20
n-Butylbenzene			50.0	49.4		ug/L		99	75 - 128	1	20
N-Propylbenzene			50.0	54.9		ug/L		110	76 - 126	1	20
o-Xylene			50.0	53.2		ug/L		106	78 - 122	2	20
sec-Butylbenzene			50.0	55.7		ug/L		111	77 - 126	1	20
Styrene			50.0	57.3		ug/L		115	78 - 123	1	20
tert-Butylbenzene			50.0	56.1		ug/L		112	78 - 124	1	20
1,1,1,2-Tetrachloroethane			50.0	51.3		ug/L		103	78 - 124	3	20
1,1,2,2-Tetrachloroethane			50.0	56.6		ug/L		113	71 - 121	1	20
Tetrachloroethene			50.0	53.0		ug/L		106	74 - 129	2	20
Toluene			50.0	50.3		ug/L		101	80 - 121	1	20
trans-1,2-Dichloroethene			50.0	51.5		ug/L		103	75 - 124	2	20
trans-1,3-Dichloropropene			50.0	51.1		ug/L		102	73 - 127	2	20
1,2,3-Trichlorobenzene			50.0	47.7		ug/L		95	69 - 129	1	20
1,2,4-Trichlorobenzene			50.0	50.4		ug/L		101	69 - 130	2	20
1,1,1-Trichloroethane			50.0	51.1		ug/L		102	74 - 131	1	20
1,1,2-Trichloroethane			50.0	53.0		ug/L		106	80 - 119	0	20
Trichloroethene			50.0	51.8		ug/L		104	79 - 123	1	20
1,2,3-Trichloropropane			50.0	54.1		ug/L		108	73 - 122	6	20
1,1,2-Trichloro-1,2,2-trifluoroethane			50.0	54.5		ug/L		109	70 - 136	2	20
1,2,4-Trimethylbenzene			50.0	57.2		ug/L		114	76 - 124	2	20
1,3,5-Trimethylbenzene			50.0	57.2		ug/L		114	75 - 124	0	20
Vinyl chloride			50.0	54.4		ug/L		109	58 - 137	1	20
Xylenes, Total			100	103		ug/L		103	79 - 121	2	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*109*		*85 - 114*
Dibromofluoromethane (Surr)	*102*		*80 - 119*
1,2-Dichloroethane-d4 (Surr)	*94*		*81 - 118*
Toluene-d8 (Surr)	*91*		*89 - 112*

Lab Sample ID: MB 680-841256/9
Matrix: Water
Analysis Batch: 841256

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			06/06/24 14:47	1
Benzene	1.0	U	2.0	0.27	ug/L			06/06/24 14:47	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			06/06/24 14:47	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			06/06/24 14:47	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			06/06/24 14:47	1
Bromoform	2.0	U	2.5	0.59	ug/L			06/06/24 14:47	1
Bromomethane	10	U	20	3.7	ug/L			06/06/24 14:47	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			06/06/24 14:47	1

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-841256/9
Matrix: Water
Analysis Batch: 841256

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon disulfide	1.0	U	2.0	0.43	ug/L			06/06/24 14:47	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			06/06/24 14:47	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			06/06/24 14:47	1
Chloroethane	10	U	20	4.6	ug/L			06/06/24 14:47	1
Chloroform	1.0	U	2.0	0.27	ug/L			06/06/24 14:47	1
Chloromethane	2.0	U	2.5	0.54	ug/L			06/06/24 14:47	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			06/06/24 14:47	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			06/06/24 14:47	1
cis-1,2-Dichloroethene	1.0	U	2.0	0.25	ug/L			06/06/24 14:47	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			06/06/24 14:47	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			06/06/24 14:47	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			06/06/24 14:47	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			06/06/24 14:47	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			06/06/24 14:47	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			06/06/24 14:47	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			06/06/24 14:47	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			06/06/24 14:47	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			06/06/24 14:47	1
Dichlorodifluoromethane	1.0	U	2.0	0.36	ug/L			06/06/24 14:47	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			06/06/24 14:47	1
1,2-Dichloroethane	1.0	U M	2.0	0.25	ug/L			06/06/24 14:47	1
1,1-Dichloroethene	1.0	U	2.0	0.33	ug/L			06/06/24 14:47	1
1,2-Dichloroethene, Total	1.0	U	2.0	0.37	ug/L			06/06/24 14:47	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			06/06/24 14:47	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			06/06/24 14:47	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			06/06/24 14:47	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			06/06/24 14:47	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			06/06/24 14:47	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			06/06/24 14:47	1
2-Hexanone	10	U	20	3.2	ug/L			06/06/24 14:47	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			06/06/24 14:47	1
4-Isopropyltoluene	1.0	U M	2.0	0.44	ug/L			06/06/24 14:47	1
Methyl acetate	10	U	20	3.2	ug/L			06/06/24 14:47	1
Methylcyclohexane	1.0	U M	2.0	0.33	ug/L			06/06/24 14:47	1
Methylene Chloride	10	U	20	3.2	ug/L			06/06/24 14:47	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			06/06/24 14:47	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			06/06/24 14:47	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			06/06/24 14:47	1
Naphthalene	5.0	U	10	2.4	ug/L			06/06/24 14:47	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			06/06/24 14:47	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			06/06/24 14:47	1
o-Xylene	1.0	U	2.0	0.26	ug/L			06/06/24 14:47	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			06/06/24 14:47	1
Styrene	1.0	U	2.0	0.27	ug/L			06/06/24 14:47	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			06/06/24 14:47	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			06/06/24 14:47	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			06/06/24 14:47	1
Tetrachloroethene	1.0	U	2.0	0.35	ug/L			06/06/24 14:47	1
Toluene	1.0	U	2.0	0.25	ug/L			06/06/24 14:47	1

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-841256/9
Matrix: Water
Analysis Batch: 841256

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			06/06/24 14:47	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			06/06/24 14:47	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			06/06/24 14:47	1
1,2,4-Trichlorobenzene	2.0	U M	5.0	0.53	ug/L			06/06/24 14:47	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			06/06/24 14:47	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			06/06/24 14:47	1
Trichloroethene	0.50	U	1.0	0.20	ug/L			06/06/24 14:47	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			06/06/24 14:47	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			06/06/24 14:47	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			06/06/24 14:47	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			06/06/24 14:47	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			06/06/24 14:47	1
Vinyl chloride	1.0	U	2.0	0.40	ug/L			06/06/24 14:47	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			06/06/24 14:47	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*85 - 114*		*06/06/24 14:47*	*1*
Dibromofluoromethane (Surr)	*90*		*80 - 119*		*06/06/24 14:47*	*1*
1,2-Dichloroethane-d4 (Surr)	*92*		*81 - 118*		*06/06/24 14:47*	*1*
Toluene-d8 (Surr)	*96*		*89 - 112*		*06/06/24 14:47*	*1*

Lab Sample ID: LCS 680-841256/4
Matrix: Water
Analysis Batch: 841256

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	250	268		ug/L		107	39 - 160
Benzene	50.0	50.4		ug/L		101	79 - 120
Bromobenzene	50.0	49.9		ug/L		100	80 - 120
Bromochloromethane	50.0	46.7		ug/L		93	78 - 123
Bromodichloromethane	50.0	54.1		ug/L		108	79 - 125
Bromoform	50.0	48.8		ug/L		98	66 - 130
Bromomethane	50.0	73.1	Q	ug/L		146	53 - 141
2-Butanone (MEK)	250	268		ug/L		107	56 - 143
Carbon disulfide	50.0	49.9		ug/L		100	64 - 133
Carbon tetrachloride	50.0	54.2		ug/L		108	72 - 136
Chlorobenzene	50.0	50.9		ug/L		102	82 - 118
Chloroethane	50.0	49.3		ug/L		99	60 - 138
Chloroform	50.0	47.9		ug/L		96	79 - 124
Chloromethane	50.0	51.1		ug/L		102	50 - 139
2-Chlorotoluene	50.0	49.6		ug/L		99	79 - 122
4-Chlorotoluene	50.0	48.6		ug/L		97	78 - 122
cis-1,2-Dichloroethene	50.0	48.1		ug/L		96	78 - 123
cis-1,3-Dichloropropene	50.0	54.2		ug/L		108	75 - 124
Cyclohexane	50.0	55.5		ug/L		111	71 - 130
Dibromochloromethane	50.0	48.2		ug/L		96	74 - 126
1,2-Dibromo-3-Chloropropane	50.0	53.3		ug/L		107	62 - 128
1,2-Dibromoethane	50.0	53.3		ug/L		107	75 - 127

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-841256/4
Matrix: Water
Analysis Batch: 841256

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Dibromomethane	50.0	49.4		ug/L		99	79 - 123
1,2-Dichlorobenzene	50.0	51.3		ug/L		103	80 - 119
1,3-Dichlorobenzene	50.0	50.3		ug/L		101	80 - 119
1,4-Dichlorobenzene	50.0	50.0		ug/L		100	79 - 118
Dichlorodifluoromethane	50.0	46.0	M	ug/L		92	32 - 152
1,1-Dichloroethane	50.0	47.3		ug/L		95	77 - 125
1,2-Dichloroethane	50.0	47.4		ug/L		95	73 - 128
1,1-Dichloroethene	50.0	51.8		ug/L		104	71 - 131
1,2-Dichloroethene, Total	100	98.0		ug/L		98	79 - 121
1,2-Dichloropropane	50.0	52.7		ug/L		105	78 - 122
1,3-Dichloropropane	50.0	52.3		ug/L		105	80 - 119
2,2-Dichloropropane	50.0	49.2		ug/L		98	60 - 139
1,1-Dichloropropene	50.0	55.3		ug/L		111	79 - 125
Ethylbenzene	50.0	51.1		ug/L		102	79 - 121
Hexachlorobutadiene	50.0	53.0		ug/L		106	66 - 134
2-Hexanone	250	279		ug/L		112	57 - 139
Isopropylbenzene	50.0	50.6		ug/L		101	72 - 131
4-Isopropyltoluene	50.0	52.1		ug/L		104	77 - 127
Methyl acetate	100	109		ug/L		109	56 - 136
Methylcyclohexane	50.0	55.7		ug/L		111	72 - 132
Methylene Chloride	50.0	45.7		ug/L		91	74 - 124
4-Methyl-2-pentanone (MIBK)	250	284		ug/L		114	67 - 130
Methyl tert-butyl ether	50.0	54.8		ug/L		110	71 - 124
m-Xylene & p-Xylene	50.0	49.4		ug/L		99	80 - 121
Naphthalene	50.0	58.4		ug/L		117	61 - 128
n-Butylbenzene	50.0	53.0		ug/L		106	75 - 128
N-Propylbenzene	50.0	50.2		ug/L		100	76 - 126
o-Xylene	50.0	49.5		ug/L		99	78 - 122
sec-Butylbenzene	50.0	51.2		ug/L		102	77 - 126
Styrene	50.0	50.0		ug/L		100	78 - 123
tert-Butylbenzene	50.0	50.6		ug/L		101	78 - 124
1,1,1,2-Tetrachloroethane	50.0	53.3		ug/L		107	78 - 124
1,1,2,2-Tetrachloroethane	50.0	52.7		ug/L		105	71 - 121
Tetrachloroethene	50.0	50.1		ug/L		100	74 - 129
Toluene	50.0	49.5		ug/L		99	80 - 121
trans-1,2-Dichloroethene	50.0	49.9		ug/L		100	75 - 124
trans-1,3-Dichloropropene	50.0	54.6		ug/L		109	73 - 127
1,2,3-Trichlorobenzene	50.0	54.2		ug/L		108	69 - 129
1,2,4-Trichlorobenzene	50.0	52.0		ug/L		104	69 - 130
1,1,1-Trichloroethane	50.0	53.5		ug/L		107	74 - 131
1,1,2-Trichloroethane	50.0	53.6		ug/L		107	80 - 119
Trichloroethene	50.0	56.0		ug/L		112	79 - 123
Trichlorofluoromethane	50.0	60.3		ug/L		121	65 - 141
1,2,3-Trichloropropane	50.0	55.8		ug/L		112	73 - 122
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	55.1		ug/L		110	70 - 136
1,2,4-Trimethylbenzene	50.0	50.6		ug/L		101	76 - 124
1,3,5-Trimethylbenzene	50.0	50.6		ug/L		101	75 - 124
Vinyl chloride	50.0	51.2		ug/L		102	58 - 137

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-841256/4
Matrix: Water
Analysis Batch: 841256

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Xylenes, Total			100	98.9		ug/L		99	79 - 121		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*103*		*85 - 114*
Dibromofluoromethane (Surr)	*97*		*80 - 119*
1,2-Dichloroethane-d4 (Surr)	*102*		*81 - 118*
Toluene-d8 (Surr)	*98*		*89 - 112*

Lab Sample ID: LCSD 680-841256/5
Matrix: Water
Analysis Batch: 841256

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acetone			250	260		ug/L		104	39 - 160	3	20
Benzene			50.0	50.5		ug/L		101	79 - 120	0	20
Bromobenzene			50.0	49.4		ug/L		99	80 - 120	1	20
Bromochloromethane			50.0	45.5		ug/L		91	78 - 123	3	20
Bromodichloromethane			50.0	52.1		ug/L		104	79 - 125	4	20
Bromoform			50.0	47.8		ug/L		96	66 - 130	2	20
Bromomethane			50.0	71.4	Q	ug/L		143	53 - 141	2	20
2-Butanone (MEK)			250	261		ug/L		104	56 - 143	3	20
Carbon disulfide			50.0	54.0		ug/L		108	64 - 133	8	20
Carbon tetrachloride			50.0	59.8		ug/L		120	72 - 136	10	20
Chlorobenzene			50.0	50.6		ug/L		101	82 - 118	1	20
Chloroethane			50.0	51.6		ug/L		103	60 - 138	5	20
Chloroform			50.0	47.5		ug/L		95	79 - 124	1	20
Chloromethane			50.0	51.4		ug/L		103	50 - 139	1	20
2-Chlorotoluene			50.0	50.9		ug/L		102	79 - 122	2	20
4-Chlorotoluene			50.0	49.2		ug/L		98	78 - 122	1	20
cis-1,2-Dichloroethene			50.0	47.6		ug/L		95	78 - 123	1	20
cis-1,3-Dichloropropene			50.0	53.0		ug/L		106	75 - 124	2	20
Cyclohexane			50.0	66.6	Q	ug/L		133	71 - 130	18	20
Dibromochloromethane			50.0	47.0		ug/L		94	74 - 126	3	20
1,2-Dibromo-3-Chloropropane			50.0	53.3		ug/L		107	62 - 128	0	20
1,2-Dibromoethane			50.0	51.4		ug/L		103	75 - 127	4	20
Dibromomethane			50.0	47.4		ug/L		95	79 - 123	4	20
1,2-Dichlorobenzene			50.0	51.1		ug/L		102	80 - 119	0	20
1,3-Dichlorobenzene			50.0	50.5		ug/L		101	80 - 119	0	20
1,4-Dichlorobenzene			50.0	50.5		ug/L		101	79 - 118	1	20
Dichlorodifluoromethane			50.0	57.1	M Q	ug/L		114	32 - 152	21	20
1,1-Dichloroethane			50.0	47.4		ug/L		95	77 - 125	0	20
1,2-Dichloroethane			50.0	45.7		ug/L		91	73 - 128	4	20
1,1-Dichloroethene			50.0	56.1		ug/L		112	71 - 131	8	20
1,2-Dichloroethene, Total			100	99.5		ug/L		99	79 - 121	1	20
1,2-Dichloropropane			50.0	51.1		ug/L		102	78 - 122	3	20
1,3-Dichloropropane			50.0	50.7		ug/L		101	80 - 119	3	20
2,2-Dichloropropane			50.0	51.2		ug/L		102	60 - 139	4	20
1,1-Dichloropropene			50.0	60.5		ug/L		121	79 - 125	9	20

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-841256/5
Matrix: Water
Analysis Batch: 841256

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ethylbenzene			50.0	52.7		ug/L		105	79 - 121	3	20
Hexachlorobutadiene			50.0	61.7		ug/L		123	66 - 134	15	20
2-Hexanone			250	271		ug/L		108	57 - 139	3	20
Isopropylbenzene			50.0	54.3		ug/L		109	72 - 131	7	20
4-Isopropyltoluene			50.0	57.1		ug/L		114	77 - 127	9	20
Methyl acetate			100	105		ug/L		105	56 - 136	4	20
Methylcyclohexane			50.0	70.1	Q	ug/L		140	72 - 132	23	20
Methylene Chloride			50.0	44.3		ug/L		89	74 - 124	3	20
4-Methyl-2-pentanone (MIBK)			250	275		ug/L		110	67 - 130	3	20
Methyl tert-butyl ether			50.0	53.0		ug/L		106	71 - 124	3	20
m-Xylene & p-Xylene			50.0	51.0		ug/L		102	80 - 121	3	20
Naphthalene			50.0	58.1		ug/L		116	61 - 128	0	20
n-Butylbenzene			50.0	59.7		ug/L		119	75 - 128	12	20
N-Propylbenzene			50.0	54.6		ug/L		109	76 - 126	8	20
o-Xylene			50.0	50.3		ug/L		101	78 - 122	2	20
sec-Butylbenzene			50.0	56.7		ug/L		113	77 - 126	10	20
Styrene			50.0	49.7		ug/L		99	78 - 123	1	20
tert-Butylbenzene			50.0	54.5		ug/L		109	78 - 124	7	20
1,1,1,2-Tetrachloroethane			50.0	52.0		ug/L		104	78 - 124	2	20
1,1,2,2-Tetrachloroethane			50.0	51.6		ug/L		103	71 - 121	2	20
Tetrachloroethene			50.0	55.3		ug/L		111	74 - 129	10	20
Toluene			50.0	50.1		ug/L		100	80 - 121	1	20
trans-1,2-Dichloroethene			50.0	51.8		ug/L		104	75 - 124	4	20
trans-1,3-Dichloropropene			50.0	52.8		ug/L		106	73 - 127	3	20
1,2,3-Trichlorobenzene			50.0	55.4		ug/L		111	69 - 129	2	20
1,2,4-Trichlorobenzene			50.0	53.8		ug/L		108	69 - 130	3	20
1,1,1-Trichloroethane			50.0	57.0		ug/L		114	74 - 131	6	20
1,1,2-Trichloroethane			50.0	52.0		ug/L		104	80 - 119	3	20
Trichloroethene			50.0	58.9		ug/L		118	79 - 123	5	20
Trichlorofluoromethane			50.0	69.6		ug/L		139	65 - 141	14	20
1,2,3-Trichloropropane			50.0	55.4		ug/L		111	73 - 122	1	20
1,1,2-Trichloro-1,2,2-trifluoroethane			50.0	67.3		ug/L		135	70 - 136	20	20
1,2,4-Trimethylbenzene			50.0	51.8		ug/L		104	76 - 124	2	20
1,3,5-Trimethylbenzene			50.0	53.4		ug/L		107	75 - 124	5	20
Vinyl chloride			50.0	56.1		ug/L		112	58 - 137	9	20
Xylenes, Total			100	101		ug/L		101	79 - 121	2	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*103*		*85 - 114*
Dibromofluoromethane (Surr)	*95*		*80 - 119*
1,2-Dichloroethane-d4 (Surr)	*97*		*81 - 118*
Toluene-d8 (Surr)	*99*		*89 - 112*

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 680-251210-2 MS
Matrix: Water
Analysis Batch: 841256

Client Sample ID: OU6-MW-264-20240523
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	10	U	250	245		ug/L		98	39 - 160
Benzene	0.42	J	50.0	49.8		ug/L		99	79 - 120
Bromobenzene	0.50	U	50.0	44.2		ug/L		88	80 - 120
Bromochloromethane	1.0	U	50.0	47.2		ug/L		94	78 - 123
Bromodichloromethane	1.0	U	50.0	53.7		ug/L		107	79 - 125
Bromoform	2.0	U	50.0	45.6		ug/L		91	66 - 130
Bromomethane	10	U Q J1	50.0	53.9		ug/L		108	53 - 141
2-Butanone (MEK)	20	U	250	254		ug/L		102	56 - 143
Carbon disulfide	1.0	U	50.0	50.9		ug/L		102	64 - 133
Carbon tetrachloride	1.0	U	50.0	54.7		ug/L		109	72 - 136
Chlorobenzene	9.5		50.0	56.8		ug/L		95	82 - 118
Chloroethane	10	U J1	50.0	285	J1	ug/L		570	60 - 138
Chloroform	1.0	U	50.0	46.8		ug/L		94	79 - 124
Chloromethane	2.0	U J1	50.0	36.9		ug/L		74	50 - 139
2-Chlorotoluene	0.50	U	50.0	44.7		ug/L		89	79 - 122
4-Chlorotoluene	1.0	U	50.0	43.0		ug/L		86	78 - 122
cis-1,2-Dichloroethene	150	J1	50.0	236	J1	ug/L		166	78 - 123
cis-1,3-Dichloropropene	1.0	U	50.0	51.8		ug/L		104	75 - 124
Cyclohexane	1.0	U Q	50.0	56.2		ug/L		112	71 - 130
Dibromochloromethane	1.0	U	50.0	47.3		ug/L		95	74 - 126
1,2-Dibromo-3-Chloropropane	5.0	U	50.0	51.0		ug/L		102	62 - 128
1,2-Dibromoethane	1.0	U	50.0	50.4		ug/L		101	75 - 127
Dibromomethane	1.0	U	50.0	48.1		ug/L		96	79 - 123
1,2-Dichlorobenzene	6.1		50.0	53.7		ug/L		95	80 - 119
1,3-Dichlorobenzene	0.51	J	50.0	46.1		ug/L		91	80 - 119
1,4-Dichlorobenzene	6.3		50.0	52.0		ug/L		91	79 - 118
Dichlorodifluoromethane	1.0	U Q J1	50.0	65.1		ug/L		130	32 - 152
1,1-Dichloroethane	0.49	J	50.0	47.7		ug/L		94	77 - 125
1,2-Dichloroethane	0.61	J	50.0	47.8		ug/L		94	73 - 128
1,1-Dichloroethene	1.0	U	50.0	51.7		ug/L		103	71 - 131
1,2-Dichloroethene, Total	150	J1	100	286	J1	ug/L		132	79 - 121
1,2-Dichloropropane	0.50	U	50.0	51.8		ug/L		104	78 - 122
1,3-Dichloropropane	1.0	U	50.0	50.0		ug/L		100	80 - 119
2,2-Dichloropropane	1.0	U	50.0	45.4		ug/L		91	60 - 139
1,1-Dichloropropene	1.0	U	50.0	55.9		ug/L		112	79 - 125
Ethylbenzene	0.50	U	50.0	47.6		ug/L		95	79 - 121
Hexachlorobutadiene	1.0	U	50.0	45.9		ug/L		92	66 - 134
2-Hexanone	10	U	250	266		ug/L		106	57 - 139
Isopropylbenzene	1.0	U	50.0	46.5		ug/L		93	72 - 131
4-Isopropyltoluene	1.0	U	50.0	48.0		ug/L		96	77 - 127
Methyl acetate	10	U	100	87.5		ug/L		87	56 - 136
Methylcyclohexane	1.0	U Q	50.0	56.4		ug/L		113	72 - 132
Methylene Chloride	10	U	50.0	45.3		ug/L		91	74 - 124
4-Methyl-2-pentanone (MIBK)	10	U	250	274		ug/L		110	67 - 130
Methyl tert-butyl ether	2.0	U	50.0	53.7		ug/L		107	71 - 124
m-Xylene & p-Xylene	1.0	U	50.0	45.4		ug/L		91	80 - 121
Naphthalene	5.0	U	50.0	53.4		ug/L		107	61 - 128
n-Butylbenzene	2.0	U	50.0	48.7		ug/L		97	75 - 128

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 680-251210-2 MS
Matrix: Water
Analysis Batch: 841256

Client Sample ID: OU6-MW-264-20240523
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
N-Propylbenzene	1.0	U	50.0	45.3		ug/L		91	76 - 126
o-Xylene	1.0	U	50.0	45.6		ug/L		91	78 - 122
sec-Butylbenzene	2.0	U	50.0	46.0		ug/L		92	77 - 126
Styrene	1.0	U	50.0	45.6		ug/L		91	78 - 123
tert-Butylbenzene	1.0	U	50.0	44.9		ug/L		90	78 - 124
1,1,1,2-Tetrachloroethane	1.0	U	50.0	49.4		ug/L		99	78 - 124
1,1,2,2-Tetrachloroethane	1.0	U	50.0	52.6		ug/L		105	71 - 121
Tetrachloroethene	0.69	J	50.0	49.6		ug/L		98	74 - 129
Toluene	1.0	U	50.0	48.4		ug/L		97	80 - 121
trans-1,2-Dichloroethene	0.36	J	50.0	49.8		ug/L		99	75 - 124
trans-1,3-Dichloropropene	1.0	U	50.0	51.8		ug/L		104	73 - 127
1,2,3-Trichlorobenzene	2.0	U	50.0	48.5		ug/L		97	69 - 129
1,2,4-Trichlorobenzene	2.0	U	50.0	45.8		ug/L		92	69 - 130
1,1,1-Trichloroethane	0.50	U	50.0	53.9		ug/L		108	74 - 131
1,1,2-Trichloroethane	1.0	U	50.0	51.2		ug/L		102	80 - 119
Trichloroethene	13		50.0	66.7		ug/L		107	79 - 123
Trichlorofluoromethane	1.0	U Q J1	50.0	44.4		ug/L		89	65 - 141
1,2,3-Trichloropropane	1.0	U	50.0	50.1		ug/L		100	73 - 122
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	50.0	57.5		ug/L		115	70 - 136
1,2,4-Trimethylbenzene	1.0	U	50.0	44.7		ug/L		89	76 - 124
1,3,5-Trimethylbenzene	1.0	U	50.0	45.5		ug/L		91	75 - 124
Vinyl chloride	63	J1	50.0	118		ug/L		111	58 - 137
Xylenes, Total	1.0	U	100	91.0		ug/L		91	79 - 121

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*85 - 114*
Dibromofluoromethane (Surr)	*97*		*80 - 119*
1,2-Dichloroethane-d4 (Surr)	*102*		*81 - 118*
Toluene-d8 (Surr)	*97*		*89 - 112*

Lab Sample ID: 680-251210-2 MSD
Matrix: Water
Analysis Batch: 841256

Client Sample ID: OU6-MW-264-20240523
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acetone	10	U	250	245		ug/L		98	39 - 160	0	20
Benzene	0.42	J	50.0	51.2		ug/L		102	79 - 120	3	20
Bromobenzene	0.50	U	50.0	45.4		ug/L		91	80 - 120	3	20
Bromochloromethane	1.0	U	50.0	47.2		ug/L		94	78 - 123	0	20
Bromodichloromethane	1.0	U	50.0	55.0		ug/L		110	79 - 125	2	20
Bromoform	2.0	U	50.0	47.5		ug/L		95	66 - 130	4	20
Bromomethane	10	U Q J1	50.0	86.4	J1	ug/L		173	53 - 141	46	20
2-Butanone (MEK)	20	U	250	256		ug/L		102	56 - 143	1	20
Carbon disulfide	1.0	U	50.0	52.0		ug/L		104	64 - 133	2	20
Carbon tetrachloride	1.0	U	50.0	57.3		ug/L		115	72 - 136	4	20
Chlorobenzene	9.5		50.0	58.3		ug/L		98	82 - 118	3	20
Chloroethane	10	U J1	50.0	434	J1	ug/L		868	60 - 138	42	20
Chloroform	1.0	U	50.0	48.0		ug/L		96	79 - 124	2	20

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 680-251210-2 MSD
Matrix: Water
Analysis Batch: 841256

Client Sample ID: OU6-MW-264-20240523
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloromethane	2.0	U J1	50.0	57.0	J1	ug/L		114	50 - 139	43	20
2-Chlorotoluene	0.50	U	50.0	46.4		ug/L		93	79 - 122	4	20
4-Chlorotoluene	1.0	U	50.0	44.6		ug/L		89	78 - 122	4	20
cis-1,2-Dichloroethene	150	J1	50.0	233	J1	ug/L		159	78 - 123	2	20
cis-1,3-Dichloropropene	1.0	U	50.0	52.9		ug/L		106	75 - 124	2	20
Cyclohexane	1.0	U Q	50.0	58.4		ug/L		117	71 - 130	4	20
Dibromochloromethane	1.0	U	50.0	48.6		ug/L		97	74 - 126	3	20
1,2-Dibromo-3-Chloropropane	5.0	U	50.0	53.3		ug/L		107	62 - 128	4	20
1,2-Dibromoethane	1.0	U	50.0	51.9		ug/L		104	75 - 127	3	20
Dibromomethane	1.0	U	50.0	48.6		ug/L		97	79 - 123	1	20
1,2-Dichlorobenzene	6.1		50.0	54.7		ug/L		97	80 - 119	2	20
1,3-Dichlorobenzene	0.51	J	50.0	47.2		ug/L		93	80 - 119	2	20
1,4-Dichlorobenzene	6.3		50.0	53.3		ug/L		94	79 - 118	2	20
Dichlorodifluoromethane	1.0	U Q J1	50.0	102	J1	ug/L		203	32 - 152	44	20
1,1-Dichloroethane	0.49	J	50.0	48.5		ug/L		96	77 - 125	2	20
1,2-Dichloroethane	0.61	J	50.0	48.1		ug/L		95	73 - 128	1	20
1,1-Dichloroethene	1.0	U	50.0	53.0		ug/L		106	71 - 131	2	20
1,2-Dichloroethene, Total	150	J1	100	283	J1	ug/L		130	79 - 121	1	20
1,2-Dichloropropane	0.50	U	50.0	52.9		ug/L		106	78 - 122	2	20
1,3-Dichloropropane	1.0	U	50.0	51.1		ug/L		102	80 - 119	2	20
2,2-Dichloropropane	1.0	U	50.0	46.0		ug/L		92	60 - 139	1	20
1,1-Dichloropropene	1.0	U	50.0	57.6		ug/L		115	79 - 125	3	20
Ethylbenzene	0.50	U	50.0	49.3		ug/L		99	79 - 121	4	20
Hexachlorobutadiene	1.0	U	50.0	50.5		ug/L		101	66 - 134	10	20
2-Hexanone	10	U	250	272		ug/L		109	57 - 139	2	20
Isopropylbenzene	1.0	U	50.0	48.6		ug/L		97	72 - 131	4	20
4-Isopropyltoluene	1.0	U	50.0	50.0		ug/L		100	77 - 127	4	20
Methyl acetate	10	U	100	87.0		ug/L		87	56 - 136	0	20
Methylcyclohexane	1.0	U Q	50.0	59.1		ug/L		118	72 - 132	5	20
Methylene Chloride	10	U	50.0	45.8		ug/L		92	74 - 124	1	20
4-Methyl-2-pentanone (MIBK)	10	U	250	280		ug/L		112	67 - 130	2	20
Methyl tert-butyl ether	2.0	U	50.0	54.9		ug/L		110	71 - 124	2	20
m-Xylene & p-Xylene	1.0	U	50.0	47.5		ug/L		95	80 - 121	5	20
Naphthalene	5.0	U	50.0	55.6		ug/L		111	61 - 128	4	20
n-Butylbenzene	2.0	U	50.0	51.0		ug/L		102	75 - 128	5	20
N-Propylbenzene	1.0	U	50.0	47.1		ug/L		94	76 - 126	4	20
o-Xylene	1.0	U	50.0	47.8		ug/L		96	78 - 122	5	20
sec-Butylbenzene	2.0	U	50.0	49.0		ug/L		98	77 - 126	6	20
Styrene	1.0	U	50.0	47.5		ug/L		95	78 - 123	4	20
tert-Butylbenzene	1.0	U	50.0	47.6		ug/L		95	78 - 124	6	20
1,1,1,2-Tetrachloroethane	1.0	U	50.0	51.4		ug/L		103	78 - 124	4	20
1,1,2,2-Tetrachloroethane	1.0	U	50.0	54.3		ug/L		109	71 - 121	3	20
Tetrachloroethene	0.69	J	50.0	51.5		ug/L		102	74 - 129	4	20
Toluene	1.0	U	50.0	49.8		ug/L		100	80 - 121	3	20
trans-1,2-Dichloroethene	0.36	J	50.0	50.7		ug/L		101	75 - 124	2	20
trans-1,3-Dichloropropene	1.0	U	50.0	53.2		ug/L		106	73 - 127	3	20
1,2,3-Trichlorobenzene	2.0	U	50.0	51.1		ug/L		102	69 - 129	5	20
1,2,4-Trichlorobenzene	2.0	U	50.0	48.2		ug/L		96	69 - 130	5	20
1,1,1-Trichloroethane	0.50	U	50.0	55.8		ug/L		112	74 - 131	4	20

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 680-251210-2 MSD
Matrix: Water
Analysis Batch: 841256

Client Sample ID: OU6-MW-264-20240523
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1,2-Trichloroethane	1.0	U	50.0	52.4		ug/L		105	80 - 119	2	20
Trichloroethene	13		50.0	67.8		ug/L		109	79 - 123	2	20
Trichlorofluoromethane	1.0	U Q J1	50.0	70.2	J1	ug/L		140	65 - 141	45	20
1,2,3-Trichloropropane	1.0	U	50.0	51.4		ug/L		103	73 - 122	2	20
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	50.0	58.7		ug/L		117	70 - 136	2	20
1,2,4-Trimethylbenzene	1.0	U	50.0	47.0		ug/L		94	76 - 124	5	20
1,3,5-Trimethylbenzene	1.0	U	50.0	47.3		ug/L		95	75 - 124	4	20
Vinyl chloride	63	J1	50.0	136	J1	ug/L		146	58 - 137	14	20
Xylenes, Total	1.0	U	100	95.3		ug/L		95	79 - 121	5	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*98*		*85 - 114*
Dibromofluoromethane (Surr)	*97*		*80 - 119*
1,2-Dichloroethane-d4 (Surr)	*101*		*81 - 118*
Toluene-d8 (Surr)	*98*		*89 - 112*

Lab Sample ID: MB 680-841505/8
Matrix: Water
Analysis Batch: 841505

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			06/10/24 12:38	1
Benzene	1.0	U	2.0	0.27	ug/L			06/10/24 12:38	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			06/10/24 12:38	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			06/10/24 12:38	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			06/10/24 12:38	1
Bromoform	2.0	U	2.5	0.59	ug/L			06/10/24 12:38	1
Bromomethane	10	U	20	3.7	ug/L			06/10/24 12:38	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			06/10/24 12:38	1
Carbon disulfide	1.0	U	2.0	0.43	ug/L			06/10/24 12:38	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			06/10/24 12:38	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			06/10/24 12:38	1
Chloroethane	10	U	20	4.6	ug/L			06/10/24 12:38	1
Chloroform	1.0	U	2.0	0.27	ug/L			06/10/24 12:38	1
Chloromethane	2.0	U	2.5	0.54	ug/L			06/10/24 12:38	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			06/10/24 12:38	1
4-Chlorotoluene	1.0	U M	2.0	0.41	ug/L			06/10/24 12:38	1
cis-1,2-Dichloroethene	1.0	U	2.0	0.25	ug/L			06/10/24 12:38	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			06/10/24 12:38	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			06/10/24 12:38	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			06/10/24 12:38	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			06/10/24 12:38	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			06/10/24 12:38	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			06/10/24 12:38	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			06/10/24 12:38	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			06/10/24 12:38	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			06/10/24 12:38	1
Dichlorodifluoromethane	1.0	U	2.0	0.36	ug/L			06/10/24 12:38	1

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-841505/8
Matrix: Water
Analysis Batch: 841505

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			06/10/24 12:38	1
1,2-Dichloroethane	1.0	U	2.0	0.25	ug/L			06/10/24 12:38	1
1,1-Dichloroethene	1.0	U	2.0	0.33	ug/L			06/10/24 12:38	1
1,2-Dichloroethene, Total	1.0	U	2.0	0.37	ug/L			06/10/24 12:38	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			06/10/24 12:38	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			06/10/24 12:38	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			06/10/24 12:38	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			06/10/24 12:38	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			06/10/24 12:38	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			06/10/24 12:38	1
2-Hexanone	10	U	20	3.2	ug/L			06/10/24 12:38	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			06/10/24 12:38	1
4-Isopropyltoluene	1.0	U M	2.0	0.44	ug/L			06/10/24 12:38	1
Methyl acetate	10	U	20	3.2	ug/L			06/10/24 12:38	1
Methylcyclohexane	1.0	U M	2.0	0.33	ug/L			06/10/24 12:38	1
Methylene Chloride	10	U	20	3.2	ug/L			06/10/24 12:38	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			06/10/24 12:38	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			06/10/24 12:38	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			06/10/24 12:38	1
Naphthalene	5.0	U	10	2.4	ug/L			06/10/24 12:38	1
n-Butylbenzene	0.585	J	2.5	0.52	ug/L			06/10/24 12:38	1
N-Propylbenzene	1.0	U M	2.0	0.41	ug/L			06/10/24 12:38	1
o-Xylene	1.0	U	2.0	0.26	ug/L			06/10/24 12:38	1
sec-Butylbenzene	2.0	U M	2.5	0.53	ug/L			06/10/24 12:38	1
Styrene	1.0	U	2.0	0.27	ug/L			06/10/24 12:38	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			06/10/24 12:38	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			06/10/24 12:38	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			06/10/24 12:38	1
Tetrachloroethene	1.0	U	2.0	0.35	ug/L			06/10/24 12:38	1
Toluene	1.0	U	2.0	0.25	ug/L			06/10/24 12:38	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			06/10/24 12:38	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			06/10/24 12:38	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			06/10/24 12:38	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			06/10/24 12:38	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			06/10/24 12:38	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			06/10/24 12:38	1
Trichloroethene	0.50	U	1.0	0.20	ug/L			06/10/24 12:38	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			06/10/24 12:38	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			06/10/24 12:38	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			06/10/24 12:38	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			06/10/24 12:38	1
1,3,5-Trimethylbenzene	1.0	U M	2.0	0.28	ug/L			06/10/24 12:38	1
Vinyl chloride	1.0	U	2.0	0.40	ug/L			06/10/24 12:38	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			06/10/24 12:38	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*85 - 114*		*06/10/24 12:38*	*1*
Dibromofluoromethane (Surr)	*102*		*80 - 119*		*06/10/24 12:38*	*1*

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-841505/8
Matrix: Water
Analysis Batch: 841505

Client Sample ID: Method Blank
Prep Type: Total/NA

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		81 - 118		06/10/24 12:38	1
Toluene-d8 (Surr)	104		89 - 112		06/10/24 12:38	1

Lab Sample ID: LCS 680-841505/4
Matrix: Water
Analysis Batch: 841505

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	250	269		ug/L		108	39 - 160
Benzene	50.0	54.9		ug/L		110	79 - 120
Bromobenzene	50.0	48.5		ug/L		97	80 - 120
Bromochloromethane	50.0	59.5		ug/L		119	78 - 123
Bromodichloromethane	50.0	44.6		ug/L		89	79 - 125
Bromoform	50.0	40.2		ug/L		80	66 - 130
Bromomethane	50.0	126	Q	ug/L		253	53 - 141
2-Butanone (MEK)	250	262		ug/L		105	56 - 143
Carbon disulfide	50.0	53.0		ug/L		106	64 - 133
Carbon tetrachloride	50.0	45.0		ug/L		90	72 - 136
Chlorobenzene	50.0	50.8		ug/L		102	82 - 118
Chloroethane	50.0	82.4	Q	ug/L		165	60 - 138
Chloroform	50.0	55.3		ug/L		111	79 - 124
Chloromethane	50.0	56.9		ug/L		114	50 - 139
2-Chlorotoluene	50.0	53.7		ug/L		107	79 - 122
4-Chlorotoluene	50.0	58.1		ug/L		116	78 - 122
cis-1,2-Dichloroethene	50.0	54.4		ug/L		109	78 - 123
cis-1,3-Dichloropropene	50.0	43.1		ug/L		86	75 - 124
Cyclohexane	50.0	54.6		ug/L		109	71 - 130
Dibromochloromethane	50.0	48.8		ug/L		98	74 - 126
1,2-Dibromo-3-Chloropropane	50.0	34.7		ug/L		69	62 - 128
1,2-Dibromoethane	50.0	46.3		ug/L		93	75 - 127
Dibromomethane	50.0	49.2		ug/L		98	79 - 123
1,2-Dichlorobenzene	50.0	50.2		ug/L		100	80 - 119
1,3-Dichlorobenzene	50.0	54.5		ug/L		109	80 - 119
1,4-Dichlorobenzene	50.0	52.3		ug/L		105	79 - 118
Dichlorodifluoromethane	50.0	56.6		ug/L		113	32 - 152
1,1-Dichloroethane	50.0	52.6		ug/L		105	77 - 125
1,2-Dichloroethane	50.0	54.6		ug/L		109	73 - 128
1,1-Dichloroethene	50.0	49.2		ug/L		98	71 - 131
1,2-Dichloroethene, Total	100	108		ug/L		108	79 - 121
1,2-Dichloropropane	50.0	50.0		ug/L		100	78 - 122
1,3-Dichloropropane	50.0	54.1		ug/L		108	80 - 119
2,2-Dichloropropane	50.0	51.1		ug/L		102	60 - 139
1,1-Dichloropropene	50.0	52.9		ug/L		106	79 - 125
Ethylbenzene	50.0	57.0		ug/L		114	79 - 121
Hexachlorobutadiene	50.0	37.0		ug/L		74	66 - 134
2-Hexanone	250	264		ug/L		105	57 - 139
Isopropylbenzene	50.0	51.3		ug/L		103	72 - 131
4-Isopropyltoluene	50.0	53.2		ug/L		106	77 - 127

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-841505/4
Matrix: Water
Analysis Batch: 841505

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Methyl acetate	100	115		ug/L		115	56 - 136
Methylcyclohexane	50.0	49.9		ug/L		100	72 - 132
Methylene Chloride	50.0	50.2		ug/L		100	74 - 124
4-Methyl-2-pentanone (MIBK)	250	263		ug/L		105	67 - 130
Methyl tert-butyl ether	50.0	50.1		ug/L		100	71 - 124
m-Xylene & p-Xylene	50.0	55.9		ug/L		112	80 - 121
Naphthalene	50.0	40.1		ug/L		80	61 - 128
n-Butylbenzene	50.0	49.3		ug/L		99	75 - 128
N-Propylbenzene	50.0	53.2		ug/L		106	76 - 126
o-Xylene	50.0	58.0		ug/L		116	78 - 122
sec-Butylbenzene	50.0	55.7		ug/L		111	77 - 126
Styrene	50.0	57.9		ug/L		116	78 - 123
tert-Butylbenzene	50.0	52.1		ug/L		104	78 - 124
1,1,1,2-Tetrachloroethane	50.0	50.0		ug/L		100	78 - 124
1,1,2,2-Tetrachloroethane	50.0	53.1		ug/L		106	71 - 121
Tetrachloroethene	50.0	40.3		ug/L		81	74 - 129
Toluene	50.0	52.2		ug/L		104	80 - 121
trans-1,2-Dichloroethene	50.0	53.5		ug/L		107	75 - 124
trans-1,3-Dichloropropene	50.0	44.7		ug/L		89	73 - 127
1,2,3-Trichlorobenzene	50.0	40.2		ug/L		80	69 - 129
1,2,4-Trichlorobenzene	50.0	34.6		ug/L		69	69 - 130
1,1,1-Trichloroethane	50.0	46.8		ug/L		94	74 - 131
1,1,2-Trichloroethane	50.0	48.4		ug/L		97	80 - 119
Trichloroethene	50.0	46.9		ug/L		94	79 - 123
Trichlorofluoromethane	50.0	50.9		ug/L		102	65 - 141
1,2,3-Trichloropropane	50.0	51.6		ug/L		103	73 - 122
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	51.2		ug/L		102	70 - 136
1,2,4-Trimethylbenzene	50.0	57.3		ug/L		115	76 - 124
1,3,5-Trimethylbenzene	50.0	54.8		ug/L		110	75 - 124
Vinyl chloride	50.0	57.4		ug/L		115	58 - 137
Xylenes, Total	100	114		ug/L		114	79 - 121

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*86*		*85 - 114*
Dibromofluoromethane (Surr)	*107*		*80 - 119*
1,2-Dichloroethane-d4 (Surr)	*101*		*81 - 118*
Toluene-d8 (Surr)	*102*		*89 - 112*

Lab Sample ID: LCSD 680-841505/5
Matrix: Water
Analysis Batch: 841505

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acetone	250	281		ug/L		112	39 - 160	4	20
Benzene	50.0	54.5		ug/L		109	79 - 120	1	20
Bromobenzene	50.0	48.0		ug/L		96	80 - 120	1	20
Bromochloromethane	50.0	60.2		ug/L		120	78 - 123	1	20
Bromodichloromethane	50.0	46.0		ug/L		92	79 - 125	3	20

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-841505/5
Matrix: Water
Analysis Batch: 841505

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Bromoform	50.0	42.4		ug/L		85	66 - 130	5	20
Bromomethane	50.0	119	Q	ug/L		239	53 - 141	6	20
2-Butanone (MEK)	250	270		ug/L		108	56 - 143	3	20
Carbon disulfide	50.0	52.1		ug/L		104	64 - 133	2	20
Carbon tetrachloride	50.0	45.1		ug/L		90	72 - 136	0	20
Chlorobenzene	50.0	50.8		ug/L		102	82 - 118	0	20
Chloroethane	50.0	76.6	Q	ug/L		153	60 - 138	7	20
Chloroform	50.0	54.7		ug/L		109	79 - 124	1	20
Chloromethane	50.0	54.9		ug/L		110	50 - 139	4	20
2-Chlorotoluene	50.0	53.7		ug/L		107	79 - 122	0	20
4-Chlorotoluene	50.0	57.7		ug/L		115	78 - 122	1	20
cis-1,2-Dichloroethene	50.0	53.3		ug/L		107	78 - 123	2	20
cis-1,3-Dichloropropene	50.0	43.3		ug/L		87	75 - 124	1	20
Cyclohexane	50.0	53.7		ug/L		107	71 - 130	2	20
Dibromochloromethane	50.0	48.5		ug/L		97	74 - 126	1	20
1,2-Dibromo-3-Chloropropane	50.0	35.8		ug/L		72	62 - 128	3	20
1,2-Dibromoethane	50.0	46.6		ug/L		93	75 - 127	1	20
Dibromomethane	50.0	49.1		ug/L		98	79 - 123	0	20
1,2-Dichlorobenzene	50.0	51.5		ug/L		103	80 - 119	2	20
1,3-Dichlorobenzene	50.0	54.1		ug/L		108	80 - 119	1	20
1,4-Dichlorobenzene	50.0	52.3		ug/L		105	79 - 118	0	20
Dichlorodifluoromethane	50.0	54.4		ug/L		109	32 - 152	4	20
1,1-Dichloroethane	50.0	52.5		ug/L		105	77 - 125	0	20
1,2-Dichloroethane	50.0	55.6		ug/L		111	73 - 128	2	20
1,1-Dichloroethene	50.0	48.8		ug/L		98	71 - 131	1	20
1,2-Dichloroethene, Total	100	106		ug/L		106	79 - 121	2	20
1,2-Dichloropropane	50.0	49.6		ug/L		99	78 - 122	1	20
1,3-Dichloropropane	50.0	54.1		ug/L		108	80 - 119	0	20
2,2-Dichloropropane	50.0	49.9		ug/L		100	60 - 139	2	20
1,1-Dichloropropene	50.0	52.1		ug/L		104	79 - 125	2	20
Ethylbenzene	50.0	57.8		ug/L		116	79 - 121	1	20
Hexachlorobutadiene	50.0	36.3		ug/L		73	66 - 134	2	20
2-Hexanone	250	275		ug/L		110	57 - 139	4	20
Isopropylbenzene	50.0	51.7		ug/L		103	72 - 131	1	20
4-Isopropyltoluene	50.0	53.0		ug/L		106	77 - 127	0	20
Methyl acetate	100	121		ug/L		121	56 - 136	5	20
Methylcyclohexane	50.0	49.3		ug/L		99	72 - 132	1	20
Methylene Chloride	50.0	49.6		ug/L		99	74 - 124	1	20
4-Methyl-2-pentanone (MIBK)	250	272		ug/L		109	67 - 130	3	20
Methyl tert-butyl ether	50.0	51.5		ug/L		103	71 - 124	3	20
m-Xylene & p-Xylene	50.0	57.1		ug/L		114	80 - 121	2	20
Naphthalene	50.0	41.3		ug/L		83	61 - 128	3	20
n-Butylbenzene	50.0	48.6		ug/L		97	75 - 128	1	20
N-Propylbenzene	50.0	54.3		ug/L		109	76 - 126	2	20
o-Xylene	50.0	58.1		ug/L		116	78 - 122	0	20
sec-Butylbenzene	50.0	55.5		ug/L		111	77 - 126	0	20
Styrene	50.0	57.4		ug/L		115	78 - 123	1	20
tert-Butylbenzene	50.0	51.5		ug/L		103	78 - 124	1	20
1,1,1,2-Tetrachloroethane	50.0	51.1		ug/L		102	78 - 124	2	20

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-841505/5
Matrix: Water
Analysis Batch: 841505

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1,2,2-Tetrachloroethane			50.0	53.4		ug/L		107	71 - 121	1	20
Tetrachloroethene			50.0	40.1		ug/L		80	74 - 129	1	20
Toluene			50.0	52.1		ug/L		104	80 - 121	0	20
trans-1,2-Dichloroethene			50.0	52.5		ug/L		105	75 - 124	2	20
trans-1,3-Dichloropropene			50.0	45.1		ug/L		90	73 - 127	1	20
1,2,3-Trichlorobenzene			50.0	40.9		ug/L		82	69 - 129	2	20
1,2,4-Trichlorobenzene			50.0	36.4		ug/L		73	69 - 130	5	20
1,1,1-Trichloroethane			50.0	46.6		ug/L		93	74 - 131	1	20
1,1,2-Trichloroethane			50.0	50.2		ug/L		100	80 - 119	4	20
Trichloroethene			50.0	46.0		ug/L		92	79 - 123	2	20
Trichlorofluoromethane			50.0	49.5		ug/L		99	65 - 141	3	20
1,2,3-Trichloropropane			50.0	53.6		ug/L		107	73 - 122	4	20
1,1,2-Trichloro-1,2,2-trifluoroethane			50.0	50.5		ug/L		101	70 - 136	1	20
1,2,4-Trimethylbenzene			50.0	57.2		ug/L		114	76 - 124	0	20
1,3,5-Trimethylbenzene			50.0	54.9		ug/L		110	75 - 124	0	20
Vinyl chloride			50.0	56.9		ug/L		114	58 - 137	1	20
Xylenes, Total			100	115		ug/L		115	79 - 121	1	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*86*	*M*	*85 - 114*
Dibromofluoromethane (Surr)	*106*		*80 - 119*
1,2-Dichloroethane-d4 (Surr)	*102*		*81 - 118*
Toluene-d8 (Surr)	*101*		*89 - 112*

Lab Sample ID: MB 680-841754/9
Matrix: Water
Analysis Batch: 841754

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			06/11/24 12:31	1
Benzene	1.0	U	2.0	0.27	ug/L			06/11/24 12:31	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			06/11/24 12:31	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			06/11/24 12:31	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			06/11/24 12:31	1
Bromoform	2.0	U	2.5	0.59	ug/L			06/11/24 12:31	1
Bromomethane	10	U	20	3.7	ug/L			06/11/24 12:31	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			06/11/24 12:31	1
Carbon disulfide	1.0	U	2.0	0.43	ug/L			06/11/24 12:31	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			06/11/24 12:31	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			06/11/24 12:31	1
Chloroethane	10	U	20	4.6	ug/L			06/11/24 12:31	1
Chloroform	1.0	U	2.0	0.27	ug/L			06/11/24 12:31	1
Chloromethane	2.0	U	2.5	0.54	ug/L			06/11/24 12:31	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			06/11/24 12:31	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			06/11/24 12:31	1
cis-1,2-Dichloroethene	1.0	U	2.0	0.25	ug/L			06/11/24 12:31	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			06/11/24 12:31	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			06/11/24 12:31	1

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-841754/9
Matrix: Water
Analysis Batch: 841754

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			06/11/24 12:31	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			06/11/24 12:31	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			06/11/24 12:31	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			06/11/24 12:31	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			06/11/24 12:31	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			06/11/24 12:31	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			06/11/24 12:31	1
Dichlorodifluoromethane	1.0	U	2.0	0.36	ug/L			06/11/24 12:31	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			06/11/24 12:31	1
1,2-Dichloroethane	1.0	U M	2.0	0.25	ug/L			06/11/24 12:31	1
1,1-Dichloroethene	1.0	U	2.0	0.33	ug/L			06/11/24 12:31	1
1,2-Dichloroethene, Total	1.0	U	2.0	0.37	ug/L			06/11/24 12:31	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			06/11/24 12:31	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			06/11/24 12:31	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			06/11/24 12:31	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			06/11/24 12:31	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			06/11/24 12:31	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			06/11/24 12:31	1
2-Hexanone	10	U	20	3.2	ug/L			06/11/24 12:31	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			06/11/24 12:31	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			06/11/24 12:31	1
Methyl acetate	10	U	20	3.2	ug/L			06/11/24 12:31	1
Methylcyclohexane	1.0	U	2.0	0.33	ug/L			06/11/24 12:31	1
Methylene Chloride	10	U	20	3.2	ug/L			06/11/24 12:31	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			06/11/24 12:31	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			06/11/24 12:31	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			06/11/24 12:31	1
Naphthalene	5.0	U	10	2.4	ug/L			06/11/24 12:31	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			06/11/24 12:31	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			06/11/24 12:31	1
o-Xylene	1.0	U	2.0	0.26	ug/L			06/11/24 12:31	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			06/11/24 12:31	1
Styrene	1.0	U	2.0	0.27	ug/L			06/11/24 12:31	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			06/11/24 12:31	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			06/11/24 12:31	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			06/11/24 12:31	1
Tetrachloroethene	1.0	U	2.0	0.35	ug/L			06/11/24 12:31	1
Toluene	1.0	U	2.0	0.25	ug/L			06/11/24 12:31	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			06/11/24 12:31	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			06/11/24 12:31	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			06/11/24 12:31	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			06/11/24 12:31	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			06/11/24 12:31	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			06/11/24 12:31	1
Trichloroethene	0.50	U	1.0	0.20	ug/L			06/11/24 12:31	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			06/11/24 12:31	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			06/11/24 12:31	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			06/11/24 12:31	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			06/11/24 12:31	1

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-841754/9
Matrix: Water
Analysis Batch: 841754

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			06/11/24 12:31	1
Vinyl chloride	1.0	U	2.0	0.40	ug/L			06/11/24 12:31	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			06/11/24 12:31	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*85 - 114*		*06/11/24 12:31*	*1*
Dibromofluoromethane (Surr)	*91*		*80 - 119*		*06/11/24 12:31*	*1*
1,2-Dichloroethane-d4 (Surr)	*94*		*81 - 118*		*06/11/24 12:31*	*1*
Toluene-d8 (Surr)	*94*		*89 - 112*		*06/11/24 12:31*	*1*

Lab Sample ID: LCS 680-841754/4
Matrix: Water
Analysis Batch: 841754

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	250	262		ug/L		105	39 - 160
Benzene	50.0	50.8		ug/L		102	79 - 120
Bromobenzene	50.0	48.3		ug/L		97	80 - 120
Bromochloromethane	50.0	47.8		ug/L		96	78 - 123
Bromodichloromethane	50.0	53.4		ug/L		107	79 - 125
Bromoform	50.0	45.8		ug/L		92	66 - 130
2-Butanone (MEK)	250	262		ug/L		105	56 - 143
Carbon disulfide	50.0	52.1		ug/L		104	64 - 133
Carbon tetrachloride	50.0	52.9		ug/L		106	72 - 136
Chlorobenzene	50.0	49.4		ug/L		99	82 - 118
Chloroethane	50.0	51.2		ug/L		102	60 - 138
Chloroform	50.0	48.4		ug/L		97	79 - 124
Chloromethane	50.0	55.0		ug/L		110	50 - 139
2-Chlorotoluene	50.0	48.6		ug/L		97	79 - 122
4-Chlorotoluene	50.0	47.9		ug/L		96	78 - 122
cis-1,2-Dichloroethene	50.0	48.1		ug/L		96	78 - 123
cis-1,3-Dichloropropene	50.0	54.3		ug/L		109	75 - 124
Cyclohexane	50.0	56.2		ug/L		112	71 - 130
Dibromochloromethane	50.0	46.4		ug/L		93	74 - 126
1,2-Dibromo-3-Chloropropane	50.0	50.9		ug/L		102	62 - 128
1,2-Dibromoethane	50.0	51.5		ug/L		103	75 - 127
Dibromomethane	50.0	48.6		ug/L		97	79 - 123
1,2-Dichlorobenzene	50.0	50.1		ug/L		100	80 - 119
1,3-Dichlorobenzene	50.0	49.7		ug/L		99	80 - 119
1,4-Dichlorobenzene	50.0	49.7		ug/L		99	79 - 118
1,1-Dichloroethane	50.0	48.3		ug/L		97	77 - 125
1,2-Dichloroethane	50.0	47.5		ug/L		95	73 - 128
1,1-Dichloroethene	50.0	52.5		ug/L		105	71 - 131
1,2-Dichloroethene, Total	100	99.1		ug/L		99	79 - 121
1,2-Dichloropropane	50.0	52.7		ug/L		105	78 - 122
1,3-Dichloropropane	50.0	51.3		ug/L		103	80 - 119
2,2-Dichloropropane	50.0	53.5		ug/L		107	60 - 139
1,1-Dichloropropene	50.0	56.0		ug/L		112	79 - 125

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-841754/4
Matrix: Water
Analysis Batch: 841754

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	50.0	50.5		ug/L		101	79 - 121
Hexachlorobutadiene	50.0	52.5		ug/L		105	66 - 134
2-Hexanone	250	272		ug/L		109	57 - 139
Isopropylbenzene	50.0	50.0		ug/L		100	72 - 131
4-Isopropyltoluene	50.0	52.4		ug/L		105	77 - 127
Methyl acetate	100	95.9		ug/L		96	56 - 136
Methylcyclohexane	50.0	55.0		ug/L		110	72 - 132
Methylene Chloride	50.0	46.3		ug/L		93	74 - 124
4-Methyl-2-pentanone (MIBK)	250	277		ug/L		111	67 - 130
Methyl tert-butyl ether	50.0	53.4		ug/L		107	71 - 124
m-Xylene & p-Xylene	50.0	48.7		ug/L		97	80 - 121
Naphthalene	50.0	55.0		ug/L		110	61 - 128
n-Butylbenzene	50.0	54.3		ug/L		109	75 - 128
N-Propylbenzene	50.0	49.0		ug/L		98	76 - 126
o-Xylene	50.0	49.0		ug/L		98	78 - 122
sec-Butylbenzene	50.0	51.6		ug/L		103	77 - 126
Styrene	50.0	49.1		ug/L		98	78 - 123
tert-Butylbenzene	50.0	50.0		ug/L		100	78 - 124
1,1,1,2-Tetrachloroethane	50.0	50.9		ug/L		102	78 - 124
1,1,2,2-Tetrachloroethane	50.0	54.8		ug/L		110	71 - 121
Tetrachloroethene	50.0	49.0		ug/L		98	74 - 129
Toluene	50.0	49.0		ug/L		98	80 - 121
trans-1,2-Dichloroethene	50.0	51.0		ug/L		102	75 - 124
trans-1,3-Dichloropropene	50.0	54.7		ug/L		109	73 - 127
1,2,3-Trichlorobenzene	50.0	51.5		ug/L		103	69 - 129
1,2,4-Trichlorobenzene	50.0	50.6		ug/L		101	69 - 130
1,1,1-Trichloroethane	50.0	53.4		ug/L		107	74 - 131
1,1,2-Trichloroethane	50.0	52.4		ug/L		105	80 - 119
Trichloroethene	50.0	51.3		ug/L		103	79 - 123
Trichlorofluoromethane	50.0	61.9		ug/L		124	65 - 141
1,2,3-Trichloropropane	50.0	52.7		ug/L		105	73 - 122
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	54.5		ug/L		109	70 - 136
1,2,4-Trimethylbenzene	50.0	50.4		ug/L		101	76 - 124
1,3,5-Trimethylbenzene	50.0	50.6		ug/L		101	75 - 124
Vinyl chloride	50.0	54.5		ug/L		109	58 - 137
Xylenes, Total	100	97.7		ug/L		98	79 - 121

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*85 - 114*
Dibromofluoromethane (Surr)	*99*		*80 - 119*
1,2-Dichloroethane-d4 (Surr)	*102*		*81 - 118*
Toluene-d8 (Surr)	*97*		*89 - 112*

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-841754/5
Matrix: Water
Analysis Batch: 841754

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acetone			250	263		ug/L		105	39 - 160	1	20
Benzene			50.0	50.6		ug/L		101	79 - 120	0	20
Bromobenzene			50.0	48.6		ug/L		97	80 - 120	1	20
Bromochloromethane			50.0	46.9		ug/L		94	78 - 123	2	20
Bromodichloromethane			50.0	53.3		ug/L		107	79 - 125	0	20
Bromoform			50.0	46.5		ug/L		93	66 - 130	1	20
2-Butanone (MEK)			250	261		ug/L		104	56 - 143	0	20
Carbon disulfide			50.0	55.2		ug/L		110	64 - 133	6	20
Carbon tetrachloride			50.0	57.6		ug/L		115	72 - 136	8	20
Chlorobenzene			50.0	49.6		ug/L		99	82 - 118	0	20
Chloroethane			50.0	51.7		ug/L		103	60 - 138	1	20
Chloroform			50.0	48.0		ug/L		96	79 - 124	1	20
Chloromethane			50.0	55.7		ug/L		111	50 - 139	1	20
2-Chlorotoluene			50.0	48.8		ug/L		98	79 - 122	1	20
4-Chlorotoluene			50.0	48.9		ug/L		98	78 - 122	2	20
cis-1,2-Dichloroethene			50.0	47.9		ug/L		96	78 - 123	0	20
cis-1,3-Dichloropropene			50.0	54.2		ug/L		108	75 - 124	0	20
Cyclohexane			50.0	65.0		ug/L		130	71 - 130	14	20
Dibromochloromethane			50.0	46.6		ug/L		93	74 - 126	0	20
1,2-Dibromo-3-Chloropropane			50.0	51.1		ug/L		102	62 - 128	0	20
1,2-Dibromoethane			50.0	51.8		ug/L		104	75 - 127	1	20
Dibromomethane			50.0	48.5		ug/L		97	79 - 123	0	20
1,2-Dichlorobenzene			50.0	50.3		ug/L		101	80 - 119	0	20
1,3-Dichlorobenzene			50.0	49.8		ug/L		100	80 - 119	0	20
1,4-Dichlorobenzene			50.0	49.9		ug/L		100	79 - 118	1	20
1,1-Dichloroethane			50.0	48.0		ug/L		96	77 - 125	1	20
1,2-Dichloroethane			50.0	47.1		ug/L		94	73 - 128	1	20
1,1-Dichloroethene			50.0	56.5		ug/L		113	71 - 131	7	20
1,2-Dichloroethene, Total			100	100		ug/L		100	79 - 121	1	20
1,2-Dichloropropane			50.0	52.9		ug/L		106	78 - 122	0	20
1,3-Dichloropropane			50.0	51.9		ug/L		104	80 - 119	1	20
2,2-Dichloropropane			50.0	54.6		ug/L		109	60 - 139	2	20
1,1-Dichloropropene			50.0	59.4		ug/L		119	79 - 125	6	20
Ethylbenzene			50.0	52.0		ug/L		104	79 - 121	3	20
Hexachlorobutadiene			50.0	58.6		ug/L		117	66 - 134	11	20
2-Hexanone			250	278		ug/L		111	57 - 139	2	20
Isopropylbenzene			50.0	52.3		ug/L		105	72 - 131	4	20
4-Isopropyltoluene			50.0	55.6		ug/L		111	77 - 127	6	20
Methyl acetate			100	96.6		ug/L		97	56 - 136	1	20
Methylcyclohexane			50.0	65.4		ug/L		131	72 - 132	17	20
Methylene Chloride			50.0	45.5		ug/L		91	74 - 124	2	20
4-Methyl-2-pentanone (MIBK)			250	282		ug/L		113	67 - 130	2	20
Methyl tert-butyl ether			50.0	53.6		ug/L		107	71 - 124	0	20
m-Xylene & p-Xylene			50.0	50.2		ug/L		100	80 - 121	3	20
Naphthalene			50.0	56.4		ug/L		113	61 - 128	2	20
n-Butylbenzene			50.0	58.2		ug/L		116	75 - 128	7	20
N-Propylbenzene			50.0	52.1		ug/L		104	76 - 126	6	20
o-Xylene			50.0	49.4		ug/L		99	78 - 122	1	20

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-841754/5
Matrix: Water
Analysis Batch: 841754

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
sec-Butylbenzene			50.0	55.2		ug/L		110	77 - 126	7	20
Styrene			50.0	49.3		ug/L		99	78 - 123	0	20
tert-Butylbenzene			50.0	52.6		ug/L		105	78 - 124	5	20
1,1,1,2-Tetrachloroethane			50.0	51.1		ug/L		102	78 - 124	0	20
1,1,2,2-Tetrachloroethane			50.0	55.5		ug/L		111	71 - 121	1	20
Tetrachloroethene			50.0	53.5		ug/L		107	74 - 129	9	20
Toluene			50.0	49.6		ug/L		99	80 - 121	1	20
trans-1,2-Dichloroethene			50.0	52.3		ug/L		105	75 - 124	2	20
trans-1,3-Dichloropropene			50.0	54.6		ug/L		109	73 - 127	0	20
1,2,3-Trichlorobenzene			50.0	53.5		ug/L		107	69 - 129	4	20
1,2,4-Trichlorobenzene			50.0	51.4		ug/L		103	69 - 130	2	20
1,1,1-Trichloroethane			50.0	56.3		ug/L		113	74 - 131	5	20
1,1,2-Trichloroethane			50.0	52.7		ug/L		105	80 - 119	1	20
Trichloroethene			50.0	53.7		ug/L		107	79 - 123	5	20
Trichlorofluoromethane			50.0	69.2		ug/L		138	65 - 141	11	20
1,2,3-Trichloropropane			50.0	53.1		ug/L		106	73 - 122	1	20
1,1,2-Trichloro-1,2,2-trifluoroethane			50.0	64.9		ug/L		130	70 - 136	17	20
1,2,4-Trimethylbenzene			50.0	51.1		ug/L		102	76 - 124	1	20
1,3,5-Trimethylbenzene			50.0	52.4		ug/L		105	75 - 124	4	20
Vinyl chloride			50.0	57.5		ug/L		115	58 - 137	5	20
Xylenes, Total			100	99.6		ug/L		100	79 - 121	2	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*85 - 114*
Dibromofluoromethane (Surr)	*99*		*80 - 119*
1,2-Dichloroethane-d4 (Surr)	*101*		*81 - 118*
Toluene-d8 (Surr)	*99*		*89 - 112*

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 680-839856/1-A
Matrix: Water
Analysis Batch: 839928

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 839856

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	10	U M	20	4.6	ug/L		05/28/24 07:00	05/28/24 14:11	1
1,2,4,5-Tetrachlorobenzene	10	U	20	4.5	ug/L		05/28/24 07:00	05/28/24 14:11	1
1,4-Dioxane	10	U	20	4.4	ug/L		05/28/24 07:00	05/28/24 14:11	1
2,3,4,6-Tetrachlorophenol	10	U	20	4.3	ug/L		05/28/24 07:00	05/28/24 14:11	1
2,4,5-Trichlorophenol	10	U	20	3.3	ug/L		05/28/24 07:00	05/28/24 14:11	1
2,4,6-Trichlorophenol	5.0	U	20	2.2	ug/L		05/28/24 07:00	05/28/24 14:11	1
2,4-Dichlorophenol	10	U	20	3.7	ug/L		05/28/24 07:00	05/28/24 14:11	1
2,4-Dimethylphenol	10	U	20	3.0	ug/L		05/28/24 07:00	05/28/24 14:11	1
2,4-Dinitrophenol	40	U	50	16	ug/L		05/28/24 07:00	05/28/24 14:11	1
2,4-Dinitrotoluene	5.0	U	10	2.3	ug/L		05/28/24 07:00	05/28/24 14:11	1
2,6-Dinitrotoluene	10	U	20	2.8	ug/L		05/28/24 07:00	05/28/24 14:11	1
2-Chloronaphthalene	10	U	20	4.8	ug/L		05/28/24 07:00	05/28/24 14:11	1
2-Chlorophenol	10	U	20	3.2	ug/L		05/28/24 07:00	05/28/24 14:11	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-839856/1-A
Matrix: Water
Analysis Batch: 839928

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 839856

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylphenol	4.0	U	10	1.8	ug/L		05/28/24 07:00	05/28/24 14:11	1
2-Nitroaniline	10	U M	20	2.9	ug/L		05/28/24 07:00	05/28/24 14:11	1
2-Nitrophenol	10	U	20	3.9	ug/L		05/28/24 07:00	05/28/24 14:11	1
3 & 4 Methylphenol	4.0	U	10	1.4	ug/L		05/28/24 07:00	05/28/24 14:11	1
3,3'-Dichlorobenzidine	20	U	50	10	ug/L		05/28/24 07:00	05/28/24 14:11	1
3-Nitroaniline	10	U	50	3.0	ug/L		05/28/24 07:00	05/28/24 14:11	1
4,6-Dinitro-2-methylphenol	20	U	50	5.3	ug/L		05/28/24 07:00	05/28/24 14:11	1
4-Bromophenyl phenyl ether	10	U	20	4.7	ug/L		05/28/24 07:00	05/28/24 14:11	1
4-Chloro-3-methylphenol	10	U	20	2.5	ug/L		05/28/24 07:00	05/28/24 14:11	1
4-Chloroaniline	4.0	U	10	1.0	ug/L		05/28/24 07:00	05/28/24 14:11	1
4-Chlorophenyl phenyl ether	12	U	20	5.3	ug/L		05/28/24 07:00	05/28/24 14:11	1
4-Nitroaniline	10	U	50	3.0	ug/L		05/28/24 07:00	05/28/24 14:11	1
4-Nitrophenol	20	U	50	8.1	ug/L		05/28/24 07:00	05/28/24 14:11	1
Acetophenone	5.0	U	10	2.2	ug/L		05/28/24 07:00	05/28/24 14:11	1
Atrazine	5.0	U	10	2.2	ug/L		05/28/24 07:00	05/28/24 14:11	1
Benzaldehyde	10	U	20	4.8	ug/L		05/28/24 07:00	05/28/24 14:11	1
bis (2-chloroisopropyl) ether	10	U	20	3.1	ug/L		05/28/24 07:00	05/28/24 14:11	1
Bis(2-chloroethoxy)methane	4.0	U	10	1.8	ug/L		05/28/24 07:00	05/28/24 14:11	1
Bis(2-chloroethyl)ether	10	U	20	3.6	ug/L		05/28/24 07:00	05/28/24 14:11	1
Bis(2-ethylhexyl) phthalate	10	U	20	3.0	ug/L		05/28/24 07:00	05/28/24 14:11	1
Butyl benzyl phthalate	10	U	20	2.8	ug/L		05/28/24 07:00	05/28/24 14:11	1
Caprolactam	10	U	20	2.8	ug/L		05/28/24 07:00	05/28/24 14:11	1
Carbazole	4.0	U	10	1.8	ug/L		05/28/24 07:00	05/28/24 14:11	1
Dibenzofuran	4.0	U	10	1.9	ug/L		05/28/24 07:00	05/28/24 14:11	1
Diethyl phthalate	5.0	U	10	2.2	ug/L		05/28/24 07:00	05/28/24 14:11	1
Dimethyl phthalate	5.0	U	10	2.1	ug/L		05/28/24 07:00	05/28/24 14:11	1
Di-n-butyl phthalate	5.0	U	10	2.3	ug/L		05/28/24 07:00	05/28/24 14:11	1
Di-n-octyl phthalate	10	U M	20	2.8	ug/L		05/28/24 07:00	05/28/24 14:11	1
Hexachlorobenzene	4.0	U	10	1.6	ug/L		05/28/24 07:00	05/28/24 14:11	1
Hexachlorobutadiene	10	U	20	4.0	ug/L		05/28/24 07:00	05/28/24 14:11	1
Hexachlorocyclopentadiene	10	U	20	3.5	ug/L		05/28/24 07:00	05/28/24 14:11	1
Hexachloroethane	10	U	20	3.6	ug/L		05/28/24 07:00	05/28/24 14:11	1
Isophorone	4.0	U	10	2.0	ug/L		05/28/24 07:00	05/28/24 14:11	1
Nitrobenzene	10	U	20	3.5	ug/L		05/28/24 07:00	05/28/24 14:11	1
N-Nitrosodi-n-propylamine	5.0	U	10	2.4	ug/L		05/28/24 07:00	05/28/24 14:11	1
N-Nitrosodiphenylamine	10	U	20	2.9	ug/L		05/28/24 07:00	05/28/24 14:11	1
Pentachlorophenol	20	U	50	9.9	ug/L		05/28/24 07:00	05/28/24 14:11	1
Phenol	4.0	U	10	1.5	ug/L		05/28/24 07:00	05/28/24 14:11	1
Pyridine	20	U	50	7.4	ug/L		05/28/24 07:00	05/28/24 14:11	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*75*		*43 - 140*	*05/28/24 07:00*	*05/28/24 14:11*	*1*
2-Fluorobiphenyl	*71*		*44 - 119*	*05/28/24 07:00*	*05/28/24 14:11*	*1*
2-Fluorophenol	*37*		*19 - 119*	*05/28/24 07:00*	*05/28/24 14:11*	*1*
Nitrobenzene-d5	*63*		*44 - 120*	*05/28/24 07:00*	*05/28/24 14:11*	*1*
Phenol-d5	*24*		*10 - 130*	*05/28/24 07:00*	*05/28/24 14:11*	*1*
Terphenyl-d14	*85*		*50 - 134*	*05/28/24 07:00*	*05/28/24 14:11*	*1*

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-839856/2-A
Matrix: Water
Analysis Batch: 839928

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 839856

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1'-Biphenyl	200	131		ug/L		66	49 - 115
1,4-Dioxane	200	59.7		ug/L		30	10 - 130
2,3,4,6-Tetrachlorophenol	200	148		ug/L		74	50 - 128
2,4,5-Trichlorophenol	200	143		ug/L		72	53 - 123
2,4,6-Trichlorophenol	200	138		ug/L		69	50 - 125
2,4-Dichlorophenol	200	132		ug/L		66	47 - 121
2,4-Dimethylphenol	200	124		ug/L		62	31 - 124
2,4-Dinitrophenol	400	321		ug/L		80	23 - 143
2,4-Dinitrotoluene	200	167		ug/L		84	57 - 128
2,6-Dinitrotoluene	200	148		ug/L		74	57 - 124
2-Chloronaphthalene	200	130		ug/L		65	40 - 116
2-Chlorophenol	200	107		ug/L		53	38 - 117
2-Methylphenol	200	102		ug/L		51	30 - 117
2-Nitroaniline	200	147		ug/L		73	55 - 127
2-Nitrophenol	200	132		ug/L		66	47 - 123
3 & 4 Methylphenol	200	94.3		ug/L		47	29 - 110
3,3'-Dichlorobenzidine	200	239		ug/L		120	27 - 129
3-Nitroaniline	200	156		ug/L		78	41 - 128
4,6-Dinitro-2-methylphenol	400	365		ug/L		91	44 - 137
4-Bromophenyl phenyl ether	200	168		ug/L		84	55 - 124
4-Chloro-3-methylphenol	200	135		ug/L		67	52 - 119
4-Chloroaniline	200	125		ug/L		62	33 - 117
4-Chlorophenyl phenyl ether	200	145		ug/L		72	53 - 121
4-Nitroaniline	200	169		ug/L		85	55 - 115
4-Nitrophenol	400	141		ug/L		35	13 - 130
Acetophenone	200	126		ug/L		63	46 - 118
Atrazine	200	151		ug/L		75	44 - 142
Benzaldehyde	200	104		ug/L		52	25 - 130
bis (2-chloroisopropyl) ether	200	106		ug/L		53	37 - 130
Bis(2-chloroethoxy)methane	200	128		ug/L		64	48 - 120
Bis(2-chloroethyl)ether	200	112		ug/L		56	43 - 118
Bis(2-ethylhexyl) phthalate	200	182		ug/L		91	55 - 135
Butyl benzyl phthalate	200	185		ug/L		93	53 - 134
Caprolactam	200	53.8	M	ug/L		27	13 - 130
Carbazole	200	179		ug/L		90	60 - 122
Dibenzofuran	200	140		ug/L		70	53 - 118
Diethyl phthalate	200	165		ug/L		83	56 - 125
Dimethyl phthalate	200	155		ug/L		78	45 - 127
Di-n-butyl phthalate	200	187		ug/L		94	56 - 122
Di-n-octyl phthalate	200	183		ug/L		91	59 - 128
Hexachlorobenzene	200	170		ug/L		85	53 - 125
Hexachlorobutadiene	200	117		ug/L		58	22 - 124
Hexachlorocyclopentadiene	200	74.9		ug/L		37	28 - 130
Hexachloroethane	200	102		ug/L		51	21 - 115
Isophorone	200	125		ug/L		63	42 - 124
Nitrobenzene	200	120		ug/L		60	45 - 121
N-Nitrosodi-n-propylamine	200	121		ug/L		60	49 - 119
N-Nitrosodiphenylamine	200	166		ug/L		83	51 - 123

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-839856/2-A
Matrix: Water
Analysis Batch: 839928

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 839856

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Pentachlorophenol			400	315		ug/L		79	35 - 138		
Phenol			200	55.4		ug/L		28	14 - 130		
Pyridine			400	80.1		ug/L		20	10 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol	*77*		*43 - 140*
2-Fluorobiphenyl	*63*		*44 - 119*
2-Fluorophenol	*33*		*19 - 119*
Nitrobenzene-d5	*57*		*44 - 120*
Phenol-d5	*23*		*10 - 130*
Terphenyl-d14	*84*		*50 - 134*

Lab Sample ID: LCSD 680-839856/3-A
Matrix: Water
Analysis Batch: 839928

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 839856

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1'-Biphenyl			200	127		ug/L		63	49 - 115	4	20
1,4-Dioxane			200	61.6		ug/L		31	10 - 130	3	20
2,3,4,6-Tetrachlorophenol			200	149		ug/L		75	50 - 128	1	20
2,4,5-Trichlorophenol			200	138		ug/L		69	53 - 123	4	20
2,4,6-Trichlorophenol			200	137		ug/L		69	50 - 125	1	20
2,4-Dichlorophenol			200	119		ug/L		60	47 - 121	10	20
2,4-Dimethylphenol			200	113		ug/L		57	31 - 124	9	20
2,4-Dinitrophenol			400	328		ug/L		82	23 - 143	2	20
2,4-Dinitrotoluene			200	165		ug/L		82	57 - 128	2	20
2,6-Dinitrotoluene			200	149		ug/L		75	57 - 124	1	20
2-Chloronaphthalene			200	129		ug/L		65	40 - 116	1	20
2-Chlorophenol			200	108		ug/L		54	38 - 117	1	20
2-Methylphenol			200	102		ug/L		51	30 - 117	0	20
2-Nitroaniline			200	138		ug/L		69	55 - 127	7	20
2-Nitrophenol			200	121		ug/L		60	47 - 123	9	20
3 & 4 Methylphenol			200	93.3		ug/L		47	29 - 110	1	20
3,3'-Dichlorobenzidine			200	203		ug/L		102	27 - 129	16	20
3-Nitroaniline			200	141		ug/L		71	41 - 128	10	20
4,6-Dinitro-2-methylphenol			400	345		ug/L		86	44 - 137	6	20
4-Bromophenyl phenyl ether			200	162		ug/L		81	55 - 124	3	20
4-Chloro-3-methylphenol			200	126		ug/L		63	52 - 119	7	20
4-Chloroaniline			200	99.9	Q	ug/L		50	33 - 117	22	20
4-Chlorophenyl phenyl ether			200	144		ug/L		72	53 - 121	0	20
4-Nitroaniline			200	165		ug/L		82	55 - 115	3	20
4-Nitrophenol			400	140		ug/L		35	13 - 130	1	20
Acetophenone			200	111		ug/L		55	46 - 118	13	20
Atrazine			200	135		ug/L		68	44 - 142	11	20
Benzaldehyde			200	110		ug/L		55	25 - 130	5	20
bis (2-chloroisopropyl) ether			200	108		ug/L		54	37 - 130	1	20
Bis(2-chloroethoxy)methane			200	123		ug/L		61	48 - 120	4	20
Bis(2-chloroethyl)ether			200	111		ug/L		56	43 - 118	1	20

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-839856/3-A
Matrix: Water
Analysis Batch: 839928

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 839856

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Bis(2-ethylhexyl) phthalate			200	174		ug/L		87	55 - 135	5	20
Butyl benzyl phthalate			200	171		ug/L		86	53 - 134	8	20
Caprolactam			200	49.1	M	ug/L		25	13 - 130	9	20
Carbazole			200	169		ug/L		84	60 - 122	6	20
Dibenzofuran			200	141		ug/L		70	53 - 118	0	20
Diethyl phthalate			200	168		ug/L		84	56 - 125	2	20
Dimethyl phthalate			200	153		ug/L		76	45 - 127	1	20
Di-n-butyl phthalate			200	178		ug/L		89	56 - 122	5	20
Di-n-octyl phthalate			200	179		ug/L		89	59 - 128	2	20
Hexachlorobenzene			200	165		ug/L		82	53 - 125	3	20
Hexachlorobutadiene			200	105		ug/L		53	22 - 124	10	20
Hexachlorocyclopentadiene			200	76.3		ug/L		38	28 - 130	2	20
Hexachloroethane			200	98.8		ug/L		49	21 - 115	3	20
Isophorone			200	114		ug/L		57	42 - 124	9	20
Nitrobenzene			200	107		ug/L		54	45 - 121	12	20
N-Nitrosodi-n-propylamine			200	113		ug/L		57	49 - 119	6	20
N-Nitrosodiphenylamine			200	153		ug/L		76	51 - 123	8	20
Pentachlorophenol			400	311		ug/L		78	35 - 138	1	20
Phenol			200	53.1		ug/L		27	14 - 130	4	20
Pyridine			400	61.2	Q	ug/L		15	10 - 130	27	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2,4,6-Tribromophenol	*74*		*43 - 140*
2-Fluorobiphenyl	*61*		*44 - 119*
2-Fluorophenol	*31*		*19 - 119*
Nitrobenzene-d5	*50*		*44 - 120*
Phenol-d5	*22*		*10 - 130*
Terphenyl-d14	*77*		*50 - 134*

Lab Sample ID: MB 680-840567/1-A
Matrix: Water
Analysis Batch: 840584

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 840567

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	10	U M	20	4.6	ug/L		05/31/24 11:30	05/31/24 20:10	1
1,2,4,5-Tetrachlorobenzene	10	U	20	4.5	ug/L		05/31/24 11:30	05/31/24 20:10	1
1,4-Dioxane	10	U	20	4.4	ug/L		05/31/24 11:30	05/31/24 20:10	1
2,3,4,6-Tetrachlorophenol	10	U	20	4.3	ug/L		05/31/24 11:30	05/31/24 20:10	1
2,4,5-Trichlorophenol	10	U	20	3.3	ug/L		05/31/24 11:30	05/31/24 20:10	1
2,4,6-Trichlorophenol	5.0	U	20	2.2	ug/L		05/31/24 11:30	05/31/24 20:10	1
2,4-Dichlorophenol	10	U	20	3.7	ug/L		05/31/24 11:30	05/31/24 20:10	1
2,4-Dimethylphenol	10	U	20	3.0	ug/L		05/31/24 11:30	05/31/24 20:10	1
2,4-Dinitrophenol	40	U	50	16	ug/L		05/31/24 11:30	05/31/24 20:10	1
2,4-Dinitrotoluene	5.0	U	10	2.3	ug/L		05/31/24 11:30	05/31/24 20:10	1
2,6-Dinitrotoluene	10	U	20	2.8	ug/L		05/31/24 11:30	05/31/24 20:10	1
2-Chloronaphthalene	10	U	20	4.8	ug/L		05/31/24 11:30	05/31/24 20:10	1
2-Chlorophenol	10	U	20	3.2	ug/L		05/31/24 11:30	05/31/24 20:10	1
2-Methylphenol	4.0	U	10	1.8	ug/L		05/31/24 11:30	05/31/24 20:10	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-840567/1-A
Matrix: Water
Analysis Batch: 840584

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 840567

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
2-Nitroaniline	10	U	20	2.9	ug/L		05/31/24 11:30	05/31/24 20:10	1
2-Nitrophenol	10	U	20	3.9	ug/L		05/31/24 11:30	05/31/24 20:10	1
3 & 4 Methylphenol	4.0	U	10	1.4	ug/L		05/31/24 11:30	05/31/24 20:10	1
3,3'-Dichlorobenzidine	20	U	50	10	ug/L		05/31/24 11:30	05/31/24 20:10	1
3-Nitroaniline	10	U	50	3.0	ug/L		05/31/24 11:30	05/31/24 20:10	1
4,6-Dinitro-2-methylphenol	20	U	50	5.3	ug/L		05/31/24 11:30	05/31/24 20:10	1
4-Bromophenyl phenyl ether	10	U	20	4.7	ug/L		05/31/24 11:30	05/31/24 20:10	1
4-Chloro-3-methylphenol	10	U	20	2.5	ug/L		05/31/24 11:30	05/31/24 20:10	1
4-Chloroaniline	4.0	U	10	1.0	ug/L		05/31/24 11:30	05/31/24 20:10	1
4-Chlorophenyl phenyl ether	12	U	20	5.3	ug/L		05/31/24 11:30	05/31/24 20:10	1
4-Nitroaniline	10	U	50	3.0	ug/L		05/31/24 11:30	05/31/24 20:10	1
4-Nitrophenol	20	U	50	8.1	ug/L		05/31/24 11:30	05/31/24 20:10	1
Acetophenone	5.0	U	10	2.2	ug/L		05/31/24 11:30	05/31/24 20:10	1
Atrazine	5.0	U	10	2.2	ug/L		05/31/24 11:30	05/31/24 20:10	1
Benzaldehyde	10	U	20	4.8	ug/L		05/31/24 11:30	05/31/24 20:10	1
bis (2-chloroisopropyl) ether	10	U	20	3.1	ug/L		05/31/24 11:30	05/31/24 20:10	1
Bis(2-chloroethoxy)methane	4.0	U	10	1.8	ug/L		05/31/24 11:30	05/31/24 20:10	1
Bis(2-chloroethyl)ether	10	U	20	3.6	ug/L		05/31/24 11:30	05/31/24 20:10	1
Bis(2-ethylhexyl) phthalate	10	U	20	3.0	ug/L		05/31/24 11:30	05/31/24 20:10	1
Butyl benzyl phthalate	10	U	20	2.8	ug/L		05/31/24 11:30	05/31/24 20:10	1
Caprolactam	10	U	20	2.8	ug/L		05/31/24 11:30	05/31/24 20:10	1
Carbazole	4.0	U	10	1.8	ug/L		05/31/24 11:30	05/31/24 20:10	1
Dibenzofuran	4.0	U	10	1.9	ug/L		05/31/24 11:30	05/31/24 20:10	1
Diethyl phthalate	5.0	U	10	2.2	ug/L		05/31/24 11:30	05/31/24 20:10	1
Dimethyl phthalate	5.0	U	10	2.1	ug/L		05/31/24 11:30	05/31/24 20:10	1
Di-n-butyl phthalate	5.0	U	10	2.3	ug/L		05/31/24 11:30	05/31/24 20:10	1
Di-n-octyl phthalate	10	U	20	2.8	ug/L		05/31/24 11:30	05/31/24 20:10	1
Hexachlorobenzene	4.0	U	10	1.6	ug/L		05/31/24 11:30	05/31/24 20:10	1
Hexachlorobutadiene	10	U	20	4.0	ug/L		05/31/24 11:30	05/31/24 20:10	1
Hexachlorocyclopentadiene	10	U	20	3.5	ug/L		05/31/24 11:30	05/31/24 20:10	1
Hexachloroethane	10	U	20	3.6	ug/L		05/31/24 11:30	05/31/24 20:10	1
Isophorone	4.0	U	10	2.0	ug/L		05/31/24 11:30	05/31/24 20:10	1
Nitrobenzene	10	U	20	3.5	ug/L		05/31/24 11:30	05/31/24 20:10	1
N-Nitrosodi-n-propylamine	5.0	U	10	2.4	ug/L		05/31/24 11:30	05/31/24 20:10	1
N-Nitrosodiphenylamine	10	U	20	2.9	ug/L		05/31/24 11:30	05/31/24 20:10	1
Pentachlorophenol	20	U	50	9.9	ug/L		05/31/24 11:30	05/31/24 20:10	1
Phenol	4.0	U	10	1.5	ug/L		05/31/24 11:30	05/31/24 20:10	1
Pyridine	20	U	50	7.4	ug/L		05/31/24 11:30	05/31/24 20:10	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*57*		*43 - 140*	*05/31/24 11:30*	*05/31/24 20:10*	*1*
2-Fluorobiphenyl	*60*		*44 - 119*	*05/31/24 11:30*	*05/31/24 20:10*	*1*
2-Fluorophenol	*33*		*19 - 119*	*05/31/24 11:30*	*05/31/24 20:10*	*1*
Nitrobenzene-d5	*47*		*44 - 120*	*05/31/24 11:30*	*05/31/24 20:10*	*1*
Phenol-d5	*20*	*M*	*10 - 130*	*05/31/24 11:30*	*05/31/24 20:10*	*1*
Terphenyl-d14	*78*		*50 - 134*	*05/31/24 11:30*	*05/31/24 20:10*	*1*

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-840567/2-A
Matrix: Water
Analysis Batch: 840584

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 840567

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1'-Biphenyl	200	132		ug/L		66	49 - 115
1,4-Dioxane	200	55.5		ug/L		28	10 - 130
2,3,4,6-Tetrachlorophenol	200	132		ug/L		66	50 - 128
2,4,5-Trichlorophenol	200	128		ug/L		64	53 - 123
2,4,6-Trichlorophenol	200	130		ug/L		65	50 - 125
2,4-Dichlorophenol	200	126		ug/L		63	47 - 121
2,4-Dimethylphenol	200	119		ug/L		60	31 - 124
2,4-Dinitrophenol	400	272		ug/L		68	23 - 143
2,4-Dinitrotoluene	200	141		ug/L		70	57 - 128
2,6-Dinitrotoluene	200	138		ug/L		69	57 - 124
2-Chloronaphthalene	200	136		ug/L		68	40 - 116
2-Chlorophenol	200	107		ug/L		53	38 - 117
2-Methylphenol	200	98.5		ug/L		49	30 - 117
2-Nitroaniline	200	121		ug/L		60	55 - 127
2-Nitrophenol	200	112		ug/L		56	47 - 123
3 & 4 Methylphenol	200	92.0		ug/L		46	29 - 110
3,3'-Dichlorobenzidine	200	161		ug/L		81	27 - 129
3-Nitroaniline	200	141		ug/L		71	41 - 128
4,6-Dinitro-2-methylphenol	400	333		ug/L		83	44 - 137
4-Bromophenyl phenyl ether	200	144		ug/L		72	55 - 124
4-Chloro-3-methylphenol	200	127		ug/L		63	52 - 119
4-Chloroaniline	200	113		ug/L		56	33 - 117
4-Chlorophenyl phenyl ether	200	135		ug/L		68	53 - 121
4-Nitroaniline	200	151		ug/L		76	55 - 115
4-Nitrophenol	400	112		ug/L		28	13 - 130
Acetophenone	200	116		ug/L		58	46 - 118
Atrazine	200	133		ug/L		67	44 - 142
Benzaldehyde	200	89.6		ug/L		45	25 - 130
bis (2-chloroisopropyl) ether	200	82.8		ug/L		41	37 - 130
Bis(2-chloroethoxy)methane	200	115		ug/L		58	48 - 120
Bis(2-chloroethyl)ether	200	94.8		ug/L		47	43 - 118
Bis(2-ethylhexyl) phthalate	200	153		ug/L		76	55 - 135
Butyl benzyl phthalate	200	154		ug/L		77	53 - 134
Caprolactam	200	46.9	M	ug/L		23	13 - 130
Carbazole	200	159		ug/L		80	60 - 122
Dibenzofuran	200	138		ug/L		69	53 - 118
Diethyl phthalate	200	152		ug/L		76	56 - 125
Dimethyl phthalate	200	147		ug/L		74	45 - 127
Di-n-butyl phthalate	200	168		ug/L		84	56 - 122
Di-n-octyl phthalate	200	159		ug/L		79	59 - 128
Hexachlorobenzene	200	149		ug/L		74	53 - 125
Hexachlorobutadiene	200	104		ug/L		52	22 - 124
Hexachlorocyclopentadiene	200	71.0		ug/L		35	28 - 130
Hexachloroethane	200	99.8		ug/L		50	21 - 115
Isophorone	200	115		ug/L		58	42 - 124
Nitrobenzene	200	98.5		ug/L		49	45 - 121
N-Nitrosodi-n-propylamine	200	108		ug/L		54	49 - 119
N-Nitrosodiphenylamine	200	155		ug/L		78	51 - 123

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-840567/2-A
Matrix: Water
Analysis Batch: 840584

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 840567

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Pentachlorophenol			400	248		ug/L		62	35 - 138		
Phenol			200	50.4	M	ug/L		25	14 - 130		
Pyridine			400	54.9		ug/L		14	10 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol	*62*		*43 - 140*
2-Fluorobiphenyl	*58*		*44 - 119*
2-Fluorophenol	*29*		*19 - 119*
Nitrobenzene-d5	*44*		*44 - 120*
Phenol-d5	*20*		*10 - 130*
Terphenyl-d14	*73*		*50 - 134*

Lab Sample ID: LCSD 680-840567/3-A
Matrix: Water
Analysis Batch: 840584

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 840567

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1'-Biphenyl			200	120		ug/L		60	49 - 115	10	20
1,4-Dioxane			200	49.9		ug/L		25	10 - 130	11	20
2,3,4,6-Tetrachlorophenol			200	118		ug/L		59	50 - 128	11	20
2,4,5-Trichlorophenol			200	114		ug/L		57	53 - 123	12	20
2,4,6-Trichlorophenol			200	112		ug/L		56	50 - 125	15	20
2,4-Dichlorophenol			200	109		ug/L		54	47 - 121	15	20
2,4-Dimethylphenol			200	113		ug/L		56	31 - 124	6	20
2,4-Dinitrophenol			400	239		ug/L		60	23 - 143	13	20
2,4-Dinitrotoluene			200	140		ug/L		70	57 - 128	0	20
2,6-Dinitrotoluene			200	125		ug/L		63	57 - 124	10	20
2-Chloronaphthalene			200	120		ug/L		60	40 - 116	13	20
2-Chlorophenol			200	96.5		ug/L		48	38 - 117	10	20
2-Methylphenol			200	85.1		ug/L		43	30 - 117	15	20
2-Nitroaniline			200	112		ug/L		56	55 - 127	8	20
2-Nitrophenol			200	108		ug/L		54	47 - 123	3	20
3 & 4 Methylphenol			200	80.9		ug/L		40	29 - 110	13	20
3,3'-Dichlorobenzidine			200	160		ug/L		80	27 - 129	0	20
3-Nitroaniline			200	130		ug/L		65	41 - 128	8	20
4,6-Dinitro-2-methylphenol			400	298		ug/L		75	44 - 137	11	20
4-Bromophenyl phenyl ether			200	132		ug/L		66	55 - 124	8	20
4-Chloro-3-methylphenol			200	115		ug/L		57	52 - 119	10	20
4-Chloroaniline			200	107	Q	ug/L		53	33 - 117	5	20
4-Chlorophenyl phenyl ether			200	119		ug/L		59	53 - 121	13	20
4-Nitroaniline			200	144		ug/L		72	55 - 115	5	20
4-Nitrophenol			400	102		ug/L		25	13 - 130	10	20
Acetophenone			200	106		ug/L		53	46 - 118	9	20
Atrazine			200	117		ug/L		58	44 - 142	13	20
Benzaldehyde			200	81.6		ug/L		41	25 - 130	9	20
bis (2-chloroisopropyl) ether			200	74.8	Q	ug/L		37	37 - 130	10	20
Bis(2-chloroethoxy)methane			200	103	Q	ug/L		51	48 - 120	11	20
Bis(2-chloroethyl)ether			200	83.6	Q	ug/L		42	43 - 118	13	20

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-840567/3-A
Matrix: Water
Analysis Batch: 840584

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 840567

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Bis(2-ethylhexyl) phthalate			200	141		ug/L		70	55 - 135	8	20
Butyl benzyl phthalate			200	147		ug/L		73	53 - 134	5	20
Caprolactam			200	41.4	M	ug/L		21	13 - 130	12	20
Carbazole			200	139		ug/L		69	60 - 122	14	20
Dibenzofuran			200	133		ug/L		67	53 - 118	3	20
Diethyl phthalate			200	137		ug/L		68	56 - 125	11	20
Dimethyl phthalate			200	130		ug/L		65	45 - 127	12	20
Di-n-butyl phthalate			200	139		ug/L		70	56 - 122	19	20
Di-n-octyl phthalate			200	145		ug/L		73	59 - 128	9	20
Hexachlorobenzene			200	133		ug/L		67	53 - 125	11	20
Hexachlorobutadiene			200	95.1	Q	ug/L		48	22 - 124	9	20
Hexachlorocyclopentadiene			200	62.7		ug/L		31	28 - 130	12	20
Hexachloroethane			200	90.8	Q	ug/L		45	21 - 115	9	20
Isophorone			200	102	Q	ug/L		51	42 - 124	13	20
Nitrobenzene			200	92.8	Q	ug/L		46	45 - 121	6	20
N-Nitrosodi-n-propylamine			200	95.1	Q	ug/L		48	49 - 119	12	20
N-Nitrosodiphenylamine			200	142		ug/L		71	51 - 123	9	20
Pentachlorophenol			400	227		ug/L		57	35 - 138	9	20
Phenol			200	43.2	M	ug/L		22	14 - 130	15	20
Pyridine			400	36.6	J Q	ug/L		9	10 - 130	40	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2,4,6-Tribromophenol	*54*		*43 - 140*
2-Fluorobiphenyl	*53*		*44 - 119*
2-Fluorophenol	*27*		*19 - 119*
Nitrobenzene-d5	*42*	*Q*	*44 - 120*
Phenol-d5	*18*		*10 - 130*
Terphenyl-d14	*65*		*50 - 134*

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 680-839715/1-A
Matrix: Water
Analysis Batch: 839809

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 839715

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	0.050	U	0.20	0.018	ug/L		05/25/24 07:20	05/28/24 10:07	1
Acenaphthene	0.10	U M	0.20	0.042	ug/L		05/25/24 07:20	05/28/24 10:07	1
Acenaphthylene	0.050	U M	0.20	0.017	ug/L		05/25/24 07:20	05/28/24 10:07	1
Pyrene	0.10	U M	0.20	0.027	ug/L		05/25/24 07:20	05/28/24 10:07	1
2-Methylnaphthalene	0.040	U M	0.20	0.011	ug/L		05/25/24 07:20	05/28/24 10:07	1
Anthracene	0.050	U	0.20	0.018	ug/L		05/25/24 07:20	05/28/24 10:07	1
Benzo[a]pyrene	0.10	U	0.20	0.026	ug/L		05/25/24 07:20	05/28/24 10:07	1
Benzo[a]anthracene	0.10	U	0.20	0.026	ug/L		05/25/24 07:20	05/28/24 10:07	1
Benzo[b]fluoranthene	0.10	U	0.20	0.026	ug/L		05/25/24 07:20	05/28/24 10:07	1
Benzo[g,h,i]perylene	0.10	U M	0.20	0.026	ug/L		05/25/24 07:20	05/28/24 10:07	1
Benzo[k]fluoranthene	0.10	U	0.20	0.029	ug/L		05/25/24 07:20	05/28/24 10:07	1
Chrysene	0.050	U	0.20	0.023	ug/L		05/25/24 07:20	05/28/24 10:07	1
Dibenz(a,h)anthracene	0.050	U	0.20	0.024	ug/L		05/25/24 07:20	05/28/24 10:07	1

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: MB 680-839715/1-A
Matrix: Water
Analysis Batch: 839809

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 839715

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Phenanthrene	0.20	U	0.40	0.055	ug/L		05/25/24 07:20	05/28/24 10:07	1
Indeno[1,2,3-cd]pyrene	0.10	U	0.20	0.028	ug/L		05/25/24 07:20	05/28/24 10:07	1
Naphthalene	0.050	U	0.20	0.014	ug/L		05/25/24 07:20	05/28/24 10:07	1
Fluoranthene	0.10	U M	0.20	0.027	ug/L		05/25/24 07:20	05/28/24 10:07	1
Fluorene	0.10	U	0.20	0.025	ug/L		05/25/24 07:20	05/28/24 10:07	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*67*		*53 - 106*	*05/25/24 07:20*	*05/28/24 10:07*	*1*
2-methylnaphthalene-d10	*67*		*30 - 100*	*05/25/24 07:20*	*05/28/24 10:07*	*1*
Fluoranthene-d10	*89*		*42 - 114*	*05/25/24 07:20*	*05/28/24 10:07*	*1*
Nitrobenzene-d5	*69*		*42 - 100*	*05/25/24 07:20*	*05/28/24 10:07*	*1*
Terphenyl-d14	*98*		*53 - 111*	*05/25/24 07:20*	*05/28/24 10:07*	*1*

Lab Sample ID: LCS 680-839715/2-A
Matrix: Water
Analysis Batch: 839809

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 839715

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	10.0	6.30		ug/L		63	41 - 115
Acenaphthene	10.0	7.27		ug/L		73	48 - 114
Acenaphthylene	10.0	6.98		ug/L		70	35 - 121
Pyrene	10.0	8.97		ug/L		90	53 - 121
2-Methylnaphthalene	10.0	6.61		ug/L		66	39 - 114
Anthracene	10.0	7.88		ug/L		79	53 - 119
Benzo[a]pyrene	10.0	9.25		ug/L		93	53 - 120
Benzo[a]anthracene	10.0	8.86		ug/L		89	59 - 120
Benzo[b]fluoranthene	10.0	9.41		ug/L		94	53 - 126
Benzo[g,h,i]perylene	10.0	9.40		ug/L		94	44 - 128
Benzo[k]fluoranthene	10.0	9.29		ug/L		93	54 - 125
Chrysene	10.0	9.50		ug/L		95	57 - 120
Dibenz(a,h)anthracene	10.0	9.62		ug/L		96	44 - 131
Phenanthrene	10.0	7.97		ug/L		80	53 - 115
Indeno[1,2,3-cd]pyrene	10.0	9.43		ug/L		94	48 - 130
Naphthalene	10.0	6.09		ug/L		61	43 - 114
Fluoranthene	10.0	8.84		ug/L		88	58 - 120
Fluorene	10.0	7.32		ug/L		73	50 - 118

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*70*		*53 - 106*
2-methylnaphthalene-d10	*68*		*30 - 100*
Fluoranthene-d10	*93*		*42 - 114*
Nitrobenzene-d5	*69*		*42 - 100*
Terphenyl-d14	*100*		*53 - 111*

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: LCSD 680-839715/3-A
Matrix: Water
Analysis Batch: 839809

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 839715

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1-Methylnaphthalene			10.0	7.29		ug/L		73	41 - 115	15	20
Acenaphthene			10.0	8.22		ug/L		82	48 - 114	12	20
Acenaphthylene			10.0	7.89		ug/L		79	35 - 121	12	20
Pyrene			10.0	9.52		ug/L		95	53 - 121	6	20
2-Methylnaphthalene			10.0	7.71		ug/L		77	39 - 114	15	20
Anthracene			10.0	8.70		ug/L		87	53 - 119	10	20
Benzo[a]pyrene			10.0	9.30		ug/L		93	53 - 120	0	20
Benzo[a]anthracene			10.0	9.00		ug/L		90	59 - 120	2	20
Benzo[b]fluoranthene			10.0	9.43		ug/L		94	53 - 126	0	20
Benzo[g,h,i]perylene			10.0	9.39		ug/L		94	44 - 128	0	20
Benzo[k]fluoranthene			10.0	9.35		ug/L		94	54 - 125	1	20
Chrysene			10.0	9.63		ug/L		96	57 - 120	1	20
Dibenz(a,h)anthracene			10.0	9.55		ug/L		96	44 - 131	1	20
Phenanthrene			10.0	8.90		ug/L		89	53 - 115	11	20
Indeno[1,2,3-cd]pyrene			10.0	9.39		ug/L		94	48 - 130	0	20
Naphthalene			10.0	7.02		ug/L		70	43 - 114	14	20
Fluoranthene			10.0	9.38		ug/L		94	58 - 120	6	20
Fluorene			10.0	8.25		ug/L		83	50 - 118	12	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*81*		*53 - 106*
2-methylnaphthalene-d10	*79*		*30 - 100*
Fluoranthene-d10	*99*		*42 - 114*
Nitrobenzene-d5	*76*		*42 - 100*
Terphenyl-d14	*102*		*53 - 111*

Method: RSK-175 - Dissolved Gases (GC)

Lab Sample ID: MB 680-841249/8
Matrix: Water
Analysis Batch: 841249

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	0.76	U	1.1	0.30	ug/L			06/06/24 10:08	1
Ethylene	0.71	U	1.0	0.31	ug/L			06/06/24 10:08	1
Methane	1.2	U	1.2	0.57	ug/L			06/06/24 10:08	1

Lab Sample ID: LCS 680-841249/3
Matrix: Water
Analysis Batch: 841249

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Methane (TCD)			1920	2190		ug/L		114	73 - 125		

Method: RSK-175 - Dissolved Gases (GC) (Continued)

Lab Sample ID: LCS 680-841249/6
Matrix: Water
Analysis Batch: 841249

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Ethane	288	293		ug/L		102	74 - 131
Ethylene	269	264		ug/L		98	72 - 133
Methane	154	152		ug/L		99	73 - 125

Lab Sample ID: LCSD 680-841249/4
Matrix: Water
Analysis Batch: 841249

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Methane (TCD)	1920	1990		ug/L		104	73 - 125	9	30

Lab Sample ID: LCSD 680-841249/7
Matrix: Water
Analysis Batch: 841249

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ethane	288	295		ug/L		102	74 - 131	0	30
Ethylene	269	263		ug/L		98	72 - 133	0	30
Methane	154	153		ug/L		99	73 - 125	0	30

Lab Sample ID: 680-251210-2 MS
Matrix: Water
Analysis Batch: 841249

Client Sample ID: OU6-MW-264-20240523
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethane	88		288	395		ug/L		106	74 - 131
Ethylene	60		269	330		ug/L		101	72 - 133
Methane (TCD)	2100	J1	154	2480	4	ug/L		274	73 - 125

Lab Sample ID: 680-251210-2 MSD
Matrix: Water
Analysis Batch: 841249

Client Sample ID: OU6-MW-264-20240523
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ethane	88		288	387		ug/L		104	74 - 131	2	30
Ethylene	60		269	322		ug/L		97	72 - 133	3	30
Methane (TCD)	2100	J1	154	2900	4	ug/L		543	73 - 125	15	30

Lab Sample ID: MB 680-841868/8
Matrix: Water
Analysis Batch: 841868

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	0.76	U	1.1	0.30	ug/L			06/11/24 15:42	1
Ethylene	0.71	U	1.0	0.31	ug/L			06/11/24 15:42	1
Methane	1.2	U	1.2	0.57	ug/L			06/11/24 15:42	1

Method: RSK-175 - Dissolved Gases (GC) (Continued)

Lab Sample ID: LCS 680-841868/1006
Matrix: Water
Analysis Batch: 841868

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Ethane	288	281		ug/L		97	74 - 131
Ethylene	269	253		ug/L		94	72 - 133
Methane	154	147		ug/L		96	73 - 125

Lab Sample ID: LCS 680-841868/3
Matrix: Water
Analysis Batch: 841868

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Methane (TCD)	1920	2090		ug/L		109	73 - 125

Lab Sample ID: LCSD 680-841868/4
Matrix: Water
Analysis Batch: 841868

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Methane (TCD)	1920	1950		ug/L		101	73 - 125	7	30

Lab Sample ID: LCSD 680-841868/7
Matrix: Water
Analysis Batch: 841868

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ethane	288	274		ug/L		95	74 - 131	3	30
Ethylene	269	248		ug/L		92	72 - 133	2	30
Methane	154	143		ug/L		93	73 - 125	3	30

Method: 8081B 8082A - Organochlorine Pesticides & PCBs (GC)

Lab Sample ID: MB 680-839861/1-A
Matrix: Water
Analysis Batch: 840047

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 839861

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	0.0040	U	0.050	0.0020	ug/L		05/28/24 07:28	05/28/24 18:05	1
4,4'-DDE	0.0040	U	0.050	0.0010	ug/L		05/28/24 07:28	05/28/24 18:05	1
4,4'-DDT	0.0040	U	0.050	0.0010	ug/L		05/28/24 07:28	05/28/24 18:05	1
Aldrin	0.0040	U	0.050	0.0020	ug/L		05/28/24 07:28	05/28/24 18:05	1
alpha-BHC	0.0040	U	0.050	0.0010	ug/L		05/28/24 07:28	05/28/24 18:05	1
beta-BHC	0.0040	U	0.050	0.0020	ug/L		05/28/24 07:28	05/28/24 18:05	1
delta-BHC	0.0040	U	0.050	0.0020	ug/L		05/28/24 07:28	05/28/24 18:05	1
Dieldrin	0.0040	U	0.050	0.0020	ug/L		05/28/24 07:28	05/28/24 18:05	1
Endosulfan I	0.0040	U	0.050	0.0020	ug/L		05/28/24 07:28	05/28/24 18:05	1
Endosulfan II	0.0040	U	0.050	0.0020	ug/L		05/28/24 07:28	05/28/24 18:05	1
Endosulfan sulfate	0.0040	U	0.050	0.0020	ug/L		05/28/24 07:28	05/28/24 18:05	1
Endrin	0.0040	U	0.050	0.0010	ug/L		05/28/24 07:28	05/28/24 18:05	1
Endrin aldehyde	0.016	U	0.050	0.0040	ug/L		05/28/24 07:28	05/28/24 18:05	1
Endrin ketone	0.016	U	0.050	0.0040	ug/L		05/28/24 07:28	05/28/24 18:05	1
gamma-BHC (Lindane)	0.0040	U	0.050	0.0010	ug/L		05/28/24 07:28	05/28/24 18:05	1
Heptachlor	0.0040	U	0.050	0.0010	ug/L		05/28/24 07:28	05/28/24 18:05	1

Method: 8081B 8082A - Organochlorine Pesticides & PCBs (GC) (Continued)

Lab Sample ID: MB 680-839861/1-A
Matrix: Water
Analysis Batch: 840047

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 839861

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Heptachlor epoxide	0.0040	U	0.050	0.0020	ug/L		05/28/24 07:28	05/28/24 18:05	1
Methoxychlor	0.0040	U	0.050	0.0020	ug/L		05/28/24 07:28	05/28/24 18:05	1
Chlordane (technical)	0.40	U M	0.50	0.16	ug/L		05/28/24 07:28	05/28/24 18:05	1
PCB-1016	0.24	U M	0.50	0.10	ug/L		05/28/24 07:28	05/28/24 18:05	1
PCB-1221	0.24	U	0.50	0.10	ug/L		05/28/24 07:28	05/28/24 18:05	1
PCB-1232	0.24	U M	0.50	0.10	ug/L		05/28/24 07:28	05/28/24 18:05	1
PCB-1242	0.24	U M	0.50	0.10	ug/L		05/28/24 07:28	05/28/24 18:05	1
PCB-1248	0.24	U	0.50	0.10	ug/L		05/28/24 07:28	05/28/24 18:05	1
PCB-1254	0.24	U	0.50	0.10	ug/L		05/28/24 07:28	05/28/24 18:05	1
PCB-1260	0.24	U	0.50	0.10	ug/L		05/28/24 07:28	05/28/24 18:05	1
Toxaphene	0.80	U	5.0	0.31	ug/L		05/28/24 07:28	05/28/24 18:05	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*81*		*14 - 130*	*05/28/24 07:28*	*05/28/24 18:05*	*1*
Tetrachloro-m-xylene	*53*		*44 - 124*	*05/28/24 07:28*	*05/28/24 18:05*	*1*

Lab Sample ID: LCS 680-839861/2-A
Matrix: Water
Analysis Batch: 840047

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 839861

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
4,4'-DDD	0.0400	0.0328	J	ug/L		82	56 - 143
4,4'-DDE	0.0400	0.0260	J	ug/L		65	57 - 135
4,4'-DDT	0.0400	0.0377	J	ug/L		94	51 - 143
Aldrin	0.0400	0.0185	J	ug/L		46	45 - 134
alpha-BHC	0.0400	0.0233	J	ug/L		58	54 - 138
beta-BHC	0.0400	0.0270	J	ug/L		68	56 - 136
delta-BHC	0.0400	0.0267	J	ug/L		67	52 - 142
Dieldrin	0.0400	0.0280	J	ug/L		70	60 - 136
Endosulfan I	0.0400	0.0245	J Q	ug/L		61	62 - 126
Endosulfan II	0.0400	0.0299	J	ug/L		75	52 - 135
Endosulfan sulfate	0.0400	0.0332	J	ug/L		83	62 - 133
Endrin	0.0400	0.0283	J	ug/L		71	60 - 138
Endrin aldehyde	0.0400	0.0323	J	ug/L		81	51 - 132
Endrin ketone	0.0400	0.0539	Q	ug/L		135	58 - 134
gamma-BHC (Lindane)	0.0400	0.0225	J Q	ug/L		56	59 - 134
Heptachlor	0.0400	0.0243	J	ug/L		61	54 - 130
Heptachlor epoxide	0.0400	0.0250	J	ug/L		63	61 - 133
Methoxychlor	0.0400	0.0391	J	ug/L		98	54 - 145

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*75*		*14 - 130*
Tetrachloro-m-xylene	*41*	*Q*	*44 - 124*

Method: 8081B 8082A - Organochlorine Pesticides & PCBs (GC) (Continued)

Lab Sample ID: LCS 680-839861/4-A
Matrix: Water
Analysis Batch: 840047

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 839861

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
PCB-1016			2.40	1.44	M	ug/L		60	46 - 129		
PCB-1260			2.40	1.59	M	ug/L		66	45 - 134		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*78*		*14 - 130*
Tetrachloro-m-xylene	*44*		*44 - 124*

Lab Sample ID: LCSD 680-839861/3-A
Matrix: Water
Analysis Batch: 840047

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 839861

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
4,4'-DDD			0.0400	0.0373	J	ug/L		93	56 - 143	13	30
4,4'-DDE			0.0400	0.0310	J	ug/L		77	57 - 135	18	30
4,4'-DDT			0.0400	0.0425	J	ug/L		106	51 - 143	12	30
Aldrin			0.0400	0.0232	J	ug/L		58	45 - 134	22	30
alpha-BHC			0.0400	0.0277	J	ug/L		69	54 - 138	17	30
beta-BHC			0.0400	0.0280	J	ug/L		70	56 - 136	3	30
delta-BHC			0.0400	0.0346	J	ug/L		87	52 - 142	26	30
Dieldrin			0.0400	0.0333	J	ug/L		83	60 - 136	17	30
Endosulfan I			0.0400	0.0279	J	ug/L		70	62 - 126	13	30
Endosulfan II			0.0400	0.0341	J	ug/L		85	52 - 135	13	30
Endosulfan sulfate			0.0400	0.0368	J	ug/L		92	62 - 133	10	30
Endrin			0.0400	0.0332	J	ug/L		83	60 - 138	16	30
Endrin aldehyde			0.0400	0.0352	J	ug/L		88	51 - 132	8	30
Endrin ketone			0.0400	0.0652	Q	ug/L		163	58 - 134	19	30
gamma-BHC (Lindane)			0.0400	0.0271	J	ug/L		68	59 - 134	19	30
Heptachlor			0.0400	0.0290	J	ug/L		72	54 - 130	18	30
Heptachlor epoxide			0.0400	0.0291	J	ug/L		73	61 - 133	15	30
Methoxychlor			0.0400	0.0560	Q	ug/L		140	54 - 145	36	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
DCB Decachlorobiphenyl	*71*		*14 - 130*
Tetrachloro-m-xylene	*52*		*44 - 124*

Lab Sample ID: LCSD 680-839861/5-A
Matrix: Water
Analysis Batch: 840047

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 839861

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
PCB-1016			2.40	1.50	M	ug/L		63	46 - 129	4	30
PCB-1260			2.40	1.64	M	ug/L		68	45 - 134	3	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
DCB Decachlorobiphenyl	*76*		*14 - 130*
Tetrachloro-m-xylene	*51*		*44 - 124*

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 680-839616/2
Matrix: Water
Analysis Batch: 839616

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.050	U	0.055	0.023	mg/L			05/24/24 11:22	1
Nitrate Nitrite as N	0.050	U	0.055	0.023	mg/L			05/24/24 11:22	1
Nitrite as N	0.050	U	0.055	0.023	mg/L			05/24/24 11:22	1

Lab Sample ID: LCS 680-839616/6
Matrix: Water
Analysis Batch: 839616

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrate as N	1.00	1.07		mg/L		107	88 - 111
Nitrate Nitrite as N	2.00	2.11		mg/L		105	88 - 111
Nitrite as N	1.00	1.04		mg/L		104	87 - 111

Lab Sample ID: LCSD 680-839616/7
Matrix: Water
Analysis Batch: 839616

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrate as N	1.00	1.08		mg/L		108	88 - 111	1	15
Nitrate Nitrite as N	2.00	2.12		mg/L		106	88 - 111	0	15
Nitrite as N	1.00	1.04		mg/L		104	87 - 111	0	15

Lab Sample ID: 680-251210-2 MS
Matrix: Water
Analysis Batch: 839616

Client Sample ID: OU6-MW-264-20240523
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrate as N	0.050	U J1	1.00	0.806	J1	mg/L		81	88 - 111
Nitrate Nitrite as N	0.050	U J1	2.00	1.22	J1	mg/L		61	88 - 111
Nitrite as N	0.050	U J1	1.00	0.411	J1	mg/L		41	87 - 111

Lab Sample ID: 680-251210-2 MSD
Matrix: Water
Analysis Batch: 839616

Client Sample ID: OU6-MW-264-20240523
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrate as N	0.050	U J1	1.00	0.814	J1	mg/L		81	88 - 111	1	15
Nitrate Nitrite as N	0.050	U J1	2.00	1.24	J1	mg/L		62	88 - 111	2	15
Nitrite as N	0.050	U J1	1.00	0.423	J1	mg/L		42	87 - 111	3	15

Lab Sample ID: MB 680-841151/4
Matrix: Water
Analysis Batch: 841151

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.50	U M	0.55	0.20	mg/L			06/05/24 11:52	1
Sulfate	1.0	U	1.5	0.40	mg/L			06/05/24 11:52	1

Method: 9056A - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 680-841151/5
Matrix: Water
Analysis Batch: 841151

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			10.0	10.2		mg/L		102	87 - 111		
Sulfate			10.0	10.8		mg/L		108	87 - 112		

Lab Sample ID: LCSD 680-841151/6
Matrix: Water
Analysis Batch: 841151

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			10.0	10.2		mg/L		102	87 - 111	0	15
Sulfate			10.0	10.8		mg/L		108	87 - 112	0	15

Lab Sample ID: MB 680-841647/1009
Matrix: Water
Analysis Batch: 841647

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.50	U M	0.55	0.20	mg/L			06/10/24 13:21	1
Sulfate	1.0	U M	1.5	0.40	mg/L			06/10/24 13:21	1

Lab Sample ID: LCS 680-841647/10
Matrix: Water
Analysis Batch: 841647

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			10.0	9.91		mg/L		99	87 - 111		
Sulfate			10.0	9.60		mg/L		96	87 - 112		

Lab Sample ID: LCSD 680-841647/11
Matrix: Water
Analysis Batch: 841647

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			10.0	9.87		mg/L		99	87 - 111	0	15
Sulfate			10.0	9.55		mg/L		96	87 - 112	1	15

Lab Sample ID: 680-251210-2 MS
Matrix: Water
Analysis Batch: 841647

Client Sample ID: OU6-MW-264-20240523
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	88	D M	100	189	D	mg/L		100	87 - 111		
Sulfate	7.8	J D	100	104	D	mg/L		96	87 - 112		

Lab Sample ID: 680-251210-2 MSD
Matrix: Water
Analysis Batch: 841647

Client Sample ID: OU6-MW-264-20240523
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	88	D M	100	188	D	mg/L		100	87 - 111	0	15
Sulfate	7.8	J D	100	104	D	mg/L		96	87 - 112	0	15

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 680-839852/1-A
Matrix: Water
Analysis Batch: 840087

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 839852

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	100	U	200	35	ug/L		05/28/24 06:17	05/28/24 15:06	1
Antimony	1.5	U	5.0	0.34	ug/L		05/28/24 06:17	05/28/24 15:06	1
Arsenic	3.0	U	5.0	0.86	ug/L		05/28/24 06:17	05/28/24 15:06	1
Barium	2.0	U Q	5.0	0.89	ug/L		05/28/24 06:17	05/28/24 15:06	1
Beryllium	0.40	U	0.50	0.20	ug/L		05/28/24 06:17	05/28/24 15:06	1
Boron	75	U	100	22	ug/L		05/28/24 06:17	05/28/24 15:06	1
Cadmium	0.20	U	0.50	0.078	ug/L		05/28/24 06:17	05/28/24 15:06	1
Calcium	300	U	500	140	ug/L		05/28/24 06:17	05/28/24 15:06	1
Chromium	2.5	U	20	0.81	ug/L		05/28/24 06:17	05/28/24 15:06	1
Cobalt	0.50	U	1.0	0.22	ug/L		05/28/24 06:17	05/28/24 15:06	1
Copper	2.0	U	5.0	1.1	ug/L		05/28/24 06:17	05/28/24 15:06	1
Iron	75	U	100	12	ug/L		05/28/24 06:17	05/28/24 15:06	1
Lead	1.0	U	2.5	0.21	ug/L		05/28/24 06:17	05/28/24 15:06	1
Magnesium	60	U	250	23	ug/L		05/28/24 06:17	05/28/24 15:06	1
Manganese	5.0	U	10	2.2	ug/L		05/28/24 06:17	05/28/24 15:06	1
Nickel	1.0	U	10	0.42	ug/L		05/28/24 06:17	05/28/24 15:06	1
Potassium	100	U	1000	44	ug/L		05/28/24 06:17	05/28/24 15:06	1
Selenium	2.5	U Q	5.0	0.99	ug/L		05/28/24 06:17	05/28/24 15:06	1
Silver	1.0	U	2.0	0.39	ug/L		05/28/24 06:17	05/28/24 15:06	1
Sodium	500	U	1000	200	ug/L		05/28/24 06:17	05/28/24 15:06	1
Vanadium	2.5	U	10	0.63	ug/L		05/28/24 06:17	05/28/24 15:06	1
Zinc	20	U	25	2.8	ug/L		05/28/24 06:17	05/28/24 15:06	1

Lab Sample ID: MB 680-839852/1-A
Matrix: Water
Analysis Batch: 840234

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 839852

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Thallium	1.0	U	2.0	0.26	ug/L		05/28/24 06:17	05/29/24 12:12	1

Lab Sample ID: LCS 680-839852/2-A
Matrix: Water
Analysis Batch: 840087

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 839852

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aluminum	5050	5230		ug/L		104	84 - 117
Antimony	50.0	51.7		ug/L		103	85 - 117
Arsenic	100	98.7		ug/L		99	84 - 116
Barium	100	97.3	Q	ug/L		97	86 - 114
Beryllium	50.0	53.0		ug/L		106	83 - 121
Boron	400	439		ug/L		110	73 - 130
Cadmium	50.0	50.5		ug/L		101	87 - 115
Calcium	5000	5220		ug/L		104	87 - 118
Chromium	100	102		ug/L		102	85 - 116
Cobalt	50.0	54.1		ug/L		108	86 - 115
Copper	101	106		ug/L		105	85 - 118
Iron	4990	5220		ug/L		105	87 - 118
Lead	500	517		ug/L		103	88 - 115
Magnesium	5000	5230		ug/L		105	83 - 118

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 680-839852/2-A
Matrix: Water
Analysis Batch: 840087

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 839852

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Manganese	400	399		ug/L		100	87 - 115
Nickel	100	103		ug/L		103	85 - 117
Potassium	7000	7410		ug/L		106	87 - 115
Selenium	100	93.4	Q	ug/L		93	80 - 120
Silver	50.0	50.7		ug/L		101	85 - 116
Sodium	5030	5180		ug/L		103	85 - 117
Vanadium	100	98.3		ug/L		98	86 - 115
Zinc	50.5	51.8		ug/L		103	83 - 119

Lab Sample ID: LCS 680-839852/2-A
Matrix: Water
Analysis Batch: 840234

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 839852

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Thallium	50.0	55.1		ug/L		110	82 - 116

Lab Sample ID: 680-251210-2 MS
Matrix: Water
Analysis Batch: 840087

Client Sample ID: OU6-MW-264-20240523
Prep Type: Total Recoverable
Prep Batch: 839852

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Manganese	530	J1	400	1060	J1	ug/L		131	87 - 115

Lab Sample ID: 680-251210-2 MSD
Matrix: Water
Analysis Batch: 840087

Client Sample ID: OU6-MW-264-20240523
Prep Type: Total Recoverable
Prep Batch: 839852

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Manganese	530	J1	400	1180	J1	ug/L		161	87 - 115	11	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 680-840566/1-A
Matrix: Water
Analysis Batch: 840639

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 840566

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	0.20	U	0.25	0.080	ug/L		05/31/24 11:29	05/31/24 16:49	1

Lab Sample ID: LCS 680-840566/2-A
Matrix: Water
Analysis Batch: 840639

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 840566

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Hg	2.50	2.65		ug/L		106	80 - 124

Method: 2320B-2011 - Alkalinity, Total

Lab Sample ID: MB 680-840620/4
Matrix: Water
Analysis Batch: 840620

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	5.0	U	5.5	2.2	mg/L			05/31/24 12:04	1
Bicarbonate Alkalinity as CaCO3	10	U	11	5.0	mg/L			05/31/24 12:04	1
Carbonate Alkalinity as CaCO3	10	U	11	5.0	mg/L			05/31/24 12:04	1

Lab Sample ID: LCS 680-840620/6
Matrix: Water
Analysis Batch: 840620

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity as CaCO3 to pH 4.5	250	245		mg/L		98	90 - 112

Lab Sample ID: LCSD 680-840620/31
Matrix: Water
Analysis Batch: 840620

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5	250	247		mg/L		99	90 - 112	1	30

Lab Sample ID: 680-251210-2 DU
Matrix: Water
Analysis Batch: 840620

Client Sample ID: OU6-MW-264-20240523
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5	50		51.6		mg/L		4	30
Bicarbonate Alkalinity as CaCO3	50		51.6		mg/L		4	30
Carbonate Alkalinity as CaCO3	10	U	10	U	mg/L		NC	30

Method: 4500 S2 F-2011 - Sulfide, Total

Lab Sample ID: MB 680-840409/1
Matrix: Water
Analysis Batch: 840409

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	1.0	U	1.0	1.0	mg/L			05/30/24 12:33	1
Sulfide as H2S	1.1	U	1.1	1.1	mg/L			05/30/24 12:33	1

Lab Sample ID: LCS 680-840409/2
Matrix: Water
Analysis Batch: 840409

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfide	10.0	8.55		mg/L		86	75 - 125
Sulfide as H2S	10.6	9.09		mg/L		86	75 - 125

Method: 4500 S2 F-2011 - Sulfide, Total (Continued)

Lab Sample ID: LCSD 680-840409/3
Matrix: Water
Analysis Batch: 840409

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sulfide			10.0	8.61		mg/L		86	75 - 125	1	30
Sulfide as H2S			10.6	9.15		mg/L		86	75 - 125	1	30

Lab Sample ID: 680-251210-2 MS
Matrix: Water
Analysis Batch: 840409

Client Sample ID: OU6-MW-264-20240523
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfide	0.89	U	6.94	5.67		mg/L		82	75 - 125
Sulfide as H2S	0.98	U	7.38	6.02		mg/L		82	75 - 125

Lab Sample ID: 680-251210-2 MSD
Matrix: Water
Analysis Batch: 840409

Client Sample ID: OU6-MW-264-20240523
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sulfide	0.89	U	7.43	6.77		mg/L		91	75 - 125	18	30
Sulfide as H2S	0.98	U	7.89	7.19		mg/L		91	75 - 125	18	30

Method: 9060A - Organic Carbon, Total (TOC)

Lab Sample ID: MB 680-840411/1
Matrix: Water
Analysis Batch: 840411

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	1.0	U	1.0	0.50	mg/L			05/28/24 21:52	1

Lab Sample ID: LCS 680-840411/2
Matrix: Water
Analysis Batch: 840411

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Organic Carbon			20.0	20.4		mg/L		102	80 - 120

Lab Sample ID: LCSD 680-840411/3
Matrix: Water
Analysis Batch: 840411

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Organic Carbon			20.0	20.5		mg/L		102	80 - 120	0	25

Lab Sample ID: 680-251210-2 MS
Matrix: Water
Analysis Batch: 840411

Client Sample ID: OU6-MW-264-20240523
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Total Organic Carbon	3.2		25.0	25.0		mg/L		87	80 - 120

Method: 9060A - Organic Carbon, Total (TOC) (Continued)

Lab Sample ID: 680-251210-2 MSD — **Client Sample ID: OU6-MW-264-20240523**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 840411

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Organic Carbon	3.2		25.0	24.9		mg/L		87	80 - 120	0	25

Lab Sample ID: MB 680-840412/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 840412

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	1.0	U	1.0	0.50	mg/L			05/29/24 05:24	1

Lab Sample ID: LCS 680-840412/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 840412

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Organic Carbon	20.0	21.7		mg/L		108	80 - 120

Lab Sample ID: LCSD 680-840412/3 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 840412

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Organic Carbon	20.0	21.6		mg/L		108	80 - 120	0	25

Method: SM 4500 CO2 D - Carbon Dioxide and Forms of Alkalinity by Calculation

Lab Sample ID: 680-251210-2 DU — **Client Sample ID: OU6-MW-264-20240523**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 840620

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Carbon Dioxide, Free	150		152		mg/L		0.4	30

GC/MS VOA

Analysis Batch: 840928

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251210-3	OU6-MW-89-20240523	Total/NA	Water	8260D	
680-251210-8	OU6-MW-245-20240523	Total/NA	Water	8260D	
680-251210-10	OU6-NNC-3-20240523	Total/NA	Water	8260D	
680-251210-11	Dup-8-20242523	Total/NA	Water	8260D	
680-251210-14	OU6-NNC-2-20240523	Total/NA	Water	8260D	
MB 680-840928/10	Method Blank	Total/NA	Water	8260D	
LCS 680-840928/6	Lab Control Sample	Total/NA	Water	8260D	
LCSD 680-840928/7	Lab Control Sample Dup	Total/NA	Water	8260D	

Analysis Batch: 840966

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251210-1	OU6-MW-260-20240523	Total/NA	Water	8260D	
680-251210-2	OU6-MW-264-20240523	Total/NA	Water	8260D	
680-251210-4	OU6-MW-129-20240523	Total/NA	Water	8260D	
680-251210-5	OU6-MW-131-20240523	Total/NA	Water	8260D	
680-251210-6	OU6-MW-242-20240523	Total/NA	Water	8260D	
680-251210-7	OU6-MW-243-20240523	Total/NA	Water	8260D	
680-251210-9	OU6-MW-126-20240523	Total/NA	Water	8260D	
680-251210-12	TRIP-BLANK-20240523	Total/NA	Water	8260D	
680-251210-13	OU6-NNC-1-20240523	Total/NA	Water	8260D	
MB 680-840966/10	Method Blank	Total/NA	Water	8260D	
LCS 680-840966/6	Lab Control Sample	Total/NA	Water	8260D	
LCSD 680-840966/7	Lab Control Sample Dup	Total/NA	Water	8260D	
680-251210-13 MS	OU6-NNC-1-20240523	Total/NA	Water	8260D	
680-251210-13 MSD	OU6-NNC-1-20240523	Total/NA	Water	8260D	

Analysis Batch: 841121

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251210-1	OU6-MW-260-20240523	Total/NA	Water	8260D	
680-251210-4	OU6-MW-129-20240523	Total/NA	Water	8260D	
MB 680-841121/10	Method Blank	Total/NA	Water	8260D	
LCS 680-841121/6	Lab Control Sample	Total/NA	Water	8260D	
LCSD 680-841121/7	Lab Control Sample Dup	Total/NA	Water	8260D	

Analysis Batch: 841256

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251210-2	OU6-MW-264-20240523	Total/NA	Water	8260D	
680-251210-5	OU6-MW-131-20240523	Total/NA	Water	8260D	
680-251210-6	OU6-MW-242-20240523	Total/NA	Water	8260D	
680-251210-7	OU6-MW-243-20240523	Total/NA	Water	8260D	
680-251210-9	OU6-MW-126-20240523	Total/NA	Water	8260D	
680-251210-12	TRIP-BLANK-20240523	Total/NA	Water	8260D	
MB 680-841256/9	Method Blank	Total/NA	Water	8260D	
LCS 680-841256/4	Lab Control Sample	Total/NA	Water	8260D	
LCSD 680-841256/5	Lab Control Sample Dup	Total/NA	Water	8260D	
680-251210-2 MS	OU6-MW-264-20240523	Total/NA	Water	8260D	
680-251210-2 MSD	OU6-MW-264-20240523	Total/NA	Water	8260D	

Analysis Batch: 841505

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251210-4	OU6-MW-129-20240523	Total/NA	Water	8260D	

GC/MS VOA (Continued)

Analysis Batch: 841505 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251210-5	OU6-MW-131-20240523	Total/NA	Water	8260D	
MB 680-841505/8	Method Blank	Total/NA	Water	8260D	
LCS 680-841505/4	Lab Control Sample	Total/NA	Water	8260D	
LCSD 680-841505/5	Lab Control Sample Dup	Total/NA	Water	8260D	

Analysis Batch: 841754

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251210-1	OU6-MW-260-20240523	Total/NA	Water	8260D	
680-251210-6	OU6-MW-242-20240523	Total/NA	Water	8260D	
MB 680-841754/9	Method Blank	Total/NA	Water	8260D	
LCS 680-841754/4	Lab Control Sample	Total/NA	Water	8260D	
LCSD 680-841754/5	Lab Control Sample Dup	Total/NA	Water	8260D	

GC/MS Semi VOA

Prep Batch: 839715

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251210-7	OU6-MW-243-20240523	Total/NA	Water	3510C	
MB 680-839715/1-A	Method Blank	Total/NA	Water	3510C	
LCS 680-839715/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 680-839715/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 839809

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251210-7	OU6-MW-243-20240523	Total/NA	Water	8270E SIM	839715
MB 680-839715/1-A	Method Blank	Total/NA	Water	8270E SIM	839715
LCS 680-839715/2-A	Lab Control Sample	Total/NA	Water	8270E SIM	839715
LCSD 680-839715/3-A	Lab Control Sample Dup	Total/NA	Water	8270E SIM	839715

Prep Batch: 839856

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251210-7	OU6-MW-243-20240523	Total/NA	Water	3510C	
MB 680-839856/1-A	Method Blank	Total/NA	Water	3510C	
LCS 680-839856/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 680-839856/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 839928

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251210-7	OU6-MW-243-20240523	Total/NA	Water	8270E	839856
MB 680-839856/1-A	Method Blank	Total/NA	Water	8270E	839856
LCS 680-839856/2-A	Lab Control Sample	Total/NA	Water	8270E	839856
LCSD 680-839856/3-A	Lab Control Sample Dup	Total/NA	Water	8270E	839856

Prep Batch: 840567

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251210-7 - RE	OU6-MW-243-20240523	Total/NA	Water	3510C	
MB 680-840567/1-A	Method Blank	Total/NA	Water	3510C	
LCS 680-840567/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 680-840567/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

GC/MS Semi VOA

Analysis Batch: 840584

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251210-7 - RE	OU6-MW-243-20240523	Total/NA	Water	8270E	840567
MB 680-840567/1-A	Method Blank	Total/NA	Water	8270E	840567
LCS 680-840567/2-A	Lab Control Sample	Total/NA	Water	8270E	840567
LCSD 680-840567/3-A	Lab Control Sample Dup	Total/NA	Water	8270E	840567

GC VOA

Analysis Batch: 841249

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251210-1	OU6-MW-260-20240523	Total/NA	Water	RSK-175	
680-251210-2	OU6-MW-264-20240523	Total/NA	Water	RSK-175	
680-251210-3	OU6-MW-89-20240523	Total/NA	Water	RSK-175	
680-251210-4	OU6-MW-129-20240523	Total/NA	Water	RSK-175	
680-251210-5	OU6-MW-131-20240523	Total/NA	Water	RSK-175	
680-251210-6	OU6-MW-242-20240523	Total/NA	Water	RSK-175	
680-251210-7	OU6-MW-243-20240523	Total/NA	Water	RSK-175	
680-251210-8	OU6-MW-245-20240523	Total/NA	Water	RSK-175	
680-251210-9	OU6-MW-126-20240523	Total/NA	Water	RSK-175	
MB 680-841249/8	Method Blank	Total/NA	Water	RSK-175	
LCS 680-841249/3	Lab Control Sample	Total/NA	Water	RSK-175	
LCS 680-841249/6	Lab Control Sample	Total/NA	Water	RSK-175	
LCSD 680-841249/4	Lab Control Sample Dup	Total/NA	Water	RSK-175	
LCSD 680-841249/7	Lab Control Sample Dup	Total/NA	Water	RSK-175	
680-251210-2 MS	OU6-MW-264-20240523	Total/NA	Water	RSK-175	
680-251210-2 MSD	OU6-MW-264-20240523	Total/NA	Water	RSK-175	

Analysis Batch: 841868

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251210-1 - RA	OU6-MW-260-20240523	Total/NA	Water	RSK-175	
680-251210-4 - RA	OU6-MW-129-20240523	Total/NA	Water	RSK-175	
680-251210-7 - RA	OU6-MW-243-20240523	Total/NA	Water	RSK-175	
MB 680-841868/8	Method Blank	Total/NA	Water	RSK-175	
LCS 680-841868/1006	Lab Control Sample	Total/NA	Water	RSK-175	
LCS 680-841868/3	Lab Control Sample	Total/NA	Water	RSK-175	
LCSD 680-841868/4	Lab Control Sample Dup	Total/NA	Water	RSK-175	
LCSD 680-841868/7	Lab Control Sample Dup	Total/NA	Water	RSK-175	

GC Semi VOA

Prep Batch: 839861

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251210-7	OU6-MW-243-20240523	Total/NA	Water	3510C	
MB 680-839861/1-A	Method Blank	Total/NA	Water	3510C	
LCS 680-839861/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCS 680-839861/4-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 680-839861/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
LCSD 680-839861/5-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 840047

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251210-7	OU6-MW-243-20240523	Total/NA	Water	8081B 8082A	839861
MB 680-839861/1-A	Method Blank	Total/NA	Water	8081B 8082A	839861

GC Semi VOA (Continued)

Analysis Batch: 840047 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 680-839861/2-A	Lab Control Sample	Total/NA	Water	8081B 8082A	839861
LCS 680-839861/4-A	Lab Control Sample	Total/NA	Water	8081B 8082A	839861
LCSD 680-839861/3-A	Lab Control Sample Dup	Total/NA	Water	8081B 8082A	839861
LCSD 680-839861/5-A	Lab Control Sample Dup	Total/NA	Water	8081B 8082A	839861

HPLC/IC

Analysis Batch: 839616

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251210-1	OU6-MW-260-20240523	Total/NA	Water	9056A	
680-251210-2	OU6-MW-264-20240523	Total/NA	Water	9056A	
680-251210-3	OU6-MW-89-20240523	Total/NA	Water	9056A	
680-251210-4	OU6-MW-129-20240523	Total/NA	Water	9056A	
680-251210-5	OU6-MW-131-20240523	Total/NA	Water	9056A	
680-251210-6	OU6-MW-242-20240523	Total/NA	Water	9056A	
680-251210-7	OU6-MW-243-20240523	Total/NA	Water	9056A	
680-251210-8	OU6-MW-245-20240523	Total/NA	Water	9056A	
MB 680-839616/2	Method Blank	Total/NA	Water	9056A	
LCS 680-839616/6	Lab Control Sample	Total/NA	Water	9056A	
LCSD 680-839616/7	Lab Control Sample Dup	Total/NA	Water	9056A	
680-251210-2 MS	OU6-MW-264-20240523	Total/NA	Water	9056A	
680-251210-2 MSD	OU6-MW-264-20240523	Total/NA	Water	9056A	

Analysis Batch: 841151

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251210-1	OU6-MW-260-20240523	Total/NA	Water	9056A	
680-251210-1	OU6-MW-260-20240523	Total/NA	Water	9056A	
680-251210-2	OU6-MW-264-20240523	Total/NA	Water	9056A	
680-251210-3	OU6-MW-89-20240523	Total/NA	Water	9056A	
680-251210-4	OU6-MW-129-20240523	Total/NA	Water	9056A	
680-251210-5	OU6-MW-131-20240523	Total/NA	Water	9056A	
680-251210-6	OU6-MW-242-20240523	Total/NA	Water	9056A	
680-251210-7	OU6-MW-243-20240523	Total/NA	Water	9056A	
680-251210-8	OU6-MW-245-20240523	Total/NA	Water	9056A	
MB 680-841151/4	Method Blank	Total/NA	Water	9056A	
LCS 680-841151/5	Lab Control Sample	Total/NA	Water	9056A	
LCSD 680-841151/6	Lab Control Sample Dup	Total/NA	Water	9056A	

Analysis Batch: 841647

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251210-2	OU6-MW-264-20240523	Total/NA	Water	9056A	
680-251210-4	OU6-MW-129-20240523	Total/NA	Water	9056A	
MB 680-841647/1009	Method Blank	Total/NA	Water	9056A	
LCS 680-841647/10	Lab Control Sample	Total/NA	Water	9056A	
LCSD 680-841647/11	Lab Control Sample Dup	Total/NA	Water	9056A	
680-251210-2 MS	OU6-MW-264-20240523	Total/NA	Water	9056A	
680-251210-2 MSD	OU6-MW-264-20240523	Total/NA	Water	9056A	

Metals

Prep Batch: 839852

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251210-1	OU6-MW-260-20240523	Total Recoverable	Water	3005A	
680-251210-2	OU6-MW-264-20240523	Total Recoverable	Water	3005A	
680-251210-3	OU6-MW-89-20240523	Total Recoverable	Water	3005A	
680-251210-4	OU6-MW-129-20240523	Total Recoverable	Water	3005A	
680-251210-5	OU6-MW-131-20240523	Total Recoverable	Water	3005A	
680-251210-6	OU6-MW-242-20240523	Total Recoverable	Water	3005A	
680-251210-7	OU6-MW-243-20240523	Total Recoverable	Water	3005A	
680-251210-8	OU6-MW-245-20240523	Total Recoverable	Water	3005A	
MB 680-839852/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 680-839852/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
680-251210-2 MS	OU6-MW-264-20240523	Total Recoverable	Water	3005A	
680-251210-2 MSD	OU6-MW-264-20240523	Total Recoverable	Water	3005A	

Analysis Batch: 840087

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251210-1	OU6-MW-260-20240523	Total Recoverable	Water	6020A	839852
680-251210-2	OU6-MW-264-20240523	Total Recoverable	Water	6020A	839852
680-251210-3	OU6-MW-89-20240523	Total Recoverable	Water	6020A	839852
680-251210-4	OU6-MW-129-20240523	Total Recoverable	Water	6020A	839852
680-251210-5	OU6-MW-131-20240523	Total Recoverable	Water	6020A	839852
680-251210-6	OU6-MW-242-20240523	Total Recoverable	Water	6020A	839852
680-251210-7	OU6-MW-243-20240523	Total Recoverable	Water	6020A	839852
680-251210-8	OU6-MW-245-20240523	Total Recoverable	Water	6020A	839852
MB 680-839852/1-A	Method Blank	Total Recoverable	Water	6020A	839852
LCS 680-839852/2-A	Lab Control Sample	Total Recoverable	Water	6020A	839852
680-251210-2 MS	OU6-MW-264-20240523	Total Recoverable	Water	6020A	839852
680-251210-2 MSD	OU6-MW-264-20240523	Total Recoverable	Water	6020A	839852

Analysis Batch: 840234

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251210-7	OU6-MW-243-20240523	Total Recoverable	Water	6020A	839852
MB 680-839852/1-A	Method Blank	Total Recoverable	Water	6020A	839852
LCS 680-839852/2-A	Lab Control Sample	Total Recoverable	Water	6020A	839852

Prep Batch: 840566

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251210-7	OU6-MW-243-20240523	Total/NA	Water	7470A	
MB 680-840566/1-A	Method Blank	Total/NA	Water	7470A	
LCS 680-840566/2-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 840639

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251210-7	OU6-MW-243-20240523	Total/NA	Water	7470A	840566
MB 680-840566/1-A	Method Blank	Total/NA	Water	7470A	840566
LCS 680-840566/2-A	Lab Control Sample	Total/NA	Water	7470A	840566

General Chemistry

Analysis Batch: 840409

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251210-1	OU6-MW-260-20240523	Total/NA	Water	4500 S2 F-2011	

General Chemistry (Continued)

Analysis Batch: 840409 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251210-2	OU6-MW-264-20240523	Total/NA	Water	4500 S2 F-2011	
680-251210-3	OU6-MW-89-20240523	Total/NA	Water	4500 S2 F-2011	
680-251210-4	OU6-MW-129-20240523	Total/NA	Water	4500 S2 F-2011	
680-251210-5	OU6-MW-131-20240523	Total/NA	Water	4500 S2 F-2011	
680-251210-6	OU6-MW-242-20240523	Total/NA	Water	4500 S2 F-2011	
680-251210-7	OU6-MW-243-20240523	Total/NA	Water	4500 S2 F-2011	
680-251210-8	OU6-MW-245-20240523	Total/NA	Water	4500 S2 F-2011	
MB 680-840409/1	Method Blank	Total/NA	Water	4500 S2 F-2011	
LCS 680-840409/2	Lab Control Sample	Total/NA	Water	4500 S2 F-2011	
LCSD 680-840409/3	Lab Control Sample Dup	Total/NA	Water	4500 S2 F-2011	
680-251210-2 MS	OU6-MW-264-20240523	Total/NA	Water	4500 S2 F-2011	
680-251210-2 MSD	OU6-MW-264-20240523	Total/NA	Water	4500 S2 F-2011	

Analysis Batch: 840411

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251210-2	OU6-MW-264-20240523	Total/NA	Water	9060A	
680-251210-3	OU6-MW-89-20240523	Total/NA	Water	9060A	
680-251210-4	OU6-MW-129-20240523	Total/NA	Water	9060A	
680-251210-5	OU6-MW-131-20240523	Total/NA	Water	9060A	
680-251210-6	OU6-MW-242-20240523	Total/NA	Water	9060A	
680-251210-7	OU6-MW-243-20240523	Total/NA	Water	9060A	
680-251210-8	OU6-MW-245-20240523	Total/NA	Water	9060A	
MB 680-840411/1	Method Blank	Total/NA	Water	9060A	
LCS 680-840411/2	Lab Control Sample	Total/NA	Water	9060A	
LCSD 680-840411/3	Lab Control Sample Dup	Total/NA	Water	9060A	
680-251210-2 MS	OU6-MW-264-20240523	Total/NA	Water	9060A	
680-251210-2 MSD	OU6-MW-264-20240523	Total/NA	Water	9060A	

Analysis Batch: 840412

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251210-1	OU6-MW-260-20240523	Total/NA	Water	9060A	
MB 680-840412/1	Method Blank	Total/NA	Water	9060A	
LCS 680-840412/2	Lab Control Sample	Total/NA	Water	9060A	
LCSD 680-840412/3	Lab Control Sample Dup	Total/NA	Water	9060A	

Analysis Batch: 840620

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251210-1	OU6-MW-260-20240523	Total/NA	Water	2320B-2011	
680-251210-1	OU6-MW-260-20240523	Total/NA	Water	SM 4500 CO2 D	
680-251210-2	OU6-MW-264-20240523	Total/NA	Water	2320B-2011	
680-251210-2	OU6-MW-264-20240523	Total/NA	Water	SM 4500 CO2 D	
680-251210-3	OU6-MW-89-20240523	Total/NA	Water	2320B-2011	
680-251210-3	OU6-MW-89-20240523	Total/NA	Water	SM 4500 CO2 D	
680-251210-4	OU6-MW-129-20240523	Total/NA	Water	2320B-2011	
680-251210-4	OU6-MW-129-20240523	Total/NA	Water	SM 4500 CO2 D	
680-251210-5	OU6-MW-131-20240523	Total/NA	Water	2320B-2011	
680-251210-5	OU6-MW-131-20240523	Total/NA	Water	SM 4500 CO2 D	
680-251210-6	OU6-MW-242-20240523	Total/NA	Water	2320B-2011	
680-251210-6	OU6-MW-242-20240523	Total/NA	Water	SM 4500 CO2 D	
680-251210-7	OU6-MW-243-20240523	Total/NA	Water	2320B-2011	
680-251210-7	OU6-MW-243-20240523	Total/NA	Water	SM 4500 CO2 D	

General Chemistry (Continued)

Analysis Batch: 840620 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251210-8	OU6-MW-245-20240523	Total/NA	Water	2320B-2011	
680-251210-8	OU6-MW-245-20240523	Total/NA	Water	SM 4500 CO2 D	
MB 680-840620/4	Method Blank	Total/NA	Water	2320B-2011	
LCS 680-840620/6	Lab Control Sample	Total/NA	Water	2320B-2011	
LCSD 680-840620/31	Lab Control Sample Dup	Total/NA	Water	2320B-2011	
680-251210-2 DU	OU6-MW-264-20240523	Total/NA	Water	2320B-2011	
680-251210-2 DU	OU6-MW-264-20240523	Total/NA	Water	SM 4500 CO2 D	

Lab Chronicle

Client: Meadows CMPG, Inc
Job ID: 680-251210-1
Project/Site: DSCR - OU6 Annual

Client Sample ID: OU6-MW-260-20240523
Lab Sample ID: 680-251210-1
Date Collected: 05/23/24 09:20
Matrix: Water
Date Received: 05/24/24 09:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	840966	06/04/24 18:55	Y1S	EET SAV
	Instrument ID: CMSAA									
Total/NA	Analysis	8260D		10	5 mL	5 mL	841754	06/11/24 18:40	UI	EET SAV
	Instrument ID: CMSAA									
Total/NA	Analysis	8260D		25	5 mL	5 mL	841121	06/05/24 16:50	NTA	EET SAV
	Instrument ID: CMSAB									
Total/NA	Analysis	RSK-175		1	17 mL	17 mL	841249	06/06/24 12:04	OK	EET SAV
	Instrument ID: CVGU									
Total/NA	Analysis	RSK-175	RA	10	17 mL	17 mL	841868	06/11/24 17:49	OK	EET SAV
	Instrument ID: CVGU									
Total/NA	Analysis	9056A		1	5 mL	5 mL	839616	05/24/24 17:45	BS	EET SAV
	Instrument ID: CICP									
Total/NA	Analysis	9056A		1	2 mL	2 mL	841151	06/05/24 15:30	BS	EET SAV
	Instrument ID: CICR									
Total/NA	Analysis	9056A		25	2 mL	2 mL	841151	06/05/24 16:37	BS	EET SAV
	Instrument ID: CICR									
Total Recoverable	Prep	3005A			25 mL	125 mL	839852	05/28/24 06:17	RR	EET SAV
Total Recoverable	Analysis	6020A		1			840087	05/28/24 15:18	BJB	EET SAV
	Instrument ID: ICPMSD									
Total/NA	Analysis	2320B-2011		1			840620	05/31/24 13:04	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	4500 S2 F-2011		1	280 mL	280 mL	840409	05/30/24 12:33	JAS	EET SAV
	Instrument ID: NoEquip									
Total/NA	Analysis	9060A		1	40 mL	40 mL	840412	05/29/24 08:38	NVF	EET SAV
	Instrument ID: TOC8									
Total/NA	Analysis	SM 4500 CO2 D		1			840620	05/31/24 13:04	PG	EET SAV
	Instrument ID: MANTECH 2									

Client Sample ID: OU6-MW-264-20240523
Lab Sample ID: 680-251210-2
Date Collected: 05/23/24 08:10
Matrix: Water
Date Received: 05/24/24 09:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	840966	06/04/24 16:22	Y1S	EET SAV
	Instrument ID: CMSAA									
Total/NA	Analysis	8260D		1	5 mL	5 mL	841256	06/06/24 17:44	MLL	EET SAV
	Instrument ID: CMSAA									
Total/NA	Analysis	RSK-175		1	17 mL	17 mL	841249	06/06/24 16:06	OK	EET SAV
	Instrument ID: CVGU									
Total/NA	Analysis	9056A		1	5 mL	5 mL	839616	05/24/24 17:54	BS	EET SAV
	Instrument ID: CICP									
Total/NA	Analysis	9056A		5	2 mL	2 mL	841151	06/05/24 15:37	BS	EET SAV
	Instrument ID: CICR									

Client Sample ID: OU6-MW-264-20240523
Lab Sample ID: 680-251210-2

Date Collected: 05/23/24 08:10
Matrix: Water
Date Received: 05/24/24 09:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		10	2 mL	2 mL	841647	06/10/24 16:45	KMB	EET SAV
Total Recoverable	Prep	3005A			25 mL	125 mL	839852	05/28/24 06:17	RR	EET SAV
Total Recoverable	Analysis	6020A		1			840087	05/28/24 15:10	BJB	EET SAV
	Instrument ID: ICPMSD									
Total/NA	Analysis	2320B-2011		1			840620	05/31/24 12:30	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	4500 S2 F-2011		1	280 mL	280 mL	840409	05/30/24 12:33	JAS	EET SAV
	Instrument ID: NoEquip									
Total/NA	Analysis	9060A		1	40 mL	40 mL	840411	05/28/24 22:57	NVF	EET SAV
	Instrument ID: TOC8									
Total/NA	Analysis	SM 4500 CO2 D		1			840620	05/31/24 12:30	PG	EET SAV
	Instrument ID: MANTECH 2									

Client Sample ID: OU6-MW-89-20240523
Lab Sample ID: 680-251210-3

Date Collected: 05/23/24 10:15
Matrix: Water
Date Received: 05/24/24 09:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	840928	06/04/24 18:22	P1C	EET SAV
	Instrument ID: CMSAB									
Total/NA	Analysis	RSK-175		1	17 mL	17 mL	841249	06/06/24 12:17	OK	EET SAV
	Instrument ID: CVGU									
Total/NA	Analysis	9056A		2	5 mL	5 mL	839616	05/24/24 18:18	BS	EET SAV
	Instrument ID: CICP									
Total/NA	Analysis	9056A		1	2 mL	2 mL	841151	06/05/24 15:56	BS	EET SAV
	Instrument ID: CICR									
Total Recoverable	Prep	3005A			25 mL	125 mL	839852	05/28/24 06:17	RR	EET SAV
Total Recoverable	Analysis	6020A		1			840087	05/28/24 15:16	BJB	EET SAV
	Instrument ID: ICPMSD									
Total/NA	Analysis	2320B-2011		1			840620	05/31/24 12:46	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	4500 S2 F-2011		1	290 mL	290 mL	840409	05/30/24 12:33	JAS	EET SAV
	Instrument ID: NoEquip									
Total/NA	Analysis	9060A		1	40 mL	40 mL	840411	05/29/24 03:24	NVF	EET SAV
	Instrument ID: TOC8									
Total/NA	Analysis	SM 4500 CO2 D		1			840620	05/31/24 12:46	PG	EET SAV
	Instrument ID: MANTECH 2									

Client Sample ID: OU6-MW-129-20240523
Lab Sample ID: 680-251210-4

Date Collected: 05/23/24 08:30
Matrix: Water
Date Received: 05/24/24 09:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	840966	06/04/24 17:27	Y1S	EET SAV
	Instrument ID: CMSAA									

Client Sample ID: OU6-MW-129-20240523

Lab Sample ID: 680-251210-4

Date Collected: 05/23/24 08:30

Matrix: Water

Date Received: 05/24/24 09:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1000	5 mL	5 mL	841121	06/05/24 17:13	NTA	EET SAV
Total/NA	Analysis	8260D		50	5 mL	5 mL	841505	06/10/24 16:55	P1C	EET SAV
	Instrument ID: CMSAJ									
Total/NA	Analysis	RSK-175		1	17 mL	17 mL	841249	06/06/24 12:30	OK	EET SAV
	Instrument ID: CVGU									
Total/NA	Analysis	RSK-175	RA	10	17 mL	17 mL	841868	06/11/24 18:02	OK	EET SAV
	Instrument ID: CVGU									
Total/NA	Analysis	9056A		1	5 mL	5 mL	839616	05/24/24 18:27	BS	EET SAV
	Instrument ID: CICP									
Total/NA	Analysis	9056A		1	2 mL	2 mL	841151	06/05/24 16:03	BS	EET SAV
	Instrument ID: CICR									
Total/NA	Analysis	9056A		10	2 mL	2 mL	841647	06/10/24 17:04	KMB	EET SAV
	Instrument ID: CICR									
Total Recoverable	Prep	3005A			25 mL	125 mL	839852	05/28/24 06:17	RR	EET SAV
Total Recoverable	Analysis	6020A		1			840087	05/28/24 15:31	BJB	EET SAV
	Instrument ID: ICPMSD									
Total/NA	Analysis	2320B-2011		1			840620	05/31/24 13:42	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	4500 S2 F-2011		1	300 mL	300 mL	840409	05/30/24 12:33	JAS	EET SAV
	Instrument ID: NoEquip									
Total/NA	Analysis	9060A		1	40 mL	40 mL	840411	05/29/24 03:40	NVF	EET SAV
	Instrument ID: TOC8									
Total/NA	Analysis	SM 4500 CO2 D		1			840620	05/31/24 13:42	PG	EET SAV
	Instrument ID: MANTECH 2									

Client Sample ID: OU6-MW-131-20240523

Lab Sample ID: 680-251210-5

Date Collected: 05/23/24 09:40

Matrix: Water

Date Received: 05/24/24 09:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	840966	06/04/24 18:11	Y1S	EET SAV
	Instrument ID: CMSAA									
Total/NA	Analysis	8260D		100	5 mL	5 mL	841256	06/06/24 18:27	MLL	EET SAV
	Instrument ID: CMSAA									
Total/NA	Analysis	8260D		10	5 mL	5 mL	841505	06/10/24 17:19	P1C	EET SAV
	Instrument ID: CMSAJ									
Total/NA	Analysis	RSK-175		1	17 mL	17 mL	841249	06/06/24 12:43	OK	EET SAV
	Instrument ID: CVGU									
Total/NA	Analysis	9056A		2	5 mL	5 mL	839616	05/24/24 18:35	BS	EET SAV
	Instrument ID: CICP									
Total/NA	Analysis	9056A		1	2 mL	2 mL	841151	06/05/24 16:09	BS	EET SAV
	Instrument ID: CICR									

Lab Chronicle

Client: Meadows CMPG, Inc
Job ID: 680-251210-1
Project/Site: DSCR - OU6 Annual

Client Sample ID: OU6-MW-131-20240523
Lab Sample ID: 680-251210-5
Date Collected: 05/23/24 09:40
Matrix: Water
Date Received: 05/24/24 09:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			25 mL	125 mL	839852	05/28/24 06:17	RR	EET SAV
Total Recoverable	Analysis	6020A		1			840087	05/28/24 15:29	BJB	EET SAV
	Instrument ID: ICPMSD									
Total/NA	Analysis	2320B-2011		1			840620	05/31/24 13:12	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	4500 S2 F-2011		1	300 mL	300 mL	840409	05/30/24 12:33	JAS	EET SAV
	Instrument ID: NoEquip									
Total/NA	Analysis	9060A		1	40 mL	40 mL	840411	05/29/24 03:58	NVF	EET SAV
	Instrument ID: TOC8									
Total/NA	Analysis	SM 4500 CO2 D		1			840620	05/31/24 13:12	PG	EET SAV
	Instrument ID: MANTECH 2									

Client Sample ID: OU6-MW-242-20240523
Lab Sample ID: 680-251210-6
Date Collected: 05/23/24 08:25
Matrix: Water
Date Received: 05/24/24 09:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	840966	06/04/24 17:49	Y1S	EET SAV
	Instrument ID: CMSAA									
Total/NA	Analysis	8260D		500	5 mL	5 mL	841256	06/06/24 18:49	MLL	EET SAV
	Instrument ID: CMSAA									
Total/NA	Analysis	8260D		50	5 mL	5 mL	841754	06/11/24 18:16	UI	EET SAV
	Instrument ID: CMSAA									
Total/NA	Analysis	RSK-175		1	17 mL	17 mL	841249	06/06/24 16:45	OK	EET SAV
	Instrument ID: CVGU									
Total/NA	Analysis	9056A		2	5 mL	5 mL	839616	05/24/24 18:43	BS	EET SAV
	Instrument ID: CICP									
Total/NA	Analysis	9056A		1	2 mL	2 mL	841151	06/05/24 16:16	BS	EET SAV
	Instrument ID: CICR									
Total Recoverable	Prep	3005A			25 mL	125 mL	839852	05/28/24 06:17	RR	EET SAV
Total Recoverable	Analysis	6020A		1			840087	05/28/24 15:33	BJB	EET SAV
	Instrument ID: ICPMSD									
Total/NA	Analysis	2320B-2011		1			840620	05/31/24 12:56	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	4500 S2 F-2011		1	300 mL	300 mL	840409	05/30/24 12:33	JAS	EET SAV
	Instrument ID: NoEquip									
Total/NA	Analysis	9060A		1	40 mL	40 mL	840411	05/29/24 04:14	NVF	EET SAV
	Instrument ID: TOC8									
Total/NA	Analysis	SM 4500 CO2 D		1			840620	05/31/24 12:56	PG	EET SAV
	Instrument ID: MANTECH 2									

Lab Chronicle

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-251210-1

Client Sample ID: OU6-MW-243-20240523

Date Collected: 05/23/24 10:35
Date Received: 05/24/24 09:55

Lab Sample ID: 680-251210-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		100	5 mL	5 mL	840966	06/04/24 17:06	Y1S	EET SAV
	Instrument ID: CMSAA									
Total/NA	Analysis	8260D		100	5 mL	5 mL	841256	06/06/24 19:11	MLL	EET SAV
	Instrument ID: CMSAA									
Total/NA	Prep	3510C			511.5 mL	1 mL	839856	05/28/24 07:00	DS	EET SAV
Total/NA	Analysis	8270E		1	1 mL	1 mL	839928	05/28/24 20:09	T1C	EET SAV
	Instrument ID: CMSD									
Total/NA	Prep	3510C	RE		516.2 mL	1 mL	840567	05/31/24 11:30	RR	EET SAV
Total/NA	Analysis	8270E	RE	1	1 mL	1 mL	840584	05/31/24 23:33	T1C	EET SAV
	Instrument ID: CMSD									
Total/NA	Prep	3510C			247.6 mL	1 mL	839715	05/25/24 07:20	DS	EET SAV
Total/NA	Analysis	8270E SIM		1	1 mL	1 mL	839809	05/28/24 16:53	NED	EET SAV
	Instrument ID: CMSY									
Total/NA	Analysis	RSK-175		1	17 mL	17 mL	841249	06/06/24 16:57	OK	EET SAV
	Instrument ID: CVGU									
Total/NA	Analysis	RSK-175	RA	10	17 mL	17 mL	841868	06/11/24 18:15	OK	EET SAV
	Instrument ID: CVGU									
Total/NA	Prep	3510C			256.8 mL	1 mL	839861	05/28/24 07:28	DS	EET SAV
Total/NA	Analysis	8081B 8082A		1	1 mL	1 mL	840047	05/28/24 19:18	K1C	EET SAV
	Instrument ID: CSGAE									
Total/NA	Analysis	9056A		2	5 mL	5 mL	839616	05/24/24 18:52	BS	EET SAV
	Instrument ID: CICP									
Total/NA	Analysis	9056A		1	2 mL	2 mL	841151	06/05/24 16:22	BS	EET SAV
	Instrument ID: CICR									
Total Recoverable	Prep	3005A			25 mL	125 mL	839852	05/28/24 06:17	RR	EET SAV
Total Recoverable	Analysis	6020A		1			840087	05/28/24 15:35	BJB	EET SAV
	Instrument ID: ICPMSD									
Total Recoverable	Prep	3005A			25 mL	125 mL	839852	05/28/24 06:17	RR	EET SAV
Total Recoverable	Analysis	6020A		1			840234	05/29/24 12:25	BWR	EET SAV
	Instrument ID: ICPMSD									
Total/NA	Prep	7470A			50 mL	50 mL	840566	05/31/24 11:29	RS	EET SAV
Total/NA	Analysis	7470A		1			840639	05/31/24 16:22	BCB	EET SAV
	Instrument ID: QuickTrace3									
Total/NA	Analysis	2320B-2011		1			840620	05/31/24 13:32	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	4500 S2 F-2011		1	300 mL	300 mL	840409	05/30/24 12:33	JAS	EET SAV
	Instrument ID: NoEquip									
Total/NA	Analysis	9060A		3	40 mL	40 mL	840411	05/29/24 13:51	NVF	EET SAV
	Instrument ID: TOC8									
Total/NA	Analysis	SM 4500 CO2 D		1			840620	05/31/24 13:32	PG	EET SAV
	Instrument ID: MANTECH 2									

Client Sample ID: OU6-MW-245-20240523
Lab Sample ID: 680-251210-8

Date Collected: 05/23/24 14:00
Matrix: Water
Date Received: 05/24/24 09:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	840928	06/04/24 17:14	P1C	EET SAV
	Instrument ID: CMSAB									
Total/NA	Analysis	RSK-175		1	17 mL	17 mL	841249	06/06/24 17:10	OK	EET SAV
	Instrument ID: CVGU									
Total/NA	Analysis	9056A		2	5 mL	5 mL	839616	05/24/24 19:00	BS	EET SAV
	Instrument ID: CICP									
Total/NA	Analysis	9056A		1	2 mL	2 mL	841151	06/05/24 16:29	BS	EET SAV
	Instrument ID: CICR									
Total Recoverable	Prep	3005A			25 mL	125 mL	839852	05/28/24 06:17	RR	EET SAV
Total Recoverable	Analysis	6020A		1			840087	05/28/24 15:37	BJB	EET SAV
	Instrument ID: ICPMSD									
Total/NA	Analysis	2320B-2011		1			840620	05/31/24 13:22	PG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	4500 S2 F-2011		1	300 mL	300 mL	840409	05/30/24 12:33	JAS	EET SAV
	Instrument ID: NoEquip									
Total/NA	Analysis	9060A		1	40 mL	40 mL	840411	05/29/24 04:49	NVF	EET SAV
	Instrument ID: TOC8									
Total/NA	Analysis	SM 4500 CO2 D		1			840620	05/31/24 13:22	PG	EET SAV
	Instrument ID: MANTECH 2									

Client Sample ID: OU6-MW-126-20240523
Lab Sample ID: 680-251210-9

Date Collected: 05/23/24 10:40
Matrix: Water
Date Received: 05/24/24 09:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	840966	06/04/24 18:33	Y1S	EET SAV
	Instrument ID: CMSAA									
Total/NA	Analysis	8260D		5	5 mL	5 mL	841256	06/06/24 19:59	MLL	EET SAV
	Instrument ID: CMSAA									
Total/NA	Analysis	RSK-175		1	17 mL	17 mL	841249	06/06/24 17:23	OK	EET SAV
	Instrument ID: CVGU									

Client Sample ID: OU6-NNC-3-20240523
Lab Sample ID: 680-251210-10

Date Collected: 05/23/24 13:35
Matrix: Water
Date Received: 05/24/24 09:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	840928	06/04/24 17:37	P1C	EET SAV
	Instrument ID: CMSAB									

Lab Chronicle

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-251210-1

Client Sample ID: Dup-8-20242523

Lab Sample ID: 680-251210-11

Date Collected: 05/23/24 00:00
Matrix: Water
Date Received: 05/24/24 09:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	840928	06/04/24 17:59	P1C	EET SAV
	Instrument ID: CMSAB									

Client Sample ID: TRIP-BLANK-20240523

Lab Sample ID: 680-251210-12

Date Collected: 05/23/24 00:00
Matrix: Water
Date Received: 05/24/24 09:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	840966	06/04/24 15:17	Y1S	EET SAV
	Instrument ID: CMSAA									
Total/NA	Analysis	8260D		1	5 mL	5 mL	841256	06/06/24 15:09	MLL	EET SAV
	Instrument ID: CMSAA									

Client Sample ID: OU6-NNC-1-20240523

Lab Sample ID: 680-251210-13

Date Collected: 05/23/24 11:40
Matrix: Water
Date Received: 05/24/24 09:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	840966	06/04/24 16:44	Y1S	EET SAV
	Instrument ID: CMSAA									

Client Sample ID: OU6-NNC-2-20240523

Lab Sample ID: 680-251210-14

Date Collected: 05/23/24 14:20
Matrix: Water
Date Received: 05/24/24 09:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	840928	06/04/24 18:45	P1C	EET SAV
	Instrument ID: CMSAB									

Laboratory References:

EET SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Accreditation/Certification Summary

Client: Meadows CMPG, Inc
Job ID: 680-251210-1
Project/Site: DSCR - OU6 Annual

Laboratory: Eurofins Savannah

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
ANAB	Dept. of Defense ELAP	L2463	09-22-24
Virginia	NELAP	460161	06-14-24

Method Summary

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-251210-1

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds (GC/MS)	SW846	EET SAV
8270E	Semivolatile Organic Compounds (GC/MS)	SW846	EET SAV
8270E SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	EET SAV
RSK-175	Dissolved Gases (GC)	RSK	EET SAV
8081B 8082A	Organochlorine Pesticides & PCBs (GC)	SW846	EET SAV
9056A	Anions, Ion Chromatography	SW846	EET SAV
6020A	Metals (ICP/MS)	SW846	EET SAV
7470A	Mercury (CVAA)	SW846	EET SAV
2320B-2011	Alkalinity, Total	SM	EET SAV
4500 S2 F-2011	Sulfide, Total	SM	EET SAV
9060A	Organic Carbon, Total (TOC)	SW846	EET SAV
SM 4500 CO2 D	Carbon Dioxide and Forms of Alkalinity by Calculation	SM	EET SAV
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET SAV
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	EET SAV
5030C	Purge and Trap	SW846	EET SAV
7470A	Preparation, Mercury	SW846	EET SAV

Protocol References:

RSK = Sample Prep And Calculations For Dissolved Gas Analysis In Water Samples Using A GC Headspace Equilibration Technique , RSKSOP-175, Rev. 0, 8/11/94, USEPA Research Lab

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Eurofins Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Phone (912) 354-7858 Phone (912) 352-0165

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: Tim, TJ, Quin and Bruce	Lab PM: Lanier, Jerry	Carrier Tracking No(s):	COC No:
Client Contact: Andrew VanBuesking	Phone: 757-589-5825	E-Mail: Jerry.Lanier@et.eurofinsus.com	State of Origin: VA	Page: Page 1 of 2
Company: Meadows CMPG	PWSID:			Job #:
Address: 2107 Granby St	Due Date Requested:			
City: Norfolk	TAT Requested (days): STD			
State, Zip: VA	Compliance Project: Δ Yes Δ No			
Phone: 757-623-3107	PO #: 0045-0011			
Email: avanbuesking@meadowscmpg	WO #:			
Project Name: OU6 Annual	Project #:			
Site: DSCR, OU6	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260D_DOD5 - (MOD) Volatiles	RSK_175_DOD5 - Ethane, Ethene, Methane	9060A - TOC	9056A_OF28D_D5 - Chloride & Sulfate 9056A_OF_48H_D5 - Local Method	SM4500_S2_F - Sulfide, Total	6020A_DOD5 - Manganese	SM4500_CO2_D - Carbon Dioxide	2320B - Alkalinity	DIOX 8270E ID D5	8270E_DOD5 - (MOD) Semivolatiles (without PAHs)	8270E_SIM_DOD5 - Routine PAH	8081B_8082A_D5 - Routine Pesticides & PCBs	7470A_DOD5 - Mercury 6020A_DOD5- (MOD) TAL Metals	8270E_SIM_ID_D5 Local Method - Dioxane	Total Number of containers	Special Ir
Preservation Code:							A	A	S	N	CB	D	N	N		N	N	N	D	N		
OU6-MW-260-20240523	5/23/24	0920	G	W			3	3	3	1	2	1	1	1							15	
OU6-MW-264-20240523	5/23/24	0810	G	W		Y	9	9	9	3	6	3	3	3							45	MS/MSD
OU6-MW-89-20240523	5/23/24	1015	G	W			3	3	3	1	2	1	1	1							15	
OU6-MW-129-20240523	5/23/24	0830	G	W			3	3	3	1	2	1	1	1							15	
OU6-MW-131-20240523	5/23/24	0940	G	W			3	3	3	1	2	1	1	1							15	
OU6-MW-242-20240523	5/23/24	0825	G	W			3	3	3	1	2	1	1	1							15	
OU6-MW-243-20240523	5/23/24	1035	G	W			3	3	3	1	2	1	1	1		2	2	2	1		22	
OU6-MW-245-20240523	5/23/24	1400	G	W			3	3	3	1	2	1	1	1							15	
OU6-MW-126-20240523	5/23/24	1040	G	W			3	3													6	
OU6-NNC-3-20240523	5/23/24	1335	G	W			3														3	
Dup-8-20240523	5/23/24		G	W			3														3	

680-251210 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ■ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ■ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:

Method of Shipment:

BRUCE DIGGS	5-22-2024/1600	Company	Received by:	Date/Time: 5/24/24	Company 0955
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 3.0/3.1 2.9/2.6 0.1/0.2

Ver: 01/16/2019

Eurofins Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Phone (912) 354-7858 Phone (912) 352-0165

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler:	Lab PM: Lanier, Jerry	Carrier Tracking No(s):	COC No:
Client Contact: Andrew VanBuesking	Phone: 757-589-5825	E-Mail: Jerry.Lanier@et.eurofinsus.com	State of Origin: VA	Page: Page 2 of 2
Company: Meadows CMPG	PWSID:			Job #:
Address: 2107 Granby St	Due Date Requested:			
City: Norfolk	TAT Requested (days): STD			
State, Zip: VA	Compliance Project: Δ Yes Δ No			
Phone: 757-623-3107	PO #: 0045-0011			
Email: avanbuesking@meadowscmpg	WO #:			
Project Name: OU6 Annual	Project #:			
Site: DSCR, OU6	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260D_DOD5 - (MOD) Volatiles	RSK_175_DOD5 - Ethane, Ethene, Methane	9060A - TOC	9056A_OF28D_D5 - Chloride & Sulfate 9056A_OF_48H_D5 - Local Method	SM4500_S2_F - Sulfide, Total	6020A_DOD5 - Manganese	SM4500_CO2_D - Carbon Dioxide	2320B - Alkalinity	DIOX 8270E ID D5	8270E_DOD5 - (MOD) Semivolatiles (without PAHs)	8270E_SIM_DOD5 - Routine PAH	8081B_8082A_D5 - Routine Pesticides & PCBs	7470A_DOD5 - Mercury 6020A_DOD5- (MOD) TAL Metals	8270E_SIM_ID_D5 Local Method - Dioxane	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A	A	S	N	GC	D	N	N		N				N			
TRIP-BLANK-20240522	5/22/24		G	W			2															2	
OU6-NNC-1-20240523	5/23/24	1140	G	W		Y	9															9	MS/MSD
OU6-NNC-2-20240523	5/23/24	1420	G	W			3															3	
																						0	
																						0	
																						0	
																						0	
																						0	
																						0	
																						0	
																						0	
																						0	

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ■ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ■ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:
BRUCE DIGGS	5-21-2024/1600	Company	Received by:	Date/Time: 5/24/24 0955	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: 3.0/2.1 2.5/2.6 0.1/0.2		

Ver: 01/16/2019

Login Sample Receipt Checklist

Client: Meadows CMPG, Inc

Job Number: 680-251210-1

Login Number: 251210

List Source: Eurofins Savannah

List Number: 1

Creator: Johnson, Corey M

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

PREPARED FOR

Attn: Kandyce Keller
Meadows CMPG, Inc
2107 Granby Street
Norfolk, Virginia 23517

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JOB DESCRIPTION

DSCR - OU6 Annual

JOB NUMBER

680-251332-1

Eurofins Savannah
5102 LaRoche Avenue
Savannah GA 31404

See page two for job notes and contact information.

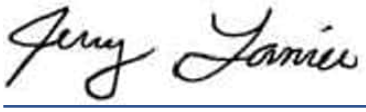
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Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Southeast, LLC Project Manager.

Authorization



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Authorized for release by
Jerry Lanier, Project Manager I
Jerry.Lanier@et.eurofinsus.com
(912)250-0281

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Estimated: The analyte was positively identified; the quantitation is an estimation
M	Manual integrated compound.
Q	One or more quality control criteria failed.
U	Undetected at the Limit of Detection.

GC VOA

Qualifier	Qualifier Description
U	Undetected at the Limit of Detection.

HPLC/IC

Qualifier	Qualifier Description
M	Manual integrated compound.
U	Undetected at the Limit of Detection.

Metals

Qualifier	Qualifier Description
U	Undetected at the Limit of Detection.

General Chemistry

Qualifier	Qualifier Description
U	Undetected at the Limit of Detection.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Sample Summary

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-251332-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-251332-1	OU6-DMW-28B-20240529	Water	05/29/24 10:25	05/30/24 10:44
680-251332-2	TRIP-BLANK-20240529	Water	05/29/24 00:00	05/30/24 10:44

Job Narrative
680-251332-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 5/30/2024 10:44 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 4.2°C.

GC/MS VOA
Method 8260D_DOD5: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for analytical batch 680-841764 recovered outside control limits for the following analytes: Bromomethane and Chloroethane. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 8260D_DOD5: The method blank for analytical batch 680-841764 contained n-Butylbenzene above the method detection limit (MDL). Associated samples were not re-analyzed because the method blank results were less than 1/2 of the reporting limit (RL) OR practical quantitation limit (PQL).

Method 8260D_DOD5: The trip blank for analytical batch 680-841764 contained n-Butylbenzene above the method detection limit (MDL). None of the samples associated with this trip blank contained the target compound; therefore, re-extraction and/or re-analysis of samples were not performed.

TRIP-BLANK-20240529 (680-251332-2)

Method 8260D_DOD5: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with analytical batch 680-841764.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Metals
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
Method SM4500_S2_F: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with analytical batch 680-841210.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-251332-1

Client Sample ID: OU6-DMW-28B-20240529
Date Collected: 05/29/24 10:25
Date Received: 05/30/24 10:44

Lab Sample ID: 680-251332-1
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			06/11/24 14:42	1
Benzene	1.0	U	2.0	0.27	ug/L			06/11/24 14:42	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			06/11/24 14:42	1
Bromochloromethane	1.0	U Q	2.0	0.34	ug/L			06/11/24 14:42	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			06/11/24 14:42	1
Bromoform	2.0	U	2.5	0.59	ug/L			06/11/24 14:42	1
Bromomethane	10	U Q	20	3.7	ug/L			06/11/24 14:42	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			06/11/24 14:42	1
Carbon disulfide	1.0	U	2.0	0.43	ug/L			06/11/24 14:42	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			06/11/24 14:42	1
Chlorobenzene	**1.8**	**M**	1.0	0.15	ug/L			06/11/24 14:42	1
Chloroethane	10	U Q	20	4.6	ug/L			06/11/24 14:42	1
Chloroform	1.0	U	2.0	0.27	ug/L			06/11/24 14:42	1
Chloromethane	2.0	U	2.5	0.54	ug/L			06/11/24 14:42	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			06/11/24 14:42	1
4-Chlorotoluene	1.0	U	2.0	0.41	ug/L			06/11/24 14:42	1
cis-1,2-Dichloroethene	**110**		2.0	0.25	ug/L			06/11/24 14:42	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			06/11/24 14:42	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			06/11/24 14:42	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			06/11/24 14:42	1
1,2-Dibromo-3-Chloropropane	5.0	U Q	10	1.8	ug/L			06/11/24 14:42	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			06/11/24 14:42	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			06/11/24 14:42	1
1,2-Dichlorobenzene	**0.61**	**J M**	2.0	0.31	ug/L			06/11/24 14:42	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			06/11/24 14:42	1
1,4-Dichlorobenzene	**1.8**	**J**	2.0	0.31	ug/L			06/11/24 14:42	1
Dichlorodifluoromethane	1.0	U M	2.0	0.36	ug/L			06/11/24 14:42	1
1,1-Dichloroethane	**0.88**	**J M**	2.0	0.33	ug/L			06/11/24 14:42	1
1,2-Dichloroethane	1.0	U M	2.0	0.25	ug/L			06/11/24 14:42	1
1,1-Dichloroethene	**0.96**	**J**	2.0	0.33	ug/L			06/11/24 14:42	1
1,2-Dichloroethene, Total	**110**		2.0	0.37	ug/L			06/11/24 14:42	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			06/11/24 14:42	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			06/11/24 14:42	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			06/11/24 14:42	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			06/11/24 14:42	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			06/11/24 14:42	1
Hexachlorobutadiene	1.0	U Q	5.0	0.22	ug/L			06/11/24 14:42	1
2-Hexanone	10	U	20	3.2	ug/L			06/11/24 14:42	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			06/11/24 14:42	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			06/11/24 14:42	1
Methyl acetate	10	U	20	3.2	ug/L			06/11/24 14:42	1
Methylcyclohexane	1.0	U	2.0	0.33	ug/L			06/11/24 14:42	1
Methylene Chloride	10	U	20	3.2	ug/L			06/11/24 14:42	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			06/11/24 14:42	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			06/11/24 14:42	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			06/11/24 14:42	1
Naphthalene	5.0	U	10	2.4	ug/L			06/11/24 14:42	1
n-Butylbenzene	2.0	U	2.5	0.52	ug/L			06/11/24 14:42	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			06/11/24 14:42	1

Client Sample ID: OU6-DMW-28B-20240529
Date Collected: 05/29/24 10:25
Date Received: 05/30/24 10:44

Lab Sample ID: 680-251332-1
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	1.0	U	2.0	0.26	ug/L			06/11/24 14:42	1
sec-Butylbenzene	2.0	U	2.5	0.53	ug/L			06/11/24 14:42	1
Styrene	1.0	U	2.0	0.27	ug/L			06/11/24 14:42	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			06/11/24 14:42	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			06/11/24 14:42	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			06/11/24 14:42	1
Tetrachloroethene	1.0	U	2.0	0.35	ug/L			06/11/24 14:42	1
Toluene	**0.36**	**J**	2.0	0.25	ug/L			06/11/24 14:42	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			06/11/24 14:42	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			06/11/24 14:42	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			06/11/24 14:42	1
1,2,4-Trichlorobenzene	2.0	U Q	5.0	0.53	ug/L			06/11/24 14:42	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			06/11/24 14:42	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			06/11/24 14:42	1
Trichloroethene	**1.3**	**M**	1.0	0.20	ug/L			06/11/24 14:42	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			06/11/24 14:42	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			06/11/24 14:42	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			06/11/24 14:42	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			06/11/24 14:42	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			06/11/24 14:42	1
Vinyl chloride	**15**		2.0	0.40	ug/L			06/11/24 14:42	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			06/11/24 14:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*85 - 114*		*06/11/24 14:42*	*1*
Dibromofluoromethane (Surr)	*107*		*80 - 119*		*06/11/24 14:42*	*1*
1,2-Dichloroethane-d4 (Surr)	*96*	*M*	*81 - 118*		*06/11/24 14:42*	*1*
Toluene-d8 (Surr)	*100*		*89 - 112*		*06/11/24 14:42*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	**2.6**		1.1	0.30	ug/L			06/11/24 16:18	1
Ethylene	**4.7**		1.0	0.31	ug/L			06/11/24 16:18	1
Methane (TCD)	**3800**		390	39	ug/L			06/11/24 16:18	1

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**4.0**		0.55	0.20	mg/L			06/11/24 22:18	1
Nitrate as N	**0.18**		0.055	0.023	mg/L			05/30/24 14:02	1
Nitrate Nitrite as N	**0.18**		0.055	0.023	mg/L			05/30/24 14:02	1
Sulfate	**7.1**	**M**	1.5	0.40	mg/L			06/11/24 22:18	1
Nitrite as N	0.050	U	0.055	0.023	mg/L			05/30/24 14:02	1

Method: SW846 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**58**		10	2.2	ug/L		05/31/24 05:16	05/31/24 12:44	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**31**		5.5	2.2	mg/L			06/06/24 14:31	1

Client Sample ID: OU6-DMW-28B-20240529

Lab Sample ID: 680-251332-1

Date Collected: 05/29/24 10:25

Matrix: Water

Date Received: 05/30/24 10:44

General Chemistry (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3 (SM 2320B-2011)	**31**		11	5.0	mg/L			06/06/24 14:31	1
Carbonate Alkalinity as CaCO3 (SM 2320B-2011)	10	U	11	5.0	mg/L			06/06/24 14:31	1
Sulfide (SM 4500 S2 F-2011)	0.83	U	0.83	0.83	mg/L			06/05/24 14:04	1
Sulfide as H2S (SM 4500 S2 F-2011)	0.92	U	0.92	0.92	mg/L			06/05/24 14:04	1
Total Organic Carbon (SW846 9060A)	1.0	U	1.0	0.50	mg/L			06/01/24 20:01	1
Carbon Dioxide, Free (SM 4500 CO2 D)	**73**		11	5.0	mg/L			06/06/24 14:31	1

Client Sample ID: TRIP-BLANK-20240529

Lab Sample ID: 680-251332-2

Date Collected: 05/29/24 00:00

Matrix: Water

Date Received: 05/30/24 10:44

Method: SW846 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			06/11/24 12:55	1
Benzene	1.0	U	2.0	0.27	ug/L			06/11/24 12:55	1
Bromobenzene	0.50	U M	1.0	0.24	ug/L			06/11/24 12:55	1
Bromochloromethane	1.0	U Q	2.0	0.34	ug/L			06/11/24 12:55	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			06/11/24 12:55	1
Bromoform	2.0	U	2.5	0.59	ug/L			06/11/24 12:55	1
Bromomethane	10	U Q	20	3.7	ug/L			06/11/24 12:55	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			06/11/24 12:55	1
Carbon disulfide	1.0	U	2.0	0.43	ug/L			06/11/24 12:55	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			06/11/24 12:55	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			06/11/24 12:55	1
Chloroethane	10	U Q	20	4.6	ug/L			06/11/24 12:55	1
Chloroform	1.0	U	2.0	0.27	ug/L			06/11/24 12:55	1
Chloromethane	2.0	U	2.5	0.54	ug/L			06/11/24 12:55	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			06/11/24 12:55	1
4-Chlorotoluene	1.0	U M	2.0	0.41	ug/L			06/11/24 12:55	1
cis-1,2-Dichloroethene	1.0	U	2.0	0.25	ug/L			06/11/24 12:55	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			06/11/24 12:55	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			06/11/24 12:55	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			06/11/24 12:55	1
1,2-Dibromo-3-Chloropropane	5.0	U Q	10	1.8	ug/L			06/11/24 12:55	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			06/11/24 12:55	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			06/11/24 12:55	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			06/11/24 12:55	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			06/11/24 12:55	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			06/11/24 12:55	1
Dichlorodifluoromethane	1.0	U	2.0	0.36	ug/L			06/11/24 12:55	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			06/11/24 12:55	1
1,2-Dichloroethane	1.0	U M	2.0	0.25	ug/L			06/11/24 12:55	1
1,1-Dichloroethene	1.0	U	2.0	0.33	ug/L			06/11/24 12:55	1
1,2-Dichloroethene, Total	1.0	U	2.0	0.37	ug/L			06/11/24 12:55	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			06/11/24 12:55	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			06/11/24 12:55	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			06/11/24 12:55	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			06/11/24 12:55	1

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-251332-1

Client Sample ID: TRIP-BLANK-20240529
Date Collected: 05/29/24 00:00
Date Received: 05/30/24 10:44

Lab Sample ID: 680-251332-2
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	0.50	U	1.0	0.20	ug/L			06/11/24 12:55	1
Hexachlorobutadiene	1.0	U Q	5.0	0.22	ug/L			06/11/24 12:55	1
2-Hexanone	10	U	20	3.2	ug/L			06/11/24 12:55	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			06/11/24 12:55	1
4-Isopropyltoluene	1.0	U	2.0	0.44	ug/L			06/11/24 12:55	1
Methyl acetate	10	U	20	3.2	ug/L			06/11/24 12:55	1
Methylcyclohexane	1.0	U	2.0	0.33	ug/L			06/11/24 12:55	1
Methylene Chloride	10	U	20	3.2	ug/L			06/11/24 12:55	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			06/11/24 12:55	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			06/11/24 12:55	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			06/11/24 12:55	1
Naphthalene	5.0	U	10	2.4	ug/L			06/11/24 12:55	1
n-Butylbenzene	**0.61**	**J**	2.5	0.52	ug/L			06/11/24 12:55	1
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			06/11/24 12:55	1
o-Xylene	1.0	U	2.0	0.26	ug/L			06/11/24 12:55	1
sec-Butylbenzene	2.0	U M	2.5	0.53	ug/L			06/11/24 12:55	1
Styrene	1.0	U	2.0	0.27	ug/L			06/11/24 12:55	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			06/11/24 12:55	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			06/11/24 12:55	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			06/11/24 12:55	1
Tetrachloroethene	1.0	U	2.0	0.35	ug/L			06/11/24 12:55	1
Toluene	1.0	U	2.0	0.25	ug/L			06/11/24 12:55	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			06/11/24 12:55	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			06/11/24 12:55	1
1,2,3-Trichlorobenzene	2.0	U	5.0	0.81	ug/L			06/11/24 12:55	1
1,2,4-Trichlorobenzene	2.0	U Q	5.0	0.53	ug/L			06/11/24 12:55	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			06/11/24 12:55	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			06/11/24 12:55	1
Trichloroethene	0.50	U	1.0	0.20	ug/L			06/11/24 12:55	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			06/11/24 12:55	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			06/11/24 12:55	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			06/11/24 12:55	1
1,2,4-Trimethylbenzene	1.0	U M	2.0	0.43	ug/L			06/11/24 12:55	1
1,3,5-Trimethylbenzene	1.0	U	2.0	0.28	ug/L			06/11/24 12:55	1
Vinyl chloride	1.0	U	2.0	0.40	ug/L			06/11/24 12:55	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			06/11/24 12:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*85 - 114*		*06/11/24 12:55*	*1*
Dibromofluoromethane (Surr)	*105*		*80 - 119*		*06/11/24 12:55*	*1*
1,2-Dichloroethane-d4 (Surr)	*93*		*81 - 118*		*06/11/24 12:55*	*1*
Toluene-d8 (Surr)	*104*		*89 - 112*		*06/11/24 12:55*	*1*

Method: 8260D - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 680-841764/8
Matrix: Water
Analysis Batch: 841764

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	25	3.7	ug/L			06/11/24 12:04	1
Benzene	1.0	U	2.0	0.27	ug/L			06/11/24 12:04	1
Bromobenzene	0.50	U	1.0	0.24	ug/L			06/11/24 12:04	1
Bromochloromethane	1.0	U	2.0	0.34	ug/L			06/11/24 12:04	1
Bromodichloromethane	1.0	U	2.0	0.25	ug/L			06/11/24 12:04	1
Bromoform	2.0	U	2.5	0.59	ug/L			06/11/24 12:04	1
Bromomethane	10	U	20	3.7	ug/L			06/11/24 12:04	1
2-Butanone (MEK)	20	U	25	6.4	ug/L			06/11/24 12:04	1
Carbon disulfide	1.0	U M	2.0	0.43	ug/L			06/11/24 12:04	1
Carbon tetrachloride	1.0	U	2.0	0.30	ug/L			06/11/24 12:04	1
Chlorobenzene	0.50	U	1.0	0.15	ug/L			06/11/24 12:04	1
Chloroethane	10	U	20	4.6	ug/L			06/11/24 12:04	1
Chloroform	1.0	U	2.0	0.27	ug/L			06/11/24 12:04	1
Chloromethane	2.0	U	2.5	0.54	ug/L			06/11/24 12:04	1
2-Chlorotoluene	0.50	U	1.0	0.25	ug/L			06/11/24 12:04	1
4-Chlorotoluene	1.0	U M	2.0	0.41	ug/L			06/11/24 12:04	1
cis-1,2-Dichloroethene	1.0	U	2.0	0.25	ug/L			06/11/24 12:04	1
cis-1,3-Dichloropropene	1.0	U	2.0	0.26	ug/L			06/11/24 12:04	1
Cyclohexane	1.0	U	2.0	0.28	ug/L			06/11/24 12:04	1
Dibromochloromethane	1.0	U	2.0	0.39	ug/L			06/11/24 12:04	1
1,2-Dibromo-3-Chloropropane	5.0	U	10	1.8	ug/L			06/11/24 12:04	1
1,2-Dibromoethane	1.0	U	2.0	0.33	ug/L			06/11/24 12:04	1
Dibromomethane	1.0	U	2.0	0.34	ug/L			06/11/24 12:04	1
1,2-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			06/11/24 12:04	1
1,3-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			06/11/24 12:04	1
1,4-Dichlorobenzene	1.0	U	2.0	0.31	ug/L			06/11/24 12:04	1
Dichlorodifluoromethane	1.0	U	2.0	0.36	ug/L			06/11/24 12:04	1
1,1-Dichloroethane	1.0	U	2.0	0.33	ug/L			06/11/24 12:04	1
1,2-Dichloroethane	1.0	U	2.0	0.25	ug/L			06/11/24 12:04	1
1,1-Dichloroethene	1.0	U	2.0	0.33	ug/L			06/11/24 12:04	1
1,2-Dichloroethene, Total	1.0	U	2.0	0.37	ug/L			06/11/24 12:04	1
1,2-Dichloropropane	0.50	U	1.0	0.22	ug/L			06/11/24 12:04	1
1,3-Dichloropropane	1.0	U	2.0	0.36	ug/L			06/11/24 12:04	1
2,2-Dichloropropane	1.0	U	2.0	0.35	ug/L			06/11/24 12:04	1
1,1-Dichloropropene	1.0	U	2.0	0.28	ug/L			06/11/24 12:04	1
Ethylbenzene	0.50	U	1.0	0.20	ug/L			06/11/24 12:04	1
Hexachlorobutadiene	1.0	U	5.0	0.22	ug/L			06/11/24 12:04	1
2-Hexanone	10	U	20	3.2	ug/L			06/11/24 12:04	1
Isopropylbenzene	1.0	U	2.0	0.26	ug/L			06/11/24 12:04	1
4-Isopropyltoluene	1.0	U M	2.0	0.44	ug/L			06/11/24 12:04	1
Methyl acetate	10	U	20	3.2	ug/L			06/11/24 12:04	1
Methylcyclohexane	1.0	U M	2.0	0.33	ug/L			06/11/24 12:04	1
Methylene Chloride	10	U	20	3.2	ug/L			06/11/24 12:04	1
4-Methyl-2-pentanone (MIBK)	10	U	20	2.7	ug/L			06/11/24 12:04	1
Methyl tert-butyl ether	2.0	U	5.0	0.81	ug/L			06/11/24 12:04	1
m-Xylene & p-Xylene	1.0	U	2.0	0.49	ug/L			06/11/24 12:04	1
Naphthalene	5.0	U	10	2.4	ug/L			06/11/24 12:04	1
n-Butylbenzene	0.780	J M	2.5	0.52	ug/L			06/11/24 12:04	1

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-841764/8
Matrix: Water
Analysis Batch: 841764

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
N-Propylbenzene	1.0	U	2.0	0.41	ug/L			06/11/24 12:04	1
o-Xylene	1.0	U	2.0	0.26	ug/L			06/11/24 12:04	1
sec-Butylbenzene	2.0	U M	2.5	0.53	ug/L			06/11/24 12:04	1
Styrene	1.0	U M	2.0	0.27	ug/L			06/11/24 12:04	1
tert-Butylbenzene	1.0	U	2.0	0.43	ug/L			06/11/24 12:04	1
1,1,1,2-Tetrachloroethane	1.0	U	2.0	0.36	ug/L			06/11/24 12:04	1
1,1,2,2-Tetrachloroethane	1.0	U	2.0	0.40	ug/L			06/11/24 12:04	1
Tetrachloroethene	1.0	U	2.0	0.35	ug/L			06/11/24 12:04	1
Toluene	1.0	U	2.0	0.25	ug/L			06/11/24 12:04	1
trans-1,2-Dichloroethene	1.0	U	2.0	0.34	ug/L			06/11/24 12:04	1
trans-1,3-Dichloropropene	1.0	U	2.0	0.23	ug/L			06/11/24 12:04	1
1,2,3-Trichlorobenzene	2.0	U M	5.0	0.81	ug/L			06/11/24 12:04	1
1,2,4-Trichlorobenzene	2.0	U	5.0	0.53	ug/L			06/11/24 12:04	1
1,1,1-Trichloroethane	0.50	U	1.0	0.21	ug/L			06/11/24 12:04	1
1,1,2-Trichloroethane	1.0	U	2.0	0.32	ug/L			06/11/24 12:04	1
Trichloroethene	0.50	U	1.0	0.20	ug/L			06/11/24 12:04	1
Trichlorofluoromethane	1.0	U	2.0	0.33	ug/L			06/11/24 12:04	1
1,2,3-Trichloropropane	1.0	U	2.0	0.48	ug/L			06/11/24 12:04	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	1.0	0.23	ug/L			06/11/24 12:04	1
1,2,4-Trimethylbenzene	1.0	U	2.0	0.43	ug/L			06/11/24 12:04	1
1,3,5-Trimethylbenzene	1.0	U M	2.0	0.28	ug/L			06/11/24 12:04	1
Vinyl chloride	1.0	U	2.0	0.40	ug/L			06/11/24 12:04	1
Xylenes, Total	1.0	U	2.0	0.49	ug/L			06/11/24 12:04	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*85 - 114*		*06/11/24 12:04*	*1*
Dibromofluoromethane (Surr)	*104*		*80 - 119*		*06/11/24 12:04*	*1*
1,2-Dichloroethane-d4 (Surr)	*95*		*81 - 118*		*06/11/24 12:04*	*1*
Toluene-d8 (Surr)	*103*		*89 - 112*		*06/11/24 12:04*	*1*

Lab Sample ID: LCS 680-841764/4
Matrix: Water
Analysis Batch: 841764

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	250	250		ug/L		100	39 - 160
Benzene	50.0	54.4		ug/L		109	79 - 120
Bromobenzene	50.0	49.3		ug/L		99	80 - 120
Bromochloromethane	50.0	57.9		ug/L		116	78 - 123
Bromodichloromethane	50.0	44.3		ug/L		89	79 - 125
Bromoform	50.0	43.9		ug/L		88	66 - 130
Bromomethane	50.0	115	Q	ug/L		231	53 - 141
2-Butanone (MEK)	250	249		ug/L		100	56 - 143
Carbon disulfide	50.0	52.9		ug/L		106	64 - 133
Carbon tetrachloride	50.0	46.3		ug/L		93	72 - 136
Chlorobenzene	50.0	51.9		ug/L		104	82 - 118
Chloroethane	50.0	75.6	Q	ug/L		151	60 - 138
Chloroform	50.0	53.4		ug/L		107	79 - 124

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-841764/4
Matrix: Water
Analysis Batch: 841764

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloromethane	50.0	51.4		ug/L		103	50 - 139
2-Chlorotoluene	50.0	57.5		ug/L		115	79 - 122
4-Chlorotoluene	50.0	58.9		ug/L		118	78 - 122
cis-1,2-Dichloroethene	50.0	54.2		ug/L		108	78 - 123
cis-1,3-Dichloropropene	50.0	42.8		ug/L		86	75 - 124
Cyclohexane	50.0	53.2		ug/L		106	71 - 130
Dibromochloromethane	50.0	48.1		ug/L		96	74 - 126
1,2-Dibromo-3-Chloropropane	50.0	36.1		ug/L		72	62 - 128
1,2-Dibromoethane	50.0	45.8		ug/L		92	75 - 127
Dibromomethane	50.0	48.5		ug/L		97	79 - 123
1,2-Dichlorobenzene	50.0	52.7		ug/L		105	80 - 119
1,3-Dichlorobenzene	50.0	55.1		ug/L		110	80 - 119
1,4-Dichlorobenzene	50.0	53.6		ug/L		107	79 - 118
Dichlorodifluoromethane	50.0	54.6		ug/L		109	32 - 152
1,1-Dichloroethane	50.0	53.4		ug/L		107	77 - 125
1,2-Dichloroethane	50.0	53.8		ug/L		108	73 - 128
1,1-Dichloroethene	50.0	51.7		ug/L		103	71 - 131
1,2-Dichloroethene, Total	100	108		ug/L		108	79 - 121
1,2-Dichloropropane	50.0	49.3		ug/L		99	78 - 122
1,3-Dichloropropane	50.0	53.1		ug/L		106	80 - 119
2,2-Dichloropropane	50.0	53.8	M	ug/L		108	60 - 139
1,1-Dichloropropene	50.0	52.1		ug/L		104	79 - 125
Ethylbenzene	50.0	60.4		ug/L		121	79 - 121
Hexachlorobutadiene	50.0	36.7		ug/L		73	66 - 134
2-Hexanone	250	270		ug/L		108	57 - 139
Isopropylbenzene	50.0	54.3		ug/L		109	72 - 131
4-Isopropyltoluene	50.0	53.7		ug/L		107	77 - 127
Methyl acetate	100	110		ug/L		110	56 - 136
Methylcyclohexane	50.0	50.5		ug/L		101	72 - 132
Methylene Chloride	50.0	48.9		ug/L		98	74 - 124
4-Methyl-2-pentanone (MIBK)	250	260		ug/L		104	67 - 130
Methyl tert-butyl ether	50.0	53.0		ug/L		106	71 - 124
m-Xylene & p-Xylene	50.0	60.1		ug/L		120	80 - 121
Naphthalene	50.0	41.4		ug/L		83	61 - 128
n-Butylbenzene	50.0	52.4		ug/L		105	75 - 128
N-Propylbenzene	50.0	57.5		ug/L		115	76 - 126
o-Xylene	50.0	60.3		ug/L		121	78 - 122
sec-Butylbenzene	50.0	56.5		ug/L		113	77 - 126
Styrene	50.0	58.6		ug/L		117	78 - 123
tert-Butylbenzene	50.0	54.5		ug/L		109	78 - 124
1,1,1,2-Tetrachloroethane	50.0	53.2		ug/L		106	78 - 124
1,1,2,2-Tetrachloroethane	50.0	54.5		ug/L		109	71 - 121
Tetrachloroethene	50.0	40.6		ug/L		81	74 - 129
Toluene	50.0	54.2		ug/L		108	80 - 121
trans-1,2-Dichloroethene	50.0	54.0		ug/L		108	75 - 124
trans-1,3-Dichloropropene	50.0	46.3		ug/L		93	73 - 127
1,2,3-Trichlorobenzene	50.0	41.7		ug/L		83	69 - 129
1,2,4-Trichlorobenzene	50.0	34.9		ug/L		70	69 - 130
1,1,1-Trichloroethane	50.0	46.6		ug/L		93	74 - 131

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-841764/4
Matrix: Water
Analysis Batch: 841764

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,2-Trichloroethane	50.0	48.9		ug/L		98	80 - 119
Trichloroethene	50.0	46.2		ug/L		92	79 - 123
Trichlorofluoromethane	50.0	49.1		ug/L		98	65 - 141
1,2,3-Trichloropropane	50.0	54.1		ug/L		108	73 - 122
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	53.8		ug/L		108	70 - 136
1,2,4-Trimethylbenzene	50.0	57.4		ug/L		115	76 - 124
1,3,5-Trimethylbenzene	50.0	55.9		ug/L		112	75 - 124
Vinyl chloride	50.0	53.7		ug/L		107	58 - 137
Xylenes, Total	100	120		ug/L		120	79 - 121

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*93*		*85 - 114*
Dibromofluoromethane (Surr)	*104*		*80 - 119*
1,2-Dichloroethane-d4 (Surr)	*100*		*81 - 118*
Toluene-d8 (Surr)	*102*		*89 - 112*

Lab Sample ID: LCSD 680-841764/5
Matrix: Water
Analysis Batch: 841764

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acetone	250	274		ug/L		109	39 - 160	9	20
Benzene	50.0	55.0		ug/L		110	79 - 120	1	20
Bromobenzene	50.0	49.7		ug/L		99	80 - 120	1	20
Bromochloromethane	50.0	58.6		ug/L		117	78 - 123	1	20
Bromodichloromethane	50.0	45.3		ug/L		91	79 - 125	2	20
Bromoform	50.0	44.9		ug/L		90	66 - 130	2	20
Bromomethane	50.0	108	Q	ug/L		216	53 - 141	6	20
2-Butanone (MEK)	250	261		ug/L		104	56 - 143	5	20
Carbon disulfide	50.0	51.7		ug/L		103	64 - 133	2	20
Carbon tetrachloride	50.0	46.2		ug/L		92	72 - 136	0	20
Chlorobenzene	50.0	51.9		ug/L		104	82 - 118	0	20
Chloroethane	50.0	72.8	Q	ug/L		146	60 - 138	4	20
Chloroform	50.0	53.4		ug/L		107	79 - 124	0	20
Chloromethane	50.0	51.8		ug/L		104	50 - 139	1	20
2-Chlorotoluene	50.0	56.0		ug/L		112	79 - 122	3	20
4-Chlorotoluene	50.0	58.1		ug/L		116	78 - 122	1	20
cis-1,2-Dichloroethene	50.0	55.2		ug/L		110	78 - 123	2	20
cis-1,3-Dichloropropene	50.0	44.0		ug/L		88	75 - 124	3	20
Cyclohexane	50.0	53.0		ug/L		106	71 - 130	0	20
Dibromochloromethane	50.0	49.8		ug/L		100	74 - 126	4	20
1,2-Dibromo-3-Chloropropane	50.0	38.2		ug/L		76	62 - 128	6	20
1,2-Dibromoethane	50.0	47.8		ug/L		96	75 - 127	4	20
Dibromomethane	50.0	49.7		ug/L		99	79 - 123	3	20
1,2-Dichlorobenzene	50.0	52.4		ug/L		105	80 - 119	1	20
1,3-Dichlorobenzene	50.0	55.9		ug/L		112	80 - 119	1	20
1,4-Dichlorobenzene	50.0	53.2		ug/L		106	79 - 118	1	20
Dichlorodifluoromethane	50.0	53.1		ug/L		106	32 - 152	3	20

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-841764/5
Matrix: Water
Analysis Batch: 841764

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1-Dichloroethane	50.0	53.5		ug/L		107	77 - 125	0	20
1,2-Dichloroethane	50.0	54.8		ug/L		110	73 - 128	2	20
1,1-Dichloroethene	50.0	51.2		ug/L		102	71 - 131	1	20
1,2-Dichloroethene, Total	100	109		ug/L		109	79 - 121	1	20
1,2-Dichloropropane	50.0	50.1		ug/L		100	78 - 122	2	20
1,3-Dichloropropane	50.0	54.3		ug/L		109	80 - 119	2	20
2,2-Dichloropropane	50.0	53.8		ug/L		108	60 - 139	0	20
1,1-Dichloropropene	50.0	52.3		ug/L		105	79 - 125	0	20
Ethylbenzene	50.0	59.1		ug/L		118	79 - 121	2	20
Hexachlorobutadiene	50.0	37.3		ug/L		75	66 - 134	2	20
2-Hexanone	250	282		ug/L		113	57 - 139	4	20
Isopropylbenzene	50.0	53.6		ug/L		107	72 - 131	1	20
4-Isopropyltoluene	50.0	53.7		ug/L		107	77 - 127	0	20
Methyl acetate	100	116		ug/L		116	56 - 136	6	20
Methylcyclohexane	50.0	49.2		ug/L		98	72 - 132	3	20
Methylene Chloride	50.0	48.9		ug/L		98	74 - 124	0	20
4-Methyl-2-pentanone (MIBK)	250	273		ug/L		109	67 - 130	5	20
Methyl tert-butyl ether	50.0	55.0		ug/L		110	71 - 124	4	20
m-Xylene & p-Xylene	50.0	59.3		ug/L		119	80 - 121	1	20
Naphthalene	50.0	43.1		ug/L		86	61 - 128	4	20
n-Butylbenzene	50.0	52.1		ug/L		104	75 - 128	1	20
N-Propylbenzene	50.0	55.4		ug/L		111	76 - 126	4	20
o-Xylene	50.0	59.4		ug/L		119	78 - 122	1	20
sec-Butylbenzene	50.0	55.5		ug/L		111	77 - 126	2	20
Styrene	50.0	58.0		ug/L		116	78 - 123	1	20
tert-Butylbenzene	50.0	53.3		ug/L		107	78 - 124	2	20
1,1,1,2-Tetrachloroethane	50.0	53.4		ug/L		107	78 - 124	0	20
1,1,2,2-Tetrachloroethane	50.0	54.0		ug/L		108	71 - 121	1	20
Tetrachloroethene	50.0	40.7		ug/L		81	74 - 129	0	20
Toluene	50.0	54.0		ug/L		108	80 - 121	0	20
trans-1,2-Dichloroethene	50.0	54.1		ug/L		108	75 - 124	0	20
trans-1,3-Dichloropropene	50.0	46.7		ug/L		93	73 - 127	1	20
1,2,3-Trichlorobenzene	50.0	42.5		ug/L		85	69 - 129	2	20
1,2,4-Trichlorobenzene	50.0	36.2		ug/L		72	69 - 130	4	20
1,1,1-Trichloroethane	50.0	46.7		ug/L		93	74 - 131	0	20
1,1,2-Trichloroethane	50.0	50.0		ug/L		100	80 - 119	2	20
Trichloroethene	50.0	45.6		ug/L		91	79 - 123	1	20
Trichlorofluoromethane	50.0	48.7		ug/L		97	65 - 141	1	20
1,2,3-Trichloropropane	50.0	55.8		ug/L		112	73 - 122	3	20
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	52.8		ug/L		106	70 - 136	2	20
1,2,4-Trimethylbenzene	50.0	56.5		ug/L		113	76 - 124	1	20
1,3,5-Trimethylbenzene	50.0	54.5		ug/L		109	75 - 124	2	20
Vinyl chloride	50.0	54.3		ug/L		109	58 - 137	1	20
Xylenes, Total	100	119		ug/L		119	79 - 121	1	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*93*		*85 - 114*

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-841764/5
Matrix: Water
Analysis Batch: 841764

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Dibromofluoromethane (Surr)	*105*		*80 - 119*
1,2-Dichloroethane-d4 (Surr)	*101*		*81 - 118*
Toluene-d8 (Surr)	*104*		*89 - 112*

Method: RSK-175 - Dissolved Gases (GC)

Lab Sample ID: MB 680-841868/8
Matrix: Water
Analysis Batch: 841868

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	0.76	U	1.1	0.30	ug/L			06/11/24 15:42	1
Ethylene	0.71	U	1.0	0.31	ug/L			06/11/24 15:42	1
Methane	1.2	U	1.2	0.57	ug/L			06/11/24 15:42	1

Lab Sample ID: LCS 680-841868/1006
Matrix: Water
Analysis Batch: 841868

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Ethane	288	281		ug/L		97	74 - 131
Ethylene	269	253		ug/L		94	72 - 133
Methane	154	147		ug/L		96	73 - 125

Lab Sample ID: LCS 680-841868/3
Matrix: Water
Analysis Batch: 841868

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Methane (TCD)	1920	2090		ug/L		109	73 - 125

Lab Sample ID: LCSD 680-841868/4
Matrix: Water
Analysis Batch: 841868

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Methane (TCD)	1920	1950		ug/L		101	73 - 125	7	30

Lab Sample ID: LCSD 680-841868/7
Matrix: Water
Analysis Batch: 841868

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ethane	288	274		ug/L		95	74 - 131	3	30
Ethylene	269	248		ug/L		92	72 - 133	2	30
Methane	154	143		ug/L		93	73 - 125	3	30

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 680-840355/2
Matrix: Water
Analysis Batch: 840355

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.050	U	0.055	0.023	mg/L			05/30/24 10:10	1
Nitrate Nitrite as N	0.050	U	0.055	0.023	mg/L			05/30/24 10:10	1
Nitrite as N	0.050	U	0.055	0.023	mg/L			05/30/24 10:10	1

Lab Sample ID: LCS 680-840355/3
Matrix: Water
Analysis Batch: 840355

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrate as N	1.00	1.01		mg/L		101	88 - 111
Nitrate Nitrite as N	2.00	2.00		mg/L		100	88 - 111
Nitrite as N	1.00	0.989		mg/L		99	87 - 111

Lab Sample ID: LCSD 680-840355/4
Matrix: Water
Analysis Batch: 840355

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrate as N	1.00	1.01		mg/L		101	88 - 111	0	15
Nitrate Nitrite as N	2.00	2.01		mg/L		100	88 - 111	0	15
Nitrite as N	1.00	0.996		mg/L		100	87 - 111	1	15

Lab Sample ID: 680-251332-1 MS
Matrix: Water
Analysis Batch: 840355

Client Sample ID: OU6-DMW-28B-20240529
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrate as N	0.18		1.00	1.20		mg/L		101	88 - 111
Nitrate Nitrite as N	0.18		2.00	2.09		mg/L		96	88 - 111
Nitrite as N	0.050	U	1.00	0.893		mg/L		89	87 - 111

Lab Sample ID: 680-251332-1 MSD
Matrix: Water
Analysis Batch: 840355

Client Sample ID: OU6-DMW-28B-20240529
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrate as N	0.18		1.00	1.21		mg/L		103	88 - 111	1	15
Nitrate Nitrite as N	0.18		2.00	2.13		mg/L		97	88 - 111	2	15
Nitrite as N	0.050	U	1.00	0.916		mg/L		92	87 - 111	3	15

Lab Sample ID: MB 680-842061/136
Matrix: Water
Analysis Batch: 842061

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.50	U M	0.55	0.20	mg/L			06/11/24 20:39	1
Sulfate	1.0	U	1.5	0.40	mg/L			06/11/24 20:39	1

Method: 9056A - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 680-842061/137
Matrix: Water
Analysis Batch: 842061

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	10.0	9.42	M	mg/L		94	87 - 111
Sulfate	10.0	9.59	M	mg/L		96	87 - 112

Lab Sample ID: LCSD 680-842061/138
Matrix: Water
Analysis Batch: 842061

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	10.0	9.40	M	mg/L		94	87 - 111	0	15
Sulfate	10.0	9.56	M	mg/L		96	87 - 112	0	15

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 680-840471/1-A
Matrix: Water
Analysis Batch: 840636

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 840471

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	5.0	U	10	2.2	ug/L		05/31/24 05:16	05/31/24 11:36	1

Lab Sample ID: LCS 680-840471/2-A
Matrix: Water
Analysis Batch: 840636

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 840471

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Manganese	400	398		ug/L		100	87 - 115

Method: 4500 S2 F-2011 - Sulfide, Total

Lab Sample ID: MB 680-841210/1
Matrix: Water
Analysis Batch: 841210

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	1.0	U	1.0	1.0	mg/L			06/05/24 14:04	1
Sulfide as H2S	1.1	U	1.1	1.1	mg/L			06/05/24 14:04	1

Lab Sample ID: LCS 680-841210/2
Matrix: Water
Analysis Batch: 841210

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfide	10.0	7.89		mg/L		79	75 - 125
Sulfide as H2S	10.6	8.39		mg/L		79	75 - 125

Method: 4500 S2 F-2011 - Sulfide, Total (Continued)

Lab Sample ID: LCSD 680-841210/3
Matrix: Water
Analysis Batch: 841210

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sulfide			10.0	9.21		mg/L		92	75 - 125	15	30
Sulfide as H2S			10.6	9.78		mg/L		92	75 - 125	15	30

Lab Sample ID: 680-251332-1 DU
Matrix: Water
Analysis Batch: 841210

Client Sample ID: OU6-DMW-28B-20240529
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Sulfide	0.83	U		0.83	U	mg/L				NC	30
Sulfide as H2S	0.92	U		0.92	U	mg/L				NC	30

Method: 9060A - Organic Carbon, Total (TOC)

Lab Sample ID: MB 680-840810/1
Matrix: Water
Analysis Batch: 840810

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	1.0	U	1.0	0.50	mg/L			06/01/24 17:40	1

Lab Sample ID: LCS 680-840810/2
Matrix: Water
Analysis Batch: 840810

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Organic Carbon			20.0	20.7		mg/L		104	80 - 120		

Lab Sample ID: LCSD 680-840810/3
Matrix: Water
Analysis Batch: 840810

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Organic Carbon			20.0	20.3		mg/L		102	80 - 120	2	25

Method: SM 4500 CO2 D - Carbon Dioxide and Forms of Alkalinity by Calculation

Lab Sample ID: MB 680-841286/4
Matrix: Water
Analysis Batch: 841286

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon Dioxide, Free	10	U	11	5.0	mg/L			06/06/24 13:49	1

QC Association Summary

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-251332-1

GC/MS VOA

Analysis Batch: 841764

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251332-1	OU6-DMW-28B-20240529	Total/NA	Water	8260D	
680-251332-2	TRIP-BLANK-20240529	Total/NA	Water	8260D	
MB 680-841764/8	Method Blank	Total/NA	Water	8260D	
LCS 680-841764/4	Lab Control Sample	Total/NA	Water	8260D	
LCSD 680-841764/5	Lab Control Sample Dup	Total/NA	Water	8260D	

GC VOA

Analysis Batch: 841868

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251332-1	OU6-DMW-28B-20240529	Total/NA	Water	RSK-175	
MB 680-841868/8	Method Blank	Total/NA	Water	RSK-175	
LCS 680-841868/1006	Lab Control Sample	Total/NA	Water	RSK-175	
LCS 680-841868/3	Lab Control Sample	Total/NA	Water	RSK-175	
LCSD 680-841868/4	Lab Control Sample Dup	Total/NA	Water	RSK-175	
LCSD 680-841868/7	Lab Control Sample Dup	Total/NA	Water	RSK-175	

HPLC/IC

Analysis Batch: 840355

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251332-1	OU6-DMW-28B-20240529	Total/NA	Water	9056A	
MB 680-840355/2	Method Blank	Total/NA	Water	9056A	
LCS 680-840355/3	Lab Control Sample	Total/NA	Water	9056A	
LCSD 680-840355/4	Lab Control Sample Dup	Total/NA	Water	9056A	
680-251332-1 MS	OU6-DMW-28B-20240529	Total/NA	Water	9056A	
680-251332-1 MSD	OU6-DMW-28B-20240529	Total/NA	Water	9056A	

Analysis Batch: 842061

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251332-1	OU6-DMW-28B-20240529	Total/NA	Water	9056A	
MB 680-842061/136	Method Blank	Total/NA	Water	9056A	
LCS 680-842061/137	Lab Control Sample	Total/NA	Water	9056A	
LCSD 680-842061/138	Lab Control Sample Dup	Total/NA	Water	9056A	

Metals

Prep Batch: 840471

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251332-1	OU6-DMW-28B-20240529	Total Recoverable	Water	3005A	
MB 680-840471/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 680-840471/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 840636

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251332-1	OU6-DMW-28B-20240529	Total Recoverable	Water	6020A	840471
MB 680-840471/1-A	Method Blank	Total Recoverable	Water	6020A	840471
LCS 680-840471/2-A	Lab Control Sample	Total Recoverable	Water	6020A	840471

QC Association Summary

Client: Meadows CMPG, Inc
Project/Site: DSCR - OU6 Annual

Job ID: 680-251332-1

General Chemistry

Analysis Batch: 840810

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251332-1	OU6-DMW-28B-20240529	Total/NA	Water	9060A	
MB 680-840810/1	Method Blank	Total/NA	Water	9060A	
LCS 680-840810/2	Lab Control Sample	Total/NA	Water	9060A	
LCSD 680-840810/3	Lab Control Sample Dup	Total/NA	Water	9060A	

Analysis Batch: 841210

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251332-1	OU6-DMW-28B-20240529	Total/NA	Water	4500 S2 F-2011	
MB 680-841210/1	Method Blank	Total/NA	Water	4500 S2 F-2011	
LCS 680-841210/2	Lab Control Sample	Total/NA	Water	4500 S2 F-2011	
LCSD 680-841210/3	Lab Control Sample Dup	Total/NA	Water	4500 S2 F-2011	
680-251332-1 DU	OU6-DMW-28B-20240529	Total/NA	Water	4500 S2 F-2011	

Analysis Batch: 841286

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-251332-1	OU6-DMW-28B-20240529	Total/NA	Water	2320B-2011	
680-251332-1	OU6-DMW-28B-20240529	Total/NA	Water	SM 4500 CO2 D	
MB 680-841286/4	Method Blank	Total/NA	Water	SM 4500 CO2 D	
LCS 680-841286/6	Lab Control Sample	Total/NA	Water	SM 4500 CO2 D	
LCSD 680-841286/22	Lab Control Sample Dup	Total/NA	Water	SM 4500 CO2 D	
LLCS 680-841286/5	Lab Control Sample	Total/NA	Water	SM 4500 CO2 D	

Lab Chronicle

Client: Meadows CMPG, Inc
Job ID: 680-251332-1
Project/Site: DSCR - OU6 Annual

Client Sample ID: OU6-DMW-28B-20240529
Lab Sample ID: 680-251332-1
Date Collected: 05/29/24 10:25
Matrix: Water
Date Received: 05/30/24 10:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	841764	06/11/24 14:42	Y1S	EET SAV
	Instrument ID: CMSAJ									
Total/NA	Analysis	RSK-175		1	17 mL	17 mL	841868	06/11/24 16:18	OK	EET SAV
	Instrument ID: CVGU									
Total/NA	Analysis	9056A		1	5 mL	5 mL	840355	05/30/24 14:02	BS	EET SAV
	Instrument ID: CICP									
Total/NA	Analysis	9056A		1	2 mL	2 mL	842061	06/11/24 22:18	AF	EET SAV
	Instrument ID: CICR									
Total Recoverable	Prep	3005A			25 mL	125 mL	840471	05/31/24 05:16	RR	EET SAV
Total Recoverable	Analysis	6020A		1			840636	05/31/24 12:44	BWR	EET SAV
	Instrument ID: ICPMSD									
Total/NA	Analysis	2320B-2011		1			841286	06/06/24 14:31	ALG	EET SAV
	Instrument ID: MANTECH 2									
Total/NA	Analysis	4500 S2 F-2011		1	300 mL	300 mL	841210	06/05/24 14:04	JAS	EET SAV
	Instrument ID: NoEquip									
Total/NA	Analysis	9060A		1	40 mL	40 mL	840810	06/01/24 20:01	NVF	EET SAV
	Instrument ID: TOC8									
Total/NA	Analysis	SM 4500 CO2 D		1			841286	06/06/24 14:31	ALG	EET SAV
	Instrument ID: MANTECH 2									

Client Sample ID: TRIP-BLANK-20240529
Lab Sample ID: 680-251332-2
Date Collected: 05/29/24 00:00
Matrix: Water
Date Received: 05/30/24 10:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	841764	06/11/24 12:55	Y1S	EET SAV
	Instrument ID: CMSAJ									

Laboratory References:

EET SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Accreditation/Certification Summary

Client: Meadows CMPG, Inc
Job ID: 680-251332-1
Project/Site: DSCR - OU6 Annual

Laboratory: Eurofins Savannah

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
ANAB	Dept. of Defense ELAP	L2463	09-22-24
Virginia	NELAP	460161	06-14-24

Method Summary

Client: Meadows CMPG, Inc
Job ID: 680-251332-1
Project/Site: DSCR - OU6 Annual

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds (GC/MS)	SW846	EET SAV
RSK-175	Dissolved Gases (GC)	RSK	EET SAV
9056A	Anions, Ion Chromatography	SW846	EET SAV
6020A	Metals (ICP/MS)	SW846	EET SAV
2320B-2011	Alkalinity, Total	SM	EET SAV
4500 S2 F-2011	Sulfide, Total	SM	EET SAV
9060A	Organic Carbon, Total (TOC)	SW846	EET SAV
SM 4500 CO2 D	Carbon Dioxide and Forms of Alkalinity by Calculation	SM	EET SAV
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET SAV
5030C	Purge and Trap	SW846	EET SAV

Protocol References:

RSK = Sample Prep And Calculations For Dissolved Gas Analysis In Water Samples Using A GC Headspace Equilibration Technique , RSKSOP-175, Rev. 0, 8/11/94, USEPA Research Lab
SM = "Standard Methods For The Examination Of Water And Wastewater"
SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Eurofins Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Phone (912) 354-7858 Phone (912) 352-0165

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: Tim Brown and Bruce Diggs	Lab PM: Lanier, Jerry	Carrier Tracking No(s):	COC No:
Client Contact: Andrew VanBuesking	Phone: 757-589-5825	E-Mail: Jerry.Lanier@et.eurofinsus.com	State of Origin: VA	Page: Page 1 of 1
Company: Meadows CMPG	PWSID:			Job #:

Address: 2107 Granby St	Due Date Requested:
City: Norfolk	TAT Requested (days): STD
State, Zip: VA	Compliance Project: Δ Yes Δ No
Phone: 757-623-3107	PO #: 0045-0011
Email: avanbuesking@meadowscmpg	WO #:
Project Name: OU6 Annual	Project #:
Site: DSCR, OU6	SSOW#:

Analysis Requested

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260D_DOD5 - (MOD) Volatiles		RSK_175_DOD5 - Ethane, Ethene, Methane	9060A - TOC	9056A_OF28D_D5 - Chloride & Sulfate 9056A_OF_48H_D5 Local Method	SM4500_S2_F - Sulfide, Total	6020A_DOD5 - Manganese	SM4500_CO2_D - Carbon Dioxide	2320B - Alkalinity	DIOX 8270E ID D5	8270E_DOD5 - (MOD) Semivolatiles (without PAHs)	8270E_SIM_DOD5 - Routine PAH	8081B_8082A_D5 - Routine Pesticides & PCBs	7470A_DOD5 - Mercury 6020A_DOD5- (MOD) TAL Metals	8270E_SIM_ID_D5 Local Method - Dioxane	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A		A	S	N	CB	D	N	N		N	N	N	D	N		
OU6-DMW-28B-20240529	5/29/24	1025	G	W			3		3	3	1	2	1	1	1							15	
TRIP-BLANK-20240529	5/29/24		G	W			2																

680-251332 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ■ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ■ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by: | Method of Shipment:

BRUCE DIGGS	5-29-2024/1300	Company	Received by:	Date/Time: 5-30-24 1044	Company TA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: 4.1/4.2

Login Sample Receipt Checklist

Client: Meadows CMPG, Inc

Job Number: 680-251332-1

Login Number: 251332

List Source: Eurofins Savannah

List Number: 1

Creator: Sims, Robert D

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

10515 Research Dr.
Knoxville, TN 37932
Phone: (865) 573-8188
Fax: (865) 573-8133

ACCREDITED
CERTIFICATE #7157.01

Client: Andrew VanBuesking
Meadows CMPG, Inc.
2107 Granby Street
Norfolk, VA 23517

Phone:

Fax:

Identifier: 096VE **Date Rec:** 05/24/2024 **Report Date:** 06/03/2024

Client Project #: 0045-0011 **Client Project Name:** OU6 Annual

Purchase Order #:

Test Results Provided For: CENSUS

Reviewed By: Sarah Keys

NOTICE: This report is intended only for the addressee shown above and may contain confidential or privileged information. If the recipient of this material is not the intended recipient or if you have received this in error, please notify Microbial Insights, Inc. immediately. The data and other information in this report represent only the sample(s) analyzed and are rendered upon condition that it is not to be reproduced without approval from Microbial Insights, Inc. Thank you for your cooperation.

Results relate only to the items tested and the sample(s) as received by the laboratory.

MICROBIAL INSIGHTS, INC.
10515 Research Dr., Knoxville TN 37932
Tel. (865) 573-8188 Fax. (865) 573-8133

CENSUS

Client: **Meadows CMPG, Inc.** **MI Project Number:** **096VE**

Project: OU6 Annual Date Received: 05/24/2024

Sample Information

Client Sample ID:	**Dup-07-20240523**	**OU6-MW-242-20240523**	**OU6-MW-287-20240523**	**OU6-MW-243-20240523**	**OU6-MW-285-20240523**
Sample Date:	05/23/2024	05/23/2024	05/23/2024	05/23/2024	05/23/2024
Units:	cells/mL	cells/mL	cells/mL	cells/mL	cells/mL
Analyst/Reviewer:	AP/SK	AP/SK	AP/SK	AP/SK	AP/SK

Dechlorinating Bacteria

Dehalococcoides	*DHC*	**8.00E-01**	**4.00E+04**	**1.30E+00**	**9.70E+04**	**1.20E+00**
tceA Reductase	TCE	<2.20E-01	**3.80E+01**	<2.50E-01	**2.30E+02**	<2.50E-01
BAV1 Vinyl Chloride Reductase	BVC	<2.20E-01	<2.40E-01	<2.50E-01	<2.50E-01	<2.50E-01
Vinyl Chloride Reductase	VCR	<2.20E-01	**5.40E+03**	<2.50E-01	**1.40E+04**	<2.50E-01

Legend:

NA = Not Analyzed NS = Not Sampled J = Estimated gene copies below PQL but above LQL I = Inhibited

< = Result not detected

MICROBIAL INSIGHTS, INC.
10515 Research Dr., Knoxville TN 37932
Tel. (865) 573-8188 Fax. (865) 573-8133

CENSUS

Client: **Meadows CMPG, Inc.** **MI Project Number:** **096VE**
Project: OU6 Annual Date Received: 05/24/2024

Sample Information

Client Sample ID:	**OU6-MW-288-20240523**	**OU6-MW-241-20240523**	**OU6-MW-293-20240523**	**OU6-MW-126-20240523**
Sample Date:	05/23/2024	05/23/2024	05/23/2024	05/23/2024
Units:	cells/mL	cells/mL	cells/mL	cells/mL
Analyst/Reviewer:	AP/SK	AP/SK	AP/SK	AP/SK

Dechlorinating Bacteria

Dehalococcoides	*DHC*	**1.10E-01 (J)**	**3.00E+03**	**7.70E-01**	**6.70E+02**
tceA Reductase	TCE	<2.50E-01	**4.60E+02**	<2.20E-01	<2.50E+01
BAV1 Vinyl Chloride Reductase	BVC	<2.50E-01	<2.50E-01	<2.20E-01	<2.50E+01
Vinyl Chloride Reductase	VCR	<2.50E-01	**6.40E+02**	<2.20E-01	**1.00E+02**

Legend:
NA = Not Analyzed NS = Not Sampled J = Estimated gene copies below PQL but above LQL I = Inhibited
< = Result not detected

Quality Assurance/Quality Control Data

Samples Received: **05/24/2024**

Component	Date Prepared	Date Analyzed	Arrival Temperature	Positive Control	Extraction Blank	Negative Control
BVC	05/24/2024	06/03/2024	0°C	101%	non-detect	non-detect
DHC	05/24/2024	06/03/2024	0°C	105%	non-detect	non-detect
TCE	05/24/2024	06/03/2024	0°C	101%	non-detect	non-detect
VCR	05/24/2024	06/03/2024	0°C	97%	non-detect	non-detect

Data Qualification Event Summary
OU6 Spring 2024 Annual Monitoring
Defense Supply Center Richmond

Facility:	DSCR	DQM QAPP Code:	DSCR_Aqueous_DOD_5.4_7.23.3	Test Batch ID(s):	see below
Event ID:	DSCR_FY24_OU6_Annual	COC(s):	-	Task Code(s):	-
Created By:	NA\JonesA10	Field SDG(s):	-	Sample Code(s):	-
Created Date:	7/18/2024 12:37:00 PM	Lab SDG(s):	-	MAG(s):	-

Checks and Options	Types of Results or Samples Checked	Total Number of Results	Number of Results Checked	Number of Exceptions	Association Method	Number of Associated Results	Validation Code
DQM QAPP Code:	DSCR_Aqueous_DOD_5.4_7.23.3	22223	-	-	-	-	-
Total Number of Results		22223	-	-	-	-	-
Dilution Factor	S='N'; R='TRG'	22223	10598	1157	N/A	0	A
Estimated results	S='N'; R='TRG'; Detects Only	22223	1359	294	N/A	0	A
Field Blank Contamination	S = 'AB', 'EB', 'FB'	22223	71	1	Field SDG / COC	0	A
Lab Blank Contamination	S = 'LB', 'MB'	22223	2533	31	Test Batch ID / Lab SDG	22	SR
Preservative	S='N'	22223	11327	0	N/A	0	A
Relative Percent Difference (RPD)	S=RPD Sample Types from Settings	22223	780	8	MS - Parent Sample	0	A
Field Duplicate RPD	S = FD	22223	654	32	N/A	0	A
Spike Recovery - Multiple Rules	S=Spike SampleTypes from Setting	22223	4004	159	BS-TestBatchID/MS-ParentSample	89	SR
Surrogate Recovery	R = 'SUR'	22223	1490	43	Test ID	540	SR
Surrogate Association QAPP:	QAPP_SURR_ASSO_CAS_RN	22223	-	-	-	-	-
Trip Blank Contamination	S = 'AB', 'TB'	22223	639	1	COC / Field SDG	0	A
Verify Sample Units	All Results	22223	10598	0	N/A	0	A
Holding Time Types:	Collection To Analysis (U)	22223	-	-	-	-	-
HTT-2	Collection To Analysis (P)	22223	-	-	-	-	-
HTT-3	Preservation To Analysis	22223	-	-	-	-	-
HTT-4	Prep To Analysis	22223	-	-	-	-	-

Test Batch ID(s): 410-509733 : 410-510310 : 410-510698 : 410-510891 : 680-837892 : 680-838101 : 680-838480 : 680-838545 : 680-838654 : 680-838655 : 680-838660 : 680-838669 : 680-838701 : 680-838714 : 680-838727 : 680-838729 : 680-838791 : 680-838829 : 680-838840 : 680-838891 : 680-838906 : 680-838963 : 680-838979 : 680-838997 : 680-839071 : 680-839088 : 680-839093 : 680-839136 : 680-839173 : 680-839253 : 680-839256 : 680-839307 : 680-839314 : 680-839316 : 680-839362 : 680-839381 : 680-839410 : 680-839420 : 680-839434 : 680-839538 : 680-839543 : 680-839604 : 680-839616 : 680-839636 : 680-839672 : 680-839678 : 680-839686 : 680-839724 : 680-839734 : 680-839736 : 680-839737 : 680-839738 : 680-839739 : 680-839761 : 680-839767 : 680-839768 : 680-839803 : 680-839809 : 680-839813 : 680-839814 : 680-839863 : 680-839928 : 680-839968 : 680-840038 : 680-840047 : 680-840087 : 680-840104 : 680-840135 : 680-840234 : 680-840324 : 680-840334 : 680-840355 : 680-840377 : 680-840409 : 680-840410 : 680-840411 : 680-840412 : 680-840431 : 680-840464 : 680-840504 : 680-840514 : 680-840531 : 680-840533 : 680-840534 : 680-840584 : 680-840636 : 680-840639 : 680-840649 : 680-840652 : 680-840653 : 680-840706 : 680-840778 : 680-840810 : 680-840826 : 680-840831 : 680-840871 : 680-840928 : 680-840935 : 680-840966 : 680-840990 : 680-841024 : 680-841121 : 680-841151 : 680-841210 : 680-841249 : 680-841256 : 680-841505 : 680-841647 : 680-841754 : 680-841764 : 680-841868 : 680-842061

Validation Codes:
A=Acceptable
E/NB=Exceptions with no bias
SR=See Report

Notes:
DSCR = Defense Supply Center Richmond, DOD = Department of Defense, QAPP = quality assurance project plan, SDG = sample delivery group
COC = chain of command, N = organic or not applicable , HTT = holding time test, TRG = target
EB = equipment blank, FB = field blank, FD = field duplicate, LB = lab blank, LR = lab replicate, MB = method blank, SUR = surrogate, TB = trip blank
LCS = laboratory control sample, MS = matrix spike

Data Qualification Validation Report
OU6 Spring 2024 Annual Monitoring
Defense Supply Center Richmond

Facility:	DSCR
Event ID:	DSCR_FY24_OU6_Annual
Created By:	NA\JonesA10
Created Date:	7/18/2024 12:37:00 PM
Checks:	Dilution Factor, Estimated results, Field Blank Contamination, Field Duplicate RPD, HTT-2, HTT-3, HTT-4 Lab Blank Contamination, Preservative, Relative Percent Difference (RPD), Spike Recovery - Multiple Rules Surrogate Recovery, Trip Blank Contamination, Verify Sample Units

Sample Code	Location	Sample Date	Method	FR	Analyte	Result	Unit	RDL	Qual	Reason Code
DUP5-20240522	OU6-MW-272	5/22/2024 12:00 AM	8270E SIM	N	1-Methylnaphthalene		µg/L	0.061	UJ	SURR4
OU6-CSMPZ-7-20240514	CSMPZ-7	5/14/2024 10:50 AM	8270E SIM	N	1-Methylnaphthalene		µg/L	0.049	UJ	SURR4
OU6-MW-279-20240516	OU6-MW-279	5/16/2024 8:00 AM	8270E SIM	N	1-Methylnaphthalene	0.16	µg/L	0.049	J-	SURR1
OU6-CSMPZ-7-20240514	CSMPZ-7	5/14/2024 10:50 AM	8270E SIM	N	2-Fluorobiphenyl	4.4	µg/L	0.099	J-	SURR1|SURR7
OU6-MW-169-20240514	OU6-MW-169	5/14/2024 2:15 PM	8270E SIM	N	2-Fluorobiphenyl	5.2	µg/L	0.10	J-	SURR7
OU6-MW-279-20240516	OU6-MW-279	5/16/2024 8:00 AM	8270E SIM	N	2-Fluorobiphenyl	4.4	µg/L	0.099	J-	SURR1|SURR7
OU6-MW-279-20240516	OU6-MW-279	5/16/2024 8:00 AM	8270E SIM	N	2-Fluorobiphenyl	4.5	µg/L	0.099	J-	SURR1|SURR7
DUP5-20240522	OU6-MW-272	5/22/2024 12:00 AM	8270E SIM	N	2-Methylnaphthalene		µg/L	0.048	UJ	SURR4
OU6-CSMPZ-7-20240514	CSMPZ-7	5/14/2024 10:50 AM	8270E SIM	N	2-Methylnaphthalene		µg/L	0.039	UJ	SURR4
OU6-MW-279-20240516	OU6-MW-279	5/16/2024 8:00 AM	8270E SIM	N	2-Methylnaphthalene	0.29	µg/L	0.039	J-	SURR1
OU6-CSMPZ-7-20240514	CSMPZ-7	5/14/2024 10:50 AM	8270E SIM	N	2-Methylnaphthalene-d10	4.5	µg/L		J-	SURR1|SURR7
OU6-MW-279-20240516	OU6-MW-279	5/16/2024 8:00 AM	8270E SIM	N	2-Methylnaphthalene-d10	4.3	µg/L		J-	SURR1|SURR7
OU6-MW-279-20240516	OU6-MW-279	5/16/2024 8:00 AM	8270E SIM	N	2-Methylnaphthalene-d10	4.5	µg/L		J-	SURR1|SURR7
DUP5-20240522	OU6-MW-272	5/22/2024 12:00 AM	8270E SIM	N	Acenaphthene		µg/L	0.12	UJ	SURR4
OU6-CSMPZ-7-20240514	CSMPZ-7	5/14/2024 10:50 AM	8270E SIM	N	Acenaphthene		µg/L	0.099	UJ	SURR4
OU6-MW-243-20240523	OU6-MW-243	5/23/2024 10:35 AM	8270E SIM	N	Acenaphthene	0.080	µg/L	0.10	J	ER2
OU6-MW-279-20240516	OU6-MW-279	5/16/2024 8:00 AM	8270E SIM	N	Acenaphthene		µg/L	0.099	UJ	SURR4
DUP5-20240522	OU6-MW-272	5/22/2024 12:00 AM	8270E SIM	N	Acenaphthylene		µg/L	0.061	UJ	SURR4
OU6-CSMPZ-7-20240514	CSMPZ-7	5/14/2024 10:50 AM	8270E SIM	N	Acenaphthylene		µg/L	0.049	UJ	SURR4
OU6-MW-279-20240516	OU6-MW-279	5/16/2024 8:00 AM	8270E SIM	N	Acenaphthylene		µg/L	0.049	UJ	SURR4
OU6-CSMPZ-7-20240514	CSMPZ-7	5/14/2024 10:50 AM	8270E SIM	N	Anthracene	0.025	µg/L	0.049	J-	ER2|SURR1
OU6-MW-279-20240516	OU6-MW-279	5/16/2024 8:00 AM	8270E SIM	N	Anthracene		µg/L	0.049	UJ	SURR4
OU6-CSMPZ-7-20240514	CSMPZ-7	5/14/2024 10:50 AM	8270E SIM	N	Benzo(a)anthracene		µg/L	0.099	UJ	SURR4
OU6-MW-279-20240516	OU6-MW-279	5/16/2024 8:00 AM	8270E SIM	N	Benzo(a)anthracene		µg/L	0.099	UJ	SURR4
OU6-CSMPZ-7-20240514	CSMPZ-7	5/14/2024 10:50 AM	8270E SIM	N	Benzo(a)pyrene		µg/L	0.099	UJ	SURR4
OU6-MW-279-20240516	OU6-MW-279	5/16/2024 8:00 AM	8270E SIM	N	Benzo(a)pyrene		µg/L	0.099	UJ	SURR4
OU6-CSMPZ-7-20240514	CSMPZ-7	5/14/2024 10:50 AM	8270E SIM	N	Benzo(b)fluoranthene		µg/L	0.099	UJ	SURR4
OU6-MW-279-20240516	OU6-MW-279	5/16/2024 8:00 AM	8270E SIM	N	Benzo(b)fluoranthene		µg/L	0.099	UJ	SURR4
OU6-CSMPZ-7-20240514	CSMPZ-7	5/14/2024 10:50 AM	8270E SIM	N	Benzo(g,h,i)Perylene		µg/L	0.099	UJ	SURR4
OU6-MW-279-20240516	OU6-MW-279	5/16/2024 8:00 AM	8270E SIM	N	Benzo(g,h,i)Perylene		µg/L	0.099	UJ	SURR4
OU6-CSMPZ-7-20240514	CSMPZ-7	5/14/2024 10:50 AM	8270E SIM	N	Benzo(k)fluoranthene		µg/L	0.099	UJ	SURR4
OU6-MW-279-20240516	OU6-MW-279	5/16/2024 8:00 AM	8270E SIM	N	Benzo(k)fluoranthene		µg/L	0.099	UJ	SURR4
OU6-CSMPZ-7-20240514	CSMPZ-7	5/14/2024 10:50 AM	8270E SIM	N	Chrysene		µg/L	0.049	UJ	SURR4
OU6-MW-279-20240516	OU6-MW-279	5/16/2024 8:00 AM	8270E SIM	N	Chrysene		µg/L	0.049	UJ	SURR4
OU6-CSMPZ-7-20240514	CSMPZ-7	5/14/2024 10:50 AM	8270E SIM	N	Dibenzo(a,h)Anthracene		µg/L	0.049	UJ	SURR4
OU6-MW-279-20240516	OU6-MW-279	5/16/2024 8:00 AM	8270E SIM	N	Dibenzo(a,h)Anthracene		µg/L	0.049	UJ	SURR4
OU6-CSMPZ-7-20240514	CSMPZ-7	5/14/2024 10:50 AM	8270E SIM	N	Fluoranthene		µg/L	0.099	UJ	SURR4
OU6-MW-279-20240516	OU6-MW-279	5/16/2024 8:00 AM	8270E SIM	N	Fluoranthene		µg/L	0.099	UJ	SURR4
OU6-CSMPZ-7-20240514	CSMPZ-7	5/14/2024 10:50 AM	8270E SIM	N	Fluoranthene-d10	9.1	µg/L		J-	SURR1
OU6-MW-279-20240516	OU6-MW-279	5/16/2024 8:00 AM	8270E SIM	N	Fluoranthene-d10	8.8	µg/L		J-	SURR1
OU6-MW-279-20240516	OU6-MW-279	5/16/2024 8:00 AM	8270E SIM	N	Fluoranthene-d10	9.2	µg/L		J-	SURR1
OU6-CSMPZ-7-20240514	CSMPZ-7	5/14/2024 10:50 AM	8270E SIM	N	Fluorene		µg/L	0.099	UJ	SURR4
OU6-MW-243-20240523	OU6-MW-243	5/23/2024 10:35 AM	8270E SIM	N	Fluorene	0.044	µg/L	0.10	J	ER2
OU6-MW-279-20240516	OU6-MW-279	5/16/2024 8:00 AM	8270E SIM	N	Fluorene	0.072	µg/L	0.099	J-	ER2|SURR1
OU6-CSMPZ-7-20240514	CSMPZ-7	5/14/2024 10:50 AM	8270E SIM	N	Indeno(1,2,3-cd)pyrene		µg/L	0.099	UJ	SURR4
OU6-MW-279-20240516	OU6-MW-279	5/16/2024 8:00 AM	8270E SIM	N	Indeno(1,2,3-cd)pyrene		µg/L	0.099	UJ	SURR4
DUP5-20240522	OU6-MW-272	5/22/2024 12:00 AM	8270E SIM	N	Naphthalene	0.17	µg/L	0.061	J-	NC|SURR1
OU6-CSMPZ-7-20240514	CSMPZ-7	5/14/2024 10:50 AM	8270E SIM	N	Naphthalene		µg/L	0.049	UJ	SURR4
OU6-MW-279-20240516	OU6-MW-279	5/16/2024 8:00 AM	8270E SIM	N	Naphthalene	0.99	µg/L	0.049	J-	NC|SURR1
DUP5-20240522	OU6-MW-272	5/22/2024 12:00 AM	8270E SIM	N	Nitrobenzene-d5	6.4	µg/L	0.12	J-	SURR7
OU6-CSMPZ-7-20240514	CSMPZ-7	5/14/2024 10:50 AM	8270E SIM	N	Nitrobenzene-d5	5.0	µg/L	0.099	J-	SURR1|SURR7
OU6-MW-279-20240516	OU6-MW-279	5/16/2024 8:00 AM	8270E SIM	N	Nitrobenzene-d5	4.7	µg/L	0.099	J-	SURR1|SURR7
OU6-MW-279-20240516	OU6-MW-279	5/16/2024 8:00 AM	8270E SIM	N	Nitrobenzene-d5	4.3	µg/L	0.099	J-	SURR1|SURR7
OU6-CSMPZ-7-20240514	CSMPZ-7	5/14/2024 10:50 AM	8270E SIM	N	Phenanthrene		µg/L	0.20	UJ	SURR4
OU6-MW-279-20240516	OU6-MW-279	5/16/2024 8:00 AM	8270E SIM	N	Phenanthrene	0.10	µg/L	0.20	J-	ER2|SURR1
OU6-MW-280-20240515	OU6-MW-280	5/15/2024 12:50 PM	8270E SIM	N	Phenanthrene	0.089	µg/L	0.24	J	ER2
OU6-CSMPZ-7-20240514	CSMPZ-7	5/14/2024 10:50 AM	8270E SIM	N	p-Terphenyl-d14	9.5	µg/L	0.099	J-	SURR1
OU6-MW-279-20240516	OU6-MW-279	5/16/2024 8:00 AM	8270E SIM	N	p-Terphenyl-d14	9.3	µg/L	0.099	J-	SURR1
OU6-MW-279-20240516	OU6-MW-279	5/16/2024 8:00 AM	8270E SIM	N	p-Terphenyl-d14	9.1	µg/L	0.099	J-	SURR1
OU6-CSMPZ-7-20240514	CSMPZ-7	5/14/2024 10:50 AM	8270E SIM	N	Pyrene		µg/L	0.099	UJ	SURR4
OU6-MW-279-20240516	OU6-MW-279	5/16/2024 8:00 AM	8270E SIM	N	Pyrene		µg/L	0.099	UJ	SURR4
DUP5-20240522	OU6-MW-272	5/22/2024 12:00 AM	RSK175	N	Ethane	20	µg/L	0.76	J	RPD5
OU6-MW-170-20240521	OU6-MW-170	5/21/2024 8:30 AM	RSK175	N	Ethane	0.66	µg/L	0.76	J	ER2
OU6-MW-236-20240521	OU6-MW-236	5/21/2024 10:15 AM	RSK175	N	Ethane	0.66	µg/L	0.76	J	ER2
OU6-MW-244-20240521	OU6-MW-244	5/21/2024 2:30 PM	RSK175	N	Ethane	0.31	µg/L	0.76	J	ER2
OU6-MW-254-20240521	OU6-MW-254	5/21/2024 9:00 AM	RSK175	N	Ethane	0.47	µg/L	0.76	J	ER2
OU6-MW-272-20240522	OU6-MW-272	5/22/2024 8:05 AM	RSK175	N	Ethane	6.3	µg/L	0.76	J	RPD5
OU6-MW-279-20240516	OU6-MW-279	5/16/2024 8:00 AM	RSK175	N	Ethane	1.1	µg/L	2.0	J	ER2
OU6-MW-286-20240516	OU6-MW-286	5/16/2024 12:00 PM	RSK175	N	Ethane	1.1	µg/L	2.0	J	ER2
OU6-MW-294-20240521	OU6-MW-294	5/21/2024 10:27 AM	RSK175	N	Ethane	0.65	µg/L	0.76	J	ER2
DUP5-20240522	OU6-MW-272	5/22/2024 12:00 AM	RSK175	N	Ethene	28	µg/L	0.71	J	RPD5
OU6-MW-159-20240517	OU6-MW-159	5/17/2024 10:00 AM	RSK175	N	Ethene	1.6	µg/L	2.0	J	ER2
OU6-MW-223-20240521	OU6-MW-223	5/21/2024 8:50 AM	RSK175	N	Ethene	0.57	µg/L	0.71	J	ER2
OU6-MW-272-20240522	OU6-MW-272	5/22/2024 8:05 AM	RSK175	N	Ethene	8.2	µg/L	0.71	J	RPD5
OU6-MW-282-20240520	OU6-MW-282	5/20/2024 11:55 AM	RSK175	N	Ethene	0.62	µg/L	0.71	J	ER2
OU6-MW-290-20240521	OU6-MW-290	5/21/2024 12:00 PM	RSK175	N	Ethene	0.34	µg/L	0.71	J	ER2

Data Qualification Validation Report
OU6 Spring 2024 Annual Monitoring
Defense Supply Center Richmond

Facility:	DSCR
Event ID:	DSCR_FY24_OU6_Annual
Created By:	NA\JonesA10
Created Date:	7/18/2024 12:37:00 PM
Checks:	Dilution Factor, Estimated results, Field Blank Contamination, Field Duplicate RPD, HTT-2, HTT-3, HTT-4 Lab Blank Contamination, Preservative, Relative Percent Difference (RPD), Spike Recovery - Multiple Rules Surrogate Recovery, Trip Blank Contamination, Verify Sample Units

Sample Code	Location	Sample Date	Method	FR	Analyte	Result	Unit	RDL	Qual	Reason Code
OU6-DMW-34B-20240516	DMW-34B	5/16/2024 1:55 PM	RSK175	N	Methane	3.0	µg/L	6.0	J	ER2
OU6-MW-142-20240515	OU6-MW-142	5/15/2024 10:32 AM	RSK175	N	Methane	3.2	µg/L	6.0	J	ER2
OU6-MW-160-20240520	OU6-MW-160	5/20/2024 10:35 AM	RSK175	N	Methane	0.63	µg/L	1.2	J	ER2
OU6-MW-165-20240517	OU6-MW-165	5/17/2024 10:45 AM	RSK175	N	Methane	3.7	µg/L	6.0	J	ER2
OU6-MW-171-20240517	OU6-MW-171	5/17/2024 9:10 AM	RSK175	N	Methane	5.3	µg/L	6.0	J	ER2
OU6-MW-276-20240520	OU6-MW-276	5/20/2024 8:15 AM	RSK175	N	Methane	0.98	µg/L	1.2	J	ER2
OU6-CSMPZ-7-20240514	CSMPZ-7	5/14/2024 10:50 AM	SW6020A	T	Aluminum	46	µg/L	100	J	ER1
OU6-MW-243-20240523	OU6-MW-243	5/23/2024 10:35 AM	SW6020A	T	Aluminum	57	µg/L	100	J	ER1
OU6-MW-263-20240520	OU6-MW-263	5/20/2024 7:35 AM	SW6020A	T	Aluminum	56	µg/L	100	J	ER1
OU6-MW-280-20240515	OU6-MW-280	5/15/2024 12:50 PM	SW6020A	T	Aluminum	47	µg/L	100	J	ER1
OU6-CSMPZ-7-20240514	CSMPZ-7	5/14/2024 10:50 AM	SW6020A	T	Arsenic	1.5	µg/L	3.0	J	ER1
OU6-MW-169-20240514	OU6-MW-169	5/14/2024 2:15 PM	SW6020A	T	Beryllium	0.33	µg/L	0.40	J	ER1|NC
OU6-CSMPZ-7-20240514	CSMPZ-7	5/14/2024 10:50 AM	SW6020A	T	Boron	42	µg/L	75	J	ER1
OU6-MW-259-20240515	OU6-MW-259	5/15/2024 8:20 AM	SW6020A	T	Boron	27	µg/L	75	J	ER1
OU6-MW-269-20240520	OU6-MW-269	5/20/2024 9:20 AM	SW6020A	T	Boron	48	µg/L	75	J	ER1
OU6-MW-272-20240522	OU6-MW-272	5/22/2024 8:05 AM	SW6020A	T	Boron	27	µg/L	75	J	ER1
OU6-MW-279-20240516	OU6-MW-279	5/16/2024 8:00 AM	SW6020A	T	Boron	26	µg/L	75	J	ER1
OU6-MW-277-20240515	OU6-MW-277	5/15/2024 9:35 AM	SW6020A	T	Cadmium	0.090	µg/L	0.20	J	ER1
OU6-MW-250-20240522MS	OU6-MW-250	5/22/2024 10:50 AM	SW6020A	T	Calcium	23800	µg/L	300	J-	MSL
OU6-MW-250-20240522MSD	OU6-MW-250	5/22/2024 10:50 AM	SW6020A	T	Calcium	24200	µg/L	300	J-	MSDL
OU6-MW-279-20240516	OU6-MW-279	5/16/2024 8:00 AM	SW6020A	T	Calcium	25000	µg/L	300	J-	MSL
OU6-MW-279-20240516MS	OU6-MW-279	5/16/2024 8:00 AM	SW6020A	T	Calcium	28000	µg/L	300	J-	MSL
OU6-MW-279-20240516MSD	OU6-MW-279	5/16/2024 8:00 AM	SW6020A	T	Calcium	28200	µg/L	300	J-	MSDL
OU6-MW-263-20240520	OU6-MW-263	5/20/2024 7:35 AM	SW6020A	T	Chromium	0.86	µg/L	2.5	J	ER1
OU6-MW-272-20240522	OU6-MW-272	5/22/2024 8:05 AM	SW6020A	T	Chromium	0.94	µg/L	2.5	J	ER1
OU6-MW-279-20240516	OU6-MW-279	5/16/2024 8:00 AM	SW6020A	T	Chromium	1.1	µg/L	2.5	J	ER1
OU6-MW-277-20240515	OU6-MW-277	5/15/2024 9:35 AM	SW6020A	T	Copper	1.6	µg/L	2.0	J	ER1
OU6-MW-169-20240514	OU6-MW-169	5/14/2024 2:15 PM	SW6020A	T	Iron	27	µg/L	75	J	ER1|NC
OU6-MW-250-20240522MS	OU6-MW-250	5/22/2024 10:50 AM	SW6020A	T	Iron	70400	µg/L	75	J-	MSLCO
OU6-MW-250-20240522MSD	OU6-MW-250	5/22/2024 10:50 AM	SW6020A	T	Iron	71000	µg/L	75	J-	MSDLCO
OU6-MW-259-20240515	OU6-MW-259	5/15/2024 8:20 AM	SW6020A	T	Iron	56	µg/L	75	J	ER1
OU6-CSMPZ-7-20240514	CSMPZ-7	5/14/2024 10:50 AM	SW6020A	T	Lead	0.44	µg/L	1.0	J	ER1
OU6-MW-169-20240514	OU6-MW-169	5/14/2024 2:15 PM	SW6020A	T	Lead	0.26	µg/L	1.0	J	ER1
OU6-MW-269-20240520	OU6-MW-269	5/20/2024 9:20 AM	SW6020A	T	Lead	0.88	µg/L	1.0	J	ER1
OU6-MW-272-20240522	OU6-MW-272	5/22/2024 8:05 AM	SW6020A	T	Lead	0.27	µg/L	1.0	J	ER1
OU6-MW-277-20240515	OU6-MW-277	5/15/2024 9:35 AM	SW6020A	T	Lead	0.87	µg/L	1.0	J	ER1
OU6-MW-279-20240516	OU6-MW-279	5/16/2024 8:00 AM	SW6020A	T	Lead	0.81	µg/L	1.0	J	ER1
OU6-DMW-34B-20240516	DMW-34B	5/16/2024 1:55 PM	SW6020A	T	Manganese	3.6	µg/L	5.0	J	ER1
OU6-MW-255-20240522	OU6-MW-255	5/22/2024 2:35 PM	SW6020A	T	Manganese	3.5	µg/L	5.0	J	ER1
OU6-MW-263-20240520MSD	OU6-MW-263	5/20/2024 7:35 AM	SW6020A	T	Manganese	491	µg/L	5.0	J-	MSDL
OU6-MW-264-20240523	OU6-MW-264	5/23/2024 8:10 AM	SW6020A	T	Manganese	530	µg/L	5.0	J+	MSH
OU6-MW-264-20240523MS	OU6-MW-264	5/23/2024 8:10 AM	SW6020A	T	Manganese	1060	µg/L	5.0	J+	MSH
OU6-MW-264-20240523MSD	OU6-MW-264	5/23/2024 8:10 AM	SW6020A	T	Manganese	1180	µg/L	5.0	J+	MSDH
OU6-MW-270-20240516	OU6-MW-270	5/16/2024 9:10 AM	SW6020A	T	Manganese	3.2	µg/L	5.0	J	ER1
OU6-MW-259-20240515	OU6-MW-259	5/15/2024 8:20 AM	SW6020A	T	Nickel	0.88	µg/L	1.0	J	ER1
OU6-MW-250-20240522MS	OU6-MW-250	5/22/2024 10:50 AM	SW6020A	T	Sodium	63700	µg/L	500	J-	MSLCO
OU6-MW-250-20240522MSD	OU6-MW-250	5/22/2024 10:50 AM	SW6020A	T	Sodium	64700	µg/L	500	J-	MSDLCO
OU6-MW-279-20240516	OU6-MW-279	5/16/2024 8:00 AM	SW6020A	T	Sodium	17000	µg/L	500	J-	MSL
OU6-MW-279-20240516MS	OU6-MW-279	5/16/2024 8:00 AM	SW6020A	T	Sodium	20100	µg/L	500	J-	MSL
OU6-MW-279-20240516MSD	OU6-MW-279	5/16/2024 8:00 AM	SW6020A	T	Sodium	19900	µg/L	500	J-	MSDL
OU6-MW-280-20240515	OU6-MW-280	5/15/2024 12:50 PM	SW6020A	T	Vanadium	0.77	µg/L	2.5	J	ER1
OU6-CSMPZ-7-20240514	CSMPZ-7	5/14/2024 10:50 AM	SW6020A	T	Zinc	6.1	µg/L	20	J	ER1|NC
OU6-MW-169-20240514	OU6-MW-169	5/14/2024 2:15 PM	SW6020A	T	Zinc	9.2	µg/L	20	J	ER1|NC
OU6-MW-250-20240522MS	OU6-MW-250	5/22/2024 10:50 AM	SW6020A	T	Zinc	400	µg/L	20	J-	MSLCO
OU6-MW-250-20240522MSD	OU6-MW-250	5/22/2024 10:50 AM	SW6020A	T	Zinc	405	µg/L	20	J-	MSDL
OU6-MW-259-20240515	OU6-MW-259	5/15/2024 8:20 AM	SW6020A	T	Zinc	6.4	µg/L	20	J	ER1
OU6-MW-263-20240520MSD	OU6-MW-263	5/20/2024 7:35 AM	SW6020A	T	Zinc	108	µg/L	20	J+	MSDH
OU6-MW-269-20240520	OU6-MW-269	5/20/2024 9:20 AM	SW6020A	T	Zinc	7.0	µg/L	20	J	ER1
OU6-MW-272-20240522	OU6-MW-272	5/22/2024 8:05 AM	SW6020A	T	Zinc	12	µg/L	20	J	ER1|NC
OU6-MW-280-20240515	OU6-MW-280	5/15/2024 12:50 PM	SW6020A	T	Zinc	9.4	µg/L	20	J	ER1
OU6-MW-259-20240515	OU6-MW-259	5/15/2024 8:20 AM	SW7470A	T	Mercury	0.12	µg/L	0.20	J	ER1
DUP5-20240522	OU6-MW-272	5/22/2024 12:00 AM	SW8081B/SW8082A	N	alpha-BHC		µg/L	0.0041	UJ	SURR4
OU6-MW-243-20240523	OU6-MW-243	5/23/2024 10:35 AM	SW8081B/SW8082A	N	alpha-BHC		µg/L	0.0039	UJ	SURR4
OU6-MW-259-20240515	OU6-MW-259	5/15/2024 8:20 AM	SW8081B/SW8082A	N	alpha-BHC		µg/L	0.0040	UJ	SURR4
OU6-MW-263-20240520	OU6-MW-263	5/20/2024 7:35 AM	SW8081B/SW8082A	N	alpha-BHC		µg/L	0.0047	UJ	SURR4
OU6-MW-263-20240520MS	OU6-MW-263	5/20/2024 7:35 AM	SW8081B/SW8082A	N	alpha-BHC	0.0227	µg/L	0.0040	J-	SURR1
OU6-MW-263-20240520MSD	OU6-MW-263	5/20/2024 7:35 AM	SW8081B/SW8082A	N	alpha-BHC	0.0241	µg/L	0.0051	J-	MSDL|SURR1
OU6-MW-269-20240520	OU6-MW-269	5/20/2024 9:20 AM	SW8081B/SW8082A	N	alpha-BHC		µg/L	0.0044	UJ	SURR4
OU6-MW-272-20240522	OU6-MW-272	5/22/2024 8:05 AM	SW8081B/SW8082A	N	alpha-BHC		µg/L	0.0043	UJ	SURR4

Data Qualification Validation Report
OU6 Spring 2024 Annual Monitoring
Defense Supply Center Richmond

Facility:	DSCR
Event ID:	DSCR_FY24_OU6_Annual
Created By:	NA\JonesA10
Created Date:	7/18/2024 12:37:00 PM
Checks:	Dilution Factor, Estimated results, Field Blank Contamination, Field Duplicate RPD, HTT-2, HTT-3, HTT-4 Lab Blank Contamination, Preservative, Relative Percent Difference (RPD), Spike Recovery - Multiple Rules Surrogate Recovery, Trip Blank Contamination, Verify Sample Units

Sample Code	Location	Sample Date	Method	FR	Analyte	Result	Unit	RDL	Qual	Reason Code
OU6-MW-263-20240520	OU6-MW-263	5/20/2024 7:35 AM	SW8081B/SW8082A	N	Aroclor-1016		µg/L	0.28	UJ	MSL
OU6-MW-263-20240520MS	OU6-MW-263	5/20/2024 7:35 AM	SW8081B/SW8082A	N	Aroclor-1016	1.19	µg/L	0.27	J-	MSL
OU6-MW-263-20240520MSD	OU6-MW-263	5/20/2024 7:35 AM	SW8081B/SW8082A	N	Aroclor-1016	1.20	µg/L	0.30	J-	MSDL
DUP5-20240522	OU6-MW-272	5/22/2024 12:00 AM	SW8081B/SW8082A	N	beta-BHC		µg/L	0.0041	UJ	SURR4
OU6-MW-243-20240523	OU6-MW-243	5/23/2024 10:35 AM	SW8081B/SW8082A	N	beta-BHC		µg/L	0.0039	UJ	SURR4
OU6-MW-259-20240515	OU6-MW-259	5/15/2024 8:20 AM	SW8081B/SW8082A	N	beta-BHC		µg/L	0.0040	UJ	SURR4
OU6-MW-263-20240520	OU6-MW-263	5/20/2024 7:35 AM	SW8081B/SW8082A	N	beta-BHC		µg/L	0.0047	UJ	SURR4
OU6-MW-263-20240520MS	OU6-MW-263	5/20/2024 7:35 AM	SW8081B/SW8082A	N	beta-BHC	0.0280	µg/L	0.0040	J-	SURR1
OU6-MW-263-20240520MSD	OU6-MW-263	5/20/2024 7:35 AM	SW8081B/SW8082A	N	beta-BHC	0.0285	µg/L	0.0051	J-	SURR1
OU6-MW-269-20240520	OU6-MW-269	5/20/2024 9:20 AM	SW8081B/SW8082A	N	beta-BHC		µg/L	0.0044	UJ	SURR4
OU6-MW-272-20240522	OU6-MW-272	5/22/2024 8:05 AM	SW8081B/SW8082A	N	beta-BHC		µg/L	0.0043	UJ	SURR4
DUP5-20240522	OU6-MW-272	5/22/2024 12:00 AM	SW8081B/SW8082A	N	delta-BHC		µg/L	0.0041	UJ	SURR4
OU6-MW-243-20240523	OU6-MW-243	5/23/2024 10:35 AM	SW8081B/SW8082A	N	delta-BHC		µg/L	0.0039	UJ	SURR4
OU6-MW-259-20240515	OU6-MW-259	5/15/2024 8:20 AM	SW8081B/SW8082A	N	delta-BHC		µg/L	0.0040	UJ	SURR4
OU6-MW-263-20240520	OU6-MW-263	5/20/2024 7:35 AM	SW8081B/SW8082A	N	delta-BHC		µg/L	0.0047	UJ	SURR4
OU6-MW-263-20240520MS	OU6-MW-263	5/20/2024 7:35 AM	SW8081B/SW8082A	N	delta-BHC	0.0344	µg/L	0.0040	J-	SURR1
OU6-MW-263-20240520MSD	OU6-MW-263	5/20/2024 7:35 AM	SW8081B/SW8082A	N	delta-BHC	0.0403	µg/L	0.0051	J-	SURR1
OU6-MW-269-20240520	OU6-MW-269	5/20/2024 9:20 AM	SW8081B/SW8082A	N	delta-BHC		µg/L	0.0044	UJ	SURR4
OU6-MW-272-20240522	OU6-MW-272	5/22/2024 8:05 AM	SW8081B/SW8082A	N	delta-BHC		µg/L	0.0043	UJ	SURR4
DUP5-20240522	OU6-MW-272	5/22/2024 12:00 AM	SW8081B/SW8082A	N	Dieldrin		µg/L	0.0041	UJ	SURR4
OU6-MW-243-20240523	OU6-MW-243	5/23/2024 10:35 AM	SW8081B/SW8082A	N	Dieldrin		µg/L	0.0039	UJ	SURR4
OU6-MW-259-20240515	OU6-MW-259	5/15/2024 8:20 AM	SW8081B/SW8082A	N	Dieldrin		µg/L	0.0040	UJ	SURR4
OU6-MW-263-20240520	OU6-MW-263	5/20/2024 7:35 AM	SW8081B/SW8082A	N	Dieldrin		µg/L	0.0047	UJ	SURR4
OU6-MW-263-20240520MS	OU6-MW-263	5/20/2024 7:35 AM	SW8081B/SW8082A	N	Dieldrin	0.0306	µg/L	0.0040	J-	SURR1
OU6-MW-263-20240520MSD	OU6-MW-263	5/20/2024 7:35 AM	SW8081B/SW8082A	N	Dieldrin	0.0369	µg/L	0.0051	J-	SURR1
OU6-MW-269-20240520	OU6-MW-269	5/20/2024 9:20 AM	SW8081B/SW8082A	N	Dieldrin		µg/L	0.0044	UJ	SURR4
OU6-MW-272-20240522	OU6-MW-272	5/22/2024 8:05 AM	SW8081B/SW8082A	N	Dieldrin		µg/L	0.0043	UJ	SURR4
DUP5-20240522	OU6-MW-272	5/22/2024 12:00 AM	SW8081B/SW8082A	N	Endosulfan I		µg/L	0.0041	UJ	LCSL|SURR4
OU6-MW-243-20240523	OU6-MW-243	5/23/2024 10:35 AM	SW8081B/SW8082A	N	Endosulfan I		µg/L	0.0039	UJ	LCSL|SURR4
OU6-MW-259-20240515	OU6-MW-259	5/15/2024 8:20 AM	SW8081B/SW8082A	N	Endosulfan I		µg/L	0.0040	UJ	SURR4
OU6-MW-263-20240520	OU6-MW-263	5/20/2024 7:35 AM	SW8081B/SW8082A	N	Endosulfan I		µg/L	0.0047	UJ	SURR4
OU6-MW-263-20240520MS	OU6-MW-263	5/20/2024 7:35 AM	SW8081B/SW8082A	N	Endosulfan I	0.0279	µg/L	0.0040	J-	SURR1
OU6-MW-263-20240520MSD	OU6-MW-263	5/20/2024 7:35 AM	SW8081B/SW8082A	N	Endosulfan I	0.0288	µg/L	0.0051	J-	MSDL|SURR1
OU6-MW-269-20240520	OU6-MW-269	5/20/2024 9:20 AM	SW8081B/SW8082A	N	Endosulfan I		µg/L	0.0044	UJ	SURR4
OU6-MW-272-20240522	OU6-MW-272	5/22/2024 8:05 AM	SW8081B/SW8082A	N	Endosulfan I		µg/L	0.0043	UJ	SURR4
DUP5-20240522	OU6-MW-272	5/22/2024 12:00 AM	SW8081B/SW8082A	N	Endosulfan II		µg/L	0.0041	UJ	SURR4
OU6-MW-243-20240523	OU6-MW-243	5/23/2024 10:35 AM	SW8081B/SW8082A	N	Endosulfan II		µg/L	0.0039	UJ	SURR4
OU6-MW-259-20240515	OU6-MW-259	5/15/2024 8:20 AM	SW8081B/SW8082A	N	Endosulfan II		µg/L	0.0040	UJ	SURR4
OU6-MW-263-20240520	OU6-MW-263	5/20/2024 7:35 AM	SW8081B/SW8082A	N	Endosulfan II		µg/L	0.0047	UJ	SURR4
OU6-MW-263-20240520MS	OU6-MW-263	5/20/2024 7:35 AM	SW8081B/SW8082A	N	Endosulfan II	0.0317	µg/L	0.0040	J-	SURR1
OU6-MW-263-20240520MSD	OU6-MW-263	5/20/2024 7:35 AM	SW8081B/SW8082A	N	Endosulfan II	0.0385	µg/L	0.0051	J-	SURR1
OU6-MW-269-20240520	OU6-MW-269	5/20/2024 9:20 AM	SW8081B/SW8082A	N	Endosulfan II		µg/L	0.0044	UJ	SURR4
OU6-MW-272-20240522	OU6-MW-272	5/22/2024 8:05 AM	SW8081B/SW8082A	N	Endosulfan II		µg/L	0.0043	UJ	SURR4
DUP5-20240522	OU6-MW-272	5/22/2024 12:00 AM	SW8081B/SW8082A	N	Endosulfan sulfate		µg/L	0.0041	UJ	SURR4
OU6-MW-243-20240523	OU6-MW-243	5/23/2024 10:35 AM	SW8081B/SW8082A	N	Endosulfan sulfate		µg/L	0.0039	UJ	SURR4
OU6-MW-259-20240515	OU6-MW-259	5/15/2024 8:20 AM	SW8081B/SW8082A	N	Endosulfan sulfate		µg/L	0.0040	UJ	SURR4
OU6-MW-263-20240520	OU6-MW-263	5/20/2024 7:35 AM	SW8081B/SW8082A	N	Endosulfan sulfate		µg/L	0.0047	UJ	SURR4
OU6-MW-263-20240520MS	OU6-MW-263	5/20/2024 7:35 AM	SW8081B/SW8082A	N	Endosulfan sulfate	0.0299	µg/L	0.0040	J-	SURR1
OU6-MW-263-20240520MSD	OU6-MW-263	5/20/2024 7:35 AM	SW8081B/SW8082A	N	Endosulfan sulfate	0.0359	µg/L	0.0051	J-	SURR1
OU6-MW-269-20240520	OU6-MW-269	5/20/2024 9:20 AM	SW8081B/SW8082A	N	Endosulfan sulfate		µg/L	0.0044	UJ	SURR4
OU6-MW-272-20240522	OU6-MW-272	5/22/2024 8:05 AM	SW8081B/SW8082A	N	Endosulfan sulfate		µg/L	0.0043	UJ	SURR4
DUP5-20240522	OU6-MW-272	5/22/2024 12:00 AM	SW8081B/SW8082A	N	Endrin		µg/L	0.0041	UJ	SURR4
OU6-MW-243-20240523	OU6-MW-243	5/23/2024 10:35 AM	SW8081B/SW8082A	N	Endrin		µg/L	0.0039	UJ	SURR4
OU6-MW-259-20240515	OU6-MW-259	5/15/2024 8:20 AM	SW8081B/SW8082A	N	Endrin		µg/L	0.0040	UJ	SURR4
OU6-MW-263-20240520	OU6-MW-263	5/20/2024 7:35 AM	SW8081B/SW8082A	N	Endrin		µg/L	0.0047	UJ	SURR4
OU6-MW-263-20240520MS	OU6-MW-263	5/20/2024 7:35 AM	SW8081B/SW8082A	N	Endrin	0.0327	µg/L	0.0040	J-	SURR1
OU6-MW-263-20240520MSD	OU6-MW-263	5/20/2024 7:35 AM	SW8081B/SW8082A	N	Endrin	0.0371	µg/L	0.0051	J-	SURR1
OU6-MW-269-20240520	OU6-MW-269	5/20/2024 9:20 AM	SW8081B/SW8082A	N	Endrin		µg/L	0.0044	UJ	SURR4
OU6-MW-272-20240522	OU6-MW-272	5/22/2024 8:05 AM	SW8081B/SW8082A	N	Endrin		µg/L	0.0043	UJ	SURR4
DUP5-20240522	OU6-MW-272	5/22/2024 12:00 AM	SW8081B/SW8082A	N	Endrin aldehyde		µg/L	0.017	UJ	SURR4
OU6-MW-243-20240523	OU6-MW-243	5/23/2024 10:35 AM	SW8081B/SW8082A	N	Endrin aldehyde		µg/L	0.016	UJ	SURR4
OU6-MW-259-20240515	OU6-MW-259	5/15/2024 8:20 AM	SW8081B/SW8082A	N	Endrin aldehyde		µg/L	0.016	UJ	SURR4
OU6-MW-263-20240520	OU6-MW-263	5/20/2024 7:35 AM	SW8081B/SW8082A	N	Endrin aldehyde		µg/L	0.019	UJ	SURR4
OU6-MW-263-20240520MS	OU6-MW-263	5/20/2024 7:35 AM	SW8081B/SW8082A	N	Endrin aldehyde	0.0311	µg/L	0.016	J-	SURR1
OU6-MW-263-20240520MSD	OU6-MW-263	5/20/2024 7:35 AM	SW8081B/SW8082A	N	Endrin aldehyde	0.0333	µg/L	0.020	J-	SURR1
OU6-MW-269-20240520	OU6-MW-269	5/20/2024 9:20 AM	SW8081B/SW8082A	N	Endrin aldehyde		µg/L	0.018	UJ	SURR4
OU6-MW-272-20240522	OU6-MW-272	5/22/2024 8:05 AM	SW8081B/SW8082A	N	Endrin aldehyde		µg/L	0.017	UJ	SURR4

Data Qualification Validation Report
OU6 Spring 2024 Annual Monitoring
Defense Supply Center Richmond

Facility:	DSCR
Event ID:	DSCR_FY24_OU6_Annual
Created By:	NA\JonesA10
Created Date:	7/18/2024 12:37:00 PM
Checks:	Dilution Factor, Estimated results, Field Blank Contamination, Field Duplicate RPD, HTT-2, HTT-3, HTT-4 Lab Blank Contamination, Preservative, Relative Percent Difference (RPD), Spike Recovery - Multiple Rules Surrogate Recovery, Trip Blank Contamination, Verify Sample Units

Sample Code	Location	Sample Date	Method	FR	Analyte	Result	Unit	RDL	Qual	Reason Code
DUP5-20240522	OU6-MW-272	5/22/2024 12:00 AM	SW8081B/SW8082A	N	Endrin ketone		µg/L	0.017	UJ	SURR4
OU6-MW-243-20240523	OU6-MW-243	5/23/2024 10:35 AM	SW8081B/SW8082A	N	Endrin ketone		µg/L	0.016	UJ	SURR4
OU6-MW-259-20240515	OU6-MW-259	5/15/2024 8:20 AM	SW8081B/SW8082A	N	Endrin ketone		µg/L	0.016	UJ	SURR4
OU6-MW-263-20240520	OU6-MW-263	5/20/2024 7:35 AM	SW8081B/SW8082A	N	Endrin ketone		µg/L	0.019	UJ	SURR4
OU6-MW-263-20240520MS	OU6-MW-263	5/20/2024 7:35 AM	SW8081B/SW8082A	N	Endrin ketone	0.0618	µg/L	0.016	J-J+	LCSH|MSH|SURR1
OU6-MW-263-20240520MSD	OU6-MW-263	5/20/2024 7:35 AM	SW8081B/SW8082A	N	Endrin ketone	0.0649	µg/L	0.020	J-J+	LCSH|SURR1
OU6-MW-269-20240520	OU6-MW-269	5/20/2024 9:20 AM	SW8081B/SW8082A	N	Endrin ketone		µg/L	0.018	UJ	SURR4
OU6-MW-272-20240522	OU6-MW-272	5/22/2024 8:05 AM	SW8081B/SW8082A	N	Endrin ketone		µg/L	0.017	UJ	SURR4
DUP5-20240522	OU6-MW-272	5/22/2024 12:00 AM	SW8081B/SW8082A	N	gamma-BHC (Lindane)		µg/L	0.0041	UJ	LCSL|SURR4
OU6-MW-243-20240523	OU6-MW-243	5/23/2024 10:35 AM	SW8081B/SW8082A	N	gamma-BHC (Lindane)		µg/L	0.0039	UJ	LCSL|SURR4
OU6-MW-259-20240515	OU6-MW-259	5/15/2024 8:20 AM	SW8081B/SW8082A	N	gamma-BHC (Lindane)		µg/L	0.0040	UJ	SURR4
OU6-MW-263-20240520	OU6-MW-263	5/20/2024 7:35 AM	SW8081B/SW8082A	N	gamma-BHC (Lindane)		µg/L	0.0047	UJ	SURR4
OU6-MW-263-20240520MS	OU6-MW-263	5/20/2024 7:35 AM	SW8081B/SW8082A	N	gamma-BHC (Lindane)	0.0253	µg/L	0.0040	J-	SURR1
OU6-MW-263-20240520MSD	OU6-MW-263	5/20/2024 7:35 AM	SW8081B/SW8082A	N	gamma-BHC (Lindane)	0.0260	µg/L	0.0051	J-	MSDL|SURR1
OU6-MW-269-20240520	OU6-MW-269	5/20/2024 9:20 AM	SW8081B/SW8082A	N	gamma-BHC (Lindane)		µg/L	0.0044	UJ	SURR4
OU6-MW-272-20240522	OU6-MW-272	5/22/2024 8:05 AM	SW8081B/SW8082A	N	gamma-BHC (Lindane)		µg/L	0.0043	UJ	SURR4
DUP5-20240522	OU6-MW-272	5/22/2024 12:00 AM	SW8081B/SW8082A	N	Heptachlor		µg/L	0.0041	UJ	SURR4
OU6-MW-243-20240523	OU6-MW-243	5/23/2024 10:35 AM	SW8081B/SW8082A	N	Heptachlor		µg/L	0.0039	UJ	SURR4
OU6-MW-259-20240515	OU6-MW-259	5/15/2024 8:20 AM	SW8081B/SW8082A	N	Heptachlor		µg/L	0.0040	UJ	SURR4
OU6-MW-263-20240520	OU6-MW-263	5/20/2024 7:35 AM	SW8081B/SW8082A	N	Heptachlor		µg/L	0.0047	UJ	SURR4
OU6-MW-263-20240520MS	OU6-MW-263	5/20/2024 7:35 AM	SW8081B/SW8082A	N	Heptachlor	0.0246	µg/L	0.0040	J-	SURR1
OU6-MW-263-20240520MSD	OU6-MW-263	5/20/2024 7:35 AM	SW8081B/SW8082A	N	Heptachlor	0.0237	µg/L	0.0051	J-	MSDL|SURR1
OU6-MW-269-20240520	OU6-MW-269	5/20/2024 9:20 AM	SW8081B/SW8082A	N	Heptachlor		µg/L	0.0044	UJ	SURR4
OU6-MW-272-20240522	OU6-MW-272	5/22/2024 8:05 AM	SW8081B/SW8082A	N	Heptachlor		µg/L	0.0043	UJ	SURR4
DUP5-20240522	OU6-MW-272	5/22/2024 12:00 AM	SW8081B/SW8082A	N	Heptachlor epoxide		µg/L	0.0041	UJ	SURR4
OU6-MW-243-20240523	OU6-MW-243	5/23/2024 10:35 AM	SW8081B/SW8082A	N	Heptachlor epoxide		µg/L	0.0039	UJ	SURR4
OU6-MW-259-20240515	OU6-MW-259	5/15/2024 8:20 AM	SW8081B/SW8082A	N	Heptachlor epoxide		µg/L	0.0040	UJ	SURR4
OU6-MW-263-20240520	OU6-MW-263	5/20/2024 7:35 AM	SW8081B/SW8082A	N	Heptachlor epoxide		µg/L	0.0047	UJ	SURR4
OU6-MW-263-20240520MS	OU6-MW-263	5/20/2024 7:35 AM	SW8081B/SW8082A	N	Heptachlor epoxide	0.0288	µg/L	0.0040	J-	SURR1
OU6-MW-263-20240520MSD	OU6-MW-263	5/20/2024 7:35 AM	SW8081B/SW8082A	N	Heptachlor epoxide	0.0347	µg/L	0.0051	J-	SURR1
OU6-MW-269-20240520	OU6-MW-269	5/20/2024 9:20 AM	SW8081B/SW8082A	N	Heptachlor epoxide		µg/L	0.0044	UJ	SURR4
OU6-MW-272-20240522	OU6-MW-272	5/22/2024 8:05 AM	SW8081B/SW8082A	N	Heptachlor epoxide		µg/L	0.0043	UJ	SURR4
DUP5-20240522	OU6-MW-272	5/22/2024 12:00 AM	SW8081B/SW8082A	N	Tetrachloro-m-Xylene	0.085	µg/L		J-	SURR7
OU6-MW-243-20240523	OU6-MW-243	5/23/2024 10:35 AM	SW8081B/SW8082A	N	Tetrachloro-m-Xylene	0.070	µg/L		J-	SURR7
OU6-MW-259-20240515	OU6-MW-259	5/15/2024 8:20 AM	SW8081B/SW8082A	N	Tetrachloro-m-Xylene	0.074	µg/L		J-	SURR7
OU6-MW-263-20240520	OU6-MW-263	5/20/2024 7:35 AM	SW8081B/SW8082A	N	Tetrachloro-m-Xylene	0.031	µg/L		J-	SURR7
OU6-MW-263-20240520MS	OU6-MW-263	5/20/2024 7:35 AM	SW8081B/SW8082A	N	Tetrachloro-m-Xylene	0.0641	µg/L		J-	SURR7
OU6-MW-263-20240520MS	OU6-MW-263	5/20/2024 7:35 AM	SW8081B/SW8082A	N	Tetrachloro-m-Xylene	0.0768	µg/L		J-	SURR7
OU6-MW-263-20240520MSD	OU6-MW-263	5/20/2024 7:35 AM	SW8081B/SW8082A	N	Tetrachloro-m-Xylene	0.0800	µg/L		J-	SURR7
OU6-MW-263-20240520MSD	OU6-MW-263	5/20/2024 7:35 AM	SW8081B/SW8082A	N	Tetrachloro-m-Xylene	0.0714	µg/L		J-	SURR7
OU6-MW-269-20240520	OU6-MW-269	5/20/2024 9:20 AM	SW8081B/SW8082A	N	Tetrachloro-m-Xylene	0.061	µg/L		J-	SURR7
OU6-MW-272-20240522	OU6-MW-272	5/22/2024 8:05 AM	SW8081B/SW8082A	N	Tetrachloro-m-Xylene	0.067	µg/L		J-	SURR7
DUP5-20240522	OU6-MW-272	5/22/2024 12:00 AM	SW8081B/SW8082A	N	Toxaphene		µg/L	0.83	UJ	SURR4
OU6-MW-243-20240523	OU6-MW-243	5/23/2024 10:35 AM	SW8081B/SW8082A	N	Toxaphene		µg/L	0.78	UJ	SURR4
OU6-MW-259-20240515	OU6-MW-259	5/15/2024 8:20 AM	SW8081B/SW8082A	N	Toxaphene		µg/L	0.81	UJ	SURR4
OU6-MW-263-20240520	OU6-MW-263	5/20/2024 7:35 AM	SW8081B/SW8082A	N	Toxaphene		µg/L	0.94	UJ	SURR4
OU6-MW-269-20240520	OU6-MW-269	5/20/2024 9:20 AM	SW8081B/SW8082A	N	Toxaphene		µg/L	0.88	UJ	SURR4
OU6-MW-272-20240522	OU6-MW-272	5/22/2024 8:05 AM	SW8081B/SW8082A	N	Toxaphene		µg/L	0.87	UJ	SURR4
OU6-MW-260-20240523	OU6-MW-260	5/23/2024 9:20 AM	SW8260D	N	1,1,1,2-Tetrachloroethane	0.92	µg/L	1.0	J	ER2
OU6-MW-236-20240521MS	OU6-MW-236	5/21/2024 10:15 AM	SW8260D	N	1,1,2,2-Tetrachloroethane	58.8	µg/L	1.0	J+	SURR3
OU6-MW-236-20240521MSD	OU6-MW-236	5/21/2024 10:15 AM	SW8260D	N	1,1,2,2-Tetrachloroethane	62.9	µg/L	1.0	J+	MSDH|SURR3
OU6-MW-263-20240520MS	OU6-MW-263	5/20/2024 7:35 AM	SW8260D	N	1,1,2,2-Tetrachloroethane	68.4	µg/L	1.0	J+	MSH|SURR3
OU6-MW-263-20240520MSD	OU6-MW-263	5/20/2024 7:35 AM	SW8260D	N	1,1,2,2-Tetrachloroethane	72.2	µg/L	1.0	J+	MSDH|SURR3
OU6-MW-129-20240523	OU6-MW-129	5/23/2024 8:30 AM	SW8260D	N	1,1,2-Trichloroethane	0.52	µg/L	1.0	J	ER2
OU6-MW-131-20240523	OU6-MW-131	5/23/2024 9:40 AM	SW8260D	N	1,1,2-Trichloroethane	0.82	µg/L	1.0	J	ER2
OU6-MW-253-20240521	OU6-MW-253	5/21/2024 10:05 AM	SW8260D	N	1,1,2-Trichloroethane		µg/L	1.0	UJ	SURR4
OU6-MW-273-20240516	OU6-MW-273	5/16/2024 10:10 AM	SW8260D	N	1,1,2-Trichloroethane	0.39	µg/L	1.0	J	ER2
OU6-DMW-28B-20240529	DMW-28B	5/29/2024 10:25 AM	SW8260D	N	1,1-Dichloroethane	0.88	µg/L	1.0	J	ER2
OU6-MW-222-20240520	OU6-MW-222	5/20/2024 1:15 PM	SW8260D	N	1,1-Dichloroethane	0.75	µg/L	1.0	J	ER2
OU6-MW-262-20240517	OU6-MW-262	5/17/2024 10:00 AM	SW8260D	N	1,1-Dichloroethane	0.80	µg/L	1.0	J	ER2
OU6-MW-264-20240523	OU6-MW-264	5/23/2024 8:10 AM	SW8260D	N	1,1-Dichloroethane	0.47	µg/L	1.0	J	ER2
OU6-MW-266-20240520	OU6-MW-266	5/20/2024 10:15 AM	SW8260D	N	1,1-Dichloroethane	0.44	µg/L	1.0	J	ER2
OU6-MW-280-20240515	OU6-MW-280	5/15/2024 12:50 PM	SW8260D	N	1,1-Dichloroethane	0.38	µg/L	1.0	J	ER2
OU6-MW-292-20240520	OU6-MW-292	5/20/2024 2:15 PM	SW8260D	N	1,1-Dichloroethane	0.60	µg/L	1.0	J	ER2

Data Qualification Validation Report
OU6 Spring 2024 Annual Monitoring
Defense Supply Center Richmond

Facility:	DSCR
Event ID:	DSCR_FY24_OU6_Annual
Created By:	NA\JonesA10
Created Date:	7/18/2024 12:37:00 PM
Checks:	Dilution Factor, Estimated results, Field Blank Contamination, Field Duplicate RPD, HTT-2, HTT-3, HTT-4 Lab Blank Contamination, Preservative, Relative Percent Difference (RPD), Spike Recovery - Multiple Rules Surrogate Recovery, Trip Blank Contamination, Verify Sample Units

Sample Code	Location	Sample Date	Method	FR	Analyte	Result	Unit	RDL	Qual	Reason Code
OU6-DMW-28B-20240529	DMW-28B	5/29/2024 10:25 AM	SW8260D	N	1,1-Dichloroethene (Vinylidene chloride)	0.96	µg/L	1.0	J	ER2
OU6-MW-145-20240520	OU6-MW-145	5/20/2024 12:35 PM	SW8260D	N	1,1-Dichloroethene (Vinylidene chloride)	0.75	µg/L	1.0	J	ER2
OU6-MW-169-20240514	OU6-MW-169	5/14/2024 2:15 PM	SW8260D	N	1,1-Dichloroethene (Vinylidene chloride)	0.48	µg/L	1.0	J	ER2
OU6-MW-242-20240523	OU6-MW-242	5/23/2024 8:25 AM	SW8260D	N	1,1-Dichloroethene (Vinylidene chloride)	220	µg/L	500	J	ER2
OU6-MW-245-20240523	OU6-MW-245	5/23/2024 2:00 PM	SW8260D	N	1,1-Dichloroethene (Vinylidene chloride)	0.47	µg/L	1.0	J	ER2
OU6-MW-266-20240520	OU6-MW-266	5/20/2024 10:15 AM	SW8260D	N	1,1-Dichloroethene (Vinylidene chloride)	0.46	µg/L	1.0	J	ER2
OU6-MW-276-20240520	OU6-MW-276	5/20/2024 8:15 AM	SW8260D	N	1,1-Dichloroethene (Vinylidene chloride)	0.62	µg/L	1.0	J	ER2
OU6-MW-282-20240520	OU6-MW-282	5/20/2024 11:55 AM	SW8260D	N	1,1-Dichloroethene (Vinylidene chloride)	0.95	µg/L	1.0	J	ER2
OU6-MW-286-20240516	OU6-MW-286	5/16/2024 12:00 PM	SW8260D	N	1,1-Dichloroethene (Vinylidene chloride)	0.46	µg/L	1.0	J	ER2
OU6-MW-287-20240521	OU6-MW-287	5/21/2024 1:15 PM	SW8260D	N	1,1-Dichloroethene (Vinylidene chloride)	0.38	µg/L	1.0	J	ER2
OU6-MW-288-20240517	OU6-MW-288	5/17/2024 8:35 AM	SW8260D	N	1,1-Dichloroethene (Vinylidene chloride)	0.96	µg/L	1.0	J	ER2
OU6-MW-294-20240521	OU6-MW-294	5/21/2024 10:27 AM	SW8260D	N	1,1-Dichloroethene (Vinylidene chloride)	3.5	µg/L	5.0	J	ER2
OU6-MW-297-20240515	OU6-MW-297	5/15/2024 12:10 PM	SW8260D	N	1,1-Dichloroethene (Vinylidene chloride)	0.53	µg/L	1.0	J	ER2
OU6-MW-94-20240516	OU6-MW-94	5/16/2024 10:20 AM	SW8260D	N	1,1-Dichloroethene (Vinylidene chloride)	0.37	µg/L	1.0	J	ER2
OU6-MW-95-20240520	OU6-MW-95	5/20/2024 1:05 PM	SW8260D	N	1,1-Dichloroethene (Vinylidene chloride)	6.4	µg/L	10	J	ER2
OU6-MWNGA-10-20240515	MWNGA-10	5/15/2024 10:15 AM	SW8260D	N	1,1-Dichloroethene (Vinylidene chloride)	5.4	µg/L	1.0	J+	SURR3
OU6-MW-160-20240520	OU6-MW-160	5/20/2024 10:35 AM	SW8260D	N	1,2,3-Trichlorobenzene		µg/L	2.0	UJ	MSL
OU6-MW-160-20240520MS	OU6-MW-160	5/20/2024 10:35 AM	SW8260D	N	1,2,3-Trichlorobenzene	34.2	µg/L	2.0	J-	MSL
OU6-MW-236-20240521MS	OU6-MW-236	5/21/2024 10:15 AM	SW8260D	N	1,2,3-Trichlorobenzene	47.9	µg/L	2.0	J+	SURR3
OU6-MW-236-20240521MSD	OU6-MW-236	5/21/2024 10:15 AM	SW8260D	N	1,2,3-Trichlorobenzene	49.7	µg/L	2.0	J+	SURR3
OU6-MW-263-20240520MS	OU6-MW-263	5/20/2024 7:35 AM	SW8260D	N	1,2,3-Trichlorobenzene	53.7	µg/L	2.0	J+	SURR3
OU6-MW-263-20240520MSD	OU6-MW-263	5/20/2024 7:35 AM	SW8260D	N	1,2,3-Trichlorobenzene	56.7	µg/L	2.0	J+	SURR3
OU6-MW-294-20240521	OU6-MW-294	5/21/2024 10:27 AM	SW8260D	N	1,2,3-Trichlorobenzene		µg/L	10	UJ	SURR4
OU6-MW-260-20240523	OU6-MW-260	5/23/2024 9:20 AM	SW8260D	N	1,2,3-Trichloropropane	0.93	µg/L	1.0	J	ER2
OU6-MW-236-20240521MS	OU6-MW-236	5/21/2024 10:15 AM	SW8260D	N	1,2,4-Trichlorobenzene	51.1	µg/L	2.0	J+	SURR3
OU6-MW-236-20240521MSD	OU6-MW-236	5/21/2024 10:15 AM	SW8260D	N	1,2,4-Trichlorobenzene	52.6	µg/L	2.0	J+	SURR3
OU6-MW-260-20240523	OU6-MW-260	5/23/2024 9:20 AM	SW8260D	N	1,2,4-Trichlorobenzene	0.54	µg/L	2.0	J	ER2|NC
OU6-MW-263-20240520MS	OU6-MW-263	5/20/2024 7:35 AM	SW8260D	N	1,2,4-Trichlorobenzene	57.4	µg/L	2.0	J+	SURR3
OU6-MW-263-20240520MSD	OU6-MW-263	5/20/2024 7:35 AM	SW8260D	N	1,2,4-Trichlorobenzene	59.9	µg/L	2.0	J+	SURR3
OU6-MW-294-20240521	OU6-MW-294	5/21/2024 10:27 AM	SW8260D	N	1,2,4-Trichlorobenzene		µg/L	10	UJ	SURR4
OU6-MW-263-20240520MS	OU6-MW-263	5/20/2024 7:35 AM	SW8260D	N	1,2,4-Trimethylbenzene	62.8	µg/L	1.0	J+	MSH
OU6-MW-263-20240520MSD	OU6-MW-263	5/20/2024 7:35 AM	SW8260D	N	1,2,4-Trimethylbenzene	63.5	µg/L	1.0	J+	MSDH
OU6-MW-263-20240520MSD	OU6-MW-263	5/20/2024 7:35 AM	SW8260D	N	1,2-Dibromo-3-chloropropane (DBCP)	65.8	µg/L	5.0	J+	MSDH
DUP5-20240522	OU6-MW-272	5/22/2024 12:00 AM	SW8260D	N	1,2-Dichlorobenzene	24	µg/L	1.0	J	RPD5
OU6-DMW-28B-20240529	DMW-28B	5/29/2024 10:25 AM	SW8260D	N	1,2-Dichlorobenzene	0.61	µg/L	1.0	J	ER2
OU6-MW-236-20240521MS	OU6-MW-236	5/21/2024 10:15 AM	SW8260D	N	1,2-Dichlorobenzene	47.1	µg/L	1.0	J+	SURR3
OU6-MW-236-20240521MSD	OU6-MW-236	5/21/2024 10:15 AM	SW8260D	N	1,2-Dichlorobenzene	48.7	µg/L	1.0	J+	SURR3
OU6-MW-254-20240521	OU6-MW-254	5/21/2024 9:00 AM	SW8260D	N	1,2-Dichlorobenzene	0.58	µg/L	1.0	J	ER2
OU6-MW-262-20240517	OU6-MW-262	5/17/2024 10:00 AM	SW8260D	N	1,2-Dichlorobenzene	6.9	µg/L	1.0	J+	SURR3
OU6-MW-263-20240520MS	OU6-MW-263	5/20/2024 7:35 AM	SW8260D	N	1,2-Dichlorobenzene	53.8	µg/L	1.0	J+	SURR3
OU6-MW-263-20240520MSD	OU6-MW-263	5/20/2024 7:35 AM	SW8260D	N	1,2-Dichlorobenzene	56.5	µg/L	1.0	J+	SURR3
OU6-MW-272-20240522	OU6-MW-272	5/22/2024 8:05 AM	SW8260D	N	1,2-Dichlorobenzene	8.1	µg/L	1.0	J	RPD5
OU6-MW-279-20240516	OU6-MW-279	5/16/2024 8:00 AM	SW8260D	N	1,2-Dichlorobenzene	0.43	µg/L	1.0	J	ER2
OU6-MW-282-20240520	OU6-MW-282	5/20/2024 11:55 AM	SW8260D	N	1,2-Dichlorobenzene	0.81	µg/L	1.0	J	ER2
OU6-MW-285-20240522	OU6-MW-285	5/22/2024 1:35 PM	SW8260D	N	1,2-Dichlorobenzene	6.7	µg/L	10	J	ER2
OU6-MW-287-20240521	OU6-MW-287	5/21/2024 1:15 PM	SW8260D	N	1,2-Dichlorobenzene	0.59	µg/L	1.0	J	ER2
OU6-MW-294-20240521	OU6-MW-294	5/21/2024 10:27 AM	SW8260D	N	1,2-Dichlorobenzene		µg/L	5.0	UJ	SURR4
OU6-MW-89-20240523	OU6-MW-89	5/23/2024 10:15 AM	SW8260D	N	1,2-Dichlorobenzene	0.83	µg/L	1.0	J	ER2
OU6-MW-95-20240520	OU6-MW-95	5/20/2024 1:05 PM	SW8260D	N	1,2-Dichlorobenzene	3.3	µg/L	10	J	ER2
OU6-MW-126-20240523	OU6-MW-126	5/23/2024 10:40 AM	SW8260D	N	1,2-Dichloroethane	0.59	µg/L	1.0	J	ER2
OU6-MW-131-20240523	OU6-MW-131	5/23/2024 9:40 AM	SW8260D	N	1,2-Dichloroethane	0.50	µg/L	1.0	J	ER2
OU6-MW-245-20240523	OU6-MW-245	5/23/2024 2:00 PM	SW8260D	N	1,2-Dichloroethane	0.27	µg/L	1.0	J	ER2
OU6-MW-262-20240517	OU6-MW-262	5/17/2024 10:00 AM	SW8260D	N	1,2-Dichloroethane	0.68	µg/L	1.0	J	ER2
OU6-MW-264-20240523	OU6-MW-264	5/23/2024 8:10 AM	SW8260D	N	1,2-Dichloroethane	0.56	µg/L	1.0	J	ER2
OU6-MW-282-20240520	OU6-MW-282	5/20/2024 11:55 AM	SW8260D	N	1,2-Dichloroethane	0.68	µg/L	1.0	J	ER2
OU6-MW-291-20240522	OU6-MW-291	5/22/2024 10:02 AM	SW8260D	N	1,2-Dichloroethane	3.2	µg/L	10	J	ER2
OU6-MW-88-20240522	OU6-MW-88	5/22/2024 10:05 AM	SW8260D	N	1,2-Dichloroethane	0.47	µg/L	1.0	J	ER2
OU6-MW-95-20240520	OU6-MW-95	5/20/2024 1:05 PM	SW8260D	N	1,2-Dichloroethane	3.1	µg/L	10	J	ER2
OU6-MWNGA-10-20240515	MWNGA-10	5/15/2024 10:15 AM	SW8260D	N	1,2-Dichloroethane-d4	60	µg/L	1.0	J+	SURR9

Data Qualification Validation Report
OU6 Spring 2024 Annual Monitoring
Defense Supply Center Richmond

Facility:	DSCR
Event ID:	DSCR_FY24_OU6_Annual
Created By:	NA\JonesA10
Created Date:	7/18/2024 12:37:00 PM
Checks:	Dilution Factor, Estimated results, Field Blank Contamination, Field Duplicate RPD, HTT-2, HTT-3, HTT-4 Lab Blank Contamination, Preservative, Relative Percent Difference (RPD), Spike Recovery - Multiple Rules Surrogate Recovery, Trip Blank Contamination, Verify Sample Units

Sample Code	Location	Sample Date	Method	FR	Analyte	Result	Unit	RDL	Qual	Reason Code
DUP5-20240522	OU6-MW-272	5/22/2024 12:00 AM	SW8260D	N	1,2-Dichloroethene, Total	110	µg/L	1.0	J	RPD5
OU6-DMW-9B-20240522	DMW-9B	5/22/2024 8:45 AM	SW8260D	N	1,2-Dichloroethene, Total	20	µg/L	25	J	ER2
OU6-LAWMW-Q-20240516	LAWMW-Q	5/16/2024 12:40 PM	SW8260D	N	1,2-Dichloroethene, Total	0.99	µg/L	1.0	J	ER2
OU6-MW-159-20240517	OU6-MW-159	5/17/2024 10:00 AM	SW8260D	N	1,2-Dichloroethene, Total	0.68	µg/L	1.0	J	ER2
OU6-MW-160-20240520	OU6-MW-160	5/20/2024 10:35 AM	SW8260D	N	1,2-Dichloroethene, Total	0.47	µg/L	1.0	J	ER2
OU6-MW-165-20240517	OU6-MW-165	5/17/2024 10:45 AM	SW8260D	N	1,2-Dichloroethene, Total	0.92	µg/L	1.0	J	ER2
OU6-MW-167-20240516	OU6-MW-167	5/16/2024 10:35 AM	SW8260D	N	1,2-Dichloroethene, Total	0.98	µg/L	1.0	J	ER2
OU6-MW-169-20240514	OU6-MW-169	5/14/2024 2:15 PM	SW8260D	N	1,2-Dichloroethene, Total	0.47	µg/L	1.0	J	ER2
OU6-MW-225-20240514	OU6-MW-225	5/14/2024 9:02 AM	SW8260D	N	1,2-Dichloroethene, Total	0.37	µg/L	1.0	J	ER2
OU6-MW-249-20240516	OU6-MW-249	5/16/2024 1:45 PM	SW8260D	N	1,2-Dichloroethene, Total	0.99	µg/L	1.0	J	ER2
OU6-MW-257-20240516	OU6-MW-257	5/16/2024 9:10 AM	SW8260D	N	1,2-Dichloroethene, Total	0.62	µg/L	1.0	J	ER2
OU6-MW-261-20240516	OU6-MW-261	5/16/2024 11:15 AM	SW8260D	N	1,2-Dichloroethene, Total	0.51	µg/L	1.0	J	ER2
OU6-MW-264-20240523	OU6-MW-264	5/23/2024 8:10 AM	SW8260D	N	1,2-Dichloroethene, Total	130	µg/L	1.0	J+	MSH
OU6-MW-264-20240523MS	OU6-MW-264	5/23/2024 8:10 AM	SW8260D	N	1,2-Dichloroethene, Total	286	µg/L	1.0	J+	MSH
OU6-MW-264-20240523MSD	OU6-MW-264	5/23/2024 8:10 AM	SW8260D	N	1,2-Dichloroethene, Total	283	µg/L	1.0	J+	MSDH
OU6-MW-272-20240522	OU6-MW-272	5/22/2024 8:05 AM	SW8260D	N	1,2-Dichloroethene, Total	44	µg/L	1.0	J	RPD5
OU6-MW-288-20240517	OU6-MW-288	5/17/2024 8:35 AM	SW8260D	N	1,2-Dichloroethene, Total	0.43	µg/L	1.0	J	ER2
OU6-NNC-1-20240523	NNC-1	5/23/2024 11:40 AM	SW8260D	N	1,2-Dichloroethene, Total	0.81	µg/L	1.0	J	ER2
OU6-NNC-2-20240523	NNC-2	5/23/2024 2:20 PM	SW8260D	N	1,2-Dichloroethene, Total	0.99	µg/L	1.0	J	ER2
OU6-MW-260-20240523	OU6-MW-260	5/23/2024 9:20 AM	SW8260D	N	1,2-Dichloropropane	0.31	µg/L	0.50	J	ER2
OU6-MW-268-20240520	OU6-MW-268	5/20/2024 2:30 PM	SW8260D	N	1,2-Dichloropropane	0.22	µg/L	0.50	J	ER2
OU6-MW-129-20240523	OU6-MW-129	5/23/2024 8:30 AM	SW8260D	N	1,3,5-Trimethylbenzene	0.61	µg/L	1.0	J	ER2
OU6-MW-236-20240521MS	OU6-MW-236	5/21/2024 10:15 AM	SW8260D	N	1,3,5-Trimethylbenzene	58.3	µg/L	1.0	J+	SURR3
OU6-MW-236-20240521MSD	OU6-MW-236	5/21/2024 10:15 AM	SW8260D	N	1,3,5-Trimethylbenzene	57.7	µg/L	1.0	J+	SURR3
OU6-MW-243-20240523	OU6-MW-243	5/23/2024 10:35 AM	SW8260D	N	1,3,5-Trimethylbenzene	46	µg/L	100	J	ER2
OU6-MW-263-20240520MS	OU6-MW-263	5/20/2024 7:35 AM	SW8260D	N	1,3,5-Trimethylbenzene	63.6	µg/L	1.0	J+	MSH|SURR3
OU6-MW-263-20240520MSD	OU6-MW-263	5/20/2024 7:35 AM	SW8260D	N	1,3,5-Trimethylbenzene	63.8	µg/L	1.0	J+	MSDH|SURR3
OU6-MW-222-20240520	OU6-MW-222	5/20/2024 1:15 PM	SW8260D	N	1,3-Dichlorobenzene	0.31	µg/L	1.0	J	ER2
OU6-MW-236-20240521MS	OU6-MW-236	5/21/2024 10:15 AM	SW8260D	N	1,3-Dichlorobenzene	52.2	µg/L	1.0	J+	SURR3
OU6-MW-236-20240521MSD	OU6-MW-236	5/21/2024 10:15 AM	SW8260D	N	1,3-Dichlorobenzene	53.3	µg/L	1.0	J+	SURR3
OU6-MW-261-20240516	OU6-MW-261	5/16/2024 11:15 AM	SW8260D	N	1,3-Dichlorobenzene	0.85	µg/L	1.0	J	ER2
OU6-MW-263-20240520MS	OU6-MW-263	5/20/2024 7:35 AM	SW8260D	N	1,3-Dichlorobenzene	57.3	µg/L	1.0	J+	SURR3
OU6-MW-263-20240520MSD	OU6-MW-263	5/20/2024 7:35 AM	SW8260D	N	1,3-Dichlorobenzene	58.8	µg/L	1.0	J+	SURR3
OU6-MW-264-20240523	OU6-MW-264	5/23/2024 8:10 AM	SW8260D	N	1,3-Dichlorobenzene	0.50	µg/L	1.0	J	ER2|NC
OU6-MW-287-20240521	OU6-MW-287	5/21/2024 1:15 PM	SW8260D	N	1,3-Dichlorobenzene	0.31	µg/L	1.0	J	ER2|NC
OU6-MW-294-20240521	OU6-MW-294	5/21/2024 10:27 AM	SW8260D	N	1,3-Dichlorobenzene		µg/L	5.0	UJ	SURR4
DUP5-20240522	OU6-MW-272	5/22/2024 12:00 AM	SW8260D	N	1,4-Dichlorobenzene	94	µg/L	1.0	J	RPD5
OU6-MW-157-20240522	OU6-MW-157	5/22/2024 11:25 AM	SW8260D	N	1,4-Dichlorobenzene	3.9	µg/L	10	J	ER2
OU6-MW-236-20240521	OU6-MW-236	5/21/2024 10:15 AM	SW8260D	N	1,4-Dichlorobenzene	0.35	µg/L	1.0	J	ER2
OU6-MW-236-20240521MS	OU6-MW-236	5/21/2024 10:15 AM	SW8260D	N	1,4-Dichlorobenzene	50.4	µg/L	1.0	J+	SURR3
OU6-MW-236-20240521MSD	OU6-MW-236	5/21/2024 10:15 AM	SW8260D	N	1,4-Dichlorobenzene	51.3	µg/L	1.0	J+	SURR3
OU6-MW-253-20240521	OU6-MW-253	5/21/2024 10:05 AM	SW8260D	N	1,4-Dichlorobenzene	0.68	µg/L	1.0	J	ER2
OU6-MW-256-20240521	OU6-MW-256	5/21/2024 7:55 AM	SW8260D	N	1,4-Dichlorobenzene	0.79	µg/L	1.0	J	ER2
OU6-MW-262-20240517	OU6-MW-262	5/17/2024 10:00 AM	SW8260D	N	1,4-Dichlorobenzene	3.0	µg/L	1.0	J+	SURR3
OU6-MW-263-20240520MS	OU6-MW-263	5/20/2024 7:35 AM	SW8260D	N	1,4-Dichlorobenzene	54.7	µg/L	1.0	J+	SURR3
OU6-MW-263-20240520MSD	OU6-MW-263	5/20/2024 7:35 AM	SW8260D	N	1,4-Dichlorobenzene	56.4	µg/L	1.0	J+	SURR3
OU6-MW-272-20240522	OU6-MW-272	5/22/2024 8:05 AM	SW8260D	N	1,4-Dichlorobenzene	31	µg/L	1.0	J	RPD5
OU6-MW-279-20240516	OU6-MW-279	5/16/2024 8:00 AM	SW8260D	N	1,4-Dichlorobenzene	0.77	µg/L	1.0	J	ER2
OU6-MW-281-20240516	OU6-MW-281	5/16/2024 1:15 PM	SW8260D	N	1,4-Dichlorobenzene	0.85	µg/L	1.0	J	ER2
OU6-MW-289-20240522	OU6-MW-289	5/22/2024 1:10 PM	SW8260D	N	1,4-Dichlorobenzene	4.2	µg/L	5.0	J	ER2
OU6-MW-294-20240521	OU6-MW-294	5/21/2024 10:27 AM	SW8260D	N	1,4-Dichlorobenzene		µg/L	5.0	UJ	SURR4
OU6-MW-94-20240516	OU6-MW-94	5/16/2024 10:20 AM	SW8260D	N	1,4-Dichlorobenzene	0.73	µg/L	1.0	J	ER2
OU6-MW-89-20240523	OU6-MW-89	5/23/2024 10:15 AM	SW8260D	N	2-Butanone (MEK)	8.8	µg/L	20	J	ER2
OU6-MW-236-20240521MS	OU6-MW-236	5/21/2024 10:15 AM	SW8260D	N	2-Chlorotoluene	58.1	µg/L	0.50	J+	SURR3
OU6-MW-236-20240521MSD	OU6-MW-236	5/21/2024 10:15 AM	SW8260D	N	2-Chlorotoluene	57.2	µg/L	0.50	J+	SURR3
OU6-MW-253-20240521	OU6-MW-253	5/21/2024 10:05 AM	SW8260D	N	2-Chlorotoluene		µg/L	0.50	UJ	SURR4
OU6-MW-263-20240520MS	OU6-MW-263	5/20/2024 7:35 AM	SW8260D	N	2-Chlorotoluene	62.6	µg/L	0.50	J+	MSH|SURR3
OU6-MW-263-20240520MSD	OU6-MW-263	5/20/2024 7:35 AM	SW8260D	N	2-Chlorotoluene	62.9	µg/L	0.50	J+	MSDH|SURR3
OU6-MW-263-20240520MSD	OU6-MW-263	5/20/2024 7:35 AM	SW8260D	N	2-Hexanone	349	µg/L	10	J+	MSDH
OU6-MW-236-20240521MS	OU6-MW-236	5/21/2024 10:15 AM	SW8260D	N	4-Bromofluorobenzene	58.3	µg/L	1.0	J+	SURR9
OU6-MW-236-20240521MSD	OU6-MW-236	5/21/2024 10:15 AM	SW8260D	N	4-Bromofluorobenzene	57.7	µg/L	1.0	J+	SURR9
OU6-MW-262-20240517	OU6-MW-262	5/17/2024 10:00 AM	SW8260D	N	4-Bromofluorobenzene	58	µg/L	1.0	J+	SURR9
OU6-MW-263-20240520MS	OU6-MW-263	5/20/2024 7:35 AM	SW8260D	N	4-Bromofluorobenzene	63.7	µg/L	1.0	J+	SURR9
OU6-MW-263-20240520MSD	OU6-MW-263	5/20/2024 7:35 AM	SW8260D	N	4-Bromofluorobenzene	64.5	µg/L	1.0	J+	SURR9
OU6-MW-292-20240520	OU6-MW-292	5/20/2024 2:15 PM	SW8260D	N	4-Bromofluorobenzene	58	µg/L	1.0	J+	SURR9
OU6-MW-294-20240521	OU6-MW-294	5/21/2024 10:27 AM	SW8260D	N	4-Bromofluorobenzene	200	µg/L	5.0	J-	SURR7
OU6-MW-93-20240516	OU6-MW-93	5/16/2024 9:45 AM	SW8260D	N	4-Bromofluorobenzene	58	µg/L	1.0	J+	SURR9
TRIPBLANK-20240517	Trip Blank	5/17/2024 12:00 AM	SW8260D	N	4-Bromofluorobenzene	57	µg/L	1.0	J+	SURR9

Data Qualification Validation Report
OU6 Spring 2024 Annual Monitoring
Defense Supply Center Richmond

Facility:	DSCR
Event ID:	DSCR_FY24_OU6_Annual
Created By:	NA\JonesA10
Created Date:	7/18/2024 12:37:00 PM
Checks:	Dilution Factor, Estimated results, Field Blank Contamination, Field Duplicate RPD, HTT-2, HTT-3, HTT-4 Lab Blank Contamination, Preservative, Relative Percent Difference (RPD), Spike Recovery - Multiple Rules Surrogate Recovery, Trip Blank Contamination, Verify Sample Units

Sample Code	Location	Sample Date	Method	FR	Analyte	Result	Unit	RDL	Qual	Reason Code
OU6-MW-253-20240521	OU6-MW-253	5/21/2024 10:05 AM	SW8260D	N	4-Chlorotoluene		µg/L	1.0	UJ	SURR4
OU6-MW-263-20240520MS	OU6-MW-263	5/20/2024 7:35 AM	SW8260D	N	4-Chlorotoluene	61.5	µg/L	1.0	J+	MSH
OU6-MW-263-20240520MSD	OU6-MW-263	5/20/2024 7:35 AM	SW8260D	N	4-Chlorotoluene	61.3	µg/L	1.0	J+	MSDH
OU6-MW-170-20240521	OU6-MW-170	5/21/2024 8:30 AM	SW8260D	N	4-Methyl-2-pentanone (MIBK)	9.5	µg/L	10	J	ER2
OU6-MW-240-20240521	OU6-MW-240	5/21/2024 1:10 PM	SW8260D	N	4-Methyl-2-pentanone (MIBK)	4.2	µg/L	10	J	ER2
OU6-MW-245-20240523	OU6-MW-245	5/23/2024 2:00 PM	SW8260D	N	4-Methyl-2-pentanone (MIBK)	4.6	µg/L	10	J	ER2
OU6-MW-260-20240523	OU6-MW-260	5/23/2024 9:20 AM	SW8260D	N	4-Methyl-2-pentanone (MIBK)	8.6	µg/L	10	J	ER2
OU6-MW-263-20240520MS	OU6-MW-263	5/20/2024 7:35 AM	SW8260D	N	4-Methyl-2-pentanone (MIBK)	347	µg/L	10	J+	MSH
OU6-MW-263-20240520MSD	OU6-MW-263	5/20/2024 7:35 AM	SW8260D	N	4-Methyl-2-pentanone (MIBK)	358	µg/L	10	J+	MSDH
OU6-MW-129-20240523	OU6-MW-129	5/23/2024 8:30 AM	SW8260D	N	Acetone	8.2	µg/L	10	J	ER2
OU6-MW-241-20240521	OU6-MW-241	5/21/2024 1:45 PM	SW8260D	N	Acetone	6.8	µg/L	10	J	ER2
OU6-MW-270-20240516	OU6-MW-270	5/16/2024 9:10 AM	SW8260D	N	Acetone	4.0	µg/L	10	J	ER2
OU6-MW-281-20240516	OU6-MW-281	5/16/2024 1:15 PM	SW8260D	N	Acetone	7.6	µg/L	10	J	ER2
OU6-MW-291-20240522	OU6-MW-291	5/22/2024 10:02 AM	SW8260D	N	Acetone	53	µg/L	100	J	ER2
OU6-MWNGA-10-20240515	MWNGA-10	5/15/2024 10:15 AM	SW8260D	N	Acetone	5.1	µg/L	10	J+	ER2|SURR3
OU6-MW-129-20240523	OU6-MW-129	5/23/2024 8:30 AM	SW8260D	N	Benzene	0.35	µg/L	1.0	J	ER2
OU6-MW-236-20240521MS	OU6-MW-236	5/21/2024 10:15 AM	SW8260D	N	Benzene	52.3	µg/L	1.0	J+	SURR3
OU6-MW-236-20240521MSD	OU6-MW-236	5/21/2024 10:15 AM	SW8260D	N	Benzene	52.6	µg/L	1.0	J+	SURR3
OU6-MW-262-20240517	OU6-MW-262	5/17/2024 10:00 AM	SW8260D	N	Benzene	1.0	µg/L	1.0	J+	SURR3
OU6-MW-263-20240520MS	OU6-MW-263	5/20/2024 7:35 AM	SW8260D	N	Benzene	52.6	µg/L	1.0	J+	SURR3
OU6-MW-263-20240520MSD	OU6-MW-263	5/20/2024 7:35 AM	SW8260D	N	Benzene	53.0	µg/L	1.0	J+	SURR3
OU6-MW-264-20240523	OU6-MW-264	5/23/2024 8:10 AM	SW8260D	N	Benzene	0.37	µg/L	1.0	J	ER2
OU6-MW-266-20240520	OU6-MW-266	5/20/2024 10:15 AM	SW8260D	N	Benzene	0.27	µg/L	1.0	J	ER2
OU6-MW-271-20240522	OU6-MW-271	5/22/2024 7:55 AM	SW8260D	N	Benzene	2.3	µg/L	5.0	J	ER2
OU6-MW-273-20240516	OU6-MW-273	5/16/2024 10:10 AM	SW8260D	N	Benzene	0.29	µg/L	1.0	J	ER2
OU6-MW-274-20240520	OU6-MW-274	5/20/2024 10:35 AM	SW8260D	N	Benzene	0.89	µg/L	1.0	J	ER2
OU6-MW-280-20240515	OU6-MW-280	5/15/2024 12:50 PM	SW8260D	N	Benzene	0.29	µg/L	1.0	J	ER2
OU6-MW-282-20240520	OU6-MW-282	5/20/2024 11:55 AM	SW8260D	N	Benzene	0.51	µg/L	1.0	J	ER2
OU6-MW-294-20240521	OU6-MW-294	5/21/2024 10:27 AM	SW8260D	N	Benzene		µg/L	5.0	UJ	SURR4
OU6-MW-236-20240521MS	OU6-MW-236	5/21/2024 10:15 AM	SW8260D	N	Bromobenzene	58.4	µg/L	0.50	J+	SURR3
OU6-MW-236-20240521MSD	OU6-MW-236	5/21/2024 10:15 AM	SW8260D	N	Bromobenzene	58.8	µg/L	0.50	J+	SURR3
OU6-MW-263-20240520MS	OU6-MW-263	5/20/2024 7:35 AM	SW8260D	N	Bromobenzene	63.1	µg/L	0.50	J+	MSH|SURR3
OU6-MW-263-20240520MSD	OU6-MW-263	5/20/2024 7:35 AM	SW8260D	N	Bromobenzene	63.8	µg/L	0.50	J+	MSDH|SURR3
OU6-MW-236-20240521MS	OU6-MW-236	5/21/2024 10:15 AM	SW8260D	N	Bromoform	70.6	µg/L	2.0	J+	LCSH|MSH
OU6-MW-236-20240521MSD	OU6-MW-236	5/21/2024 10:15 AM	SW8260D	N	Bromoform	73.8	µg/L	2.0	J+	LCSH|MSDH
OU6-MW-263-20240520MS	OU6-MW-263	5/20/2024 7:35 AM	SW8260D	N	Bromoform	82.3	µg/L	2.0	J+	MSH
OU6-MW-263-20240520MSD	OU6-MW-263	5/20/2024 7:35 AM	SW8260D	N	Bromoform	86.8	µg/L	2.0	J+	MSDH
OU6-MW-160-20240520MS	OU6-MW-160	5/20/2024 10:35 AM	SW8260D	N	Bromomethane	72.6	µg/L	10	J+	MSH
OU6-MW-160-20240520MSD	OU6-MW-160	5/20/2024 10:35 AM	SW8260D	N	Bromomethane	78.2	µg/L	10	J+	MSDH
OU6-MW-264-20240523MS	OU6-MW-264	5/23/2024 8:10 AM	SW8260D	N	Bromomethane	53.9	µg/L	10	J+	LCSH
OU6-MW-264-20240523MSD	OU6-MW-264	5/23/2024 8:10 AM	SW8260D	N	Bromomethane	86.4	µg/L	10	J+	LCSH|MSDH
OU6-NNC-1-20240523MS	NNC-1	5/23/2024 11:40 AM	SW8260D	N	Bromomethane	193	µg/L	10	J+	LCSH|MSH
OU6-NNC-1-20240523MSD	NNC-1	5/23/2024 11:40 AM	SW8260D	N	Bromomethane	81.8	µg/L	10	J+	LCSH|MSDH
EB-20240521	Equipment Blank	5/21/2024 12:00 AM	SW8260D	N	Carbon disulfide	27	µg/L	1.0	B	EBH
OU6-MW-155-20240514	OU6-MW-155	5/14/2024 10:35 AM	SW8260D	N	Carbon disulfide	0.94	µg/L	1.0	J	ER2
OU6-MW-156-20240515	OU6-MW-156	5/15/2024 11:45 AM	SW8260D	N	Carbon disulfide	0.85	µg/L	1.0	J	ER2
OU6-MW-270-20240516	OU6-MW-270	5/16/2024 9:10 AM	SW8260D	N	Carbon disulfide	0.78	µg/L	1.0	J	ER2
OU6-MW-276-20240520	OU6-MW-276	5/20/2024 8:15 AM	SW8260D	N	Carbon disulfide	0.56	µg/L	1.0	J	ER2
OU6-MW-282-20240520	OU6-MW-282	5/20/2024 11:55 AM	SW8260D	N	Carbon disulfide	0.90	µg/L	1.0	J	ER2
DUP5-20240522	OU6-MW-272	5/22/2024 12:00 AM	SW8260D	N	Chlorobenzene	120	µg/L	0.50	J	RPD5
OU6-MW-236-20240521MS	OU6-MW-236	5/21/2024 10:15 AM	SW8260D	N	Chlorobenzene	49.8	µg/L	0.50	J+	SURR3
OU6-MW-236-20240521MSD	OU6-MW-236	5/21/2024 10:15 AM	SW8260D	N	Chlorobenzene	50.2	µg/L	0.50	J+	SURR3
OU6-MW-243-20240523	OU6-MW-243	5/23/2024 10:35 AM	SW8260D	N	Chlorobenzene	31	µg/L	50	J	ER2
OU6-MW-253-20240521	OU6-MW-253	5/21/2024 10:05 AM	SW8260D	N	Chlorobenzene		µg/L	0.50	UJ	SURR4
OU6-MW-254-20240521	OU6-MW-254	5/21/2024 9:00 AM	SW8260D	N	Chlorobenzene	0.90	µg/L	0.50	J+	NC|SURR3
OU6-MW-262-20240517	OU6-MW-262	5/17/2024 10:00 AM	SW8260D	N	Chlorobenzene	8.5	µg/L	0.50	J+	SURR3
OU6-MW-263-20240520MS	OU6-MW-263	5/20/2024 7:35 AM	SW8260D	N	Chlorobenzene	62.0	µg/L	0.50	J+	SURR3
OU6-MW-263-20240520MSD	OU6-MW-263	5/20/2024 7:35 AM	SW8260D	N	Chlorobenzene	63.6	µg/L	0.50	J+	SURR3
OU6-MW-272-20240522	OU6-MW-272	5/22/2024 8:05 AM	SW8260D	N	Chlorobenzene	45	µg/L	0.50	J	RPD5
OU6-MW-253-20240521	OU6-MW-253	5/21/2024 10:05 AM	SW8260D	N	Chlorodibromomethane (Dibromochloromethane)		µg/L	1.0	UJ	SURR4
OU6-MW-263-20240520MSD	OU6-MW-263	5/20/2024 7:35 AM	SW8260D	N	Chlorodibromomethane (Dibromochloromethane)	64.8	µg/L	1.0	J+	MSDH

Data Qualification Validation Report
OU6 Spring 2024 Annual Monitoring
Defense Supply Center Richmond

Facility:	DSCR
Event ID:	DSCR_FY24_OU6_Annual
Created By:	NA\JonesA10
Created Date:	7/18/2024 12:37:00 PM
Checks:	Dilution Factor, Estimated results, Field Blank Contamination, Field Duplicate RPD, HTT-2, HTT-3, HTT-4 Lab Blank Contamination, Preservative, Relative Percent Difference (RPD), Spike Recovery - Multiple Rules Surrogate Recovery, Trip Blank Contamination, Verify Sample Units

Sample Code	Location	Sample Date	Method	FR	Analyte	Result	Unit	RDL	Qual	Reason Code
OU6-MW-126-20240523	OU6-MW-126	5/23/2024 10:40 AM	SW8260D	N	Chloroethane	9.6	µg/L	10	J	ER2
OU6-MW-236-20240521MS	OU6-MW-236	5/21/2024 10:15 AM	SW8260D	N	Chloroethane	87.9	µg/L	10	J+	MSH
OU6-MW-236-20240521MSD	OU6-MW-236	5/21/2024 10:15 AM	SW8260D	N	Chloroethane	82.4	µg/L	10	J+	MSDH
OU6-MW-263-20240520MS	OU6-MW-263	5/20/2024 7:35 AM	SW8260D	N	Chloroethane	75.4	µg/L	10	J+	MSH
OU6-MW-263-20240520MSD	OU6-MW-263	5/20/2024 7:35 AM	SW8260D	N	Chloroethane	82.2	µg/L	10	J+	MSDH
OU6-MW-264-20240523MS	OU6-MW-264	5/23/2024 8:10 AM	SW8260D	N	Chloroethane	285	µg/L	10	J+	MSH
OU6-MW-264-20240523MSD	OU6-MW-264	5/23/2024 8:10 AM	SW8260D	N	Chloroethane	434	µg/L	10	J+	MSDH
OU6-MWNGA-10-20240515MS	MWNGA-10	5/15/2024 10:15 AM	SW8260D	N	Chloroethane	84.2	µg/L	10	J+	MSH
OU6-MWNGA-10-20240515MSD	MWNGA-10	5/15/2024 10:15 AM	SW8260D	N	Chloroethane	70.0	µg/L	10	J+	MSDH
OU6-NNC-1-20240523MS	NNC-1	5/23/2024 11:40 AM	SW8260D	N	Chloroethane	260	µg/L	10	J+	MSH
OU6-NNC-1-20240523MSD	NNC-1	5/23/2024 11:40 AM	SW8260D	N	Chloroethane	396	µg/L	10	J+	MSDH
OU6-MW-165-20240517	OU6-MW-165	5/17/2024 10:45 AM	SW8260D	N	Chloroform	0.35	µg/L	1.0	J	ER2
OU6-MW-237-20240521	OU6-MW-237	5/21/2024 10:00 AM	SW8260D	N	Chloroform	0.41	µg/L	1.0	J	ER2
OU6-MW-245-20240523	OU6-MW-245	5/23/2024 2:00 PM	SW8260D	N	Chloromethane	0.57	µg/L	2.0	J	ER2
OU6-MW-284-20240515	OU6-MW-284	5/15/2024 8:50 AM	SW8260D	N	Chloromethane		µg/L	2.0	UJ	MSL
OU6-MW-284-20240515MS	OU6-MW-284	5/15/2024 8:50 AM	SW8260D	N	Chloromethane	22.6	µg/L	2.0	J-	MSL
OU6-MW-284-20240515MSD	OU6-MW-284	5/15/2024 8:50 AM	SW8260D	N	Chloromethane	23.1	µg/L	2.0	J-	MSDL
OU6-NNC-2-20240523	NNC-2	5/23/2024 2:20 PM	SW8260D	N	Chloromethane	0.64	µg/L	2.0	J	ER2
DUP5-20240522	OU6-MW-272	5/22/2024 12:00 AM	SW8260D	N	cis-1,2-Dichloroethene	110	µg/L	1.0	J	RPD5
OU6-DMW-9B-20240522	DMW-9B	5/22/2024 8:45 AM	SW8260D	N	cis-1,2-Dichloroethene	20	µg/L	25	J	ER2
OU6-LAWMW-Q-20240516	LAWMW-Q	5/16/2024 12:40 PM	SW8260D	N	cis-1,2-Dichloroethene	0.99	µg/L	1.0	J	ER2
OU6-MW-159-20240517	OU6-MW-159	5/17/2024 10:00 AM	SW8260D	N	cis-1,2-Dichloroethene	0.68	µg/L	1.0	J	ER2
OU6-MW-160-20240520	OU6-MW-160	5/20/2024 10:35 AM	SW8260D	N	cis-1,2-Dichloroethene	0.47	µg/L	1.0	J	ER2
OU6-MW-165-20240517	OU6-MW-165	5/17/2024 10:45 AM	SW8260D	N	cis-1,2-Dichloroethene	0.92	µg/L	1.0	J	ER2
OU6-MW-167-20240516	OU6-MW-167	5/16/2024 10:35 AM	SW8260D	N	cis-1,2-Dichloroethene	0.98	µg/L	1.0	J	ER2
OU6-MW-169-20240514	OU6-MW-169	5/14/2024 2:15 PM	SW8260D	N	cis-1,2-Dichloroethene	0.47	µg/L	1.0	J	ER2
OU6-MW-225-20240514	OU6-MW-225	5/14/2024 9:02 AM	SW8260D	N	cis-1,2-Dichloroethene	0.37	µg/L	1.0	J	ER2
OU6-MW-236-20240521	OU6-MW-236	5/21/2024 10:15 AM	SW8260D	N	cis-1,2-Dichloroethene	130	µg/L	1.0	J-	MSL
OU6-MW-236-20240521MS	OU6-MW-236	5/21/2024 10:15 AM	SW8260D	N	cis-1,2-Dichloroethene	162	µg/L	1.0	J-	MSL
OU6-MW-236-20240521MSD	OU6-MW-236	5/21/2024 10:15 AM	SW8260D	N	cis-1,2-Dichloroethene	164	µg/L	1.0	J-	MSDL
OU6-MW-249-20240516	OU6-MW-249	5/16/2024 1:45 PM	SW8260D	N	cis-1,2-Dichloroethene	0.99	µg/L	1.0	J	ER2
OU6-MW-257-20240516	OU6-MW-257	5/16/2024 9:10 AM	SW8260D	N	cis-1,2-Dichloroethene	0.62	µg/L	1.0	J	ER2
OU6-MW-261-20240516	OU6-MW-261	5/16/2024 11:15 AM	SW8260D	N	cis-1,2-Dichloroethene	0.51	µg/L	1.0	J	ER2
OU6-MW-264-20240523	OU6-MW-264	5/23/2024 8:10 AM	SW8260D	N	cis-1,2-Dichloroethene	130	µg/L	1.0	J+	MSH
OU6-MW-264-20240523MS	OU6-MW-264	5/23/2024 8:10 AM	SW8260D	N	cis-1,2-Dichloroethene	236	µg/L	1.0	J+	MSH
OU6-MW-264-20240523MSD	OU6-MW-264	5/23/2024 8:10 AM	SW8260D	N	cis-1,2-Dichloroethene	233	µg/L	1.0	J+	MSDH
OU6-MW-272-20240522	OU6-MW-272	5/22/2024 8:05 AM	SW8260D	N	cis-1,2-Dichloroethene	44	µg/L	1.0	J	RPD5
OU6-MW-288-20240517	OU6-MW-288	5/17/2024 8:35 AM	SW8260D	N	cis-1,2-Dichloroethene	0.43	µg/L	1.0	J	ER2
OU6-MW-96-20240514	OU6-MW-96	5/14/2024 2:25 PM	SW8260D	N	cis-1,2-Dichloroethene	0.31	µg/L	1.0	J	ER2
OU6-NNC-1-20240523	NNC-1	5/23/2024 11:40 AM	SW8260D	N	cis-1,2-Dichloroethene	0.81	µg/L	1.0	J	ER2
OU6-NNC-2-20240523	NNC-2	5/23/2024 2:20 PM	SW8260D	N	cis-1,2-Dichloroethene	0.99	µg/L	1.0	J	ER2
OU6-NNC-1-20240523MSD	NNC-1	5/23/2024 11:40 AM	SW8260D	N	Cyclohexane	68.5	µg/L	1.0	J+	MSDH
OU6-MW-236-20240521	OU6-MW-236	5/21/2024 10:15 AM	SW8260D	N	Dichlorodifluoromethane	0.61	µg/L	1.0	J	ER2
OU6-MW-263-20240520	OU6-MW-263	5/20/2024 7:35 AM	SW8260D	N	Dichlorodifluoromethane	1.9	µg/L	1.0	J+	MSH
OU6-MW-263-20240520MS	OU6-MW-263	5/20/2024 7:35 AM	SW8260D	N	Dichlorodifluoromethane	112	µg/L	1.0	J+	MSH
OU6-MW-263-20240520MSD	OU6-MW-263	5/20/2024 7:35 AM	SW8260D	N	Dichlorodifluoromethane	112	µg/L	1.0	J+	MSDH
OU6-MW-264-20240523MSD	OU6-MW-264	5/23/2024 8:10 AM	SW8260D	N	Dichlorodifluoromethane	102	µg/L	1.0	J+	MSDH|RPD3
OU6-MW-284-20240515	OU6-MW-284	5/15/2024 8:50 AM	SW8260D	N	Dichlorodifluoromethane		µg/L	1.0	UJ	MSL
OU6-MW-284-20240515MS	OU6-MW-284	5/15/2024 8:50 AM	SW8260D	N	Dichlorodifluoromethane	11.5	µg/L	1.0	J-	MSL
OU6-MW-284-20240515MSD	OU6-MW-284	5/15/2024 8:50 AM	SW8260D	N	Dichlorodifluoromethane	8.33	µg/L	1.0	J-	MSDL|RPD3
OU6-NNC-1-20240523MS	NNC-1	5/23/2024 11:40 AM	SW8260D	N	Dichlorodifluoromethane	58.0	µg/L	1.0	J+	LCSH
OU6-NNC-1-20240523MSD	NNC-1	5/23/2024 11:40 AM	SW8260D	N	Dichlorodifluoromethane	114	µg/L	1.0	J+	LCSH|MSDH|RPD3
OU6-MW-236-20240521MS	OU6-MW-236	5/21/2024 10:15 AM	SW8260D	N	Ethylbenzene	49.0	µg/L	0.50	J+	SURR3
OU6-MW-236-20240521MSD	OU6-MW-236	5/21/2024 10:15 AM	SW8260D	N	Ethylbenzene	49.3	µg/L	0.50	J+	SURR3
OU6-MW-243-20240523	OU6-MW-243	5/23/2024 10:35 AM	SW8260D	N	Ethylbenzene	24	µg/L	50	J	ER2
OU6-MW-245-20240523	OU6-MW-245	5/23/2024 2:00 PM	SW8260D	N	Ethylbenzene	0.24	µg/L	0.50	J	ER2
OU6-MW-253-20240521	OU6-MW-253	5/21/2024 10:05 AM	SW8260D	N	Ethylbenzene		µg/L	0.50	UJ	SURR4
OU6-MW-263-20240520MS	OU6-MW-263	5/20/2024 7:35 AM	SW8260D	N	Ethylbenzene	52.0	µg/L	0.50	J+	SURR3
OU6-MW-263-20240520MSD	OU6-MW-263	5/20/2024 7:35 AM	SW8260D	N	Ethylbenzene	52.6	µg/L	0.50	J+	SURR3
OU6-MW-275-20240520	OU6-MW-275	5/20/2024 11:40 AM	SW8260D	N	Ethylbenzene	0.23	µg/L	0.50	J	ER2
OU6-MW-236-20240521MS	OU6-MW-236	5/21/2024 10:15 AM	SW8260D	N	Hexachlorobutadiene	53.1	µg/L	1.0	J+	SURR3
OU6-MW-236-20240521MSD	OU6-MW-236	5/21/2024 10:15 AM	SW8260D	N	Hexachlorobutadiene	53.3	µg/L	1.0	J+	SURR3
OU6-MW-263-20240520MS	OU6-MW-263	5/20/2024 7:35 AM	SW8260D	N	Hexachlorobutadiene	58.1	µg/L	1.0	J+	SURR3
OU6-MW-263-20240520MSD	OU6-MW-263	5/20/2024 7:35 AM	SW8260D	N	Hexachlorobutadiene	59.5	µg/L	1.0	J+	SURR3
OU6-MW-287-20240521	OU6-MW-287	5/21/2024 1:15 PM	SW8260D	N	Hexachlorobutadiene	0.47	µg/L	1.0	J	ER2|NC
OU6-MW-294-20240521	OU6-MW-294	5/21/2024 10:27 AM	SW8260D	N	Hexachlorobutadiene		µg/L	5.0	UJ	SURR4
OU6-MW-129-20240523	OU6-MW-129	5/23/2024 8:30 AM	SW8260D	N	Isopropylbenzene	0.46	µg/L	1.0	J	ER2
OU6-MW-236-20240521MS	OU6-MW-236	5/21/2024 10:15 AM	SW8260D	N	Isopropylbenzene	54.0	µg/L	1.0	J+	SURR3
OU6-MW-236-20240521MSD	OU6-MW-236	5/21/2024 10:15 AM	SW8260D	N	Isopropylbenzene	54.1	µg/L	1.0	J+	SURR3
OU6-MW-260-20240523	OU6-MW-260	5/23/2024 9:20 AM	SW8260D	N	Isopropylbenzene	0.33	µg/L	1.0	J	ER2
OU6-MW-263-20240520MS	OU6-MW-263	5/20/2024 7:35 AM	SW8260D	N	Isopropylbenzene	58.7	µg/L	1.0	J+	SURR3
OU6-MW-263-20240520MSD	OU6-MW-263	5/20/2024 7:35 AM	SW8260D	N	Isopropylbenzene	59.0	µg/L	1.0	J+	SURR3
OU6-MW-268-20240520	OU6-MW-268	5/20/2024 2:30 PM	SW8260D	N	Isopropylbenzene	0.28	µg/L	1.0	J	ER2
OU6-MW-275-20240520	OU6-MW-275	5/20/2024 11:40 AM	SW8260D	N	Isopropylbenzene	0.36	µg/L	1.0	J	ER2
OU6-MW-253-20240521	OU6-MW-253	5/21/2024 10:05 AM	SW8260D	N	m+p-Xylenes		µg/L	1.0	UJ	SURR4

Data Qualification Validation Report
OU6 Spring 2024 Annual Monitoring
Defense Supply Center Richmond

Facility:	DSCR
Event ID:	DSCR_FY24_OU6_Annual
Created By:	NA\JonesA10
Created Date:	7/18/2024 12:37:00 PM
Checks:	Dilution Factor, Estimated results, Field Blank Contamination, Field Duplicate RPD, HTT-2, HTT-3, HTT-4 Lab Blank Contamination, Preservative, Relative Percent Difference (RPD), Spike Recovery - Multiple Rules Surrogate Recovery, Trip Blank Contamination, Verify Sample Units

Sample Code	Location	Sample Date	Method	FR	Analyte	Result	Unit	RDL	Qual	Reason Code
OU6-MW-222-20240520	OU6-MW-222	5/20/2024 1:15 PM	SW8260D	N	Methylcyclohexane	0.52	µg/L	1.0	J	ER2|NC
OU6-MW-260-20240523	OU6-MW-260	5/23/2024 9:20 AM	SW8260D	N	Methylcyclohexane	0.36	µg/L	1.0	J	ER2
OU6-MW-274-20240520	OU6-MW-274	5/20/2024 10:35 AM	SW8260D	N	Methylcyclohexane	0.50	µg/L	1.0	J	ER2|NC
OU6-MW-282-20240520	OU6-MW-282	5/20/2024 11:55 AM	SW8260D	N	Methylcyclohexane	0.47	µg/L	1.0	J	ER2|NC
OU6-NNC-1-20240523MSD	NNC-1	5/23/2024 11:40 AM	SW8260D	N	Methylcyclohexane	71.1	µg/L	1.0	J+	MSDH
OU6-MW-236-20240521MS	OU6-MW-236	5/21/2024 10:15 AM	SW8260D	N	Naphthalene	48.8	µg/L	5.0	J+	SURR3
OU6-MW-236-20240521MSD	OU6-MW-236	5/21/2024 10:15 AM	SW8260D	N	Naphthalene	51.1	µg/L	5.0	J+	SURR3
OU6-MW-242-20240523	OU6-MW-242	5/23/2024 8:25 AM	SW8260D	N	Naphthalene	2.9	µg/L	5.0	J	ER2
OU6-MW-245-20240523	OU6-MW-245	5/23/2024 2:00 PM	SW8260D	N	Naphthalene	2.9	µg/L	5.0	J	ER2
OU6-MW-263-20240520MS	OU6-MW-263	5/20/2024 7:35 AM	SW8260D	N	Naphthalene	59.6	µg/L	5.0	J+	SURR3
OU6-MW-263-20240520MSD	OU6-MW-263	5/20/2024 7:35 AM	SW8260D	N	Naphthalene	62.0	µg/L	5.0	J+	SURR3
OU6-MW-294-20240521	OU6-MW-294	5/21/2024 10:27 AM	SW8260D	N	Naphthalene		µg/L	25	UJ	SURR4
OU6-MW-129-20240523	OU6-MW-129	5/23/2024 8:30 AM	SW8260D	N	n-Butylbenzene	1.3	µg/L	2.0	J	ER2|NC
OU6-MW-236-20240521MS	OU6-MW-236	5/21/2024 10:15 AM	SW8260D	N	n-Butylbenzene	53.0	µg/L	2.0	J+	SURR3
OU6-MW-236-20240521MSD	OU6-MW-236	5/21/2024 10:15 AM	SW8260D	N	n-Butylbenzene	52.6	µg/L	2.0	J+	SURR3
OU6-MW-260-20240523	OU6-MW-260	5/23/2024 9:20 AM	SW8260D	N	n-Butylbenzene	0.70	µg/L	2.0	J	ER2|NC
OU6-MW-263-20240520MS	OU6-MW-263	5/20/2024 7:35 AM	SW8260D	N	n-Butylbenzene	58.3	µg/L	2.0	J+	SURR3
OU6-MW-263-20240520MSD	OU6-MW-263	5/20/2024 7:35 AM	SW8260D	N	n-Butylbenzene	59.9	µg/L	2.0	J+	SURR3
OU6-MW-294-20240521	OU6-MW-294	5/21/2024 10:27 AM	SW8260D	N	n-Butylbenzene		µg/L	10	UJ	SURR4
TRIPBLANK-20240529	Trip Blank	5/29/2024 12:00 AM	SW8260D	N	n-Butylbenzene	0.61	µg/L	2.0	J+	TBH
OU6-MW-129-20240523	OU6-MW-129	5/23/2024 8:30 AM	SW8260D	N	n-Propylbenzene	0.53	µg/L	1.0	J	ER2
OU6-MW-236-20240521MS	OU6-MW-236	5/21/2024 10:15 AM	SW8260D	N	n-Propylbenzene	57.0	µg/L	1.0	J+	SURR3
OU6-MW-236-20240521MSD	OU6-MW-236	5/21/2024 10:15 AM	SW8260D	N	n-Propylbenzene	56.0	µg/L	1.0	J+	SURR3
OU6-MW-260-20240523	OU6-MW-260	5/23/2024 9:20 AM	SW8260D	N	n-Propylbenzene	0.78	µg/L	1.0	J	ER2
OU6-MW-263-20240520MS	OU6-MW-263	5/20/2024 7:35 AM	SW8260D	N	n-Propylbenzene	61.5	µg/L	1.0	J+	SURR3
OU6-MW-263-20240520MSD	OU6-MW-263	5/20/2024 7:35 AM	SW8260D	N	n-Propylbenzene	62.2	µg/L	1.0	J+	SURR3
OU6-MW-242-20240523	OU6-MW-242	5/23/2024 8:25 AM	SW8260D	N	o-Xylene	0.43	µg/L	1.0	J	ER2
OU6-MW-243-20240523	OU6-MW-243	5/23/2024 10:35 AM	SW8260D	N	o-Xylene	41	µg/L	100	J	ER2
OU6-MW-245-20240523	OU6-MW-245	5/23/2024 2:00 PM	SW8260D	N	o-Xylene	0.77	µg/L	1.0	J	ER2
OU6-MW-253-20240521	OU6-MW-253	5/21/2024 10:05 AM	SW8260D	N	o-Xylene		µg/L	1.0	UJ	SURR4
OU6-MW-262-20240517	OU6-MW-262	5/17/2024 10:00 AM	SW8260D	N	o-Xylene	0.54	µg/L	1.0	J	ER2
OU6-MW-268-20240520	OU6-MW-268	5/20/2024 2:30 PM	SW8260D	N	o-Xylene	0.40	µg/L	1.0	J	ER2
OU6-MW-253-20240521	OU6-MW-253	5/21/2024 10:05 AM	SW8260D	N	p-Isopropyltoluene		µg/L	1.0	UJ	SURR4
OU6-MW-260-20240523	OU6-MW-260	5/23/2024 9:20 AM	SW8260D	N	p-Isopropyltoluene	0.49	µg/L	1.0	J	ER2
OU6-MW-263-20240520	OU6-MW-263	5/20/2024 7:35 AM	SW8260D	N	p-Isopropyltoluene	0.67	µg/L	1.0	J	ER2
OU6-MW-279-20240516	OU6-MW-279	5/16/2024 8:00 AM	SW8260D	N	p-Isopropyltoluene	0.51	µg/L	1.0	J	ER2
OU6-MW-236-20240521MS	OU6-MW-236	5/21/2024 10:15 AM	SW8260D	N	sec-Butylbenzene	58.0	µg/L	2.0	J+	SURR3
OU6-MW-236-20240521MSD	OU6-MW-236	5/21/2024 10:15 AM	SW8260D	N	sec-Butylbenzene	57.4	µg/L	2.0	J+	SURR3
OU6-MW-263-20240520MS	OU6-MW-263	5/20/2024 7:35 AM	SW8260D	N	sec-Butylbenzene	63.2	µg/L	2.0	J+	SURR3
OU6-MW-263-20240520MSD	OU6-MW-263	5/20/2024 7:35 AM	SW8260D	N	sec-Butylbenzene	62.7	µg/L	2.0	J+	SURR3
OU6-MW-253-20240521	OU6-MW-253	5/21/2024 10:05 AM	SW8260D	N	Styrene		µg/L	1.0	UJ	SURR4
OU6-MW-263-20240520MSD	OU6-MW-263	5/20/2024 7:35 AM	SW8260D	N	Styrene	62.0	µg/L	1.0	J+	MSDH
OU6-MW-277-20240515	OU6-MW-277	5/15/2024 9:35 AM	SW8260D	N	tert-Butyl methyl ether (MTBE)	0.83	µg/L	2.0	J	ER2
OU6-MW-236-20240521MS	OU6-MW-236	5/21/2024 10:15 AM	SW8260D	N	tert-Butylbenzene	58.2	µg/L	1.0	J+	SURR3
OU6-MW-236-20240521MSD	OU6-MW-236	5/21/2024 10:15 AM	SW8260D	N	tert-Butylbenzene	57.5	µg/L	1.0	J+	SURR3
OU6-MW-263-20240520MS	OU6-MW-263	5/20/2024 7:35 AM	SW8260D	N	tert-Butylbenzene	62.9	µg/L	1.0	J+	MSH|SURR3
OU6-MW-263-20240520MSD	OU6-MW-263	5/20/2024 7:35 AM	SW8260D	N	tert-Butylbenzene	63.1	µg/L	1.0	J+	MSDH|SURR3
OU6-DMW-8A-20240515	DMW-8A	5/15/2024 10:35 AM	SW8260D	N	Tetrachloroethene	0.61	µg/L	1.0	J	ER2
OU6-MW-126-20240523	OU6-MW-126	5/23/2024 10:40 AM	SW8260D	N	Tetrachloroethene	0.99	µg/L	1.0	J	ER2
OU6-MW-130-20240522	OU6-MW-130	5/22/2024 12:25 PM	SW8260D	N	Tetrachloroethene	0.97	µg/L	1.0	J	ER2
OU6-MW-165-20240517	OU6-MW-165	5/17/2024 10:45 AM	SW8260D	N	Tetrachloroethene	0.80	µg/L	1.0	J	ER2
OU6-MW-242-20240523	OU6-MW-242	5/23/2024 8:25 AM	SW8260D	N	Tetrachloroethene	0.77	µg/L	1.0	J	ER2
OU6-MW-246-20240515	OU6-MW-246	5/15/2024 3:05 PM	SW8260D	N	Tetrachloroethene	0.58	µg/L	1.0	J	ER2
OU6-MW-248-20240516	OU6-MW-248	5/16/2024 11:05 AM	SW8260D	N	Tetrachloroethene	1.6	µg/L	1.0	J	NC
OU6-MW-249-20240516	OU6-MW-249	5/16/2024 1:45 PM	SW8260D	N	Tetrachloroethene	0.47	µg/L	1.0	J	ER2
OU6-MW-253-20240521	OU6-MW-253	5/21/2024 10:05 AM	SW8260D	N	Tetrachloroethene	2.6	µg/L	1.0	J-	SURR1
OU6-MW-254-20240521	OU6-MW-254	5/21/2024 9:00 AM	SW8260D	N	Tetrachloroethene	8.7	µg/L	1.0	J+	SURR3
OU6-MW-258-20240517	OU6-MW-258	5/17/2024 8:50 AM	SW8260D	N	Tetrachloroethene	0.96	µg/L	1.0	J	ER2
OU6-MW-264-20240523	OU6-MW-264	5/23/2024 8:10 AM	SW8260D	N	Tetrachloroethene	0.77	µg/L	1.0	J	ER2
OU6-MW-273-20240516	OU6-MW-273	5/16/2024 10:10 AM	SW8260D	N	Tetrachloroethene	0.78	µg/L	1.0	J	ER2
OU6-MW-283-20240520	OU6-MW-283	5/20/2024 9:10 AM	SW8260D	N	Tetrachloroethene	0.55	µg/L	1.0	J	ER2
OU6-MW-287-20240521	OU6-MW-287	5/21/2024 1:15 PM	SW8260D	N	Tetrachloroethene	0.42	µg/L	1.0	J	ER2
OU6-MW-290-20240521	OU6-MW-290	5/21/2024 12:00 PM	SW8260D	N	Tetrachloroethene	7.8	µg/L	10	J	ER2
OU6-MW-297-20240515	OU6-MW-297	5/15/2024 12:10 PM	SW8260D	N	Tetrachloroethene	0.52	µg/L	1.0	J	ER2
OU6-NNC-3-20240523	NNC-3	5/23/2024 1:35 PM	SW8260D	N	Tetrachloroethene	0.41	µg/L	1.0	J	ER2
OU6-DMW-28B-20240529	DMW-28B	5/29/2024 10:25 AM	SW8260D	N	Toluene	0.36	µg/L	1.0	J	ER2
OU6-MW-168-20240514	OU6-MW-168	5/14/2024 10:00 AM	SW8260D	N	Toluene	0.42	µg/L	1.0	J	ER2
OU6-MW-242-20240523	OU6-MW-242	5/23/2024 8:25 AM	SW8260D	N	Toluene	0.33	µg/L	1.0	J	ER2
OU6-MW-245-20240523	OU6-MW-245	5/23/2024 2:00 PM	SW8260D	N	Toluene	0.63	µg/L	1.0	J	ER2
OU6-MW-253-20240521	OU6-MW-253	5/21/2024 10:05 AM	SW8260D	N	Toluene		µg/L	1.0	UJ	SURR4
OU6-MW-268-20240520	OU6-MW-268	5/20/2024 2:30 PM	SW8260D	N	Toluene	0.70	µg/L	1.0	J	ER2|NC
OU6-MW-275-20240520	OU6-MW-275	5/20/2024 11:40 AM	SW8260D	N	Toluene	0.43	µg/L	1.0	J	ER2
OU6-MW-241-20240521	OU6-MW-241	5/21/2024 1:45 PM	SW8260D	N	Toluene-d8	70	µg/L	1.0	J+	SURR9
OU6-MW-253-20240521	OU6-MW-253	5/21/2024 10:05 AM	SW8260D	N	Toluene-d8	43	µg/L	1.0	J-	SURR7
OU6-MW-254-20240521	OU6-MW-254	5/21/2024 9:00 AM	SW8260D	N	Toluene-d8	61	µg/L	1.0	J+	SURR9
OU6-MW-294-20240521	OU6-MW-294	5/21/2024 10:27 AM	SW8260D	N	Toluene-d8	290	µg/L	5.0	J+	SURR9

Data Qualification Validation Report
OU6 Spring 2024 Annual Monitoring
Defense Supply Center Richmond

Facility:	DSCR
Event ID:	DSCR_FY24_OU6_Annual
Created By:	NA\JonesA10
Created Date:	7/18/2024 12:37:00 PM
Checks:	Dilution Factor, Estimated results, Field Blank Contamination, Field Duplicate RPD, HTT-2, HTT-3, HTT-4 Lab Blank Contamination, Preservative, Relative Percent Difference (RPD), Spike Recovery - Multiple Rules Surrogate Recovery, Trip Blank Contamination, Verify Sample Units

Sample Code	Location	Sample Date	Method	FR	Analyte	Result	Unit	RDL	Qual	Reason Code
OU6-MW-126-20240523	OU6-MW-126	5/23/2024 10:40 AM	SW8260D	N	trans-1,2-Dichloroethene	0.89	µg/L	1.0	J	ER2
OU6-MW-223-20240521	OU6-MW-223	5/21/2024 8:50 AM	SW8260D	N	trans-1,2-Dichloroethene	0.73	µg/L	1.0	J	ER2
OU6-MW-236-20240521	OU6-MW-236	5/21/2024 10:15 AM	SW8260D	N	trans-1,2-Dichloroethene	0.87	µg/L	1.0	J	ER2
OU6-MW-241-20240521	OU6-MW-241	5/21/2024 1:45 PM	SW8260D	N	trans-1,2-Dichloroethene	0.66	µg/L	1.0	J	ER2
OU6-MW-253-20240521	OU6-MW-253	5/21/2024 10:05 AM	SW8260D	N	trans-1,2-Dichloroethene	0.82	µg/L	1.0	J	ER2
OU6-MW-256-20240521	OU6-MW-256	5/21/2024 7:55 AM	SW8260D	N	trans-1,2-Dichloroethene	0.72	µg/L	1.0	J	ER2
OU6-MW-262-20240517	OU6-MW-262	5/17/2024 10:00 AM	SW8260D	N	trans-1,2-Dichloroethene	0.70	µg/L	1.0	J	ER2
OU6-MW-264-20240523	OU6-MW-264	5/23/2024 8:10 AM	SW8260D	N	trans-1,2-Dichloroethene	0.38	µg/L	1.0	J	ER2
OU6-MW-266-20240520	OU6-MW-266	5/20/2024 10:15 AM	SW8260D	N	trans-1,2-Dichloroethene	0.50	µg/L	1.0	J	ER2
OU6-MW-275-20240520	OU6-MW-275	5/20/2024 11:40 AM	SW8260D	N	trans-1,2-Dichloroethene	0.50	µg/L	1.0	J	ER2
OU6-MW-282-20240520	OU6-MW-282	5/20/2024 11:55 AM	SW8260D	N	trans-1,2-Dichloroethene	0.59	µg/L	1.0	J	ER2
OU6-MW-283-20240520	OU6-MW-283	5/20/2024 9:10 AM	SW8260D	N	trans-1,2-Dichloroethene	0.63	µg/L	1.0	J	ER2
OU6-MW-292-20240520	OU6-MW-292	5/20/2024 2:15 PM	SW8260D	N	trans-1,2-Dichloroethene	0.48	µg/L	1.0	J	ER2
OU6-MW-294-20240521	OU6-MW-294	5/21/2024 10:27 AM	SW8260D	N	trans-1,2-Dichloroethene	3.9	µg/L	5.0	J	ER2
OU6-MW-297-20240515	OU6-MW-297	5/15/2024 12:10 PM	SW8260D	N	trans-1,2-Dichloroethene	0.38	µg/L	1.0	J	ER2
OU6-MW-88-20240522	OU6-MW-88	5/22/2024 10:05 AM	SW8260D	N	trans-1,2-Dichloroethene	0.78	µg/L	1.0	J	ER2
OU6-MW-89-20240523	OU6-MW-89	5/23/2024 10:15 AM	SW8260D	N	trans-1,2-Dichloroethene	0.91	µg/L	1.0	J	ER2
OU6-MW-253-20240521	OU6-MW-253	5/21/2024 10:05 AM	SW8260D	N	trans-1,3-Dichloropropene		µg/L	1.0	UJ	SURR4
DUP5-20240522	OU6-MW-272	5/22/2024 12:00 AM	SW8260D	N	Trichloroethene	29	µg/L	0.50	J	RPD5
OU6-MW-236-20240521	OU6-MW-236	5/21/2024 10:15 AM	SW8260D	N	Trichloroethene	150	µg/L	0.50	J-	MSL
OU6-MW-236-20240521MS	OU6-MW-236	5/21/2024 10:15 AM	SW8260D	N	Trichloroethene	176	µg/L	0.50	J-	MSL
OU6-MW-236-20240521MSD	OU6-MW-236	5/21/2024 10:15 AM	SW8260D	N	Trichloroethene	177	µg/L	0.50	J-	MSDL
OU6-MW-245-20240523	OU6-MW-245	5/23/2024 2:00 PM	SW8260D	N	Trichloroethene	0.38	µg/L	0.50	J	ER2
OU6-MW-249-20240516	OU6-MW-249	5/16/2024 1:45 PM	SW8260D	N	Trichloroethene	0.34	µg/L	0.50	J	ER2
OU6-MW-261-20240516	OU6-MW-261	5/16/2024 11:15 AM	SW8260D	N	Trichloroethene	0.32	µg/L	0.50	J	ER2
OU6-MW-272-20240522	OU6-MW-272	5/22/2024 8:05 AM	SW8260D	N	Trichloroethene	45	µg/L	0.50	J	RPD5
OU6-MW-295-20240520	OU6-MW-295	5/20/2024 11:05 AM	SW8260D	N	Trichloroethene	0.41	µg/L	0.50	J	ER2
OU6-MWNGA-10-20240515	MWNGA-10	5/15/2024 10:15 AM	SW8260D	N	Trichloroethene	3.4	µg/L	0.50	J+	SURR3
OU6-MW-236-20240521MS	OU6-MW-236	5/21/2024 10:15 AM	SW8260D	N	Trichlorofluoromethane	93.3	µg/L	1.0	J+	LCSH|MSH
OU6-MW-236-20240521MSD	OU6-MW-236	5/21/2024 10:15 AM	SW8260D	N	Trichlorofluoromethane	97.4	µg/L	1.0	J+	LCSH|MSDH
OU6-MW-263-20240520MS	OU6-MW-263	5/20/2024 7:35 AM	SW8260D	N	Trichlorofluoromethane	112	µg/L	1.0	J+	MSH
OU6-MW-263-20240520MSD	OU6-MW-263	5/20/2024 7:35 AM	SW8260D	N	Trichlorofluoromethane	118	µg/L	1.0	J+	MSDH
OU6-MW-264-20240523MSD	OU6-MW-264	5/23/2024 8:10 AM	SW8260D	N	Trichlorofluoromethane	70.2	µg/L	1.0	J	RPD3
OU6-NNC-1-20240523MSD	NNC-1	5/23/2024 11:40 AM	SW8260D	N	Trichlorofluoromethane	76.5	µg/L	1.0	J+	MSDH|RPD3
OU6-NNC-1-20240523MSD	NNC-1	5/23/2024 11:40 AM	SW8260D	N	Trichlorotrifluoroethane (Freon 113)	68.9	µg/L	0.50	J+	MSDH
OU6-NNC-3-20240523	NNC-3	5/23/2024 1:35 PM	SW8260D	N	Trichlorotrifluoroethane (Freon 113)	0.32	µg/L	0.50	J	ER2
DUP5-20240522	OU6-MW-272	5/22/2024 12:00 AM	SW8260D	N	Vinyl chloride	38	µg/L	1.0	J	RPD5
OU6-MW-142-20240515	OU6-MW-142	5/15/2024 10:32 AM	SW8260D	N	Vinyl chloride	0.68	µg/L	1.0	J	ER2
OU6-MW-236-20240521	OU6-MW-236	5/21/2024 10:15 AM	SW8260D	N	Vinyl chloride	16	µg/L	1.0	J+	MSH
OU6-MW-236-20240521MS	OU6-MW-236	5/21/2024 10:15 AM	SW8260D	N	Vinyl chloride	85.8	µg/L	1.0	J+	MSH
OU6-MW-241-20240521	OU6-MW-241	5/21/2024 1:45 PM	SW8260D	N	Vinyl chloride	0.94	µg/L	1.0	J	ER2
OU6-MW-245-20240523	OU6-MW-245	5/23/2024 2:00 PM	SW8260D	N	Vinyl chloride	0.97	µg/L	1.0	J	ER2
OU6-MW-261-20240516	OU6-MW-261	5/16/2024 11:15 AM	SW8260D	N	Vinyl chloride	0.51	µg/L	1.0	J	ER2
OU6-MW-263-20240520	OU6-MW-263	5/20/2024 7:35 AM	SW8260D	N	Vinyl chloride	1.3	µg/L	1.0	J+	MSH
OU6-MW-263-20240520MS	OU6-MW-263	5/20/2024 7:35 AM	SW8260D	N	Vinyl chloride	77.3	µg/L	1.0	J+	MSH
OU6-MW-263-20240520MSD	OU6-MW-263	5/20/2024 7:35 AM	SW8260D	N	Vinyl chloride	80.6	µg/L	1.0	J+	MSDH
OU6-MW-264-20240523MSD	OU6-MW-264	5/23/2024 8:10 AM	SW8260D	N	Vinyl chloride	136	µg/L	1.0	J+	MSDH
OU6-MW-270-20240516	OU6-MW-270	5/16/2024 9:10 AM	SW8260D	N	Vinyl chloride	0.48	µg/L	1.0	J	ER2
OU6-MW-272-20240522	OU6-MW-272	5/22/2024 8:05 AM	SW8260D	N	Vinyl chloride	15	µg/L	1.0	J	RPD5
OU6-MW-279-20240516	OU6-MW-279	5/16/2024 8:00 AM	SW8260D	N	Vinyl chloride	0.51	µg/L	1.0	J	ER2
OU6-MW-284-20240515	OU6-MW-284	5/15/2024 8:50 AM	SW8260D	N	Vinyl chloride		µg/L	1.0	UJ	MSL
OU6-MW-284-20240515MS	OU6-MW-284	5/15/2024 8:50 AM	SW8260D	N	Vinyl chloride	25.6	µg/L	1.0	J-	MSL
OU6-MW-284-20240515MSD	OU6-MW-284	5/15/2024 8:50 AM	SW8260D	N	Vinyl chloride	25.8	µg/L	1.0	J-	MSDL
OU6-MW-287-20240521	OU6-MW-287	5/21/2024 1:15 PM	SW8260D	N	Vinyl chloride	0.95	µg/L	1.0	J	ER2
OU6-MW-293-20240521	OU6-MW-293	5/21/2024 8:50 AM	SW8260D	N	Vinyl chloride	0.83	µg/L	1.0	J	ER2
OU6-MW-295-20240520	OU6-MW-295	5/20/2024 11:05 AM	SW8260D	N	Vinyl chloride	0.41	µg/L	1.0	J	ER2
OU6-NNC-1-20240523MSD	NNC-1	5/23/2024 11:40 AM	SW8260D	N	Vinyl chloride	58.3	µg/L	1.0	J	RPD3
OU6-MW-245-20240523	OU6-MW-245	5/23/2024 2:00 PM	SW8260D	N	Xylene (Total)	0.77	µg/L	1.0	J	ER2
OU6-MW-262-20240517	OU6-MW-262	5/17/2024 10:00 AM	SW8260D	N	Xylene (Total)	0.54	µg/L	1.0	J	ER2
OU6-MW-243-20240523	OU6-MW-243	5/23/2024 10:35 AM	SW8270E	N	1,2,4,5-Tetrachlorobenzene		µg/L	9.8	UJ	SURR4
OU6-MW-259-20240515	OU6-MW-259	5/15/2024 8:20 AM	SW8270E	N	1,2,4,5-Tetrachlorobenzene		µg/L	11	UJ	SURR4
OU6-MW-243-20240523	OU6-MW-243	5/23/2024 10:35 AM	SW8270E	N	1,4-Dioxane	27	µg/L	9.8	J-	SURR1
OU6-MW-259-20240515	OU6-MW-259	5/15/2024 8:20 AM	SW8270E	N	1,4-Dioxane		µg/L	11	UJ	SURR4
OU6-MW-243-20240523	OU6-MW-243	5/23/2024 10:35 AM	SW8270E	N	2,4-Dinitrotoluene		µg/L	4.9	UJ	SURR4
OU6-MW-259-20240515	OU6-MW-259	5/15/2024 8:20 AM	SW8270E	N	2,4-Dinitrotoluene		µg/L	5.4	UJ	SURR4
OU6-MW-243-20240523	OU6-MW-243	5/23/2024 10:35 AM	SW8270E	N	2,6-Dinitrotoluene		µg/L	9.8	UJ	SURR4
OU6-MW-259-20240515	OU6-MW-259	5/15/2024 8:20 AM	SW8270E	N	2,6-Dinitrotoluene		µg/L	11	UJ	SURR4

Data Qualification Validation Report
OU6 Spring 2024 Annual Monitoring
Defense Supply Center Richmond

Facility:	DSCR
Event ID:	DSCR_FY24_OU6_Annual
Created By:	NA\JonesA10
Created Date:	7/18/2024 12:37:00 PM
Checks:	Dilution Factor, Estimated results, Field Blank Contamination, Field Duplicate RPD, HTT-2, HTT-3, HTT-4 Lab Blank Contamination, Preservative, Relative Percent Difference (RPD), Spike Recovery - Multiple Rules Surrogate Recovery, Trip Blank Contamination, Verify Sample Units

Sample Code	Location	Sample Date	Method	FR	Analyte	Result	Unit	RDL	Qual	Reason Code
OU6-MW-243-20240523	OU6-MW-243	5/23/2024 10:35 AM	SW8270E	N	2-Chloronaphthalene		µg/L	9.8	UJ	SURR4
OU6-MW-259-20240515	OU6-MW-259	5/15/2024 8:20 AM	SW8270E	N	2-Chloronaphthalene		µg/L	11	UJ	SURR4
OU6-MW-243-20240523	OU6-MW-243	5/23/2024 10:35 AM	SW8270E	N	2-Nitroaniline		µg/L	9.8	UJ	SURR4
OU6-MW-259-20240515	OU6-MW-259	5/15/2024 8:20 AM	SW8270E	N	2-Nitroaniline		µg/L	11	UJ	SURR4
OU6-MW-263-20240520MSD	OU6-MW-263	5/20/2024 7:35 AM	SW8270E	N	3,4-Methylphenol (m,p-Cresol)	97.8	µg/L	4.4	J	RPD3
OU6-MW-243-20240523	OU6-MW-243	5/23/2024 10:35 AM	SW8270E	N	3-Nitroaniline		µg/L	9.8	UJ	SURR4
OU6-MW-259-20240515	OU6-MW-259	5/15/2024 8:20 AM	SW8270E	N	3-Nitroaniline		µg/L	11	UJ	SURR4
OU6-MW-243-20240523	OU6-MW-243	5/23/2024 10:35 AM	SW8270E	N	4-Nitroaniline		µg/L	9.8	UJ	SURR4
OU6-MW-259-20240515	OU6-MW-259	5/15/2024 8:20 AM	SW8270E	N	4-Nitroaniline		µg/L	11	UJ	SURR4
OU6-MW-243-20240523	OU6-MW-243	5/23/2024 10:35 AM	SW8270E	N	Acetophenone		µg/L	4.9	UJ	SURR4
OU6-MW-259-20240515	OU6-MW-259	5/15/2024 8:20 AM	SW8270E	N	Acetophenone		µg/L	5.4	UJ	SURR4
OU6-MW-243-20240523	OU6-MW-243	5/23/2024 10:35 AM	SW8270E	N	Atrazine (Aatrex)		µg/L	4.9	UJ	SURR4
OU6-MW-259-20240515	OU6-MW-259	5/15/2024 8:20 AM	SW8270E	N	Atrazine (Aatrex)		µg/L	5.4	UJ	SURR4
OU6-MW-243-20240523	OU6-MW-243	5/23/2024 10:35 AM	SW8270E	N	bis(2-Chloroethoxy)methane		µg/L	3.9	UJ	SURR4
OU6-MW-259-20240515	OU6-MW-259	5/15/2024 8:20 AM	SW8270E	N	bis(2-Chloroethoxy)methane		µg/L	4.4	UJ	SURR4
OU6-MW-243-20240523	OU6-MW-243	5/23/2024 10:35 AM	SW8270E	N	bis(2-Chloroethyl)ether		µg/L	9.8	UJ	SURR4
OU6-MW-259-20240515	OU6-MW-259	5/15/2024 8:20 AM	SW8270E	N	bis(2-Chloroethyl)ether		µg/L	11	UJ	SURR4
OU6-MW-243-20240523	OU6-MW-243	5/23/2024 10:35 AM	SW8270E	N	bis(2-Chloroisopropyl)ether		µg/L	9.8	UJ	SURR4
OU6-MW-259-20240515	OU6-MW-259	5/15/2024 8:20 AM	SW8270E	N	bis(2-Chloroisopropyl)ether		µg/L	11	UJ	SURR4
OU6-MW-243-20240523	OU6-MW-243	5/23/2024 10:35 AM	SW8270E	N	bis(2-Ethylhexyl)phthalate		µg/L	9.8	UJ	SURR4
OU6-MW-259-20240515	OU6-MW-259	5/15/2024 8:20 AM	SW8270E	N	bis(2-Ethylhexyl)phthalate		µg/L	11	UJ	SURR4
OU6-MW-243-20240523	OU6-MW-243	5/23/2024 10:35 AM	SW8270E	N	Caprolactam		µg/L	9.8	UJ	SURR4
OU6-MW-259-20240515	OU6-MW-259	5/15/2024 8:20 AM	SW8270E	N	Caprolactam		µg/L	11	UJ	SURR4
OU6-MW-243-20240523	OU6-MW-243	5/23/2024 10:35 AM	SW8270E	N	Dibutylphthalate		µg/L	4.9	UJ	SURR4
OU6-MW-259-20240515	OU6-MW-259	5/15/2024 8:20 AM	SW8270E	N	Dibutylphthalate		µg/L	5.4	UJ	SURR4
OU6-MW-243-20240523	OU6-MW-243	5/23/2024 10:35 AM	SW8270E	N	Diethylphthalate		µg/L	4.9	UJ	SURR4
OU6-MW-259-20240515	OU6-MW-259	5/15/2024 8:20 AM	SW8270E	N	Diethylphthalate		µg/L	5.4	UJ	SURR4
OU6-MW-243-20240523	OU6-MW-243	5/23/2024 10:35 AM	SW8270E	N	Dimethylphthalate		µg/L	4.9	UJ	SURR4
OU6-MW-259-20240515	OU6-MW-259	5/15/2024 8:20 AM	SW8270E	N	Dimethylphthalate		µg/L	5.4	UJ	SURR4
OU6-MW-243-20240523	OU6-MW-243	5/23/2024 10:35 AM	SW8270E	N	Dioctylphthalate		µg/L	9.8	UJ	SURR4
OU6-MW-259-20240515	OU6-MW-259	5/15/2024 8:20 AM	SW8270E	N	Dioctylphthalate		µg/L	11	UJ	SURR4
OU6-MW-243-20240523	OU6-MW-243	5/23/2024 10:35 AM	SW8270E	N	Hexachlorobenzene		µg/L	3.9	UJ	SURR4
OU6-MW-259-20240515	OU6-MW-259	5/15/2024 8:20 AM	SW8270E	N	Hexachlorobenzene		µg/L	4.4	UJ	SURR4
OU6-MW-243-20240523	OU6-MW-243	5/23/2024 10:35 AM	SW8270E	N	Hexachlorobutadiene		µg/L	9.8	UJ	SURR4
OU6-MW-259-20240515	OU6-MW-259	5/15/2024 8:20 AM	SW8270E	N	Hexachlorobutadiene		µg/L	11	UJ	SURR4
OU6-MW-243-20240523	OU6-MW-243	5/23/2024 10:35 AM	SW8270E	N	Hexachlorocyclopentadiene		µg/L	9.8	UJ	SURR4
OU6-MW-259-20240515	OU6-MW-259	5/15/2024 8:20 AM	SW8270E	N	Hexachlorocyclopentadiene		µg/L	11	UJ	SURR4
OU6-MW-263-20240520MSD	OU6-MW-263	5/20/2024 7:35 AM	SW8270E	N	Hexachlorocyclopentadiene	77.6	µg/L	11	J	RPD3
OU6-MW-243-20240523	OU6-MW-243	5/23/2024 10:35 AM	SW8270E	N	Hexachloroethane		µg/L	9.8	UJ	SURR4
OU6-MW-259-20240515	OU6-MW-259	5/15/2024 8:20 AM	SW8270E	N	Hexachloroethane		µg/L	11	UJ	SURR4
OU6-MW-243-20240523	OU6-MW-243	5/23/2024 10:35 AM	SW8270E	N	Isophorone		µg/L	3.9	UJ	SURR4
OU6-MW-259-20240515	OU6-MW-259	5/15/2024 8:20 AM	SW8270E	N	Isophorone		µg/L	4.4	UJ	SURR4
OU6-MW-243-20240523	OU6-MW-243	5/23/2024 10:35 AM	SW8270E	N	Nitrobenzene		µg/L	9.8	UJ	SURR4
OU6-MW-259-20240515	OU6-MW-259	5/15/2024 8:20 AM	SW8270E	N	Nitrobenzene		µg/L	11	UJ	SURR4
OU6-MW-243-20240523	OU6-MW-243	5/23/2024 10:35 AM	SW8270E	N	Nitrobenzene-d5	85	µg/L		J-	SURR7
OU6-MW-259-20240515	OU6-MW-259	5/15/2024 8:20 AM	SW8270E	N	Nitrobenzene-d5	89	µg/L		J-	SURR7
OU6-MW-243-20240523	OU6-MW-243	5/23/2024 10:35 AM	SW8270E	N	N-Nitrosodipropylamine		µg/L	4.9	UJ	SURR4
OU6-MW-259-20240515	OU6-MW-259	5/15/2024 8:20 AM	SW8270E	N	N-Nitrosodipropylamine		µg/L	5.4	UJ	SURR4
OU6-MW-243-20240523	OU6-MW-243	5/23/2024 10:35 AM	SW8270E	N	Pyridine		µg/L	20	UJ	SURR4
OU6-MW-259-20240515	OU6-MW-259	5/15/2024 8:20 AM	SW8270E	N	Pyridine		µg/L	22	UJ	SURR4
DUP5-20240522	OU6-MW-272	5/22/2024 12:00 AM	SW9056A	N	Chloride	62	mg/L	5.0	J	RPD5
OU6-MW-160-20240520	OU6-MW-160	5/20/2024 10:35 AM	SW9056A	N	Chloride	12	mg/L	0.50	J-	MSLCO
OU6-MW-160-20240520MS	OU6-MW-160	5/20/2024 10:35 AM	SW9056A	N	Chloride	15.7	mg/L	0.50	J-	MSLCO
OU6-MW-160-20240520MSD	OU6-MW-160	5/20/2024 10:35 AM	SW9056A	N	Chloride	15.6	mg/L	0.50	J-	MSDLCO
OU6-MW-261-20240516	OU6-MW-261	5/16/2024 11:15 AM	SW9056A	N	Chloride	8.7	mg/L	0.50	J+	MSH
OU6-MW-261-20240516MS	OU6-MW-261	5/16/2024 11:15 AM	SW9056A	N	Chloride	20.5	mg/L	0.50	J+	MSH
OU6-MW-261-20240516MSD	OU6-MW-261	5/16/2024 11:15 AM	SW9056A	N	Chloride	20.6	mg/L	0.50	J+	MSDH
OU6-MW-272-20240522	OU6-MW-272	5/22/2024 8:05 AM	SW9056A	N	Chloride	34	mg/L	0.50	J	RPD5

Data Qualification Validation Report
OU6 Spring 2024 Annual Monitoring
Defense Supply Center Richmond

Facility:	DSCR
Event ID:	DSCR_FY24_OU6_Annual
Created By:	NA\JonesA10
Created Date:	7/18/2024 12:37:00 PM
Checks:	Dilution Factor, Estimated results, Field Blank Contamination, Field Duplicate RPD, HTT-2, HTT-3, HTT-4 Lab Blank Contamination, Preservative, Relative Percent Difference (RPD), Spike Recovery - Multiple Rules Surrogate Recovery, Trip Blank Contamination, Verify Sample Units

Sample Code	Location	Sample Date	Method	FR	Analyte	Result	Unit	RDL	Qual	Reason Code
OU6-MW-124-20240515	OU6-MW-124	5/15/2024 9:15 AM	SW9056A	N	Nitrogen, Nitrate	0.025	mg/L	0.050	J	ER1
OU6-MW-145-20240520	OU6-MW-145	5/20/2024 12:35 PM	SW9056A	N	Nitrogen, Nitrate	0.024	mg/L	0.050	J	ER1
OU6-MW-160-20240520MSD	OU6-MW-160	5/20/2024 10:35 AM	SW9056A	N	Nitrogen, Nitrate	1.83	mg/L	0.050	J+	MSDH
OU6-MW-166-20240516	OU6-MW-166	5/16/2024 8:58 AM	SW9056A	N	Nitrogen, Nitrate	0.66	mg/L	0.050	J+	MSH
OU6-MW-166-20240516MS	OU6-MW-166	5/16/2024 8:58 AM	SW9056A	N	Nitrogen, Nitrate	1.82	mg/L	0.050	J+	MSH
OU6-MW-166-20240516MSD	OU6-MW-166	5/16/2024 8:58 AM	SW9056A	N	Nitrogen, Nitrate	1.80	mg/L	0.050	J+	MSDH
OU6-MW-223-20240521	OU6-MW-223	5/21/2024 8:50 AM	SW9056A	N	Nitrogen, Nitrate	0.042	mg/L	0.050	J	ER1
OU6-MW-246-20240515	OU6-MW-246	5/15/2024 3:05 PM	SW9056A	N	Nitrogen, Nitrate	0.61	mg/L	0.050	J-	MSL
OU6-MW-246-20240515MS	OU6-MW-246	5/15/2024 3:05 PM	SW9056A	N	Nitrogen, Nitrate	1.24	mg/L	0.050	J-	MSL
OU6-MW-246-20240515MSD	OU6-MW-246	5/15/2024 3:05 PM	SW9056A	N	Nitrogen, Nitrate	1.42	mg/L	0.050	J-	MSDL
OU6-MW-254-20240521	OU6-MW-254	5/21/2024 9:00 AM	SW9056A	N	Nitrogen, Nitrate	0.046	mg/L	0.050	J	ER1
OU6-MW-264-20240523	OU6-MW-264	5/23/2024 8:10 AM	SW9056A	N	Nitrogen, Nitrate		mg/L	0.050	UJ	MSL
OU6-MW-264-20240523MS	OU6-MW-264	5/23/2024 8:10 AM	SW9056A	N	Nitrogen, Nitrate	0.806	mg/L	0.050	J-	MSL
OU6-MW-264-20240523MSD	OU6-MW-264	5/23/2024 8:10 AM	SW9056A	N	Nitrogen, Nitrate	0.814	mg/L	0.050	J-	MSDL
OU6-MW-276-20240520	OU6-MW-276	5/20/2024 8:15 AM	SW9056A	N	Nitrogen, Nitrate	0.026	mg/L	0.050	J	ER1
OU6-MW-277-20240515	OU6-MW-277	5/15/2024 9:35 AM	SW9056A	N	Nitrogen, Nitrate	0.92	mg/L	0.050	J+	MSH
OU6-MW-277-20240515MS	OU6-MW-277	5/15/2024 9:35 AM	SW9056A	N	Nitrogen, Nitrate	2.04	mg/L	0.050	J+	MSH
OU6-MW-283-20240520	OU6-MW-283	5/20/2024 9:10 AM	SW9056A	N	Nitrogen, Nitrate	0.048	mg/L	0.050	J	ER1
OU6-MW-285-20240522	OU6-MW-285	5/22/2024 1:35 PM	SW9056A	N	Nitrogen, Nitrate	0.023	mg/L	0.050	J	ER1
OU6-MW-124-20240515	OU6-MW-124	5/15/2024 9:15 AM	SW9056A	N	Nitrogen, Nitrate + Nitrite	0.025	mg/L	0.050	J	ER1
OU6-MW-145-20240520	OU6-MW-145	5/20/2024 12:35 PM	SW9056A	N	Nitrogen, Nitrate + Nitrite	0.024	mg/L	0.050	J	ER1
OU6-MW-223-20240521	OU6-MW-223	5/21/2024 8:50 AM	SW9056A	N	Nitrogen, Nitrate + Nitrite	0.042	mg/L	0.050	J	ER1
OU6-MW-246-20240515	OU6-MW-246	5/15/2024 3:05 PM	SW9056A	N	Nitrogen, Nitrate + Nitrite	0.61	mg/L	0.050	J-	MSL
OU6-MW-246-20240515MS	OU6-MW-246	5/15/2024 3:05 PM	SW9056A	N	Nitrogen, Nitrate + Nitrite	2.02	mg/L	0.050	J-	MSL
OU6-MW-246-20240515MSD	OU6-MW-246	5/15/2024 3:05 PM	SW9056A	N	Nitrogen, Nitrate + Nitrite	2.21	mg/L	0.050	J-	MSDL
OU6-MW-254-20240521	OU6-MW-254	5/21/2024 9:00 AM	SW9056A	N	Nitrogen, Nitrate + Nitrite	0.046	mg/L	0.050	J	ER1
OU6-MW-264-20240523	OU6-MW-264	5/23/2024 8:10 AM	SW9056A	N	Nitrogen, Nitrate + Nitrite		mg/L	0.050	UJ	MSL
OU6-MW-264-20240523MS	OU6-MW-264	5/23/2024 8:10 AM	SW9056A	N	Nitrogen, Nitrate + Nitrite	1.22	mg/L	0.050	J-	MSL
OU6-MW-264-20240523MSD	OU6-MW-264	5/23/2024 8:10 AM	SW9056A	N	Nitrogen, Nitrate + Nitrite	1.24	mg/L	0.050	J-	MSDL
OU6-MW-276-20240520	OU6-MW-276	5/20/2024 8:15 AM	SW9056A	N	Nitrogen, Nitrate + Nitrite	0.026	mg/L	0.050	J	ER1
OU6-MW-281-20240516	OU6-MW-281	5/16/2024 1:15 PM	SW9056A	N	Nitrogen, Nitrate + Nitrite	0.048	mg/L	0.050	J	ER1
OU6-MW-283-20240520	OU6-MW-283	5/20/2024 9:10 AM	SW9056A	N	Nitrogen, Nitrate + Nitrite	0.048	mg/L	0.050	J	ER1
OU6-MW-285-20240522	OU6-MW-285	5/22/2024 1:35 PM	SW9056A	N	Nitrogen, Nitrate + Nitrite	0.023	mg/L	0.050	J	ER1
OU6-MW-289-20240522	OU6-MW-289	5/22/2024 1:10 PM	SW9056A	N	Nitrogen, Nitrate + Nitrite		mg/L	0.050	UJ	MSL
OU6-MW-289-20240522MS	OU6-MW-289	5/22/2024 1:10 PM	SW9056A	N	Nitrogen, Nitrate + Nitrite	1.48	mg/L	0.050	J-	MSL
OU6-MW-289-20240522MSD	OU6-MW-289	5/22/2024 1:10 PM	SW9056A	N	Nitrogen, Nitrate + Nitrite	1.53	mg/L	0.050	J-	MSDL
OU6-MW-236-20240521	OU6-MW-236	5/21/2024 10:15 AM	SW9056A	N	Nitrogen, Nitrite		mg/L	0.050	UJ	MSL
OU6-MW-236-20240521MS	OU6-MW-236	5/21/2024 10:15 AM	SW9056A	N	Nitrogen, Nitrite	0.763	mg/L	0.050	J-	MSL
OU6-MW-236-20240521MSD	OU6-MW-236	5/21/2024 10:15 AM	SW9056A	N	Nitrogen, Nitrite	0.777	mg/L	0.050	J-	MSDL
OU6-MW-246-20240515	OU6-MW-246	5/15/2024 3:05 PM	SW9056A	N	Nitrogen, Nitrite		mg/L	0.050	UJ	MSL
OU6-MW-246-20240515MS	OU6-MW-246	5/15/2024 3:05 PM	SW9056A	N	Nitrogen, Nitrite	0.782	mg/L	0.050	J-	MSL
OU6-MW-246-20240515MSD	OU6-MW-246	5/15/2024 3:05 PM	SW9056A	N	Nitrogen, Nitrite	0.792	mg/L	0.050	J-	MSDL
OU6-MW-255-20240522	OU6-MW-255	5/22/2024 2:35 PM	SW9056A	N	Nitrogen, Nitrite		mg/L	0.050	UJ	MSL
OU6-MW-255-20240522MS	OU6-MW-255	5/22/2024 2:35 PM	SW9056A	N	Nitrogen, Nitrite	0.853	mg/L	0.050	J-	MSL
OU6-MW-263-20240520	OU6-MW-263	5/20/2024 7:35 AM	SW9056A	N	Nitrogen, Nitrite		mg/L	0.050	UJ	MSL
OU6-MW-263-20240520MS	OU6-MW-263	5/20/2024 7:35 AM	SW9056A	N	Nitrogen, Nitrite	0.774	mg/L	0.050	J-	MSL
OU6-MW-263-20240520MSD	OU6-MW-263	5/20/2024 7:35 AM	SW9056A	N	Nitrogen, Nitrite	0.785	mg/L	0.050	J-	MSDL
OU6-MW-264-20240523	OU6-MW-264	5/23/2024 8:10 AM	SW9056A	N	Nitrogen, Nitrite		mg/L	0.050	UJ	MSLCO
OU6-MW-264-20240523MS	OU6-MW-264	5/23/2024 8:10 AM	SW9056A	N	Nitrogen, Nitrite	0.411	mg/L	0.050	J-	MSLCO
OU6-MW-264-20240523MSD	OU6-MW-264	5/23/2024 8:10 AM	SW9056A	N	Nitrogen, Nitrite	0.423	mg/L	0.050	J-	MSDLCO
OU6-MW-277-20240515MSD	OU6-MW-277	5/15/2024 9:35 AM	SW9056A	N	Nitrogen, Nitrite	0.849	mg/L	0.050	J-	MSDL
OU6-MW-281-20240516	OU6-MW-281	5/16/2024 1:15 PM	SW9056A	N	Nitrogen, Nitrite	0.048	mg/L	0.050	J	ER1
OU6-MW-289-20240522	OU6-MW-289	5/22/2024 1:10 PM	SW9056A	N	Nitrogen, Nitrite		mg/L	0.050	UJ	MSL
OU6-MW-289-20240522MS	OU6-MW-289	5/22/2024 1:10 PM	SW9056A	N	Nitrogen, Nitrite	0.591	mg/L	0.050	J-	MSL
OU6-MW-289-20240522MSD	OU6-MW-289	5/22/2024 1:10 PM	SW9056A	N	Nitrogen, Nitrite	0.610	mg/L	0.050	J-	MSDL
OU6-MW-298-20240516	OU6-MW-298	5/16/2024 10:10 AM	SW9056A	N	Nitrogen, Nitrite	0.049	mg/L	0.050	J	ER1

Data Qualification Validation Report
OU6 Spring 2024 Annual Monitoring
Defense Supply Center Richmond

Facility:	DSCR
Event ID:	DSCR_FY24_OU6_Annual
Created By:	NA\JonesA10
Created Date:	7/18/2024 12:37:00 PM
Checks:	Dilution Factor, Estimated results, Field Blank Contamination, Field Duplicate RPD, HTT-2, HTT-3, HTT-4 Lab Blank Contamination, Preservative, Relative Percent Difference (RPD), Spike Recovery - Multiple Rules Surrogate Recovery, Trip Blank Contamination, Verify Sample Units

Sample Code	Location	Sample Date	Method	FR	Analyte	Result	Unit	RDL	Qual	Reason Code
OU6-MW-159-20240517	OU6-MW-159	5/17/2024 10:00 AM	SW9056A	N	Sulfate	0.78	mg/L	1.0	J	ER1
OU6-MW-160-20240520	OU6-MW-160	5/20/2024 10:35 AM	SW9056A	N	Sulfate	30	mg/L	1.0	J-	MSL
OU6-MW-160-20240520MS	OU6-MW-160	5/20/2024 10:35 AM	SW9056A	N	Sulfate	11.6	mg/L	1.0	J-	MSL
OU6-MW-160-20240520MSD	OU6-MW-160	5/20/2024 10:35 AM	SW9056A	N	Sulfate	11.5	mg/L	1.0	J-	MSDL
OU6-MW-167-20240516	OU6-MW-167	5/16/2024 10:35 AM	SW9056A	N	Sulfate	0.76	mg/L	1.0	J	ER1
OU6-MW-217-20240522	OU6-MW-217	5/22/2024 10:20 AM	SW9056A	N	Sulfate	0.48	mg/L	1.0	J	ER1
OU6-MW-223-20240521	OU6-MW-223	5/21/2024 8:50 AM	SW9056A	N	Sulfate	0.52	mg/L	1.0	J	ER1
OU6-MW-237-20240521	OU6-MW-237	5/21/2024 10:00 AM	SW9056A	N	Sulfate	0.59	mg/L	1.0	J	ER1
OU6-MW-240-20240521	OU6-MW-240	5/21/2024 1:10 PM	SW9056A	N	Sulfate	0.49	mg/L	1.0	J	ER1
OU6-MW-241-20240521	OU6-MW-241	5/21/2024 1:45 PM	SW9056A	N	Sulfate	0.98	mg/L	1.0	J	ER1
OU6-MW-242-20240523	OU6-MW-242	5/23/2024 8:25 AM	SW9056A	N	Sulfate	0.77	mg/L	1.0	J	ER1
OU6-MW-243-20240523	OU6-MW-243	5/23/2024 10:35 AM	SW9056A	N	Sulfate	0.75	mg/L	1.0	J	ER1
OU6-MW-245-20240523	OU6-MW-245	5/23/2024 2:00 PM	SW9056A	N	Sulfate	0.61	mg/L	1.0	J	ER1
OU6-MW-247-20240522	OU6-MW-247	5/22/2024 9:20 AM	SW9056A	N	Sulfate	0.85	mg/L	1.0	J	ER1
OU6-MW-253-20240521	OU6-MW-253	5/21/2024 10:05 AM	SW9056A	N	Sulfate	0.56	mg/L	1.0	J	ER1
OU6-MW-254-20240521	OU6-MW-254	5/21/2024 9:00 AM	SW9056A	N	Sulfate	0.56	mg/L	1.0	J	ER1
OU6-MW-261-20240516	OU6-MW-261	5/16/2024 11:15 AM	SW9056A	N	Sulfate	34	mg/L	1.0	J+	MSH
OU6-MW-261-20240516MS	OU6-MW-261	5/16/2024 11:15 AM	SW9056A	N	Sulfate	45.4	mg/L	1.0	J+	MSH
OU6-MW-261-20240516MSD	OU6-MW-261	5/16/2024 11:15 AM	SW9056A	N	Sulfate	45.5	mg/L	1.0	J+	MSDH
OU6-MW-266-20240520	OU6-MW-266	5/20/2024 10:15 AM	SW9056A	N	Sulfate	1.7	mg/L	2.0	J	ER1
OU6-MW-269-20240520	OU6-MW-269	5/20/2024 9:20 AM	SW9056A	N	Sulfate	0.99	mg/L	1.0	J	ER1
OU6-MW-291-20240522	OU6-MW-291	5/22/2024 10:02 AM	SW9056A	N	Sulfate	2.5	mg/L	5.0	J	ER1

Reason Codes	Reason Code Descriptions
EBH	Analytes detected in the Equipment Blank greater than or equal to the Quantitation Limit.
ER1	The reported inorganic result is greater than/equal to the MDL and less than the RDL or QL; it should be considered an estimated value.
NC	No code applied
ER2	The reported organic result is greater than/equal to the MDL and less than the RDL or QL; it should be considered an estimated value.
SURR1	Associated Detected result of a Surrogate Recovery less than the lower control limit but greater than the lower Surrogate cutoff.
SURR3	Associated Detected result of a Surrogate recovery exceeding the upper control limt.
LBH	Contamination detected in the Lab Blank greater than or equal to the Quantitation Limit.
LCSH	The LCS recovery exceeds the upper control limit.
MSDH	The Matrix Spike Duplicate recovery for a sample exceeds the upper cutoff limit.
RPD3	High relative percent difference (RPD) observed between MS/MSD. The reported result may be imprecise.
MSH	The Matrix Spike recovery for a sample exceeds the upper control limit.
LCSL	The LCS recovery is less than the lower control limit but greater than the lower cutoff.
SURR4	Associated ND result of a Surrogate recovery less than the lower control limit but greater than the lower Surrogate cutoff.
MSDL	The Matrix Spike Duplicate Recovery for a sample is less than lower control limit but greater than the the lower cutoff.
MSDLCO	The Matrix Spike Duplicate recovery for a sample is less than the lower cutoff.
MSL	The Matrix Spike recovery for a sample is less than lower control limit but greater than the the lower cutoff.
MSLCO	The Matrix Spike recovery for a sample is less than the lower cutoff.
RPD5	High relative percent difference (RPD) observed between replicate and parent sample. The reported result may be imprecise.
SURR7	The Surrogate recovery is less than the lower control limit but greater than the lower Surrogate cutoff.
SURR9	The Surrogate recovery exceeds the upper control limit.
TBH	Contamination detected in the Trip Blank greater than or equal to the Quantitation Limit.

Qualifiers	Qualifier Descriptions
B	Detections found in the method blank
E	Exceeds upper calibration level.
J	Estimated value
J+	Estimated value, with high bias
J-	Estimated value, with low bias
R	Rejected
U	Not Detected
UJ	Not Detected, Limit is estimated.
X	Data should be excluded

Notes:
DSCR = Defense Supply Center Richmond
FR = fraction
N = organic or not applicable , T = total
µg/L = micrograms per liter, mg/L = milligrams per liter
RDL = reporting detection limit

Data Qualification Validation Report - Labratory Control Samples
OU6 Spring 2024 Annual Monitoring
Defense Supply Center Richmond

Facility:	DSCR
Event ID:	DSCR_FY24_OU6_Annual
Created By:	NA\JonesA10
Created Date:	7/18/2024 12:37:00 PM
Checks:	Dilution Factor, Estimated results, Field Blank Contamination, Field Duplicate RPD, HTT-2, HTT-3, HTT-4 Lab Blank Contamination, Preservative, Relative Percent Difference (RPD), Spike Recovery - Multiple Rules Surrogate Recovery, Trip Blank Contamination, Verify Sample Units

Sample Code	Location	Sample Date	Method	FR	Analyte	Result	Unit	RDL	Qual	Reason Code
LCS 680-838472/2-A	-	-	8270E SIM	N	1-Methylnaphthalene	4.56	µg/L	0.050	J-	SURR1
MB 680-838472/1-A	-	-	8270E SIM	N	1-Methylnaphthalene		µg/L	0.050	UJ	SURR4
LCS 680-838472/2-A	-	-	8270E SIM	N	2-Fluorobiphenyl	4.69	µg/L	0.10	J-	SURR1|SURR7
MB 680-838472/1-A	-	-	8270E SIM	N	2-Fluorobiphenyl	4.56	µg/L	0.10	J-	SURR1|SURR7
LCS 680-838472/2-A	-	-	8270E SIM	N	2-Methylnaphthalene	4.86	µg/L	0.040	J-	SURR1
MB 680-838472/1-A	-	-	8270E SIM	N	2-Methylnaphthalene		µg/L	0.040	UJ	SURR4
LCS 680-838472/2-A	-	-	8270E SIM	N	2-Methylnaphthalene-d10	4.82	µg/L		J-	SURR1|SURR7
MB 680-838472/1-A	-	-	8270E SIM	N	2-Methylnaphthalene-d10	4.83	µg/L		J-	SURR1|SURR7
LCS 680-838472/2-A	-	-	8270E SIM	N	Acenaphthene	5.16	µg/L	0.10	J-	SURR1
MB 680-838472/1-A	-	-	8270E SIM	N	Acenaphthene		µg/L	0.10	UJ	SURR4
LCS 680-838472/2-A	-	-	8270E SIM	N	Acenaphthylene	5.02	µg/L	0.050	J-	SURR1
MB 680-838472/1-A	-	-	8270E SIM	N	Acenaphthylene		µg/L	0.050	UJ	SURR4
LCS 680-838472/2-A	-	-	8270E SIM	N	Anthracene	6.81	µg/L	0.050	J-	SURR1
MB 680-838472/1-A	-	-	8270E SIM	N	Anthracene		µg/L	0.050	UJ	SURR4
LCS 680-838472/2-A	-	-	8270E SIM	N	Benzo(a)anthracene	9.33	µg/L	0.10	J-	SURR1
MB 680-838472/1-A	-	-	8270E SIM	N	Benzo(a)anthracene		µg/L	0.10	UJ	SURR4
LCS 680-838472/2-A	-	-	8270E SIM	N	Benzo(a)pyrene	9.65	µg/L	0.10	J-	SURR1
MB 680-838472/1-A	-	-	8270E SIM	N	Benzo(a)pyrene		µg/L	0.10	UJ	SURR4
LCS 680-838472/2-A	-	-	8270E SIM	N	Benzo(b)fluoranthene	10.3	µg/L	0.10	J-	SURR1
MB 680-838472/1-A	-	-	8270E SIM	N	Benzo(b)fluoranthene		µg/L	0.10	UJ	SURR4
LCS 680-838472/2-A	-	-	8270E SIM	N	Benzo(g,h,i)Perylene	10.1	µg/L	0.10	J-	SURR1
MB 680-838472/1-A	-	-	8270E SIM	N	Benzo(g,h,i)Perylene		µg/L	0.10	UJ	SURR4
LCS 680-838472/2-A	-	-	8270E SIM	N	Benzo(k)fluoranthene	9.69	µg/L	0.10	J-	SURR1
MB 680-838472/1-A	-	-	8270E SIM	N	Benzo(k)fluoranthene		µg/L	0.10	UJ	SURR4
LCS 680-838472/2-A	-	-	8270E SIM	N	Chrysene	9.64	µg/L	0.050	J-	SURR1
MB 680-838472/1-A	-	-	8270E SIM	N	Chrysene		µg/L	0.050	UJ	SURR4
LCS 680-838472/2-A	-	-	8270E SIM	N	Dibenzo(a,h)Anthracene	10.3	µg/L	0.050	J-	SURR1
MB 680-838472/1-A	-	-	8270E SIM	N	Dibenzo(a,h)Anthracene		µg/L	0.050	UJ	SURR4
LCS 680-838472/2-A	-	-	8270E SIM	N	Fluoranthene	9.21	µg/L	0.10	J-	SURR1
MB 680-838472/1-A	-	-	8270E SIM	N	Fluoranthene		µg/L	0.10	UJ	SURR4
LCS 680-838472/2-A	-	-	8270E SIM	N	Fluoranthene-d10	9.52	µg/L		J-	SURR1
MB 680-838472/1-A	-	-	8270E SIM	N	Fluoranthene-d10	8.59	µg/L		J-	SURR1
LCS 680-838472/2-A	-	-	8270E SIM	N	Fluorene	5.40	µg/L	0.10	J-	SURR1
MB 680-838472/1-A	-	-	8270E SIM	N	Fluorene		µg/L	0.10	UJ	SURR4
LCS 680-838472/2-A	-	-	8270E SIM	N	Fluorene	5.40	µg/L	0.10	J-	SURR1
MB 680-838472/1-A	-	-	8270E SIM	N	Fluorene		µg/L	0.10	UJ	SURR4
LCS 680-838472/2-A	-	-	8270E SIM	N	Indeno(1,2,3-cd)pyrene	10.0	µg/L	0.10	J-	SURR1
MB 680-838472/1-A	-	-	8270E SIM	N	Indeno(1,2,3-cd)pyrene		µg/L	0.10	UJ	SURR4
LCS 680-838472/2-A	-	-	8270E SIM	N	Naphthalene	4.58	µg/L	0.050	J-	SURR1
MB 680-838472/1-A	-	-	8270E SIM	N	Naphthalene		µg/L	0.050	UJ	SURR4
MB 680-838962/1-A	-	-	8270E SIM	N	Naphthalene	0.0471	µg/L	0.050	B	LBH
LCS 680-838472/2-A	-	-	8270E SIM	N	Nitrobenzene-d5	5.61	µg/L	0.10	J-	SURR1
MB 680-838472/1-A	-	-	8270E SIM	N	Nitrobenzene-d5	5.58	µg/L	0.10	J-	SURR1
LCS 680-838472/2-A	-	-	8270E SIM	N	Phenanthrene	6.77	µg/L	0.20	J-	SURR1
MB 680-838472/1-A	-	-	8270E SIM	N	Phenanthrene		µg/L	0.20	UJ	SURR4
LCS 680-838472/2-A	-	-	8270E SIM	N	p-Terphenyl-d14	9.90	µg/L	0.10	J-	SURR1
MB 680-838472/1-A	-	-	8270E SIM	N	p-Terphenyl-d14	9.70	µg/L	0.10	J-	SURR1
LCS 680-838472/2-A	-	-	8270E SIM	N	Pyrene	9.43	µg/L	0.10	J-	SURR1
MB 680-838472/1-A	-	-	8270E SIM	N	Pyrene		µg/L	0.10	UJ	SURR4
MB 680-838253/1-A	-	-	SW6020A	T	Beryllium	0.200	µg/L	0.40	B	LBH
MB 680-838252/1-A	-	-	SW6020A	T	Iron	30.6	µg/L	75	B	LBH
MB 680-838252/1-A	-	-	SW6020A	T	Potassium	56.5	µg/L	100	B	LBH
MB 680-838252/1-A	-	-	SW6020A	T	Zinc	4.84	µg/L	20	B	LBH
LCS 680-839861/2-A	-	-	SW8081B/SW8082A	N	alpha-BHC	0.0233	µg/L	0.0040	J-	SURR1
LCS 680-839861/2-A	-	-	SW8081B/SW8082A	N	beta-BHC	0.0270	µg/L	0.0040	J-	SURR1
LCS 680-839861/2-A	-	-	SW8081B/SW8082A	N	delta-BHC	0.0267	µg/L	0.0040	J-	SURR1
LCS 680-839861/2-A	-	-	SW8081B/SW8082A	N	Dieldrin	0.0280	µg/L	0.0040	J-	SURR1
LCS 680-839861/2-A	-	-	SW8081B/SW8082A	N	Endosulfan I	0.0245	µg/L	0.0040	J-	LCSL|SURR1
LCSD 680-839861/3-A	-	-	SW8081B/SW8082A	N	Endosulfan I	0.0279	µg/L	0.0040	J-	LCSL
MB 680-839861/1-A	-	-	SW8081B/SW8082A	N	Endosulfan I		µg/L	0.0040	UJ	LCSL
LCS 680-839861/2-A	-	-	SW8081B/SW8082A	N	Endosulfan II	0.0299	µg/L	0.0040	J-	SURR1
LCS 680-839861/2-A	-	-	SW8081B/SW8082A	N	Endosulfan sulfate	0.0332	µg/L	0.0040	J-	SURR1
LCS 680-839861/2-A	-	-	SW8081B/SW8082A	N	Endrin	0.0283	µg/L	0.0040	J-	SURR1
LCS 680-839861/2-A	-	-	SW8081B/SW8082A	N	Endrin aldehyde	0.0323	µg/L	0.016	J-	SURR1
LCS 680-839562/2-A	-	-	SW8081B/SW8082A	N	Endrin ketone	0.0587	µg/L	0.016	J+	LCSH
LCS 680-839861/2-A	-	-	SW8081B/SW8082A	N	Endrin ketone	0.0539	µg/L	0.016	J-J+	LCSH|SURR1
LCSD 680-839861/3-A	-	-	SW8081B/SW8082A	N	Endrin ketone	0.0652	µg/L	0.016	J+	LCSH
LCS 680-839861/2-A	-	-	SW8081B/SW8082A	N	gamma-BHC (Lindane)	0.0225	µg/L	0.0040	J-	LCSL|SURR1
LCSD 680-839861/3-A	-	-	SW8081B/SW8082A	N	gamma-BHC (Lindane)	0.0271	µg/L	0.0040	J-	LCSL
MB 680-839861/1-A	-	-	SW8081B/SW8082A	N	gamma-BHC (Lindane)		µg/L	0.0040	UJ	LCSL
LCS 680-839861/2-A	-	-	SW8081B/SW8082A	N	Heptachlor	0.0243	µg/L	0.0040	J-	SURR1
LCS 680-839861/2-A	-	-	SW8081B/SW8082A	N	Heptachlor epoxide	0.0250	µg/L	0.0040	J-	SURR1
LCS 680-839861/2-A	-	-	SW8081B/SW8082A	N	Tetrachloro-m-Xylene	0.0824	µg/L		J-	SURR7
MB 680-840966/10	-	-	SW8260D	N	1,2,4-Trichlorobenzene	0.654	µg/L	2.0	B	LBH
LCS 680-840531/4	-	-	SW8260D	N	1,2,4-Trimethylbenzene	62.8	µg/L	1.0	J+	LCSH
LCSD 680-840531/28	-	-	SW8260D	N	1,2,4-Trimethylbenzene	52.3	µg/L	1.0	J+	LCSH
LCSD 680-840531/9	-	-	SW8260D	N	1,2,4-Trimethylbenzene	49.6	µg/L	1.0	J+	LCSH

Data Qualification Validation Report - Labratory Control Samples
OU6 Spring 2024 Annual Monitoring
Defense Supply Center Richmond

Facility:	DSCR
Event ID:	DSCR_FY24_OU6_Annual
Created By:	NA\JonesA10
Created Date:	7/18/2024 12:37:00 PM
Checks:	Dilution Factor, Estimated results, Field Blank Contamination, Field Duplicate RPD, HTT-2, HTT-3, HTT-4 Lab Blank Contamination, Preservative, Relative Percent Difference (RPD), Spike Recovery - Multiple Rules Surrogate Recovery, Trip Blank Contamination, Verify Sample Units

Sample Code	Location	Sample Date	Method	FR	Analyte	Result	Unit	RDL	Qual	Reason Code
LCS 680-840531/4	-	-	SW8260D	N	1,3,5-Trimethylbenzene	62.5	µg/L	1.0	J+	LCSH
LCSD 680-840531/28	-	-	SW8260D	N	1,3,5-Trimethylbenzene	52.0	µg/L	1.0	J+	LCSH
LCSD 680-840531/9	-	-	SW8260D	N	1,3,5-Trimethylbenzene	49.1	µg/L	1.0	J+	LCSH
MB 680-840966/10	-	-	SW8260D	N	1,3-Dichlorobenzene	0.334	µg/L	1.0	B	LBH
LCS 680-840531/4	-	-	SW8260D	N	2-Chlorotoluene	62.9	µg/L	0.50	J+	LCSH
LCSD 680-840531/28	-	-	SW8260D	N	2-Chlorotoluene	52.6	µg/L	0.50	J+	LCSH
LCSD 680-840531/9	-	-	SW8260D	N	2-Chlorotoluene	48.9	µg/L	0.50	J+	LCSH
LCS 680-840531/4	-	-	SW8260D	N	4-Chlorotoluene	63.2	µg/L	1.0	J+	LCSH
LCSD 680-840531/28	-	-	SW8260D	N	4-Chlorotoluene	52.3	µg/L	1.0	J+	LCSH
LCSD 680-840531/9	-	-	SW8260D	N	4-Chlorotoluene	49.0	µg/L	1.0	J+	LCSH
MB 680-839410/8	-	-	SW8260D	N	4-Chlorotoluene	0.523	µg/L	1.0	B	LBH
MB 680-839604/9	-	-	SW8260D	N	4-Chlorotoluene	0.456	µg/L	1.0	B	LBH
LCS 680-840531/4	-	-	SW8260D	N	Bromobenzene	62.3	µg/L	0.50	J+	LCSH
LCSD 680-840531/28	-	-	SW8260D	N	Bromobenzene	51.3	µg/L	0.50	J+	LCSH
LCSD 680-840531/9	-	-	SW8260D	N	Bromobenzene	48.4	µg/L	0.50	J+	LCSH
LCS 680-840324/4	-	-	SW8260D	N	Bromochloromethane	62.7	µg/L	1.0	J+	LCSH
LCSD 680-840324/5	-	-	SW8260D	N	Bromochloromethane	59.4	µg/L	1.0	J+	LCSH
LCS 680-840504/4	-	-	SW8260D	N	Bromoform	67.5	µg/L	2.0	J+	LCSH
LCS 680-840928/6	-	-	SW8260D	N	Bromoform	67.9	µg/L	2.0	J+	LCSH
LCS 680-841121/6	-	-	SW8260D	N	Bromoform	70.2	µg/L	2.0	J+	LCSH
LCSD 680-840504/5	-	-	SW8260D	N	Bromoform	69.0	µg/L	2.0	J+	LCSH
LCSD 680-840928/7	-	-	SW8260D	N	Bromoform	69.7	µg/L	2.0	J+	LCSH
LCSD 680-841121/7	-	-	SW8260D	N	Bromoform	72.5	µg/L	2.0	J+	LCSH
MB 680-838701/8	-	-	SW8260D	N	Bromoform	1.65	µg/L	2.0	B	LBH
MB 680-840334/8	-	-	SW8260D	N	Bromoform	1.71	µg/L	2.0	B	LBH
LCS 680-840935/4	-	-	SW8260D	N	Bromomethane	97.2	µg/L	10	J+	LCSH
LCS 680-840966/6	-	-	SW8260D	N	Bromomethane	75.8	µg/L	10	J+	LCSH
LCS 680-841256/4	-	-	SW8260D	N	Bromomethane	73.1	µg/L	10	J+	LCSH
LCS 680-841505/4	-	-	SW8260D	N	Bromomethane	126	µg/L	10	J+	LCSH
LCS 680-841764/4	-	-	SW8260D	N	Bromomethane	115	µg/L	10	J+	LCSH
LCSD 680-840935/5	-	-	SW8260D	N	Bromomethane	96.1	µg/L	10	J+	LCSH
LCSD 680-840966/7	-	-	SW8260D	N	Bromomethane	74.1	µg/L	10	J+	LCSH
LCSD 680-841256/5	-	-	SW8260D	N	Bromomethane	71.4	µg/L	10	J+	LCSH
LCSD 680-841505/5	-	-	SW8260D	N	Bromomethane	119	µg/L	10	J+	LCSH
LCSD 680-841764/5	-	-	SW8260D	N	Bromomethane	108	µg/L	10	J+	LCSH
MB 680-838997/8	-	-	SW8260D	N	Carbon disulfide	0.804	µg/L	1.0	B	LBH
MB 680-840514/9	-	-	SW8260D	N	Carbon disulfide	1.02	µg/L	1.0	B	LBH
MB 680-840514/9	-	-	SW8260D	N	Chlorobenzene	0.357	µg/L	0.50	B	LBH
LCS 680-840514/4	-	-	SW8260D	N	Chloroethane	84.6	µg/L	10	J+	LCSH
LCS 680-841505/4	-	-	SW8260D	N	Chloroethane	82.4	µg/L	10	J+	LCSH
LCS 680-841764/4	-	-	SW8260D	N	Chloroethane	75.6	µg/L	10	J+	LCSH
LCSD 680-840514/5	-	-	SW8260D	N	Chloroethane	87.4	µg/L	10	J+	LCSH
LCSD 680-841505/5	-	-	SW8260D	N	Chloroethane	76.6	µg/L	10	J+	LCSH
LCSD 680-841764/5	-	-	SW8260D	N	Chloroethane	72.8	µg/L	10	J+	LCSH
LCS 680-840966/6	-	-	SW8260D	N	Dichlorodifluoromethane	82.3	µg/L	1.0	J+	LCSH
LCSD 680-840966/7	-	-	SW8260D	N	Dichlorodifluoromethane	97.3	µg/L	1.0	J+	LCSH
MB 680-838727/7	-	-	SW8260D	N	Hexachlorobutadiene	0.509	µg/L	1.0	B	LBH
MB 680-840966/10	-	-	SW8260D	N	Hexachlorobutadiene	0.583	µg/L	1.0	B	LBH
MB 680-838669/8	-	-	SW8260D	N	Methylcyclohexane	0.614	µg/L	1.0	B	LBH
MB 680-840324/9	-	-	SW8260D	N	Methylcyclohexane	0.615	µg/L	1.0	B	LBH
MB 680-840334/8	-	-	SW8260D	N	Methylcyclohexane	0.630	µg/L	1.0	B	LBH
MB 680-840504/8	-	-	SW8260D	N	Methylcyclohexane	0.663	µg/L	1.0	B	LBH
MB 680-840928/10	-	-	SW8260D	N	Methylcyclohexane	0.594	µg/L	1.0	B	LBH
MB 680-841121/10	-	-	SW8260D	N	Methylcyclohexane	0.604	µg/L	1.0	B	LBH
MB 680-840531/8	-	-	SW8260D	N	n-Butylbenzene	0.663	µg/L	2.0	B	LBH
MB 680-840706/8	-	-	SW8260D	N	n-Butylbenzene	0.614	µg/L	2.0	B	LBH
MB 680-840778/8	-	-	SW8260D	N	n-Butylbenzene	0.652	µg/L	2.0	B	LBH
MB 680-840966/10	-	-	SW8260D	N	n-Butylbenzene	0.576	µg/L	2.0	B	LBH
MB 680-841505/8	-	-	SW8260D	N	n-Butylbenzene	0.585	µg/L	2.0	B	LBH
MB 680-841764/8	-	-	SW8260D	N	n-Butylbenzene	0.780	µg/L	2.0	B	LBH
LCS 680-840531/4	-	-	SW8260D	N	n-Propylbenzene	64.2	µg/L	1.0	J+	LCSH
LCSD 680-840531/28	-	-	SW8260D	N	n-Propylbenzene	53.6	µg/L	1.0	J+	LCSH
LCSD 680-840531/9	-	-	SW8260D	N	n-Propylbenzene	50.4	µg/L	1.0	J+	LCSH
LCS 680-840531/4	-	-	SW8260D	N	o-Xylene	67.2	µg/L	1.0	J+	LCSH
LCSD 680-840531/28	-	-	SW8260D	N	o-Xylene	55.9	µg/L	1.0	J+	LCSH
LCSD 680-840531/9	-	-	SW8260D	N	o-Xylene	52.9	µg/L	1.0	J+	LCSH
MB 680-840531/8	-	-	SW8260D	N	p-Isopropyltoluene	0.537	µg/L	1.0	B	LBH
LCS 680-840531/4	-	-	SW8260D	N	Styrene	64.0	µg/L	1.0	J+	LCSH
LCSD 680-840531/28	-	-	SW8260D	N	Styrene	53.4	µg/L	1.0	J+	LCSH
LCSD 680-840531/9	-	-	SW8260D	N	Styrene	50.4	µg/L	1.0	J+	LCSH
MB 680-840104/9	-	-	SW8260D	N	Tetrachloroethene	0.622	µg/L	1.0	B	LBH
MB 680-840334/8	-	-	SW8260D	N	Toluene	0.254	µg/L	1.0	B	LBH

Data Qualification Validation Report - Labratory Control Samples
OU6 Spring 2024 Annual Monitoring
Defense Supply Center Richmond

Facility:	DSCR
Event ID:	DSCR_FY24_OU6_Annual
Created By:	NA\JonesA10
Created Date:	7/18/2024 12:37:00 PM
Checks:	Dilution Factor, Estimated results, Field Blank Contamination, Field Duplicate RPD, HTT-2, HTT-3, HTT-4 Lab Blank Contamination, Preservative, Relative Percent Difference (RPD), Spike Recovery - Multiple Rules Surrogate Recovery, Trip Blank Contamination, Verify Sample Units

Sample Code	Location	Sample Date	Method	FR	Analyte	Result	Unit	RDL	Qual	Reason Code
LCS 680-838669/4	-	-	SW8260D	N	Trichlorofluoromethane	97.0	µg/L	1.0	J+	LCSH
LCS 680-838701/4	-	-	SW8260D	N	Trichlorofluoromethane	76.6	µg/L	1.0	J+	LCSH
LCS 680-840928/6	-	-	SW8260D	N	Trichlorofluoromethane	95.4	µg/L	1.0	J+	LCSH
LCS 680-841121/6	-	-	SW8260D	N	Trichlorofluoromethane	105	µg/L	1.0	J+	LCSH
LCSD 680-838669/5	-	-	SW8260D	N	Trichlorofluoromethane	106	µg/L	1.0	J+	LCSH
LCSD 680-838701/5	-	-	SW8260D	N	Trichlorofluoromethane	78.2	µg/L	1.0	J+	LCSH
LCSD 680-840928/7	-	-	SW8260D	N	Trichlorofluoromethane	92.9	µg/L	1.0	J+	LCSH
LCSD 680-841121/7	-	-	SW8260D	N	Trichlorofluoromethane	93.9	µg/L	1.0	J+	LCSH
LCS 680-840514/4	-	-	SW8260D	N	Vinyl chloride	90.6	µg/L	1.0	J+	LCSH
LCSD 680-840514/5	-	-	SW8260D	N	Vinyl chloride	82.7	µg/L	1.0	J+	LCSH
LCS 680-840531/4	-	-	SW8260D	N	Xylene (Total)	126	µg/L	1.0	J+	LCSH
LCSD 680-840531/28	-	-	SW8260D	N	Xylene (Total)	112	µg/L	1.0	J+	LCSH
LCSD 680-840531/9	-	-	SW8260D	N	Xylene (Total)	107	µg/L	1.0	J+	LCSH
LCSD 680-840567/3-A	-	-	SW8270E	N	1,4-Dioxane	49.9	µg/L	10	J-	SURR1
LCSD 680-840567/3-A	-	-	SW8270E	N	2,4-Dinitrotoluene	140	µg/L	5.0	J-	SURR1
LCSD 680-840567/3-A	-	-	SW8270E	N	2,6-Dinitrotoluene	125	µg/L	10	J-	SURR1
LCSD 680-840567/3-A	-	-	SW8270E	N	2-Chloronaphthalene	120	µg/L	10	J-	SURR1
LCSD 680-840567/3-A	-	-	SW8270E	N	2-Nitroaniline	112	µg/L	10	J-	SURR1
LCSD 680-840567/3-A	-	-	SW8270E	N	3-Nitroaniline	130	µg/L	10	J-	SURR1
LCSD 680-840567/3-A	-	-	SW8270E	N	4-Nitroaniline	144	µg/L	10	J-	SURR1
LCSD 680-840567/3-A	-	-	SW8270E	N	Acetophenone	106	µg/L	5.0	J-	SURR1
LCSD 680-840567/3-A	-	-	SW8270E	N	Atrazine (Aatrex)	117	µg/L	5.0	J-	SURR1
LCSD 680-840567/3-A	-	-	SW8270E	N	bis(2-Chloroethoxy)methane	103	µg/L	4.0	J-	SURR1
LCSD 680-840567/3-A	-	-	SW8270E	N	bis(2-Chloroethyl)ether	83.6	µg/L	10	J-	SURR1
LCSD 680-840567/3-A	-	-	SW8270E	N	bis(2-Chloroisopropyl)ether	74.8	µg/L	10	J-	SURR1
LCSD 680-840567/3-A	-	-	SW8270E	N	bis(2-Ethylhexyl)phthalate	141	µg/L	10	J-	SURR1
LCSD 680-840567/3-A	-	-	SW8270E	N	Caprolactam	41.4	µg/L	10	J-	SURR1
LCSD 680-840567/3-A	-	-	SW8270E	N	Dibutylphthalate	139	µg/L	5.0	J-	SURR1
LCSD 680-840567/3-A	-	-	SW8270E	N	Diethylphthalate	137	µg/L	5.0	J-	SURR1
LCSD 680-840567/3-A	-	-	SW8270E	N	Dimethylphthalate	130	µg/L	5.0	J-	SURR1
LCSD 680-840567/3-A	-	-	SW8270E	N	Dioctylphthalate	145	µg/L	10	J-	SURR1
LCSD 680-840567/3-A	-	-	SW8270E	N	Hexachlorobenzene	133	µg/L	4.0	J-	SURR1
LCSD 680-840567/3-A	-	-	SW8270E	N	Hexachlorobutadiene	95.1	µg/L	10	J-	SURR1
LCSD 680-840567/3-A	-	-	SW8270E	N	Hexachlorocyclopentadiene	62.7	µg/L	10	J-	SURR1
LCSD 680-840567/3-A	-	-	SW8270E	N	Hexachloroethane	90.8	µg/L	10	J-	SURR1
LCSD 680-840567/3-A	-	-	SW8270E	N	Isophorone	102	µg/L	4.0	J-	SURR1
LCSD 680-840567/3-A	-	-	SW8270E	N	Nitrobenzene	92.8	µg/L	10	J-	SURR1
LCSD 680-840567/3-A	-	-	SW8270E	N	Nitrobenzene-d5	83.3	µg/L		J-	SURR7
LCSD 680-840567/3-A	-	-	SW8270E	N	N-Nitrosodipropylamine	95.1	µg/L	5.0	J-	SURR1
LCSD 680-840567/3-A	-	-	SW8270E	N	Pyridine	36.6	µg/L	20	J-	SURR1

Reason Codes	Reason Code Descriptions
EBH	Analytes detected in the Equipment Blank greater than or equal to the Quantitation Limit.
ER1	The reported inorganic result is greater than/equal to the MDL and less than the RDL or QL; it should be considered an estimated value.
NC	No code applied
ER2	The reported organic result is greater than/equal to the MDL and less than the RDL or QL; it should be considered an estimated value.
SURR1	Associated Detected result of a Surrogate Recovery less than the lower control limit but greater than the lower Surrogate cutoff.
SURR3	Associated Detected result of a Surrogate recovery exceeding the upper control limt.
LBH	Contamination detected in the Lab Blank greater than or equal to the Quantitation Limit.
LCSH	The LCS recovery exceeds the upper control limit.
MSDH	The Matrix Spike Duplicate recovery for a sample exceeds the upper cutoff limit.
RPD3	High relative percent difference (RPD) observed between MS/MSD. The reported result may be imprecise.
MSH	The Matrix Spike recovery for a sample exceeds the upper control limit.
LCSL	The LCS recovery is less than the lower control limit but greater than the lower cutoff.
SURR4	Associated ND result of a Surrogate recovery less than the lower control limit but greater than the lower Surrogate cutoff.
MSDL	The Matrix Spike Duplicate Recovery for a sample is less than lower control limit but greater than the the lower cutoff.
MSDLCO	The Matrix Spike Duplicate recovery for a sample is less than the lower cutoff.
MSL	The Matrix Spike recovery for a sample is less than lower control limit but greater than the the lower cutoff.
MSLCO	The Matrix Spike recovery for a sample is less than the lower cutoff.
RPD5	High relative percent difference (RPD) observed between replicate and parent sample. The reported result may be imprecise.
SURR7	The Surrogate recovery is less than the lower control limit but greater than the lower Surrogate cutoff.
SURR9	The Surrogate recovery exceeds the upper control limit.
TBH	Contamination detected in the Trip Blank greater than or equal to the Quantitation Limit.

Qualifiers	Qualifier Descriptions
B	Detections found in the method blank
E	Exceeds upper calibration level.
J	Estimated value
J+	Estimated value, with high bias
J-	Estimated value, with low bias
R	Rejected
U	Not Detected
UJ	Not Detected, Limit is estimated.
X	Data should be excluded

Notes:
DSCR = Defense Supply Center Richmond
FR = fraction
N = organic or not applicable , T = total
µg/L = micrograms per liter, mg/L = milligrams per liter
RDL = reporting detection limit

Appendix D Investigative Derived Material Management Documentation

Clearfield MMG
resourceful waste management

POST OFFICE BOX 1444 • CHESAPEAKE, VA 23327
PHONE: (757) 549-8448 • WWW.CLEARFIELDMMG.COM

NON-HAZARDOUS
SHIPPING MANIFEST

MANIFEST NO. _____

GENERATOR

NAME	US Defense Supply Center Richmond (DSCR)	TELEPHONE	
ADDRESS	8000 Jefferson Davis Hwy.	CITY/STATE	Richmond, VA
SHIPMENT ORIGIN	Site OU6, Bldg. 65, 8000 Jefferson Davis Hwy.	CITY/STATE	Richmond, VA
AUTHORIZED AGENT	Andrew VanBuesking	FIRM	Meadows CMPG
OTHER			

WASTE CHARACTERIZATION

WASTE NAME AND DESCRIPTION — **PHYSICAL STATE**

1. Soil Cuttings — SOLID X — LIQUID / SLUDGE _____

BULK LOAD WEIGHT / TONS _____ **CONTAINERS** TYPE _____ QUANTITY _____

2. _____ — SOLID _____ — LIQUID / SLUDGE _____

BULK LOAD WEIGHT / TONS _____ **CONTAINERS** TYPE _____ QUANTITY _____

ADDITIONAL INFORMATION
Approval Code: 05436

GENERATOR'S CERTIFICATION

I hereby certify, to the best of my knowledge, that the materials characterized above are not classified as listed or characteristic hazardous waste as regulated by the Commonwealth of Virginia, the state of origin, or Federal Regulations. All containers have been properly marked / labeled and are in proper condition for transport according to all DOT and government regulations.

Generator / Agent's Printed Name	Signature	Date
[illegible]	[signature]	4-20-23

TRANSPORTER

TRANSPORTER NAME Clearfield MMG, Inc. TELEPHONE 757-549-8448 TRUCK NO. _____

I certify that the materials described above were received by me for shipment and delivered to the designated facility.

Transporter's Signature	Date
[signature]	4-20-23

FACILITY

I certify that the materials described above were delivered to the facility and received by me.

DESIGNATED FACILITY: Chesapeake Facility, 3900 Shannon Street

Printed Name	Signature	Date

COPY 1

Appendix E Statistical Evaluations

E.1 ISB Performance Monitoring Data and Distribution Analysis

OU 6 November 2023 ISB Performance Monitoring (OU 1 Area)

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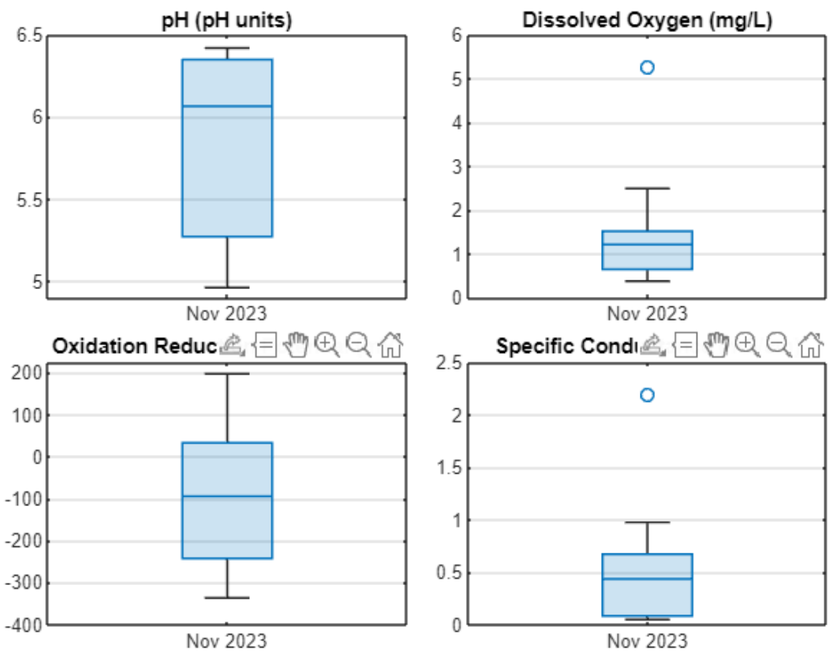
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1.0 Water Quality Parameters

1.1 Distribution Box Plots

```
figure
t1=tiledlayout('flow');
t1.Padding="compact";
t1.TileSpacing='compact';
```

```
nexttile
boxchart(pH.Task,pH.R)
set(gca, "XGrid", "off", "YGrid", "on")
title("pH (pH units)")
ylim([4.9 6.5])
box
nexttile
boxchart(DO.Task,DO.R)
set(gca, "XGrid", "off", "YGrid", "on")
title("Dissolved Oxygen (mg/L)")
box
nexttile
boxchart(ORP.Task,ORP.R)
set(gca, "XGrid", "off", "YGrid", "on")
title("Oxidation Reduction Potential (mV)")
ylim([-400 225])
box
nexttile
boxchart(SC.Task,SC.R)
set(gca, "XGrid", "off", "YGrid", "on")
title("Specific Conductance (mS/cm)")
box
```



2.1 Water Quality Parameter Summary Tables

pH

```
pHtable = groupsummary(pH,"Task",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(pH5lt(x))},"R");
pHtable.Properties.VariableNames = ["Task","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","<pH 5"]
```

pHtable = 1×20 table

...

	Task	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	Nov 2023	14	14	4.9600	6.4200	1.4600	5.8257	6.0650	0.5973	0.3567	-0.3733	1.4423	0	4.9870	5.2700	6.0650	6.3500

DO

```
DOtable = groupsummary(DO,"Task",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(DOlt(x))},"R");
DOtable.Properties.VariableNames = ["Task","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","<=DO 1"]
```

DOtable = 1×20 table

...

	Task	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	Nov 2023	14	14	0.3700	5.2600	4.8900	1.4943	1.2050	1.2507	1.5643	2.0850	6.9860	1	0.5320	0.6400	1.2050	1.5100

ORP

```
ORPtable = groupsummary(ORP,"Task",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(ORPlt(x))},"R");
ORPtable.Properties.VariableNames = ["Task","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","ORP<-50"]
```

ORPtable = 1×20 table

...

	Task	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	Nov 2023	14	14	-337	197.2000	534.2000	-83.2357	-94.7000	167.9927	2.8222e+04	0.1008	2.0935	0	-320.8000	-243	-94.7000	33.1000

Specific Conductance

```
SCtable = groupsummary(SC,"Task",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x))},"R");
SCtable.Properties.VariableNames = ["Task","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95"]
```

SCtable = 1×19 table

...

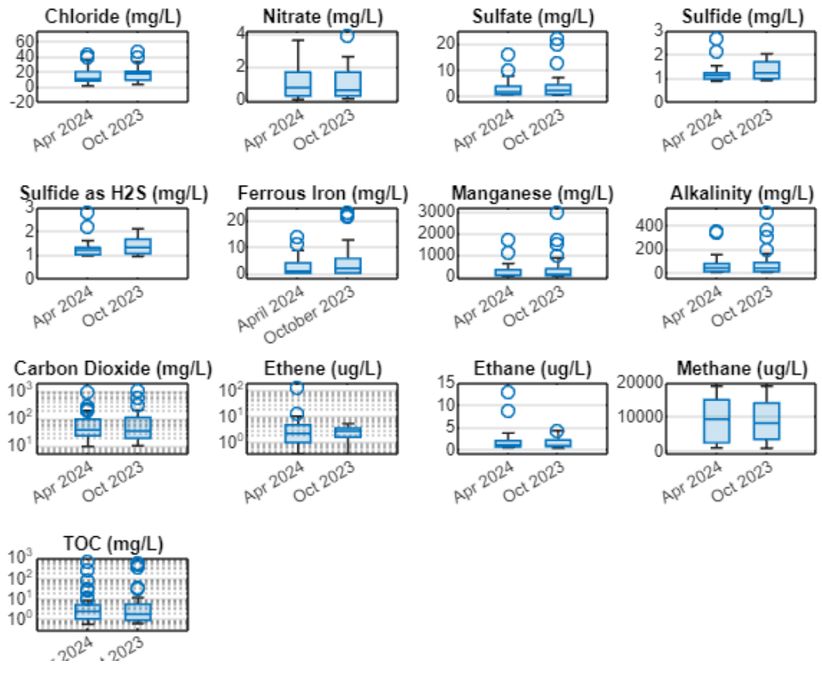
	Task	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	Nov 2023	14	14	0.0480	2.1880	2.1400	0.5359	0.4340	0.5733	0.3287	1.7431	5.9466	1	0.0516	0.0820	0.4340	0.6710

2.0 Geochemical Parameters

2.1 Geochemical Box Plots

```
figure
t2=tiledlayout('flow');
t2.Padding="compact";
t2.TileSpacing='compact';
nexttile
boxchart(Cl.Task,Cl.R)
set(gca, "XGrid", "off", "YGrid", "on")
title("Chloride (mg/L)")
ylim([-20 75])
box
nexttile
boxchart(NO3.Task,NO3.R)
set(gca, "XGrid", "off", "YGrid", "on")
title("Nitrate (mg/L)")
ylim([-0.1 4.2])
box
nexttile
boxchart(SO4.Task,SO4.R)
set(gca, "XGrid", "off", "YGrid", "on")
title("Sulfate (mg/L)")
ylim([-2 25])
box
nexttile
boxchart(S2.Task,S2.R)
set(gca, "XGrid", "off", "YGrid", "on")
title("Sulfide (mg/L)")
ylim([0 3])
box
nexttile
boxchart(S2H2S.Task,S2H2S.R)
set(gca, "XGrid", "off", "YGrid", "on")
title("Sulfide as H2S (mg/L)")
ylim([0 3])
box
nexttile
boxchart(Fe2.Task,Fe2.R)
set(gca, "XGrid", "off", "YGrid", "on")
title("Ferrous Iron (mg/L)")
ylim([-2 25])
box
nexttile
```

```
boxchart(Mn.Task,Mn.R)
set(gca, "XGrid", "off", "YGrid", "on")
title("Manganese (mg/L)")
ylim([-100 3200])
box
nexttile
boxchart(Alk.Task,Alk.R)
set(gca, "XGrid", "off", "YGrid", "on")
title("Alkalinity (mg/L)")
ylim([-50 550])
box
nexttile
boxchart(CO2.Task,CO2.R)
set(gca, "XGrid", "off", "YGrid", "on")
title("Carbon Dioxide (mg/L)")
yscale("log")
ylim([5 2000])
yticks([1 10 100 1000])
box
nexttile
boxchart(Ethene.Task,Ethene.R)
set(gca, "XGrid", "off", "YGrid", "on")
title("Ethene (ug/L)")
yscale("log")
ylim([-0.5 200])
yticks([1 10 100])
box
nexttile
boxchart(Ethane.Task,Ethane.R)
set(gca, "XGrid", "off", "YGrid", "on")
title("Ethane (ug/L)")
ylim([-1 15])
box
nexttile
boxchart(Methane.Task,Methane.R)
set(gca, "XGrid", "off", "YGrid", "on")
title("Methane (ug/L)")
ylim([-1000 20000])
box
nexttile
boxchart(TOC.Task,TOC.R)
set(gca, "XGrid", "off", "YGrid", "on")
title("TOC (mg/L)")
yscale("log")
yticks([1 10 100 1000])
ylim([0.3 1000])
box
```



2.2 Summary Tables

Chloride

```
Cltable = groupsummary(Cl,"Task",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x))},"R");
Cltable.Properties.VariableNames = ["Task","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95"]
```

```
Cltable = 2×19 table
```

...

	Task	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	Apr 2024	55	55	0.8400	43	42.1600	13.7116	10	9.6992	94.0737	1.1597	3.8768	2	3.9000	7.5750	10	19.7500
2	Oct 2023	55	55	2.6000	48	45.4000	15.9127	17	9.3375	87.1882	1.0216	4.4481	2	5.7000	8.5250	17	20

Nitrate

```
NO3table = groupsummary(NO3,"Task",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(NO3gt(x))},"R");
NO3table.Properties.VariableNames = ["Task","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","NO3<1"]
```

NO3table = 2×20 table

	Task	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	Apr 2024	55	35	0.0250	6.7000	6.6750	1.1066	0.7400	1.2956	1.6786	2.5551	11.1690	1	0.0530	0.2275	0.7400	1.6750
2	Oct 2023	55	27	0.0530	3.9000	3.8470	1.0306	0.5900	0.9576	0.9169	1.1099	3.9763	1	0.0908	0.2300	0.5900	1.6750

Sulfate

```
SO4table = groupsummary(SO4,"Task",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(SO4lt(x))},"R");
SO4table.Properties.VariableNames = ["Task","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","SO4<=50"]
```

SO4table = 2×20 table

	Task	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	Apr 2024	55	45	0.4600	16	15.5400	2.9378	1.6000	3.2208	10.3733	2.0600	7.6911	3	0.5700	0.6950	1.6000	3.7250
2	Oct 2023	55	29	0.4000	58	57.6000	5.8224	2.2000	11.4247	130.5245	3.5956	16.3566	4	0.4540	0.6525	2.2000	4.3500

Sulfide

```
S2table = groupsummary(S2,"Task",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(S2gt(x))},"R");
S2table.Properties.VariableNames = ["Task","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","S2>1"]
```

S2table = 2×20 table

	Task	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	Apr 2024	55	22	0.8500	2.7000	1.8500	1.2341	1.1000	0.4688	0.2198	1.9904	6.0173	3	0.9140	0.9500	1.1000	1.2000
2	Oct 2023	55	11	0.8800	6.8000	5.9200	1.7418	1.2000	1.7166	2.9467	2.6254	8.3201	1	0.9160	0.9650	1.2000	1.6750

Sulfide as Hydrogen Sulfide

```
S2H2Stable = groupsummary(S2H2S,"Task",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(S2H2Sgt(x))},"R");
S2H2Stable.Properties.VariableNames = ["Task","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","S2>1"]
```

S2H2Stable = 2×20 table

	Task	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	Apr 2024	55	21	0.9500	2.8000	1.8500	1.3348	1.2000	0.4837	0.2340	1.8830	5.5944	3	0.9920	1	1.2000	1.3000

	Task	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
2	Oct 2023	28	8	0.9300	2.1000	1.1700	1.3787	1.3000	0.4221	0.1782	0.7000	2.1218	0	0.9510	1.0500	1.3000	1.6500

Ferrous Iron

```
Fe2table = groupsummary(Fe2,"Task",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(FE2gt(x))},"R");
Fe2table.Properties.VariableNames = ["Task","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","Fe2>1"]
```

Fe2table = 2×20 table

...

	Task	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	April 2024	57	54	0	13.9200	13.9200	2.2828	0.7400	3.0812	9.4940	1.6760	5.7918	2	0.0120	0.0475	0.7400	3.8950
2	October 2023	54	54	0.0100	23.0400	23.0300	3.9872	1.8900	5.6572	32.0040	1.9765	6.6716	3	0.0300	0.0600	1.8900	5.6000

Manganese

```
Mntable = groupsummary(Mn,"Task",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x))},"R");
Mntable.Properties.VariableNames = ["Task","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95"]
```

Mntable = 2×19 table

...

	Task	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	Apr 2024	55	53	2.7000	8600	8.5973e+03	605.3585	53	1.7856e+03	3.1883e+06	3.7347	15.4681	5	12.1200	28.7500	53	302.5000
2	Oct 2023	56	55	2.2000	11000	1.0998e+04	679.9236	81	1.8046e+03	3.2565e+06	4.3048	22.7460	8	14	33	81	360

Alkalinity

```
Alktable = groupsummary(Alk,"Task",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x))},"R");
Alktable.Properties.VariableNames = ["Task","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95"]
```

Alktable = 2×19 table

...

	Task	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	Apr 2024	36	32	2.5000	350	347.5000	61.8125	38	84.1968	7.0891e+03	2.4624	8.6801	2	6.6700	8.8500	38	74.5000
2	Oct 2023	92	73	2.3000	510	507.7000	63.8890	37	84.1188	7.0760e+03	3.0730	14.5810	4	5.5000	9.3250	37	84

Carbon Dioxide

```
CO2table = groupsummary(CO2,"Task",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x))},"R");
CO2table.Properties.VariableNames = ["Task","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95"]
```

CO2table = 2×19 table

...

	Task	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	Apr 2024	55	54	9.4000	1000	990.6000	79.3204	37.5000	140.5845	1.9764e+04	5.4096	35.4886	4	12.9000	23	37.5000	92
2	Oct 2023	54	47	10	1100	1090	95.7447	34	179.2883	3.2144e+04	4.2850	23.0402	3	14.4000	18.5000	34	107.5000

Ethene

```
Ethenetable = groupsummary(Ethene,"Task",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(Ethenegt(x))},"R");
Ethenetable.Properties.VariableNames = ["Task","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95",">10"]
```

Ethenetable = 2×20 table

...

	Task	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	Apr 2024	54	24	0.3600	140	139.6400	8.9842	2.1500	28.1077	790.0425	4.4835	21.4207	2	0.4770	0.9700	2.1500	4.6000
2	Oct 2023	55	19	0.3500	5.2000	4.8500	2.5079	2.7000	1.4352	2.0598	0.2309	2.3903	0	0.4360	1.5500	2.7000	3.4750

Ethane

```
Ethanetable = groupsummary(Ethane,"Task",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(Ethanegt(x))},"R");
Ethanetable.Properties.VariableNames = ["Task","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95",">10"]
```

Ethanetable = 2×20 table

...

	Task	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	Apr 2024	54	21	0.4200	13	12.5800	2.0805	1	3.1155	9.7061	2.6628	9.0941	2	0.4740	0.5500	1	1.9250
2	Oct 2023	55	20	0.3700	4.4000	4.0300	1.3815	0.8000	1.1941	1.4260	1.5121	4.1894	1	0.4650	0.6400	0.8000	2.1000

Methane

```
Methanetable = groupsummary(Methane,"Task",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
```

```
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(Methanegt(x))},"R");
Methanetable.Properties.VariableNames = ["Task","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95",">500"]
```

Methanetable = 2×20 table

	Task	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	Apr 2024	26	26	740	19000	18260	9.4742e+03	9250	6.3447e+03	4.0255e+07	-0.0328	1.5768	0	1110	2300	9250	15000
2	Oct 2023	30	30	630	19000	18370	8.9023e+03	8100	5.9112e+03	3.4943e+07	0.1932	1.8117	0	935	3300	8100	14000

Total Organic Carbon

```
TOCtable = groupsummary(TOC,"Task",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(TOCgt(x))},"R");
TOCtable.Properties.VariableNames = ["Task","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","TOC=>20"]
```

TOCtable = 2×20 table

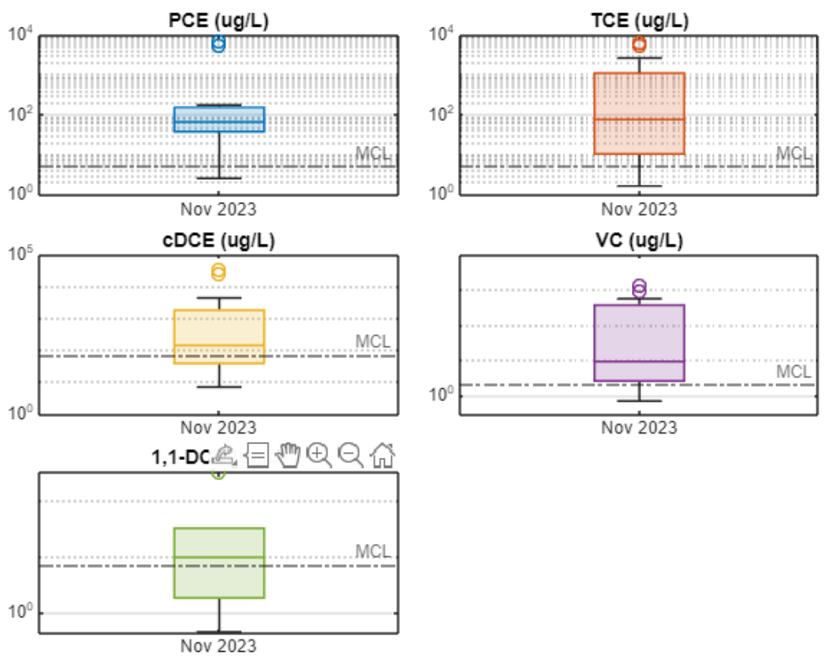
	Task	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	Apr 2024	54	50	0.5300	680	679.4700	25.2032	2.3000	103.0014	1.0609e+04	5.6036	34.7967	8	0.6750	0.9900	2.3000	4.9000
2	Oct 2023	55	47	0.5800	590	589.4200	36.8815	1.7000	124.3754	1.5469e+04	3.7533	15.6526	7	0.6640	0.8225	1.7000	5.2750

3.0 VOCs

3.1 VOC Box Plots

```
figure
t3=tiledlayout('flow');
t3.Padding="compact";
t3.TileSpacing='compact';
nexttile
boxchart(PCE.Task,PCE.R,"BoxFaceColor",'0 0.4470 0.7410','BoxEdgeColor','0 0.4470 0.7410','MarkerColor','0 0.4470 0.7410')
set(gca, "XGrid", "off", "YGrid", "on")
title("PCE (ug/L)")
yscale("log")
yline(5,'-.','MCL',FontSize=8)
box
nexttile
boxchart(TCE.Task,TCE.R,"BoxFaceColor",'0.8500 0.3250 0.0980','MarkerColor','0.8500 0.3250 0.0980')
set(gca, "XGrid", "off", "YGrid", "on")
title("TCE (ug/L)")
yscale("log")
yline(5,'-.','MCL',FontSize=8)
box
nexttile
boxchart(cDCE.Task,cDCE.R,"BoxFaceColor",'0.9290 0.6940 0.1250','MarkerColor','0.9290 0.6940 0.1250')
```

```
set(gca, "XGrid", "off", "YGrid", "on")
title("cDCE (ug/L)")
yscale("log")
yline(70,'-.','MCL',FontSize=8)
box
nexttile
boxchart(VC.Task,VC.R,"BoxFaceColor",'0.4940 0.1840 0.5560','MarkerColor','0.4940 0.1840 0.5560')
set(gca, "XGrid", "off", "YGrid", "on")
title("VC (ug/L)")
yscale("log")
ylim([0.3 10000])
yline(2,'-.','MCL',FontSize=8)
box
nexttile
boxchart(DCE11.Task,DCE11.R,"BoxFaceColor",'0.47 0.67 0.19','MarkerColor','0.47 0.67 0.19')
set(gca, "XGrid", "off", "YGrid", "on")
title("1,1-DCE (ug/L)")
yscale("log")
yline(7,'-.','MCL',FontSize=8)
box
```



3.2 VOC Summary Tables

Tetrachloroethene

```
PCEtable = groupsummary(PCE,"Task",{"nnz","min","max","range","mean","median","std","var",...
```

```
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(MCL5gt(x))},"R");
PCEtable.Properties.VariableNames = ["Task","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCE>5"]
```

PCEtable = 1×20 table

	Task	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	Nov 2023	15	12	2.5000	6900	6.8975e+03	1.0698e+03	65	2.3747e+03	5.6393e+06	1.8691	4.6341	2	3.8300	37	65	150

Trichloroethene

```
TCEtable = groupsummary(TCE,"Task",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(MCL5gt(x))},"R");
TCEtable.Properties.VariableNames = ["Task","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","TCE>5"]
```

TCEtable = 1×20 table

	Task	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	Nov 2023	15	15	1.6000	6200	6.1984e+03	1.0762e+03	75	2.0528e+03	4.2140e+06	1.7687	4.5532	2	2.2000	10.1500	75	1.0825e+03

cis-1,2-dichloroethene

```
cDCEtable = groupsummary(cDCE,"Task",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(MCL70gt(x))},"R");
cDCEtable.Properties.VariableNames = ["Task","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","cDCE>70"]
```

cDCEtable = 1×20 table

	Task	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	Nov 2023	15	15	7	33000	32993	4.3623e+03	140	1.0013e+04	1.0025e+08	2.2273	6.2804	2	7.2000	38.2500	140	1765

Vinyl Chloride

```
VCtable = groupsummary(VC,"Task",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(MCL2gt(x))},"R");
VCtable.Properties.VariableNames = ["Task","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","VC>2"]
```

VCtable = 1×20 table

	Task	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	Nov 2023	15	13	0.6900	1400	1.3993e+03	251.4069	9.1000	450.4247	2.0288e+05	1.6629	4.4274	2	1.4180	2.6000	9.1000	362.5000

1,1-Dichloroethene

```
DCE11table = groupsummary(DCE11,"Task",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(MCL7gt(x))},"R");
DCE11table.Properties.VariableNames = ["Task","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","11DCE>7"]
```

DCE11table = 1×20 table

...

	Task	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	Nov 2023	15	10	0.4400	320	319.5600	71.2810	9.6000	131.4242	1.7272e+04	1.4813	3.2234	2	0.7050	1.8000	9.6000	32

Standard Color Ramp

Hex Color Reference Codes

- PCE 0 0.45 074
- TCE 0.85 0.33 0.1
- cDCE 0.93 0.69 0.13
- VC 0.49 0.18 0.56
- 1,1-DCE 0.47 0.67 0.19
- DCM 0.3 0.75 0.93
- 1,1,1-TCA 0.3 0.75 0.93
- 1,2-DCA 0.75 0.75 0
- 1,4-DCB 0.64 0.08 0.18
- CB 0.68 0.92 1
- Benzene 0.69 0.08 0.18
- TOC 0.87 0.49 0
- DHC 0.87 0.49 0
- tceA 1 0.84 0
- VCR 1 0.6 0.78
- BCV 0.75 0.75 0

Function Coding Reference

Group Statistics Standard Functions

- "sum" Sum
- "mean" Mean
- "median" Median

- "mode" Mode
- "var" Variance
- "std" Standard deviation
- "min" Minimum
- "max" Maximum
- "range" Maximum minus minimum
- "nummissing" Number of missing elements
- "numunique" Number of distinct nonmissing elements
- "nnz" Number of nonzero and non-NaN elements
- "all" All computations previously listed

Group Descriptive Statistics Functions

- **Outliers**
- **10th, 25th, 50th, 75th, 90th, and 95th percentile**
- **Skewness, Kurtosis**
- **Greater than specified limit**

```
% Is outlier function
function y = outlier(x)
% Count the number of outliers in each group
y = nnz(isoutlier(x,'quartiles'));
end

% 10th percentile function
function y = prctile10(x)
%Distribution 10th percentile
y = (prctile(x,10));
end

%25th percentile function
function y = prctile25(x)
%Distribution 25th percentile
y = (prctile(x,25));
end

%Distribution 50th percentile function
function y = prctile50(x)
%Distribution 50th percentile
y = (prctile(x,50));
end

%75th percentile function
function y = prctile75(x)
%Distribution 75th percentile
y = (prctile(x,75));
end
```

```
%90th percentile function
function y = prctile90(x)
%Distribution 90th percentile
y = (prctile(x,90));
end

%95th percentile function
function y = prctile95(x)
%Distribution 95th percentile
y = (prctile(x,95));
end

%25 and 75th percentile function
function y = prct25_75(x)
% x is the data in a group from one computation variable
% Distribution 25th and 75th percentile
y = (prctile(x,[25 75]));
end

%skewness function
function y = skew(x)
%Distribution skewness
y= (skewness(x));
end

%skewness function
function y = kurt(x)
%Distribution skewness
y= (kurtosis(x));
end

%Group count >MCL 5
function y = MCL5gt(x)
%Group counts for greater than a limit
y= sum(x>5);
end

%Group count >MCL 2
function y = MCL2gt(x)
%Group counts for greater than a limit
y= sum(x>2);
end

%Group count >MCL 7
function y = MCL7gt(x)
%Group counts for greater than a limit
y= sum(x>7);
end
```

```
%Group count >MCL 70
function y = MCL70gt(x)
%Group counts for greater than a limit
y= sum(x>70);
end

%Group count >MCL 75
function y = MCL75gt(x)
%Group counts for greater than a limit
y= sum(x>75);
end

%Group count >MCL 2
function y = MCL100gt(x)
%Group counts for greater than a limit
y= sum(x>100);
end

%Group count >MCL 200
function y = MCL200gt(x)
%Group counts for greater than a limit
y= sum(x>200);
end

%Group count >MCL 0.05
function y = MCLNeg5E2gt(x)
%Group counts for greater than a limit
y= sum(x>0.05);
end

%Group count <pH 5
function y = pH5lt(x)
%Group counts for greater than a limit
y= sum(x<5);
end

%Group count <=DO 1
function y = DOlt(x)
%Group counts for greater than a limit
y= sum(x<=1);
end

%Group count <=ORP 50
function y = ORPlt(x)
%Group counts for greater than a limit
y= sum(x<=-50);
end

%Group count <=Sulfate 50
function y = SO4lt(x)
```

```
%Group counts for greater than a limit
y= sum(x<50);
end

%Group count <=Sulfide 1
function y = S2gt(x)
%Group counts for greater than a limit
y= sum(x>1);
end

%Group count <=Sulfide H2S 1
function y = S2H2Sgt(x)
%Group counts for greater than a limit
y= sum(x>1);
end

%Group count TOC=>20
function y = TOCgt(x)
%Group counts for greater than a limit
y= sum(x>=20);
end

%Group count Methane=>500
function y = Methanegt(x)
%Group counts for greater than a limit
y= sum(x>=500);
end

%Group count Fe2=>1
function y = FE2gt(x)
%Group counts for greater than a limit
y= sum(x>=1);
end

%Group count Ethene=>10
function y = Ethenegt(x)
%Group counts for greater than a limit
y= sum(x>=10);
end

%Group count Ethane=>10
function y = Ethanegt(x)
%Group counts for greater than a limit
y= sum(x>=10);
end

%Group count NO3=<1
function y = NO3gt(x)
%Group counts for greater than a limit
y= sum(x<1);
```

```
end
```

E.2 2024 Annual Monitoring Data and Distribution Analysis

OU 6 Annual Monitoring May 2024 Group Statistics: Surficial Aquifer

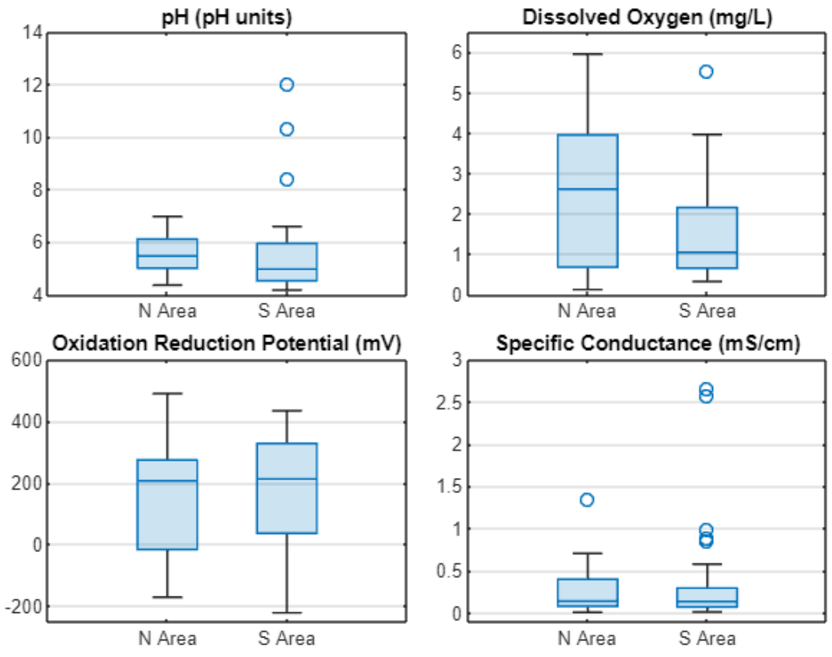
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1.0 Water Quality Parameters

1.1 Distribution Box Plots

```
figure
t1=tiledlayout('flow');
t1.Padding="compact";
t1.TileSpacing='compact';
nexttile
boxchart(pH.Area,pH.R)
set(gca, "XGrid", "off", "YGrid", "on")
title("pH (pH units)")
box
nexttile
boxchart(DO.Area,DO.R)
set(gca, "XGrid", "off", "YGrid", "on")
title("Dissolved Oxygen (mg/L)")
ylim([0 6.5])
box
nexttile
boxchart(ORP.Area,ORP.R)
set(gca, "XGrid", "off", "YGrid", "on")
title("Oxidation Reduction Potential (mV)")
ylim([-250 600])
box
nexttile
boxchart(SC.Area,SC.R)
set(gca, "XGrid", "off", "YGrid", "on")
title("Specific Conductance (mS/cm)")
ylim([-0.1 3])
box
```



2.1 Water Quality Parameter Summary Tables

pH

```
pHtable = groupsummary(pH,"Area",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(pH5lt(x))},"R");
pHtable.Properties.VariableNames = ["Area","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","<pH 5"]
```

pHtable = 2×20 table

...

	Area	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	N Area	39	39	4.3600	6.9700	2.6100	5.5382	5.4700	0.6494	0.4218	0.0835	2.0924	0	4.8300	5.0025	5.4700	6.1050
2	S Area	30	30	4.1600	12.0500	7.8900	5.5890	4.9650	1.7936	3.2168	2.3077	8.0829	3	4.3200	4.5200	4.9650	5.9500

DO

```
DOtable = groupsummary(DO,"Area",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(DOlt(x))},"R");
DOtable.Properties.VariableNames = ["Area","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","<=DO 1"]
```

DOtable = 2×20 table

	Area	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	N Area	39	39	0.1200	5.9500	5.8300	2.5895	2.6100	1.8018	3.2464	0.2569	1.8779	0	0.4440	0.6750	2.6100	3.9500
2	S Area	30	30	0.3200	5.5300	5.2100	1.6137	1.0450	1.3247	1.7549	1.2778	3.8395	1	0.4750	0.6500	1.0450	2.1500

ORP

```
ORPtable = groupsummary(ORP,"Area",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(ORPlt(x))},"R");
ORPtable.Properties.VariableNames = ["Area","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","ORP<-50"]
```

```
ORPtable = 2×20 table
```

	Area	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	N Area	39	39	-171.2000	488.8000	660	154.5282	206.3000	168.5222	2.8400e+04	-0.3746	2.0620	0	-82.2200	-15.9750	206.3000	273.5000
2	S Area	30	30	-221.7000	432.8000	654.5000	188.6967	212.3500	170.8259	2.9181e+04	-0.3749	2.3868	0	-21.3500	35.9000	212.3500	327.1000

Specific Conductance

```
SCtable = groupsummary(SC,"Area",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x))},"R");
SCtable.Properties.VariableNames = ["Area","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95"]
```

```
SCtable = 2×19 table
```

	Area	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	N Area	39	38	0.0079	1.3410	1.3331	0.2676	0.1420	0.2771	0.0768	1.8850	7.0533	1	0.0545	0.0830	0.1420	0.3990
2	S Area	30	30	0.0147	2.6580	2.6433	0.4042	0.1370	0.6532	0.4267	2.6879	9.3944	5	0.0445	0.0730	0.1370	0.2960

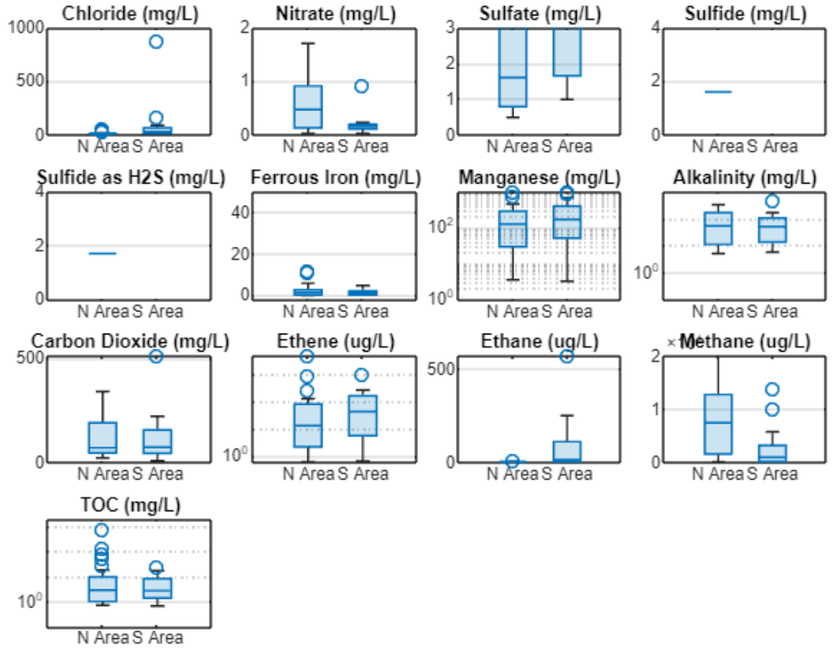
2.0 Geochemical Parameters

2.1 Geochemical Box Plots

```
figure
t2=tiledlayout('flow');
t2.Padding="compact";
t2.TileSpacing='compact';
nexttile
boxchart(Cl.Area,Cl.R)
set(gca, "XGrid", "off", "YGrid", "on")
title("Chloride (mg/L)")
box
```

```
nexttile
boxchart(NO3.Area,NO3.R)
set(gca, "XGrid", "off", "YGrid", "on")
title("Nitrate (mg/L)")
ylim([0 2])
box
nexttile
boxchart(SO4.Area,SO4.R)
set(gca, "XGrid", "off", "YGrid", "on")
title("Sulfate (mg/L)")
ylim([0 3])
box
nexttile
boxchart(S2.Area,S2.R)
set(gca, "XGrid", "off", "YGrid", "on")
title("Sulfide (mg/L)")
ylim([0 4])
box
nexttile
boxchart(S2H2S.Area,S2H2S.R)
set(gca, "XGrid", "off", "YGrid", "on")
title("Sulfide as H2S (mg/L)")
ylim([0 4])
box
nexttile
boxchart(Fe2.Area,Fe2.R)
set(gca, "XGrid", "off", "YGrid", "on")
title("Ferrous Iron (mg/L)")
ylim([-2 50])
box
nexttile
boxchart(Mn.Area,Mn.R)
set(gca, "XGrid", "off", "YGrid", "on")
title("Manganese (mg/L)")
yscale("log")
ylim([1 1000])
box
nexttile
boxchart(Alk.Area,Alk.R)
set(gca, "XGrid", "off", "YGrid", "on")
title("Alkalinity (mg/L)")
yscale("log")
ylim([0.1 1000])
box
nexttile
boxchart(CO2.Area,CO2.R)
set(gca,"XGrid","off","YGrid",'on')
title("Carbon Dioxide (mg/L)")
box
nexttile
```

```
boxchart(Ethene.Area,Ethene.R)
set(gca, "XGrid", "off", "YGrid", "on")
title("Ethene (ug/L)")
yscale("log")
box
nexttile
boxchart(Ethane.Area,Ethane.R)
set(gca, "XGrid", "off", "YGrid", "on")
title("Ethane (ug/L)")
box
nexttile
boxchart(Methane.Area,Methane.R)
set(gca, "XGrid", "off", "YGrid", "on")
title("Methane (ug/L)")
ylim([0 20000])
box
nexttile
boxchart(TOC.Area,TOC.R)
set(gca, "XGrid", "off", "YGrid", "on")
title("TOC (mg/L)")
yscale("log")
ylim([0.1 2000])
box
```



2.2 Summary Tables

Chloride

```
Cltable = groupsummary(Cl,"Area",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x))},"R");
Cltable.Properties.VariableNames = ["Area","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95"]
```

```
Cltable = 2×19 table
```

...

	Area	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	N Area	31	31	1.1000	56	54.9000	14.3677	11	11.5359	133.0769	2.1870	7.5247	4	7.1600	8.5250	11	14.7500
2	S Area	24	24	1.3000	870	868.7000	77.9083	28	174.6446	3.0501e+04	4.1272	19.2152	3	3.6200	15	28	66

Nitrate

```
NO3table = groupsummary(NO3,"Area",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(NO3gt(x))},"R");
NO3table.Properties.VariableNames = ["Area","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","NO3<1"]
```

```
NO3table = 2×20 table
```

...

	Area	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	N Area	31	16	0.0250	3	2.9750	0.6789	0.4700	0.7738	0.5987	1.8254	6.1308	1	0.0424	0.1300	0.4700	0.9100
2	S Area	24	8	0.0260	0.9200	0.8940	0.2345	0.1550	0.2833	0.0802	2.0684	5.6629	1	0.0512	0.1100	0.1550	0.2000

Sulfate

```
SO4table = groupsummary(SO4,"Area",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(SO4lt(x))},"R");
SO4table.Properties.VariableNames = ["Area","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","SO4<=50"]
```

```
SO4table = 2×20 table
```

...

	Area	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	N Area	31	31	0.4900	10	9.5100	2.4929	1.6000	2.2585	5.1008	1.4762	5.0198	1	0.5600	0.7900	1.6000	3.8500
2	S Area	24	24	0.9900	150	149.0100	14.4162	3.5000	30.8513	951.8018	3.7653	16.9681	3	1.1800	1.6500	3.5000	13

Sulfide

```
S2table = groupsummary(S2,"Area",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
```

```
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(S2gt(x))},"R");
S2table.Properties.VariableNames = ["Area","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","S2>1"]
```

S2table = 2×20 table

...

	Area	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	N Area	31	1	1.6000	1.6000	0	1.6000	1.6000	0	0	NaN	NaN	0	1.6000	1.6000	1.6000	1.6000
2	S Area	24	0	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	0	NaN	NaN	NaN	NaN

Sulfide as Hydrogen Sulfide

```
S2H2Stable = groupsummary(S2H2S,"Area",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(S2H2Sgt(x))},"R");
S2H2Stable.Properties.VariableNames = ["Area","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","S2>1"]
```

S2H2Stable = 2×20 table

...

	Area	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	N Area	31	1	1.7000	1.7000	0	1.7000	1.7000	0	0	NaN	NaN	0	1.7000	1.7000	1.7000	1.7000
2	S Area	24	0	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	0	NaN	NaN	NaN	NaN

Ferrous Iron

```
Fe2table = groupsummary(Fe2,"Area",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(FE2gt(x))},"R");
Fe2table.Properties.VariableNames = ["Area","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","Fe2>1"]
```

Fe2table = 2×20 table

...

	Area	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	N Area	28	28	0.0100	11.5600	11.5500	2.1746	1.2600	2.9817	8.8906	2.0663	6.6778	2	0.0700	0.1250	1.2600	2.6250
2	S Area	23	23	0.0300	4.6000	4.5700	1.3043	1.1500	1.2669	1.6051	1.0015	3.2985	0	0.0380	0.1100	1.1500	2.0775

Manganese

```
Mntable = groupsummary(Mn,"Area",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x))},"R");
Mntable.Properties.VariableNames = ["Area","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95"]
```

Mntable = 2×19 table

	Area	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	N Area	32	32	3.5000	4900	4.8965e+03	381.6906	125	899.8980	8.0982e+05	4.2575	21.3880	4	7.3900	29.5000	125	285
2	S Area	24	24	3.2000	2200	2.1968e+03	335.1750	170	485.9769	2.3617e+05	2.6170	10.1729	3	16.3000	50.5000	170	400

Alkalinity

```
Alktable = groupsummary(Alk,"Area",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x))},"R");
Alktable.Properties.VariableNames = ["Area","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95"]
```

`Alktable = 2×19 table`

	Area	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	N Area	31	30	5	330	325	98.0133	53	99.2530	9.8512e+03	0.8363	2.3656	0	6.2000	11	53	170
2	S Area	24	17	5.7000	470	464.3000	103.4471	50	143.8788	2.0701e+04	1.9338	5.3799	2	9.1200	13.5000	50	106

Carbon Dioxide

```
CO2table = groupsummary(CO2,"Area",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x))},"R");
CO2table.Properties.VariableNames = ["Area","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95"]
```

`CO2table = 2×19 table`

	Area	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	N Area	31	29	19	340	321	119.1724	69	95.2081	9.0646e+03	0.8153	2.4311	0	30.8000	43.7500	69	190
2	S Area	24	21	6.2000	510	503.8000	115.5333	71	111.8158	1.2503e+04	2.1914	8.3609	1	29	42.7500	71	155

Ethene

```
Ethenetable = groupsummary(Ethene,"Area",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(Ethenegt(x))},"R");
Ethenetable.Properties.VariableNames = ["Area","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","Ethene>10"]
```

`Ethenetable = 2×20 table`

	Area	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	N Area	32	23	0.5700	4900	4.8994e+03	288.5826	13	1.0228e+03	1.0462e+06	4.2530	19.6442	3	0.8220	2.1000	13	81.2500

	Area	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
2	S Area	24	12	0.6200	1000	999.3800	147.1317	42.5000	282.7358	7.9940e+04	2.5405	8.2524	1	0.7180	5.5000	42.5000	165

Ethane

```
Ethanetable = groupsummary(Ethane,"Area",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(Ethanegt(x))},"R");
Ethanetable.Properties.VariableNames = ["Area","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","Ethane>10"]
```

Ethanetable = 2×20 table

...

	Area	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	N Area	32	13	0.3100	6	5.6900	2.0762	1.4000	1.7687	3.1282	1.1414	3.0660	1	0.4380	0.8125	1.4000	2.8250
2	S Area	24	14	1.1000	570	568.9000	89.1429	12.4500	157.5129	2.4810e+04	2.2627	7.3438	1	2.2700	3.3000	12.4500	110

Methane

```
Methanetable = groupsummary(Methane,"Area",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(Methanegt(x))},"R");
Methanetable.Properties.VariableNames = ["Area","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95",">500"]
```

Methanetable = 2×20 table

...

	Area	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	N Area	32	27	4	23000	22996	8.0005e+03	7400	6.6642e+03	4.4411e+07	0.5111	2.4129	0	109.2000	1525	7400	12750
2	S Area	24	23	0.9800	14000	1.3999e+04	2.3319e+03	920	3.4963e+03	1.2224e+07	2.1307	7.1273	2	10.1400	88.5000	920	3175

Total Organic Carbon

```
TOCtable = groupsummary(TOC,"Area",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(TOCgt(x))},"R");
TOCtable.Properties.VariableNames = ["Area","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","TOC=>20"]
```

TOCtable = 2×20 table

...

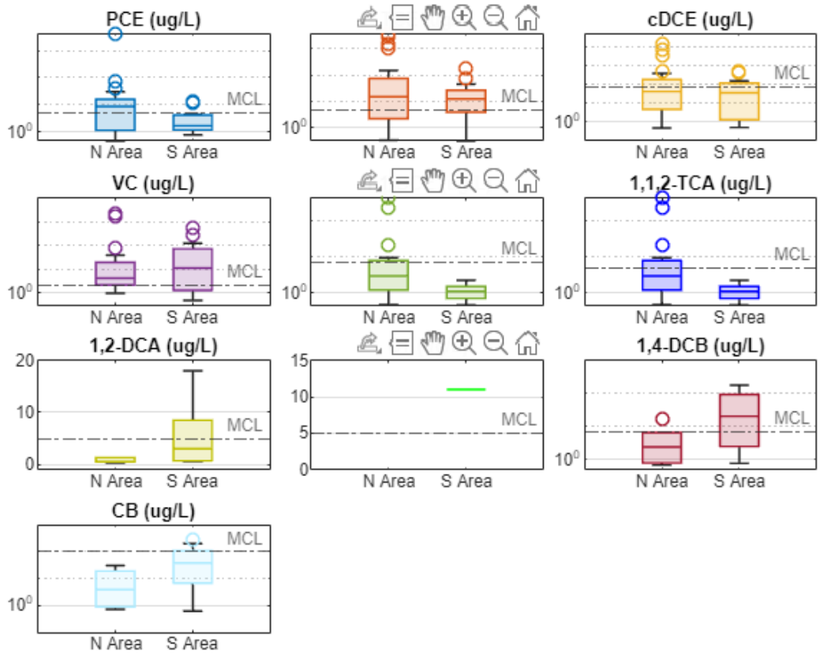
	Area	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	N Area	31	30	0.7000	760	759.3000	38.2367	2.8500	139.2545	1.9392e+04	4.8808	25.7544	5	0.7500	1	2.8500	9.6000
2	S Area	24	24	0.6600	24	23.3400	5.6063	2.7000	6.1557	37.8931	1.5242	4.6121	1	0.8290	1.3500	2.7000	8.0500

3.0 VOCs

3.1 VOC Box Plots

```
figure
t3=tiledlayout('flow');
t3.Padding="compact";
t3.TileSpacing='compact';
nexttile
boxchart(PCE.Area,PCE.R,"BoxFaceColor",'0 0.4470 0.7410','BoxEdgeColor','0 0.4470 0.7410','MarkerColor','0 0.4470 0.7410')
set(gca, "XGrid", "off", "YGrid", "on")
title("PCE (ug/L)")
yscale("log")
yline(5,'-.','MCL',FontSize=8)
box
nexttile
boxchart(TCE.Area,TCE.R,"BoxFaceColor",'0.8500 0.3250 0.0980','MarkerColor','0.8500 0.3250 0.0980')
set(gca, "XGrid", "off", "YGrid", "on")
title("TCE (ug/L)")
yscale("log")
yline(5,'-.','MCL',FontSize=8)
box
nexttile
boxchart(cDCE.Area,cDCE.R,"BoxFaceColor",'0.9290 0.6940 0.1250','MarkerColor','0.9290 0.6940 0.1250')
set(gca, "XGrid", "off", "YGrid", "on")
title("cDCE (ug/L)")
yscale("log")
ylim([0.1 50000])
yline(70,'-.','MCL',FontSize=8)
box
nexttile
boxchart(VC.Area,VC.R,"BoxFaceColor",'0.4940 0.1840 0.5560','MarkerColor','0.4940 0.1840 0.5560')
set(gca, "XGrid", "off", "YGrid", "on")
title("VC (ug/L)")
yscale("log")
ylim([0.3 10000])
yline(2,'-.','MCL',FontSize=8)
box
nexttile
boxchart(DCE11.Area,DCE11.R,"BoxFaceColor",'0.47 0.67 0.19','MarkerColor','0.47 0.67 0.19')
set(gca, "XGrid", "off", "YGrid", "on")
title("1,1-DCE (ug/L)")
yscale("log")
yline(7,'-.','MCL',FontSize=8)
box
nexttile
boxchart(TCA112.Area,DCE11.R,"BoxFaceColor",'blue','MarkerColor','blue')
set(gca, "XGrid", "off", "YGrid", "on")
title("1,1,2-TCA (ug/L)")
```

```
yscale("log")
yline(5,'-.','MCL',FontSize=8)
box
nexttile
boxchart(DCA12.Area,DCA12.R,"BoxFaceColor",'0.75 0.75 0','MarkerColor','0.75 0.75 0')
set(gca, "XGrid", "off", "YGrid", "on")
title("1,2-DCA (ug/L)")
ylim([-1 20])
yline(5,'-.','MCL',FontSize=8)
box
nexttile
boxchart(CT.Area,CT.R,"BoxFaceColor",'green','MarkerColor','green')
set(gca, "XGrid", "off", "YGrid", "on")
title("CT (ug/L)")
yline(5,'-.','MCL',FontSize=8)
ylim([0 15])
box
nexttile
boxchart(DCB14.Area,DCB14.R,"BoxFaceColor",'0.64 0.08 0.18','MarkerColor','0.64 0.08 0.18')
set(gca, "XGrid", "off", "YGrid", "on")
title("1,4-DCB (ug/L)")
yscale("log")
ylim([0.5 1000])
yline(7,'-.','MCL',FontSize=8)
box
nexttile
boxchart(CB.Area,CB.R,"BoxFaceColor",'0.68 0.92 1','MarkerColor','0.68 0.92 1')
set(gca, "XGrid", "off", "YGrid", "on")
title("CB (ug/L)")
yscale("log")
ylim([0.1 1000])
yline(100,'-.','MCL',FontSize=8)
box
```



3.2 VOC Summary Tables

1,1,2-Trichoroethane

```
TCA112table = groupsummary(TCA112,"Area",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(MCL5gt(x))},"R");
TCA112table.Properties.VariableNames = ["Area","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","112TCA>5"]
```

TCA112table = 2×20 table

...

	Area	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	N Area	39	2	0.5200	0.8200	0.3000	0.6700	0.6700	0.2121	0.0450	1.0922e-15	1.0000	0	0.5200	0.5200	0.6700	0.8200
2	S Area	30	5	0.3900	6.3000	5.9100	2.0580	1.1000	2.4044	5.7813	1.3966	3.1203	1	0.3900	0.8475	1.1000	2.7000

1,2-Dichloroethane

```
DCA12table = groupsummary(DCA12,"Area",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(MCL5gt(x))},"R");
DCA12table.Properties.VariableNames = ["Area","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","12DCA>5"]
```

DCA12table = 2×20 table

	Area	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	N Area	39	6	0.2700	1.3000	1.0300	0.7383	0.5450	0.4475	0.2002	0.5271	1.5329	0	0.2900	0.4700	0.5450	1.3000
2	S Area	30	10	0.5600	18	17.4400	5.4220	3	5.8679	34.4320	1.0824	3.0166	0	0.6200	0.6800	3	8.5000

Tetrachloroethene

```
PCEtable = groupsummary(PCE,"Area",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(MCL5gt(x))},"R");
PCEtable.Properties.VariableNames = ["Area","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","PCE>5"]
```

PCEtable = 2×20 table

	Area	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	N Area	39	27	0.4700	4300	4.2995e+03	170.7981	8.6000	825.3895	6.8127e+05	4.8998	25.0191	3	0.6420	1.1425	8.6000	16
2	S Area	30	13	0.7700	14	13.2300	3.7115	1.7000	4.3071	18.5508	1.6711	4.2590	2	0.7780	1.1750	1.7000	4.1250

Trichloroethene

```
TCEtable = groupsummary(TCE,"Area",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(MCL5gt(x))},"R");
TCEtable.Properties.VariableNames = ["Area","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","TCE>5"]
```

TCEtable = 2×20 table

	Area	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	N Area	39	30	0.3400	3900	3.8997e+03	333.9370	15	894.8743	8.0080e+05	3.0148	11.1887	4	0.5950	2.2000	15	76
2	S Area	30	16	0.3200	190	189.6800	27.7212	12.5000	47.3958	2.2464e+03	2.7522	9.8730	2	0.8180	3.9500	12.5000	26.5000

cis-1,2-dichloroethene

```
cDCEtable = groupsummary(cDCE,"Area",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(MCL70gt(x))},"R");
cDCEtable.Properties.VariableNames = ["Area","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","cDCE>70"]
```

cDCEtable = 2×20 table

	Area	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	N Area	39	32	0.4700	14000	1.4000e+04	824.7869	41	2.7165e+03	7.3796e+06	4.0365	19.0572	4	0.9970	4.7500	41	180

	Area	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
2	S Area	30	20	0.5100	530	529.4900	86.1155	35	138.8361	1.9275e+04	2.2282	7.1304	2	1.1000	1.3000	35	115

Vinyl Chloride

```
VCtable = groupsummary(VC,"Area",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(MCL2gt(x))},"R");
VCtable.Properties.VariableNames = ["Area","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","VC>2"]
```

VCtable = 2×20 table

...

	Area	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	N Area	39	19	0.9400	2300	2.2991e+03	221.1374	4.1000	635.0715	4.0332e+05	2.6873	8.4698	3	1.2220	2.1250	4.1000	18.7500
2	S Area	30	17	0.4800	550	549.5200	70.6765	11	140.3573	1.9700e+04	2.6559	9.2875	2	0.5100	1.2750	11	70.2500

1,1-Dichloroethene

```
DCE11table = groupsummary(DCE11,"Area",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(MCL7gt(x))},"R");
DCE11table.Properties.VariableNames = ["Area","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","11DCE>7"]
```

DCE11table = 2×20 table

...

	Area	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	N Area	39	16	0.4700	410	409.5300	43.0031	2.9000	111.8043	1.2500e+04	2.6661	8.7180	3	0.5320	1.2000	2.9000	7.7500
2	S Area	30	7	0.4600	2.2000	1.7400	1.1900	1.1000	0.5966	0.3560	0.4248	2.2281	0	0.4920	0.7025	1.1000	1.5000

1,4-Dichlorobenzene

```
DCB14table = groupsummary(DCB14,"Area",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(MCL75gt(x))},"R");
DCB14table.Properties.VariableNames = ["Area","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","14DCB>75"]
```

DCB14table = 2×20 table

...

	Area	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	N Area	39	6	0.6800	17	16.3200	4.9783	2.4000	6.2942	39.6167	1.3548	3.3177	1	0.6910	0.7900	2.4000	6.6000
2	S Area	30	14	0.7700	180	179.2300	51.5657	20.5000	64.8988	4.2119e+03	0.9639	2.3398	0	0.8420	2.5000	20.5000	93

Carbon Tetrachloride

```
CTtable = groupsummary(CT,"Area",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(MCL5gt(x))},"R");
CTtable.Properties.VariableNames = ["Area","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","CT>5"]
```

CTtable = 2×20 table

...

	Area	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	N Area	39	0	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	0	NaN	NaN	NaN	NaN
2	S Area	30	1	11	11	0	11	11	0	0	NaN	NaN	0	11	11	11	11

Chlorobenzene

```
CBtable = groupsummary(CB,"Area",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(MCL100gt(x))},"R");
CBtable.Properties.VariableNames = ["Area","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","CB>100"]
```

CBtable = 2×20 table

...

	Area	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	N Area	39	6	0.7100	31	30.2900	9.8850	3.8500	12.4718	155.5450	0.9073	2.2261	0	0.7290	0.9000	3.8500	19
2	S Area	30	15	0.6200	290	289.3800	69.6147	38	86.9892	7.5671e+03	1.3433	3.7906	1	3.7000	6.7000	38	109

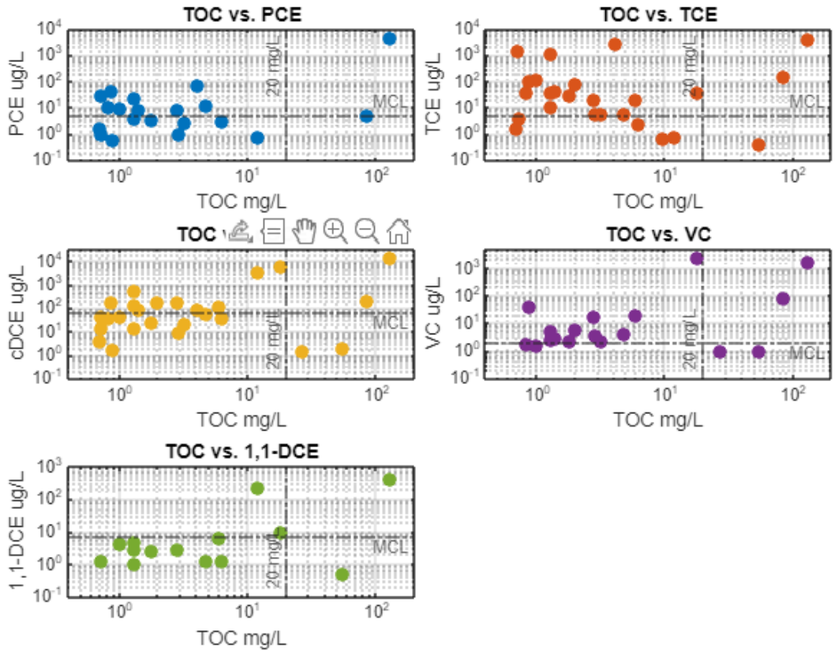
4.0 TOC vs. VOC Analysis (2024)

4.1 TOC vs. VOC Scatter Plots

```
figure
t4=tiledlayout('flow');
t4.Padding='compact';
t4.TileSpacing='compact';
nexttile
scatter(VOCTOCNA.TOC([6,9,13:18,20:22,24,26:27,31:34,36,38:end])...
    ,VOCTOCNA.PCE([6,9,13:18,20:22,24,26:27,31:34,36,38:end]),...
    "Marker","o","Color", '0 0.4470 0.7410','MarkerEdgeColor',...
    '0 0.4470 0.7410','MarkerFaceColor','0 0.4470 0.7410');
axis padded
xlim([0.4 200])
ylim([0.1 10000])
set(gca, "XGrid", "on", "XScale",'log','XTick',[0.1 1 10 100],...
    "YGrid", "on",'YMinorTick',"on","YScale",'log',...
    'YTick',[0.1 1 10 100 1000 10000]);
xline(20,'-.','LabelVerticalAlignment','top',...
```

```
    'LabelHorizontalAlignment','left','Label','20 mg/L',fontsize=8);
yline(5,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','right','Label','MCL',fontsize=8);
xlabel('TOC mg/L')
ylabel('PCE ug/L')
title('TOC vs. PCE')
box
nexttile
scatter(VOCTOCNA.TOC([6,8:10,13:18,20:23,26,28:34,36,38:end])...
    ,VOCTOCNA.TCE([6,8:10,13:18,20:23,26,28:34,36,38:end]),...
    "Marker","o","Color", ' 0.85 0.33 0.1','MarkerEdgeColor',...
    ' 0.85 0.33 0.1','MarkerFaceColor',' 0.85 0.33 0.1');
axis padded
xlim([0.4 200])
ylim([0.1 10000])
set(gca, "XGrid", "on", "XScale",'log',"YGrid", "on",...
    'YMinorTick',"on","YScale",'log','XTick',[0.1 1 10 100],...
    'YTick', [0.1 1 10 100 1000 10000]);
xline(20,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','20 mg/L',fontsize=8);
yline(5,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','right','Label','MCL',fontsize=8);
title('TOC vs. TCE')
xlabel('TOC mg/L')
ylabel('TCE ug/L')
box
nexttile
scatter(VOCTOCNA.TOC([6,8:10,13:26,28:29,31:34,36,38:end])...
    ,VOCTOCNA.cDCE([6,8:10,13:26,28:29,31:34,36,38:end]),...
    "Marker","o","Color", '0.93 0.69 0.13','MarkerEdgeColor',...
    '0.93 0.69 0.13','MarkerFaceColor','0.93 0.69 0.13');
axis padded
xlim([0.4 200])
ylim([0.1 35000])
set(gca, "XGrid", "on", "XScale",'log','XTick',[0.1 1 10 100],...
    "YGrid", "on",'YMinorTick',"on","YScale",'log',...
    'YTick',[0.1 1 10 100 1000 10000]);
xline(20,'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','left','Label','20 mg/L',fontsize=8);
yline(70,'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','right','Label','MCL',fontsize=8);
xlabel('TOC mg/L')
ylabel('cDCE ug/L')
title('TOC vs. cDCE')
box
nexttile
scatter(VOCTOCNA.TOC([8:9,13:15,18:19,21:23,28:29,31:34,38:end])...
    ,VOCTOCNA.VC([8:9,13:15,18:19,21:23,28:29,31:34,38:end]),...
    "Marker","o","Color", '0.49 0.18 0.56','MarkerEdgeColor',...
    '0.49 0.18 0.56','MarkerFaceColor','0.49 0.18 0.56');
```

```
axis padded
xlim([0.4 200])
ylim([0.1 5000])
set(gca, "XGrid", "on", "XScale",'log','XTick',[0.1 1 10 100],...
    "YGrid", "on",'YMinorTick',"on","YScale",'log',...
    'YTick',[0.1 1 10 100 1000]);
xline(20,'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','left','Label','20 mg/L',fontsize=8);
yline(2,'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','right','Label','MCL',fontsize=8);
xlabel('TOC mg/L')
ylabel('VC ug/L')
title('TOC vs. VC')
box
nexttile
scatter(VOCTOCNA.TOC([6,8,10,13:15,20:23,28,32,36:36,end])...
    ,VOCTOCNA.DCE11([6,8,10,13:15,20:23,28,32,36:36,end]),...
    "Marker","o","Color", '0.47 0.67 0.19','MarkerEdgeColor',...
    '0.47 0.67 0.19','MarkerFaceColor','0.47 0.67 0.19');
axis padded
xlim([0.4 200])
ylim([0.1 1000])
set(gca, "XGrid", "on", "XScale",'log','XTick',[0.1 1 10 100],...
    "YGrid", "on",'YMinorTick',"on","YScale",'log',...
    'YTick',[0.1 1 10 100 1000]);
xline(20,'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','left','Label','20 mg/L',fontsize=8);
yline(7,'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','right','Label','MCL',fontsize=8);
xlabel('TOC mg/L')
ylabel('1,1-DCE ug/L')
title('TOC vs. 1,1-DCE')
box
```



4.2 TOC vs. VOC Correlation Analysis

```
'TOC vs. PCE',[rho,pval] = corr(VOCTOCNA.TOC,VOCTOCNA.PCE,'Rows','complete')
```

```
ans =
'TOC vs. PCE'
rho = 0.8253
pval = 6.9298e-07
```

```
'TOC vs. TCE',[rho,pval] = corr(VOCTOCNA.TOC,VOCTOCNA.TCE,'Rows','complete')
```

```
ans =
'TOC vs. TCE'
rho = 0.5482
pval = 0.0046
```

```
'TOC vs. cDCE',[rho,pval] = corr(VOCTOCNA.TOC,VOCTOCNA.cDCE,'Rows','complete')
```

```
ans =
'TOC vs. cDCE'
rho = 0.0814
pval = 0.6864
```

```
'TOC vs. VC',[rho,pval] = corr(VOCTOCNA.TOC,VOCTOCNA.VC,'Rows','complete')
```

```
ans =
'TOC vs. VC'
rho = 0.4784
pval = 0.0446
```

```
'TOC vs. 1,1-DCE',[rho,pval] = corr(VOCTOCNA.TOC,VOCTOCNA.DCE11,'Rows','complete')
```

```
ans =
'TOC vs. 1,1-DCE'
rho = 0.8131
pval = 4.0549e-04
```

Standard Color Ramp

Hex Color Reference Codes

- PCE 0 0.45 074
- TCE 0.85 0.33 0.1
- cDCE 0.93 0.69 0.13
- VC 0.49 0.18 0.56
- 1,1-DCE 0.47 0.67 0.19
- DCM 0.3 0.75 0.93
- 1,1,2-TCA blue
- 1,1,1-TCA 0.3 0.75 0.93
- 1,2-DCA 0.75 0.75 0
- CT cyan
- 1,4-DCB 0.64 0.08 0.18
- CB 0.68 0.92 1
- Benzene 0.69 0.08 0.18
- TOC 0.87 0.49 0
- Ethene 0 0.75 0.75
- Ethene 0.75 0.75 0
- DHC 0.87 0.49
- tceA 1 0.84 0
- VCR 1 0.6 0.78
- BCV 0.75 0.75 0

Function Coding Reference

Group Statistics Standard Functions

- "sum" Sum
- "mean" Mean
- "median" Median
- "mode" Mode
- "var" Variance
- "std" Standard deviation
- "min" Minimum
- "max" Maximum

- "range" Maximum minus minimum
- "nummissing" Number of missing elements
- "numunique" Number of distinct nonmissing elements
- "nnz" Number of nonzero and non-NaN elements
- "all" All computations previously listed

Group Descriptive Statistics Functions

- **Outliers**
- **10th, 25th, 50th, 75th, 90th, and 95th percentile**
- **Skewness, Kurtosis**
- **Greater than specified limit**

```
% Is outlier function
function y = outlier(x)
% Count the number of outliers in each group
y = nnz(isoutlier(x,'quartiles'));
end

% 10th percentile function
function y = prctile10(x)
%Distribution 10th percentile
y = (prctile(x,10));
end

%25th percentile function
function y = prctile25(x)
%Distribution 25th percentile
y = (prctile(x,25));
end

%Distribution 50th percentile function
function y = prctile50(x)
%Distribution 50th percentile
y = (prctile(x,50));
end

%75th percentile function
function y = prctile75(x)
%Distribution 75th percentile
y = (prctile(x,75));
end

%90th percentile function
function y = prctile90(x)
%Distribution 90th percentile
y = (prctile(x,90));
```

```
end

%95th percentile function
function y = prctile95(x)
%Distribution 95th percentile
y = (prctile(x,95));
end

%25 and 75th percentile function
function y = prct25_75(x)
% x is the data in a group from one computation variable
% Distribution 25th and 75th percentile
y = (prctile(x,[25 75]));
end

%skewness function
function y = skew(x)
%Distribution skewness
y= (skewness(x));
end

%skewness function
function y = kurt(x)
%Distribution skewness
y= (kurtosis(x));
end

%Group count >MCL 5
function y = MCL5gt(x)
%Group counts for greater than a limit
y= sum(x>5);
end

%Group count >MCL 2
function y = MCL2gt(x)
%Group counts for greater than a limit
y= sum(x>2);
end

%Group count >MCL 7
function y = MCL7gt(x)
%Group counts for greater than a limit
y= sum(x>7);
end

%Group count >MCL 70
function y = MCL70gt(x)
%Group counts for greater than a limit
y= sum(x>70);
end
```

```
%Group count >MCL 75
function y = MCL75gt(x)
%Group counts for greater than a limit
y= sum(x>75);
end

%Group count >MCL 2
function y = MCL100gt(x)
%Group counts for greater than a limit
y= sum(x>100);
end

%Group count >MCL 200
function y = MCL200gt(x)
%Group counts for greater than a limit
y= sum(x>200);
end

%Group count >MCL 0.05
function y = MCLNeg5E2gt(x)
%Group counts for greater than a limit
y= sum(x>0.05);
end

%Group count <pH 5
function y = pH5lt(x)
%Group counts for greater than a limit
y= sum(x<5);
end

%Group count <=DO 1
function y = DOlt(x)
%Group counts for greater than a limit
y= sum(x<=1);
end

%Group count <=ORP 50
function y = ORPlt(x)
%Group counts for greater than a limit
y= sum(x<=-50);
end

%Group count <=Sulfate 50
function y = SO4lt(x)
%Group counts for greater than a limit
y= sum(x<50);
end

%Group count <=Sulfide 1
```

```
function y = S2gt(x)
%Group counts for greater than a limit
y= sum(x>1);
end

%Group count <=Sulfide H2S 1
function y = S2H2Sgt(x)
%Group counts for greater than a limit
y= sum(x>1);
end

%Group count TOC=>20
function y = TOCgt(x)
%Group counts for greater than a limit
y= sum(x>=20);
end

%Group count Methane=>500
function y = Methanegt(x)
%Group counts for greater than a limit
y= sum(x>=500);
end

%Group count Fe2=>1
function y = FE2gt(x)
%Group counts for greater than a limit
y= sum(x>=1);
end

%Group count Ethene=>10
function y = Ethenegt(x)
%Group counts for greater than a limit
y= sum(x>=10);
end

%Group count Ethane=>10
function y = Ethanegt(x)
%Group counts for greater than a limit
y= sum(x>=10);
end

%Group count NO3=<1
function y = NO3gt(x)
%Group counts for greater than a limit
y= sum(x<1);
end
```

OU 6 Annual Monitoring May 2024 Group Statistics: Confined Aquifer

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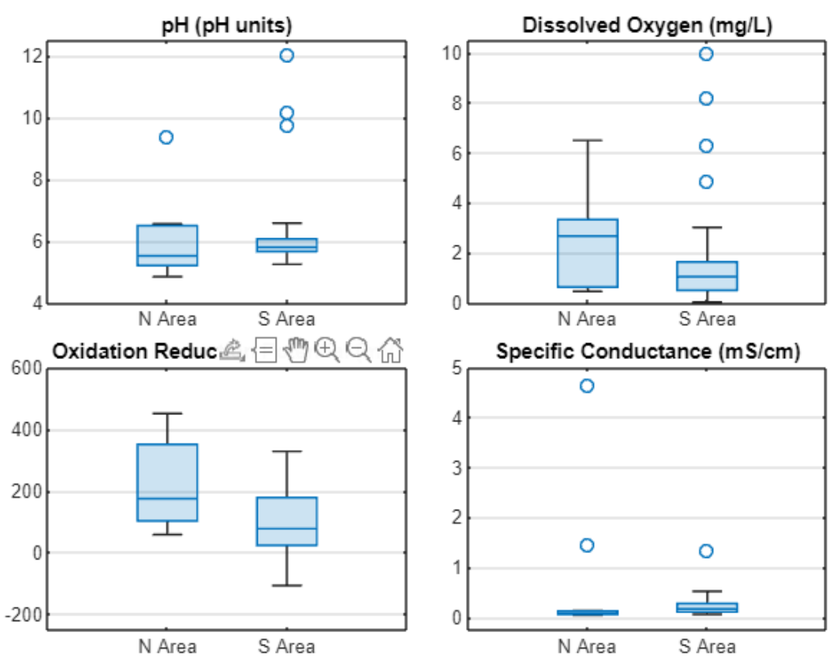
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1.0 Water Quality Parameters

1.1 Distribution Box Plots

```
figure
t1=tiledlayout('flow');
t1.Padding="compact";
t1.TileSpacing='compact';
```

```
nexttile
boxchart(pH.Area,pH.R)
set(gca, "XGrid", "off", "YGrid", "on")
title("pH (pH units)")
ylim([4 12.5])
box
nexttile
boxchart(DO.Area,DO.R)
set(gca, "XGrid", "off", "YGrid", "on")
title("Dissolved Oxygen (mg/L)")
ylim([0 10.5])
box
nexttile
boxchart(ORP.Area,ORP.R)
set(gca, "XGrid", "off", "YGrid", "on")
title("Oxidation Reduction Potential (mV)")
ylim([-250 600])
box
nexttile
boxchart(SC.Area,SC.R)
set(gca, "XGrid", "off", "YGrid", "on")
title("Specific Conductance (mS/cm)")
ylim([-0.25 5])
box
```



2.1 Water Quality Parameter Summary Tables

pH

```
pHtable = groupsummary(pH,"Area",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(pH5lt(x))},"R");
pHtable.Properties.VariableNames = ["Area","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","<pH 5"]
```

pHtable = 2×20 table

...

	Area	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	N Area	12	12	4.8400	9.3700	4.5300	5.9800	5.5150	1.2317	1.5171	1.8154	5.8492	1	5.0430	5.1950	5.5150	6.4950
2	S Area	34	34	5.2400	12.0400	6.8000	6.2388	5.7950	1.4539	2.1140	2.9398	10.6606	3	5.4940	5.6500	5.7950	6.0600

DO

```
DOtable = groupsummary(DO,"Area",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(DO1t(x))},"R");
DOtable.Properties.VariableNames = ["Area","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","<=DO 1"]
```

DOtable = 2×20 table

...

	Area	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	N Area	12	12	0.4500	6.4900	6.0400	2.5117	2.6550	1.8938	3.5866	0.6211	2.6330	0	0.4570	0.6150	2.6550	3.3200
2	S Area	34	34	0.0100	9.9500	9.9400	1.7268	1.0300	2.2793	5.1951	2.3874	8.0153	4	0.1840	0.4900	1.0300	1.6300

ORP

```
ORPtable = groupsummary(ORP,"Area",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(ORPlt(x))},"R");
ORPtable.Properties.VariableNames = ["Area","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","ORP<-50"]
```

ORPtable = 2×20 table

...

	Area	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	N Area	12	12	58.2000	449.9000	391.7000	216.2667	174.2000	145.3180	2.1117e+04	0.6708	1.8798	0	77.5900	102.2000	174.2000	349.9500
2	S Area	34	34	-107.3000	327.5000	434.8000	97.2779	77.3000	98.2906	9.6610e+03	0.4956	2.6963	0	-3.6500	23	77.3000	178.1000

Specific Conductance

```
SCtable = groupsummary(SC,"Area",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x))},"R");
```

```
SCtable.Properties.VariableNames = ["Area","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95"]
```

```
SCtable = 2×19 table
```

...

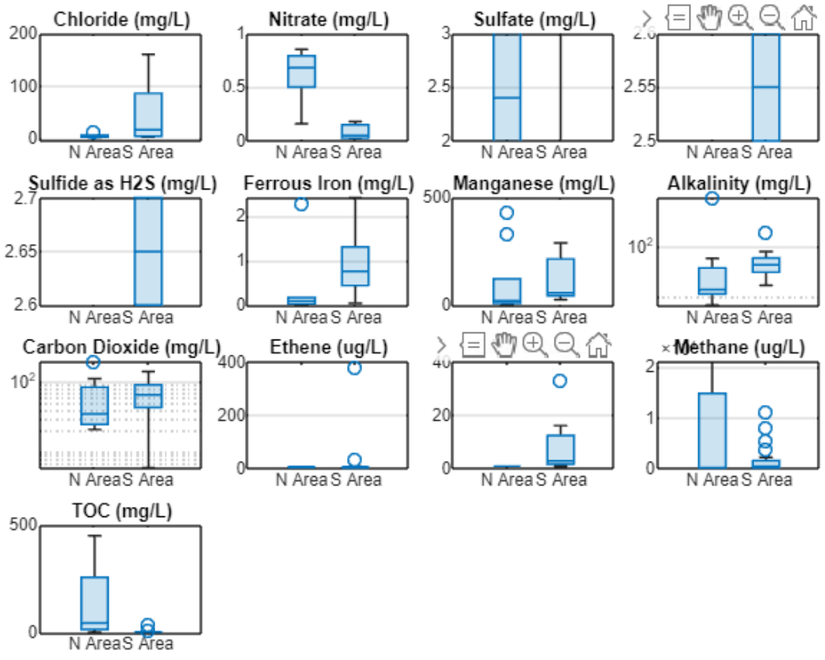
	Area	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	N Area	12	12	0.0440	4.6320	4.5880	0.5687	0.0760	1.3386	1.7917	2.6340	8.4568	2	0.0468	0.0540	0.0760	0.1205
2	S Area	34	34	0.0560	1.3240	1.2680	0.2343	0.1685	0.2311	0.0534	3.2869	15.6741	1	0.0690	0.1040	0.1685	0.2760

2.0 Geochemical Parameters

2.1 Geochemical Box Plots

```
figure
t2=tiledlayout('flow');
t2.Padding="compact";
t2.TileSpacing='compact';
nexttile
boxchart(Cl.Area,Cl.R)
set(gca, "XGrid", "off", "YGrid", "on")
title("Chloride (mg/L)")
ylim([-5 200])
box
nexttile
boxchart(NO3.Area,NO3.R)
set(gca, "XGrid", "off", "YGrid", "on")
title("Nitrate (mg/L)")
box
nexttile
boxchart(SO4.Area,SO4.R)
set(gca, "XGrid", "off", "YGrid", "on")
title("Sulfate (mg/L)")
ylim([2 3])
box
nexttile
boxchart(S2.Area,S2.R)
set(gca, "XGrid", "off", "YGrid", "on")
title("Sulfide (mg/L)")
box
nexttile
boxchart(S2H2S.Area,S2H2S.R)
set(gca, "XGrid", "off", "YGrid", "on")
title("Sulfide as H2S (mg/L)")
box
nexttile
boxchart(Fe2.Area,Fe2.R)
set(gca, "XGrid", "off", "YGrid", "on")
title("Ferrous Iron (mg/L)")
box
```

```
nexttile
boxchart(Mn.Area,Mn.R)
set(gca, "XGrid", "off", "YGrid", "on")
title("Manganese (mg/L)")
box
nexttile
boxchart(Alk.Area,Alk.R)
set(gca, "XGrid", "off", "YGrid", "on")
title("Alkalinity (mg/L)")
yscale("log")
box
nexttile
boxchart(CO2.Area,CO2.R)
set(gca, "XGrid", "off", "YGrid", "on")
title("Carbon Dioxide (mg/L)")
yscale("log")
box
nexttile
boxchart(Ethene.Area,Ethene.R)
set(gca, "XGrid", "off", "YGrid", "on")
title("Ethene (ug/L)")
box
nexttile
boxchart(Ethane.Area,Ethane.R)
set(gca, "XGrid", "off", "YGrid", "on")
title("Ethane (ug/L)")
box
nexttile
boxchart(Methane.Area,Methane.R)
set(gca, "XGrid", "off", "YGrid", "on")
title("Methane (ug/L)")
box
nexttile
boxchart(TOC.Area,TOC.R)
set(gca, "XGrid", "off", "YGrid", "on")
title("TOC (mg/L)")
box
```



2.2 Summary Tables

Chloride

```
Cltable = groupsummary(Cl,"Area",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x))},"R");
Cltable.Properties.VariableNames = ["Area","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95"]
```

```
Cltable = 2×19 table
```

...

	Area	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	N Area	9	8	1.7000	12	10.3000	4.9000	5	3.3067	10.9343	1.2053	3.7706	1	1.7600	2.2000	5	5.5500
2	S Area	20	20	2.4000	160	157.6000	39.8600	16	46.9908	2.2081e+03	1.1182	3.1004	0	2.6000	3.6000	16	85.5000

Nitrate

```
NO3table = groupsummary(NO3,"Area",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(NO3gt(x))},"R");
NO3table.Properties.VariableNames = ["Area","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","NO3<1"]
```

NO3table = 2×20 table

	Area	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	N Area	9	6	0.1600	0.8500	0.6900	0.6100	0.6800	0.2511	0.0630	-0.9959	2.7534	0	0.1940	0.5000	0.6800	0.7900
2	S Area	20	5	0.0230	0.1800	0.1570	0.0830	0.0480	0.0724	0.0052	0.4668	1.4297	0	0.0230	0.0238	0.0480	0.1500

Sulfate

```
SO4table = groupsummary(SO4,"Area",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(SO4lt(x))},"R");
SO4table.Properties.VariableNames = ["Area","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","SO4<=50"]
```

SO4table = 2×20 table

	Area	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	N Area	9	8	0.7600	30	29.2400	6.1050	2.4000	9.8701	97.4183	2.0882	5.6488	1	0.7660	1.4400	2.4000	5.2000
2	S Area	20	20	0.4800	43	42.5200	13.1440	9.7500	12.3841	153.3661	1.4865	4.1371	3	2.0500	5.3500	9.7500	14.5000

Sulfide

```
S2table = groupsummary(S2,"Area",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(S2gt(x))},"R");
S2table.Properties.VariableNames = ["Area","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","S2>1"]
```

S2table = 2×20 table

	Area	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	N Area	9	0	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	0	NaN	NaN	NaN	NaN
2	S Area	20	2	2.5000	2.6000	0.1000	2.5500	2.5500	0.0707	0.0050	1.3336e-14	1	0	2.5000	2.5000	2.5500	2.6000

Sulfide as Hydrogen Sulfide

```
S2H2Stable = groupsummary(S2H2S,"Area",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(S2H2Sgt(x))},"R");
S2H2Stable.Properties.VariableNames = ["Area","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","S2>1"]
```

S2H2Stable = 2×20 table

	Area	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	N Area	9	0	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	0	NaN	NaN	NaN	NaN

	Area	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
2	S Area	20	2	2.6000	2.7000	0.1000	2.6500	2.6500	0.0707	0.0050	-1.3336e-14	1	0	2.6000	2.6000	2.6500	2.7000

Ferrous Iron

```
Fe2table = groupsummary(Fe2,"Area",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(FE2gt(x))},"R");
Fe2table.Properties.VariableNames = ["Area","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","Fe2>1"]
```

Fe2table = 2×20 table

...

	Area	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	N Area	10	10	0.0100	2.2900	2.2800	0.3060	0.0950	0.7002	0.4903	2.6229	7.9747	1	0.0100	0.0300	0.0950	0.1700
2	S Area	21	21	0.0400	2.4200	2.3800	0.9690	0.7600	0.7356	0.5411	0.6809	2.6304	0	0.0700	0.4425	0.7600	1.3150

Manganese

```
Mntable = groupsummary(Mn,"Area",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x))},"R");
Mntable.Properties.VariableNames = ["Area","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95"]
```

Mntable = 2×19 table

...

	Area	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	N Area	9	9	3.6000	430	426.4000	99.7444	20	161.5464	2.6097e+04	1.3910	3.1085	2	4.7200	8.1250	20	123
2	S Area	20	20	25	290	265	114.2000	57	93.8900	8.8153e+03	0.7325	1.8734	0	31.5000	44.5000	57	215

Alkalinity

```
Alktable = groupsummary(Alk,"Area",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x))},"R");
Alktable.Properties.VariableNames = ["Area","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95"]
```

Alktable = 2×19 table

...

	Area	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	N Area	9	9	6.9000	950	943.1000	124.4333	14	310.0193	9.6112e+04	2.4618	7.0872	1	6.9400	11.5000	14	38
2	S Area	20	19	17	200	183	52.8421	44	39.9016	1.5921e+03	2.7475	10.9719	1	21.6000	31.2500	44	59.7500

Carbon Dioxide

```
CO2table = groupsummary(CO2,"Area",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x))},"R");
CO2table.Properties.VariableNames = ["Area","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95"]
```

`CO2table` = 2×19 table

...

	Area	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	N Area	9	9	21	190	169	60.4444	35	56.9059	3.2383e+03	1.4951	3.9636	1	21.4000	25	35	83.7500
2	S Area	20	18	6	140	134	65.7778	65	32.4990	1.0562e+03	0.3147	2.8509	0	30.1000	43	65	90

Ethene

```
Ethenetable = groupsummary(Ethene,"Area",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(Ethenegt(x))},"R");
Ethenetable.Properties.VariableNames = ["Area","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95",">10"]
```

`Ethenetable` = 2×20 table

...

	Area	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	N Area	9	2	1.6000	4.5000	2.9000	3.0500	3.0500	2.0506	4.2050	4.3701e-16	1	0	1.6000	1.6000	3.0500	4.5000
2	S Area	20	13	0.3400	380	379.6600	33.5192	1.8000	104.4680	1.0914e+04	3.1381	10.9319	2	0.7080	0.9275	1.8000	5.0500

Ethane

```
Ethanetable = groupsummary(Ethane,"Area",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(Ethanegt(x))},"R");
Ethanetable.Properties.VariableNames = ["Area","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95",">10"]
```

`Ethanetable` = 2×20 table

...

	Area	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	N Area	9	1	0.6600	0.6600	0	0.6600	0.6600	0	0	NaN	NaN	0	0.6600	0.6600	0.6600	0.6600
2	S Area	20	13	0.6500	33	32.3500	7.7777	2.6000	9.2972	86.4380	1.6168	5.1039	1	0.6580	1.4000	2.6000	12.2500

Methane

```
Methanetable = groupsummary(Methane,"Area",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(Methanegt(x))},"R");
```

```
Methanetable.Properties.VariableNames = ["Area","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95",">500"]
```

```
Methanetable = 2×20 table
```

...

	Area	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	N Area	9	7	0.6300	21000	2.0999e+04	7.1447e+03	5.3000	9.1713e+03	8.4113e+07	0.4690	1.4641	0	1.1040	3.1750	5.3000	14750
2	S Area	20	20	3.2000	11000	1.0997e+04	1.7057e+03	300	3.0665e+03	9.4036e+06	2.0076	5.9035	4	9.9500	28.5000	300	1455

Total Organic Carbon

```
TOCtable = groupsummary(TOC,"Area",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(TOCgt(x))},"R");
TOCtable.Properties.VariableNames = ["Area","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","TOC=>20"]
```

```
TOCtable = 2×20 table
```

...

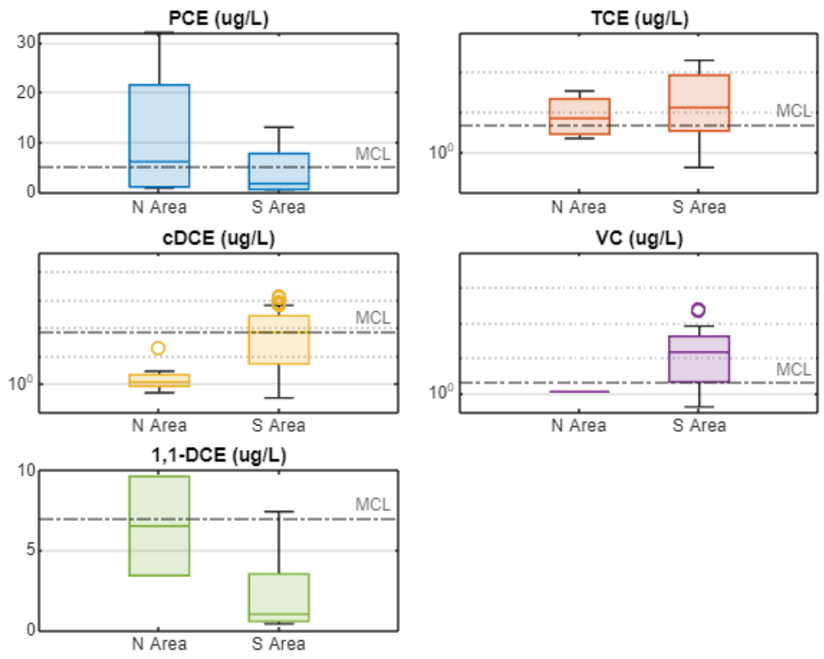
	Area	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	N Area	9	4	0.6000	450	449.4000	134.6500	44	211.7372	4.4833e+04	1.1063	2.2951	0	0.6000	13.3000	44	256
2	S Area	20	15	0.6400	34	33.3600	3.9500	1.3000	8.5534	73.1600	3.1863	11.6789	2	0.7100	0.8150	1.3000	1.8000

3.0 VOCs

3.1 VOC Box Plots

```
figure
t3=tiledlayout('flow');
t3.Padding="compact";
t3.TileSpacing='compact';
nexttile
boxchart(PCE.Area,PCE.R,"BoxFaceColor",'0 0.4470 0.7410','BoxEdgeColor','0 0.4470 0.7410','MarkerColor','0 0.4470 0.7410')
set(gca, "XGrid", "off", "YGrid", "on")
title("PCE (ug/L)")
yline(5,'-.','MCL',FontSize=8)
box
nexttile
boxchart(TCE.Area,TCE.R,"BoxFaceColor",'0.8500 0.3250 0.0980','MarkerColor','0.8500 0.3250 0.0980')
set(gca, "XGrid", "off", "YGrid", "on")
title("TCE (ug/L)")
yscale("log")
ylim([0.1 1000])
yline(5,'-.','MCL',FontSize=8)
box
nexttile
boxchart(cDCE.Area,cDCE.R,"BoxFaceColor",'0.9290 0.6940 0.1250','MarkerColor','0.9290 0.6940 0.1250')
set(gca, "XGrid", "off", "YGrid", "on")
```

```
title("cDCE (ug/L)")
yscale("log")
ylim([0.1 50000])
yline(70,'-.','MCL',FontSize=8)
box
nexttile
boxchart(VC.Area,VC.R,"BoxFaceColor",'0.4940 0.1840 0.5560','MarkerColor','0.4940 0.1840 0.5560')
set(gca, "XGrid", "off", "YGrid", "on")
title("VC (ug/L)")
yscale("log")
ylim([0.3 10000])
yline(2,'-.','MCL',FontSize=8)
box
nexttile
boxchart(DCE11.Area,DCE11.R,"BoxFaceColor",'0.47 0.67 0.19','MarkerColor','0.47 0.67 0.19')
set(gca, "XGrid", "off", "YGrid", "on")
title("1,1-DCE (ug/L)")
yline(7,'-.','MCL',FontSize=8)
box
```



3.2 VOC Summary Tables

Tetrachloroethene

```
PCEtable = groupsummary(PCE,"Area",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
```

```
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(MCL5gt(x))},"R");
PCEtable.Properties.VariableNames = ["Area","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","PCE>5"]
```

PCEtable = 2×20 table

...

	Area	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	N Area	12	4	0.8000	32	31.2000	11.2500	6.1000	14.6154	213.6100	0.8356	2.0212	0	0.8000	1	6.1000	21.5000
2	S Area	34	8	0.4200	13	12.5800	4.1612	1.7000	4.7256	22.3316	0.8632	2.3113	0	0.4500	0.5350	1.7000	7.7000

Trichloroethene

```
TCEtable = groupsummary(TCE,"Area",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(MCL5gt(x))},"R");
TCEtable.Properties.VariableNames = ["Area","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","TCE>5"]
```

TCEtable = 2×20 table

...

	Area	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	N Area	12	9	2.2000	34	31.8000	12.6667	7	12.6707	160.5475	0.8454	2.1169	0	2.2400	2.8250	7	21.5000
2	S Area	34	26	0.4100	200	199.5900	46.6135	13	59.9886	3.5986e+03	1.1556	3.0060	0	1.3900	3.4000	13	84

cis-1,2-dichloroethene

```
cDCEtable = groupsummary(cDCE,"Area",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(MCL70gt(x))},"R");
cDCEtable.Properties.VariableNames = ["Area","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","cDCE>70"]
```

cDCEtable = 2×20 table

...

	Area	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	N Area	12	8	0.4700	20	19.5300	3.5688	1.1400	6.6772	44.5846	2.2183	6.0120	1	0.5330	0.8000	1.1400	2.1000
2	S Area	34	27	0.3100	1300	1.2997e+03	248.8741	68	388.0341	1.5057e+05	1.5966	4.2053	5	0.5420	5.1250	68	267.5000

Vinyl Chloride

```
VCtable = groupsummary(VC,"Area",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(MCL2gt(x))},"R");
VCtable.Properties.VariableNames = ["Area","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","VC>2"]
```

VCtable = 2×20 table

	Area	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	N Area	12	1	1.1000	1.1000	0	1.1000	1.1000	0	0	NaN	NaN	0	1.1000	1.1000	1.1000	1.1000
2	S Area	34	22	0.4100	250	249.5900	38.0532	14.5000	67.2024	4.5162e+03	2.4301	7.6655	2	0.7850	2.1000	14.5000	41

1,1-Dichloroethene

```
DCE11table = groupsummary(DCE11,"Area",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(MCL7gt(x))},"R");
DCE11table.Properties.VariableNames = ["Area","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","11DCE>7"]
```

`DCE11table = 2×20 table`

	Area	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	N Area	12	2	3.4000	9.6000	6.2000	6.5000	6.5000	4.3841	19.2200	-2.3851e-16	1.0000	0	3.4000	3.4000	6.5000	9.6000
2	S Area	34	14	0.3700	7.4000	7.0300	2.2007	0.9800	2.4381	5.9443	1.1968	2.8166	0	0.3790	0.5300	0.9800	3.5000

Standard Color Ramp

Hex Color Reference Codes

- PCE 0 0.45 074
- TCE 0.85 0.33 0.1
- cDCE 0.93 0.69 0.13
- VC 0.49 0.18 0.56
- 1,1-DCE 0.47 0.67 0.19
- DCM 0.3 0.75 0.93
- 1,1,2-TCA blue
- 1,1,1-TCA 0.3 0.75 0.93
- 1,2-DCA 0.75 0.75 0
- CT cyan
- 1,4-DCB 0.64 0.08 0.18
- CB 0.68 0.92 1
- Benzene 0.69 0.08 0.18
- TOC 0.87 0.49 0
- DHC 0.87 0.49 0
- tceA 1 0.84 0
- VCR 1 0.6 0.78
- BCV 0.75 0.75 0

Function Coding Reference

Group Statistics Standard Functions

- "sum" Sum
- "mean" Mean
- "median" Median
- "mode" Mode
- "var" Variance
- "std" Standard deviation
- "min" Minimum
- "max" Maximum
- "range" Maximum minus minimum
- "nummissing" Number of missing elements
- "numunique" Number of distinct nonmissing elements
- "nnz" Number of nonzero and non-NaN elements
- "all" All computations previously listed

Group Descriptive Statistics Functions

- **Outliers**
- **10th, 25th, 50th, 75th, 90th, and 95th percentile**
- **Skewness, Kurtosis**
- **Greater than specified limit**

```
% Is outlier function
function y = outlier(x)
% Count the number of outliers in each group
y = nnz(isoutlier(x,'quartiles'));
end

% 10th percentile function
function y = prctile10(x)
%Distribution 10th percentile
y = (prctile(x,10));
end

%25th percentile function
function y = prctile25(x)
%Distribution 25th percentile
y = (prctile(x,25));
end

%Distribution 50th percentile function
function y = prctile50(x)
%Distribution 50th percentile
y = (prctile(x,50));
end
```

```
%75th percentile function
function y = prctile75(x)
%Distribution 75th percentile
y = (prctile(x,75));
end

%90th percentile function
function y = prctile90(x)
%Distribution 90th percentile
y = (prctile(x,90));
end

%95th percentile function
function y = prctile95(x)
%Distribution 95th percentile
y = (prctile(x,95));
end

%25 and 75th percentile function
function y = prct25_75(x)
% x is the data in a group from one computation variable
% Distribution 25th and 75th percentile
y = (prctile(x,[25 75]));
end
```

```
%skewness function
function y = skew(x)
%Distribution skewness
y= (skewness(x));
end

%skewness function
function y = kurt(x)
%Distribution skewness
y= (kurtosis(x));
end

%Group count >MCL 5
function y = MCL5gt(x)
%Group counts for greater than a limit
y= sum(x>5);
end

%Group count >MCL 2
function y = MCL2gt(x)
%Group counts for greater than a limit
y= sum(x>2);
end
```

```
%Group count >MCL 7
function y = MCL7gt(x)
%Group counts for greater than a limit
y= sum(x>7);
end

%Group count >MCL 70
function y = MCL70gt(x)
%Group counts for greater than a limit
y= sum(x>70);
end

%Group count >MCL 75
function y = MCL75gt(x)
%Group counts for greater than a limit
y= sum(x>75);
end

%Group count >MCL 2
function y = MCL100gt(x)
%Group counts for greater than a limit
y= sum(x>100);
end

%Group count >MCL 200
function y = MCL200gt(x)
%Group counts for greater than a limit
y= sum(x>200);
end

%Group count >MCL 0.05
function y = MCLNeg5E2gt(x)
%Group counts for greater than a limit
y= sum(x>0.05);
end

%Group count <pH 5
function y = pH5lt(x)
%Group counts for greater than a limit
y= sum(x<5);
end

%Group count <=DO 1
function y = DOlt(x)
%Group counts for greater than a limit
y= sum(x<=1);
end

%Group count <=ORP 50
function y = ORPlt(x)
```

```
%Group counts for greater than a limit
y= sum(x<=-50);
end

%Group count <=Sulfate 50
function y = SO4lt(x)
%Group counts for greater than a limit
y= sum(x<50);
end

%Group count <=Sulfide 1
function y = S2gt(x)
%Group counts for greater than a limit
y= sum(x>1);
end

%Group count <=Sulfide H2S 1
function y = S2H2Sgt(x)
%Group counts for greater than a limit
y= sum(x>1);
end

%Group count TOC=>20
function y = TOCgt(x)
%Group counts for greater than a limit
y= sum(x>=20);
end

%Group count Methane=>500
function y = Methanegt(x)
%Group counts for greater than a limit
y= sum(x>=500);
end

%Group count Fe2=>1
function y = FE2gt(x)
%Group counts for greater than a limit
y= sum(x>=1);
end

%Group count Ethene=>10
function y = Ethenegt(x)
%Group counts for greater than a limit
y= sum(x>=10);
end

%Group count Ethane=>10
function y = Ethanegt(x)
%Group counts for greater than a limit
y= sum(x>=10);
```

```
end

%Group count NO3=<1
function y = NO3gt(x)
%Group counts for greater than a limit
y= sum(x<1);
end
```

E.3 2018-2024 Plume Distribution Analysis

OU 6 2019-2024 Surficial Aquifer - Group GW Statistical Summary

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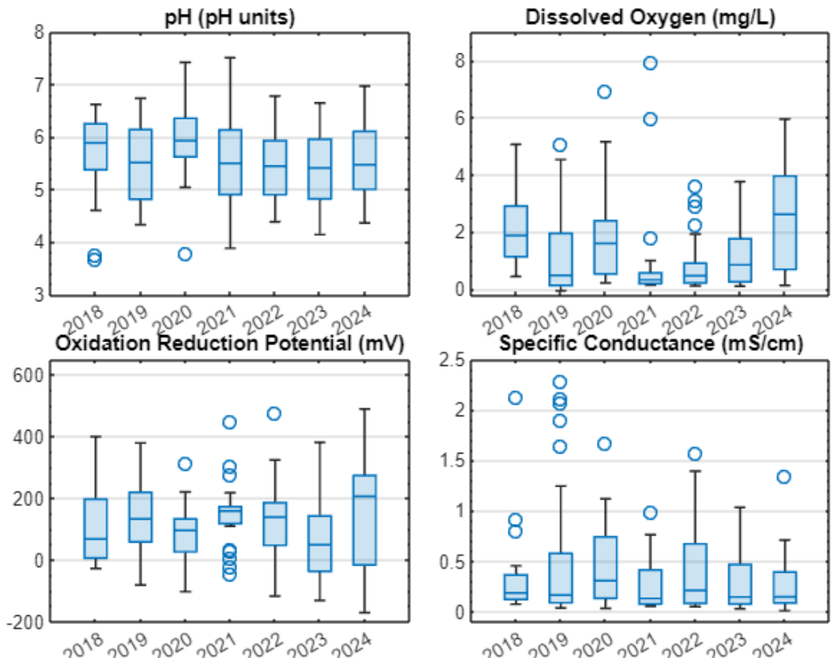
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1.0 Water Quality Parameters

1.1 Distribution Box Plots Annual (Surficial Aquifer: Northern Area)

```
figure
t1=tiledlayout('flow');
t1.Padding="compact";
t1.TileSpacing='compact';
nexttile
boxchart(pHNA.Year,pHNA.R)
ylim([3 8])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'linear',...
    'YTick', [3 4 5 6 7 8]);
title("pH (pH units)")
box
nexttile
boxchart(DONA.Year,DONA.R)
set(gca, "XGrid", "off", "YGrid", "on")
ylim([-0.2 9])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'linear',...
    'YTick', [0 2 4 6 8]);
title("Dissolved Oxygen (mg/L)")
box
nexttile
boxchart(ORPNA.Year,ORPNA.R)
set(gca, "XGrid", "off", "YGrid", "on")
ylim([-200 650])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'linear',...
    'YTick', [-200 0 200 400 600]);
title("Oxidation Reduction Potential (mV)")
box
nexttile
boxchart(SCNA.Year,SCNA.R)
set(gca, "XGrid", "off", "YGrid", "on")
ylim([-0.1 2.5])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'linear',...
    'YTick', [0 0.5 1 1.5 2.0 2.5]);
title("Specific Conductance (mS/cm)")
box
```



2.1 Water Quality Parameter Summary Tables

pH Annual Northern Area (Surficial Aquifer)

```
pH_NAtableAnnual = groupsummary(pHNA,"Year",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(pH5lt(x))},"R");
pH_NAtableAnnual.Properties.VariableNames = ["Year","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","<pH 5"]
```

pH_NAtableAnnual = 7×20 table

...

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	2018	16	16	3.6700	6.6200	2.9500	5.5938	5.8900	0.8904	0.7928	-1.1205	3.1990	2	3.8440	5.3750	5.8900	6.2500
2	2019	48	48	0.1400	6.7400	6.6000	5.3779	5.5150	1.0368	1.0749	-2.6634	14.5156	1	4.4700	4.8150	5.5150	6.1400
3	2020	25	25	3.7700	7.4200	3.6500	5.9708	5.9300	0.7611	0.5793	-0.5605	4.2684	1	5.2000	5.6200	5.9300	6.3575
4	2021	33	33	3.8800	7.5100	3.6300	5.5576	5.5000	0.8612	0.7417	0.2216	2.4051	0	4.5320	4.9025	5.5000	6.1375
5	2022	42	42	4.3800	6.7800	2.4000	5.4736	5.4450	0.6246	0.3902	0.2369	2.1048	0	4.7070	4.9000	5.4450	5.9300
6	2023	41	41	4.1400	6.6500	2.5100	5.3661	5.4100	0.7261	0.5272	0.1225	1.9674	0	4.3560	4.8200	5.4100	5.9550
7	2024	39	39	4.3600	6.9700	2.6100	5.5382	5.4700	0.6494	0.4218	0.0835	2.0924	0	4.8300	5.0025	5.4700	6.1050

pH Annual Southern Area (Surficial Aquifer)

```
pH_SAtableAnnual = groupsummary(pHNA,"Year",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(pH5lt(x))},"R");
pH_SAtableAnnual.Properties.VariableNames = ["Year","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","<pH 5"]
```

pH_SAtableAnnual = 7×20 table

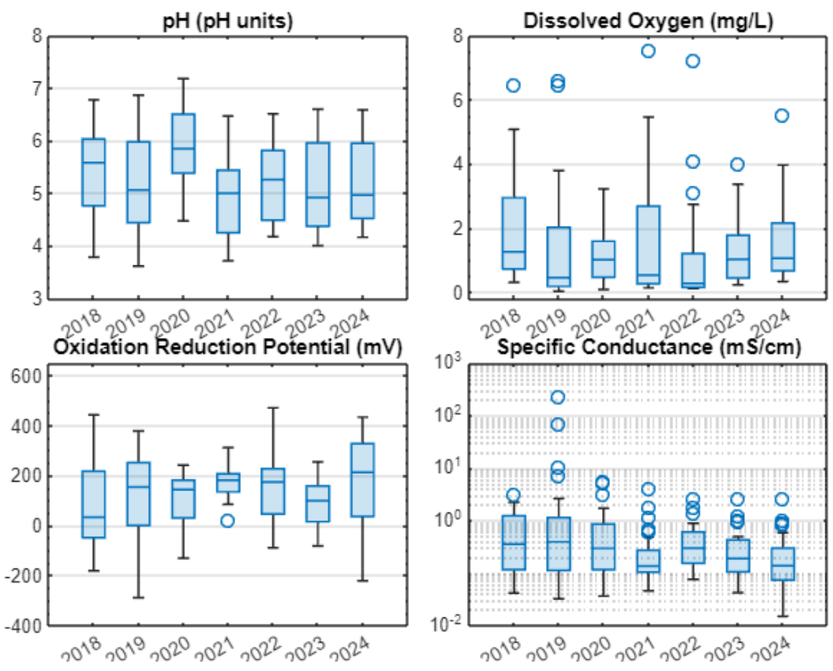
...

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	2018	16	16	3.6700	6.6200	2.9500	5.5938	5.8900	0.8904	0.7928	-1.1205	3.1990	2	3.8440	5.3750	5.8900	6.2500
2	2019	48	48	0.1400	6.7400	6.6000	5.3779	5.5150	1.0368	1.0749	-2.6634	14.5156	1	4.4700	4.8150	5.5150	6.1400
3	2020	25	25	3.7700	7.4200	3.6500	5.9708	5.9300	0.7611	0.5793	-0.5605	4.2684	1	5.2000	5.6200	5.9300	6.3575
4	2021	33	33	3.8800	7.5100	3.6300	5.5576	5.5000	0.8612	0.7417	0.2216	2.4051	0	4.5320	4.9025	5.5000	6.1375
5	2022	42	42	4.3800	6.7800	2.4000	5.4736	5.4450	0.6246	0.3902	0.2369	2.1048	0	4.7070	4.9000	5.4450	5.9300
6	2023	41	41	4.1400	6.6500	2.5100	5.3661	5.4100	0.7261	0.5272	0.1225	1.9674	0	4.3560	4.8200	5.4100	5.9550
7	2024	39	39	4.3600	6.9700	2.6100	5.5382	5.4700	0.6494	0.4218	0.0835	2.0924	0	4.8300	5.0025	5.4700	6.1050

1.1 Distribution Box Plots Annual (Surficial Aquifer: Southern Area)

```
figure
t2=tiledlayout('flow');
t2.Padding="compact";
t2.TileSpacing='compact';
nexttile
boxchart(pHSA.Year,pHSA.R)
ylim([3 8])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'linear',...
    'YTick', [3 4 5 6 7 8]);
title("pH (pH units)")
box
nexttile
boxchart(DOSA.Year,DOSA.R)
set(gca, "XGrid", "off", "YGrid", "on")
ylim([-0.2 8])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'linear',...
    'YTick', [0 2 4 6 8]);
title("Dissolved Oxygen (mg/L)")
box
nexttile
boxchart(ORPSA.Year,ORPSA.R)
set(gca, "XGrid", "off", "YGrid", "on")
ylim([-400 650])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'linear',...
    'YTick', [-400 -200 0 200 400 600]);
title("Oxidation Reduction Potential (mV)")
box
nexttile
```

```
boxchart(SCSA.Year,SCSA.R)
ylim([0.01 1000])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'log',...
    'YTick', [0.01 1 10 100 1000]);
title("Specific Conductance (mS/cm)")
box
```



DO Annual Northern Area (Surficial Aquifer)

```
DO_NAtableAnnual = groupsummary(DONA,"Year",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(DOlt(x))},"R");
DO_NAtableAnnual.Properties.VariableNames = ["Year","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","<=DO 1"]
```

DO_NAtableAnnual = 7×20 table

...

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	2018	16	16	0.4300	5.0700	4.6400	2.1587	1.8650	1.4053	1.9748	0.6739	2.4458	0	0.4840	1.1200	1.8650	2.9000
2	2019	48	48	-0.0700	9.1500	9.2200	1.2790	0.4650	1.8217	3.3186	2.1876	8.6537	2	0.0560	0.1200	0.4650	1.9400
3	2020	25	25	0.2000	15.7000	15.5000	2.3032	1.5900	3.2105	10.3075	3.1653	13.4258	2	0.3200	0.5150	1.5900	2.3850
4	2021	33	33	0.1300	7.9200	7.7900	0.8067	0.3100	1.6361	2.6768	3.5806	14.7272	3	0.1480	0.1775	0.3100	0.5525
5	2022	42	42	0.1000	3.6100	3.5100	0.7748	0.4600	0.8526	0.7269	1.9028	5.9105	4	0.1440	0.2000	0.4600	0.9000

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
6	2023	41	41	0.0900	11	10.9100	1.3283	0.8400	1.8283	3.3425	3.7977	20.3010	1	0.1660	0.2425	0.8400	1.7575
7	2024	39	39	0.1200	5.9500	5.8300	2.5895	2.6100	1.8018	3.2464	0.2569	1.8779	0	0.4440	0.6750	2.6100	3.9500

DO Annual Southern Area (Surficial Aquifer)

```
DO_SAtableAnnual = groupsummary(DO,"Year",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(DOlt(x))},"R");
DO_SAtableAnnual.Properties.VariableNames = ["Year","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","<=DO 1"]
```

DO_SAtableAnnual = 7×20 table

...

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	2018	43	43	0.2900	6.4700	6.1800	2.0195	1.4100	1.6025	2.5681	1.0261	3.0317	1	0.4460	0.7900	1.4100	2.9275
2	2019	95	95	-0.0700	9.1500	9.2200	1.2357	0.4400	1.6938	2.8690	2.1081	8.1361	4	0.0600	0.1425	0.4400	2.0125
3	2020	58	58	0.0700	15.7000	15.6300	1.6343	1.2550	2.2465	5.0465	4.5973	28.1575	3	0.2710	0.4700	1.2550	1.8500
4	2021	62	62	0.1200	7.9200	7.8000	1.1827	0.3950	1.8027	3.2496	2.2753	7.6105	12	0.1500	0.1900	0.3950	0.9800
5	2022	71	71	0.1000	7.2200	7.1200	0.8846	0.4300	1.1869	1.4087	2.9016	13.5931	7	0.1300	0.1925	0.4300	1.0200
6	2023	71	71	0.0900	11	10.9100	1.2961	0.9800	1.5259	2.3283	3.8853	24.2410	2	0.1920	0.3000	0.9800	1.7550
7	2024	69	69	0.1200	5.9500	5.8300	2.1652	1.7700	1.6733	2.8000	0.6697	2.2901	0	0.4680	0.6575	1.7700	3.2550

ORP Annual Northern Area (Surficial Aquifer)

```
ORP_NAtableAnnual = groupsummary(ORPNA,"Year",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(ORPlt(x))},"R");
ORP_NAtableAnnual.Properties.VariableNames = ["Year","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","ORP<-50"]
```

ORP_NAtableAnnual = 7×20 table

...

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	2018	16	16	-28	399	427	106.0625	67.5000	135.8816	1.8464e+04	1.0783	3.0808	0	-22.3000	6	67.5000	196.5000
2	2019	48	48	-81.6000	378.8000	460.4000	135.1146	132.8000	108.8533	1.1849e+04	-0.0922	2.2827	0	-21.2400	58.1000	132.8000	218.5500
3	2020	25	25	-103.1000	313.4000	416.5000	78.3840	95.7000	102.3307	1.0472e+04	-0.0052	2.8141	1	-85.8000	26.1000	95.7000	132.5750
4	2021	33	33	-47.6000	449	496.6000	149.9094	157.9000	90.8700	8.2574e+03	0.5728	5.7012	8	24.3020	117.7000	157.9000	172.6500
5	2022	42	42	-117.6000	474.2000	591.8000	123.9405	138.5500	115.6947	1.3385e+04	0.1720	3.9395	1	-43.0600	47	138.5500	185.4000
6	2023	41	41	-131.2000	380.4000	511.6000	62.3951	49.3000	118.5104	1.4045e+04	0.5543	2.8771	0	-81.9200	-37.1500	49.3000	142.0750
7	2024	39	39	-171.2000	488.8000	660	154.5282	206.3000	168.5222	2.8400e+04	-0.3746	2.0620	0	-82.2200	-15.9750	206.3000	273.5000

ORP Event Southern Area (Surficial Aquifer)

```
ORP_SAtableAnnual = groupsummary(ORPSA,"Year",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(ORPlt(x))},"R");
ORP_SAtableAnnual.Properties.VariableNames = ["Year","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","ORP<-50"]
```

ORP_SAtableAnnual = 7×20 table

...

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	2018	27	26	-182	442	624	83.8462	33	169.6777	2.8791e+04	0.5211	2.3808	0	-99.2000	-50	33	216
2	2019	47	47	-290	377.8000	667.8000	119.5319	153.1000	152.8436	2.3361e+04	-0.4539	2.4591	0	-59.8200	-0.4750	153.1000	251.2750
3	2020	33	33	-131.1000	240.6000	371.7000	107.4333	143.2000	97.2782	9.4631e+03	-0.6382	2.4077	0	-21.3600	29.8000	143.2000	180.2000
4	2021	29	29	21	311.6000	290.6000	173.7759	180	63.3469	4.0128e+03	-0.0614	3.3079	1	91.2000	133.7250	180	206.6000
5	2022	29	29	-89.9000	470.1000	560	147.2379	173.1000	126.2839	1.5948e+04	0.0760	3.0217	0	-28.8000	45.6500	173.1000	226.4000
6	2023	30	30	-82.5000	254.2000	336.7000	80.3700	98.8500	89.5420	8.0178e+03	-0.2072	2.1136	0	-51.9500	14.5000	98.8500	157.5000
7	2024	30	30	-221.7000	432.8000	654.5000	188.6967	212.3500	170.8259	2.9181e+04	-0.3749	2.3868	0	-21.3500	35.9000	212.3500	327.1000

Specific Conductance Annual Northern Area (Surficial Aquifer)

```
SC_NAtableAnnual = groupsummary(SCNA,"Year",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x))},"R");
SC_NAtableAnnual.Properties.VariableNames = ["Year","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95"]
```

SC_NAtableAnnual = 7×19 table

...

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	2018	16	16	0.0720	2.1200	2.0480	0.3913	0.1855	0.5235	0.2740	2.4991	8.6017	3	0.0991	0.1190	0.1855	0.3625
2	2019	48	48	0.0337	2.2787	2.2450	0.4698	0.1639	0.6171	0.3808	1.7116	4.7885	5	0.0709	0.0860	0.1639	0.5770
3	2020	25	25	0.0320	5.4630	5.4310	0.8025	0.3040	1.4569	2.1227	2.7202	9.0740	3	0.0450	0.1300	0.3040	0.7400
4	2021	33	33	0.0530	3.4700	3.4170	0.3288	0.1290	0.6104	0.3726	4.3435	22.6776	2	0.0622	0.0727	0.1290	0.4115
5	2022	42	42	0.0480	3.7800	3.7320	0.5200	0.2075	0.7300	0.5329	2.7568	11.5988	3	0.0614	0.0820	0.2075	0.6700
6	2023	41	41	0.0270	2.5390	2.5120	0.3194	0.1430	0.4501	0.2026	3.2253	15.6077	1	0.0444	0.0735	0.1430	0.4665
7	2024	39	39	0.0079	1.3410	1.3331	0.2697	0.1460	0.2737	0.0749	1.8803	7.1463	1	0.0550	0.0850	0.1460	0.3898

Specific Conductance Event Southern Area (Surficial Aquifer)

```
SC_SAtableAnnual = groupsummary(SCSA,"Year",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x))},"R");
SC_SAtableAnnual.Properties.VariableNames = ["Year","Count","NNZ","Min","Max","Range","Mean","Median",...
```

```
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95"]
```

SC_SAtableAnnual = 7×19 table

...

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	2018	27	27	0.0410	3.0900	3.0490	0.7954	0.3520	0.7860	0.6177	1.0851	3.7751	1	0.0926	0.1148	0.3520	1.2275
2	2019	47	47	0.0320	222.1000	222.0680	7.1103	0.3890	33.6640	1.1333e+03	5.8646	37.2322	4	0.0753	0.1108	0.3890	1.1345
3	2020	33	33	0.0360	5.4400	5.4040	0.7902	0.2930	1.3289	1.7660	2.6586	9.1911	3	0.0606	0.1148	0.2930	0.8500
4	2021	29	29	0.0450	3.9500	3.9050	0.4144	0.1350	0.7778	0.6050	3.6119	16.2151	5	0.0614	0.1033	0.1350	0.2680
5	2022	29	29	0.0750	2.5370	2.4620	0.4919	0.2960	0.5577	0.3110	2.2503	7.9814	3	0.1034	0.1525	0.2960	0.6025
6	2023	30	30	0.0420	2.5690	2.5270	0.3842	0.1880	0.5325	0.2835	2.7028	10.6986	5	0.0670	0.1040	0.1880	0.4260
7	2024	30	30	0.0147	2.6580	2.6433	0.4042	0.1370	0.6532	0.4267	2.6879	9.3944	5	0.0445	0.0730	0.1370	0.2960

Temperature Annual Northern Area (Surficial Aquifer)

```
Temp_NAtableAnnual = groupsummary(TempNA,"Year",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x))},"R");
Temp_NAtableAnnual.Properties.VariableNames = ["Year","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95"]
```

Temp_NAtableAnnual = 7×19 table

...

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	2018	17	17	13.7700	17.8800	4.1100	15.9388	15.6800	1.2468	1.5546	-0.1479	2.0020	0	14.0660	15.1725	15.6800	16.9075
2	2019	40	40	12.9120	20.2600	7.3480	16.5125	16.0700	1.9979	3.9917	0.1815	2.0777	0	14.2485	14.9030	16.0700	18.0975
3	2020	27	27	12.9000	20.4000	7.5000	17.3630	17.8000	1.6791	2.8193	-0.6917	3.5775	1	14.9800	16.5000	17.8000	18.3750
4	2021	33	33	16.2000	21.3000	5.1000	19.3167	19.5000	0.9917	0.9835	-0.9406	4.6874	2	18.1800	18.9750	19.5000	20
5	2022	42	42	15.1000	19.8000	4.7000	17.8310	17.7000	0.9812	0.9627	-0.1416	3.5246	1	16.7100	17.3000	17.7000	18.3000
6	2023	41	41	15.9000	20	4.1000	18.0410	17.9200	0.8883	0.7890	0.1069	2.7968	0	17.0080	17.4675	17.9200	18.6025
7	2024	39	39	15.6000	22.4000	6.8000	18.6872	18.6000	1.2306	1.5143	0.5723	4.7386	3	17.3400	18.2000	18.6000	19.2000

Temperature Annual Southern Area (Surficial Aquifer)

```
Temp_SAtableAnnual = groupsummary(TempSA,"Year",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x))},"R");
Temp_SAtableAnnual.Properties.VariableNames = ["Year","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95"]
```

Temp_SAtableAnnual = 7×19 table

...

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	2018	26	26	11.5900	23.7300	12.1400	15.5877	15.5950	2.4849	6.1747	1.0282	5.6973	1	12.4090	14.6800	15.5950	16.7700
2	2019	55	55	10.3800	20.7700	10.3900	15.7012	15.9990	2.3062	5.3187	-0.2314	2.6874	0	12.9000	14.3760	15.9990	17.2658
3	2020	31	31	9.7000	21	11.3000	16.5242	16.6000	2.3075	5.3245	-0.3607	4.2711	3	14.1200	15.0500	16.6000	17.1875
4	2021	29	29	13.2000	21.4000	8.2000	17.7524	18.1000	2.5166	6.3332	-0.3890	1.8956	0	14.1400	15.7000	18.1000	19.7750
5	2022	29	29	13.4000	20.6000	7.2000	16.7517	16.9000	1.9248	3.7047	-0.0528	2.2189	0	13.8800	15.4000	16.9000	18.4000
6	2023	30	30	14.4000	22.2200	7.8200	17.9357	18.0250	2.1016	4.4165	0.1477	2.0335	0	15.4800	16.3000	18.0250	19.5300
7	2024	30	30	14.9000	22.1000	7.2000	17.8300	18	1.8775	3.5249	0.1278	2.2363	0	15.3000	16.1000	18	19.4000

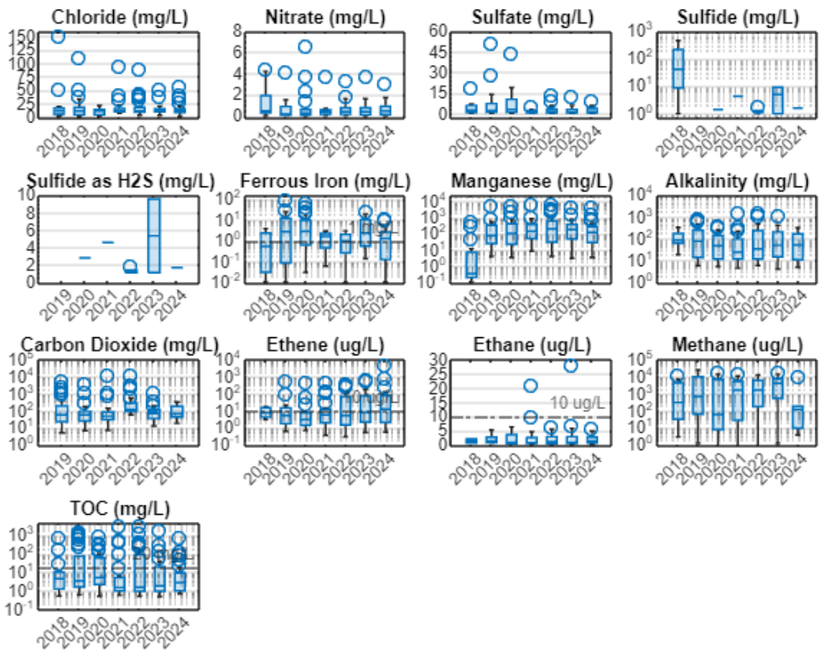
2.0 Geochemical Parameters

2.1 Geochemical Box Plots - Annual (Surficial Aquifer: Northern Area)

```
figure
t3=tiledlayout('flow');
t3.Padding="compact";
t3.TileSpacing='compact';
nexttile
boxchart(ClNA.Year,ClNA.R)
ylim([-2 160])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'linear',...
    'YTick', [0 25 50 75 100 125 150]);
title("Chloride (mg/L)")
box
nexttile
boxchart(NO3NA.Year,NO3NA.R)
ylim([-.2 8])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'linear',...
    'YTick', [0 2 4 6 8]);
title("Nitrate (mg/L)")
box
nexttile
boxchart(SO4NA.Year,SO4NA.R)
set(gca, "XGrid", "off", "YGrid", "on")
ylim([-3 60])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'linear',...
    'YTick', [0 15 30 45 60]);
title("Sulfate (mg/L)")
box
nexttile
boxchart(S2NA.Year,S2NA.R)
ylim([0.7 1000])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'log',...
    'YTick', [1 10 100 1000]);
title("Sulfide (mg/L)")
box
```

```
nexttile
boxchart(S2H2SNA.Year,S2H2SNA.R)
ylim([0 10])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'linear',...
    'YTick', [0 2 4 6 8 10]);
title("Sulfide as H2S (mg/L)")
box
nexttile
boxchart(Fe2NA.Year,Fe2NA.R)
ylim([0.01 150])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'log',...
    'YTick', [0.01 0.1 1 10 100]);
title("Ferrous Iron (mg/L)")
yline(1,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','right','Label','1 mg/L',fontsize=8);
box
nexttile
boxchart(MnNA.Year,MnNA.R)
ylim([0.1 25000])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'log',...
    'YTick', [0.1 1 10 100 1000 10000]);
title("Manganese (mg/L)")
box
nexttile
boxchart(AlkNA.Year,AlkNA.R)
ylim([1 10000])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'log',...
    'YTick', [1 10 100 1000 10000]);
title("Alkalinity (mg/L)")
box
nexttile
boxchart(CO2NA.Year,CO2NA.R)
ylim([1 100000])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'log',...
    'YTick', [1 10 100 1000 10000 100000]);
title("Carbon Dioxide (mg/L)")
box
nexttile
boxchart(EtheneNA.Year,EtheneNA.R)
ylim([0.1 10000])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'log',...
    'YTick', [0.1 1 10 100 1000 10000]);
title("Ethene (ug/L)")
yline(10,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','right','Label','10 ug/L',fontsize=8);
box
nexttile
boxchart(EthaneNA.Year,EthaneNA.R)
ylim([0 30])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'linear',...
```

```
    'YTick', [0 5 10 15 20 25 30]);
title("Ethane (ug/L)")
yline(10,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','right','Label','10 ug/L',fontsize=8);
box
nexttile
boxchart(MethaneNA.Year,MethaneNA.R)
ylim([1 100000])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'log',...
    'YTick', [1 10 100 1000 10000 100000]);
title("Methane (ug/L)")
box
nexttile
boxchart(TOCNA.Year,TOCNA.R)
ylim([0.1 10000])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'log',...
    'YTick', [0.1 1 10 100 1000 10000]);
title("TOC (mg/L)")
yline(20,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','right','Label','20 mg/L',fontsize=8);
box
```

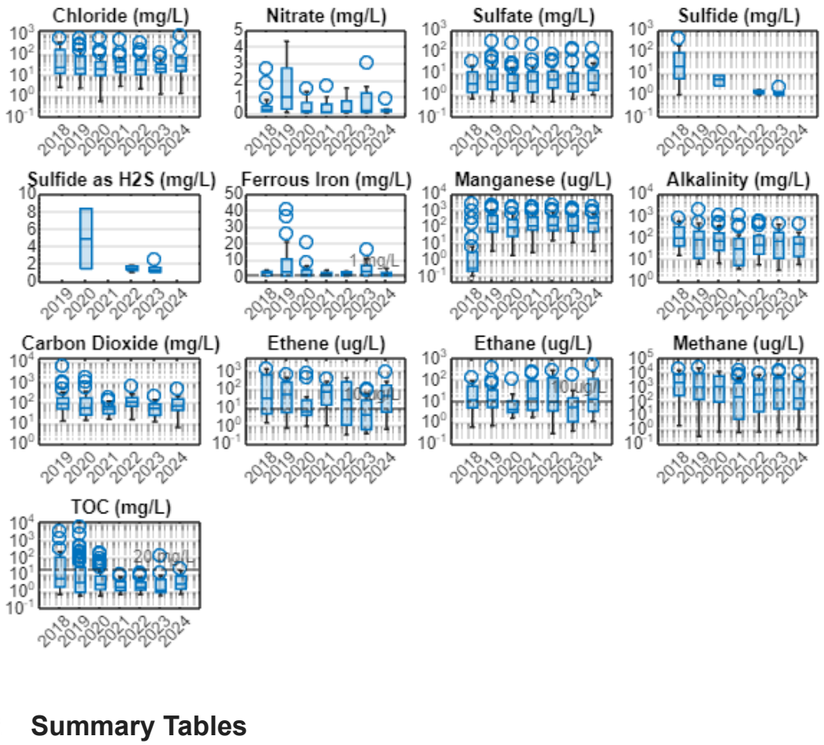


2.2 Geochemical Box Plots - Annual (Surficial Aquifer: Southern Area)

```
figure
t4=tiledlayout('flow');
t4.Padding="compact";
t4.TileSpacing='compact';
nexttile
boxchart(ClSA.Year,ClSA.R)
ylim([0.1 1500])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'log',...
    'YTick', [0.1 1 10 100 1000]);
title("Chloride (mg/L)")
box
nexttile
boxchart(NO3SA.Year,NO3SA.R)
ylim([-0.2 5])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'linear',...
    'YTick', [0 1 2 3 4 5]);
title("Nitrate (mg/L)")
box
nexttile
boxchart(SO4SA.Year,SO4SA.R)
ylim([0.1 1000])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'log',...
    'YTick', [0.1 1 10 100 1000]);
title("Sulfate (mg/L)")
box
nexttile
boxchart(S2SA.Year,S2SA.R)
ylim([0.1 1000])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'log',...
    'YTick', [0.1 1 10 100 1000]);
title("Sulfide (mg/L)")
box
nexttile
boxchart(S2H2SSA.Year,S2H2SSA.R)
ylim([0 10])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'linear',...
    'YTick', [0 2 4 6 8 10]);
title("Sulfide as H2S (mg/L)")
box
nexttile
boxchart(Fe2SA.Year,Fe2SA.R)
ylim([-3 50])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'linear',...
    'YTick', [0 10 20 30 40 50]);
yline(1,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','right','Label','1 mg/L',fontsize=8);
title("Ferrous Iron (mg/L)")
box
nexttile
boxchart(MnSA.Year,MnSA.R)
```

```
ylim([0.05 10000])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'log',...
    'YTick', [0.1 1 10 100 1000 10000]);
title("Manganese (ug/L)")
box
nexttile
boxchart(AlkSA.Year,AlkSA.R)
ylim([1 10000])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'log',...
    'YTick', [1 10 100 1000 10000]);
title("Alkalinity (mg/L)")
box
nexttile
boxchart(CO2SA.Year,CO2SA.R)
ylim([1 15000])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'log',...
    'YTick', [1 10 100 1000 10000]);
title("Carbon Dioxide (mg/L)")
box
nexttile
boxchart(EtheneSA.Year,EtheneSA.R)
ylim([0.1 5000])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'log',...
    'YTick', [0.1 1 10 100 1000]);
yline(10,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','right','Label','10 ug/L',fontsize=8);
title("Ethene (ug/L)")
box
nexttile
boxchart(EthaneSA.Year,EthaneSA.R)
ylim([0.1 1000])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'log',...
    'YTick', [0.1 1 10 100 1000]);
yline(10,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','right','Label','10 ug/L',fontsize=8);
title("Ethane (ug/L)")
box
nexttile
boxchart(MethaneSA.Year,MethaneSA.R)
ylim([0.1 100000])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'log',...
    'YTick', [0.1 1 10 100 1000 10000 100000]);
title("Methane (ug/L)")
box
nexttile
boxchart(TOCSA.Year,TOCSA.R)
ylim([0.1 15000])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'log',...
    'YTick', [0.1 1 10 100 1000 10000]);
yline(20,'-.','LabelVerticalAlignment','top',...
```

```
    'LabelHorizontalAlignment','right','Label','20 mg/L',fontsize=8);
title("TOC (mg/L)")
box
```



2.2 Summary Tables

Chloride Annual Northern Area (Surficial Aquifer)

```
Cl_NAtableAnnual = groupsummary(ClNA,"Year",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x))},"R");
Cl_NAtableAnnual.Properties.VariableNames = ["Year","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95"]
```

Cl_NAtableAnnual = 7×19 table

...

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	2018	16	16	1.8000	150	148.2000	21.0500	11	36.4507	1.3287e+03	3.0436	11.2040	2	2	5.0500	11	16.5000
2	2019	37	37	1.2000	110	108.8000	15.5486	11	19.4355	377.7376	3.3815	16.3944	3	1.8200	3.9250	11	17.5000
3	2020	36	36	1.8000	21	19.2000	10.0111	11	5.6855	32.3250	0.0681	1.9321	0	2.2300	4	11	14
4	2021	31	31	6.8000	95	88.2000	16.3097	11	16.2909	265.3922	3.9408	19.0134	3	9.0600	9.8500	11	15.5000
5	2022	39	39	3.2000	88	84.8000	17.0667	11	15.8327	250.6760	2.7916	11.7386	6	7.5000	9.1250	11	17.5000
6	2023	30	30	2.8000	53	50.2000	13.6333	11	9.7128	94.3389	2.8453	11.4033	2	6.9500	9.6000	11	15

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
7	2024	31	31	1.1000	56	54.9000	14.3677	11	11.5359	133.0769	2.1870	7.5247	4	7.1600	8.5250	11	14.7500

Chloride Annual Southern Area (Surficial Aquifer)

```
Cl_SAtableAnnual = groupsummary(ClSA,"Year",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x))},"R");
Cl_SAtableAnnual.Properties.VariableNames = ["Year","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95"]
```

Cl_SAtableAnnual = 7×19 table

...

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	2018	26	25	2.5000	680	677.5000	104.4640	23	158.3644	2.5079e+04	2.2704	8.1655	1	5.1000	11.9750	23	162.5000
2	2019	50	50	2.3000	660	657.7000	66.7680	20.5000	112.4365	1.2642e+04	3.4630	17.1994	5	5.2500	11	20.5000	78
3	2020	38	38	0.5400	600	599.4600	49.7037	19.5000	101.1142	1.0224e+04	4.4948	24.5066	4	3.5300	9.3000	19.5000	43
4	2021	28	28	2.8000	520	517.2000	52.3214	24.5000	98.1583	9.6351e+03	4.0894	19.8512	4	5.3300	13.5000	24.5000	44
5	2022	29	29	2.2000	420	417.8000	49.8345	18	84.2030	7.0901e+03	3.2598	14.1702	4	5.5400	10.7500	18	49.2500
6	2023	23	23	1.2000	120	118.8000	28.6304	20	27.9463	780.9949	1.9706	6.5267	2	4.3000	13.2500	20	31.7500
7	2024	24	24	1.3000	870	868.7000	77.9083	28	174.6446	3.0501e+04	4.1272	19.2152	3	3.6200	15	28	66

Nitrate Annual Northern Area (Surficial Aquifer)

```
NO3_NAtableAnnual = groupsummary(NO3,"Year",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(NO3gt(x))},"R");
NO3_NAtableAnnual.Properties.VariableNames = ["Year","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","NO3<1"]
```

NO3_NAtableAnnual = 7×20 table

...

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	2018	42	40	0.0030	4.4000	4.3970	0.6726	0.3000	1.0379	1.0773	2.4930	8.5011	6	0.1000	0.1500	0.3000	0.5000
2	2019	87	28	0.0460	4.3000	4.2540	1.0426	0.4300	1.2742	1.6235	1.3198	3.6759	2	0.0540	0.1150	0.4300	1.6500
3	2020	74	38	0.0290	6.6000	6.5710	0.6790	0.1800	1.2550	1.5749	3.3330	14.9617	6	0.0450	0.0640	0.1800	0.6000
4	2021	59	28	0.0360	3.8000	3.7640	0.4682	0.2500	0.7514	0.5646	3.3961	15.1751	2	0.0399	0.0655	0.2500	0.5600
5	2022	68	29	0.0250	3.3000	3.2750	0.5744	0.3000	0.7298	0.5327	2.1588	7.9462	2	0.0546	0.1030	0.3000	0.7450
6	2023	55	27	0.0260	3.7000	3.6740	0.6724	0.2900	0.9312	0.8672	2.0179	6.4981	2	0.0344	0.0668	0.2900	0.8875
7	2024	55	24	0.0250	3	2.9750	0.5308	0.2050	0.6787	0.4607	2.2621	8.4629	1	0.0404	0.1150	0.2050	0.8550

Nitrate Annual Southern Area (Surficial Aquifer)

```
NO3_SAtableAnnual = groupsummary(NO3,"Year",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(NO3gt(x))},"R");
NO3_SAtableAnnual.Properties.VariableNames = ["Year","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","NO3<1"]
```

NO3_SAtableAnnual = 7×20 table

...

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	2018	42	40	0.0030	4.4000	4.3970	0.6726	0.3000	1.0379	1.0773	2.4930	8.5011	6	0.1000	0.1500	0.3000	0.5000
2	2019	87	28	0.0460	4.3000	4.2540	1.0426	0.4300	1.2742	1.6235	1.3198	3.6759	2	0.0540	0.1150	0.4300	1.6500
3	2020	74	38	0.0290	6.6000	6.5710	0.6790	0.1800	1.2550	1.5749	3.3330	14.9617	6	0.0450	0.0640	0.1800	0.6000
4	2021	59	28	0.0360	3.8000	3.7640	0.4682	0.2500	0.7514	0.5646	3.3961	15.1751	2	0.0399	0.0655	0.2500	0.5600
5	2022	68	29	0.0250	3.3000	3.2750	0.5744	0.3000	0.7298	0.5327	2.1588	7.9462	2	0.0546	0.1030	0.3000	0.7450
6	2023	55	27	0.0260	3.7000	3.6740	0.6724	0.2900	0.9312	0.8672	2.0179	6.4981	2	0.0344	0.0668	0.2900	0.8875
7	2024	55	24	0.0250	3	2.9750	0.5308	0.2050	0.6787	0.4607	2.2621	8.4629	1	0.0404	0.1150	0.2050	0.8550

Sulfate Annual Northern Area (Surficial Aquifer)

```
SO4_NAtableAnnual = groupsummary(SO4NA,"Year",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(SO4lt(x))},"R");
SO4_NAtableAnnual.Properties.VariableNames = ["Year","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","SO4<=50"]
```

SO4_NAtableAnnual = 7×20 table

...

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	2018	16	11	0.5100	19	18.4900	4.2900	2.5000	5.3924	29.0781	2.0264	6.1905	1	0.5520	1.0250	2.5000	6.1000
2	2019	37	25	0.4400	51	50.5600	8.4916	2.4000	14.1172	199.2952	2.3569	7.3372	3	0.6700	1.1450	2.4000	7.4000
3	2020	32	21	0.4700	44	43.5300	7.2324	3.1000	10.0063	100.1260	2.5352	9.7670	1	0.4820	1.1500	3.1000	10.5000
4	2021	31	21	0.4500	5.9000	5.4500	1.9062	1.5000	1.4521	2.1086	1.6122	4.9992	2	0.5920	0.8275	1.5000	2.2750
5	2022	39	22	0.5100	14	13.4900	2.7168	1.5500	3.3159	10.9949	2.2487	7.5861	2	0.5650	0.7000	1.5500	3.4000
6	2023	30	23	0.4300	13	12.5700	2.3100	1.1000	2.8062	7.8747	2.6265	10.2692	1	0.5060	0.6775	1.1000	3.0250
7	2024	31	31	0.4900	10	9.5100	2.4929	1.6000	2.2585	5.1008	1.4762	5.0198	1	0.5600	0.7900	1.6000	3.8500

Sulfate Annual Southern Area (Surficial Aquifer)

```
SO4_SAtableAnnual = groupsummary(SO4SA,"Year",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(SO4lt(x))},"R");
SO4_SAtableAnnual.Properties.VariableNames = ["Year","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","SO4<=50"]
```

SO4_SAtableAnnual = 7×20 table

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	2018	26	24	0.6500	37	36.3500	7.8604	3.2500	9.3254	86.9624	1.6150	5.0666	1	0.9700	1.3000	3.2500	11.4000
2	2019	50	36	0.5200	310	309.4800	18.8728	3.9000	52.3518	2.7407e+03	4.9972	28.1416	4	0.5890	1.7500	3.9000	16
3	2020	42	34	0.5100	270	269.4900	14.8044	3.5000	45.8848	2.1054e+03	5.2803	29.8779	5	0.7590	1.5000	3.5000	8.7000
4	2021	28	28	0.4900	240	239.5100	15.9079	4.2500	45.1272	2.0365e+03	4.6127	23.3716	3	0.8320	1.3000	4.2500	11.5000
5	2022	29	27	0.4800	82	81.5200	11.8867	4.9000	18.3589	337.0486	2.5514	9.3010	4	1.0240	2.0250	4.9000	11.7500
6	2023	23	22	0.6300	150	149.3700	18.6236	3.4000	41.8223	1.7491e+03	2.6596	8.4181	3	0.8810	1.4000	3.4000	10
7	2024	24	24	0.9900	150	149.0100	14.4162	3.5000	30.8513	951.8018	3.7653	16.9681	3	1.1800	1.6500	3.5000	13

Sulfide Annual Northern Area (Surficial Aquifer)

```
S2_NAtableAnnual = groupsummary(S2NA,"Year",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(S2gt(x))},"R");
S2_NAtableAnnual.Properties.VariableNames = ["Year","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","S2>1"]
```

S2_NAtableAnnual = 7×20 table

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	2018	16	16	1	455	454	121.7500	40.5000	147.6516	21801	1.0318	2.8483	0	3.3000	8.5000	40.5000	214
2	2019	37	0	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	0	NaN	NaN	NaN	NaN
3	2020	31	1	1.4000	1.4000	0	1.4000	1.4000	0	0	NaN	NaN	0	1.4000	1.4000	1.4000	1.4000
4	2021	31	1	4.3000	4.3000	0	4.3000	4.3000	0	0	NaN	NaN	0	4.3000	4.3000	4.3000	4.3000
5	2022	36	6	1	1.8000	0.8000	1.2667	1.2000	0.2875	0.0827	1.1389	3.0734	1	1.0100	1.1000	1.2000	1.3000
6	2023	31	2	1	9	8	5	5	5.6569	32	0	1	0	1	1	5	9
7	2024	31	1	1.6000	1.6000	0	1.6000	1.6000	0	0	NaN	NaN	0	1.6000	1.6000	1.6000	1.6000

Sulfide Annual Southern Area (Surficial Aquifer)

```
S2_SAtableAnnual = groupsummary(S2SA,"Year",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(S2gt(x))},"R");
S2_SAtableAnnual.Properties.VariableNames = ["Year","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","S2>1"]
```

S2_SAtableAnnual = 7×20 table

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	2018	24	21	1	474	473	65.4286	20	106.7626	1.1398e+04	2.8620	11.3990	1	1	5.5000	20	85.2500

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
2	2019	51	0	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	0	NaN	NaN	NaN	NaN
3	2020	42	2	2.6000	7.8000	5.2000	5.2000	5.2000	3.6770	13.5200	-2.0213e-16	1	0	2.6000	2.6000	5.2000	7.8000
4	2021	28	0	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	0	NaN	NaN	NaN	NaN
5	2022	24	6	0.9600	1.7000	0.7400	1.3267	1.3000	0.2903	0.0843	0.0885	1.5551	0	0.9740	1.1000	1.3000	1.6000
6	2023	24	5	0.9100	2.4000	1.4900	1.2980	1.1000	0.6214	0.3861	1.4354	3.1666	1	0.9100	0.9625	1.1000	1.4250
7	2024	24	0	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	0	NaN	NaN	NaN	NaN

Sulfide as Hydrogen Sulfide Annual Northern Area (Surficial Aquifer)

```
S2H2S_NAtableAnnual = groupsummary(S2H2SNA,"Year",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(S2H2Sgt(x))},"R");
S2H2S_NAtableAnnual.Properties.VariableNames = ["Year","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","S2>1"]
```

S2H2S_NAtableAnnual = 6×20 table

...

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	2019	42	0	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	0	NaN	NaN	NaN	NaN
2	2020	21	1	2.8000	2.8000	0	2.8000	2.8000	0	0	NaN	NaN	0	2.8000	2.8000	2.8000	2.8000
3	2021	31	1	4.6000	4.6000	0	4.6000	4.6000	0	0	NaN	NaN	0	4.6000	4.6000	4.6000	4.6000
4	2022	36	6	1.1000	1.9000	0.8000	1.3333	1.2500	0.3141	0.0987	1.0211	2.7622	1	1.1000	1.1000	1.2500	1.4000
5	2023	31	2	1.1000	9.6000	8.5000	5.3500	5.3500	6.0104	36.1250	0	1	0	1.1000	1.1000	5.3500	9.6000
6	2024	31	1	1.7000	1.7000	0	1.7000	1.7000	0	0	NaN	NaN	0	1.7000	1.7000	1.7000	1.7000

Sulfide as Hydrogen Sulfide Annual Southern Area (Surficial Aquifer)

```
S2H2S_SAtableAnnual = groupsummary(S2H2SSA,"Year",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(S2H2Sgt(x))},"R");
S2H2S_SAtableAnnual.Properties.VariableNames = ["Year","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","S2>1"]
```

S2H2S_SAtableAnnual = 6×20 table

...

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	2019	46	0	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	0	NaN	NaN	NaN	NaN
2	2020	52	2	1.4000	8.3000	6.9000	4.8500	4.8500	4.8790	23.8050	-2.5955e-16	1	0	1.4000	1.4000	4.8500	8.3000
3	2021	28	0	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	0	NaN	NaN	NaN	NaN
4	2022	24	6	1	1.8000	0.8000	1.4167	1.4000	0.3061	0.0937	-0.0340	1.6581	0	1.0200	1.2000	1.4000	1.7000

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
5	2023	24	5	0.9700	2.5000	1.5300	1.3740	1.2000	0.6387	0.4079	1.3936	3.1098	1	0.9700	0.9925	1.2000	1.5250
6	2024	24	0	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	0	NaN	NaN	NaN	NaN

Ferrous Iron Annual Northern Area (Surficial Aquifer)

```
Fe2_NAtableAnnual = groupsummary(Fe2NA,"Year",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(FE2gt(x))},"R");
Fe2_NAtableAnnual.Properties.VariableNames = ["Year","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","Fe2>1"]
```

Fe2_NAtableAnnual = 7×20 table

...

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	2018	16	16	0.0100	3.8100	3.8000	1.2131	0.5400	1.3919	1.9373	0.6502	1.8893	0	0.0110	0.0300	0.5400	2.3200
2	2019	40	37	0.0100	89.6000	89.5900	8.6595	2.6800	16.0637	258.0419	3.6815	18.6038	2	0.0200	0.0850	2.6800	11.9500
3	2020	27	26	0.0300	65.2800	65.2500	9.0177	2.8650	15.2096	231.3312	2.4092	8.6054	4	0.0830	0.6200	2.8650	9.7600
4	2021	33	33	0.0600	2.9700	2.9100	1.4215	1.6400	0.9505	0.9034	-0.0352	1.6774	0	0.0900	0.4550	1.6400	2.1975
5	2022	40	40	0.0100	3	2.9900	1.1992	0.9700	0.9806	0.9616	0.5068	1.9290	0	0.1450	0.2600	0.9700	2.0100
6	2023	32	32	0.1400	24.9600	24.8200	5.9158	2.2800	6.9668	48.5360	1.1235	3.1357	1	0.1500	0.5450	2.2800	10.2400
7	2024	28	28	0.0100	11.5600	11.5500	2.1746	1.2600	2.9817	8.8906	2.0663	6.6778	2	0.0700	0.1250	1.2600	2.6250

Ferrous Iron Annual Southern Area (Surficial Aquifer)

```
Fe2_SAtableAnnual = groupsummary(Fe2SA,"Year",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(FE2gt(x))},"R");
Fe2_SAtableAnnual.Properties.VariableNames = ["Year","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","Fe2>1"]
```

Fe2_SAtableAnnual = 7×20 table

...

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	2018	24	23	0.0100	3.6400	3.6300	1.5939	2.0500	1.2743	1.6239	0.0322	1.5451	0	0.0100	0.1850	2.0500	2.7075
2	2019	54	50	0	41.2800	41.2800	6.7354	2.4000	9.5451	91.1096	1.8483	6.1925	3	0.0400	0.1050	2.4000	10.3800
3	2020	29	25	0.0100	20.8800	20.8700	2.7496	0.9700	4.4538	19.8366	2.9134	12.1649	2	0.0300	0.0650	0.9700	3.5850
4	2021	29	29	0.0200	3.5000	3.4800	1.1507	0.9900	1.0084	1.0168	0.4302	2.0849	0	0.0540	0.1075	0.9900	1.9525
5	2022	29	28	0.0200	3	2.9800	1.4136	1.5500	1.0992	1.2083	0.0170	1.3604	0	0.0530	0.2700	1.5500	2.5650
6	2023	23	23	0.1400	16.9600	16.8200	3.8417	2.6400	4.4731	20.0088	1.3697	4.2796	1	0.1580	0.3125	2.6400	6.3600
7	2024	24	24	0.0300	4.6000	4.5700	1.3158	1.1750	1.2404	1.5385	0.9920	3.3898	0	0.0390	0.1200	1.1750	2.0450

Manganese Annual Northern Area (Surficial Aquifer)

```
Mn_NAtableAnnual = groupsummary(MnNA,"Year",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x))},"R");
Mn_NAtableAnnual.Properties.VariableNames = ["Year","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95"]
```

Mn_NAtableAnnual = 7×19 table

...

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	2018	17	16	0.1000	620	619.9000	64.6813	0.3500	170.5591	2.9090e+04	2.6201	8.4916	3	0.1100	0.2000	0.3500	7.4500
2	2019	39	39	4.1000	5400	5.3959e+03	334.6410	79	870.3080	7.5744e+05	5.2561	31.0186	3	17	26	79	347.5000
3	2020	28	28	3.5000	5400	5.3965e+03	494.1643	107	1.0995e+03	1.2088e+06	3.5839	15.7673	3	11.3000	23.5000	107	440
4	2021	32	32	8.9000	6600	6.5911e+03	461.2781	145	1.1561e+03	1.3367e+06	4.8939	26.4815	2	32	51.5000	145	395
5	2022	40	40	4.1000	7400	7.3959e+03	738.1175	210	1.4283e+03	2.0401e+06	3.1321	13.5540	5	16.5000	31	210	655
6	2023	31	31	3.1000	5100	5.0969e+03	433.7774	190	930.7288	8.6626e+05	4.3234	21.8958	2	19.2000	50.7500	190	395
7	2024	32	32	3.5000	4900	4.8965e+03	381.6906	125	899.8980	8.0982e+05	4.2575	21.3880	4	7.3900	29.5000	125	285

Manganese Annual Southern Area (Surficial Aquifer)

```
Mn_SAtableAnnual = groupsummary(MnSA,"Year",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x))},"R");
Mn_SAtableAnnual.Properties.VariableNames = ["Year","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95"]
```

Mn_SAtableAnnual = 7×19 table

...

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	2018	30	30	0.1000	3100	3.0999e+03	160.3367	0.3000	593.9455	3.5277e+05	4.3758	21.6347	6	0.1000	0.2000	0.3000	2.9000
2	2019	49	49	3.3000	2300	2.2967e+03	444.0898	150	637.2502	4.0609e+05	1.8500	5.2419	6	22.2000	49.5000	150	495
3	2020	47	47	1.8000	2200	2.1982e+03	250.5638	90	415.8112	1.7290e+05	3.2042	14.1356	3	14	26.5000	90	275
4	2021	28	28	2.7000	1900	1.8973e+03	339.0250	115	495.1825	2.4521e+05	1.9956	5.9490	4	26.7000	63	115	380
5	2022	29	28	14	2500	2486	387.0714	125	592.4738	3.5103e+05	2.0743	6.9695	5	23.2000	59.5000	125	405
6	2023	24	23	11	1700	1689	357.8261	120	503.6991	2.5371e+05	1.5776	4.0114	4	33.0000	55.5000	120	472.5000
7	2024	24	24	3.2000	2200	2.1968e+03	335.1750	170	485.9769	2.3617e+05	2.6170	10.1729	3	16.3000	50.5000	170	400

Alkalinity Annual Northern Area (Surficial Aquifer)

```
Alk_NAtableAnnual = groupsummary(AlkNA,"Year",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x))},"R");
Alk_NAtableAnnual.Properties.VariableNames = ["Year","Count","NNZ","Min","Max","Range","Mean","Median",...
```

```
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95"]
```

Alk_NAtableAnnual = 7×19 table

...

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	2018	12	12	18.5000	340	321.5000	118.2333	86.2500	93.9526	8.8271e+03	1.1658	3.5385	0	21.2300	62.7000	86.2500	177.1000
2	2019	33	30	5.8000	850	844.2000	201.9167	78	266.6364	7.1095e+04	1.3396	3.2923	5	7.2500	14	78	250
3	2020	34	30	5.3000	410	404.7000	98.2867	49	116.8752	1.3660e+04	1.5459	4.3651	3	7.7500	12	49	140
4	2021	31	30	4.5000	1600	1.5955e+03	123.5400	24.5000	294.6358	8.6810e+04	4.4100	22.5276	4	6.8000	12	24.5000	98
5	2022	39	38	6	1500	1494	169.8526	35	305.4063	9.3273e+04	3.0236	12.4669	2	7.3300	12	35	240
6	2023	31	30	4.1000	1200	1.1959e+03	143.1500	51.5000	232.2656	5.3947e+04	3.3329	15.4649	1	6.9000	15	51.5000	210
7	2024	31	30	5	330	325	98.0133	53	99.2530	9.8512e+03	0.8363	2.3656	0	6.2000	11	53	170

Alkalinity Annual Southern Area (Surficial Aquifer)

```
Alk_SAtableAnnual = groupsummary(AlkSA,"Year",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x))},"R");
Alk_SAtableAnnual.Properties.VariableNames = ["Year","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95"]
```

Alk_SAtableAnnual = 7×19 table

...

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	2018	19	19	14.7000	864	849.3000	200.9842	91.5000	233.0058	5.4292e+04	1.5229	4.5428	1	20.3000	40.1500	91.5000	302.7500
2	2019	54	37	5.9000	2100	2.0941e+03	187.5054	78	362.5868	1.3147e+05	4.1804	22.2221	4	6.5200	11	78	192.5000
3	2020	43	27	6.4000	1200	1.1936e+03	156.0963	69	249.5929	6.2297e+04	2.9966	12.5365	3	11	25	69	157.5000
4	2021	28	24	3.5000	1200	1.1965e+03	113.9625	29.5000	254.9524	6.5001e+04	3.5107	15.0956	3	3.7700	5.1500	29.5000	89
5	2022	29	18	5.6000	610	604.4000	126.2944	45.5000	187.6996	3.5231e+04	1.7609	4.5169	3	7.2900	17	45.5000	120
6	2023	24	18	3.1000	510	506.9000	129.0333	67	168.4568	2.8378e+04	1.4296	3.6332	2	4.4700	11	67	170
7	2024	24	17	5.7000	470	464.3000	103.4471	50	143.8788	2.0701e+04	1.9338	5.3799	2	9.1200	13.5000	50	106

Carbon Dioxide Annual Northern Area (Surficial Aquifer)

```
CO2_NAtableAnnual = groupsummary(CO2NA,"Year",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x))},"R");
CO2_NAtableAnnual.Properties.VariableNames = ["Year","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95"]
```

CO2_NAtableAnnual = 6×19 table

...

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	2019	33	33	5.3000	6200	6.1947e+03	532.9758	60	1.2415e+03	1.5412e+06	3.3432	14.6379	6	14.6000	23.7500	60	195
2	2020	34	32	6.9000	4000	3.9931e+03	229.7844	58.5000	724.0806	5.2429e+05	4.7181	24.6390	3	9.9400	26.5000	58.5000	93.5000
3	2021	31	31	7.3000	14000	1.3993e+04	569.0839	50	2.5065e+03	6.2827e+06	5.2056	28.3971	3	17.6000	32	50	88.2500
4	2022	39	39	60	13000	12940	660.6923	120	2.1125e+03	4.4627e+06	5.3504	31.4955	6	65.8000	94.2500	120	290
5	2023	31	31	13	1300	1287	125	72	230.7108	5.3227e+04	4.4957	23.2404	3	27.6000	35.5000	72	115
6	2024	31	29	19	340	321	119.1724	69	95.2081	9.0646e+03	0.8153	2.4311	0	30.8000	43.7500	69	190

Carbon Dioxide Annual Southern Area (Surficial Aquifer)

```
CO2_SAtableAnnual = groupsummary(CO2SA,"Year",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x))},"R");
CO2_SAtableAnnual.Properties.VariableNames = ["Year","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95"]
```

`CO2_SAtableAnnual = 6×19 table`

...

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	2019	50	42	13	7300	7287	336.2143	90.5000	1.1271e+03	1.2704e+06	5.8307	36.4225	4	30.3000	51	90.5000	170
2	2020	39	36	14	2000	1986	190.0556	54.5000	388.3834	1.5084e+05	3.6017	15.8732	3	18.1000	26	54.5000	170
3	2021	28	24	16	200	184	64.1250	50.5000	51.3770	2.6396e+03	1.5162	4.3132	3	23.2000	29	50.5000	68
4	2022	29	26	15	750	735	151.7692	110	139.8351	1.9554e+04	3.1230	14.0795	1	54.4000	69	110	180
5	2023	24	20	12	240	228	64.7500	53.5000	54.6711	2.9889e+03	1.7394	6.2879	1	15.5000	24.5000	53.5000	86.5000
6	2024	24	21	6.2000	510	503.8000	115.5333	71	111.8158	1.2503e+04	2.1914	8.3609	1	29	42.7500	71	155

Ethene Annual Northern Area (Surficial Aquifer)

```
Ethene_NAtableAnnual = groupsummary(EtheneNA,"Year",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(Ethenegt(x))},"R");
Ethene_NAtableAnnual.Properties.VariableNames = ["Year","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95",">10"]
```

`Ethene_NAtableAnnual = 7×20 table`

...

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	2018	16	3	3.1000	18	14.9000	9.7000	8	7.5941	57.6700	0.3906	1.5000	0	3.1000	4.3250	8	15.5000
2	2019	35	12	0.6400	570	569.3600	60.7200	5.3000	162.7495	2.6487e+04	2.8732	9.5231	2	1.1720	1.8000	5.3000	15.2000
3	2020	35	17	0.7400	460	459.2600	36.0671	3.1000	110.8256	1.2282e+04	3.5855	14.2265	3	1.1600	1.4750	3.1000	8.0500
4	2021	32	20	0.3800	470	469.6200	42.0860	5.9500	107.9054	1.1644e+04	3.3917	13.7677	4	0.5200	2	5.9500	12.5000

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
5	2022	39	26	0.3100	430	429.6900	61.8008	5.4500	113.2615	1.2828e+04	2.1413	6.6093	3	0.4250	1.5000	5.4500	70
6	2023	31	25	0.5600	730	729.4400	90.8740	8.2000	186.9727	3.4959e+04	2.6660	8.9621	2	0.9600	2.2000	8.2000	78.2500
7	2024	32	23	0.5700	4900	4.8994e+03	288.5826	13	1.0228e+03	1.0462e+06	4.2530	19.6442	3	0.8220	2.1000	13	81.2500

Ethene Annual Southern Area (Surficial Aquifer)

```
Ethene_SAtableAnnual = groupsummary(EtheneSA,"Year",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(Ethenegt(x))},"R");
Ethene_SAtableAnnual.Properties.VariableNames = ["Year","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95",">10"]
```

Ethene_SAtableAnnual = 7×20 table

...

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	2018	26	13	1.4000	1600	1.5986e+03	330.2308	31	548.1943	3.0052e+05	1.4370	3.5849	1	1.5600	4.4000	31	615
2	2019	53	20	0.7200	690	689.2800	156.4130	51.5000	220.0477	4.8421e+04	1.4585	3.8718	2	1.3700	5.2000	51.5000	245
3	2020	43	13	0.9300	930	929.0700	121.4331	5.9000	285.4523	8.1483e+04	2.2050	6.2955	2	1.3860	3.6250	5.9000	24.5000
4	2021	29	12	1	430	429	110.9500	71.5000	131.7325	1.7353e+04	1.3623	3.8346	1	1.9800	13.5000	71.5000	165
5	2022	29	16	0.3100	430	429.6900	113.4931	26.5000	151.5592	2.2970e+04	0.9555	2.3571	0	0.4720	1.0600	26.5000	250
6	2023	24	17	0.3600	120	119.6400	21.8994	3.9000	35.7082	1.2751e+03	1.8190	5.0349	2	0.4620	0.6000	3.9000	24.5000
7	2024	24	12	0.6200	1000	999.3800	147.1317	42.5000	282.7358	7.9940e+04	2.5405	8.2524	1	0.7180	5.5000	42.5000	165

Ethane Annual Northern Area (Surficial Aquifer)

```
Ethane_NAtableAnnual = groupsummary(EthaneNA,"Year",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(Ethanegt(x))},"R");
Ethane_NAtableAnnual.Properties.VariableNames = ["Year","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95",">10"]
```

Ethane_NAtableAnnual = 7×20 table

...

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	2018	16	2	0.8200	2.2000	1.3800	1.5100	1.5100	0.9758	0.9522	3.3796e-16	1.0000	0	0.8200	0.8200	1.5100	2.2000
2	2019	35	8	0.7700	5.3000	4.5300	2.0312	1.4000	1.6354	2.6745	1.1742	2.9418	0	0.7760	0.8400	1.4000	2.8500
3	2020	35	6	0.5600	6.4000	5.8400	2.1883	0.9500	2.3869	5.6971	1.0528	2.5112	0	0.5610	0.5700	0.9500	3.7000
4	2021	32	17	0.3400	21	20.6600	3.1106	0.8300	5.1624	26.6499	2.7575	9.7958	2	0.6040	0.6675	0.8300	2.6500
5	2022	39	20	0.3200	6.7000	6.3800	2.0435	1.1500	1.9592	3.8386	1.1687	3.1773	1	0.3750	0.5550	1.1500	3
6	2023	31	16	0.3600	28	27.6400	3.4675	0.9450	6.8270	46.6086	3.1582	11.8823	2	0.4010	0.6450	0.9450	3

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
7	2024	32	13	0.3100	6	5.6900	2.0762	1.4000	1.7687	3.1282	1.1414	3.0660	1	0.4380	0.8125	1.4000	2.8250

Ethane Annual Southern Area (Surficial Aquifer)

```
Ethane_SAtableAnnual = groupsummary(EthaneSA,"Year",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(Ethanegt(x))},"R");
Ethane_SAtableAnnual.Properties.VariableNames = ["Year","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95",">10"]
```

Ethane_SAtableAnnual = 7×20 table

...

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	2018	26	13	0.6000	150	149.4000	31.6308	11	44.2620	1.9591e+03	1.7174	4.9578	1	0.8400	4.9000	11	49
2	2019	53	22	0.7100	410	409.2900	38.4505	10.9500	86.7025	7.5173e+03	3.8196	16.8498	3	3.3700	5.1000	10.9500	32
3	2020	43	13	1.6000	130	128.4000	23.7615	4	45.2476	2.0473e+03	1.8814	4.6266	2	2.1600	2.9500	4	10.2000
4	2021	29	14	1.7000	270	268.3000	54.2786	12.8500	86.1115	7.4152e+03	1.7106	4.4722	2	3.3200	3.7000	12.8500	85
5	2022	29	16	0.3000	310	309.7000	69.5981	9.1000	103.1250	1.0635e+04	1.3330	3.3653	1	0.6230	3.4000	9.1000	120
6	2023	24	16	0.3900	200	199.6100	20.2394	5.1000	48.8657	2.3879e+03	3.3942	13.0360	1	0.4940	1.0900	5.1000	14
7	2024	24	14	1.1000	570	568.9000	89.1429	12.4500	157.5129	2.4810e+04	2.2627	7.3438	1	2.2700	3.3000	12.4500	110

Methane Annual Northern Area (Surficial Aquifer)

```
Methane_NAtableAnnual = groupsummary(MethaneNA,"Year",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(Methanegt(x))},"R");
Methane_NAtableAnnual.Properties.VariableNames = ["Year","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95",">500"]
```

Methane_NAtableAnnual = 7×20 table

...

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	2018	16	12	3	13000	12997	3.0252e+03	315	5.0646e+03	2.5650e+07	1.3626	3.1072	2	11.4000	32.5000	315	4400
2	2019	37	32	1.3000	25000	2.4999e+04	5.1170e+03	690	7.3117e+03	5.3460e+07	1.3545	3.6813	0	14.1900	65	690	10250
3	2020	31	31	0.8700	20000	1.9999e+04	3.7529e+03	63	5.5620e+03	3.0936e+07	1.3621	3.7691	1	1.5200	8.1000	63	6875
4	2021	32	32	0.8700	17000	1.6999e+04	3.2685e+03	1650	4.4197e+03	1.9534e+07	1.6932	5.2822	2	3.4300	28.5000	1650	5300
5	2022	39	38	0.6100	13000	1.2999e+04	3.7632e+03	1700	4.3477e+03	1.8902e+07	0.9395	2.4849	0	6.9900	180	1700	6200
6	2023	31	30	1.3000	19000	1.8999e+04	5.0878e+03	4250	5.0574e+03	2.5578e+07	0.9716	3.2043	1	8.6500	540	4250	7800
7	2024	11	6	4	9700	9696	1.6922e+03	124.5000	3.9237e+03	1.5396e+07	1.7874	4.1974	1	4.6000	10	124.5000	190

Methane Annual Southern Area (Surficial Aquifer)

```
Methane_SAtableAnnual = groupsummary(MethaneSA,"Year",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(Methanegt(x))},"R");
Methane_SAtableAnnual.Properties.VariableNames = ["Year","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95",">500"]
```

Methane_SAtableAnnual = 7×20 table

...

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	2018	26	24	1.9000	23000	2.2998e+04	4.4110e+03	2035	5.7768e+03	3.3372e+07	1.6344	5.5001	1	26.9200	245	2035	8000
2	2019	51	45	0.3200	26000	2.6000e+04	5.0991e+03	960	6.8051e+03	4.6310e+07	1.3640	3.8788	1	13	132.5000	960	8375
3	2020	46	46	0.7000	12000	1.1999e+04	3.0631e+03	1045	3.7908e+03	1.4370e+07	0.9656	2.4291	0	16.1000	86	1045	5600
4	2021	29	29	0.6000	16000	1.5999e+04	1.7705e+03	190	3.4883e+03	1.2168e+07	2.8534	11.1818	3	2.3400	5.3750	190	1825
5	2022	29	29	0.6700	9700	9.6993e+03	1.7898e+03	290	2.5675e+03	6.5923e+06	1.5679	4.7133	1	3.3600	18	290	2975
6	2023	24	24	0.6100	16000	1.5999e+04	2.6782e+03	600	4.2908e+03	1.8411e+07	2.0681	6.5305	2	1.7000	28	600	4050
7	2024	17	16	0.9800	14000	1.3999e+04	1.6572e+03	155	3.5238e+03	1.2417e+07	2.9104	10.7422	1	7.1300	29	155	2450

Total Organic Carbon Annual Northern Area (Surficial Aquifer)

```
TOC_NAtableAnnual = groupsummary(TOCNA,"Year",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(TOCgt(x))},"R");
TOC_NAtableAnnual.Properties.VariableNames = ["Year","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","TOC=>20"]
```

TOC_NAtableAnnual = 7×20 table

...

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	2018	16	16	0.5300	860	859.4700	71.3775	4.6500	215.9337	4.6627e+04	3.3406	12.6692	3	0.7270	1.3000	4.6500	10.3000
2	2019	36	31	0.6200	1500	1.4994e+03	206.1532	3.6000	421.9048	1.7800e+05	2.0026	5.6277	7	0.9680	1.6500	3.6000	76.2500
3	2020	34	33	0.5200	870	869.4800	74.7703	5.4000	170.0050	2.8902e+04	3.5217	16.0024	5	1.3000	2.3000	5.4000	61.2500
4	2021	32	30	0.5800	3300	3.2994e+03	147.7610	1.5500	607.5719	3.6914e+05	4.8972	25.8568	5	0.7250	1	1.5500	5.2000
5	2022	39	36	0.5200	3400	3.3995e+03	192.2675	1.6000	601.2305	3.6148e+05	4.5627	24.1606	7	0.6540	0.9750	1.6000	93
6	2023	31	29	0.5000	2000	1.9995e+03	92.9955	1.9000	371.8917	1.3830e+05	4.8953	25.5819	5	0.7960	0.9850	1.9000	20
7	2024	31	30	0.7000	760	759.3000	38.2367	2.8500	139.2545	1.9392e+04	4.8808	25.7544	5	0.7500	1	2.8500	9.6000

Total Organic Carbon Annual Southern Area (Surficial Aquifer)

```
TOC_SAtableAnnual = groupsummary(TOCSA,"Year",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(TOCgt(x))},"R");
TOC_SAtableAnnual.Properties.VariableNames = ["Year","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","TOC=>20"]
```

TOC_SAtableAnnual = 7×20 table

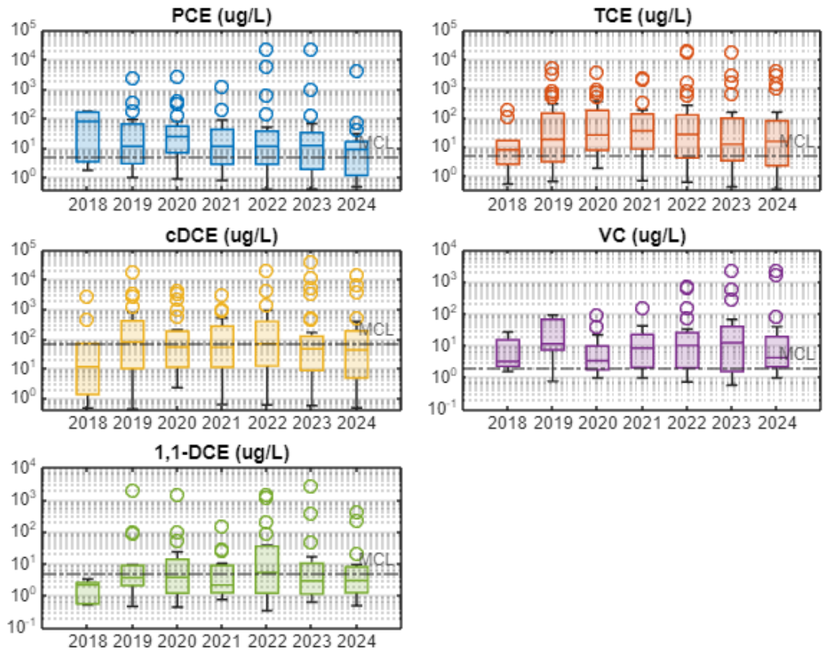
	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	2018	26	25	0.6500	4500	4.4994e+03	295.7468	5.6000	940.3953	8.8434e+05	3.9191	17.5621	3	1	1.8250	5.6000	110
2	2019	52	50	0.5300	7200	7.1995e+03	256.1542	3.2500	1.0977e+03	1.2050e+06	5.5678	34.2836	12	0.6600	0.8700	3.2500	27
3	2020	44	40	0.5200	230	229.4800	23.5025	2.5500	50.5572	2.5560e+03	2.7724	10.2328	8	0.6750	1.2500	2.5500	8.1500
4	2021	27	26	0.6400	12	11.3600	2.9269	1.7000	2.8843	8.3190	1.8013	5.4971	2	0.8130	1.1000	1.7000	3.8000
5	2022	29	26	0.6500	13	12.3500	3.2573	1.7000	3.3726	11.3744	1.6814	4.7469	3	0.8950	1.2000	1.7000	3.5000
6	2023	24	24	0.5400	150	149.4600	9.0775	1.1500	30.2334	914.0606	4.4837	21.4194	2	0.7690	0.8800	1.1500	5.1000
7	2024	24	24	0.6600	24	23.3400	5.6063	2.7000	6.1557	37.8931	1.5242	4.6121	1	0.8290	1.3500	2.7000	8.0500

3.0 VOCs

3.1 VOC Box Plots Annual Northern Area (Surficial Aquifer)

```
figure
t5=tiledlayout('flow');
t5.Padding="compact";
t5.TileSpacing='compact';
nexttile
boxchart(PCENA.Year,PCENA.R,"BoxFaceColor",'0 0.4470 0.7410','BoxEdgeColor','0 0.4470 0.7410','MarkerColor','0 0.4470 0.7410')
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'log',...
    'YTick', [0.1 1 10 100 1000 10000 100000]);
yline(5,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','right','Label','MCL',fontsize=8);
title("PCE (ug/L)")
box
nexttile
boxchart(TCENA.Year,TCENA.R,"BoxFaceColor",'0.8500 0.3250 0.0980','MarkerColor','0.8500 0.3250 0.0980')
ylim([0.1 100000])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'log',...
    'YTick', [0.1 1 10 100 1000 10000 100000]);
title("TCE (ug/L)")
yline(5,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','right','Label','MCL',fontsize=8);
box
nexttile
boxchart(cDCENA.Year,cDCENA.R,"BoxFaceColor",'0.9290 0.6940 0.1250','MarkerColor','0.9290 0.6940 0.1250')
set(gca, "XGrid", "off", "YGrid", "on")
title("cDCE (ug/L)")
ylim([0.1 100000])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'log',...
    'YTick', [0.1 1 10 100 1000 10000 100000]);
yline(70,'-.','LabelVerticalAlignment','top',...
```

```
    'LabelHorizontalAlignment','right','Label','MCL',fontsize=8);
box
nexttile
boxchart(VCNA.Year,VCNA.R,"BoxFaceColor",'0.4940 0.1840 0.5560','MarkerColor','0.4940 0.1840 0.5560')
set(gca, "XGrid", "off", "YGrid", "on")
title("VC (ug/L)")
ylim([0.1 10000])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'log',...
    'YTick', [0.1 1 10 100 1000 10000]);
yline(2,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','right','Label','MCL',fontsize=8);
box
nexttile
boxchart(DCE11NA.Year,DCE11NA.R,"BoxFaceColor",'0.47 0.67 0.19','MarkerColor','0.47 0.67 0.19')
set(gca, "XGrid", "off", "YGrid", "on")
title("1,1-DCE (ug/L)")
ylim([0.1 10000])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'log',...
    'YTick', [0.1 1 10 100 1000 10000]);
yline(5,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','right','Label','MCL',fontsize=8);
box
```

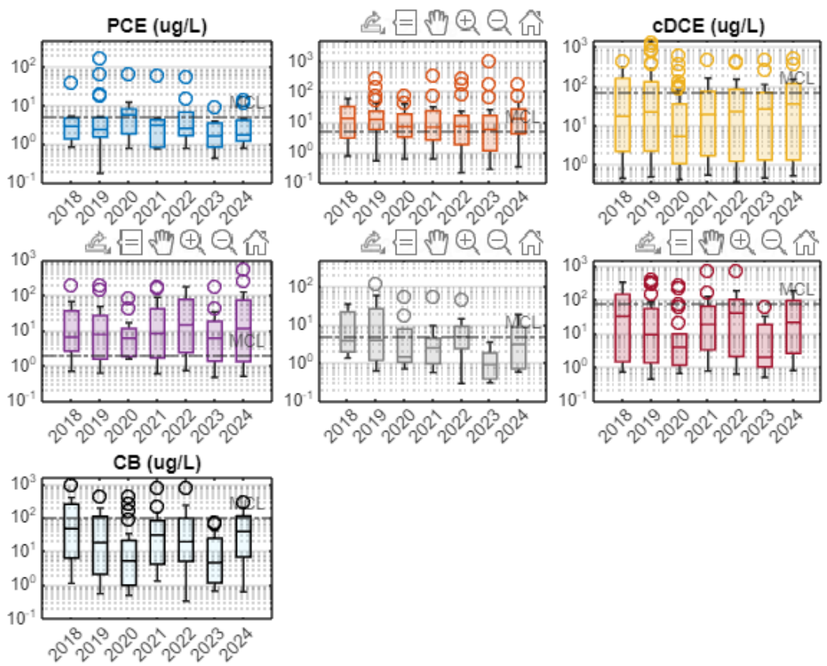


3.1 VOC Box Plots Annual Southern Area (Surficial Aquifer)

```
figure
```

```
t6=tiledlayout('flow');
t6.Padding="compact";
t6.TileSpacing='compact';
nexttile
boxchart(PCESA.Year,PCESA.R,"BoxFaceColor",'0 0.4470 0.7410','BoxEdgeColor','0 0.4470 0.7410','MarkerColor','0 0.4470 0.7410')
ylim([0.1 500])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'log',...
    'YTick', [0.1 1 10 100]);
title("PCE (ug/L)")
yline(5,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','right','Label','MCL',fontsize=8);
box
nexttile
boxchart(TCESA.Year,TCESA.R,"BoxFaceColor",'0.8500 0.3250 0.0980','MarkerColor','0.8500 0.3250 0.0980')
ylim([0.1 5000])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'log',...
    'YTick', [0.1 1 10 100 1000]);
title("TCE (ug/L)")
yline(5,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','right','Label','MCL',fontsize=8);
box
nexttile
boxchart(cDCESA.Year,cDCESA.R,"BoxFaceColor",'0.9290 0.6940 0.1250','MarkerColor','0.9290 0.6940 0.1250')
ylim([0 1500])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'log',...
    'YTick', [0.1 1 10 100 1000]);
title("cDCE (ug/L)")
yline(70,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','right','Label','MCL',fontsize=8);
box
nexttile
boxchart(VCSA.Year,VCSA.R,"BoxFaceColor",'0.4940 0.1840 0.5560','MarkerColor','0.4940 0.1840 0.5560')
ylim([0.1 1000])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'log',...
    'YTick', [0.1 1 10 100 1000]);
title("VC (ug/L)")
yline(2,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','right','Label','MCL',fontsize=8);
box
nexttile
boxchart(DCA12SA.Year,DCA12SA.R,"BoxFaceColor",'0.5 0.5 0.5','MarkerColor','0.5 0.5 0.5')
ylim([0.1 500])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'log',...
    'YTick', [0.1 1 10 100]);
title("1,2-DCA (ug/L)")
yline(5,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','right','Label','MCL',fontsize=8);
box
nexttile
boxchart(DCB14SA.Year,DCB14SA.R,"BoxFaceColor",'0.64 0.08 0.18','MarkerColor','0.64 0.08 0.18')
```

```
ylim([0.1 1500])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'log',...
    'YTick', [0.1 1 10 100 1000]);
title("1,4-DCB (ug/L)")
yline(75,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','right','Label','MCL',fontsize=8);
box
nexttile
boxchart(CBSA.Year,CBSA.R,"BoxFaceColor",'0.68 0.92 1','MarkerColor','black','BoxEdgeColor','black')
ylim([0.1 1500])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'log',...
    'YTick', [0.1 1 10 100 1000]);
title("CB (ug/L)")
yline(100,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','right','Label','MCL',fontsize=8);
box
```



3.3 VOC Summary Tables

Tetrachloroethene Annual Northern Area (Surficial)

```
MW237_table = groupsummary(MW237c,"Analyte",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(MCL5gt(x))},"R");
MW237_table.Properties.VariableNames = ["Analyte","Count","NNZ","Min","Max","Range","Mean","Median",...
```

```
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","PCE>5"]
```

MW237_table = 5×20 table

	Analyte	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	DCE11	9	9	2.5000	15	12.5000	5.9778	4.3000	4.1361	17.1069	1.2922	3.4540	0	2.6600	3.3500	4.3000	8.0250
2	PCE	9	9	9.4000	49	39.6000	18.9333	14	13.1488	172.8900	1.5761	4.0728	1	10.0400	11	14	20.7500
3	TCE	9	9	39	2900	2861	394.6667	86	939.9230	8.8346e+05	2.4706	7.1129	1	45	55.5000	86	112.5000
4	VC	9	9	28	140	112	51.7778	43	34.4375	1.1859e+03	2.1383	6.1148	1	30	35.2500	43	48.5000
5	cDCE	9	4	0.5000	2.7000	2.2000	1.3275	1.0550	1.0506	1.1037	0.4955	1.6308	0	0.5000	0.5050	1.0550	2.1500

Tetrachloroethene Annual Northern Area (Surficial)

```
PCE_NAtableAnnual = groupsummary(PCENA,"Year",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(MCL5gt(x))},"R");
PCE_NAtableAnnual.Properties.VariableNames = ["Year","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","PCE>5"]
```

PCE_NAtableAnnual = 7×20 table

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	2018	16	4	1.7000	170	168.3000	81.6750	77.5000	90.8197	8.2482e+03	0.0235	1.0330	0	1.7000	3.3500	77.5000	160
2	2019	40	17	0.9700	2400	2.3990e+03	188.1159	11	577.0137	3.3294e+05	3.6063	14.3468	3	1.2600	2.8500	11	63.7500
3	2020	32	23	0.8700	2600	2.5991e+03	169.9509	24	539.6959	2.9127e+05	4.2290	19.5397	4	1.7800	6.7000	24	53.5000
4	2021	33	21	0.7800	1200	1.1992e+03	82.6581	11	259.6189	6.7402e+04	4.0688	18.0190	2	1.2960	2.7500	11	41.7500
5	2022	42	27	0.3800	22000	2.2000e+04	1.0756e+03	11	4.3374e+03	1.8813e+07	4.4441	21.7024	4	1.0640	2.7250	11	36
6	2023	40	24	0.3900	22000	2.2000e+04	975.0525	11.7000	4.4826e+03	2.0094e+07	4.5734	21.9596	3	0.5710	1.8500	11.7000	32
7	2024	39	27	0.4700	4300	4.2995e+03	170.7981	8.6000	825.3895	6.8127e+05	4.8998	25.0191	3	0.6420	1.1425	8.6000	16

Tetrachloroethene Annual Southern Area (Surficial Aquifer)

```
PCE_SAtableAnnual = groupsummary(PCESA,"Year",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(MCL5gt(x))},"R");
PCE_SAtableAnnual.Properties.VariableNames = ["Year","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","PCE>5"]
```

PCE_SAtableAnnual = 7×20 table

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	2018	26	12	0.8200	41	40.1800	5.9975	2.8500	11.1382	124.0586	2.9046	9.6908	1	0.8410	1.3500	2.8500	4.7000
2	2019	53	20	0.1700	170	169.8300	15.6710	2.3500	39.4808	1.5587e+03	3.3233	13.1321	4	0.9750	1.5000	2.3500	4.7500

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
3	2020	49	18	0.7600	69	68.2400	12.0200	5.6500	20.7916	432.2912	2.3666	6.8156	2	1.3600	1.8000	5.6500	8.1000
4	2021	29	10	0.7400	62	61.2600	8.5300	3.0500	18.8514	355.3752	2.6329	8.0061	1	0.7450	0.8100	3.0500	4.2000
5	2022	29	9	0.7600	55	54.2400	9.4822	2.5000	17.6138	310.2461	2.2223	6.3053	2	0.8080	1.6450	2.5000	6.6750
6	2023	30	11	0.4200	9	8.5800	2.4027	1.6000	2.5228	6.3644	1.7384	5.2876	1	0.4920	0.8200	1.6000	3.4500
7	2024	30	13	0.7700	14	13.2300	3.7115	1.7000	4.3071	18.5508	1.6711	4.2590	2	0.7780	1.1750	1.7000	4.1250

Trichloroethene Annual Northern Area (Surficial Aquifer)

```
TCE_NAtableAnnual = groupsummary(TCENA,"Year",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(MCL5gt(x))},"R");
TCE_NAtableAnnual.Properties.VariableNames = ["Year","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","TCE>5"]
```

TCE_NAtableAnnual = 7×20 table

...

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	2018	16	10	0.5200	190	189.4800	35.4970	7.7000	63.4559	4.0267e+03	1.7841	4.6237	2	0.5350	2.5000	7.7000	16
2	2019	40	26	0.6400	5200	5.1994e+03	435.2900	17.5000	1.1544e+03	1.3327e+06	3.3368	13.2672	5	1.4500	3	17.5000	140
3	2020	32	25	1.8000	3700	3.6982e+03	289.0360	25	752.3063	5.6596e+05	3.9706	18.3877	4	4.7000	7.5250	25	172.5000
4	2021	33	26	0.6700	2400	2.3993e+03	232.1142	34.5000	600.6797	3.6082e+05	3.1121	10.9592	3	2	8.3000	34.5000	130
5	2022	42	35	0.6100	20000	1.9999e+04	1.1885e+03	26	4.3513e+03	1.8934e+07	3.8266	15.8589	5	1.6000	4.0750	26	122.5000
6	2023	40	34	0.4200	18000	1.8000e+04	707.5374	12	3.1064e+03	9.6498e+06	5.3078	29.9909	4	0.9520	3.3000	12	93
7	2024	39	30	0.3400	3900	3.8997e+03	333.9370	15	894.8743	8.0080e+05	3.0148	11.1887	4	0.5950	2.2000	15	76

Trichloroethene Annual Southern Area (Surficial Aquifer)

```
TCE_SAtableAnnual = groupsummary(TCESA,"Year",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(MCL5gt(x))},"R");
TCE_SAtableAnnual.Properties.VariableNames = ["Year","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","TCE>5"]
```

TCE_SAtableAnnual = 7×20 table

...

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	2018	26	18	0.7300	58	57.2700	18.5961	13	17.9111	320.8092	0.9293	2.8880	0	0.9300	2.9000	13	32
2	2019	53	34	0.5100	290	289.4900	28.2391	12	53.6758	2.8811e+03	3.8243	18.2872	5	1.2370	5.6000	12	22
3	2020	49	30	0.5900	80	79.4100	15.3283	6.9500	20.4740	419.1828	2.0715	6.6020	3	1.2000	3.1000	6.9500	18
4	2021	29	18	0.5900	340	339.4100	31.3717	6.6000	79.0716	6.2523e+03	3.5792	14.4722	2	1.0600	2.5000	6.6000	23

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
5	2022	29	19	0.2100	270	269.7900	34.5305	7	71.5502	5.1194e+03	2.4803	7.9265	3	0.2820	1.7500	7	16
6	2023	30	21	0.2700	1100	1.0997e+03	70.2571	5.5000	239.6625	5.7438e+04	4.0524	17.9010	3	0.4040	1.1000	5.5000	16
7	2024	30	16	0.3200	190	189.6800	27.7212	12.5000	47.3958	2.2464e+03	2.7522	9.8730	2	0.8180	3.9500	12.5000	26.5000

cis-1,2-dichloroethene Annual Northern Area (Surficial Aquifer)

```
cDCE_NAtableAnnual = groupsummary(cDCENA,"Year",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(MCL70gt(x))},"R");
cDCE_NAtableAnnual.Properties.VariableNames = ["Year","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","cDCE>70"]
```

cDCE_NAtableAnnual = 7×20 table

...

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	2018	16	10	0.4600	2700	2.6995e+03	328.3060	11.1000	845.2067	7.1437e+05	2.5400	7.6733	2	0.4800	1.3000	11.1000	68
2	2019	40	29	0.4200	18000	1.8000e+04	992.7197	76	3.3629e+03	1.1309e+07	4.7010	24.2128	4	1.6120	9.7000	76	395
3	2020	32	27	2.2000	4300	4.2978e+03	466.8037	52	1.0756e+03	1.1569e+06	2.6599	8.8882	5	3.7600	10.7500	52	177.5000
4	2021	33	27	0.6000	3100	3.0994e+03	273.6852	51	619.2285	3.8344e+05	3.7722	17.4467	3	1.7400	10.7500	51	262.5000
5	2022	42	36	0.5900	20000	1.9999e+04	1.3991e+03	67	4.6284e+03	2.1422e+07	3.7475	15.3415	4	2.6500	12	67	380
6	2023	40	34	0.5500	39000	3.8999e+04	1.8324e+03	45.5000	6.9449e+03	4.8231e+07	4.8009	25.7618	7	2.0740	8.4000	45.5000	120
7	2024	39	32	0.4700	14000	1.4000e+04	824.7869	41	2.7165e+03	7.3796e+06	4.0365	19.0572	4	0.9970	4.7500	41	180

cis-1,2-dichloroethene Annual Southern Area (Surficial Aquifer)

```
cDCE_SAtableAnnual = groupsummary(cDCESA,"Year",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(MCL70gt(x))},"R");
cDCE_SAtableAnnual.Properties.VariableNames = ["Year","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","cDCE>70"]
```

cDCE_SAtableAnnual = 7×20 table

...

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	2018	26	23	0.4400	1700	1.6996e+03	147.8083	17	357.2380	1.2762e+05	3.8028	16.9759	2	1.1300	2.1500	17	157.5000
2	2019	53	41	0.4800	1300	1.2995e+03	158.6751	22	309.7194	9.5926e+04	2.4677	8.1795	6	1.2600	2.2000	22	130
3	2020	49	40	0.4100	630	629.5900	52.2043	5.2000	118.4205	1.4023e+04	3.5919	16.4647	7	0.7150	1.0500	5.2000	34.5000
4	2021	29	23	0.5300	500	499.4700	59.5713	19	109.5461	1.2000e+04	3.0298	12.5314	1	0.7800	1.6500	19	72.2500
5	2022	29	24	0.3500	440	439.6500	67.3104	22.5000	117.6164	1.3834e+04	2.4362	7.9054	2	0.6240	1.2000	22.5000	83
6	2023	30	22	0.4500	470	469.5500	62.0886	26	110.0086	1.2102e+04	2.7390	10.1159	2	0.7620	1.3000	26	68

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
7	2024	30	20	0.5100	530	529.4900	86.1155	35	138.8361	1.9275e+04	2.2282	7.1304	2	1.1000	1.3000	35	115

Vinyl Chloride Annual Northern Area (Surficial Aquifer)

```
VC_NAtableAnnual = groupsummary(VCNA,"Year",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(MCL2gt(x))},"R");
VC_NAtableAnnual.Properties.VariableNames = ["Year","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","VC>2"]
```

VC_NAtableAnnual = 7×20 table

...

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	2018	16	4	1.5000	26	24.5000	8.4500	3.1500	11.7276	137.5367	1.1383	2.3213	0	1.5000	2.2000	3.1500	14.7000
2	2019	40	10	0.7400	88	87.2600	27.3840	11	32.5599	1.0601e+03	0.9355	2.1378	0	1.2200	7.1000	11	64
3	2020	32	17	0.9500	89	88.0500	12.0971	3.3000	22.1964	492.6795	2.7339	9.7445	2	1.2800	1.7000	3.3000	9.6000
4	2021	33	14	0.9500	150	149.0500	22.0536	8.0500	38.9355	1.5160e+03	2.7664	9.7051	1	1.1750	2	8.0500	22
5	2022	42	20	0.7100	690	689.2900	85.6255	9.9000	204.9648	4.2011e+04	2.5269	7.6251	4	1.3000	1.9500	9.9000	25
6	2023	40	21	0.5700	2300	2.2994e+03	163.6748	12	509.0164	2.5910e+05	3.7984	16.3280	3	1.2800	1.5000	12	38.2500
7	2024	39	19	0.9400	2300	2.2991e+03	221.1374	4.1000	635.0715	4.0332e+05	2.6873	8.4698	3	1.2220	2.1250	4.1000	18.7500

Vinyl Chloride Annual Southern Area (Surficial Aquifer)

```
VC_SAtableAnnual = groupsummary(VCSA,"Year",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(MCL2gt(x))},"R");
VC_SAtableAnnual.Properties.VariableNames = ["Year","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","VC>2"]
```

VC_SAtableAnnual = 7×20 table

...

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	2018	26	15	0.6700	190	189.3300	27.2780	6.3000	48.8942	2.3906e+03	2.6788	9.4542	1	1.3000	2.5250	6.3000	35
2	2019	53	23	0.5900	190	189.4100	29.6122	7.5000	52.3597	2.7415e+03	2.1232	6.1070	3	0.9580	1.5000	7.5000	25.5000
3	2020	49	16	1.5000	85	83.5000	12.9750	5.8000	21.6875	470.3473	2.6151	8.9157	2	1.6000	1.7500	5.8000	11
4	2021	29	15	0.5700	180	179.4300	37.1120	7.9000	58.5645	3.4298e+03	1.6767	4.3013	2	0.9100	1.6000	7.9000	40.5000
5	2022	29	15	0.7100	170	169.2900	42.1607	14	53.9177	2.9071e+03	1.1683	3.1167	0	1.1000	2.2750	14	74.2500
6	2023	30	16	0.4500	170	169.5500	20.0737	5.9000	41.9889	1.7631e+03	3.0989	11.5911	2	0.5870	1.3000	5.9000	17.5000
7	2024	30	17	0.4800	550	549.5200	70.6765	11	140.3573	1.9700e+04	2.6559	9.2875	2	0.5100	1.2750	11	70.2500

1,1-Dichloroethene Annual Northern Area (Surficial Aquifer)

```
DCE11_NAtableAnnual = groupsummary(DCE11NA,"Year",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(MCL7gt(x))},"R");
DCE11_NAtableAnnual.Properties.VariableNames = ["Year","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","11DCE>7"]
```

DCE11_NAtableAnnual = 7×20 table

...

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	2018	16	6	0.5000	3.2000	2.7000	1.8233	2.1000	1.0940	1.1969	-0.2348	1.6138	0	0.5040	0.5400	2.1000	2.5000
2	2019	40	15	0.4500	2000	1.9995e+03	148.8433	3.6000	513.1270	2.6330e+05	3.4511	12.9690	3	0.5100	2.0000	3.6000	8.6500
3	2020	32	21	0.4300	1500	1.4996e+03	82.9248	3.7000	325.4695	1.0593e+05	4.2159	18.8696	3	0.6620	1.1775	3.7000	13.2500
4	2021	33	15	0.7300	150	149.2700	15.6407	2.1000	38.1704	1.4570e+03	3.1897	11.7646	3	0.8200	1.2000	2.1000	8.5250
5	2022	42	19	0.3300	1400	1.3997e+03	158.0126	5.1000	406.5837	1.6531e+05	2.5436	7.6525	4	0.5800	1.1750	5.1000	34.5000
6	2023	40	18	0.6200	2800	2.7994e+03	182.1939	2.8500	658.9795	4.3425e+05	3.7775	15.5164	3	0.7200	1.1000	2.8500	10
7	2024	39	16	0.4700	410	409.5300	43.0031	2.9000	111.8043	1.2500e+04	2.6661	8.7180	3	0.5320	1.2000	2.9000	7.7500

1,1-Dichloroethene Annual Southern Area (Surficial Aquifer)

```
DCE11_SAtableAnnual = groupsummary(DCE11SA,"Year",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(MCL7gt(x))},"R");
DCE11_SAtableAnnual.Properties.VariableNames = ["Year","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","11DCE>7"]
```

DCE11_SAtableAnnual = 7×20 table

...

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	2018	26	5	0.4900	5.1000	4.6100	1.6980	1.1000	1.9264	3.7110	1.4056	3.1251	1	0.4900	0.5725	1.1000	2.1750
2	2019	53	2	0.5200	4.3000	3.7800	2.4100	2.4100	2.6729	7.1442	-3.2889e-16	1	0	0.5200	0.5200	2.4100	4.3000
3	2020	49	8	0.3600	4.8000	4.4400	1.1500	0.6500	1.4900	2.2200	2.1775	5.9132	1	0.3690	0.4550	0.6500	0.9150
4	2021	30	7	0.3900	2.3000	1.9100	0.8814	0.5500	0.6977	0.4868	1.3882	3.4574	1	0.3980	0.4475	0.5500	1.1500
5	2022	29	2	0.7800	2	1.2200	1.3900	1.3900	0.8627	0.7442	-5.5027e-16	1	0	0.7800	0.7800	1.3900	2
6	2023	30	5	0.5000	4.3000	3.8000	1.4560	0.6300	1.6225	2.6324	1.3624	3.0393	0	0.5000	0.5375	0.6300	2.0500
7	2024	30	7	0.4600	2.2000	1.7400	1.1900	1.1000	0.5966	0.3560	0.4248	2.2281	0	0.4920	0.7025	1.1000	1.5000

Methylene Chloride Annual Northern Area (Surficial Aquifer)

```
DCM_NAtableAnnual = groupsummary(DCMNA,"Year",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(MCL5gt(x))},"R");
DCM_NAtableAnnual.Properties.VariableNames = ["Year","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","DCM>5"]
```

DCM_NAtableAnnual = 7×20 table

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	2018	16	0	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	0	NaN	NaN	NaN	NaN
2	2019	40	0	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	0	NaN	NaN	NaN	NaN
3	2020	32	0	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	0	NaN	NaN	NaN	NaN
4	2021	33	1	3	3	0	3	3	0	0	NaN	NaN	0	3	3	3	3
5	2022	42	2	3.3000	8	4.7000	5.6500	5.6500	3.3234	11.0450	-5.4750e-16	1.0000	0	3.3000	3.3000	5.6500	8
6	2023	40	0	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	0	NaN	NaN	NaN	NaN
7	2024	39	0	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	0	NaN	NaN	NaN	NaN

Methylene Chloride Annual Southern Area (Surficial Aquifer)

```
DCM_SAtableAnnual = groupsummary(DCMSA,"Year",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(MCL5gt(x))},"R");
DCM_SAtableAnnual.Properties.VariableNames = ["Year","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","DCM>5"]
```

DCM_SAtableAnnual = 7×20 table

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	2018	26	2	22	89	67	55.5000	55.5000	47.3762	2.2445e+03	0	1	0	22	22	55.5000	89
2	2019	53	2	5.7000	18	12.3000	11.8500	11.8500	8.6974	75.6450	2.4437e-16	1.0000	0	5.7000	5.7000	11.8500	18
3	2020	49	2	6.5000	13	6.5000	9.7500	9.7500	4.5962	21.1250	0	1	0	6.5000	6.5000	9.7500	13
4	2021	29	1	4.1000	4.1000	0	4.1000	4.1000	0	0	NaN	NaN	0	4.1000	4.1000	4.1000	4.1000
5	2022	29	0	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	0	NaN	NaN	NaN	NaN
6	2023	30	0	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	0	NaN	NaN	NaN	NaN
7	2024	30	0	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	0	NaN	NaN	NaN	NaN

Benzene Annual Northern Area (Surficial Aquifer)

```
Benz_NAtableAnnual = groupsummary(BenzNA,"Year",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(MCL5gt(x))},"R");
Benz_NAtableAnnual.Properties.VariableNames = ["Year","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","Benz>5"]
```

Benz_NAtableAnnual = 7×20 table

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	2018	16	0	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	0	NaN	NaN	NaN	NaN

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
2	2019	40	1	3.8000	3.8000	0	3.8000	3.8000	0	0	NaN	NaN	0	3.8000	3.8000	3.8000	3.8000
3	2020	32	0	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	0	NaN	NaN	NaN	NaN
4	2021	33	0	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	0	NaN	NaN	NaN	NaN
5	2022	42	1	0.2700	0.2700	0	0.2700	0.2700	0	0	NaN	NaN	0	0.2700	0.2700	0.2700	0.2700
6	2023	40	2	0.2800	0.3000	0.0200	0.2900	0.2900	0.0141	2.0000e-04	-8.3645e-15	1.0000	0	0.2800	0.2800	0.2900	0.3000
7	2024	39	1	0.3500	0.3500	0	0.3500	0.3500	0	0	NaN	NaN	0	0.3500	0.3500	0.3500	0.3500

Benzene Annual Southern Area (Surficial Aquifer)

```
Benz_SAtableAnnual = groupsummary(BenzSA,"Year",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(MCL5gt(x))},"R");
Benz_SAtableAnnual.Properties.VariableNames = ["Year","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","Benz>5"]
```

Benz_SAtableAnnual = 7×20 table

...

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	2018	26	11	0.5200	16	15.4800	3.1109	1.4000	4.3613	19.0205	2.6462	8.4222	1	0.8680	1.2500	1.4000	2.9750
2	2019	53	12	0.1800	22	21.8200	3.0683	0.9950	6.0441	36.5306	2.8741	9.5647	1	0.4530	0.6550	0.9950	2.5000
3	2020	49	6	0.6000	4	3.4000	1.5050	0.7550	1.3617	1.8541	1.1969	2.8396	0	0.6120	0.7200	0.7550	2.2000
4	2021	29	8	0.5100	6.3000	5.7900	1.6925	1.2000	1.9032	3.6223	2.0743	5.6631	1	0.5280	0.6650	1.2000	1.5000
5	2022	29	7	0.3000	2.3000	2.0000	1.1657	0.9000	0.7272	0.5288	0.4546	1.8270	0	0.3740	0.6750	0.9000	1.7750
6	2023	30	5	0.3500	2.2000	1.8500	1.0060	0.8800	0.7309	0.5342	0.9230	2.5008	0	0.3500	0.4625	0.8800	1.3750
7	2024	30	12	0.2700	3.9000	3.6300	1.3517	0.9450	1.1563	1.3369	0.8356	2.7566	0	0.2840	0.3300	0.9450	2.2000

1,2-Dichloroethane Annual Northern Area (Surficial Aquifer)

```
DCA12_NAtableAnnual = groupsummary(DCA12NA,"Year",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(MCL5gt(x))},"R");
DCA12_NAtableAnnual.Properties.VariableNames = ["Year","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","12DCA>5"]
```

DCA12_NAtableAnnual = 7×20 table

...

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	2018	16	0	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	0	NaN	NaN	NaN	NaN
2	2019	40	6	0.6500	28	27.3500	7.5683	2.4000	10.7179	114.8732	1.3650	3.2748	1	0.6810	0.9600	2.4000	11
3	2020	32	1	0.5400	0.5400	0	0.5400	0.5400	0	0	NaN	NaN	0	0.5400	0.5400	0.5400	0.5400

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
4	2021	33	2	0.6500	2.4000	1.7500	1.5250	1.5250	1.2374	1.5312	1.6572e-16	1	0	0.6500	0.6500	1.5250	2.4000
5	2022	42	4	0.5400	11	10.4600	4.2850	2.8000	4.6478	21.6022	0.9124	2.1500	0	0.5400	1.2700	2.8000	7.3000
6	2023	40	2	0.6300	0.7200	0.0900	0.6750	0.6750	0.0636	0.0040	-3.7181e-15	1.0000	0	0.6300	0.6300	0.6750	0.7200
7	2024	39	6	0.2700	1.3000	1.0300	0.7383	0.5450	0.4475	0.2002	0.5271	1.5329	0	0.2900	0.4700	0.5450	1.3000

1,2-Dichloroethane Annual Southern Area (Surficial Aquifer)

```
DCA12_SAtableAnnual = groupsummary(DCA12SA,"Year",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(MCL5gt(x))},"R");
DCA12_SAtableAnnual.Properties.VariableNames = ["Year","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","12DCA>5"]
```

DCA12_SAtableAnnual = 7×20 table

...

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	2018	26	11	1.3000	34	32.7000	10.4727	3.7000	12.9649	168.0882	1.0428	2.2309	0	1.3600	1.9000	3.7000	21.1000
2	2019	53	16	0.5900	120	119.4100	18.9062	3.7500	31.3407	982.2419	2.3374	7.9157	1	0.8230	1.1300	3.7500	25.5000
3	2020	49	9	0.6700	57	56.3300	9.6989	1.4000	18.5695	344.8252	2.1255	5.9633	2	0.6900	1.0050	1.4000	7.6500
4	2021	29	11	0.5400	53	52.4600	7.3682	2.4000	15.3380	235.2528	2.7163	8.6368	1	0.5940	0.9200	2.4000	4.3250
5	2022	29	9	0.2800	48	47.7200	9.6522	4.7000	14.9436	223.3117	2.1539	6.1507	1	0.4840	2.2975	4.7000	8.8250
6	2023	30	11	0.2900	3.4000	3.1100	1.1400	0.8700	0.9679	0.9368	1.1694	3.5818	0	0.3140	0.3650	0.8700	1.7750
7	2024	30	10	0.5600	18	17.4400	5.4220	3	5.8679	34.4320	1.0824	3.0166	0	0.6200	0.6800	3	8.5000

1,1,2-Trichloroethane Annual Northern Area (Surficial Aquifer)

```
TCA112_NAtableAnnual = groupsummary(TCA112NA,"Year",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(MCL5gt(x))},"R");
TCA112_NAtableAnnual.Properties.VariableNames = ["Year","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","112TCA>5"]
```

TCA112_NAtableAnnual = 7×20 table

...

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	2018	16	0	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	0	NaN	NaN	NaN	NaN
2	2019	40	3	0.3400	4.2000	3.8600	2.5800	3.2000	2.0033	4.0132	-0.5141	1.5000	0	0.3400	1.0550	3.2000	3.9500
3	2020	32	2	0.5900	1.1000	0.5100	0.8450	0.8450	0.3606	0.1301	6.2771e-16	1.0000	0	0.5900	0.5900	0.8450	1.1000
4	2021	33	0	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	0	NaN	NaN	NaN	NaN
5	2022	42	0	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	0	NaN	NaN	NaN	NaN

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
6	2023	40	0	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	0	NaN	NaN	NaN	NaN
7	2024	39	2	0.5200	0.8200	0.3000	0.6700	0.6700	0.2121	0.0450	1.0922e-15	1.0000	0	0.5200	0.5200	0.6700	0.8200

1,1,2-Trichloroethane Annual Southern Area (Surficial Aquifer)

```
TCA112_SAtableAnnual = groupsummary(TCA112SA,"Year",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(MCL5gt(x))},"R");
TCA112_SAtableAnnual.Properties.VariableNames = ["Year","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","112TCA>5"]
```

TCA112_SAtableAnnual = 7×20 table

...

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	2018	26	8	0.3800	17	16.6200	3.1713	1.2500	5.6183	31.5657	2.2186	6.0192	1	0.4130	0.7950	1.2500	1.9500
2	2019	53	6	0.3300	17	16.6700	4.7800	0.8000	6.8780	47.3072	1.0913	2.5558	0	0.3620	0.6500	0.8000	9.1000
3	2020	49	3	0.7100	21	20.2900	7.8033	1.7000	11.4394	130.8590	0.7012	1.5000	0	0.7100	0.9575	1.7000	16.1750
4	2021	29	2	2.2000	21	18.8000	11.6000	11.6000	13.2936	176.7200	2.7375e-16	1.0000	0	2.2000	2.2000	11.6000	21
5	2022	29	5	0.6600	21	20.3400	5.0700	1.1000	8.9161	79.4963	1.4909	3.2376	1	0.6600	0.7575	1.1000	6.6000
6	2023	30	1	0.3300	0.3300	0	0.3300	0.3300	0	0	NaN	NaN	0	0.3300	0.3300	0.3300	0.3300
7	2024	30	5	0.3900	6.3000	5.9100	2.0580	1.1000	2.4044	5.7813	1.3966	3.1203	1	0.3900	0.8475	1.1000	2.7000

1,4-Dichlorobenzene Annual Northern Area (Surficial Aquifer)

```
DCB14_NAtableAnnual = groupsummary(DCB14NA,"Year",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(MCL75gt(x))},"R");
DCB14_NAtableAnnual.Properties.VariableNames = ["Year","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","14DCB>75"]
```

DCB14_NAtableAnnual = 7×20 table

...

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	2018	16	0	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	0	NaN	NaN	NaN	NaN
2	2019	40	3	0.5500	14	13.4500	6.4167	4.7000	6.8874	47.4358	0.4295	1.5000	0	0.5500	1.5875	4.7000	11.6750
3	2020	32	1	0.5700	0.5700	0	0.5700	0.5700	0	0	NaN	NaN	0	0.5700	0.5700	0.5700	0.5700
4	2021	33	1	1.3000	1.3000	0	1.3000	1.3000	0	0	NaN	NaN	0	1.3000	1.3000	1.3000	1.3000
5	2022	42	2	0.6400	1.7000	1.0600	1.1700	1.1700	0.7495	0.5618	3.7287e-16	1	0	0.6400	0.6400	1.1700	1.7000
6	2023	40	5	0.4000	7.5000	7.1000	2.1000	1	3.0397	9.2400	1.4487	3.1812	1	0.4000	0.4000	1	2.7750
7	2024	39	6	0.6800	17	16.3200	4.9783	2.4000	6.2942	39.6167	1.3548	3.3177	1	0.6910	0.7900	2.4000	6.6000

1,4-Dichlorobenzene Annual Southern Area (Surficial Aquifer)

```
DCB14_SAtableAnnual = groupsummary(DCB14SA,"Year",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(MCL75gt(x))},"R");
DCB14_SAtableAnnual.Properties.VariableNames = ["Year","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","14DCB>75"]
```

DCB14_SAtableAnnual = 7×20 table

...

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	2018	26	12	0.7000	320	319.3000	88.8750	31	120.9712	1.4634e+04	1.1897	2.8273	0	0.9100	1.4000	31	141.5000
2	2019	53	22	0.4300	410	409.5700	67.5186	8.9500	120.2043	1.4449e+04	1.8953	5.1497	4	0.6550	1.3000	8.9500	53
3	2020	49	22	0.6300	270	269.3700	32.3527	3.7500	72.1225	5.2016e+03	2.5630	8.1993	5	0.7380	1.1000	3.7500	9.3000
4	2021	29	13	0.7400	700	699.2600	88.2031	18	190.7876	3.6400e+04	2.8139	9.5721	2	1.8280	3.1500	18	62.2500
5	2022	29	12	0.6000	760	759.4000	109.2333	39	212.6793	4.5233e+04	2.6554	8.7293	1	0.9500	2	39	100
6	2023	30	11	0.4800	60	59.5200	12.5191	1.9000	18.6715	348.6263	1.6786	4.8034	1	0.5700	0.9750	1.9000	17.7500
7	2024	30	14	0.7700	180	179.2300	51.5657	20.5000	64.8988	4.2119e+03	0.9639	2.3398	0	0.8420	2.5000	20.5000	93

Chlorobenzene Annual Northern Area (Surficial Aquifer)

```
CB_NAtableAnnual = groupsummary(CBNA,"Year",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(MCL100gt(x))},"R");
CB_NAtableAnnual.Properties.VariableNames = ["Year","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","CB>100"]
```

CB_NAtableAnnual = 7×20 table

...

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	2018	16	1	0.9800	0.9800	0	0.9800	0.9800	0	0	NaN	NaN	0	0.9800	0.9800	0.9800	0.9800
2	2019	40	3	1.1000	8.1000	7	4.8333	5.3000	3.5233	12.4133	-0.2391	1.5000	0	1.1000	2.1500	5.3000	7.4000
3	2020	32	2	2.2000	30	27.8000	16.1000	16.1000	19.6576	386.4200	-4.2332e-16	1	0	2.2000	2.2000	16.1000	30
4	2021	33	2	0.6900	1.6000	0.9100	1.1450	1.1450	0.6435	0.4141	0	1	0	0.6900	0.6900	1.1450	1.6000
5	2022	42	2	1	2	1	1.5000	1.5000	0.7071	0.5000	0	1	0	1	1	1.5000	2
6	2023	40	3	0.6400	11	10.3600	4.1733	0.8800	5.9133	34.9669	0.7058	1.5000	0	0.6400	0.7000	0.8800	8.4700
7	2024	39	6	0.7100	31	30.2900	9.8850	3.8500	12.4718	155.5450	0.9073	2.2261	0	0.7290	0.9000	3.8500	19

Chlorobenzene Annual Southern Area (Surficial Aquifer)

```
CB_SAtableAnnual = groupsummary(CBSA,"Year",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(MCL100gt(x))},"R");
CB_SAtableAnnual.Properties.VariableNames = ["Year","Count","NNZ","Min","Max","Range","Mean","Median",...
```

```
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","CB>100"]
```

CB_SAtableAnnual = 7×20 table

...

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	2018	26	12	1.1000	920	918.9000	170.2583	47	273.8529	7.4995e+04	1.9200	5.7185	1	1.3800	6.2500	47	250
2	2019	53	23	0.5400	2300	2.2995e+03	168.8596	18	480.5058	2.3089e+05	4.0421	18.4049	3	0.8460	2.0750	18	107
3	2020	49	25	0.4800	440	439.5200	44.7940	5.1000	102.2429	1.0454e+04	2.8843	10.6607	4	0.8000	0.9675	5.1000	20.5000
4	2021	29	13	1.3000	790	788.7000	105.9077	30	214.5387	4.6027e+04	2.7636	9.3652	2	2.9800	4.0750	30	79.2500
5	2022	29	16	0.3300	790	789.6700	94.4194	19	196.2977	3.8533e+04	3.0294	11.2545	1	1.0420	5	19	95.5000
6	2023	30	15	0.6500	76	75.3500	17.4700	4.5000	24.4713	598.8429	1.4479	3.7603	2	0.7600	1.1500	4.5000	24.2500
7	2024	30	15	0.6200	290	289.3800	69.6147	38	86.9892	7.5671e+03	1.3433	3.7906	1	3.7000	6.7000	38	109

4.0 Descriptive Statistics Time Series Plots for VOCs

4.1 Descriptive Statistics Time Series Plots for Surficial Aquifer: Northern Area

PCE Northern Area: Surficial Aquifer

```
t7=tiledlayout('flow');
t7.Padding='compact';
t7.TileSpacing='compact';
nexttile
plot(PCE_NAtableAnnual.Year,PCE_NAtableAnnual.Count,'-.','Color','0.23 0.44 0.34')
hold
```

```
Current plot held
```

```
plot(PCE_NAtableAnnual.Year,PCE_NAtableAnnual.NNZ,'-.','Color','0 0.4470 0.7410')
ylim([0 50])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'linear',...
    'YTick', [0 10 20 30 40 50]);
title('VOC # Detects');
plot(TCE_NAtableAnnual.Year,TCE_NAtableAnnual.NNZ,'-.','Color','0.85 0.33 0.1')
plot(cDCE_NAtableAnnual.Year,cDCE_NAtableAnnual.NNZ,'-.','Color','0.93 0.69 0.13')
plot(VC_NAtableAnnual.Year,VC_NAtableAnnual.NNZ,'-.','Color',' 0.49 0.18 0.56')
plot(DCE11_NAtableAnnual.Year,DCE11_NAtableAnnual.NNZ,'-.','Color','0.47 0.67 0.19')
xline(categorical({'2021'}),'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','right','Label','ISB Inj',fontsize=8);
legend('#Samples',"","","","","",Location='southeast',EdgeColor='none',Color='none');
nexttile
plot(PCE_NAtableAnnual.Year,PCE_NAtableAnnual.Max,'-.','Color','0 0.4470 0.7410')
hold
```

```
Current plot held
```

```
plot(TCE_NAtableAnnual.Year,TCE_NAtableAnnual.Max,'-.','Color','0.85 0.33 0.1')
```

```
plot(cDCE_NAtableAnnual.Year,cDCE_NAtableAnnual.Max,'-.','Color','0.93 0.69 0.13')
plot(VC_NAtableAnnual.Year,VC_NAtableAnnual.Max,'-.','Color',' 0.49 0.18 0.56')
plot(DCE11_NAtableAnnual.Year,DCE11_NAtableAnnual.Max,'-.','Color','0.47 0.67 0.19')
ylim([1 100000])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'log',...
    'YTick', [1 10 100 1000 10000 100000]);
xline(categorical({'2021'}),'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','right','Label','ISB Inj',fontsize=8);
title('VOC Max Conc. (ug/L)');
nexttile
plot(PCE_NAtableAnnual.Year,PCE_NAtableAnnual.Mean,'-.','Color','0 0.4470 0.7410')
hold
```

```
Current plot held
```

```
plot(TCE_NAtableAnnual.Year,TCE_NAtableAnnual.Mean,'-.','Color','0.85 0.33 0.1')
plot(cDCE_NAtableAnnual.Year,cDCE_NAtableAnnual.Mean,'-.','Color','0.93 0.69 0.13')
plot(VC_NAtableAnnual.Year,VC_NAtableAnnual.Mean,'-.','Color',' 0.49 0.18 0.56')
plot(DCE11_NAtableAnnual.Year,DCE11_NAtableAnnual.Mean,'-.','Color','0.47 0.67 0.19')
ylim([1 5000])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'log',...
    'YTick', [1 10 100 1000]);
xline(categorical({'2021'}),'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','right','Label','ISB Inj',fontsize=8);
title('VOC Mean Conc. (ug/L)')
nexttile
plot(PCE_NAtableAnnual.Year,PCE_NAtableAnnual.Median,'-.','Color','0 0.4470 0.7410')
hold
```

```
Current plot held
```

```
plot(TCE_NAtableAnnual.Year,TCE_NAtableAnnual.Median,'-.','Color','0.85 0.33 0.1')
plot(cDCE_NAtableAnnual.Year,cDCE_NAtableAnnual.Median,'-.','Color','0.93 0.69 0.13')
plot(VC_NAtableAnnual.Year,VC_NAtableAnnual.Median,'-.','Color',' 0.49 0.18 0.56')
plot(DCE11_NAtableAnnual.Year,DCE11_NAtableAnnual.Median,'-.','Color','0.47 0.67 0.19')
ylim([0 100])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'linear',...
    'YTick', [0 25 50 75 100]);
xline(categorical({'2021'}),'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','right','Label','ISB Inj',fontsize=8);
title('VOC Median Conc. (ug/L)')
nexttile
plot(PCE_NAtableAnnual.Year,PCE_NAtableAnnual.Outliers,'-.','Color','0 0.4470 0.7410')
hold
```

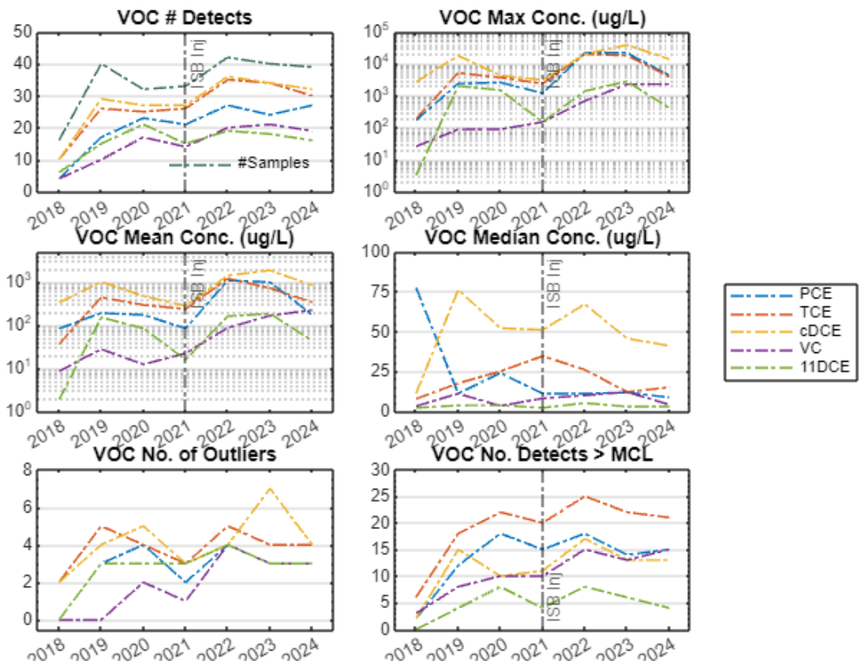
```
Current plot held
```

```
plot(TCE_NAtableAnnual.Year,TCE_NAtableAnnual.Outliers,'-.','Color','0.85 0.33 0.1')
plot(cDCE_NAtableAnnual.Year,cDCE_NAtableAnnual.Outliers,'-.','Color','0.93 0.69 0.13')
plot(VC_NAtableAnnual.Year,VC_NAtableAnnual.Outliers,'-.','Color',' 0.49 0.18 0.56')
plot(DCE11_NAtableAnnual.Year,DCE11_NAtableAnnual.Outliers,'-.','Color','0.47 0.67 0.19')
ylim([-0.5 8])
```

```
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'linear',...
    'YTick', [0 2 4 6 8]);
title('VOC No. of Outliers')
nexttile
plot(PCE_NAtableAnnual.Year,PCE_NAtableAnnual.("PCE>5"),'-.','Color','0 0.4470 0.7410')
hold
```

```
Current plot held
```

```
plot(TCE_NAtableAnnual.Year,TCE_NAtableAnnual.("TCE>5"),'-.','Color','0.85 0.33 0.1')
plot(cDCE_NAtableAnnual.Year,cDCE_NAtableAnnual.("cDCE>70"),'-.','Color','0.93 0.69 0.13')
plot(VC_NAtableAnnual.Year,VC_NAtableAnnual.("VC>2"),'-.','Color',' 0.49 0.18 0.56')
plot(DCE11_NAtableAnnual.Year,DCE11_NAtableAnnual.("11DCE>7"),'-.','Color','0.47 0.67 0.19')
ylim([0 30])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'linear',...
    'YTick', [0 5 10 15 20 25 30]);
xline(categorical({'2021'}),'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','right','Label','ISB Inj',fontsize=8);
title('VOC No. Detects > MCL')
lgd=legend;
lbd.Layout.Tile = 5;
lgd.Layout.Tile="east";
legend(["PCE", "TCE", "cDCE", "VC","11DCE"]);
```



Correlation Analysis for Frequency of Detection (Surficial Aquifer - Northern Area)

```
'PCE #D vs. #D',[rho,pval] = corr(PCE_NAtableAnnual.NNZ,PCE_NAtableAnnual.Count,'Rows','complete')
```

```
ans =
'PCE #D vs. #D'
rho = 0.8653
pval = 0.0119
```

```
'TCE #D vs. #D',[rho,pval] = corr(TCE_NAtableAnnual.NNZ,TCE_NAtableAnnual.Count,'Rows','complete')
```

```
ans =
'TCE #D vs. #D'
rho = 0.9499
pval = 0.0011
```

```
'cDCE #D vs. #D',[rho,pval] = corr(cDCE_NAtableAnnual.NNZ,cDCE_NAtableAnnual.Count,'Rows','complete')
```

```
ans =
'cDCE #D vs. #D'
rho = 0.9760
pval = 1.6993e-04
```

```
'VC #D vs. #D',[rho,pval] = corr(VC_NAtableAnnual.NNZ,PCE_NAtableAnnual.Count,'Rows','complete')
```

```
ans =
'VC #D vs. #D'
rho = 0.7827
pval = 0.0375
```

```
'11DCE #D vs. #D',[rho,pval] = corr(DCE11_NAtableAnnual.NNZ,DCE11_NAtableAnnual.Count,'Rows','complete')
```

```
ans =
'11DCE #D vs. #D'
rho = 0.7752
pval = 0.0406
```

```
'PCE #D vs. TCE #D',[rho,pval] = corr(PCE_NAtableAnnual.NNZ,TCE_NAtableAnnual.NNZ,'Rows','complete')
```

```
ans =
'PCE #D vs. TCE #D'
rho = 0.9323
pval = 0.0022
```

```
'TCE #D vs. cDCE #D',[rho,pval] = corr(TCE_NAtableAnnual.NNZ,cDCE_NAtableAnnual.NNZ,'Rows','complete')
```

```
ans =
'TCE #D vs. cDCE #D'
rho = 0.9918
pval = 1.1490e-05
```

```
'cDCE #D vs. VC #D',[rho,pval] = corr(cDCE_NAtableAnnual.NNZ,VC_NAtableAnnual.NNZ,'Rows','complete')
```

```
ans =
'cDCE #D vs. VC #D'
rho = 0.8938
pval = 0.0067
```

```
'11DCE #D vs. cDCE #D',[rho,pval] = corr(DCE11_NAtableAnnual.NNZ,cDCE_NAtableAnnual.NNZ,'Rows','complete')
```

```
ans =
'11DCE #D vs. cDCE #D'
rho = 0.8480
```

```
pval = 0.0159
```

```
'11DCE #D vs. VC #D',[rho,pval] = corr(DCE11_NAtableAnnual.NNZ,VC_NAtableAnnual.NNZ,'Rows','complete')
```

```
ans =
'11DCE #D vs. VC #D'
rho = 0.8581
pval = 0.0135
```

Mann-Kendal Trend Analysis (Surficial Aquifer - Northern Area)

Mann-Kendall Trend Analysis PCE Bulk Plume

```
'Two Way Test for Trend PCE Bulk Plume Surficial Aquifer Max Conc Not 0',...
[H, P_value,Z,StdS]=MKwMiss(PCE_NAtableAnnual.Max,0.05,NaN)
```

```
ans =
'Two Way Test for Trend PCE Bulk Plume Surficial Aquifer Max Conc Not 0'
H = logical

   0
P_value =
0.0947
Z =
1.6710
StdS =
6.5828
```

```
'Two Way Test for Trend PCE Bulk Plume Surficial Aquifer Mean Conc Not 0',...
[H, P_value,Z,StdS]=MKwMiss(PCE_NAtableAnnual.Mean,0.05,NaN)
```

```
ans =
'Two Way Test for Trend PCE Bulk Plume Surficial Aquifer Mean Conc Not 0'
H = logical

   0
P_value =
0.3675
Z =
0.9011
StdS =
6.6583
```

```
'Two Way Test for Trend PCE Bulk Plume Surficial Aquifer Median Not 0',...
[H, P_value,Z,StdS]=MKwMiss(PCE_NAtableAnnual.Median,0.05,NaN)
```

```
ans =
'Two Way Test for Trend PCE Bulk Plume Surficial Aquifer Median Not 0'
H = logical

   0
P_value =
0.1582
Z =
-1.4113
StdS =
6.3770
```

Mann-Trend Analysis TCE Bulk Plume

```
'Two Way Test for Trend TCE Bulk Plume Surficial Aquifer Max Conc Not 0',...
[H, P_value,Z,StdS]=MKwMiss(TCE_NAtableAnnual.Max,0.05,NaN)
```

```
ans =
'Two Way Test for Trend TCE Bulk Plume Surficial Aquifer Max Conc Not 0'
H = logical

   0
P_value =
0.3675
Z =
0.9011
StdS =
6.6583
```

```
'Two Way Test for Trend TCE Bulk Plume Surficial Aquifer Mean Conc Not 0',...
[H, P_value,Z,StdS]=MKwMiss(TCE_NAtableAnnual.Mean,0.05,NaN)
```

```
ans =
'Two Way Test for Trend TCE Bulk Plume Surficial Aquifer Mean Conc Not 0'
H = logical

   0
P_value =
0.3675
Z =
0.9011
StdS =
6.6583
```

```
'Two Way Test for Trend TCE Bulk Plume Surficial Aquifer Median < 0',...
[H, P_value,Z,StdS]=MKwMiss(TCE_NAtableAnnual.Median,0.05,NaN)
```

```
ans =
'Two Way Test for Trend TCE Bulk Plume Surficial Aquifer Median < 0'
H = logical

   0
P_value =
0.7639
Z =
0.3004
StdS =
6.6583
```

Mann-Trend Analysis cDCE Bulk Plume

```
'Two Way Test for Trend cDCE Bulk Plume Surficial Aquifer Max Conc Not 0',...
[H, P_value,Z,StdS]=MKwMiss(cDCE_NAtableAnnual.Max,0.05,NaN)
```

```
ans =
'Two Way Test for Trend cDCE Bulk Plume Surficial Aquifer Max Conc Not 0'
H = logical

   0
P_value =
0.2296
Z =
```

```
1.2015
StdS =
6.6583
```

```
'Two Way Test for Trend cDCE Bulk Plume Surficial Aquifer Mean Conc Not 0',...
[H, P_value,Z,StdS]=MKwMiss(cDCE_NAtableAnnual.Mean,0.05,NaN)
```

```
ans =
'Two Way Test for Trend cDCE Bulk Plume Surficial Aquifer Mean Conc Not 0'
H = logical

   0
P_value =
0.3675
Z =
0.9011
StdS =
6.6583
```

```
'Two Way Test for Trend cDCE Bulk Plume Surficial Aquifer Median Not 0',...
[H, P_value,Z,StdS]=MKwMiss(cDCE_NAtableAnnual.Median,0.05,NaN)
```

```
ans =
'Two Way Test for Trend cDCE Bulk Plume Surficial Aquifer Median Not 0'
H = logical

   0
P_value =
0.5480
Z =
-0.6008
StdS =
6.6583
```

Mann-Trend Analysis VC Bulk Plume

```
'Two Way Test for Trend VC Bulk Plume Surficial Aquifer Max Conc Not 0',...
[H, P_value,Z,StdS]=MKwMiss(VC_NAtableAnnual.Max,0.05,NaN)
```

```
ans =
'Two Way Test for Trend VC Bulk Plume Surficial Aquifer Max Conc Not 0'
H = logical

   1
P_value =
0.0039
Z =
2.8863
StdS =
6.5828
```

```
'Two Way Test for Trend VC Bulk Plume Surficial Aquifer Mean Conc Not 0',...
[H, P_value,Z,StdS]=MKwMiss(VC_NAtableAnnual.Mean,0.05,NaN)
```

```
ans =
'Two Way Test for Trend VC Bulk Plume Surficial Aquifer Mean Conc Not 0'
H = logical

   1
P_value =
```

```
0.0163
Z =
2.4030
StdS =
6.6583
```

```
'Two Way Test for Trend VC Bulk Plume Surficial Aquifer Median Not 0',...
[H, P_value,Z,StdS]=MKwMiss(VC_NAtableAnnual.Median,0.05,NaN)
```

```
ans =
'Two Way Test for Trend VC Bulk Plume Surficial Aquifer Median Not 0'
H = logical

   0
P_value =
0.3675
Z =
0.9011
StdS =
6.6583
```

4.2 Descriptive Statistics Time Series Plots for Surficial Aquifer: Southern Area

```
t8=tiledlayout('flow');
t8.Padding='compact';
t8.TileSpacing='compact';
nexttile
plot(PCE_SAtableAnnual.Year,PCE_SAtableAnnual.Count,'-.','Color','0.23 0.44 0.34')
hold
```

```
Current plot held
```

```
plot(PCE_SAtableAnnual.Year,PCE_SAtableAnnual.NNZ,'-.','Color','0 0.4470 0.7410')
ylim([0 60])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'linear',...
    'YTick', [0 10 20 30 40 50 60]);
title('VOC # Detects');
plot(TCE_SAtableAnnual.Year,TCE_SAtableAnnual.NNZ,'-.','Color','0.85 0.33 0.1')
plot(cDCE_SAtableAnnual.Year,cDCE_SAtableAnnual.NNZ,'-.','Color','0.93 0.69 0.13')
plot(VC_SAtableAnnual.Year,VC_SAtableAnnual.NNZ,'-.','Color',' 0.49 0.18 0.56')
xline(categorical({'2021'}),'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','right','Label','ISB Inj',fontsize=8);
legend('#Samples',"","","","","",Location='northeast',EdgeColor='none',Color='none');
nexttile
plot(PCE_SAtableAnnual.Year,PCE_SAtableAnnual.Max,'-.','Color','0 0.4470 0.7410')
hold
```

```
Current plot held
```

```
plot(TCE_SAtableAnnual.Year,TCE_SAtableAnnual.Max,'-.','Color','0.85 0.33 0.1')
plot(cDCE_SAtableAnnual.Year,cDCE_SAtableAnnual.Max,'-.','Color','0.93 0.69 0.13')
plot(VC_SAtableAnnual.Year,VC_SAtableAnnual.Max,'-.','Color',' 0.49 0.18 0.56')
ylim([1 10000])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'log',...
```

```
    'YTick', [1 10 100 1000 10000]);
xline(categorical({'2021'}),'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','right','Label','ISB Inj',fontsize=8);
title('VOC Max Conc. (ug/L)');
nexttile
plot(PCE_SAtableAnnual.Year,PCE_SAtableAnnual.Mean,'-.','Color','0 0.4470 0.7410')
hold
```

```
Current plot held
```

```
plot(TCE_SAtableAnnual.Year,TCE_SAtableAnnual.Mean,'-.','Color','0.85 0.33 0.1')
plot(cDCE_SAtableAnnual.Year,cDCE_SAtableAnnual.Mean,'-.','Color','0.93 0.69 0.13')
plot(VC_SAtableAnnual.Year,VC_SAtableAnnual.Mean,'-.','Color',' 0.49 0.18 0.56')
ylim([1 1000])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'log',...
    'YTick', [1 10 100 1000]);
xline(categorical({'2021'}),'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','right','Label','ISB Inj',fontsize=8);
title('VOC Mean Conc. (ug/L)')
nexttile
plot(PCE_SAtableAnnual.Year,PCE_SAtableAnnual.Median,'-.','Color','0 0.4470 0.7410')
hold
```

```
Current plot held
```

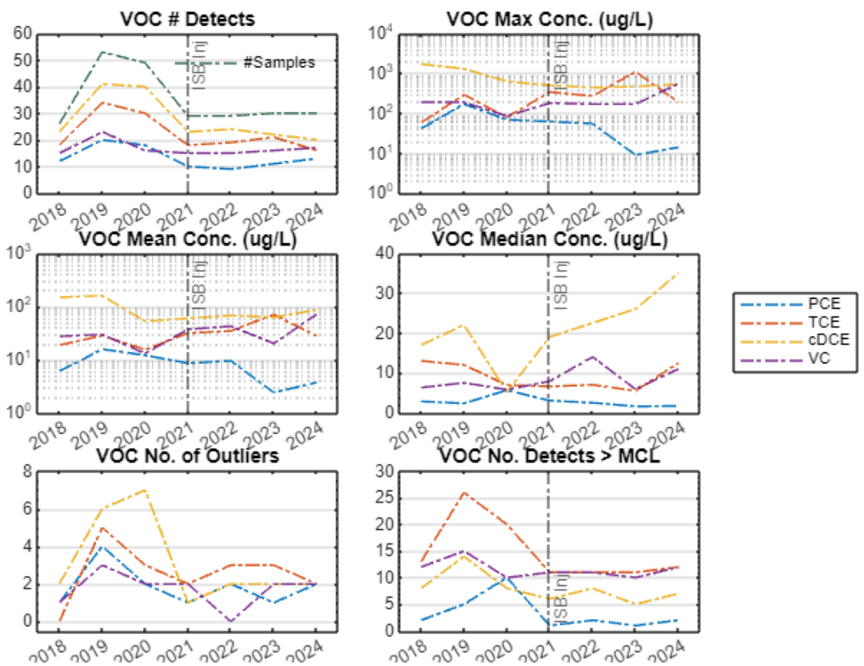
```
plot(TCE_SAtableAnnual.Year,TCE_SAtableAnnual.Median,'-.','Color','0.85 0.33 0.1')
plot(cDCE_SAtableAnnual.Year,cDCE_SAtableAnnual.Median,'-.','Color','0.93 0.69 0.13')
plot(VC_SAtableAnnual.Year,VC_SAtableAnnual.Median,'-.','Color',' 0.49 0.18 0.56')
ylim([0 40])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'linear',...
    'YTick', [0 10 20 30 40]);
xline(categorical({'2021'}),'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','right','Label','ISB Inj',fontsize=8);
title('VOC Median Conc. (ug/L)')
nexttile
plot(PCE_SAtableAnnual.Year,PCE_SAtableAnnual.Outliers,'-.','Color','0 0.4470 0.7410')
hold
```

```
Current plot held
```

```
plot(TCE_SAtableAnnual.Year,TCE_SAtableAnnual.Outliers,'-.','Color','0.85 0.33 0.1')
plot(cDCE_SAtableAnnual.Year,cDCE_SAtableAnnual.Outliers,'-.','Color','0.93 0.69 0.13')
plot(VC_SAtableAnnual.Year,VC_SAtableAnnual.Outliers,'-.','Color',' 0.49 0.18 0.56')
ylim([-0.5 8])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'linear',...
    'YTick', [0 2 4 6 8]);
title('VOC No. of Outliers')
nexttile
plot(PCE_SAtableAnnual.Year,PCE_SAtableAnnual.("PCE>5"),'-.','Color','0 0.4470 0.7410')
hold
```

```
Current plot held
```

```
plot(TCE_SAtableAnnual.Year,TCE_SAtableAnnual.("TCE>5"),'-.','Color','0.85 0.33 0.1')
plot(cDCE_SAtableAnnual.Year,cDCE_SAtableAnnual.("cDCE>70"),'-.','Color','0.93 0.69 0.13')
plot(VC_SAtableAnnual.Year,VC_SAtableAnnual.("VC>2"),'-.','Color',' 0.49 0.18 0.56')
ylim([0 30])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'linear',...
    'YTick', [0 5 10 15 20 25 30]);
xline(categorical({'2021'}),'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','right','Label','ISB Inj',fontsize=8);
title('VOC No. Detects > MCL')
lgd=legend;
lbd.Layout.Tile = 5;
lgd.Layout.Tile="east";
legend(["PCE", "TCE", "cDCE", "VC"]);
```



Correlation Analysis for Frequency of Detection (Surficial Aquifer - Southern Area)

```
'PCE #D vs. #D',[rho,pval] = corr(PCE_SAtableAnnual.NNZ,PCE_SAtableAnnual.Count,'Rows','complete')
```

```
ans =
'PCE #D vs. #D'
rho = 0.9389
pval = 0.0017
```

```
'TCE #D vs. #D',[rho,pval] = corr(TCE_SAtableAnnual.NNZ,TCE_SAtableAnnual.Count,'Rows','complete')
```

```
ans =
'TCE #D vs. #D'
rho = 0.9702
```

```
pval = 2.8863e-04
```

```
'cDCE #D vs. #D',[rho,pval] = corr(cDCE_SAtableAnnual.NNZ,cDCE_SAtableAnnual.Count,'Rows','complete')
```

```
ans =
'cDCE #D vs. #D'
rho = 0.9724
pval = 2.3916e-04
```

```
'VC #D vs. #D',[rho,pval] = corr(VC_SAtableAnnual.NNZ,PCE_SAtableAnnual.Count,'Rows','complete')
```

```
ans =
'VC #D vs. #D'
rho = 0.7475
pval = 0.0534
```

```
'12DCA #D vs. #D',[rho,pval] = corr(DCA12_SAtableAnnual.NNZ,DCA12_SAtableAnnual.Count,'Rows','complete')
```

```
ans =
'12DCA #D vs. #D'
rho = 0.5039
pval = 0.2489
```

```
'14DCB #D vs. #D',[rho,pval] = corr(DCB14_SAtableAnnual.NNZ,DCB14_SAtableAnnual.Count,'Rows','complete')
```

```
ans =
'14DCB #D vs. #D'
rho = 0.9724
pval = 2.3882e-04
```

```
'CB #D vs. #D',[rho,pval] = corr(CB_SAtableAnnual.NNZ,CB_SAtableAnnual.Count,'Rows','complete')
```

```
ans =
'CB #D vs. #D'
rho = 0.9566
pval = 7.3545e-04
```

```
'PCE #D vs. TCE #D',[rho,pval] = corr(PCE_SAtableAnnual.NNZ,TCE_SAtableAnnual.NNZ,'Rows','complete')
```

```
ans =
'PCE #D vs. TCE #D'
rho = 0.8930
pval = 0.0068
```

```
'TCE #D vs. cDCE #D',[rho,pval] = corr(TCE_SAtableAnnual.NNZ,cDCE_SAtableAnnual.NNZ,'Rows','complete')
```

```
ans =
'TCE #D vs. cDCE #D'
rho = 0.9718
pval = 2.5204e-04
```

```
'cDCE #D vs. VC #D',[rho,pval] = corr(cDCE_SAtableAnnual.NNZ,VC_SAtableAnnual.NNZ,'Rows','complete')
```

```
ans =
'cDCE #D vs. VC #D'
rho = 0.6452
pval = 0.1176
```

Mann-Trend Analysis PCE Bulk Plume

```
'Two Way Test for Trend PCE Bulk Plume Surficial Aquifer Max Conc Not 0',...
[H, P_value,Z,StdS]=MKwMiss(PCE_SAtableAnnual.Max,0.05,NaN)
```

```
ans =
'Two Way Test for Trend PCE Bulk Plume Surficial Aquifer Max Conc Not 0'
H = logical

   0
P_value =
0.1331
Z =
-1.5019
StdS =
6.6583
```

```
'Two Way Test for Trend PCE Bulk Plume Surficial Aquifer Mean Conc Not 0',...
[H, P_value,Z,StdS]=MKwMiss(PCE_SAtableAnnual.Mean,0.05,NaN)
```

```
ans =
'Two Way Test for Trend PCE Bulk Plume Surficial Aquifer Mean Conc Not 0'
H = logical

   0
P_value =
0.2296
Z =
-1.2015
StdS =
6.6583
```

```
'Two Way Test for Trend PCE Bulk Plume Surficial Aquifer Median Not 0',...
[H, P_value,Z,StdS]=MKwMiss(PCE_SAtableAnnual.Median,0.05,NaN)
```

```
ans =
'Two Way Test for Trend PCE Bulk Plume Surficial Aquifer Median < 0'
H = logical

   0
P_value =
0.2296
Z =
-1.2015
StdS =
6.6583
```

Mann-Trend Analysis TCE Bulk Plume

```
'Two Way Test for Trend TCE Bulk Plume Confined Aquifer Max Conc Not 0',...
[H, P_value,Z,StdS]=MKwMiss(TCE_SAtableAnnual.Max,0.05,NaN)
```

```
ans =
'Two Way Test for Trend TCE Bulk Plume Confined Aquifer Max Conc Not 0'
H = logical

   0
P_value =
0.3675
Z =
0.9011
StdS =
```

```
6.6583
```

```
'Two Way Test for Trend TCE Bulk Plume Confined Aquifer Mean Conc Not 0',...
[H, P_value,Z,StdS]=MKwMiss(TCE_SAtableAnnual.Mean,0.05,NaN)
```

```
ans =
'Two Way Test for Trend TCE Bulk Plume Confined Aquifer Mean Conc Not 0'
H = logical

   0
P_value =
0.2296
Z =
1.2015
StdS =
6.6583
```

```
'Two Way Test for Trend TCE Bulk Plume Confined Aquifer Median < 0',...
[H, P_value,Z,StdS]=MKwMiss(TCE_SAtableAnnual.Median,0.05,NaN)
```

```
ans =
'Two Way Test for Trend TCE Bulk Plume Confined Aquifer Median < 0'
H = logical

   0
P_value =
0.3675
Z =
-0.9011
StdS =
6.6583
```

Mann-Trend Analysis cDCE Bulk Plume

```
'Two Way Test for Trend cDCE Bulk Plume Confined Aquifer Max Conc Not 0',...
[H, P_value,Z,StdS]=MKwMiss(cDCE_SAtableAnnual.Max,0.05,NaN)
```

```
ans =
'Two Way Test for Trend cDCE Bulk Plume Confined Aquifer Max Conc Not 0'
H = logical

   0
P_value =
0.0715
Z =
-1.8023
StdS =
6.6583
```

```
'Two Way Test for Trend cDCE Bulk Plume Confined Aquifer Mean Conc Not 0',...
[H, P_value,Z,StdS]=MKwMiss(cDCE_SAtableAnnual.Mean,0.05,NaN)
```

```
ans =
'Two Way Test for Trend cDCE Bulk Plume Confined Aquifer Mean Conc Not 0'
H = logical

   0
P_value =
1
Z =
```

```
0
StdS =
6.6583
```

```
'Two Way Test for Trend cDCE Bulk Plume Confined Aquifer Median Not 0',...
[H, P_value,Z,StdS]=MKwMiss(cDCE_SAtableAnnual.Median,0.05,NaN)
```

```
ans =
'Two Way Test for Trend cDCE Bulk Plume Confined Aquifer Median < 0'
H = logical

   1
P_value =
0.0355
Z =
2.1026
StdS =
6.6583
```

Mann-Trend Analysis VC Bulk Plume

```
'Two Way Test for Trend VC Bulk Plume Confined Aquifer Max Conc Not 0',...
[H, P_value,Z,StdS]=MKwMiss(VC_SAtableAnnual.Max,0.05,NaN)
```

```
ans =
'Two Way Test for Trend VC Bulk Plume Confined Aquifer Max Conc Not 0'
H = logical

   0
P_value =
1
Z =
0
StdS =
6.5064
```

```
'Two Way Test for Trend VC Bulk Plume Confined Aquifer Mean Conc Not 0',...
[H, P_value,Z,StdS]=MKwMiss(VC_SAtableAnnual.Mean,0.05,NaN)
```

```
ans =
'Two Way Test for Trend VC Bulk Plume Confined Aquifer Mean Conc Not 0'
H = logical

   0
P_value =
0.2296
Z =
1.2015
StdS =
6.6583
```

```
'Two Way Test for Trend VC Bulk Plume Confined Aquifer Median Not 0',...
[H, P_value,Z,StdS]=MKwMiss(VC_SAtableAnnual.Median,0.05,NaN)
```

```
ans =
'Two Way Test for Trend VC Bulk Plume Confined Aquifer Median Not 0'
H = logical

   0
P_value =
```

```
0.3675
Z =
0.9011
StdS =
6.6583
```

Correlation Analysis for Distribution Parameters (Surficial Aquifer - Southern Area)

```
'cDCE 75th vs. VC 75',[rho,pval] = corr(cDCE_SAtableAnnual.PCTL75,VC_SAtableAnnual.PCTL75,'Rows','complete')
```

```
ans =
'cDCE 75th vs. VC 75'
rho = 0.2763
pval = 0.5486
```

```
'cDCE 75th vs. VC 75',[rho,pval] = corr(cDCE_SAtableAnnual.Mean,VC_SAtableAnnual.Mean,'Rows','complete')
```

```
ans =
'cDCE 75th vs. VC 75'
rho = 0.0141
pval = 0.9761
```

4.0 Descriptive Statistics Time Series Plots for Dissolved Gases

4.1 Descriptive Statistics Time Series Ethene Plot

```
t7=tiledlayout('flow');
t7.Padding="compact";
t7.TileSpacing='compact';
nexttile
plot(EthenetableEvent.Event,EthenetableEvent.Count,'-.','Color','0 0.75 0.75')
hold
```

```
Current plot held
```

```
set(gca, "XGrid", "off", "YGrid", "on")
title('Ethene # Detects')
plot(EthenetableEvent.Event,EthenetableEvent.NNZ,'-','Color','0 0.75 0.75')
xticklabels({'19', '' '20' '' '21' '' '22' '' '23' '' '24'})
axis padded
xline(categorical({'2022-1'}),'-.','LabelVerticalAlignment','middle',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
xline(categorical({'2023-1'}),'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','right','Label','ISB Inj',fontsize=8)
set(gca, "XGrid", "off", "YGrid", "on")
legend('#S',"#D",'','',Location='west',EdgeColor='none',Color='none');
nexttile
plot(EthenetableEvent.Event,EthenetableEvent.Max,'-.','Color','0 0.75 0.75')
hold
```

```
Current plot held
```

```
set(gca, "XGrid", "off", "YGrid", "on")
```

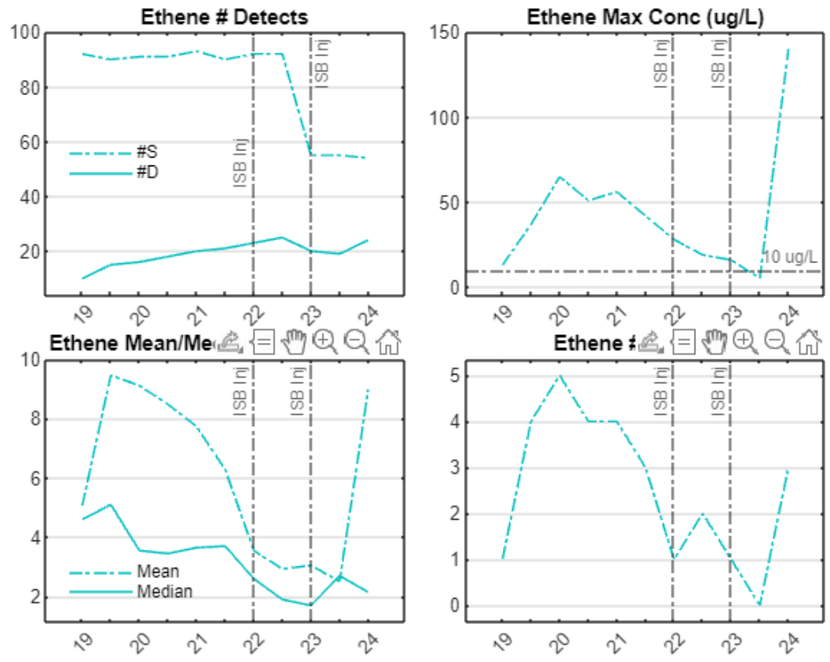
```
title('Ethene Max Conc (ug/L)')
xticklabels({'19', '' '20' '' '21' '' '22' '' '23' '' '24'})
yline(10,'-.','10 ug/L',FontSize=8)
ylim([0 150])
yticklabels([0 50 100 150])
xline(categorical({'2022-1'}),'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
xline(categorical({'2023-1'}),'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
axis padded
nexttile
plot(EthenetableEvent.Event,EthenetableEvent.Mean,'-.','Color','0 0.75 0.75')
xticklabels({'19', '' '20' '' '21' '' '22' '' '23' '' '24'})
axis padded
xline(categorical({'2022-1'}),'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
xline(categorical({'2023-1'}),'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
set(gca, "XGrid", "off", "YGrid", "on")
title('Ethene Mean/Median Detects (ug/L)')
hold
```

```
Current plot held
```

```
plot(EthenetableEvent.Event,EthenetableEvent.Median,'-','Color','0 0.75 0.75')
legend('Mean','','','Median',Location='southwest',EdgeColor='none',Color='none');
nexttile
plot(EthenetableEvent.Event,EthenetableEvent.(">10"),'-.','Color','0 0.75 0.75')
xticklabels({'19', '' '20' '' '21' '' '22' '' '23' '' '24'})
axis padded
xline(categorical({'2022-1'}),'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
xline(categorical({'2023-1'}),'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
set(gca, "XGrid", "off", "YGrid", "on")
hold
```

```
Current plot held
```

```
xticklabels({'19', '' '20' '' '21' '' '22' '' '23' '' '24'})
title 'Ethene # > 10 ug/L'
legend('',Location='northeast',EdgeColor='none',Color='none');
```




```
t8=tiledlayout('flow');
t8.Padding="compact";
t8.TileSpacing='compact';
nexttile
plot(EthanetableEvent.Event,EthanetableEvent.Count,'-.','Color','0.75 0.75 0')
hold
```

```
Current plot held
```

```
set(gca, "XGrid", "off", "YGrid", "on")
title('Ethane # Detects')
plot(EthanetableEvent.Event,EthanetableEvent.NNZ,'-','Color','0.75 0.75 0')
xticklabels({'19', '' '20' '' '21' '' '22' '' '23' '' '24'})
axis padded
xline(categorical({'2022-1'}),'-.','LabelVerticalAlignment','middle',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
xline(categorical({'2023-1'}),'-.','LabelVerticalAlignment','middle',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
set(gca, "XGrid", "off", "YGrid", "on")
legend('#S',"#D",'','',Location='west',EdgeColor='none',Color='none');
nexttile
plot(EthanetableEvent.Event,EthanetableEvent.Max,'-.','Color','0.75 0.75 0')
hold
```

```
Current plot held
```

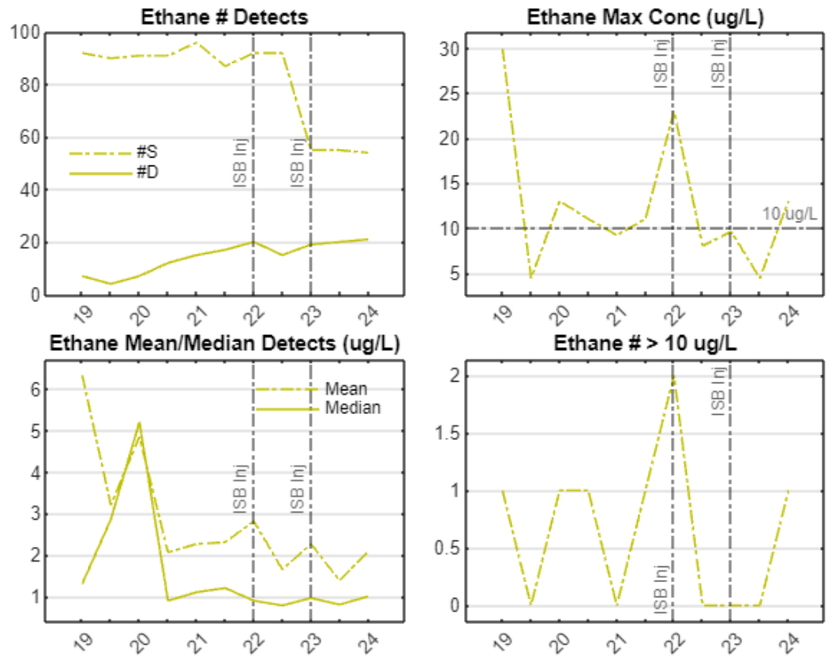
```
set(gca, "XGrid", "off", "YGrid", "on")
title('Ethane Max Conc (ug/L)')
xticklabels({'19', '' '20' '' '21' '' '22' '' '23' '' '24'})
yline(10,'-.','10 ug/L',FontSize=8)
xline(categorical({'2022-1'}),'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
xline(categorical({'2023-1'}),'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
axis padded
nexttile
plot(EthanetableEvent.Event,EthanetableEvent.Mean,'-.','Color','0.75 0.75 0')
xticklabels({'19', '' '20' '' '21' '' '22' '' '23' '' '24'})
axis padded
xline(categorical({'2022-1'}),'-.','LabelVerticalAlignment','middle',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
xline(categorical({'2023-1'}),'-.','LabelVerticalAlignment','middle',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
set(gca, "XGrid", "off", "YGrid", "on")
title('Ethane Mean/Median Detects (ug/L)')
hold
```

```
Current plot held
```

```
plot(EthanetableEvent.Event,EthanetableEvent.Median,'-','Color','0.75 0.75 0')
legend('Mean','','','Median',Location='northeast',EdgeColor='none',Color='none');
nexttile
plot(EthanetableEvent.Event,EthanetableEvent.(">10"),'-.','Color','0.75 0.75 0')
xticklabels({'19', '' '20' '' '21' '' '22' '' '23' '' '24'})
axis padded
xline(categorical({'2022-1'}),'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
xline(categorical({'2023-1'}),'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
set(gca, "XGrid", "off", "YGrid", "on")
hold
```

```
Current plot held
```

```
xticklabels({'19', '' '20' '' '21' '' '22' '' '23' '' '24'})
title 'Ethane # > 10 ug/L'
legend('',Location='northeast',EdgeColor='none',Color='none');
```




```
t9=tiledlayout('flow');
t9.Padding="compact";
t9.TileSpacing='compact';
nexttile
plot(MethanetableEvent.Event,MethanetableEvent.Count,'-.','Color','0.0 0.0 0.0')
hold
```

```
Current plot held
```

```
set(gca, "XGrid", "off", "YGrid", "on")
title('Methane # Detects')
plot(MethanetableEvent.Event,MethanetableEvent.NNZ,'-','Color','0.0 0.0 0.0')
xticklabels({'19', '' '20' '' '21' '' '22' '' '23' '' '24'})
axis padded
xline(categorical({'2022-1'}),'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
xline(categorical({'2023-1'}),'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','right','Label','ISB Inj',fontsize=8)
set(gca, "XGrid", "off", "YGrid", "on")
legend('#S',"#D",'','',Location='south',EdgeColor='none',Color='none');
nexttile
plot(MethanetableEvent.Event,MethanetableEvent.Max,'-.','Color','0.0 0.0 0.0')
hold
```

```
Current plot held
```

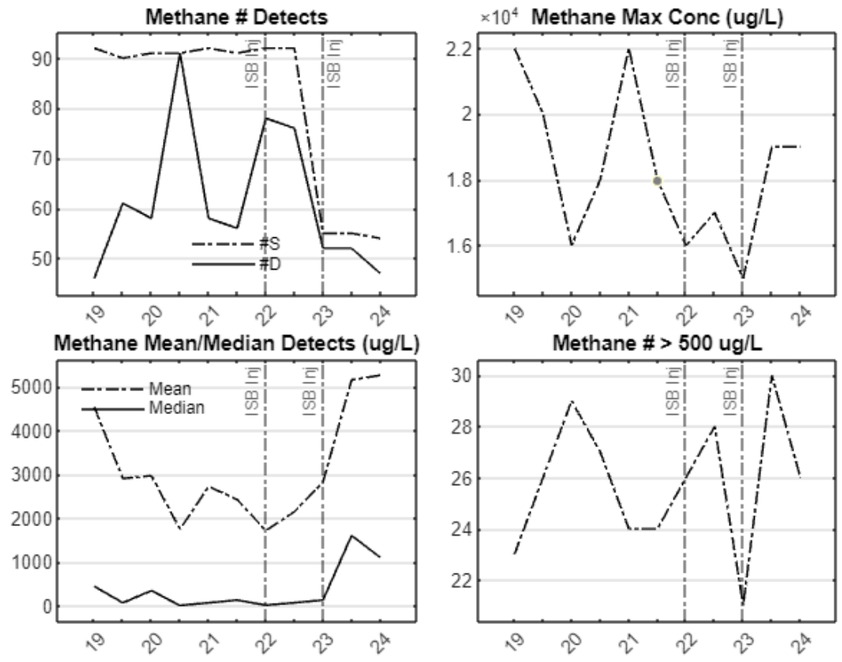
```
set(gca, "XGrid", "off", "YGrid", "on")
title('Methane Max Conc (ug/L)')
xticklabels({'19', '' '20' '' '21' '' '22' '' '23' '' '24'})
xline(categorical({'2022-1'}),'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
xline(categorical({'2023-1'}),'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
axis padded
nexttile
plot(MethanetableEvent.Event,MethanetableEvent.Mean,'-.','Color','0.0 0.0 0.0')
xticklabels({'19', '' '20' '' '21' '' '22' '' '23' '' '24'})
axis padded
xline(categorical({'2022-1'}),'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
xline(categorical({'2023-1'}),'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
set(gca, "XGrid", "off", "YGrid", "on")
title('Methane Mean/Median Detects (ug/L)')
hold
```

```
Current plot held
```

```
plot(MethanetableEvent.Event,MethanetableEvent.Median,'-','Color','0.0 0.0 0.0')
legend('Mean','','','Median',Location='northwest',EdgeColor='none',Color='none');
nexttile
plot(MethanetableEvent.Event,MethanetableEvent.(">500"),'-.','Color','0.0 0.0 0.0')
xticklabels({'19', '' '20' '' '21' '' '22' '' '23' '' '24'})
axis padded
xline(categorical({'2022-1'}),'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
xline(categorical({'2023-1'}),'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
set(gca, "XGrid", "off", "YGrid", "on")
hold
```

```
Current plot held
```

```
xticklabels({'19', '' '20' '' '21' '' '22' '' '23' '' '24'})
title 'Methane # > 500 ug/L'
legend('',Location='northeast',EdgeColor='none',Color='none');
```



5.0 Descriptive Statistics Time Series Plots for TOC

```
t10=tiledlayout('flow');
t10.Padding="compact";
t10.TileSpacing='compact';
nexttile
plot(TOCtableEvent.Event,TOCtableEvent.Count,'-.','Color','0.87 0.49 0')
hold
```

```
Current plot held
```

```
set(gca, "XGrid", "off", "YGrid", "on")
title('TOC # Detects')
plot(TOCtableEvent.Event,TOCtableEvent.NNZ,'-','Color','0.87 0.49 0')
xticklabels({'19', '' '20' '' '21' '' '22' '' '23' '' '24'})
axis padded
xline(categorical({'2022-1'}),'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
xline(categorical({'2023-1'}),'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','right','Label','ISB Inj',fontsize=8)
set(gca, "XGrid", "off", "YGrid", "on")
legend('#S',"#D",'','',Location='south',EdgeColor='none',Color='none');
nexttile
plot(TOCtableEvent.Event,TOCtableEvent.Max,'-.','Color','0.87 0.49 0')
```

```
hold
```

```
Current plot held
```

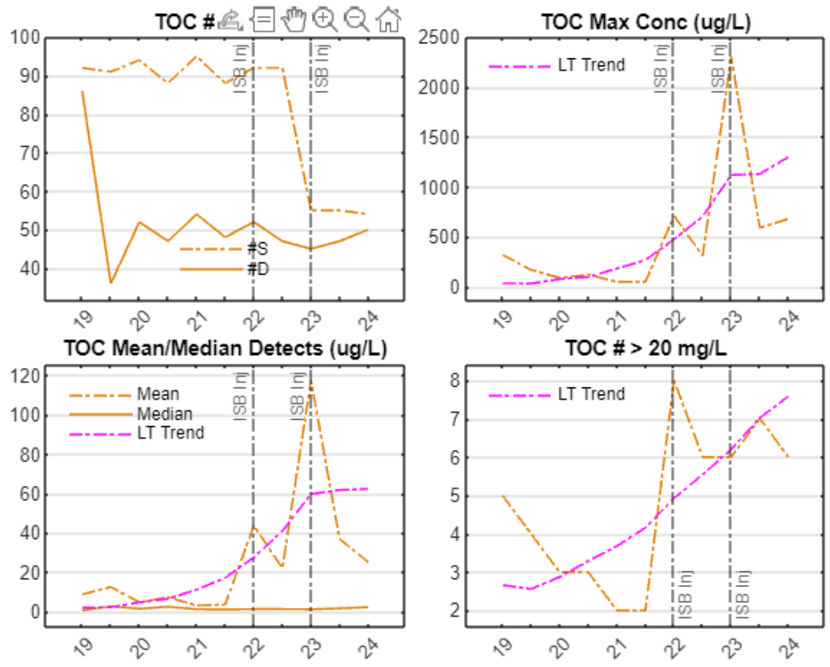
```
set(gca, "XGrid", "off", "YGrid", "on")
title('TOC Max Conc (ug/L)')
xticklabels({'19', '' '20' '' '21' '' '22' '' '23' '' '24'})
xline(categorical({'2022-1'}),'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
xline(categorical({'2023-1'}),'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
axis padded
plot(TOCSSA.Max_LongTerm,'-.','Color','magenta');
legend('','','','LT Trend','Location','northwest','EdgeColor','none','Color','none');
nexttile
plot(TOCtableEvent.Event,TOCtableEvent.Mean,'-.','Color','0.87 0.49 0')
xticklabels({'19', '' '20' '' '21' '' '22' '' '23' '' '24'})
axis padded
xline(categorical({'2022-1'}),'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
xline(categorical({'2023-1'}),'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
set(gca, "XGrid", "off", "YGrid", "on")
title('TOC Mean/Median Detects (ug/L)')
hold
```

```
Current plot held
```

```
plot(TOCtableEvent.Event,TOCtableEvent.Median,'-','Color','0.87 0.49 0')
plot(TOCMeanSSA.Mean_LongTerm,'-.','Color','magenta');
legend('Mean','','','Median','LT Trend',Location='northwest',...
    EdgeColor='none',Color='none');
nexttile
plot(TOCtableEvent.Event,TOCtableEvent.("TOC=>20"),'-.','Color','0.87 0.49 0')
xticklabels({'19', '' '20' '' '21' '' '22' '' '23' '' '24'})
axis padded
xline(categorical({'2022-1'}),'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','right','Label','ISB Inj',fontsize=8)
xline(categorical({'2023-1'}),'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','right','Label','ISB Inj',fontsize=8)
set(gca, "XGrid", "off", "YGrid", "on")
hold
```

```
Current plot held
```

```
plot(TOCGT20SSA.(1),'-.','Color','magenta');
xticklabels({'19', '' '20' '' '21' '' '22' '' '23' '' '24'})
legend('','','','LT Trend',Location='northwest',...
    EdgeColor='none',Color='none');
title 'TOC # > 20 mg/L'
```



5.0 Trend Analysis and Statistics

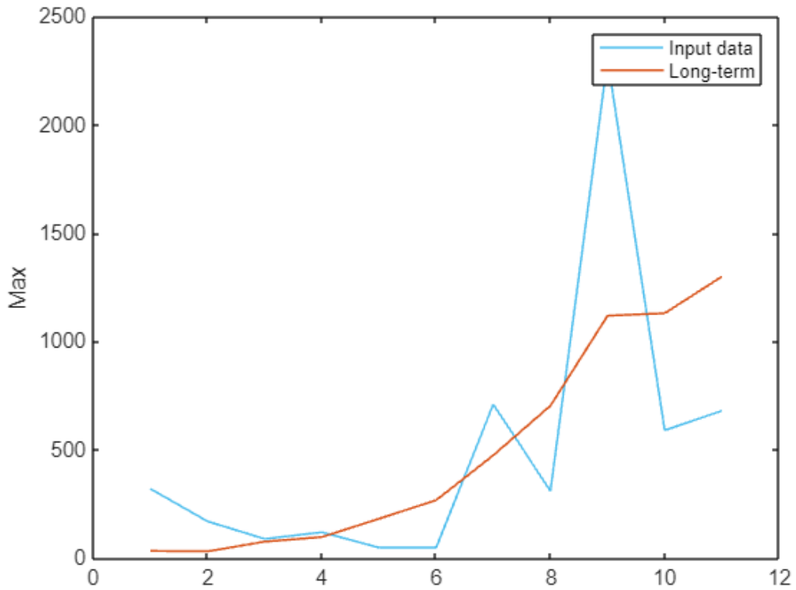
5.1 TOC SSA Trend Analysis

5.1.1 Maximum Concentration Trend

```
% Decompose data into long-term trend, seasonal trends, and remainder
TOCMaxSSA = trenddecomp(TOCtableEvent(:,"Max"),"ssa",5,"NumSeasonal",1);

% Display results
figure
plot(TOCtableEvent.(5),"SeriesIndex",6,"DisplayName","Input data")
hold on

% Plot long-term trend
plot(TOCMaxSSA.(1),"SeriesIndex",2,"LineWidth",1,"DisplayName","Long-term")
hold off
legend
ylabel("Max")
```

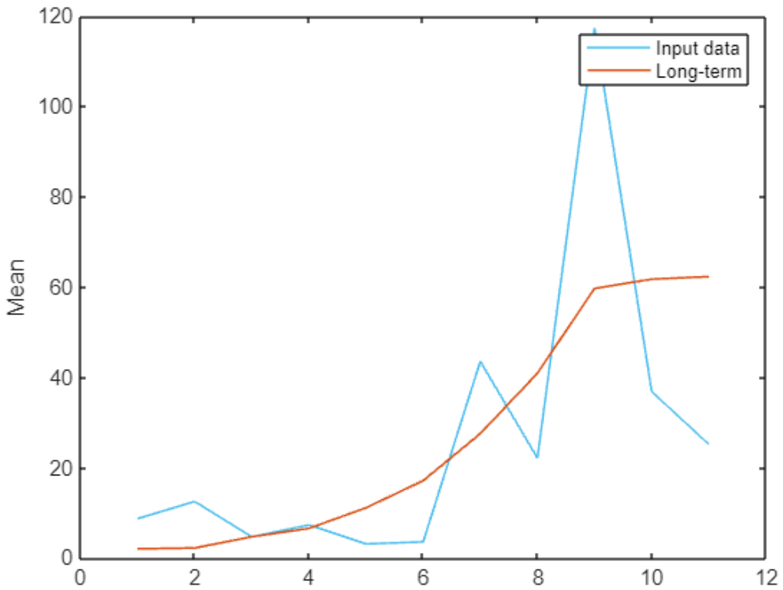


5.1.2 Mean Concentration Trend

```
% Decompose data into long-term trend, seasonal trends, and remainder
TOCMeanSSA = trenddecomp(TOCtableEvent(:,"Mean"),"ssa",5,"NumSeasonal",1);

% Display results
figure
plot(TOCtableEvent.(7),"SeriesIndex",6,"DisplayName","Input data")
hold on

% Plot long-term trend
plot(TOCMeanSSA.(1),"SeriesIndex",2,"LineWidth",1,"DisplayName","Long-term")
hold off
legend
ylabel("Mean")
```

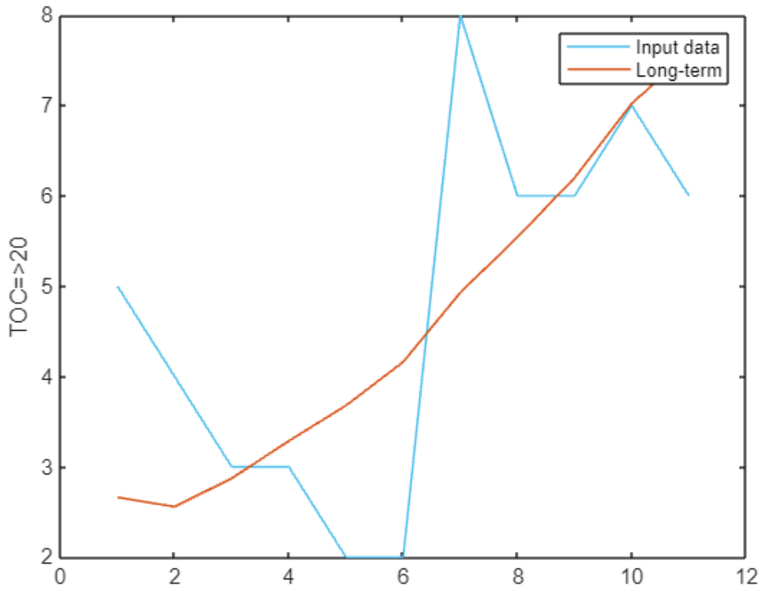


5.1.3 No. Samples =>20 mg/L Trend

```
% Decompose data into long-term trend, seasonal trends, and remainder
TOCGT20SSA = trenddecomp(TOCtableEvent(:,"TOC=>20"),"ssa",5,"NumSeasonal",1);

% Display results
figure
plot(TOCtableEvent.(20),"SeriesIndex",6,"DisplayName","Input data")
hold on

% Plot long-term trend
plot(TOCGT20SSA.(1),"SeriesIndex",2,"LineWidth",1,"DisplayName","Long-term")
hold off
legend
ylabel("TOC=>20")
```



5.1.4 Correlation Analysis

```
'TOC vs. PCE',[rho,pval] = corr(juliandate(MW103.Date),MW103.PCE)
```

Standard Color Ramp

Hex Color Reference Codes

- PCE 0 0.4470 0.7410
- TCE 0.85 0.33 0.1
- cDCE 0.93 0.69 0.13
- VC 0.49 0.18 0.56
- 1,1-DCE 0.47 0.67 0.19
- 1,1,1-TCA 0.3 0.75 0.93
- 1,2-DCA 0.5 0.5 0.5
- 1,4-DCB 0.64 0.08 0.18
- CB 0.68 0.92 1
- TOC 0.87 0.49 0
- DHC 0.87 0.49 0
- tceA 1 0.84 0
- VCR 1 0.6 0.78
- BCV 0.75 0.75 0

Group Statistics Standard Functions

- "sum" Sum
- "mean" Mean
- "median" Median
- "mode" Mode
- "var" Variance
- "std" Standard deviation
- "min" Minimum
- "max" Maximum
- "range" Maximum minus minimum
- "nummissing" Number of missing elements
- "numunique" Number of distinct nonmissing elements
- "nnz" Number of nonzero and non-NaN elements
- "all" All computations previously listed

Group Descriptive Statistics Functions

- **Outliers**
- **10th, 25th, 50th, 75th, 90th, and 95th percentile**
- **Skewness, Kurtosis**
- **Greater than specified limit**

```
% Is outlier function
function y = outlier(x)
% Count the number of outliers in each group
y = nnz(isoutlier(x,'quartiles'));
end

% 10th percentile function
function y = prctile10(x)
%Distribution 10th percentile
y = (prctile(x,10));
end

%25th percentile function
function y = prctile25(x)
%Distribution 25th percentile
y = (prctile(x,25));
end

%Distribution 50th percentile function
function y = prctile50(x)
%Distribution 50th percentile
```

```
y = (prctile(x,50));
end

%75th percentile function
function y = prctile75(x)
%Distribution 75th percentile
y = (prctile(x,75));
end

%90th percentile function
function y = prctile90(x)
%Distribution 90th percentile
y = (prctile(x,90));
end

%95th percentile function
function y = prctile95(x)
%Distribution 95th percentile
y = (prctile(x,95));
end

%25 and 75th percentile function
function y = prct25_75(x)
% x is the data in a group from one computation variable
% Distribution 25th and 75th percentile
y = (prctile(x,[25 75]));
end

%skewness function
function y = skew(x)
%Distribution skewness
y= (skewness(x));
end

%skewness function
function y = kurt(x)
%Distribution skewness
y= (kurtosis(x));
end

%Group count >MCL 5
function y = MCL5gt(x)
%Group counts for greater than a limit
y= sum(x>5);
end

%Group count >MCL 2
function y = MCL2gt(x)
%Group counts for greater than a limit
y= sum(x>2);
```

```
end

%Group count >MCL 7
function y = MCL7gt(x)
%Group counts for greater than a limit
y= sum(x>7);
end

%Group count >MCL 70
function y = MCL70gt(x)
%Group counts for greater than a limit
y= sum(x>70);
end

%Group count >MCL 75
function y = MCL75gt(x)
%Group counts for greater than a limit
y= sum(x>75);
end

%Group count >MCL 2
function y = MCL100gt(x)
%Group counts for greater than a limit
y= sum(x>100);
end

%Group count >MCL 200
function y = MCL200gt(x)
%Group counts for greater than a limit
y= sum(x>200);
end

%Group count <pH 5
function y = pH5lt(x)
%Group counts for greater than a limit
y= sum(x<5);
end

%Group count <=DO 1
function y = DOlt(x)
%Group counts for greater than a limit
y= sum(x<=1);
end

%Group count <=ORP 50
function y = ORPlt(x)
%Group counts for greater than a limit
y= sum(x<=-50);
end
```

```
%Group count <=Sulfate 50
function y = SO4lt(x)
%Group counts for greater than a limit
y= sum(x<50);
end

%Group count <=Sulfide 1
function y = S2gt(x)
%Group counts for greater than a limit
y= sum(x>1);
end

%Group count <=Sulfide H2S 1
function y = S2H2Sgt(x)
%Group counts for greater than a limit
y= sum(x>1);
end

%Group count TOC=>20
function y = TOCgt(x)
%Group counts for greater than a limit
y= sum(x>=20);
end

%Group count Methane=>500
function y = Methanegt(x)
%Group counts for greater than a limit
y= sum(x>=500);
end

%Group count Fe2=>1
function y = FE2gt(x)
%Group counts for greater than a limit
y= sum(x>=1);
end

%Group count Ethene=>10
function y = Ethenegt(x)
%Group counts for greater than a limit
y= sum(x>=10);
end

%Group count Ethane=>10
function y = Ethanegt(x)
%Group counts for greater than a limit
y= sum(x>=10);
end

%Group count NO3=<1
function y = NO3gt(x)
```

```
%Group counts for greater than a limit
y= sum(x<1);
end

%Group Pearson's Linear Correlation
function y = correl(x)
%Group counts for greater than a limit
y= corr(juliandate(MW237c.Date),MW237.Analyte,Rows="complete");
end
```

OU 6 2018-2024 Confined Aquifer - Group GW Statistical Summary

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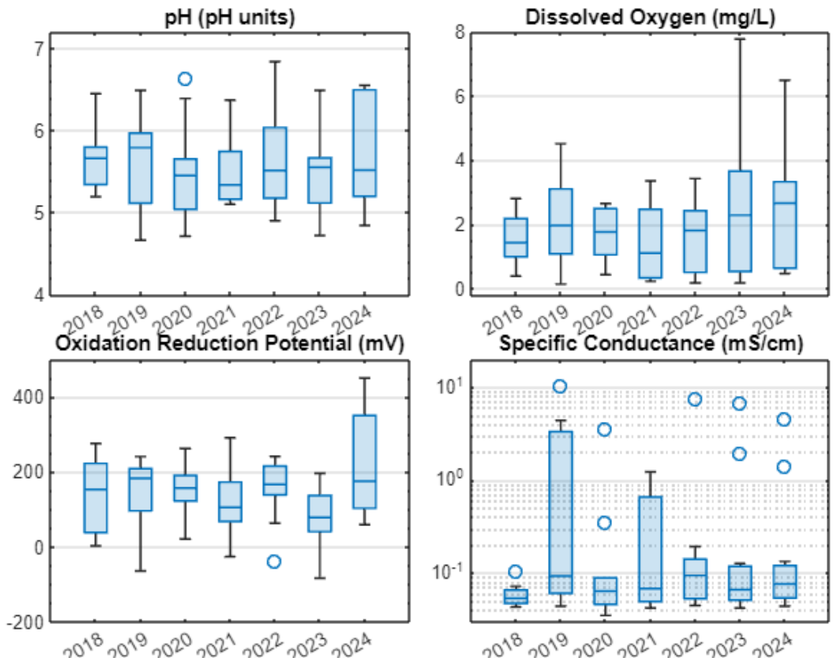
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1.0 Water Quality Parameters

1.1 Distribution Box Plots Annual (Confined Aquifer: Northern Area)

```
figure
t1=tiledlayout('flow');
t1.Padding="compact";
t1.TileSpacing='compact';
nexttile
boxchart(pHNA.Year,pHNA.R)
```

```
ylim([4 7.2])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'linear',...
    'YTick', [4 5 6 7]);
title("pH (pH units)")
box
nexttile
boxchart(DONA.Year,DONA.R)
set(gca, "XGrid", "off", "YGrid", "on")
ylim([-0.2 8])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'linear',...
    'YTick', [0 2 4 6 8]);
title("Dissolved Oxygen (mg/L)")
box
nexttile
boxchart(ORPNA.Year,ORPNA.R)
set(gca, "XGrid", "off", "YGrid", "on")
ylim([-200 500])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'linear',...
    'YTick', [-200 0 200 400]);
title("Oxidation Reduction Potential (mV)")
box
nexttile
boxchart(SCNA.Year,SCNA.R)
set(gca, "XGrid", "off", "YGrid", "on")
ylim([0.03 20])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'log',...
    'YTick', [0.01 0.1 1 10]);
title("Specific Conductance (mS/cm)")
box
```



2.1 Water Quality Parameter Summary Tables

pH Annual Northern Area (Confined Aquifer)

```
pH_NAtableAnnual = groupsummary(pHNA,"Year",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(pH5lt(x))},"R");
pH_NAtableAnnual.Properties.VariableNames = ["Year","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","<pH 5"]
```

pH_NAtableAnnual = 7×20 table

...

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	2018	8	8	5.1900	6.4500	1.2600	5.6538	5.6600	0.3996	0.1597	0.8291	3.0129	0	5.2230	5.3400	5.6600	5.7950
2	2019	11	11	4.6600	6.4900	1.8300	5.5927	5.7900	0.5465	0.2987	-0.1391	2.0754	0	4.8940	5.1125	5.7900	5.9675
3	2020	10	10	4.7100	6.6300	1.9200	5.4870	5.4500	0.6312	0.3985	0.5944	2.3727	1	4.7400	5.0400	5.4500	5.6500
4	2021	12	12	5.1000	6.3700	1.2700	5.4858	5.3350	0.4089	0.1672	0.9853	2.7806	0	5.1140	5.1600	5.3350	5.7450
5	2022	12	12	4.9000	6.8400	1.9400	5.6692	5.5100	0.6595	0.4350	0.6795	2.3473	0	4.9210	5.1750	5.5100	6.0350
6	2023	12	12	4.7200	6.4900	1.7700	5.4858	5.5500	0.4901	0.2402	0.4969	2.7703	0	4.9440	5.1150	5.5500	5.6650
7	2024	12	12	4.8400	9.3700	4.5300	5.9800	5.5150	1.2317	1.5171	1.8154	5.8492	1	5.0430	5.1950	5.5150	6.4950

pH Annual Southern Area (Confined Aquifer)

```
pH_SAtableAnnual = groupsummary(pHSA,"Year",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(pH5lt(x))},"R");
pH_SAtableAnnual.Properties.VariableNames = ["Year","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","<pH 5"]
```

pH_SAtableAnnual = 7×20 table

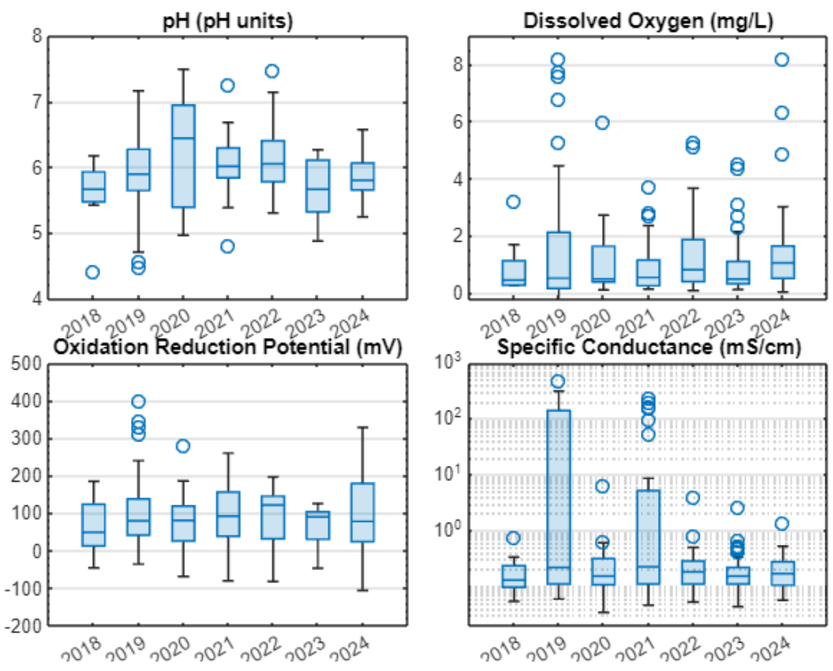
...

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	2018	12	12	4.4100	6.1700	1.7600	5.6250	5.6600	0.4692	0.2202	-1.2732	4.9239	1	5.1170	5.4700	5.6600	5.9250
2	2019	54	54	4.4800	11.7200	7.2400	6.1493	5.8900	1.2256	1.5020	2.7711	11.8124	6	5.4390	5.6400	5.8900	6.2700
3	2020	24	24	4.9600	7.4900	2.5300	6.2258	6.4350	0.8177	0.6687	-0.1454	1.4524	0	5.1830	5.3850	6.4350	6.9400
4	2021	32	32	4.7900	11.5900	6.8000	6.3450	6.0100	1.3581	1.8444	3.0562	11.7858	4	5.5330	5.8350	6.0100	6.2900
5	2022	31	31	5.3000	12.2600	6.9600	6.2897	6.0500	1.2214	1.4919	3.9189	19.7641	2	5.4140	5.7725	6.0500	6.3975
6	2023	36	36	4.8700	12.1900	7.3200	5.9272	5.6600	1.3873	1.9246	3.5805	15.4117	2	5.2160	5.3150	5.6600	6.1050
7	2024	34	34	5.2400	12.0400	6.8000	6.2388	5.7950	1.4539	2.1140	2.9398	10.6606	3	5.4940	5.6500	5.7950	6.0600

1.1 Distribution Box Plots Annual (Confined Aquifer: Southern Area)

```
figure
t2=tiledlayout('flow');
t2.Padding="compact";
t2.TileSpacing='compact';
nexttile
boxchart(pHSA.Year,pHSA.R)
ylim([4 8])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'linear',...
    'YTick', [3 4 5 6 7 8]);
title("pH (pH units)")
box
nexttile
boxchart(DOSA.Year,DOSA.R)
set(gca, "XGrid", "off", "YGrid", "on")
ylim([-0.2 9])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'linear',...
    'YTick', [0 2 4 6 8]);
title("Dissolved Oxygen (mg/L)")
box
nexttile
boxchart(ORPSA.Year,ORPSA.R)
set(gca, "XGrid", "off", "YGrid", "on")
ylim([-200 500])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'linear',...
    'YTick', [-200 -100 0 100 200 300 400 500]);
title("Oxidation Reduction Potential (mV)")
box
nexttile
```

```
boxchart(SCSA.Year,SCSA.R)
ylim([0.02 1000])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'log',...
    'YTick', [0.01 1 10 100 1000]);
title("Specific Conductance (mS/cm)")
box
```



DO Annual Northern Area (Confined Aquifer)

```
DO_NAtableAnnual = groupsummary(DONA,"Year",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(DOlt(x))},"R");
DO_NAtableAnnual.Properties.VariableNames = ["Year","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","<=DO 1"]
```

DO_NAtableAnnual = 7×20 table

...

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	2018	8	8	0.3700	2.8000	2.4300	1.5388	1.4200	0.8018	0.6429	0.1753	1.9699	0	0.5500	0.9800	1.4200	2.1700
2	2019	11	11	0.1200	4.5100	4.3900	2.1318	1.9600	1.4486	2.0984	0.0682	1.9148	0	0.1320	1.0725	1.9600	3.0950
3	2020	10	10	0.4200	2.6400	2.2200	1.6770	1.7550	0.8685	0.7543	-0.2147	1.5111	0	0.4800	1.0400	1.7550	2.4800
4	2021	12	12	0.2100	8.3600	8.1500	1.9000	1.0900	2.3048	5.3119	1.9562	6.2511	1	0.2590	0.3150	1.0900	2.4600
5	2022	12	12	0.1600	3.4200	3.2600	1.6017	1.8000	1.0880	1.1837	0.0435	1.6512	0	0.2790	0.4900	1.8000	2.4200

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
6	2023	12	12	0.1600	7.7800	7.6200	2.6117	2.2750	2.3012	5.2957	0.9098	3.1019	0	0.3280	0.5150	2.2750	3.6550
7	2024	12	12	0.4500	6.4900	6.0400	2.5117	2.6550	1.8938	3.5866	0.6211	2.6330	0	0.4570	0.6150	2.6550	3.2200

DO Annual Southern Area (Confined Aquifer)

```
DO_SAtableAnnual = groupsummary(DO,"Year",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(DOlt(x))},"R");
DO_SAtableAnnual.Properties.VariableNames = ["Year","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","<=DO 1"]
```

DO_SAtableAnnual = 7×20 table

...

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	2018	20	20	0.2400	3.1800	2.9400	1.1270	0.9800	0.8921	0.7959	0.8838	2.7900	0	0.2450	0.3500	0.9800	1.6400
2	2019	65	65	-0.2400	8.2000	8.4400	1.6251	0.5900	2.1079	4.4434	1.5668	4.7402	4	0.0800	0.1550	0.5900	2.6300
3	2020	34	34	0.0900	5.9700	5.8800	1.2829	0.8350	1.2095	1.4629	1.8319	7.4907	1	0.2990	0.4400	0.8350	2.0300
4	2021	44	44	0.1200	8.3600	8.2400	1.1380	0.5850	1.4692	2.1585	3.0180	14.4275	3	0.1900	0.2750	0.5850	1.3750
5	2022	43	43	0.0600	5.2600	5.2000	1.3805	0.9200	1.3039	1.7003	1.3489	4.2863	2	0.2440	0.4100	0.9200	2.1725
6	2023	48	48	0.1000	7.7800	7.6800	1.3946	0.6000	1.6428	2.6987	1.8782	6.5598	2	0.2400	0.3150	0.6000	2.0650
7	2024	46	46	0.0100	9.9500	9.9400	1.9315	1.2200	2.1927	4.8079	1.9797	6.6282	4	0.2480	0.5000	1.2200	2.6100

ORP Annual Northern Area (Confined Aquifer)

```
ORP_NAtableAnnual = groupsummary(ORPNA,"Year",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(ORPlt(x))},"R");
ORP_NAtableAnnual.Properties.VariableNames = ["Year","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","ORP<-50"]
```

ORP_NAtableAnnual = 7×20 table

...

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	2018	8	8	2	275	273	137.6250	152.5000	104.7445	1.0971e+04	0.0683	1.6461	0	12.5000	37.5000	152.5000	222
2	2019	10	10	-65.3000	240.2000	305.5000	137.2800	182	106.3147	1.1303e+04	-0.9302	2.4815	0	-43.2000	95.5000	182	207.7000
3	2020	10	10	19.9000	261.7000	241.8000	155.4000	156.2000	74.8078	5.5962e+03	-0.1403	2.4327	0	51.9000	121.9000	156.2000	190.1000
4	2021	12	12	-26.5000	290.3000	316.8000	116.2667	104.6500	83.5438	6.9796e+03	0.3438	2.9862	0	10.6000	66.9000	104.6500	172.1000
5	2022	12	12	-39.7000	240.4000	280.1000	155.1750	165.8000	78.0990	6.0995e+03	-1.3714	4.2961	1	31.6300	138.1500	165.8000	214.4500
6	2023	12	12	-84.6000	195.8000	280.4000	80.9250	78	75.3107	5.6717e+03	-0.5254	3.1359	0	-7.6700	39.9500	78	136
7	2024	12	12	58.2000	449.9000	391.7000	216.2667	174.2000	145.3180	2.1117e+04	0.6708	1.8798	0	77.5900	102.2000	174.2000	349.9500

ORP Event Southern Area (Confined Aquifer)

```
ORP_SAtableAnnual = groupsummary(ORPSA,"Year",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(ORPlt(x))},"R");
ORP_SAtableAnnual.Properties.VariableNames = ["Year","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","ORP<-50"]
```

ORP_SAtableAnnual = 7×20 table

...

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	2018	12	12	-47	184	231	63.5000	48	69.6830	4.8557e+03	0.1932	1.9941	0	-19.0000	12	48	123
2	2019	55	55	-36.8000	398	434.8000	99.7164	78.6000	95.0968	9.0434e+03	1.2206	4.4121	4	-0.4000	40.1500	78.6000	137.5750
3	2020	26	26	-70.2000	281.2000	351.4000	78.8769	79.4000	77.8476	6.0602e+03	0.2894	3.4034	1	3.2700	25	79.4000	118.3000
4	2021	32	32	-81.2000	259.3000	340.5000	85.1500	91.3500	87.2952	7.6204e+03	-0.3087	2.2750	0	-51.8200	37.2000	91.3500	155.0500
5	2022	31	31	-83.4000	195.9000	279.3000	91.2226	120.7000	73.3861	5.3855e+03	-0.7207	2.7916	0	12.7400	30.6500	120.7000	144.4000
6	2023	36	36	-47.5000	125.1000	172.6000	64.8333	89.3000	49.5235	2.4526e+03	-0.8366	2.4919	0	-17.9000	29.4000	89.3000	102.6500
7	2024	34	34	-107.3000	327.5000	434.8000	97.2779	77.3000	98.2906	9.6610e+03	0.4956	2.6963	0	-3.6500	23	77.3000	178.1000

Specific Conductance Annual Northern Area (Confined Aquifer)

```
SC_NAtableAnnual = groupsummary(SCNA,"Year",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x))},"R");
SC_NAtableAnnual.Properties.VariableNames = ["Year","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95"]
```

SC_NAtableAnnual = 7×19 table

...

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	2018	8	8	0.0020	0.1040	0.1020	0.0548	0.0535	0.0285	8.1193e-04	-0.1572	3.4014	2	0.0143	0.0470	0.0535	0.0655
2	2019	11	11	0.0440	562	561.9560	52.5018	0.0930	169.0127	2.8565e+04	2.8441	9.0935	2	0.0450	0.0604	0.0930	3.3126
3	2020	10	10	0.0350	3.5100	3.4750	0.4348	0.0640	1.0847	1.1765	2.6301	7.9907	2	0.0385	0.0460	0.0640	0.0890
4	2021	12	12	0.0420	131.7000	131.6580	15.4225	0.0681	39.4908	1.5595e+03	2.4421	7.5460	2	0.0427	0.0491	0.0681	0.6582
5	2022	12	12	0.0446	7.6210	7.5764	0.7220	0.0940	2.1731	4.7226	3.0125	10.0816	1	0.0449	0.0530	0.0940	0.1415
6	2023	12	12	0.0420	6.8700	6.8280	0.7931	0.0660	1.9896	3.9586	2.6786	8.6599	2	0.0476	0.0510	0.0660	0.1180
7	2024	12	12	0.0440	4.6320	4.5880	0.5687	0.0760	1.3386	1.7917	2.6340	8.4568	2	0.0468	0.0540	0.0760	0.1205

Specific Conductance Event Southern Area (Confined Aquifer)

```
SC_SAtableAnnual = groupsummary(SCSA,"Year",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x))},"R");
SC_SAtableAnnual.Properties.VariableNames = ["Year","Count","NNZ","Min","Max","Range","Mean","Median",...
```

```
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95"]
```

SC_SAtableAnnual = 7×19 table

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	2018	12	12	0.0540	0.7560	0.7020	0.1996	0.1285	0.1962	0.0385	2.0946	6.5253	1	0.0589	0.0960	0.1285	0.2345
2	2019	54	54	0.0593	6.0096e+03	6.0095e+03	332.4487	0.2173	1.1729e+03	1.3757e+06	4.0878	18.4017	4	0.0695	0.1090	0.2173	140.8000
3	2020	24	24	0.0340	6.4400	6.4060	0.4741	0.1510	1.2806	1.6400	4.4747	21.3723	2	0.0788	0.1065	0.1510	0.3150
4	2021	32	32	0.0460	230.8000	230.7540	35.2142	0.2235	71.9150	5.1718e+03	1.7638	4.4419	7	0.0766	0.1100	0.2235	5.1400
5	2022	31	31	0.0520	3.9000	3.8480	0.3433	0.1810	0.6808	0.4635	4.8181	25.6761	2	0.0808	0.1092	0.1810	0.2817
6	2023	36	36	0.0430	2.6800	2.6370	0.2657	0.1510	0.4387	0.1925	4.8339	26.9926	6	0.0734	0.1090	0.1510	0.2160
7	2024	34	34	0.0560	1.3240	1.2680	0.2343	0.1685	0.2311	0.0534	3.2869	15.6741	1	0.0690	0.1040	0.1685	0.2760

Temperature Annual Northern Area (Confined Aquifer)

```
Temp_NAtableAnnual = groupsummary(TempNA,"Year",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x))},"R");
Temp_NAtableAnnual.Properties.VariableNames = ["Year","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95"]
```

Temp_NAtableAnnual = 7×19 table

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	2018	8	8	13.9500	19.2100	5.2600	17.2875	17.7500	1.6106	2.5940	-1.0472	3.4006	1	14.7360	16.5900	17.7500	18.2300
2	2019	11	11	16.1400	21.2600	5.1200	18.1357	18.0520	1.4883	2.2150	0.5518	2.8635	0	16.3560	16.8520	18.0520	19.1253
3	2020	10	10	12.5000	17.2000	4.7000	15.6470	15.5500	1.4944	2.2332	-0.7958	2.9135	0	13.4000	15	15.5500	17.0800
4	2021	10	10	15.8000	20.4000	4.6000	17.1200	16.8000	1.4351	2.0596	1.1645	3.6553	0	15.8500	15.9000	16.8000	17.7000
5	2022	14	14	16.4000	21.7000	5.3000	18.7143	18.5000	1.5698	2.4644	0.2823	2.3717	0	16.6700	17.7000	18.5000	19.5000
6	2023	12	12	16.8000	22.2000	5.4000	19.0775	18.7500	1.4360	2.0622	0.6961	3.1590	0	17.5700	18.2350	18.7500	19.8800
7	2024	12	12	16.9000	21.1000	4.2000	18.4750	18.3500	1.1435	1.3075	0.7946	3.3879	0	17.1100	17.7000	18.3500	19.1500

Temperature Annual Southern Area (Confined Aquifer)

```
Temp_SAtableAnnual = groupsummary(TempSA,"Year",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x))},"R");
Temp_SAtableAnnual.Properties.VariableNames = ["Year","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95"]
```

Temp_SAtableAnnual = 7×19 table

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	2018	12	12	13.6400	21.1300	7.4900	17.1492	17.2650	2.5636	6.5722	0.0454	1.8345	0	13.8360	14.6600	17.2650	19.1450
2	2019	54	54	15.1070	83.5000	68.3930	35.6605	19.8795	25.0352	626.7625	0.7360	1.6351	0	15.7372	16.6000	19.8795	66.9000
3	2020	24	24	13	20.8000	7.8000	16.8375	16.6500	1.8259	3.3337	0.3542	3.3719	4	15.0600	15.8500	16.6500	17.3000
4	2021	18	18	14.6000	21.1000	6.5000	17.1667	16.4000	1.9920	3.9682	0.3856	1.8202	0	14.9600	15.6000	16.4000	19
5	2022	45	45	13.6000	23.6000	10.0000	17.7622	17.8000	2.2413	5.0233	0.2767	2.2674	0	15.3000	15.6750	17.8000	20
6	2023	36	36	15	21.4000	6.4000	17.5228	17.1850	2.1921	4.8051	0.3982	1.6491	0	15.3000	15.4000	17.1850	19.3250
7	2024	34	34	15.1000	22.5000	7.4000	17.7441	17.2500	2.3004	5.2916	0.4508	1.8653	0	15.3800	15.6000	17.2500	19.7000

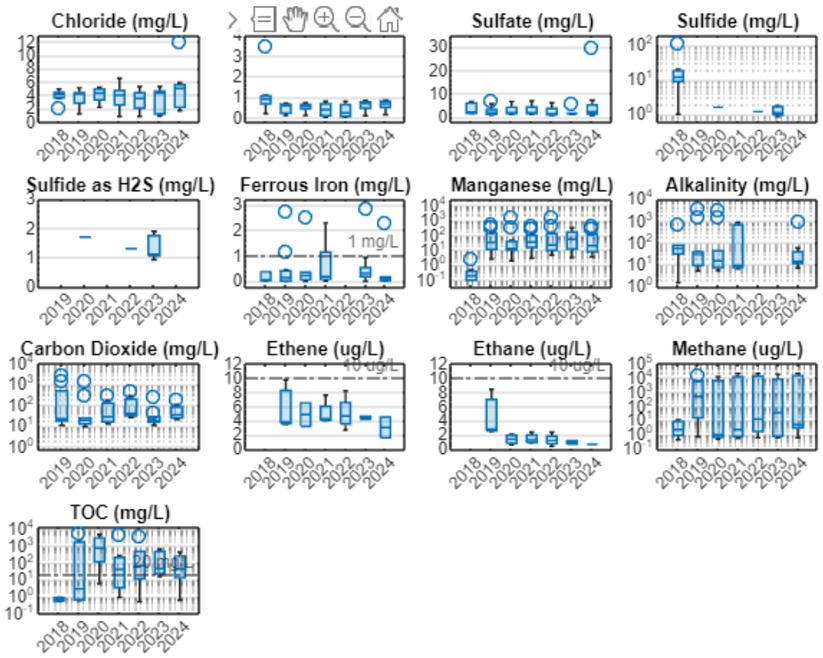
2.0 Geochemical Parameters

2.1 Geochemical Box Plots - Annual (Confined Aquifer: Northern Area)

```
figure
t3=tiledlayout('flow');
t3.Padding="compact";
t3.TileSpacing='compact';
nexttile
boxchart(ClNA.Year,ClNA.R)
ylim([0 13])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'linear',...
    'YTick', [0 2 4 6 8 10 12]);
title("Chloride (mg/L)")
box
nexttile
boxchart(NO3NA.Year,NO3NA.R)
ylim([-.2 4])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'linear',...
    'YTick', [0 1 2 3 4]);
title("Nitrate (mg/L)")
box
nexttile
boxchart(SO4NA.Year,SO4NA.R)
set(gca, "XGrid", "off", "YGrid", "on")
ylim([-2 35])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'linear',...
    'YTick', [0 10 20 30]);
title("Sulfate (mg/L)")
box
nexttile
boxchart(S2NA.Year,S2NA.R)
ylim([0.6 200])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'log',...
    'YTick', [0.1 1 10 100]);
title("Sulfide (mg/L)")
box
```

```
nexttile
boxchart(S2H2SNA.Year,S2H2SNA.R)
ylim([0 3])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'linear',...
    'YTick', [0 1 2 3]);
title("Sulfide as H2S (mg/L)")
box
nexttile
boxchart(Fe2NA.Year,Fe2NA.R)
ylim([-0.2 3.2])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'linear',...
    'YTick', [0 1 2 3]);
title("Ferrous Iron (mg/L)")
yline(1,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','right','Label','1 mg/L',fontsize=8);
box
nexttile
boxchart(MnNA.Year,MnNA.R)
ylim([0.04 25000])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'log',...
    'YTick', [0.1 1 10 100 1000 10000]);
title("Manganese (mg/L)")
box
nexttile
boxchart(AlkNA.Year,AlkNA.R)
ylim([1 10000])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'log',...
    'YTick', [1 10 100 1000 10000]);
title("Alkalinity (mg/L)")
box
nexttile
boxchart(CO2NA.Year,CO2NA.R)
ylim([0.8 10000])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'log',...
    'YTick', [1 10 100 1000 10000]);
title("Carbon Dioxide (mg/L)")
box
nexttile
boxchart(EtheneNA.Year,EtheneNA.R)
ylim([0 12])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'linear',...
    'YTick', [0 2 4 6 8 10 12]);
title("Ethene (ug/L)")
yline(10,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','right','Label','10 ug/L',fontsize=8);
box
nexttile
boxchart(EthaneNA.Year,EthaneNA.R)
ylim([0 12])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'linear',...
```

```
    'YTick', [0 2 4 6 8 10 12]);
title("Ethane (ug/L)")
yline(10,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','right','Label','10 ug/L',fontsize=8);
box
nexttile
boxchart(MethaneNA.Year,MethaneNA.R)
ylim([0.1 100000])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'log',...
    'YTick', [0.1 1 10 100 1000 10000 100000]);
title("Methane (ug/L)")
box
nexttile
boxchart(TOCNA.Year,TOCNA.R)
ylim([0.1 15000])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'log',...
    'YTick', [0.1 1 10 100 1000 10000]);
title("TOC (mg/L)")
yline(20,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','right','Label','20 mg/L',fontsize=8);
box
```

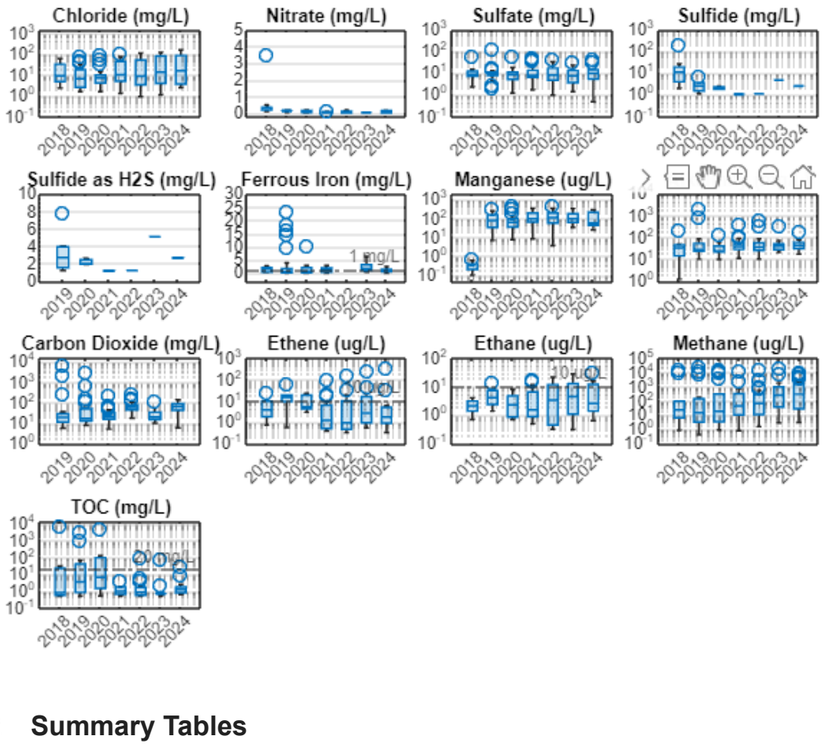


2.2 Geochemical Box Plots - Annual (Confined Aquifer: Southern Area)

```
figure
t4=tiledlayout('flow');
t4.Padding="compact";
t4.TileSpacing='compact';
nexttile
boxchart(ClSA.Year,ClSA.R)
ylim([0.1 1500])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'log',...
    'YTick', [0.1 1 10 100 1000]);
title("Chloride (mg/L)")
box
nexttile
boxchart(NO3SA.Year,NO3SA.R)
ylim([-0.2 5])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'linear',...
    'YTick', [0 1 2 3 4 5]);
title("Nitrate (mg/L)")
box
nexttile
boxchart(SO4SA.Year,SO4SA.R)
ylim([0.1 1000])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'log',...
    'YTick', [0.1 1 10 100 1000]);
title("Sulfate (mg/L)")
box
nexttile
boxchart(S2SA.Year,S2SA.R)
ylim([0.1 1000])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'log',...
    'YTick', [0.1 1 10 100 1000]);
title("Sulfide (mg/L)")
box
nexttile
boxchart(S2H2SSA.Year,S2H2SSA.R)
ylim([0 10])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'linear',...
    'YTick', [0 2 4 6 8 10]);
title("Sulfide as H2S (mg/L)")
box
nexttile
boxchart(Fe2SA.Year,Fe2SA.R)
ylim([-3 30])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'linear',...
    'YTick', [0 5 10 15 20 25 30]);
yline(1,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','right','Label','1 mg/L',fontsize=8);
title("Ferrous Iron (mg/L)")
box
nexttile
boxchart(MnSA.Year,MnSA.R)
```

```
ylim([0.05 2000])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'log',...
    'YTick', [0.1 1 10 100 1000]);
title("Manganese (ug/L)")
box
nexttile
boxchart(AlkSA.Year,AlkSA.R)
ylim([1 10000])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'log',...
    'YTick', [1 10 100 1000 10000]);
title("Alkalinity (mg/L)")
box
nexttile
boxchart(CO2SA.Year,CO2SA.R)
ylim([1 15000])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'log',...
    'YTick', [1 10 100 1000 10000]);
title("Carbon Dioxide (mg/L)")
box
nexttile
boxchart(EtheneSA.Year,EtheneSA.R)
ylim([0.1 1000])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'log',...
    'YTick', [0.1 1 10 100 1000]);
yline(10,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','right','Label','10 ug/L',fontsize=8);
title("Ethene (ug/L)")
box
nexttile
boxchart(EthaneSA.Year,EthaneSA.R)
ylim([0.1 100])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'log',...
    'YTick', [0.1 1 10 100]);
yline(10,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','right','Label','10 ug/L',fontsize=8);
title("Ethane (ug/L)")
box
nexttile
boxchart(MethaneSA.Year,MethaneSA.R)
ylim([0.1 100000])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'log',...
    'YTick', [0.1 1 10 100 1000 10000 100000]);
title("Methane (ug/L)")
box
nexttile
boxchart(TOCSA.Year,TOCSA.R)
ylim([0.1 15000])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'log',...
    'YTick', [0.1 1 10 100 1000 10000]);
yline(20,'-.','LabelVerticalAlignment','top',...
```

```
    'LabelHorizontalAlignment','right','Label','20 mg/L',fontsize=8);
title("TOC (mg/L)")
box
```



2.2 Summary Tables

Chloride Annual Northern Area (Confined Aquifer)

```
Cl_NAtableAnnual = groupsummary(ClNA,"Year",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x))},"R");
Cl_NAtableAnnual.Properties.VariableNames = ["Year","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95"]
```

Cl_NAtableAnnual = 7×19 table

...

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	2018	7	7	2.2000	4.9000	2.7000	3.9143	4.1000	0.8707	0.7581	-1.0691	3.2939	1	2.4600	3.6250	4.1000	4.4250
2	2019	11	11	1.2000	5.1000	3.9000	3.7000	4.2000	1.2008	1.4420	-0.9758	2.7276	0	1.8000	2.8250	4.2000	4.3750
3	2020	11	10	2.2000	5.2000	3	4.0400	4.3000	1.0511	1.1049	-0.4516	1.8879	0	2.5000	3.3000	4.3000	4.9000
4	2021	12	12	0.8300	6.5000	5.6700	3.6775	4	1.7402	3.0283	-0.1398	2.0673	0	1.0890	2.5500	4	4.7000
5	2022	12	12	0.8100	5.3000	4.4900	3.2258	3.5000	1.4683	2.1558	-0.2981	1.7888	0	1.0830	2.0500	3.5000	4.3500
6	2023	9	9	0.9000	5.3000	4.4000	3.1778	4.3000	1.8054	3.2594	-0.2696	1.3276	0	0.9000	1.2000	4.3000	4.5750

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
7	2024	9	8	1.7000	12	10.3000	4.9000	5	3.3067	10.9343	1.2053	3.7706	1	1.7600	2.2000	5	5.5500

Chloride Annual Southern Area (Confined Aquifer)

```
Cl_SAtableAnnual = groupsummary(ClSA,"Year",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x))},"R");
Cl_SAtableAnnual.Properties.VariableNames = ["Year","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95"]
```

Cl_SAtableAnnual = 7×19 table

...

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	2018	12	12	2.3000	61	58.7000	19.1000	9	21.0215	441.9055	1.0675	2.4776	0	2.4400	4.7500	9	33
2	2019	31	31	1.6000	80	78.4000	15.1548	6.5000	18.4813	341.5599	1.8730	6.2023	4	2.1600	2.5250	6.5000	17.7500
3	2020	21	21	1.6000	96	94.4000	14.6238	7.2000	23.0852	532.9249	2.6564	9.0930	3	2.1200	4.1500	7.2000	9.7500
4	2021	32	32	1.3000	110	108.7000	28.9781	10.3000	36.2779	1.3161e+03	1.3830	3.5366	4	2.2400	4.9500	10.3000	44.5000
5	2022	31	31	0.8900	110	109.1100	29.5706	8.7000	37.7174	1.4226e+03	1.2083	2.8697	0	2.2600	3.3250	8.7000	52
6	2023	20	20	1.1000	120	118.9000	38.3950	13.5000	42.9589	1.8455e+03	0.8150	1.9906	0	2.2500	4	13.5000	81
7	2024	20	20	2.4000	160	157.6000	39.8600	16	46.9908	2.2081e+03	1.1182	3.1004	0	2.6000	3.6000	16	85.5000

Nitrate Annual Northern Area (Confined Aquifer)

```
NO3_NAtableAnnual = groupsummary(NO3NA,"Year",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(NO3gt(x))},"R");
NO3_NAtableAnnual.Properties.VariableNames = ["Year","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","NO3<1"]
```

NO3_NAtableAnnual = 7×20 table

...

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	2018	8	7	0.2000	3.5000	3.3000	1.1571	0.9000	1.0737	1.1529	1.7101	4.5467	1	0.2800	0.6750	0.9000	1.0500
2	2019	11	7	0.1100	0.7100	0.6000	0.4671	0.5900	0.2483	0.0617	-0.4696	1.5177	0	0.1240	0.2250	0.5900	0.6600
3	2020	11	7	0.1200	0.7200	0.6000	0.5114	0.5500	0.2022	0.0409	-1.0813	3.0346	0	0.1720	0.4225	0.5500	0.6350
4	2021	12	9	0.0310	0.7900	0.7590	0.3982	0.4000	0.3128	0.0979	-0.0030	1.2873	0	0.0318	0.1058	0.4000	0.6775
5	2022	12	12	0.0300	0.8000	0.7700	0.3321	0.2335	0.3030	0.0918	0.3658	1.4510	0	0.0447	0.0630	0.2335	0.6400
6	2023	9	6	0.1000	0.8300	0.7300	0.5883	0.6850	0.2689	0.0723	-1.0867	2.8312	0	0.1370	0.4700	0.6850	0.7600
7	2024	9	6	0.1600	0.8500	0.6900	0.6100	0.6800	0.2511	0.0630	-0.9959	2.7534	0	0.1940	0.5000	0.6800	0.7900

Nitrate Annual Southern Area (Confined Aquifer)

```
NO3_SAtableAnnual = groupsummary(NO3SA,"Year",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(NO3gt(x))},"R");
NO3_SAtableAnnual.Properties.VariableNames = ["Year","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","NO3<1"]
```

NO3_SAtableAnnual = 7×20 table

...

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	2018	12	12	0.1000	3.5000	3.4000	0.5083	0.2000	0.9491	0.9008	2.9377	9.8032	1	0.1000	0.2000	0.2000	0.3500
2	2019	29	4	0.0410	0.1900	0.1490	0.1427	0.1700	0.0685	0.0047	-1.0874	2.2885	0	0.0410	0.1055	0.1700	0.1800
3	2020	21	3	0.0320	0.2000	0.1680	0.0967	0.0580	0.0904	0.0082	0.6419	1.5000	0	0.0320	0.0385	0.0580	0.1645
4	2021	32	9	0.0240	0.1900	0.1660	0.0607	0.0330	0.0561	0.0031	1.5740	4.1520	1	0.0248	0.0283	0.0330	0.0793
5	2022	31	4	0.0240	0.2000	0.1760	0.0740	0.0360	0.0843	0.0071	1.1312	2.3149	0	0.0240	0.0275	0.0360	0.1205
6	2023	20	3	0.0240	0.0390	0.0150	0.0327	0.0350	0.0078	6.0333e-05	-0.5021	1.5000	0	0.0240	0.0268	0.0350	0.0380
7	2024	20	5	0.0230	0.1800	0.1570	0.0830	0.0480	0.0724	0.0052	0.4668	1.4297	0	0.0230	0.0238	0.0480	0.1500

Sulfate Annual Northern Area (Confined Aquifer)

```
SO4_NAtableAnnual = groupsummary(SO4NA,"Year",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(SO4lt(x))},"R");
SO4_NAtableAnnual.Properties.VariableNames = ["Year","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","SO4<=50"]
```

SO4_NAtableAnnual = 7×20 table

...

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	2018	12	8	1.5000	6.7000	5.2000	3.5000	2.2000	2.2659	5.1343	0.5038	1.3595	0	1.5600	1.7500	2.2000	5.9500
2	2019	11	9	0.9800	7.1000	6.1200	2.6978	1.9000	2.1843	4.7710	1.2491	2.9551	1	1.0280	1.2500	1.9000	3.2250
3	2020	11	8	1.3000	6.7000	5.4000	2.9375	1.9500	2.2251	4.9512	1.0904	2.3063	0	1.3300	1.5500	1.9500	4.2500
4	2021	12	8	1.3000	6.9000	5.6000	2.9750	1.9000	2.3463	5.5050	1.1146	2.3162	0	1.3300	1.5500	1.9000	4.3500
5	2022	12	8	0.7300	6.1000	5.3700	2.4275	1.4000	2.2220	4.9373	1.1049	2.3053	0	0.8080	1.1450	1.4000	3.7500
6	2023	9	6	1.3000	6	4.7000	2.3000	1.7000	1.8210	3.3160	1.7516	4.1353	1	1.3100	1.4000	1.7000	1.7000
7	2024	9	8	0.7600	30	29.2400	6.1050	2.4000	9.8701	97.4183	2.0882	5.6488	1	0.7660	1.4400	2.4000	5.2000

Sulfate Annual Southern Area (Confined Aquifer)

```
SO4_SAtableAnnual = groupsummary(SO4SA,"Year",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(SO4lt(x))},"R");
SO4_SAtableAnnual.Properties.VariableNames = ["Year","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","SO4<=50"]
```

SO4_SAtableAnnual = 7×20 table

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	2018	14	13	2.3000	59	56.7000	12.4462	8.8000	14.4332	208.3177	2.8389	9.8154	1	3.2600	7.1000	8.8000	12.2500
2	2019	29	26	2.3000	130	127.7000	13.6654	8.9500	23.9698	574.5512	4.6450	23.0888	5	4.7000	7.8000	8.9500	11
3	2020	21	19	1.2000	61	59.8000	10.8421	8.3000	12.8634	165.4681	3.3132	13.6154	1	2.2000	5.0750	8.3000	11
4	2021	32	31	1.7000	53	51.3000	12.1871	7.8000	12.3187	151.7512	2.2070	7.1924	3	2.3600	6.4000	7.8000	13.5000
5	2022	31	30	0.9600	47	46.0400	13.5420	8.2000	13.3661	178.6524	1.4596	3.9249	3	2.4500	4.8000	8.2000	17
6	2023	20	19	1.4000	34	32.6000	9.4632	7.6000	8.2432	67.9502	1.5780	5.2780	1	1.6200	3.6750	7.6000	13
7	2024	20	20	0.4800	43	42.5200	13.1440	9.7500	12.3841	153.3661	1.4865	4.1371	3	2.0500	5.3500	9.7500	14.5000

Sulfide Annual Northern Area (Confined Aquifer)

```
S2_NAtableAnnual = groupsummary(S2NA,"Year",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(S2gt(x))},"R");
S2_NAtableAnnual.Properties.VariableNames = ["Year","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","S2>1"]
```

S2_NAtableAnnual = 7×20 table

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	2018	16	16	1	114	113	24.2500	12	35.4655	1.2578e+03	2.1580	5.8733	2	1.8000	9	12	18.5000
2	2019	11	0	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	0	NaN	NaN	NaN	NaN
3	2020	11	1	1.6000	1.6000	0	1.6000	1.6000	0	0	NaN	NaN	0	1.6000	1.6000	1.6000	1.6000
4	2021	12	0	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	0	NaN	NaN	NaN	NaN
5	2022	10	1	1.2000	1.2000	0	1.2000	1.2000	0	0	NaN	NaN	0	1.2000	1.2000	1.2000	1.2000
6	2023	9	5	0.8600	1.8000	0.9400	1.2720	1.1000	0.4061	0.1649	0.3645	1.4300	0	0.8600	0.9650	1.1000	1.6500
7	2024	9	0	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	0	NaN	NaN	NaN	NaN

Sulfide Annual Southern Area (Confined Aquifer)

```
S2_SAtableAnnual = groupsummary(S2SA,"Year",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(S2gt(x))},"R");
S2_SAtableAnnual.Properties.VariableNames = ["Year","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","S2>1"]
```

S2_SAtableAnnual = 7×20 table

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	2018	18	18	2	209	207	22.1667	11	47.2954	2.2369e+03	3.7008	15.1796	1	2.3000	4	11	19

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
2	2019	29	7	1.1000	7.5000	6.4000	3.0571	2.6000	2.2075	4.8729	1.2202	3.4091	1	1.1800	1.5000	2.6000	3.6500
3	2020	21	3	1.8000	2.5000	0.7000	2.0667	1.9000	0.3786	0.1433	0.6520	1.5000	0	1.8000	1.8250	1.9000	2.3500
4	2021	32	2	1	1.1000	0.1000	1.0500	1.0500	0.0707	0.0050	0	1	0	1	1	1.0500	1.1000
5	2022	30	1	1.1000	1.1000	0	1.1000	1.1000	0	0	NaN	NaN	0	1.1000	1.1000	1.1000	1.1000
6	2023	20	1	4.8000	4.8000	0	4.8000	4.8000	0	0	NaN	NaN	0	4.8000	4.8000	4.8000	4.8000
7	2024	20	2	2.5000	2.6000	0.1000	2.5500	2.5500	0.0707	0.0050	1.3336e-14	1	0	2.5000	2.5000	2.5500	2.6000

Sulfide as Hydrogen Sulfide Annual Northern Area (Confined Aquifer)

```
S2H2S_NAtableAnnual = groupsummary(S2H2SNA,"Year",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(S2H2Sgt(x))},"R");
S2H2S_NAtableAnnual.Properties.VariableNames = ["Year","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","S2>1"]
```

S2H2S_NAtableAnnual = 6×20 table

...

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	2019	11	0	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	0	NaN	NaN	NaN	NaN
2	2020	11	1	1.7000	1.7000	0	1.7000	1.7000	0	0	NaN	NaN	0	1.7000	1.7000	1.7000	1.7000
3	2021	12	0	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	0	NaN	NaN	NaN	NaN
4	2022	10	1	1.3000	1.3000	0	1.3000	1.3000	0	0	NaN	NaN	0	1.3000	1.3000	1.3000	1.3000
5	2023	9	5	0.9200	1.9000	0.9800	1.3440	1.1000	0.4286	0.1837	0.3967	1.3990	0	0.9200	1.0550	1.1000	1.7500
6	2024	9	0	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	0	NaN	NaN	NaN	NaN

Sulfide as Hydrogen Sulfide Annual Southern Area (Confined Aquifer)

```
S2H2S_SAtableAnnual = groupsummary(S2H2SSA,"Year",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(S2H2Sgt(x))},"R");
S2H2S_SAtableAnnual.Properties.VariableNames = ["Year","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","S2>1"]
```

S2H2S_SAtableAnnual = 6×20 table

...

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	2019	29	7	1.2000	7.9000	6.7000	3.2286	2.7000	2.3336	5.4457	1.1974	3.3412	1	1.2600	1.5250	2.7000	3.9250
2	2020	21	3	1.9000	2.6000	0.7000	2.1667	2	0.3786	0.1433	0.6520	1.5000	0	1.9000	1.9250	2	2.4500
3	2021	32	2	1.1000	1.2000	0.1000	1.1500	1.1500	0.0707	0.0050	6.6136e-15	1.0000	0	1.1000	1.1000	1.1500	1.2000
4	2022	30	1	1.2000	1.2000	0	1.2000	1.2000	0	0	NaN	NaN	0	1.2000	1.2000	1.2000	1.2000

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
5	2023	20	1	5.1000	5.1000	0	5.1000	5.1000	0	0	NaN	NaN	0	5.1000	5.1000	5.1000	5.1000
6	2024	20	2	2.6000	2.7000	0.1000	2.6500	2.6500	0.0707	0.0050	-1.3336e-14	1	0	2.6000	2.6000	2.6500	2.7000

Ferrous Iron Annual Northern Area (Confined Aquifer)

```
Fe2_NAtableAnnual = groupsummary(Fe2NA,"Year",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(FE2gt(x))},"R");
Fe2_NAtableAnnual.Properties.VariableNames = ["Year","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","Fe2>1"]
```

Fe2_NAtableAnnual = 6×20 table

...

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	2018	8	6	0.0100	3.5000	3.4900	0.6700	0.0600	1.3932	1.9409	1.7515	4.1287	1	0.0110	0.0200	0.0600	0.3700
2	2019	11	10	0	2.7500	2.7500	0.4555	0.1400	0.8324	0.6929	2.1689	6.4511	2	0.0060	0.0125	0.1400	0.4000
3	2020	10	9	0	4.6800	4.6800	0.8480	0.2250	1.5407	2.3736	1.8569	4.9398	2	0.0050	0.0600	0.2250	0.3500
4	2021	12	12	0.0100	2.2800	2.2700	0.6675	0.1750	0.8358	0.6986	1.0378	2.4601	0	0.0310	0.0750	0.1750	1.1400
5	2023	9	8	0	2.8800	2.8800	0.6011	0.3000	0.8936	0.7985	2.1137	6.0047	1	0.0520	0.1825	0.3000	0.5325
6	2024	10	10	0.0100	2.2900	2.2800	0.3060	0.0950	0.7002	0.4903	2.6229	7.9747	1	0.0100	0.0300	0.0950	0.1700

Ferrous Iron Annual Southern Area (Confined Aquifer)

```
Fe2_SAtableAnnual = groupsummary(Fe2SA,"Year",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(FE2gt(x))},"R");
Fe2_SAtableAnnual.Properties.VariableNames = ["Year","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","Fe2>1"]
```

Fe2_SAtableAnnual = 6×20 table

...

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	2018	11	11	0.2800	2.7500	2.4700	1.2818	1.4800	0.9537	0.9096	0.1634	1.4355	0	0.3100	0.3500	1.4800	2.0025
2	2019	54	54	0.0100	23.2800	23.2700	2.2665	0.3650	4.9067	24.0758	2.9897	11.0982	5	0.0470	0.1100	0.3650	1.6900
3	2020	23	22	0	10.4400	10.4400	1.4213	0.6500	2.1673	4.6972	3.2763	14.3200	1	0.0480	0.1375	0.6500	1.9900
4	2021	32	32	0.0100	2.8800	2.8700	1.1984	1.2850	0.8200	0.6725	0.0631	1.7781	0	0.1500	0.3400	1.2850	1.9300
5	2023	23	23	0.3800	6.2800	5.9000	2.2378	1.6100	1.8478	3.4145	1.0221	2.5874	0	0.5440	0.9025	1.6100	3.1950
6	2024	23	23	0.0400	2.4200	2.3800	0.9739	0.7600	0.7121	0.5071	0.6670	2.7032	0	0.0700	0.5150	0.7600	1.3450

Manganese Annual Northern Area (Confined Aquifer)

```
Mn_NAtableAnnual = groupsummary(MnNA,"Year",{"nnz","min","max","range","mean","median","std","var",...
```

```
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x))},"R");
Mn_NAtableAnnual.Properties.VariableNames = ["Year","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95"]
```

Mn_NAtableAnnual = 7×19 table

...

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	2018	8	8	0.1000	2.8000	2.7000	0.5375	0.2000	0.9242	0.8541	2.1747	5.8955	1	0.1000	0.1000	0.2000	0.4000
2	2019	11	11	2.6000	580	577.4000	117.1455	33	187.1323	3.5019e+04	1.6995	4.4980	2	5.2400	12	33	139.7500
3	2020	11	11	2	1700	1698	200.7091	13	508.6431	2.5872e+05	2.6437	8.3232	2	5.6000	10.3500	13	39.7500
4	2021	12	12	2.9000	430	427.1000	95.0583	35.5000	140.0820	1.9623e+04	1.6325	4.0984	2	5.6300	15.5000	35.5000	98
5	2022	12	12	4.9000	1900	1.8951e+03	234.4417	23	543.5930	2.9549e+05	2.6932	8.7681	2	6.8600	9.8500	23	135
6	2023	9	9	3.3000	320	316.7000	97.0556	54	108.8702	1.1853e+04	0.9638	2.8024	0	4.8600	12.3000	54	167.5000
7	2024	9	9	3.6000	430	426.4000	99.7444	20	161.5464	2.6097e+04	1.3910	3.1085	2	4.7200	8.1250	20	123

Manganese Annual Southern Area (Confined Aquifer)

```
Mn_SAtableAnnual = groupsummary(MnSA,"Year",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x))},"R");
Mn_SAtableAnnual.Properties.VariableNames = ["Year","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95"]
```

Mn_SAtableAnnual = 7×19 table

...

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	2018	11	10	0.1000	0.8000	0.7000	0.3100	0.2000	0.2283	0.0521	1.1708	3.1488	1	0.1000	0.2000	0.2000	0.4000
2	2019	29	29	6.9000	370	363.1000	107.1345	77	97.2279	9.4533e+03	1.3232	4.1781	2	18.4000	34	77	155
3	2020	21	21	7.8000	500	492.2000	100.8476	63	117.2326	1.3743e+04	2.3384	7.9332	3	21.2000	35.5000	63	102.5000
4	2021	32	32	8.4000	350	341.6000	137.7937	97	94.8271	8.9922e+03	0.6978	2.3015	0	42.6000	65.5000	97	200
5	2022	31	31	3.7000	470	466.3000	138.2419	110	115.1206	1.3253e+04	1.1143	3.6232	1	14.8000	58.5000	110	200
6	2023	20	19	34	340	306	126.8947	98	86.1942	7.4294e+03	1.1100	3.1700	0	52.8000	63.2500	98	180
7	2024	20	20	25	290	265	114.2000	57	93.8900	8.8153e+03	0.7325	1.8734	0	31.5000	44.5000	57	215

Alkalinity Annual Northern Area (Confined Aquifer)

```
Alk_NAtableAnnual = groupsummary(AlkNA,"Year",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x))},"R");
Alk_NAtableAnnual.Properties.VariableNames = ["Year","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95"]
```

Alk_NAtableAnnual = 5×19 table

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	2018	6	6	1.4700	724	722.5300	157.2783	55.4000	278.8902	7.7780e+04	1.7525	4.1364	1	4.3630	30.4000	55.4000	77
2	2019	11	11	5.1000	4200	4.1949e+03	543.9727	29	1.3019e+03	1.6950e+06	2.3170	6.9139	2	5.7600	9.0500	29	39.2500
3	2020	10	10	5.4000	3500	3.4946e+03	511.9800	15	1.1490e+03	1.3202e+06	2.0584	5.7487	2	5.5000	7.3000	15	43
4	2021	3	3	6.5000	880	873.5000	298.5000	9	503.5953	2.5361e+05	0.7071	1.5000	0	6.5000	7.1250	9	662.2500
5	2024	9	9	6.9000	950	943.1000	124.4333	14	310.0193	9.6112e+04	2.4618	7.0872	1	6.9400	11.5000	14	38

Alkalinity Annual Southern Area (Confined Aquifer)

```
Alk_SAtableAnnual = groupsummary(AlkSA,"Year",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x))},"R");
Alk_SAtableAnnual.Properties.VariableNames = ["Year","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95"]
```

Alk_SAtableAnnual = 7×19 table

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	2018	8	8	1.1900	235	233.8100	52.6775	33.4500	75.4175	5.6878e+03	2.0602	5.6384	1	3.5120	14.1150	33.4500	45.0500
2	2019	29	29	10	2300	2290	214.4828	27	584.2551	3.4135e+05	3.0973	11.0001	3	14	23.7500	27	53.2500
3	2020	22	21	9.8000	150	140.2000	35.0857	24	29.9265	895.5943	2.8725	11.5335	1	16.4000	21.7500	24	40.2500
4	2021	32	31	11	440	429	58.3226	38	75.6815	5.7277e+03	4.3340	22.3274	3	23.6000	28	38	58.5000
5	2022	31	31	10	690	680	70	36	130.1369	1.6936e+04	4.0118	18.6049	2	19.6000	25	36	57
6	2023	20	20	21	360	339	68.9000	40	95.5064	9.1215e+03	2.5825	7.8983	2	22.5000	27.5000	40	51
7	2024	20	19	17	200	183	52.8421	44	39.9016	1.5921e+03	2.7475	10.9719	1	21.6000	31.2500	44	59.7500

Carbon Dioxide Annual Northern Area (Confined Aquifer)

```
CO2_NAtableAnnual = groupsummary(CO2NA,"Year",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x))},"R");
CO2_NAtableAnnual.Properties.VariableNames = ["Year","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95"]
```

CO2_NAtableAnnual = 6×19 table

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	2019	11	9	11	2800	2789	517.5556	23	1.0007e+03	1.0014e+06	1.6358	4.0528	2	13.8000	18	23	505
2	2020	10	10	9.6000	1600	1.5904e+03	204.5600	19.5000	498.9046	2.4891e+05	2.5140	7.5760	2	11.3000	13	19.5000	25
3	2021	12	9	13	310	297	88.8889	29	101.0698	1.0215e+04	1.2707	3.4749	1	13	16.7500	29	127.5000
4	2022	12	11	27	490	463	120.3636	41	154.4359	2.3850e+04	1.5033	3.9032	1	28.2000	32.5000	41	199

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
5	2023	9	9	11	280	269	49.8889	18	87.1327	7.5921e+03	2.3893	6.8625	2	11.8000	16	18	28.7500
6	2024	9	9	21	190	169	60.4444	35	56.9059	3.2383e+03	1.4951	3.9636	1	21.4000	25	35	83.7500

Carbon Dioxide Annual Southern Area (Confined Aquifer)

```
CO2_SAtableAnnual = groupsummary(CO2SA,"Year",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x))},"R");
CO2_SAtableAnnual.Properties.VariableNames = ["Year","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95"]
```

CO2_SAtableAnnual = 6×19 table

...

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	2019	29	28	5.8000	7200	7.1942e+03	604.0286	19.5000	1.8361e+03	3.3714e+06	3.0676	10.8088	4	8.8100	11.5000	19.5000	29.5000
2	2020	22	21	7.9000	3400	3.3921e+03	225.6810	17	742.8329	5.5180e+05	3.9925	17.5205	4	10.3600	13	17	51.7500
3	2021	32	26	5.2000	220	214.8000	33.7000	21	41.5558	1.7269e+03	3.6836	16.8853	4	12.1000	16	21	33
4	2022	31	29	18	260	242	71.2069	59	48.1452	2.3180e+03	2.4159	9.4819	3	35.2000	44.5000	59	75.5000
5	2023	20	19	10	120	110	30.5263	20	26.2199	687.4854	2.2671	8.1873	1	11.4000	15	20	34.7500
6	2024	20	18	6	140	134	65.7778	65	32.4990	1.0562e+03	0.3147	2.8509	0	30.1000	43	65	90

Ethene Annual Northern Area (Confined Aquifer)

```
Ethene_NAtableAnnual = groupsummary(EtheneNA,"Year",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(Ethenegt(x))},"R");
Ethene_NAtableAnnual.Properties.VariableNames = ["Year","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95",">10"]
```

Ethene_NAtableAnnual = 7×20 table

...

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	2018	7	0	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	0	NaN	NaN	NaN	NaN
2	2019	11	3	3.5000	9.7000	6.2000	5.6667	3.8000	3.4962	12.2233	0.7013	1.5000	0	3.5000	3.5750	3.8000	8.2250
3	2020	11	2	3.2000	6.5000	3.3000	4.8500	4.8500	2.3335	5.4450	8.8974e-16	1	0	3.2000	3.2000	4.8500	6.5000
4	2021	12	4	4	7.6000	3.6000	5.0250	4.2500	1.7251	2.9758	1.1218	2.3063	0	4	4.0500	4.2500	6
5	2022	12	4	2.7000	8.2000	5.5000	5.0500	4.6500	2.3014	5.2967	0.5684	2.0457	0	2.7000	3.5500	4.6500	6.5500
6	2023	9	2	4.2000	4.6000	0.4000	4.4000	4.4000	0.2828	0.0800	-6.6136e-15	1.0000	0	4.2000	4.2000	4.4000	4.6000
7	2024	9	2	1.6000	4.5000	2.9000	3.0500	3.0500	2.0506	4.2050	4.3701e-16	1	0	1.6000	1.6000	3.0500	4.5000

Ethene Annual Southern Area (Confined Aquifer)

```
Ethene_SAtableAnnual = groupsummary(EtheneSA,"Year",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(Ethenegt(x))},"R");
Ethene_SAtableAnnual.Properties.VariableNames = ["Year","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95",">10"]
```

Ethene_SAtableAnnual = 7×20 table

...

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	2018	11	5	0.7600	27	26.2400	7.5520	3.8000	10.9510	119.9235	1.4454	3.1803	1	0.7600	1.8400	3.8000	9.7500
2	2019	29	6	0.5700	69	68.4300	21.3283	15	24.2870	589.8596	1.4809	3.7099	1	1.4530	9.4000	15	19
3	2020	21	7	3	23	20	10.7429	5.2000	8.3950	70.4762	0.4830	1.4822	0	3.2400	4.3500	5.2000	18.7500
4	2021	31	16	0.3900	100	99.6100	10.3150	1.2500	24.8371	616.8807	3.2096	12.1099	3	0.4710	0.5100	1.2500	6.4500
5	2022	32	14	0.3300	160	159.6700	17.1093	0.9500	42.4344	1.8007e+03	3.0131	10.6719	2	0.3480	0.4800	0.9500	10
6	2023	20	12	0.5500	260	259.4500	29.8058	2.7500	73.9210	5.4643e+03	2.8260	9.3437	2	0.6550	0.9600	2.7500	16.2000
7	2024	20	13	0.3400	380	379.6600	33.5192	1.8000	104.4680	1.0914e+04	3.1381	10.9319	2	0.7080	0.9275	1.8000	5.0500

Ethane Annual Northern Area (Confined Aquifer)

```
Ethane_NAtableAnnual = groupsummary(EthaneNA,"Year",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(Ethanegt(x))},"R");
Ethane_NAtableAnnual.Properties.VariableNames = ["Year","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95",">10"]
```

Ethane_NAtableAnnual = 7×20 table

...

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	2018	7	0	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	0	NaN	NaN	NaN	NaN
2	2019	11	3	2.5000	8.4000	5.9000	4.5667	2.8000	3.3232	11.0433	0.7006	1.5000	0	2.5000	2.5750	2.8000	7.0000
3	2020	11	3	0.6200	2.1000	1.4800	1.3733	1.4000	0.7404	0.5481	-0.0661	1.5000	0	0.6200	0.8150	1.4000	1.9250
4	2021	12	4	0.8600	2.4000	1.5400	1.4600	1.2900	0.7056	0.4979	0.5552	1.7282	0	0.8600	0.9200	1.2900	2
5	2022	12	4	0.3900	2.4000	2.0100	1.2975	1.2000	0.8323	0.6927	0.3906	1.9982	0	0.3900	0.7450	1.2000	1.8500
6	2023	9	2	0.7000	1.2000	0.5000	0.9500	0.9500	0.3536	0.1250	0	1	0	0.7000	0.7000	0.9500	1.2000
7	2024	9	1	0.6600	0.6600	0	0.6600	0.6600	0	0	NaN	NaN	0	0.6600	0.6600	0.6600	0.6600

Ethane Annual Southern Area (Confined Aquifer)

```
Ethane_SAtableAnnual = groupsummary(EthaneSA,"Year",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(Ethanegt(x))},"R");
Ethane_SAtableAnnual.Properties.VariableNames = ["Year","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95",">10"]
```

Ethane_SAtableAnnual = 7×20 table

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	2018	11	4	0.7000	4.1000	3.4000	2.2750	2.1500	1.3961	1.9492	0.3063	2.0177	0	0.7000	1.4000	2.1500	3.1500
2	2019	29	7	1.4000	15	13.6000	5.5286	4.2000	4.7412	22.4790	1.2544	3.2982	1	1.5600	2.3750	4.2000	7.4000
3	2020	21	7	0.7000	8.2000	7.5000	3.1614	2.3000	2.7692	7.6684	0.8492	2.4670	0	0.7060	0.8725	2.3000	4.8250
4	2021	32	18	0.5000	19	18.5000	4.6806	1.5500	5.7392	32.9384	1.4154	3.6793	2	0.6030	0.8900	1.5500	6.7000
5	2022	31	14	0.3200	22	21.6800	6.4600	3.3500	6.9136	47.7980	0.8710	2.6704	0	0.3380	0.4600	3.3500	12
6	2023	20	14	0.3100	28	27.6900	8.8936	4.5500	9.5888	91.9450	0.9346	2.6297	0	0.3640	1.1000	4.5500	13
7	2024	20	13	0.6500	33	32.3500	7.7777	2.6000	9.2972	86.4380	1.6168	5.1039	1	0.6580	1.4000	2.6000	12.2500

Methane Annual Northern Area (Surficial Aquifer)

```
Methane_NAtableAnnual = groupsummary(MethaneNA,"Year",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(Methanegt(x))},"R");
Methane_NAtableAnnual.Properties.VariableNames = ["Year","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95",">500"]
```

Methane_NAtableAnnual = 7×20 table

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	2018	7	3	0.4600	11	10.5400	4.5867	2.3000	5.6298	31.6945	0.6231	1.5000	0	0.4600	0.9200	2.3000	8.8250
2	2019	11	6	0.7200	16000	1.5999e+04	3.8661e+03	490	6.4101e+03	4.1089e+07	1.3354	3.1876	1	2.2480	16	490	6200
3	2020	10	10	0.5100	12000	1.1999e+04	2.6907e+03	1.0450	4.5266e+03	2.0490e+07	1.1516	2.6906	0	0.5850	0.7000	1.0450	6500
4	2021	12	12	0.5800	21000	2.0999e+04	5.4124e+03	2.3500	8.5617e+03	7.3303e+07	1.0343	2.2829	0	0.6920	0.7900	2.3500	11900
5	2022	12	9	0.6300	21000	2.0999e+04	6.8582e+03	13	8.7805e+03	7.7097e+07	0.6204	1.7395	0	0.6780	1.7625	13	13750
6	2023	9	8	0.6400	18000	1.7999e+04	4.3218e+03	35.9500	7.5766e+03	5.7405e+07	1.1780	2.4668	0	0.6820	0.8200	35.9500	8250
7	2024	9	7	0.6300	21000	2.0999e+04	7.1447e+03	5.3000	9.1713e+03	8.4113e+07	0.4690	1.4641	0	1.1040	3.1750	5.3000	14750

Methane Annual Southern Area (Surficial Aquifer)

```
Methane_SAtableAnnual = groupsummary(MethaneSA,"Year",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(Methanegt(x))},"R");
Methane_SAtableAnnual.Properties.VariableNames = ["Year","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95",">500"]
```

Methane_SAtableAnnual = 7×20 table

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	2018	11	10	0.8800	18000	1.7999e+04	3.0264e+03	24.5000	6.4673e+03	4.1826e+07	1.6736	4.0506	2	1.0400	6.6000	24.5000	96

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
2	2019	29	25	0.4400	27000	2.7000e+04	3.1904e+03	15	7.0012e+03	4.9017e+07	2.1453	6.7333	5	1.5000	3.2750	15	142.5000
3	2020	22	22	0.9200	19000	1.8999e+04	2.7557e+03	18.5000	5.6748e+03	3.2204e+07	1.8413	4.9197	5	1.6900	3.5000	18.5000	310
4	2021	32	31	0.8400	15000	1.4999e+04	719.4045	46	2.7035e+03	7.3089e+06	4.9999	26.8344	2	4.2400	10.7500	46	327.5000
5	2022	31	30	1.6000	16000	1.5998e+04	810.3100	66.5000	2.9308e+03	8.5898e+06	4.8855	25.7535	4	4.3000	11	66.5000	320
6	2023	20	20	3	23000	22997	1.9548e+03	260	5.2682e+03	2.7754e+07	3.4973	14.2223	2	10.5000	38.5000	260	1005
7	2024	20	20	3.2000	11000	1.0997e+04	1.7057e+03	300	3.0665e+03	9.4036e+06	2.0076	5.9035	4	9.9500	28.5000	300	1455

Total Organic Carbon Annual Northern Area (Surficial Aquifer)

```
TOC_NAtableAnnual = groupsummary(TOCNA,"Year",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(TOCgt(x))},"R");
TOC_NAtableAnnual.Properties.VariableNames = ["Year","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","TOC=>20"]
```

TOC_NAtableAnnual = 7×20 table

...

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	2018	7	3	0.5300	0.9300	0.4000	0.7100	0.6700	0.2030	0.0412	0.3480	1.5000	0	0.5300	0.5650	0.6700	0.8650
2	2019	11	7	0.5800	6200	6.1994e+03	1.2321e+03	2.9000	2.3494e+03	5.5196e+06	1.5963	3.9641	1	0.5860	0.6525	2.9000	1755
3	2020	11	4	6	5000	4994	1634	765	2.3140e+03	5.3544e+06	0.9636	2.1593	0	6	118	765	3150
4	2021	10	7	0.9100	4900	4.8991e+03	753.3871	43	1.8309e+03	3.3524e+06	2.0300	5.1412	1	1.2280	3.4500	43	215.2500
5	2022	14	6	0.5000	4200	4.1995e+03	808.9167	70.5000	1.6718e+03	2.7949e+06	1.7408	4.1071	1	1.6500	12	70.5000	500
6	2023	9	3	16	660	644	241	47	363.1955	131911	0.7013	1.5000	0	16	23.7500	47	506.7500
7	2024	9	4	0.6000	450	449.4000	134.6500	44	211.7372	4.4833e+04	1.1063	2.2951	0	0.6000	13.3000	44	256

Total Organic Carbon Annual Southern Area (Confined Aquifer)

```
TOC_SAtableAnnual = groupsummary(TOCSA,"Year",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(TOCgt(x))},"R");
TOC_SAtableAnnual.Properties.VariableNames = ["Year","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","TOC=>20"]
```

TOC_SAtableAnnual = 7×20 table

...

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	2018	11	7	0.5100	8300	8.2995e+03	1.1907e+03	0.8200	3.1349e+03	9.8278e+06	2.0412	5.1665	1	0.5180	0.5750	0.8200	23.5750
2	2019	29	16	0.5000	3600	3.5995e+03	519.7762	3.5500	1.2012e+03	1.4428e+06	2.0537	5.4634	3	0.5370	0.8450	3.5500	42.5000
3	2020	21	10	0.5300	5300	5.2995e+03	556.5020	6.9000	1.6673e+03	2.7800e+06	2.6628	8.0989	1	0.5600	1.5000	6.9000	100

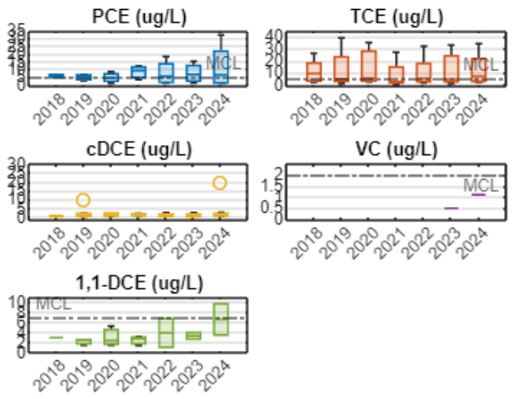
	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
4	2021	18	14	0.5000	4.5000	4	1.5179	1	1.3321	1.7746	1.5365	4.0173	2	0.5000	0.6700	1	1.8000
5	2022	45	32	0.5100	100	99.4900	7.4969	0.8600	24.1760	584.4782	3.5948	13.9754	5	0.5270	0.5950	0.8600	1.7000
6	2023	20	11	0.5100	77	76.4900	7.7891	0.7700	22.9598	527.1516	2.8437	9.0921	2	0.5760	0.6750	0.7700	0.7950
7	2024	20	15	0.6400	34	33.3600	3.9500	1.3000	8.5534	73.1600	3.1863	11.6789	2	0.7100	0.8150	1.3000	1.8000

3.0 VOCs

3.1 VOC Box Plots Annual Northern Area (Confined Aquifer)

```
figure
t5=tiledlayout('flow');
t5.Padding="compact";
t5.TileSpacing='compact';
nexttile
boxchart(PCENA.Year,PCENA.R,"BoxFaceColor",'0 0.4470 0.7410','BoxEdgeColor','0 0.4470 0.7410','MarkerColor','0 0.4470 0.7410')
set(gca, "XGrid", "off", "YGrid", "on")
ylim([-1 35])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'linear',...
    'YTick', [0 5 10 15 20 25 30 35]);
yline(5,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','right','Label','MCL',fontsize=8);
title("PCE (ug/L)")
box
nexttile
boxchart(TCENA.Year,TCENA.R,"BoxFaceColor",'0.8500 0.3250 0.0980','MarkerColor','0.8500 0.3250 0.0980')
ylim([-1 45])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'linear',...
    'YTick', [0 10 20 30 40]);
title("TCE (ug/L)")
yline(5,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','right','Label','MCL',fontsize=8);
box
nexttile
boxchart(cDCENA.Year,cDCENA.R,"BoxFaceColor",'0.9290 0.6940 0.1250','MarkerColor','0.9290 0.6940 0.1250')
set(gca, "XGrid", "off", "YGrid", "on")
title("cDCE (ug/L)")
ylim([-1 30])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'linear',...
    'YTick', [0 5 10 15 20 25 30]);
yline(70,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','right','Label','MCL',fontsize=8);
box
nexttile
boxchart(VCNA.Year,VCNA.R,"BoxFaceColor",'0.4940 0.1840 0.5560','MarkerColor','0.4940 0.1840 0.5560')
set(gca, "XGrid", "off", "YGrid", "on")
title("VC (ug/L)")
```

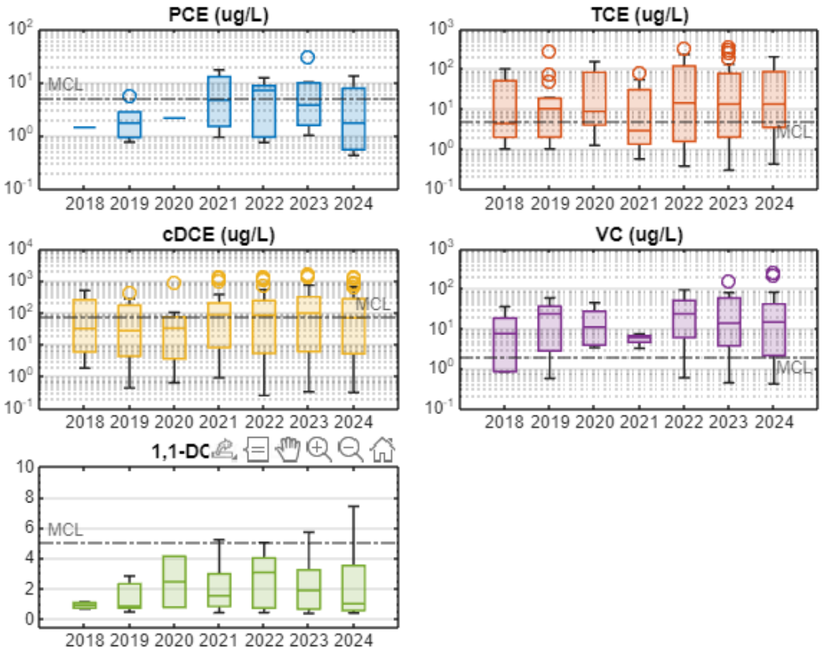
```
ylim([0 2.5])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'linear',...
    'YTick', [0 0.5 1 1.5 2]);
yline(2,'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','right','Label','MCL',fontsize=8);
box
nexttile
boxchart(DCE11NA.Year,DCE11NA.R,"BoxFaceColor",'0.47 0.67 0.19','MarkerColor','0.47 0.67 0.19')
set(gca, "XGrid", "off", "YGrid", "on")
title("1,1-DCE (ug/L)")
ylim([0 11])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'linear',...
    'YTick', [0 2 4 6 8 10]);
yline(7,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
box
```



3.1 VOC Box Plots Annual Southern Area (Surficial Aquifer)

```
figure
t6=tiledlayout('flow');
t6.Padding="compact";
t6.TileSpacing='compact';
nexttile
boxchart(PCESA.Year,PCESA.R,"BoxFaceColor",'0 0.4470 0.7410','BoxEdgeColor','0 0.4470 0.7410','MarkerColor','0 0.4470 0.7410')
ylim([0.1 100])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'log',...
    'YTick', [0.1 1 10 100]);
title("PCE (ug/L)")
yline(5,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
box
nexttile
boxchart(TCESA.Year,TCESA.R,"BoxFaceColor",'0.8500 0.3250 0.0980','MarkerColor','0.8500 0.3250 0.0980')
ylim([0.1 1000])
```

```
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'log',...
    'YTick', [0.1 1 10 100 1000]);
title("TCE (ug/L)")
yline(5,'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','right','Label','MCL',fontsize=8);
box
nexttile
boxchart(cDCESA.Year,cDCESA.R,"BoxFaceColor",'0.9290 0.6940 0.1250','MarkerColor','0.9290 0.6940 0.1250')
ylim([0.1 10000])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'log',...
    'YTick', [0.1 1 10 100 1000 10000]);
title("cDCE (ug/L)")
yline(70,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','right','Label','MCL',fontsize=8);
box
nexttile
boxchart(VCSA.Year,VCSA.R,"BoxFaceColor",'0.4940 0.1840 0.5560','MarkerColor','0.4940 0.1840 0.5560')
ylim([0.1 1000])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'log',...
    'YTick', [0.1 1 10 100 1000]);
title("VC (ug/L)")
yline(2,'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','right','Label','MCL',fontsize=8);
box
nexttile
boxchart(DCE11SA.Year,DCE11SA.R,"BoxFaceColor",'0.47 0.67 0.19','MarkerColor','0.47 0.67 0.19')
ylim([-0.5 10])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'linear',...
    'YTick', [0 2 4 6 8 10]);
title("1,1-DCE (ug/L)")
yline(5,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
box
```



3.3 VOC Summary Tables

Tetrachloroethene Annual Northern Area (Confined Aquifer)

```
PCE_NAtableAnnual = groupsummary(PCENA,"Year",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(MCL5gt(x))},"R");
PCE_NAtableAnnual.Properties.VariableNames = ["Year","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","PCE>5"]
```

PCE_NAtableAnnual = 7×20 table

...

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	2018	7	2	4.5000	6.4000	1.9000	5.4500	5.4500	1.3435	1.8050	0	1.0000	0	4.5000	4.5000	5.4500	6.4000
2	2019	11	3	2.3000	6.4000	4.1000	4.8000	5.7000	2.1932	4.8100	-0.6269	1.5000	0	2.3000	3.1500	5.7000	6.2250
3	2020	11	4	0.8200	8.2000	7.3800	4.4300	4.3500	3.1338	9.8209	0.0751	1.7250	0	0.8200	2.0600	4.3500	6.8000
4	2021	12	3	3	12	9	7.9667	8.9000	4.5720	20.9033	-0.3594	1.5000	0	3	4.4750	8.9000	11.2250
5	2022	12	4	0.9600	18	17.0400	7.3900	5.3000	7.8984	62.3844	0.5911	1.7544	0	0.9600	1.3800	5.3000	13.4000
6	2023	12	4	1	15	14	7.2000	6.4000	6.2551	39.1267	0.3064	1.5636	0	1	2.2500	6.4000	12.1500
7	2024	12	4	0.8000	32	31.2000	11.2500	6.1000	14.6154	213.6100	0.8356	2.0212	0	0.8000	1	6.1000	21.5000

Tetrachloroethene Annual Southern Area (Confined Aquifer)

```
PCE_SAtableAnnual = groupsummary(PCESA,"Year",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(MCL5gt(x))},"R");
PCE_SAtableAnnual.Properties.VariableNames = ["Year","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","PCE>5"]
```

PCE_SAtableAnnual = 7×20 table

...

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	2018	11	1	1.4000	1.4000	0	1.4000	1.4000	0	0	NaN	NaN	0	1.4000	1.4000	1.4000	1.4000
2	2019	49	5	0.7500	5.6000	4.8500	2.1640	1.7000	1.9735	3.8947	1.3051	2.9970	1	0.7500	0.9150	1.7000	2.7500
3	2020	23	1	2.1000	2.1000	0	2.1000	2.1000	0	0	NaN	NaN	0	2.1000	2.1000	2.1000	2.1000
4	2021	32	7	0.9200	17	16.0800	6.6171	4.6000	6.6373	44.0534	0.7841	1.8878	0	0.9760	1.4750	4.6000	12.5750
5	2022	31	5	0.7300	12	11.2700	5.6260	7	4.7706	22.7584	0.1307	1.6270	0	0.7300	0.9325	7	8.5500
6	2023	34	7	1	30	29	8.1571	3.7000	10.2946	105.9795	1.5562	4.0543	1	1.0800	1.5500	3.7000	9.7500
7	2024	34	8	0.4200	13	12.5800	4.1612	1.7000	4.7256	22.3316	0.8632	2.3113	0	0.4500	0.5350	1.7000	7.7000

Trichloroethene Annual Northern Area (Confined Aquifer)

```
TCE_NAtableAnnual = groupsummary(TCENA,"Year",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(MCL5gt(x))},"R");
TCE_NAtableAnnual.Properties.VariableNames = ["Year","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","TCE>5"]
```

TCE_NAtableAnnual = 7×20 table

...

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	2018	7	6	2.1000	26	23.9000	11.3333	9.3500	9.4390	89.0947	0.5085	1.8415	0	2.2100	3.2000	9.3500	18
2	2019	11	8	0.9200	39	38.0800	12.6400	4.8500	14.0197	196.5528	0.8975	2.3593	0	1.1840	2.7500	4.8500	23
3	2020	11	9	2.5000	35	32.5000	15.1667	5.5000	13.8496	191.8125	0.3116	1.2528	0	2.7000	3	5.5000	27.7500
4	2021	10	8	0.4900	27	26.5100	8.1613	2.5000	10.6016	112.3932	1.0980	2.3744	0	0.7330	1.6000	2.5000	14.8000
5	2022	14	11	1.5000	32	30.5000	10.7818	5.1000	10.5356	110.9996	0.8863	2.4516	0	1.5000	2.6000	5.1000	17.7500
6	2023	12	10	1	33	32	11.2400	4.4500	12.6638	160.3716	0.8593	1.9780	0	1.3000	2.5000	4.4500	24
7	2024	12	9	2.2000	34	31.8000	12.6667	7	12.6707	160.5475	0.8454	2.1169	0	2.2400	2.8250	7	21.5000

Trichloroethene Annual Southern Area (Confined Aquifer)

```
TCE_SAtableAnnual = groupsummary(TCESA,"Year",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(MCL5gt(x))},"R");
TCE_SAtableAnnual.Properties.VariableNames = ["Year","Count","NNZ","Min","Max","Range","Mean","Median",...
```

```
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","TCE>5"]
```

TCE_SAtableAnnual = 7×20 table

...

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	2018	11	7	0.9800	99	98.0200	26.9971	4.3000	38.1467	1.4552e+03	1.1336	2.7120	0	1.0840	1.9250	4.3000	50
2	2019	49	19	0.9800	270	269.0200	27.8411	10	61.6850	3.8050e+03	3.4458	13.9690	3	1.1600	1.9500	10	18.2500
3	2020	23	8	1.2000	150	148.8000	42.5125	8.5500	59.2431	3.5097e+03	1.0589	2.3813	0	1.2900	3.9000	8.5500	82
4	2021	18	9	0.5500	79	78.4500	18.2944	2.8000	28.6055	818.2740	1.3495	3.2526	1	0.8500	1.3000	2.8000	29.7500
5	2022	45	39	0.3600	330	329.6400	59.9321	14	82.4763	6.8023e+03	1.4734	4.4609	1	0.6040	1.5250	14	117.5000
6	2023	34	28	0.2900	370	369.7100	70.6454	13	113.0712	1.2785e+04	1.6564	4.3385	5	0.5220	1.9500	13	76
7	2024	34	26	0.4100	200	199.5900	46.6135	13	59.9886	3.5986e+03	1.1556	3.0060	0	1.3900	3.4000	13	84

cis-1,2-dichloroethene Annual Northern Area (Confined Aquifer)

```
cDCE_NAtableAnnual = groupsummary(cDCENA,"Year",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(MCL70gt(x))},"R");
cDCE_NAtableAnnual.Properties.VariableNames = ["Year","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","cDCE>70"]
```

cDCE_NAtableAnnual = 7×20 table

...

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	2018	7	2	0.4100	0.9800	0.5700	0.6950	0.6950	0.4031	0.1625	2.9975e-16	1	0	0.4100	0.4100	0.6950	0.9800
2	2019	11	8	0.2700	10	9.7300	2.2550	1.2250	3.2186	10.3596	2.0296	5.5318	1	0.3120	0.5600	1.2250	2.1000
3	2020	11	4	0.5900	2.3000	1.7100	1.4750	1.5050	0.9539	0.9099	-0.0079	1.0105	0	0.5900	0.6500	1.5050	2.3000
4	2021	12	3	0.7700	2.1000	1.3300	1.3900	1.3000	0.6696	0.4483	0.2425	1.5000	0	0.7700	0.9025	1.3000	1.9000
5	2022	12	6	0.4400	2.5000	2.0600	1.1533	0.8550	0.8246	0.6800	0.7676	2.0577	0	0.4430	0.4700	0.8550	1.8000
6	2023	12	8	0.2600	2.5000	2.2400	1.0763	0.8200	0.8079	0.6527	0.6082	2.0576	0	0.2660	0.4050	0.8200	1.7000
7	2024	12	8	0.4700	20	19.5300	3.5688	1.1400	6.6772	44.5846	2.2183	6.0120	1	0.5330	0.8000	1.1400	2.1000

cis-1,2-dichloroethene Annual Southern Area (Confined Aquifer)

```
cDCE_SAtableAnnual = groupsummary(cDCESA,"Year",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(MCL70gt(x))},"R");
cDCE_SAtableAnnual.Properties.VariableNames = ["Year","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","cDCE>70"]
```

cDCE_SAtableAnnual = 7×20 table

...

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	2018	11	9	1.8000	490	488.2000	128.1444	31	180.3451	3.2524e+04	1.1034	2.6958	0	2.4800	5.8250	31	250
2	2019	49	24	0.4300	430	429.5700	92.4404	26.5000	113.5948	1.2904e+04	1.3299	4.2309	1	0.8070	4.3000	26.5000	170
3	2020	23	15	0.6300	910	909.3700	92.2820	32	228.7345	5.2319e+04	3.3457	12.5128	1	2.5000	3.5500	32	72.5000
4	2021	32	23	0.8900	1300	1.2991e+03	262.9126	85	417.5174	1.7432e+05	1.6330	4.0075	4	3.1600	7.8500	85	197.5000
5	2022	31	23	0.2500	1300	1.2998e+03	256.1500	82	414.0493	1.7144e+05	1.6454	4.1763	4	0.5160	5.2750	82	237.5000
6	2023	34	26	0.3300	1600	1.5997e+03	326.1531	95	517.0398	2.6733e+05	1.6192	4.0224	4	3.6000	5.9000	95	310
7	2024	34	27	0.3100	1300	1.2997e+03	248.8741	68	388.0341	1.5057e+05	1.5966	4.2053	5	0.5420	5.1250	68	267.5000

Vinyl Chloride Annual Northern Area (Confined Aquifer)

```
VC_NAtableAnnual = groupsummary(VCNA,"Year",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(MCL2gt(x))},"R");
VC_NAtableAnnual.Properties.VariableNames = ["Year","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","VC>2"]
```

VC_NAtableAnnual = 7×20 table

...

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	2018	7	0	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	0	NaN	NaN	NaN	NaN
2	2019	11	0	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	0	NaN	NaN	NaN	NaN
3	2020	11	0	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	0	NaN	NaN	NaN	NaN
4	2021	10	0	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	0	NaN	NaN	NaN	NaN
5	2022	14	0	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	0	NaN	NaN	NaN	NaN
6	2023	12	1	0.4900	0.4900	0	0.4900	0.4900	0	0	NaN	NaN	0	0.4900	0.4900	0.4900	0.4900
7	2024	12	1	1.1000	1.1000	0	1.1000	1.1000	0	0	NaN	NaN	0	1.1000	1.1000	1.1000	1.1000

Vinyl Chloride Annual Southern Area (Confined Aquifer)

```
VC_SAtableAnnual = groupsummary(VCSA,"Year",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(MCL2gt(x))},"R");
VC_SAtableAnnual.Properties.VariableNames = ["Year","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","VC>2"]
```

VC_SAtableAnnual = 7×20 table

...

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	2018	11	6	0.8100	35	34.1900	11.5883	7.4500	13.1091	171.8483	1.0122	2.6820	0	0.8110	0.8200	7.4500	18
2	2019	49	16	0.5600	58	57.4400	22.9638	23	19.4181	377.0621	0.3660	1.9009	0	0.9840	2.7500	23	36

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
3	2020	23	6	3.3000	44	40.7000	16.6167	10.8000	15.9788	255.3217	0.8927	2.3438	0	3.3500	3.8000	10.8000	27
4	2021	18	4	3.2000	7.3000	4.1000	5.5500	5.8500	1.7098	2.9233	-0.5822	2.0749	0	3.2000	4.5000	5.8500	6.6000
5	2022	45	27	0.5800	92	91.4200	30.9437	23	30.0054	900.3270	0.7435	2.1666	0	1.3000	5.8750	23	50
6	2023	34	18	0.4300	150	149.5700	30.7222	13.5000	38.8270	1.5075e+03	1.8013	5.8914	1	1.1290	3.7000	13.5000	58
7	2024	34	22	0.4100	250	249.5900	38.0532	14.5000	67.2024	4.5162e+03	2.4301	7.6655	2	0.7850	2.1000	14.5000	41

1,1-Dichloroethene Annual Northern Area (Confined Aquifer)

```
DCE11_NAtableAnnual = groupsummary(DCE11NA,"Year",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(MCL7gt(x))},"R");
DCE11_NAtableAnnual.Properties.VariableNames = ["Year","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","11DCE>7"]
```

DCE11_NAtableAnnual = 7×20 table

...

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	2018	7	1	2.9000	2.9000	0	2.9000	2.9000	0	0	NaN	NaN	0	2.9000	2.9000	2.9000	2.9000
2	2019	11	3	1.4000	2.5000	1.1000	2.1000	2.4000	0.6083	0.3700	-0.6857	1.5000	0	1.4000	1.6500	2.4000	2.4750
3	2020	11	3	1.4000	5.2000	3.8000	2.9667	2.3000	1.9858	3.9433	0.5472	1.5000	0	1.4000	1.6250	2.3000	4.4750
4	2021	12	3	1.3000	3.1000	1.8000	2.3667	2.7000	0.9452	0.8933	-0.5673	1.5000	0	1.3000	1.6500	2.7000	3
5	2022	12	2	0.9700	6.7000	5.7300	3.8350	3.8350	4.0517	16.4165	0	1.0000	0	0.9700	0.9700	3.8350	6.7000
6	2023	12	2	2.6000	3.9000	1.3000	3.2500	3.2500	0.9192	0.8450	0	1.0000	0	2.6000	2.6000	3.2500	3.9000
7	2024	12	2	3.4000	9.6000	6.2000	6.5000	6.5000	4.3841	19.2200	-2.3851e-16	1.0000	0	3.4000	3.4000	6.5000	9.6000

1,1-Dichloroethene Annual Southern Area (Confined Aquifer)

```
DCE11_SAtableAnnual = groupsummary(DCE11SA,"Year",{"nnz","min","max","range","mean","median","std","var",...
@(x)(skew(x)),@(x)(kurt(x)),@(x)(outlier(x)),@(x)(prctile10(x)),@(x)(prctile25(x)),...
@(x)(prctile50(x)),@(x)(prctile75(x)),@(x)(prctile90(x)),@(x)(prctile95(x)),@(x)(MCL7gt(x))},"R");
DCE11_SAtableAnnual.Properties.VariableNames = ["Year","Count","NNZ","Min","Max","Range","Mean","Median",...
"Std","Var","Skewness","Kurtosis","Outliers","PCTL10","PCTL25","PCTL50","PCTL75","PCTL90","PCTL95","11DCE>7"]
```

DCE11_SAtableAnnual = 7×20 table

...

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
1	2018	11	3	0.6500	1.1000	0.4500	0.8833	0.9000	0.2255	0.0508	-0.1351	1.5000	0	0.6500	0.7125	0.9000	1.0500
2	2019	49	6	0.4400	2.8000	2.3600	1.3183	0.8350	0.9809	0.9623	0.6995	1.7218	0	0.4660	0.7000	0.8350	2.3000
3	2020	23	2	0.7600	4.1000	3.3400	2.4300	2.4300	2.3617	5.5778	2.8605e-16	1.0000	0	0.7600	0.7600	2.4300	4.1000
4	2021	32	13	0.4000	5.2000	4.8000	2.1000	1.5000	1.7009	2.8931	0.9197	2.3213	0	0.4880	0.8125	1.5000	2.9500

	Year	Count	NNZ	Min	Max	Range	Mean	Median	Std	Var	Skewness	Kurtosis	Outliers	PCTL10	PCTL25	PCTL50	PCTL75
5	2022	31	6	0.4000	5	4.6000	2.7000	3.0500	1.8633	3.4720	-0.1636	1.5098	0	0.4300	0.7000	3.0500	4
6	2023	34	14	0.3500	5.7000	5.3500	2.2786	1.8700	1.9293	3.7221	0.5777	1.9861	0	0.3590	0.6400	1.8700	3.2000
7	2024	34	14	0.3700	7.4000	7.0300	2.2007	0.9800	2.4381	5.9443	1.1968	2.8166	0	0.3790	0.5300	0.9800	3.5000

4.0 Descriptive Statistics Time Series Plots for VOCs

4.1 Descriptive Statistics Time Series Plots for Confined Aquifer: Northern Area

PCE, TCE, cDCE, and VC Northern Area: Surficial Aquifer

```
t7=tiledlayout('flow');
t7.Padding='compact';
t7.TileSpacing='compact';
nexttile
plot(PCE_NAtableAnnual.Year,PCE_NAtableAnnual.Count,'-.','Color','0.23 0.44 0.34')
hold
```

```
Current plot held
```

```
plot(PCE_NAtableAnnual.Year,PCE_NAtableAnnual.NNZ,'-.','Color','0 0.4470 0.7410')
ylim([-0.5 15])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'linear',...
    'YTick', [0 3 6 9 12 15]);
title('VOC # Detects');
plot(TCE_NAtableAnnual.Year,TCE_NAtableAnnual.NNZ,'-.','Color','0.85 0.33 0.1')
plot(cDCE_NAtableAnnual.Year,cDCE_NAtableAnnual.NNZ,'-.','Color','0.93 0.69 0.13')
plot(VC_NAtableAnnual.Year,VC_NAtableAnnual.NNZ,'-.','Color',' 0.49 0.18 0.56')
xline(categorical({'2021'}),'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','right','Label','ISB Inj',fontsize=8);
legend('#Samples',"","","","","",Location='northwest',EdgeColor='none',Color='none');
nexttile
plot(PCE_NAtableAnnual.Year,PCE_NAtableAnnual.Max,'-.','Color','0 0.4470 0.7410')
hold
```

```
Current plot held
```

```
plot(TCE_NAtableAnnual.Year,TCE_NAtableAnnual.Max,'-.','Color','0.85 0.33 0.1')
plot(cDCE_NAtableAnnual.Year,cDCE_NAtableAnnual.Max,'-.','Color','0.93 0.69 0.13')
plot(VC_NAtableAnnual.Year,VC_NAtableAnnual.Max,'-.','Color',' 0.49 0.18 0.56')
ylim([-1 45])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'linear',...
    'YTick', [0 10 20 30 40]);
xline(categorical({'2021'}),'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','right','Label','ISB Inj',fontsize=8);
title('VOC Max Conc. (ug/L)');
nexttile
plot(PCE_NAtableAnnual.Year,PCE_NAtableAnnual.Mean,'-.','Color','0 0.4470 0.7410')
```

```
hold
```

```
Current plot held
```

```
plot(TCE_NAtableAnnual.Year,TCE_NAtableAnnual.Mean,'-.','Color','0.85 0.33 0.1')
plot(cDCE_NAtableAnnual.Year,cDCE_NAtableAnnual.Mean,'-.','Color','0.93 0.69 0.13')
plot(VC_NAtableAnnual.Year,VC_NAtableAnnual.Mean,'-.','Color',' 0.49 0.18 0.56')
ylim([-0.5 16])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'linear',...
    'YTick', [0 4 8 12 16]);
xline(categorical({'2021'}),'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','right','Label','ISB Inj',fontsize=8);
title('VOC Mean Conc. (ug/L)')
nexttile
plot(PCE_NAtableAnnual.Year,PCE_NAtableAnnual.Median,'-.','Color','0 0.4470 0.7410')
hold
```

```
Current plot held
```

```
plot(TCE_NAtableAnnual.Year,TCE_NAtableAnnual.Median,'-.','Color','0.85 0.33 0.1')
plot(cDCE_NAtableAnnual.Year,cDCE_NAtableAnnual.Median,'-.','Color','0.93 0.69 0.13')
plot(VC_NAtableAnnual.Year,VC_NAtableAnnual.Median,'-.','Color',' 0.49 0.18 0.56')
ylim([0 10])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'linear',...
    'YTick', [0 2 4 6 8 10]);
xline(categorical({'2021'}),'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','right','Label','ISB Inj',fontsize=8);
title('VOC Median Conc. (ug/L)')
nexttile
plot(PCE_NAtableAnnual.Year,PCE_NAtableAnnual.Outliers,'-.','Color','0 0.4470 0.7410')
hold
```

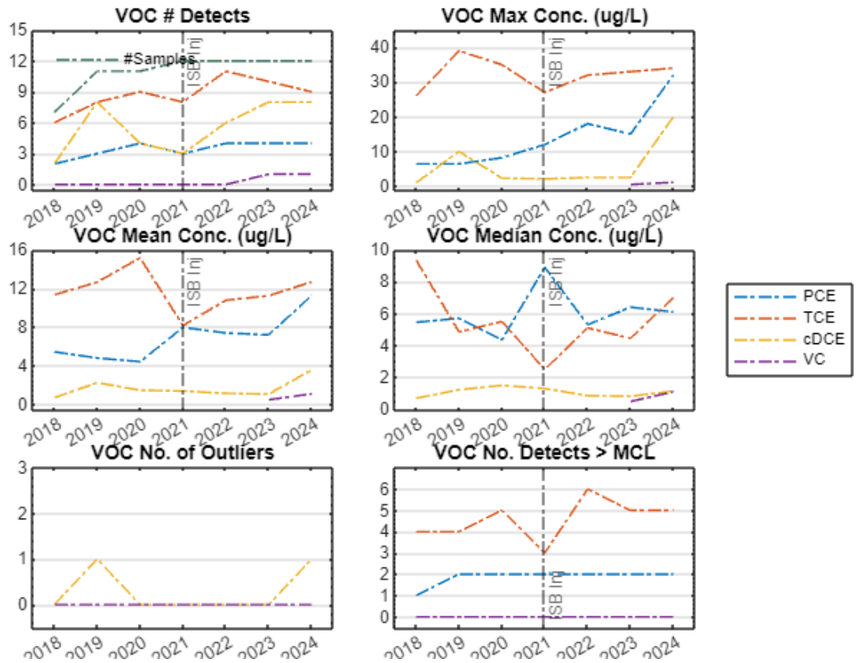
```
Current plot held
```

```
plot(TCE_NAtableAnnual.Year,TCE_NAtableAnnual.Outliers,'-.','Color','0.85 0.33 0.1')
plot(cDCE_NAtableAnnual.Year,cDCE_NAtableAnnual.Outliers,'-.','Color','0.93 0.69 0.13')
plot(VC_NAtableAnnual.Year,VC_NAtableAnnual.Outliers,'-.','Color',' 0.49 0.18 0.56')
ylim([-0.5 3])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'linear',...
    'YTick', [0 1 2 3]);
title('VOC No. of Outliers')
nexttile
plot(PCE_NAtableAnnual.Year,PCE_NAtableAnnual.("PCE>5"),'-.','Color','0 0.4470 0.7410')
hold
```

```
Current plot held
```

```
plot(TCE_NAtableAnnual.Year,TCE_NAtableAnnual.("TCE>5"),'-.','Color','0.85 0.33 0.1')
plot(cDCE_NAtableAnnual.Year,cDCE_NAtableAnnual.("cDCE>70"),'-.','Color','0.93 0.69 0.13')
plot(VC_NAtableAnnual.Year,VC_NAtableAnnual.("VC>2"),'-.','Color',' 0.49 0.18 0.56')
ylim([-0.5 7])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'linear',...
```

```
    'YTick', [0 1 2 3 4 5 6]);
xline(categorical({'2021'}),'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','right','Label','ISB Inj',fontsize=8);
title('VOC No. Detects > MCL')
lgd=legend;
lbd.Layout.Tile = 5;
lgd.Layout.Tile="east";
legend(["PCE", "TCE", "cDCE", "VC"]);
```



Correlation Analysis for Frequency of Detection (Confined Aquifer - Northern Area)

```
'PCE #D vs. #D',[rho,pval] = corr(PCE_NAtableAnnual.NNZ,PCE_NAtableAnnual.Count,'Rows','complete')
```

```
ans =
'PCE #D vs. #D'
rho = 0.8122
pval = 0.0265
```

```
'TCE #D vs. #D',[rho,pval] = corr(TCE_NAtableAnnual.NNZ,TCE_NAtableAnnual.Count,'Rows','complete')
```

```
ans =
'TCE #D vs. #D'
rho = 0.9623
pval = 5.2107e-04
```

```
'cDCE #D vs. #D',[rho,pval] = corr(cDCE_NAtableAnnual.NNZ,cDCE_NAtableAnnual.Count,'Rows','complete')
```

```
ans =
'cDCE #D vs. #D'
rho = 0.6032
pval = 0.1516
```

```
'VC #D vs. #D',[rho,pval] = corr(VC_NAtableAnnual.NNZ,PCE_NAtableAnnual.Count,'Rows','complete')
```

```
ans =
'VC #D vs. #D'
rho = 0.3742
pval = 0.4083
```

```
'11DCE #D vs. #D',[rho,pval] = corr(DCE11_NAtableAnnual.NNZ,DCE11_NAtableAnnual.Count,'Rows','complete')
```

```
ans =
'11DCE #D vs. #D'
rho = 0.6038
pval = 0.1511
```

```
'PCE #D vs. TCE #D',[rho,pval] = corr(PCE_NAtableAnnual.NNZ,TCE_NAtableAnnual.NNZ,'Rows','complete')
```

```
ans =
'PCE #D vs. TCE #D'
rho = 0.9058
pval = 0.0050
```

```
'TCE #D vs. cDCE #D',[rho,pval] = corr(TCE_NAtableAnnual.NNZ,cDCE_NAtableAnnual.NNZ,'Rows','complete')
```

```
ans =
'TCE #D vs. cDCE #D'
rho = 0.5713
pval = 0.1803
```

```
'cDCE #D vs. VC #D',[rho,pval] = corr(cDCE_NAtableAnnual.NNZ,VC_NAtableAnnual.NNZ,'Rows','complete')
```

```
ans =
'cDCE #D vs. VC #D'
rho = 0.6448
pval = 0.1179
```

```
'11DCE #D vs. cDCE #D',[rho,pval] = corr(DCE11_NAtableAnnual.NNZ,cDCE_NAtableAnnual.NNZ,'Rows','complete')
```

```
ans =
'11DCE #D vs. cDCE #D'
rho = 0.1592
pval = 0.7332
```

```
'11DCE #D vs. VC #D',[rho,pval] = corr(DCE11_NAtableAnnual.NNZ,VC_NAtableAnnual.NNZ,'Rows','complete')
```

```
ans =
'11DCE #D vs. VC #D'
rho = -0.2582
pval = 0.5761
```

4.2 Descriptive Statistics Time Series Plots for Confined Aquifer: Southern Area

PCE, TCE, cDCE, and VC Southern Area: Surficial Aquifer

```
t8=tiledlayout('flow');
```

```
t8.Padding='compact';
t8.TileSpacing='compact';
nexttile
plot(PCE_SAtableAnnual.Year,PCE_SAtableAnnual.Count,'-.','Color','0.23 0.44 0.34')
hold
```

```
Current plot held
```

```
plot(PCE_SAtableAnnual.Year,PCE_SAtableAnnual.NNZ,'-.','Color','0 0.4470 0.7410')
ylim([-1 60])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'linear',...
    'YTick', [0 10 20 30 40 50 60]);
title('VOC # Detects');
plot(TCE_SAtableAnnual.Year,TCE_SAtableAnnual.NNZ,'-.','Color','0.85 0.33 0.1')
plot(cDCE_SAtableAnnual.Year,cDCE_SAtableAnnual.NNZ,'-.','Color','0.93 0.69 0.13')
plot(VC_SAtableAnnual.Year,VC_SAtableAnnual.NNZ,'-.','Color',' 0.49 0.18 0.56')
xline(categorical({'2021'}),'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','right','Label','ISB Inj',fontsize=8);
legend('#Samples',"","","","","",Location='northeast',EdgeColor='none',Color='none');
nexttile
plot(PCE_SAtableAnnual.Year,PCE_SAtableAnnual.Max,'-.','Color','0 0.4470 0.7410')
hold
```

```
Current plot held
```

```
plot(TCE_SAtableAnnual.Year,TCE_SAtableAnnual.Max,'-.','Color','0.85 0.33 0.1')
plot(cDCE_SAtableAnnual.Year,cDCE_SAtableAnnual.Max,'-.','Color','0.93 0.69 0.13')
plot(VC_SAtableAnnual.Year,VC_SAtableAnnual.Max,'-.','Color',' 0.49 0.18 0.56')
ylim([1 10000])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'log',...
    'YTick', [1 10 100 1000 10000]);
xline(categorical({'2021'}),'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','right','Label','ISB Inj',fontsize=8);
title('VOC Max Conc. (ug/L)');
nexttile
plot(PCE_SAtableAnnual.Year,PCE_SAtableAnnual.Mean,'-.','Color','0 0.4470 0.7410')
hold
```

```
Current plot held
```

```
plot(TCE_SAtableAnnual.Year,TCE_SAtableAnnual.Mean,'-.','Color','0.85 0.33 0.1')
plot(cDCE_SAtableAnnual.Year,cDCE_SAtableAnnual.Mean,'-.','Color','0.93 0.69 0.13')
plot(VC_SAtableAnnual.Year,VC_SAtableAnnual.Mean,'-.','Color',' 0.49 0.18 0.56')
ylim([1 1000])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'log',...
    'YTick', [1 10 100 1000]);
xline(categorical({'2021'}),'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','right','Label','ISB Inj',fontsize=8);
title('VOC Mean Conc. (ug/L)')
nexttile
plot(PCE_SAtableAnnual.Year,PCE_SAtableAnnual.Median,'-.','Color','0 0.4470 0.7410')
hold
```

Current plot held

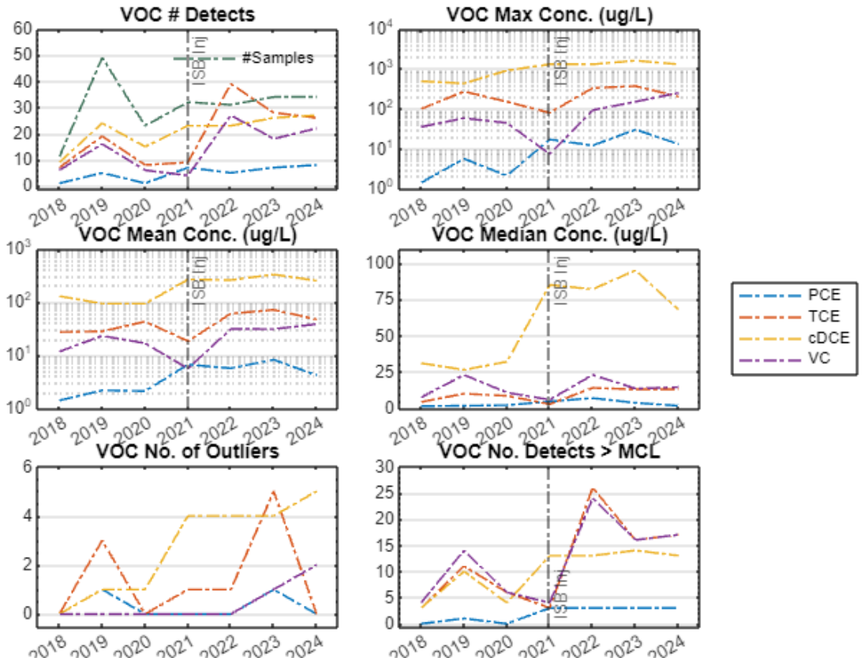
```
plot(TCE_SAtableAnnual.Year,TCE_SAtableAnnual.Median,'-.','Color','0.85 0.33 0.1')
plot(cDCE_SAtableAnnual.Year,cDCE_SAtableAnnual.Median,'-.','Color','0.93 0.69 0.13')
plot(VC_SAtableAnnual.Year,VC_SAtableAnnual.Median,'-.','Color',' 0.49 0.18 0.56')
ylim([0 110])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'linear',...
    'YTick', [0 25 50 75 100]);
xline(categorical({'2021'}),'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','right','Label','ISB Inj',fontsize=8);
title('VOC Median Conc. (ug/L)')
nexttile
plot(PCE_SAtableAnnual.Year,PCE_SAtableAnnual.Outliers,'-.','Color','0 0.4470 0.7410')
hold
```

Current plot held

```
plot(TCE_SAtableAnnual.Year,TCE_SAtableAnnual.Outliers,'-.','Color','0.85 0.33 0.1')
plot(cDCE_SAtableAnnual.Year,cDCE_SAtableAnnual.Outliers,'-.','Color','0.93 0.69 0.13')
plot(VC_SAtableAnnual.Year,VC_SAtableAnnual.Outliers,'-.','Color',' 0.49 0.18 0.56')
ylim([-0.5 6])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'linear',...
    'YTick', [0 2 4 6]);
title('VOC No. of Outliers')
nexttile
plot(PCE_SAtableAnnual.Year,PCE_SAtableAnnual.("PCE>5"),'-.','Color','0 0.4470 0.7410')
hold
```

Current plot held

```
plot(TCE_SAtableAnnual.Year,TCE_SAtableAnnual.("TCE>5"),'-.','Color','0.85 0.33 0.1')
plot(cDCE_SAtableAnnual.Year,cDCE_SAtableAnnual.("cDCE>70"),'-.','Color','0.93 0.69 0.13')
plot(VC_SAtableAnnual.Year,VC_SAtableAnnual.("VC>2"),'-.','Color',' 0.49 0.18 0.56')
ylim([-0.5 30])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'linear',...
    'YTick', [0 5 10 15 20 25 30]);
xline(categorical({'2021'}),'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','right','Label','ISB Inj',fontsize=8);
title('VOC No. Detects > MCL')
lgd=legend;
lbd.Layout.Tile = 5;
lgd.Layout.Tile="east";
legend(["PCE", "TCE", "cDCE", "VC"]);
```



Correlation Analysis for Frequency of Detection (Confined Aquifer - Southern Area)

```
'PCE #D vs. #D',[rho,pval] = corr(PCE_SAtableAnnual.NNZ,PCE_SAtableAnnual.Count,'Rows','complete')
```

```
ans =
'PCE #D vs. #D'
rho = 0.6480
pval = 0.1155
```

```
'TCE #D vs. #D',[rho,pval] = corr(TCE_SAtableAnnual.NNZ,TCE_SAtableAnnual.Count,'Rows','complete')
```

```
ans =
'TCE #D vs. #D'
rho = 0.7700
pval = 0.0429
```

```
'cDCE #D vs. #D',[rho,pval] = corr(cDCE_SAtableAnnual.NNZ,cDCE_SAtableAnnual.Count,'Rows','complete')
```

```
ans =
'cDCE #D vs. #D'
rho = 0.8269
pval = 0.0218
```

```
'VC #D vs. #D',[rho,pval] = corr(VC_SAtableAnnual.NNZ,PCE_SAtableAnnual.Count,'Rows','complete')
```

```
ans =
'VC #D vs. #D'
rho = 0.4602
pval = 0.2988
```

```
'PCE #D vs. TCE #D',[rho,pval] = corr(PCE_SAtableAnnual.NNZ,TCE_SAtableAnnual.NNZ,'Rows','complete')
```

```
ans =
'PCE #D vs. TCE #D'
rho = 0.5333
pval = 0.2177
```

```
'TCE #D vs. cDCE #D',[rho,pval] = corr(TCE_SAtableAnnual.NNZ,cDCE_SAtableAnnual.NNZ,'Rows','complete')
```

```
ans =
'TCE #D vs. cDCE #D'
rho = 0.6602
pval = 0.1066
```

```
'cDCE #D vs. VC #D',[rho,pval] = corr(cDCE_SAtableAnnual.NNZ,VC_SAtableAnnual.NNZ,'Rows','complete')
```

```
ans =
'cDCE #D vs. VC #D'
rho = 0.6360
pval = 0.1247
```

Correlation Analysis for Distribution Parameters (Confined Aquifer - Southern Area)

```
'TCE 75th vs. cDCE 75',[rho,pval] = corr(TCE_SAtableAnnual.PCTL75,cDCE_SAtableAnnual.PCTL75,'Rows','complete')
```

```
ans =
'TCE 75th vs. cDCE 75'
rho = 0.1860
pval = 0.6896
```

```
'cDCE 75th vs. VC 75',[rho,pval] = corr(cDCE_SAtableAnnual.PCTL75,VC_SAtableAnnual.PCTL75,'Rows','complete')
```

```
ans =
'cDCE 75th vs. VC 75'
rho = 0.4578
pval = 0.3016
```

```
'cDCE 75th vs. VC 75',[rho,pval] = corr(cDCE_SAtableAnnual.Mean,VC_SAtableAnnual.Mean,'Rows','complete')
```

```
ans =
'cDCE 75th vs. VC 75'
rho = 0.3873
pval = 0.3906
```

Mann-Trend Analysis PCE Bulk Plume

```
'Two Way Test for Trend PCE Bulk Plume Confined Aquifer Max Conc Not 0',...
[H, P_value,Z,StdS]=MKwMiss(PCE_SAtableAnnual.Max,0.05,NaN)
```

```
ans =
'Two Way Test for Trend PCE Bulk Plume Confined Aquifer Max Conc Not 0'
H = logical

   0
P_value =
0.0715
Z =
1.8023
StdS =
```

```
6.6583
```

```
'Two Way Test for Trend PCE Bulk Plume Confined Aquifer Mean Conc Not 0',...
[H, P_value,Z,StdS]=MKwMiss(PCE_SAtableAnnual.Mean,0.05,NaN)
```

```
ans =
'Two Way Test for Trend PCE Bulk Plume Confined Aquifer Mean Conc Not 0'
H = logical

   0
P_value =
0.1331
Z =
1.5019
StdS =
6.6583
```

```
'Two Way Test for Trend PCE Bulk Plume Confined Aquifer Median < 0',...
[H, P_value,Z,StdS]=MKwMiss(PCE_SAtableAnnual.Median,0.05,NaN)
```

```
ans =
'Two Way Test for Trend PCE Bulk Plume Confined Aquifer Median < 0'
H = logical

   0
P_value =
0.2876
Z =
1.0634
StdS =
6.5828
```

Mann-Trend Analysis TCE Bulk Plume

```
'Two Way Test for Trend TCE Bulk Plume Confined Aquifer Max Conc Not  0',...
[H, P_value,Z,StdS]=MKwMiss(TCE_SAtableAnnual.Max,0.05,NaN)
```

```
ans =
'Two Way Test for Trend TCE Bulk Plume Confined Aquifer Max Conc Not  0'
H = logical

   0
P_value =
0.3675
Z =
0.9011
StdS =
6.6583
```

```
'Two Way Test for Trend TCE Bulk Plume Confined Aquifer Mean Conc Not 0',...
[H, P_value,Z,StdS]=MKwMiss(TCE_SAtableAnnual.Mean,0.05,NaN)
```

```
ans =
'Two Way Test for Trend TCE Bulk Plume Confined Aquifer Mean Conc Not 0'
H = logical

   0
P_value =
0.1331
Z =
```

```
1.5019
StdS =
6.6583
```

```
'Two Way Test for Trend TCE Bulk Plume Confined Aquifer Median Not 0',...
[H, P_value,Z,StdS]=MKwMiss(TCE_SAtableAnnual.Median,0.05,NaN)
```

```
ans =
'Two Way Test for Trend TCE Bulk Plume Confined Aquifer Median Not 0'
H = logical

   0
P_value =
0.2876
Z =
1.0634
StdS =
6.5828
```

Mann-Trend Analysis cDCE Bulk Plume

```
'Two Way Test for Trend cDCE Bulk Plume Confined Aquifer Max Conc Not  0',...
[H, P_value,Z,StdS]=MKwMiss(cDCE_SAtableAnnual.Max,0.05,NaN)
```

```
ans =
'Two Way Test for Trend cDCE Bulk Plume Confined Aquifer Max Conc Not  0'
H = logical

   1
P_value =
0.0415
Z =
2.0386
StdS =
6.3770
```

```
'Two Way Test for Trend cDCE Bulk Plume Confined Aquifer Mean Conc Not 0',...
[H, P_value,Z,StdS]=MKwMiss(cDCE_SAtableAnnual.Mean,0.05,NaN)
```

```
ans =
'Two Way Test for Trend cDCE Bulk Plume Confined Aquifer Mean Conc Not 0'
H = logical

   0
P_value =
0.3675
Z =
0.9011
StdS =
6.6583
```

```
'Two Way Test for Trend cDCE Bulk Plume Confined Aquifer Median Not 0',...
[H, P_value,Z,StdS]=MKwMiss(cDCE_SAtableAnnual.Median,0.05,NaN)
```

```
ans =
'Two Way Test for Trend cDCE Bulk Plume Confined Aquifer Median Not 0'
H = logical

   0
P_value =
```

```
0.1331
Z =
1.5019
StdS =
6.6583
```

Mann-Trend Analysis VC Bulk Plume

```
'Two Way Test for Trend VC Bulk Plume Confined Aquifer Max Conc Not  0',...
[H, P_value,Z,StdS]=MKwMiss(VC_SAtableAnnual.Max,0.05,NaN)
```

```
ans =
'Two Way Test for Trend VC Bulk Plume Confined Aquifer Max Conc Not  0'
H = logical
   0
P_value = 0.0715
Z = 1.8023
StdS = 6.6583
```

```
'Two Way Test for Trend VC Bulk Plume Confined Aquifer Mean Conc Not 0',...
[H, P_value,Z,StdS]=MKwMiss(VC_SAtableAnnual.Mean,0.05,NaN)
```

```
ans =
'One Way Test for Trend VC Bulk Plume Confined Aquifer Mean Conc Not 0'
H = logical
   0
P_value = 0.1331
Z = 1.5019
StdS = 6.6583
```

```
'One Way Test for Trend VC Bulk Plume Confined Aquifer Median Not 0',...
[H, P_value,Z,StdS]=MKwMiss(VC_SAtableAnnual.Median,0.05,NaN)
```

```
ans =
'One Way Test for Trend VC Bulk Plume Confined Aquifer Median Not 0'
H = logical
   0
P_value = 0.6486
Z = 0.4557
StdS = 6.5828
```

Correlation Analysis for No. > MCL (Confined Aquifer - Southern Area)

```
'PCE>MCL vs. TCE>MCL',[rho,pval] = corr(PCE_SAtableAnnual.(20),TCE_SAtableAnnual.(20),'Rows','complete')
```

```
ans =
'PCE>MCL vs. TCE>MCL'
rho = 0.5976
pval = 0.1565
```

```
'TCE>MCL  vs. cDCE>MCL',[rho,pval] = corr(TCE_SAtableAnnual.(20),cDCE_SAtableAnnual.(20),'Rows','complete')
```

```
ans =
'TCE>MCL  vs. cDCE>MCL'
rho = 0.6142
pval = 0.1423
```

```
'cDCE>MCL vs. VC>MCL',[rho,pval] = corr(cDCE_SAtableAnnual.(20),VC_SAtableAnnual.(20),'Rows','complete')
```

```
ans =
'cDCE>MCL vs. VC>MCL'
rho = 0.6352
pval = 0.1253
```

4.0 Descriptive Statistics Time Series Plots for Dissolved Gases

4.1 Northern Area Confined Aquifer: Ethene and Ethane

```
t9=tiledlayout('flow');
t9.Padding='compact';
t9.TileSpacing='compact';
nexttile
plot(Ethene_NAtableAnnual.Year,Ethene_NAtableAnnual.Count,'-.','Color','0.23 0.44 0.34')
hold
```

```
Current plot held
```

```
plot(Ethene_NAtableAnnual.Year,Ethene_NAtableAnnual.NNZ,'-.','Color','0 0.75 0.75')
ylim([-0.5 15])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'linear',...
    'YTick', [0 3 6 9 12 15]);
title('Ethene/Ethane # Detects');
plot(Ethane_NAtableAnnual.Year,Ethane_NAtableAnnual.NNZ,'-.','Color','0.75 0.75 0')
legend('#Samples',Location='northwest',EdgeColor='none',Color='none');
nexttile
plot(Ethene_NAtableAnnual.Year,Ethene_NAtableAnnual.Max,'-.','Color','0 0.75 0.75')
hold
```

```
Current plot held
```

```
plot(Ethane_NAtableAnnual.Year,Ethane_NAtableAnnual.Max,'-.','Color','0.75 0.75 0')
ylim([-1 12])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'linear',...
    'YTick', [0 3 6 9 12]);
title('Ethene/Ethane Max Conc. (ug/L)');
nexttile
plot(Ethene_NAtableAnnual.Year,Ethene_NAtableAnnual.Mean,'-.','Color','0 0.75 0.75')
hold
```

```
Current plot held
```

```
plot(Ethane_NAtableAnnual.Year,Ethane_NAtableAnnual.Mean,'-.','Color','0.75 0.75 0')
ylim([-0.5 8])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'linear',...
    'YTick', [0 2 4 6 8]);
title('Ethene/Ethane Mean Conc. (ug/L)')
nexttile
plot(Ethene_NAtableAnnual.Year,Ethene_NAtableAnnual.Median,'-.','Color','0 0.75 0.75')
hold
```

Current plot held

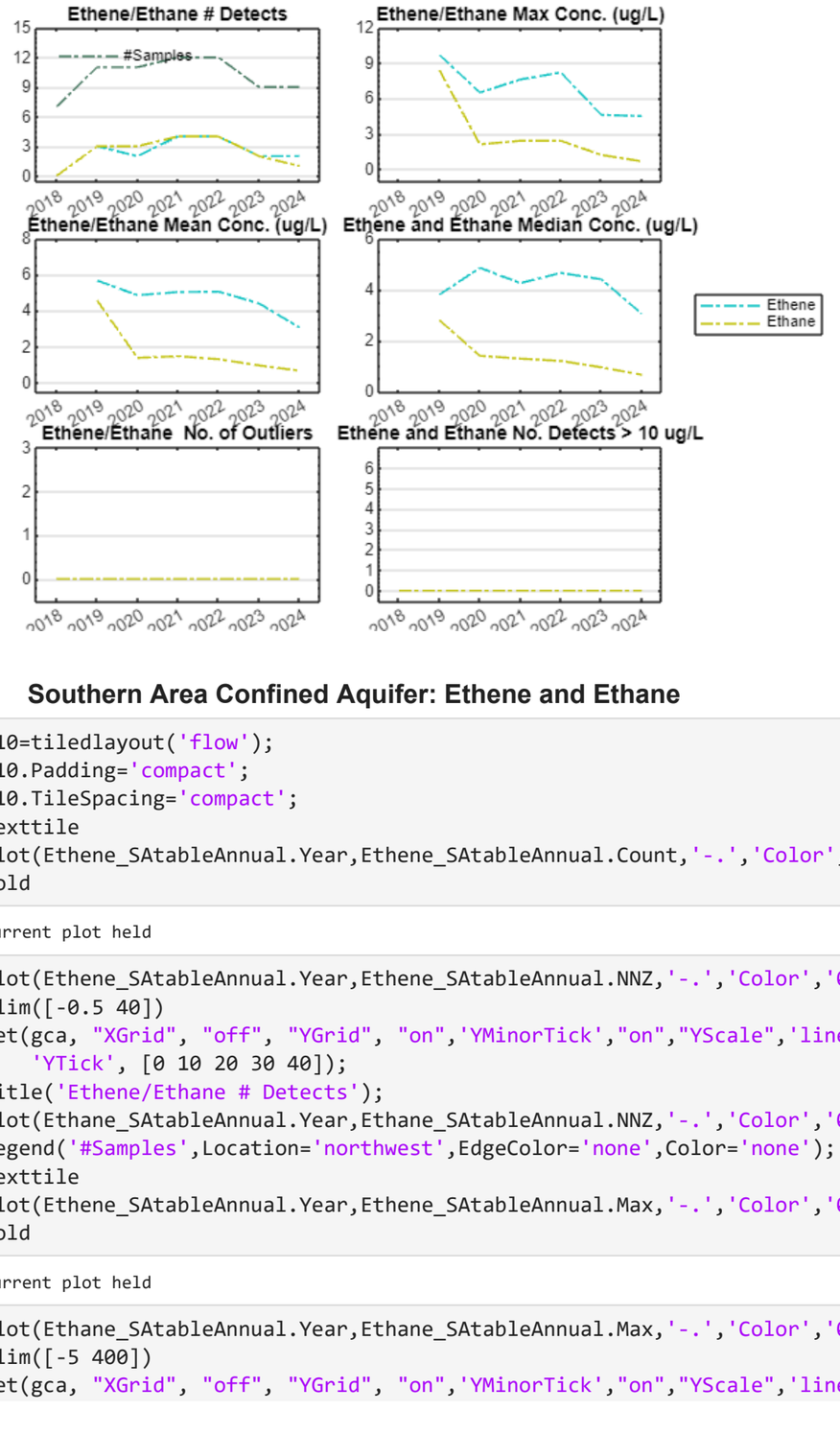
```
plot(Ethane_NAtableAnnual.Year,Ethane_NAtableAnnual.Median,'-.','Color','0.75 0.75 0')
ylim([0 6])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'linear',...
    'YTick', [0 2 4 6]);
title('Ethene and Ethane Median Conc. (ug/L)')
nexttile
plot(Ethene_NAtableAnnual.Year,Ethene_NAtableAnnual.Outliers,'-.','Color','0 0.75 0.75')
hold
```

Current plot held

```
plot(Ethane_NAtableAnnual.Year,Ethane_NAtableAnnual.Outliers,'-.','Color','0.75 0.75 0')
ylim([-0.5 3])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'linear',...
    'YTick', [0 1 2 3]);
title('Ethene/Ethane  No. of Outliers')
nexttile
plot(Ethene_NAtableAnnual.Year,Ethene_NAtableAnnual.(">10"),'-.','Color','0 0.75 0.75')
hold
```

Current plot held

```
plot(Ethane_NAtableAnnual.Year,Ethane_NAtableAnnual.(">10"),'-.','Color','0.75 0.75 0')
ylim([-0.5 7])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'linear',...
    'YTick', [0 1 2 3 4 5 6]);
title('Ethene and Ethane No. Detects > 10 ug/L')
lgd=legend;
lbd.Layout.Tile = 5;
lgd.Layout.Tile="east";
legend(["Ethene", "Ethane"]);
```



4.2 Southern Area Confined Aquifer: Ethene and Ethane

```
t10=tiledlayout('flow');
t10.Padding='compact';
t10.TileSpacing='compact';
nexttile
plot(Ethene_SAtableAnnual.Year,Ethene_SAtableAnnual.Count,'-.','Color','0.23 0.44 0.34')
hold
```

```
Current plot held
```

```
plot(Ethene_SAtableAnnual.Year,Ethene_SAtableAnnual.NNZ,'-.','Color','0.75 0.75 0')
ylim([-0.5 40])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'linear',...
    'YTick', [0 10 20 30 40]);
title('Ethene/Ethane # Detects');
plot(Ethane_SAtableAnnual.Year,Ethane_SAtableAnnual.NNZ,'-.','Color','0.75 0.75 0')
legend('#Samples',Location='northwest',EdgeColor='none',Color='none');
nexttile
plot(Ethene_SAtableAnnual.Year,Ethene_SAtableAnnual.Max,'-.','Color','0.75 0.75 0')
hold
```

```
Current plot held
```

```
plot(Ethane_SAtableAnnual.Year,Ethane_SAtableAnnual.Max,'-.','Color','0.75 0.75 0')
ylim([-5 400])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'linear',...
```

```
    'YTick', [0 100 200 300 400]);
title('Ethene/Ethane Max Conc. (ug/L)');
nexttile
plot(Ethene_SAtableAnnual.Year,Ethene_SAtableAnnual.Mean,'-.','Color','0.75 0.75 0')
hold
```

```
Current plot held
```

```
plot(Ethane_SAtableAnnual.Year,Ethane_SAtableAnnual.Mean,'-.','Color','0.85 0.33 0.1')
ylim([-0.5 40])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'linear',...
    'YTick', [0 10 20 30 40]);
title('Ethene/Ethane Mean Conc. (ug/L)')
nexttile
plot(Ethene_SAtableAnnual.Year,Ethene_SAtableAnnual.Median,'-.','Color','0.75 0.75 0')
hold
```

```
Current plot held
```

```
plot(Ethane_SAtableAnnual.Year,Ethane_SAtableAnnual.Median,'-.','Color','0.75 0.75 0')
ylim([0 20])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'linear',...
    'YTick', [0 5 10 15 20]);
title('Ethene and Ethane Median Conc. (ug/L)')
nexttile
plot(Ethene_SAtableAnnual.Year,Ethene_SAtableAnnual.Outliers,'-.','Color','0.75 0.75 0')
hold
```

```
Current plot held
```

```
plot(Ethane_SAtableAnnual.Year,Ethane_SAtableAnnual.Outliers,'-.','Color','0.75 0.75 0')
ylim([-0.5 3.5])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'linear',...
    'YTick', [0 1 2 3]);
title('Ethene/Ethane  No. of Outliers')
nexttile
plot(Ethene_SAtableAnnual.Year,Ethene_SAtableAnnual.(">10"),'-.','Color','0.75 0.75 0')
hold
```

```
Current plot held
```

```
plot(Ethane_SAtableAnnual.Year,Ethane_SAtableAnnual.(">10"),'-.','Color','0.75 0.75 0')
ylim([-0.5 7])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'linear',...
    'YTick', [0 1 2 3 4 5 6]);
title('Ethene and Ethane No. Detects > 10 ug/L')
lgd=legend;
lbd.Layout.Tile = 5;
lgd.Layout.Tile="east";
legend(["Ethene", "Ethane"]);
```



5.0 Descriptive Statistics Time Series Plots for TOC

```
t10=tiledlayout('flow');
t10.Padding="compact";
t10.TileSpacing='compact';
nexttile
plot(TOCtableEvent.Event,TOCtableEvent.Count,'-.','Color','0.87 0.49 0')
hold
set(gca, "XGrid", "off", "YGrid", "on")
title('TOC # Detects')
plot(TOCtableEvent.Event,TOCtableEvent.NNZ,'-','Color','0.87 0.49 0')
xticklabels({'19', '' '20' '' '21' '' '22' '' '23' '' '24'})
axis padded
xline(categorical({'2022-1'}),'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
xline(categorical({'2023-1'}),'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','right','Label','ISB Inj',fontsize=8)
set(gca, "XGrid", "off", "YGrid", "on")
legend('#S',"#D",'','',Location='south',EdgeColor='none',Color='none');
nexttile
plot(TOCtableEvent.Event,TOCtableEvent.Max,'-.','Color','0.87 0.49 0')
hold
set(gca, "XGrid", "off", "YGrid", "on")
title('TOC Max Conc (ug/L)')
```

```
xticklabels({'19', '' '20' '' '21' '' '22' '' '23' '' '24'})
xline(categorical({'2022-1'}),'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
xline(categorical({'2023-1'}),'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
axis padded
plot(TOCSSA.Max_LongTerm,'-.','Color','magenta');
legend('','','','LT Trend','Location','northwest','EdgeColor','none','Color','none');
nexttile
plot(TOCtableEvent.Event,TOCtableEvent.Mean,'-.','Color','0.87 0.49 0')
xticklabels({'19', '' '20' '' '21' '' '22' '' '23' '' '24'})
axis padded
xline(categorical({'2022-1'}),'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
xline(categorical({'2023-1'}),'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
set(gca, "XGrid", "off", "YGrid", "on")
title('TOC Mean/Median Detects (ug/L)')
hold
plot(TOCtableEvent.Event,TOCtableEvent.Median,'-','Color','0.87 0.49 0')
plot(TOCMeanSSA.Mean_LongTerm,'-.','Color','magenta');
legend('Mean','','','Median','LT Trend',Location='northwest',...
    EdgeColor='none',Color='none');
nexttile
plot(TOCtableEvent.Event,TOCtableEvent.("TOC=>20"),'-.','Color','0.87 0.49 0')
xticklabels({'19', '' '20' '' '21' '' '22' '' '23' '' '24'})
axis padded
xline(categorical({'2022-1'}),'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','right','Label','ISB Inj',fontsize=8)
xline(categorical({'2023-1'}),'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','right','Label','ISB Inj',fontsize=8)
set(gca, "XGrid", "off", "YGrid", "on")
hold
plot(TOCGT20SSA.(1),'-.','Color','magenta');
xticklabels({'19', '' '20' '' '21' '' '22' '' '23' '' '24'})
legend('','','','LT Trend',Location='northwest',...
    EdgeColor='none',Color='none');
title 'TOC # > 20 mg/L'
```

5.0 Trend Analysis and Statistics

5.1 TOC SSA Trend Analysis

5.1.1 Maximum Concentration Trend

```
% Decompose data into long-term trend, seasonal trends, and remainder
TOCMaxSSA = trenddecomp(TOCtableEvent(:,"Max"),"ssa",5,"NumSeasonal",1);

% Display results
```

```
figure
plot(TOCtableEvent.(5),"SeriesIndex",6,"DisplayName","Input data")
hold on

% Plot long-term trend
plot(TOCMaxSSA.(1),"SeriesIndex",2,"LineWidth",1,"DisplayName","Long-term")
hold off
legend
ylabel("Max")
```

5.1.2 Mean Concentration Trend

```
% Decompose data into long-term trend, seasonal trends, and remainder
TOCMeanSSA = trenddecomp(TOCtableEvent(:,"Mean"),"ssa",5,"NumSeasonal",1);

% Display results
figure
plot(TOCtableEvent.(7),"SeriesIndex",6,"DisplayName","Input data")
hold on

% Plot long-term trend
plot(TOCMeanSSA.(1),"SeriesIndex",2,"LineWidth",1,"DisplayName","Long-term")
hold off
legend
ylabel("Mean")
```

5.1.3 No. Samples =>20 mg/L Trend

```
% Decompose data into long-term trend, seasonal trends, and remainder
TOCGT20SSA = trenddecomp(TOCtableEvent(:,"TOC=>20"),"ssa",5,"NumSeasonal",1);

% Display results
figure
plot(TOCtableEvent.(20),"SeriesIndex",6,"DisplayName","Input data")
hold on

% Plot long-term trend
plot(TOCGT20SSA.(1),"SeriesIndex",2,"LineWidth",1,"DisplayName","Long-term")
hold off
legend
ylabel("TOC=>20")
```

5.1.4 Correlation Analysis

```
'TOC vs. PCE',[rho,pval] = corr(juliandate(MW103.Date),MW103.PCE)
```

Standard Color Ramp

Hex Color Reference Codes

- PCE 0 0.4470 0.7410
- TCE 0.85 0.33 0.1
- cDCE 0.93 0.69 0.13
- VC 0.49 0.18 0.56
- 1,1-DCE 0.47 0.67 0.19
- 1,1,1-TCA 0.3 0.75 0.93
- 1,2-DCA 0.5 0.5 0.5
- 1,4-DCB 0.64 0.08 0.18
- CB 0.68 0.92 1
- TOC 0.87 0.49 0
- DHC 0.87 0.49 0
- tceA 1 0.84 0
- VCR 1 0.6 0.78
- BCV 0.75 0.75 0

Function Coding Reference

Group Statistics Standard Functions

- "sum" Sum
- "mean" Mean
- "median" Median
- "mode" Mode
- "var" Variance
- "std" Standard deviation
- "min" Minimum
- "max" Maximum
- "range" Maximum minus minimum
- "nummissing" Number of missing elements
- "numunique" Number of distinct nonmissing elements
- "nnz" Number of nonzero and non-NaN elements
- "all" All computations previously listed

Group Descriptive Statistics Functions

- **Outliers**
- **10th, 25th, 50th, 75th, 90th, and 95th percentile**
- **Skewness, Kurtosis**
- **Greater than specified limit**

```
% Is outlier function
function y = outlier(x)
% Count the number of outliers in each group
```

```
y = nnz(isoutlier(x,'quartiles'));
end

% 10th percentile function
function y = prctile10(x)
%Distribution 10th percentile
y = (prctile(x,10));
end

%25th percentile function
function y = prctile25(x)
%Distribution 25th percentile
y = (prctile(x,25));
end

%Distribution 50th percentile function
function y = prctile50(x)
%Distribution 50th percentile
y = (prctile(x,50));
end

%75th percentile function
function y = prctile75(x)
%Distribution 75th percentile
y = (prctile(x,75));
end

%90th percentile function
function y = prctile90(x)
%Distribution 90th percentile
y = (prctile(x,90));
end

%95th percentile function
function y = prctile95(x)
%Distribution 95th percentile
y = (prctile(x,95));
end

%25 and 75th percentile function
function y = prct25_75(x)
% x is the data in a group from one computation variable
% Distribution 25th and 75th percentile
y = (prctile(x,[25 75]));
end

%skewness function
function y = skew(x)
%Distribution skewness
y= (skewness(x));
```

```
end

%skewness function
function y = kurt(x)
%Distribution skewness
y= (kurtosis(x));
end

%Group count >MCL 5
function y = MCL5gt(x)
%Group counts for greater than a limit
y= sum(x>5);
end

%Group count >MCL 2
function y = MCL2gt(x)
%Group counts for greater than a limit
y= sum(x>2);
end

%Group count >MCL 7
function y = MCL7gt(x)
%Group counts for greater than a limit
y= sum(x>7);
end

%Group count >MCL 70
function y = MCL70gt(x)
%Group counts for greater than a limit
y= sum(x>70);
end

%Group count >MCL 75
function y = MCL75gt(x)
%Group counts for greater than a limit
y= sum(x>75);
end

%Group count >MCL 2
function y = MCL100gt(x)
%Group counts for greater than a limit
y= sum(x>100);
end

%Group count >MCL 200
function y = MCL200gt(x)
%Group counts for greater than a limit
y= sum(x>200);
end
```

```
%Group count <pH 5
function y = pH5lt(x)
%Group counts for greater than a limit
y= sum(x<5);
end

%Group count <=DO 1
function y = DOlt(x)
%Group counts for greater than a limit
y= sum(x<=1);
end

%Group count <=ORP 50
function y = ORPlt(x)
%Group counts for greater than a limit
y= sum(x<=-50);
end

%Group count <=Sulfate 50
function y = SO4lt(x)
%Group counts for greater than a limit
y= sum(x<50);
end

%Group count <=Sulfide 1
function y = S2gt(x)
%Group counts for greater than a limit
y= sum(x>1);
end

%Group count <=Sulfide H2S 1
function y = S2H2Sgt(x)
%Group counts for greater than a limit
y= sum(x>1);
end

%Group count TOC=>20
function y = TOCgt(x)
%Group counts for greater than a limit
y= sum(x>=20);
end

%Group count Methane=>500
function y = Methanegt(x)
%Group counts for greater than a limit
y= sum(x>=500);
end

%Group count Fe2=>1
function y = FE2gt(x)
```

```
%Group counts for greater than a limit
y= sum(x>=1);
end

%Group count Ethene=>10
function y = Ethenegt(x)
%Group counts for greater than a limit
y= sum(x>=10);
end

%Group count Ethane=>10
function y = Ethanegt(x)
%Group counts for greater than a limit
y= sum(x>=10);
end

%Group count NO3=<1
function y = NO3gt(x)
%Group counts for greater than a limit
y= sum(x<1);
end
```

E.4 Bulk Plume Statistical Analysis

OU 6 Bulk Plume Analysis

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Mann-Kendall (M-K) Trend Analysis

The Mann-Kendall (M-K) tests detect monotonic trends in data. M-K tests allow for missing values, do not require a particular distribution assumption, and can accommodate trace reported values and left censored data (non-detect).

Original Form

The original form of the M-K test (two-way) evaluates the null hypothesis of no trend (H0) vs. an alternative hypothesis (HA) of trend at a significance level of 5% (0.05).[1] A test result of H=0 indicates no trend with a result of H =1 indicate a trend. In null hypothesis statistical testing, the probability value (p-value) of statistical test is the probability, under the null hypothesis, of obtaining a value of the test statistic as extreme or more extreme than the value computed from the sample. Typically, a p-value quantifies the statistical significance of the result equal less than the significant level. In a significance test, the null hypothesis H0 is rejected if the p-value is less than or equal to a predefined threshold value of significance (alpha). The original form does not compute trends where the distribution has NaN (missing) data observations.

[1]Mann, H. B. (1945), Nonparametric tests against trend, Econometrica, 13, 245– 259. Kendall, M. G. (1975), Rank Correlation Methods, Griffin, London. MATLAB Code written by: Simone Fatichi -- simonef@dicea.unifi.it Copyright 2009, Date: 2009/10/03

Mann-Kendall with Missing Values and Same Values

This form of the M-K test (two-way) accounts for NaN (missing values) and tied values following the method described in Gilbert RO (1987) Statistical Methods for Environmental Pollution Monitoring pages 208-213. This test evaluates the null hypothesis of no trend (H0) vs. an alternative hypothesis (HA) of trend at a significance level of 5% (0.05) or alternative significance level.[2] A test result of H=0 indicates no trend with a result of H =1 indicate a trend. In null hypothesis statistical testing, the probability value (p-value) of statistical test is the probability, under the null hypothesis, of obtaining a value of the test statistic as extreme or more extreme than the value computed from the sample. Typically, a p-value quantifies the statistical significance of the result equal less than the significant level. In a significance test, the null hypothesis H0 is rejected if the p-value is less than or equal to a predefined threshold value of significance (alpha). This function outputs the Z statistic and standard deviation of the Mann-Kendall Statistic S. A positive (negative) value of Z indicates an upward (downward) trend.

[2]Taesam Lee (2024). Mann-Kendall with Missing Values and Same Values (https://www.mathworks.com/matlabcentral/fileexchange/70408-mann-kendall-with-missing-values-and-same-values), MATLAB Central File Exchange.

Cumulative Form for Alternative Hypothesis of Trend not zero, Trend is greater than zero, or Trend is less than zero

A cumulative form of the M-K test used in tfor data evaluations consists of one-way or two-way test that can evaluate an alternative hypothesis of trend not zero (two-way) trend greater than zero (one-way) or less than zero (one-way).[3] This test treats NaNs (missing values) in Q or pop as missing values, and removes them.

[3]Thorvaldsen, S. , Flå, T. and Willassen, N.P. (2010) DeltaProt: a software toolbox for comparative genomics. BMC Bioinformatics 2010, Vol 11:573. See http://www.biomedcentral.com/1471-2105/11/573

Sequential Test for Potential Trend Change Points

A sequential version of the Mann-Kendall test statistic allows detection of the approximate beginning of a developing trend. When the progressive series (original time series) and retrograde (backward sequential time series) curves are plotted, the intersection of the curves locates an approximate potential trend turning point. If the intersection of the curves occurs within +/- 1.96 (5% level) of the standardized statistic, a detectable change at that point in the time series can be inferred.[4]

[4] Reference: Chatterjee, S., Bisai, D. and Khan, A., 2014. Detection of approximate potential trend turning points in temperature time series (1941–2010) for Asansol Weather Observation Station, West Bengal, India. India. Atmospheric and Climate Sciences, 4, pp.64-69. MATLAB Code written by Pankaj Dey, PhD scholar, Department of Civil Engineering,Indian Institute of Science, Bangalore.

Singular Spectrum Analysis (SAA)

SSA is a spectrum estimation method (non-parametric) to analyze time series data for trend and forecasting. SAA assumes the additive decomposition of the data into long-term (LT) trend, oscillatory or seasonal trend or trends, and remainder or random. The SAA function[5] used for the data evaluation solves for LT without decomposition of seasonal or remainder components given the mostly annual frequency of sampling.

[5]Singular Spectrum Analysis function using MATLAB 2024a.

1.0 OU 6 Northern Area Surficial Aquifer Bulk Plume Area Trends

Linear Correlation (Pearson's Linear Correlation Coefficient) (2021-2024)

```
'PCE Plume Northern Area Surficial Aquifer',...
    [rho,pval] = corr(OU6NAEArea.Year(5:end),OU6NAEArea.PCE(5:end),...
    'Type','Pearson','Rows','complete')
```

```
ans =
'PCE Plume Northern Area Surficial Aquifer'
rho = -0.0616
pval = 0.9384
```

```
'TCE Plume Northern Area Surficial Aquifer',...
    [rho,pval] = corr(OU6NAEArea.Year(5:end),OU6NAEArea.TCE(5:end),...
    'Type','Pearson','Rows','complete')
```

```
ans =
'TCE Plume Northern Area Surficial Aquifer'
rho = -0.2479
pval = 0.7521
```

```
'cDCE Plume Northern Area Surficial Aquifer',...
```

```
    [rho,pval] = corr(OU6NAEArea.Year(5:end),OU6NAEArea.cDCE(5:end),...
    'Type','Pearson','Rows','complete')
```

```
ans =
'cDCE Plume Northern Area Surficial Aquifer'
rho = -0.8590
pval = 0.1410
```

```
'VC Plume Northern Area Surficial Aquifer',...
    [rho,pval] = corr(OU6NAEArea.Year(5:end),OU6NAEArea.VC(5:end),...
    'Type','Pearson','Rows','complete')
```

```
ans =
'VC Plume Northern Area Surficial Aquifer'
rho = 0.5995
pval = 0.4005
```

```
'PCE vs TCE Plume Northern Area Surficial Aquifer',...
    [rho,pval] = corr(OU6NAEArea.PCE(5:end),OU6NAEArea.TCE(5:end),...
    'Type','Pearson','Rows','complete')
```

```
ans =
'PCE vs TCE Plume Southern Area Confined Aquifer'
rho = -0.7443
pval = 0.2557
```

```
'TCE vs cDCE Plume Northern Area Surficial Aquifer',...
    [rho,pval] = corr(OU6NAEArea.TCE(5:end),OU6NAEArea.cDCE(5:end),...
    'Type','Pearson','Rows','complete')
```

```
ans =
'TCE vs cDCE Plume Southern Area Confined Aquifer'
rho = 0.6771
pval = 0.3229
```

```
'cDCE vs VC Plume SNorthern Area Surficial Aquifer Aquifer',...
    [rho,pval] = corr(OU6NAEArea.cDCE(5:end),OU6NAEArea.VC(5:end),...
    'Type','Pearson','Rows','complete')
```

```
ans =
'cDCE vs VC Plume Southern Area Confined Aquifer'
rho = -0.1760
pval = 0.8240
```

Mann-Kendall Trend Test (Two-Way) (2021-2024)

```
'Two-Way Test for Trend PCE Plume Surficial Aq Northern Area',...
    [H, P_value,Z,StdS]=MKwMiss(OU6NAEArea.PCE(5:end),0.05,NaN)
```

```
ans =
'Two-Way Test for Trend PCE Plume Surficial Aq Northern Area'
H = logical
   0
P_value = 1
Z = 0
StdS = 2.9439
```

```
'Two-Way Test for Trend TCE Plume Surficial Aq Northern Area',...
```

```
    [H, P_value,Z,StdS]=MKwMiss(OU6NAEArea.TCE(5:end),0.05,NaN)
```

```
ans =
'Two-Way Test for Trend TCE Plume Surficial Aq Northern Area'
H = logical
   0
P_value = 1
Z = 0
StdS = 2.9439
```

```
'Two-Way Test for Trend cDCE Plume Surficial Aq Northern Area',...
    [H, P_value,Z,StdS]=MKwMiss(OU6NAEArea.cDCE(5:end),0.05,NaN)
```

```
ans =
'Two-Way Test for Trend cDCE Plume Surficial Aq Northern Area'
H = logical
   0
P_value = 0.3082
Z = -1.0190
StdS = 2.9439
```

```
'Two-Way Test for Trend VC Plume Surficial Aq Northern Area',...
    [H, P_value,Z,StdS]=MKwMiss(OU6NAEArea.VC(5:end),0.05,NaN)
```

```
ans =
'Two-Way Test for Trend VC Plume Surficial Aq Northern Area'
H = logical
   0
P_value = 0.3082
Z = 1.0190
StdS = 2.9439
```

Mann-Kendall Trend Test (One-Way) 2021-2024

Original Form Two-Way M-K

```
'One Way Test for Trend PCE Plume Surficial Aq Northern Area < 0',...
pval = cumKendallTest(OU6NAEArea.PCE(5:end),OU6NAEArea.Year(5:end),'lt')
```

```
ans =
'One Way Test for Trend PCE Plume Surficial Aq Northern Area < 0'
pval = 0
```

```
'One Way Test for Trend TCE Plume Surficial Aq Northern Area > 0',...
pval = cumKendallTest(OU6NAEArea.TCE(5:end),OU6NAEArea.Year(5:end),'gt')
```

```
ans =
'One Way Test for Trend TCE Plume Surficial Aq Northern Area > 0'
pval = 0
```

```
'One Way Test for Trend cDCE Plume Surficial Aq Northern Area < 0',...
pval = cumKendallTest(OU6NAEArea.cDCE(5:end),OU6NAEArea.Year(5:end),'lt')
```

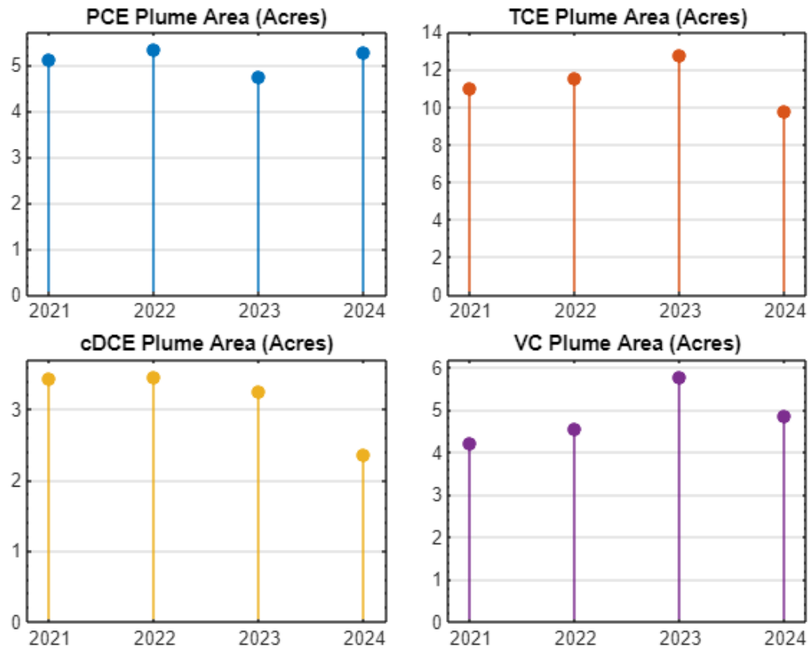
```
ans =
'One Way Test for Trend cDCE Plume Surficial Aq Northern Area < 0'
pval = -0.1541
```

```
'One Way Test for Trend VC Plume Surficial Aq Northern Area > 0',...
pval = cumKendallTest(OU6NAEArea.VC(5:end),OU6NAEArea.Year(5:end),'gt')
```

```
ans =
'One Way Test for Trend VC Plume Surficial Aq Northern Area > 0'
pval = 0.1541
```

Stem Plot: Northern Area Surficial Aquifer Plume Areas (2021-2024)

```
figure
t1=tiledlayout('flow');
t1.Padding='compact';
t1.TileSpacing='compact';
nexttile
stem(OU6NAEArea.Year(5:end),OU6NAEArea.PCE(5:end),'Color','0 0.4470 0.7410','Marker','o',...
    'MarkerEdgeColor','0 0.4470 0.7410','MarkerFaceColor','0 0.4470 0.7410')
xlim([2021 2024])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'linear',...
    'XTick',[2021 2022 2023 2024],'YTick', [0 1 2 3 4 5 6]);
axis padded
title('PCE Plume Area (Acres)')
nexttile
stem(OU6NAEArea.Year(5:end),OU6NAEArea.TCE(5:end),'Color','0.85 0.33 0.1','Marker','o',...
    'MarkerEdgeColor','0.85 0.33 0.1','MarkerFaceColor','0.85 0.33 0.1')
xlim([2021 2024])
ylim([0 14])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'linear',...
    'XTick',[2021 2022 2023 2024],'YTick', [0 2 4 6 8 10 12 14]);
axis padded
title('TCE Plume Area (Acres)')
nexttile
stem(OU6NAEArea.Year(5:end),OU6NAEArea.cDCE(5:end),'Color','0.93 0.69 0.13','Marker','o',...
    'MarkerEdgeColor','0.93 0.69 0.13','MarkerFaceColor','0.93 0.69 0.13')
xlim([2021 2024])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'linear',...
    'XTick',[2021 2022 2023 2024],'YTick', [0 1 2 3 4]);
axis padded
title('cDCE Plume Area (Acres)')
nexttile
stem(OU6NAEArea.Year(5:end),OU6NAEArea.VC(5:end),'Color','0.49 0.18 0.56','Marker','o',...
    'MarkerEdgeColor','0.49 0.18 0.56','MarkerFaceColor','0.49 0.18 0.56')
xlim([2021 2024])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'linear',...
    'XTick',[2021 2022 2023 2024],'YTick', [0 1 2 3 4 5 6]);
axis padded
title('VC Plume Area (Acres)')
```



2.0 OU 6 Northern Area Confined Aquifer Bulk Plume Area Trends

Linear Correlation (Pearson's Linear Correlation Coefficient) (2021-2024)

```
'PCE Plume Northern Area Confined Aquifer',...
    [rho,pval] = corr(OU6NAPArea.Year(5:end),OU6NAPArea.PCE(5:end),...
    'Type','Pearson','Rows','complete')
```

```
ans =
'PCE Plume Northern Area Confined Aquifer'
rho =
0.3979
pval =
0.6021
```

```
'TCE Plume Northern Area Confined Aquifer',...
    [rho,pval] = corr(OU6NAPArea.Year(5:end),OU6NAPArea.TCE(5:end),...
    'Type','Pearson','Rows','complete')
```

```
ans =
'TCE Plume Northern Area Confined Aquifer'
rho =
0.6111
pval =
0.3889
```

```
'PCE vs TCE Plume Southern Area Confined Aquifer',...
    [rho,pval] = corr(OU6SAPArea.PCE(5:end),OU6NAPArea.TCE(5:end),...
    'Type','Pearson','Rows','complete')
```

```
ans =
'PCE vs TCE Plume Southern Area Confined Aquifer'
rho =
0.0711
pval =
0.9289
```

Mann-Kendall Trend Test (Two-Way) (2021-2024)

```
'Two-Way Test for Trend PCE Plume Northern Area Confined Aquifer',...
    [H, P_value,Z,StdS]=MKwMiss(OU6NAPArea.PCE(5:end),0.05,NaN)
```

```
ans =
'Two-Way Test for Trend PCE Plume Northern Area Confined Aquifer'
H = logical
   0
P_value =
0.7341
Z =
0.3397
StdS =
2.9439
```

```
'Two-Way Test for Trend TCE Plume Northern Area Confined Aquifer',...
    [H, P_value,Z,StdS]=MKwMiss(OU6NAPArea.TCE(5:end),0.05,NaN)
```

```
ans =
'Two-Way Test for Trend TCE Plume Northern Area Confined Aquifer'
H = logical
   0
P_value =
0.7341
Z =
0.3397
StdS =
2.9439
```

Mann-Kendall Trend Test (One-Way) 2021-2024

```
'One Way Test for Trend PCE Plume Northern Area Confined Aquifer > 0',...
pval = cumKendallTest(OU6NAPArea.PCE(5:end),OU6NAPArea.Year(5:end),'gt')
```

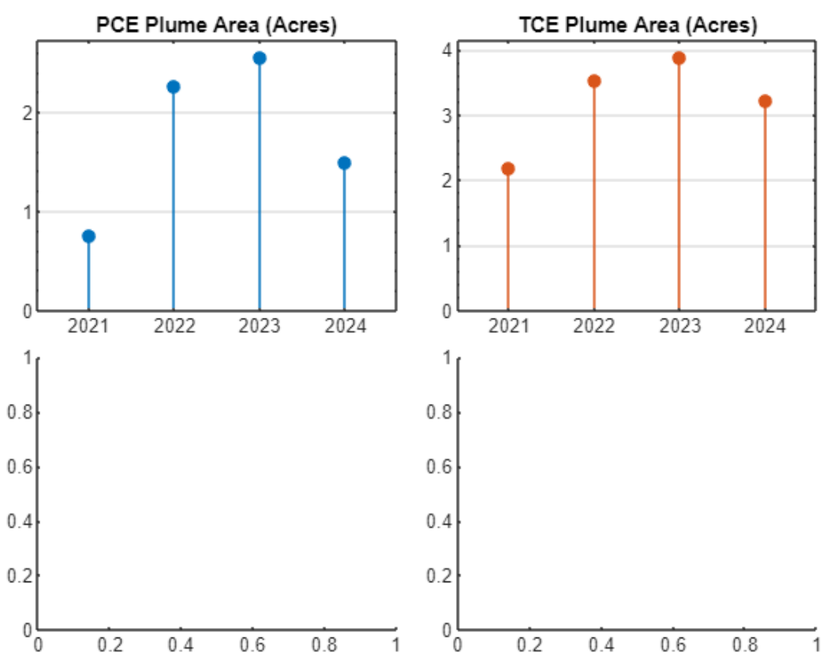
```
ans =
'One Way Test for Trend PCE Plume Northern Area Confined Aquifer > 0'
pval =
0.3670
```

```
'One Way Test for Trend TCE Plume Northern Area Confined Aquifer > 0',...
pval = cumKendallTest(OU6NAPArea.TCE(5:end),OU6NAPArea.Year(5:end),'gt')
```

```
ans =
'One Way Test for Trend TCE Plume Northern Area Confined Aquifer > 0'
pval =
0.3670
```

Stem Plot: Northern Area Confined Aquifer Plume Areas (2021-2024)

```
figure
t4=tiledlayout('flow');
t4.Padding='compact';
t4.TileSpacing='compact';
nexttile
stem(OU6NAPArea.Year(5:end),OU6NAPArea.PCE(5:end),'Color','0 0.4470 0.7410','Marker','o',...
    'MarkerEdgeColor','0 0.4470 0.7410','MarkerFaceColor','0 0.4470 0.7410')
xlim([2021 2024])
ylim([0 4])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'linear',...
    'XTick',[2021 2022 2023 2024],'YTick', [0 1 2 3 4]);
axis padded
title('PCE Plume Area (Acres)')
nexttile
stem(OU6NAPArea.Year(5:end),OU6NAPArea.TCE(5:end),'Color','0.85 0.33 0.1','Marker','o',...
    'MarkerEdgeColor','0.85 0.33 0.1','MarkerFaceColor','0.85 0.33 0.1')
xlim([2021 2024])
ylim([0 5])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'linear',...
    'XTick',[2021 2022 2023 2024],'YTick', [0 1 2 3 4 5]);
axis padded
title('TCE Plume Area (Acres)')
nexttile
nexttile
```



3.0 OU 6 Southern Area Surficial Aquifer Bulk Plume Area Trends

Linear Correlation (Pearson's Linear Correlation Coefficient) (2021-2024)

```
'PCE Plume Southern Area Surficial Aquifer',...
    [rho,pval] = corr(OU6SAEArea.Year(5:end),OU6SAEArea.PCE(5:end),...
    'Type','Pearson','Rows','complete')
```

```
ans =
'PCE Plume Southern Area Surficial Aquifer'
rho =
-0.8251
pval =
0.1749
```

```
'TCE Plume Southern Area Surficial Aquifer',...
    [rho,pval] = corr(OU6SAEArea.Year(5:end),OU6SAEArea.TCE(5:end),...
    'Type','Pearson','Rows','complete')
```

```
ans =
'TCE Plume Southern Area Surficial Aquifer'
rho =
-0.9950
pval =
0.0050
```

```
'cDCE Plume Southern Area Surficial Aquifer',...
    [rho,pval] = corr(OU6SAEArea.Year(5:end),OU6SAEArea.cDCE(5:end),...
    'Type','Pearson','Rows','complete')
```

```
ans =
'cDCE Plume Southern Area Surficial Aquifer'
rho =
-0.4942
pval =
0.5058
```

```
'VC Plume Southern Area Surficial Aquifer',...
    [rho,pval] = corr(OU6SAEArea.Year(5:end),OU6SAEArea.VC(5:end),...
    'Type','Pearson','Rows','complete')
```

```
ans =
'VC Plume Southern Area Surficial Aquifer'
rho =
0.1053
pval =
0.8947
```

```
'PCE vs TCE Plume Southern Area Surficial Aquifer',...
    [rho,pval] = corr(OU6SAEArea.PCE(5:end),OU6SAEArea.TCE(5:end),...
    'Type','Pearson','Rows','complete')
```

```
ans =
'PCE vs TCE Plume Southern Area Surficial Aquifer'
```

```
rho =
0.8763
pval =
0.1237
```

```
'TCE vs cDCE Plume Southern Area Surficial Aquifer',...
    [rho,pval] = corr(OU6SAEArea.TCE(5:end),OU6SAEArea.cDCE(5:end),...
    'Type','Pearson','Rows','complete')
```

```
ans =
'TCE vs cDCE Plume Southern Area Surficial Aquifer'
rho =
0.4381
pval =
0.5619
```

```
'cDCE vs VC Plume Southern Area Surficial Aquifer',...
    [rho,pval] = corr(OU6SAEArea.cDCE(5:end),OU6SAEArea.VC(5:end),...
    'Type','Pearson','Rows','complete')
```

```
ans =
'cDCE vs VC Plume Southern Area Surficial Aquifer'
rho =
-0.3373
pval =
0.6627
```

Mann-Kendall Trend Test (Two-Way) (2021-2024)

```
'Two-Way Test for Trend PCE Plume Surficial Aq Southern Area',...
    [H, P_value,Z,StdS]=MKwMiss(OU6SAEArea.PCE(5:end),0.05,NaN)
```

```
ans =
'Two-Way Test for Trend PCE Plume Surficial Aq Southern Area'
H = logical
   0
P_value = 0.3082
Z = -1.0190
StdS = 2.9439
```

```
'Two-Way Test for Trend TCE Surficial Aq Southern Area',...
    [H, P_value,Z,StdS]=MKwMiss(OU6SAEArea.TCE(5:end),0.05,NaN)
```

```
ans =
'Two-Way Test for Trend TCE Surficial Aq Southern Area'
H = logical
   0
P_value = 0.0894
Z = -1.6984
StdS = 2.9439
```

```
'Two-Way Test for Trend cDCE Surficial Aq Southern Area',...
    [H, P_value,Z,StdS]=MKwMiss(OU6SAEArea.cDCE(5:end),0.05,NaN)
```

```
ans =
'Two-Way Test for Trend cDCE Surficial Aq Southern Area'
H = logical
   0
P_value = 0.7341
```

```
Z = -0.3397
StdS = 2.9439
```

```
'Two-Way Test for Trend VC Surficial Aq Southern Area',...
    [H, P_value,Z,StdS]=MKwMiss(OU6SAEArea.VC(5:end),0.05,NaN)
```

```
ans =
'Two-Way Test for Trend VC Surficial Aq Southern Area'
H = logical
   0
P_value = 0.7341
Z = 0.3397
StdS = 2.9439
```

Mann-Kendall Trend Test (One-Way) 2021-2024

```
'One Way Test for Trend PCE Surficial Aq Southern Area < 0',...
pval = cumKendallTest(OU6SAEArea.PCE(5:end),OU6SAEArea.Year(5:end),'lt')
```

```
ans =
'One Way Test for Trend PCE Surficial Aq Southern Area < 0'
pval = -0.1541
```

```
'One Way Test for Trend TCE Surficial Aq Southern Area < 0',...
pval = cumKendallTest(OU6SAEArea.TCE(5:end),OU6SAEArea.Year(5:end),'lt')
```

```
ans =
'One Way Test for Trend TCE Surficial Aq Southern Area < 0'
pval = -0.0447
```

```
'One Way Test for Trend cDCE Surficial Aq Southern Area < 0',...
pval = cumKendallTest(OU6SAEArea.cDCE(5:end),OU6SAEArea.Year(5:end),'lt')
```

```
ans =
'One Way Test for Trend cDCE Surficial Aq Southern Area < 0'
pval = -0.3670
```

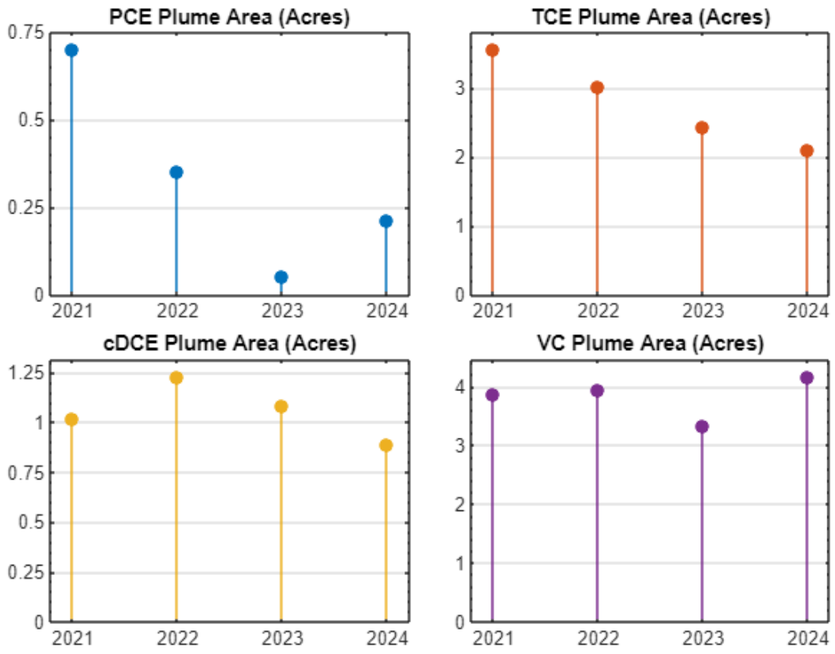
```
'One Way Test for Trend VC Surficial Aq Southern Area > 0',...
pval = cumKendallTest(OU6SAEArea.VC(5:end),OU6SAEArea.Year(5:end),'gt')
```

```
ans =
'One Way Test for Trend VC Surficial Aq Southern Area > 0'
pval = 0.3670
```

Stem Plot: Southern Area Surficial Aquifer Plume Areas (2021-2024)

```
figure
t2=tiledlayout('flow');
t2.Padding='compact';
t2.TileSpacing='compact';
nexttile
stem(OU6SAEArea.Year(5:end),OU6SAEArea.PCE(5:end),'Color','0 0.4470 0.7410','Marker','o',...
    'MarkerEdgeColor','0 0.4470 0.7410','MarkerFaceColor','0 0.4470 0.7410')
xlim([2021 2024])
ylim([0 0.75])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'linear',...
```

```
    'XTick',[2021 2022 2023 2024],'YTick', [0 0.25 0.5 0.75]);
axis padded
title('PCE Plume Area (Acres)')
nexttile
stem(OU6SAEArea.Year(5:end),OU6SAEArea.TCE(5:end),'Color','0.85 0.33 0.1','Marker','o',...
    'MarkerEdgeColor','0.85 0.33 0.1','MarkerFaceColor','0.85 0.33 0.1')
xlim([2021 2024])
ylim([0 4])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'linear',...
    'XTick',[2021 2022 2023 2024],'YTick', [0 1 2 3 4]);
axis padded
title('TCE Plume Area (Acres)')
nexttile
stem(OU6SAEArea.Year(5:end),OU6SAEArea.cDCE(5:end),'Color','0.93 0.69 0.13','Marker','o',...
    'MarkerEdgeColor','0.93 0.69 0.13','MarkerFaceColor','0.93 0.69 0.13')
xlim([2021 2024])
ylim([0 2])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'linear',...
    'XTick',[2021 2022 2023 2024],'YTick', [0 0.25 0.5 0.75 1 1.25]);
axis padded
title('cDCE Plume Area (Acres)')
nexttile
stem(OU6SAEArea.Year(5:end),OU6SAEArea.VC(5:end),'Color','0.49 0.18 0.56','Marker','o',...
    'MarkerEdgeColor','0.49 0.18 0.56','MarkerFaceColor','0.49 0.18 0.56')
xlim([2021 2024])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'linear',...
    'XTick',[2021 2022 2023 2024],'YTick', [0 1 2 3 4 5 6]);
axis padded
title('VC Plume Area (Acres)')
```



4.0 OU 6 Southern Area Confined Aquifer Bulk Plume Area Trends

Linear Correlation (Pearson's Linear Correlation Coefficient) (2021-2024)

```
'PCE Plume Southern Area Confined Aquifer',...
    [rho,pval] = corr(OU6SAPArea.Year(5:end),OU6SAPArea.PCE(5:end),...
    'Type','Pearson','Rows','complete')
```

```
ans =
'PCE Plume Southern Area Confined Aquifer'
rho =
-0.4562
pval =
0.5438
```

```
'TCE Plume Southern Area Confined Aquifer',...
    [rho,pval] = corr(OU6SAPArea.Year(5:end),OU6SAPArea.TCE(5:end),...
    'Type','Pearson','Rows','complete')
```

```
ans =
'TCE Plume Southern Area Confined Aquifer'
rho =
0.7760
pval =
0.2240
```

```
'cDCE Plume Southern Area Confined Aquifer',...
    [rho,pval] = corr(OU6SAPArea.Year(5:end),OU6SAPArea.cDCE(5:end),...
    'Type','Pearson','Rows','complete')
```

```
ans =
'cDCE Plume Southern Area Confined Aquifer'
rho =
0.7336
pval =
0.2664
```

```
'VC Plume Southern Area Confined Aquifer',...
    [rho,pval] = corr(OU6SAPArea.Year(5:end),OU6SAPArea.VC(5:end),...
    'Type','Pearson','Rows','complete')
```

```
ans =
'VC Plume Southern Area Confined Aquifer'
rho =
0.7088
pval =
0.2912
```

```
'PCE vs TCE Plume Southern Area Confined Aquifer',...
    [rho,pval] = corr(OU6SAPArea.PCE(5:end),OU6SAPArea.TCE(5:end),...
    'Type','Pearson','Rows','complete')
```

```
ans =
'PCE vs TCE Plume Southern Area Confined Aquifer'
rho =
-0.0536
pval =
0.9464
```

```
'TCE vs cDCE Plume Southern Area Confined Aquifer',...
    [rho,pval] = corr(OU6SAPArea.TCE(5:end),OU6SAPArea.cDCE(5:end),...
    'Type','Pearson','Rows','complete')
```

```
ans =
'TCE vs cDCE Plume Southern Area Confined Aquifer'
rho =
0.8538
pval =
0.1462
```

```
'cDCE vs VC Plume Southern Area Confined Aquifer',...
    [rho,pval] = corr(OU6SAPArea.cDCE(5:end),OU6SAPArea.VC(5:end),...
    'Type','Pearson','Rows','complete')
```

```
ans =
'cDCE vs VC Plume Southern Area Confined Aquifer'
rho =
0.9893
pval =
0.0107
```

Mann-Kendall Trend Test (Two-Way) (2021-2024)

```
'Two-Way Test for Trend PCE Plume Southern Area Confined Aquifer',...
    [H, P_value,Z,StdS]=MKwMiss(OU6SAPArea.PCE(5:end),0.05,NaN)
```

```
ans =
'Two-Way Test for Trend PCE Plume Southern Area Confined Aquifer'
```

```
H = logical
   0
P_value = 0.7341
Z = -0.3397
StdS = 2.9439
```

```
'Two-Way Test for Trend TCE Plume Southern Area Confined Aquifer',...
    [H, P_value,Z,StdS]=MKwMiss(OU6SAPArea.TCE(5:end),0.05,NaN)
```

```
ans =
'Two-Way Test for Trend TCE Plume Southern Area Confined Aquifer'
H = logical
   0
P_value = 0.3082
Z = 1.0190
StdS = 2.9439
```

```
'Two-Way Test for Trend cDCE Plume Southern Area Confined Aquifer',...
    [H, P_value,Z,StdS]=MKwMiss(OU6SAPArea.cDCE(5:end),0.05,NaN)
```

```
ans =
'Two-Way Test for Trend cDCE Plume Southern Area Confined Aquifer'
H = logical
   0
P_value = 0.3082
Z = 1.0190
StdS = 2.9439
```

```
'Two-Way Test for Trend VC Plume Southern Area Confined Aquifer',...
    [H, P_value,Z,StdS]=MKwMiss(OU6SAPArea.VC(5:end),0.05,NaN)
```

```
ans =
'Two-Way Test for Trend VC Plume Southern Area Confined Aquifer'
H = logical
   0
P_value = 0.7341
Z = 0.3397
StdS = 2.9439
```

Mann-Kendall Trend Test (One-Way) 2021-2024

```
'One Way Test for Trend PCE Plume Southern Area Confined Aquifer < 0',...
pval = cumKendallTest(OU6SAPArea.PCE(5:end),OU6SAPArea.Year(5:end),'lt')
```

```
ans =
'One Way Test for Trend PCE Plume Southern Area Confined Aquifer < 0'
pval = -0.3670
```

```
'One Way Test for Trend TCE Plume Southern Area Confined Aquifer > 0',...
pval = cumKendallTest(OU6SAPArea.TCE(5:end),OU6SAPArea.Year(5:end),'gt')
```

```
ans =
'One Way Test for Trend TCE Plume Southern Area Confined Aquifer > 0'
pval = 0.1541
```

```
'One Way Test for Trend cDCE Plume Southern Area Confined Aquifer > 0',...
pval = cumKendallTest(OU6SAPArea.cDCE(5:end),OU6SAPArea.Year(5:end),'gt')
```

```
ans =
```

```
'One Way Test for Trend cDCE Plume Southern Area Confined Aquifer > 0'
pval = 0.1541
```

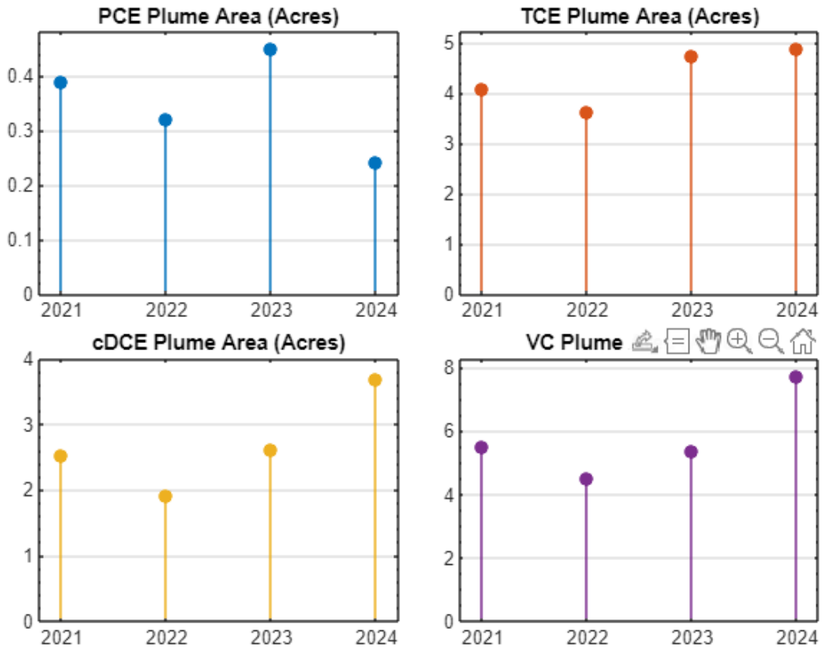
```
'One Way Test for Trend VC Plume Southern Area Confined Aquifer > 0',...
pval = cumKendallTest(OU6SAPArea.VC(5:end),OU6SAPArea.Year(5:end),'gt')
```

```
ans =
'One Way Test for Trend VC Plume Southern Area Confined Aquifer > 0'
pval = 0.3670
```

Stem Plot: Southern Area Confined Aquifer Plume Areas (2021-2024)

```
figurex
t3=tiledlayout('flow');
t3.Padding='compact';
t3.TileSpacing='compact';
nexttile
stem(OU6SAPArea.Year(5:end),OU6SAPArea.PCE(5:end),'Color','0 0.4470 0.7410','Marker','o',...
    'MarkerEdgeColor','0 0.4470 0.7410','MarkerFaceColor','0 0.4470 0.7410')
xlim([2021 2024])
ylim([0 0.5])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'linear',...
    'XTick',[2021 2022 2023 2024],'YTick', [0 0.1 0.2 0.3 0.4 0.5]);
axis padded
title('PCE Plume Area (Acres)')
nexttile
stem(OU6SAPArea.Year(5:end),OU6SAPArea.TCE(5:end),'Color','0.85 0.33 0.1','Marker','o',...
    'MarkerEdgeColor','0.85 0.33 0.1','MarkerFaceColor','0.85 0.33 0.1')
xlim([2021 2024])
ylim([0 5])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'linear',...
    'XTick',[2021 2022 2023 2024],'YTick', [0 1 2 3 4 5]);
axis padded
title('TCE Plume Area (Acres)')
nexttile
stem(OU6SAPArea.Year(5:end),OU6SAPArea.cDCE(5:end),'Color','0.93 0.69 0.13','Marker','o',...
    'MarkerEdgeColor','0.93 0.69 0.13','MarkerFaceColor','0.93 0.69 0.13')
xlim([2021 2024])
ylim([0 4])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'linear',...
    'XTick',[2021 2022 2023 2024],'YTick', [0 1 2 3 4]);
axis padded
title('cDCE Plume Area (Acres)')
nexttile
stem(OU6SAPArea.Year(5:end),OU6SAPArea.VC(5:end),'Color','0.49 0.18 0.56','Marker','o',...
    'MarkerEdgeColor','0.49 0.18 0.56','MarkerFaceColor','0.49 0.18 0.56')
xlim([2021 2024])
ylim([0 10])
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'linear',...
```

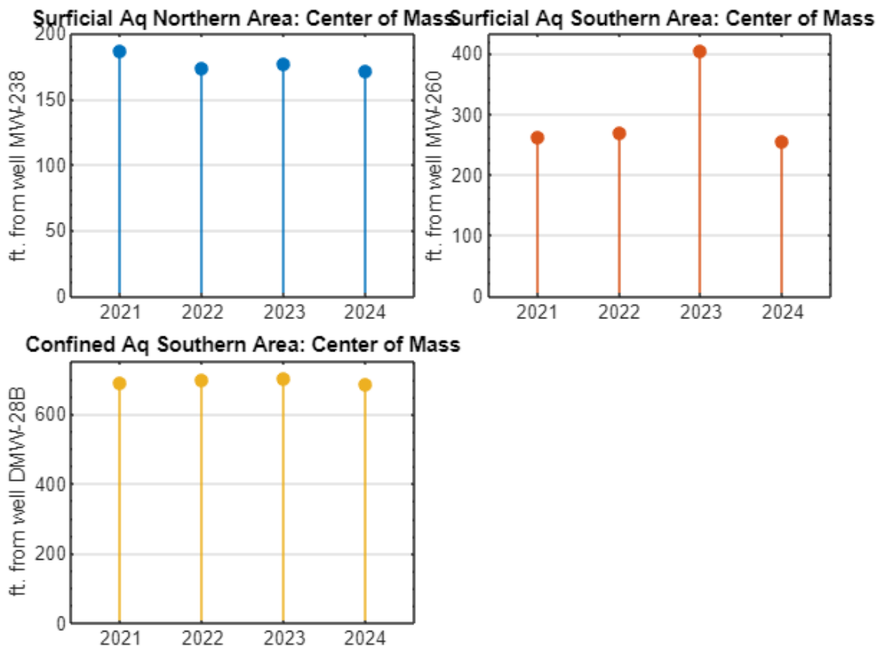
```
    'XTick',[2021 2022 2023 2024],'YTick', [0 2 4 6 8 10]);
axis padded
title('VC Plume Area (Acres)')
```



5.0 Plume Center of Mass along Transects

```
figure
t5=tiledlayout('flow');
t5.Padding='compact';
t5.TileSpacing='compact';
nexttile
stem(OU6NAECenterofMass.Year(6:end),OU6NAECenterofMass.COM(6:end),'Color','0 0.4470 0.7410','Marker','o',...
    'MarkerEdgeColor','0 0.4470 0.7410','MarkerFaceColor','0 0.4470 0.7410')
xlim([2021 2024])
ylim([0 250])
ylabel('ft. from well MW-238')
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'linear',...
    'XTick',[2021 2022 2023 2024],'YTick', [0 50 100 150 200 250]);
axis padded
title('Surficial Aq Northern Area: Center of Mass')
nexttile
stem(OU6SAECenterofMass.Year(6:end),OU6SAECenterofMass.COM(6:end),'Color','0.85 0.33 0.1','Marker','o',...
    'MarkerEdgeColor','0.85 0.33 0.1','MarkerFaceColor','0.85 0.33 0.1')
```

```
xlim([2021 2024])
ylim([0 500])
ylabel('ft. from well MW-260')
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'linear',...
    'XTick',[2021 2022 2023 2024],'YTick', [0 100 200 300 400 500]);
axis padded
title('Surficial Aq Southern Area: Center of Mass')
nexttile
stem(OU6SAPCenterofMass.Year,OU6SAPCenterofMass.COM,'Color','0.93 0.69 0.13','Marker','o',...
    'MarkerEdgeColor','0.93 0.69 0.13','MarkerFaceColor','0.93 0.69 0.13')
xlim([2021 2024])
ylim([0 800])
ylabel('ft. from well DMW-28B')
set(gca, "XGrid", "off", "YGrid", "on",'YMinorTick',"on","YScale",'linear',...
    'XTick',[2021 2022 2023 2024],'YTick', [0 200 400 600 800]);
axis padded
title('Confined Aq Southern Area: Center of Mass')
```



Standard Color Ramp

Hex Color Reference Codes

- PCE 0 0.4470 0.7410
- TCE 0.85 0.33 0.1
- cDCE 0.93 0.69 0.13

- VC 0.49 0.18 0.56
- 1,1-DCE 0.47 0.67 0.19
- 1,1,1-TCA 0.3 0.75 0.93
- 1,2-DCA 0.5 0.5 0.5
- 1,4-DCB 0.64 0.08 0.18
- CB 0.68 0.92 1
- TOC 0.87 0.49 0
- DHC 0.87 0.49 0
- tceA 1 0.84 0
- VCR 1 0.6 0.78
- BCV 0.75 0.75 0

Function Coding Reference

Group Statistics Standard Functions

- "sum" Sum
- "mean" Mean
- "median" Median
- "mode" Mode
- "var" Variance
- "std" Standard deviation
- "min" Minimum
- "max" Maximum
- "range" Maximum minus minimum
- "nummissing" Number of missing elements
- "numunique" Number of distinct nonmissing elements
- "nnz" Number of nonzero and non-NaN elements
- "all" All computations previously listed

Group Descriptive Statistics Functions

- **Outliers**
- **10th, 25th, 50th, 75th, 90th, and 95th percentile**
- **Skewness, Kurtosis**
- **Greater than specified limit**

```
% Is outlier function
function y = outlier(x)
% Count the number of outliers in each group
y = nnz(isoutlier(x,'quartiles'));
end
```

```
% 10th percentile function
function y = prctile10(x)
%Distribution 10th percentile
y = (prctile(x,10));
end

%25th percentile function
function y = prctile25(x)
%Distribution 25th percentile
y = (prctile(x,25));
end

%Distribution 50th percentile function
function y = prctile50(x)
%Distribution 50th percentile
y = (prctile(x,50));
end

%75th percentile function
function y = prctile75(x)
%Distribution 75th percentile
y = (prctile(x,75));
end

%90th percentile function
function y = prctile90(x)
%Distribution 90th percentile
y = (prctile(x,90));
end

%95th percentile function
function y = prctile95(x)
%Distribution 95th percentile
y = (prctile(x,95));
end

%25 and 75th percentile function
function y = prct25_75(x)
% x is the data in a group from one computation variable
% Distribution 25th and 75th percentile
y = (prctile(x,[25 75]));
end

%skewness function
function y = skew(x)
%Distribution skewness
y= (skewness(x));
end

%skewness function
```

```
function y = kurt(x)
%Distribution skewness
y= (kurtosis(x));
end

%Group count >MCL 5
function y = MCL5gt(x)
%Group counts for greater than a limit
y= sum(x>5);
end

%Group count >MCL 2
function y = MCL2gt(x)
%Group counts for greater than a limit
y= sum(x>2);
end

%Group count >MCL 7
function y = MCL7gt(x)
%Group counts for greater than a limit
y= sum(x>7);
end

%Group count >MCL 70
function y = MCL70gt(x)
%Group counts for greater than a limit
y= sum(x>70);
end

%Group count >MCL 75
function y = MCL75gt(x)
%Group counts for greater than a limit
y= sum(x>75);
end

%Group count >MCL 2
function y = MCL100gt(x)
%Group counts for greater than a limit
y= sum(x>100);
end

%Group count >MCL 200
function y = MCL200gt(x)
%Group counts for greater than a limit
y= sum(x>200);
end

%Group count <pH 5
function y = pH5lt(x)
%Group counts for greater than a limit
```

```
y= sum(x<5);
end

%Group count <=DO 1
function y = DOlt(x)
%Group counts for greater than a limit
y= sum(x<=1);
end

%Group count <=ORP 50
function y = ORPlt(x)
%Group counts for greater than a limit
y= sum(x<=-50);
end

%Group count <=Sulfate 50
function y = SO4lt(x)
%Group counts for greater than a limit
y= sum(x<50);
end

%Group count <=Sulfide 1
function y = S2gt(x)
%Group counts for greater than a limit
y= sum(x>1);
end

%Group count <=Sulfide H2S 1
function y = S2H2Sgt(x)
%Group counts for greater than a limit
y= sum(x>1);
end

%Group count TOC=>20
function y = TOCgt(x)
%Group counts for greater than a limit
y= sum(x>=20);
end

%Group count Methane=>500
function y = Methanegt(x)
%Group counts for greater than a limit
y= sum(x>=500);
end

%Group count Fe2=>1
function y = FE2gt(x)
%Group counts for greater than a limit
y= sum(x>=1);
end
```

```
%Group count Ethene=>10
function y = Ethenegt(x)
%Group counts for greater than a limit
y= sum(x>=10);
end

%Group count Ethane=>10
function y = Ethanegt(x)
%Group counts for greater than a limit
y= sum(x>=10);
end

%Group count NO3=<1
function y = NO3gt(x)
%Group counts for greater than a limit
y= sum(x<1);
end
```

E.5 Trend Analysis for Surficial Aquifer: Northern Area

OU 6 Northern Area: Surficial Aquifer Data and Statistical Analysis

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1.0 Data Evaluation Methods

Normal Distribution - Lillifors Test

The Lilliefors test used as the hypothesis test evaluated whether the data distribution comes from a distribution in the normal family, against the alternative that it does not come from a normal distribution.

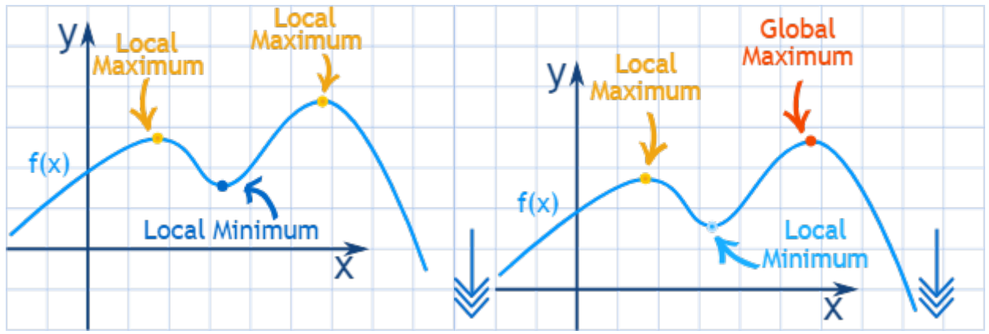
Coefficient of Variation

Coefficient of variation (CV) of a time series data set is the ratio of standard deviation and mean. CV provides a measure of variability of time series data.

Linear Correlation (Pearson's Linear Correlation Coefficient)

Correlation quantifies the strength of a linear relationship between two variables. When there is no correlation between two variables, then there is no tendency for the values of the variables to increase or decrease together. . Values of the correlation coefficient can range from –1 to +1. A value of –1 indicates perfect negative correlation, while a value of +1 indicates perfect positive correlation. A value of 0 indicates no correlation between the sets of data observations. The analysis also tests the null hypothesis of no correlation against an alternative hypothesis for positive, negative, or nonzero correlation at a significance of 5 percent (%) or alpha (α) of 0.05. A calculated probability value (p-value) <0.05 rejects the null hypothesis of no correlation indicating the correlation is significantly positive, negative, or different than 0.

Maxima and Minima



A local maximum is is:f(a) ≥ f(x) for all x in the interval. The prominence of a local maximum (or peak) measures how the peak stands out with respect to its height and location relative to other peaks. A local **minimum** is:f(a) ≤ f(x) for all x in the interval. The prominence of a local minimum (or valley) measures how the valley stands out with respect to its depth and location relative to other valleys. Global maximum and minimum represent the maximum and minimum for the entire function or data set.

Mann-Kendall (M-K) Trend Analysis

The Mann-Kendall (M-K) tests detect monotonic trends in data. M-K tests allow for missing values, do not require a particular distribution assumption, and can accommodate trace reported values and left censored data (non-detect).

Original Form

The original form of the M-K test (two-way) evaluates the null hypothesis of no trend (H0) vs. an alternative hypothesis (HA) of trend at a significance level of 5% (0.05).[1] A test result of H=0 indicates no trend with a result of H =1 indicate a trend. In null hypothesis statistical testing, the probability value (p-value) of statistical test is the probability, under the null hypothesis, of obtaining a value of the test statistic as extreme or more extreme than the value computed from the sample. Typically, a p-value quantifies the statistical significance of the result equal less than the significant level. In a significance test, the null hypothesis H0 is rejected if the p-value is less than or equal to a predefined threshold value of significance (alpha). The original form does not compute trends where the distribution has NaN (missing) data observations.

[1]Mann, H. B. (1945), Nonparametric tests against trend, Econometrica, 13, 245– 259. Kendall, M. G. (1975), Rank Correlation Methods, Griffin, London. MATLAB Code written by: Simone Fatichi -- simonef@dicea.unifi.it Copyright 2009, Date: 2009/10/03

Mann-Kendall with Missing Values and Same Values

This form of the M-K test (two-way) accounts for NaN (missing values) and tied values following the method described in Gilbert RO (1987) Statistical Methods for Environmental Pollution Monitoring pages 208-213. This test evaluates the null hypothesis of no trend (H0) vs. an alternative hypothesis (HA) of trend at a significance level of 5% (0.05) or alternative significance level.[2] A test result of H=0 indicates no trend with a result of H =1 indicate a trend. In null hypothesis statistical testing, the probability value (p-value) of statistical test is the probability, under the null hypothesis, of obtaining a value of the test statistic as extreme or more extreme than the value computed from the sample.

Typically, a p-value quantifies the statistical significance of the result equal less than the significant level. In a significance test, the null hypothesis H0 is rejected if the p-value is less than or equal to a predefined threshold value of significance (alpha). This function outputs the Z statistic and standard deviation of the Mann-Kendall Statistic S. A positive (negative) value of Z indicates an upward (downward) trend.

[2]Taesam Lee (2024). Mann-Kendall with Missing Values and Same Values (https://www.mathworks.com/matlabcentral/fileexchange/70408-mann-kendall-with-missing-values-and-same-values), MATLAB Central File Exchange.

Cumulative Form for Alternative Hypothesis of Trend not zero, Trend is greater than zero, or Trend is less than zero

A cumulative form of the M-K test used in tfor data evaluations consists of one-way or two-way test that can evaluate an alternative hypothesis of trend not zero (two-way) trend greater than zero (one-way) or less than zero (one-way).[3] This test treats NaNs (missing values) in Q or pop as missing values, and removes them.

[3]Thorvaldsen, S. , Flå, T. and Willassen, N.P. (2010) DeltaProt: a software toolbox for comparative genomics. BMC Bioinformatics 2010, Vol 11:573. See http://www.biomedcentral.com/1471-2105/11/573

Sequential Test for Potential Trend Change Points

A sequential version of the Mann-Kendall test statistic allows detection of the approximate beginning of a developing trend. When the progressive series (original time series) and retrograde (backward sequential time series) curves are plotted, the intersection of the curves locates an approximate potential trend turning point. If the intersection of the curves occurs within +/- 1.96 (5% level) of the standardized statistic, a detectable change at that point in the time series can be inferred.[4]

[4] Reference: Chatterjee, S., Bisai, D. and Khan, A., 2014. Detection of approximate potential trend turning points in temperature time series (1941–2010) for Asansol Weather Observation Station, West Bengal, India. India. Atmospheric and Climate Sciences, 4, pp.64-69. MATLAB Code written by Pankaj Dey, PhD scholar, Department of Civil Engineering,Indian Institute of Science, Bangalore.

Singular Spectrum Analysis (SSA)

SSA is a spectrum estimation method (non-parametric) to analyze time series data for trend and forecasting. SAA assumes the additive decomposition of the data into long-term (LT) trend, oscillatory or seasonal trend or trends, and remainder or random. The SAA function[5] used for the data evaluation solves for LT without decomposition of seasonal or remainder components given the mostly annual frequency of sampling.

[5]Singular Spectrum Analysis function using MATLAB 2024a.

2.0 MW-126

Exploratory Data Analysis

Data Summary

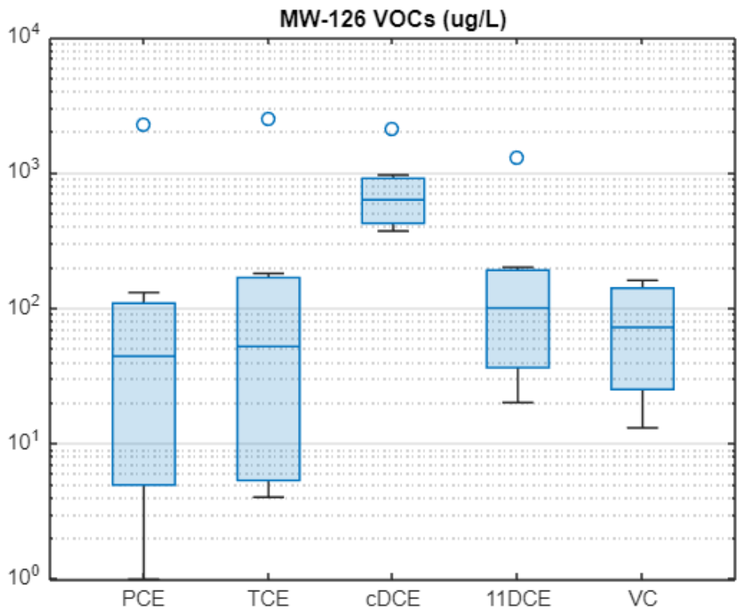
```
summary(MW126,DataVariables=["Date","PCE","TCE","cDCE","DCE11","VC","TOC"],Statistics="allstats")
```

```
MW126: 7×7 table
Variables:
    Date: datetime
    PCE: double
    TCE: double
    cDCE: double
    DCE11: double
    VC: double
    TOC: double
Statistics for applicable variables:
            NumMissing          Min              Q1              Median              Q3                  Max                Range              Mean                Std              Var              Sum              
    Date         0      12-Oct-2021                     07-Nov-2022 14:15:00                 23-May-2024 10:40:00    22906:40:00    24-Dec-2022 22:36:00    8470:02:59                                        12
    PCE          0           0.9900          4.9250                  44          108.5000              2300      2.2990e+03              361.4129          856.0082       7.3275e+05       2.5299e+03
    TCE          0                4          5.3250                  52          167.5000              2500            2496              411.0143          923.7201       8.5326e+05       2.8771e+03
    cDCE         0              370        422.5000                 630          907.5000              2100            1730              814.2857          603.6792       3.6443e+05             5700
    DCE11        0               20         36.2500                 100               190              1300            1280              265.8571          460.9166       2.1244e+05             1861
    VC           0               13              25                 72               140               160             147              79.8571           61.1049       3.7338e+03              559
    TOC          6           1.2000          1.2000              1.2000            1.2000            1.2000               0              1.2000                 0                0           1.2000
```

```
format compact
```

Distribution

```
figure
boxchart(MW126array)
set(gca, "XGrid", "off", "YGrid", "on")
xticklabels({'PCE','TCE','cDCE','11DCE','VC'})
yscale('log')
title('MW-126 VOCs (ug/L)')
box
```



Normal Distribution Tests

```
'PCE',[h,p,kstat,critval] = lillietest(MW126.PCE,"MCTol",1E+04),
```

```
ans =
'PCE'
h =
1
p =
0
kstat =
0.4637
critval =
0.2984
```

```
'TCE',[h,p,kstat,critval] = lillietest(MW126.TCE,"MCTol",1E+04)
```

```
ans =
'TCE'
h =
1
p =
0
kstat =
0.4559
critval =
0.3040
```

```
'cDCE', [h,p,kstat,critval] = lillietest(MW126.cDCE,"MCTol",1E+04),
```

```
ans =
'cDCE'
h =
0
p =
0.1710
kstat =
0.2618
critval =
0.3065
```

```
'DCE11', [h,p,kstat,critval] = lillietest(MW126.DCE11,"MCTol",1E+04),
```

```
ans =
'DCE11'
h =
1
p =
1.0000e-03
kstat =
0.4140
critval =
0.3051
```

```
'VC', [h,p,kstat,critval] = lillietest(MW126.VC,"MCTol",1E+04),
```

```
ans =
'VC'
h =
0
p =
0.4310
kstat =
0.2166
critval =
0.3053
```

Outlier Testing

```
'PCE Outliers',isoutlier(MW126.PCE,"quartiles")','TCE Outliers',isoutlier(MW126.TCE,"quartiles")',...
'cDCE Outliers',isoutlier(MW126.cDCE,"quartiles")','cDCE Outliers',isoutlier(MW126.cDCE,"quartiles")',...
'DCE11 Outliers',isoutlier(MW126.cDCE,"quartiles")','VC',isoutlier(MW126.VC,"quartiles")',
```

```
ans =
'PCE Outliers'
ans = 1×7 logical array
   1   0   0   0   0   0   0
ans =
```

```
'TCE Outliers'
ans = 1×7 logical array
   1   0   0   0   0   0   0
ans =
'cDCE Outliers'
ans = 1×7 logical array
   1   0   0   0   0   0   0
ans =
'cDCE Outliers'
ans = 1×7 logical array
   1   0   0   0   0   0   0
ans =
'DCE11 Outliers'
ans = 1×7 logical array
   1   0   0   0   0   0   0
ans =
'VC'
ans = 1×7 logical array
   0   0   0   0   0   0   0
```

Coefficient of Variation

Coefficient of variation (CV) of a time series data set is the ratio of standard deviation and mean. CV provides a measure of variability of time series data.

Coefficient of Variation	Variance
<0.50	Low
0.5 to 1.0	Moderate
>1.0	High

```
CVMW126PCE=std(MW126.PCE,'omitmissing')/mean(MW126.PCE,'omitmissing'),...
CVMW126TCE=std(MW126.TCE,'omitmissing')/mean(MW126.TCE,'omitmissing'),...
CVMW126cDCE=std(MW126.cDCE,'omitmissing')/mean(MW126.cDCE,'omitmissing'),...
CVMW126DCE11=std(MW126.DCE11,'omitmissing')/mean(MW126.DCE11,'omitmissing'),...
CVMW126VC=std(MW126.VC,'omitmissing')/mean(MW126.VC,'omitmissing'),
```

```
CVMW126PCE =
2.3685
CVMW126TCE =
2.2474
CVMW126cDCE =
0.7414
CVMW126DCE11 =
1.7337
CVMW126VC =
0.7652
```

Linear Correlation

rho	Correlation
-1.0	Perfect negative
0.0	No correlation
1.0	Perfect positive

pvalue	Significance level of 0.05
=<0.05	Statistically significant

```
'Linear Correlation PCE',[rho,pval] = corr(juliandate(MW126.Date),MW126.PCE,Rows="complete")
```

```
ans =
'Linear Correlation PCE'
rho =
-0.5573
pval =
0.1937
```

```
'Linear Correlation TCE',[rho,pval] = corr(juliandate(MW126.Date),MW126.TCE,Rows="complete")
```

```
ans =
'Linear Correlation TCE'
rho =
-0.5856
pval =
0.1672
```

```
'Linear Correlation cDCE',[rho,pval] = corr(juliandate(MW126.Date),MW126.cDCE,Rows="complete")
```

```
ans =
'Linear Correlation cDCE'
rho =
-0.6105
pval =
0.1454
```

```
'Linear Correlation DCE11',[rho,pval] = corr(juliandate(MW126.Date),MW126.DCE11,Rows="complete")
```

```
ans =
'Linear Correlation DCE11'
rho =
-0.6596
pval =
0.1070
```

```
'Linear Correlation VC',[rho,pval] = corr(juliandate(MW126.Date),MW126.VC,Rows="complete")
```

```
ans =
'Linear Correlation VC'
rho =
-0.9530
pval =
8.9890e-04
```

Mann-Kendall Trend Tests

```
'Test for Trend PCE', [H, P_value,Z,StdS]=MKwMiss(MW126.PCE,0.05,NaN)
```

```
ans =
'Test for Trend PCE'
H = logical
```

```
   1
P_value =
0.0483
Z =
-1.9748
StdS =
6.5828
```

```
"PCE",'One Way Test Trend < 0', pval = cumKendallTest(MW126.PCE,juliandate(MW126.Date),'lt')
```

```
ans =
"PCE"
ans =
'One Way Test Trend < 0'
pval =
-0.0241
```

```
'Test for Trend TCE', [H, P_value,Z,StdS]=MKwMiss(MW126.TCE,0.05,NaN)
```

```
ans =
'Test for Trend TCE'
H = logical

   1
P_value =
0.0355
Z =
-2.1026
StdS =
6.6583
```

```
"TCE",'One Way Test Trend < 0', pval = cumKendallTest(MW126.TCE,juliandate(MW126.Date),'lt')
```

```
ans =
"TCE"
ans =
'One Way Test Trend < 0'
pval =
-0.0177
```

```
'Test for Trend cDCE', [H, P_value,Z,StdS]=MKwMiss(MW126.cDCE,0.05,NaN)
```

```
ans =
'Test for Trend cDCE'
H = logical

   0
P_value =
0.1331
Z =
-1.5019
StdS =
6.6583
```

```
"cDCE",'One Way Test Trend < 0', pval = cumKendallTest(MW126.cDCE,juliandate(MW126.Date),'lt')
```

```
ans =
"cDCE"
```

```
ans =
'One Way Test Trend < 0'
pval =
-0.0666
```

```
'Test for Trend DCE11', [H, P_value,Z,StdS]=MKwMiss(MW126.DCE11,0.05,NaN)
```

```
ans =
'Test for Trend DCE11'
H = logical

   1
P_value =
0.0027
Z =
-3.0038
StdS =
6.6583
```

```
"DCE11",'One Way Test Trend < 0', pval = cumKendallTest(MW126.DCE11,juliandate(MW126.Date),'lt')
```

```
ans =
"DCE11"
ans =
'One Way Test Trend < 0'
pval =
-0.0013
```

```
'Test for Trend VC', [H, P_value,Z,StdS]=MKwMiss(MW126.VC,0.05,NaN)
```

```
ans =
'Test for Trend VC'
H = logical

   1
P_value =
0.0163
Z =
-2.4030
StdS =
6.6583
```

```
"VC",'One Way Test Trend < 0', pval = cumKendallTest(MW126.VC,juliandate(MW126.Date),'lt')
```

```
ans =
"VC"
ans =
'One Way Test Trend < 0'
pval =
-0.0081
```

SSA Trend Analysis

```
% Decompose data into long-term trend, seasonal trends, and remainder
MW126SSA = trenddecomp(MW126(:,["PCE","TCE","cDCE","DCE11","VC"]),"ssa",3, ...
    "NumSeasonal",1);
```

MW-126 Time Series Data Plots

```
figure
t1=tiledlayout('flow');
t1.Padding='compact';
t1.TileSpacing='compact';
nexttile
plot(MW126.Date,MW126.PCE,':','Color','0 0.45 0.74','Marker','o',...
    'MarkerEdgeColor','0 0.45 0.74','MarkerFaceColor','0 0.45 0.74')
axis padded
yscale('log')
title('MW126 PCE (ug/L)')
xline(datetime(2021,11,01),'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
yline(5,'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
hold
```

```
Current plot held
```

```
plot(MW126.Date,MW126SSA.PCE_LongTerm,'-.','Color','magenta');
legend('','','','LT Trend',Location='northeast',EdgeColor='none',Color='none')
nexttile
plot(MW126.Date,MW126.TCE,':','Color','0.85 0.33 0.1','Marker','o',...
    'MarkerEdgeColor','0.85 0.33 0.1','MarkerFaceColor','0.85 0.33 0.1')
axis padded
yscale('log')
title('MW-126 TCE (ug/L)')
xline(datetime(2021,11,01),'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
yline(5,'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
hold
```

```
Current plot held
```

```
plot(MW126.Date,MW126SSA.TCE_LongTerm,'-.','Color','magenta');
legend('','','','LT Trend',Location='northeast',EdgeColor='none',Color='none')
nexttile
plot(MW126.Date,MW126.cDCE,':','Color','0.93 0.69 0.13','Marker','o',...
    'MarkerEdgeColor','0.93 0.69 0.13','MarkerFaceColor','0.93 0.69 0.13')
axis padded
yscale('log')
title('MW-126 cDCE (ug/L)')
xline(datetime(2021,11,01),'-.','LabelVerticalAlignment','middle',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
yline(70,'-.','LabelVerticalAlignment','top',...
```

```
    'LabelHorizontalAlignment','right','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
hold
```

```
Current plot held
```

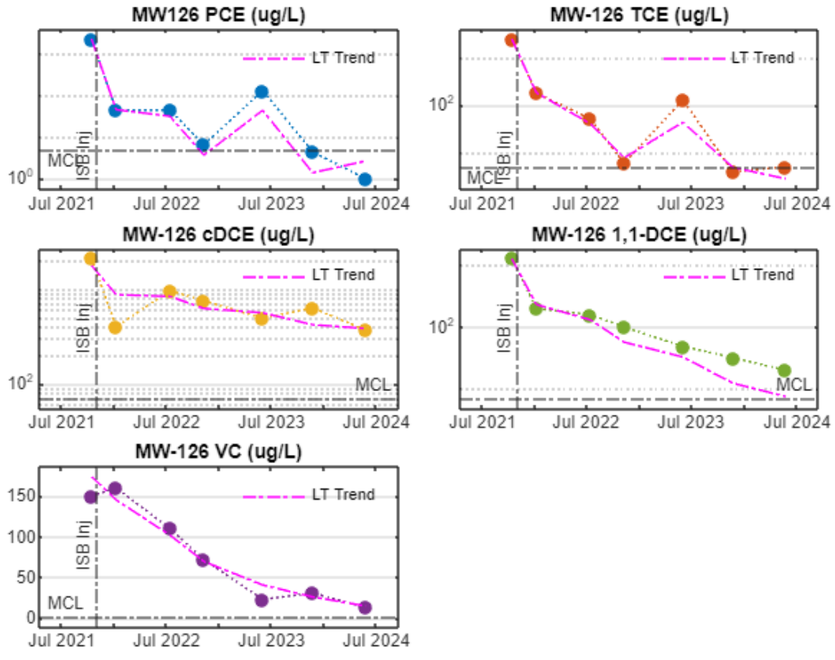
```
plot(MW126.Date,MW126SSA.cDCE_LongTerm,'-.','Color','magenta');
legend('','','','LT Trend',Location='northeast',EdgeColor='none',Color='none')
nexttile
plot(MW126.Date,MW126.DCE11,':','Color','0.47 0.67 0.19','Marker','o',...
    'MarkerEdgeColor','0.47 0.67 0.19','MarkerFaceColor','0.47 0.67 0.19')
axis padded
yscale('log')
title('MW-126 1,1-DCE (ug/L)')
xline(datetime(2021,11,01),'-.','LabelVerticalAlignment','middle',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
yline(7,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','right','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
hold
```

```
Current plot held
```

```
plot(MW126.Date,MW126SSA.DCE11_LongTerm,'-.','Color','magenta');
legend('','','','LT Trend',Location='northeast',EdgeColor='none',Color='none')
nexttile
plot(MW126.Date,MW126.VC,':','Color','0.49 0.18 0.56','Marker','o',...
    'MarkerEdgeColor','0.49 0.18 0.56','MarkerFaceColor','0.49 0.18 0.56')
axis padded
title('MW-126 VC (ug/L)')
xline(datetime(2021,11,01),'-.','LabelVerticalAlignment','middle',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
yline(2,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
hold
```

```
Current plot held
```

```
plot(MW126.Date,MW126SSA.VC_LongTerm,'-.','Color','magenta');
legend('','','','LT Trend',Location='northeast',EdgeColor='none',Color='none')
```



3.0 MW-129

Exploratory Data Analysis

Data Summary

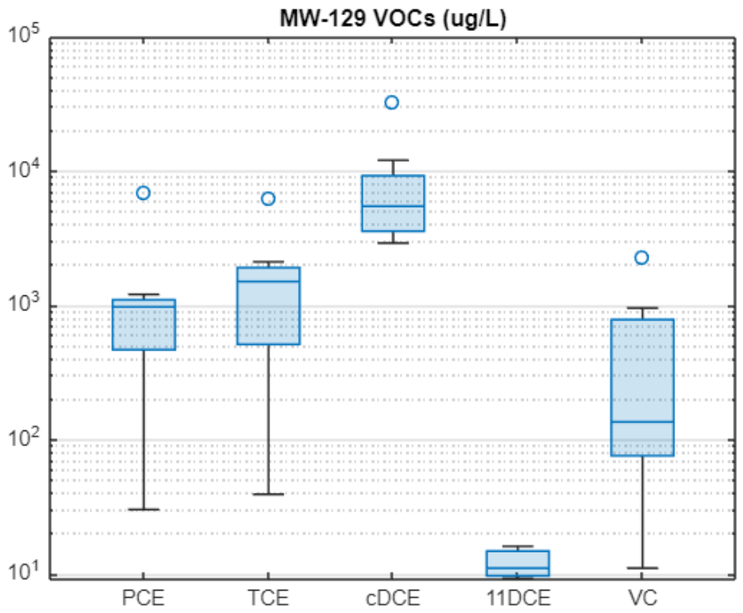
```
summary(MW129,DataVariables=["Date","PCE","TCE","cDCE","DCE11","VC","TOC"],Statistics="allstats")
```

```
MW129: 8×7 table
Variables:
    Date: datetime
    PCE: double
    TCE: double
    cDCE: double
    DCE11: double
    VC: double
    TOC: double
Statistics for applicable variables:
            NumMissing          Min             Q1                Median                Q3                Max              Range              Mean              Std              Var              Sum          Mod
    Date             0    12-Oct-2021                 09-Sep-2022 23:27:30                 23-May-2024 08:30:00    22904:30:00    24-Nov-2022 18:23:07    8095:03:41                                    12-Oct
    PCE              0           30            465                   970            1095                6900            6870        1.4988e+03       2.2170e+03       4.9152e+06            11990
    TCE              0           39            510                  1500            1900                6200            6161        1.7574e+03       1.9309e+03       3.7284e+06            14059
    cDCE             0         2900           3550                  5450            9200               33000           30100        9.0375e+03       1.0100e+04       1.0201e+08            72300
    DCE11            5       9.2000         9.6500                    11         14.7500                  16          6.8000           12.0667           3.5233           12.4133          36.2000        9
    VC               0           11        75.5000                   135             780                2300            2289         536.5000          784.8909       6.1605e+05             4292
    TOC              0       4.1000         9.0500                    17              21                  31         26.9000           16.1500           8.7541           76.6343          129.2000        4
```

```
format compact
```

Distribution

```
figure
boxchart(MW129array)
set(gca, "XGrid", "off", "YGrid", "on")
xticklabels({'PCE','TCE','cDCE','11DCE','VC'})
yscale('log')
title('MW-129 VOCs (ug/L)')
box
```



Normal Distribution Tests

```
'PCE',[h,p,kstat,critval] = lillietest(MW129.PCE,"MCTol",1E+04),
```

```
ans =
'PCE'
h =
1
p =
0
kstat =
0.4286
critval =
0.2924
```

```
'TCE',[h,p,kstat,critval] = lillietest(MW129.TCE,"MCTol",1E+04)
```

```
ans =
'TCE'
```

```
h =
1
p =
0.0260
kstat =
0.3046
critval =
0.2785
```

```
'cDCE', [h,p,kstat,critval] = lillietest(MW129.cDCE,"MCTol",1E+04),
```

```
ans =
'cDCE'
h =
1
p =
0.0020
kstat =
0.3530
critval =
0.2876
```

```
'DCE11', [h,p,kstat,critval] = lillietest(MW129.cDCE,"MCTol",1E+04),
```

```
ans =
'DCE11'
h =
1
p =
0.0040
kstat =
0.3530
critval =
0.2880
```

```
'VC', [h,p,kstat,critval] = lillietest(MW129.VC,"MCTol",1E+04),
```

```
ans =
'VC'
h =
1
p =
0.0210
kstat =
0.3047
critval =
0.2827
```

Outlier Testing

```
'PCE Outliers',isoutlier(MW129.PCE,"quartiles")','TCE Outliers',isoutlier(MW129.TCE,"quartiles")',...
'cDCE Outliers',isoutlier(MW129.cDCE,"quartiles")','DCE11 Outliers',isoutlier(MW129.DCE11,"quartiles")',...
'VC Outliers',isoutlier(MW129.VC,"quartiles")',
```

```
ans =
'PCE Outliers'
ans = 1×8 logical array
   0   0   0   0   0   0   1   0
ans =
'TCE Outliers'
ans = 1×8 logical array
```

```
   0   0   0   0   0   0   1   0
ans =
'cDCE Outliers'
ans = 1×8 logical array
   0   0   0   0   0   0   1   0
ans =
'DCE11 Outliers'
ans = 1×8 logical array
   0   0   0   0   0   0   0   0
ans =
'VC Outliers'
ans = 1×8 logical array
   0   0   0   0   0   0   0   1
```

Coefficient of Variation

Coefficient of variation (CV) of a time series data set is the ratio of standard deviation and mean. CV provides a measure of variability of time series data.

Coefficient of Variation	Variance
<0.50	Low
0.5 to 1.0	Moderate
>1.0	High

```
CVMW129PCE=std(MW129.PCE,'omitmissing')/mean(MW129.PCE,'omitmissing'),...
CVMW129TCE=std(MW129.TCE,'omitmissing')/mean(MW129.TCE,'omitmissing'),...
CVMW129cDCE=std(MW129.cDCE,'omitmissing')/mean(MW129.cDCE,'omitmissing'),...
CVMW129DCE11=std(MW129.DCE11,'omitmissing')/mean(MW129.DCE11,'omitmissing'),...
CVMW129VC=std(MW129.VC,'omitmissing')/mean(MW129.VC,'omitmissing'),
```

```
CVMW129PCE =
1.4793
CVMW129TCE =
1.0987
CVMW129cDCE =
1.1176
CVMW129DCE11 =
0.2920
CVMW129VC =
1.4630
```

Linear Correlation

rho	Correlation
-1.0	Perfect negative
0.0	No correlation
1.0	Perfect positive

pvalue	Significance level of 0.05
=<0.05	Statistically significant

```
'Linear Correlation PCE',[rho,pval] = corr(juliandate(MW129.Date),MW129.PCE,Rows="complete")
```

```
ans =
'Linear Correlation PCE'
rho =
0.3278
pval =
0.4280
```

```
'Linear Correlation TCE',[rho,pval] = corr(juliandate(MW129.Date),MW129.TCE,Rows="complete")
```

```
ans =
'Linear Correlation TCE'
rho =
0.2119
pval =
0.6145
```

```
'Linear Correlation cDCE',[rho,pval] = corr(juliandate(MW129.Date),MW129.cDCE,Rows="complete")
```

```
ans =
'Linear Correlation cDCE'
rho =
0.5793
pval =
0.1323
```

```
'Linear Correlation DCE11',[rho,pval] = corr(juliandate(MW129.Date),MW129.cDCE,Rows="complete")
```

```
ans =
'Linear Correlation DCE11'
rho =
0.5793
pval =
0.1323
```

```
'Linear Correlation VC',[rho,pval] = corr(juliandate(MW129.Date),MW129.VC,Rows="complete")
```

```
ans =
'Linear Correlation VC'
rho =
0.8874
pval =
0.0033
```

Mann-Kendall Trend Tests

```
'Test for Trend PCE', [H, P_value,Z,StdS]=MKwMiss(MW129.PCE,0.05,NaN)
```

```
ans =
'Test for Trend PCE'
H = logical

   0
P_value =
0.8031
Z =
-0.2494
```

```
StdS =
8.0208
```

```
"PCE",'One Way Test Trend < 0', pval = cumKendallTest(MW129.PCE,juliandate(MW129.Date),'lt')
```

```
ans =
"PCE"
ans =
'One Way Test Trend < 0'
pval =
-0.4015
```

```
'Test for Trend TCE', [H, P_value,Z,StdS]=MKwMiss(MW129.TCE,0.05,NaN)
```

```
ans =
'Test for Trend TCE'
H = logical

   0
P_value =
0.7105
Z =
-0.3712
StdS =
8.0829
```

```
"TCE",'One Way Test Trend < 0', pval = cumKendallTest(MW129.TCE,juliandate(MW129.Date),'lt')
```

```
ans =
"TCE"
ans =
'One Way Test Trend < 0'
pval =
-0.3553
```

```
'Test for Trend cDCE', [H, P_value,Z,StdS]=MKwMiss(MW129.cDCE,0.05,NaN)
```

```
ans =
'Test for Trend cDCE'
H = logical

   1
P_value =
0.0044
Z =
2.8455
StdS =
8.0829
```

```
"cDCE",'One Way Test Trend > 0', pval = cumKendallTest(MW129.cDCE,juliandate(MW129.Date),'gt')
```

```
ans =
"cDCE"
ans =
'One Way Test Trend > 0'
pval =
0.0022
```

```
'Test for Trend DCE11', [H, P_value,Z,StdS]=MKwMiss(MW129.DCE11,0.05,NaN)
```

```
ans =
'Test for Trend DCE11'
H = logical

   0
P_value =
1
Z =
0
StdS =
1.9149
```

```
"DCE11",'One Way Test Trend < 0', pval = cumKendallTest(MW129.DCE11,juliandate(MW129.Date),'lt')
```

```
ans =
"DCE11"
ans =
'One Way Test Trend < 0'
pval =
-0.5000
```

```
'Test for Trend VC', [H, P_value,Z,StdS]=MKwMiss(MW129.VC,0.05,NaN)
```

```
ans =
'Test for Trend VC'
H = logical

   1
P_value =
0.0044
Z =
2.8455
StdS =
8.0829
```

```
"VC",'One Way Test Trend > 0', pval = cumKendallTest(MW129.VC,juliandate(MW129.Date),'gt')
```

```
ans =
"VC"
ans =
'One Way Test Trend > 0'
pval =
0.0022
```

SSA Trend Analysis

```
% Decompose data into long-term trend, seasonal trends, and remainder
MW129SSA = trenddecomp(MW129(:,["PCE","TCE","cDCE","DCE11","VC"]),"ssa",4, ...
    "NumSeasonal",1);
```

MW-129 Time Series Data Plots

```
figure
t2=tiledlayout('flow');
t2.Padding='compact';
t2.TileSpacing='compact';
nexttile
plot(MW129.Date,MW129.PCE,':','Color','0 0.45 0.74','Marker','o',...
    'MarkerEdgeColor','0 0.45 0.74','MarkerFaceColor','0 0.45 0.74')
axis padded
yscale('log')
title('MW-129 PCE (ug/L)')
xline(datetime(2021,11,01),'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
yline(5,'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
hold
```

```
Current plot held
```

```
plot(MW129.Date,MW129SSA.PCE_LongTerm,'-.','Color','magenta');
legend('','','','LT Trend',Location='northeast',EdgeColor='none',Color='none')
nexttile
plot(MW129.Date,MW129.TCE,':','Color','0.85 0.33 0.1','Marker','o',...
    'MarkerEdgeColor','0.85 0.33 0.1','MarkerFaceColor','0.85 0.33 0.1')
axis padded
yscale('log')
title('MW-129 TCE (ug/L)')
xline(datetime(2021,11,01),'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
yline(5,'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
hold
```

```
Current plot held
```

```
plot(MW129.Date,MW129SSA.TCE_LongTerm,'-.','Color','magenta');
legend('','','','LT Trend',Location='northeast',EdgeColor='none',Color='none')
nexttile
plot(MW129.Date,MW129.cDCE,':','Color','0.93 0.69 0.13','Marker','o',...
    'MarkerEdgeColor','0.93 0.69 0.13','MarkerFaceColor','0.93 0.69 0.13')
axis padded
yscale('log')
title('MW-129 cDCE (ug/L)')
xline(datetime(2021,11,01),'-.','LabelVerticalAlignment','middle',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
yline(70,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','right','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
```

```
hold
```

```
Current plot held
```

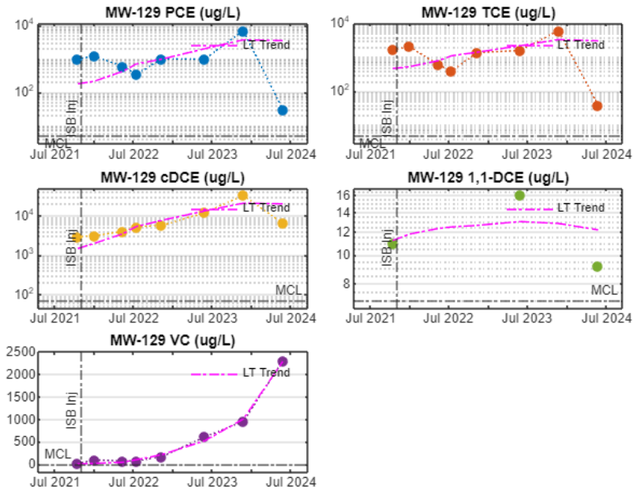
```
plot(MW129.Date,MW129SSA.cDCE_LongTerm,'-.','Color','magenta');
legend('','','','LT Trend',Location='northeast',EdgeColor='none',Color='none')
nexttile
plot(MW129.Date,MW129.DCE11,':','Color','0.47 0.67 0.19','Marker','o',...
    'MarkerEdgeColor','0.47 0.67 0.19','MarkerFaceColor','0.47 0.67 0.19')
axis padded
yscale('log')
title('MW-129 1,1-DCE (ug/L)')
xline(datetime(2021,11,01),'-.','LabelVerticalAlignment','middle',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
yline(7,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','right','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
hold
```

```
Current plot held
```

```
plot(MW129.Date,MW129SSA.DCE11_LongTerm,'-.','Color','magenta');
legend('','','','LT Trend',Location='northeast',EdgeColor='none',Color='none')
nexttile
plot(MW129.Date,MW129.VC,':','Color','0.49 0.18 0.56','Marker','o',...
    'MarkerEdgeColor','0.49 0.18 0.56','MarkerFaceColor','0.49 0.18 0.56')
axis padded
title('MW-129 VC (ug/L)')
xline(datetime(2021,11,01),'-.','LabelVerticalAlignment','middle',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
yline(2,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
hold
```

```
Current plot held
```

```
plot(MW129.Date,MW129SSA.VC_LongTerm,'-.','Color','magenta');
legend('','','','LT Trend',Location='northeast',EdgeColor='none',Color='none')
```



4.0 MW-130

Exploratory Data Analysis

Data Summary

```
summary(MW130,DataVariables=["Date","PCE","TCE","cDCE","DCE11","VC","TOC"],Statistics="allstats")
```

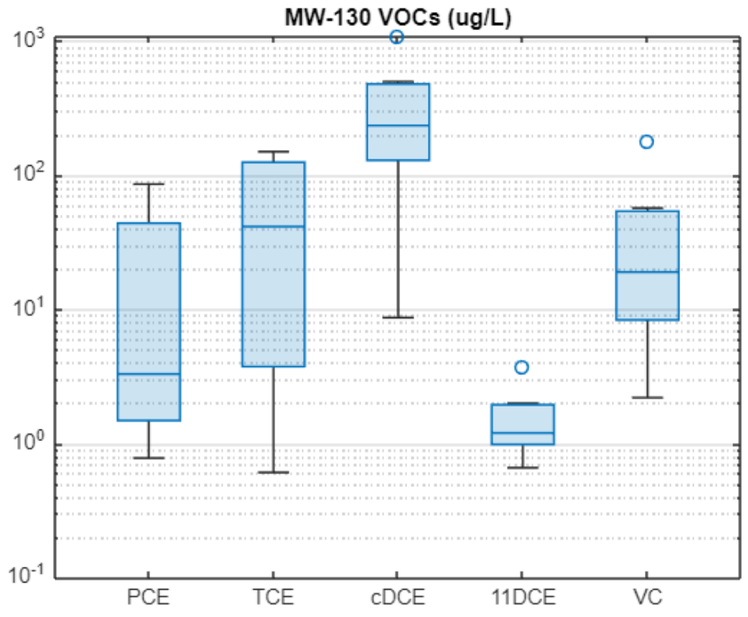
```
MW130: 8×7 table
Variables:
    Date: datetime
    PCE: double
    TCE: double
    cDCE: double
    DCE11: double
    VC: double
    TOC: double
Statistics for applicable variables:
            NumMissing          Min          Q1              Median          Q3              Max                 Range              Mean                 Std                Var          Sum
    Date         0      12-Oct-2021                 09-Sep-2022 22:20:00                 22-May-2024 12:25:00 22884:25:00 23-Nov-2022 18:42:45 8103:29:58                                  12-
    PCE          0           0.7800      1.4850              3.3000      44                  86                  85.2200            23.0437              32.2769      1.0418e+03      184.3500
    TCE          0           0.6100      3.7500             41.5000     125                 150                 149.3900            61.3888              64.3861      4.1456e+03      491.1100
    cDCE         0           8.7000    129.5000            235          480                1100                1.0913e+03         349.7125             348.1884      1.2124e+05    2.7977e+03
    DCE11        0           0.6600      0.9850              1.2000      1.9500              3.7000              3.0400              1.5788               0.9737      0.9481          12.6300
    VC           0           2.2000      8.3500             19           54                 180                 177.8000            43.1125              58.9286      3.4726e+03      344.9000
    TOC          0           2.2000      3.6500              5.1500     12.8000             180                 177.8000            28.1750              61.5754      3.7915e+03      225.4000
```

```
format compact
```

Distribution

```
figure
boxchart(MW130array)
set(gca, "XGrid", "off", "YGrid", "on")
```

```
xticklabels({'PCE','TCE','cDCE','11DCE','VC'})
yscale('log')
title('MW-130 VOCs (ug/L)')
box
```



Normal Distribution Tests

```
'PCE',[h,p,kstat,critval] = lillietest(MW130.PCE,"MCTol",1E+04),
```

```
ans =
'PCE'
h =
1
p =
0.0070
kstat =
0.3411
critval =
0.2890
```

```
'TCE',[h,p,kstat,critval] = lillietest(MW130.TCE,"MCTol",1E+04)
```

```
ans =
'TCE'
h =
0
p =
0.2780
kstat =
0.2245
critval =
```

```
0.2886
```

```
'cDCE', [h,p,kstat,critval] = lillietest(MW130.cDCE,"MCTol",1E+04),
```

```
ans =
'cDCE'
h =
0
p =
0.4150
kstat =
0.2080
critval =
0.2895
```

```
'DCE11', [h,p,kstat,critval] = lillietest(MW130.DCE11,"MCTol",1E+04),
```

```
ans =
'DCE11'
h =
0
p =
0.2190
kstat =
0.2377
critval =
0.2910
```

```
'VC', [h,p,kstat,critval] = lillietest(MW130.VC,"MCTol",1E+04),
```

```
ans =
'VC'
h =
0
p =
0.0540
kstat =
0.2818
critval =
0.2827
```

Outlier Testing

```
'PCE Outliers',isoutlier(MW130.PCE,"quartiles")','TCE Outliers',isoutlier(MW130.TCE,"quartiles")',...
'cDCE Outliers',isoutlier(MW130.cDCE,"quartiles")','cDCE Outliers',isoutlier(MW130.cDCE,"quartiles")',...
'DCE11 Outliers',isoutlier(MW130.DCE11,"quartiles")','VC Outliers',isoutlier(MW130.VC,"quartiles")',
```

```
ans =
'PCE Outliers'
ans = 1×8 logical array
   0   0   0   0   0   0   0   0
ans =
'TCE Outliers'
ans = 1×8 logical array
   0   0   0   0   0   0   0   0
ans =
'cDCE Outliers'
ans = 1×8 logical array
   0   0   0   0   1   0   0   0
ans =
'cDCE Outliers'
```

```
ans = 1×8 logical array
   0   0   0   0   1   0   0   0
ans =
'DCE11 Outliers'
ans = 1×8 logical array
   0   0   0   0   1   0   0   0
ans =
'VC Outliers'
ans = 1×8 logical array
   0   0   0   0   1   0   0   0
```

Coefficient of Variation

Coefficient of variation (CV) of a time series data set is the ratio of standard deviation and mean. CV provides a measure of variability of time series data.

Coefficient of Variation	Variance
<0.50	Low
0.5 to 1.0	Moderate
>1.0	High

```
CVMW130PCE=std(MW130.PCE,'omitmissing')/mean(MW130.PCE,'omitmissing'),...
CVMW130TCE=std(MW130.TCE,'omitmissing')/mean(MW130.TCE,'omitmissing'),...
CVMW130cDCE=std(MW130.cDCE,'omitmissing')/mean(MW130.cDCE,'omitmissing'),...
CVMW130DCE11=std(MW130.DCE11,'omitmissing')/mean(MW130.DCE11,'omitmissing'),...
CVMW130VC=std(MW130.VC,'omitmissing')/mean(MW130.VC,'omitmissing'),
```

```
CVMW130PCE =
1.4007
CVMW130TCE =
1.0488
CVMW130cDCE =
0.9956
CVMW130DCE11 =
0.6168
CVMW130VC =
1.3669
```

Linear Correlation

rho	Correlation
-1.0	Perfect negative
0.0	No correlation
1.0	Perfect positive

pvalue	Significance level of 0.05
=<0.05	Statistically significant

```
'Linear Correlation PCE',[rho,pval] = corr(juliandate(MW130.Date),MW130.PCE,Rows="complete")
```

```
ans =
'Linear Correlation PCE'
rho =
0.4468
pval =
0.2670
```

```
'Linear Correlation TCE',[rho,pval] = corr(juliandate(MW130.Date),MW130.TCE,Rows="complete")
```

```
ans =
'Linear Correlation TCE'
rho =
0.0092
pval =
0.9828
```

```
'Linear Correlation cDCE',[rho,pval] = corr(juliandate(MW130.Date),MW130.cDCE,Rows="complete")
```

```
ans =
'Linear Correlation cDCE'
rho =
-0.2172
pval =
0.6054
```

```
'Linear Correlation DCE11',[rho,pval] = corr(juliandate(MW130.Date),MW130.DCE11,Rows="complete")
```

```
ans =
'Linear Correlation DCE11'
rho =
-0.2656
pval =
0.5250
```

```
'Linear Correlation VC',[rho,pval] = corr(juliandate(MW130.Date),MW130.VC,Rows="complete")
```

```
ans =
'Linear Correlation VC'
rho =
-0.0416
pval =
0.9220
```

Mann-Kendall Trend Tests

```
'Test for Trend PCE', [H, P_value,Z,StdS]=MKwMiss(MW130.PCE,0.05,NaN)
```

```
ans =
'Test for Trend PCE'
H = logical

   0
P_value =
0.4544
Z =
0.7481
StdS =
8.0208
```

```
"PCE",'One Way Test Trend > 0', pval = cumKendallTest(MW130.PCE,juliandate(MW130.Date),'gt')
```

```
ans =
"PCE"
ans =
'One Way Test Trend > 0'
pval =
0.2272
```

```
'Test for Trend TCE', [H, P_value,Z,StdS]=MKwMiss(MW130.TCE,0.05,NaN)
```

```
ans =
'Test for Trend TCE'
H = logical

   0
P_value =
1
Z =
0
StdS =
8.0208
```

```
"TCE",'One Way Test Trend > 0', pval = cumKendallTest(MW130.TCE,juliandate(MW130.Date),'gt')
```

```
ans =
"TCE"
ans =
'One Way Test Trend > 0'
pval =
0.5000
```

```
'Test for Trend cDCE', [H, P_value,Z,StdS]=MKwMiss(MW130.cDCE,0.05,NaN)
```

```
ans =
'Test for Trend cDCE'
H = logical

   0
P_value =
0.4544
Z =
-0.7481
StdS =
8.0208
```

```
"cDCE",'One Way Test Trend < 0', pval = cumKendallTest(MW130.cDCE,juliandate(MW130.Date),'lt')
```

```
ans =
"cDCE"
ans =
'One Way Test Trend < 0'
pval =
-0.2272
```

```
'Test for Trend DCE11', [H, P_value,Z,StdS]=MKwMiss(MW130.DCE11,0.05,NaN)
```

```
ans =
```

```
'Test for Trend DCE11'
H = logical

   0
P_value =
0.5362
Z =
-0.6186
StdS =
8.0829
```

```
"DCE11",'One Way Test Trend < 0', pval = cumKendallTest(MW130.DCE11,juliandate(MW130.Date),'lt')
```

```
ans =
"DCE11"
ans =
'One Way Test Trend < 0'
pval =
-0.2681
```

```
'Test for Trend VC', [H, P_value,Z,StdS]=MKwMiss(MW130.VC,0.05,NaN)
```

```
ans =
'Test for Trend VC'
H = logical

   0
P_value =
1
Z =
0
StdS =
8.0829
```

```
"VC",'One Way Test Trend < 0', pval = cumKendallTest(MW130.VC,juliandate(MW130.Date),'lt')
```

```
ans =
"VC"
ans =
'One Way Test Trend < 0'
pval =
0
```

SSA Trend Analysis

```
% Decompose data into long-term trend, seasonal trends, and remainder
MW130SSA = trenddecomp(MW130(:,["PCE","TCE","cDCE","DCE11","VC"]),"ssa",4, ...
    "NumSeasonal",1);
```

MW-130 Time Series Data Plots

```
figure
```

```
t3=tiledlayout('flow');
t3.Padding='compact';
t3.TileSpacing='compact';
nexttile
plot(MW130.Date,MW130.PCE,':','Color','0 0.45 0.74','Marker','o',...
    'MarkerEdgeColor','0 0.45 0.74','MarkerFaceColor','0 0.45 0.74')
axis padded
yscale('log')
title('MW-130 PCE (ug/L)')
xline(datetime(2021,11,01),'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
yline(5,'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
hold
```

```
Current plot held
```

```
plot(MW130.Date,MW130SSA.PCE_LongTerm,'-.','Color','magenta')
legend('','','','LT Trend',Location='southeast',EdgeColor='none',Color='none')
nexttile
plot(MW130.Date,MW130.TCE,':','Color','0.85 0.33 0.1','Marker','o',...
    'MarkerEdgeColor','0.85 0.33 0.1','MarkerFaceColor','0.85 0.33 0.1')
axis padded
yscale('log')
title('MW-130 TCE (ug/L)')
xline(datetime(2021,11,01),'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
yline(5,'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
hold
```

```
Current plot held
```

```
plot(MW130.Date,MW130SSA.TCE_LongTerm,'-.','Color','magenta');
legend('','','','LT Trend',Location='southeast',EdgeColor='none',Color='none')
nexttile
plot(MW130.Date,MW130.cDCE,':','Color','0.93 0.69 0.13','Marker','o',...
    'MarkerEdgeColor','0.93 0.69 0.13','MarkerFaceColor','0.93 0.69 0.13')
axis padded
yscale('log')
title('MW-130 cDCE (ug/L)')
xline(datetime(2021,11,01),'-.','LabelVerticalAlignment','middle',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
yline(70,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','right','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
hold
```

```
Current plot held
```

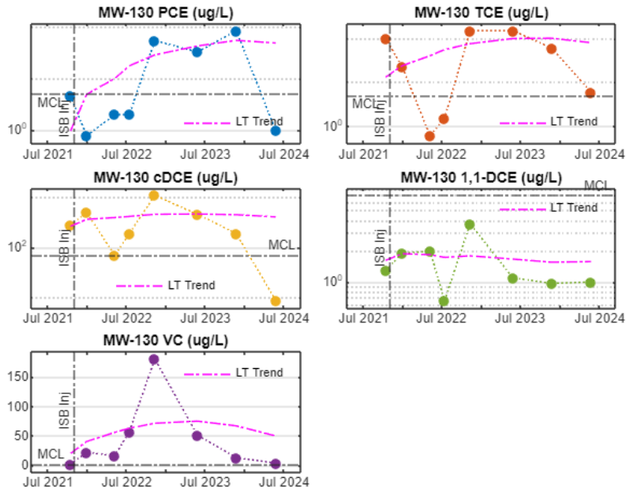
```
plot(MW130.Date,MW130SSA.cDCE_LongTerm,'-.','Color','magenta');
legend('','','','LT Trend',Location='south',EdgeColor='none',Color='none')
nexttile
plot(MW130.Date,MW130.DCE11,':','Color','0.47 0.67 0.19','Marker','o',...
    'MarkerEdgeColor','0.47 0.67 0.19','MarkerFaceColor','0.47 0.67 0.19')
axis padded
yscale('log')
title('MW-130 1,1-DCE (ug/L)')
xline(datetime(2021,11,01),'-.','LabelVerticalAlignment','middle',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
yline(7,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','right','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
hold
```

```
Current plot held
```

```
plot(MW130.Date,MW130SSA.DCE11_LongTerm,'-.','Color','magenta');
legend('','','','LT Trend',Location='northeast',EdgeColor='none',Color='none')
nexttile
plot(MW130.Date,MW130.VC,':','Color','0.49 0.18 0.56','Marker','o',...
    'MarkerEdgeColor','0.49 0.18 0.56','MarkerFaceColor','0.49 0.18 0.56')
axis padded
title('MW-130 VC (ug/L)')
xline(datetime(2021,11,01),'-.','LabelVerticalAlignment','middle',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
yline(2,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
hold
```

```
Current plot held
```

```
plot(MW130.Date,MW130SSA.VC_LongTerm,'-.','Color','magenta');
legend('','','','LT Trend',Location='northeast',EdgeColor='none',Color='none')
```



5.0 MW-131

Exploratory Data Analysis

Data Summary

```
summary(MW131,DataVariables=["Date","PCE","TCE","cDCE","DCE11","VC","TOC"],Statistics="allstats")
```

```
MW131: 8×7 table
Variables:
    Date: datetime
    PCE: double
    TCE: double
    cDCE: double
    DCE11: double
    VC: double
    TOC: double
Statistics for applicable variables:
            NumMissing          Min          Q1              Median              Q3              Max              Range              Mean              Std              Var              Sum              Mo
    Date             0   13-Oct-2021              09-Sep-2022 12:42:30              23-May-2024 09:40:00   22881:40:00   24-Nov-2022 21:49:07   8090:31:30                                       13-Oc
    PCE              0       0.3900          19                  21          54.5000                  86        85.6100              34.4237          31.3350          981.8851          275.3900
    TCE              0       1.4000        1050                1550          1900                   2400     2.3986e+03           1.4252e+03       743.6408         5.5300e+05        1.1401e+04
    cDCE             0           38         490                 685           780                    950         912              612.2500         278.9377         7.7806e+04        4898
    DCE11            4       2.9000       2.9500              3.1500        3.3500                 3.4000      0.5000              3.1500           0.2380           0.0567           12.6000
    VC               6       1.8000       1.8000                   3        4.2000                 4.2000      2.4000                   3           1.6971           2.8800           6
    TOC              0       0.9100       1.0750              1.3000        1.5500                     69      68.0900              9.7200          23.9540          573.7962          77.7600
```

```
format compact
```

Distribution

```
figure
```

```
boxchart(MW131array)
set(gca, "XGrid", "off", "YGrid", "on")
xticklabels({'PCE','TCE','cDCE','11DCE','VC'})
yscale('log')
title('MW-131 VOCs (ug/L)')
box
```

Normal Distribution Tests

```
'PCE',[h,p,kstat,critval] = lillietest(MW131.PCE,"MCTol",1E+04),
```

```
ans =
'PCE'
h =
1
p =
0.0140
kstat =
0.3312
critval =
0.2841
```

```
'TCE',[h,p,kstat,critval] = lillietest(MW131.TCE,"MCTol",1E+04)
```

```
ans =
'TCE'
h =
0
p =
0.8110
kstat =
0.1587
critval =
0.2872
```

```
'cDCE', [h,p,kstat,critval] = lillietest(MW131.cDCE,"MCTol",1E+04),
```

```
ans =
'cDCE'
h =
0
p =
0.3210
kstat =
0.2210
critval =
0.2873
```

```
'DCE11', [h,p,kstat,critval] = lillietest(MW131.DCE11,"MCTol",1E+04),
```

```
ans =
'DCE11'
h =
0
p =
0.6740
kstat =
0.2357
critval =
0.3785
```

```
'VC', [h,p,kstat,critval] = lillietest(MW131.VC,"MCTol",1E+04),
```

```
ans =
'VC'
```

Outlier Testing

```
'PCE Outliers',isoutlier(MW131.PCE,"quartiles")','TCE Outliers',isoutlier(MW131.TCE,"quartiles")',...
'cDCE Outliers',isoutlier(MW131.cDCE,"quartiles")','cDCE Outliers',isoutlier(MW131.cDCE,"quartiles")',...
'DCE11 Outliers',isoutlier(MW131.DCE11,"quartiles")','VC Outliers',isoutlier(MW131.VC,"quartiles")',
```

```
ans =
'PCE Outliers'
ans = 1×8 logical array
   0   0   0   0   0   0   0   0
ans =
'TCE Outliers'
ans = 1×8 logical array
   0   0   0   0   0   0   0   0
ans =
'cDCE Outliers'
ans = 1×8 logical array
   0   0   0   0   0   1   0   0
ans =
'cDCE Outliers'
ans = 1×8 logical array
   0   0   0   0   0   1   0   0
ans =
'DCE11 Outliers'
ans = 1×8 logical array
   0   0   0   0   0   0   0   0
ans =
'VC Outliers'
ans = 1×8 logical array
   0   0   0   0   0   0   0   0
```

Coefficient of Variation

Coefficient of variation (CV) of a time series data set is the ratio of standard deviation and mean. CV provides a measure of variability of time series data.

Coefficient of Variation	Variance
<0.50	Low
0.5 to 1.0	Moderate
>1.0	High

```
CVMW131PCE=std(MW131.PCE,'omitmissing')/mean(MW131.PCE,'omitmissing'),...
CVMW131TCE=std(MW131.TCE,'omitmissing')/mean(MW131.TCE,'omitmissing'),...
CVMW131cDCE=std(MW131.cDCE,'omitmissing')/mean(MW131.cDCE,'omitmissing'),...
CVMW131DCE11=std(MW131.DCE11,'omitmissing')/mean(MW131.DCE11,'omitmissing'),...
CVMW131VC=std(MW131.VC,'omitmissing')/mean(MW131.VC,'omitmissing'),
```

```
CVMW131PCE =
```

```
0.9103
CVMW131TCE =
0.5218
CVMW131cDCE =
0.4556
CVMW131DCE11 =
0.0756
CVMW131VC =
0.5657
```

Linear Correlation

rho	Correlation
-1.0	Perfect negative
0.0	No correlation
1.0	Perfect positive

pvalue	Significance level of 0.05
=<0.05	Statistically significant

```
'Linear Correlation PCE',[rho,pval] = corr(juliandate(MW131.Date),MW131.PCE,Rows="complete")
```

```
ans =
'Linear Correlation PCE'
rho =
-0.1165
pval =
0.7835
```

```
'Linear Correlation TCE',[rho,pval] = corr(juliandate(MW131.Date),MW131.TCE,Rows="complete")
```

```
ans =
'Linear Correlation TCE'
rho =
-0.5815
pval =
0.1306
```

```
'Linear Correlation cDCE',[rho,pval] = corr(juliandate(MW131.Date),MW131.cDCE,Rows="complete")
```

```
ans =
'Linear Correlation cDCE'
rho =
-0.4162
pval =
0.3051
```

```
'Linear Correlation DCE11',[rho,pval] = corr(juliandate(MW131.Date),MW131.DCE11,Rows="complete")
```

```
ans =
'Linear Correlation DCE11'
rho =
-0.4561
pval =
```

```
0.5439
```

```
'Linear Correlation VC',[rho,pval] = corr(juliandate(MW131.Date),MW131.VC,Rows="complete")
```

```
ans =
'Linear Correlation VC'
rho =
1
pval =
NaN
```

Mann-Kendall Trend Tests

```
'Test for Trend PCE', [H, P_value,Z,StdS]=MKwMiss(MW131.PCE,0.05,NaN)
```

```
ans =
'Test for Trend PCE'
H = logical

   0
P_value =
0.2029
Z =
-1.2734
StdS =
7.8528
```

```
"PCE",'One Way Test Trend < 0', pval = cumKendallTest(MW131.PCE,juliandate(MW131.Date),'lt')
```

```
ans =
"PCE"
ans =
'One Way Test Trend < 0'
pval =
-0.1014
```

```
'Test for Trend TCE', [H, P_value,Z,StdS]=MKwMiss(MW131.TCE,0.05,NaN)
```

```
ans =
'Test for Trend TCE'
H = logical

   0
P_value =
0.1346
Z =
-1.4961
StdS =
8.0208
```

```
"TCE",'One Way Test Trend < 0', pval = cumKendallTest(MW131.TCE,juliandate(MW131.Date),'lt')
```

```
ans =
"TCE"
ans =
'One Way Test Trend < 0'
pval =
-0.0673
```

```
'Test for Trend cDCE', [H, P_value,Z,StdS]=MKwMiss(MW131.cDCE,0.05,NaN)
```

```
ans =
'Test for Trend cDCE'
H = logical

   0
P_value =
0.3865
Z =
-0.8660
StdS =
8.0829
```

```
"cDCE",'One Way Test Trend < 0', pval = cumKendallTest(MW131.cDCE,juliandate(MW131.Date),'lt')
```

```
ans =
"cDCE"
ans =
'One Way Test Trend < 0'
pval =
-0.1932
```

```
'Test for Trend DCE11', [H, P_value,Z,StdS]=MKwMiss(MW131.DCE11,0.05,NaN)
```

```
ans =
'Test for Trend DCE11'
H = logical

   0
P_value =
0.7341
Z =
-0.3397
StdS =
2.9439
```

```
"DCE11",'One Way Test Trend < 0', pval = cumKendallTest(MW131.DCE11,juliandate(MW131.Date),'lt')
```

```
ans =
"DCE11"
ans =
'One Way Test Trend < 0'
pval =
-0.3670
```

```
'Test for Trend VC', [H, P_value,Z,StdS]=MKwMiss(MW131.VC,0.05,NaN)
```

```
ans =
'Test for Trend VC'
H = logical

   0
P_value =
1
Z =
0
StdS =
1
```

```
"VC",'One Way Test Trend > 0', pval = cumKendallTest(MW131.VC,juliandate(MW131.Date),'gt')
```

```
ans =
"VC"
ans =
'One Way Test Trend > 0'
pval =
0.5000
```

SSA Trend Analysis

```
% Decompose data into long-term trend, seasonal trends, and remainder
MW131SSA = trenddecomp(MW131(:,["PCE","TCE","cDCE","DCE11","VC"]),"ssa",4, ...
    "NumSeasonal",1);
```

MW-131 Time Series Data Plots

```
figure
t4=tiledlayout('flow');
t4.Padding='compact';
t4.TileSpacing='compact';
nexttile
plot(MW131.Date,MW131.PCE,':','Color','0 0.45 0.74','Marker','o',...
    'MarkerEdgeColor','0 0.45 0.74','MarkerFaceColor','0 0.45 0.74')
axis padded
yscale('log')
title('MW-131 PCE (ug/L)')
xline(datetime(2021,11,01),'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
yline(5,'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
hold
```

```
Current plot held
```

```
plot(MW131.Date,MW131SSA.PCE_LongTerm,'-.','Color','magenta')
legend('','','','LT Trend',Location='southeast',EdgeColor='none',Color='none')
nexttile
plot(MW131.Date,MW131.TCE,':','Color','0.85 0.33 0.1','Marker','o',...
    'MarkerEdgeColor','0.85 0.33 0.1','MarkerFaceColor','0.85 0.33 0.1')
axis padded
yscale('log')
title('MW-131 TCE (ug/L)')
xline(datetime(2021,11,01),'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
yline(5,'-.','LabelVerticalAlignment','bottom',...
```

```
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
hold
```

```
Current plot held
```

```
plot(MW131.Date,MW131SSA.TCE_LongTerm,'-.','Color','magenta');
legend('','','','LT Trend',Location='southeast',EdgeColor='none',Color='none')
nexttile
plot(MW131.Date,MW131.cDCE,':','Color','0.93 0.69 0.13','Marker','o',...
    'MarkerEdgeColor','0.93 0.69 0.13','MarkerFaceColor','0.93 0.69 0.13')
axis padded
yscale('log')
title('MW-131 cDCE (ug/L)')
xline(datetime(2021,11,01),'-.','LabelVerticalAlignment','middle',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
yline(70,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','right','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
hold
```

```
Current plot held
```

```
plot(MW131.Date,MW131SSA.cDCE_LongTerm,'-.','Color','magenta');
legend('','','','LT Trend',Location='south',EdgeColor='none',Color='none')
nexttile
plot(MW131.Date,MW131.DCE11,':','Color','0.47 0.67 0.19','Marker','o',...
    'MarkerEdgeColor','0.47 0.67 0.19','MarkerFaceColor','0.47 0.67 0.19')
axis padded
yscale('log')
title('MW-131 1,1-DCE (ug/L)')
xline(datetime(2021,11,01),'-.','LabelVerticalAlignment','middle',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
yline(7,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','right','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
hold
```

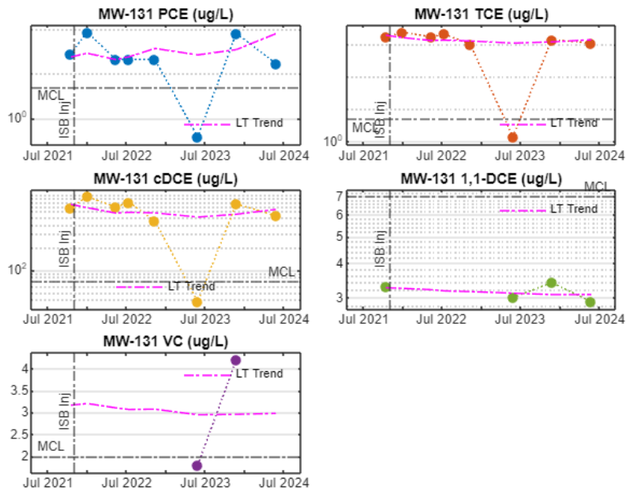
```
Current plot held
```

```
plot(MW131.Date,MW131SSA.DCE11_LongTerm,'-.','Color','magenta');
legend('','','','LT Trend',Location='northeast',EdgeColor='none',Color='none')
nexttile
plot(MW131.Date,MW131.VC,':','Color','0.49 0.18 0.56','Marker','o',...
    'MarkerEdgeColor','0.49 0.18 0.56','MarkerFaceColor','0.49 0.18 0.56')
axis padded
title('MW-131 VC (ug/L)')
xline(datetime(2021,11,01),'-.','LabelVerticalAlignment','middle',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
yline(2,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
```

```
hold
```

```
Current plot held
```

```
plot(MW131.Date,MW131SSA.VC_LongTerm,'-.','Color','magenta');
legend('','','','LT Trend',Location='northeast',EdgeColor='none',Color='none')
```



6.0 MW-237

Exploratory Data Analysis

Data Summary

```
summary(MW237,DataVariables=["Date","PCE","TCE","cDCE","DCE11","VC","TOC"],Statistics="allstats")
```

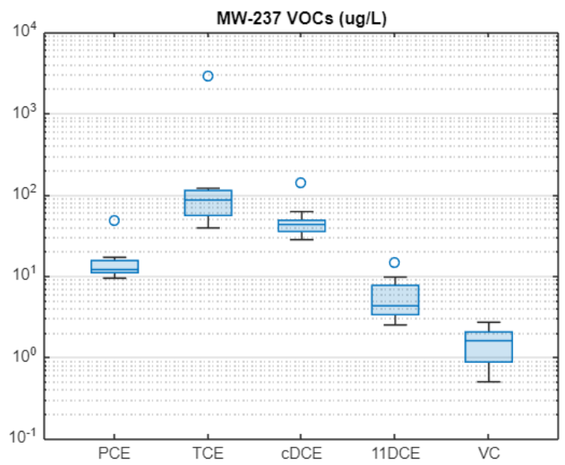
```
MW237: 9×7 table
Variables:
    Date: datetime
    PCE: double
    TCE: double
    cDCE: double
    DCE11: double
    VC: double
    TOC: double
Statistics for applicable variables:
```

	NumMissing	Min	Q1	Median	Q3	Max	Range	Mean	Std	Var	Sum	Mo
Date	0	13-Oct-2021		07-Nov-2022 14:10:00		21-May-2024 10:00:00	22834:00:00	18-Dec-2022 05:17:33	7847:57:47			13-Oc
PCE	0	9.4000	11	12	15.5000	49	39.6000	16.6778	12.3436	152.3644	150.1000	
TCE	0	39	55.5000	86	112.5000	2900	2861	394.6667	939.9230	8.8346e+05	3552	
cDCE	0	28	35.2500	43	48.5000	140	112	51.7778	34.4375	1.1859e+03	466	
DCE11	0	2.5000	3.3500	4.3000	7.6750	15	12.5000	5.9111	4.0974	16.7886	53.2000	
VC	0	0.5000	0.8775	1.6000	2.0500	2.7000	2.2000	1.4900	0.7769	0.6037	13.4100	
TOC	3	0.8600	1	1.2000	1.4000	1.5000	0.6400	1.1933	0.2471	0.0611	7.1600	

```
format compact
```

Distribution

```
figure
boxchart(MW237array)
set(gca, "XGrid", "off", "YGrid", "on")
xticklabels({'PCE','TCE','cDCE','11DCE','VC'})
yscale('log')
title('MW-237 VOCs (ug/L)')
box
```



Normal Distribution Tests

```
'PCE',[h,p,kstat,critval] = lillietest(MW237.PCE,"MCTol",1E+04),
```

```
ans =
'PCE'
h =
1
p =
1.0000e-03
kstat =
0.3785
critval =
0.2703
```

```
'TCE',[h,p,kstat,critval] = lillietest(MW237.TCE,"MCTol",1E+04)
```

```
ans =
'TCE'
h =
1
p =
0
```

```
kstat =
0.5038
critval =
0.2707
```

```
'cDCE', [h,p,kstat,critval] = lillietest(MW237.cDCE,"MCTol",1E+04),
```

```
ans =
'cDCE'
h =
1
p =
0
kstat =
0.3671
critval =
0.2780
```

```
'DCE11', [h,p,kstat,critval] = lillietest(MW237.DCE11,"MCTol",1E+04),
```

```
ans =
'DCE11'
h =
1
p =
0.0490
kstat =
0.2735
critval =
0.2705
```

```
'VC', [h,p,kstat,critval] = lillietest(MW237.VC,"MCTol",1E+04),
```

```
ans =
'VC'
h =
0
p =
0.5490
kstat =
0.1803
critval =
0.2752
```

Outlier Testing

```
'PCE Outliers',isoutlier(MW237.PCE,"quartiles")','TCE Outliers',isoutlier(MW237.TCE,"quartiles")',...
'cDCE Outliers',isoutlier(MW237.cDCE,"quartiles")','cDCE Outliers',isoutlier(MW237.cDCE,"quartiles")',...
'DCE11 Outliers',isoutlier(MW237.DCE11,"quartiles")','VC Outliers',isoutlier(MW237.VC,"quartiles")',
```

```
ans =
'PCE Outliers'
ans = 1×9 logical array
   0   0   0   0   0   0   0   1   0
ans =
'TCE Outliers'
ans = 1×9 logical array
   0   0   0   0   0   1   0   0   0
ans =
'cDCE Outliers'
ans = 1×9 logical array
```

```
   0   0   0   0   0   0   0   1   0
ans =
'cDCE Outliers'
ans = 1×9 logical array
   0   0   0   0   0   0   0   1   0
ans =
'DCE11 Outliers'
ans = 1×9 logical array
   0   0   0   0   0   0   0   1   0
ans =
'VC Outliers'
ans = 1×9 logical array
   0   0   0   0   0   0   0   0   0
```

Coefficient of Variation

Coefficient of variation (CV) of a time series data set is the ratio of standard deviation and mean. CV provides a measure of variability of time series data.

Coefficient of Variation	Variance
<0.50	Low
0.5 to 1.0	Moderate
>1.0	High

```
CVMW237PCE=std(MW237.PCE,'omitmissing')/mean(MW237.PCE,'omitmissing'),...
CVMW237TCE=std(MW237.TCE,'omitmissing')/mean(MW237.TCE,'omitmissing'),...
CVMW237cDCE=std(MW237.cDCE,'omitmissing')/mean(MW237.cDCE,'omitmissing'),...
CVMW237DCE11=std(MW237.DCE11,'omitmissing')/mean(MW237.DCE11,'omitmissing'),...
CVMW237VC=std(MW237.VC,'omitmissing')/mean(MW237.VC,'omitmissing'),
```

```
CVMW237PCE =
0.7401
CVMW237TCE =
2.3816
CVMW237cDCE =
0.6651
CVMW237DCE11 =
0.6932
CVMW237VC =
0.5214
```

Linear Correlation

rho	Correlation
-1.0	Perfect negative
0.0	No correlation
1.0	Perfect positive

pvalue	Significance level of 0.05
=<0.05	Statistically significant

```
'Linear Correlation PCE',[rho,pval] = corr(juliandate(MW237.Date),MW237.PCE,Rows="complete")
```

```
ans =
'Linear Correlation PCE'
rho =
0.3497
pval =
0.3562
```

```
'Linear Correlation TCE',[rho,pval] = corr(juliandate(MW237.Date),MW237.TCE,Rows="complete")
```

```
ans =
'Linear Correlation TCE'
rho =
0.2078
pval =
0.5916
```

```
'Linear Corelation cDCE',[rho,pval] = corr(juliandate(MW237.Date),MW237.cDCE,Rows="complete")
```

```
ans =
'Linear Corelation cDCE'
rho =
0.4991
pval =
0.1714
```

```
'Linear Correlation DCE11',[rho,pval] = corr(juliandate(MW237.Date),MW237.cDCE,Rows="complete")
```

```
ans =
'Linear Correlation DCE11'
rho =
0.4991
pval =
0.1714
```

```
'Linear Correlation VC',[rho,pval] = corr(juliandate(MW237.Date),MW237.VC,Rows="complete")
```

```
ans =
'Linear Correlation VC'
rho =
0.5589
pval =
0.1177
```

Mann-Kendall Trend Tests

```
'Test for Trend PCE', [H, P_value,Z,StdS]=MKwMiss(MW237.PCE,0.05,NaN)
```

```
ans =
'Test for Trend PCE'
H = logical

   0
P_value =
0.8339
Z =
0.2097
```

```
StdS =
9.5394
```

```
"PCE",'One Way Test Trend > 0', pval = cumKendallTest(MW237.PCE,juliandate(MW237.Date),'gt')
```

```
ans =
"PCE"
ans =
'One Way Test Trend > 0'
pval =
0.4170
```

```
'Test for Trend TCE', [H, P_value,Z,StdS]=MKwMiss(MW237.TCE,0.05,NaN)
```

```
ans =
'Test for Trend TCE'
H = logical

   1
P_value =
0.0119
Z =
2.5159
StdS =
9.5394
```

```
"TCE",'One Way Test Trend > 0', pval = cumKendallTest(MW237.TCE,juliandate(MW237.Date),'gt')
```

```
ans =
"TCE"
ans =
'One Way Test Trend > 0'
pval =
0.0059
```

```
'Test for Trend cDCE', [H, P_value,Z,StdS]=MKwMiss(MW237.cDCE,0.05,NaN)
```

```
ans =
'Test for Trend cDCE'
H = logical

   0
P_value =
0.0935
Z =
1.6773
StdS =
9.5394
```

```
"cDCE",'One Way Test Trend > 0', pval = cumKendallTest(MW237.cDCE,juliandate(MW237.Date),'gt')
```

```
ans =
"cDCE"
ans =
'One Way Test Trend > 0'
pval =
0.0467
```

```
'Test for Trend DCE11', [H, P_value,Z,StdS]=MKwMiss(MW237.DCE11,0.05,NaN)
```

```
ans =
'Test for Trend DCE11'
H = logical

   0
P_value =
0.0935
Z =
1.6773
StdS =
9.5394
```

```
"DCE11",'One Way Test Trend < 0', pval = cumKendallTest(MW237.DCE11,juliandate(MW237.Date),'lt')
```

```
ans =
"DCE11"
ans =
'One Way Test Trend < 0'
pval =
0.9704
```

```
'Test for Trend VC', [H, P_value,Z,StdS]=MKwMiss(MW130.VC,0.05,NaN)
```

```
ans =
'Test for Trend VC'
H = logical

   0
P_value =
1
Z =
0
StdS =
8.0829
```

```
"VC",'One Way Test Trend < 0', pval = cumKendallTest(MW237.VC,juliandate(MW237.Date),'lt')
```

```
ans =
"VC"
ans =
'One Way Test Trend < 0'
pval =
0.8958
```

SSA Trend Analysis

```
% Decompose data into long-term trend, seasonal trends, and remainder
MW237SSA = trenddecomp(MW237(:,["PCE","TCE","cDCE","DCE11","VC","TOC"]),"ssa",4, ...
    "NumSeasonal",1);
```

MW-237 Time Series Data Plots

```
figure
t4=tiledlayout('flow');
t4.Padding='compact';
t4.TileSpacing='compact';
nexttile
plot(MW237.Date,MW237.PCE,':','Color','0 0.45 0.74','Marker','o',...
    'MarkerEdgeColor','0 0.45 0.74','MarkerFaceColor','0 0.45 0.74')
axis padded
yscale('log')
title('MW-237 PCE (ug/L)')
xline(datetime(2021,11,01),'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
yline(5,'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
hold
```

```
Current plot held
```

```
plot(MW237.Date,MW237SSA.PCE_LongTerm,'-.','Color','magenta')
legend('','','','LT Trend',Location='southeast',EdgeColor='none',Color='none')
nexttile
plot(MW237.Date,MW237.TCE,':','Color','0.85 0.33 0.1','Marker','o',...
    'MarkerEdgeColor','0.85 0.33 0.1','MarkerFaceColor','0.85 0.33 0.1')
axis padded
yscale('log')
title('MW-237 TCE (ug/L)')
xline(datetime(2021,11,01),'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
yline(5,'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
hold
```

```
Current plot held
```

```
plot(MW237.Date,MW237SSA.TCE_LongTerm,'-.','Color','magenta');
legend('','','','LT Trend',Location='southeast',EdgeColor='none',Color='none')
nexttile
plot(MW130.Date,MW130.cDCE,':','Color','0.93 0.69 0.13','Marker','o',...
    'MarkerEdgeColor','0.93 0.69 0.13','MarkerFaceColor','0.93 0.69 0.13')
axis padded
yscale('log')
title('MW-237 cDCE (ug/L)')
xline(datetime(2021,11,01),'-.','LabelVerticalAlignment','middle',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
yline(70,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','right','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
```

```
hold
```

```
Current plot held
```

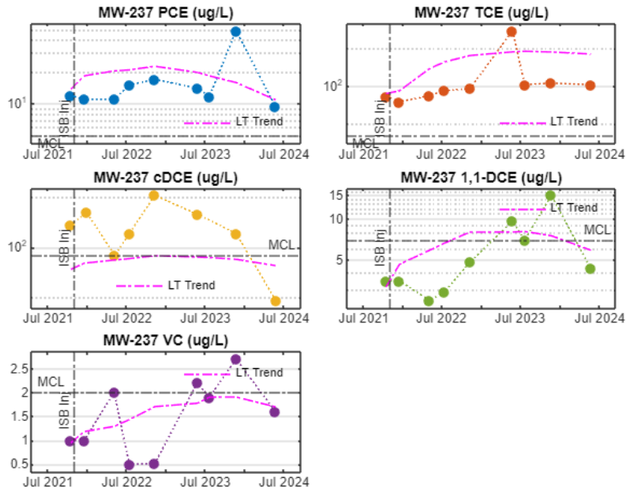
```
plot(MW237.Date,MW237SSA.cDCE_LongTerm,'-.','Color','magenta');
legend('','','','LT Trend',Location='south',EdgeColor='none',Color='none')
nexttile
plot(MW237.Date,MW237.DCE11,':','Color','0.47 0.67 0.19','Marker','o',...
    'MarkerEdgeColor','0.47 0.67 0.19','MarkerFaceColor','0.47 0.67 0.19')
axis padded
yscale('log')
title('MW-237 1,1-DCE (ug/L)')
xline(datetime(2021,11,01),'-.','LabelVerticalAlignment','middle',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
yline(7,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','right','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
hold
```

```
Current plot held
```

```
plot(MW237.Date,MW237SSA.DCE11_LongTerm,'-.','Color','magenta');
legend('','','','LT Trend',Location='northeast',EdgeColor='none',Color='none')
nexttile
plot(MW237.Date,MW237.VC,':','Color','0.49 0.18 0.56','Marker','o',...
    'MarkerEdgeColor','0.49 0.18 0.56','MarkerFaceColor','0.49 0.18 0.56')
axis padded
title('MW-237 VC (ug/L)')
xline(datetime(2021,11,01),'-.','LabelVerticalAlignment','middle',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
yline(2,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
hold
```

```
Current plot held
```

```
plot(MW237.Date,MW237SSA.VC_LongTerm,'-.','Color','magenta');
legend('','','','LT Trend',Location='northeast',EdgeColor='none',Color='none')
```



7.0 MW-238

Exploratory Data Analysis

Data Summary

```
summary(MW238,DataVariables=["Date","PCE","TCE","cDCE","DCE11","VC","TOC"],Statistics="allstats")
format compact
```

Distribution

```
figure
boxchart(MW238array)
set(gca, "XGrid", "off", "YGrid", "on")
xticklabels({'PCE','TCE','cDCE','11DCE','VC'})
yscale('log')
title('MW-238 VOCs (ug/L)')
box
```

Normal Distribution Tests

```
'PCE',[h,p,kstat,critval] = lillietest(MW238.PCE,"MCTol",1E+04),
```

```
ans =
'PCE'
h =
0
p =
0.3090
```

```
kstat =
0.2208
critval =
0.2959
```

```
'TCE',[h,p,kstat,critval] = lillietest(MW238.TCE,"MCTol",1E+04)
```

```
ans =
'TCE'
h =
1
p =
0.0060
kstat =
0.3486
critval =
0.2871
```

```
'cDCE', [h,p,kstat,critval] = lillietest(MW238.cDCE,"MCTol",1E+04),
```

```
ans =
'cDCE'
h =
0
p =
0.2650
kstat =
0.2267
critval =
0.2979
```

```
'DCE11', [h,p,kstat,critval] = lillietest(MW238.DCE11,"MCTol",1E+04),
```

```
ans =
'DCE11'
```

```
'VC', [h,p,kstat,critval] = lillietest(MW238.VC,"MCTol",1E+04),
```

```
ans =
'VC'
```

Outlier Testing

```
'PCE Outliers',isoutlier(MW238.PCE,"quartiles")','TCE Outliers',isoutlier(MW238.TCE,"quartiles")',...
'cDCE Outliers',isoutlier(MW238.cDCE,"quartiles")','cDCE Outliers',isoutlier(MW238.cDCE,"quartiles")',...
'DCE11 Outliers',isoutlier(MW238.DCE11,"quartiles")','VC Outliers',isoutlier(MW238.VC,"quartiles")',
```

```
ans =
'PCE Outliers'
ans = 1×8 logical array
   0   0   0   0   0   0   0   0
ans =
'TCE Outliers'
ans = 1×8 logical array
   0   0   0   0   0   0   0   0
ans =
'cDCE Outliers'
ans = 1×8 logical array
   0   0   0   0   0   0   0   0
ans =
```

```
'cDCE Outliers'
ans = 1×8 logical array
   0   0   0   0   0   0   0   0
ans =
'DCE11 Outliers'
ans = 1×8 logical array
   0   0   0   0   0   0   0   0
ans =
'VC Outliers'
ans = 1×8 logical array
   0   0   0   0   0   0   0   0
```

Coefficient of Variation

Coefficient of variation (CV) of a time series data set is the ratio of standard deviation and mean. CV provides a measure of variability of time series data.

Coefficient of Variation	Variance
<0.50	Low
0.5 to 1.0	Moderate
>1.0	High

```
CVMW238PCE=std(MW238.PCE,'omitmissing')/mean(MW238.PCE,'omitmissing'),...
CVMW238TCE=std(MW238.TCE,'omitmissing')/mean(MW238.TCE,'omitmissing'),...
CVMW238cDCE=std(MW238.cDCE,'omitmissing')/mean(MW238.cDCE,'omitmissing'),...
CVMW238DCE11=std(MW238.DCE11,'omitmissing')/mean(MW238.DCE11,'omitmissing'),...
CVMW238VC=std(MW238.VC,'omitmissing')/mean(MW238.VC,'omitmissing'),
```

```
CVMW238PCE =
0.9657
CVMW238TCE =
0.9291
CVMW238cDCE =
0.6028
CVMW238DCE11 =
0.2128
CVMW238VC =
0.8357
```

Linear Correlation

rho	Correlation
-1.0	Perfect negative
0.0	No correlation
1.0	Perfect positive

pvalue	Significance level of 0.05
=<0.05	Statistically significant

```
'Linear Correlation PCE',[rho,pval] = corr(juliandate(MW238.Date),MW238.PCE,Rows="complete")
```

```
ans =
'Linear Correlation PCE'
rho =
0.9010
pval =
0.0022
```

```
'Linear Correlation TCE',[rho,pval] = corr(juliandate(MW238.Date),MW238.TCE,Rows="complete")
```

```
ans =
'Linear Correlation TCE'
rho =
0.8813
pval =
0.0038
```

```
'Linear Correlation cDCE',[rho,pval] = corr(juliandate(MW238.Date),MW238.cDCE,Rows="complete")
```

```
ans =
'Linear Correlation cDCE'
rho =
-0.7022
pval =
0.0522
```

```
'Linear Correlation DCE11',[rho,pval] = corr(juliandate(MW238.Date),MW238.cDCE,Rows="complete")
```

```
ans =
'Linear Correlation DCE11'
rho =
-0.7022
pval =
0.0522
```

```
'Linear Correlation VC',[rho,pval] = corr(juliandate(MW238.Date),MW238.VC,Rows="complete")
```

```
ans =
'Linear Correlation VC'
rho =
1
pval =
NaN
```

Mann-Kendall Trend Tests

```
'Test for Trend PCE', [H, P_value,Z,StdS]=MKwMiss(MW238.PCE,0.05,NaN)
```

```
ans =
'Test for Trend PCE'
H = logical

   1
P_value =
0.0187
Z =
2.3506
StdS =
8.0829
```

```
"PCE",'One Way Test Trend > 0', pval = cumKendallTest(MW238.PCE,juliandate(MW238.Date),'gt')
```

```
ans =
"PCE"
ans =
'One Way Test Trend > 0'
pval =
0.0094
```

```
'Test for Trend TCE', [H, P_value,Z,StdS]=MKwMiss(MW238.TCE,0.05,NaN)
```

```
ans =
'Test for Trend TCE'
H = logical

   1
P_value =
0.0354
Z =
2.1032
StdS =
8.0829
```

```
"TCE",'One Way Test Trend > 0', pval = cumKendallTest(MW238.TCE,juliandate(MW238.Date),'gt')
```

```
ans =
"TCE"
ans =
'One Way Test Trend > 0'
pval =
0.0177
```

```
'Test for Trend cDCE', [H, P_value,Z,StdS]=MKwMiss(MW238.cDCE,0.05,NaN)
```

```
ans =
'Test for Trend cDCE'
H = logical

   0
P_value =
0.2655
Z =
-1.1135
StdS =
8.0829
```

```
"cDCE",'One Way Test Trend < 0', pval = cumKendallTest(MW130.cDCE,juliandate(MW130.Date),'lt')
```

```
ans =
"cDCE"
ans =
'One Way Test Trend < 0'
pval =
-0.2272
```

```
'Test for Trend DCE11', [H, P_value,Z,StdS]=MKwMiss(MW130.DCE11,0.05,NaN)
```

```
ans =
```

```
'Test for Trend DCE11'
H = logical

   0
P_value =
0.5362
Z =
-0.6186
StdS =
8.0829
```

```
"DCE11",'One Way Test Trend < 0', pval = cumKendallTest(MW238.DCE11,juliandate(MW238.Date),'lt')
```

```
ans =
"DCE11"
ans =
'One Way Test Trend < 0'
pval =
-0.5000
```

```
'Test for Trend VC', [H, P_value,Z,StdS]=MKwMiss(MW130.VC,0.05,NaN)
```

```
ans =
'Test for Trend VC'
H = logical

   0
P_value =
1
Z =
0
StdS =
8.0829
```

```
"VC",'One Way Test Trend > 0', pval = cumKendallTest(MW238.VC,juliandate(MW238.Date),'gt')
```

```
ans =
"VC"
ans =
'One Way Test Trend > 0'
pval =
0.5000
```

SSA Trend Analysis

```
% Decompose data into long-term trend, seasonal trends, and remainder
MW238SSA = trenddecomp(MW238(:,["PCE","TCE","cDCE","DCE11","VC","TOC"]),"ssa",4, ...
    "NumSeasonal",1);
```

MW-238 Time Series Data Plots

```
figure
```

```
t5=tiledlayout('flow');
t5.Padding='compact';
t5.TileSpacing='compact';
nexttile
plot(MW238.Date,MW238.PCE,':','Color','0 0.45 0.74','Marker','o',...
    'MarkerEdgeColor','0 0.45 0.74','MarkerFaceColor','0 0.45 0.74')
axis padded
yscale('log')
title('MW-238 PCE (ug/L)')
xline(datetime(2021,11,01),'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
yline(5,'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
hold
```

```
Current plot held
```

```
plot(MW238.Date,MW238SSA.PCE_LongTerm,'-.','Color','magenta')
legend('','','','LT Trend',Location='southeast',EdgeColor='none',Color='none')
nexttile
plot(MW238.Date,MW238.TCE,':','Color','0.85 0.33 0.1','Marker','o',...
    'MarkerEdgeColor','0.85 0.33 0.1','MarkerFaceColor','0.85 0.33 0.1')
axis padded
yscale('log')
title('MW-248 TCE (ug/L)')
xline(datetime(2021,11,01),'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
yline(5,'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
hold
```

```
Current plot held
```

```
plot(MW238.Date,MW238SSA.TCE_LongTerm,'-.','Color','magenta');
legend('','','','LT Trend',Location='southeast',EdgeColor='none',Color='none')
nexttile
plot(MW238.Date,MW238.cDCE,':','Color','0.93 0.69 0.13','Marker','o',...
    'MarkerEdgeColor','0.93 0.69 0.13','MarkerFaceColor','0.93 0.69 0.13')
axis padded
yscale('log')
title('MW-238 cDCE (ug/L)')
xline(datetime(2021,11,01),'-.','LabelVerticalAlignment','middle',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
yline(70,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','right','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
hold
```

```
Current plot held
```

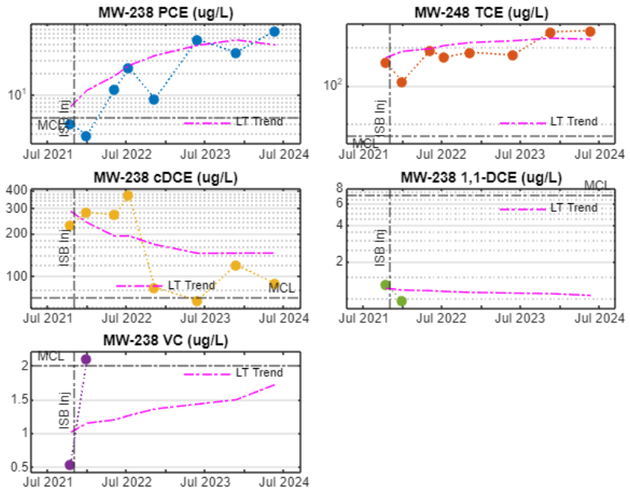
```
plot(MW238.Date,MW238SSA.cDCE_LongTerm,'-.','Color','magenta');
legend('','','','LT Trend',Location='south',EdgeColor='none',Color='none')
nexttile
plot(MW238.Date,MW238.DCE11,':','Color','0.47 0.67 0.19','Marker','o',...
    'MarkerEdgeColor','0.47 0.67 0.19','MarkerFaceColor','0.47 0.67 0.19')
axis padded
yscale('log')
title('MW-238 1,1-DCE (ug/L)')
xline(datetime(2021,11,01),'-.','LabelVerticalAlignment','middle',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
yline(7,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','right','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
hold
```

```
Current plot held
```

```
plot(MW238.Date,MW238SSA.DCE11_LongTerm,'-.','Color','magenta');
legend('','','','LT Trend',Location='northeast',EdgeColor='none',Color='none')
nexttile
plot(MW238.Date,MW238.VC,':','Color','0.49 0.18 0.56','Marker','o',...
    'MarkerEdgeColor','0.49 0.18 0.56','MarkerFaceColor','0.49 0.18 0.56')
axis padded
title('MW-238 VC (ug/L)')
xline(datetime(2021,11,01),'-.','LabelVerticalAlignment','middle',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
yline(2,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
hold
```

```
Current plot held
```

```
plot(MW238.Date,MW238SSA.VC_LongTerm,'-.','Color','magenta');
legend('','','','LT Trend',Location='northeast',EdgeColor='none',Color='none')
```



8.0 MW-239

Exploratory Data Analysis

Data Summary

```
summary(MW239,DataVariables=["Date","PCE","TCE","cDCE","DCE11","VC","TOC"],Statistics="allstats")
```

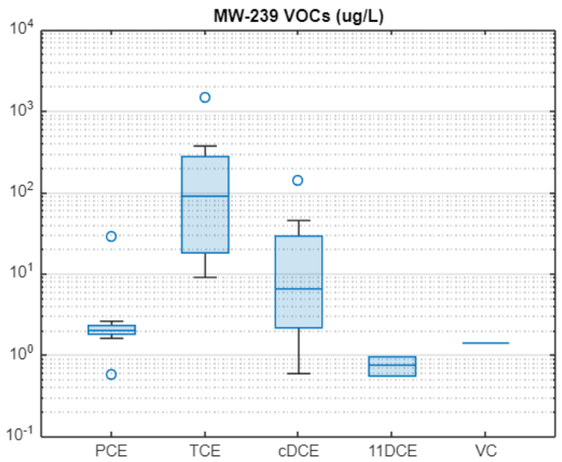
```
MW239: 8×7 table
Variables:
    Date: datetime
    PCE: double
    TCE: double
    cDCE: double
    DCE11: double
    VC: double
    TOC: double
Statistics for applicable variables:
            NumMissing          Min          Q1              Median              Q3              Max              Range              Mean              Std              Var              Sum              Mode
    Date         0      13-Oct-2021                 09-Sep-2022 12:52:30                 21-May-2024 11:30:00      22835:30:00      23-Nov-2022 07:31:30      8090:27:22                                                    13-Oct-2
    PCE          0           0.5800      1.8000                    2          2.3000                   29           28.4200           5.2225           9.6248          92.6372          41.7800
    TCE          0                9           18                 89.5000          275                 1500             1491           284.2500          506.1117      2.5615e+05             2274
    cDCE         0           0.5900      2.1550                  6.5000           29                  140           139.4100          26.9875          47.9071      2.2951e+03          215.9000          0.5
    DCE11        6           0.5500      0.5500                  0.7500       0.9500                0.9500          0.4000           0.7500           0.2828          0.0800          1.5000          0.5
    VC           7           1.4000      1.4000                  1.4000       1.4000                1.4000               0           1.4000                0               0          1.4000          1.4
    TOC          1           0.5800      0.6375                  0.7200       0.9725                   150          149.4200          22.0743          56.4101      3.1821e+03          154.5200          0.7
```

```
format compact
```

Distribution

```
figure
```

```
boxchart(MW239array)
set(gca, "XGrid", "off", "YGrid", "on")
xticklabels({'PCE','TCE','cDCE','11DCE','VC'})
yscale('log')
title('MW-239 VOCs (ug/L)')
box
```



Normal Distribution Tests

```
'PCE',[h,p,kstat,critval] = lillietest(MW239.PCE,"MCTol",1E+04),
```

```
ans =
'PCE'
h =
1
p =
0
kstat =
0.4824
critval =
0.2918
```

```
'TCE',[h,p,kstat,critval] = lillietest(MW239.TCE,"MCTol",1E+04)
```

```
ans =
'TCE'
h =
1
p =
0.0110
kstat =
0.3316
critval =
0.2885
```

```
'cDCE', [h,p,kstat,critval] = lillietest(MW239.cDCE,"MCTol",1E+04),
```

```
ans =
'cDCE'
h =
1
p =
1.0000e-03
kstat =
0.3648
critval =
0.2870
```

```
'DCE11', [h,p,kstat,critval] = lillietest(MW239.DCE11,"MCTol",1E+04),
```

```
ans =
'DCE11'
```

```
'VC', [h,p,kstat,critval] = lillietest(MW239.VC,"MCTol",1E+04),
```

```
ans =
'VC'
```

Outlier Testing

```
'PCE Outliers',isoutlier(MW239.PCE,"quartiles")','TCE Outliers',isoutlier(MW239.TCE,"quartiles")',...
'cDCE Outliers',isoutlier(MW239.cDCE,"quartiles")','cDCE Outliers',isoutlier(MW239.cDCE,"quartiles")',...
'DCE11 Outliers',isoutlier(MW239.cDCE,"quartiles")','VC',isoutlier(MW239.VC,"quartiles")',
```

```
ans =
'PCE Outliers'
ans = 1×8 logical array
   0   0   0   0   0   1   0   1
ans =
'TCE Outliers'
ans = 1×8 logical array
   0   0   0   0   0   0   0   1
ans =
'cDCE Outliers'
ans = 1×8 logical array
   0   0   0   0   1   0   0   0
ans =
'cDCE Outliers'
ans = 1×8 logical array
   0   0   0   0   1   0   0   0
ans =
'DCE11 Outliers'
ans = 1×8 logical array
   0   0   0   0   1   0   0   0
ans =
'VC'
ans = 1×8 logical array
   0   0   0   0   0   0   0   0
```

Coefficient of Variation

Coefficient of variation (CV) of a time series data set is the ratio of standard deviation and mean. CV provides a measure of variability of time series data.

Coefficient of Variation	Variance
<0.50	Low

0.5 to 1.0	Moderate
>1.0	High

```
CVM2239PCE=std(MW239.PCE,'omitmissing')/mean(MW239.PCE,'omitmissing'),...
CVMW239TCE=std(MW239.TCE,'omitmissing')/mean(MW239.TCE,'omitmissing'),...
CVMW239cDCE=std(MW239.cDCE,'omitmissing')/mean(MW239.cDCE,'omitmissing'),...
CVMW239DCE11=std(MW239.DCE11,'omitmissing')/mean(MW239.DCE11,'omitmissing'),...
CVMW239VC=std(MW239.VC,'omitmissing')/mean(MW239.VC,'omitmissing'),
```

```
CVM2239PCE =
1.8430
CVMW239TCE =
1.7805
CVMW239cDCE =
1.7752
CVMW239DCE11 =
0.3771
CVMW239VC =
0
```

Linear Correlation

rho	Correlation
-1.0	Perfect negative
0.0	No correlation
1.0	Perfect positive

pvalue	Significance level of 0.05
=<0.05	Statistically significant

```
'Linear Correlation PCE',[rho,pval] = corr(juliandate(MW239.Date),MW239.PCE,Rows="complete")
```

```
ans =
'Linear Correlation PCE'
rho =
0.6421
pval =
0.0860
```

```
'Linear Correlation TCE',[rho,pval] = corr(juliandate(MW239.Date),MW239.TCE,Rows="complete")
```

```
ans =
'Linear Correlation TCE'
rho =
0.6552
pval =
0.0778
```

```
'Linear Correlation cDCE',[rho,pval] = corr(juliandate(MW239.Date),MW239.cDCE,Rows="complete")
```

```
ans =
'Linear Correlation cDCE'
rho =
0.1846
pval =
0.6616
```

```
'Linear Correlation DCE11',[rho,pval] = corr(juliandate(MW239.Date),MW239.cDCE,Rows="complete")
```

```
ans =
'Linear Correlation DCE11'
rho =
0.1846
pval =
0.6616
```

```
'Linear Correlation VC',[rho,pval] = corr(juliandate(MW239.Date),MW239.VC,Rows="complete")
```

```
ans =
'Linear Correlation VC'
rho =
NaN
pval =
NaN
```

Mann-Kendall Trend Tests

```
'Test for Trend PCE', [H, P_value,Z,StdS]=MKwMiss(MW239.PCE,0.05,NaN)
```

```
ans =
'Test for Trend PCE'
H = logical

   0
P_value =
0.3524
Z =
0.9299
StdS =
7.5277
```

```
"PCE",'One Way Test Trend > 0', pval = cumKendallTest(MW239.PCE,juliandate(MW239.Date),'gt')
```

```
ans =
"PCE"
ans =
'One Way Test Trend > 0'
pval =
0.1762
```

```
'Test for Trend TCE', [H, P_value,Z,StdS]=MKwMiss(MW239.TCE,0.05,NaN)
```

```
ans =
'Test for Trend TCE'
H = logical

   0
P_value =
0.3865
```

```
Z =
0.8660
StdS =
8.0829
```

```
"TCE",'One Way Test Trend > 0', pval = cumKendallTest(MW239.TCE,juliandate(MW239.Date),'gt')
```

```
ans =
"TCE"
ans =
'One Way Test Trend > 0'
pval =
0.1932
```

```
'Test for Trend cDCE', [H, P_value,Z,StdS]=MKwMiss(MW239.cDCE,0.05,NaN)
```

```
ans =
'Test for Trend cDCE'
H = logical

   0
P_value =
0.1735
Z =
1.3609
StdS =
8.0829
```

```
"cDCE",'One Way Test Trend > 0', pval = cumKendallTest(MW239.cDCE,juliandate(MW239.Date),'gt')
```

```
ans =
"cDCE"
ans =
'One Way Test Trend > 0'
pval =
0.0868
```

```
'Test for Trend DCE11', [H, P_value,Z,StdS]=MKwMiss(MW239.DCE11,0.05,NaN)
```

```
ans =
'Test for Trend DCE11'
H = logical

   0
P_value =
1
Z =
0
StdS =
1
```

```
"DCE11",'One Way Test Trend < 0', pval = cumKendallTest(MW239.DCE11,juliandate(MW239.Date),'lt')
```

```
ans =
"DCE11"
ans =
'One Way Test Trend < 0'
pval =
0.9772
```

```
'Test for Trend VC', [H, P_value,Z,StdS]=MKwMiss(MW239.VC,0.05,NaN)
```

```
ans =
'Test for Trend VC'
```

```
"VC",'One Way Test Trend < 0', pval = cumKendallTest(MW239.VC,juliandate(MW239.Date),'lt')
```

SSA Trend Analysis

```
% Decompose data into long-term trend, seasonal trends, and remainder
MW239SSA = trenddecomp(MW239(:,["PCE","TCE","cDCE","DCE11","VC","TOC"]),"ssa",4, ...
    "NumSeasonal",1);
```

MW-239 Time Series Data Plots

```
figure
t6=tiledlayout('flow');
t6.Padding='compact';
t6.TileSpacing='compact';
nexttile
plot(MW239.Date,MW239.PCE,':','Color','0 0.45 0.74','Marker','o',...
    'MarkerEdgeColor','0 0.45 0.74','MarkerFaceColor','0 0.45 0.74')
axis padded
yscale('log')
title('MW-239 PCE (ug/L)')
xline(datetime(2021,11,01),'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
yline(5,'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
hold
```

```
Current plot held
```

```
plot(MW239.Date,MW239SSA.PCE_LongTerm,'-.','Color','magenta');
legend('','','','LT Trend',Location='northeast',EdgeColor='none',Color='none')
nexttile
plot(MW239.Date,MW239.TCE,':','Color','0.85 0.33 0.1','Marker','o',...
    'MarkerEdgeColor','0.85 0.33 0.1','MarkerFaceColor','0.85 0.33 0.1')
axis padded
yscale('log')
title('MW-239 TCE (ug/L)')
xline(datetime(2021,11,01),'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
yline(5,'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
```

```
hold
```

```
Current plot held
```

```
plot(MW239.Date,MW239SSA.TCE_LongTerm,'-.','Color','magenta');
legend('','','','LT Trend',Location='northeast',EdgeColor='none',Color='none')
nexttile
plot(MW126.Date,MW126.cDCE,':','Color','0.93 0.69 0.13','Marker','o',...
    'MarkerEdgeColor','0.93 0.69 0.13','MarkerFaceColor','0.93 0.69 0.13')
axis padded
yscale('log')
title('MW-239 cDCE (ug/L)')
xline(datetime(2021,11,01),'-.','LabelVerticalAlignment','middle',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
yline(70,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','right','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
hold
```

```
Current plot held
```

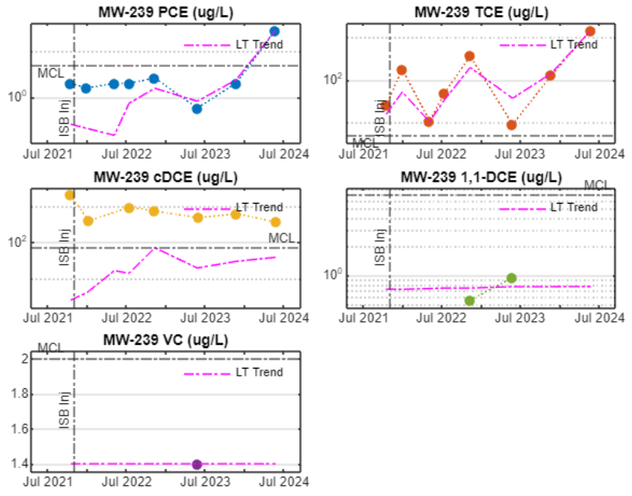
```
plot(MW239.Date,MW239SSA.cDCE_LongTerm,'-.','Color','magenta');
legend('','','','LT Trend',Location='northeast',EdgeColor='none',Color='none')
nexttile
plot(MW239.Date,MW239.DCE11,':','Color','0.47 0.67 0.19','Marker','o',...
    'MarkerEdgeColor','0.47 0.67 0.19','MarkerFaceColor','0.47 0.67 0.19')
axis padded
yscale('log')
title('MW-239 1,1-DCE (ug/L)')
xline(datetime(2021,11,01),'-.','LabelVerticalAlignment','middle',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
yline(7,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','right','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
hold
```

```
Current plot held
```

```
plot(MW239.Date,MW239SSA.DCE11_LongTerm,'-.','Color','magenta');
legend('','','','LT Trend',Location='northeast',EdgeColor='none',Color='none')
nexttile
plot(MW239.Date,MW239.VC,':','Color','0.49 0.18 0.56','Marker','o',...
    'MarkerEdgeColor','0.49 0.18 0.56','MarkerFaceColor','0.49 0.18 0.56')
axis padded
title('MW-239 VC (ug/L)')
xline(datetime(2021,11,01),'-.','LabelVerticalAlignment','middle',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
yline(2,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
hold
```

```
Current plot held
```

```
plot(MW239.Date,MW239SSA.VC_LongTerm,'-.','Color','magenta');
legend('','','','LT Trend',Location='northeast',EdgeColor='none',Color='none')
```



10.0 MW-240

Exploratory Data Analysis

Data Summary

```
summary(MW240,DataVariables=["Date","PCE","TCE","cDCE","DCE11","VC","TOC"],Statistics="allstats")
```

```
MW240: 8×7 table
Variables:
    Date: datetime
    PCE: double
    TCE: double
    cDCE: double
    DCE11: double
    VC: double
    TOC: double
Statistics for applicable variables:
            NumMissing          Min              Q1              Median              Q3              Max                 Range          Mean              Std             Var             Sum
    Date         0      13-Oct-2021                  09-Sep-2022 12:33:00                21-May-2024 13:10:00   22837:10:00   23-Nov-2022 19:06:22   8091:37:17                                      13-
    PCE          0           5.1000          7.5750            11.3500          128.8000             1000          994.9000          162.5687          343.4193    1.1794e+05      1.3005e+03
    TCE          0               10          50.5000              200               335             7500              7490      1.0851e+03      2.5952e+03    6.7352e+06            8681
    cDCE         0               84              325             1155              2500             5400              5316      1.6805e+03      1.8085e+03       3270602           13444
    DCE11        4           3.7000          4.0500            5.2000                 9               12            8.3000            6.5250          3.7748       14.2492         26.1000
    VC           0                1          5.9000           34.5000                72              300               299           65.7250         98.9157    9.7843e+03        525.8000
    TOC          1               85             210               430               480              520               435          350.7143         166.5940    2.7754e+04            2455
```

```
format compact
```

Distribution

```
figure
boxchart(MW240array)
set(gca, "XGrid", "off", "YGrid", "on")
xticklabels({'PCE','TCE','cDCE','11DCE','VC'})
yscale('log')
title('MW-126 VOCs (ug/L)')
box
```

Normal Distribution Tests

```
'PCE',[h,p,kstat,critval] = lillietest(MW240.PCE,"MCTol",1E+04),
```

```
ans =
'PCE'
h =
1
p =
0.0020
kstat =
0.3664
critval =
0.2870
```

```
'TCE',[h,p,kstat,critval] = lillietest(MW240.TCE,"MCTol",1E+04)
```

```
ans =
'TCE'
h =
1
p =
0
kstat =
0.4880
critval =
0.2863
```

```
'cDCE', [h,p,kstat,critval] = lillietest(MW240.cDCE,"MCTol",1E+04),
```

```
ans =
'cDCE'
h =
0
p =
0.2720
kstat =
0.2231
critval =
0.2828
```

```
'DCE11', [h,p,kstat,critval] = lillietest(MW240.DCE11,"MCTol",1E+04),
```

```
ans =
'DCE11'
h =
0
p =
0.1800
kstat =
```

```
0.3053
critval =
0.3733
```

```
'VC', [h,p,kstat,critval] = lillietest(MW240.VC,"MCTol",1E+04),
```

```
ans =
'VC'
h =
1
p =
0.0160
kstat =
0.3176
critval =
0.2809
```

Outlier Testing

```
'PCE Outliers',isoutlier(MW240.PCE,"quartiles")','TCE Outliers',isoutlier(MW240.TCE,"quartiles")',...
'cDCE Outliers',isoutlier(MW240.cDCE,"quartiles")','cDCE Outliers',isoutlier(MW240.cDCE,"quartiles")',...
'DCE11 Outliers',isoutlier(MW240.cDCE,"quartiles")','VC',isoutlier(MW240.VC,"quartiles")',
```

```
ans =
'PCE Outliers'
ans = 1×8 logical array
   1   0   0   0   0   0   0   0
ans =
'TCE Outliers'
ans = 1×8 logical array
   1   0   0   0   0   0   0   0
ans =
'cDCE Outliers'
ans = 1×8 logical array
   0   0   0   0   0   0   0   0
ans =
'cDCE Outliers'
ans = 1×8 logical array
   0   0   0   0   0   0   0   0
ans =
'DCE11 Outliers'
ans = 1×8 logical array
   0   0   0   0   0   0   0   0
ans =
'VC'
ans = 1×8 logical array
   0   0   0   0   0   0   1   0
```

Coefficient of Variation

Coefficient of variation (CV) of a time series data set is the ratio of standard deviation and mean. CV provides a measure of variability of time series data.

Coefficient of Variation	Variance
<0.50	Low
0.5 to 1.0	Moderate
>1.0	High

```
CVMW240PCE=std(MW240.PCE,'omitmissing')/mean(MW240.PCE,'omitmissing'),...
CVMW240TCE=std(MW240.TCE,'omitmissing')/mean(MW240.TCE,'omitmissing'),...
CVMW240cDCE=std(MW240.cDCE,'omitmissing')/mean(MW240.cDCE,'omitmissing'),...
CVMW240DCE11=std(MW240.DCE11,'omitmissing')/mean(MW240.DCE11,'omitmissing'),...
CVMW240VC=std(MW240.VC,'omitmissing')/mean(MW240.VC,'omitmissing'),
```

```
CVMW240PCE =
2.1125
CVMW240TCE =
2.3916
CVMW240cDCE =
1.0762
CVMW240DCE11 =
0.5785
CVMW240VC =
1.5050
```

Linear Correlation

rho	Correlation
-1.0	Perfect negative
0.0	No correlation
1.0	Perfect positive

pvalue	Significance level of 0.05
=<0.05	Statistically significant

```
'Linear Correlation PCE',[rho,pval] = corr(juliandate(MW240.Date),MW240.PCE,Rows="complete")
```

```
ans =
'Linear Correlation PCE'
rho =
-0.4118
pval =
0.3107
```

```
'Linear Correlation TCE',[rho,pval] = corr(juliandate(MW240.Date),MW240.TCE,Rows="complete")
```

```
ans =
'Linear Correlation TCE'
rho =
-0.5136
pval =
0.1930
```

```
'Linear Correlation cDCE',[rho,pval] = corr(juliandate(MW240.Date),MW240.cDCE,Rows="complete")
```

```
ans =
'Linear Correlation cDCE'
rho =
```

```
0.2865
pval =
0.4914
```

```
'Linear Correlation DCE11',[rho,pval] = corr(juliandate(MW240.Date),MW240.cDCE,Rows="complete")
```

```
ans =
'Linear Correlation DCE11'
rho =
0.2865
pval =
0.4914
```

```
'Linear Correlation VC',[rho,pval] = corr(juliandate(MW240.Date),MW240.VC,Rows="complete")
```

```
ans =
'Linear Correlation VC'
rho =
0.6701
pval =
0.0690
```

Mann-Kendall Trend Tests

```
'Test for Trend PCE', [H, P_value,Z,StdS]=MKwMiss(MW240.PCE,0.05,NaN)
```

```
ans =
'Test for Trend PCE'
H = logical

   0
P_value =
0.5362
Z =
-0.6186
StdS =
8.0829
```

```
"PCE",'One Way Test Trend < 0', pval = cumKendallTest(MW240.PCE,juliandate(MW240.Date),'lt')
```

```
ans =
"PCE"
ans =
'One Way Test Trend < 0'
pval =
-0.2681
```

```
'Test for Trend TCE', [H, P_value,Z,StdS]=MKwMiss(MW240.TCE,0.05,NaN)
```

```
ans =
'Test for Trend TCE'
H = logical

   0
P_value =
0.1078
Z =
-1.6083
StdS =
```

```
8.0829
```

```
"TCE",'One Way Test Trend < 0', pval = cumKendallTest(MW240.TCE,juliandate(MW240.Date),'lt')
```

```
ans =
"TCE"
ans =
'One Way Test Trend < 0'
pval =
-0.0539
```

```
'Test for Trend cDCE', [H, P_value,Z,StdS]=MKwMiss(MW240.cDCE,0.05,NaN)
```

```
ans =
'Test for Trend cDCE'
H = logical

   0
P_value =
0.3865
Z =
0.8660
StdS =
8.0829
```

```
"cDCE",'One Way Test Trend > 0', pval = cumKendallTest(MW240.cDCE,juliandate(MW240.Date),'gt')
```

```
ans =
"cDCE"
ans =
'One Way Test Trend > 0'
pval =
0.1932
```

```
'Test for Trend DCE11', [H, P_value,Z,StdS]=MKwMiss(MW240.DCE11,0.05,NaN)
```

```
ans =
'Test for Trend DCE11'
H = logical

   0
P_value =
0.0894
Z =
1.6984
StdS =
2.9439
```

```
"DCE11",'One Way Test Trend > 0', pval = cumKendallTest(MW240.DCE11,juliandate(MW240.Date),'gt')
```

```
ans =
"DCE11"
ans =
'One Way Test Trend > 0'
pval =
0.0447
```

```
'Test for Trend VC', [H, P_value,Z,StdS]=MKwMiss(MW240.VC,0.05,NaN)
```

```
ans =
'Test for Trend VC'
H = logical

   1
P_value =
0.0020
Z =
3.0929
StdS =
8.0829
```

```
"VC",'One Way Test Trend > 0', pval = cumKendallTest(MW240.VC,juliandate(MW240.Date),'gt')
```

```
ans =
"VC"
ans =
'One Way Test Trend > 0'
pval =
9.9089e-04
```

SSA Trend Analysis

```
% Decompose data into long-term trend, seasonal trends, and remainder
MW240SSA = trenddecomp(MW240(:,["PCE","TCE","cDCE","DCE11","VC","TOC"]),"ssa",4, ...
    "NumSeasonal",1);
```

MW-240 Time Series Data Plots

```
figure
t7=tiledlayout('flow');
t7.Padding='compact';
t7.TileSpacing='compact';
nexttile
plot(MW240.Date,MW240.PCE,':','Color','0 0.45 0.74','Marker','o',...
    'MarkerEdgeColor','0 0.45 0.74','MarkerFaceColor','0 0.45 0.74')
axis padded
yscale('log')
title('MW-240 PCE (ug/L)')
xline(datetime(2021,11,01),'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
yline(5,'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
hold
```

```
Current plot held
```

```
plot(MW240.Date,MW240SSA.PCE_LongTerm,'-.','Color','magenta');
legend('','','','LT Trend',Location='northeast',EdgeColor='none',Color='none')
nexttile
```

```
plot(MW240.Date,MW240.TCE,':','Color','0.85 0.33 0.1','Marker','o',...
    'MarkerEdgeColor','0.85 0.33 0.1','MarkerFaceColor','0.85 0.33 0.1')
axis padded
yscale('log')
title('MW-240 TCE (ug/L)')
xline(datetime(2021,11,01),'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
yline(5,'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
hold
```

```
Current plot held
```

```
plot(MW240.Date,MW240SSA.TCE_LongTerm,'-.','Color','magenta');
legend('','','','LT Trend',Location='northeast',EdgeColor='none',Color='none')
nexttile
plot(MW240.Date,MW240.cDCE,':','Color','0.93 0.69 0.13','Marker','o',...
    'MarkerEdgeColor','0.93 0.69 0.13','MarkerFaceColor','0.93 0.69 0.13')
axis padded
yscale('log')
title('MW-240 cDCE (ug/L)')
xline(datetime(2021,11,01),'-.','LabelVerticalAlignment','middle',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
yline(70,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','right','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
hold
```

```
Current plot held
```

```
plot(MW240.Date,MW240SSA.cDCE_LongTerm,'-.','Color','magenta');
legend('','','','LT Trend',Location='northeast',EdgeColor='none',Color='none')
nexttile
plot(MW240.Date,MW240.DCE11,':','Color','0.47 0.67 0.19','Marker','o',...
    'MarkerEdgeColor','0.47 0.67 0.19','MarkerFaceColor','0.47 0.67 0.19')
axis padded
yscale('log')
title('MW-240 1,1-DCE (ug/L)')
xline(datetime(2021,11,01),'-.','LabelVerticalAlignment','middle',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
yline(7,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','right','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
hold
```

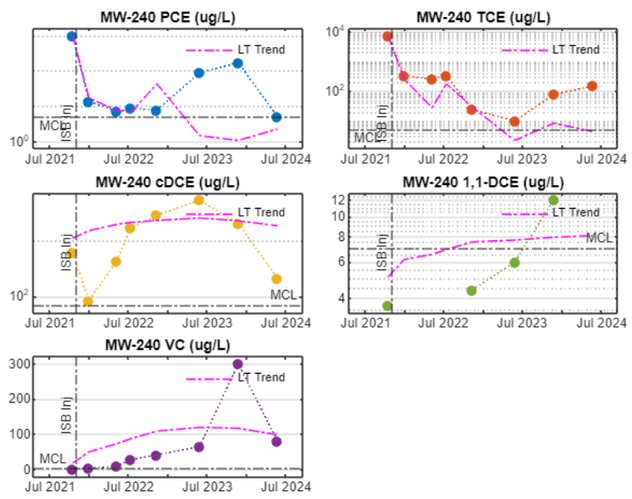
```
Current plot held
```

```
plot(MW240.Date,MW240SSA.DCE11_LongTerm,'-.','Color','magenta');
legend('','','','LT Trend',Location='northeast',EdgeColor='none',Color='none')
nexttile
plot(MW240.Date,MW240.VC,':','Color','0.49 0.18 0.56','Marker','o',...
```

```
    'MarkerEdgeColor','0.49 0.18 0.56','MarkerFaceColor','0.49 0.18 0.56')
axis padded
title('MW-240 VC (ug/L)')
xline(datetime(2021,11,01),'-.','LabelVerticalAlignment','middle',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
yline(2,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
hold
```

```
Current plot held
```

```
plot(MW240.Date,MW240SSA.VC_LongTerm,'-.','Color','magenta');
legend('','','','LT Trend',Location='northeast',EdgeColor='none',Color='none')
```



11.0 MW-241

Exploratory Data Analysis

Data Summary

```
summary(MW241,DataVariables=["Date","PCE","TCE","cDCE","DCE11","VC","TOC"],Statistics="allstats")
```

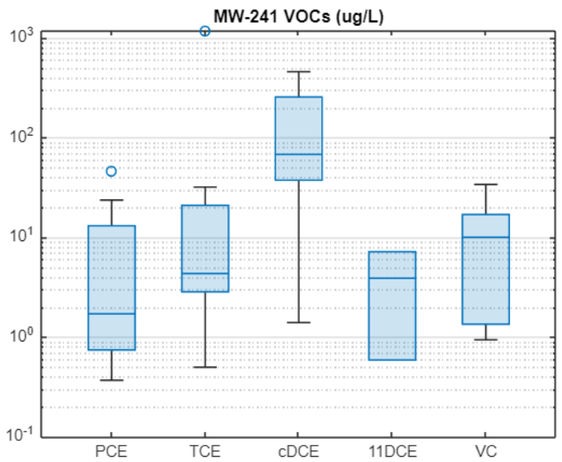
```
MW241: 8×7 table
Variables:
    Date: datetime
    PCE: double
    TCE: double
    cDCE: double
    DCE11: double
    VC: double
    TOC: double
Statistics for applicable variables:
```

	NumMissing	Min	Q1	Median	Q3	Max	Range	Mean	Std	Var	Sum	
Date	0	12-Oct-2021		09-Sep-2022 11:50:00		21-May-2024 13:45:00	22861:45:00	24-Nov-2022 07:31:52	8068:02:34			12-
PCE	0	0.3700	0.7450	1.7150	13.1000	47	46.6300	9.8113	16.9633	287.7538	78.4900	
TCE	0	0.5000	2.8500	4.3500	21	1200	1.1995e+03	157.1125	421.5117	1.7767e+05	1.2569e+03	
cDCE	0	1.4000	37.5000	68	256.5000	460	458.6000	148.1750	182.6618	3.3365e+04	1.1854e+03	
DCE11	6	0.5900	0.5900	3.8950	7.2000	7.2000	6.6100	3.8950	4.6740	21.8461	7.7900	
VC	0	0.9400	1.3500	10.0500	17	34	33.0600	11.4675	11.2919	127.5079	91.7400	
TOC	0	0.7500	57	175	290	1300	1.2992e+03	293.0938	421.1832	1.7740e+05	2.3448e+03	

```
format compact
```

Distribution

```
figure
boxchart(MW241array)
set(gca, "XGrid", "off", "YGrid", "on")
xticklabels({'PCE','TCE','cDCE','11DCE','VC'})
yscale('log')
title('MW-241 VOCs (ug/L)')
box
```



Normal Distribution Tests

```
'PCE',[h,p,kstat,critval] = lillietest(MW241.PCE,"MCTol",1E+04),
```

```
ans =
'PCE'
h =
1
p =
0
kstat =
0.4168
critval =
0.2865
```

```
'TCE',[h,p,kstat,critval] = lillietest(MW241.TCE,"MCTol",1E+04)
```

```
ans =
'TCE'
h =
1
p =
0
kstat =
0.4917
critval =
0.2891
```

```
'cDCE', [h,p,kstat,critval] = lillietest(MW241.cDCE,"MCTol",1E+04),
```

```
ans =
'cDCE'
h =
1
p =
0.0020
kstat =
0.3687
critval =
0.2953
```

```
'DCE11', [h,p,kstat,critval] = lillietest(MW241.DCE11,"MCTol",1E+04),
```

```
ans =
'DCE11'
```

```
'VC', [h,p,kstat,critval] = lillietest(MW241.VC,"MCTol",1E+04),
```

```
ans =
'VC'
h =
0
p =
0.5890
kstat =
0.1815
critval =
0.2867
```

Outlier Testing

```
'PCE Outliers',isoutlier(MW241.PCE,"quartiles")','TCE Outliers',isoutlier(MW241.TCE,"quartiles")',...
'cDCE Outliers',isoutlier(MW241.cDCE,"quartiles")','cDCE Outliers',isoutlier(MW241.cDCE,"quartiles")',...
'DCE11 Outliers',isoutlier(MW241.cDCE,"quartiles")','VC',isoutlier(MW241.VC,"quartiles")',
```

```
ans =
'PCE Outliers'
ans = 1×8 logical array
   1   0   0   0   0   0   0   0
ans =
'TCE Outliers'
ans = 1×8 logical array
   1   0   0   0   0   0   0   0
ans =
'cDCE Outliers'
```

```
ans = 1×8 logical array
   0   0   0   0   0   0   0   0
ans =
'cDCE Outliers'
ans = 1×8 logical array
   0   0   0   0   0   0   0   0
ans =
'DCE11 Outliers'
ans = 1×8 logical array
   0   0   0   0   0   0   0   0
ans =
'VC'
ans = 1×8 logical array
   0   0   0   0   0   0   0   0
```

Coefficient of Variation

Coefficient of variation (CV) of a time series data set is the ratio of standard deviation and mean. CV provides a measure of variability of time series data.

Coefficient of Variation	Variance
<0.50	Low
0.5 to 1.0	Moderate
>1.0	High

```
CVMW241PCE=std(MW241.PCE,'omitmissing')/mean(MW241.PCE,'omitmissing'),...
CVMW241CE=std(MW241.TCE,'omitmissing')/mean(MW241.TCE,'omitmissing'),...
CVMW241cDCE=std(MW241.cDCE,'omitmissing')/mean(MW241.cDCE,'omitmissing'),...
CVMW241DCE11=std(MW241.DCE11,'omitmissing')/mean(MW241.DCE11,'omitmissing'),...
CVMW241VC=std(MW241.VC,'omitmissing')/mean(MW241.VC,'omitmissing'),
```

```
CVMW241PCE =
1.7290
CVMW241CE =
2.6829
CVMW241cDCE =
1.2327
CVMW241DCE11 =
1.2000
CVMW241VC =
0.9847
```

Linear Correlation

rho	Correlation
-1.0	Perfect negative
0.0	No correlation
1.0	Perfect positive

pvalue	Significance level of 0.05

=<0.05	Statistically significant

```
'Linear Correlation PCE',[rho,pval] = corr(juliandate(MW241.Date),MW240.PCE,Rows="complete")
```

```
ans =
'Linear Correlation PCE'
rho =
-0.4151
pval =
0.3064
```

```
'Linear Correlation TCE',[rho,pval] = corr(juliandate(MW241.Date),MW240.TCE,Rows="complete")
```

```
ans =
'Linear Correlation TCE'
rho =
-0.5166
pval =
0.1899
```

```
'Linear Correlation cDCE',[rho,pval] = corr(juliandate(MW241.Date),MW240.cDCE,Rows="complete")
```

```
ans =
'Linear Correlation cDCE'
rho =
0.2848
pval =
0.4941
```

```
'Linear Correlation DCE11',[rho,pval] = corr(juliandate(MW241.Date),MW240.cDCE,Rows="complete")
```

```
ans =
'Linear Correlation DCE11'
rho =
0.2848
pval =
0.4941
```

```
'Linear Correlation VC',[rho,pval] = corr(juliandate(MW241.Date),MW240.VC,Rows="complete")
```

```
ans =
'Linear Correlation VC'
rho =
0.6698
pval =
0.0692
```

Mann-Kendall Trend Tests

```
'Test for Trend PCE', [H, P_value,Z,StdS]=MKwMiss(MW241.PCE,0.05,NaN)
```

```
ans =
'Test for Trend PCE'
H = logical

   0
P_value =
0.1735
```

```
Z =
-1.3609
StdS =
8.0829
```

```
"PCE",'One Way Test Trend < 0', pval = cumKendallTest(MW241.PCE,juliandate(MW241.Date),'lt')
```

```
ans =
"PCE"
ans =
'One Way Test Trend < 0'
pval =
-0.0868
```

```
'Test for Trend TCE', [H, P_value,Z,StdS]=MKwMiss(MW241.TCE,0.05,NaN)
```

```
ans =
'Test for Trend TCE'
H = logical

   1
P_value =
0.0187
Z =
-2.3506
StdS =
8.0829
```

```
"TCE",'One Way Test Trend < 0', pval = cumKendallTest(MW241.TCE,juliandate(MW241.Date),'lt')
```

```
ans =
"TCE"
ans =
'One Way Test Trend < 0'
pval =
-0.0094
```

```
'Test for Trend cDCE', [H, P_value,Z,StdS]=MKwMiss(MW241.cDCE,0.05,NaN)
```

```
ans =
'Test for Trend cDCE'
H = logical

   0
P_value =
0.2655
Z =
-1.1135
StdS =
8.0829
```

```
"cDCE",'One Way Test Trend < 0', pval = cumKendallTest(MW241.cDCE,juliandate(MW240.Date),'lt')
```

```
ans =
"cDCE"
ans =
'One Way Test Trend < 0'
pval =
-0.1328
```

```
'Test for Trend DCE11', [H, P_value,Z,StdS]=MKwMiss(MW241.DCE11,0.05,NaN)
```

```
ans =
'Test for Trend DCE11'
H = logical

   0
P_value =
1
Z =
0
StdS =
1
```

```
"DCE11",'One Way Test Trend > 0', pval = cumKendallTest(MW241.DCE11,juliandate(MW240.Date),'gt')
```

```
ans =
"DCE11"
ans =
'One Way Test Trend > 0'
pval =
0.5000
```

```
'Test for Trend VC', [H, P_value,Z,StdS]=MKwMiss(MW241.VC,0.05,NaN)
```

```
ans =
'Test for Trend VC'
H = logical

   0
P_value =
0.7105
Z =
0.3712
StdS =
8.0829
```

```
"VC",'One Way Test Trend < 0', pval = cumKendallTest(MW241.VC,juliandate(MW240.Date),'lt')
```

```
ans =
"VC"
ans =
'One Way Test Trend < 0'
pval =
0.7319
```

SSA Trend Analysis

```
% Decompose data into long-term trend, seasonal trends, and remainder
MW241SSA = trenddecomp(MW241(:,["PCE","TCE","cDCE","DCE11","VC","TOC"]),"ssa",4, ...
    "NumSeasonal",1);
```

MW-241 Time Series Data Plots

```
figure
t8=tiledlayout('flow');
t8.Padding='compact';
t8.TileSpacing='compact';
nexttile
plot(MW241.Date,MW241.PCE,':','Color','0 0.45 0.74','Marker','o',...
    'MarkerEdgeColor','0 0.45 0.74','MarkerFaceColor','0 0.45 0.74')
axis padded
yscale('log')
title('MW-241 PCE (ug/L)')
xline(datetime(2021,11,01),'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
yline(5,'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
hold
```

```
Current plot held
```

```
plot(MW241.Date,MW241SSA.PCE_LongTerm,'-.','Color','magenta');
legend('','','','LT Trend',Location='northeast',EdgeColor='none',Color='none')
nexttile
plot(MW241.Date,MW241.TCE,':','Color','0.85 0.33 0.1','Marker','o',...
    'MarkerEdgeColor','0.85 0.33 0.1','MarkerFaceColor','0.85 0.33 0.1')
axis padded
yscale('log')
title('MW-241 TCE (ug/L)')
xline(datetime(2021,11,01),'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
yline(5,'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
hold
```

```
Current plot held
```

```
plot(MW241.Date,MW241SSA.TCE_LongTerm,'-.','Color','magenta');
legend('','','','LT Trend',Location='northeast',EdgeColor='none',Color='none')
nexttile
plot(MW241.Date,MW241.cDCE,':','Color','0.93 0.69 0.13','Marker','o',...
    'MarkerEdgeColor','0.93 0.69 0.13','MarkerFaceColor','0.93 0.69 0.13')
axis padded
yscale('log')
title('MW-241 cDCE (ug/L)')
xline(datetime(2021,11,01),'-.','LabelVerticalAlignment','middle',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
yline(70,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','right','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
hold
```

Current plot held

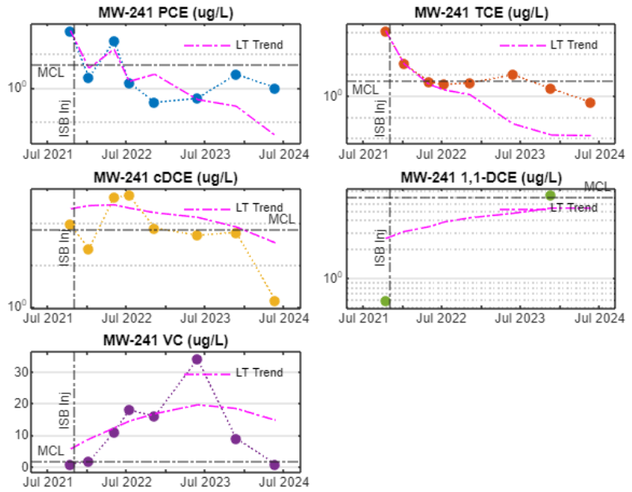
```
plot(MW241.Date,MW241SSA.cDCE_LongTerm,'-.','Color','magenta');
legend('','','','LT Trend',Location='northeast',EdgeColor='none',Color='none')
nexttile
plot(MW241.Date,MW241.DCE11,':','Color','0.47 0.67 0.19','Marker','o',...
    'MarkerEdgeColor','0.47 0.67 0.19','MarkerFaceColor','0.47 0.67 0.19')
axis padded
yscale('log')
title('MW-241 1,1-DCE (ug/L)')
xline(datetime(2021,11,01),'-.','LabelVerticalAlignment','middle',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
yline(7,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','right','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
hold
```

Current plot held

```
plot(MW241.Date,MW241SSA.DCE11_LongTerm,'-.','Color','magenta');
legend('','','','LT Trend',Location='northeast',EdgeColor='none',Color='none')
nexttile
plot(MW241.Date,MW241.VC,':','Color','0.49 0.18 0.56','Marker','o',...
    'MarkerEdgeColor','0.49 0.18 0.56','MarkerFaceColor','0.49 0.18 0.56')
axis padded
title('MW-241 VC (ug/L)')
xline(datetime(2021,11,01),'-.','LabelVerticalAlignment','middle',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
yline(2,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
hold
```

Current plot held

```
plot(MW241.Date,MW241SSA.VC_LongTerm,'-.','Color','magenta');
legend('','','','LT Trend',Location='northeast',EdgeColor='none',Color='none')
```



12.0 MW-242

Exploratory Data Analysis

Data Summary

```
summary(MW242,DataVariables=["Date","PCE","TCE","cDCE","DCE11","VC","TOC"],Statistics="allstats")
```

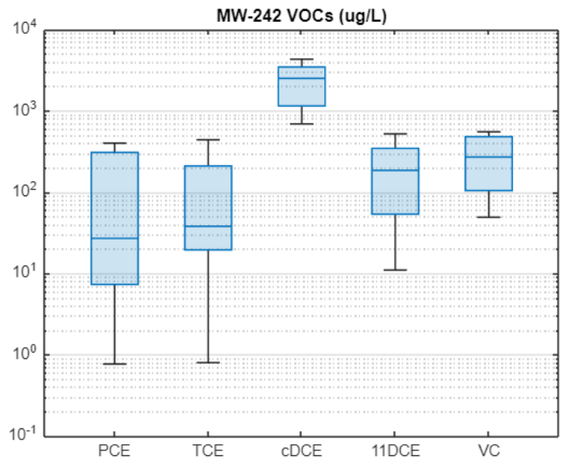
```
MW242: 8×7 table
Variables:
    Date: datetime
    PCE: double
    TCE: double
    cDCE: double
    DCE11: double
    VC: double
    TOC: double
Statistics for applicable variables:
           NumMissing          Min          Q1              Median              Q3                  Max                Range              Mean              Std              Var              Sum          M
    Date        0      12-Oct-2021              09-Sep-2022 11:37:30              23-May-2024 08:25:00      22904:25:00      26-Nov-2022 03:30:00      8074:22:22                                       12-O
    PCE         5           0.7700      7.3275          27              306.7500                          400              399.2300          142.5900          223.3091      4.9867e+04          427.7700
    TCE         0           0.8000     19.5000          38              210                               440              439.2000          121.9750          160.1894      2.5661e+04          975.8000
    cDCE        0              690      1145            2500            3450                              4300             3610              2.3975e+03        1.3150e+03    1.7292e+06          19180
    DCE11       0               11     53.5000          185             345                               520              509               212.2500          180.4872      3.2576e+04          1698
    VC          5               49     104.2500         270             480                               550              501               289.6667          251.0783      6.3040e+04          869
    TOC         0           0.8200      2.9000          16              75                                320              319.1800          63.5775           112.0744      1.2561e+04          508.6200
```

```
format compact
```

Distribution

```
figure
boxchart(MW242array)
set(gca, "XGrid", "off", "YGrid", "on")
```

```
xticklabels({'PCE','TCE','cDCE','11DCE','VC'})
yscale('log')
title('MW-242 VOCs (ug/L)')
box
```



Normal Distribution Tests

```
'PCE',[h,p,kstat,critval] = lillietest(MW242.PCE,"MCTol",1E+04),
```

```
ans =
'PCE'
```

```
'TCE',[h,p,kstat,critval] = lillietest(MW242.TCE,"MCTol",1E+04)
```

```
ans =
'TCE'
h =
1
p =
0.0450
kstat =
0.2961
critval =
0.2920
```

```
'cDCE', [h,p,kstat,critval] = lillietest(MW242.cDCE,"MCTol",1E+04),
```

```
ans =
'cDCE'
h =
0
p =
0.8440
kstat =
0.1509
critval =
0.2920
```

```
'DCE11', [h,p,kstat,critval] = lillietest(MW242.DCE11,"MCTol",1E+04),
```

```
ans =
'DCE11'
h =
0
p =
0.9490
kstat =
0.1349
critval =
0.2866
```

```
'VC', [h,p,kstat,critval] = lillietest(MW242.VC,"MCTol",1E+04),
```

```
ans =
'VC'
```

Outlier Testing

```
'PCE Outliers',isoutlier(MW242.PCE,"quartiles")','TCE Outliers',isoutlier(MW242.TCE,"quartiles")',...
'cDCE Outliers',isoutlier(MW242.cDCE,"quartiles")','cDCE Outliers',isoutlier(MW242.cDCE,"quartiles")',...
'DCE11 Outliers',isoutlier(MW242.cDCE,"quartiles")','VC',isoutlier(MW242.VC,"quartiles")',
```

```
ans =
'PCE Outliers'
ans = 1×8 logical array
   0   0   0   0   0   0   0   0
ans =
'TCE Outliers'
ans = 1×8 logical array
   0   0   0   0   0   0   0   0
ans =
'cDCE Outliers'
ans = 1×8 logical array
   0   0   0   0   0   0   0   0
ans =
'cDCE Outliers'
ans = 1×8 logical array
   0   0   0   0   0   0   0   0
ans =
'DCE11 Outliers'
ans = 1×8 logical array
   0   0   0   0   0   0   0   0
ans =
'VC'
ans = 1×8 logical array
   0   0   0   0   0   0   0   0
```

Coefficient of Variation

Coefficient of variation (CV) of a time series data set is the ratio of standard deviation and mean. CV provides a measure of variability of time series data.

Coefficient of Variation	Variance
<0.50	Low
0.5 to 1.0	Moderate
>1.0	High

```
CVMW242PCE=std(MW242.PCE,'omitmissing')/mean(MW242.PCE,'omitmissing'),...
CVMW242TCE=std(MW242.TCE,'omitmissing')/mean(MW242.TCE,'omitmissing'),...
CVMW242cDCE=std(MW242.cDCE,'omitmissing')/mean(MW242.cDCE,'omitmissing'),...
CVMW242DCE11=std(MW242.DCE11,'omitmissing')/mean(MW242.DCE11,'omitmissing'),...
CVMW242VC=std(MW242.VC,'omitmissing')/mean(MW242.VC,'omitmissing'),
```

```
CVMW242PCE =
1.5661
CVMW242TCE =
1.3133
CVMW242cDCE =
0.5485
CVMW242DCE11 =
0.8504
CVMW242VC =
0.8668
```

Linear Correlation

rho	Correlation
-1.0	Perfect negative
0.0	No correlation
1.0	Perfect positive

pvalue	Significance level of 0.05
=<0.05	Statistically significant

```
'Linear Correlation PCE',[rho,pval] = corr(juliandate(MW242.Date),MW242.PCE,Rows="complete")
```

```
ans =
'Linear Correlation PCE'
rho =
-0.8136
pval =
0.3950
```

```
'Linear Correlation TCE',[rho,pval] = corr(juliandate(MW242.Date),MW242.TCE,Rows="complete")
```

```
ans =
'Linear Correlation TCE'
rho =
-0.4144
pval =
0.3073
```

```
'Linear Correlation cDCE',[rho,pval] = corr(juliandate(MW242.Date),MW242.cDCE,Rows="complete")
```

```
ans =
'Linear Correlation cDCE'
rho =
```

```
0.9130
pval =
0.0015
```

```
'Linear Correlation DCE11',[rho,pval] = corr(juliandate(MW242.Date),MW242.cDCE,Rows="complete")
```

```
ans =
'Linear Correlation DCE11'
rho =
0.9130
pval =
0.0015
```

```
'Linear Correlation VC',[rho,pval] = corr(juliandate(MW242.Date),MW242.VC,Rows="complete")
```

```
ans =
'Linear Correlation VC'
rho =
0.9932
pval =
0.0743
```

Mann-Kendall Trend Tests

```
'Test for Trend PCE', [H, P_value,Z,StdS]=MKwMiss(MW242.PCE,0.05,NaN)
```

```
ans =
'Test for Trend PCE'
H = logical

   0
P_value =
0.2963
Z =
-1.0445
StdS =
1.9149
```

```
"PCE",'One Way Test Trend < 0', pval = cumKendallTest(MW242.PCE,juliandate(MW242.Date),'lt')
```

```
ans =
"PCE"
ans =
'One Way Test Trend < 0'
pval =
-0.1481
```

```
'Test for Trend TCE', [H, P_value,Z,StdS]=MKwMiss(MW242.TCE,0.05,NaN)
```

```
ans =
'Test for Trend TCE'
H = logical

   0
P_value =
0.1346
Z =
-1.4961
StdS =
```

```
8.0208
```

```
"TCE",'One Way Test Trend < 0', pval = cumKendallTest(MW242.TCE,juliandate(MW242.Date),'lt')
```

```
ans =
"TCE"
ans =
'One Way Test Trend < 0'
pval =
-0.0673
```

```
'Test for Trend cDCE', [H, P_value,Z,StdS]=MKwMiss(MW242.cDCE,0.05,NaN)
```

```
ans =
'Test for Trend cDCE'
H = logical

   1
P_value =
0.0044
Z =
2.8455
StdS =
8.0829
```

```
"cDCE",'One Way Test Trend > 0', pval = cumKendallTest(MW242.cDCE,juliandate(MW242.Date),'gt')
```

```
ans =
"cDCE"
ans =
'One Way Test Trend > 0'
pval =
0.0022
```

```
'Test for Trend DCE11', [H, P_value,Z,StdS]=MKwMiss(MW242.DCE11,0.05,NaN)
```

```
ans =
'Test for Trend DCE11'
H = logical

   0
P_value =
0.0635
Z =
1.8558
StdS =
8.0829
```

```
"DCE11",'One Way Test Trend > 0', pval = cumKendallTest(MW242.DCE11,juliandate(MW242.Date),'gt')
```

```
ans =
"DCE11"
ans =
'One Way Test Trend > 0'
pval =
0.0317
```

```
'Test for Trend VC', [H, P_value,Z,StdS]=MKwMiss(MW242.VC,0.05,NaN)
```

```
ans =
'Test for Trend VC'
H = logical

   0
P_value =
0.2963
Z =
1.0445
StdS =
1.9149
```

```
"VC",'One Way Test Trend > 0', pval = cumKendallTest(MW242.VC,juliandate(MW242.Date),'gt')
```

```
ans =
"VC"
ans =
'One Way Test Trend > 0'
pval =
0.1481
```

SSA Trend Analysis

```
% Decompose data into long-term trend, seasonal trends, and remainder
MW242SSA = trenddecomp(MW242(:,["PCE","TCE","cDCE","DCE11","VC","TOC"]),"ssa",4, ...
    "NumSeasonal",1);
```

MW-242 Time Series Data Plots

```
figure
t10=tiledlayout('flow');
t10.Padding='compact';
t10.TileSpacing='compact';
nexttile
plot(MW242.Date,MW242.PCE,':','Color','0 0.45 0.74','Marker','o',...
    'MarkerEdgeColor','0 0.45 0.74','MarkerFaceColor','0 0.45 0.74')
axis padded
yscale('log')
title('MW-242 PCE (ug/L)')
xline(datetime(2021,11,01),'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
yline(5,'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
hold
```

```
Current plot held
```

```
plot(MW242.Date,MW242SSA.PCE_LongTerm,'-.','Color','magenta');
legend('','','','LT Trend',Location='northeast',EdgeColor='none',Color='none')
nexttile
```

```
plot(MW242.Date,MW242.TCE,':','Color','0.85 0.33 0.1','Marker','o',...
    'MarkerEdgeColor','0.85 0.33 0.1','MarkerFaceColor','0.85 0.33 0.1')
axis padded
yscale('log')
title('MW-242 TCE (ug/L)')
xline(datetime(2021,11,01),'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
yline(5,'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
hold
```

```
Current plot held
```

```
plot(MW242.Date,MW242SSA.TCE_LongTerm,'-.','Color','magenta');
legend('','','','LT Trend',Location='northeast',EdgeColor='none',Color='none')
nexttile
plot(MW242.Date,MW242.cDCE,':','Color','0.93 0.69 0.13','Marker','o',...
    'MarkerEdgeColor','0.93 0.69 0.13','MarkerFaceColor','0.93 0.69 0.13')
axis padded
yscale('log')
title('MW-242 cDCE (ug/L)')
xline(datetime(2021,11,01),'-.','LabelVerticalAlignment','middle',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
yline(70,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','right','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
hold
```

```
Current plot held
```

```
plot(MW242.Date,MW242SSA.cDCE_LongTerm,'-.','Color','magenta');
legend('','','','LT Trend',Location='northeast',EdgeColor='none',Color='none')
nexttile
plot(MW242.Date,MW242.DCE11,':','Color','0.47 0.67 0.19','Marker','o',...
    'MarkerEdgeColor','0.47 0.67 0.19','MarkerFaceColor','0.47 0.67 0.19')
axis padded
yscale('log')
title('MW-242 1,1-DCE (ug/L)')
xline(datetime(2021,11,01),'-.','LabelVerticalAlignment','middle',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
yline(7,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','right','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
hold
```

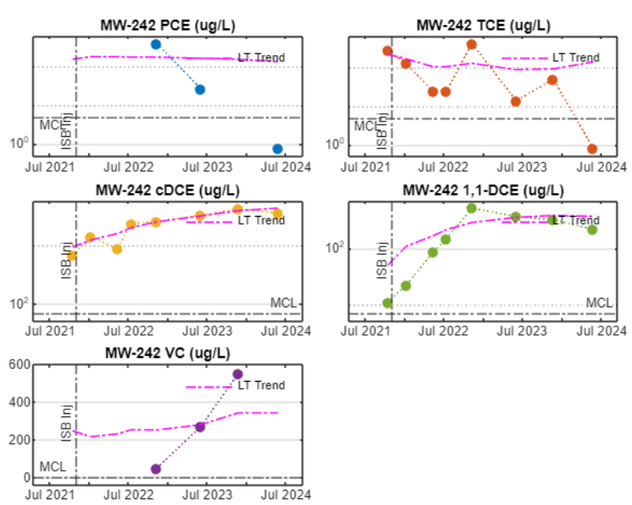
```
Current plot held
```

```
plot(MW242.Date,MW242SSA.DCE11_LongTerm,'-.','Color','magenta');
legend('','','','LT Trend',Location='northeast',EdgeColor='none',Color='none')
nexttile
plot(MW242.Date,MW242.VC,':','Color','0.49 0.18 0.56','Marker','o',...
```

```
    'MarkerEdgeColor','0.49 0.18 0.56','MarkerFaceColor','0.49 0.18 0.56')
axis padded
title('MW-242 VC (ug/L)')
xline(datetime(2021,11,01),'-.','LabelVerticalAlignment','middle',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
yline(2,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
hold
```

```
Current plot held
```

```
plot(MW242.Date,MW242SSA.VC_LongTerm,'-.','Color','magenta');
legend('','','','LT Trend',Location='northeast',EdgeColor='none',Color='none')
```



13.0 MW-243

Exploratory Data Analysis

Data Summary

```
summary(MW243,DataVariables=["Date","PCE","TCE","cDCE","DCE11","VC","TOC"],Statistics="allstats")
```

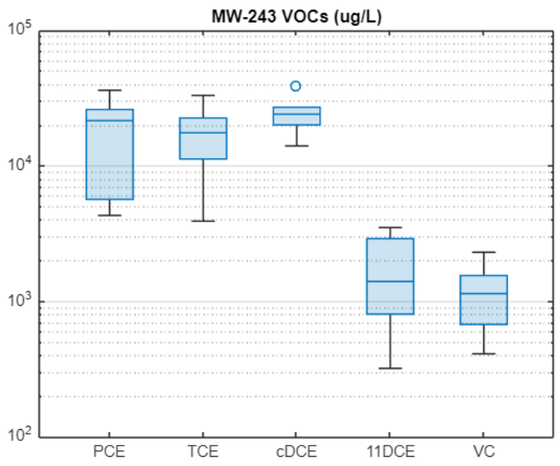
```
MW243: 8×7 table
Variables:
    Date: datetime
    PCE: double
    TCE: double
    cDCE: double
    DCE11: double
    VC: double
    TOC: double
Statistics for applicable variables:
```

	NumMissing	Min	Q1	Median	Q3	Max	Range	Mean	Std	Var	Sum	Mode
Date	0	12-Oct-2021		09-Sep-2022 11:47:30		23-May-2024 10:35:00	22906:35:00	26-Nov-2022 00:43:07	8076:57:58			12-Oct-2021
PCE	0	4300	5650	21500	26000	36000	31700	18325	1.1959e+04	1.4302e+08	146600	22000
TCE	0	3900	11200	17500	22500	33000	29100	1.7412e+04	9.5230e+03	9.0687e+07	139300	17000
cDCE	0	14000	20000	24000	27000	39000	25000	24375	7.3083e+03	5.3411e+07	195000	20000
DCE11	0	320	805	1400	2900	3500	3180	1.7538e+03	1.2021e+03	1.4451e+06	14030	1400
VC	0	410	675	1140	1550	2300	1890	1180	634.1473	4.0214e+05	9440	1400
TOC	0	31	40	91.5000	130	330	299	110.5000	97.5485	9.5157e+03	884	130

```
format compact
```

Distribution

```
figure
boxchart(MW243array)
set(gca, "XGrid", "off", "YGrid", "on")
xticklabels({'PCE','TCE','cDCE','11DCE','VC'})
yscale('log')
title('MW-243 VOCs (ug/L)')
box
```



Normal Distribution Tests

```
'PCE',[h,p,kstat,critval] = lillietest(MW243.PCE,"MCTol",1E+04),
```

```
ans =
'PCE'
h =
0
p =
0.3060
kstat =
0.2236
critval =
0.2905
```

```
'TCE',[h,p,kstat,critval] = lillietest(MW243.TCE,"MCTol",1E+04)
```

```
ans =
'TCE'
h =
0
p =
0.2390
kstat =
0.2327
critval =
0.2844
```

```
'cDCE', [h,p,kstat,critval] = lillietest(MW243.cDCE,"MCTol",1E+04),
```

```
ans =
'cDCE'
h =
0
p =
0.2230
kstat =
0.2347
critval =
0.2844
```

```
'DCE11', [h,p,kstat,critval] = lillietest(MW243.DCE11,"MCTol",1E+04),
```

```
ans =
'DCE11'
h =
0
p =
0.1830
kstat =
0.2407
critval =
0.2882
```

```
'VC', [h,p,kstat,critval] = lillietest(MW243.VC,"MCTol",1E+04),
```

```
ans =
'VC'
h =
0
p =
0.6270
kstat =
0.1819
critval =
0.2871
```

Outlier Testing

```
'PCE Outliers',isoutlier(MW243.PCE,"quartiles")','TCE Outliers',isoutlier(MW243.TCE,"quartiles")',...
'cDCE Outliers',isoutlier(MW243.cDCE,"quartiles")','DCE11 Outliers',isoutlier(MW243.cDCE,"quartiles")',...
'VC',isoutlier(MW243.VC,"quartiles")',
```

```
ans =
'PCE Outliers'
```

```
ans = 1×8 logical array
   0   0   0   0   0   0   0   0
ans =
'TCE Outliers'
ans = 1×8 logical array
   0   0   0   0   0   0   0   0
ans =
'cDCE Outliers'
ans = 1×8 logical array
   0   0   0   0   0   1   0   0
ans =
'DCE11 Outliers'
ans = 1×8 logical array
   0   0   0   0   0   1   0   0
ans =
'VC'
ans = 1×8 logical array
   0   0   0   0   0   0   0   0
```

Coefficient of Variation

Coefficient of variation (CV) of a time series data set is the ratio of standard deviation and mean. CV provides a measure of variability of time series data.

Coefficient of Variation	Variance
<0.50	Low
0.5 to 1.0	Moderate
>1.0	High

```
CVMW243PCE=std(MW243.PCE,'omitmissing')/mean(MW243.PCE,'omitmissing'),...
CVMW243TCE=std(MW243.TCE,'omitmissing')/mean(MW243.TCE,'omitmissing'),...
CVMW243cDCE=std(MW243.cDCE,'omitmissing')/mean(MW243.cDCE,'omitmissing'),...
CVMW243DCE11=std(MW243.DCE11,'omitmissing')/mean(MW243.DCE11,'omitmissing'),...
CVMW243VC=std(MW243.VC,'omitmissing')/mean(MW243.VC,'omitmissing'),
```

```
CVMW243PCE =
0.6526
CVMW243TCE =
0.5469
CVMW243cDCE =
0.2998
CVMW243DCE11 =
0.6854
CVMW243VC =
0.5374
```

Linear Correlation

rho	Correlation
-1.0	Perfect negative
0.0	No correlation
1.0	Perfect positive

pvalue	Significance level of 0.05
=<0.05	Statistically significant

```
'Linear Correlation PCE',[rho,pval] = corr(juliandate(MW243.Date),MW243.PCE,Rows="complete")
```

```
ans =
'Linear Correlation PCE'
rho =
-0.6129
pval =
0.1061
```

```
'Linear Correlation TCE',[rho,pval] = corr(juliandate(MW243.Date),MW243.TCE,Rows="complete")
```

```
ans =
'Linear Correlation TCE'
rho =
-0.8635
pval =
0.0057
```

```
'Linear Correlation cDCE',[rho,pval] = corr(juliandate(MW243.Date),MW243.cDCE,Rows="complete")
```

```
ans =
'Linear Correlation cDCE'
rho =
-0.0589
pval =
0.8897
```

```
'Linear Correlation DCE11',[rho,pval] = corr(juliandate(MW243.Date),MW243.cDCE,Rows="complete")
```

```
ans =
'Linear Correlation DCE11'
rho =
-0.0589
pval =
0.8897
```

```
'Linear Correlation VC',[rho,pval] = corr(juliandate(MW243.Date),MW243.VC,Rows="complete")
```

```
ans =
'Linear Correlation VC'
rho =
0.7944
pval =
0.0185
```

Mann-Kendall Trend Tests

```
'Test for Trend PCE', [H, P_value,Z,StdS]=MKwMiss(MW243.PCE,0.05,NaN)
```

```
ans =
'Test for Trend PCE'
H = logical
```

```
   0
P_value =
0.0809
Z =
-1.7455
StdS =
8.0208
```

```
"PCE",'One Way Test Trend < 0', pval = cumKendallTest(MW243.PCE,juliandate(MW243.Date),'lt')
```

```
ans =
"PCE"
ans =
'One Way Test Trend < 0'
pval =
-0.0405
```

```
'Test for Trend TCE', [H, P_value,Z,StdS]=MKwMiss(MW243.TCE,0.05,NaN)
```

```
ans =
'Test for Trend TCE'
H = logical

   1
P_value =
0.0461
Z =
-1.9948
StdS =
8.0208
```

```
"TCE",'One Way Test Trend < 0', pval = cumKendallTest(MW243.TCE,juliandate(MW243.Date),'lt')
```

```
ans =
"TCE"
ans =
'One Way Test Trend < 0'
pval =
-0.0230
```

```
'Test for Trend cDCE', [H, P_value,Z,StdS]=MKwMiss(MW243.cDCE,0.05,NaN)
```

```
ans =
'Test for Trend cDCE'
H = logical

   0
P_value =
1
Z =
0
StdS =
7.8951
```

```
"cDCE",'One Way Test Trend < 0', pval = cumKendallTest(MW243.cDCE,juliandate(MW243.Date),'lt')
```

```
ans =
"cDCE"
```

```
ans =
'One Way Test Trend < 0'
pval =
0.6000
```

```
'Test for Trend DCE11', [H, P_value,Z,StdS]=MKwMiss(MW241.DCE11,0.05,NaN)
```

```
ans =
'Test for Trend DCE11'
H = logical

   0
P_value =
1
Z =
0
StdS =
1
```

```
"DCE11",'One Way Test Trend < 0', pval = cumKendallTest(MW243.DCE11,juliandate(MW243.Date),'lt')
```

```
ans =
"DCE11"
ans =
'One Way Test Trend < 0'
pval =
-0.1062
```

```
'Test for Trend VC', [H, P_value,Z,StdS]=MKwMiss(MW243.VC,0.05,NaN)
```

```
ans =
'Test for Trend VC'
H = logical

   1
P_value =
0.0126
Z =
2.4935
StdS =
8.0208
```

```
"VC",'One Way Test Trend > 0', pval = cumKendallTest(MW243.VC,juliandate(MW243.Date),'gt')
```

```
ans =
"VC"
ans =
'One Way Test Trend > 0'
pval =
0.0063
```

SSA Trend Analysis

```
% Decompose data into long-term trend, seasonal trends, and remainder
MW243SSA = trenddecomp(MW243(:,["PCE","TCE","cDCE","DCE11","VC","TOC"]),"ssa",4, ...
    "NumSeasonal",1);
```

MW-243 Time Series Data Plots

```
figure
t11=tiledlayout('flow');
t11.Padding='compact';
t11.TileSpacing='compact';
nexttile
plot(MW243.Date,MW243.PCE,':','Color','0 0.45 0.74','Marker','o',...
    'MarkerEdgeColor','0 0.45 0.74','MarkerFaceColor','0 0.45 0.74')
axis padded
yscale('log')
title('MW-243 PCE (ug/L)')
xline(datetime(2021,11,01),'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
yline(5,'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
hold
```

```
Current plot held
```

```
plot(MW243.Date,MW243SSA.PCE_LongTerm,'-.','Color','magenta');
legend('','','','LT Trend',Location='northeast',EdgeColor='none',Color='none')
nexttile
plot(MW243.Date,MW243.TCE,':','Color','0.85 0.33 0.1','Marker','o',...
    'MarkerEdgeColor','0.85 0.33 0.1','MarkerFaceColor','0.85 0.33 0.1')
axis padded
yscale('log')
title('MW-243 TCE (ug/L)')
xline(datetime(2021,11,01),'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
yline(5,'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
hold
```

```
Current plot held
```

```
plot(MW243.Date,MW243SSA.TCE_LongTerm,'-.','Color','magenta');
legend('','','','LT Trend',Location='northeast',EdgeColor='none',Color='none')
nexttile
plot(MW243.Date,MW243.cDCE,':','Color','0.93 0.69 0.13','Marker','o',...
    'MarkerEdgeColor','0.93 0.69 0.13','MarkerFaceColor','0.93 0.69 0.13')
axis padded
yscale('log')
title('MW-243 cDCE (ug/L)')
xline(datetime(2021,11,01),'-.','LabelVerticalAlignment','middle',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
yline(70,'-.','LabelVerticalAlignment','top',...
```

```
    'LabelHorizontalAlignment','right','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
hold
```

```
Current plot held
```

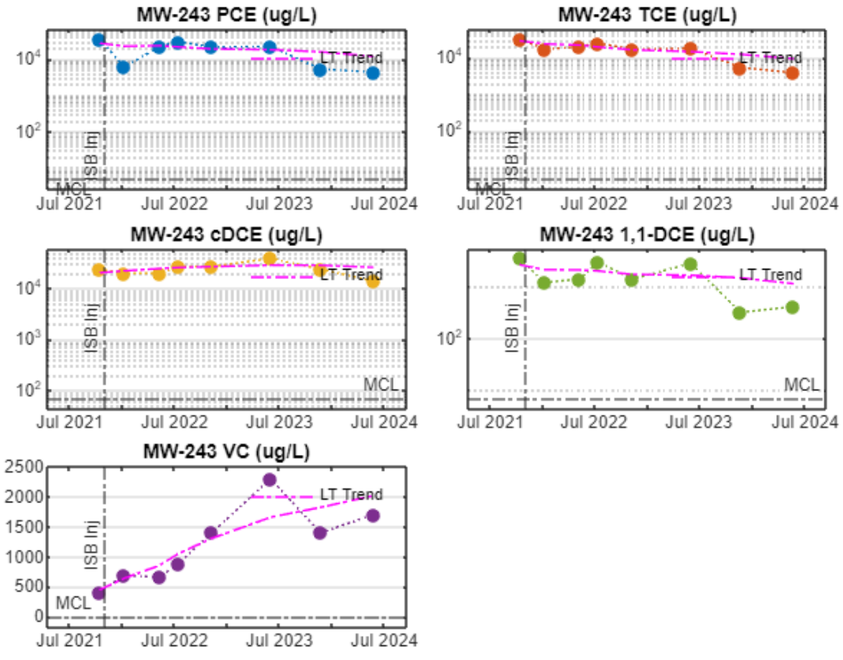
```
plot(MW243.Date,MW243SSA.cDCE_LongTerm,'-.','Color','magenta');
legend('','','','LT Trend',Location='northeast',EdgeColor='none',Color='none')
nexttile
plot(MW243.Date,MW243.DCE11,':','Color','0.47 0.67 0.19','Marker','o',...
    'MarkerEdgeColor','0.47 0.67 0.19','MarkerFaceColor','0.47 0.67 0.19')
axis padded
yscale('log')
title('MW-243 1,1-DCE (ug/L)')
xline(datetime(2021,11,01),'-.','LabelVerticalAlignment','middle',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
yline(7,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','right','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
hold
```

```
Current plot held
```

```
plot(MW243.Date,MW243SSA.DCE11_LongTerm,'-.','Color','magenta');
legend('','','','LT Trend',Location='northeast',EdgeColor='none',Color='none')
nexttile
plot(MW243.Date,MW243.VC,':','Color','0.49 0.18 0.56','Marker','o',...
    'MarkerEdgeColor','0.49 0.18 0.56','MarkerFaceColor','0.49 0.18 0.56')
axis padded
title('MW-243 VC (ug/L)')
xline(datetime(2021,11,01),'-.','LabelVerticalAlignment','middle',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
yline(2,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
hold
```

```
Current plot held
```

```
plot(MW243.Date,MW243SSA.VC_LongTerm,'-.','Color','magenta');
legend('','','','LT Trend',Location='northeast',EdgeColor='none',Color='none')
```



14.0 MW-244

Exploratory Data Analysis

Data Summary

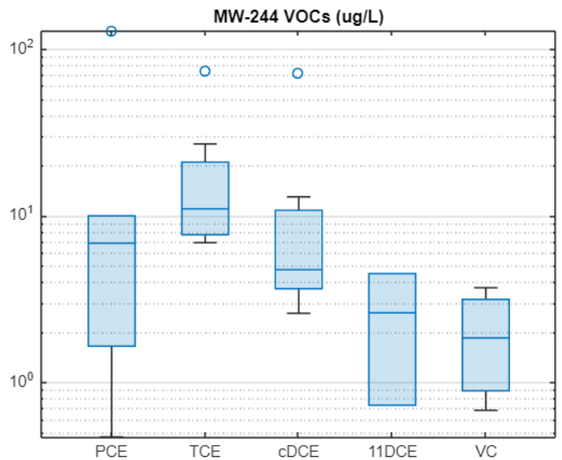
```
summary(MW244,DataVariables=["Date","PCE","TCE","cDCE","DCE11","VC","TOC"],Statistics="allstats")
```

```
MW244: 8×7 table
Variables:
    Date: datetime
    PCE: double
    TCE: double
    cDCE: double
    DCE11: double
    VC: double
    TOC: double
Statistics for applicable variables:
            NumMissing          Min          Q1              Median              Q3              Max              Range              Mean              Std              Var              Sum              Mode
    Date         0      13-Oct-2021                 09-Sep-2022 13:57:30                 21-May-2024 14:30:00      22838:30:00      22-Nov-2022 17:48:07      8095:40:06                                    13-Oct-
    PCE          0           0.4700      1.6500              6.8500          10             130                129.5300          20.9337          44.2619          1.9591e+03       167.4700
    TCE          0           6.9000      7.7000             11               21              75                 68.1000          20.1625          23.1021          533.7084         161.3000
    cDCE         0           2.6000      3.6500              4.7500          10.8000         72                 69.4000          14.1250          23.6344          558.5850         113              2.
    DCE11        6           0.7300      0.7300              2.6150          4.5000           4.5000             3.7700           2.6150           2.6658           7.1065           5.2300          0.
    VC           4           0.6800      0.8900              1.8500          3.1500           3.7000             3.0200           2.0200           1.3905           1.9336           8.0800          0.
    TOC          0           0.5900      0.7050              0.8050          0.9400           1.3000             0.7100           0.8488           0.2204           0.0486           6.7900          0.
```

```
format compact
```

Distribution

```
figure
boxchart(MW244array)
set(gca, "XGrid", "off", "YGrid", "on")
xticklabels({'PCE','TCE','cDCE','11DCE','VC'})
yscale('log')
title('MW-244 VOCs (ug/L)')
box
```



Normal Distribution Tests

```
'PCE',[h,p,kstat,critval] = lillietest(MW244.PCE,"MCTol",1E+04),
```

```
ans =
'PCE'
h =
1
p =
0
kstat =
0.4726
critval =
0.2877
```

```
'TCE',[h,p,kstat,critval] = lillietest(MW244.TCE,"MCTol",1E+04)
```

```
ans =
'TCE'
h =
1
p =
0.0090
kstat =
0.3384
```

```
critval =
0.2921
```

```
'cDCE', [h,p,kstat,critval] = lillietest(MW244.cDCE,"MCTol",1E+04),
```

```
ans =
'cDCE'
h =
1
p =
1.0000e-03
kstat =
0.3940
critval =
0.2964
```

```
'DCE11', [h,p,kstat,critval] = lillietest(MW244.DCE11,"MCTol",1E+04),
```

```
ans =
'DCE11'
```

```
'VC', [h,p,kstat,critval] = lillietest(MW244.VC,"MCTol",1E+04),
```

```
ans =
'VC'
h =
0
p =
0.5750
kstat =
0.2459
critval =
0.3778
```

Outlier Testing

```
'PCE Outliers',isoutlier(MW244.PCE,"quartiles")','TCE Outliers',isoutlier(MW244.TCE,"quartiles")',...
'cDCE Outliers',isoutlier(MW244.cDCE,"quartiles")','DCE11 Outliers',isoutlier(MW244.cDCE,"quartiles")',...
'VC',isoutlier(MW244.VC,"quartiles")',
```

```
ans =
'PCE Outliers'
ans = 1×8 logical array
   0   0   0   0   0   0   1   0
ans =
'TCE Outliers'
ans = 1×8 logical array
   0   0   0   0   0   0   1   0
ans =
'cDCE Outliers'
ans = 1×8 logical array
   0   0   0   0   0   0   1   0
ans =
'DCE11 Outliers'
ans = 1×8 logical array
   0   0   0   0   0   0   1   0
ans =
'VC'
ans = 1×8 logical array
   0   0   0   0   0   0   0   0
```

Coefficient of Variation

Coefficient of variation (CV) of a time series data set is the ratio of standard deviation and mean. CV provides a measure of variability of time series data.

Coefficient of Variation	Variance
<0.50	Low
0.5 to 1.0	Moderate
>1.0	High

```
CVMW244PCE=std(MW244.PCE,'omitmissing')/mean(MW244.PCE,'omitmissing'),...
CVMW244TCE=std(MW244.TCE,'omitmissing')/mean(MW244.TCE,'omitmissing'),...
CVMW244cDCE=std(MW244.cDCE,'omitmissing')/mean(MW244.cDCE,'omitmissing'),...
CVMW244DCE11=std(MW244.DCE11,'omitmissing')/mean(MW244.DCE11,'omitmissing'),...
CVMW244VC=std(MW244.VC,'omitmissing')/mean(MW244.VC,'omitmissing'),
```

```
CVMW244PCE =
2.1144
CVMW244TCE =
1.1458
CVMW244cDCE =
1.6732
CVMW244DCE11 =
1.0194
CVMW244VC =
0.6884
```

Linear Correlation

rho	Correlation
-1.0	Perfect negative
0.0	No correlation
1.0	Perfect positive

pvalue	Significance level of 0.05
=<0.05	Statistically significant

```
'Linear Correlation PCE',[rho,pval] = corr(juliandate(MW244.Date),MW244.PCE,Rows="complete")
```

```
ans =
'Linear Correlation PCE'
rho =
0.4440
pval =
0.2705
```

```
'Linear Correlation TCE',[rho,pval] = corr(juliandate(MW244.Date),MW244.TCE,Rows="complete")
```

```
ans =
'Linear Correlation TCE'
rho =
0.3745
pval =
0.3607
```

```
'Linear Correlation cDCE',[rho,pval] = corr(juliandate(MW244.Date),MW244.cDCE,Rows="complete")
```

```
ans =
'Linear Correlation cDCE'
rho =
0.5237
pval =
0.1828
```

```
'Linear Correlation DCE11',[rho,pval] = corr(juliandate(MW244.Date),MW244.cDCE,Rows="complete")
```

```
ans =
'Linear Correlation DCE11'
rho =
0.5237
pval =
0.1828
```

```
'Linear Correlation VC',[rho,pval] = corr(juliandate(MW244.Date),MW244.VC,Rows="complete")
```

```
ans =
'Linear Correlation VC'
rho =
0.8423
pval =
0.1577
```

Mann-Kendall Trend Tests

```
'Test for Trend PCE', [H, P_value,Z,StdS]=MKwMiss(MW244.PCE,0.05,NaN)
```

```
ans =
'Test for Trend PCE'
H = logical

   0
P_value =
0.3083
Z =
1.0187
StdS =
7.8528
```

```
"PCE",'One Way Test Trend > 0', pval = cumKendallTest(MW244.PCE,juliandate(MW244.Date),'gt')
```

```
ans =
"PCE"
ans =
'One Way Test Trend > 0'
pval =
0.1542
```

```
'Test for Trend TCE', [H, P_value,Z,StdS]=MKwMiss(MW244.TCE,0.05,NaN)
```

```
ans =
'Test for Trend TCE'
H = logical

   0
P_value =
1
Z =
0
StdS =
8.0208
```

```
"TCE",'One Way Test Trend > 0', pval = cumKendallTest(MW244.TCE,juliandate(MW244.Date),'gt')
```

```
ans =
"TCE"
ans =
'One Way Test Trend > 0'
pval =
0.5000
```

```
'Test for Trend cDCE', [H, P_value,Z,StdS]=MKwMiss(MW244.cDCE,0.05,NaN)
```

```
ans =
'Test for Trend cDCE'
H = logical

   0
P_value =
0.1735
Z =
1.3609
StdS =
8.0829
```

```
"cDCE",'One Way Test Trend > 0', pval = cumKendallTest(MW244.cDCE,juliandate(MW244.Date),'gt')
```

```
ans =
"cDCE"
ans =
'One Way Test Trend > 0'
pval =
0.0868
```

```
'Test for Trend DCE11', [H, P_value,Z,StdS]=MKwMiss(MW244.DCE11,0.05,NaN)
```

```
ans =
'Test for Trend DCE11'
H = logical

   0
P_value =
1
Z =
0
StdS =
1
```

```
"DCE11",'One Way Test Trend > 0', pval = cumKendallTest(MW244.DCE11,juliandate(MW244.Date),'gt')
```

```
ans =
"DCE11"
ans =
'One Way Test Trend > 0'
pval =
0.5000
```

```
'Test for Trend VC', [H, P_value,Z,StdS]=MKwMiss(MW244.VC,0.05,NaN)
```

```
ans =
'Test for Trend VC'
H = logical

   0
P_value =
0.3082
Z =
1.0190
StdS =
2.9439
```

```
"VC",'One Way Test Trend > 0', pval = cumKendallTest(MW244.VC,juliandate(MW244.Date),'gt')
```

```
ans =
"VC"
ans =
'One Way Test Trend > 0'
pval =
0.1541
```

SSA Trend Analysis

```
% Decompose data into long-term trend, seasonal trends, and remainder
MW244SSA = trenddecomp(MW244(:,["PCE","TCE","cDCE","DCE11","VC","TOC"]),"ssa",4, ...
    "NumSeasonal",1);
```

MW-244 Time Series Data Plots

```
figure
t12=tiledlayout('flow');
t12.Padding='compact';
t12.TileSpacing='compact';
nexttile
plot(MW244.Date,MW244.PCE,':','Color','0 0.45 0.74','Marker','o',...
    'MarkerEdgeColor','0 0.45 0.74','MarkerFaceColor','0 0.45 0.74')
axis padded
yscale('log')
title('MW-244 PCE (ug/L)')
xline(datetime(2021,11,01),'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
yline(5,'-.','LabelVerticalAlignment','bottom',...
```

```
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
hold
```

```
Current plot held
```

```
plot(MW244.Date,MW244SSA.PCE_LongTerm,'-.','Color','magenta');
legend('','','','LT Trend',Location='northeast',EdgeColor='none',Color='none')
nexttile
plot(MW244.Date,MW244.TCE,':','Color','0.85 0.33 0.1','Marker','o',...
    'MarkerEdgeColor','0.85 0.33 0.1','MarkerFaceColor','0.85 0.33 0.1')
axis padded
yscale('log')
title('MW-244 TCE (ug/L)')
xline(datetime(2021,11,01),'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
yline(5,'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
hold
```

```
Current plot held
```

```
plot(MW244.Date,MW244SSA.TCE_LongTerm,'-.','Color','magenta');
legend('','','','LT Trend',Location='northeast',EdgeColor='none',Color='none')
nexttile
plot(MW244.Date,MW244.cDCE,':','Color','0.93 0.69 0.13','Marker','o',...
    'MarkerEdgeColor','0.93 0.69 0.13','MarkerFaceColor','0.93 0.69 0.13')
axis padded
yscale('log')
title('MW-244 cDCE (ug/L)')
xline(datetime(2021,11,01),'-.','LabelVerticalAlignment','middle',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
yline(70,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','right','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
hold
```

```
Current plot held
```

```
plot(MW244.Date,MW244SSA.cDCE_LongTerm,'-.','Color','magenta');
legend('','','','LT Trend',Location='northeast',EdgeColor='none',Color='none')
nexttile
plot(MW244.Date,MW244.DCE11,':','Color','0.47 0.67 0.19','Marker','o',...
    'MarkerEdgeColor','0.47 0.67 0.19','MarkerFaceColor','0.47 0.67 0.19')
axis padded
yscale('log')
title('MW-244 1,1-DCE (ug/L)')
xline(datetime(2021,11,01),'-.','LabelVerticalAlignment','middle',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
yline(7,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','right','Label','MCL',fontsize=8);
```

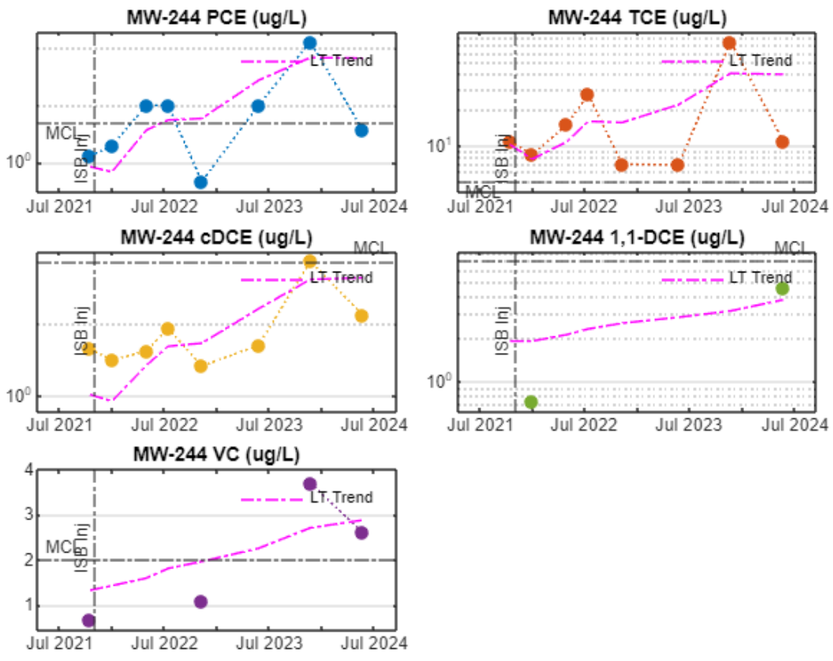
```
set(gca, "XGrid", "off", "YGrid", "on");
hold
```

```
Current plot held
```

```
plot(MW244.Date,MW244SSA.DCE11_LongTerm,'-.','Color','magenta');
legend('','','','LT Trend',Location='northeast',EdgeColor='none',Color='none')
nexttile
plot(MW244.Date,MW244.VC,':','Color','0.49 0.18 0.56','Marker','o',...
    'MarkerEdgeColor','0.49 0.18 0.56','MarkerFaceColor','0.49 0.18 0.56')
axis padded
title('MW-244 VC (ug/L)')
xline(datetime(2021,11,01),'-.','LabelVerticalAlignment','middle',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
yline(2,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
hold
```

```
Current plot held
```

```
plot(MW244.Date,MW244SSA.VC_LongTerm,'-.','Color','magenta');
legend('','','','LT Trend',Location='northeast',EdgeColor='none',Color='none')
```



15.0 MW-245

Exploratory Data Analysis

Data Summary

```
summary(MW245,DataVariables=["Date","PCE","TCE","cDCE","DCE11","VC","TOC"],Statistics="allstats")
```

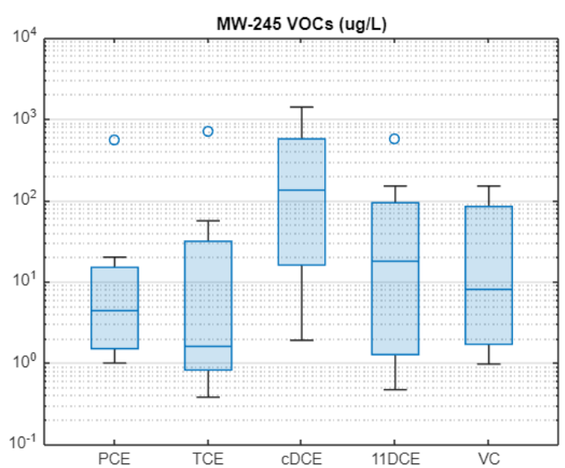
```
MW245: 8×7 table
Variables:
    Date: datetime
    PCE: double
    TCE: double
    cDCE: double
    DCE11: double
    VC: double
    TOC: double
Statistics for applicable variables:
```

	NumMissing	Min	Q1	Median	Q3	Max	Range	Mean	Std	Var	Sum	Mo
Date	0	12-Oct-2021		09-Sep-2022 13:47:30		23-May-2024 14:00:00	22910:00:00	24-Nov-2022 11:01:30	8095:18:35			12-Oc
PCE	0	1	1.5000	4.4000	15	560	559	75.3500	195.9356	3.8391e+04	602.8000	
TCE	0	0.3800	0.8200	1.6000	31.3500	710	709.6200	97.2400	248.3208	6.1663e+04	777.9200	
cDCE	0	1.9000	16	133.5000	570	1400	1.3981e+03	355.1125	513.8028	2.6399e+05	2.8409e+03	
DCE11	0	0.4700	1.2700	17.8500	93.5000	580	579.5300	100.7138	200.0797	4.0032e+04	805.7100	
VC	0	0.9700	1.7000	8.0500	84	150	149.0300	42.3088	66.7735	4.4587e+03	338.4700	
TOC	0	1.5000	52	71	405	430	428.5000	185.9375	190.2518	3.6196e+04	1.4875e+03	

```
format compact
```

Distribution

```
figure
boxchart(MW245array)
set(gca, "XGrid", "off", "YGrid", "on")
xticklabels({'PCE','TCE','cDCE','11DCE','VC'})
yscale('log')
title('MW-245 VOCs (ug/L)')
box
```



Normal Distribution Tests

```
'PCE',[h,p,kstat,critval] = lillietest(MW245.PCE,"MCTol",1E+04),
```

```
ans =
'PCE'
h =
1
p =
0
kstat =
0.4862
critval =
0.2799
```

```
'TCE',[h,p,kstat,critval] = lillietest(MW245.TCE,"MCTol",1E+04)
```

```
ans =
'TCE'
h =
1
p =
0
kstat =
0.4410
critval =
0.2865
```

```
'cDCE', [h,p,kstat,critval] = lillietest(MW245.cDCE,"MCTol",1E+04),
```

```
ans =
'cDCE'
h =
1
p =
0.0170
kstat =
0.3234
critval =
0.2919
```

```
'DCE11', [h,p,kstat,critval] = lillietest(MW245.DCE11,"MCTol",1E+04),
```

```
ans =
'DCE11'
h =
1
p =
1.0000e-03
kstat =
0.3749
critval =
0.2863
```

```
'VC', [h,p,kstat,critval] = lillietest(MW245.VC,"MCTol",1E+04),
```

```
ans =
'VC'
h =
1
p =
```

```
1.0000e-03
kstat =
0.3921
critval =
0.2823
```

Outlier Testing

```
'PCE Outliers',isoutlier(MW245.PCE,"quartiles")','TCE Outliers',isoutlier(MW245.TCE,"quartiles")',...
'cDCE Outliers',isoutlier(MW245.cDCE,"quartiles")','DCE11 Outliers',isoutlier(MW245.cDCE,"quartiles")',...
'VC',isoutlier(MW245.VC,"quartiles")',
```

```
ans =
'PCE Outliers'
ans = 1×8 logical array
   1   0   0   0   0   0   0   0
ans =
'TCE Outliers'
ans = 1×8 logical array
   1   0   0   0   0   0   0   0
ans =
'cDCE Outliers'
ans = 1×8 logical array
   0   0   0   0   0   0   0   0
ans =
'DCE11 Outliers'
ans = 1×8 logical array
   0   0   0   0   0   0   0   0
ans =
'VC'
ans = 1×8 logical array
   0   0   0   0   0   0   0   0
```

Coefficient of Variation

Coefficient of variation (CV) of a time series data set is the ratio of standard deviation and mean. CV provides a measure of variability of time series data.

Coefficient of Variation	Variance
<0.50	Low
0.5 to 1.0	Moderate
>1.0	High

```
CVMW245PCE=std(MW245.PCE,'omitmissing')/mean(MW245.PCE,'omitmissing'),...
CVMW245TCE=std(MW245.TCE,'omitmissing')/mean(MW245.TCE,'omitmissing'),...
CVMW245cDCE=std(MW245.cDCE,'omitmissing')/mean(MW245.cDCE,'omitmissing'),...
CVMW245DCE11=std(MW245.DCE11,'omitmissing')/mean(MW245.DCE11,'omitmissing'),...
CVMW245VC=std(MW245.VC,'omitmissing')/mean(MW245.VC,'omitmissing'),
```

```
CVMW245PCE =
2.6003
CVMW245TCE =
2.5537
CVMW245cDCE =
1.4469
```

```
CVMW245DCE11 =
1.9866
CVMW245VC =
1.5782
```

Linear Correlation

rho	Correlation
-1.0	Perfect negative
0.0	No correlation
1.0	Perfect positive

pvalue	Significance level of 0.05
=<0.05	Statistically significant

```
'Linear Correlation PCE',[rho,pval] = corr(juliandate(MW245.Date),MW245.PCE,Rows="complete")
```

```
ans =
'Linear Correlation PCE'
rho =
-0.5077
pval =
0.1990
```

```
'Linear Correlation TCE',[rho,pval] = corr(juliandate(MW245.Date),MW245.TCE,Rows="complete")
```

```
ans =
'Linear Correlation TCE'
rho =
-0.5269
pval =
0.1797
```

```
'Linear Correlation cDCE',[rho,pval] = corr(juliandate(MW245.Date),MW245.cDCE,Rows="complete")
```

```
ans =
'Linear Correlation cDCE'
rho =
-0.7662
pval =
0.0266
```

```
'Linear Correlation DCE11',[rho,pval] = corr(juliandate(MW245.Date),MW245.cDCE,Rows="complete")
```

```
ans =
'Linear Correlation DCE11'
rho =
-0.7662
pval =
0.0266
```

```
'Linear Correlation VC',[rho,pval] = corr(juliandate(MW245.Date),MW245.VC,Rows="complete")
```

```
ans =
'Linear Correlation VC'
rho =
-0.7289
pval =
0.0402
```

Mann-Kendall Trend Tests

```
'Test for Trend PCE', [H, P_value,Z,StdS]=MKwMiss(MW245.PCE,0.05,NaN)
```

```
ans =
'Test for Trend PCE'
H = logical

   1
P_value =
0.0083
Z =
-2.6388
StdS =
7.9582
```

```
"PCE",'One Way Test Trend < 0', pval = cumKendallTest(MW245.PCE,juliandate(MW245.Date),'lt')
```

```
ans =
"PCE"
ans =
'One Way Test Trend < 0'
pval =
-0.0042
```

```
'Test for Trend TCE', [H, P_value,Z,StdS]=MKwMiss(MW245.TCE,0.05,NaN)
```

```
ans =
'Test for Trend TCE'
H = logical

   1
P_value =
0.0248
Z =
-2.2442
StdS =
8.0208
```

```
"TCE",'One Way Test Trend < 0', pval = cumKendallTest(MW245.TCE,juliandate(MW245.Date),'lt')
```

```
ans =
"TCE"
ans =
'One Way Test Trend < 0'
pval =
-0.0124
```

```
'Test for Trend cDCE', [H, P_value,Z,StdS]=MKwMiss(MW245.cDCE,0.05,NaN)
```

```
ans =
```

```
'Test for Trend cDCE'
H = logical

   1
P_value =
0.0094
Z =
-2.5981
StdS =
8.0829
```

```
"cDCE",'One Way Test Trend < 0', pval = cumKendallTest(MW245.cDCE,juliandate(MW245.Date),'lt')
```

```
ans =
"cDCE"
ans =
'One Way Test Trend < 0'
pval =
-0.0047
```

```
'Test for Trend DCE11', [H, P_value,Z,StdS]=MKwMiss(MW245.DCE11,0.05,NaN)
```

```
ans =
'Test for Trend DCE11'
H = logical

   1
P_value =
0.0044
Z =
-2.8455
StdS =
8.0829
```

```
"DCE11",'One Way Test Trend < 0', pval = cumKendallTest(MW245.DCE11,juliandate(MW245.Date),'lt')
```

```
ans =
"DCE11"
ans =
'One Way Test Trend < 0'
pval =
-0.0022
```

```
'Test for Trend VC', [H, P_value,Z,StdS]=MKwMiss(MW245.VC,0.05,NaN)
```

```
ans =
'Test for Trend VC'
H = logical

   1
P_value =
0.0012
Z =
-3.2416
StdS =
8.0208
```

```
"VC",'One Way Test Trend < 0', pval = cumKendallTest(MW245.VC,juliandate(MW245.Date),'lt')
```

```
ans =
"VC"
```

```
ans =
'One Way Test Trend < 0'
pval =
-5.9437e-04
```

SSA Trend Analysis

```
% Decompose data into long-term trend, seasonal trends, and remainder
MW245SSA = trenddecomp(MW245(:,["PCE","TCE","cDCE","DCE11","VC","TOC"]),"ssa",4, ...
    "NumSeasonal",1);
```

MW-245 Time Series Data Plots

```
figure
t13=tiledlayout('flow');
t13.Padding='compact';
t13.TileSpacing='compact';
nexttile
plot(MW245.Date,MW245.PCE,':','Color','0 0.45 0.74','Marker','o',...
    'MarkerEdgeColor','0 0.45 0.74','MarkerFaceColor','0 0.45 0.74')
axis padded
yscale('log')
title('MW-245 PCE (ug/L)')
xline(datetime(2021,11,01),'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
yline(5,'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
hold
```

```
Current plot held
```

```
plot(MW245.Date,MW245SSA.PCE_LongTerm,'-.','Color','magenta');
legend('','','','LT Trend',Location='northeast',EdgeColor='none',Color='none')
nexttile
plot(MW245.Date,MW245.TCE,':','Color','0.85 0.33 0.1','Marker','o',...
    'MarkerEdgeColor','0.85 0.33 0.1','MarkerFaceColor','0.85 0.33 0.1')
axis padded
yscale('log')
title('MW-245 TCE (ug/L)')
xline(datetime(2021,11,01),'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
yline(5,'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
hold
```

```
Current plot held
```

```
plot(MW245.Date,MW245SSA.TCE_LongTerm,'-.','Color','magenta');
legend('','','','LT Trend',Location='northeast',EdgeColor='none',Color='none')
nexttile
plot(MW245.Date,MW245.cDCE,':','Color','0.93 0.69 0.13','Marker','o',...
    'MarkerEdgeColor','0.93 0.69 0.13','MarkerFaceColor','0.93 0.69 0.13')
axis padded
yscale('log')
title('MW-245 cDCE (ug/L)')
xline(datetime(2021,11,01),'-.','LabelVerticalAlignment','middle',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
yline(70,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','right','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
hold
```

```
Current plot held
```

```
plot(MW245.Date,MW245SSA.cDCE_LongTerm,'-.','Color','magenta');
legend('','','','LT Trend',Location='northeast',EdgeColor='none',Color='none')
nexttile
plot(MW245.Date,MW245.DCE11,':','Color','0.47 0.67 0.19','Marker','o',...
    'MarkerEdgeColor','0.47 0.67 0.19','MarkerFaceColor','0.47 0.67 0.19')
axis padded
yscale('log')
title('MW-245 1,1-DCE (ug/L)')
xline(datetime(2021,11,01),'-.','LabelVerticalAlignment','middle',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
yline(7,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','right','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
hold
```

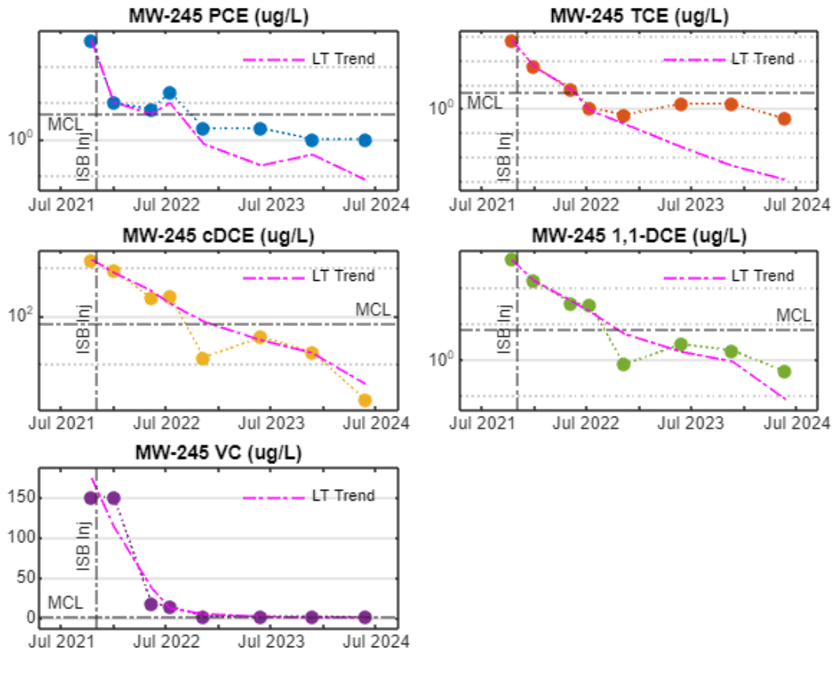
```
Current plot held
```

```
plot(MW245.Date,MW245SSA.DCE11_LongTerm,'-.','Color','magenta');
legend('','','','LT Trend',Location='northeast',EdgeColor='none',Color='none')
nexttile
plot(MW245.Date,MW245.VC,':','Color','0.49 0.18 0.56','Marker','o',...
    'MarkerEdgeColor','0.49 0.18 0.56','MarkerFaceColor','0.49 0.18 0.56')
axis padded
title('MW-245 VC (ug/L)')
xline(datetime(2021,11,01),'-.','LabelVerticalAlignment','middle',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
yline(2,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
hold
```

```
Current plot held
```

```
plot(MW245.Date,MW245SSA.VC_LongTerm,'-.','Color','magenta');
```

```
legend('','','','LT Trend',Location='northeast',EdgeColor='none',Color='none')
```



15.0 MW-245

Exploratory Data Analysis

Data Summary

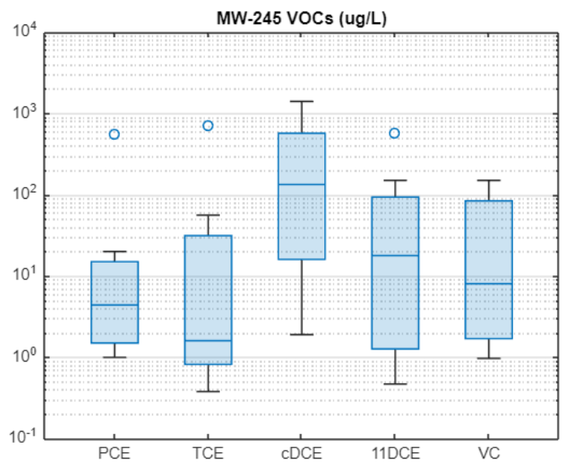
```
summary(MW245,DataVariables=["Date","PCE","TCE","cDCE","DCE11","VC","TOC"],Statistics="allstats")
```

```
MW245: 8×7 table
Variables:
    Date: datetime
    PCE: double
    TCE: double
    cDCE: double
    DCE11: double
    VC: double
    TOC: double
Statistics for applicable variables:
            NumMissing          Min              Q1              Median              Q3              Max              Range              Mean              Std              Var              Sum              Mo
    Date         0      12-Oct-2021                     09-Sep-2022 13:47:30                23-May-2024 14:00:00      22910:00:00      24-Nov-2022 11:01:30      8095:18:35                                        12-Oc
    PCE          0                1          1.5000                4.4000          15                560               559               75.3500          195.9356          3.8391e+04          602.8000
    TCE          0           0.3800          0.8200                1.6000          31.3500           710               709.6200          97.2400          248.3208          6.1663e+04          777.9200
    cDCE         0           1.9000          16                    133.5000        570               1400              1.3981e+03        355.1125          513.8028          2.6399e+05          2.8409e+03
    DCE11        0           0.4700          1.2700                17.8500         93.5000           580               579.5300          100.7138          200.0797          4.0032e+04          805.7100
    VC           0           0.9700          1.7000                8.0500          84                150               149.0300          42.3088           66.7735           4.4587e+03          338.4700
    TOC          0           1.5000          52                    71              405               430               428.5000          185.9375          190.2518          3.6196e+04          1.4875e+03
```

```
format compact
```

Distribution

```
figure
boxchart(MW245array)
set(gca, "XGrid", "off", "YGrid", "on")
xticklabels({'PCE','TCE','cDCE','11DCE','VC'})
yscale('log')
title('MW-245 VOCs (ug/L)')
box
```



Normal Distribution Tests

```
'PCE',[h,p,kstat,critval] = lillietest(MW245.PCE,"MCTol",1E+04),
```

```
ans =
'PCE'
h =
1
p =
0
kstat =
0.4862
critval =
0.2830
```

```
'TCE',[h,p,kstat,critval] = lillietest(MW245.TCE,"MCTol",1E+04)
```

```
ans =
'TCE'
h =
1
p =
0
```

```
kstat =
0.4410
critval =
0.2843
```

```
'cDCE', [h,p,kstat,critval] = lillietest(MW245.cDCE,"MCTol",1E+04),
```

```
ans =
'cDCE'
h =
1
p =
0.0120
kstat =
0.3234
critval =
0.2847
```

```
'DCE11', [h,p,kstat,critval] = lillietest(MW245.DCE11,"MCTol",1E+04),
```

```
ans =
'DCE11'
h =
1
p =
0.0030
kstat =
0.3749
critval =
0.2897
```

```
'VC', [h,p,kstat,critval] = lillietest(MW245.VC,"MCTol",1E+04),
```

```
ans =
'VC'
h =
1
p =
0
kstat =
0.3921
critval =
0.2926
```

Outlier Testing

```
'PCE Outliers',isoutlier(MW245.PCE,"quartiles")','TCE Outliers',isoutlier(MW245.TCE,"quartiles")',...
'cDCE Outliers',isoutlier(MW245.cDCE,"quartiles")','DCE11 Outliers',isoutlier(MW245.cDCE,"quartiles")',...
'VC',isoutlier(MW245.VC,"quartiles")',
```

```
ans =
'PCE Outliers'
ans = 1×8 logical array
   1   0   0   0   0   0   0   0
ans =
'TCE Outliers'
ans = 1×8 logical array
   1   0   0   0   0   0   0   0
ans =
'cDCE Outliers'
ans = 1×8 logical array
```

```
   0   0   0   0   0   0   0   0
ans =
'DCE11 Outliers'
ans = 1×8 logical array
   0   0   0   0   0   0   0   0
ans =
'VC'
ans = 1×8 logical array
   0   0   0   0   0   0   0   0
```

Coefficient of Variation

Coefficient of variation (CV) of a time series data set is the ratio of standard deviation and mean. CV provides a measure of variability of time series data.

Coefficient of Variation	Variance
<0.50	Low
0.5 to 1.0	Moderate
>1.0	High

```
CVMW245PCE=std(MW245.PCE,'omitmissing')/mean(MW245.PCE,'omitmissing'),...
CVMW245TCE=std(MW245.TCE,'omitmissing')/mean(MW245.TCE,'omitmissing'),...
CVMW245cDCE=std(MW245.cDCE,'omitmissing')/mean(MW245.cDCE,'omitmissing'),...
CVMW245DCE11=std(MW245.DCE11,'omitmissing')/mean(MW245.DCE11,'omitmissing'),...
CVMW245VC=std(MW245.VC,'omitmissing')/mean(MW245.VC,'omitmissing'),
```

```
CVMW245PCE =
2.6003
CVMW245TCE =
2.5537
CVMW245cDCE =
1.4469
CVMW245DCE11 =
1.9866
CVMW245VC =
1.5782
```

Linear Correlation

rho	Correlation
-1.0	Perfect negative
0.0	No correlation
1.0	Perfect positive

pvalue	Significance level of 0.05
=<0.05	Statistically significant

```
'Linear Correlation PCE',[rho,pval] = corr(juliandate(MW245.Date),MW245.PCE,Rows="complete")
```

```
ans =
'Linear Correlation PCE'
rho =
-0.5077
pval =
0.1990
```

```
'Linear Correlation TCE',[rho,pval] = corr(juliandate(MW245.Date),MW245.TCE,Rows="complete")
```

```
ans =
'Linear Correlation TCE'
rho =
-0.5269
pval =
0.1797
```

```
'Linear Correlation cDCE',[rho,pval] = corr(juliandate(MW245.Date),MW245.cDCE,Rows="complete")
```

```
ans =
'Linear Correlation cDCE'
rho =
-0.7662
pval =
0.0266
```

```
'Linear Correlation DCE11',[rho,pval] = corr(juliandate(MW245.Date),MW245.cDCE,Rows="complete")
```

```
ans =
'Linear Correlation DCE11'
rho =
-0.7662
pval =
0.0266
```

```
'Linear Correlation VC',[rho,pval] = corr(juliandate(MW245.Date),MW245.VC,Rows="complete")
```

```
ans =
'Linear Correlation VC'
rho =
-0.7289
pval =
0.0402
```

Mann-Kendall Trend Tests

```
'Test for Trend PCE', [H, P_value,Z,StdS]=MKwMiss(MW245.PCE,0.05,NaN)
```

```
ans =
'Test for Trend PCE'
H = logical

   1
P_value =
0.0083
Z =
-2.6388
StdS =
7.9582
```

```
"PCE",'One Way Test Trend < 0', pval = cumKendallTest(MW245.PCE,juliandate(MW245.Date),'lt')
```

```
ans =
"PCE"
ans =
'One Way Test Trend < 0'
pval =
-0.0042
```

```
'Test for Trend TCE', [H, P_value,Z,StdS]=MKwMiss(MW245.TCE,0.05,NaN)
```

```
ans =
'Test for Trend TCE'
H = logical

   1
P_value =
0.0248
Z =
-2.2442
StdS =
8.0208
```

```
"TCE",'One Way Test Trend < 0', pval = cumKendallTest(MW245.TCE,juliandate(MW245.Date),'lt')
```

```
ans =
"TCE"
ans =
'One Way Test Trend < 0'
pval =
-0.0124
```

```
'Test for Trend cDCE', [H, P_value,Z,StdS]=MKwMiss(MW245.cDCE,0.05,NaN)
```

```
ans =
'Test for Trend cDCE'
H = logical

   1
P_value =
0.0094
Z =
-2.5981
StdS =
8.0829
```

```
"cDCE",'One Way Test Trend < 0', pval = cumKendallTest(MW245.cDCE,juliandate(MW245.Date),'lt')
```

```
ans =
"cDCE"
ans =
'One Way Test Trend < 0'
pval =
-0.0047
```

```
'Test for Trend DCE11', [H, P_value,Z,StdS]=MKwMiss(MW245.DCE11,0.05,NaN)
```

```
ans =
'Test for Trend DCE11'
H = logical
```

```
   1
P_value =
0.0044
Z =
-2.8455
StdS =
8.0829
```

```
"DCE11",'One Way Test Trend < 0', pval = cumKendallTest(MW245.DCE11,juliandate(MW245.Date),'lt')
```

```
ans =
"DCE11"
ans =
'One Way Test Trend < 0'
pval =
-0.0022
```

```
'Test for Trend VC', [H, P_value,Z,StdS]=MKwMiss(MW245.VC,0.05,NaN)
```

```
ans =
'Test for Trend VC'
H = logical

   1
P_value =
0.0012
Z =
-3.2416
StdS =
8.0208
```

```
"VC",'One Way Test Trend < 0', pval = cumKendallTest(MW245.VC,juliandate(MW245.Date),'lt')
```

```
ans =
"VC"
ans =
'One Way Test Trend < 0'
pval =
-5.9437e-04
```

SSA Trend Analysis

```
% Decompose data into long-term trend, seasonal trends, and remainder
MW245SSA = trenddecomp(MW245(:,["PCE","TCE","cDCE","DCE11","VC","TOC"]),"ssa",4, ...
    "NumSeasonal",1);
```

MW-245 Time Series Data Plots

```
figure
t13=tiledlayout('flow');
t13.Padding='compact';
t13.TileSpacing='compact';
nexttile
plot(MW245.Date,MW245.PCE,':','Color','0 0.45 0.74','Marker','o',...
```

```
    'MarkerEdgeColor','0 0.45 0.74','MarkerFaceColor','0 0.45 0.74')
axis padded
yscale('log')
title('MW-245 PCE (ug/L)')
xline(datetime(2021,11,01),'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
yline(5,'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
hold
```

```
Current plot held
```

```
plot(MW245.Date,MW245SSA.PCE_LongTerm,'-.','Color','magenta');
legend('','','','LT Trend',Location='northeast',EdgeColor='none',Color='none')
nexttile
plot(MW245.Date,MW245.TCE,':','Color','0.85 0.33 0.1','Marker','o',...
    'MarkerEdgeColor','0.85 0.33 0.1','MarkerFaceColor','0.85 0.33 0.1')
axis padded
yscale('log')
title('MW-245 TCE (ug/L)')
xline(datetime(2021,11,01),'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
yline(5,'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
hold
```

```
Current plot held
```

```
plot(MW245.Date,MW245SSA.TCE_LongTerm,'-.','Color','magenta');
legend('','','','LT Trend',Location='northeast',EdgeColor='none',Color='none')
nexttile
plot(MW245.Date,MW245.cDCE,':','Color','0.93 0.69 0.13','Marker','o',...
    'MarkerEdgeColor','0.93 0.69 0.13','MarkerFaceColor','0.93 0.69 0.13')
axis padded
yscale('log')
title('MW-245 cDCE (ug/L)')
xline(datetime(2021,11,01),'-.','LabelVerticalAlignment','middle',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
yline(70,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','right','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
hold
```

```
Current plot held
```

```
plot(MW245.Date,MW245SSA.cDCE_LongTerm,'-.','Color','magenta');
legend('','','','LT Trend',Location='northeast',EdgeColor='none',Color='none')
nexttile
plot(MW245.Date,MW245.DCE11,':','Color','0.47 0.67 0.19','Marker','o',...
    'MarkerEdgeColor','0.47 0.67 0.19','MarkerFaceColor','0.47 0.67 0.19')
```

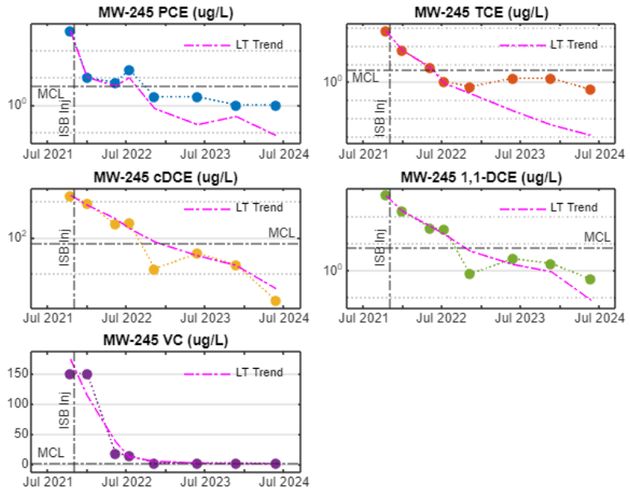
```
axis padded
yscale('log')
title('MW-245 1,1-DCE (ug/L)')
xline(datetime(2021,11,01),'-.','LabelVerticalAlignment','middle',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
yline(7,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','right','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
hold
```

```
Current plot held
```

```
plot(MW245.Date,MW245SSA.DCE11_LongTerm,'-.','Color','magenta');
legend('','','','LT Trend',Location='northeast',EdgeColor='none',Color='none')
nexttile
plot(MW245.Date,MW245.VC,':','Color','0.49 0.18 0.56','Marker','o',...
    'MarkerEdgeColor','0.49 0.18 0.56','MarkerFaceColor','0.49 0.18 0.56')
axis padded
title('MW-245 VC (ug/L)')
xline(datetime(2021,11,01),'-.','LabelVerticalAlignment','middle',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
yline(2,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
hold
```

```
Current plot held
```

```
plot(MW245.Date,MW245SSA.VC_LongTerm,'-.','Color','magenta');
legend('','','','LT Trend',Location='northeast',EdgeColor='none',Color='none')
```



16.0 MW-245

Exploratory Data Analysis

Data Summary

```
summary(MW245,DataVariables=["Date","PCE","TCE","cDCE","DCE11","VC","TOC"],Statistics="allstats")
```

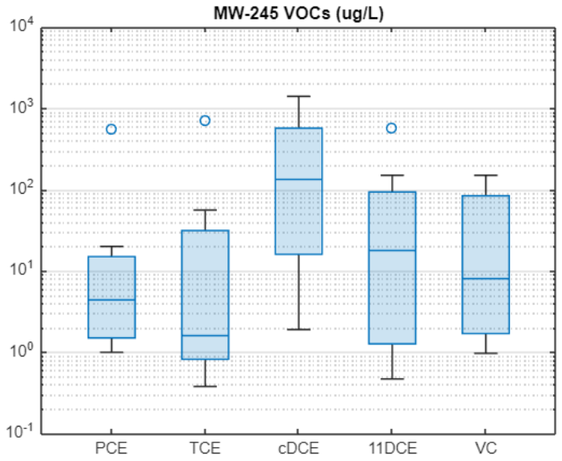
```
MW245: 8×7 table
Variables:
    Date: datetime
    PCE: double
    TCE: double
    cDCE: double
    DCE11: double
    VC: double
    TOC: double
Statistics for applicable variables:
```

	NumMissing	Min	Q1	Median	Q3	Max	Range	Mean	Std	Var	Sum	Mo
Date	0	12-Oct-2021		09-Sep-2022 13:47:30		23-May-2024 14:00:00	22910:00:00	24-Nov-2022 11:01:30	8095:18:35			12-Oc
PCE	0	1	1.5000	4.4000	15	560	559	75.3500	195.9356	3.8391e+04	602.8000	
TCE	0	0.3800	0.8200	1.6000	31.3500	710	709.6200	97.2400	248.3208	6.1663e+04	777.9200	
cDCE	0	1.9000	16	133.5000	570	1400	1.3981e+03	355.1125	513.8028	2.6399e+05	2.8409e+03	
DCE11	0	0.4700	1.2700	17.8500	93.5000	580	579.5300	100.7138	200.0797	4.0032e+04	805.7100	
VC	0	0.9700	1.7000	8.0500	84	150	149.0300	42.3088	66.7735	4.4587e+03	338.4700	
TOC	0	1.5000	52	71	405	430	428.5000	185.9375	190.2518	3.6196e+04	1.4875e+03	

```
format compact
```

Distribution

```
figure
boxchart(MW245array)
set(gca, "XGrid", "off", "YGrid", "on")
xticklabels({'PCE','TCE','cDCE','11DCE','VC'})
yscale('log')
title('MW-245 VOCs (ug/L)')
box
```



Normal Distribution Tests

```
'PCE',[h,p,kstat,critval] = lillietest(MW245.PCE,"MCTol",1E+04),
```

```
ans =
'PCE'
h =
1
p =
0
kstat =
0.4862
critval =
0.2921
```

```
'TCE',[h,p,kstat,critval] = lillietest(MW245.TCE,"MCTol",1E+04)
```

```
ans =
'TCE'
h =
1
p =
1.0000e-03
kstat =
0.4410
critval =
0.2884
```

```
'cDCE', [h,p,kstat,critval] = lillietest(MW245.cDCE,"MCTol",1E+04),
```

```
ans =
'cDCE'
h =
1
p =
0.0140
kstat =
0.3234
```

```
critval =
0.2855
```

```
'DCE11', [h,p,kstat,critval] = lillietest(MW245.DCE11,"MCTol",1E+04),
```

```
ans =
'DCE11'
h =
1
p =
1.0000e-03
kstat =
0.3749
critval =
0.2913
```

```
'VC', [h,p,kstat,critval] = lillietest(MW245.VC,"MCTol",1E+04),
```

```
ans =
'VC'
h =
1
p =
0.0020
kstat =
0.3921
critval =
0.2918
```

Outlier Testing

```
'PCE Outliers',isoutlier(MW245.PCE,"quartiles")','TCE Outliers',isoutlier(MW245.TCE,"quartiles")',...
'cDCE Outliers',isoutlier(MW245.cDCE,"quartiles")','DCE11 Outliers',isoutlier(MW245.cDCE,"quartiles")',...
'VC',isoutlier(MW245.VC,"quartiles")',
```

```
ans =
'PCE Outliers'
ans = 1×8 logical array
   1   0   0   0   0   0   0   0
ans =
'TCE Outliers'
ans = 1×8 logical array
   1   0   0   0   0   0   0   0
ans =
'cDCE Outliers'
ans = 1×8 logical array
   0   0   0   0   0   0   0   0
ans =
'DCE11 Outliers'
ans = 1×8 logical array
   0   0   0   0   0   0   0   0
ans =
'VC'
ans = 1×8 logical array
   0   0   0   0   0   0   0   0
```

Coefficient of Variation

Coefficient of variation (CV) of a time series data set is the ratio of standard deviation and mean. CV provides a measure of variability of time series data.

Coefficient of Variation	Variance
<0.50	Low
0.5 to 1.0	Moderate
>1.0	High

```
CVMW245PCE=std(MW245.PCE,'omitmissing')/mean(MW245.PCE,'omitmissing'),...
CVMW245TCE=std(MW245.TCE,'omitmissing')/mean(MW245.TCE,'omitmissing'),...
CVMW245cDCE=std(MW245.cDCE,'omitmissing')/mean(MW245.cDCE,'omitmissing'),...
CVMW245DCE11=std(MW245.DCE11,'omitmissing')/mean(MW245.DCE11,'omitmissing'),...
CVMW245VC=std(MW245.VC,'omitmissing')/mean(MW245.VC,'omitmissing'),
```

```
CVMW245PCE =
2.6003
CVMW245TCE =
2.5537
CVMW245cDCE =
1.4469
CVMW245DCE11 =
1.9866
CVMW245VC =
1.5782
```

Linear Correlation

rho	Correlation
-1.0	Perfect negative
0.0	No correlation
1.0	Perfect positive

pvalue	Significance level of 0.05
=<0.05	Statistically significant

```
'Linear Correlation PCE',[rho,pval] = corr(juliandate(MW245.Date),MW245.PCE,Rows="complete")
```

```
ans =
'Linear Correlation PCE'
rho =
-0.5077
pval =
0.1990
```

```
'Linear Correlation TCE',[rho,pval] = corr(juliandate(MW245.Date),MW245.TCE,Rows="complete")
```

```
ans =
'Linear Correlation TCE'
rho =
-0.5269
pval =
```

```
0.1797
```

```
'Linear Correlation cDCE',[rho,pval] = corr(juliandate(MW245.Date),MW245.cDCE,Rows="complete")
```

```
ans =
'Linear Correlation cDCE'
rho =
-0.7662
pval =
0.0266
```

```
'Linear Correlation DCE11',[rho,pval] = corr(juliandate(MW245.Date),MW245.cDCE,Rows="complete")
```

```
ans =
'Linear Correlation DCE11'
rho =
-0.7662
pval =
0.0266
```

```
'Linear Correlation VC',[rho,pval] = corr(juliandate(MW245.Date),MW245.VC,Rows="complete")
```

```
ans =
'Linear Correlation VC'
rho =
-0.7289
pval =
0.0402
```

Mann-Kendall Trend Tests

```
'Test for Trend PCE', [H, P_value,Z,StdS]=MKwMiss(MW245.PCE,0.05,NaN)
```

```
ans =
'Test for Trend PCE'
H = logical

   1
P_value =
0.0083
Z =
-2.6388
StdS =
7.9582
```

```
"PCE",'One Way Test Trend < 0', pval = cumKendallTest(MW245.PCE,juliandate(MW245.Date),'lt')
```

```
ans =
"PCE"
ans =
'One Way Test Trend < 0'
pval =
-0.0042
```

```
'Test for Trend TCE', [H, P_value,Z,StdS]=MKwMiss(MW245.TCE,0.05,NaN)
```

```
ans =
'Test for Trend TCE'
H = logical
```

```
   1
P_value =
0.0248
Z =
-2.2442
StdS =
8.0208
```

```
"TCE",'One Way Test Trend < 0', pval = cumKendallTest(MW245.TCE,juliandate(MW245.Date),'lt')
```

```
ans =
"TCE"
ans =
'One Way Test Trend < 0'
pval =
-0.0124
```

```
'Test for Trend cDCE', [H, P_value,Z,StdS]=MKwMiss(MW245.cDCE,0.05,NaN)
```

```
ans =
'Test for Trend cDCE'
H = logical

   1
P_value =
0.0094
Z =
-2.5981
StdS =
8.0829
```

```
"cDCE",'One Way Test Trend < 0', pval = cumKendallTest(MW245.cDCE,juliandate(MW245.Date),'lt')
```

```
ans =
"cDCE"
ans =
'One Way Test Trend < 0'
pval =
-0.0047
```

```
'Test for Trend DCE11', [H, P_value,Z,StdS]=MKwMiss(MW245.DCE11,0.05,NaN)
```

```
ans =
'Test for Trend DCE11'
H = logical

   1
P_value =
0.0044
Z =
-2.8455
StdS =
8.0829
```

```
"DCE11",'One Way Test Trend < 0', pval = cumKendallTest(MW245.DCE11,juliandate(MW245.Date),'lt')
```

```
ans =
"DCE11"
```

```
ans =
'One Way Test Trend < 0'
pval =
-0.0022
```

```
'Test for Trend VC', [H, P_value,Z,StdS]=MKwMiss(MW245.VC,0.05,NaN)
```

```
ans =
'Test for Trend VC'
H = logical

   1
P_value =
0.0012
Z =
-3.2416
StdS =
8.0208
```

```
"VC",'One Way Test Trend < 0', pval = cumKendallTest(MW245.VC,juliandate(MW245.Date),'lt')
```

```
ans =
"VC"
ans =
'One Way Test Trend < 0'
pval =
-5.9437e-04
```

SSA Trend Analysis

```
% Decompose data into long-term trend, seasonal trends, and remainder
MW245SSA = trenddecomp(MW245(:,["PCE","TCE","cDCE","DCE11","VC","TOC"]),"ssa",4, ...
    "NumSeasonal",1);
```

MW-245 Time Series Data Plots

```
figure
t13=tiledlayout('flow');
t13.Padding='compact';
t13.TileSpacing='compact';
nexttile
plot(MW245.Date,MW245.PCE,':','Color','0 0.45 0.74','Marker','o',...
    'MarkerEdgeColor','0 0.45 0.74','MarkerFaceColor','0 0.45 0.74')
axis padded
yscale('log')
title('MW-245 PCE (ug/L)')
xline(datetime(2021,11,01),'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
yline(5,'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
hold
```

Current plot held

```
plot(MW245.Date,MW245SSA.PCE_LongTerm,'-.','Color','magenta');
legend('','','','LT Trend',Location='northeast',EdgeColor='none',Color='none')
nexttile
plot(MW245.Date,MW245.TCE,':','Color','0.85 0.33 0.1','Marker','o',...
    'MarkerEdgeColor','0.85 0.33 0.1','MarkerFaceColor','0.85 0.33 0.1')
axis padded
yscale('log')
title('MW-245 TCE (ug/L)')
xline(datetime(2021,11,01),'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
yline(5,'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
hold
```

Current plot held

```
plot(MW245.Date,MW245SSA.TCE_LongTerm,'-.','Color','magenta');
legend('','','','LT Trend',Location='northeast',EdgeColor='none',Color='none')
nexttile
plot(MW245.Date,MW245.cDCE,':','Color','0.93 0.69 0.13','Marker','o',...
    'MarkerEdgeColor','0.93 0.69 0.13','MarkerFaceColor','0.93 0.69 0.13')
axis padded
yscale('log')
title('MW-245 cDCE (ug/L)')
xline(datetime(2021,11,01),'-.','LabelVerticalAlignment','middle',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
yline(70,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','right','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
hold
```

Current plot held

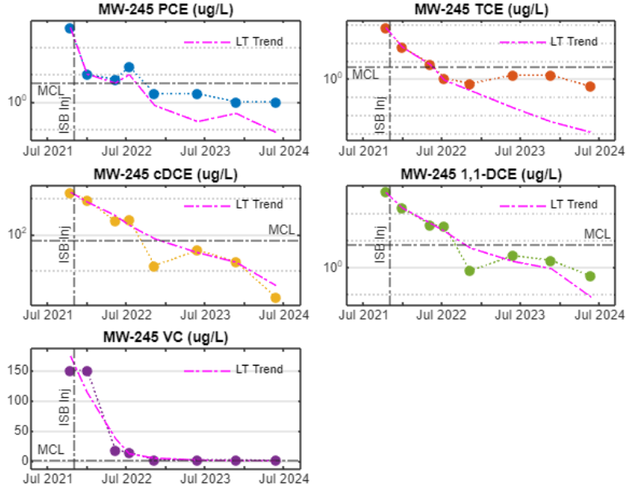
```
plot(MW245.Date,MW245SSA.cDCE_LongTerm,'-.','Color','magenta');
legend('','','','LT Trend',Location='northeast',EdgeColor='none',Color='none')
nexttile
plot(MW245.Date,MW245.DCE11,':','Color','0.47 0.67 0.19','Marker','o',...
    'MarkerEdgeColor','0.47 0.67 0.19','MarkerFaceColor','0.47 0.67 0.19')
axis padded
yscale('log')
title('MW-245 1,1-DCE (ug/L)')
xline(datetime(2021,11,01),'-.','LabelVerticalAlignment','middle',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
yline(7,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','right','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
hold
```

Current plot held

```
plot(MW245.Date,MW245SSA.DCE11_LongTerm,'-.','Color','magenta');
legend('','','','LT Trend',Location='northeast',EdgeColor='none',Color='none')
nexttile
plot(MW245.Date,MW245.VC,':','Color','0.49 0.18 0.56','Marker','o',...
    'MarkerEdgeColor','0.49 0.18 0.56','MarkerFaceColor','0.49 0.18 0.56')
axis padded
title('MW-245 VC (ug/L)')
xline(datetime(2021,11,01),'-.','LabelVerticalAlignment','middle',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
yline(2,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
hold
```

Current plot held

```
plot(MW245.Date,MW245SSA.VC_LongTerm,'-.','Color','magenta');
legend('','','','LT Trend',Location='northeast',EdgeColor='none',Color='none')
```



17.0 MW-246

Exploratory Data Analysis

Data Summary

```
summary(MW246,DataVariables=["Date","PCE","TCE","cDCE","DCE11","VC","TOC"],Statistics="allstats")
```

```
MW246: 8×7 table
Variables:
```

    Date: datetime
    PCE: double
    TCE: double
    cDCE: double
    DCE11: double
    VC: double
    TOC: double

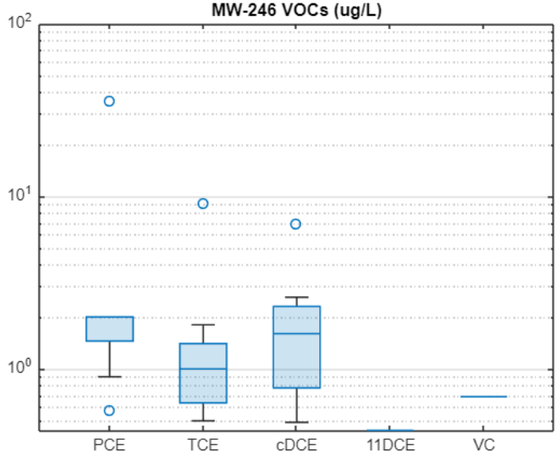
Statistics for applicable variables:

	NumMissing	Min	Q1	Median	Q3	Max	Range	Mean	Std	Var	Sum	Mode
Date	0	12-Oct-2021		09-Sep-2022 13:57:30		15-May-2024 15:05:00	22719:05:00	20-Nov-2022 20:26:52	8065:15:21			12-Oct-2021
PCE	0	0.5800	1.4500	2	2	36	35.4200	5.9350	12.1617	147.9075	47.4800	2
TCE	0	0.5000	0.6350	1	1.4000	9.2000	8.7000	1.9712	2.9490	8.6966	15.7700	1
cDCE	0	0.4900	0.7750	1.6000	2.3000	7	6.5100	2.1050	2.1035	4.4249	16.8400	1.6000
DCE11	7	0.4400	0.4400	0.4400	0.4400	0.4400	0	0.4400	0	0	0.4400	0.4400
VC	7	0.6900	0.6900	0.6900	0.6900	0.6900	0	0.6900	0	0	0.6900	0.6900
TOC	0	0.5900	0.7050	1.1400	1.7000	1.9000	1.3100	1.1975	0.5380	0.2894	9.5800	0.5900

```
format compact
```

Distribution

```
figure
boxchart(MW246array)
set(gca, "XGrid", "off", "YGrid", "on")
xticklabels({'PCE','TCE','cDCE','11DCE','VC'})
yscale('log')
title('MW-246 VOCs (ug/L)')
box
```



Normal Distribution Tests

```
'PCE',[h,p,kstat,critval] = lillietest(MW246.PCE,"MCTol",1E+04),
```

```
ans =
'PCE'
```

```
h =
1
p =
0
kstat =
0.5019
critval =
0.2940
```

```
'TCE',[h,p,kstat,critval] = lillietest(MW246.TCE,"MCTol",1E+04)
```

```
ans =
'TCE'
h =
1
p =
1.0000e-03
kstat =
0.3982
critval =
0.2843
```

```
'cDCE', [h,p,kstat,critval] = lillietest(MW246.cDCE,"MCTol",1E+04),
```

```
ans =
'cDCE'
h =
0
p =
0.0550
kstat =
0.2820
critval =
0.2850
```

```
'DCE11', [h,p,kstat,critval] = lillietest(MW246.DCE11,"MCTol",1E+04),
```

```
ans =
'DCE11'
```

```
'VC', [h,p,kstat,critval] = lillietest(MW246.VC,"MCTol",1E+04),
```

```
ans =
'VC'
```

Outlier Testing

```
'PCE Outliers',isoutlier(MW246.PCE,"quartiles")','TCE Outliers',isoutlier(MW246.TCE,"quartiles")',...
'cDCE Outliers',isoutlier(MW246.cDCE,"quartiles")','DCE11 Outliers',isoutlier(MW246.cDCE,"quartiles")',...
'VC',isoutlier(MW246.VC,"quartiles")',
```

```
ans =
'PCE Outliers'
ans = 1×8 logical array
   0   0   0   0   0   0   1   1
ans =
'TCE Outliers'
ans = 1×8 logical array
   0   0   0   0   0   0   1   0
ans =
```

```
'cDCE Outliers'
ans = 1×8 logical array
   0   0   0   0   0   0   1   0
ans =
'DCE11 Outliers'
ans = 1×8 logical array
   0   0   0   0   0   0   1   0
ans =
'VC'
ans = 1×8 logical array
   0   0   0   0   0   0   0   0
```

Coefficient of Variation

Coefficient of variation (CV) of a time series data set is the ratio of standard deviation and mean. CV provides a measure of variability of time series data.

Coefficient of Variation	Variance
<0.50	Low
0.5 to 1.0	Moderate
>1.0	High

```
CVMW246PCE=std(MW246.PCE,'omitmissing')/mean(MW246.PCE,'omitmissing'),...
CVMW246TCE=std(MW246.TCE,'omitmissing')/mean(MW246.TCE,'omitmissing'),...
CVMW246cDCE=std(MW246.cDCE,'omitmissing')/mean(MW246.cDCE,'omitmissing'),...
CVMW246DCE11=std(MW246.DCE11,'omitmissing')/mean(MW246.DCE11,'omitmissing'),...
CVMW246VC=std(MW246.VC,'omitmissing')/mean(MW246.VC,'omitmissing'),
```

```
CVMW246PCE =
2.0492
CVMW246TCE =
1.4960
CVMW246cDCE =
0.9993
CVMW246DCE11 =
0
CVMW246VC =
0
```

Linear Correlation

rho	Correlation
-1.0	Perfect negative
0.0	No correlation
1.0	Perfect positive

pvalue	Significance level of 0.05
=<0.05	Statistically significant

```
'Linear Correlation PCE',[rho,pval] = corr(juliandate(MW246.Date),MW246.PCE,Rows="complete")
```

```
ans =
'Linear Correlation PCE'
rho =
0.4231
pval =
0.2962
```

```
'Linear Correlation TCE',[rho,pval] = corr(juliandate(MW246.Date),MW246.TCE,Rows="complete")
```

```
ans =
'Linear Correlation TCE'
rho =
0.3577
pval =
0.3844
```

```
'Linear Correlation cDCE',[rho,pval] = corr(juliandate(MW246.Date),MW246.cDCE,Rows="complete")
```

```
ans =
'Linear Correlation cDCE'
rho =
0.4484
pval =
0.2652
```

```
'Linear Correlation DCE11',[rho,pval] = corr(juliandate(MW246.Date),MW246.cDCE,Rows="complete")
```

```
ans =
'Linear Correlation DCE11'
rho =
0.4484
pval =
0.2652
```

```
'Linear Correlation VC',[rho,pval] = corr(juliandate(MW246.Date),MW246.VC,Rows="complete")
```

```
ans =
'Linear Correlation VC'
rho =
NaN
pval =
NaN
```

Mann-Kendall Trend Tests

```
'Test for Trend PCE', [H, P_value,Z,StdS]=MKwMiss(MW246.PCE,0.05,NaN)
```

```
ans =
'Test for Trend PCE'
H = logical

   0
P_value =
0.6672
Z =
0.4300
StdS =
6.9761
```

```
"PCE",'One Way Test Trend > 0', pval = cumKendallTest(MW246.PCE,juliandate(MW246.Date),'gt')
```

```
ans =
"PCE"
ans =
'One Way Test Trend > 0'
pval =
0.3336
```

```
'Test for Trend TCE', [H, P_value,Z,StdS]=MKwMiss(MW246.TCE,0.05,NaN)
```

```
ans =
'Test for Trend TCE'
H = logical

   0
P_value =
0.6105
Z =
-0.5094
StdS =
7.8528
```

```
"TCE",'One Way Test Trend < 0', pval = cumKendallTest(MW246.TCE,juliandate(MW246.Date),'lt')
```

```
ans =
"TCE"
ans =
'One Way Test Trend < 0'
pval =
-0.3052
```

```
'Test for Trend cDCE', [H, P_value,Z,StdS]=MKwMiss(MW246.cDCE,0.05,NaN)
```

```
ans =
'Test for Trend cDCE'
H = logical
   0
P_value =
0.3186
Z =
0.9974
StdS =
8.0208
```

```
"cDCE",'One Way Test Trend > 0', pval = cumKendallTest(MW246.cDCE,juliandate(MW246.Date),'gt')
```

```
ans =
"cDCE"
ans =
'One Way Test Trend > 0'
pval =
0.1593
```

```
'Test for Trend DCE11', [H, P_value,Z,StdS]=MKwMiss(MW246.DCE11,0.05,NaN)
```

```
ans =
'Test for Trend DCE11'
```

```
"DCE11",'One Way Test Trend < 0', pval = cumKendallTest(MW246.DCE11,juliandate(MW246.Date),'lt')
```

```
ans =
"DCE11"
ans =
'One Way Test Trend < 0'
Function pvalKendall in file cumKendallTest.m :TooFewInputs
pval =
NaN
```

```
'Test for Trend VC', [H, P_value,Z,StdS]=MKwMiss(MW246.VC,0.05,NaN)
```

```
ans =
'Test for Trend VC'
```

```
"VC",'One Way Test Trend < 0', pval = cumKendallTest(MW246.VC,juliandate(MW246.Date),'lt')
```

```
ans =
"VC"
ans =
'One Way Test Trend < 0'
Function pvalKendall in file cumKendallTest.m :TooFewInputs
pval =
NaN
```

SSA Trend Analysis

```
% Decompose data into long-term trend, seasonal trends, and remainder
MW246SSA = trenddecomp(MW246(:,["PCE","TCE","cDCE","DCE11","VC","TOC"]),"ssa",4, ...
    "NumSeasonal",1);
```

MW-246 Time Series Data Plots

```
figure
t14=tiledlayout('flow');
t14.Padding='compact';
t14.TileSpacing='compact';
nexttile
plot(MW246.Date,MW246.PCE,':','Color','0 0.45 0.74','Marker','o',...
    'MarkerEdgeColor','0 0.45 0.74','MarkerFaceColor','0 0.45 0.74')
axis padded
yscale('log')
title('MW-246 PCE (ug/L)')
xline(datetime(2021,11,01),'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
yline(5,'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
```

```
hold
```

```
Current plot held
```

```
plot(MW246.Date,MW246SSA.PCE_LongTerm,'-.','Color','magenta');
legend('','','','LT Trend',Location='northeast',EdgeColor='none',Color='none')
nexttile
plot(MW246.Date,MW246.TCE,':','Color','0.85 0.33 0.1','Marker','o',...
    'MarkerEdgeColor','0.85 0.33 0.1','MarkerFaceColor','0.85 0.33 0.1')
axis padded
yscale('log')
title('MW-246 TCE (ug/L)')
xline(datetime(2021,11,01),'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
yline(5,'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
hold
```

```
Current plot held
```

```
plot(MW246.Date,MW246SSA.TCE_LongTerm,'-.','Color','magenta');
legend('','','','LT Trend',Location='northeast',EdgeColor='none',Color='none')
nexttile
plot(MW246.Date,MW246.cDCE,':','Color','0.93 0.69 0.13','Marker','o',...
    'MarkerEdgeColor','0.93 0.69 0.13','MarkerFaceColor','0.93 0.69 0.13')
axis padded
yscale('log')
title('MW-246 cDCE (ug/L)')
xline(datetime(2021,11,01),'-.','LabelVerticalAlignment','middle',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
yline(70,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','right','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
hold
```

```
Current plot held
```

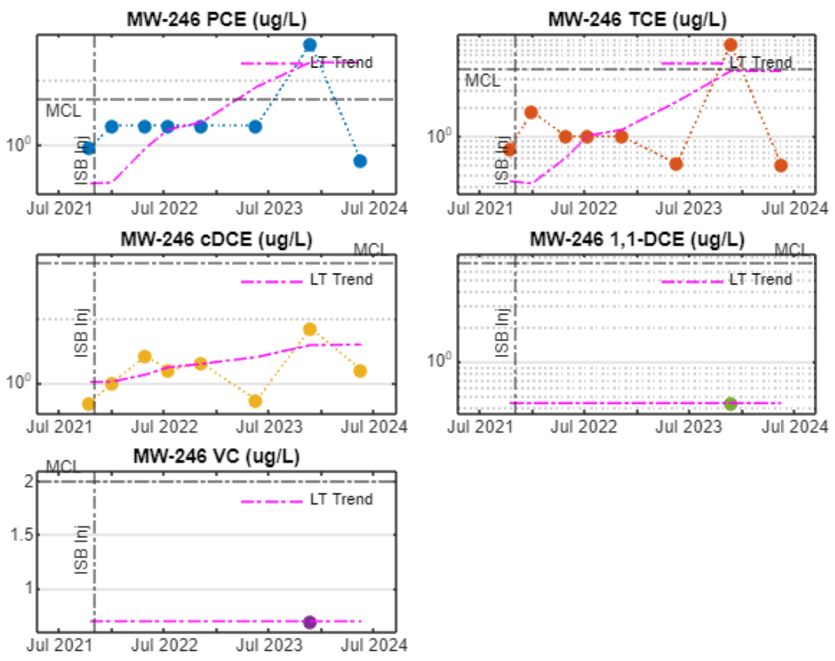
```
plot(MW246.Date,MW246SSA.cDCE_LongTerm,'-.','Color','magenta');
legend('','','','LT Trend',Location='northeast',EdgeColor='none',Color='none')
nexttile
plot(MW246.Date,MW246.DCE11,':','Color','0.47 0.67 0.19','Marker','o',...
    'MarkerEdgeColor','0.47 0.67 0.19','MarkerFaceColor','0.47 0.67 0.19')
axis padded
yscale('log')
title('MW-246 1,1-DCE (ug/L)')
xline(datetime(2021,11,01),'-.','LabelVerticalAlignment','middle',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
yline(7,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','right','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
hold
```

```
Current plot held
```

```
plot(MW246.Date,MW246SSA.DCE11_LongTerm,'-.','Color','magenta');
legend('','','','LT Trend',Location='northeast',EdgeColor='none',Color='none')
nexttile
plot(MW246.Date,MW246.VC,':','Color','0.49 0.18 0.56','Marker','o',...
    'MarkerEdgeColor','0.49 0.18 0.56','MarkerFaceColor','0.49 0.18 0.56')
axis padded
title('MW-246 VC (ug/L)')
xline(datetime(2021,11,01),'-.','LabelVerticalAlignment','middle',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
yline(2,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
hold
```

```
Current plot held
```

```
plot(MW246.Date,MW246SSA.VC_LongTerm,'-.','Color','magenta');
legend('','','','LT Trend',Location='northeast',EdgeColor='none',Color='none')
```



18.0 MW-247

Exploratory Data Analysis

Data Summary

```
summary(MW247,DataVariables=["Date","PCE","TCE","cDCE","DCE11","VC","TOC"],Statistics="allstats")
```

MW247: 8×7 table

Variables:

    Date: datetime
    PCE: double
    TCE: double
    cDCE: double
    DCE11: double
    VC: double
    TOC: double

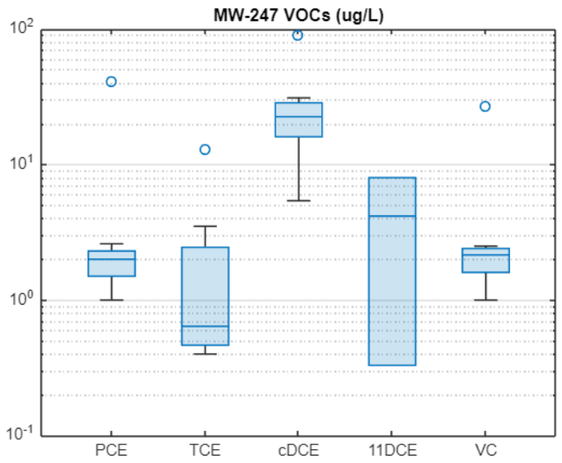
Statistics for applicable variables:

	NumMissing	Min	Q1	Median	Q3	Max	Range	Mean	Std	Var	Sum	Mo
Date	0	13-Oct-2021		09-Sep-2022 12:45:00		22-May-2024 09:20:00	22857:20:00	24-Nov-2022 04:06:15	8087:36:21			13-Oc
PCE	0	1	1.5000	2	2.3000	41	40	6.7000	13.8700	192.3771	53.6000	
TCE	0	0.4000	0.4650	0.6400	2.4500	13	12.6000	2.5637	4.3432	18.8633	20.5100	
cDCE	0	5.4000	16	22.5000	28.5000	90	84.6000	28.6750	25.9811	675.0164	229.4000	
DCE11	6	0.3300	0.3300	4.1650	8	8	7.6700	4.1650	5.4235	29.4144	8.3300	
VC	0	1	1.6000	2.1500	2.4000	27	26	5.0375	8.8879	78.9941	40.3000	
TOC	0	1.6000	1030	2650	3350	3600	3.5984e+03	2.2077e+03	1.3926e+03	1.9394e+06	1.7662e+04	

```
format compact
```

Distribution

```
figure
boxchart(MW247array)
set(gca, "XGrid", "off", "YGrid", "on")
xticklabels({'PCE','TCE','cDCE','11DCE','VC'})
yscale('log')
title('MW-247 VOCs (ug/L)')
box
```



Normal Distribution Tests

```
'PCE',[h,p,kstat,critval] = lillietest(MW247.PCE,"MCTol",1E+04),
```

```
ans =
'PCE'
h =
1
p =
0
kstat =
0.4912
critval =
0.2870
```

```
'TCE',[h,p,kstat,critval] = lillietest(MW247.TCE,"MCTol",1E+04)
```

```
ans =
'TCE'
h =
1
p =
1.0000e-03
kstat =
0.3556
critval =
0.2956
```

```
'cDCE', [h,p,kstat,critval] = lillietest(MW247.cDCE,"MCTol",1E+04),
```

```
ans =
'cDCE'
h =
1
p =
0.0090
kstat =
0.3393
```

```
critval =
0.2963
```

```
'DCE11', [h,p,kstat,critval] = lillietest(MW247.DCE11,"MCTol",1E+04),
```

```
ans =
'DCE11'
```

```
'VC', [h,p,kstat,critval] = lillietest(MW247.VC,"MCTol",1E+04),
```

```
ans =
'VC'
h =
1
p =
0
kstat =
0.4874
critval =
0.2831
```

Outlier Testing

```
'PCE Outliers',isoutlier(MW247.PCE,"quartiles")','TCE Outliers',isoutlier(MW247.TCE,"quartiles")',...
'cDCE Outliers',isoutlier(MW247.cDCE,"quartiles")','DCE11 Outliers',isoutlier(MW247.cDCE,"quartiles")',...
'VC',isoutlier(MW247.VC,"quartiles")',
```

```
ans =
'PCE Outliers'
ans = 1×8 logical array
   0   0   0   0   0   0   1   0
ans =
'TCE Outliers'
ans = 1×8 logical array
   0   0   0   0   0   0   1   0
ans =
'cDCE Outliers'
ans = 1×8 logical array
   1   0   0   0   0   0   0   0
ans =
'DCE11 Outliers'
ans = 1×8 logical array
   1   0   0   0   0   0   0   0
ans =
'VC'
ans = 1×8 logical array
   1   0   0   0   0   0   0   0
```

Coefficient of Variation

Coefficient of variation (CV) of a time series data set is the ratio of standard deviation and mean. CV provides a measure of variability of time series data.

Coefficient of Variation	Variance
<0.50	Low
0.5 to 1.0	Moderate
>1.0	High

```
CVMW247PCE=std(MW247.PCE,'omitmissing')/mean(MW247.PCE,'omitmissing'),...
CVMW247TCE=std(MW247.TCE,'omitmissing')/mean(MW247.TCE,'omitmissing'),...
CVMW247cDCE=std(MW247.cDCE,'omitmissing')/mean(MW247.cDCE,'omitmissing'),...
CVMW247DCE11=std(MW247.DCE11,'omitmissing')/mean(MW247.DCE11,'omitmissing'),...
CVMW247VC=std(MW247.VC,'omitmissing')/mean(MW247.VC,'omitmissing'),
```

```
CVMW247PCE =
2.0702
CVMW247TCE =
1.6941
CVMW247cDCE =
0.9061
CVMW247DCE11 =
1.3022
CVMW247VC =
1.7643
```

Linear Correlation

rho	Correlation
-1.0	Perfect negative
0.0	No correlation
1.0	Perfect positive

pvalue	Significance level of 0.05
=<0.05	Statistically significant

```
'Linear Correlation PCE',[rho,pval] = corr(juliandate(MW247.Date),MW247.PCE,Rows="complete")
```

```
ans =
'Linear Correlation PCE'
rho =
0.4177
pval =
0.3031
```

```
'Linear Correlation TCE',[rho,pval] = corr(juliandate(MW247.Date),MW247.TCE,Rows="complete")
```

```
ans =
'Linear Correlation TCE'
rho =
0.3021
pval =
0.4670
```

```
'Linear Correlation cDCE',[rho,pval] = corr(juliandate(MW247.Date),MW247.cDCE,Rows="complete")
```

```
ans =
'Linear Correlation cDCE'
rho =
```

```
-0.5819
pval =
0.1302
```

```
'Linear Correlation DCE11',[rho,pval] = corr(juliandate(MW247.Date),MW247.cDCE,Rows="complete")
```

```
ans =
'Linear Correlation DCE11'
rho =
-0.5819
pval =
0.1302
```

```
'Linear Correlation VC',[rho,pval] = corr(juliandate(MW247.Date),MW247.VC,Rows="complete")
```

```
ans =
'Linear Correlation VC'
rho =
-0.5171
pval =
0.1894
```

Mann-Kendall Trend Tests

```
'Test for Trend PCE', [H, P_value,Z,StdS]=MKwMiss(MW247.PCE,0.05,NaN)
```

```
ans =
'Test for Trend PCE'
H = logical

   0
P_value =
1
Z =
0
StdS =
7.4610
```

```
"PCE",'One Way Test Trend > 0', pval = cumKendallTest(MW247.PCE,juliandate(MW247.Date),'gt')
```

```
ans =
"PCE"
ans =
'One Way Test Trend > 0'
pval =
-0.6057
```

```
'Test for Trend TCE', [H, P_value,Z,StdS]=MKwMiss(MW247.TCE,0.05,NaN)
```

```
ans =
'Test for Trend TCE'
H = logical

   0
P_value =
0.5362
Z =
-0.6186
StdS =
```

```
8.0829
```

```
"TCE",'One Way Test Trend < 0', pval = cumKendallTest(MW247.TCE,juliandate(MW247.Date),'lt')
```

```
ans =
"TCE"
ans =
'One Way Test Trend < 0'
pval =
-0.2681
```

```
'Test for Trend cDCE', [H, P_value,Z,StdS]=MKwMiss(MW247.cDCE,0.05,NaN)
```

```
ans =
'Test for Trend cDCE'
H = logical

   0
P_value =
0.0635
Z =
-1.8558
StdS =
8.0829
```

```
"cDCE",'One Way Test Trend < 0', pval = cumKendallTest(MW247.cDCE,juliandate(MW247.Date),'lt')
```

```
ans =
"cDCE"
ans =
'One Way Test Trend < 0'
pval =
-0.0317
```

```
'Test for Trend DCE11', [H, P_value,Z,StdS]=MKwMiss(MW247.DCE11,0.05,NaN)
```

```
ans =
'Test for Trend DCE11'
H = logical

   0
P_value =
1
Z =
0
StdS =
1
```

```
"DCE11",'One Way Test Trend < 0', pval = cumKendallTest(MW247.DCE11,juliandate(MW247.Date),'lt')
```

```
ans =
"DCE11"
ans =
'One Way Test Trend < 0'
pval =
-0.5000
```

```
'Test for Trend VC', [H, P_value,Z,StdS]=MKwMiss(MW247.VC,0.05,NaN)
```

```
ans =
'Test for Trend VC'
H = logical

   1
P_value =
0.0461
Z =
-1.9948
StdS =
8.0208
```

```
"VC",'One Way Test Trend < 0', pval = cumKendallTest(MW247.VC,juliandate(MW247.Date),'lt')
```

```
ans =
"VC"
ans =
'One Way Test Trend < 0'
pval =
-0.0230
```

SSA Trend Analysis

```
% Decompose data into long-term trend, seasonal trends, and remainder
MW247SSA = trenddecomp(MW247(:,["PCE","TCE","cDCE","DCE11","VC","TOC"]),"ssa",4, ...
    "NumSeasonal",1);
```

MW-247 Time Series Data Plots

```
figure
t15=tiledlayout('flow');
t15.Padding='compact';
t15.TileSpacing='compact';
nexttile
plot(MW247.Date,MW247.PCE,':','Color','0 0.45 0.74','Marker','o',...
    'MarkerEdgeColor','0 0.45 0.74','MarkerFaceColor','0 0.45 0.74')
axis padded
yscale('log')
title('MW-247 PCE (ug/L)')
xline(datetime(2021,11,01),'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
yline(5,'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
hold
```

```
Current plot held
```

```
plot(MW247.Date,MW247SSA.PCE_LongTerm,'-.','Color','magenta');
legend('','','','LT Trend',Location='northeast',EdgeColor='none',Color='none')
nexttile
```

```
plot(MW247.Date,MW247.TCE,':','Color','0.85 0.33 0.1','Marker','o',...
    'MarkerEdgeColor','0.85 0.33 0.1','MarkerFaceColor','0.85 0.33 0.1')
axis padded
yscale('log')
title('MW-247 TCE (ug/L)')
xline(datetime(2021,11,01),'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
yline(5,'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
hold
```

```
Current plot held
```

```
plot(MW247.Date,MW247SSA.TCE_LongTerm,'-.','Color','magenta');
legend('','','','LT Trend',Location='northeast',EdgeColor='none',Color='none')
nexttile
plot(MW247.Date,MW247.cDCE,':','Color','0.93 0.69 0.13','Marker','o',...
    'MarkerEdgeColor','0.93 0.69 0.13','MarkerFaceColor','0.93 0.69 0.13')
axis padded
yscale('log')
title('MW-247 cDCE (ug/L)')
xline(datetime(2021,11,01),'-.','LabelVerticalAlignment','middle',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
yline(70,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','right','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
hold
```

```
Current plot held
```

```
plot(MW247.Date,MW247SSA.cDCE_LongTerm,'-.','Color','magenta');
legend('','','','LT Trend',Location='northeast',EdgeColor='none',Color='none')
nexttile
plot(MW247.Date,MW247.DCE11,':','Color','0.47 0.67 0.19','Marker','o',...
    'MarkerEdgeColor','0.47 0.67 0.19','MarkerFaceColor','0.47 0.67 0.19')
axis padded
yscale('log')
title('MW-247 1,1-DCE (ug/L)')
xline(datetime(2021,11,01),'-.','LabelVerticalAlignment','middle',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
yline(7,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','right','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
hold
```

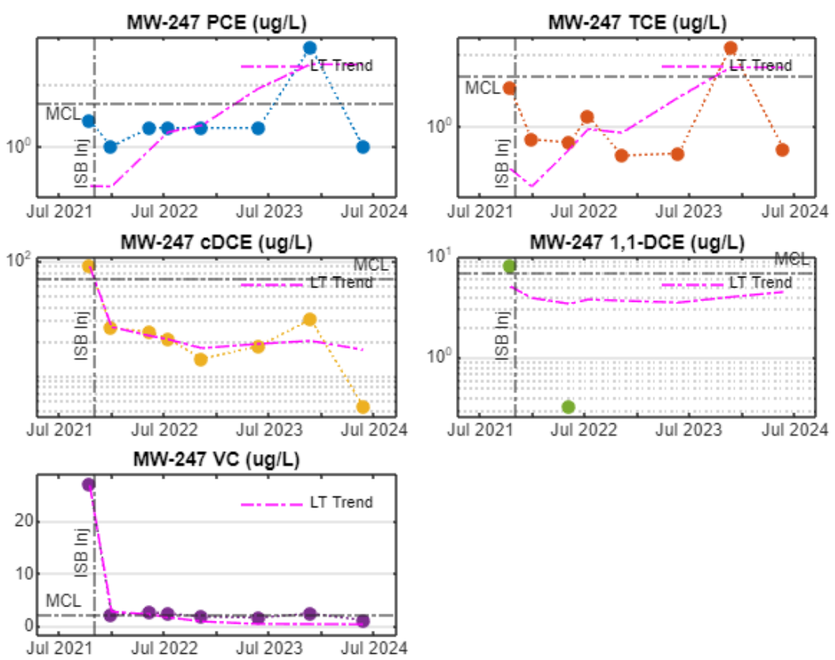
```
Current plot held
```

```
plot(MW247.Date,MW247SSA.DCE11_LongTerm,'-.','Color','magenta');
legend('','','','LT Trend',Location='northeast',EdgeColor='none',Color='none')
nexttile
plot(MW247.Date,MW247.VC,':','Color','0.49 0.18 0.56','Marker','o',...
```

```
    'MarkerEdgeColor','0.49 0.18 0.56','MarkerFaceColor','0.49 0.18 0.56')
axis padded
title('MW-247 VC (ug/L)')
xline(datetime(2021,11,01),'-.','LabelVerticalAlignment','middle',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
yline(2,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
hold
```

```
Current plot held
```

```
plot(MW247.Date,MW247SSA.VC_LongTerm,'-.','Color','magenta');
legend('','','','LT Trend',Location='northeast',EdgeColor='none',Color='none')
```



Standard Color Ramp

Hex Color Reference Codes

- PCE 0 0.45 074
- TCE 0.85 0.33 0.1
- cDCE 0.93 0.69 0.13
- VC 0.49 0.18 0.56
- 1,1-DCE 0.47 0.67 0.19
- DCM 0.3 0.75 0.93

- 1,1,1-TCA 0.3 0.75 0.93
- 1,2-DCA 0.75 0.75 0
- 1,4-DCB 0.64 0.08 0.18
- CB 0.68 0.92 1
- Benzene 0.69 0.08 0.18
- TOC 0.87 0.49 0
- DHC 0.85 0.7 1
- tceA 1 0.84 0
- VCR 1 0.6 0.78
- BCV 0.75 0.75 0

Function Coding Reference

Group Statistics Standard Functions

- "sum" Sum
- "mean" Mean
- "median" Median
- "mode" Mode
- "var" Variance
- "std" Standard deviation
- "min" Minimum
- "max" Maximum
- "range" Maximum minus minimum
- "nummissing" Number of missing elements
- "numunique" Number of distinct nonmissing elements
- "nnz" Number of nonzero and non-NaN elements
- "all" All computations previously listed

Group Descriptive Statistics Functions

- **Outliers**
- **10th, 25th, 50th, 75th, 90th, and 95th percentile**
- **Skewness, Kurtosis**
- **Greater than specified limit**

```
% Is outlier function
function y = outlier(x)
% Count the number of outliers in each group
y = nnz(isoutlier(x,'quartiles'));
end

% 10th percentile function
function y = prctile10(x)
```

```
%Distribution 10th percentile
y = (prctile(x,10));
end

%25th percentile function
function y = prctile25(x)
%Distribution 25th percentile
y = (prctile(x,25));
end

%Distribution 50th percentile function
function y = prctile50(x)
%Distribution 50th percentile
y = (prctile(x,50));
end

%75th percentile function
function y = prctile75(x)
%Distribution 75th percentile
y = (prctile(x,75));
end

%90th percentile function
function y = prctile90(x)
%Distribution 90th percentile
y = (prctile(x,90));
end

%95th percentile function
function y = prctile95(x)
%Distribution 95th percentile
y = (prctile(x,95));
end

%25 and 75th percentile function
function y = prct25_75(x)
% x is the data in a group from one computation variable
% Distribution 25th and 75th percentile
y = (prctile(x,[25 75]));
end

%skewness function
function y = skew(x)
%Distribution skewness
y= (skewness(x));
end

%skewness function
function y = kurt(x)
%Distribution skewness
```

```
y= (kurtosis(x));
end

%Group count >MCL 5
function y = MCL5gt(x)
%Group counts for greater than a limit
y= sum(x>5);
end

%Group count >MCL 2
function y = MCL2gt(x)
%Group counts for greater than a limit
y= sum(x>2);
end

%Group count >MCL 7
function y = MCL7gt(x)
%Group counts for greater than a limit
y= sum(x>7);
end

%Group count >MCL 70
function y = MCL70gt(x)
%Group counts for greater than a limit
y= sum(x>70);
end

%Group count >MCL 75
function y = MCL75gt(x)
%Group counts for greater than a limit
y= sum(x>75);
end

%Group count >MCL 2
function y = MCL100gt(x)
%Group counts for greater than a limit
y= sum(x>100);
end

%Group count >MCL 200
function y = MCL200gt(x)
%Group counts for greater than a limit
y= sum(x>200);
end

%Group count>RSL 1.71E-01
function y = RSLDCA12gt(x)
%Group counts for greater than a limit
y= sum(x>1.71E-01);
end
```

```
%Group count <=DO 1
function y = DOlt(x)
%Group counts for greater than a limit
y= sum(x<=1);
end

%Group count <=ORP 50
function y = ORPlt(x)
%Group counts for greater than a limit
y= sum(x<=-50);
end

%Group count <=Sulfate 50
function y = SO4lt(x)
%Group counts for greater than a limit
y= sum(x<50);
end

%Group count <=Sulfide 1
function y = S2gt(x)
%Group counts for greater than a limit
y= sum(x>1);
end

%Group count <=Sulfide H2S 1
function y = S2H2Sgt(x)
%Group counts for greater than a limit
y= sum(x>1);
end

%Group count TOC=>20
function y = TOCgt(x)
%Group counts for greater than a limit
y= sum(x>=20);
end

%Group count Methane=>500
function y = Methanegt(x)
%Group counts for greater than a limit
y= sum(x>=500);
end

%Group count Fe2=>1
function y = FE2gt(x)
%Group counts for greater than a limit
y= sum(x>=1);
end

%Group count Ethene=>10
```

```
function y = Ethenegt(x)
%Group counts for greater than a limit
y= sum(x>=10);
end

%Group count Ethane=>10
function y = Ethanegt(x)
%Group counts for greater than a limit
y= sum(x>=10);
end

%Group count NO3=<1
function y = NO3gt(x)
%Group counts for greater than a limit
y= sum(x<1);
end
```

E.6 Trend Analysis for Surficial Aquifer: Southern Area

OU 6 Southern Area: Surficial Aquifer Data and Statistical Analysis

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1.0 Data Evaluation Methods

Normal Distribution - Lillifors Test

The Lilliefors test used as the hypothesis test evaluated whether the data distribution comes from a distribution in the normal family, against the alternative that it does not come from a normal distribution.

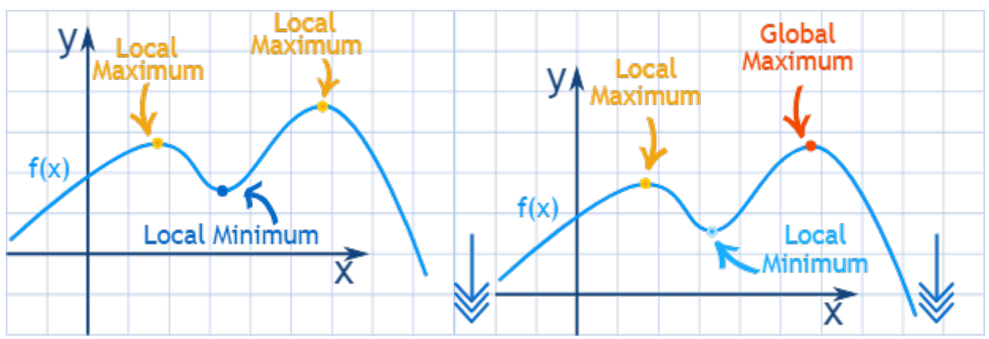
Coefficient of Variation

Coefficient of variation (CV) of a time series data set is the ratio of standard deviation and mean. CV provides a measure of variability of time series data.

Linear Correlation (Pearson's Linear Correlation Coefficient)

Correlation quantifies the strength of a linear relationship between two variables. When there is no correlation between two variables, then there is no tendency for the values of the variables to increase or decrease together. . Values of the correlation coefficient can range from –1 to +1. A value of –1 indicates perfect negative correlation, while a value of +1 indicates perfect positive correlation. A value of 0 indicates no correlation between the sets of data observations. The analysis also tests the null hypothesis of no correlation against an alternative hypothesis for positive, negative, or nonzero correlation at a significance of 5 percent (%) or alpha (α) of 0.05. A calculated probability value (p-value) <0.05 rejects the null hypothesis of no correlation indicating the correlation is significantly positive, negative, or different than 0.

Maxima and Minima



A local maximum is is:f(a) ≥ f(x) for all x in the interval. The prominence of a local maximum (or peak) measures how the peak stands out with respect to its height and location relative to other peaks. A local **minimum** is:f(a) ≤ f(x) for all x in the interval. The prominence of a local minimum (or valley) measures how the valley stands out with respect to its depth and location relative to other valleys. Global maximum and minimum represent the maximum and minimum for the entire function or data set.

Mann-Kendall (M-K) Trend Analysis

The Mann-Kendall (M-K) tests detect monotonic trends in data. M-K tests allow for missing values, do not require a particular distribution assumption, and can accommodate trace reported values and left censored data (non-detect).

Original Form

The original form of the M-K test (two-way) evaluates the null hypothesis of no trend (H0) vs. an alternative hypothesis (HA) of trend at a significance level of 5% (0.05).[1] A test result of H=0 indicates no trend with a result of H =1 indicate a trend. In null hypothesis statistical testing, the probability value (p-value) of statistical test is the probability, under the null hypothesis, of obtaining a value of the test statistic as extreme or more extreme than the value computed from the sample. Typically, a p-value quantifies the statistical significance of the result equal less than the significant level. In a significance test, the null hypothesis H0 is rejected if the p-value is less than or equal to a predefined threshold value of significance (alpha). The original form does not compute trends where the distribution has NaN (missing) data observations.

[1]Mann, H. B. (1945), Nonparametric tests against trend, Econometrica, 13, 245– 259. Kendall, M. G. (1975), Rank Correlation Methods, Griffin, London. MATLAB Code written by: Simone Fatichi -- simonef@dicea.unifi.it Copyright 2009, Date: 2009/10/03

Mann-Kendall with Missing Values and Same Values

This form of the M-K test (two-way) accounts for NaN (missing values) and tied values following the method described in Gilbert RO (1987) Statistical Methods for Environmental Pollution Monitoring pages 208-213. This test evaluates the null hypothesis of no trend (H0) vs. an alternative hypothesis (HA) of trend at a significance level of 5% (0.05) or alternative significance level.[2] A test result of H=0 indicates no trend with a result of H =1 indicate a trend. In null hypothesis statistical testing, the probability value (p-value) of statistical test is the probability, under the null hypothesis, of obtaining a value of the test statistic as extreme or more extreme than the value computed from the sample. Typically, a p-value quantifies the statistical significance of the result equal less than the significant level. In a significance test, the null hypothesis H0 is rejected if the p-value is less than or equal to a predefined threshold value of significance (alpha). This function outputs the Z statistic and standard deviation of the Mann-Kendall Statistic S. A positive (negative) value of Z indicates an upward (downward) trend.

[2]Taesam Lee (2024). Mann-Kendall with Missing Values and Same Values (https://www.mathworks.com/matlabcentral/fileexchange/70408-mann-kendall-with-missing-values-and-same-values), MATLAB Central File Exchange.

Cumulative Form for Alternative Hypothesis of Trend not zero, Trend is greater than zero, or Trend is less than zero

A cumulative form of the M-K test used in tfor data evaluations consists of one-way or two-way test that can evaluate an alternative hypothesis of trend not zero (two-way) trend greater than zero (one-way) or less than zero (one-way).[3] This test treats NaNs (missing values) in Q or pop as missing values, and removes them.

[3]Thorvaldsen, S. , Flå, T. and Willassen, N.P. (2010) DeltaProt: a software toolbox for comparative genomics. BMC Bioinformatics 2010, Vol 11:573. See http://www.biomedcentral.com/1471-2105/11/573

Sequential Test for Potential Trend Change Points

A sequential version of the Mann-Kendall test statistic allows detection of the approximate beginning of a developing trend. When the progressive series (original time series) and retrograde (backward sequential time series) curves are plotted, the intersection of the curves locates an approximate potential trend turning point. If the intersection of the curves occurs within +/- 1.96 (5% level) of the standardized statistic, a detectable change at that point in the time series can be inferred.[4]

[4] Reference: Chatterjee, S., Bisai, D. and Khan, A., 2014. Detection of approximate potential trend turning points in temperature time series (1941–2010) for Asansol Weather Observation Station, West Bengal, India. India. Atmospheric and Climate Sciences, 4, pp.64-69. MATLAB Code written by Pankaj Dey, PhD scholar, Department of Civil Engineering,Indian Institute of Science, Bangalore.

Singular Spectrum Analysis (SSA)

SSA is a spectrum estimation method (non-parametric) to analyze time series data for trend and forecasting. SAA assumes the additive decomposition of the data into long-term (LT) trend, oscillatory or seasonal trend or trends, and remainder or random. The SAA function[5] used for the data evaluation solves for LT without decomposition of seasonal or remainder components given the mostly annual frequency of sampling.

[5]Singular Spectrum Analysis function using MATLAB 2024b.


AREA ENLARGED
Building 60
Building 59
Building 54
OU 1
OU 2
OU 3
B. 151
B. 150
DMW16B
DMW17A
DMW9A
DMW9B
DMW34B
DMW8A
DMW28B
MW182
CSMPZ3
MW257
CSMPZ7
MW180
MW169
MW89
MW88
MW256
MW255
MW254
MW253
MW249
MW248
MW160
MW252
MW222
MW243
MW239
MW241
MW188
MW244
MW251
MW170
MW240
MW126
MW165
MW242
MW245
MW247
MW250
MW131
MW159
MW298
MW237
MW238
MW246
MW124
MW223
MW171
MW166
MW130
MW167
MW129
MW258
NNC-3
MW141
MW297
MW142
MW294
MW288
MW149
MW293
MW144
MW145
MW292
MW291
MW158
MW290
MW156
MW155
MWNGA-8
MWNGA-10
MW287
MW281
MW270
MW93
MW286
MW280
MW266
MW269
MW273
MW236
MW283
MW279
MW278
MW289
MW285
MW276
MW284
MW299
MW277
MW300
MW263
MW92
MW96
MW259
MW262
MW260
MW217
MW264
MW268
MW95
MW271
MW275
EBF08D
MW265
MW272
MW267
MW274
MW261

2.0 MW-260

```
%Table Summary
summary(MW260,"Detail","low")
```

MW260: 4×13 table

Variables:

    Task: categorical (4 categories)
    Group: categorical (1 categories)
    Loc: categorical (1 categories)
    Date: datetime
    Year: categorical (4 categories)
    Unit: categorical (1 categories)
    PCE: double
    TCE: double
    cDCE: double
    VC: double
    DCA12: double
    DCB14: double
    CB: double

Statistics for applicable variables:

	NumMissing	Min	Median	Max	Mean	Std
Task	0					
Group	0					
Loc	0					
Date	0	27-Dec-2021	16-Nov-2022 06:45:00	23-May-2024 09:20:00	12-Jan-2023 17:42:30	9513:38:10
Year	0					
Unit	0					
PCE	1	14	55	62	43.6667	25.9294
TCE	0	1.3000	230	340	200.3250	146.1521
cDCE	0	50	102.5000	140	98.7500	39.6600
VC	0	21	135	550	210.2500	233.6812
DCA12	1	18	48	53	39.6667	18.9297
DCB14	0	1.9000	440	760	410.4750	376.8486
CB	0	1.3000	540	790	467.8250	390.2396

2.1 MW-260 Linear Correlation

```
% Linear Correlation test for analytes with 100% detections (4 observations)
'MW-260 Linear Correlation TCE',[rho,pval] = corr(juliandate(MW260.Date),MW260.TCE,Rows="complete")
```

```
ans =
'MW-260 Linear Correlation TCE'
rho =
-0.5877
pval =
0.4123
```

```
'MW-260 Linear Correlation cDCE',[rho,pval] = corr(juliandate(MW260.Date),MW260.cDCE,Rows="complete")
```

```
ans =
'MW-260 Linear Correlation cDCE'
rho =
-0.1752
```

```
pval =
0.8248
```

```
'MW-260 Linear Correlation VC',[rho,pval] = corr(juliandate(MW260.Date),MW260.VC,Rows="complete")
```

```
ans =
'MW-260 Linear Correlation VC'
rho =
0.6751
pval =
0.3249
```

```
'MW-260 Linear Correlation DCB14',[rho,pval] = corr(juliandate(MW260.Date),MW260.DCB14,Rows="complete")
```

```
ans =
'MW-260 Linear Correlation DCB14'
rho =
-0.8164
pval =
0.1836
```

```
'MW-260 Linear Correlation CB',[rho,pval] = corr(juliandate(MW260.Date),MW260.CB,Rows="complete")
```

```
ans =
'MW-260 Linear Correlation CB'
rho =
-0.7608
pval =
0.2392
```

2.2 MW-260 Mann Kendall Trend Test

```
'MW-260 Test for Trend TCE', [H, P_value,Z,StdS]=MKwMiss(MW260.TCE,0.05,NaN)
```

```
ans =
'MW-260 Test for Trend TCE'
H = logical
   0
P_value =
0.3082
Z =
-1.0190
StdS =
2.9439
```

```
"MW-260 TCE",'One Way Test Trend < 0', pval = cumKendallTest(MW260.TCE,juliandate(MW260.Date),'lt')
```

```
ans =
"MW-260 TCE"
ans =
'One Way Test Trend < 0'
pval =
-0.1541
```

```
'MW-260 Test for Trend cDCE', [H, P_value,Z,StdS]=MKwMiss(MW260.cDCE,0.05,NaN)
```

```
ans =
'MW-260 Test for Trend cDCE'
H = logical
   0
```

```
P_value =
0.7341
Z =
-0.3397
StdS =
2.9439
```

```
"MW-260 cDCE",'One Way Test Trend < 0', pval = cumKendallTest(MW260.cDCE,juliandate(MW260.Date),'lt')
```

```
ans =
"MW-260 cDCE"
ans =
'One Way Test Trend < 0'
pval =
-0.3670
```

```
'MW-260 Test for Trend VC', [H, P_value,Z,StdS]=MKwMiss(MW260.VC,0.05,NaN)
```

```
ans =
'MW-260 Test for Trend VC'
H = logical
   0
P_value =
1
Z =
0
StdS =
2.9439
```

```
"MW-260 VC",'One Way Test Trend > 0', pval = cumKendallTest(MW260.VC,juliandate(MW260.Date),'gt')
```

```
ans =
"MW-260 VC"
ans =
'One Way Test Trend > 0'
pval =
0
```

```
'MW-260 Test for Trend DCB14', [H, P_value,Z,StdS]=MKwMiss(MW260.DCB14,0.05,NaN)
```

```
ans =
'MW-260 Test for Trend DCB14'
H = logical
   0
P_value =
0.7341
Z =
-0.3397
StdS =
2.9439
```

```
"MW-260 DCB14",'One Way Test Trend < 0', pval = cumKendallTest(MW260.DCB14,juliandate(MW260.Date),'lt')
```

```
ans =
"MW-260 DCB14"
ans =
'One Way Test Trend < 0'
pval =
-0.3670
```

```
'MW-260 Test for Trend CB', [H, P_value,Z,StdS]=MKwMiss(MW260.CB,0.05,NaN)
```

```
ans =
'MW-260 Test for Trend CB'
H = logical
   0
P_value =
0.4701
Z =
-0.7223
StdS =
2.7689
```

```
"MW-260 CB",'One Way Test Trend < 0', pval = cumKendallTest(MW260.CB,juliandate(MW260.Date),'lt')
```

```
ans =
"MW-260 CB"
ans =
'One Way Test Trend < 0'
pval =
-0.2351
```

2.3 MW-260 Summary of Trends

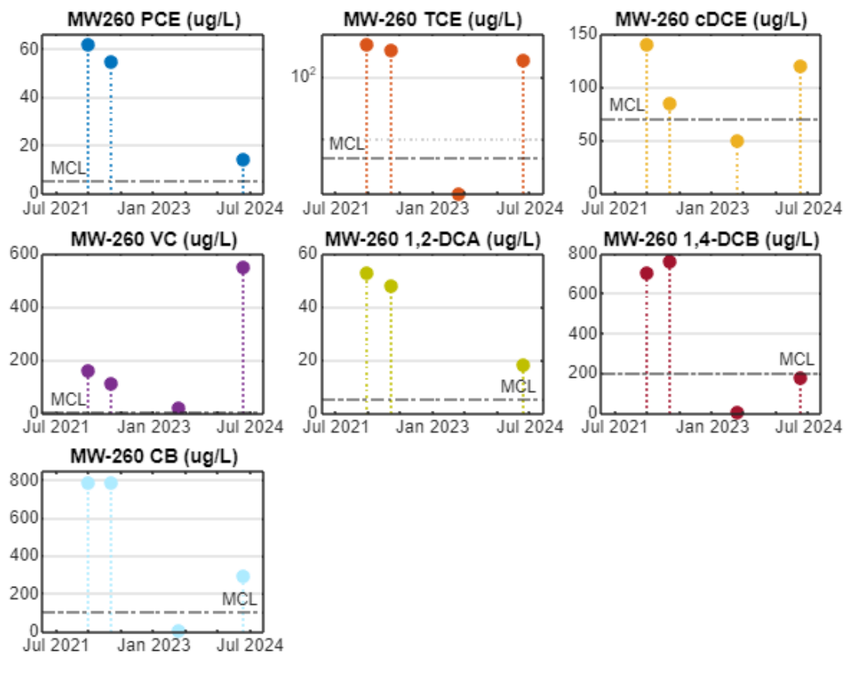
Constituent	**M-K Trend** $\alpha = 0.05$	**M-K Trend** $\alpha = 0.10$	**Linear Corr**	2021 (ug/L)	2024 (ug/L)
PCE	--	--	--	62	14
TCE	None	None	Negative	340	190
cDCE	None	None	Negative	140	120
VC	None	None	Positive	160	550
1,2-DCA	None	None	--	53	18
1,4-DCB	None	None	Negative	700	180
CB	None	None	Negative	790	290

2.4 MW-260 Data Plots

```
figure
t1=tiledlayout('flow');
t1.Padding='compact';
t1.TileSpacing='compact';
nexttile
stem(MW260.Date,MW260.PCE,':','Color','0 0.45 0.74','Marker','o',...
    'MarkerEdgeColor','0 0.45 0.74','MarkerFaceColor','0 0.45 0.74')
```

```
axis padded
title('MW-260 PCE (ug/L)')
yline(5,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
nexttile
stem(MW260.Date,MW260.TCE,':','Color','0.85 0.33 0.1','Marker','o',...
    'MarkerEdgeColor','0.85 0.33 0.1','MarkerFaceColor','0.85 0.33 0.1')
yscale('log')
ylim([0.1 1000])
axis padded
title('MW-260 TCE (ug/L)')
yline(5,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
nexttile
stem(MW260.Date,MW260.cDCE,':','Color','0.93 0.69 0.13','Marker','o',...
    'MarkerEdgeColor','0.93 0.69 0.13','MarkerFaceColor','0.93 0.69 0.13')
axis padded
title('MW-260 cDCE (ug/L)')
yline(70,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
nexttile
stem(MW260.Date,MW260.VC,':','Color','0.49 0.18 0.56','Marker','o',...
    'MarkerEdgeColor','0.49 0.18 0.56','MarkerFaceColor','0.49 0.18 0.56')
axis padded
title('MW-260 VC (ug/L)')
yline(2,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
nexttile
stem(MW260.Date,MW260.DCA12,':','Color',' 0.75 0.75 0','Marker','o',...
    'MarkerEdgeColor',' 0.75 0.75 0','MarkerFaceColor',' 0.75 0.75 0')
axis padded
ylim([0 60])
title('MW-260 1,2-DCA (ug/L)')
yline(5,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','right','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
nexttile
stem(MW260.Date,MW260.DCB14,':','Color','0.64 0.08 0.18','Marker','o',...
    'MarkerEdgeColor','0.64 0.08 0.18','MarkerFaceColor','0.64 0.08 0.18')
axis padded
title('MW-260 1,4-DCB (ug/L)')
yline(200,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','right','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
nexttile
stem(MW260.Date,MW260.CB,':','Color','0.68 0.92 1','Marker','o',...
```

```
    'MarkerEdgeColor','0.68 0.92 1','MarkerFaceColor','0.68 0.92 1')
axis padded
title('MW-260 CB (ug/L)')
yline(100,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','right','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
```



3.0 MW-262

3.1 MW-262 Linear Correlation

```
% Linear Correlation test for analytes with 100% detections (4 observations)
'MW-262 Linear Correlation TCE',[rho,pval] = corr(juliandate(MW262.Date),MW262.TCE,Rows="complete")
```

```
ans =
'MW-262 Linear Correlation TCE'
rho =
-0.1118
pval =
0.8882
```

```
'MW-262 Linear Correlation cDCE',[rho,pval] = corr(juliandate(MW262.Date),MW262.cDCE,Rows="complete")
```

```
ans =
'MW-262 Linear Correlation cDCE'
rho =
0.2280
pval =
```

```
0.7720
```

```
'MW-262 Linear Correlation VC',[rho,pval] = corr(juliandate(MW262.Date),MW262.VC,Rows="complete")
```

```
ans =
'MW-262 Linear Correlation VC'
rho =
0.4675
pval =
0.5325
```

3.2 MW-262 Mann Kendall Trend Test

```
'MW-262 Test for Trend TCE', [H, P_value,Z,StdS]=MKwMiss(MW262.TCE,0.05,NaN)
```

```
ans =
'MW-262 Test for Trend TCE'
H = logical
   0
P_value =
1
Z =
0
StdS =
2.9439
```

```
"MW-262 TCE",'One Way Test Trend < 0', pval = cumKendallTest(MW262.TCE,juliandate(MW262.Date),'lt')
```

```
ans =
"MW-262 TCE"
ans =
'One Way Test Trend < 0'
pval =
0
```

```
'MW-262 Test for Trend cDCE', [H, P_value,Z,StdS]=MKwMiss(MW262.cDCE,0.05,NaN)
```

```
ans =
'MW-262 Test for Trend cDCE'
H = logical
   0
P_value =
1
Z =
0
StdS =
2.7689
```

```
"MW-262 cDCE",'One Way Test Trend > 0', pval = cumKendallTest(MW262.cDCE,juliandate(MW262.Date),'gt')
```

```
ans =
"MW-262 cDCE"
ans =
'One Way Test Trend > 0'
pval =
0.5000
```

```
'MW-262 Test for Trend VC', [H, P_value,Z,StdS]=MKwMiss(MW262.VC,0.05,NaN)
```

```
ans =
```

```
'MW-262 Test for Trend VC'
H = logical
   0
P_value =
0.7341
Z =
0.3397
StdS =
2.9439
```

```
"MW-262 VC",'One Way Test Trend > 0', pval = cumKendallTest(MW262.VC,juliandate(MW262.Date),'gt')
```

```
ans =
"MW-262 VC"
ans =
'One Way Test Trend > 0'
pval =
0.3670
```

3.3 MW-262 Summary of Trends

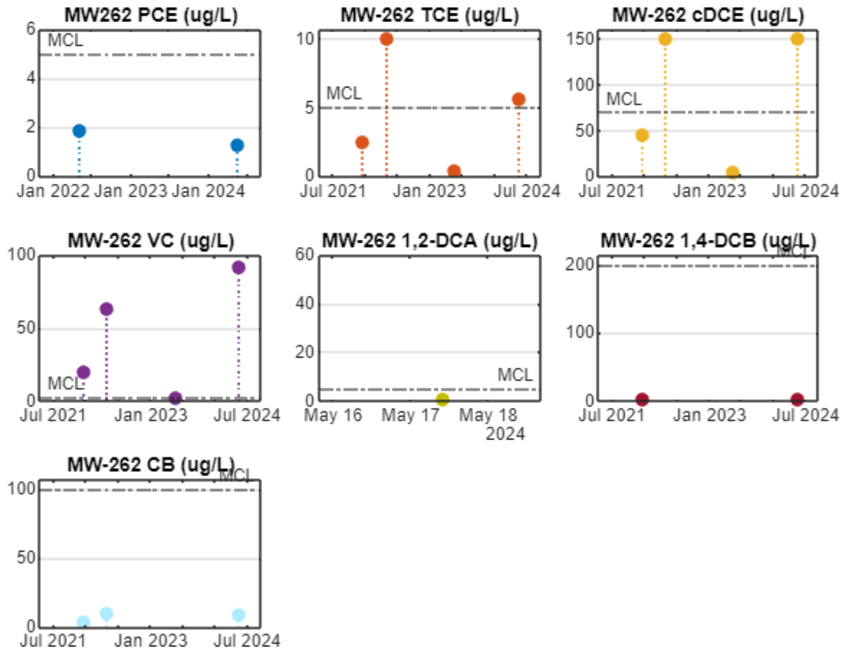
Constituent	M-K Trend $\alpha = 0.05$	M-K Trend $\alpha = 0.10$	Linear Corr	2021 (ug/L)	2024 (ug/L)
PCE	--	--	--	ND	1.3
TCE	None	None	Negative	2.5	5.7
cDCE	None	None	Positive	46	150
VC	None	None	Positive	20	92
1,2-DCA	None	None	--	ND	0.68
1,4-DCB	--	--	--	2.4	3
CB	--	--	--	4.1	8.5

3.4 MW-262 Data Plots

```
figure
t2=tiledlayout('flow');
t2.Padding='compact';
t2.TileSpacing='compact';
nexttile
stem(MW262.Date,MW262.PCE,':','Color','0 0.45 0.74','Marker','o',...
    'MarkerEdgeColor','0 0.45 0.74','MarkerFaceColor','0 0.45 0.74')
axis padded
title('MW-262 PCE (ug/L)')
ylim([0 6])
```

```
yline(5,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
nexttile
stem(MW262.Date,MW262.TCE,':','Color','0.85 0.33 0.1','Marker','o',...
    'MarkerEdgeColor','0.85 0.33 0.1','MarkerFaceColor','0.85 0.33 0.1')
axis padded
title('MW-262 TCE (ug/L)')
yline(5,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
nexttile
stem(MW262.Date,MW262.cDCE,':','Color','0.93 0.69 0.13','Marker','o',...
    'MarkerEdgeColor','0.93 0.69 0.13','MarkerFaceColor','0.93 0.69 0.13')
axis padded
title('MW-262 cDCE (ug/L)')
yline(70,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
nexttile
stem(MW262.Date,MW262.VC,':','Color','0.49 0.18 0.56','Marker','o',...
    'MarkerEdgeColor','0.49 0.18 0.56','MarkerFaceColor','0.49 0.18 0.56')
axis padded
title('MW-262 VC (ug/L)')
yline(2,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
nexttile
stem(MW262.Date,MW262.DCA12,':','Color',' 0.75 0.75 0','Marker','o',...
    'MarkerEdgeColor',' 0.75 0.75 0','MarkerFaceColor',' 0.75 0.75 0')
axis padded
ylim([0 60])
title('MW-262 1,2-DCA (ug/L)')
yline(5,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','right','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
nexttile
stem(MW262.Date,MW262.DCB14,':','Color','0.64 0.08 0.18','Marker','o',...
    'MarkerEdgeColor','0.64 0.08 0.18','MarkerFaceColor','0.64 0.08 0.18')
axis padded
title('MW-262 1,4-DCB (ug/L)')
yline(200,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','right','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
nexttile
stem(MW262.Date,MW262.CB,':','Color','0.68 0.92 1','Marker','o',...
    'MarkerEdgeColor','0.68 0.92 1','MarkerFaceColor','0.68 0.92 1')
axis padded
title('MW-262 CB (ug/L)')
yline(100,'-.','LabelVerticalAlignment','top',...
```

```
    'LabelHorizontalAlignment','right','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
```



4.0 MW-264

4.1 MW-264 Linear Correlation

```
% Linear Correlation test for analytes with 100% detections (4 observations)
'MW-264 Linear Correlation TCE',[rho,pval] = corr(juliandate(MW264.Date),MW264.TCE,Rows="complete")
```

```
ans =
'MW-264 Linear Correlation TCE'
rho =
0.8835
pval =
0.1165
```

```
'MW-264 Linear Correlation cDCE',[rho,pval] = corr(juliandate(MW264.Date),MW264.cDCE,Rows="complete")
```

```
ans =
'MW-264 Linear Correlation cDCE'
rho =
-0.8454
pval =
0.1546
```

```
'MW-264 Linear Correlation VC',[rho,pval] = corr(juliandate(MW264.Date),MW264.VC,Rows="complete")
```

```
ans =
```

```
'MW-264 Linear Correlation VC'
rho =
-0.8637
pval =
0.1363
```

```
'MW-264 Linear Correlation DCA12',[rho,pval] = corr(juliandate(MW264.Date),MW264.DCA12,Rows="complete")
```

```
ans =
'MW-264 Linear Correlation DCA12'
rho =
-0.8878
pval =
0.1122
```

```
'MW-264 Linear Correlation DCB14',[rho,pval] = corr(juliandate(MW264.Date),MW264.DCB14,Rows="complete")
```

```
ans =
'MW-264 Linear Correlation DCB14'
rho =
-0.8771
pval =
0.1229
```

```
'MW-264 Linear Correlation CB',[rho,pval] = corr(juliandate(MW264.Date),MW264.CB,Rows="complete")
```

```
ans =
'MW-264 Linear Correlation CB'
rho =
-0.9212
pval =
0.0788
```

4.2 MW-264 Mann Kendall Trend Test

```
'MW-264 Test for Trend TCE', [H, P_value,Z,StdS]=MKwMiss(MW264.TCE,0.05,NaN)
```

```
ans =
'MW-264 Test for Trend TCE'
H = logical
   0
P_value =
0.3082
Z =
1.0190
StdS =
2.9439
```

```
"MW-264 TCE",'One Way Test Trend > 0', pval = cumKendallTest(MW264.TCE,juliandate(MW264.Date),'gt')
```

```
ans =
"MW-264 TCE"
ans =
'One Way Test Trend > 0'
pval =
0.1541
```

```
'MW-264 Test for Trend cDCE', [H, P_value,Z,StdS]=MKwMiss(MW264.cDCE,0.05,NaN)
```

```
ans =
```

```
'MW-264 Test for Trend cDCE'
H = logical
   0
P_value =
0.3082
Z =
-1.0190
StdS =
2.9439
```

```
"MW-264 cDCE",'One Way Test Trend < 0', pval = cumKendallTest(MW264.cDCE,juliandate(MW264.Date),'lt')
```

```
ans =
"MW-264 cDCE"
ans =
'One Way Test Trend < 0'
pval =
-0.1541
```

```
'MW-264 Test for Trend VC', [H, P_value,Z,StdS]=MKwMiss(MW264.VC,0.05,NaN)
```

```
ans =
'MW-264 Test for Trend VC'
H = logical
   0
P_value =
0.1486
Z =
-1.4446
StdS =
2.7689
```

```
"MW-264 VC",'One Way Test Trend < 0', pval = cumKendallTest(MW264.VC,juliandate(MW264.Date),'lt')
```

```
ans =
"MW-264 VC"
ans =
'One Way Test Trend < 0'
pval =
-0.0743
```

```
'MW-264 Test for Trend DCB14', [H, P_value,Z,StdS]=MKwMiss(MW264.DCB14,0.05,NaN)
```

```
ans =
'MW-264 Test for Trend DCB14'
H = logical
   0
P_value =
0.3082
Z =
-1.0190
StdS =
2.9439
```

```
"MW-264 DCB14",'One Way Test Trend < 0', pval = cumKendallTest(MW264.DCB14,juliandate(MW264.Date),'lt')
```

```
ans =
"MW-264 DCB14"
ans =
'One Way Test Trend < 0'
pval =
-0.1541
```

```
'MW-264 Test for Trend CB', [H, P_value,Z,StdS]=MKwMiss(MW264.CB,0.05,NaN)
```

```
ans =
'MW-264 Test for Trend CB'
H = logical
   0
P_value =
0.3082
Z =
-1.0190
StdS =
2.9439
```

```
"MW-264 CB",'One Way Test Trend < 0', pval = cumKendallTest(MW264.CB,juliandate(MW264.Date),'lt')
```

```
ans =
"MW-264 CB"
ans =
'One Way Test Trend < 0'
pval =
-0.1541
```

4.3 MW-264 Summary of Trends

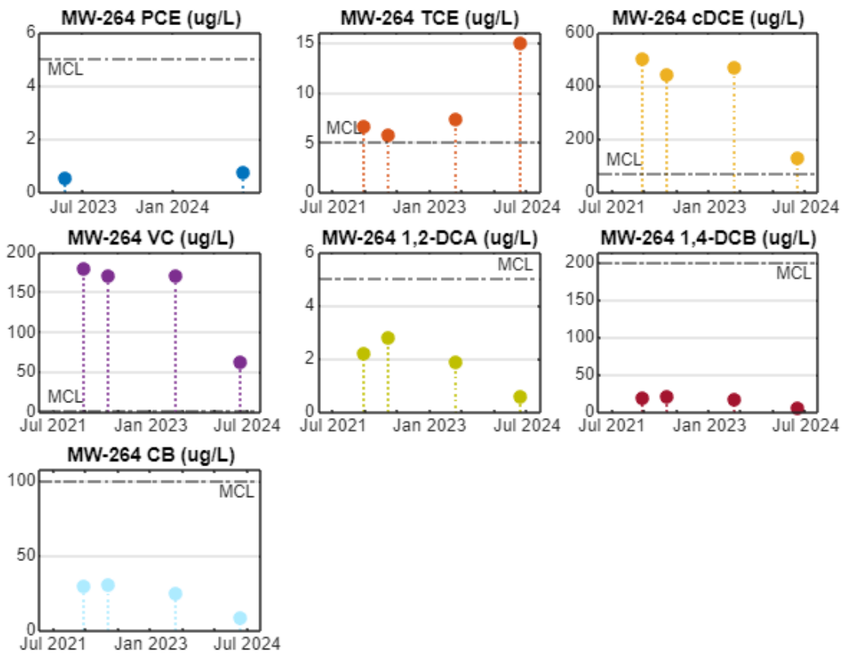
Constituent	**M-K Trend** $\alpha = 0.05$	**M-K Trend** $\alpha = 0.10$	**Linear Corr**	2021 (ug/L)	2024 (ug/L)
PCE	--	--	--	ND	0.77
TCE	None	None	Positive	6.6	15
cDCE	None	None	Negative	500	130
VC	None	Decreasing	Negative	180	170
1,2-DCA	None	None	Negative	2.2	0.56
1,4-DCB	None	None	Negative	18	5.5
CB	None	None	Negative	29	8.5

4.4 MW-264 Data Plots

```
figure
t3=tiledlayout('flow');
t3.Padding='compact';
t3.TileSpacing='compact';
```

```
nexttile
stem(MW264.Date,MW264.PCE,':','Color','0 0.45 0.74','Marker','o',...
    'MarkerEdgeColor','0 0.45 0.74','MarkerFaceColor','0 0.45 0.74')
axis padded
title('MW-264 PCE (ug/L)')
ylim([0 6])
yline(5,'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
nexttile
stem(MW264.Date,MW264.TCE,':','Color','0.85 0.33 0.1','Marker','o',...
    'MarkerEdgeColor','0.85 0.33 0.1','MarkerFaceColor','0.85 0.33 0.1')
axis padded
title('MW-264 TCE (ug/L)')
yline(5,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
nexttile
stem(MW264.Date,MW264.cDCE,':','Color','0.93 0.69 0.13','Marker','o',...
    'MarkerEdgeColor','0.93 0.69 0.13','MarkerFaceColor','0.93 0.69 0.13')
axis padded
ylim([0 600])
title('MW-264 cDCE (ug/L)')
yline(70,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
nexttile
stem(MW264.Date,MW264.VC,':','Color','0.49 0.18 0.56','Marker','o',...
    'MarkerEdgeColor','0.49 0.18 0.56','MarkerFaceColor','0.49 0.18 0.56')
axis padded
title('MW-264 VC (ug/L)')
ylim([0 200])
yline(2,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
nexttile
stem(MW264.Date,MW264.DCA12,':','Color',' 0.75 0.75 0','Marker','o',...
    'MarkerEdgeColor',' 0.75 0.75 0','MarkerFaceColor',' 0.75 0.75 0')
axis padded
title('MW-264 1,2-DCA (ug/L)')
ylim([0 6])
yline(5,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','right','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
nexttile
stem(MW264.Date,MW264.DCB14,':','Color','0.64 0.08 0.18','Marker','o',...
    'MarkerEdgeColor','0.64 0.08 0.18','MarkerFaceColor','0.64 0.08 0.18')
axis padded
title('MW-264 1,4-DCB (ug/L)')
yline(200,'-.','LabelVerticalAlignment','bottom',...
```

```
    'LabelHorizontalAlignment','right','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
nexttile
stem(MW264.Date,MW264.CB,':','Color','0.68 0.92 1','Marker','o',...
    'MarkerEdgeColor','0.68 0.92 1','MarkerFaceColor','0.68 0.92 1')
axis padded
title('MW-264 CB (ug/L)')
yline(100,'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','right','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
```



5.0 MW-266

5.1 MW-266 Linear Correlation

```
% Linear Correlation test for analytes with 100% detections (4 observations)
'MW-266 Linear Correlation PCE',[rho,pval] = corr(juliandate(MW266.Date),MW266.PCE,Rows="complete")
```

```
ans =
'MW-266 Linear Correlation PCE'
rho =
-0.9166
pval =
0.0834
```

```
'MW-266 Linear Correlation TCE',[rho,pval] = corr(juliandate(MW266.Date),MW266.TCE,Rows="complete")
```

```
ans =
'MW-266 Linear Correlation TCE'
rho =
-0.7692
pval =
0.2308
```

```
'MW-266 Linear Correlation cDCE',[rho,pval] = corr(juliandate(MW266.Date),MW266.cDCE,Rows="complete")
```

```
ans =
'MW-266 Linear Correlation cDCE'
rho =
-0.7641
pval =
0.2359
```

```
'MW-266 Linear Correlation VC',[rho,pval] = corr(juliandate(MW266.Date),MW266.VC,Rows="complete")
```

```
ans =
'MW-266 Linear Correlation VC'
rho =
0.3043
pval =
0.6957
```

5.2 MW-266 Mann Kendall Trend Test

```
'MW-266 Test for Trend PCE', [H, P_value,Z,StdS]=MKwMiss(MW266.PCE,0.05,NaN)
```

```
ans =
'MW-266 Test for Trend PCE'
H = logical
   0
P_value =
0.0894
Z =
-1.6984
StdS =
2.9439
```

```
"MW-266 PCE",'One Way Test Trend < 0', pval = cumKendallTest(MW266.PCE,juliandate(MW264.Date),'lt')
```

```
ans =
"MW-266 PCE"
ans =
'One Way Test Trend < 0'
pval =
-0.0447
```

```
'MW-266 Test for Trend TCE', [H, P_value,Z,StdS]=MKwMiss(MW266.TCE,0.05,NaN)
```

```
ans =
'MW-266 Test for Trend TCE'
H = logical
   0
P_value =
0.3082
Z =
-1.0190
StdS =
2.9439
```

```
"MW-266 TCE",'One Way Test Trend < 0', pval = cumKendallTest(MW266.TCE,juliandate(MW266.Date),'lt')
```

```
ans =
"MW-266 TCE"
ans =
'One Way Test Trend < 0'
pval =
-0.1541
```

```
'MW-266 Test for Trend cDCE', [H, P_value,Z,StdS]=MKwMiss(MW266.cDCE,0.05,NaN)
```

```
ans =
'MW-266 Test for Trend cDCE'
H = logical
   0
P_value =
0.3082
Z =
-1.0190
StdS =
2.9439
```

```
"MW-266 cDCE",'One Way Test Trend < 0', pval = cumKendallTest(MW266.cDCE,juliandate(MW266.Date),'lt')
```

```
ans =
"MW-266 cDCE"
ans =
'One Way Test Trend < 0'
pval =
-0.1541
```

```
'MW-266 Test for Trend VC', [H, P_value,Z,StdS]=MKwMiss(MW266.VC,0.05,NaN)
```

```
ans =
'MW-266 Test for Trend VC'
H = logical
   0
P_value =
0.7341
Z =
0.3397
StdS =
2.9439
```

```
"MW-266 VC",'One Way Test Trend > 0', pval = cumKendallTest(MW266.VC,juliandate(MW266.Date),'gt')
```

```
ans =
"MW-266 VC"
ans =
'One Way Test Trend > 0'
pval =
0.3670
```

5.3 MW-266 Summary of Trends

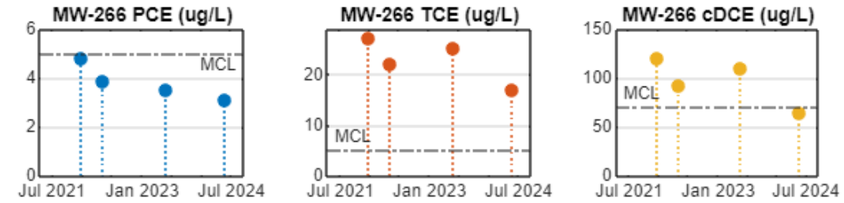
Constituent	**M-K Trend** $\alpha = 0.05$	**M-K Trend** $\alpha = 0.10$	**Linear Corr**	2021 (ug/L)	2024 (ug/L)

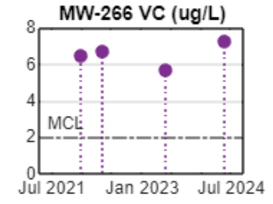
PCE	Decreasing	Decreasing	Negative	4.8	3.1
TCE	None	None	Negative	27	17
cDCE	None	None	Negative	120	65
VC	None	None	Positive	6.5	7.3
1,2-DCA	--	--	--	ND	ND
1,4-DCB	--	--	--	3.4	ND
CB	--	--	--	3.4	ND

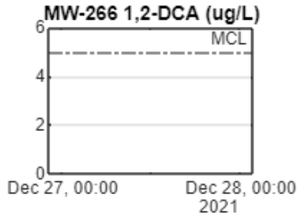
5.4 MW-266 Data Plots

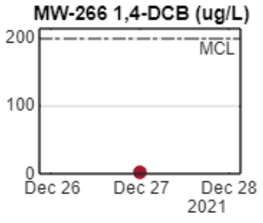
```
figure
t4=tiledlayout('flow');
t4.Padding='compact';
t4.TileSpacing='compact';
nexttile
stem(MW266.Date,MW266.PCE,':','Color','0 0.45 0.74','Marker','o',...
    'MarkerEdgeColor','0 0.45 0.74','MarkerFaceColor','0 0.45 0.74')
axis padded
title('MW-266 PCE (ug/L)')
ylim([0 6])
yline(5,'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','right','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
nexttile
stem(MW266.Date,MW266.TCE,':','Color','0.85 0.33 0.1','Marker','o',...
    'MarkerEdgeColor','0.85 0.33 0.1','MarkerFaceColor','0.85 0.33 0.1')
axis padded
title('MW-266 TCE (ug/L)')
yline(5,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
nexttile
stem(MW266.Date,MW266.cDCE,':','Color','0.93 0.69 0.13','Marker','o',...
    'MarkerEdgeColor','0.93 0.69 0.13','MarkerFaceColor','0.93 0.69 0.13')
axis padded
ylim([0 150])
title('MW-266 cDCE (ug/L)')
yline(70,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
nexttile
stem(MW266.Date,MW266.VC,':','Color','0.49 0.18 0.56','Marker','o',...
```

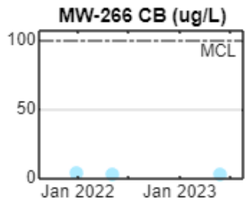
```
    'MarkerEdgeColor','0.49 0.18 0.56','MarkerFaceColor','0.49 0.18 0.56')
axis padded
title('MW-266 VC (ug/L)')
ylim([0 8])
yline(2,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
nexttile
stem(MW266.Date,MW266.DCA12,':','Color',' 0.75 0.75 0','Marker','o',...
    'MarkerEdgeColor',' 0.75 0.75 0','MarkerFaceColor',' 0.75 0.75 0')
axis padded
title('MW-266 1,2-DCA (ug/L)')
ylim([0 6])
yline(5,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','right','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
nexttile
stem(MW266.Date,MW266.DCB14,':','Color','0.64 0.08 0.18','Marker','o',...
    'MarkerEdgeColor','0.64 0.08 0.18','MarkerFaceColor','0.64 0.08 0.18')
axis padded
title('MW-266 1,4-DCB (ug/L)')
yline(200,'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','right','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
nexttile
stem(MW266.Date,MW266.CB,':','Color','0.68 0.92 1','Marker','o',...
    'MarkerEdgeColor','0.68 0.92 1','MarkerFaceColor','0.68 0.92 1')
axis padded
title('MW-266 CB (ug/L)')
yline(100,'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','right','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
```











6.0 MW-268

6.1 MW-268 Linear Correlation

```
% Linear Correlation test for analytes with 100% detections (4 observations)
'MW-268 Linear Correlation PCE',[rho,pval] = corr(juliandate(MW268.Date),MW268.PCE,Rows="complete")
```

```
ans =
'MW-268 Linear Correlation PCE'
rho =
0.8215
pval =
0.3863
```

```
'MW-268 Linear Correlation TCE',[rho,pval] = corr(juliandate(MW268.Date),MW268.TCE,Rows="complete")
```

```
ans =
'MW-268 Linear Correlation TCE'
rho =
0.6392
pval =
0.3608
```

```
'MW-268 Linear Correlation cDCE',[rho,pval] = corr(juliandate(MW268.Date),MW268.cDCE,Rows="complete")
```

```
ans =
'MW-268 Linear Correlation cDCE'
rho =
0.8122
```

```
pval =
0.1878
```

```
'MW-268 Linear Correlation VC',[rho,pval] = corr(juliandate(MW268.Date),MW268.VC,Rows="complete")
```

```
ans =
'MW-268 Linear Correlation VC'
rho =
0.6544
pval =
0.3456
```

```
'MW-268 Linear Correlation DCA12',[rho,pval] = corr(juliandate(MW268.Date),MW268.DCA12,Rows="complete")
```

```
ans =
'MW-268 Linear Correlation DCA12'
rho =
0.2747
pval =
0.7253
```

```
'MW-268 Linear Correlation DCB14',[rho,pval] = corr(juliandate(MW268.Date),MW268.DCB14,Rows="complete")
```

```
ans =
'MW-268 Linear Correlation DCB14'
rho =
0.0486
pval =
0.9514
```

```
'MW-268 Linear Correlation CB',[rho,pval] = corr(juliandate(MW268.Date),MW268.CB,Rows="complete")
```

```
ans =
'MW-268 Linear Correlation CB'
rho =
-0.0537
pval =
0.9463
```

6.2 MW-268 Mann Kendall Trend Test

```
'MW-268 Test for Trend PCE', [H, P_value,Z,StdS]=MKwMiss(MW268.PCE,0.05,NaN)
```

```
ans =
'MW-268 Test for Trend PCE'
H = logical
   0
P_value =
0.2963
Z =
1.0445
StdS =
1.9149
```

```
"MW-268 PCE",'One Way Test Trend > 0', pval = cumKendallTest(MW268.PCE,juliandate(MW268.Date),'gt')
```

```
ans =
"MW-268 PCE"
ans =
'One Way Test Trend > 0'
```

```
pval =
0.1481
```

```
'MW-268 Test for Trend TCE', [H, P_value,Z,StdS]=MKwMiss(MW268.TCE,0.05,NaN)
```

```
ans =
'MW-268 Test for Trend TCE'
H = logical
   0
P_value =
0.7341
Z =
0.3397
StdS =
2.9439
```

```
"MW-268 TCE",'One Way Test Trend > 0', pval = cumKendallTest(MW268.TCE,juliandate(MW268.Date),'gt')
```

```
ans =
"MW-268 TCE"
ans =
'One Way Test Trend > 0'
pval =
0.3670
```

```
'MW-268 Test for Trend cDCE', [H, P_value,Z,StdS]=MKwMiss(MW268.cDCE,0.05,NaN)
```

```
ans =
'MW-268 Test for Trend cDCE'
H = logical
   0
P_value =
0.7341
Z =
0.3397
StdS =
2.9439
```

```
"MW-268 cDCE",'One Way Test Trend > 0', pval = cumKendallTest(MW268.cDCE,juliandate(MW268.Date),'gt')
```

```
ans =
"MW-268 cDCE"
ans =
'One Way Test Trend > 0'
pval =
0.3670
```

```
'MW-268 Test for Trend VC', [H, P_value,Z,StdS]=MKwMiss(MW268.VC,0.05,NaN)
```

```
ans =
'MW-268 Test for Trend VC'
H = logical
   0
P_value =
0.7341
Z =
0.3397
StdS =
2.9439
```

```
"MW-268 VC",'One Way Test Trend > 0', pval = cumKendallTest(MW268.VC,juliandate(MW268.Date),'gt')
```

```
ans =
"MW-268 VC"
ans =
'One Way Test Trend > 0'
pval =
0.3670
```

```
'MW-268 Test for Trend DCA12', [H, P_value,Z,StdS]=MKwMiss(MW268.DCA12,0.05,NaN)
```

```
ans =
'MW-268 Test for Trend DCA12'
H = logical
   0
P_value =
0.7341
Z =
0.3397
StdS =
2.9439
```

```
"MW-268 DCA12",'One Way Test Trend > 0', pval = cumKendallTest(MW268.DCA12,juliandate(MW268.Date),'gt')
```

```
ans =
"MW-268 DCA12"
ans =
'One Way Test Trend > 0'
pval =
0.3670
```

```
'MW-268 Test for Trend DCB14', [H, P_value,Z,StdS]=MKwMiss(MW268.DCB14,0.05,NaN)
```

```
ans =
'MW-268 Test for Trend DCB14'
H = logical
   0
P_value =
1
Z =
0
StdS =
2.7689
```

```
"MW-268 DCB14",'One Way Test Trend > 0', pval = cumKendallTest(MW268.DCB14,juliandate(MW268.Date),'gt')
```

```
ans =
"MW-268 DCB14"
ans =
'One Way Test Trend > 0'
pval =
0.5000
```

```
'MW-268 Test for Trend CB', [H, P_value,Z,StdS]=MKwMiss(MW268.CB,0.05,NaN)
```

```
ans =
'MW-268 Test for Trend CB'
H = logical
   0
P_value =
1
Z =
0
StdS =
```

```
2.7689
```

```
"MW-268 CB",'One Way Test Trend > 0', pval = cumKendallTest(MW268.CB,juliandate(MW268.Date),'gt')
```

```
ans =
"MW-268 CB"
ans =
'One Way Test Trend > 0'
pval =
0.5000
```

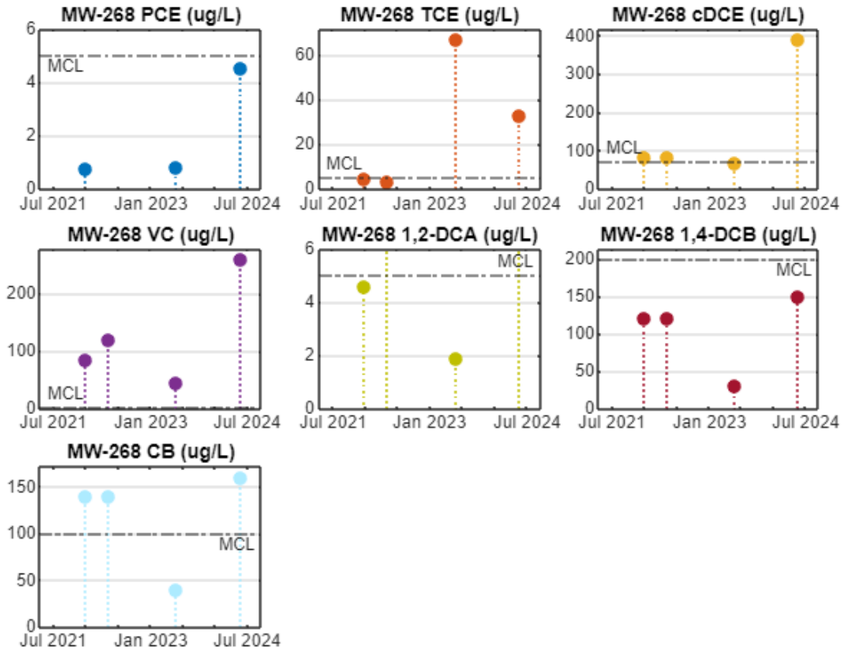
6.3 MW-268 Summary of Trends

Constituent	**M-K Trend** $\alpha = 0.05$	**M-K Trend** $\alpha = 0.10$	**Linear Corr**	2021 (ug/L)	2024 (ug/L)
PCE	--	--	--	0.75	4.5
TCE	None	None	Positive	4.5	33
cDCE	None	None	Positive	81	390
VC	None	None	Positive	85	260
1,2-DCA	None	None	Positive	4.6	8.5
1,4-DCB	None	None	None	120	150
CB	None	None	None	140	160

6.4 MW-268 Data Plots

```
figure
t5=tiledlayout('flow');
t5.Padding='compact';
t5.TileSpacing='compact';
nexttile
stem(MW268.Date,MW268.PCE,':','Color','0 0.45 0.74','Marker','o',...
    'MarkerEdgeColor','0 0.45 0.74','MarkerFaceColor','0 0.45 0.74')
axis padded
title('MW-268 PCE (ug/L)')
ylim([0 6])
yline(5,'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
nexttile
stem(MW268.Date,MW268.TCE,':','Color','0.85 0.33 0.1','Marker','o',...
    'MarkerEdgeColor','0.85 0.33 0.1','MarkerFaceColor','0.85 0.33 0.1')
axis padded
```

```
title('MW-268 TCE (ug/L)')
yline(5,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
nexttile
stem(MW268.Date,MW268.cDCE,':','Color','0.93 0.69 0.13','Marker','o',...
    'MarkerEdgeColor','0.93 0.69 0.13','MarkerFaceColor','0.93 0.69 0.13')
axis padded
title('MW-268 cDCE (ug/L)')
yline(70,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
nexttile
stem(MW268.Date,MW268.VC,':','Color','0.49 0.18 0.56','Marker','o',...
    'MarkerEdgeColor','0.49 0.18 0.56','MarkerFaceColor','0.49 0.18 0.56')
axis padded
title('MW-268 VC (ug/L)')
yline(2,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
nexttile
stem(MW268.Date,MW268.DCA12,':','Color',' 0.75 0.75 0','Marker','o',...
    'MarkerEdgeColor',' 0.75 0.75 0','MarkerFaceColor',' 0.75 0.75 0')
axis padded
title('MW-268 1,2-DCA (ug/L)')
ylim([0 6])
yline(5,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','right','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
nexttile
stem(MW268.Date,MW268.DCB14,':','Color','0.64 0.08 0.18','Marker','o',...
    'MarkerEdgeColor','0.64 0.08 0.18','MarkerFaceColor','0.64 0.08 0.18')
axis padded
title('MW-268 1,4-DCB (ug/L)')
yline(200,'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','right','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
nexttile
stem(MW268.Date,MW268.CB,':','Color','0.68 0.92 1','Marker','o',...
    'MarkerEdgeColor','0.68 0.92 1','MarkerFaceColor','0.68 0.92 1')
axis padded
title('MW-268 CB (ug/L)')
yline(100,'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','right','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
```



7.0 MW-271

7.1 MW-271 Linear Correlation

```
% Linear Correlation test for analytes with 100% detections (4 observations)
'MW-271 Linear Correlation PCE',[rho,pval] = corr(juliandate(MW271.Date),MW271.PCE,Rows="complete")
```

```
ans =
'MW-271 Linear Correlation PCE'
rho =
0.2058
pval =
0.7942
```

```
'MW-271 Linear Correlation TCE',[rho,pval] = corr(juliandate(MW271.Date),MW271.TCE,Rows="complete")
```

```
ans =
'MW-271 Linear Correlation TCE'
rho =
0.2180
pval =
0.7820
```

```
'MW-271 Linear Correlation cDCE',[rho,pval] = corr(juliandate(MW271.Date),MW271.cDCE,Rows="complete")
```

```
ans =
'MW-271 Linear Correlation cDCE'
rho =
0.4920
```

```
pval =
0.5080
```

```
'MW-271 Linear Correlation VC',[rho,pval] = corr(juliandate(MW271.Date),MW271.VC,Rows="complete")
```

```
ans =
'MW-271 Linear Correlation VC'
rho =
0.5279
pval =
0.4721
```

```
'MW-271 Linear Correlation CB',[rho,pval] = corr(juliandate(MW271.Date),MW271.CB,Rows="complete")
```

```
ans =
'MW-271 Linear Correlation CB'
rho =
0.1530
pval =
0.8470
```

7.2 MW-271 Mann Kendall Trend Test

```
'MW-271 Test for Trend PCE', [H, P_value,Z,StdS]=MKwMiss(MW271.PCE,0.05,NaN)
```

```
ans =
'MW-271 Test for Trend PCE'
H = logical
   0
P_value =
0.7341
Z =
0.3397
StdS =
2.9439
```

```
"MW-271 PCE",'One Way Test Trend > 0', pval = cumKendallTest(MW271.PCE,juliandate(MW271.Date),'gt')
```

```
ans =
"MW-271 PCE"
ans =
'One Way Test Trend > 0'
pval =
0.3670
```

```
'MW-271 Test for Trend TCE', [H, P_value,Z,StdS]=MKwMiss(MW271.TCE,0.05,NaN)
```

```
ans =
'MW-271 Test for Trend TCE'
H = logical
   0
P_value =
0.7341
Z =
0.3397
StdS =
2.9439
```

```
"MW-271 TCE",'One Way Test Trend > 0', pval = cumKendallTest(MW271.TCE,juliandate(MW271.Date),'gt')
```

```
ans =
"MW-271 TCE"
ans =
'One Way Test Trend > 0'
pval =
0.3670
```

```
'MW-271 Test for Trend cDCE', [H, P_value,Z,StdS]=MKwMiss(MW271.cDCE,0.05,NaN)
```

```
ans =
'MW-271 Test for Trend cDCE'
H = logical
   0
P_value =
0.7341
Z =
0.3397
StdS =
2.9439
```

```
"MW-271 cDCE",'One Way Test Trend > 0', pval = cumKendallTest(MW271.cDCE,juliandate(MW271.Date),'gt')
```

```
ans =
"MW-271 cDCE"
ans =
'One Way Test Trend > 0'
pval =
0.3670
```

```
'MW-271 Test for Trend VC', [H, P_value,Z,StdS]=MKwMiss(MW271.VC,0.05,NaN)
```

```
ans =
'MW-271 Test for Trend VC'
H = logical
   0
P_value =
0.7341
Z =
0.3397
StdS =
2.9439
```

```
"MW-271 VC",'One Way Test Trend > 0', pval = cumKendallTest(MW271.VC,juliandate(MW271.Date),'gt')
```

```
ans =
"MW-271 VC"
ans =
'One Way Test Trend > 0'
pval =
0.3670
```

```
'MW-271 Test for Trend CB', [H, P_value,Z,StdS]=MKwMiss(MW271.CB,0.05,NaN)
```

```
ans =
'MW-271 Test for Trend CB'
H = logical
   0
P_value =
1
Z =
0
StdS =
```

```
2.9439
```

```
"MW-271 CB",'One Way Test Trend > 0', pval = cumKendallTest(MW271.CB,juliandate(MW271.Date),'gt')
```

```
ans =
"MW-271 CB"
ans =
'One Way Test Trend > 0'
pval =
0
```

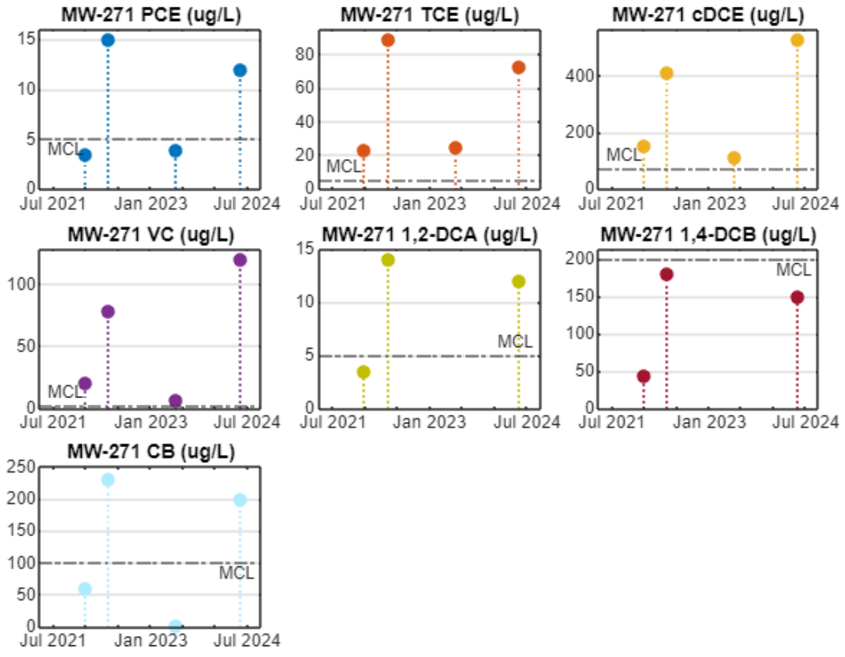
7.3 MW-271 Summary of Trends

Constituent	**M-K Trend** $\alpha = 0.05$	**M-K Trend** $\alpha = 0.10$	**Linear Corr**	2021 (ug/L)	2024 (ug/L)
PCE	None	None	Positive	3.5	12
TCE	None	None	Positive	23	73
cDCE	None	None	Positive	150	530
VC	None	None	Positive	21	120
1,2-DCA	--	--	--	3.5	12
1,4-DCB	--	--	--	43	150
CB	None	None	Positive	59	200

7.4 MW-271 Data Plots

```
figure
t6=tiledlayout('flow');
t6.Padding='compact';
t6.TileSpacing='compact';
nexttile
stem(MW271.Date,MW271.PCE,':','Color','0 0.45 0.74','Marker','o',...
    'MarkerEdgeColor','0 0.45 0.74','MarkerFaceColor','0 0.45 0.74')
axis padded
title('MW-271 PCE (ug/L)')
yline(5,'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
nexttile
stem(MW271.Date,MW271.TCE,':','Color','0.85 0.33 0.1','Marker','o',...
    'MarkerEdgeColor','0.85 0.33 0.1','MarkerFaceColor','0.85 0.33 0.1')
axis padded
```

```
title('MW-271 TCE (ug/L)')
yline(5,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
nexttile
stem(MW271.Date,MW271.cDCE,':','Color','0.93 0.69 0.13','Marker','o',...
    'MarkerEdgeColor','0.93 0.69 0.13','MarkerFaceColor','0.93 0.69 0.13')
axis padded
title('MW-271 cDCE (ug/L)')
yline(70,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
nexttile
stem(MW271.Date,MW271.VC,':','Color','0.49 0.18 0.56','Marker','o',...
    'MarkerEdgeColor','0.49 0.18 0.56','MarkerFaceColor','0.49 0.18 0.56')
axis padded
title('MW-271 VC (ug/L)')
yline(2,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
nexttile
stem(MW271.Date,MW271.DCA12,':','Color',' 0.75 0.75 0','Marker','o',...
    'MarkerEdgeColor',' 0.75 0.75 0','MarkerFaceColor',' 0.75 0.75 0')
axis padded
title('MW-271 1,2-DCA (ug/L)')
yline(5,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','right','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
nexttile
stem(MW271.Date,MW271.DCB14,':','Color','0.64 0.08 0.18','Marker','o',...
    'MarkerEdgeColor','0.64 0.08 0.18','MarkerFaceColor','0.64 0.08 0.18')
axis padded
title('MW-271 1,4-DCB (ug/L)')
yline(200,'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','right','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
nexttile
stem(MW271.Date,MW271.CB,':','Color','0.68 0.92 1','Marker','o',...
    'MarkerEdgeColor','0.68 0.92 1','MarkerFaceColor','0.68 0.92 1')
axis padded
title('MW-271 CB (ug/L)')
yline(100,'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','right','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
```



8.0 MW-272

8.1 MW-272 Linear Correlation

```
% Linear Correlation test for analytes with 100% detections (4 observations)
'MW-272 Linear Correlation PCE',[rho,pval] = corr(juliandate(MW272.Date),MW272.PCE,Rows="complete")
```

```
ans =
'MW-272 Linear Correlation PCE'
rho =
-0.8216
pval =
0.1784
```

```
'MW-272 Linear Correlation TCE',[rho,pval] = corr(juliandate(MW272.Date),MW272.TCE,Rows="complete")
```

```
ans =
'MW-272 Linear Correlation TCE'
rho =
0.4689
pval =
0.5311
```

```
'MW-272 Linear Correlation cDCE',[rho,pval] = corr(juliandate(MW272.Date),MW272.cDCE,Rows="complete")
```

```
ans =
'MW-272 Linear Correlation cDCE'
rho =
-0.8219
```

```
pval =
0.1781
```

```
'MW-272 Linear Correlation VC',[rho,pval] = corr(juliandate(MW272.Date),MW272.VC,Rows="complete")
```

```
ans =
'MW-272 Linear Correlation VC'
rho =
-0.7593
pval =
0.2407
```

```
'MW-272 Linear Correlation DCB14',[rho,pval] = corr(juliandate(MW272.Date),MW272.DCB14,Rows="complete")
```

```
ans =
'MW-272 Linear Correlation DCB14'
rho =
-0.8661
pval =
0.1339
```

```
'MW-272 Linear Correlation CB',[rho,pval] = corr(juliandate(MW272.Date),MW272.CB,Rows="complete")
```

```
ans =
'MW-272 Linear Correlation CB'
rho =
-0.8453
pval =
0.1547
```

7.2 MW-272 Mann Kendall Trend Test

```
'MW-272 Test for Trend PCE', [H, P_value,Z,StdS]=MKwMiss(MW272.PCE,0.05,NaN)
```

```
ans =
'MW-272 Test for Trend PCE'
H = logical
   0
P_value =
0.3082
Z =
-1.0190
StdS =
2.9439
```

```
"MW-272 PCE",'One Way Test Trend < 0', pval = cumKendallTest(MW272.PCE,juliandate(MW272.Date),'lt')
```

```
ans =
"MW-272 PCE"
ans =
'One Way Test Trend < 0'
pval =
-0.1541
```

```
'MW-272 Test for Trend TCE', [H, P_value,Z,StdS]=MKwMiss(MW272.TCE,0.05,NaN)
```

```
ans =
'MW-272 Test for Trend TCE'
H = logical
   0
```

```
P_value =
1
Z =
0
StdS =
2.9439
```

```
"MW-272 TCE",'One Way Test Trend > 0', pval = cumKendallTest(MW272.TCE,juliandate(MW272.Date),'gt')
```

```
ans =
"MW-272 TCE"
ans =
'One Way Test Trend > 0'
pval =
0
```

```
'MW-272 Test for Trend cDCE', [H, P_value,Z,StdS]=MKwMiss(MW272.cDCE,0.05,NaN)
```

```
ans =
'MW-272 Test for Trend cDCE'
H = logical
   0
P_value =
0.3082
Z =
-1.0190
StdS =
2.9439
```

```
"MW-272 cDCE",'One Way Test Trend < 0', pval = cumKendallTest(MW272.cDCE,juliandate(MW272.Date),'lt')
```

```
ans =
"MW-272 cDCE"
ans =
'One Way Test Trend < 0'
pval =
-0.1541
```

```
'MW-272 Test for Trend VC', [H, P_value,Z,StdS]=MKwMiss(MW272.VC,0.05,NaN)
```

```
ans =
'MW-272 Test for Trend VC'
H = logical
   0
P_value =
0.3082
Z =
-1.0190
StdS =
2.9439
```

```
"MW-272 VC",'One Way Test Trend < 0', pval = cumKendallTest(MW272.VC,juliandate(MW272.Date),'lt')
```

```
ans =
"MW-272 VC"
ans =
'One Way Test Trend < 0'
pval =
-0.1541
```

```
'MW-272 Test for Trend DCB14', [H, P_value,Z,StdS]=MKwMiss(MW272.DCB14,0.05,NaN)
```

```
ans =
'MW-272 Test for Trend DCB14'
H = logical
   0
P_value =
0.0894
Z =
-1.6984
StdS =
2.9439
```

```
"MW-272 DCB14",'One Way Test Trend < 0', pval = cumKendallTest(MW272.DCB14,juliandate(MW273.Date),'lt')
```

```
ans =
"MW-272 DCB14"
ans =
'One Way Test Trend < 0'
pval =
-0.0447
```

```
'MW-272 Test for Trend CB', [H, P_value,Z,StdS]=MKwMiss(MW272.CB,0.05,NaN)
```

```
ans =
'MW-272 Test for Trend CB'
H = logical
   0
P_value =
0.0894
Z =
-1.6984
StdS =
2.9439
```

```
"MW-272 CB",'One Way Test Trend < 0', pval = cumKendallTest(MW272.CB,juliandate(MW272.Date),'lt')
```

```
ans =
"MW-272 CB"
ans =
'One Way Test Trend < 0'
pval =
-0.0447
```

7.3 MW-272 Summary of Trends

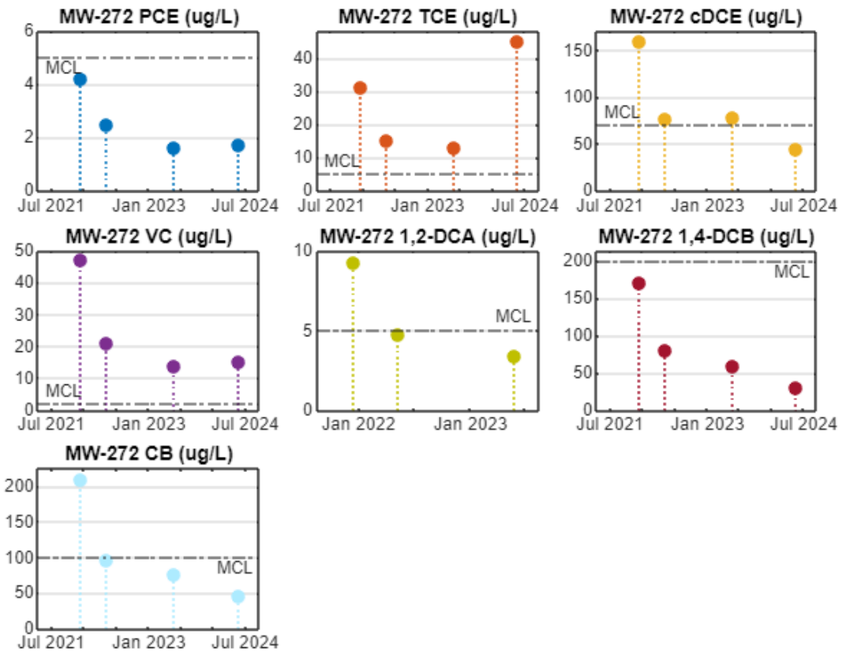
Constituent	**M-K Trend** $\alpha = 0.05$	**M-K Trend** $\alpha = 0.10$	**Linear Corr**	2021 (ug/L)	2024 (ug/L)
PCE	None	None	Negative	4.2	1.7
TCE	None	None	Positive	31	45
cDCE	None	None	Negative	160	44
VC	None	None	Negative	47	15

1,2-DCA	None	None	Negative	9.2	ND
1,4-DCB	Decreasing	Decreasing	Negative	170	31
CB	Decreasing	Decreasing	Negative	210	45

7.4 MW-272 Data Plots

```
figure
t7=tiledlayout('flow');
t7.Padding='compact';
t7.TileSpacing='compact';
nexttile
stem(MW272.Date,MW272.PCE,':','Color','0 0.45 0.74','Marker','o',...
    'MarkerEdgeColor','0 0.45 0.74','MarkerFaceColor','0 0.45 0.74')
axis padded
title('MW-272 PCE (ug/L)')
ylim([0 6])
yline(5,'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
nexttile
stem(MW272.Date,MW272.TCE,':','Color','0.85 0.33 0.1','Marker','o',...
    'MarkerEdgeColor','0.85 0.33 0.1','MarkerFaceColor','0.85 0.33 0.1')
axis padded
title('MW-272 TCE (ug/L)')
yline(5,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
nexttile
stem(MW272.Date,MW272.cDCE,':','Color','0.93 0.69 0.13','Marker','o',...
    'MarkerEdgeColor','0.93 0.69 0.13','MarkerFaceColor','0.93 0.69 0.13')
axis padded
title('MW-272 cDCE (ug/L)')
yline(70,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
nexttile
stem(MW272.Date,MW272.VC,':','Color','0.49 0.18 0.56','Marker','o',...
    'MarkerEdgeColor','0.49 0.18 0.56','MarkerFaceColor','0.49 0.18 0.56')
axis padded
title('MW-272 VC (ug/L)')
yline(2,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
nexttile
stem(MW272.Date,MW272.DCA12,':','Color',' 0.75 0.75 0','Marker','o',...
```

```
    'MarkerEdgeColor',' 0.75 0.75 0','MarkerFaceColor',' 0.75 0.75 0')
axis padded
title('MW-272 1,2-DCA (ug/L)')
yline(5,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','right','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
nexttile
stem(MW272.Date,MW272.DCB14,':','Color','0.64 0.08 0.18','Marker','o',...
    'MarkerEdgeColor','0.64 0.08 0.18','MarkerFaceColor','0.64 0.08 0.18')
axis padded
title('MW-272 1,4-DCB (ug/L)')
yline(200,'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','right','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
nexttile
stem(MW272.Date,MW272.CB,':','Color','0.68 0.92 1','Marker','o',...
    'MarkerEdgeColor','0.68 0.92 1','MarkerFaceColor','0.68 0.92 1')
axis padded
title('MW-272 CB (ug/L)')
yline(100,'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','right','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
```



9.0 MW-273

9.1 MW-273 Linear Correlation

```
% Linear Correlation test for analytes with 100% detections (4 observations)
'MW-273 Linear Correlation TCE',[rho,pval] = corr(juliandate(MW273.Date),MW273.TCE,Rows="complete")
```

```
ans =
'MW-273 Linear Correlation TCE'
rho =
0.8561
pval =
0.1439
```

```
'MW-273 Linear Correlation cDCE',[rho,pval] = corr(juliandate(MW273.Date),MW273.cDCE,Rows="complete")
```

```
ans =
'MW-273 Linear Correlation cDCE'
rho =
0.9419
pval =
0.0581
```

9.2 MW-273 Mann Kendall Trend Test

```
'MW-273 Test for Trend TCE', [H, P_value,Z,StdS]=MKwMiss(MW273.TCE,0.05,NaN)
```

```
ans =
'MW-273 Test for Trend TCE'
H = logical
   0
P_value =
0.3082
Z =
1.0190
StdS =
2.9439
```

```
"MW-273 TCE",'One Way Test Trend > 0', pval = cumKendallTest(MW273.TCE,juliandate(MW273.Date),'gt')
```

```
ans =
"MW-273 TCE"
ans =
'One Way Test Trend > 0'
pval =
0.1541
```

```
'MW-273 Test for Trend cDCE', [H, P_value,Z,StdS]=MKwMiss(MW273.cDCE,0.05,NaN)
```

```
ans =
'MW-273 Test for Trend cDCE'
H = logical
   0
P_value =
0.0894
Z =
1.6984
StdS =
2.9439
```

```
"MW-273 cDCE",'One Way Test Trend < 0', pval = cumKendallTest(MW273.cDCE,juliandate(MW273.Date),'gt')
```

```
ans =
"MW-273 cDCE"
ans =
'One Way Test Trend < 0'
pval =
0.0447
```

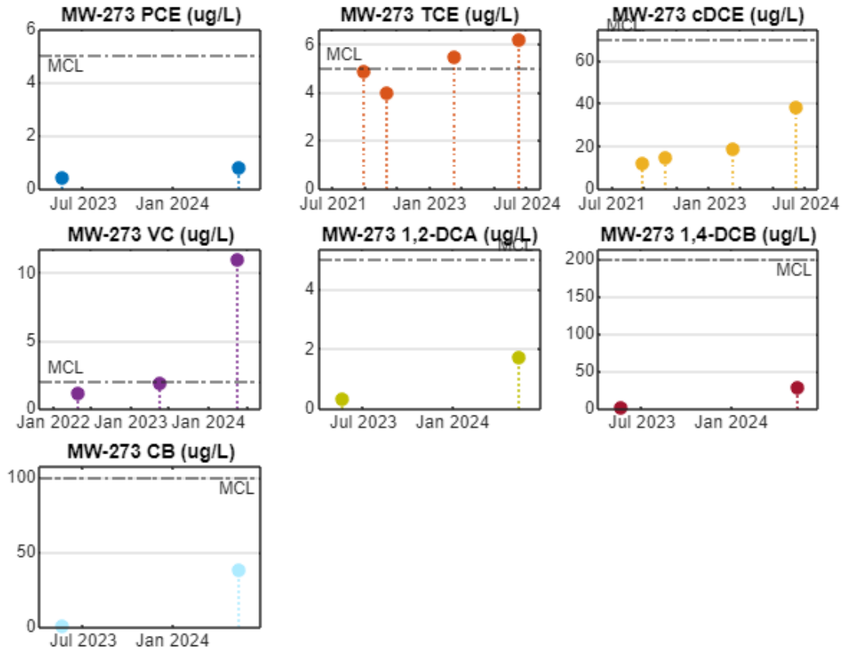
9.3 MW-273 Summary of Trends

Constituent	M-K Trend $\alpha = 0.05$	M-K Trend $\alpha = 0.10$	Linear Corr	2021 (ug/L)	2024 (ug/L)
PCE	None	None	None	ND	0.78
TCE	None	None	Positive	4.9	6.2
cDCE	Increasing	Increasing	Positive	12	38
VC	--	--	--	ND	11
1,2-DCA	--	--	--	ND	1.7
1,4-DCB	--	--	--	ND	28
CB	--	--	--	ND	38

9.4 MW-273 Data Plots

```
figure
t8=tiledlayout('flow');
t8.Padding='compact';
t8.TileSpacing='compact';
nexttile
stem(MW273.Date,MW273.PCE,':','Color','0 0.45 0.74','Marker','o',...
    'MarkerEdgeColor','0 0.45 0.74','MarkerFaceColor','0 0.45 0.74')
axis padded
title('MW-273 PCE (ug/L)')
ylim([0 6])
yline(5,'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
nexttile
stem(MW273.Date,MW273.TCE,':','Color','0.85 0.33 0.1','Marker','o',...
    'MarkerEdgeColor','0.85 0.33 0.1','MarkerFaceColor','0.85 0.33 0.1')
axis padded
title('MW-273 TCE (ug/L)')
yline(5,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
nexttile
```

```
stem(MW273.Date,MW273.cDCE,':','Color','0.93 0.69 0.13','Marker','o',...
    'MarkerEdgeColor','0.93 0.69 0.13','MarkerFaceColor','0.93 0.69 0.13')
axis padded
title('MW-273 cDCE (ug/L)')
yline(70,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
nexttile
stem(MW273.Date,MW273.VC,':','Color','0.49 0.18 0.56','Marker','o',...
    'MarkerEdgeColor','0.49 0.18 0.56','MarkerFaceColor','0.49 0.18 0.56')
axis padded
title('MW-273 VC (ug/L)')
yline(2,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
nexttile
stem(MW273.Date,MW273.DCA12,':','Color',' 0.75 0.75 0','Marker','o',...
    'MarkerEdgeColor',' 0.75 0.75 0','MarkerFaceColor',' 0.75 0.75 0')
axis padded
title('MW-273 1,2-DCA (ug/L)')
yline(5,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','right','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
nexttile
stem(MW273.Date,MW273.DCB14,':','Color','0.64 0.08 0.18','Marker','o',...
    'MarkerEdgeColor','0.64 0.08 0.18','MarkerFaceColor','0.64 0.08 0.18')
axis padded
title('MW-273 1,4-DCB (ug/L)')
yline(200,'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','right','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
nexttile
stem(MW273.Date,MW273.CB,':','Color','0.68 0.92 1','Marker','o',...
    'MarkerEdgeColor','0.68 0.92 1','MarkerFaceColor','0.68 0.92 1')
axis padded
title('MW-273 CB (ug/L)')
yline(100,'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','right','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
```



10.0 MW-274

10.1 MW-274 Linear Correlation

```
% Linear Correlation test for analytes with 100% detections (4 observations)
'MW-274 Linear Correlation PCE',[rho,pval] = corr(juliandate(MW274.Date),MW274.PCE,Rows="complete")
```

```
ans =
'MW-274 Linear Correlation PCE'
rho =
0.1329
pval =
0.8671
```

```
'MW-274 Linear Correlation TCE',[rho,pval] = corr(juliandate(MW274.Date),MW274.TCE,Rows="complete")
```

```
ans =
'MW-274 Linear Correlation TCE'
rho =
0.2459
pval =
0.7541
```

```
'MW-274 Linear Correlation cDCE',[rho,pval] = corr(juliandate(MW274.Date),MW274.cDCE,Rows="complete")
```

```
ans =
'MW-274 Linear Correlation cDCE'
rho =
0.8574
```

```
pval =
0.1426
```

```
'MW-274 Linear Correlation VC',[rho,pval] = corr(juliandate(MW274.Date),MW274.VC,Rows="complete")
```

```
ans =
'MW-274 Linear Correlation VC'
rho =
0.7874
pval =
0.2126
```

```
'MW-274 Linear Correlation DCB14',[rho,pval] = corr(juliandate(MW274.Date),MW274.DCB14,Rows="complete")
```

```
ans =
'MW-274 Linear Correlation DCB14'
rho =
0.1167
pval =
0.8833
```

10.2 MW-274 Mann Kendall Trend Test

```
'MW-274 Test for Trend PCE', [H, P_value,Z,StdS]=MKwMiss(MW274.PCE,0.05,NaN)
```

```
ans =
'MW-274 Test for Trend PCE'
H = logical
   0
P_value =
1
Z =
0
StdS =
2.9439
```

```
"MW-274 PCE",'One Way Test Trend > 0', pval = cumKendallTest(MW274.PCE,juliandate(MW274.Date),'gt')
```

```
ans =
"MW-274 PCE"
ans =
'One Way Test Trend > 0'
pval =
0
```

```
'MW-274 Test for Trend TCE', [H, P_value,Z,StdS]=MKwMiss(MW274.TCE,0.05,NaN)
```

```
ans =
'MW-274 Test for Trend TCE'
H = logical
   0
P_value =
0.3082
Z =
1.0190
StdS =
2.9439
```

```
"MW-274 TCE",'One Way Test Trend > 0', pval = cumKendallTest(MW274.TCE,juliandate(MW274.Date),'gt')
```

```
ans =
"MW-274 TCE"
ans =
'One Way Test Trend > 0'
pval =
0.1541
```

```
'MW-274 Test for Trend cDCE', [H, P_value,Z,StdS]=MKwMiss(MW274.cDCE,0.05,NaN)
```

```
ans =
'MW-274 Test for Trend cDCE'
H = logical
   0
P_value =
0.3082
Z =
1.0190
StdS =
2.9439
```

```
"MW-274 cDCE",'One Way Test Trend > 0', pval = cumKendallTest(MW274.cDCE,juliandate(MW274.Date),'gt')
```

```
ans =
"MW-274 cDCE"
ans =
'One Way Test Trend > 0'
pval =
0.1541
```

```
'MW-274 Test for Trend VC', [H, P_value,Z,StdS]=MKwMiss(MW274.VC,0.05,NaN)
```

```
ans =
'MW-274 Test for Trend VC'
H = logical
   0
P_value =
0.3082
Z =
1.0190
StdS =
2.9439
```

```
"MW-274 VC",'One Way Test Trend > 0', pval = cumKendallTest(MW274.VC,juliandate(MW274.Date),'gt')
```

```
ans =
"MW-274 VC"
ans =
'One Way Test Trend > 0'
pval =
0.1541
```

```
'MW-274 Test for Trend DCB14', [H, P_value,Z,StdS]=MKwMiss(MW274.DCB14,0.05,NaN)
```

```
ans =
'MW-274 Test for Trend DCB14'
H = logical
   0
P_value =
0.7341
Z =
0.3397
StdS =
```

```
2.9439
```

```
"MW-274 DCB14",'One Way Test Trend > 0', pval = cumKendallTest(MW274.DCB14,juliandate(MW274.Date),'gt')
```

```
ans =
"MW-274 DCB14"
ans =
'One Way Test Trend > 0'
pval =
0.3670
```

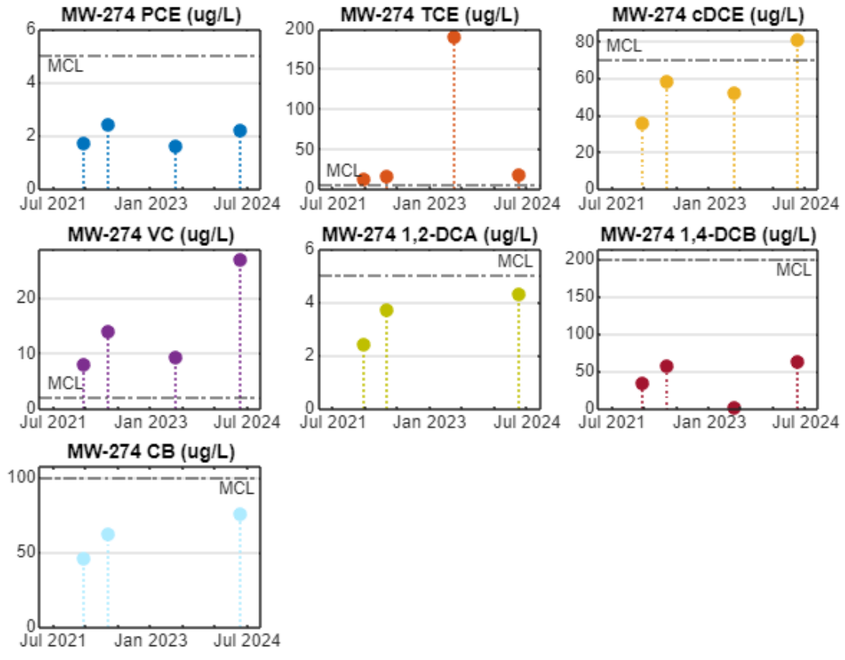
10.3 MW-274 Summary of Trends

Constituent	**M-K Trend** $\alpha = 0.05$	**M-K Trend** $\alpha = 0.10$	**Linear Corr**	2021 (ug/L)	2024 (ug/L)
PCE	None	None	Positive	1.7	2.2
TCE	None	None	Positive	13	18
cDCE	None	None	Positive	36	81
VC	None	None	Positive	7.9	27
1,2-DCA	--	--	--	2.4	4.3
1,4-DCB	None	None	Positive	34	63
CB	--	--	--	46	76

10.4 MW-274 Data Plots

```
figure
t9=tiledlayout('flow');
t9.Padding='compact';
t9.TileSpacing='compact';
nexttile
stem(MW274.Date,MW274.PCE,':','Color','0 0.45 0.74','Marker','o',...
    'MarkerEdgeColor','0 0.45 0.74','MarkerFaceColor','0 0.45 0.74')
axis padded
title('MW-274 PCE (ug/L)')
ylim([0 6])
yline(5,'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
nexttile
stem(MW274.Date,MW274.TCE,':','Color','0.85 0.33 0.1','Marker','o',...
    'MarkerEdgeColor','0.85 0.33 0.1','MarkerFaceColor','0.85 0.33 0.1')
```

```
axis padded
title('MW-274 TCE (ug/L)')
yline(5,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
nexttile
stem(MW274.Date,MW274.cDCE,':','Color','0.93 0.69 0.13','Marker','o',...
    'MarkerEdgeColor','0.93 0.69 0.13','MarkerFaceColor','0.93 0.69 0.13')
axis padded
title('MW-274 cDCE (ug/L)')
yline(70,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
nexttile
stem(MW274.Date,MW274.VC,':','Color','0.49 0.18 0.56','Marker','o',...
    'MarkerEdgeColor','0.49 0.18 0.56','MarkerFaceColor','0.49 0.18 0.56')
axis padded
title('MW-274 VC (ug/L)')
yline(2,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
nexttile
stem(MW274.Date,MW274.DCA12,':','Color',' 0.75 0.75 0','Marker','o',...
    'MarkerEdgeColor',' 0.75 0.75 0','MarkerFaceColor',' 0.75 0.75 0')
axis padded
title('MW-274 1,2-DCA (ug/L)')
ylim([0 6])
yline(5,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','right','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
nexttile
stem(MW274.Date,MW274.DCB14,':','Color','0.64 0.08 0.18','Marker','o',...
    'MarkerEdgeColor','0.64 0.08 0.18','MarkerFaceColor','0.64 0.08 0.18')
axis padded
title('MW-274 1,4-DCB (ug/L)')
yline(200,'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','right','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
nexttile
stem(MW274.Date,MW274.CB,':','Color','0.68 0.92 1','Marker','o',...
    'MarkerEdgeColor','0.68 0.92 1','MarkerFaceColor','0.68 0.92 1')
axis padded
title('MW-274 CB (ug/L)')
yline(100,'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','right','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
```



11.0 MW-275

11.1 MW-275 Linear Correlation

```
% Linear Correlation test for analytes with 100% detections (4 observations)
'MW-275 Linear Correlation TCE',[rho,pval] = corr(juliandate(MW275.Date),MW275.TCE,Rows="complete")
```

```
ans =
'MW-275 Linear Correlation TCE'
rho =
0.5934
pval =
0.4066
```

```
'MW-275 Linear Correlation cDCE',[rho,pval] = corr(juliandate(MW275.Date),MW275.cDCE,Rows="complete")
```

```
ans =
'MW-275 Linear Correlation cDCE'
rho =
0.4985
pval =
0.5015
```

```
'MW-275 Linear Correlation VC',[rho,pval] = corr(juliandate(MW275.Date),MW275.VC,Rows="complete")
```

```
ans =
'MW-275 Linear Correlation VC'
rho =
0.3487
```

```
pval =
0.6513
```

```
'MW-275 Linear Correlation DCA12',[rho,pval] = corr(juliandate(MW275.Date),MW275.DCA12,Rows="complete")
```

```
ans =
'MW-275 Linear Correlation DCA12'
rho =
0.2226
pval =
0.7774
```

```
'MW-275 Linear Correlation DCB14',[rho,pval] = corr(juliandate(MW275.Date),MW275.DCB14,Rows="complete")
```

```
ans =
'MW-275 Linear Correlation DCB14'
rho =
0.2916
pval =
0.7084
```

```
'MW-275 Linear Correlation CB',[rho,pval] = corr(juliandate(MW275.Date),MW275.CB,Rows="complete")
```

```
ans =
'MW-275 Linear Correlation CB'
rho =
0.2535
pval =
0.7465
```

11.2 MW-275 Mann Kendall Trend Test

```
'MW-275 Test for Trend TCE', [H, P_value,Z,StdS]=MKwMiss(MW275.TCE,0.05,NaN)
```

```
ans =
'MW-275 Test for Trend TCE'
H = logical
   0
P_value =
0.3082
Z =
1.0190
StdS =
2.9439
```

```
"MW-275 TCE",'One Way Test Trend > 0', pval = cumKendallTest(MW275.TCE,juliandate(MW275.Date),'gt')
```

```
ans =
"MW-275 TCE"
ans =
'One Way Test Trend > 0'
pval =
0.1541
```

```
'MW-275 Test for Trend cDCE', [H, P_value,Z,StdS]=MKwMiss(MW275.cDCE,0.05,NaN)
```

```
ans =
'MW-275 Test for Trend cDCE'
H = logical
   0
```

```
P_value =
0.7341
Z =
0.3397
StdS =
2.9439
```

```
"MW-275 cDCE",'One Way Test Trend > 0', pval = cumKendallTest(MW275.cDCE,juliandate(MW275.Date),'gt')
```

```
ans =
"MW-275 cDCE"
ans =
'One Way Test Trend > 0'
pval =
0.3670
```

```
'MW-275 Test for Trend VC', [H, P_value,Z,StdS]=MKwMiss(MW275.VC,0.05,NaN)
```

```
ans =
'MW-275 Test for Trend VC'
H = logical
   0
P_value =
0.7341
Z =
0.3397
StdS =
2.9439
```

```
"MW-275 VC",'One Way Test Trend > 0', pval = cumKendallTest(MW275.VC,juliandate(MW275.Date),'gt')
```

```
ans =
"MW-275 VC"
ans =
'One Way Test Trend > 0'
pval =
0.3670
```

```
'MW-275 Test for Trend DCA12', [H, P_value,Z,StdS]=MKwMiss(MW275.DCA12,0.05,NaN)
```

```
ans =
'MW-275 Test for Trend DCA12'
H = logical
   0
P_value =
0.7341
Z =
0.3397
StdS =
2.9439
```

```
"MW-275 DCA12",'One Way Test Trend > 0', pval = cumKendallTest(MW275.DCA12,juliandate(MW275.Date),'gt')
```

```
ans =
"MW-275 DCA12"
ans =
'One Way Test Trend > 0'
pval =
0.3670
```

```
'MW-275 Test for Trend DCB14', [H, P_value,Z,StdS]=MKwMiss(MW275.DCB14,0.05,NaN)
```

```
ans =
'MW-275 Test for Trend DCB14'
H = logical
   0
P_value =
0.7341
Z =
0.3397
StdS =
2.9439
```

```
"MW-275 DCB14",'One Way Test Trend > 0', pval = cumKendallTest(MW275.DCB14,juliandate(MW275.Date),'gt')
```

```
ans =
"MW-275 DCB14"
ans =
'One Way Test Trend > 0'
pval =
0.3670
```

```
'MW-275 Test for Trend CB', [H, P_value,Z,StdS]=MKwMiss(MW275.CB,0.05,NaN)
```

```
ans =
'MW-275 Test for Trend CB'
H = logical
   0
P_value =
0.7341
Z =
0.3397
StdS =
2.9439
```

```
"MW-275 CB",'One Way Test Trend > 0', pval = cumKendallTest(MW275.CB,juliandate(MW274.Date),'gt')
```

```
ans =
"MW-275 CB"
ans =
'One Way Test Trend > 0'
pval =
0.3670
```

11.3 MW-275 Summary of Trends

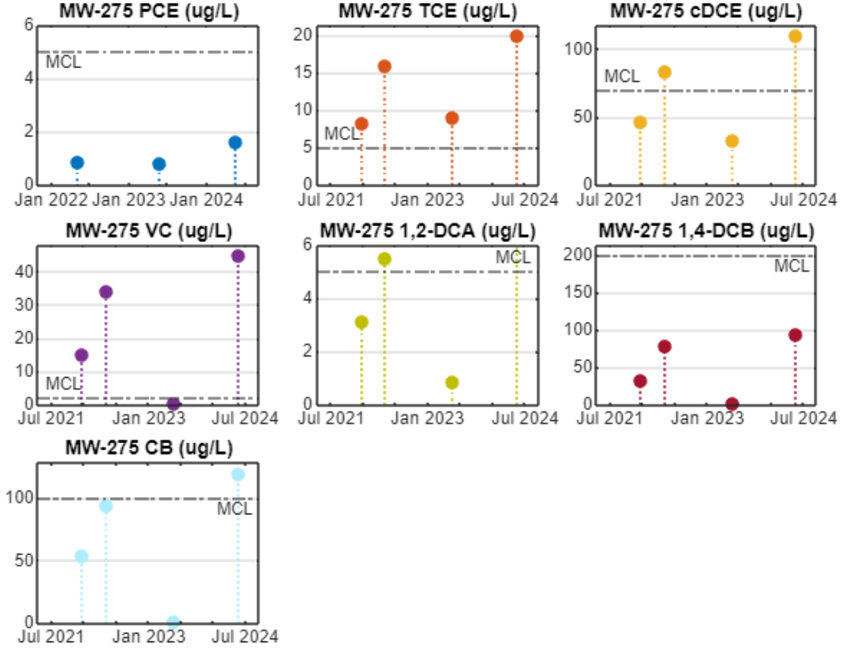
Constituent	**M-K Trend** $\alpha = 0.05$	**M-K Trend** $\alpha = 0.10$	**Linear Corr**	2021 (ug/L)	2024 (ug/L)
PCE	--	--	--	ND	1.6
TCE	None	None	Positive	8.3	20
cDCE	None	None	Positive	46	110
VC	None	None	Positive	15	45

1,2-DCA	None	None	Positive	3.1	6.2
1,4-DCB	None	None	Positive	32	93
CB	None	None	Positive	54	120

11.4 MW-275 Data Plots

```
figure
t10=tiledlayout('flow');
t10.Padding='compact';
t10.TileSpacing='compact';
nexttile
stem(MW275.Date,MW275.PCE,':','Color','0 0.45 0.74','Marker','o',...
    'MarkerEdgeColor','0 0.45 0.74','MarkerFaceColor','0 0.45 0.74')
axis padded
title('MW-275 PCE (ug/L)')
ylim([0 6])
yline(5,'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
nexttile
stem(MW275.Date,MW275.TCE,':','Color','0.85 0.33 0.1','Marker','o',...
    'MarkerEdgeColor','0.85 0.33 0.1','MarkerFaceColor','0.85 0.33 0.1')
axis padded
title('MW-275 TCE (ug/L)')
yline(5,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
nexttile
stem(MW275.Date,MW275.cDCE,':','Color','0.93 0.69 0.13','Marker','o',...
    'MarkerEdgeColor','0.93 0.69 0.13','MarkerFaceColor','0.93 0.69 0.13')
axis padded
title('MW-275 cDCE (ug/L)')
yline(70,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
nexttile
stem(MW275.Date,MW275.VC,':','Color','0.49 0.18 0.56','Marker','o',...
    'MarkerEdgeColor','0.49 0.18 0.56','MarkerFaceColor','0.49 0.18 0.56')
axis padded
title('MW-275 VC (ug/L)')
yline(2,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
nexttile
stem(MW275.Date,MW275.DCA12,':','Color',' 0.75 0.75 0','Marker','o',...
```

```
    'MarkerEdgeColor',' 0.75 0.75 0','MarkerFaceColor',' 0.75 0.75 0')
axis padded
title('MW-275 1,2-DCA (ug/L)')
ylim([0 6])
yline(5,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','right','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
nexttile
stem(MW275.Date,MW275.DCB14,':','Color','0.64 0.08 0.18','Marker','o',...
    'MarkerEdgeColor','0.64 0.08 0.18','MarkerFaceColor','0.64 0.08 0.18')
axis padded
title('MW-275 1,4-DCB (ug/L)')
yline(200,'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','right','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
nexttile
stem(MW275.Date,MW275.CB,':','Color','0.68 0.92 1','Marker','o',...
    'MarkerEdgeColor','0.68 0.92 1','MarkerFaceColor','0.68 0.92 1')
axis padded
title('MW-275 CB (ug/L)')
yline(100,'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','right','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
```



12.0 MW-282

12.1 MW-282 Linear Correlation

```
% Linear Correlation test for analytes with 100% detections (4 observations)
'MW-282 Linear Correlation TCE',[rho,pval] = corr(juliandate(MW275.Date),MW275.TCE,Rows="complete")
```

```
ans =
'MW-282 Linear Correlation TCE'
rho =
0.5934
pval =
0.4066
```

```
'MW-282 Linear Correlation cDCE',[rho,pval] = corr(juliandate(MW275.Date),MW275.cDCE,Rows="complete")
```

```
ans =
'MW-282 Linear Correlation cDCE'
rho =
0.4985
pval =
0.5015
```

```
'MW-282 Linear Correlation VC',[rho,pval] = corr(juliandate(MW275.Date),MW275.VC,Rows="complete")
```

```
ans =
'MW-282 Linear Correlation VC'
rho =
0.3487
pval =
0.6513
```

```
'MW-282 Linear Correlation DCA12',[rho,pval] = corr(juliandate(MW275.Date),MW275.DCA12,Rows="complete")
```

```
ans =
'MW-282 Linear Correlation DCA12'
rho =
0.2226
pval =
0.7774
```

12.2 MW-282 Mann Kendall Trend Test

```
'MW-282 Test for Trend TCE', [H, P_value,Z,StdS]=MKwMiss(MW275.TCE,0.05,NaN)
```

```
ans =
'MW-282 Test for Trend TCE'
H = logical
   0
P_value =
0.3082
Z =
1.0190
StdS =
2.9439
```

```
"MW-282 TCE",'One Way Test Trend > 0', pval = cumKendallTest(MW275.TCE,juliandate(MW275.Date),'gt')
```

```
ans =
"MW-282 TCE"
ans =
```

```
'One Way Test Trend > 0'
pval =
0.1541
```

```
'MW-282 Test for Trend cDCE', [H, P_value,Z,StdS]=MKwMiss(MW275.cDCE,0.05,NaN)
```

```
ans =
'MW-282 Test for Trend cDCE'
H = logical
   0
P_value =
0.7341
Z =
0.3397
StdS =
2.9439
```

```
"MW-282 cDCE",'One Way Test Trend > 0', pval = cumKendallTest(MW275.cDCE,juliandate(MW275.Date),'gt')
```

```
ans =
"MW-282 cDCE"
ans =
'One Way Test Trend > 0'
pval =
0.3670
```

```
'MW-282 Test for Trend VC', [H, P_value,Z,StdS]=MKwMiss(MW275.VC,0.05,NaN)
```

```
ans =
'MW-282 Test for Trend VC'
H = logical
   0
P_value =
0.7341
Z =
0.3397
StdS =
2.9439
```

```
"MW-282 VC",'One Way Test Trend > 0', pval = cumKendallTest(MW275.VC,juliandate(MW275.Date),'gt')
```

```
ans =
"MW-282 VC"
ans =
'One Way Test Trend > 0'
pval =
0.3670
```

```
'MW-282 Test for Trend DCA12', [H, P_value,Z,StdS]=MKwMiss(MW275.DCA12,0.05,NaN)
```

```
ans =
'MW-282 Test for Trend DCA12'
H = logical
   0
P_value =
0.7341
Z =
0.3397
StdS =
2.9439
```

```
"MW-282 DCA12",'One Way Test Trend > 0', pval = cumKendallTest(MW275.DCA12,juliandate(MW275.Date),'gt')
```

```
ans =
"MW-282 DCA12"
ans =
'One Way Test Trend > 0'
pval =
0.3670
```

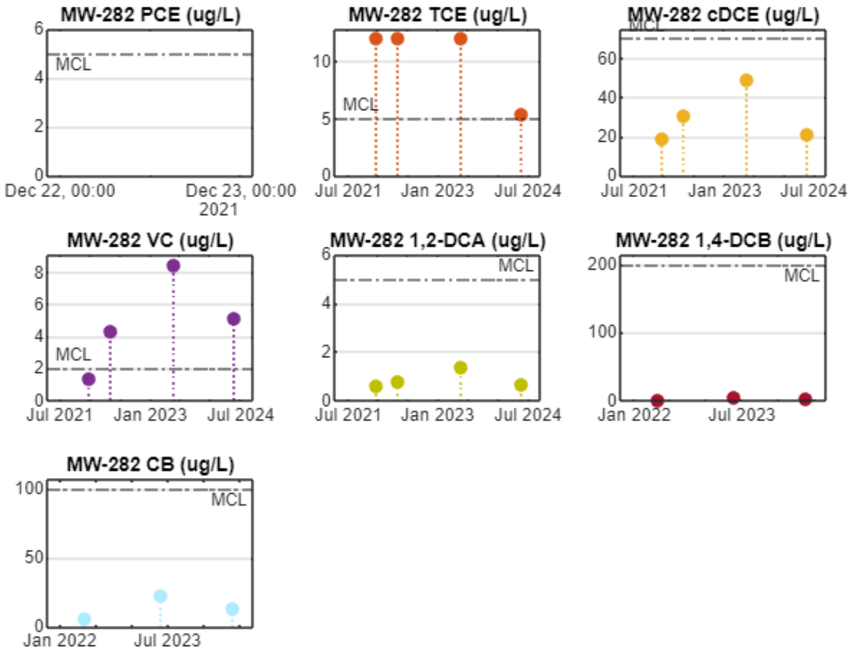
12.3 MW-282 Summary of Trends

Constituent	M-K Trend $\alpha = 0.05$	M-K Trend $\alpha = 0.10$	Linear Corr	2021 (ug/L)	2024 (ug/L)
PCE	--	--	--	ND	ND
TCE	None	None	Positive	12	5.4
cDCE	None	None	Positive	19	21
VC	None	None	Positive	1.4	5.1
1,2-DCA	None	None	Positive	0.63	0.68
1,4-DCB	--	--	--	ND	2.5
CB	--	--	--	ND	13

12.4 MW-282 Data Plots

```
figure
t11=tiledlayout('flow');
t11.Padding='compact';
t11.TileSpacing='compact';
nexttile
stem(MW282.Date,MW282.PCE,':','Color','0 0.45 0.74','Marker','o',...
    'MarkerEdgeColor','0 0.45 0.74','MarkerFaceColor','0 0.45 0.74')
axis padded
title('MW-282 PCE (ug/L)')
ylim([0 6])
yline(5,'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
nexttile
stem(MW282.Date,MW282.TCE,':','Color','0.85 0.33 0.1','Marker','o',...
    'MarkerEdgeColor','0.85 0.33 0.1','MarkerFaceColor','0.85 0.33 0.1')
axis padded
title('MW-282 TCE (ug/L)')
yline(5,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
```

```
set(gca, "XGrid", "off", "YGrid", "on");
nexttile
stem(MW282.Date,MW282.cDCE,':','Color','0.93 0.69 0.13','Marker','o',...
    'MarkerEdgeColor','0.93 0.69 0.13','MarkerFaceColor','0.93 0.69 0.13')
axis padded
title('MW-282 cDCE (ug/L)')
yline(70,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
nexttile
stem(MW282.Date,MW282.VC,':','Color','0.49 0.18 0.56','Marker','o',...
    'MarkerEdgeColor','0.49 0.18 0.56','MarkerFaceColor','0.49 0.18 0.56')
axis padded
title('MW-282 VC (ug/L)')
yline(2,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
nexttile
stem(MW282.Date,MW282.DCA12,':','Color',' 0.75 0.75 0','Marker','o',...
    'MarkerEdgeColor',' 0.75 0.75 0','MarkerFaceColor',' 0.75 0.75 0')
axis padded
title('MW-282 1,2-DCA (ug/L)')
ylim([0 6])
yline(5,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','right','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
nexttile
stem(MW282.Date,MW282.DCB14,':','Color','0.64 0.08 0.18','Marker','o',...
    'MarkerEdgeColor','0.64 0.08 0.18','MarkerFaceColor','0.64 0.08 0.18')
axis padded
title('MW-282 1,4-DCB (ug/L)')
yline(200,'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','right','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
nexttile
stem(MW282.Date,MW282.CB,':','Color','0.68 0.92 1','Marker','o',...
    'MarkerEdgeColor','0.68 0.92 1','MarkerFaceColor','0.68 0.92 1')
axis padded
title('MW-282 CB (ug/L)')
yline(100,'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','right','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
```



Standard Color Ramp

Hex Color Reference Codes

- PCE 0 0.45 074
- TCE 0.85 0.33 0.1
- cDCE 0.93 0.69 0.13
- VC 0.49 0.18 0.56
- 1,1-DCE 0.47 0.67 0.19
- DCM 0.3 0.75 0.93
- 1,1,1-TCA 0.3 0.75 0.93
- 1,2-DCA 0.75 0.75 0
- 1,4-DCB 0.64 0.08 0.18
- CB 0.68 0.92 1
- Benzene 0.69 0.08 0.18
- TOC 0.87 0.49 0
- DHC 0.85 0.7 1
- tceA 1 0.84 0
- VCR 1 0.6 0.78

- BCV 0.75 0.75 0

E.7 Trend Analysis for Confined Aquifer: Northern Area

OU 6 Northern Area: Confined Aquifer Data and Statistical Analysis

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1.0 Data Evaluation Methods

Normal Distribution - Lillifors Test

The Lilliefors test used as the hypothesis test evaluated whether the data distribution comes from a distribution in the normal family, against the alternative that it does not come from a normal distribution.

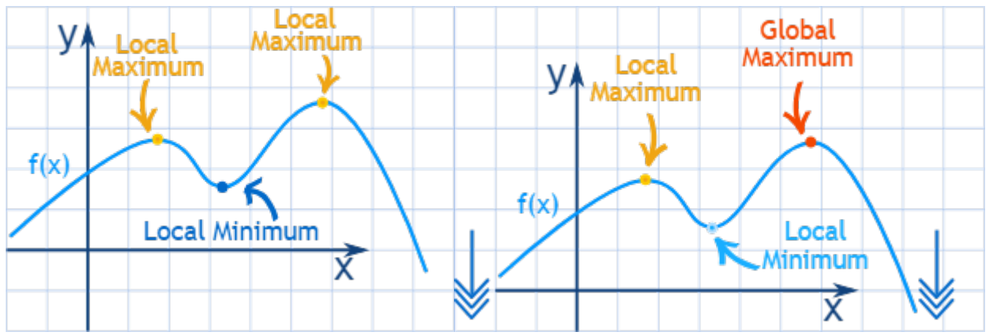
Coefficient of Variation

Coefficient of variation (CV) of a time series data set is the ratio of standard deviation and mean. CV provides a measure of variability of time series data.

Linear Correlation (Pearson's Linear Correlation Coefficient)

Correlation quantifies the strength of a linear relationship between two variables. When there is no correlation between two variables, then there is no tendency for the values of the variables to increase or decrease together. . Values of the correlation coefficient can range from –1 to +1. A value of –1 indicates perfect negative correlation, while a value of +1 indicates perfect positive correlation. A value of 0 indicates no correlation between the sets of data observations. The analysis also tests the null hypothesis of no correlation against an alternative hypothesis for positive, negative, or nonzero correlation at a significance of 5 percent (%) or alpha (α) of 0.05. A calculated probability value (p-value) <0.05 rejects the null hypothesis of no correlation indicating the correlation is significantly positive, negative, or different than 0.

Maxima and Minima



A local maximum is is:f(a) ≥ f(x) for all x in the interval. The prominence of a local maximum (or peak) measures how the peak stands out with respect to its height and location relative to other peaks. A local **minimum** is:f(a) ≤ f(x) for all x in the interval. The prominence of a local minimum (or valley) measures how the valley stands out with respect to its depth and location relative to other valleys. Global maximum and minimum represent the maximum and minimum for the entire function or data set.

Mann-Kendall (M-K) Trend Analysis

The Mann-Kendall (M-K) tests detect monotonic trends in data. M-K tests allow for missing values, do not require a particular distribution assumption, and can accommodate trace reported values and left censored data (non-detect).

Original Form

The original form of the M-K test (two-way) evaluates the null hypothesis of no trend (H0) vs. an alternative hypothesis (HA) of trend at a significance level of 5% (0.05).[1] A test result of H=0 indicates no trend with a result of H =1 indicate a trend. In null hypothesis statistical testing, the probability value (p-value) of statistical test is the probability, under the null hypothesis, of obtaining a value of the test statistic as extreme or more extreme than the value computed from the sample. Typically, a p-value quantifies the statistical significance of the result equal less than the significant level. In a significance test, the null hypothesis H0 is rejected if the p-value is less than or equal to a predefined threshold value of significance (alpha). The original form does not compute trends where the distribution has NaN (missing) data observations.

[1]Mann, H. B. (1945), Nonparametric tests against trend, Econometrica, 13, 245– 259. Kendall, M. G. (1975), Rank Correlation Methods, Griffin, London. MATLAB Code written by: Simone Fatichi -- simonef@dicea.unifi.it Copyright 2009, Date: 2009/10/03

Mann-Kendall with Missing Values and Same Values

This form of the M-K test (two-way) accounts for NaN (missing values) and tied values following the method described in Gilbert RO (1987) Statistical Methods for Environmental Pollution Monitoring pages 208-213. This test evaluates the null hypothesis of no trend (H0) vs. an alternative hypothesis (HA) of trend at a significance level of 5% (0.05) or alternative significance level.[2] A test result of H=0 indicates no trend with a result of H =1 indicate a trend. In null hypothesis statistical testing, the probability value (p-value) of statistical test is the probability, under the null hypothesis, of obtaining a value of the test statistic as extreme or more extreme than the value computed from the sample. Typically, a p-value quantifies the statistical significance of the result equal less than the significant level. In a significance test, the null hypothesis H0 is rejected if the p-value is less than or equal to a predefined threshold value of significance (alpha). This function outputs the Z statistic and standard deviation of the Mann-Kendall Statistic S. A positive (negative) value of Z indicates an upward (downward) trend.

[2]Taesam Lee (2024). Mann-Kendall with Missing Values and Same Values (https://www.mathworks.com/matlabcentral/fileexchange/70408-mann-kendall-with-missing-values-and-same-values), MATLAB Central File Exchange.

Cumulative Form for Alternative Hypothesis of Trend not zero, Trend is greater than zero, or Trend is less than zero

A cumulative form of the M-K test used in tfor data evaluations consists of one-way or two-way test that can evaluate an alternative hypothesis of trend not zero (two-way) trend greater than zero (one-way) or less than zero (one-way).[3] This test treats NaNs (missing values) in Q or pop as missing values, and removes them.

[3]Thorvaldsen, S. , Flå, T. and Willassen, N.P. (2010) DeltaProt: a software toolbox for comparative genomics. BMC Bioinformatics 2010, Vol 11:573. See http://www.biomedcentral.com/1471-2105/11/573

Sequential Test for Potential Trend Change Points

A sequential version of the Mann-Kendall test statistic allows detection of the approximate beginning of a developing trend. When the progressive series (original time series) and retrograde (backward sequential time series) curves are plotted, the intersection of the curves locates an approximate potential trend turning point. If the intersection of the curves occurs within +/- 1.96 (5% level) of the standardized statistic, a detectable change at that point in the time series can be inferred.[4]

[4] Reference: Chatterjee, S., Bisai, D. and Khan, A., 2014. Detection of approximate potential trend turning points in temperature time series (1941–2010) for Asansol Weather Observation Station, West Bengal, India. India. Atmospheric and Climate Sciences, 4, pp.64-69. MATLAB Code written by Pankaj Dey, PhD scholar, Department of Civil Engineering,Indian Institute of Science, Bangalore.

Singular Spectrum Analysis (SSA)

SSA is a spectrum estimation method (non-parametric) to analyze time series data for trend and forecasting. SAA assumes the additive decomposition of the data into long-term (LT) trend, oscillatory or seasonal trend or trends, and remainder or random. The SAA function[5] used for the data evaluation solves for LT without decomposition of seasonal or remainder components given the mostly annual frequency of sampling.

[5]Singular Spectrum Analysis function using MATLAB 2024a.

2.0 DMW-34B

Exploratory Data Analysis

Data Summary

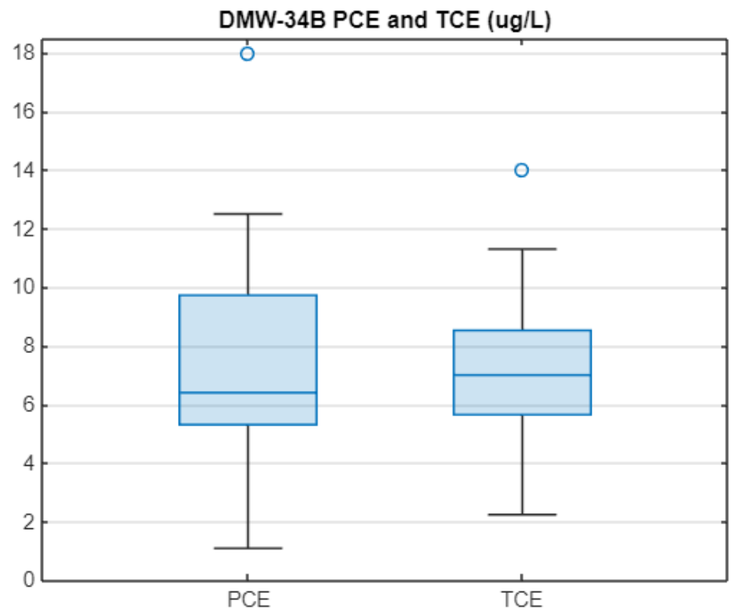
```
summary(DMW34B,DataVariables=["Date","PCE","TCE"],Statistics="allstats")
```

```
DMW34B: 13×3 table
Variables:
    Date: datetime
    PCE: double
    TCE: double
Statistics for applicable variables:
          NumMissing          Min          Q1          Median          Q3          Max                 Range                Mean                Std          Var          Sum          Mode          Nu
    Date          0    09-Feb-2012              17-Apr-2018                 16-May-2024 13:55:00    107533:55:00    18-May-2018 19:05:13    35449:53:51                                  09-Feb-2012
    PCE           0         1.0900       5.3100       6.4000       9.7250                   18           16.9100              7.7262          4.3505       18.9264      100.4400       6.4000
    TCE           0         2.2400       5.6500            7       8.5250                   14           11.7600              7.3546          3.0121        9.0729       95.6100       2.2400
```

```
format compact
```

Distribution

```
figure
boxchart(DMW34Barray)
set(gca, "XGrid", "off", "YGrid", "on")
xticklabels({'PCE','TCE'})
title('DMW-34B PCE and TCE (ug/L)')
ylim([0 18.5])
box
```



Normal Distribution Tests

```
'PCE',[h,p,kstat,critval] = lillietest(DMW34B.PCE,"MCTol",1E+04),
```

```
ans =
'PCE'
h =
0
p =
0.4870
kstat =
0.1582
critval =
0.2325
```

```
'TCE',[h,p,kstat,critval] = lillietest(DMW34B.TCE,"MCTol",1E+04)
```

```
ans =
'TCE'
h =
0
p =
0.5990
kstat =
0.1501
critval =
0.2381
```

Outlier Testing

```
'PCE Outliers',isoutlier(DMW34B.PCE,"quartiles")','TCE Outliers',isoutlier(DMW34B.TCE,"quartiles")',...
```

```
ans =
'PCE Outliers'
ans = 1×13 logical array
   0   0   0   0   0   0   0   0   0   0   1   0   0
ans =
'TCE Outliers'
ans = 1×13 logical array
   0   0   0   0   0   0   0   0   0   0   1   0   0
```

Coefficient of Variation

Coefficient of variation (CV) of a time series data set is the ratio of standard deviation and mean. CV provides a measure of variability of time series data.

Coefficient of Variation	Variance
<0.50	Low
0.5 to 1.0	Moderate
>1.0	High

```
CVDMW34BPCE=std(DMW34B.PCE,'omitmissing')/mean(DMW34B.PCE,'omitmissing'),...
CVDMW34BTCE=std(DMW34B.TCE,'omitmissing')/mean(DMW34B.TCE,'omitmissing'),...
```

```
CVDMW34BPCE =
0.5631
CVDMW34BTCE =
0.4096
```

Linear Correlation

rho	Correlation
-1.0	Perfect negative
0.0	No correlation
1.0	Perfect positive

pvalue	Significance level of 0.05
=<0.05	Statistically significant

```
'Linear Correlation PCE',[rho,pval] = corr(juliandate(DMW34B.Date),DMW34B.PCE,Rows="complete")
```

```
ans =
'Linear Correlation PCE'
rho =
0.6777
pval =
0.0109
```

```
'Linear Correlation TCE',[rho,pval] = corr(juliandate(DMW34B.Date),DMW34B.TCE,Rows="complete")
```

```
ans =
'Linear Correlation TCE'
rho =
0.4162
pval =
0.1572
```

Mann-Kendall Trend Tests

```
'Test for Trend PCE', [H, P_value,Z,StdS]=MKwMiss(DMW34B.PCE,0.05,NaN)
```

```
ans =
'Test for Trend PCE'
H = logical

   1
P_value =
0.0033
Z =
2.9339
StdS =
16.3605
```

```
"PCE",'One Way Test Trend > 0', pval = cumKendallTest(DMW34B.PCE,juliandate(DMW34B.Date),'gt')
```

```
ans =
"PCE"
ans =
'One Way Test Trend < 0'
pval =
0.0017
```

```
'Test for Trend TCE', [H, P_value,Z,StdS]=MKwMiss(DMW34B.TCE,0.05,NaN)
```

```
ans =
'Test for Trend TCE'
H = logical

   0
P_value =
0.1606
Z =
1.4032
StdS =
16.3911
```

```
"TCE",'One Way Test Trend > 0', pval = cumKendallTest(DMW34B.TCE,juliandate(DMW34B.Date),'gt')
```

```
ans =
"TCE"
ans =
'One Way Test Trend > 0'
pval =
0.0803
```

```
% Decompose data into long-term trend, seasonal trends, and remainder
DMW34BSSA = trenddecomp(DMW34B(:,["PCE","TCE"]),"ssa",6,"NumSeasonal",1);
```

DMW-34B Time Series Data Plots

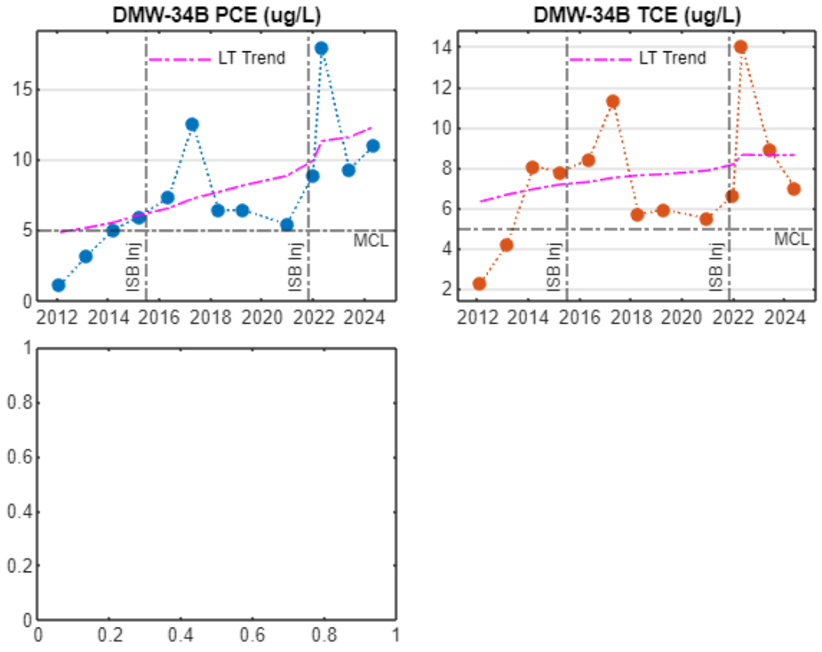
```
figure
t1=tiledlayout('flow');
t1.Padding='compact';
t1.TileSpacing='compact';
nexttile
plot(DMW34B.Date,DMW34B.PCE,':','Color','0 0.45 0.74','Marker','o',...
    'MarkerEdgeColor','0 0.45 0.74','MarkerFaceColor','0 0.45 0.74')
axis padded
title('DMW-34B PCE (ug/L)')
xline(datetime(2015,07,01),'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
xline(datetime(2021,11,01),'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
yline(5,'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','right','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
hold
```

```
Current plot held
```

```
plot(DMW34B.Date,DMW34BSSA.PCE_LongTerm,'-.','Color','magenta');
legend('','','','','LT Trend',Location='north',EdgeColor='none',Color='none')
nexttile
plot(DMW34B.Date,DMW34B.TCE,':','Color','0.85 0.33 0.1','Marker','o',...
    'MarkerEdgeColor','0.85 0.33 0.1','MarkerFaceColor','0.85 0.33 0.1')
axis padded
title('DMW-34B TCE (ug/L)')
xline(datetime(2015,07,01),'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
xline(datetime(2021,11,01),'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
yline(5,'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','right','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
hold
```

```
Current plot held
```

```
plot(DMW34B.Date,DMW34BSSA.TCE_LongTerm,'-.','Color','magenta');
legend('','','','','LT Trend',Location='north',EdgeColor='none',Color='none')
nexttile
box
```



3.0 MW-160

Exploratory Data Analysis

Data Summary

```
summary(MW160,DataVariables=["Date","PCE","TCE"],Statistics="allstats")
```

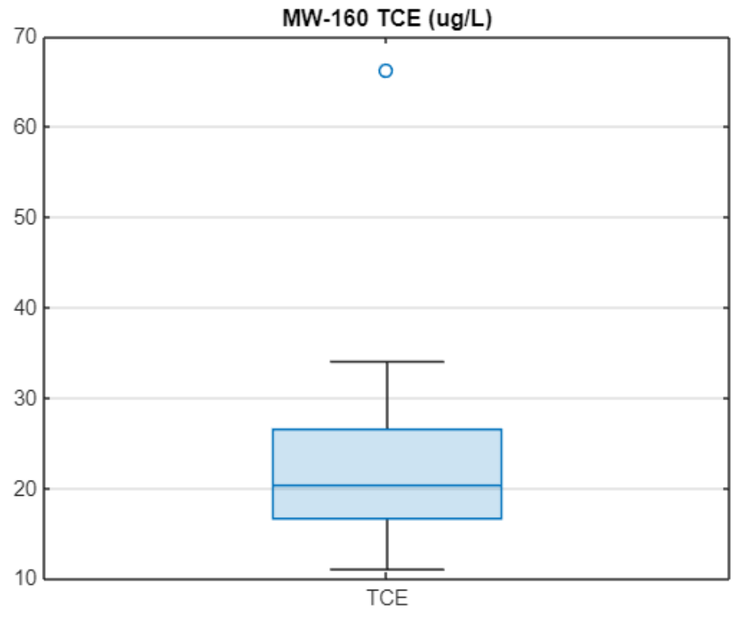
```
MW160: 15×3 table
Variables:
    Date: datetime
    PCE: double
    TCE: double
Statistics for applicable variables:
          NumMissing          Min              Q1              Median                Q3              Max                Range              Mean                Std              Var              Sum              Mode
    Date          0    13-Feb-2010                  17-Apr-2017 10:45:00                  20-May-2024 10:35:00    125050:35:00    06-May-2017 21:09:36    40651:38:22                                                    13-Feb-
    PCE          13       0.3330          0.3330            3.8665          7.4000             7.4000             7.0670             3.8665            4.9971           24.9712           7.7330           0.
    TCE           0           11           16.6250           20.3000         26.5000            66.3000            55.3000            23.8933           13.4819          181.7621          358.4000
```

```
format compact
```

Distribution

```
figure
boxchart(MW160.TCE)
set(gca, "XGrid", "off", "YGrid", "on")
xticklabels({'TCE'})
```

```
title('MW-160 TCE (ug/L)')
box
```



Normal Distribution Tests

```
'TCE',[h,p,kstat,critval] = lillietest(MW160.TCE,"MCTol",1E+04)
```

```
ans =
'TCE'
h =
0
p =
0.0570
kstat =
0.2108
critval =
0.2145
```

Outlier Testing

```
'TCE Outliers',isoutlier(MW160.TCE,"quartiles")',...
```

```
ans =
'TCE Outliers'
ans = 1×15 logical array
   0   1   0   0   0   0   0   0   0   0   0   0   0   0   0
```

Coefficient of Variation

Coefficient of variation (CV) of a time series data set is the ratio of standard deviation and mean. CV provides a measure of variability of time series data.

Coefficient of Variation	Variance
<0.50	Low
0.5 to 1.0	Moderate
>1.0	High

```
CVMW129TCE=std(MW160.TCE,'omitmissing')/mean(MW160.TCE,'omitmissing')
```

```
CVMW129TCE =
0.5643
```

Linear Correlation

rho	Correlation
-1.0	Perfect negative
0.0	No correlation
1.0	Perfect positive

pvalue	Significance level of 0.05
=<0.05	Statistically significant

```
'Linear Correlation TCE',[rho,pval] = corr(juliandate(MW160.Date),MW160.TCE,Rows="complete")
```

```
ans =
'Linear Correlation TCE'
rho =
-0.0538
pval =
0.8491
```

Mann-Kendall Trend Tests

```
'Test for Trend TCE', [H, P_value,Z,StdS]=MKwMiss(MW160.TCE,0.05,NaN)
```

```
ans =
'Test for Trend TCE'
H = logical

   0
P_value =
0.1659
Z =
1.3856
StdS =
20.2073
```

```
"TCE",'One Way Test Trend > 0', pval = cumKendallTest(MW160.TCE,juliandate(MW160.Date),'gt')
```

```
ans =
"TCE"
ans =
'One Way Test Trend > 0'
pval =
0.0829
```

SSA Trend Analysis

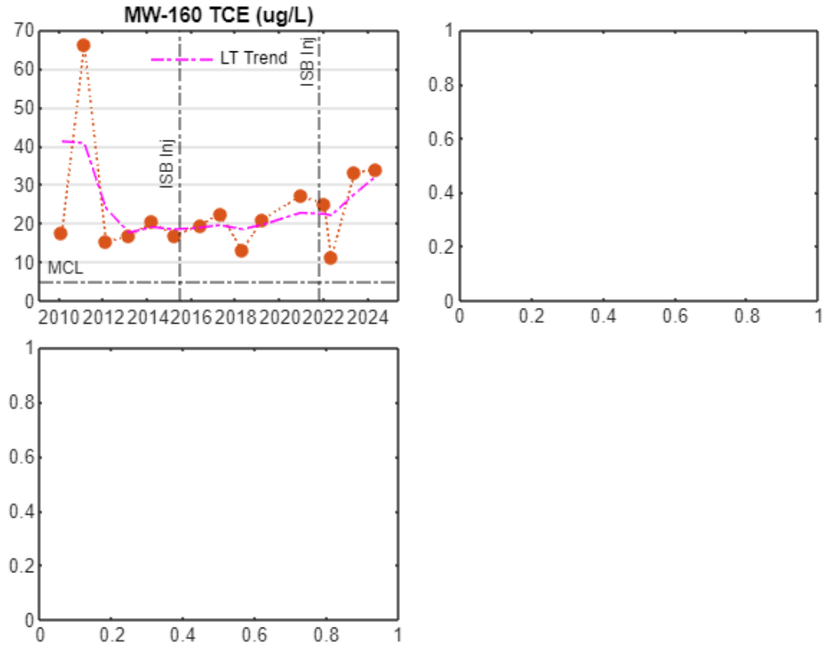
```
% Decompose data into long-term trend, seasonal trends, and remainder
MW160SSA = trenddecomp(MW160(:,"TCE"),"ssa",7,"NumSeasonal",1);
```

MW-160 Time Series Data Plots

```
figure
t2=tiledlayout('flow');
t2.Padding='compact';
t2.TileSpacing='compact';
nexttile
plot(MW160.Date,MW160.TCE,':','Color','0.85 0.33 0.1','Marker','o',...
    'MarkerEdgeColor','0.85 0.33 0.1','MarkerFaceColor','0.85 0.33 0.1')
axis padded
title('MW-160 TCE (ug/L)')
xline(datetime(2015,07,01),'-.','LabelVerticalAlignment','middle',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
xline(datetime(2021,11,01),'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
yline(5,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
hold
```

```
Current plot held
```

```
plot(MW160.Date,MW160SSA.TCE_LongTerm,'-.','Color','magenta');
legend('','','','','LT Trend',Location='north',EdgeColor='none',Color='none')
nexttile
box
nexttile
box
```



4.0 MW-165

Exploratory Data Analysis

Data Summary

```
summary(MW165,DataVariables=["Date","TCE"],Statistics="allstats")
```

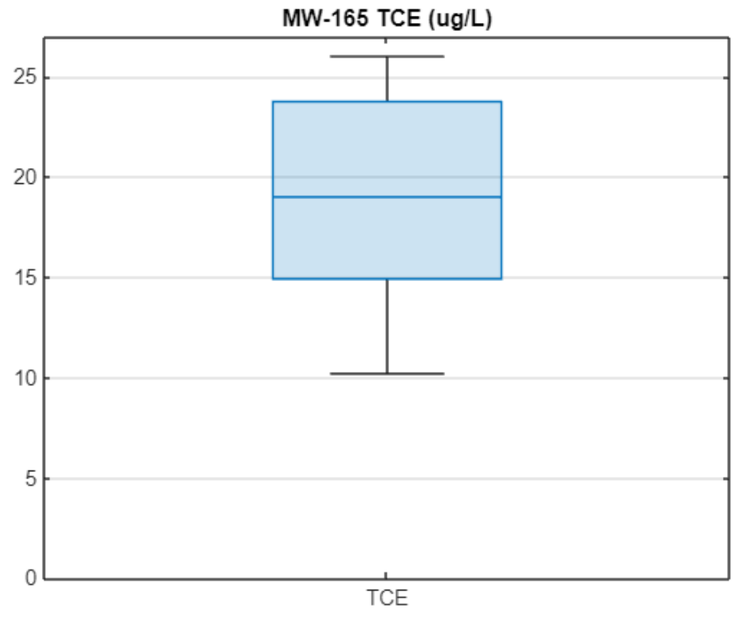
```
MW165: 15×2 table
Variables:
    Date: datetime
    TCE: double
Statistics for applicable variables:
          NumMissing          Min                 Q1                Median                Q3                 Max                Range              Mean                Std              Var          Sum          Mode
    Date          0    09-Nov-2010                                 17-Apr-2017 12:15:00                 17-May-2024 10:45:00    118522:45:00    24-May-2017 00:39:56    39936:26:53                                   09-Nov-2010
    TCE           0         10.2000    14.9250                    19                   23.7500                 26              15.8000            19.2000          5.3543          28.6686      288          18
```

```
format compact
```

Distribution

```
figure
boxchart(MW165.TCE)
set(gca, "XGrid", "off", "YGrid", "on")
xticklabels({'TCE'})
title('MW-165 TCE (ug/L)')
```

```
ylim([0 27])
box
```



Normal Distribution Tests

```
'TCE',[h,p,kstat,critval] = lillietest(MW165.TCE,"MCTol",1E+04)
```

```
ans =
'TCE'
h =
0
p =
0.5400
kstat =
0.1447
critval =
0.2128
```

Outlier Testing

```
'TCE Outliers',isoutlier(MW165.TCE,"quartiles")'
```

```
ans =
'TCE Outliers'
ans = 1×15 logical array
   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0
```

Coefficient of Variation

Coefficient of variation (CV) of a time series data set is the ratio of standard deviation and mean. CV provides a measure of variability of time series data.

Coefficient of Variation	Variance
<0.50	Low
0.5 to 1.0	Moderate
>1.0	High

```
CVMW165TCE=std(MW165.TCE,'omitmissing')/mean(MW165.TCE,'omitmissing'),...
```

```
CVMW165TCE =
0.2789
```

Linear Correlation

rho	Correlation
-1.0	Perfect negative
0.0	No correlation
1.0	Perfect positive

pvalue	Significance level of 0.05
=<0.05	Statistically significant

```
'Linear Correlation TCE',[rho,pval] = corr(juliandate(MW165.Date),MW165.TCE,Rows="complete")
```

```
ans =
'Linear Correlation TCE'
rho =
0.5487
pval =
0.0342
```

Mann-Kendall Trend Tests

```
'Test for Trend TCE', [H, P_value,Z,StdS]=MKwMiss(MW165.TCE,0.05,NaN)
```

```
ans =
'Test for Trend TCE'
H = logical

   0
P_value =
0.0829
Z =
1.7342
StdS =
20.1825
```

```
"TCE",'One Way Test Trend > 0', pval = cumKendallTest(MW165.TCE,juliandate(MW165.Date),'gt')
```

```
ans =
"TCE"
ans =
'One Way Test Trend > 0'
pval =
0.0414
```

SSA Trend Analysis

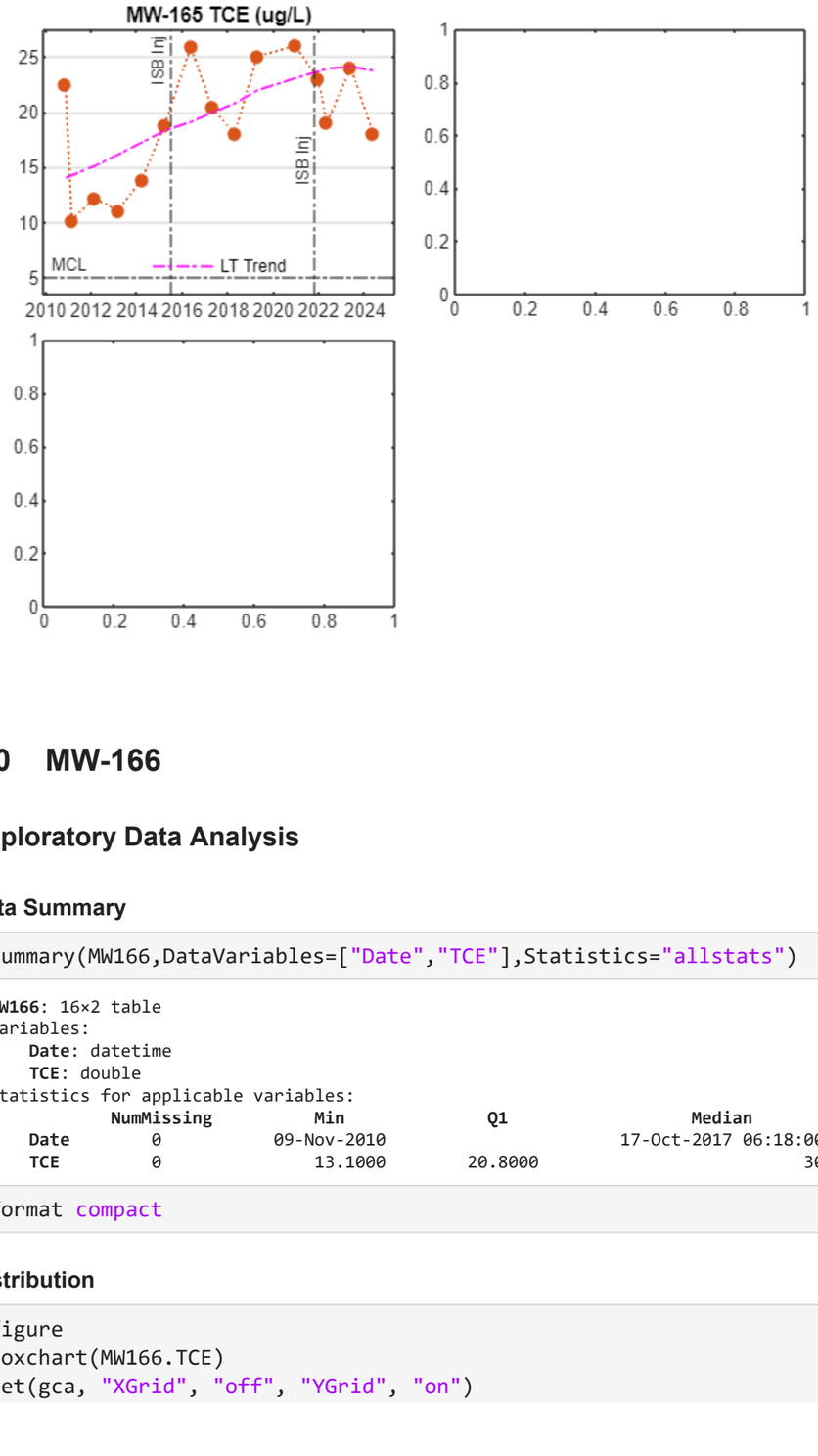
```
% Decompose data into long-term trend, seasonal trends, and remainder
MW165SSA = trenddecomp(MW165(:,"TCE"),"ssa",7,"NumSeasonal",1);
```

MW-165 Time Series Data Plots

```
figure
t3=tiledlayout('flow');
t3.Padding='compact';
t3.TileSpacing='compact';
nexttile
plot(MW165.Date,MW165.TCE,':','Color','0.85 0.33 0.1','Marker','o',...
    'MarkerEdgeColor','0.85 0.33 0.1','MarkerFaceColor','0.85 0.33 0.1')
axis padded
title('MW-165 TCE (ug/L)')
xline(datetime(2015,07,01),'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
xline(datetime(2021,11,01),'-.','LabelVerticalAlignment','middle',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
yline(5,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
hold
```

```
Current plot held
```

```
plot(MW165.Date,MW165SSA.TCE_LongTerm,'-.','Color','magenta');
legend('','','','','LT Trend',Location='south',EdgeColor='none',Color='none')
nexttile
box
nexttile
box
```



5.0 MW-166

Exploratory Data Analysis

Data Summary

```
summary(MW166,DataVariables=["Date","TCE"],Statistics="allstats")
```

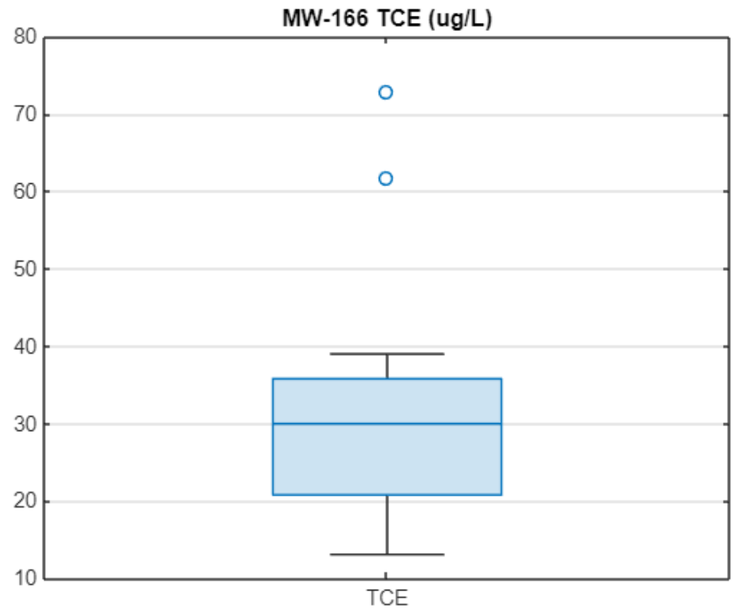
```
MW166: 16×2 table
Variables:
    Date: datetime
    TCE: double
Statistics for applicable variables:
          NumMissing          Min              Q1              Median              Q3              Max              Range              Mean              Std              Var              Sum              Mode
    Date          0    09-Nov-2010                 17-Oct-2017 06:18:00                 16-May-2024 08:58:00    118496:58:00    12-Aug-2017 09:41:11    39349:03:10                                                    09-Nov-
    TCE           0         13.1000         20.8000                  30         35.8000                  72.8000         59.7000                32.1063          15.6632         245.3353         513.7000
```

```
format compact
```

Distribution

```
figure
boxchart(MW166.TCE)
set(gca, "XGrid", "off", "YGrid", "on")
```

```
xticklabels({'TCE'})
title('MW-166 TCE (ug/L)')
box
```



Normal Distribution Tests

```
'TCE',[h,p,kstat,critval] = lillietest(MW166.TCE,"MCTol",1E+04)
```

```
ans =
'TCE'
h =
0
p =
0.0730
kstat =
0.2049
critval =
0.2127
```

Outlier Testing

```
'TCE Outliers',isoutlier(MW166.TCE,"quartiles")',...
```

```
ans =
'TCE Outliers'
ans = 1×16 logical array
   1   1   0   0   0   0   0   0   0   0   0   0   0   0   0   0
```

Coefficient of Variation

Coefficient of variation (CV) of a time series data set is the ratio of standard deviation and mean. CV provides a measure of variability of time series data.

Coefficient of Variation	Variance
<0.50	Low
0.5 to 1.0	Moderate
>1.0	High

```
CVMW160TCE=std(MW160.TCE,'omitmissing')/mean(MW160.TCE,'omitmissing'),...
```

```
CVMW160TCE =
0.5643
```

Linear Correlation

rho	Correlation
-1.0	Perfect negative
0.0	No correlation
1.0	Perfect positive

pvalue	Significance level of 0.05
=<0.05	Statistically significant

```
'Linear Correlation TCE',[rho,pval] = corr(juliandate(MW166.Date),MW166.TCE,Rows="complete")
```

```
ans =
'Linear Correlation TCE'
rho =
-0.3414
pval =
0.1957
```

Mann-Kendall Trend Tests

```
'Test for Trend TCE', [H, P_value,Z,StdS]=MKwMiss(MW166.TCE,0.05,NaN)
```

```
ans =
'Test for Trend TCE'
H = logical

   0
P_value =
0.8923
Z =
-0.1353
StdS =
22.1660
```

```
"TCE",'One Way Test Trend < 0', pval = cumKendallTest(MW166.TCE,juliandate(MW166.Date),'lt')
```

```
ans =
"TCE"
ans =
'One Way Test Trend < 0'
pval =
-0.4462
```

SSA Trend Analysis

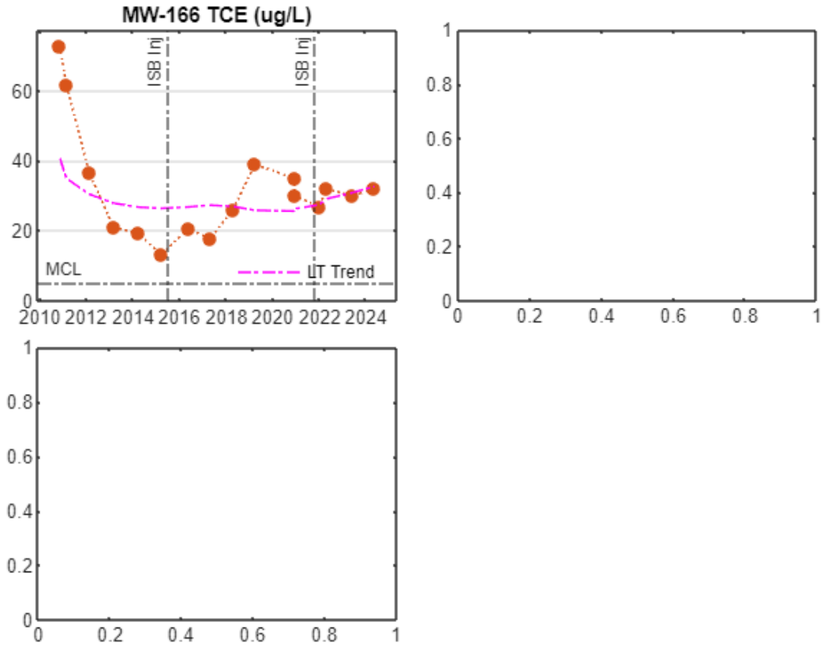
```
% Decompose data into long-term trend, seasonal trends, and remainder
MW166SSA = trenddecomp(MW166(:,"TCE"),"ssa",8,"NumSeasonal",1);
```

MW-166 Time Series Data Plots

```
figure
t4=tiledlayout('flow');
t4.Padding='compact';
t4.TileSpacing='compact';
nexttile
plot(MW166.Date,MW166.TCE,':','Color','0.85 0.33 0.1','Marker','o',...
    'MarkerEdgeColor','0.85 0.33 0.1','MarkerFaceColor','0.85 0.33 0.1')
axis padded
title('MW-166 TCE (ug/L)')
xline(datetime(2015,07,01),'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
xline(datetime(2021,11,01),'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
yline(5,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
hold
```

```
Current plot held
```

```
plot(MW166.Date,MW166SSA.TCE_LongTerm,'-.','Color','magenta');
legend('','','','','LT Trend',Location='southeast',EdgeColor='none',Color='none')
nexttile
box
nexttile
box
```



6.0 MW-171

Exploratory Data Analysis

Data Summary

```
summary(MW171,DataVariables=["Date","PCE","TCE"],Statistics="allstats")
```

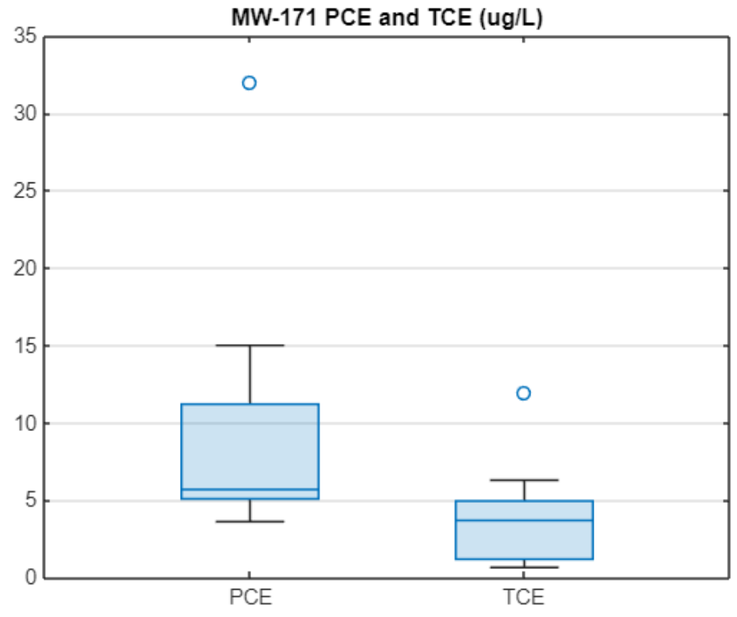
```
MW171: 11×3 table
Variables:
    Date: datetime
    PCE: double
    TCE: double
Statistics for applicable variables:
          NumMissing          Min              Q1              Median              Q3              Max              Range              Mean              Std              Var              Sum              Mode
    Date          0    15-Mar-2014                  10-Apr-2019 15:51:00                  17-May-2024 09:10:00    89193:10:00    05-Jun-2019 03:13:43    30104:57:13                                    15-Mar-201
    PCE           0          3.6200          5.0900                5.7000          11.2000                32          28.3800             9.6018           8.2021           67.2744          105.6200           3.620
    TCE           0          0.6660          1.1950                3.7000           4.9500                12          11.3340             3.8115           3.2943           10.8524           41.9260          0.666
```

```
format compact
```

Distribution

```
figure
boxchart(MW171array)
```

```
set(gca, "XGrid", "off", "YGrid", "on")
xticklabels({'PCE','TCE'})
title('MW-171 PCE and TCE (ug/L)')
box
```



Normal Distribution Tests

```
'PCE',[h,p,kstat,critval] = lillietest(MW171.PCE,"MCTol",1E+04),
```

```
ans =
'PCE'
h =
1
p =
0.0270
kstat =
0.2662
critval =
0.2519
```

```
'TCE',[h,p,kstat,critval] = lillietest(MW171.TCE,"MCTol",1E+04)
```

```
ans =
'TCE'
h =
0
p =
0.4830
kstat =
0.1698
critval =
```

```
0.2505
```

Outlier Testing

```
'PCE Outliers',isoutlier(MW171.PCE,"quartiles")','TCE Outliers',isoutlier(MW171.TCE,"quartiles")',...
```

```
ans =
'PCE Outliers'
ans = 1×11 logical array
   0   0   0   0   0   0   0   0   0   0   1
ans =
'TCE Outliers'
ans = 1×11 logical array
   0   0   0   0   0   0   0   0   0   0   1
```

Coefficient of Variation

Coefficient of variation (CV) of a time series data set is the ratio of standard deviation and mean. CV provides a measure of variability of time series data.

Coefficient of Variation	Variance
<0.50	Low
0.5 to 1.0	Moderate
>1.0	High

```
CVMW171PCE=std(MW171.PCE,'omitmissing')/mean(MW171.PCE,'omitmissing'),...
CVMW171TCE=std(MW171.TCE,'omitmissing')/mean(MW171.TCE,'omitmissing'),...
```

```
CVMW171PCE =
0.8542
CVMW171TCE =
0.8643
```

Linear Correlation

rho	Correlation
-1.0	Perfect negative
0.0	No correlation
1.0	Perfect positive

pvalue	Significance level of 0.05
=<0.05	Statistically significant

```
'Linear Correlation PCE',[rho,pval] = corr(juliandate(MW171.Date),MW171.PCE,Rows="complete")
```

```
ans =
'Linear Correlation PCE'
```

```
rho =
0.7503
pval =
0.0078
```

```
'Linear Correlation TCE',[rho,pval] = corr(juliandate(MW171.Date),MW171.TCE,Rows="complete")
```

```
ans =
'Linear Correlation TCE'
rho =
0.8649
pval =
5.8847e-04
```

Mann-Kendall Trend Tests

```
'Test for Trend PCE', [H, P_value,Z,StdS]=MKwMiss(MW171.PCE,0.05,NaN)
```

```
ans =
'Test for Trend PCE'
H = logical

   1
P_value =
0.0011
Z =
3.2697
StdS =
12.8452
```

```
"PCE",'One Way Test Trend > 0', pval = cumKendallTest(MW171.PCE,juliandate(MW171.Date),'gt')
```

```
ans =
"PCE"
ans =
'One Way Test Trend > 0'
pval =
5.3832e-04
```

```
'Test for Trend TCE', [H, P_value,Z,StdS]=MKwMiss(MW171.TCE,0.05,NaN)
```

```
ans =
'Test for Trend TCE'
H = logical

   1
P_value =
3.4216e-04
Z =
3.5811
StdS =
12.8452
```

```
"TCE",'One Way Test Trend > 0', pval = cumKendallTest(MW171.TCE,juliandate(MW171.Date),'gt')
```

```
ans =
"TCE"
ans =
'One Way Test Trend > 0'
```

```
pval =
1.7108e-04
```

SSA Trend Analysis

```
% Decompose data into long-term trend, seasonal trends, and remainder
MW171SSA = trenddecomp(MW171(:,["PCE","TCE"]),"ssa",5,"NumSeasonal",1);
```

MW-171 Time Series Data Plots

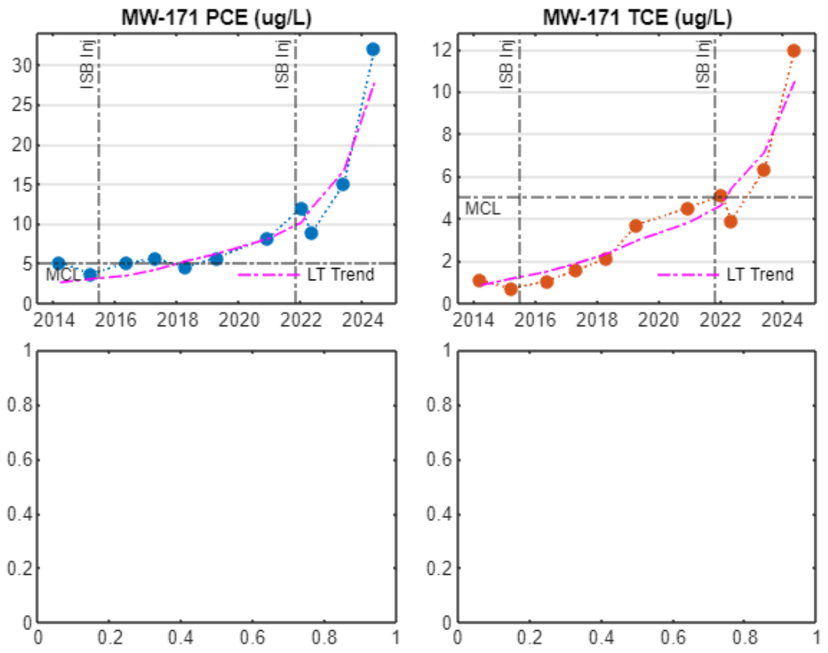
```
figure
t5=tiledlayout('flow');
t5.Padding='compact';
t5.TileSpacing='compact';
nexttile
plot(MW171.Date,MW171.PCE,':','Color','0 0.45 0.74','Marker','o',...
    'MarkerEdgeColor','0 0.45 0.74','MarkerFaceColor','0 0.45 0.74')
axis padded
title('MW-171 PCE (ug/L)')
xline(datetime(2015,07,01),'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
xline(datetime(2021,11,01),'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
yline(5,'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
hold
```

```
Current plot held
```

```
plot(MW171.Date,MW171SSA.PCE_LongTerm,'-.','Color','magenta')
legend('','','','','LT Trend',Location='southeast',EdgeColor='none',Color='none')
nexttile
plot(MW171.Date,MW171.TCE,':','Color','0.85 0.33 0.1','Marker','o',...
    'MarkerEdgeColor','0.85 0.33 0.1','MarkerFaceColor','0.85 0.33 0.1')
axis padded
title('MW-171 TCE (ug/L)')
xline(datetime(2015,07,01),'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
xline(datetime(2021,11,01),'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
yline(5,'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
hold
```

```
Current plot held
```

```
plot(MW171.Date,MW171SSA.TCE_LongTerm,'-.','Color','magenta');
legend('','','','','LT Trend',Location='southeast',EdgeColor='none',Color='none')
nexttile
box
nexttile
box
```



Standard Color Ramp

Hex Color Reference Codes

- PCE 0 0.45 074
- TCE 0.85 0.33 0.1
- cDCE 0.93 0.69 0.13
- VC 0.49 0.18 0.56
- 1,1-DCE 0.47 0.67 0.19
- DCM 0.3 0.75 0.93
- 1,1,1-TCA 0.3 0.75 0.93
- 1,2-DCA 0.75 0.75 0
- 1,4-DCB 0.64 0.08 0.18
- CB 0.68 0.92 1

- Benzene 0.69 0.08 0.18
- TOC 0.87 0.49 0
- DHC 0.85 0.7 1
- tceA 1 0.84 0
- VCR 1 0.6 0.78
- BCV 0.75 0.75 0

Function Coding Reference

Group Statistics Standard Functions

- "sum" Sum
- "mean" Mean
- "median" Median
- "mode" Mode
- "var" Variance
- "std" Standard deviation
- "min" Minimum
- "max" Maximum
- "range" Maximum minus minimum
- "nummissing" Number of missing elements
- "numunique" Number of distinct nonmissing elements
- "nnz" Number of nonzero and non-NaN elements
- "all" All computations previously listed

Group Descriptive Statistics Functions

- **Outliers**
- **10th, 25th, 50th, 75th, 90th, and 95th percentile**
- **Skewness, Kurtosis**
- **Greater than specified limit**

```
% Is outlier function
function y = outlier(x)
% Count the number of outliers in each group
y = nnz(isoutlier(x,'quartiles'));
end

% 10th percentile function
function y = prctile10(x)
%Distribution 10th percentile
y = (prctile(x,10));
end
```

```
%25th percentile function
function y = prctile25(x)
%Distribution 25th percentile
y = (prctile(x,25));
end

%Distribution 50th percentile function
function y = prctile50(x)
%Distribution 50th percentile
y = (prctile(x,50));
end

%75th percentile function
function y = prctile75(x)
%Distribution 75th percentile
y = (prctile(x,75));
end

%90th percentile function
function y = prctile90(x)
%Distribution 90th percentile
y = (prctile(x,90));
end

%95th percentile function
function y = prctile95(x)
%Distribution 95th percentile
y = (prctile(x,95));
end

%25 and 75th percentile function
function y = prct25_75(x)
% x is the data in a group from one computation variable
% Distribution 25th and 75th percentile
y = (prctile(x,[25 75]));
end

%skewness function
function y = skew(x)
%Distribution skewness
y= (skewness(x));
end

%skewness function
function y = kurt(x)
%Distribution skewness
y= (kurtosis(x));
end

%Group count >MCL 5
```

```
function y = MCL5gt(x)
%Group counts for greater than a limit
y= sum(x>5);
end

%Group count >MCL 2
function y = MCL2gt(x)
%Group counts for greater than a limit
y= sum(x>2);
end

%Group count >MCL 7
function y = MCL7gt(x)
%Group counts for greater than a limit
y= sum(x>7);
end

%Group count >MCL 70
function y = MCL70gt(x)
%Group counts for greater than a limit
y= sum(x>70);
end

%Group count >MCL 75
function y = MCL75gt(x)
%Group counts for greater than a limit
y= sum(x>75);
end

%Group count >MCL 2
function y = MCL100gt(x)
%Group counts for greater than a limit
y= sum(x>100);
end

%Group count >MCL 200
function y = MCL200gt(x)
%Group counts for greater than a limit
y= sum(x>200);
end

%Group count>RSL 1.71E-01
function y = RSLDCA12gt(x)
%Group counts for greater than a limit
y= sum(x>1.71E-01);
end

%Group count <=DO 1
function y = DOlt(x)
%Group counts for greater than a limit
```

```
y= sum(x<=1);
end

%Group count <=ORP 50
function y = ORPlt(x)
%Group counts for greater than a limit
y= sum(x<=-50);
end

%Group count <=Sulfate 50
function y = SO4lt(x)
%Group counts for greater than a limit
y= sum(x<50);
end

%Group count <=Sulfide 1
function y = S2gt(x)
%Group counts for greater than a limit
y= sum(x>1);
end

%Group count <=Sulfide H2S 1
function y = S2H2Sgt(x)
%Group counts for greater than a limit
y= sum(x>1);
end

%Group count TOC=>20
function y = TOCgt(x)
%Group counts for greater than a limit
y= sum(x>=20);
end

%Group count Methane=>500
function y = Methanegt(x)
%Group counts for greater than a limit
y= sum(x>=500);
end

%Group count Fe2=>1
function y = FE2gt(x)
%Group counts for greater than a limit
y= sum(x>=1);
end

%Group count Ethene=>10
function y = Ethenegt(x)
%Group counts for greater than a limit
y= sum(x>=10);
end
```

```
%Group count Ethane=>10
function y = Ethanegt(x)
%Group counts for greater than a limit
y= sum(x>=10);
end

%Group count NO3=<1
function y = NO3gt(x)
%Group counts for greater than a limit
y= sum(x<1);
end
```

E.8 Trend Analysis for Confined Aquifer: Southern Area

OU 6 Southern Area: Confined Aquifer Data and Statistical Analysis

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1.0 Data Evaluation Methods

Normal Distribution - Lillifors Test

The Lilliefors test used as the hypothesis test evaluated whether the data distribution comes from a distribution in the normal family, against the alternative that it does not come from a normal distribution.

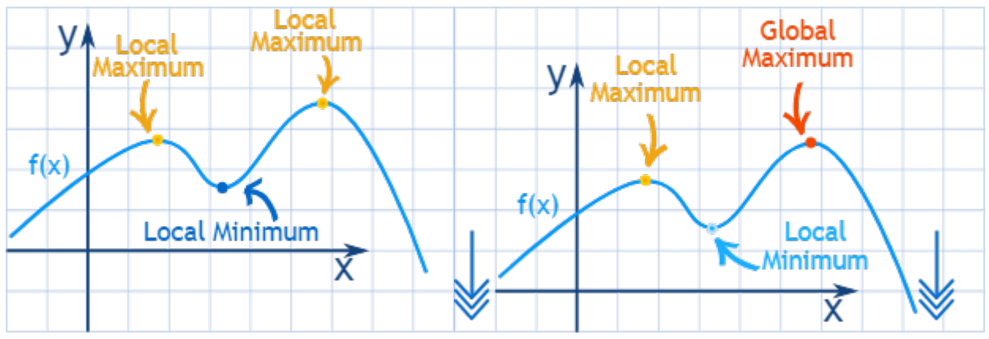
Coefficient of Variation

Coefficient of variation (CV) of a time series data set is the ratio of standard deviation and mean. CV provides a measure of variability of time series data.

Linear Correlation (Pearson's Linear Correlation Coefficient)

Correlation quantifies the strength of a linear relationship between two variables. When there is no correlation between two variables, then there is no tendency for the values of the variables to increase or decrease together. . Values of the correlation coefficient can range from –1 to +1. A value of –1 indicates perfect negative correlation, while a value of +1 indicates perfect positive correlation. A value of 0 indicates no correlation between the sets of data observations. The analysis also tests the null hypothesis of no correlation against an alternative hypothesis for positive, negative, or nonzero correlation at a significance of 5 percent (%) or alpha (α) of 0.05. A calculated probability value (p-value) <0.05 rejects the null hypothesis of no correlation indicating the correlation is significantly positive, negative, or different than 0.

Maxima and Minima



A local maximum is is:f(a) ≥ f(x) for all x in the interval. The prominence of a local maximum (or peak) measures how the peak stands out with respect to its height and location relative to other peaks. A local **minimum** is:f(a) ≤ f(x) for all x in the interval. The prominence of a local minimum (or valley) measures how the valley stands out with respect to its depth and location relative to other valleys. Global maximum and minimum represent the maximum and minimum for the entire function or data set.

Mann-Kendall (M-K) Trend Analysis

The Mann-Kendall (M-K) tests detect monotonic trends in data. M-K tests allow for missing values, do not require a particular distribution assumption, and can accommodate trace reported values and left censored data (non-detect).

Original Form

The original form of the M-K test (two-way) evaluates the null hypothesis of no trend (H0) vs. an alternative hypothesis (HA) of trend at a significance level of 5% (0.05).[1] A test result of H=0 indicates no trend with a result of H =1 indicate a trend. In null hypothesis statistical testing, the probability value (p-value) of statistical test is the probability, under the null hypothesis, of obtaining a value of the test statistic as extreme or more extreme than the value computed from the sample. Typically, a p-value quantifies the statistical significance of the result equal less than the significant level. In a significance test, the null hypothesis H0 is rejected if the p-value is less than or equal to a predefined threshold value of significance (alpha). The original form does not compute trends where the distribution has NaN (missing) data observations.

[1]Mann, H. B. (1945), Nonparametric tests against trend, Econometrica, 13, 245– 259. Kendall, M. G. (1975), Rank Correlation Methods, Griffin, London. MATLAB Code written by: Simone Fatichi -- simonef@dicea.unifi.it Copyright 2009, Date: 2009/10/03

Mann-Kendall with Missing Values and Same Values

This form of the M-K test (two-way) accounts for NaN (missing values) and tied values following the method described in Gilbert RO (1987) Statistical Methods for Environmental Pollution Monitoring pages 208-213. This test evaluates the null hypothesis of no trend (H0) vs. an alternative hypothesis (HA) of trend at a significance level of 5% (0.05) or alternative significance level.[2] A test result of H=0 indicates no trend with a result of H =1 indicate a trend. In null hypothesis statistical testing, the probability value (p-value) of statistical test is the probability, under the null hypothesis, of obtaining a value of the test statistic as extreme or more extreme than the value computed from the sample. Typically, a p-value quantifies the statistical significance of the result equal less than the significant level. In a significance test, the null hypothesis H0 is rejected if the p-value is less than or equal to a predefined threshold value of significance (alpha). This function outputs the Z statistic and standard deviation of the Mann-Kendall Statistic S. A positive (negative) value of Z indicates an upward (downward) trend.

[2]Taesam Lee (2024). Mann-Kendall with Missing Values and Same Values (https://www.mathworks.com/matlabcentral/fileexchange/70408-mann-kendall-with-missing-values-and-same-values), MATLAB Central File Exchange.

Cumulative Form for Alternative Hypothesis of Trend not zero, Trend is greater than zero, or Trend is less than zero

A cumulative form of the M-K test used in tfor data evaluations consists of one-way or two-way test that can evaluate an alternative hypothesis of trend not zero (two-way) trend greater than zero (one-way) or less than zero (one-way).[3] This test treats NaNs (missing values) in Q or pop as missing values, and removes them.

[3]Thorvaldsen, S. , Flå, T. and Willassen, N.P. (2010) DeltaProt: a software toolbox for comparative genomics. BMC Bioinformatics 2010, Vol 11:573. See http://www.biomedcentral.com/1471-2105/11/573

Sequential Test for Potential Trend Change Points

A sequential version of the Mann-Kendall test statistic allows detection of the approximate beginning of a developing trend. When the progressive series (original time series) and retrograde (backward sequential time series) curves are plotted, the intersection of the curves locates an approximate potential trend turning point. If the intersection of the curves occurs within +/- 1.96 (5% level) of the standardized statistic, a detectable change at that point in the time series can be inferred.[4]

[4] Reference: Chatterjee, S., Bisai, D. and Khan, A., 2014. Detection of approximate potential trend turning points in temperature time series (1941–2010) for Asansol Weather Observation Station, West Bengal, India. India. Atmospheric and Climate Sciences, 4, pp.64-69. MATLAB Code written by Pankaj Dey, PhD scholar, Department of Civil Engineering,Indian Institute of Science, Bangalore.

Singular Spectrum Analysis (SSA)

SSA is a spectrum estimation method (non-parametric) to analyze time series data for trend and forecasting. SAA assumes the additive decomposition of the data into long-term (LT) trend, oscillatory or seasonal trend or trends, and remainder or random. The SAA function[5] used for the data evaluation solves for LT without decomposition of seasonal or remainder components given the mostly annual frequency of sampling.

[5]Singular Spectrum Analysis function using MATLAB 2024a.

2.0 DMW-28B

Exploratory Data Analysis

Data Summary

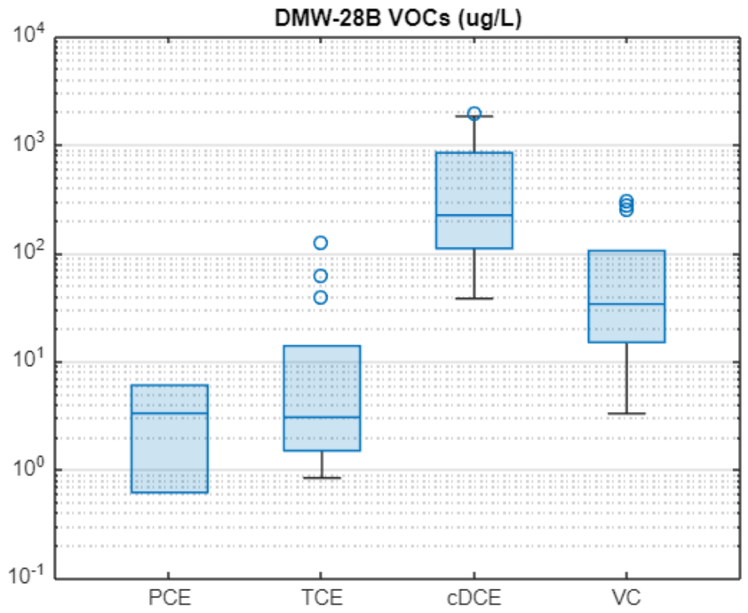
```
summary(DMW28B,DataVariables=["Date","PCE","TCE","cDCE","VC"],Statistics="allstats")
```

```
DMW28B: 14×5 table
Variables:
    Date: datetime
    PCE: double
    TCE: double
    cDCE: double
    VC: double
Statistics for applicable variables:
          NumMissing          Min              Q1              Median              Q3              Max                 Range              Mean              Std              Var              Sum              M
    Date          0    18-Feb-2010                  01-Nov-2016 17:07:30                  29-May-2024 10:25:00    125146:25:00    31-Dec-2016 05:32:12    40318:09:01                                                    18-F
    PCE          12       0.6170          0.6170           3.3235          6.0300           6.0300          5.4130           3.3235           3.8276          14.6503           6.6470
    TCE           0       0.8400          1.5000           3.0550         13.9000              124          123.1600          18.9371          35.2448       1.2422e+03          265.1200
    cDCE          0           38             110              223             840             1980             1942          560.4071          705.5532       4.9781e+05       7.8457e+03
    VC            0       3.3000              15          33.8000             105              302          298.7000          83.6357          107.4511       1.1546e+04       1.1709e+03
```

```
format compact
```

Distribution

```
figure
boxchart(DMW28Barray)
set(gca, "XGrid", "off", "YGrid", "on")
xticklabels({'PCE','TCE','cDCE','VC'})
yscale('log')
title('DMW-28B VOCs (ug/L)')
box
```



Normal Distribution Tests

```
'TCE',[h,p,kstat,critval] = lillietest(DMW28B.TCE,"MCTol",1E+04)
```

```
ans =
'TCE'
h =
1
p =
0
kstat =
0.3624
critval =
0.2291
```

```
'cDCE', [h,p,kstat,critval] = lillietest(DMW28B.cDCE,"MCTol",1E+04),
```

```
ans =
'cDCE'
h =
1
p =
0
kstat =
0.3369
critval =
0.2244
```

```
'VC', [h,p,kstat,critval] = lillietest(DMW28B.VC,"MCTol",1E+04),
```

```
ans =
```

```
'VC'
h =
1
p =
0
kstat =
0.3685
critval =
0.2283
```

Outlier Testing

```
'TCE Outliers',isoutlier(DMW28B.TCE,"quartiles")',...
'cDCE Outliers',isoutlier(DMW28B.cDCE,"quartiles")','cDCE Outliers',isoutlier(DMW28B.cDCE,"quartiles")',...
'VC',isoutlier(DMW28B.VC,"quartiles")',
```

```
ans =
'TCE Outliers'
ans = 1×14 logical array
   1   1   1   0   0   0   0   0   0   0   0   0   0   0
ans =
'cDCE Outliers'
ans = 1×14 logical array
   1   0   0   0   0   0   0   0   0   0   0   0   0   0
ans =
'cDCE Outliers'
ans = 1×14 logical array
   1   0   0   0   0   0   0   0   0   0   0   0   0   0
ans =
'VC'
ans = 1×14 logical array
   1   1   1   0   0   0   0   0   0   0   0   0   0   0
```

Coefficient of Variation

Coefficient of variation (CV) of a time series data set is the ratio of standard deviation and mean. CV provides a measure of variability of time series data.

Coefficient of Variation	Variance
<0.50	Low
0.5 to 1.0	Moderate
>1.0	High

```
CVDMW28BTCE=std(DMW28B.TCE,'omitmissing')/mean(DMW28B.TCE,'omitmissing'),...
CVDMW28BcDCE=std(DMW28B.cDCE,'omitmissing')/mean(DMW28B.cDCE,'omitmissing'),...
CVDMW28BVC=std(DMW28B.VC,'omitmissing')/mean(DMW28B.VC,'omitmissing'),
```

```
CVDMW28BTCE =
1.8611
CVDMW28BcDCE =
1.2590
CVDMW28BVC =
1.2848
```

Linear Correlation

rho	Correlation
-1.0	Perfect negative
0.0	No correlation
1.0	Perfect positive

pvalue	Significance level of 0.05
=<0.05	Statistically significant

```
'Linear Correlation TCE',[rho,pval] = corr(juliandate(DMW28B.Date),DMW28B.TCE,Rows="complete")
```

```
ans =
'Linear Correlation TCE'
rho =
-0.6865
pval =
0.0067
```

```
'Linear Correlation cDCE',[rho,pval] = corr(juliandate(DMW28B.Date),DMW28B.cDCE,Rows="complete")
```

```
ans =
'Linear Correlation cDCE'
rho =
-0.7778
pval =
0.0011
```

```
'Linear Correlation VC',[rho,pval] = corr(juliandate(DMW28B.Date),DMW28B.VC,Rows="complete")
```

```
ans =
'Linear Correlation VC'
rho =
-0.7942
pval =
6.9308e-04
```

Mann-Kendall Trend Tests

```
'Test for Trend TCE', [H, P_value,Z,StdS]=MKwMiss(DMW28B.TCE,0.05,NaN)
```

```
ans =
'Test for Trend TCE'
H = logical

   1
P_value =
1.2703e-04
Z =
-3.8321
StdS =
18.2665
```

```
"TCE",'One Way Test Trend < 0', pval = cumKendallTest(DMW28B.TCE,juliandate(DMW28B.Date),'lt')
```

```
ans =
"TCE"
ans =
'One Way Test Trend < 0'
pval =
-6.3516e-05
```

```
'Test for Trend cDCE', [H, P_value,Z,StdS]=MKwMiss(DMW28B.cDCE,0.05,NaN)
```

```
ans =
'Test for Trend cDCE'
H = logical

   1
P_value =
0.0044
Z =
-2.8467
StdS =
18.2665
```

```
"cDCE",'One Way Test Trend < 0', pval = cumKendallTest(DMW28B.cDCE,juliandate(DMW28B.Date),'lt')
```

```
ans =
"cDCE"
ans =
'One Way Test Trend < 0'
pval =
-0.0022
```

```
'Test for Trend VC', [H, P_value,Z,StdS]=MKwMiss(DMW28B.VC,0.05,NaN)
```

```
ans =
'Test for Trend VC'
H = logical

   1
P_value =
3.0248e-04
Z =
-3.6132
StdS =
18.2665
```

```
"VC",'One Way Test Trend < 0', pval = cumKendallTest(DMW28B.VC,juliandate(DMW28B.Date),'lt')
```

```
ans =
"VC"
ans =
'One Way Test Trend < 0'
pval =
-1.5124e-04
```

SSA Trend Analysis

```

```

```
% Decompose data into long-term trend, seasonal trends, and remainder
DMW28BSSA = trenddecomp(DMW28B(:,["TCE","cDCE","VC"]),"ssa",7,"NumSeasonal",1);
```

DMW-28B Time Series Data Plots

```
figure
t1=tiledlayout('flow');
t1.Padding='compact';
t1.TileSpacing='compact';
nexttile
stem(DMW28B.Date,DMW28B.PCE,':','Color','0 0.45 0.74','Marker','o',...
    'MarkerEdgeColor','0 0.45 0.74','MarkerFaceColor','0 0.45 0.74')
axis padded
title('DMW-28B PCE (ug/L)')
xline(datetime(2015,07,15),'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
yline(5,'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");

nexttile
plot(DMW28B.Date,DMW28B.TCE,':','Color','0.85 0.33 0.1','Marker','o',...
    'MarkerEdgeColor','0.85 0.33 0.1','MarkerFaceColor','0.85 0.33 0.1')
axis padded
yscale('log')
title('DMW-28B TCE (ug/L)')
xline(datetime(2015,07,15),'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
yline(5,'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
hold
```

```
Current plot held
```

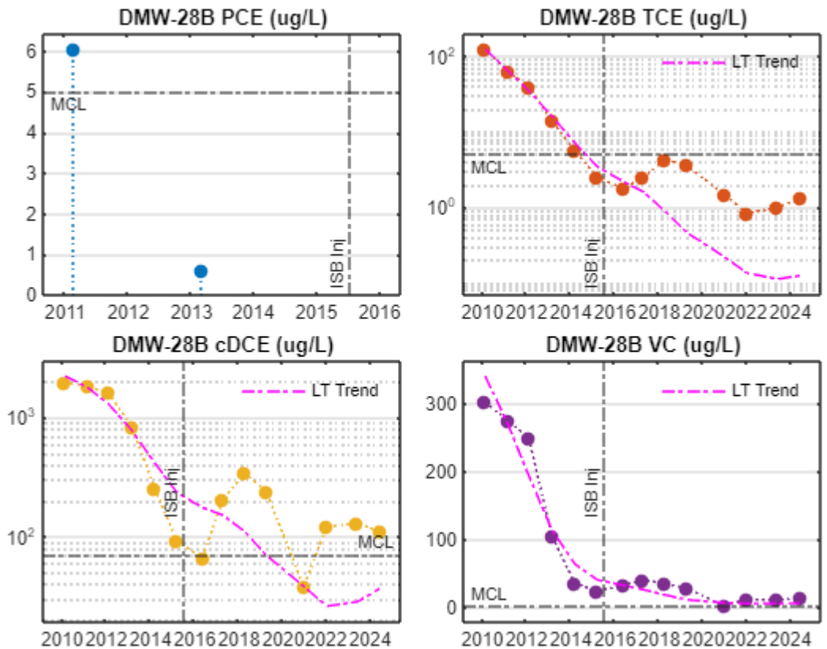
```
plot(DMW28B.Date,DMW28BSSA.TCE_LongTerm,'-.','Color','magenta');
legend('','','','LT Trend',Location='northeast',EdgeColor='none',Color='none')
nexttile
plot(DMW28B.Date,DMW28B.cDCE,':','Color','0.93 0.69 0.13','Marker','o',...
    'MarkerEdgeColor','0.93 0.69 0.13','MarkerFaceColor','0.93 0.69 0.13')
axis padded
yscale('log')
title('DMW-28B cDCE (ug/L)')
xline(datetime(2015,07,15),'-.','LabelVerticalAlignment','middle',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
yline(70,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','right','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
hold
```

Current plot held

```
plot(DMW28B.Date,DMW28BSSA.cDCE_LongTerm,'-.','Color','magenta');
legend('','','','LT Trend',Location='northeast',EdgeColor='none',Color='none')
nexttile
plot(DMW28B.Date,DMW28B.VC,':','Color','0.49 0.18 0.56','Marker','o',...
    'MarkerEdgeColor','0.49 0.18 0.56','MarkerFaceColor','0.49 0.18 0.56')
axis padded
title ('DMW-28B VC (ug/L)')
xline(datetime(2015,07,15),'-.','LabelVerticalAlignment','middle',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
yline(2,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
hold
```

Current plot held

```
plot(DMW28B.Date,DMW28BSSA.VC_LongTerm,'-.','Color','magenta');
legend('','','','LT Trend',Location='northeast',EdgeColor='none',Color='none')
```



3.0 MW-217

Exploratory Data Analysis

Data Summary

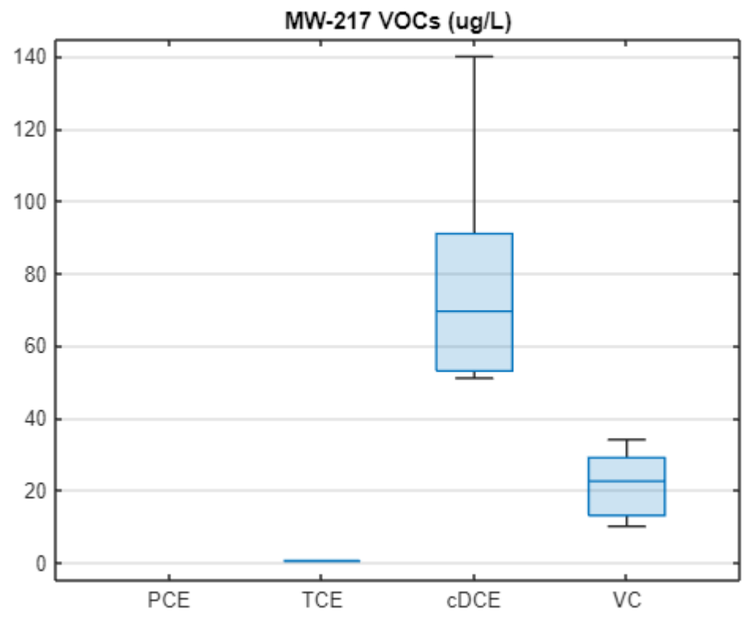
```
summary(MW217,DataVariables=["Date","PCE","TCE","cDCE","VC",],Statistics="allstats")
```

```
MW217: 6×5 table
Variables:
    Date: datetime
    PCE: double
    TCE: double
    cDCE: double
    VC: double
Statistics for applicable variables:
          NumMissing              Min                Q1              Median              Q3              Max              Range              Mean              Std              Var              Sum
    Date          0    28-Mar-2019 12:53:00                08-Mar-2022 12:00:00                22-May-2024 10:20:00    45165:27:00    22-Jan-2022 19:15:30    15903:59:13                                   2
    PCE           6                     NaN          NaN                   NaN          NaN                   NaN            NaN                   NaN             NaN              NaN              0
    TCE           3                  0.3600       0.3925                0.4900       0.5050                0.5100         0.1500                0.4533          0.0814           0.0066           1.3600
    cDCE          0                      51           53                  69.5000           91                   140             89                    79         33.3647       1.1132e+03              474
    VC            0                      10           13                  22.5000           29                    34             24               21.8333          9.1960          84.5667              131
```

```
format compact
```

Distribution

```
figure
boxchart(MW217array)
set(gca, "XGrid", "off", "YGrid", "on")
xticklabels({'PCE','TCE','cDCE','VC'})
title('MW-217 VOCs (ug/L)')
ylim([-5 145])
box
```



Normal Distribution Tests

```
'cDCE', [h,p,kstat,critval] = lillietest(MW217.cDCE,"MCTol",1E+04),
```

```
ans =
'cDCE'
h =
0
p =
0.5330
kstat =
0.2144
critval =
0.3203
```

```
'VC', [h,p,kstat,critval] = lillietest(MW217.VC,"MCTol",1E+04),
```

```
ans =
'VC'
h =
0
p =
0.9000
kstat =
0.1649
critval =
0.3286
```

Outlier Testing

```
'cDCE Outliers',isoutlier(MW217.cDCE,"quartiles")',
```

```
ans =
'cDCE Outliers'
ans = 1×6 logical array
   0   0   0   0   0   0
```

```
'VC Outliers',isoutlier(MW217.VC,"quartiles")',
```

```
ans =
'VC Outliers'
ans = 1×6 logical array
   0   0   0   0   0   0
```

Coefficient of Variation

Coefficient of variation (CV) of a time series data set is the ratio of standard deviation and mean. CV provides a measure of variability of time series data.

Coefficient of Variation	Variance
<0.50	Low
0.5 to 1.0	Moderate
>1.0	High

```
CVMW129cDCE=std(MW217.cDCE,'omitmissing')/mean(MW217.cDCE,'omitmissing'),...
```

```
CVMW129VC=std(MW217.VC,'omitmissing')/mean(MW217.VC,'omitmissing'),
```

```
CVMW129cDCE =
0.4223
CVMW129VC =
0.4212
```

Linear Correlation

rho	Correlation
-1.0	Perfect negative
0.0	No correlation
1.0	Perfect positive

pvalue	Significance level of 0.05
=<0.05	Statistically significant

```
'Linear Correlation cDCE',[rho,pval] = corr(juliandate(MW217.Date),MW217.cDCE,Rows="complete")
```

```
ans =
'Linear Correlation cDCE'
rho =
0.0573
pval =
0.9142
```

```
'Linear Correlation VC',[rho,pval] = corr(juliandate(MW217.Date),MW217.VC,Rows="complete")
```

```
ans =
'Linear Correlation VC'
rho =
-0.4706
pval =
0.3463
```

Mann-Kendall Trend Tests

```
'Test for Trend cDCE', [H, P_value,Z,StdS]=MKwMiss(MW217.cDCE,0.05,NaN)
```

```
ans =
'Test for Trend cDCE'
H = logical

   0
P_value =
1
Z =
0
StdS =
5.3229
```

```
"cDCE",'One Way Test Trend > 0', pval = cumKendallTest(MW217.cDCE,juliandate(MW217.Date),'lt')
```

```
ans =
"cDCE"
ans =
'One Way Test Trend > 0'
pval =
-0.5000
```

```
'Test for Trend VC', [H, P_value,Z,StdS]=MKwMiss(MW217.VC,0.05,NaN)
```

```
ans =
'Test for Trend VC'
H = logical

   0
P_value =
0.2597
Z =
-1.1272
StdS =
5.3229
```

```
"VC",'One Way Test Trend < 0', pval = cumKendallTest(MW217.VC,juliandate(MW217.Date),'lt')
```

```
ans =
"VC"
ans =
'One Way Test Trend < 0'
pval =
-0.1298
```

SSA Trend Analysis

```
% Decompose data into long-term trend, seasonal trends, and remainder
MW217SSA = trenddecomp(MW217(:,["cDCE","VC"]),"ssa",3,"NumSeasonal",1);
```

MW-217 Time Series Data Plots

```
figure
t2=tiledlayout('flow');
t2.Padding='compact';
t2.TileSpacing='compact';
nexttile
stem(MW217.Date,MW217.TCE,':','Color','0.85 0.33 0.1','Marker','o',...
    'MarkerEdgeColor','0.85 0.33 0.1','MarkerFaceColor','0.85 0.33 0.1')
axis padded
title('MW-217 TCE (ug/L)')
yline(5,'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
```

```
nexttile
plot(MW217.Date,MW217.cDCE,':','Color','0.93 0.69 0.13','Marker','o',...
    'MarkerEdgeColor','0.93 0.69 0.13','MarkerFaceColor','0.93 0.69 0.13')
axis padded
title('MW-217 cDCE (ug/L)')
yline(70,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
hold
```

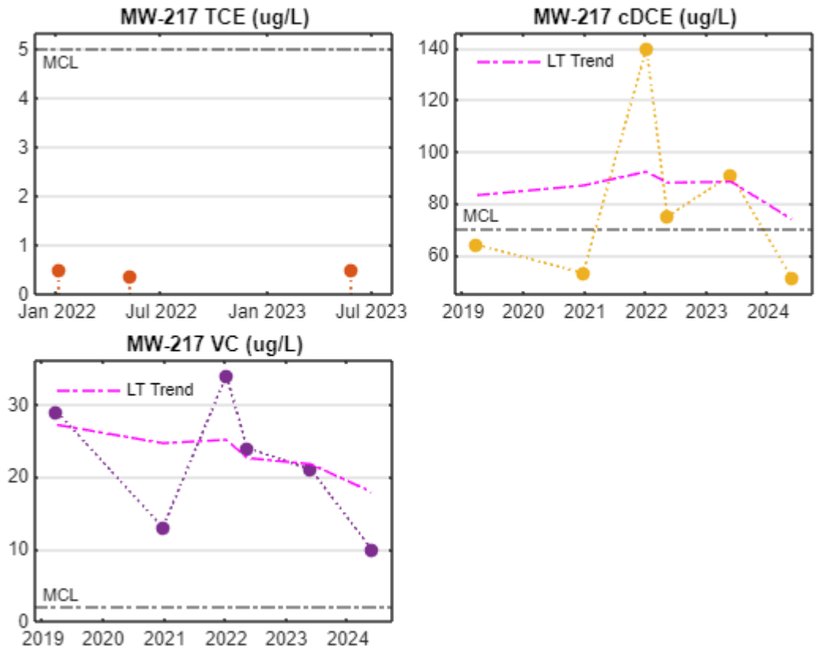
```
Current plot held
```

```
plot(MW217.Date,MW217SSA.cDCE_LongTerm,'-.','Color','magenta');
legend('','','LT Trend',Location='northwest',EdgeColor='none',Color='none')
nexttile

plot(MW217.Date,MW217.VC,':','Color','0.49 0.18 0.56','Marker','o',...
    'MarkerEdgeColor','0.49 0.18 0.56','MarkerFaceColor','0.49 0.18 0.56')
axis padded
title('MW-217 VC (ug/L)')
yline(2,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
hold
```

```
Current plot held
```

```
plot(MW217.Date,MW217SSA.VC_LongTerm,'-.','Color','magenta');
legend('','','LT Trend',Location='northwest',EdgeColor='none',Color='none')
```



4.0 MW-95

Exploratory Data Analysis

Data Summary

```
summary(MW95,DataVariables=["Date","PCE","TCE","cDCE","VC"],Statistics="allstats")
```

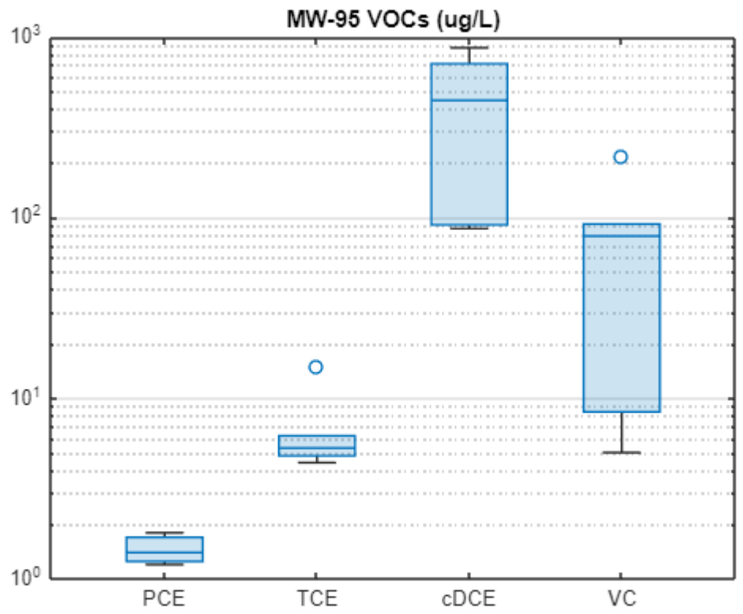
```
MW95: 6×5 table
Variables:
    Date: datetime
    PCE: double
    TCE: double
    cDCE: double
    VC: double
Statistics for applicable variables:
          NumMissing                  Min                 Q1                Median                Q3                 Max                Range                Mean                Std                Var                Sum
    Date          0  11-Apr-2019 12:28:00                   05-Mar-2022 12:00:00                   20-May-2024 13:05:00  44784:37:00  23-Jan-2022 04:06:20  15789:49:00
    PCE           3               1.2000             1.2500             1.4000             1.7000             1.8000             0.6000             1.4667             0.3055             0.0933             4.4000
    TCE           0               4.4000             4.8000             5.3000             6.2000                 15             10.6000             6.8333             4.0461             16.3707                 41
    cDCE          0                   87                 91                445                710                870                783             441.3333           321.0917          1.0310e+05               2648
    VC            0                    5             8.4000                 79                 92                220                215             80.5667            78.0969          6.0991e+03          483.4000
```

```
format compact
```

Distribution

```
figure
```

```
boxchart(MW95array)
set(gca, "XGrid", "off", "YGrid", "on")
xticklabels({'PCE','TCE','cDCE','VC'})
yscale('log')
title('MW-95 VOCs (ug/L)')
box
```



Normal Distribution Tests

```
'TCE',[h,p,kstat,critval] = lillietest(MW95.TCE,"MCTol",1E+04)
```

```
ans =
'TCE'
h =
1
p =
0.0030
kstat =
0.3955
critval =
0.3226
```

```
'cDCE', [h,p,kstat,critval] = lillietest(MW95.cDCE,"MCTol",1E+04),
```

```
ans =
'cDCE'
h =
0
p =
0.6670
```

```
kstat =
0.1957
critval =
0.3198
```

```
'VC', [h,p,kstat,critval] = lillietest(MW95.VC,"MCTol",1E+04),
```

```
ans =
'VC'
h =
0
p =
0.2050
kstat =
0.2751
critval =
0.3286
```

Outlier Testing

```
'TCE Outliers',isoutlier(MW95.TCE,"quartiles")',...
'cDCE Outliers',isoutlier(MW95.cDCE,"quartiles")','cDCE Outliers',isoutlier(MW95.cDCE,"quartiles")',...
'VC Outliers',isoutlier(MW95.VC,"quartiles")',
```

```
ans =
'TCE Outliers'
ans = 1×6 logical array
   1   0   0   0   0   0
ans =
'cDCE Outliers'
ans = 1×6 logical array
   0   0   0   0   0   0
ans =
'cDCE Outliers'
ans = 1×6 logical array
   0   0   0   0   0   0
ans =
'VC Outliers'
ans = 1×6 logical array
   0   0   0   0   0   1
```

Coefficient of Variation

Coefficient of variation (CV) of a time series data set is the ratio of standard deviation and mean. CV provides a measure of variability of time series data.

Coefficient of Variation	Variance
<0.50	Low
0.5 to 1.0	Moderate
>1.0	High

```
CVMW95TCE=std(MW95.TCE,'omitmissing')/mean(MW95.TCE,'omitmissing'),...
CVMW95cDCE=std(MW95.cDCE,'omitmissing')/mean(MW95.cDCE,'omitmissing'),...
CVMW95VC=std(MW95.VC,'omitmissing')/mean(MW95.VC,'omitmissing'),
```

```
CVMW95TCE =
0.5921
CVMW95cDCE =
0.7275
CVMW95VC =
0.9693
```

Linear Correlation

rho	Correlation
-1.0	Perfect negative
0.0	No correlation
1.0	Perfect positive

pvalue	Significance level of 0.05
=<0.05	Statistically significant

```
'Linear Correlation TCE',[rho,pval] = corr(juliandate(MW95.Date),MW95.TCE,Rows="complete")
```

```
ans =
'Linear Correlation TCE'
rho =
-0.6761
pval =
0.1404
```

```
'Linear Correlation cDCE',[rho,pval] = corr(juliandate(MW95.Date),MW95.cDCE,Rows="complete")
```

```
ans =
'Linear Correlation cDCE'
rho =
0.9491
pval =
0.0038
```

```
'Linear Correlation VC',[rho,pval] = corr(juliandate(MW95.Date),MW95.VC,Rows="complete")
```

```
ans =
'Linear Correlation VC'
rho =
0.8659
pval =
0.0258
```

Mann-Kendall Trend Tests

```
'Test for Trend TCE', [H, P_value,Z,StdS]=MKwMiss(MW95.TCE,0.05,NaN)
```

```
ans =
'Test for Trend TCE'
H = logical
```

```
   0
P_value =
1
Z =
0
StdS =
5.2281
```

```
"TCE",'One Way Test Trend < 0', pval = cumKendallTest(MW95.TCE,juliandate(MW95.Date),'lt')
```

```
ans =
"TCE"
ans =
'One Way Test Trend < 0'
pval =
0
```

```
'Test for Trend cDCE', [H, P_value,Z,StdS]=MKwMiss(MW95.cDCE,0.05,NaN)
```

```
ans =
'Test for Trend cDCE'
H = logical

   1
P_value =
0.0242
Z =
2.2544
StdS =
5.3229
```

```
"cDCE",'One Way Test Trend > 0', pval = cumKendallTest(MW95.cDCE,juliandate(MW95.Date),'gt')
```

```
ans =
"cDCE"
ans =
'One Way Test Trend > 0'
pval =
0.0121
```

```
'Test for Trend VC', [H, P_value,Z,StdS]=MKwMiss(MW95.VC,0.05,NaN)
```

```
ans =
'Test for Trend VC'
H = logical

   0
P_value =
0.0852
Z =
1.7215
StdS =
5.2281
```

```
"VC",'One Way Test Trend > 0', pval = cumKendallTest(MW95.VC,juliandate(MW95.Date),'gt')
```

```
ans =
"VC"
```

```
ans =
'One Way Test Trend > 0'
pval =
0.0426
```

SSA Trend Analysis

```
% Decompose data into long-term trend, seasonal trends, and remainder
MW95SSA = trenddecomp(MW95(:,["TCE","cDCE","VC"]),"ssa",3,"NumSeasonal",1);
```

MW-95 Time Series Data Plots

```
figure
t3=tiledlayout('flow');
t3.Padding='compact';
t3.TileSpacing='compact';
nexttile
stem(MW95.Date,MW95.PCE,':','Color','0 0.45 0.74','Marker','o',...
    'MarkerEdgeColor','0 0.45 0.74','MarkerFaceColor','0 0.45 0.74')
axis padded
title('MW-95 PCE (ug/L)')
yline(5,'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
hold
```

```
Current plot held
```

```
nexttile
plot(MW95.Date,MW95.TCE,':','Color','0.85 0.33 0.1','Marker','o',...
    'MarkerEdgeColor','0.85 0.33 0.1','MarkerFaceColor','0.85 0.33 0.1')
axis padded
title('MW-95 TCE (ug/L)')
yline(5,'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
hold
```

```
Current plot held
```

```
plot(MW95.Date,MW95SSA.TCE_LongTerm,'-.','Color','magenta');
legend('','','LT Trend',Location='northeast',EdgeColor='none',Color='none')
nexttile
plot(MW95.Date,MW95.cDCE,':','Color','0.93 0.69 0.13','Marker','o',...
    'MarkerEdgeColor','0.93 0.69 0.13','MarkerFaceColor','0.93 0.69 0.13')
axis padded
title('MW-95 cDCE (ug/L)')
```

```
yline(70,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','right','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
hold
```

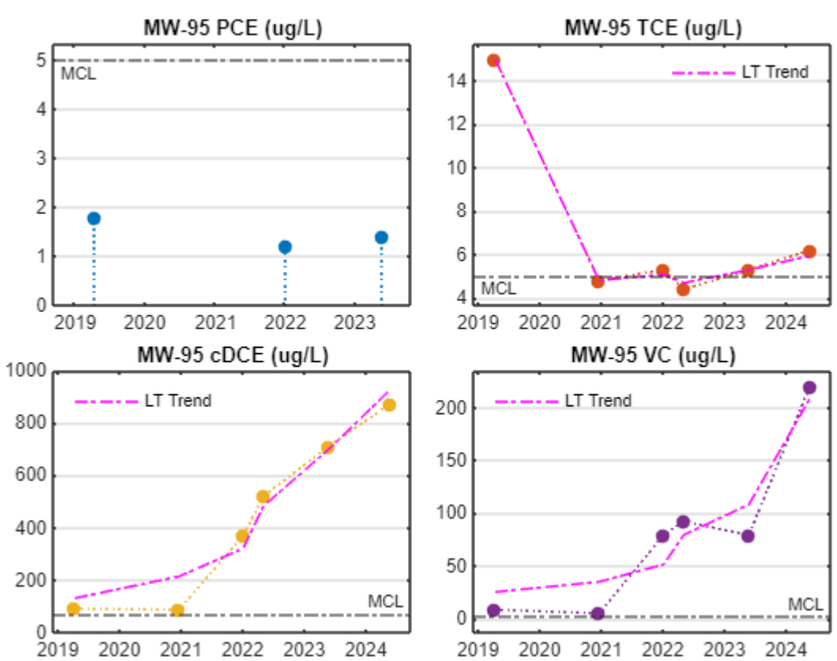
```
Current plot held
```

```
plot(MW95.Date,MW95SSA.cDCE_LongTerm,'-.','Color','magenta');
legend('','','LT Trend',Location='northwest',EdgeColor='none',Color='none')

nexttile
plot(MW95.Date,MW95.VC,':','Color','0.49 0.18 0.56','Marker','o',...
    'MarkerEdgeColor','0.49 0.18 0.56','MarkerFaceColor','0.49 0.18 0.56')
axis padded
title('MW-95 VC (ug/L)')
yline(2,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','right','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
hold
```

```
Current plot held
```

```
plot(MW95.Date,MW95SSA.VC_LongTerm,'-.','Color','magenta');
legend('','','LT Trend',Location='northwest',EdgeColor='none',Color='none')
```



5.0 EBF-08D

Exploratory Data Analysis

Data Summary

```
summary(EBF08D,DataVariables=["Date","PCE","TCE","cDCE","VC"],Statistics="allstats")
```

```
EBF08D: 4×5 table
Variables:
    Date: datetime
    PCE: double
    TCE: double
    cDCE: double
    VC: double
Statistics for applicable variables:
          NumMissing          Min              Q1              Median              Q3              Max              Range              Mean              Std              Var              Sum              Mode
    Date          0    21-Dec-2021                  13-Nov-2022 17:45:00                  22-May-2024 11:30:00    21203:30:00    09-Jan-2023 17:45:00    9567:51:53                                                    21-Dec-
    PCE           0          2.3000               3              4.5000              6.1500                   7             4.7000             4.5750           2.0288           4.1158          18.3000                2.
    TCE           0              19              33                  50             55.5000                  58                 39             44.2500          17.4236          303.5833              177
    cDCE          0              75        127.5000                 185                 225                 260                185             176.2500          76.3080       5.8229e+03              705
    VC            0          4.1000          5.1000              6.7000              7.4500              7.6000             3.5000             6.2750           1.5882           2.5225          25.1000                4.
```

```
format compact
```

Linear Correlation

rho	Correlation
-1.0	Perfect negative
0.0	No correlation
1.0	Perfect positive

pvalue	Significance level of 0.05
=<0.05	Statistically significant

```
'Linear Correlation PCE',[rho,pval] = corr(juliandate(EBF08D.Date),EBF08D.PCE,Rows="complete")
```

```
ans =
'Linear Correlation PCE'
rho =
-0.8798
pval =
0.1202
```

```
'Linear Correlation TCE',[rho,pval] = corr(juliandate(EBF08D.Date),EBF08D.TCE,Rows="complete")
```

```
ans =
'Linear Correlation TCE'
rho =
```

```
-0.9122
pval =
0.0878
```

```
'Linear Correlation cDCE',[rho,pval] = corr(juliandate(EBF08D.Date),EBF08D.cDCE,Rows="complete")
```

```
ans =
'Linear Correlation cDCE'
rho =
-0.8340
pval =
0.1660
```

```
'Linear Correlation VC',[rho,pval] = corr(juliandate(EBF08D.Date),EBF08D.VC,Rows="complete")
```

```
ans =
'Linear Correlation VC'
rho =
-0.6618
pval =
0.3382
```

Mann-Kendall Trend Tests

```
'Test for Trend PCE', [H, P_value,Z,StdS]=MKwMiss(EBF08D.PCE,0.05,NaN)
```

```
ans =
'Test for Trend PCE'
H = logical

   0
P_value =
0.2029
Z =
-1.2734
StdS =
7.8528
```

```
"PCE",'One Way Test Trend < 0', pval = cumKendallTest(EBF08D.PCE,juliandate(EBF08D.Date),'lt')
```

```
ans =
"PCE"
ans =
'One Way Test Trend < 0'
pval =
-0.1014
```

```
'Test for Trend TCE', [H, P_value,Z,StdS]=MKwMiss(EBF08D.TCE,0.05,NaN)
```

```
ans =
'Test for Trend TCE'
H = logical

   0
P_value =
0.1346
Z =
-1.4961
StdS =
```

```
8.0208
```

```
"TCE",'One Way Test Trend < 0', pval = cumKendallTest(EBF08D.TCE,juliandate(EBF08D.Date),'lt')
```

```
ans =
"TCE"
ans =
'One Way Test Trend < 0'
pval =
-0.0673
```

```
'Test for Trend cDCE', [H, P_value,Z,StdS]=MKwMiss(EBF08D.cDCE,0.05,NaN)
```

```
ans =
'Test for Trend cDCE'
H = logical

   0
P_value =
0.3082
Z =
-1.0190
StdS =
2.9439
```

```
"cDCE",'One Way Test Trend < 0', pval = cumKendallTest(EBF08D.cDCE,juliandate(EBF08D.Date),'lt')
```

```
ans =
"cDCE"
ans =
'One Way Test Trend < 0'
pval =
-0.1541
```

```
'Test for Trend VC', [H, P_value,Z,StdS]=MKwMiss(EBF08D.VC,0.05,NaN)
```

```
ans =
'Test for Trend VC'
H = logical

   0
P_value =
0.7341
Z =
-0.3397
StdS =
2.9439
```

```
"VC",'One Way Test Trend < 0', pval = cumKendallTest(EBF08D.VC,juliandate(EBF08D.Date),'lt')
```

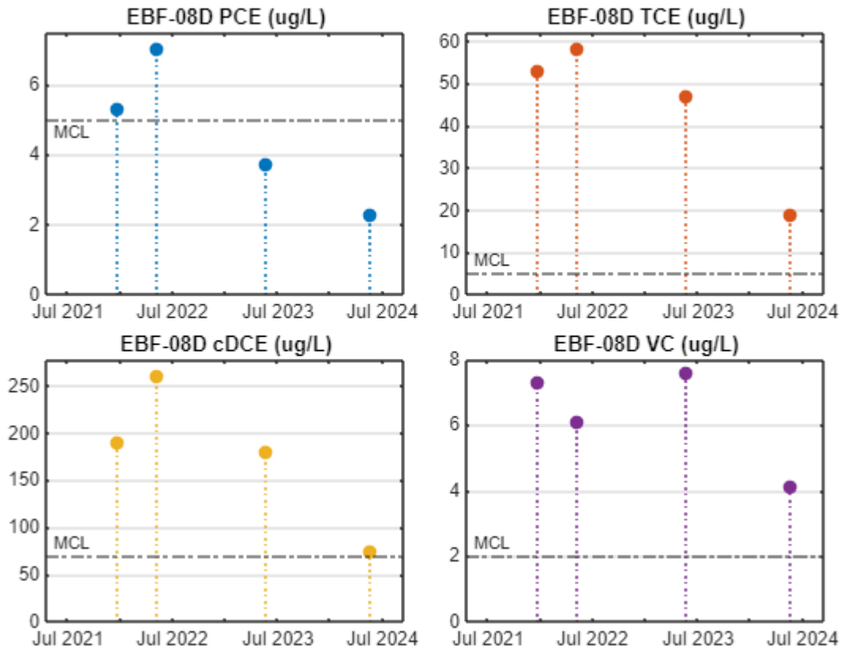
```
ans =
"VC"
ans =
'One Way Test Trend < 0'
pval =
-0.3670
```

EBF-08D Time Series Data Plots

```
figure
t4=tiledlayout('flow');
t4.Padding='compact';
t4.TileSpacing='compact';
nexttile
stem(EBF08D.Date,EBF08D.PCE,':','Color','0 0.45 0.74','Marker','o',...
    'MarkerEdgeColor','0 0.45 0.74','MarkerFaceColor','0 0.45 0.74')
axis padded
title('EBF-08D PCE (ug/L)')
yline(5,'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
hold
```

```
Current plot held
```

```
nexttile
stem(EBF08D.Date,EBF08D.TCE,':','Color','0.85 0.33 0.1','Marker','o',...
    'MarkerEdgeColor','0.85 0.33 0.1','MarkerFaceColor','0.85 0.33 0.1')
axis padded
title('EBF-08D TCE (ug/L)')
yline(5,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
nexttile
stem(EBF08D.Date,EBF08D.cDCE,':','Color','0.93 0.69 0.13','Marker','o',...
    'MarkerEdgeColor','0.93 0.69 0.13','MarkerFaceColor','0.93 0.69 0.13')
axis padded
title('EBF-08D cDCE (ug/L)')
yline(70,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
nexttile
stem(EBF08D.Date,EBF08D.VC,':','Color','0.49 0.18 0.56','Marker','o',...
    'MarkerEdgeColor','0.49 0.18 0.56','MarkerFaceColor','0.49 0.18 0.56')
axis padded
title('EBF-08D VC (ug/L)')
yline(2,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
```



6.0 MW-283

Exploratory Data Analysis

Data Summary

```
summary(MW283,DataVariables=["Date","PCE","TCE","cDCE","VC",],Statistics="allstats")
```

```
MW283: 4×5 table
Variables:
    Date: datetime
    PCE: double
    TCE: double
    cDCE: double
    VC: double
Statistics for applicable variables:
          NumMissing          Min          Q1              Median              Q3              Max          Range              Mean              Std              Var          Sum          Mode
    Date          0   29-Dec-2021              12-Nov-2022 17:57:30              20-May-2024 09:10:00   20961:10:00   10-Jan-2023 17:16:15   9487:46:36                                   29-Dec-
    PCE           0       0.5500       0.6400              0.8250       1.4600                2        1.4500            1.0500           0.6511           0.4239       4.2000          0.
    TCE           0           79      99.5000                 125          240               350           271          169.7500          122.1758       1.4927e+04          679
    cDCE          0           76      80.5000                  90     162.5000               230           154          121.5000           72.7484       5.2923e+03          486
    VC            0       5.8000       9.4000             13.5000      14.5000                15        9.2000           11.9500           4.1805           17.4767      47.8000          5.
```

```
format compact
```

Linear Correlation

rho	Correlation
-1.0	Perfect negative
0.0	No correlation
1.0	Perfect positive

pvalue	Significance level of 0.05
=<0.05	Statistically significant

```
'Linear Correlation PCE',[rho,pval] = corr(juliandate(MW283.Date),MW283.PCE,Rows="complete")
```

```
ans =
'Linear Correlation PCE'
rho =
0.0099
pval =
0.9901
```

```
'Linear Correlation TCE',[rho,pval] = corr(juliandate(MW283.Date),MW283.TCE,Rows="complete")
```

```
ans =
'Linear Correlation TCE'
rho =
0.3518
pval =
0.6482
```

```
'Linear Corelation cDCE',[rho,pval] = corr(juliandate(MW283.Date),MW283.cDCE,Rows="complete")
```

```
ans =
'Linear Corelation cDCE'
rho =
0.1424
pval =
0.8576
```

```
'Linear Correlation VC',[rho,pval] = corr(juliandate(MW283.Date),MW283.VC,Rows="complete")
```

```
ans =
'Linear Correlation VC'
rho =
0.7021
pval =
0.2979
```

Mann-Kendall Trend Tests

```
'Test for Trend PCE', [H, P_value,Z,StdS]=MKwMiss(MW283.PCE,0.05,NaN)
```

```
ans =
'Test for Trend PCE'
```

```
H = logical

   0
P_value =
0.7341
Z =
-0.3397
StdS =
2.9439
```

```
"PCE",'One Way Test Trend < 0', pval = cumKendallTest(MW283.PCE,juliandate(MW283.Date),'lt')
```

```
ans =
"PCE"
ans =
'One Way Test Trend < 0'
pval =
-0.3670
```

```
'Test for Trend TCE', [H, P_value,Z,StdS]=MKwMiss(MW283.TCE,0.05,NaN)
```

```
ans =
'Test for Trend TCE'
H = logical

   0
P_value =
0.3082
Z =
1.0190
StdS =
2.9439
```

```
"TCE",'One Way Test Trend > 0', pval = cumKendallTest(MW283.TCE,juliandate(MW283.Date),'gt')
```

```
ans =
"TCE"
ans =
'One Way Test Trend > 0'
pval =
0.1541
```

```
'Test for Trend cDCE', [H, P_value,Z,StdS]=MKwMiss(MW283.cDCE,0.05,NaN)
```

```
ans =
'Test for Trend cDCE'
H = logical

   0
P_value =
1
Z =
0
StdS =
2.9439
```

```
"cDCE",'One Way Test Trend > 0', pval = cumKendallTest(MW283.cDCE,juliandate(MW283.Date),'gt')
```

```
ans =
```

```
"cDCE"
ans =
'One Way Test Trend > 0'
pval =
0
```

```
'Test for Trend VC', [H, P_value,Z,StdS]=MKwMiss(MW283.VC,0.05,NaN)
```

```
ans =
'Test for Trend VC'
H = logical

   0
P_value =
0.3082
Z =
1.0190
StdS =
2.9439
```

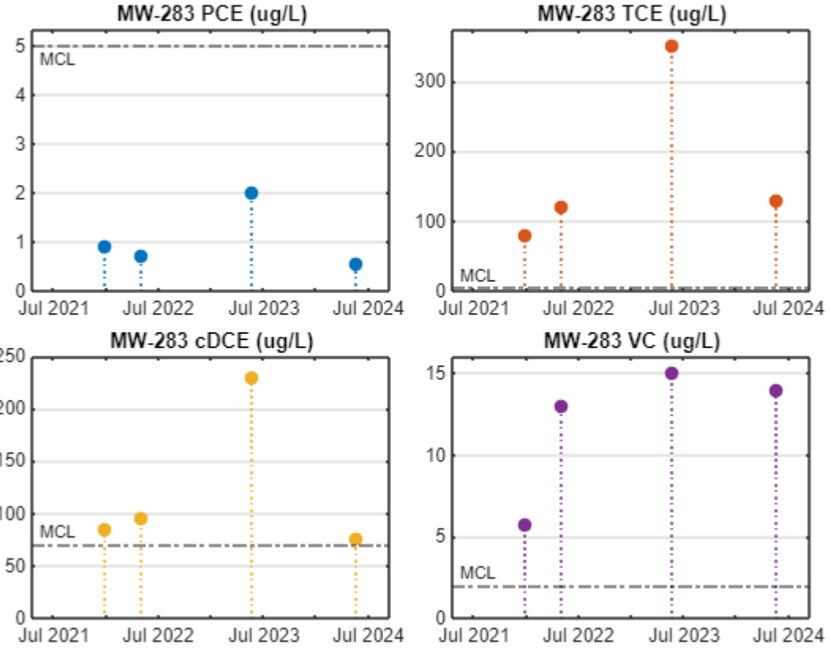
```
"VC",'One Way Test Trend > 0', pval = cumKendallTest(MW283.VC,juliandate(MW283.Date),'gt')
```

```
ans =
"VC"
ans =
'One Way Test Trend > 0'
pval =
0.1541
```

MW-283 Time Series Data Plots

```
figure
t4=tiledlayout('flow');
t4.Padding='compact';
t4.TileSpacing='compact';
nexttile
stem(MW283.Date,MW283.PCE,':','Color','0 0.45 0.74','Marker','o',...
    'MarkerEdgeColor','0 0.45 0.74','MarkerFaceColor','0 0.45 0.74')
axis padded
title('MW-283 PCE (ug/L)')
yline(5,'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
nexttile
stem(MW283.Date,MW283.TCE,':','Color','0.85 0.33 0.1','Marker','o',...
    'MarkerEdgeColor','0.85 0.33 0.1','MarkerFaceColor','0.85 0.33 0.1')
axis padded
title('MW-283 TCE (ug/L)')
yline(5,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
nexttile
stem(MW283.Date,MW283.cDCE,':','Color','0.93 0.69 0.13','Marker','o',...
    'MarkerEdgeColor','0.93 0.69 0.13','MarkerFaceColor','0.93 0.69 0.13')
```

```
axis padded
title('MW-283 cDCE (ug/L)')
yline(70,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
nexttile
stem(MW283.Date,MW283.VC,':','Color','0.49 0.18 0.56','Marker','o',...
    'MarkerEdgeColor','0.49 0.18 0.56','MarkerFaceColor','0.49 0.18 0.56')
axis padded
title('MW-283 VC (ug/L)')
yline(2,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
```



7.0 MW-285

Exploratory Data Analysis

Data Summary

```
summary(MW285,DataVariables=["Date","PCE","TCE","cDCE","VC",],Statistics="allstats")
```

```
MW285: 4×5 table
Variables:
    Date: datetime
    PCE: double
    TCE: double
    cDCE: double
    VC: double
Statistics for applicable variables:
          NumMissing          Min              Q1              Median              Q3              Max              Range              Mean              Std              Var              Sum              Mode
    Date          0    04-Jan-2022                 19-Nov-2022 06:23:30                 22-May-2024 13:35:00    20869:35:00    16-Jan-2023 00:35:30    9460:11:06                                                  04-Jan-2022
    PCE           0           12          12.5000              15          23.5000              30              18                 18                8.2865           68.6667               72               12
    TCE           0          140              145             165              275             370             230                210              108.0123        1.1667e+04              840              140
    cDCE          0          720              765             905             1250            1500             780             1.0075e+03            348.4609           121425             4030              720
    VC            0           23          28.5000              46               60              62              39                44.2500            18.8038           353.5833              177               23
```

```
format compact
```

Linear Correlation

rho	Correlation
-1.0	Perfect negative
0.0	No correlation
1.0	Perfect positive

pvalue	Significance level of 0.05
=<0.05	Statistically significant

```
'Linear Correlation PCE',[rho,pval] = corr(juliandate(MW285.Date),MW285.PCE,Rows="complete")
```

```
ans =
'Linear Correlation PCE'
rho =
0.1068
pval =
0.8932
```

```
'Linear Correlation TCE',[rho,pval] = corr(juliandate(MW285.Date),MW285.TCE,Rows="complete")
```

```
ans =
'Linear Correlation TCE'
rho =
0.1645
pval =
0.8355
```

```
'Linear Correlation cDCE',[rho,pval] = corr(juliandate(MW285.Date),MW285.cDCE,Rows="complete")
```

```
ans =
'Linear Correlation cDCE'
rho =
0.1079
pval =
0.8921
```

```
'Linear Correlation VC',[rho,pval] = corr(juliandate(MW285.Date),MW285.VC,Rows="complete")
```

```
ans =
'Linear Correlation VC'
rho =
-0.2043
pval =
0.7957
```

Mann-Kendall Trend Tests

```
'Test for Trend PCE', [H, P_value,Z,StdS]=MKwMiss(MW285.PCE,0.05,NaN)
```

```
ans =
'Test for Trend PCE'
H = logical

   1
P_value =
0.0187
Z =
2.3506
StdS =
8.0829
```

```
"PCE",'One Way Test Trend > 0', pval = cumKendallTest(MW285.PCE,juliandate(MW285.Date),'gt')
```

```
ans =
"PCE"
ans =
'One Way Test Trend > 0'
pval =
0.0094
```

```
'Test for Trend TCE', [H, P_value,Z,StdS]=MKwMissMW285.TCE,0.05,NaN)
```

```
ans =
'Test for Trend TCE'
H = logical

   1
P_value =
0.0354
Z =
2.1032
StdS =
8.0829
```

```
"TCE",'One Way Test Trend > 0', pval = cumKendallTest(MW285.TCE,juliandate(MW285.Date),'gt')
```

```
ans =
"TCE"
ans =
'One Way Test Trend > 0'
pval =
0.0177
```

```
'Test for Trend cDCE', [H, P_value,Z,StdS]=MKwMiss(MW285.cDCE,0.05,NaN)
```

```
ans =
'Test for Trend cDCE'
H = logical

   0
P_value =
1
Z =
0
StdS =
2.9439
```

```
"cDCE",'One Way Test Trend < 0', pval = cumKendallTest(MW285.cDCE,juliandate(MW285.Date),'lt')
```

```
ans =
"cDCE"
ans =
'One Way Test Trend < 0'
pval =
0
```

```
'Test for Trend VC', [H, P_value,Z,StdS]=MKwMiss(MW285.VC,0.05,NaN)
```

```
ans =
'Test for Trend VC'
H = logical

   0
P_value =
0.7341
Z =
-0.3397
StdS =
2.9439
```

```
"VC",'One Way Test Trend < 0', pval = cumKendallTest(MW285.VC,juliandate(MW285.Date),'lt')
```

```
ans =
"VC"
ans =
'One Way Test Trend < 0'
pval =
-0.3670
```

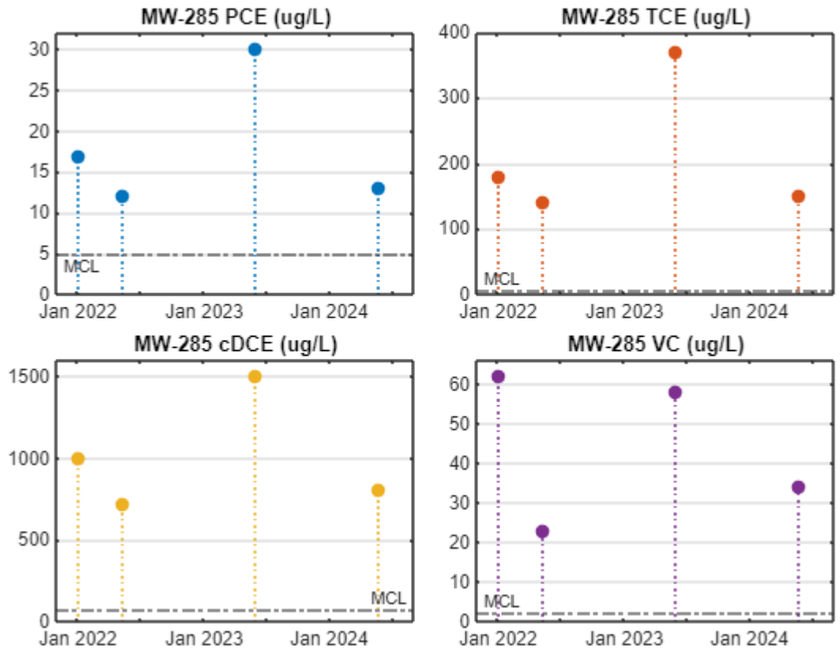
MW-285 Time Series Data Plots

```
figure
t5=tiledlayout('flow');
t5.Padding='compact';
t5.TileSpacing='compact';
nexttile
stem(MW285.Date,MW285.PCE,':','Color','0 0.45 0.74','Marker','o',...
    'MarkerEdgeColor','0 0.45 0.74','MarkerFaceColor','0 0.45 0.74')
axis padded
title('MW-285 PCE (ug/L)')
```

```
yline(5,'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
nexttile
stem(MW285.Date,MW285.TCE,':','Color','0.85 0.33 0.1','Marker','o',...
    'MarkerEdgeColor','0.85 0.33 0.1','MarkerFaceColor','0.85 0.33 0.1')
axis padded
title('MW-285 TCE (ug/L)')
yline(5,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
nexttile
stem(MW285.Date,MW285.cDCE,':','Color','0.93 0.69 0.13','Marker','o',...
    'MarkerEdgeColor','0.93 0.69 0.13','MarkerFaceColor','0.93 0.69 0.13')
axis padded
title('MW-285 cDCE (ug/L)')
yline(70,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','right','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
hold
```

```
Current plot held
```

```
nexttile
stem(MW285.Date,MW285.VC,':','Color','0.49 0.18 0.56','Marker','o',...
    'MarkerEdgeColor','0.49 0.18 0.56','MarkerFaceColor','0.49 0.18 0.56')
axis padded
title('MW-285 VC (ug/L)')
yline(2,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
```



8.0 MW-236

Exploratory Data Analysis

Data Summary

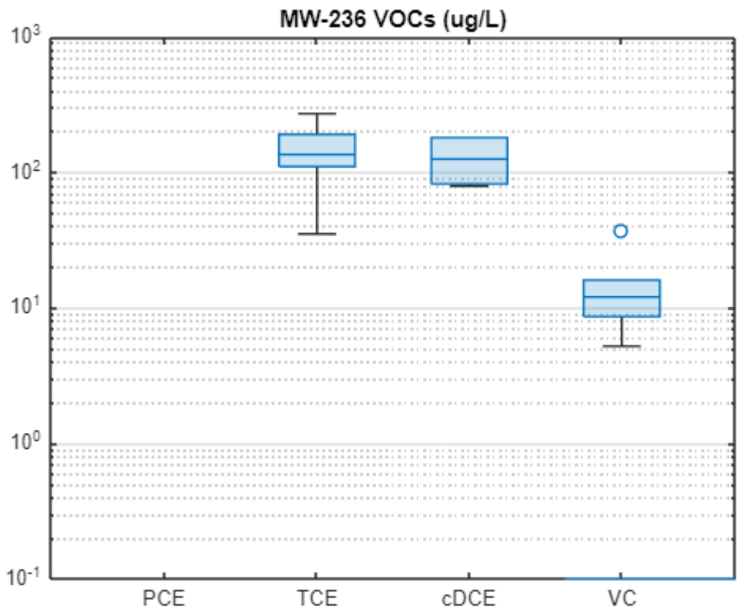
```
summary(MW236,DataVariables=["Date","PCE","TCE","cDCE","VC",],Statistics="allstats")
```

```
MW236: 6×5 table
Variables:
    Date: datetime
    PCE: double
    TCE: double
    cDCE: double
    VC: double
Statistics for applicable variables:
          NumMissing                  Min                   Q1                Median                   Q3                  Max                Range                 Mean                  Std                  Var                  Sum
    Date          0  28-Mar-2019 11:04:00                      08-Mar-2022 12:00:00                        21-May-2024 10:15:00  45143:11:00  21-Jan-2022 23:26:30  15902:08:27                                                   28-
    PCE           6                  NaN          NaN                  NaN          NaN                  NaN          NaN                  NaN          NaN                  NaN                    0
    TCE           0                   35          110                  135          190                  270          235             145.8333           79.5246            6.3242e+03              875
    cDCE          0                   79           82                  125          180                  180          101             128.5000           44.7023            1.9983e+03              771
    VC            0               5.2000       8.6000                   12           16                   37      31.8000              15.1333           11.3128              127.9787          90.8000
```

```
format compact
```

Distribution

```
figure
boxchart(MW236array)
set(gca, "XGrid", "off", "YGrid", "on")
xticklabels({'PCE','TCE','cDCE','VC'})
yscale('log')
ylim([0.1 1000])
title('MW-236 VOCs (ug/L)')
box
```



Normal Distribution Tests

```
'TCE',[h,p,kstat,critval] = lillietest(MW236.TCE,"MCTol",1E+04)
```

```
ans =
'TCE'
h =
0
p =
0.9240
kstat =
0.1595
critval =
0.3335
```

```
'cDCE', [h,p,kstat,critval] = lillietest(MW236.cDCE,"MCTol",1E+04),
```

```
ans =
```

```
'cDCE'
h =
0
p =
0.5930
kstat =
0.2087
critval =
0.3197
```

```
'VC', [h,p,kstat,critval] = lillietest(MW236.VC,"MCTol",1E+04),
```

```
ans =
'VC'
h =
0
p =
0.0790
kstat =
0.3028
critval =
0.3195
```

Outlier Testing

```
'TCE Outliers',isoutlier(MW236.TCE,"quartiles")',...
'cDCE Outliers',isoutlier(MW236.cDCE,"quartiles")',...
'VC',isoutlier(MW236.VC,"quartiles")',
```

```
ans =
'TCE Outliers'
ans = 1×6 logical array
   0   0   0   0   0   0
ans =
'cDCE Outliers'
ans = 1×6 logical array
   0   0   0   0   0   0
ans =
'VC'
ans = 1×6 logical array
   1   0   0   0   0   0
```

Coefficient of Variation

Coefficient of variation (CV) of a time series data set is the ratio of standard deviation and mean. CV provides a measure of variability of time series data.

Coefficient of Variation	Variance
<0.50	Low
0.5 to 1.0	Moderate
>1.0	High

```
CVMW236TCE=std(MW236.TCE,'omitmissing')/mean(MW236.TCE,'omitmissing'),...
CVMW236cDCE=std(MW236.cDCE,'omitmissing')/mean(MW236.cDCE,'omitmissing'),...
CVMW239VC=std(MW236.VC,'omitmissing')/mean(MW236.VC,'omitmissing'),
```

```
CVMW236TCE =
0.5453
CVMW236cDCE =
0.3479
CVMW239VC =
0.7475
```

Linear Correlation

rho	Correlation
-1.0	Perfect negative
0.0	No correlation
1.0	Perfect positive

pvalue	Significance level of 0.05
=<0.05	Statistically significant

```
'Linear Correlation TCE',[rho,pval] = corr(juliandate(MW236.Date),MW236.TCE,Rows="complete")
```

```
ans =
'Linear Correlation TCE'
rho =
-0.3940
pval =
0.4396
```

```
'Linear Correlation cDCE',[rho,pval] = corr(juliandate(MW236.Date),MW236.cDCE,Rows="complete")
```

```
ans =
'Linear Correlation cDCE'
rho =
-0.0790
pval =
0.8817
```

```
'Linear Correlation VC',[rho,pval] = corr(juliandate(MW236.Date),MW236.VC,Rows="complete")
```

```
ans =
'Linear Correlation VC'
rho =
-0.5798
pval =
0.2277
```

Mann-Kendall Trend Tests

```
'Test for Trend TCE', [H, P_value,Z,StdS]=MKwMiss(MW236.TCE,0.05,NaN)
```

```
ans =
'Test for Trend TCE'
H = logical
```

```
   0
P_value =
0.7071
Z =
-0.3757
StdS =
5.3229
```

```
"TCE",'One Way Test Trend > 0', pval = cumKendallTest(MW236.TCE,juliandate(MW236.Date),'lt')
```

```
ans =
"TCE"
ans =
'One Way Test Trend > 0'
pval =
-0.3536
```

```
'Test for Trend cDCE', [H, P_value,Z,StdS]=MKwMiss(MW236.cDCE,0.05,NaN)
```

```
ans =
'Test for Trend cDCE'
H = logical

   0
P_value =
0.8483
Z =
0.1913
StdS =
5.2281
```

```
"cDCE",'One Way Test Trend > 0', pval = cumKendallTest(MW236.cDCE,juliandate(MW236.Date),'gt')
```

```
ans =
"cDCE"
ans =
'One Way Test Trend > 0'
pval =
0.4242
```

```
'Test for Trend VC', [H, P_value,Z,StdS]=MKwMiss(MW236.VC,0.05,NaN)
```

```
ans =
'Test for Trend VC'
H = logical

   0
P_value =
1
Z =
0
StdS =
5.2281
```

```
"VC",'One Way Test Trend < 0', pval = cumKendallTest(MW236.VC,juliandate(MW236.Date),'lt')
```

```
ans =
"VC"
```

```
ans =
'One Way Test Trend < 0'
pval =
0
```

SSA Trend Analysis

```
% Decompose data into long-term trend, seasonal trends, and remainder
MW236SSA = trenddecomp(MW236(:,["TCE","cDCE","VC"]),"ssa",3,"NumSeasonal",1);
```

MW-236 Time Series Data Plots

```
figure
t6=tiledlayout('flow');
t6.Padding='compact';
t6.TileSpacing='compact';
nexttile
plot(MW236.Date,MW236.TCE,':','Color','0.85 0.33 0.1','Marker','o',...
    'MarkerEdgeColor','0.85 0.33 0.1','MarkerFaceColor','0.85 0.33 0.1')
axis padded
title('MW-236 TCE (ug/L)')
yline(5,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
hold
```

```
Current plot held
```

```
plot(MW236.Date,MW236SSA.TCE_LongTerm,'-.','Color','magenta');
legend('','','LT Trend',Location='northeast',EdgeColor='none',Color='none')
nexttile
plot(MW236.Date,MW236.cDCE,':','Color','0.93 0.69 0.13','Marker','o',...
    'MarkerEdgeColor','0.93 0.69 0.13','MarkerFaceColor','0.93 0.69 0.13')
axis padded
title('MW-236 cDCE (ug/L)')
yline(70,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','right','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
hold
```

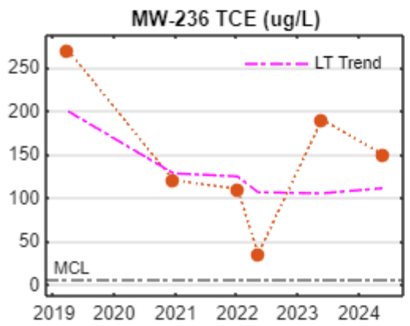
```
Current plot held
```

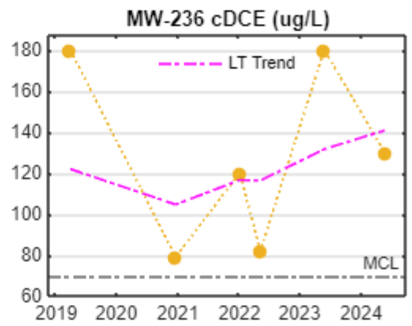
```
plot(MW236.Date,MW236SSA.cDCE_LongTerm,'-.','Color','magenta');
legend('','','LT Trend',Location='north',EdgeColor='none',Color='none')
nexttile
plot(MW236.Date,MW236.VC,':','Color','0.49 0.18 0.56','Marker','o',...
    'MarkerEdgeColor','0.49 0.18 0.56','MarkerFaceColor','0.49 0.18 0.56')
axis padded
title('MW-236 VC (ug/L)')
```

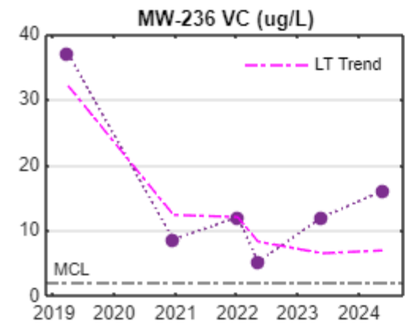
```
yline(2,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
hold
```

```
Current plot held
```

```
plot(MW236.Date,MW236SSA.VC_LongTerm,'-.','Color','magenta');
legend('','','LT Trend',Location='northeast',EdgeColor='none',Color='none')
```







10.0 MW-286

Exploratory Data Analysis

Data Summary

```
summary(MW286,DataVariables=["Date","PCE","TCE","cDCE","VC",],Statistics="allstats")
```

```
MW286: 4×5 table
Variables:
    Date: datetime
    PCE: double
    TCE: double
    cDCE: double
    VC: double
Statistics for applicable variables:
          NumMissing          Min                Q1                Median                Q3                Max                Range              Mean                Std              Var              Sum              Mode
    Date        0          04-Jan-2022                         09-Nov-2022 05:45:00                16-May-2024 12:00:00        20724:00:00        09-Jan-2023 11:52:30        9431:20:53                                                    04-Jan-202
```

PCE	4	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	0	Na
TCE	0	13	18.5000	34.5000	46	47	34	32.2500	16.5202	272.9167	129	1
cDCE	0	11	12.5000	18.5000	76.5000	130	119	44.5000	57.2276	3275	178	1
VC	2	0.6700	0.6700	11.3350	22	22	21.3300	11.3350	15.0826	227.4844	22.6700	0.670

```
format compact
```

Linear Correlation

rho	Correlation
-1.0	Perfect negative
0.0	No correlation
1.0	Perfect positive

pvalue	Significance level of 0.05
=<0.05	Statistically significant

```
'Linear Correlation TCE',[rho,pval] = corr(juliandate(MW286.Date),MW286.TCE,Rows="complete")
```

```
ans =
'Linear Correlation TCE'
rho =
0.8979
pval =
0.1021
```

```
'Linear Correlation cDCE',[rho,pval] = corr(juliandate(MW286.Date),MW286.cDCE,Rows="complete")
```

```
ans =
'Linear Correlation cDCE'
rho =
0.8768
pval =
0.1232
```

```
'Linear Correlation VC',[rho,pval] = corr(juliandate(MW286.Date),MW286.VC,Rows="complete")
```

```
ans =
'Linear Correlation VC'
rho =
1
pval =
NaN
```

Mann-Kendall Trend Tests

```
'Test for Trend TCE', [H, P_value,Z,StdS]=MKwMiss(MW286.TCE,0.05,NaN)
```

```
ans =
'Test for Trend TCE'
H = logical
```

```
   0
P_value =
0.3082
Z =
1.0190
StdS =
2.9439
```

```
"TCE",'One Way Test Trend > 0', pval = cumKendallTest(MW286.TCE,juliandate(MW286.Date),'gt')
```

```
ans =
"TCE"
ans =
'One Way Test Trend > 0'
pval =
0.1541
```

```
'Test for Trend cDCE', [H, P_value,Z,StdS]=MKwMiss(MW286.cDCE,0.05,NaN)
```

```
ans =
'Test for Trend cDCE'
H = logical

   0
P_value =
0.3082
Z =
1.0190
StdS =
2.9439
```

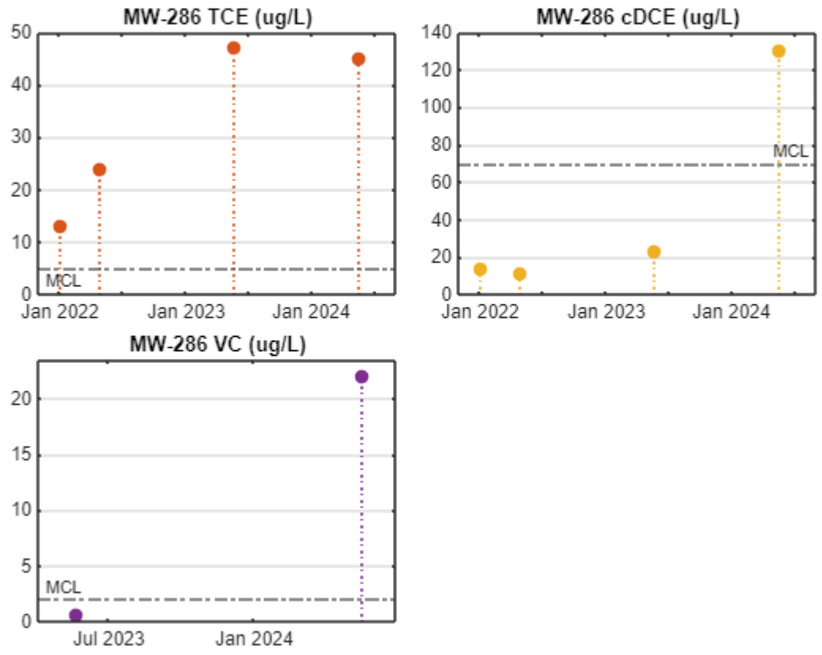
```
"cDCE",'One Way Test Trend > 0', pval = cumKendallTest(MW286.cDCE,juliandate(MW286.Date),'gt')
```

```
ans =
"cDCE"
ans =
'One Way Test Trend > 0'
pval =
0.1541
```

MW-286 Time Series Data Plots

```
figure
t7=tiledlayout('flow');
t7.Padding='compact';
t7.TileSpacing='compact';
nexttile
stem(MW286.Date,MW286.TCE,':','Color','0.85 0.33 0.1','Marker','o',...
    'MarkerEdgeColor','0.85 0.33 0.1','MarkerFaceColor','0.85 0.33 0.1')
axis padded
title('MW-286 TCE (ug/L)')
yline(5,'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
```

```
nexttile
stem(MW286.Date,MW286.cDCE,':','Color','0.93 0.69 0.13','Marker','o',...
    'MarkerEdgeColor','0.93 0.69 0.13','MarkerFaceColor','0.93 0.69 0.13')
axis padded
title('MW-286 cDCE (ug/L)')
yline(70,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','right','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
nexttile
stem(MW286.Date,MW286.VC,':','Color','0.49 0.18 0.56','Marker','o',...
    'MarkerEdgeColor','0.49 0.18 0.56','MarkerFaceColor','0.49 0.18 0.56')
axis padded
title('MW-286 VC (ug/L)')
yline(2,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
```



11.0 MW-287

Exploratory Data Analysis

Data Summary

```
summary(MW287,DataVariables=["Date","PCE","TCE","cDCE","VC"],Statistics="allstats")
```

```
MW287: 4×5 table
Variables:
    Date: datetime
    PCE: double
    TCE: double
    cDCE: double
    VC: double
Statistics for applicable variables:
```

	NumMissing	Min	Q1	Median	Q3	Max	Range	Mean	Std	Var	Sum	Mode
Date	0	04-Jan-2022		16-Nov-2022 17:42:30		21-May-2024 13:15:00	20845:15:00	14-Jan-2023 12:10:00	9475:31:29			04-Jan-
PCE	0	0.4200	0.7100	1	1.6500	2.3000	1.8800	1.1800	0.7952	0.6323	4.7200	
TCE	0	35	64	111.5000	140	150	115	102	50.5239	2.5527e+03	408	
cDCE	0	29	63.5000	98.5000	114.5000	130	101	89	42.6693	1.8207e+03	356	
VC	0	0.9500	2.3250	4.3000	5.8500	6.8000	5.8500	4.0875	2.4503	6.0040	16.3500	0.

```
format compact
```

Linear Correlation

rho	Correlation
-1.0	Perfect negative
0.0	No correlation
1.0	Perfect positive

pvalue	Significance level of 0.05
=<0.05	Statistically significant

```
'Linear Correlation PCE',[rho,pval] = corr(juliandate(MW287.Date),MW287.PCE,Rows="complete")
```

```
ans =
'Linear Correlation PCE'
rho =
-0.8220
pval =
0.1780
```

```
'Linear Correlation TCE',[rho,pval] = corr(juliandate(MW287.Date),MW287.TCE,Rows="complete")
```

```
ans =
'Linear Correlation TCE'
rho =
-0.7508
pval =
0.2492
```

```
'Linear Correlation cDCE',[rho,pval] = corr(juliandate(MW287.Date),MW287.cDCE,Rows="complete")
```

```
ans =
'Linear Correlation cDCE'
rho =
-0.9082
pval =
0.0918
```

```
'Linear Correlation VC',[rho,pval] = corr(juliandate(MW287.Date),MW287.VC,Rows="complete")
```

```
ans =
'Linear Correlation VC'
rho =
-0.9735
pval =
0.0265
```

Mann-Kendall Trend Tests

```
'Test for Trend PCE', [H, P_value,Z,StdS]=MKwMiss(MW287.PCE,0.05,NaN)
```

```
ans =
'Test for Trend PCE'
H = logical

   0
P_value =
0.1486
Z =
-1.4446
StdS =
2.7689
```

```
"PCE",'One Way Test Trend < 0', pval = cumKendallTest(MW287.PCE,juliandate(MW287.Date),'lt')
```

```
ans =
"PCE"
ans =
'One Way Test Trend < 0'
pval =
-0.0743
```

```
'Test for Trend TCE', [H, P_value,Z,StdS]=MKwMiss(MW287.TCE,0.05,NaN)
```

```
ans =
'Test for Trend TCE'
H = logical

   0
P_value =
0.3082
Z =
-1.0190
StdS =
2.9439
```

```
"TCE",'One Way Test Trend < 0', pval = cumKendallTest(MW287.TCE,juliandate(MW287.Date),'lt')
```

```
ans =
"TCE"
ans =
'One Way Test Trend < 0'
pval =
-0.1541
```

```
'Test for Trend cDCE', [H, P_value,Z,StdS]=MKwMiss(MW287.cDCE,0.05,NaN)
```

```
ans =
'Test for Trend cDCE'
H = logical

   0
P_value =
0.3082
Z =
-1.0190
StdS =
2.9439
```

```
"cDCE",'One Way Test Trend < 0', pval = cumKendallTest(MW287.cDCE,juliandate(MW287.Date),'lt')
```

```
ans =
"cDCE"
ans =
'One Way Test Trend < 0'
pval =
-0.1541
```

```
'Test for Trend VC', [H, P_value,Z,StdS]=MKwMiss(MW287.VC,0.05,NaN)
```

```
ans =
'Test for Trend VC'
H = logical

   0
P_value =
0.0894
Z =
-1.6984
StdS =
2.9439
```

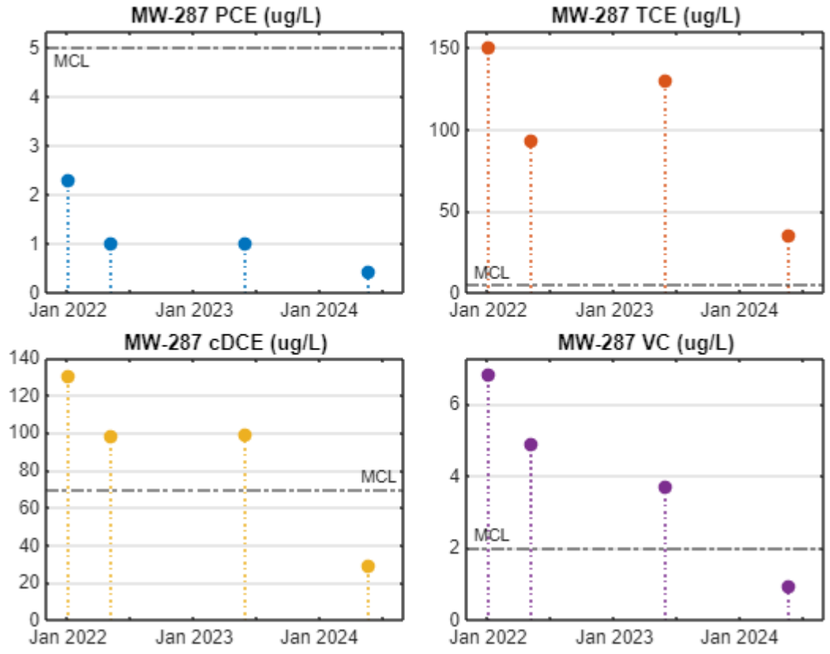
```
"VC",'One Way Test Trend < 0', pval = cumKendallTest(MW287.VC,juliandate(MW287.Date),'lt')
```

```
ans =
"VC"
ans =
'One Way Test Trend < 0'
pval =
-0.0447
```

MW-287 Time Series Data Plots

```
figure
t8=tiledlayout('flow');
t8.Padding='compact';
t8.TileSpacing='compact';
nexttile
stem(MW287.Date,MW287.PCE,':','Color','0 0.45 0.74','Marker','o',...
    'MarkerEdgeColor','0 0.45 0.74','MarkerFaceColor','0 0.45 0.74')
axis padded
title('MW-287 PCE (ug/L)')
yline(5,'-.','LabelVerticalAlignment','bottom',...
```

```
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
nexttile
stem(MW287.Date,MW287.TCE,':','Color','0.85 0.33 0.1','Marker','o',...
    'MarkerEdgeColor','0.85 0.33 0.1','MarkerFaceColor','0.85 0.33 0.1')
axis padded
title('MW-287 TCE (ug/L)')
yline(5,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
nexttile
stem(MW287.Date,MW287.cDCE,':','Color','0.93 0.69 0.13','Marker','o',...
    'MarkerEdgeColor','0.93 0.69 0.13','MarkerFaceColor','0.93 0.69 0.13')
axis padded
title('MW-287 cDCE (ug/L)')
yline(70,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','right','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
nexttile
stem(MW287.Date,MW287.VC,':','Color','0.49 0.18 0.56','Marker','o',...
    'MarkerEdgeColor','0.49 0.18 0.56','MarkerFaceColor','0.49 0.18 0.56')
axis padded
title('MW-287 VC (ug/L)')
yline(2,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
```



12.0 MW-94

Exploratory Data Analysis

Data Summary

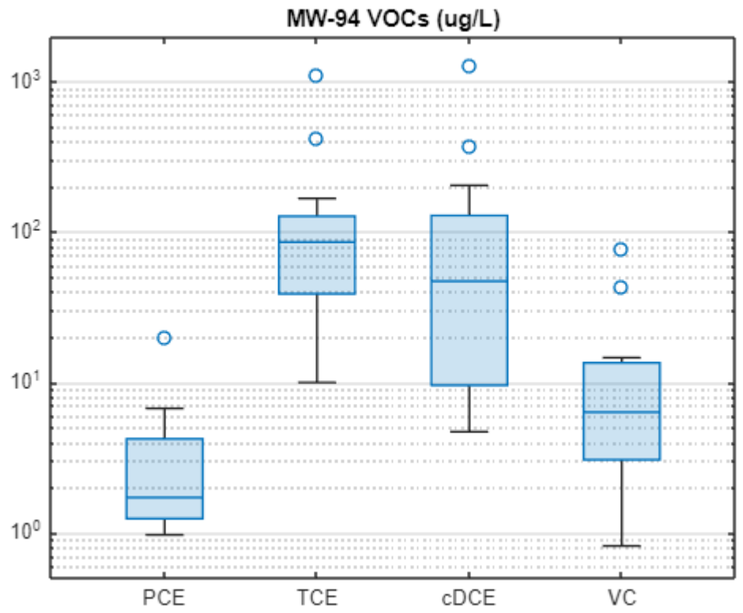
```
summary(MW94,DataVariables=["Date","PCE","TCE","cDCE","VC"],Statistics="allstats")
```

```
MW94: 17×5 table
Variables:
    Date: datetime
    PCE: double
    TCE: double
    cDCE: double
    VC: double
Statistics for applicable variables:
          NumMissing          Min              Q1              Median              Q3                  Max                 Range              Mean                 Std              Var              Sum              Mode
    Date          0    20-Nov-2008                  11-May-2016                      16-May-2024 10:20:00    135754:20:00    18-Jul-2016 23:37:31    43180:14:05                                                    20-Nov-2008
    PCE           5          0.9700          1.2450          1.7200          4.2150              20.2000             19.2300              3.9717           5.4159           29.3322          47.6600           0.9700
    TCE           0              10         38.7500         85.6000        127.2500                1100                1090              156.2412         260.6959         6.7962e+04       2.6561e+03            10
    cDCE          0          4.7000          9.5750         47.1000        128.5000                1290           1.2853e+03             153.2294         307.9054         9.4806e+04       2.6049e+03        4.7000
    VC            6          0.8200          3.0600          6.3400         13.5000              77.6000             76.7800              15.9200          23.6779          560.6415         175.1200          0.8200
```

```
format compact
```

Distribution

```
figure
boxchart(MW94array)
set(gca, "XGrid", "off", "YGrid", "on")
xticklabels({'PCE','TCE','cDCE','VC'})
yscale('log')
ylim([0.5 2000])
title('MW-94 VOCs (ug/L)')
box
```



Normal Distribution Tests

```
'PCE',[h,p,kstat,critval] = lillietest(MW94.PCE,"MCTol",1E+04),
```

```
ans =
'PCE'
h =
1
p =
1.0000e-03
kstat =
0.3015
critval =
0.2360
```

```
'TCE',[h,p,kstat,critval] = lillietest(MW94.TCE,"MCTol",1E+04)
```

```
ans =
'TCE'
h =
1
p =
0
kstat =
0.3659
critval =
0.2072
```

```
'cDCE', [h,p,kstat,critval] = lillietest(MW94.cDCE,"MCTol",1E+04),
```

```
ans =
```

```
'cDCE'
h =
1
p =
0
kstat =
0.3225
critval =
0.2077
```

```
'VC', [h,p,kstat,critval] = lillietest(MW94.VC,"MCTol",1E+04),
```

```
ans =
'VC'
h =
1
p =
1.0000e-03
kstat =
0.3404
critval =
0.2512
```

Outlier Testing

```
'PCE Outliers',isoutlier(MW94.PCE,"quartiles")','TCE Outliers',isoutlier(MW94.TCE,"quartiles")',...
'cDCE Outliers',isoutlier(MW94.cDCE,"quartiles")','VC',isoutlier(MW94.VC,"quartiles")',
```

```
ans =
'PCE Outliers'
ans = 1×17 logical array
   0   0   1   0   0   0   0   0   0   0   0   0   0   0   0   0   0
ans =
'TCE Outliers'
ans = 1×17 logical array
   1   0   1   0   0   0   0   0   0   0   0   0   0   0   0   0   0
ans =
'cDCE Outliers'
ans = 1×17 logical array
   1   0   1   0   0   0   0   0   0   0   0   0   0   0   0   0   0
ans =
'VC'
ans = 1×17 logical array
   1   0   1   0   0   0   0   0   0   0   0   0   0   0   0   0   0
```

Coefficient of Variation

Coefficient of variation (CV) of a time series data set is the ratio of standard deviation and mean. CV provides a measure of variability of time series data.

Coefficient of Variation	Variance
<0.50	Low
0.5 to 1.0	Moderate
>1.0	High

```
CVMW94PCE=std(MW94.PCE,'omitmissing')/mean(MW94.PCE,'omitmissing'),...
```

```
CVMW94TCE=std(MW94.TCE,'omitmissing')/mean(MW94.TCE,'omitmissing'),...
CVMW94cDCE=std(MW94.cDCE,'omitmissing')/mean(MW94.cDCE,'omitmissing'),...
CVMW94VC=std(MW94.VC,'omitmissing')/mean(MW94.VC,'omitmissing'),
```

```
CVMW94PCE =
1.3636
CVMW94TCE =
1.6685
CVMW94cDCE =
2.0094
CVMW94VC =
1.4873
```

Linear Correlation

rho	Correlation
-1.0	Perfect negative
0.0	No correlation
1.0	Perfect positive

pvalue	Significance level of 0.05
=<0.05	Statistically significant

```
'Linear Correlation PCE',[rho,pval] = corr(juliandate(MW94.Date),MW94.PCE,Rows="complete")
```

```
ans =
'Linear Correlation PCE'
rho =
-0.5081
pval =
0.0917
```

```
'Linear Correlation TCE',[rho,pval] = corr(juliandate(MW94.Date),MW94.TCE,Rows="complete")
```

```
ans =
'Linear Correlation TCE'
rho =
-0.5228
pval =
0.0313
```

```
'Linear Correlation cDCE',[rho,pval] = corr(juliandate(MW94.Date),MW94.cDCE,Rows="complete")
```

```
ans =
'Linear Correlation cDCE'
rho =
-0.5236
pval =
0.0310
```

```
'Linear Correlation VC',[rho,pval] = corr(juliandate(MW94.Date),MW94.VC,Rows="complete")
```

```
ans =
```

```
'Linear Correlation VC'
rho =
-0.6100
pval =
0.0463
```

Mann-Kendall Trend Tests

```
'Test for Trend PCE', [H, P_value,Z,StdS]=MKwMiss(MW94.PCE,0.05,NaN)
```

```
ans =
'Test for Trend PCE'
H = logical

   1
P_value =
0.0075
Z =
-2.6743
StdS =
14.5831
```

```
"PCE",'One Way Test Trend < 0', pval = cumKendallTest(MW94.PCE,juliandate(MW94.Date),'lt')
```

```
ans =
"PCE"
ans =
'One Way Test Trend < 0'
pval =
-0.0037
```

```
'Test for Trend TCE', [H, P_value,Z,StdS]=MKwMiss(MW94.TCE,0.05,NaN)
```

```
ans =
'Test for Trend TCE'
H = logical

   1
P_value =
6.4507e-05
Z =
-3.9957
StdS =
24.2762
```

```
"TCE",'One Way Test Trend < 0', pval = cumKendallTest(MW94.TCE,juliandate(MW94.Date),'lt')
```

```
ans =
"TCE"
ans =
'One Way Test Trend < 0'
pval =
-3.2254e-05
```

```
'Test for Trend cDCE', [H, P_value,Z,StdS]=MKwMiss(MW94.cDCE,0.05,NaN)
```

```
ans =
'Test for Trend cDCE'
```

```
H = logical

   1
P_value =
4.0479e-07
Z =
-5.0667
StdS =
24.2762
```

```
"cDCE",'One Way Test Trend < 0', pval = cumKendallTest(MW94.cDCE,juliandate(MW94.Date),'lt')
```

```
ans =
"cDCE"
ans =
'One Way Test Trend < 0'
pval =
-2.0239e-07
```

```
'Test for Trend VC', [H, P_value,Z,StdS]=MKwMiss(MW94.VC,0.05,NaN)
```

```
ans =
'Test for Trend VC'
H = logical

   1
P_value =
9.9219e-05
Z =
-3.8925
StdS =
12.8452
```

```
"VC",'One Way Test Trend < 0', pval = cumKendallTest(MW94.VC,juliandate(MW94.Date),'lt')
```

```
ans =
"VC"
ans =
'One Way Test Trend < 0'
pval =
-4.9609e-05
```

SSA Trend Analysis

```
% Decompose data into long-term trend, seasonal trends, and remainder
MW94SSA = trenddecomp(MW94(:,["PCE","TCE","cDCE","VC"]),"ssa",8, ...
    "NumSeasonal",1);
```

MW-94 Time Series Data Plots

```
figure
t10=tiledlayout('flow');
t10.Padding='compact';
t10.TileSpacing='compact';
nexttile
stem(MW94.Date,MW94.PCE,'-','Color','0 0.45 0.74','Marker','o',...
    'MarkerEdgeColor','0 0.45 0.74','MarkerFaceColor','0 0.45 0.74')
```

```
axis padded
title('MW-94 PCE (ug/L)')
xline(datetime(2015,07,15),'-.','LabelVerticalAlignment','middle',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
yline(5,'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
hold
```

```
Current plot held
```

```
plot(MW94.Date,MW94SSA.PCE_LongTerm,'-.','Color','magenta');
legend('','','','LT Trend',Location='northeast',EdgeColor='none',Color='none')
nexttile
plot(MW94.Date,MW94.TCE,':','Color','0.85 0.33 0.1','Marker','o',...
    'MarkerEdgeColor','0.85 0.33 0.1','MarkerFaceColor','0.85 0.33 0.1')
axis padded
title('MW-94 TCE (ug/L)')
xline(datetime(2015,07,15),'-.','LabelVerticalAlignment','middle',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
yline(5,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
hold
```

```
Current plot held
```

```
plot(MW94.Date,MW94SSA.TCE_LongTerm,'-.','Color','magenta');
legend('','','','LT Trend',Location='northeast',EdgeColor='none',Color='none')
nexttile
plot(MW94.Date,MW94.cDCE,':','Color','0.93 0.69 0.13','Marker','o',...
    'MarkerEdgeColor','0.93 0.69 0.13','MarkerFaceColor','0.93 0.69 0.13')
axis padded
title('MW-94 cDCE (ug/L)')
xline(datetime(2015,07,15),'-.','LabelVerticalAlignment','middle',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
yline(70,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','right','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
hold
```

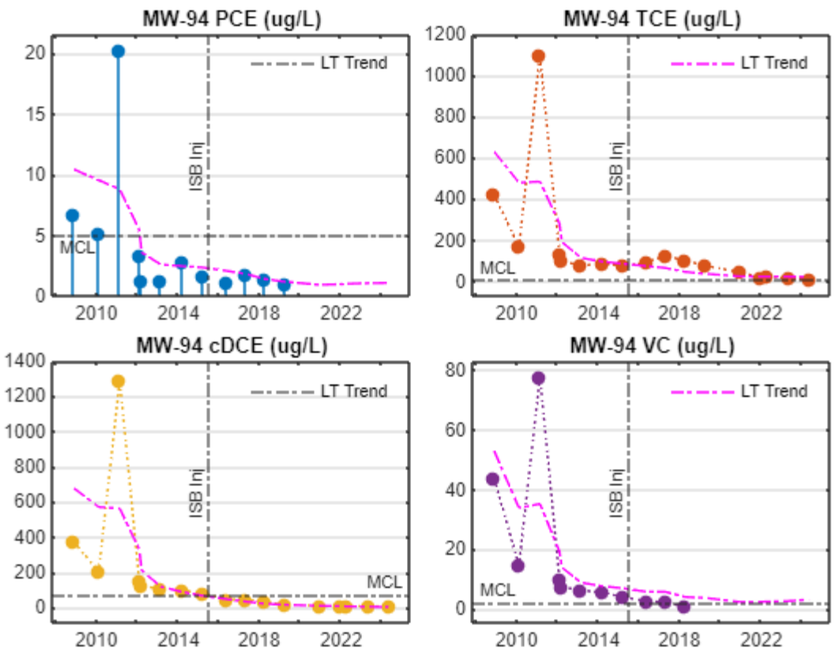
```
Current plot held
```

```
plot(MW94.Date,MW94SSA.cDCE_LongTerm,'-.','Color','magenta');
legend('','','','LT Trend',Location='northeast',EdgeColor='none',Color='none')
nexttile
plot(MW94.Date,MW94.VC,':','Color','0.49 0.18 0.56','Marker','o',...
    'MarkerEdgeColor','0.49 0.18 0.56','MarkerFaceColor','0.49 0.18 0.56')
axis padded
title('MW-94 VC (ug/L)')
xline(datetime(2015,07,15),'-.','LabelVerticalAlignment','middle',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
```

```
yline(2,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
hold
```

```
Current plot held
```

```
plot(MW94.Date,MW94SSA.VC_LongTerm,'-.','Color','magenta');
legend('','','','LT Trend',Location='northeast',EdgeColor='none',Color='none')
```



13.0 MW-288

Exploratory Data Analysis

Data Summary

```
summary(MW288,DataVariables=["Date","PCE","TCE","cDCE","VC",],Statistics="allstats")
```

```
MW288: 4×5 table
Variables:
    Date: datetime
    PCE: double
    TCE: double
    cDCE: double
    VC: double
Statistics for applicable variables:
          NumMissing          Min                Q1                Median                Q3                Max                Range          Mean                Std          Var          Sum          Mode
    Date          0          21-Dec-2021                          11-Nov-2022 04:57:30                17-May-2024 08:35:00          21080:35:00          07-Jan-2023 04:37:30          9526:02:24                                                21-Dec-2021
```

PCE	4	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	0	NaN
TCE	0	2.2000	8.1000	17.5000	21.5000	22	19.8000	14.8000	9.1229	83.2267	59.2000	2.2000	
cDCE	0	0.4300	2.3150	5.0500	6.3500	6.8000	6.3700	4.3325	2.8162	7.9309	17.3300	0.4300	
VC	4	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	0	NaN	

```
format compact
```

Linear Correlation

rho	Correlation
-1.0	Perfect negative
0.0	No correlation
1.0	Perfect positive

pvalue	Significance level of 0.05
=<0.05	Statistically significant

```
'Linear Correlation TCE',[rho,pval] = corr(juliandate(MW288.Date),MW288.TCE,Rows="complete")
```

```
ans =
'Linear Correlation TCE'
rho =
-0.7333
pval =
0.2667
```

```
'Linear Correlation cDCE',[rho,pval] = corr(juliandate(MW288.Date),MW288.cDCE,Rows="complete")
```

```
ans =
'Linear Correlation cDCE'
rho =
-0.7856
pval =
0.2144
```

Mann-Kendall Trend Tests

```
'Test for Trend TCE', [H, P_value,Z,StdS]=MKwMiss(MW288.TCE,0.05,NaN)
```

```
ans =
'Test for Trend TCE'
H = logical

   1
P_value =
0.0461
Z =
-1.9948
StdS =
8.0208
```

```
"TCE",'One Way Test Trend < 0', pval = cumKendallTest(MW288.TCE,juliandate(MW288.Date),'lt')
```

```
ans =
"TCE"
ans =
'One Way Test Trend < 0'
pval =
-0.0230
```

```
'Test for Trend cDCE', [H, P_value,Z,StdS]=MKwMiss(MW288.cDCE,0.05,NaN)
```

```
ans =
'Test for Trend cDCE'
H = logical

   0
P_value =
0.3082
Z =
-1.0190
StdS =
2.9439
```

```
"cDCE",'One Way Test Trend < 0', pval = cumKendallTest(MW288.cDCE,juliandate(MW288.Date),'lt')
```

```
ans =
"cDCE"
ans =
'One Way Test Trend < 0'
pval =
-0.1541
```

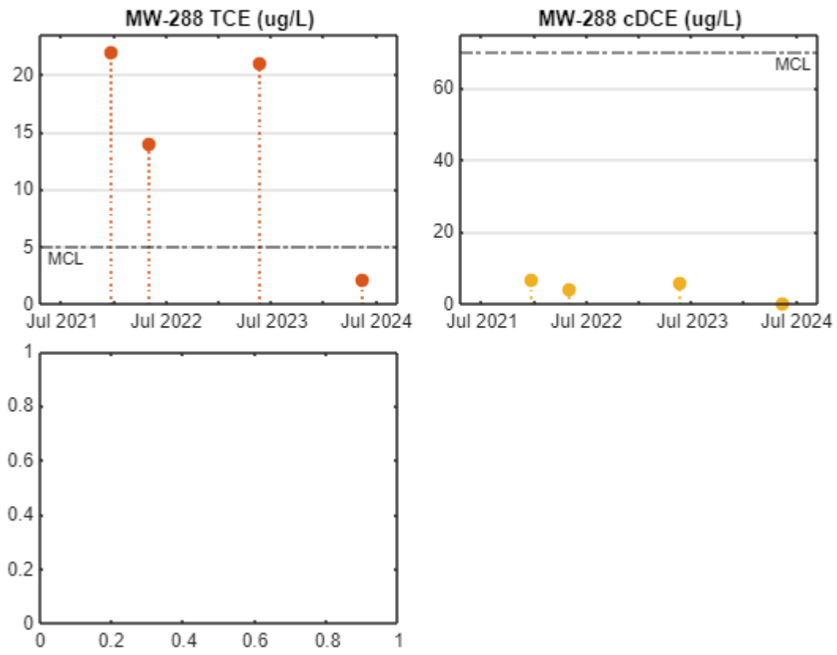
MW-288 Time Series Data Plots

```
figure
t11=tiledlayout('flow');
t11.Padding='compact';
t11.TileSpacing='compact';
nexttile
stem(MW288.Date,MW288.TCE,':','Color','0.85 0.33 0.1','Marker','o',...
    'MarkerEdgeColor','0.85 0.33 0.1','MarkerFaceColor','0.85 0.33 0.1')
axis padded
title('MW-288 TCE (ug/L)')
yline(5,'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
nexttile
stem(MW288.Date,MW288.cDCE,':','Color','0.93 0.69 0.13','Marker','o',...
    'MarkerEdgeColor','0.93 0.69 0.13','MarkerFaceColor','0.93 0.69 0.13')
axis padded
title('MW-288 cDCE (ug/L)')
yline(70,'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','right','Label','MCL',fontsize=8);
```

```
set(gca, "XGrid", "off", "YGrid", "on");
hold
```

```
Current plot held
```

```
nexttile
box
```



14.0 MW-289

Exploratory Data Analysis

Data Summary

```
summary(MW289,DataVariables=["Date","PCE","TCE","cDCE","VC",],Statistics="allstats")
```

```
MW289: 4×5 table

Variables:

    Date: datetime
    PCE: double
    TCE: double
    cDCE: double
    VC: double

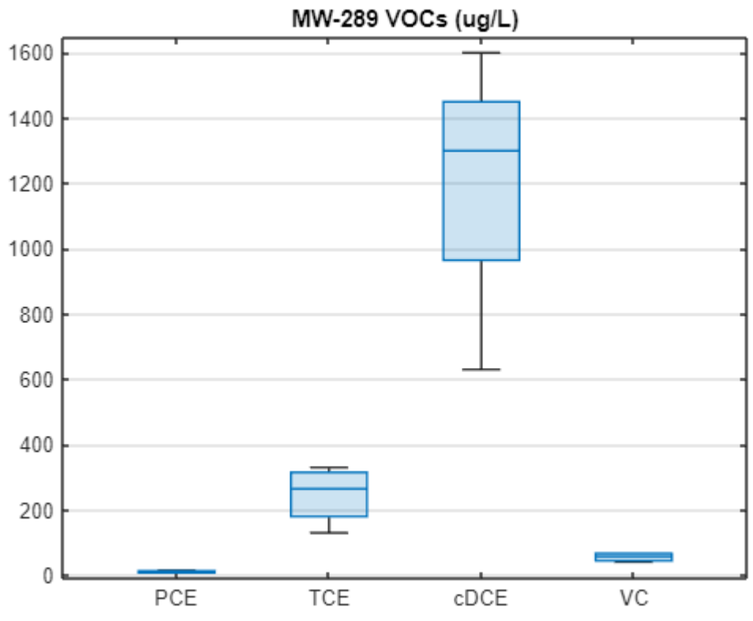
Statistics for applicable variables:
```

	NumMissing	Min	Q1	Median	Q3	Max	Range	Mean	Std	Var	Sum	Mode
Date	0	05-Jan-2022		17-Nov-2022 04:27:30		22-May-2024 13:10:00	20845:10:00	15-Jan-2023 05:31:15	9433:17:51			05-Jan-2
PCE	1	7.6000	7.9500	9	13.5000	15	7.4000	10.5333	3.9311	15.4533	31.6000	7.6
TCE	0	130	180	265	315	330	200	247.5000	88.8351	7.8917e+03	990	
cDCE	0	630	965	1300	1450	1600	970	1.2075e+03	410.1524	168225	4830	1
VC	0	41	44.5000	57.5000	67	67	26	55.7500	13.3010	176.9167	223	

```
format compact
```

Distribution

```
figure
boxchart(MW289array)
set(gca, "XGrid", "off", "YGrid", "on")
xticklabels({'PCE','TCE','cDCE','VC'})
title('MW-289 VOCs (ug/L)')
ylim([-10 1650])
box
```



Linear Correlation

rho	Correlation
-1.0	Perfect negative
0.0	No correlation
1.0	Perfect positive

pvalue	Significance level of 0.05
=<0.05	Statistically significant

```
'Linear Correlation TCE',[rho,pval] = corr(juliandate(MW289.Date),MW289.TCE,Rows="complete")
```

```
ans =
'Linear Correlation TCE'
rho =
-0.7415
pval =
0.2585
```

```
'Linear Correlation cDCE',[rho,pval] = corr(juliandate(MW289.Date),MW289.cDCE,Rows="complete")
```

```
ans =
'Linear Correlation cDCE'
rho =
-0.6021
pval =
0.3979
```

```
'Linear Correlation VC',[rho,pval] = corr(juliandate(MW289.Date),MW289.VC,Rows="complete")
```

```
ans =
'Linear Correlation VC'
rho =
-0.5159
pval =
0.4841
```

Mann-Kendall Trend Tests

```
'Test for Trend TCE', [H, P_value,Z,StdS]=MKwMiss(MW289.TCE,0.05,NaN)
```

```
ans =
'Test for Trend TCE'
H = logical

   0
P_value =
0.3082
Z =
-1.0190
StdS =
2.9439
```

```
"TCE",'One Way Test Trend < 0', pval = cumKendallTest(MW289.TCE,juliandate(MW289.Date),'lt')
```

```
ans =
"TCE"
ans =
'One Way Test Trend < 0'
pval =
-0.1541
```

```
'Test for Trend cDCE', [H, P_value,Z,StdS]=MKwMiss(MW289.cDCE,0.05,NaN)
```

```
ans =
'Test for Trend cDCE'
H = logical

   0
P_value =
1
Z =
0
StdS =
2.7689
```

```
"cDCE",'One Way Test Trend < 0', pval = cumKendallTest(MW289.cDCE,juliandate(MW289.Date),'lt')
```

```
ans =
"cDCE"
ans =
'One Way Test Trend > 0'
pval =
-0.5000
```

```
'Test for Trend VC', [H, P_value,Z,StdS]=MKwMiss(MW289.VC,0.05,NaN)
```

```
ans =
'Test for Trend VC'
H = logical

   0
P_value =
0.4701
Z =
-0.7223
StdS =
2.7689
```

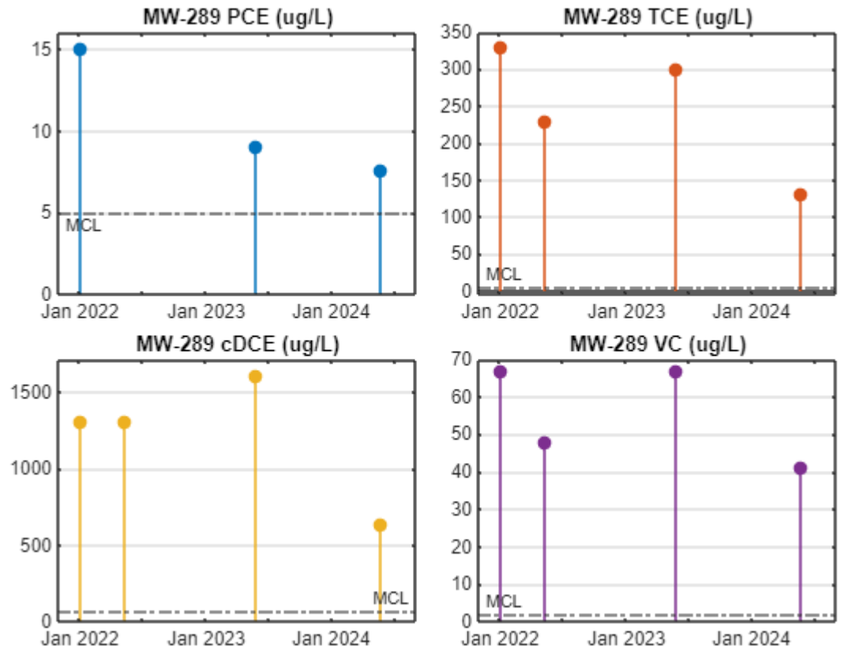
```
"VC",'One Way Test Trend < 0', pval = cumKendallTest(MW289.VC,juliandate(MW289.Date),'lt')
```

```
ans =
"VC"
ans =
'One Way Test Trend < 0'
pval =
-0.2351
```

MW-289 Time Series Data Plots

```
figure
t12=tiledlayout('flow');
t12.Padding='compact';
t12.TileSpacing='compact';
nexttile
```

```
stem(MW289.Date,MW289.PCE,'-','Color','0 0.45 0.74','Marker','o',...
    'MarkerEdgeColor','0 0.45 0.74','MarkerFaceColor','0 0.45 0.74')
axis padded
title('MW-289 PCE (ug/L)')
yline(5,'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
nexttile
stem(MW289.Date,MW289.TCE,'-','Color','0.85 0.33 0.1','Marker','o',...
    'MarkerEdgeColor','0.85 0.33 0.1','MarkerFaceColor','0.85 0.33 0.1')
axis padded
ylim([-5 350])
title('MW-289 TCE (ug/L)')
yline(5,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
nexttile
stem(MW289.Date,MW289.cDCE,'-','Color','0.93 0.69 0.13','Marker','o',...
    'MarkerEdgeColor','0.93 0.69 0.13','MarkerFaceColor','0.93 0.69 0.13')
axis padded
title('MW-289 cDCE (ug/L)')
yline(70,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','right','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
nexttile
stem(MW289.Date,MW289.VC,'-','Color','0.49 0.18 0.56','Marker','o',...
    'MarkerEdgeColor','0.49 0.18 0.56','MarkerFaceColor','0.49 0.18 0.56')
axis padded
title('MW-289 VC (ug/L)')
yline(2,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
```



15.0 MW-157

Exploratory Data Analysis

Data Summary

```
summary(MW157,DataVariables=["Date","PCE","TCE","cDCE","VC"],Statistics="allstats")
```

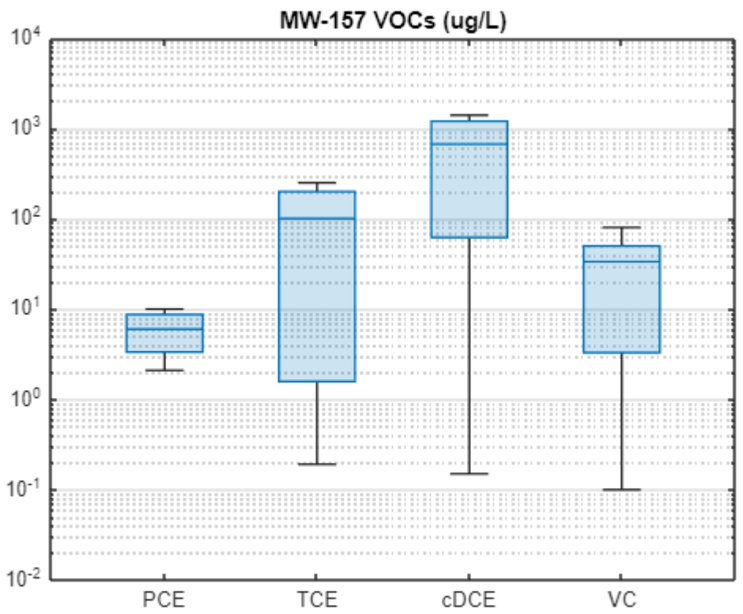
```
MW157: 10×5 table
Variables:
    Date: datetime
    PCE: double
    TCE: double
    cDCE: double
    VC: double
Statistics for applicable variables:
           NumMissing          Min              Q1              Median              Q3                  Max                 Range              Mean              Std              Var              Sum              Mod
    Date        0      24-Mar-2015                    13-Feb-2020 23:33:00                 22-May-2024 11:25:00    80339:25:00    16-Dec-2019 10:29:36    27443:38:50                                                  24-Mar
    PCE         6           2.1000          3.3500                   6          8.7000                    10          7.9000            6.0250           3.4219           11.7092          24.1000           2
    TCE         0           0.1910          1.5800            100.5000           200                     250          249.8090          107.3070         102.0107         1.0406e+04       1.0731e+03        0
    cDCE        0           0.1500              62                 670          1200                    1400       1.3998e+03           643.4150         554.3324         3.0728e+05       6.4341e+03
    VC          0           0.1000          3.3000             33.5000            50                      80          79.9000            31.9133          28.3835          805.6248         319.1330
```

```
format compact
```

Distribution

```
figure
```

```
boxchart(MW157array)
set(gca, "XGrid", "off", "YGrid", "on")
xticklabels({'PCE','TCE','cDCE','VC'})
yscale('log')
ylim([0.01 10000])
title('MW-157 VOCs (ug/L)')
box
```



Normal Distribution Tests

```
'TCE',[h,p,kstat,critval] = lillietest(MW157.TCE,"MCTol",1E+04)
```

```
ans =
'TCE'
h =
0
p =
0.2500
kstat =
0.2095
critval =
0.2610
```

```
'cDCE', [h,p,kstat,critval] = lillietest(MW157.cDCE,"MCTol",1E+04),
```

```
ans =
'cDCE'
h =
0
p =
```

```
0.4460
kstat =
0.1847
critval =
0.2607
```

```
'VC', [h,p,kstat,critval] = lillietest(MW157.VC,"MCTol",1E+04),
```

```
ans =
'VC'
h =
0
p =
0.3570
kstat =
0.1923
critval =
0.2676
```

Outlier Testing

```
'TCE Outliers',isoutlier(MW157.TCE,"quartiles")',...
'cDCE Outliers',isoutlier(MW157.cDCE,"quartiles")',...
'VC',isoutlier(MW157.VC,"quartiles")',
```

```
ans =
'TCE Outliers'
ans = 1×10 logical array
   0   0   0   0   0   0   0   0   0   0
ans =
'cDCE Outliers'
ans = 1×10 logical array
   0   0   0   0   0   0   0   0   0   0
ans =
'VC'
ans = 1×10 logical array
   0   0   0   0   0   0   0   0   0   0
```

Coefficient of Variation

Coefficient of variation (CV) of a time series data set is the ratio of standard deviation and mean. CV provides a measure of variability of time series data.

Coefficient of Variation	Variance
<0.50	Low
0.5 to 1.0	Moderate
>1.0	High

```
CVMW157TCE=std(MW157.TCE,'omitmissing')/mean(MW157.TCE,'omitmissing'),...
CVMW157cDCE=std(MW157.cDCE,'omitmissing')/mean(MW157.cDCE,'omitmissing'),...
CVMW157VC=std(MW157.VC,'omitmissing')/mean(MW157.VC,'omitmissing'),
```

```
CVMW157TCE =
0.9506
CVMW157cDCE =
```

```
0.8615
CVMW157VC =
0.8894
```

Linear Correlation

rho	Correlation
-1.0	Perfect negative
0.0	No correlation
1.0	Perfect positive

pvalue	Significance level of 0.05
=<0.05	Statistically significant

```
'Linear Correlation TCE',[rho,pval] = corr(juliandate(MW157.Date),MW157.TCE,Rows="complete")
```

```
ans =
'Linear Correlation TCE'
rho =
0.9474
pval =
3.1474e-05
```

```
'Linear Correlation cDCE',[rho,pval] = corr(juliandate(MW157.Date),MW157.cDCE,Rows="complete")
```

```
ans =
'Linear Correlation cDCE'
rho =
0.9686
pval =
4.1113e-06
```

```
'Linear Correlation VC',[rho,pval] = corr(juliandate(MW157.Date),MW157.VC,Rows="complete")
```

```
ans =
'Linear Correlation VC'
rho =
0.9780
pval =
1.0015e-06
```

Mann-Kendall Trend Tests

```
'Test for Trend TCE', [H, P_value,Z,StdS]=MKwMiss(MW157.TCE,0.05,NaN)
```

```
ans =
'Test for Trend TCE'
H = logical

   1
P_value =
```

```
3.4662e-04
Z =
3.5777
StdS =
11.1803
```

```
"TCE",'One Way Test Trend > 0', pval = cumKendallTest(MW157.TCE,juliandate(MW157.Date),'gt')
```

```
ans =
"TCE"
ans =
'One Way Test Trend > 0'
pval =
1.7331e-04
```

```
'Test for Trend cDCE', [H, P_value,Z,StdS]=MKwMiss(MW157.cDCE,0.05,NaN)
```

```
ans =
'Test for Trend cDCE'
H = logical

   1
P_value =
2.3149e-04
Z =
3.6819
StdS =
11.1355
```

```
"cDCE",'One Way Test Trend > 0', pval = cumKendallTest(MW157.cDCE,juliandate(MW157.Date),'gt')
```

```
ans =
"cDCE"
ans =
'One Way Test Trend > 0'
pval =
1.1575e-04
```

```
'Test for Trend VC', [H, P_value,Z,StdS]=MKwMiss(MW157.VC,0.05,NaN)
```

```
ans =
'Test for Trend VC'
H = logical

   1
P_value =
1.1269e-04
Z =
3.8615
StdS =
11.1355
```

```
"VC",'One Way Test Trend > 0', pval = cumKendallTest(MW157.VC,juliandate(MW157.Date),'gt')
```

```
ans =
"VC"
ans =
'One Way Test Trend > 0'
pval =
```

```
5.6343e-05
```

SSA Trend Analysis

```
% Decompose data into long-term trend, seasonal trends, and remainder
MW157SSA = trenddecomp(MW157(:,["TCE","cDCE","VC"]),"ssa",5,"NumSeasonal",1);
```

MW-157 Time Series Data Plots

```
figure
t13=tiledlayout('flow');
t13.Padding='compact';
t13.TileSpacing='compact';
nexttile
stem(MW157.Date,MW157.PCE,'-','Color','0 0.45 0.74','Marker','o',...
    'MarkerEdgeColor','0 0.45 0.74','MarkerFaceColor','0 0.45 0.74')
axis padded
title('MW-157 PCE (ug/L)')
xline(datetime(2015,07,15),'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','right','Label','ISB Inj',fontsize=8)
yline(5,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','center','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
nexttile
plot(MW157.Date,MW157.TCE,':','Color','0.85 0.33 0.1','Marker','o',...
    'MarkerEdgeColor','0.85 0.33 0.1','MarkerFaceColor','0.85 0.33 0.1')
axis padded
title('MW-157 TCE (ug/L)')
xline(datetime(2015,07,15),'-.','LabelVerticalAlignment','middle',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
yline(5,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','right','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
hold
```

```
Current plot held
```

```
plot(MW157.Date,MW157SSA.TCE_LongTerm,'-.','Color','magenta');
legend('','','','LT Trend',Location='north',EdgeColor='none',Color='none')
nexttile
plot(MW157.Date,MW157.cDCE,':','Color','0.93 0.69 0.13','Marker','o',...
    'MarkerEdgeColor','0.93 0.69 0.13','MarkerFaceColor','0.93 0.69 0.13')
axis padded
title('MW-157 cDCE (ug/L)')
xline(datetime(2015,07,15),'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
yline(70,'-.','LabelVerticalAlignment','top',...
```

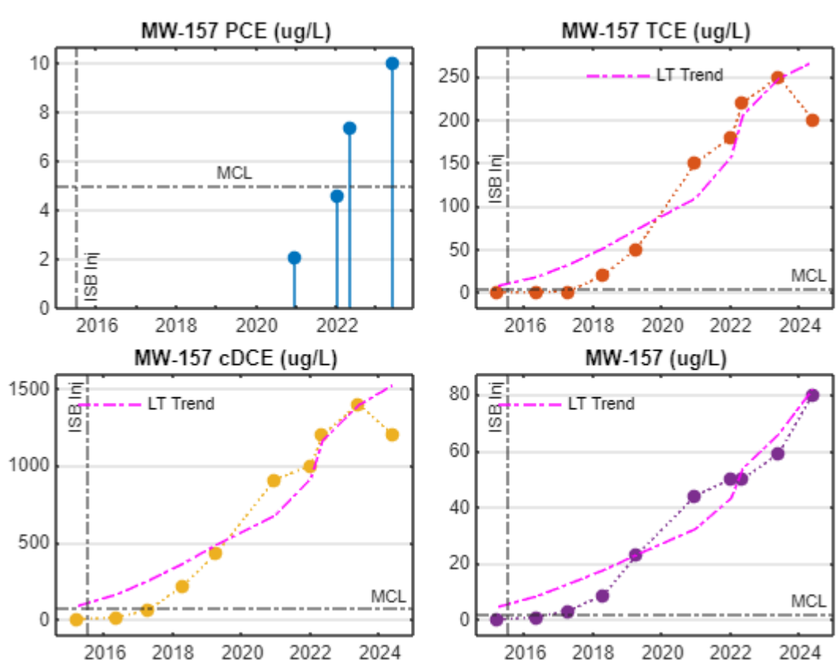
```
    'LabelHorizontalAlignment','right','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
hold
```

```
Current plot held
```

```
plot(MW157.Date,MW157SSA.cDCE_LongTerm,'-.','Color','magenta');
legend('','','','LT Trend',Location='northwest',EdgeColor='none',Color='none')
nexttile
plot(MW157.Date,MW157.VC,':','Color','0.49 0.18 0.56','Marker','o',...
    'MarkerEdgeColor','0.49 0.18 0.56','MarkerFaceColor','0.49 0.18 0.56')
axis padded
title('MW-157 (ug/L)')
xline(datetime(2015,07,15),'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
yline(2,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','right','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
hold
```

```
Current plot held
```

```
plot(MW157.Date,MW157SSA.VC_LongTerm,'-.','Color','magenta');
legend('','','','LT Trend',Location='northwest',EdgeColor='none',Color='none')
```



15.0 MW-291

Exploratory Data Analysis

Data Summary

```
summary(MW291,DataVariables=["Date","PCE","TCE","cDCE","VC",],Statistics="allstats")
```

```
MW291: 4×5 table
Variables:
    Date: datetime
    PCE: double
    TCE: double
    cDCE: double
    VC: double
Statistics for applicable variables:
          NumMissing          Min              Q1              Median              Q3              Max                Range          Mean                Std              Var          Sum          Mode
    Date          0    05-Jan-2022                  17-Nov-2022 05:10:00                  22-May-2024 10:02:00    20842:02:00    15-Jan-2023 05:05:30    9432:08:39                                                05-Jan-2022
    PCE           4          NaN             NaN                     NaN             NaN                     NaN            NaN                NaN             NaN              NaN            0           NaN
    TCE           0           89         94.5000                     110             135                     150             61           114.7500         26.7753         716.9167          459            89
    cDCE          0         1100            1150                    1250            1300                    1300            200             1225         95.7427        9.1667e+03         4900          1300
    VC            0           79         83.5000                     119             200                     250            171           141.7500         78.7671        6.2042e+03          567            79
```

```
format compact
```

Linear Correlation

rho	Correlation
-1.0	Perfect negative
0.0	No correlation
1.0	Perfect positive

pvalue	Significance level of 0.05
=<0.05	Statistically significant

```
'Linear Correlation TCE',[rho,pval] = corr(juliandate(MW291.Date),MW291.TCE,Rows="complete")
```

```
ans =
'Linear Correlation TCE'
rho =
-0.7979
pval =
0.2021
```

```
'Linear Correlation cDCE',[rho,pval] = corr(juliandate(MW291.Date),MW291.cDCE,Rows="complete")
```

```
ans =
'Linear Correlation cDCE'
rho =
0.7739
pval =
0.2261
```

```
'Linear Correlation VC',[rho,pval] = corr(juliandate(MW291.Date),MW291.VC,Rows="complete")
```

```
ans =
'Linear Correlation VC'
rho =
0.9721
pval =
0.0279
```

Mann-Kendall Trend Tests

```
'Test for Trend TCE', [H, P_value,Z,StdS]=MKwMiss(MW291.TCE,0.05,NaN)
```

```
ans =
'Test for Trend TCE'
H = logical

   0
P_value =
0.3082
Z =
-1.0190
StdS =
2.9439
```

```
"TCE",'One Way Test Trend < 0', pval = cumKendallTest(MW291.TCE,juliandate(MW291.Date),'lt')
```

```
ans =
"TCE"
ans =
'One Way Test Trend < 0'
pval =
-0.1541
```

```
'Test for Trend cDCE', [H, P_value,Z,StdS]=MKwMiss(MW291.cDCE,0.05,NaN)
```

```
ans =
'Test for Trend cDCE'
H = logical

   0
P_value =
0.4701
Z =
0.7223
StdS =
2.7689
```

```
"cDCE",'One Way Test Trend > 0', pval = cumKendallTest(MW291.cDCE,juliandate(MW291.Date),'gt')
```

```
ans =
"cDCE"
ans =
'One Way Test Trend > 0'
pval =
0.2351
```

```
'Test for Trend VC', [H, P_value,Z,StdS]=MKwMiss(MW291.VC,0.05,NaN)
```

```
ans =
'Test for Trend VC'
H = logical

   0
P_value =
0.3082
Z =
1.0190
StdS =
2.9439
```

```
"VC",'One Way Test Trend > 0', pval = cumKendallTest(MW291.VC,juliandate(MW291.Date),'gt')
```

```
ans =
"VC"
ans =
'One Way Test Trend > 0'
pval =
0.1541
```

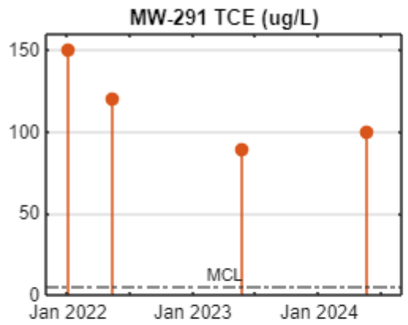
MW-291 Time Series Data Plots

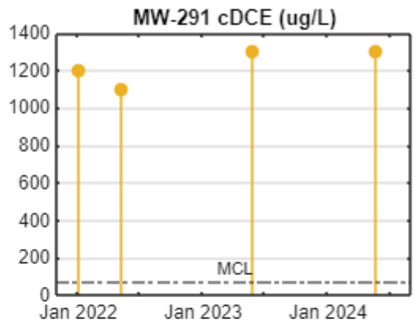
```
figure
t13=tiledlayout('flow');
t13.Padding='compact';
t13.TileSpacing='compact';
nexttile
stem(MW291.Date,MW291.TCE,'-','Color','0.85 0.33 0.1','Marker','o',...
    'MarkerEdgeColor','0.85 0.33 0.1','MarkerFaceColor','0.85 0.33 0.1')
axis padded
title('MW-291 TCE (ug/L)')
yline(5,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','center','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
hold
```

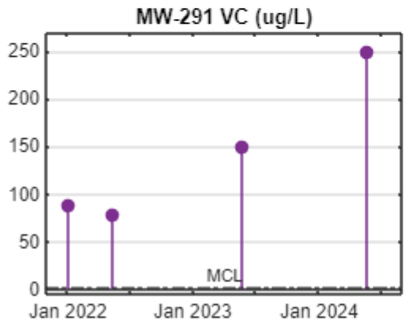
```
Current plot held
```

```
nexttile
stem(MW291.Date,MW291.cDCE,'-','Color','0.93 0.69 0.13','Marker','o',...
    'MarkerEdgeColor','0.93 0.69 0.13','MarkerFaceColor','0.93 0.69 0.13')
axis padded
title('MW-291 cDCE (ug/L)')
yline(70,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','center','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
nexttile
stem(MW291.Date,MW291.VC,'-','Color','0.49 0.18 0.56','Marker','o',...
    'MarkerEdgeColor','0.49 0.18 0.56','MarkerFaceColor','0.49 0.18 0.56')
axis padded
```

```
ylim([-5 270])
title('MW-291 VC (ug/L)')
yline(2,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','center','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
```







16.0 MW-290

Exploratory Data Analysis

Data Summary

```
summary(MW290,DataVariables=["Date","PCE","TCE","cDCE","VC",],Statistics="allstats")
```

```
MW290: 4×5 table
Variables:
    Date: datetime
    PCE: double
    TCE: double
    cDCE: double
    VC: double
Statistics for applicable variables:
          NumMissing          Min              Q1              Median              Q3              Max              Range              Mean              Std              Var              Sum              Mode
    Date          0    16-Dec-2021                  12-Nov-2022 07:21:00                  21-May-2024 12:00:00    21300:00:00    07-Jan-2023 12:40:30    9604:21:00                                                    16-Dec-2
    PCE           3          7.8000          7.8000           7.8000          7.8000           7.8000                0          7.8000                0                0          7.8000           7.8
    TCE           0          3.3000          5.2000          28.5500         62.5000               75          71.7000         33.8500          34.6555       1.2010e+03        135.4000           3.3
    cDCE          0              82             106              295             570              680              598              338          283.2243            80216             1352
    VC            0          5.9000          7.1000          19.6500         36.5000               42          36.1000         21.8000          17.5854         309.2467          87.2000           5.9
```

```
format compact
```

Linear Correlation

rho	Correlation
-1.0	Perfect negative
0.0	No correlation
1.0	Perfect positive

pvalue	Significance level of 0.05
=<0.05	Statistically significant

```
'Linear Correlation TCE',[rho,pval] = corr(juliandate(MW290.Date),MW290.TCE,Rows="complete")
```

```
ans =
'Linear Correlation TCE'
rho =
0.9917
pval =
0.0083
```

```
'Linear Correlation cDCE',[rho,pval] = corr(juliandate(MW290.Date),MW290.cDCE,Rows="complete")
```

```
ans =
'Linear Correlation cDCE'
rho =
0.9955
pval =
0.0045
```

```
'Linear Correlation VC',[rho,pval] = corr(juliandate(MW290.Date),MW290.VC,Rows="complete")
```

```
ans =
'Linear Correlation VC'
rho =
0.9885
pval =
0.0115
```

Mann-Kendall Trend Tests

```
'Test for Trend TCE', [H, P_value,Z,StdS]=MKwMiss(MW290.TCE,0.05,NaN)
```

```
ans =
'Test for Trend TCE'
H = logical

   0
P_value =
0.0894
Z =
```

```
1.6984
StdS =
2.9439
```

```
"TCE",'One Way Test Trend > 0', pval = cumKendallTest(MW290.TCE,juliandate(MW290.Date),'gt')
```

```
ans =
"TCE"
ans =
'One Way Test Trend > 0'
pval =
0.0447
```

```
'Test for Trend cDCE', [H, P_value,Z,StdS]=MKwMiss(MW290.cDCE,0.05,NaN)
```

```
ans =
'Test for Trend cDCE'
H = logical

   0
P_value =
0.0894
Z =
1.6984
StdS =
2.9439
```

```
"cDCE",'One Way Test Trend > 0', pval = cumKendallTest(MW290.cDCE,juliandate(MW290.Date),'gt')
```

```
ans =
"cDCE"
ans =
'One Way Test Trend > 0'
pval =
0.0447
```

```
'Test for Trend VC', [H, P_value,Z,StdS]=MKwMiss(MW290.VC,0.05,NaN)
```

```
ans =
'Test for Trend VC'
H = logical

   0
P_value =
0.0894
Z =
1.6984
StdS =
2.9439
```

```
"VC",'One Way Test Trend > 0', pval = cumKendallTest(MW290.VC,juliandate(MW290.Date),'gt')
```

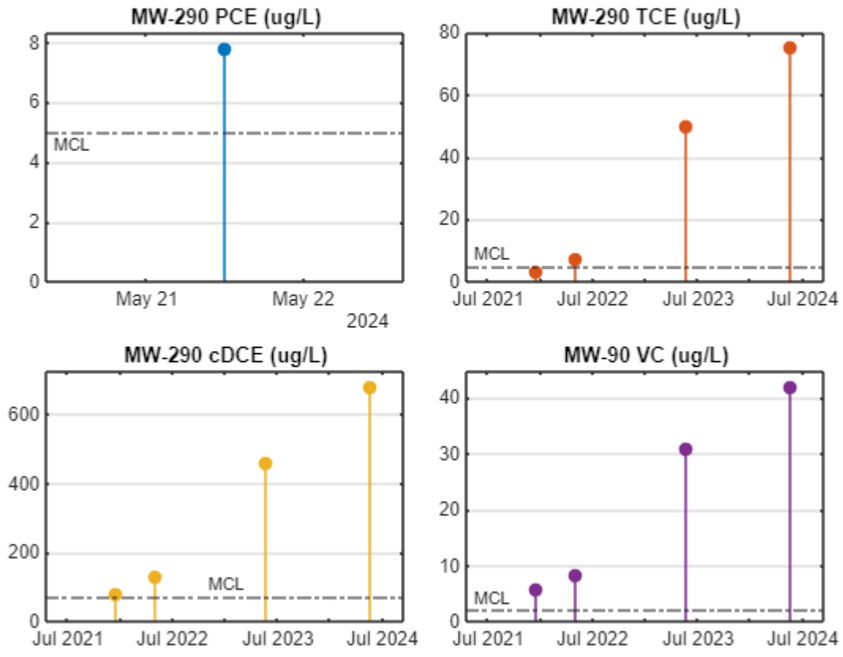
```
ans =
"VC"
ans =
'One Way Test Trend > 0'
pval =
0.0447
```

MW-290 Time Series Data Plots

```
figure
t13=tiledlayout('flow');
t13.Padding='compact';
t13.TileSpacing='compact';
nexttile
stem(MW290.Date,MW290.PCE,'-','Color','0 0.45 0.74','Marker','o',...
    'MarkerEdgeColor','0 0.45 0.74','MarkerFaceColor','0 0.45 0.74')
axis padded
title('MW-290 PCE (ug/L)')
yline(5,'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
nexttile
stem(MW290.Date,MW290.TCE,'-','Color','0.85 0.33 0.1','Marker','o',...
    'MarkerEdgeColor','0.85 0.33 0.1','MarkerFaceColor','0.85 0.33 0.1')
axis padded
title('MW-290 TCE (ug/L)')
yline(5,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
hold
```

```
Current plot held
```

```
nexttile
stem(MW290.Date,MW290.cDCE,'-','Color','0.93 0.69 0.13','Marker','o',...
    'MarkerEdgeColor','0.93 0.69 0.13','MarkerFaceColor','0.93 0.69 0.13')
axis padded
title('MW-290 cDCE (ug/L)')
yline(70,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','center','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
nexttile
stem(MW290.Date,MW290.VC,'-','Color','0.49 0.18 0.56','Marker','o',...
    'MarkerEdgeColor','0.49 0.18 0.56','MarkerFaceColor','0.49 0.18 0.56')
axis padded
title('MW-90 VC (ug/L)')
yline(2,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
```



17.0 MW-292

Exploratory Data Analysis

Data Summary

```
summary(MW292,DataVariables=["Date","PCE","TCE","cDCE","VC",],Statistics="allstats")
```

```
MW292: 4×5 table
Variables:
    Date: datetime
    PCE: double
    TCE: double
    cDCE: double
    VC: double
Statistics for applicable variables:
          NumMissing          Min              Q1              Median              Q3              Max              Range              Mean              Std              Var              Sum              Mode
    Date          0    17-Dec-2021                 12-Nov-2022 16:40:00                 20-May-2024 14:15:00    21254:15:00    07-Jan-2023 17:53:45    9589:40:06                                                 17-Dec-2021
    PCE           4          NaN             NaN                     NaN             NaN                  NaN             NaN                NaN              NaN              NaN                0              NaN
    TCE           0       1.4000          2.1500                  6.9500         13.5000                   16         14.6000             7.8250           6.8908          47.4825          31.3000           1.4000
    cDCE          0           43              63                111.5000             140                  140              97           101.5000          47.3603             2243              406              140
    VC            0       3.2000          4.5000                  8.4000         14.5000                   18         14.8000             9.5000           6.5289          42.6267               38           3.2000
```

```
format compact
```

Linear Correlation

rho	Correlation
-1.0	Perfect negative
0.0	No correlation
1.0	Perfect positive

pvalue	Significance level of 0.05
=<0.05	Statistically significant

```
'Linear Correlation TCE',[rho,pval] = corr(juliandate(MW292.Date),MW292.TCE,Rows="complete")
```

```
ans =
'Linear Correlation TCE'
rho =
0.9954
pval =
0.0046
```

```
'Linear Correlation cDCE',[rho,pval] = corr(juliandate(MW292.Date),MW292.cDCE,Rows="complete")
```

```
ans =
'Linear Correlation cDCE'
rho =
0.9105
pval =
0.0895
```

```
'Linear Correlation VC',[rho,pval] = corr(juliandate(MW292.Date),MW292.VC,Rows="complete")
```

```
ans =
'Linear Correlation VC'
rho =
0.9969
pval =
0.0031
```

Mann-Kendall Trend Tests

```
'Test for Trend TCE', [H, P_value,Z,StdS]=MKwMiss(MW292.TCE,0.05,NaN)
```

```
ans =
'Test for Trend TCE'
H = logical

   0
P_value =
0.0894
Z =
1.6984
StdS =
2.9439
```

```
"TCE",'One Way Test Trend < 0', pval = cumKendallTest(MW292.TCE,juliandate(MW292.Date),'gt')
```

```
ans =
"TCE"
ans =
'One Way Test Trend < 0'
pval =
0.0447
```

```
'Test for Trend cDCE', [H, P_value,Z,StdS]=MKwMiss(MW292.cDCE,0.05,NaN)
```

```
ans =
'Test for Trend cDCE'
H = logical

   0
P_value =
0.1486
Z =
1.4446
StdS =
2.7689
```

```
"cDCE",'One Way Test Trend > 0', pval = cumKendallTest(MW292.cDCE,juliandate(MW292.Date),'gt')
```

```
ans =
"cDCE"
ans =
'One Way Test Trend > 0'
pval =
0.0743
```

```
'Test for Trend VC', [H, P_value,Z,StdS]=MKwMiss(MW292.VC,0.05,NaN)
```

```
ans =
'Test for Trend VC'
H = logical

   0
P_value =
0.0894
Z =
1.6984
StdS =
2.9439
```

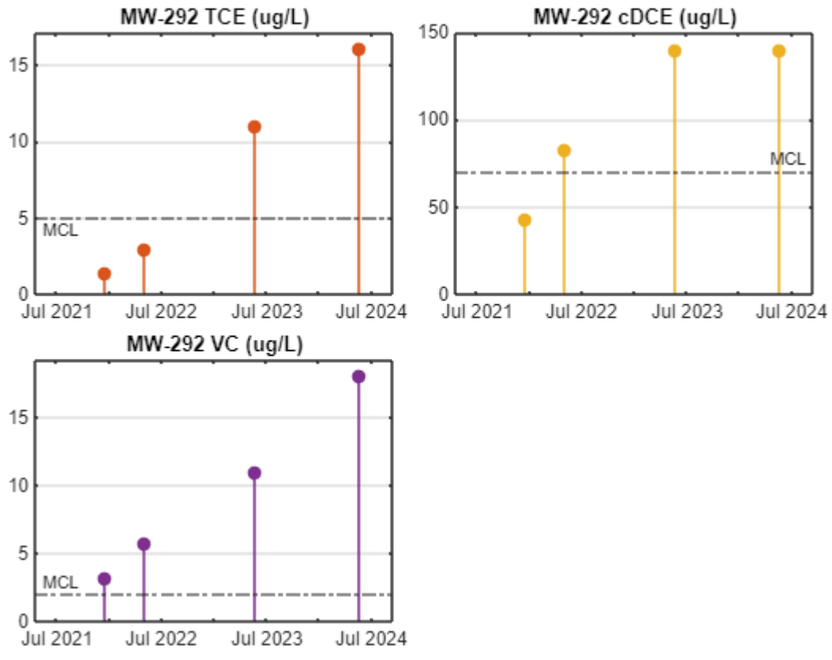
```
"VC",'One Way Test Trend > 0', pval = cumKendallTest(MW292.VC,juliandate(MW292.Date),'gt')
```

```
ans =
"VC"
ans =
'One Way Test Trend > 0'
pval =
0.0447
```

MW-292 Time Series Data Plots

```
figure
```

```
t14=tiledlayout('flow');
t14.Padding='compact';
t14.TileSpacing='compact';
nexttile
stem(MW292.Date,MW292.TCE,'-','Color','0.85 0.33 0.1','Marker','o',...
    'MarkerEdgeColor','0.85 0.33 0.1','MarkerFaceColor','0.85 0.33 0.1')
axis padded
title('MW-292 TCE (ug/L)')
yline(5,'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
nexttile
stem(MW292.Date,MW292.cDCE,'-','Color','0.93 0.69 0.13','Marker','o',...
    'MarkerEdgeColor','0.93 0.69 0.13','MarkerFaceColor','0.93 0.69 0.13')
axis padded
title('MW-292 cDCE (ug/L)')
yline(70,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','right','Label','MCL',fontsize=8);
ylim([0 150])
set(gca, "XGrid", "off", "YGrid", "on");
nexttile
stem(MW292.Date,MW292.VC,'-','Color','0.49 0.18 0.56','Marker','o',...
    'MarkerEdgeColor','0.49 0.18 0.56','MarkerFaceColor','0.49 0.18 0.56')
axis padded
title('MW-292 VC (ug/L)')
yline(2,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
```



18.0 MW-145

Exploratory Data Analysis

Data Summary

```
summary(MW145,DataVariables=["Date","PCE","TCE","cDCE","VC"],Statistics="allstats")
```

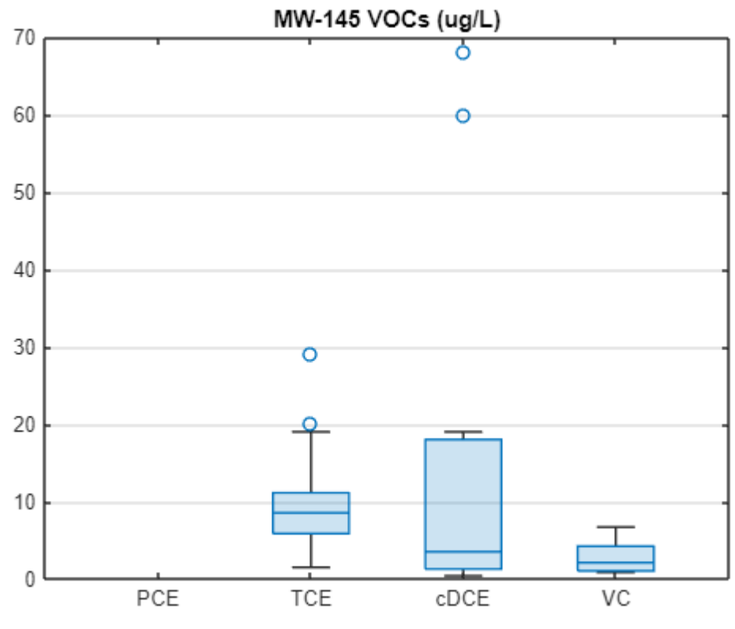
```
MW145: 15×5 table
Variables:
    Date: datetime
    PCE: double
    TCE: double
    cDCE: double
    VC: double
Statistics for applicable variables:
          NumMissing          Min              Q1              Median              Q3              Max              Range              Mean              Std              Var              Sum              Mode
    Date          0    15-Feb-2010                  19-Apr-2017 03:55:00                  20-May-2024 12:35:00    125004:35:00    08-May-2017 11:16:16    40673:06:55                                                    15-Feb-2
    PCE          15          NaN             NaN                     NaN             NaN                     NaN             NaN               NaN              NaN              NaN                0
    TCE           0       1.5000          5.8525                  8.5300         11.1250                      29         27.5000            9.8973           7.4731          55.8477          148.4600          1.5
    cDCE          0       0.4040          1.2775                  3.5000              18                      68         67.5960           13.9269          21.3697          456.6631          208.9040          1.1
    VC           10       0.8600          1.0400                  2.1000          4.2250                  6.7000          5.8400            2.8320           2.3827           5.6771           14.1600          0.8
```

```
format compact
```

Distribution

```
figure
```

```
boxchart(MW145array)
set(gca, "XGrid", "off", "YGrid", "on")
xticklabels({'PCE','TCE','cDCE','VC'})
title('MW-145 VOCs (ug/L)')
box
```



Normal Distribution Tests

```
'TCE',[h,p,kstat,critval] = lillietest(MW145.TCE,"MCTol",1E+04)
```

```
ans =
'TCE'
h =
1
p =
0.0320
kstat =
0.2279
critval =
0.2184
```

```
'cDCE', [h,p,kstat,critval] = lillietest(MW145.cDCE,"MCTol",1E+04),
```

```
ans =
'cDCE'
h =
1
p =
0.0080
kstat =
```

```
0.2728
critval =
0.2165
```

```
'VC', [h,p,kstat,critval] = lillietest(MW145.VC,"MCTol",1E+04),
```

```
ans =
'VC'
h =
0
p =
0.5890
kstat =
0.2207
critval =
0.3400
```

Outlier Testing

```
'TCE Outliers',isoutlier(MW157.TCE,"quartiles")',...
'cDCE Outliers',isoutlier(MW157.cDCE,"quartiles")',...
'VC',isoutlier(MW157.VC,"quartiles")',
```

```
ans =
'TCE Outliers'
ans = 1×10 logical array
   0   0   0   0   0   0   0   0   0   0
ans =
'cDCE Outliers'
ans = 1×10 logical array
   0   0   0   0   0   0   0   0   0   0
ans =
'VC'
ans = 1×10 logical array
   0   0   0   0   0   0   0   0   0   0
```

Coefficient of Variation

Coefficient of variation (CV) of a time series data set is the ratio of standard deviation and mean. CV provides a measure of variability of time series data.

Coefficient of Variation	Variance
<0.50	Low
0.5 to 1.0	Moderate
>1.0	High

```
CVMW145TCE=std(MW145.TCE,'omitmissing')/mean(MW145.TCE,'omitmissing'),...
CVMW145cDCE=std(MW145.cDCE,'omitmissing')/mean(MW145.cDCE,'omitmissing'),...
CVMW145VC=std(MW145.VC,'omitmissing')/mean(MW145.VC,'omitmissing'),
```

```
CVMW145TCE =
0.7551
CVMW145cDCE =
1.5344
CVMW145VC =
```

```
0.8413
```

Linear Correlation

rho	Correlation
-1.0	Perfect negative
0.0	No correlation
1.0	Perfect positive

pvalue	Significance level of 0.05
=<0.05	Statistically significant

```
'Linear Correlation TCE',[rho,pval] = corr(juliandate(MW145.Date),MW145.TCE,Rows="complete")
```

```
ans =
'Linear Correlation TCE'
rho =
0.2754
pval =
0.3204
```

```
'Linear Correlation cDCE',[rho,pval] = corr(juliandate(MW145.Date),MW145.cDCE,Rows="complete")
```

```
ans =
'Linear Correlation cDCE'
rho =
0.7536
pval =
0.0012
```

```
'Linear Correlation VC',[rho,pval] = corr(juliandate(MW145.Date),MW145.VC,Rows="complete")
```

```
ans =
'Linear Correlation VC'
rho =
0.8258
pval =
0.0849
```

Mann-Kendall Trend Tests

```
'Test for Trend TCE', [H, P_value,Z,StdS]=MKwMiss(MW145.TCE,0.05,NaN)
```

```
ans =
'Test for Trend TCE'
H = logical

   0
P_value =
0.9212
Z =
```

```
0.0990
StdS =
20.2073
```

```
"TCE",'One Way Test Trend > 0', pval = cumKendallTest(MW145.TCE,juliandate(MW145.Date),'gt')
```

```
ans =
"TCE"
ans =
'One Way Test Trend > 0'
pval =
0.4606
```

```
'Test for Trend cDCE', [H, P_value,Z,StdS]=MKwMiss(MW145.cDCE,0.05,NaN)
```

```
ans =
'Test for Trend cDCE'
H = logical

   1
P_value =
3.0845e-05
Z =
4.1671
StdS =
20.1577
```

```
"cDCE",'One Way Test Trend > 0', pval = cumKendallTest(MW145.cDCE,juliandate(MW145.Date),'gt')
```

```
ans =
"cDCE"
ans =
'One Way Test Trend > 0'
pval =
1.5422e-05
```

```
'Test for Trend VC', [H, P_value,Z,StdS]=MKwMiss(MW145.VC,0.05,NaN)
```

```
ans =
'Test for Trend VC'
H = logical

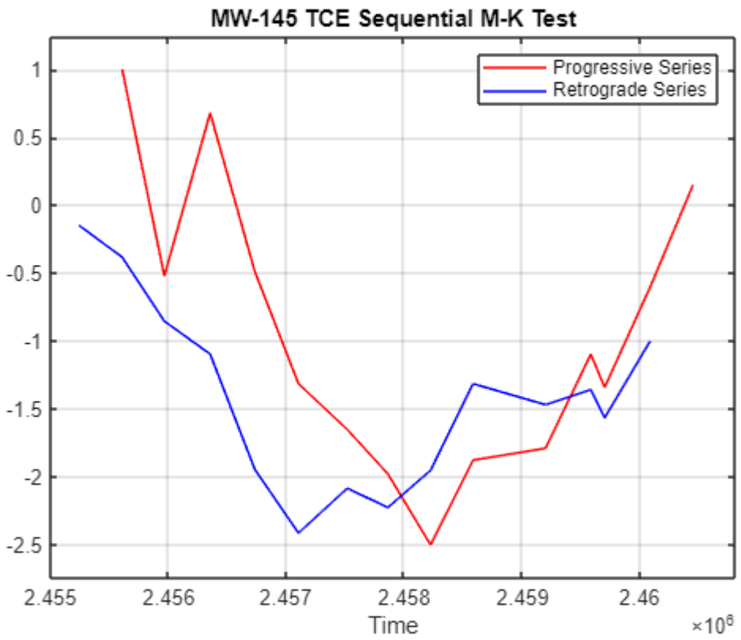
   1
P_value =
0.0275
Z =
2.2045
StdS =
4.0825
```

```
"VC",'One Way Test Trend > 0', pval = cumKendallTest(MW145.VC,juliandate(MW145.Date),'gt')
```

```
ans =
"VC"
ans =
'One Way Test Trend > 0'
pval =
0.0137
```

Sequential Mann Kendall Test MW-145 TCE

```
[MW145TCEsqmk]=seqMK([juliandate(MW145.Date) MW145.TCE]);
axis padded
title('MW-145 TCE Sequential M-K Test')
```




```
MW145TCEsqmk = array2table(MW145TCEsqmk,...
    'VariableNames',{'Prog','Regr','Turn Pt'})
```

MW145TCEsqmk = 15×3 table

	Prog	Regr	Turn Pt
1	NaN	-0.1485	0
2	1	-0.3832	0
3	-0.5222	-0.8541	0
4	0.6794	-1.0972	0
5	-0.4899	-1.9462	0
6	-1.3151	-2.4150	0
7	-1.6521	-2.0851	0
8	-1.9795	-2.2269	0
9	-2.5022	-1.9524	1
10	-1.8783	-1.3151	0
11	-1.7905	-1.4697	0

	Prog	Regr	Turn Pt
12	-1.0972	-1.3587	1
13	-1.3422	-1.5667	0
14	-0.6022	-1	0

⋮

Sequential M-K test result for MW-145

- Trend change point from decreasing trend to increasing trend detected in 2022.

```
% Decompose data into long-term trend, seasonal trends, and remainder
MW145SSA = trenddecomp(MW145(:,["TCE","cDCE"]),"ssa",7,"NumSeasonal",1);
```

MW-145 Time Series Data Plots

```
figure
t15=tiledlayout('flow');
t15.Padding='compact';
t15.TileSpacing='compact';
nexttile
plot(MW145.Date,MW145.TCE,':','Color','0.85 0.33 0.1','Marker','o',...
    'MarkerEdgeColor','0.85 0.33 0.1','MarkerFaceColor','0.85 0.33 0.1')
axis padded
title('MW-145 TCE (ug/L)')
xline(datetime(2015,07,15),'-.','LabelVerticalAlignment','middle',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
yline(5,'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
hold
```

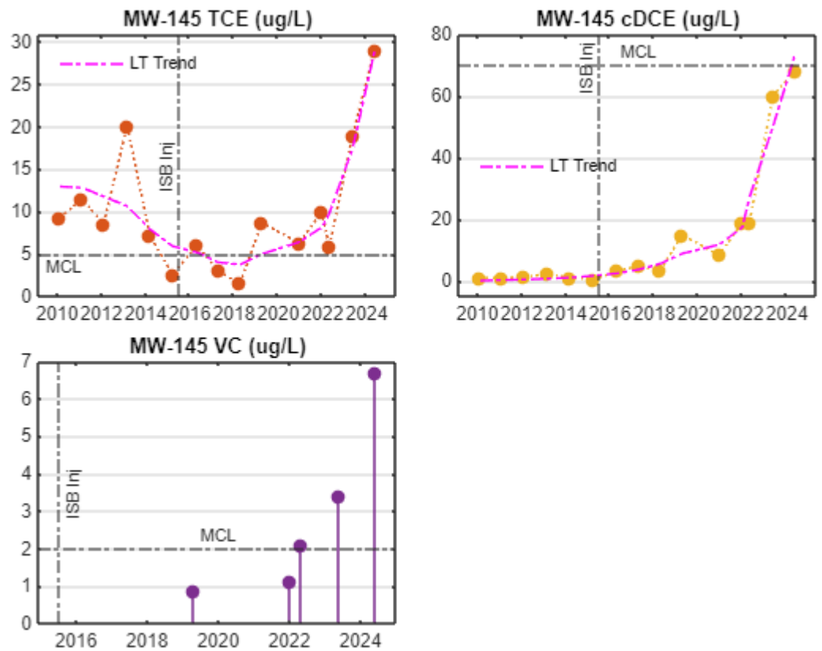
```
Current plot held
```

```
plot(MW145.Date,MW145SSA.TCE_LongTerm,'-.','Color','magenta');
legend('','','','LT Trend',Location='northwest',EdgeColor='none',Color='none')
nexttile
plot(MW145.Date,MW145.cDCE,':','Color','0.93 0.69 0.13','Marker','o',...
    'MarkerEdgeColor','0.93 0.69 0.13','MarkerFaceColor','0.93 0.69 0.13')
axis padded
title('MW-145 cDCE (ug/L)')
xline(datetime(2015,07,15),'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','left','Label','ISB Inj',fontsize=8)
yline(70,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','center','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
```

```
hold
```

```
Current plot held
```

```
plot(MW145.Date,MW145SSA.cDCE_LongTerm,'-.','Color','magenta');
legend('','','','LT Trend',Location='west',EdgeColor='none',Color='none')
nexttile
stem(MW145.Date,MW145.VC,'-','Color','0.49 0.18 0.56','Marker','o',...
    'MarkerEdgeColor','0.49 0.18 0.56','MarkerFaceColor','0.49 0.18 0.56')
axis padded
title('MW-145 VC (ug/L)')
xline(datetime(2015,07,15),'-.','LabelVerticalAlignment','middle',...
    'LabelHorizontalAlignment','right','Label','ISB Inj',fontsize=8)
yline(2,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','center','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
```



19.0 MW-294

Exploratory Data Analysis

Data Summary

```
summary(MW294,DataVariables=["Date","PCE","TCE","cDCE","VC"],Statistics="allstats")
```

```
MW294: 4×5 table
Variables:
    Date: datetime
    PCE: double
    TCE: double
    cDCE: double
    VC: double
Statistics for applicable variables:
```

	NumMissing	Min	Q1	Median	Q3	Max	Range	Mean	Std	Var	Sum	Mode
Date	0	05-Jan-2022		15-Nov-2022 16:40:00		21-May-2024 10:27:00	20818:27:00	14-Jan-2023 04:56:45	9429:39:45			05-Jan-2022
PCE	4	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	0	NaN
TCE	0	36	36.5000	50	73.5000	84	48	55	23.0217	530	220	36
cDCE	0	170	185	255	310	310	140	247.5000	73.2006	5.3583e+03	990	310
VC	0	21	22	30.5000	47	56	35	34.5000	16.2173	263	138	21

```
format compact
```

Linear Correlation

rho	Correlation
-1.0	Perfect negative
0.0	No correlation
1.0	Perfect positive

pvalue	Significance level of 0.05
=<0.05	Statistically significant

```
'Linear Correlation TCE',[rho,pval] = corr(juliandate(MW294.Date),MW294.TCE,Rows="complete")
```

```
ans =
'Linear Correlation TCE'
rho =
0.9892
pval =
0.0108
```

```
'Linear Correlation cDCE',[rho,pval] = corr(juliandate(MW294.Date),MW294.cDCE,Rows="complete")
```

```
ans =
'Linear Correlation cDCE'
rho =
0.8831
pval =
0.1169
```

```
'Linear Correlation VC',[rho,pval] = corr(juliandate(MW294.Date),MW294.VC,Rows="complete")
```

```
ans =
'Linear Correlation VC'
rho =
0.5441
pval =
0.4559
```

Mann-Kendall Trend Tests

```
'Test for Trend TCE', [H, P_value,Z,StdS]=MKwMiss(MW294.TCE,0.05,NaN)
```

```
ans =
'Test for Trend TCE'
H = logical

   0
P_value =
0.3082
Z =
1.0190
StdS =
2.9439
```

```
"TCE",'One Way Test Trend > 0', pval = cumKendallTest(MW294.TCE,juliandate(MW294.Date),'gt')
```

```
ans =
"TCE"
ans =
'One Way Test Trend > 0'
pval =
0.1541
```

```
'Test for Trend cDCE', [H, P_value,Z,StdS]=MKwMiss(MW294.cDCE,0.05,NaN)
```

```
ans =
'Test for Trend cDCE'
H = logical

   0
P_value =
0.4701
Z =
0.7223
StdS =
2.7689
```

```
"cDCE",'One Way Test Trend > 0', pval = cumKendallTest(MW294.cDCE,juliandate(MW294.Date),'gt')
```

```
ans =
"cDCE"
ans =
'One Way Test Trend > 0'
pval =
0.2351
```

```
'Test for Trend VC', [H, P_value,Z,StdS]=MKwMiss(MW294.VC,0.05,NaN)
```

```
ans =
'Test for Trend VC'
H = logical

   0
P_value =
1
```

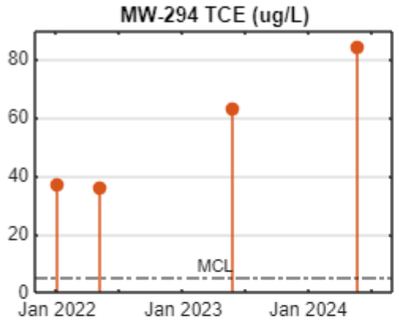
```
Z =
0
StdS =
2.9439
```

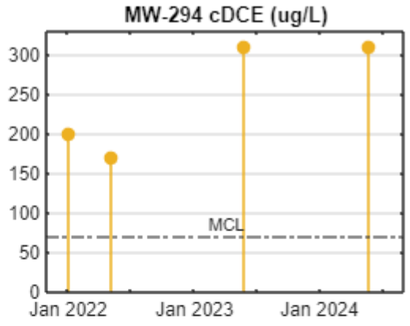
```
"VC",'One Way Test Trend > 0', pval = cumKendallTest(MW294.VC,juliandate(MW294.Date),'gt')
```

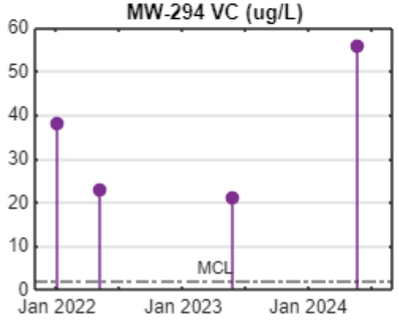
```
ans =
"VC"
ans =
'One Way Test Trend > 0'
pval =
0
```

MW-294 Time Series Data Plots

```
figure
t15=tiledlayout('flow');
t15.Padding='compact';
t15.TileSpacing='compact';
nexttile
stem(MW294.Date,MW294.TCE,'-','Color','0.85 0.33 0.1','Marker','o',...
    'MarkerEdgeColor','0.85 0.33 0.1','MarkerFaceColor','0.85 0.33 0.1')
axis padded
title('MW-294 TCE (ug/L)')
yline(5,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','center','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
nexttile
stem(MW294.Date,MW294.cDCE,'-','Color','0.93 0.69 0.13','Marker','o',...
    'MarkerEdgeColor','0.93 0.69 0.13','MarkerFaceColor','0.93 0.69 0.13')
axis padded
title('MW-294 cDCE (ug/L)')
yline(70,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','center','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
nexttile
stem(MW294.Date,MW294.VC,'-','Color','0.49 0.18 0.56','Marker','o',...
    'MarkerEdgeColor','0.49 0.18 0.56','MarkerFaceColor','0.49 0.18 0.56')
axis padded
title('MW-294 VC (ug/L)')
yline(2,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','center','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
```







19.0 MW-297

Exploratory Data Analysis

Data Summary

```
summary(MW297,DataVariables=["Date","PCE","TCE","cDCE","VC"],Statistics="allstats")
```

```
MW297: 4×5 table
Variables:
    Date: datetime
    PCE: double
    TCE: double
    cDCE: double
    VC: double
Statistics for applicable variables:
           NumMissing          Min              Q1              Median              Q3              Max                Range              Mean              Std              Var              Sum              Mode
    Date        0      17-Dec-2021                  06-Nov-2022 17:52:30                  15-May-2024 12:10:00   21132:10:00   03-Jan-2023 11:58:45   9560:32:41                                                17-Dec-2021
    PCE         3           0.5200          0.5200           0.5200          0.5200           0.5200                0           0.5200                0                0           0.5200           0.5200
    TCE         0           1.1000          1.2000           1.8500          4.0500           5.7000           4.6000           2.6250           2.1282           4.5292          10.5000           1.1000
    cDCE        0           3.4000          3.9500          13.2500         29.5000               37           33.6000          16.7250          15.9782          255.3025          66.9000           3.4000
    VC          2           2.1000          2.1000           2.1500          2.2000           2.2000           0.1000           2.1500           0.0707           0.0050           4.3000           2.1000
```

```
format compact
```

Linear Correlation

rho	Correlation
-1.0	Perfect negative
0.0	No correlation
1.0	Perfect positive

pvalue	Significance level of 0.05
=<0.05	Statistically significant

```
'Linear Correlation TCE',[rho,pval] = corr(juliandate(MW297.Date),MW297.TCE,Rows="complete")
```

```
ans =
'Linear Correlation TCE'
rho =
0.9402
pval =
0.0598
```

```
'Linear Correlation cDCE',[rho,pval] = corr(juliandate(MW297.Date),MW297.cDCE,Rows="complete")
```

```
ans =
'Linear Correlation cDCE'
rho =
0.9943
pval =
0.0057
```

Mann-Kendall Trend Tests

```
'Test for Trend TCE', [H, P_value,Z,StdS]=MKwMiss(MW297.TCE,0.05,NaN)
```

```
ans =
'Test for Trend TCE'
H = logical

   0
P_value =
0.3082
Z =
1.0190
StdS =
2.9439
```

```
"TCE",'One Way Test Trend > 0', pval = cumKendallTest(MW297.TCE,juliandate(MW297.Date),'gt')
```

```
ans =
"TCE"
ans =
'One Way Test Trend > 0'
pval =
0.1541
```

```
'Test for Trend cDCE', [H, P_value,Z,StdS]=MKwMiss(MW297.cDCE,0.05,NaN)
```

```
ans =
'Test for Trend cDCE'
H = logical

   0
P_value =
0.0894
Z =
1.6984
StdS =
2.9439
```

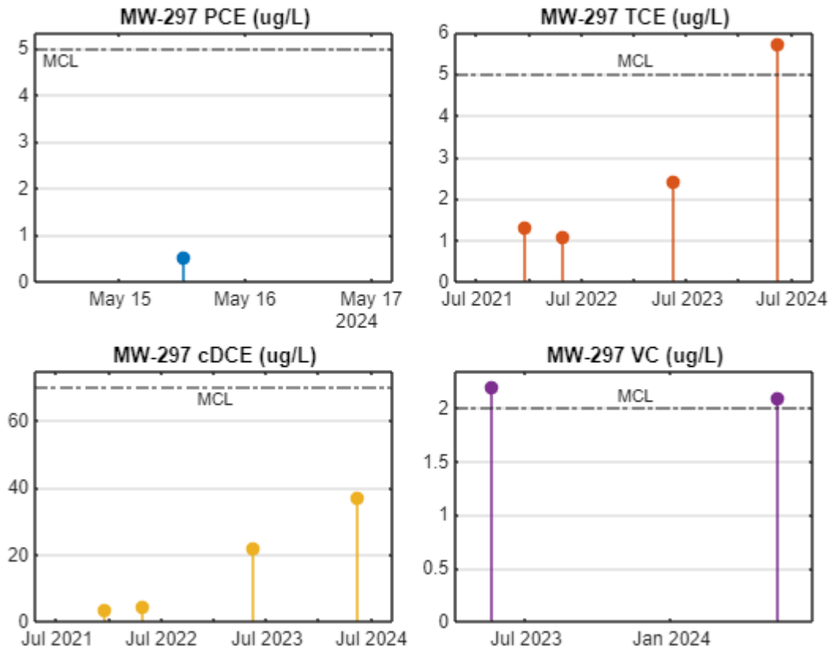
```
"cDCE",'One Way Test Trend > 0', pval = cumKendallTest(MW297.cDCE,juliandate(MW297.Date),'gt')
```

```
ans =
"cDCE"
ans =
'One Way Test Trend > 0'
pval =
0.0447
```

MW-297 Time Series Data Plots

```
figure
t15=tiledlayout('flow');
t15.Padding='compact';
t15.TileSpacing='compact';
nexttile
stem(MW297.Date,MW297.PCE,'-','Color','0 0.45 0.74','Marker','o',...
    'MarkerEdgeColor','0 0.45 0.74','MarkerFaceColor','0 0.45 0.74')
axis padded
title('MW-297 PCE (ug/L)')
yline(5,'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','left','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
nexttile
stem(MW297.Date,MW297.TCE,'-','Color','0.85 0.33 0.1','Marker','o',...
    'MarkerEdgeColor','0.85 0.33 0.1','MarkerFaceColor','0.85 0.33 0.1')
axis padded
title('MW-297 TCE (ug/L)')
yline(5,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','center','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
nexttile
stem(MW297.Date,MW297.cDCE,'-','Color','0.93 0.69 0.13','Marker','o',...
    'MarkerEdgeColor','0.93 0.69 0.13','MarkerFaceColor','0.93 0.69 0.13')
axis padded
title('MW-297 cDCE (ug/L)')
yline(70,'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','center','Label','MCL',fontsize=8);
```

```
set(gca, "XGrid", "off", "YGrid", "on");
nexttile
stem(MW297.Date,MW297.VC,'-','Color','0.49 0.18 0.56','Marker','o',...
    'MarkerEdgeColor','0.49 0.18 0.56','MarkerFaceColor','0.49 0.18 0.56')
axis padded
title('MW-297 VC (ug/L)')
yline(2,'-.','LabelVerticalAlignment','top',...
    'LabelHorizontalAlignment','center','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
```



20.0 LAWMW-Q

Exploratory Data Analysis

Data Summary

```
summary(LAWMWQ,DataVariables=["Date","PCE","TCE","cDCE","VC"],Statistics="allstats")
```

```
LAWMWQ: 5×5 table

Variables:

    Date: datetime
    PCE: double
    TCE: double
    cDCE: double
    VC: double
```

Statistics for applicable variables:

	NumMissing	Min	Q1	Median	Q3	Max	Range	Mean	Std	Var	Sum	Mode
Date	0	17-Dec-2020 09:41:00		28-Apr-2022		16-May-2024 12:40:00	29906:59:00	07-Aug-2022 01:36:12	11532:11:32			17-Dec-2020 0
PCE	5	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	0	
TCE	0	1.2000	2.4000	2.8000	4.3500	4.8000	3.6000	3.1600	1.4029	1.9680	15.8000	
cDCE	2	0.3400	0.3425	0.3500	0.8300	0.9900	0.6500	0.5600	0.3724	0.1387	1.6800	
VC	4	1.3000	1.3000	1.3000	1.3000	1.3000	0	1.3000	0	0	1.3000	

```
format compact
```

Coefficient of Variation

Coefficient of variation (CV) of a time series data set is the ratio of standard deviation and mean. CV provides a measure of variability of time series data.

Coefficient of Variation	Variance
<0.50	Low
0.5 to 1.0	Moderate
>1.0	High

```
CVLAWMWQTCE=std(LAWMWQ.TCE,'omitmissing')/mean(LAWMWQ.TCE,'omitmissing')
```

```
CVLAWMWQTCE =
0.7810
```

Linear Correlation

rho	Correlation
-1.0	Perfect negative
0.0	No correlation
1.0	Perfect positive

pvalue	Significance level of 0.05
=<0.05	Statistically significant

```
'Linear Correlation TCE',[rho,pval] = corr(juliandate(LAWMWQ.Date),LAWMWQ.TCE,Rows="complete")
```

```
ans =
'Linear Correlation TCE'
rho =
0.9833
pval =
0.0026
```

Mann-Kendall Trend Tests

```
'Test for Trend TCE', [H, P_value,Z,StdS]=MKwMiss(LAWMWQ.TCE,0.05,NaN)
```

```
ans =
'Test for Trend TCE'
H = logical

   1
P_value =
0.0433
Z =
2.0212
StdS =
3.9581
```

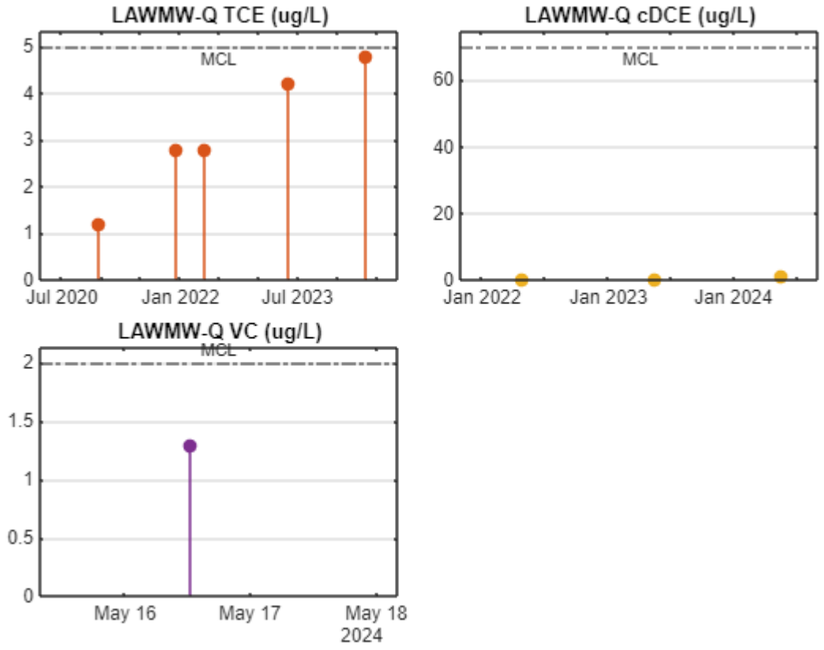
```
"TCE",'One Way Test Trend > 0', pval = cumKendallTest(LAWMWQ.TCE,juliandate(LAWMWQ.Date),'gt')
```

```
ans =
"TCE"
ans =
'One Way Test Trend > 0'
pval =
0.0216
```

LAWMW-Q Time Series Data Plots

```
figure
t16=tiledlayout('flow');
t16.Padding='compact';
t16.TileSpacing='compact';
nexttile
stem(LAWMWQ.Date,LAWMWQ.TCE,'-','Color','0.85 0.33 0.1','Marker','o',...
    'MarkerEdgeColor','0.85 0.33 0.1','MarkerFaceColor','0.85 0.33 0.1')
axis padded
title('LAWMW-Q TCE (ug/L)')
yline(5,'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','center','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
nexttile
stem(LAWMWQ.Date,LAWMWQ.cDCE,'-','Color','0.93 0.69 0.13','Marker','o',...
    'MarkerEdgeColor','0.93 0.69 0.13','MarkerFaceColor','0.93 0.69 0.13')
axis padded
title('LAWMW-Q cDCE (ug/L)')
yline(70,'-.','LabelVerticalAlignment','bottom',...
    'LabelHorizontalAlignment','center','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
nexttile
stem(LAWMWQ.Date,LAWMWQ.VC,'-','Color','0.49 0.18 0.56','Marker','o',...
    'MarkerEdgeColor','0.49 0.18 0.56','MarkerFaceColor','0.49 0.18 0.56')
axis padded
title('LAWMW-Q VC (ug/L)')
yline(2,'-.','LabelVerticalAlignment','top',...
```

```
    'LabelHorizontalAlignment','center','Label','MCL',fontsize=8);
set(gca, "XGrid", "off", "YGrid", "on");
```



Standard Color Ramp

Hex Color Reference Codes

- PCE 0 0.45 074
- TCE 0.85 0.33 0.1
- cDCE 0.93 0.69 0.13
- VC 0.49 0.18 0.56
- 1,1-DCE 0.47 0.67 0.19
- DCM 0.3 0.75 0.93
- 1,1,1-TCA 0.3 0.75 0.93
- 1,2-DCA 0.75 0.75 0
- 1,4-DCB 0.64 0.08 0.18
- CB 0.68 0.92 1
- Benzene 0.69 0.08 0.18
- TOC 0.87 0.49 0
- DHC 0.85 0.7 1
- tceA 1 0.84 0
- VCR 1 0.6 0.78
- BCV 0.75 0.75 0

Group Statistics Standard Functions

- "sum" Sum
- "mean" Mean
- "median" Median
- "mode" Mode
- "var" Variance
- "std" Standard deviation
- "min" Minimum
- "max" Maximum
- "range" Maximum minus minimum
- "nummissing" Number of missing elements
- "numunique" Number of distinct nonmissing elements
- "nnz" Number of nonzero and non-NaN elements
- "all" All computations previously listed

Group Descriptive Statistics Functions

- **Outliers**
- **10th, 25th, 50th, 75th, 90th, and 95th percentile**
- **Skewness, Kurtosis**
- **Greater than specified limit**

```
% Is outlier function
function y = outlier(x)
% Count the number of outliers in each group
y = nnz(isoutlier(x,'quartiles'));
end

% 10th percentile function
function y = prctile10(x)
%Distribution 10th percentile
y = (prctile(x,10));
end

%25th percentile function
function y = prctile25(x)
%Distribution 25th percentile
y = (prctile(x,25));
end

%Distribution 50th percentile function
function y = prctile50(x)
%Distribution 50th percentile
```

```
y = (prctile(x,50));
end

%75th percentile function
function y = prctile75(x)
%Distribution 75th percentile
y = (prctile(x,75));
end

%90th percentile function
function y = prctile90(x)
%Distribution 90th percentile
y = (prctile(x,90));
end

%95th percentile function
function y = prctile95(x)
%Distribution 95th percentile
y = (prctile(x,95));
end

%25 and 75th percentile function
function y = prct25_75(x)
% x is the data in a group from one computation variable
% Distribution 25th and 75th percentile
y = (prctile(x,[25 75]));
end

%skewness function
function y = skew(x)
%Distribution skewness
y= (skewness(x));
end

%skewness function
function y = kurt(x)
%Distribution skewness
y= (kurtosis(x));
end

%Group count >MCL 5
function y = MCL5gt(x)
%Group counts for greater than a limit
y= sum(x>5);
end

%Group count >MCL 2
function y = MCL2gt(x)
%Group counts for greater than a limit
y= sum(x>2);
```

```
end

%Group count >MCL 7
function y = MCL7gt(x)
%Group counts for greater than a limit
y= sum(x>7);
end

%Group count >MCL 70
function y = MCL70gt(x)
%Group counts for greater than a limit
y= sum(x>70);
end

%Group count >MCL 75
function y = MCL75gt(x)
%Group counts for greater than a limit
y= sum(x>75);
end

%Group count >MCL 2
function y = MCL100gt(x)
%Group counts for greater than a limit
y= sum(x>100);
end

%Group count >MCL 200
function y = MCL200gt(x)
%Group counts for greater than a limit
y= sum(x>200);
end

%Group count>RSL 1.71E-01
function y = RSLDCA12gt(x)
%Group counts for greater than a limit
y= sum(x>1.71E-01);
end

%Group count <=DO 1
function y = DOlt(x)
%Group counts for greater than a limit
y= sum(x<=1);
end

%Group count <=ORP 50
function y = ORPlt(x)
%Group counts for greater than a limit
y= sum(x<=-50);
end
```

```
%Group count <=Sulfate 50
function y = SO4lt(x)
%Group counts for greater than a limit
y= sum(x<50);
end

%Group count <=Sulfide 1
function y = S2gt(x)
%Group counts for greater than a limit
y= sum(x>1);
end

%Group count <=Sulfide H2S 1
function y = S2H2Sgt(x)
%Group counts for greater than a limit
y= sum(x>1);
end

%Group count TOC=>20
function y = TOCgt(x)
%Group counts for greater than a limit
y= sum(x>=20);
end

%Group count Methane=>500
function y = Methanegt(x)
%Group counts for greater than a limit
y= sum(x>=500);
end

%Group count Fe2=>1
function y = FE2gt(x)
%Group counts for greater than a limit
y= sum(x>=1);
end

%Group count Ethene=>10
function y = Ethenegt(x)
%Group counts for greater than a limit
y= sum(x>=10);
end

%Group count Ethane=>10
function y = Ethanegt(x)
%Group counts for greater than a limit
y= sum(x>=10);
end

%Group count NO3=<1
function y = NO3gt(x)
```

```
%Group counts for greater than a limit
y= sum(x<1);
end
```