

City of Ithaca

## Sample Summary November 2008 Sediment Sampling

Cayuga Lake Tributaries & Flood Control Channel

ERM Project No. 0080140

January 2010

www.erm.com



Environmental Resources Management

5788 Widewaters Parkway Dewitt, New York 13214 (315) 445-2554 (315) 445-2543

8 January 2010

VIA Email: <u>mjpeache@gw.dec.state.ny.us</u>

Ms. Mary Jane Peachey, P.E. New York State Department of Environmental Conservation 615 Erie Boulevard West Syracuse, New York 13204-2400



RE: Sample Summary

November 2008 Sediment Sampling Cayuga Lake Tributaries and Flood Control Channel ERM Project No. 0080140

Dear Mary Jane:

As requested at the meeting on 10 December 2009, Environmental Resources Management (ERM) is providing the results of the predredging sediment sampling program conducted in November 2008.

The sampling was conducted between the 17th and 24th of November 2008 from a small barge provided and operated by Parratt-Wolff, Inc. of Syracuse, New York. Chemical analysis was conducted by Life Sciences Laboratories, Inc., and physical testing was conducted by PW Laboratories, Inc. All sampling and analysis was conducted according to the Workplan prepared by Ecologic dated 15 July 2008 and provided to the New York State Department of Environmental Conservation (NYSDEC) for review on August 2008. NYSDEC Staff provided written comments to the Workplan in a letter dated 15 September 2008. A copy of this letter and the Workplan - revised based on NYSDEC comments - is presented in Attachment A.

The purpose of the sampling was to characterize the chemical quality and physical characteristics of sediment present in the lower reaches of Cayuga Lake tributaries and Flood Control Channel. The data are needed to complete the planning and design phase of the City of Ithaca's initiative to dredge accumulated sediment from the southern tributaries to Cayuga Lake.

Ms. Mary Jane Peachey, P.E. ERM Project No. 0080140 8 January 2010 Page 2

The chemical content of the sediments will, to a large degree, constrain the options for how dredged materials are managed during removal, dewatering/management and ultimate disposal. Physical characteristics of the sediment affect the selection of equipment, design of the dewatering facilities, and capacity of the site(s) selected for ultimate disposal.

The work was conducted in accordance with the NYSDEC guidance for evaluating the quality of dredge material in the *Technical and Operational Guidance Series (TOGS)* 5.1.9 *In-Water and Riparian Management of Sediment and Dredged Material* (NYSDEC 2004).

The physical results indicate the presence of a silty sand amenable to hydraulic dredging, the preferred dredging method. The chemical results indicate that all sediment (with the exception of two locations) are classified as Class A Sediment, as defined in the NYSDEC Guidance TOGS 5.1.9. Class A Sediment is defined as sediment with no appreciable contamination. Two samples contained minor exceedances for total polynuclear aromatic hydrocarbons (PAHs) resulting in a classification as Class B Sediment (defined as sediment with moderate contamination and potential chronic toxicity to aquatic life). Since the threat presented by Class B is aquatic and the dredging program is not considering "in water" disposal, it appears that all sediment are suitable for dredging and upland disposal.

A map showing the boring locations is presented in Attachment B and boring logs are presented in Attachment C. Tables showing the results of chemical and physical testing are presented in Attachment D and analytical reports are presented in Attachment E.

Please call me if you have any questions or comments.

Sincerely,

Edward Hinchey, P.G.

Edward Hinches

Principal

Attachments

## ATTACHMENT A Workplan

## New York State Department of Environmental Conservation Division of Environmental Permits, Region 7

1285 Fisher Avenue, Cortland, New York 13045-1090 **Phone:** (607) 753-3095 • **FAX:** (607) 753-8532

Website: www.dec.ny.gov



September 15, 2008

Elizabeth C. Moran, Ph.D. EcoLogic - Aquatic, Terrestrial and Wetland Consultants Atwell Mill Annex, Suite S-2 132 ½ Albany Street Cazenovia, NY 13035

RE: City of Ithaca Dredging Initiative - Cayuga Inlet and Tributaries

Dear Ms. Moran:

The Department has reviewed the sampling plan for the City of Ithaca Sediment Removal Project for Cayuga Inlet and tributaries and we have the following comments:

- 1. The samples should be collected within the proposed dredge locations so as to depict the concentrations of contaminants in the material that will be removed. Therefore, please provide a map of the proposed dredge sites and include the sediment sample locations within these proposed sites. Please also provide a calculation for the amount of sediment to be dredged from each of these sites.
- 2. If there are visible horizons in the sediment collected within each core, the sediment should not be homogenized. Visible horizons would include discernable changes in sediment type (sand/silt/clay) or distinct changes in color. If there are visible horizons, each different segment should be analyzed separately. If the material is homogeneous throughout the core, one homogenized sample representing the entire length of the core will be sufficient.
- 3. All samples should be analyzed for grain size and TOC.
- 4. Analytical laboratories must be ELAP certified for the parameters they are analyzing for at the time of analysis.
- 5. Results should be provided in a report that includes a discussion of the analytical results and how they compare to the categories in TOGS 5.1.9.

Elizabeth C. Moran, Ph.D. September 15, 2008 Page 2 of 2

If you have any questions regarding the sampling plan, feel free to contact Karen Woodfield at 518-402-8196 or Diane English at 518-402-8195. If we can be of further assistance please contact me at the above address.

Sincerely,

John H. Merriman, Jr.

Deputy Regional Permit Administrator

cc: Ken Lynch

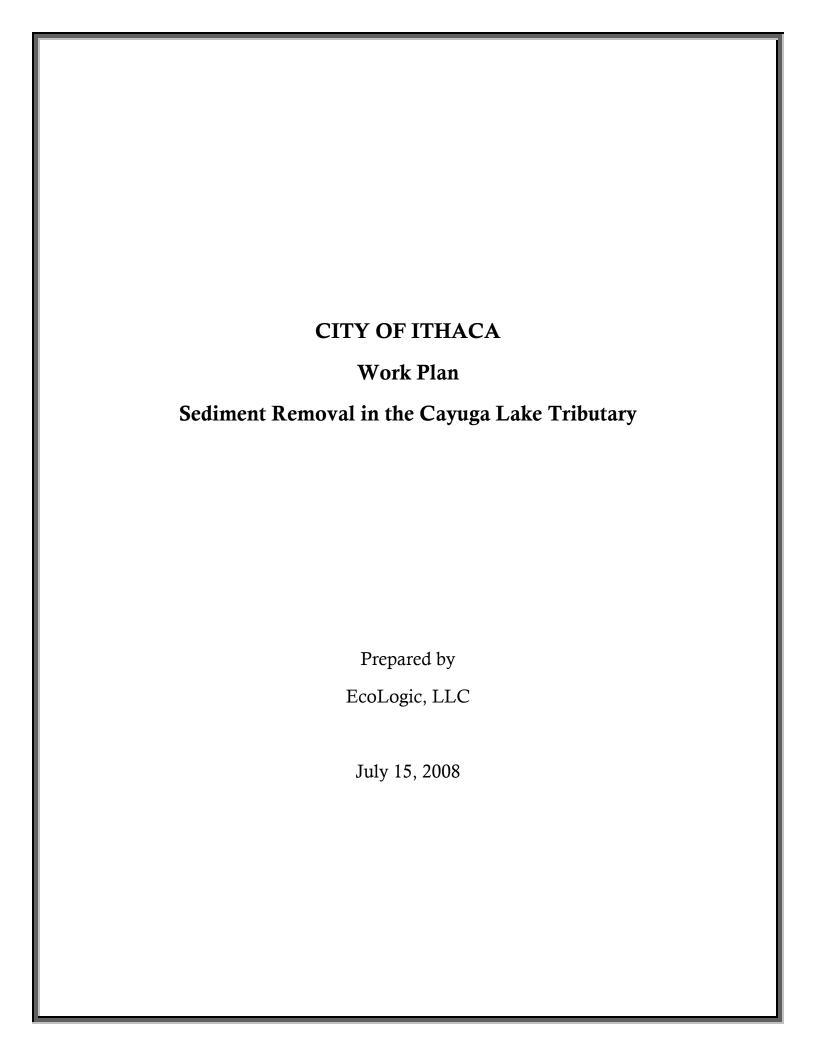
Jim Burke

Mary Jane Peachey

John Feltman

Karen Woodfield

Diane English



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#### Sediment Removal in the Cayuga Lake Tributary Work Plan

#### 1. Introduction

This document outlines the scope of the field and laboratory effort to characterize the chemical quality and physical characteristics of sediments deposited in the lower reaches of tributaries to Cayuga Lake. Data are needed in order to complete the planning and design phase of the City of Ithaca's initiative to dredge accumulated sediment from the southern tributaries to Cayuga Lake. The chemical content of the sediments will, to a large degree, constrain the options for how dredged materials are handled during removal and ultimate disposal. Physical characteristics of the sediment affect the selection of equipment, design of the dewatering facilities, and capacity of the site(s) selected for ultimate disposal.

#### 2. NY State guidance

The NYSDEC provides guidance for evaluating the quality of dredge material in the *Technical* and *Operational Guidance Series (TOGS) 5.1.9 In-Water and Riparian Management of Sediment* and *Dredged Material* (NYSDEC 2004). There are three classes of dredge material defined in TOGS 5.1.9 based on levels of contamination; the TOGS provides guidelines for the management of dredge material in each class.

- Class A is defined as sediment with no appreciable contamination
- Class B is defined as sediment with moderate contamination and potential chronic toxicity to aquatic life
- Class C is defined as sediment with a high level of contamination and potential acute toxicity to aquatic life.

The upper limits of the chemical content used to delineate the classes of sediment are presented in **Exhibit A**, which summarizes relevant tables from the NYSDEC 2004 guidance document. When Class B or C sediment is expected, the NYSDEC guidance document calls for evaluating the proposed future sediment surface to verify that concentrations of chemicals of concern do not exceed the pre-dredging levels. That is, sediment testing must address the potential for exposing layers of sediment with higher concentrations of contaminants.

Both organic and inorganic chemicals are included on the NYSDEC guidance value list to differentiate Class A, B, and C sediments. Limits are identified based on the concentrations of benzene, certain heavy metals (arsenic, cadmium, copper, lead and mercury), pesticides (DDT compounds and dieldrin), PAHs and PCBs.

#### 3. Review of existing data

NYSDEC collected and analyzed seven core samples of sediment deposited in four locations in the Cayuga Inlet (**Figure 1** and **Table 1**). These results, from 2003, indicate that Class B sediments may be present in the Inlet. Two locations, CL103 and CL104, exhibited copper and lead levels in the sediment in the low end of the Class B range. In addition, one sample of deeper sediment from site CL103 had a detectable concentration of one PCB congener (Aroclor 1254) and slightly exceeded the Class A threshold for total PCBs.

In 2008, O'Brien & Gere Engineers completed sampling and analysis of sediment deposited in the City's water supply reservoir on Sixmile Creek (the Sixty-Foot Reservoir). Six cores were collected. The concentrations of DDT compounds detected in the samples of sediment collected from the reservoir ranged from Class A to low Class B. The concentrations of DDT compounds in the reservoir were at the low end of ubiquitous levels detected by the NYSDEC in the Finger Lakes. The remainder of analyses (consisting of metals, BTEX, and PAHs) of sediment samples collected from the reservoir were Class A.

#### 4. Project approach

The approach is summarized below:

- A depth finder and global positioning system (GPS) will be used at each sampling location to document overlying water depths and the location of the sediment surface.
- The number of required samples is based on the volume of material to be removed from the tributaries; this volume has not yet been finalized. Using Balduck's equation in NYSDEC TOGS 5.1.9, and assuming that approximately 500,000 cubic yards of material will be dredged, and that the average dredging depth is 12 ft. (4 yd), the surface area to be dredged in 125,000 square yd. This requires 14 samples. Sampling points will be arranged in a grid.
- The Sampling and Analysis Plan provides for the collection of 14 sediment cores advanced to a sediment depth of approximately 14 ft. The proposed dredging depth (e.g., the top 6 12 ft of the core, depending on the area) will be composited into a discrete analytical sample. In addition, samples of material below the proposed dredging depth will be collected at five of the 14 locations. These sites will be in locations considered most likely to exhibit Class B sediment quality, based on the 2003 results.
- Sediment samples will be analyzed for physical parameters to support dredging design. These physical parameters include moisture content, Atterberg Limits, TOC, grain size distribution, specific gravity, and USCS classification (Table 2)
- Sediment samples will be analyzed for the following chemicals, per NYSDEC guidance: benzene, metals (arsenic, cadmium, copper, lead, zinc, and mercury), pesticides (DDT compounds, and dieldrin), PAHs, and PCBs (Table 3)

#### 5. Sampling and Analysis Plan

The Sampling and Analysis Plan consists of a sediment coring investigation and an environmental protection plan, as discussed below.

#### 5.1 Sediment Coring Investigation

#### **5.1.1** *Sample Locations and Analyses*

Sediment cores will be advanced at 14 locations shown in **Figure 2**. Sample quantities, quality control samples, containers, preservation, and analytical methods are presented in **Table 4**.

Chemical analyses will be completed by Life Sciences Laboratory in Syracuse NY. As specified in the NYSDEC guidance, 25% of the sample results will be reported as New York State Analytical Services Protocol (ASP) Category B deliverables to allow for data validation. Physical parameters will be analyzed by PWL Labs in Syracuse NY and reported according to the subject method requirements. A completed chain of custody form will accompany samples submitted for analysis.

#### **5.1.2** *Collection Procedures*

Sediment coring will be completed by Parratt-Wolff using manual push core or conventional drilling and casing methods. The conventional drilling methods will provide the capability to obtain deep sediment cores. Upon collection, the sediment cores will be observed and visual descriptions of the sediment will be recorded in field logs. In particular, sediment cores will be observed for evidence of layering that might suggest different material types.

The Allan H. Treman State Marine Park will be used as the access point for launching the sampling vessel.

#### 5.2 Environmental Protection Plan

Prior to working in the tributaries, the drilling contractor will inspect their equipment for leaks. In the event that leaks are present they will be repaired or the equipment replaced before the equipment is brought to the site. Once in the tributaries, potential spill sources consist of the engine for the cathead on the tripod and the engines for the float and support boat. The drilling contractor will have absorbent booms present to contain releases, if any. Refueling operations will be performed away from the tributaries. A representative from the project team will be on site during the entire operation to log the cores and provide inspection services.

#### 6. Project reporting

A Technical Memorandum will be prepared following the completion of field activities and laboratory analyses to address the requirements of the Draft Environmental Impact Statement. The Technical Memorandum will identify the following:

- The physical characteristics of the dredge material provided by the results of investigation analyses.
- The chemical characteristics of the dredge material provided by results of analyses of sediment for TOGS 5.1.9 parameters
- Appropriate methods of dredging and handling will be discussed based on the physical and chemical characteristics of the material.

#### 7. Subcontractors

Several subcontractors will be utilized for the project. This effort will be overseen by ERM, the engineering subcontractor to EcoLogic LLC.

- **Parratt-Wolff, Inc.** will provide the boat and drilling services for sediment coring activities
- Life Sciences Laboratory will analyze sediment samples for chemical parameters
- **PW Labs Inc.** will analyze sediment samples for physical parameters associated with dredging design

#### 8. Project Schedule

The anticipated project schedule is presented below:

- Sediment coring activities will be completed in late summer 2008. It is anticipated that the sampling will be completed in 3 days.
- Laboratory analyses will be completed approximately 30 days after completion of field work.
- A Technical Memorandum, including dredge material characterization, will be completed approximately 15 days after receipt of the data validation results.

## **Tables**

**Table 1**. Analytes detected in Cayuga Inlet sediment (sample date 8/12/2003) compared with TOGS 5.1.9 Sediment Quality Threshold Values.

		ę,	Location ID	CLI017 0-104	Г	CLI011 104-13		CLI027 0-50	Γ	CLI02 50-62		CLI03' 0-111		CLI031 111-12		CLI04' 0-67	T
	Sedime	nt Quality Thresholo TOGS 5.1.9	ample Depth* I Values	0-104		104-13	4	0-50		50-02	'	<u>0-111</u>		111-12	1	0-07	
Chemical Name	Class A	Class B	Class C														
Metals (mg/kg)																	
Arsenic	<14(8.2)	(8.2)14 - 53	>53	4.6		0.3		6.8		5.4		5		6.6		4.6	
Cadmium	<1.2	1.2 - 9.5	>9.5	0.23		0.42		0.18		0.2		0.43		0.45		0.39	
Copper	<33	33 - 207(270)	>207(270)	26.8		29		22.7		24		38.7		33.2		35.1	
Lead	<33(47)	33(47) - 166(218)	>166(218)	22.3		24.9		17.1		20.3		77.4		<b>59.8</b>		54.1	
Mercury	< 0.17	0.17 - 1.6(1.0)	>1.6(1.0)	na		na		na		na		na		na		na	
Petroleum-related compour	ıds (mg/kg)																
Benzene	< 0.59	0.59 - 2.16	>2.16	na		na		na		na		na		na		na	
Total BTEX	< 0.96	0.96 - 5.9	>5.9	na		na		na		na		na		na		na	
PAHs (mg/kg)																	
Naphthalene		See Total PAHs		4.83	U	4.4	U	4.83	U	4.95	U	4.93	U	4.4	U	4.8	U
Acenaphthylene		See Total PAHs		5.82	U	5.3	U	5.71	U	5.95	U	5.83	U	5.3	U	5.75	U
Acenaphthene		See Total PAHs		4.03	U	4.4	U	4.83	U	4.08	U	4.93	U	4.4	U	4.8	U
Fluorene		See Total PAHs		0.57	U	0.519	U	0.55	U	0.673	U	0.571	U	0.519	U	0.588	U
Phenanthrene		See Total PAHs		1.75	U	1.69	U	1.72	U	1.76	U	1.75	U	1.59	U	8.2	
Anthracene		See Total PAHs		1.79	U	1.63	U	1.76	U	1.8	U	1.7	U	1.63	U	1.78	U
Fluoranthene		See Total PAHs		0.57	U	0.618	U	0.68		0.573	U	1.2		1.2		4.9	
Pyrene		See Total PAHs		0.733	U	0.667	U	0.716	U	0.737	U	0.734	U	0.54		1.4	
Benzo(a)anthracene		See Total PAHs		0.053		0.036		0.056		0.045		0.16		0.14		0.47	
Chrysene		See Total PAHs		0.407	U	0.371	U	0.3	U	0.4	U	0.408	U	0.371	U	0.34	
Benzo(b)fluoranthene		See Total PAHs		0.066		0.0445		0.075		0.048		0.15		0.1		0.34	
Benzo(k)fluoranthene		See Total PAHs		0.0448	U	0.0408	U	0.035		0.045	U	0.076		0.083		0.31	
Benzo(a)pyrene		See Total PAHs		0.071		0.0566	U	0.0508	U	0.0514	U	0.2		0.28		0.65	
Dibenzo(a,h)anthracene		See Total PAHs		0.0816	U	0.0741	U	0.0708	U	0.0818	U	0.0815	U	0.0742	U	0.0809	U
Benzo (g,h,i)perylene		See Total PAHs		0.206	U	0.169	U	0.203	U	0.209	U	0.206	U	0.108	U	0.2	U
Indeno(1,2,3-cd)pyrene		See Total PAHs		0.118	U	0.108	U	0.116	U	0.119	U	0.116	U	0.108	U	0.117	U

			Location ID Sample Depth*	CLI017 0-104	Γ	CLI011		CLI027 0-50	Γ	CLI021 50-62		CLI03' 0-111	_	CLI03		CLI04' 0-67	Γ
	Sedimen	t Quality Thresh TOGS 5.1.9		0-104		104-13	<u> </u>	0-20		20-02		0-111		111-12	1	0-07	
<b>Chemical Name</b>	Class A	Class B	Class C														
Pesticides (mg/kg)																	
4,4'-DDE	See S	um of DDT+DDI	D+DDE	0.054	U	0.04	U	0.053	U	0.055	U	0.11	U	0.099	U	0.11	U
4,4'-DDD	See S	um of DDT+DDI	D+DDE	0.054	U	0.04	U	0.053	U	0.055	U	0.11	U	0.099	U	0.11	U
4,4'-DDT	See S	um of DDT+DDI	D+DDE	0.054	U	0.04	U	0.053	U	0.055	U	0.11	U	0.099	U	0.11	U
Mirex	< 0.0014	0.0014 - 0.014	>0.014	na		na		na		na		na		na		na	
Chlordane	< 0.003	0.003 - 0.036	>0.036	na		na		na		na		na		na		na	
Dieldrin	< 0.11	0.11 - 0.48	>0.48	0.054	U	0.04	U	0.053	U	0.055	U	0.11	U	0.099	U	0.11	U
Chlorinated hydrocarbon	s (mg/kg)																
PCB-1016		See Total PCB	S	0.054	U	0.04	U	0.053	U	0.055	U	0.054	U	0.049	U	0.054	U
(Aroclor 1016)																	
PCB-1221		See Total PCB	S	0.054	U	0.04	U	0.053	U	0.055	U	0.054	U	0.049	U	0.054	U
(Aroclor 1221)																	
PCB-1232		See Total PCB	S	0.054	U	0.04	U	0.053	U	0.055	U	0.054	U	0.049	U	0.054	U
(Aroclor 1232)																	
PCB-1242		See Total PCB	S	0.054	U	0.04	U	0.053	U	0.055	U	0.054	U	0.049	U	0.054	U
(Aroclor 1242)																	
PCB-1248		See Total PCB	S	0.054	U	0.04	U	0.053	U	0.055	U	0.054	U	0.049	U	0.054	U
(Aroclor 1248)																	
PCB-1254		See Total PCB	S	0.054	U	0.04	U	0.053	U	0.055	U	0.071		0.110		0.054	U
(Aroclor 1254)		G		0.074	**	0.04	••	0.050		0.055		0.074		0.040		0.074	
PCB-1260		See Total PCB	S	0.054	U	0.04	U	0.053	U	0.055	U	0.054	U	0.049	U	0.054	U
(Aroclor 1260)	.0.0000045	0.0000045	. 0.00005														
2,3,7,8-TCDD	<0.0000045	0.0000045 -	>0.00005	na		na		na		na		na		na		na	
(sum of toxic		0.00005															
equivalency)																	

			Location ID Sample Depth*	CLI017 0-104		CLI011 104-13		CLI027 0-50	Γ	CLI021 50-62		CLI037 0-111	Γ	CLI03I 111-12		CLI04' 0-67	Т
	Sedimen	nt Quality Thresho	old Values														
		TOGS 5.1.9															
Chemical Name	Class A	Class B	Class C														
Total PAHs (sum detected)	<4	4 - 35(45)	>35(45)	0.190		0.081		0.846		0.093		1.79		2.34		16.6	
Sum of DDT+DDD+DDE	< 0.003	0.003 - 0.03	>0.03	0.054	U	0.04	U	0.053	U	0.055	U	0.11	U	0.099	U	0.11	U
Total PCBs (sum detected)	<0.1	0.1 - 1	>1	0.054	U	0.04	U	0.053	U	0.055	U	0.071		0.110		0.054	U

#### Notes:

na - no data available

TOGS 5.1.9 = Sediment screening values for dredge material characterization obtained from *Technical & Operational Guidance Series 5.1.9*, *In-Water and Riparian Management of Sediment and Dredge Material* (TOGS 5.1.9: NYSDEC 2004).

#### Sediment classes defined by TOGS 5.1.9:

- Class A = No toxicity to aquatic life. Dredging and in-water or riparian placement, at approved locations, can generally proceed.
- Class B = Chronic Toxicity to aquatic life. Dredging and riparian placement may be conducted with several restrictions.
- Class C = Acute Toxicity to aquatic life. Dredging and disposal requirements may be stringent; ensure that the dredged material is not a regulated hazardous waste material as defined in 6NYCRR Part 371.

Results in Class B range are in bold

U - indicates analyte was not detected above the value shown.

<sup>\*</sup> Sample depth units were not provided in the data source used for this table.

Table 2. Physical tests for Dredging Design.

Physical Test	Test	Method	Description
Natural Moisture Content	ASTM	D2216	Indicates the current physical state of the soil or sediment based on the results of the Atterberg Limits testing. A soil or sediment can be in brittle solid, solid, plastic, or liquid states. For fine grained soil or sediment, the natural moisture content is related to shear strength.
Atterberg Limits	ASTM	D4318	Evaluates the plastic limit, shrinkage limit, and liquid limit of the soil or sediment. The information is used to classify the soil or sediment, and can be used to predict the soil or sediment mineralogy.
Organic content, measured as total organic carbon (TOC)	USEPA	Lloyd Kahn	Evaluates the organic content of a soil or sediment as a predictor of the adsorptive capacity of the soil or sediment for hydrophobic compounds.
Grain size distribution	ASTM	D422/1140	Classifies soil or sediment as coarse grained or fine grained. Grain size distribution of coarse grained soil or sediment will correlate to friction angle, which is used to estimate the shear strength of the soil or sediment.
Specific Gravity	ASTM	D854	Provides an estimate of the ratio of the soil or sediment density to the density of water. Used to calculate other soil or sediment properties such as density, void ratio, degree of saturation.
USCS Classification	ASTM	D2487	Classifies soil or sediment according to grain size and plasticity. Correlates with engineering properties of the soil or sediment.

**Table 3**. Analytical methods and sample quantities for sediment analyses.

	•				Env	iron.	Qua	lity Co	ontrol				
Sampling Section	Analysis	Laboratory	Analyti	ical Method	Locations	Samples	Dup	SM	MSD	Total	Unit	Cost	Cost
Analytical T	Tests												
	Benzene	LSL	USEPA	8260	14	19	2	2	2	25	\$	80	\$ 2,000
	Pesticides: Dieldrin/DDT comp.	LSL	USEPA	3550/8081	14	19	2	2	2	25	\$	160	\$ 4,000
	PCBs	LSL	USEPA	3550/8082	14	19	2	2	2	25	(in	c. w/ pe	sticides cost)
	PAHs	LSL	USEPA	8270	14	19	2	2	2	25	\$	150	\$ 3,750
	Metals (As, Cd, Cu, Pb, and Zn)	LSL	USEPA	3050/6010	14	19	2	2	2	25	\$	50	\$ 1,250
	Mercury	LSL	USEPA	7471	14	19	2	2	2	25	\$	25	\$ 625
	Total Organic Carbon	Test AmPit	USEPA	Lloyd Kahn	14	19	2	2	2	25	\$	85	\$ 2,125
	Percent solids	LSL	ASTM	SM2540G	14	19	2	2	2	25	\$	10	\$ 250
Physical Tes	sts												
	Moisture Content	PW Labs	ASTM	D2216	7	7	0	0	0	7	\$	7	\$ 49
	Atterberg Limits	PW Labs	ASTM	D4318	7	7	0	0	0	7	\$	78	\$ 546
	Grain Size	PW Labs	ASTM	D422/1140	7	7	0	0	0	7	\$	146	\$ 1,022
	Specific Gravity	PW Labs	ASTM	D854	7	7	0	0	0	7	\$	55	\$ 385
	Classification	PW Labs	ASTM	D2487	7	7	0	0	0	7	\$	5	\$ 35
											ТО	TAL	\$ 16,037

#### Notes:

 $Pesticides\ (DDT,\ DDD,\ DDE,\ dieldrin);\ PCBs = polychlorinated\ biphenyls;\ PAHs = polycyclic\ aromatic\ hydrocarbons.$ 

Metals: As = arsenic, Cd = cadmium, Cu = copper, Pb = lead, and Zn = zinc.

USEPA = United States Environmental Protection Agency; ASTM = American Society of Testing Materials.

Laboratories: LSL = Life Science Laboratories, Inc., Syracuse, NY; Test Am-Pit = Test America, Pittsburg, PA; PW Labs = PW Labs, Inc., Syracuse, NY.

A = Archive sample to be held for possible analysis based on results of other sediment analyses.

**Table 4**. Analytical method, sample containers, preservation, holding times, and QC sample frequencies.

Parameter (method)	Matrix	Sample	Preservation	Holding times	QC sample free	QC sample frequency							
		containers and volumes			Field duplicate	Trip blank	MS/MSD /Spike Duplicate**	Field/ Equipment Blank***					
Benzene Low Level* (USEPA Methods 5035/8000C/8260B) <sup>1</sup>	Solid	Encore sampler in accordance with USEPA Method 5035.  Alternatively, 5 grams of sample in Encore sampler weighed in the field in pre-weighed vial with stir bar and a sodium bisulfate preservative solution	4°C	For Encore sampler, transferred to soil container within 48 hours from collection. If not transferred to soil container then 48 hours from collection for analysis. If transferred, analysis within 14 days from collection	One per 10 samples or one per matrix (for less than 10 samples)	1 per cooler containing samples for VOCs in water	One per 20 samples or one per matrix (for less than 20 samples)	One per sampling event as required.					
Benzene Medium Level* (USEPA Methods 5035/8000C/8260B) <sup>1</sup>	Solid	One 40-ml pre- weighed glass vials with Teflon® lined septum caps. 5 grams of sample with methanol prepared in accordance with USEPA Method 5035	4°C	14 days from collection for analysis	One per 10 samples or one per matrix (for less than 10 samples)	1 per cooler containing samples for VOCs in water	One per 20 samples or one per matrix (for less than 20 samples)	One per sampling event as required.					

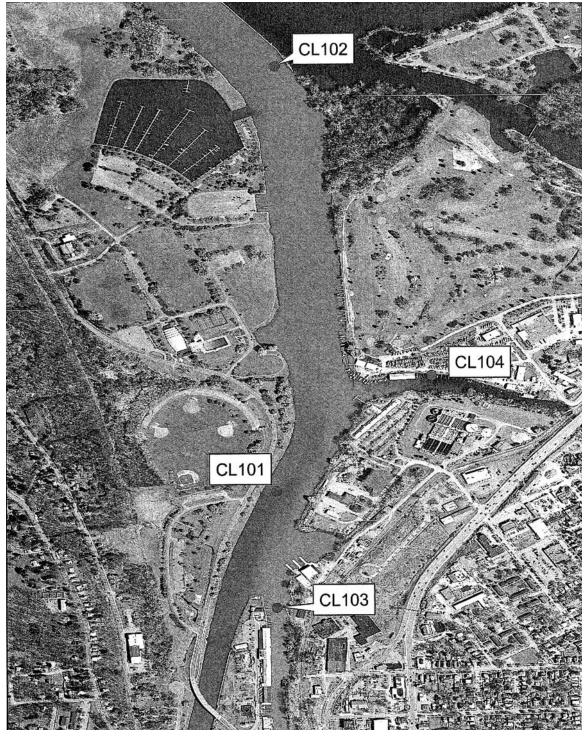
Parameter (method)	Matrix	Sample	Preservation	Holding times	QC sample free	quency		
		containers and volumes			Field duplicate	Trip blank	MS/MSD /Spike Duplicate**	Field/ Equipment Blank***
PAHs (USEPA Methods 3541/3550B/8000C/8270 C) <sup>1</sup>	Solid	250-ml wide mouth glass container with Teflon® lined lid. 100 grams sample volume required.	4°C	14 days from collection to extraction; 40 days from extraction to analysis	One per 10 samples or one per matrix (for less than 10 samples)	NA	One per 20 samples or one per matrix (for less than 20 samples)	One per sampling event as required.
DDT Compounds, Dieldrin (USEPA Methods 3541/3550B/8000C/8081 A) <sup>1</sup>	Solid	250-ml wide mouth glass container with Teflon® lined lid. 100 grams sample volume required.	4°C	14 days from collection to extraction; 40 days from extraction to analysis	One per 10 samples or one per matrix (for less than 10 samples)	NA	One per 20 samples or one per matrix (for less than 20 samples)	One per sampling event as required.
PCBs (USEPA Methods 3541/8000C/8082) <sup>1</sup>	Solid	250-ml wide mouth glass container with Teflon® lined lid. 100 grams sample volume required.	4°C	14 days from collection to extraction; 40 days from extraction to analysis	One per 10 samples or one per matrix (for less than 10 samples)	NA	One per 20 samples or one per matrix (for less than 20 samples)	One per sampling event as required.

Parameter (method)	Matrix	Sample	Preservation	Holding times	QC sample free	luency			
		containers and volumes			Field duplicate	Trip blank	MS/MSD /Spike Duplicate**	Field/ Equipment Blank***	
Metals (USEPA Methods 3050B/6010B) <sup>1</sup>	Solid	125-ml wide mouth polyethylene or fluorocarbon (TFE or PFA) container. 100 grams sample volume required.	4°C	180 days from collection for analysis	One per 10 samples or one per matrix (for less than 10 samples)	NA	One per 20 samples or one per matrix (for less than 20 samples)	One per sampling event as required.	
Mercury (USEPA Method 7471A) <sup>1</sup>	Solid	125-ml wide mouth polyethylene or fluorocarbon (TFE or PFA) container. 100 grams sample volume required.	4°C	28 days from collection for analysis	One per 10 samples or one per matrix (for less than 10 samples)	NA	One per 20 samples or one per matrix (for less than 20 samples)	One per sampling event as required.	
TOC (USEPA Lloyd Kahn Method) <sup>2</sup>	Solid	125-ml wide mouth glass container with Teflon® lined lid. 100 grams sample volume required.	4°C	14 days from collection for analysis	One per 10 samples or one per matrix (for less than 10 samples)	NA	One per 20 samples or one per matrix (for less than 20 samples)	One per sampling event as required.	

Parameter (method)	Matrix	Sample	Preservation	<b>Holding times</b>	QC sample free	QC sample frequency							
		containers and volumes			Field duplicate	Trip blank	MS/MSD /Spike Duplicate**	Field/ Equipment Blank***					
Sulfide (USEPA Methods 9030B/9034) <sup>1</sup>	Solid	125-ml wide mouth glass container with Teflon® lined lid. 100 grams sample volume required.	4°C	7 days from collection for analysis	One per 10 samples or one per matrix (for less than 10 samples)	NA	One per 20 samples or one per matrix (for less than 20 samples)	One per sampling event as required.					
Physical Parameters:	Solid	1-gallon plastic bag, sealed.	None	NA	NA	NA	NA	NA					
Natural Moisture Cont Atterberg Limits (AST Grain size Distribution Specific Gravity (AST USCS Classification (A	M D4318) (ASTM D42 M D854)	2/D1140)											

## **Figures**

Figure 1
Sediment Removal in the Cayuga Lake Tributary
NYSDEC Sampling Locations, August 2003 Sampling Event





Note: Scale not provided with image.

Source: NYS DEC Region 7, fax dated April 17, 2008

Feet 2,000 500 1,000 3,000 4,000 Orthoimages taken April 2007, 0.5 ft. natural color. Downloaded from New York State GIS Clearinghouse July 15, 2008. (http://www.nysgis.state.ny.us/) EcoLogic

Figure 2 Sediment Removal in the Cayuga Lake Tributary Sediment Sampling Locations

## **Exhibits**

#### Exhibit A – TOGS 5.1.9 Screening Values and Sediment Management Options

**Table 2 Sediment Quality Threshold Values for Dredging, Riparian or In-water Placement** Threshold values are based on known and presumed impacts on aquatic organisms/ecosystem. Where fresh water and marine threshold values differ sufficiently, the marine value is presented in parentheses. All concentrations are in mg/kg dry weight.

Compound	Class A	Class B	Class C	Derivation Code
Metals (mg/kg)				
Arsenic	< 14 (8.2)	(8.2) 14 - 53	> 53	1
Cadmium	< 1.2	1.2 - 9.5	> 9.5	1
Copper*	< 33	33 - 207 (270)	> 207 (270)	1
Lead	< 33 (47)	33 (47) - 166 (218)	> 166 (218)	1
Mercury+	< 0.17	0.17 - 1.6 (1.0)	> 1.6 (1.0)	1
PAHs and Petroleu	m-Related Compo	unds (mg/kg)		
Benzene	< 0.59	0.59 - 2.16	> 2.16	2
Total BTEX*	< 0.96	0.96 - 5.9	> 5.9	2
Total PAH <sub>1</sub>	< 4	4 - 35 (45)	> 35 (45)	1
Pesticides (mg/kg)				
Sum of DDT+DDD+DDE+	< 0.003	0.003 - 0.03	> 0.03	2
Mirex*+	< 0.0014	0.0014 - 0.014	> 0.014	2
Chlordane*+	< 0.003	0.003 -0.036	> 0.036	1
Dieldrin	< 0.11	0.11 -0. 48	> 0.48	2
Chlorinated Hydroc	arbons (mg/kg)			
PCBs (sum of aroclors) <sub>2</sub>	< 0.1	0.1 - 1	> 1	3
2,3,7,8-TCDD*3 (sum of toxic equivalency)	< 0.0000045	0.0000045 - 0.00005	> 0.00005	4

<sup>+</sup> Threshold values lower than the Method Detection Limit are superseded by the Method Detection Limit. (See Table 1) \* Indicates case-specific parameter (see Chapter II, Section A) .1For Sum of PAH, see Appendix E2For the sum of the 22 PCB congeners required by the USACE NYD or EPA Region 2, the sum must be multiplied by two to determine the total PCB concentration. 3TEQ calculation as per the NATO - 1988 method (see Appendix D)

Note: The proposed list of analytes can be augmented with additional site specific parameters of concern. Any additional analytes suggested will require Division approved sediment quality threshold values for the A, B and C classifications.

**Table 2.1 Derivation Codes for Chemical Threshold Values** 

Derivation Code	Explanation
1	Values are the geometric mean (GM) between Long & Morgan (1990) and Persaud (1992). Class A values are the GM of ER-L1 and Lowest Effect Level. Class C values are the GM of the ER-M1 and Severe Effect Levels. The resulting GMs were compared to marine water ER-L and ER-M values published by Long & Morgan (1992). When compared, the lowest of the two corresponding values was selected. When there was a large difference between a freshwater (Long & Morgan (1990) or Persuad (1992) GM) and a saltwater (Long & Morgan 1992) value, the marine value was recorded in parentheses, and is applicable to marine water dredging and management only. For total PAHs, Persaud (1992) had no toxicity values so only those of Long and Morgan (1990) were used. This approach is consistent with that described in the Technical Guidance for Screening Contaminated Sediments Document (DFW/DMR 1999). The Chlordane values were developed by NYSDEC generally following the Long and Morgan method.
2	NYSDEC water quality standards were used in conjunction with the U.S. EPA equilibrium partitioning methodology (see DFW/DMR 1993, pages 5-11) to calculate sediment quality threshold values for organic compounds assuming 2% organic carbon and equating Kow to KOC, consistent with the reality of contaminant uptake in biological organisms (Kenaga and Goring, 1980). Class A value is for the protection of benthic life from chronic toxicity. The Class C value is for the protection of benthic life from acute toxicity. If aquatic life standards were not available from 6NYCRR Part 703.5 to generate the sediment screening criterion, a guidance value was derived in accordance with 6 NYCRR Part 706.1. For total BTEX, the A and C values are the geometric means of the A and C values for benzene, xylene, ethylbenzene, and toluene. For DDT (sum of DDT, DDD, & DDE), the A value was based upon the 6 NYCRR 703.5 standard for the protection of wildlife. Because this value (0.00022 mg/l) was below the limit of analytical detection, the analytical detection limit of 0.003 mg/l was selected as a default value. The C value was the level at which significant mortality to daphnia magna has been documented (Long & Morgan, 1990). This approach is consistent with that described in the Technical Guidance for Screening Contaminated Sediments Document (DFW/DMR 1999).
3	Synthesis of Consensus Based Sediment Quality Assessment Values (D.D. MacDonald, et, al., Jan 2000), Marine and Estuarine Sediment Quality Values (E.R. Long, et. al., Nov 1993), PCB soil cleanup levels in NYSDEC Division of Environmental Remediation TAGM HWR-92-4046 and of sediment quality values from NYSDEC Division of Fish, Wildlife and Marine Resources Technical Guidance for Screening Contaminated Sediments, 1998.
4	A mean of the NYSDEC Fish and Wildlife bioaccumulation number, of the USEPA's low risk to mammals, the disposal of paper sludge in pasture land and the bioaccumulation protection of fish values, was calculated and rounded down to the nearest 0.5 ppt. This value is 0.0000045 ppm or 4.5 ppt. Additionally, the soil/sediment action level for 2,3,7,8 TCDD in the RCRA hazardous waste program (TAGM DHSR 3028, 1992) is 4.5 ppt. The on-land application limit of 50 ppt is used as the contaminated level from the USEPA - Paper Industry Agreement from Environment Reporter, 29 April 1994, pages 2222-3.

**Table 3 RIPARIAN/IN-WATER Management Options** 

Activity	Class A	Class B	Class C
Dredging	Any means meeting generally accepted and approved practices	Closed bucket suggested or any means meeting environmental objectives	Closed bucket or other method minimizing loss of resuspended sediment ordinarily required
Riparian Placement	Any means meeting generally accepted and approved practices	Placement at riparian sites already containing more contaminated material. New riparian sites should be covered with Class A sediments to insure isolation of the dredged material. The depth of the cap will be determined on a site specific basis.	Riparian sites should be lined and capped with clay or other impermeable material and covered with Class A sediments to ensure long-term isolation of the dredged material from the environment. The depth of the cover material will be determined on a site specific basis.
In-water Placement	Any means meeting generally accepted and approved practices	In water placement discouraged. When applicable, sites should be capped with Class A sediment to insure isolation of the dredged material	In-water disposal ordinarily precluded.
Barge Overflow	Barge overflow may be allowed (site specific)	Usually, no barge overflow. May be allowed on site specific basis	No barge overflow
Post dredging Monitoring	May be required	See Chapter V	See Chapter V

#### NOTES:

- 1. Environmental Objectives for Dredging, Chapter IV, Section A applies to all classes.
- 2. Environmental Objectives for Dredged Material Management Placement at Riparian and/or In-water Sites, Chapter IV, Section B applies to all classes.
- 3. Riparian sites are adjacent to or within the 100-year flood plain of the surface waters in which dredging is proposed. These sites are typically diked with controlled outlets for retention of sediment and are typically regulated under Section 401 of the CWA. They do not constitute "on-land" placement.
- 4. Due to site specific circumstances, an applicant has full responsibility to justify all operations, including both those described above and any other selected alternatives.
- 5. Depending on conditions, hydraulic dredging to a confined disposal facility or excavation in the dry is the recommended method for PCB concentrations of greater than 10 ppm. Dredged material should be disposed of directly at final disposal sites. An applicant may justify another method of dredging and disposing of this material, as long as no net dumping of contaminated dredged material is proposed. If concentrations approach 50 ppm, Division of Environmental Remediation should be consulted.

## ATTACHMENT B Boring Location Map

**Figure 9.** Sediment Sampling Locations, Cayuga Inlet and Tributaries. Ithaca Dredging Project Planning and Design Phase.



## ATTACHMENT C Boring Logs



5788 Widewaters Parkway, Dewitt, New York 13214

<b>Boring Number</b>	
/	

Project Name & Location Project Number Date & Time					Date & Time Started:	19NW08	1015		
Ithaca l	Dredgin	g			0080140	Date & Time Completed:	MWW 06	104	5"
Orilling Com					Foreman	Sampler(s)	Sampler Har	nmer	Drop
Parratt					Joel Rauscher	Todd Marsh	1404	<u>r</u>	30"
Orilling Equi					Method	Elevation & Datum	Completion	Depth	Rock Depth
	v/ tripo	đ			Split Spoon		141		
Bit Size(s)	, - <u>r</u>				Core Barrel(s)	Geologist(s)			
2"					2"	Todd Marsh			
DEPTH		SAMPL	ES			• • • • • • • • • • • • • • • • • • • •			
			FID/		SOIL DES	CRIPTION		RF	MARKS
(ft below	Sample	Recovery	PID	Blow		. = -			
grade)	Number	(feet)	(ppm)	Counts					
	LOCATION	:		21	SURFACE DESCRIPTION:		Duply	ule saw	ipie collected
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## **ERM**

5788 Widewaters Parkway, Dewitt, New York 13214

<b>Boring Number</b>	
1	

DEPTH	H SAMPLES					
(ft below grade)	Sample Number	Recovery (teet)	FID/ PID (ppm)	Blow Counts	SOIL DESCRIPTION	REMARKS
8 =				WI	16" DK Gray SILT with some fine sand < 10%	ML
- 9 -				WH		
				MH	811 OK Grey SILT some fine Soud 2 20%	mL
- 10 -		₩" '		WH		
				wH	15" DK Gray SILT with some fine Sand & 15%	m L
- 11 -				MIL	C SAMO	
		_		12	911 DK gray to gray fine SAND some medium grand sound < 5% some 5:14 (10%)	5m
- 12 -		24		8	•	
				5	20" Gray fine and medium grained 5AND (80%/15%) w. 24 5ime 5:14 (5%)	5 P
- 13 -					5:ME 5:14 (0 10)	
			-	5		
- 14 -		201		6		
						.:
- 15 -						
			-		Sample 1030 Ith-1 (6-12)	
_ 16 _					Ith -OUP)	
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5788 Widewaters Parkway, Dewitt, New York 13214

Boring	Number
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2

Project Name					0080140		NOVO8 094	$\mathcal{I}$
Ithaca l		ıg				Date & Time Completed: 18		
Drilling Com					Foreman	Sampler(s)	Sampler Hammer 140 ≠	Drop <b>3</b> ८³″
Parratt					Joel Rauscher	Todd Marsh		*
Drilling Equi		.3			Method	Elevation & Datum	Completion Depth	Rock Depth
Barge v	v/ tripo	<u>a                                    </u>			Split Spoon  Core Barrel(s)	Geologist(s)	17	
2"					2"	Todd Marsh		
DEPTH		SAMPL	ES					
			FID/		SOIL DI	ESCRIPTION	RE	EMARKS
(ft below	Sample	Recovery	PID	Blow				
grade)	Number	(teet)	(ppm)	Counts	SURFACE DESCRIPTION:			
	LOCATION リン゜ 27'	l: 	76 30		Wester Depth 1	2.61		
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				WH	14" DK 607	SILT some	ML	
				Joon	Sand KS	T10		
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				WH	Sand 2	10%		
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Boring Number

5788 Widewaters Parkway, Dewitt, New York 13214

## Z

DEPTH	DEPTH SAMPLES					
(ft below grade)	Sample Number	Recovery (teet)	FID/ PID (ppm)	Blow Counts	SOIL DESCRIPTION	REMARKS
8 =			***	Ì	8" DK Grap SILT with some sand = 100%	ML
- 9 -				3		
				2	16" DK gray to brown laminated STLT with some sand 215% - brown sand	m L
- 10 -	-	¥ 241		Z	Sund 215% - brown sand laminships	
		\		3	24" OK gray to bonun SILT with	MΥ
- 11 -				3	Some sand (15%) More brown color with depth	
				3		
- 12 -		241		3		·
				3	24" Brown SILT with some sand (15%)	w 4
- 13 <b>-</b>				2	AND AND THE CONTRACTOR OF THE	
:				4	ANGO - PA	
- 14 -		<i>¥</i> <i>≯</i> ₁*		Z		
: : :						
- 15 -					Samoks 1010 Ith-2(6-10)	
					Samples 1010 Ith-2(6-10) 1020 Ith-2(10-14)	
16						

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5788 Widewaters Parkway, Dewitt, New York 13214

Boring	Number
•	2

	& Location  Dredgin	o			Project Number 0080140	Date & Time Started:  Date & Time Completed:	17NOVOS 1 17NOVOS		
Drilling Com		5		····	Foreman Foreman	Sampler(s)	Sampler F		Drop
Parratt	Wolff				Joel Rauscher	Todd Marsh	14	o	<b>პ</b> ი"
Drilling Equi Barge v	<sub>pment</sub> v/ tripo	<del></del>			Method Split Spoon	Elevation & Datum	Completic	on Depth (	Rock Depth
Bit Size(s)	, птро <sub>с</sub>	<u></u>			Core Barrel(s)	Geologist(s)	• •	-	
2"					2"	Todd Marsh			
DEPTH		SAMPLI		I	COII TOTA	SCRIPTION		סס	MARKS
(ft below grade)	Sample Number	Recovery (teet)	FID/ PID (ppm)	Blow Counts	SOIL DE	SCRIF TION		KE	WIARRO
— a	LOCATION 42° 21		763	c <sup>3</sup> 3£.7"	surface description: 3.5 water day	14,			
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				wil					
<b>-</b> 2		O,,		ur					
<b>4</b>				3	4" Dkgry SIL Organ			PΤ	
<b>—</b> 3 ·				6	12" DK gray fine	to medium grained	0	SP	
_				5	5ANO 25%	th sine sith			
_ 4		16"		6					
				4		e to medium grank		5P	
<u> </u>				Z	SAND with	some 5:11 < 5%	6		
J	. :	Control		5					
<b>—</b> 6 ·	-	14"		4					
<b>J</b>				5	9" OK Brown medi Some fine grammed	ium grand SAND sand <15% and	x	5 P	
— 7 ·				4	<5% 574				
,				3					
8 .		9"		4					
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**Boring Number** 

3

5788 Widewaters Parkway, Dewitt, New York 13214

DEPTH		SAMPL	ES			
(ft below grade)	Sample Number	Recovery (teet)	FID/ PID (ppm)	Blow Counts	SOIL DESCRIPTION	REMARKS
8				5	14" DK brown fine-grand SAND with some medium granded simil (210%) also some 5:1+ (25%)	5P
- 9 -				4	also some silt (25%)	
				3		
- 10 -		Ψ 14"		4		
				Z	51 OK brown fine grammal SANO Some Silf 210%	5W
- 11 -				7		
:				1	16" Brown to reddon-brown fine - grained SANO sime 5:11 < 20%	SP
- 12 -		21"		4		
				3	411 Brun to redduk brown fine-grando JANO with some silt 215%	S P
- 13 -				3	3" Brown to OK brown sundy SILT.	mL
20				l	fine ground sand 4 200%	
- 14 -		15"		4	8" DK brown fine grained SAND with sime median grand and 25% of Sit 2 10%	SW
					3:1+ 2 10%	
- 15						
16					Sample 1450 Fth-3(6-12)	
					<u>,</u>	

Page 2 of 2 Signature:	Date:	17 Nov &
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5788 Widewaters Parkway, Dewitt, New York 13214

**Boring Number** 

4

•	ocation  Dredging			0080140	Date & Time Completed: 18 Nove		
Prilling Com				Foreman	Sampler(s)	Sampler Hammer	Drop
Parratt				Joel Rauscher	Todd Marsh	140 #	30'
Prilling Equ				Method	Elevation & Datum	Completion Depth	Rock Depth
	v/ tripod			Split Spoon		14'	
it Size(s) 2"				Core Barrel(s) 2"	Geologist(s) Todd Marsh		
DEPTH	SAM	PLES					A 75160
(ft below grade)	Sample Recove		Blow Counts	SOIL DES	SCRIPTION	REM	ARKS
	LOCATION:		1	SURFACE DESCRIPTION:			
	42° 27' 16.5"	766 30 4.	2,14	4.0' Wahn Depth			
0			WR	8" DK gray SILT	with some clay	ML	
1			WR				
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<del></del> 2 ·			wR	10" DK gry SILT	with some clay	, mL	
2			wif				
<b>—</b> 3 ·			wlt				
_ 4	10"		MH				
<b>—</b> 4			i	22" DK gray SIL	-T with Clay (45%)	WF	
-			Z				
<b>–</b> 5			1				
2	22"		3				
<b>—</b> 6 ·			2	31 DK gray SILT with	(lay (45%)	m L	
<b>–</b> 7			Z	6" Dk gray to brown 25% fine sand	n Sandy SILT	m L	
_ /			5	10" Gray to brown I	me-grand SAND	SW	
_ 8 .	19"		5	with some self	- < 10%		
	Page /	of	2	Signature:		Date: /8	NN 08



Boring Number

5788 Widewaters Parkway, Dewitt, New York 13214

DEPTH	SAMPLES				DED CA DICC	
(ft below grade)	Sample Number	Recovery (teet)	FID/ PID (ppm)	Blow Counts	SOIL DESCRIPTION	REMARKS
8				3	14" Reddish brown to DK brown fine SAND with some silf (&15%)	SW
- 9 -				6	(415%)	
_ 9 -				2		
<b>–</b> 10 <b>–</b>		14"		3		
- 10 -		1		3	5" Dk brown fine SAND with sine 5:14 = 10%	SW
_ 11 _				3	15" Dk brown to dk gray SILT with	mL
- 11 -			***************************************	4	Some fine Sand 2 15%	
10		20"		5		
<b>-</b> 12 -		1		3	140 Dk brown to dk gmy SILT with fine sand 210% sand content increases with depth.	mL
- 13 -				3	content increases with depth.	
- 13 -				4		
- 14		i4"		4		
- 15 -					Sampu 0920 I+h-4(6-12)	
16						

Page Z	of	2	Signature:	Date:	18 NOJ08
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5788 Widewaters Parkway, Dewitt, New York 13214

Boring Number 5

#### ERM BORING LOG

Project Name	& Location				Project Number	Date & Time Started: 19 A le	JOB 1205	
	Dredgin	ıg			0080140	Date & Time Completed: 4 No		
Drilling Com		<del>-</del>			Foreman	Sampler(s)	Sampler Hammer	Drop
Parratt					Joel Rauscher	Todd Marsh	140#	<b>3</b> o ″
Orilling Equipment				Method	Elevation & Datum	Completion Depth	Rock Depth	
	v/ tripo	d			Split Spoon		141	
Bit Size(s)	, ,				Core Barrel(s)	Geologist(s)		
2"					2"	Todd Marsh		
DEPTH		SAMPL	ES					
			FID/		SOIL DES	SCRIPTION	RE	MARKS
(ft below	Sample	Recovery	PID	Blow				
grade)	Number	(teet)	(ppm)	Counts	GUNEACE DECEMBRION.			
	LOCATION		76 301		SURFACE DESCRIPTION: Water Depth 4.5'			
— <sub>0</sub> ·	92 27	<b></b>	76 30	32.5	Water Daller 1.2			
υ		1			12" Black Organic SI	LT	PT	
				WH	12 0122	- '	T /	
		<del>                                     </del>						
		1						
1				WH				
_					All ON PRIN SET	with Some Sand 210%		
				WH	0 DE 917 5221 C	DITTO SOME SANG ZIETO	mL	
						ww.		
		$\Psi$		WH				
		18"		W 17				
<del>-</del> 2		1				0×. ±		
		١ ١		WH	15" DK gray to dk b	coun SILF	m L	
					15" DK gray to dk b with some fine	Sund < 10%		
				2				
		1						
<b>—</b> 3 ·								
				4				
				' '				
		V		_		•		
				3				
_ 4 ·		15*					<u> </u>	
		(		3	12" DK brown SIL	t with some	ML	
		1		1	five Sand K	15%	' '	
						, , , , , , , , , , , , , , , , , , ,		
				3				
<b>—</b> 5 ·								
					12" Brown fine	SANO with	sm	
				9	40% 511	wal fragment throughout	3,.,	
			<del>                                     </del>			, . , . , . , . , . , . , . , . , . , .	<u> </u>	
		-		g				
<u> </u>		24 "						
_ 0		i		3	8" Gray fine gra	nd SAND some	sw	
				)	,		300	
					Mudium grained	Sond < 5% and		
		\		3	brown lamonto	my of organic		
-		1			matual	,		
— 7 ·								
				6				
				ļ			-	
		, it		1				
8		8	-	6				
_ 0 .			<u> </u>					
	Page	1	of	2	Signature:		Date:	9 NW 09



5788 Widewaters Parkway, Dewitt, New York 13214

<b>Boring Number</b>	
5	

DEPTH	H SAMPLES				DED (A DVC	
(ft below grade)	Sample Number	Recovery (teet)	FID/ PID (ppm)	Blow Counts	SOIL DESCRIPTION	REMARKS
8 -	·	ľ		3	24" DK gray fine to mechan grames	SP
				Z	SAND some solt <5%	
- 9 -				2		
10		24'		5		
- 10 -				2	24" Gray fine to medium growned	sp
_ 11 _				2	SANO with some SIH 25%	
- 11				2		
- 12 -		→ <sup>*</sup> ~		3		
- 12				3	24" Gray fine to soudium-grained	sρ
- 13 -				2,	SANO with some silt 25%	
10				2		
- 14 -		240		3		
**						
- 15 -						
					Samples 1240 Ith-5(4-10) Ith-5(10-14)	
16						

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5788 Widewaters Parkway, Dewitt, New York 13214

Boring Number	
6	

#### **BORING LOG**

roject Name					Project Number		VOV 08 1340	
	Oredgin	g			0080140		Nov 66 1420	
Orilling Com					Foreman	Sampler(s)	Sampler Hammer	Drop
Parratt					Joel Rauscher	Todd Marsh	140 H	30 H
rilling Equipment Barge w/ tripod					Method	Elevation & Datum	Completion Depth	Rock Depth
	// tripod	a			Split Spoon  Core Barrel(s)	Geologist(s)	į વા	
Bit Size(s) 2"					Core Barrel(s) 2"	Todd Marsh		
DEPTH		SAMPLE	ES					
			FID/		SOIL DES	SCRIPTION	REM	IARKS
(ft below grade)	Sample Number	Recovery (teet)	PID (ppm)	Blow Counts				
6·mac)	LOCATION				SURFACE DESCRIPTION:			
		06.11	760 30	ં વાત્વ	10.5' water d	lepth		
— o ·							A :	
				WH	4" Black to gray o	Eganic SILT	PT	
					* (			
			-	WH				
1				$1^{\omega n}$				
					υ <sup>1</sup> Λ	- A CANIA	<`; :	
				3	4" Brown Medicin	m-yraind JANIJ	SW	
		<del>     </del>						, , , , , , , , , , , , , , , , , , , ,
		8"		1				
_ 2 ·								
_					9" Gray to brown t	fine to medica m	SP	
				WH				
					grained SAN	0		
				WH	,			
<b>—</b> 3 ·								
				wH				
		<del> </del>						
		Q IL		wit				
_ 4		1		L *~ . ′				
		\ \ \ \		3	10" Gray to brown n	redium grained	SP	
•		[			5AND	•		
				-7	J J			
				3				
<u> </u>					11		<del>  .</del>	
				4	4" Brown SILT	with some fine	WE	
				'	sand < 5%			
		🖳		7				
		144		2				
<b>—</b> 6 ·					2" Brown SILT w	. Hy Sugar Cine Soul	l im i	
				<b>'</b> Z	W	. a of later and	mL	
				<del>                                     </del>		1 ,		
				3	9" Gray and brown	•	SP	
<b>—</b> 7					SAND some f	in grained sand		
1				5	and sat			
				3				
		1			4" Brown SILT ~	with some fine -	ML	
		15"		6	grained sand <	10%	```\ <del>`</del>	
8 .		!		L		· · · · · · · · · · · · · · · · · · ·		
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<b>Boring Number</b>	
6	

#### **BORING LOG**

DEPTH		SAMPL	ES			DVI (A DVC)
(ft below grade)	Sample Number	Recovery (teet)	FID/ PID (ppm)	Blow Counts	SOIL DESCRIPTION	REMARKS
8 -		1		2.	24" Brown SILT with some fine sand and shalls <5%	ML
- 9 -				2		
				l		
- 10 -		<i>ህ</i> 281		2		
				1	24 Brown SILT with some fine Sand and organic material & 10%	mL
_ 11 _	:		4	2		
				4		
- 12 -		24"	-	4	21'Brown lamounted SILT with some	
				Z	gray fine-framed sound	m L
- 13 -		j		Z	lammating com or less	
				3		
- 14 -		24"		4		
			· · ·		Samples 1410 Ith-6 (6-10)	
- 15 -	······································				1420 Ith-6(10-14)	
16						

Signature:\_

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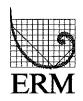
Date:



5788 Widewaters Parkway, Dewitt, New York 13214

Boring	Number
	7

roject Name Ithaca 1	ભ Location Dredgin	ஏ			0080140		11108 1355 11108 1355	
rilling Com		6			Foreman	Sampler(s)	Sampler Hammer	Drop
Parratt					Joel Rauscher	Todd Marsh	140#	30'
rilling Equi	pment				Method	Elevation & Datum	Completion Depth	Rock Depth
	v/ tripo	d			Split Spoon		141	
it Size(s) 2"					Core Barrel(s) 2"	Geologist(s) Todd Marsh		
<u>DEPTH</u>		SAMPL	ES	-			DEL S	ADIZC
(ft below grade)	Sample Number	Recovery (teet)	FID/ PID (ppm)	Blow Counts	SOIL DES	SCRIPTION	KEM	ARKS
:	LOCATION 42°26	: 51.7"	76° 30'	41.5"	SURFACE DESCRIPTION:			
<b>-</b> 0		Ì		WH	8" Black Organic S	ILT .	PT	
_ 1 .				ω¥				
			<del>-</del>	WH	9" DK gray to dK bon fine sand < 10	ma SILT aith	шГ	
<b>–</b> 2 ·		17"		wH	44		-	
_				wit	14 Gray and brown for grained SANO	ne to medicam with some soft	5P-5m	
— 3 ·				wH	L 10% fine Sand > med	nun sond volume		
	:			wH				
<b></b> 4 -		<b>→</b> 14"		мн				
				WH	graind SAM S.H < 10%	of the to medium v0 with some	5P-5m	
<del></del> 5				WH	S.H < 10% fre sand > me			
				2				
<del></del> 6 ·		)i		1	711			
				wН	3" Gray to borns fin		5 P	
<del>-</del> 7 ·				WH	7" Brown SILT of Cleaves) at both	ton of interval	mL	
				2,	10" gray to brown 1		SW-SM	
_ 8 .		20"		Z	Silf at 20%			
	Page	7	of	2	Signature:		Date: 19	NEV Q8



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### **ERM**

**Boring Number** 

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## **BORING LOG**

DEPTH		SAMPL	ES			
(ft below grade)	Sample Number	Recovery (teet)	FID/ PID (ppm)	Blow Counts	SOIL DESCRIPTION	REMARKS
8				l	grained SANO with some Silt < 10% silt content increasing	sp-sm
- 9 -				1	5:14 < 10% silt centent incrueding with depth	
				1	5" Brown SILT with fine sand < 25%	ML
- 10 <b>-</b>		¥ 24°	"	1		
		1	***	l	8" Brown SILT with fine sand (25%)	mL
_ 11 _				l	10" fine to medium grained SAND with some 5:14 15%	SP-5m
				Z		
12		ا 2۲ °		1	6" Brown SILT with fine-grained sund = 100%	WT
				2	16" Brown to gray fine to mechan-grains	5P-5m
- 13 -				3	SAND SOME 5:14 <15%	
				3	8" Brown ad gry SILT with some	ML
- 14 -		24"		3	fine graind sand < 15%	
14						
- 15 -						
10					Sample 1350 I+4-7 (1-14)	
16						
				<u> </u>		

Signature: Date:

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5788 Widewaters Parkway, Dewitt, New York 13214

**Boring Number** 8

#### **BORING LOG**

	& Location	Œ			Project Number 0080140		NOJOB 1407	
Itnaca I	Dredgin	g			Foreman	Date & Time Completed: 19 Sampler(s)	Nov 1905 Sampler Hammer	Drop
Parratt					Joel Rauscher	Todd Marsh	140 #	30"
Orilling Equi		,			Method Cralit Connect	Elevation & Datum	Completion Depth	Rock Depth
Barge v lit Size(s)	v/ tripod	1			Split Spoon  Core Barrel(s)	Geologist(s)	14.	
2 <sup>rt</sup>					2"	Todd Marsh		
<u>DEPTH</u>		SAMPLI	ES				_	ED & A DYCO
(ft below grade)	Sample Number	Recovery (teet)	FID/ PID (ppm)	Blow Counts	SOIL DES	SCRIPTION	R	EMARKS
_	LOCATION 426 4		16° 30' 4	135"	surface description: Water depth 91			
— o ·				wr	6" Black organic	SILT	РТ	
_ 1				wR				
				ωH				
<b>–</b> 2 ·		6"		Wit				
<i>€</i>				MH	12" Brown SILT w Sand < 10%	ith some fine-grand	wr	
<del>-</del> 3 -				WH		**********************************		
J				5				
_ 4		15,,		2				
— <del>-</del>				WH	15" Brown SILT w 210%	with fine-graund sand	ጣኒ	
<b>—</b> 5				WH	1" Black tre-like	substance (root ter?)	) <u> </u>	
<i>.</i>				WH	4" Medium grain-		SP	
<b>–</b> 6 ·	-de-Surpey	20"		1	Some fine graind Small gravel	10% and		
				3	4" DK gray SIL1	rno some	wr_	
— 7 ·				1				
,				3				
8 .		4"		2				
•	Page	1	of	Z	Signature:		Date:	19 Na 08

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**Boring Number** 

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DEPTH	SA	MPL	ES		CON DECEMBRION	DEM A DIVO
(ft below grade)		overy eet)	FID/ PID (ppm)	Blow Counts	SOIL DESCRIPTION	REMARKS
8				3	18"Ok brown SILT some sand 210%	mL
				4		
- 9 -				2		
- 10 -	18	н		1		
_ 10 _				Ì	4" DK been SILT with some sand 415%	mL
- 11 -				l	8" medium graned SAND with some small gravel < 5%	SP
				ı	3" Dk brown SILT with some sanf	ML
- 12 -	15	·ii		2	Z 10°6	
				2	24" Dk brown SILT with some	ML
- 13 -				Z	Sand 415%	and the second s
				3		
- 14 -	¥ 24	u	*******	3		
			-			
- 15 -			<del>.,,</del>		Samples 1430 Ith -8(2-10)	
					1445 IM-8 (10-14)	
_ 16 _						

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5788 Widewaters Parkway, Dewitt, New York 13214

**Boring Number** 

roject Name	& Location				Project Number	Date & Time Started:	20 NOJ 08	1500	
Ithaca l	Dredgin	ıg			0080140	Date & Time Completed:	20 NOV 05		
Orilling Com		<u> </u>			Foreman	Sampler(s)	Sampler	Hammer	Drop
Parratt					Joel Rauscher	Todd Marsh	140		300
rilling Equi					Method	Elevation & Datum	Complet	ion Depth	Rock Depth
	7/ tripo	d			Split Spoon		14	1	
it Size(s)	. т				Core Barrel(s)	Geologist(s)			
2"					2 <sup>n</sup>	Todd Marsh			
DEPTH		SAMPL	ES						
			FID/		SOIL DES	SCRIPTION		REM	IARKS
(ft below grade)	Sample Number	Recovery (teet)	PID (ppm)	Blow Counts					
grade)	LOCATION		(Plant)	Comics	SURFACE DESCRIPTION:				
	6 PS -				Water Depth 10.9'				
— o i				ı	O		<del>-  -</del>		
Ĭ		}		<sub>       </sub>					
			<u></u>	WH					
				WH					
_ 1		<b>H</b>		· ·		100,100			
				WH					
		1							
		0"		WH					
- 2				<u>                                     </u>		- A - A			
_		,			Gray fine- gramed Some Silt 210	SAND with	50	v-Sm	
				WH	Some Silt 210	%			
				WH					
<u> </u>		<del>                                     </del>							
		4							
		94		'					
_ 4	1								
		}		WH	Gray fine-grained some silt	SAND WHY	Si	V-5M7	
				~'	Some silt	<106			
				WH					
<del>-</del> 5 ·					<u></u>				
				( , ) id					
				MH					
		📆		<b>.</b>					
		64		WIF					
— 6 ·		1			0 CP17 ;	1_ r r E - ~	-u:		
				Z	Brown SILT with		6 /	NL	
					and some ch	ny < 5%			
				_		•			
_				2			}		
<del>-</del> 7 ·								····	
				3					
		1							<del></del>
		1 1		2					
_ 8 ]		20"		_					
_ ` '		,							
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Boring Number	
9	

DEPTH		SAMPL			COL DECOMPTION	DEMARKO
(ft below grade)	Sample Number	Recovery (teet)	FID/ PID (ppm)	Blow Counts	SOIL DESCRIPTION	REMARKS
8				3	22" Brown SILT with fine-grand Sund with some shells < 5%	mL
- 9				3		
				2		
- 10 <b>-</b>		22"		Z		
				3	20" Brown SILT with clay interns < 5% some shells and least	mL
- 11 -				Z	materials	
				2		
- 12 -		√ 20"		Z		
				4	18" Brown SILT with clay intervals 215% - organiz metaculs al	mL
- 13 -				4	s hells.	
				6		
- 14 -		18 4		6		
- 15 -					Sample 1515 Ith-9(1-14)	
16						

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5788 Widewaters Parkway, Dewitt, New York 13214

**Boring Number** 

10

### **BORING LOG**

Project Name Ithaca l	& Location  Dredging				Project Number 0080140	Date & Time Started: Zo N  Date & Time Completed: Zo N	10008 1353- 10008 1420	
Drilling Com	pany				Foreman	Sampler(s)	Sampler Hammer	Drop
Parratt Drilling Equi					Joel Rauscher Method	Todd Marsh Elevation & Datum	Completion Depth	∂o ^' Rock Depth
	v/ tripod				Split Spoon	Devices de Diction	141	
Bit Size(s)	<u> </u>				Core Barrel(s)	Geologist(s) Todd Marsh		
DEPTH		SAMPLI	ES					
(ft below		Recovery	FID/ PID	Blow	SOIL DES	SCRIPTION	REM	ARKS
grade)	Number	(teet)	(ppm)	Counts				
	LOCATION:	s Nu	)		SURFACE DESCRIPTION:	¥		
<del></del> 0		1	***************************************	wH				
1			,	wif				
_ 1				WH		Action of the Control		
:		0"		WH				
<del></del> 2 ·		1		ند)﴿	Dik gray to brown . with some sitt.		Sw-Sm	
			-	wit				
<u> </u>				WIY				
4		7"		WH				
4				Z	10" DK gray to brown with some sitt	Fine-gramed SAND 1506	5w-5m	
_	THE PARTY OF THE P			3				
<del></del>				4	5" DK brown SILT Sond < 10% Som		mL	
6	2	t !4"		5	fill Dk brown SILT sand 25%	u. Hy some fre	mL mL	
				2	4" Brown Peat		PT	
<del></del> 7 ·				3	16" Brown SILT grained Sand <	with some fine- 5% with some	mL	
,				Z	thin clay layers	· · · · · · · · · · · · · · · · · · ·		
8 .	2	20"		4				
				_				14109

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Boring Number

5788 Widewaters Parkway, Dewitt, New York 13214

#### 10

DEPTH		SAMPL	ES.			
(ft below grade)	Sample Number	Recovery (teet)	FID/ PID (ppm)	Blow Counts	SOIL DESCRIPTION	REMARKS
8				4	2011 Brown to light brown SILT with some fine send layers and	mL
- 9 -				2	white chap layers chap < 5% and	
				3	Sand 25%	
- 10 -		20"		2		
				3	21' Brown to light brown SIET  Some white Clay layers	mL
- 11 -				2	clay 210%	
		<u> </u>	***************************************	4		
- 12 -		2i"		4	16" Brown to light brown SILT with	
-				4	Some chy 40%	mL
- 13 -		-		3	,	
-		<del> </del>		4		
- 14 -		6"		1		
-						
- 15 -					Sample 1415 Ith-10(1-14)	
_ 16 _			<u> </u>	<u> </u>		

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5788 Widewaters Parkway, Dewitt, New York 13214

Boring	Number
	d)

Project Name					Project Number		105 H47	
Ithaca I	Oredgin	g			0080140	Date & Time Completed: 2000	08 1230	
Drilling Com	_				Foreman		Sampler Hammer	Drop
Parratt					Joel Rauscher	Todd Marsh	1404	301
Drilling Equi	pment			****	Method	Elevation & Datum	Completion Depth	Rock Depth
Barge w	v/ tripod	đ			Split Spoon		14*	
Bit Size(s)					Core Barrel(s)	Geologist(s)		
2"					2"	Todd Marsh		
DEPTH		SAMPLE	ES					
	Į	I	FID/		SOIL DES	SCRIPTION	REMA	ARKS
(ft below	Sample	Recovery	PID	Blow				
građe)	Number	(teet)	(ppm)	Counts				
	LOCATION				SURFACE DESCRIPTION:	, I	Depluate 300mpl TH-100	e certesty
	GPS.	- NW			Water Depth 13.0		I'th-Wu	とて
— o t		ı l		_	3" Gray fine to me	Jum everal SAND	SP	
	1			2	o Gray time to me	count grown din o	35	
			******		•			
				,				
_ 1		<del></del>				N . 6		
	1			•	5" Brown SILT	with some time.	100 h	
					sind 25%		ML	
					<del></del>			
		8"						
<u> </u>		0		•				
		$+$ $\Box$			9" Brown SILT	with some fine grand	.00.1	
		]		2	Sand and sh	116 / 51/2	WF	
		+			Jara ma sh	wy 4 3 0		
				2				
		1						
— 3 <del> </del>								
				3				
l		V		7)				
		9")		3				
_ 4		7					, , , , , , , , , , , , , , , , , , , ,	
-		, l		4	10" Brown and C Some fine 9	oray SILT with	compact - had	
				1 1	some fine a	railed sand 25%	mL	
		+		'				
		-   -		¥				
_				1				
<del>-</del> 5		7 1		<i></i>				
				5				
		<b>V</b> .		4				
		104		- 1				
— 6 ∤		·			1011 A A	/ CTIT 1/		
		\		2	15" Brown and	Gray SILT with	mL	
					Some fine-9	rand sand and shells mull gravel < 10%		
		$\dashv$			also Simo s	mail gravel < 10%		
		į l		1	1,10 June 1	7		
— 7 l								
′		] ]		1	911 Brown to ligh	it brown SILT will	ML	
į		[ [		/	Same Sine Sa	d = 20% - lama-ld	· · · L	
		<del>- J</del> , -			JUNE PILL JAN	C - 1 Inhial CA		
		~		,	Structures - bedding	7		
8		24"		/				
_ 0 ]	ı I							
	Page	/	of	2	Signature:		Date: 20	Nev 08



### $\mathbf{ERM}$

5788 Widewaters Parkway, Dewitt, New York 13214

Boring Number	
11	

#### **BORING LOG**

DEPTH		SAMPL	ES			DEL CADICO
(ft below grade)	Sample 1 Number	Recovery (teet)	FID/ PID (ppm)	Blow Counts	SOIL DESCRIPTION	REMARKS
8				Z	Brown SILT with yellow white clay interbeds - arbundant shells some fine sand 25%	mL
0				Z	Some fine sand 25%	
- 9 -				l		
10		¥ 24"		2		
10				1	yellow white CLAY with brown silt interbeds with some line sand	CL
_ 11 -			1	2	~ 5°10	
				İ		
- 12 -		24"		2		
				2	Brown SILT with yellow-white Chy < 15% with some fine sand <5%	w.r
- 13 -			•	3	fine 5 and 25%	
				2		
- 14 -		24		4		
- 15 -					Sample collicted 1220 Ith-11(1-14)	
		:			Ith-DUPZ	
_ 16 _						

Signature: Date:

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20 NN 08



5788 Widewaters Parkway, Dewitt, New York 13214

**Boring Number** 

12

### **BORING LOG**

roject Name Ithaga I		ıŒ			Project Number 0080140		108 1034	
Itnaca 1 Drilling Com	Dredgin	ıg .			Foreman	Date & Time Completed: 20 No Sampler(s)	Sampler Hammer	Drop
Parratt					Joel Rauscher	Todd Marsh	140#	30"1
Orilling Equipment Method Elevation & Datum					Completion Depth	Rock Depth		
	v/ tripo	<u>d</u>			Split Spoon	Coalogists	141	
Bit Size(s) 211					Core Barrel(s) 2"	Geologist(s) Todd Marsh		
DEPTH		SAMPL	ES					
		, ,	FID/	[	SOIL DE	SCRIPTION	REM	IARKS
(ft below grade)	Sample Number	Recovery (teet)	PID (ppm)	Blow Counts				
	LOCATION	l:		,	SURFACE DESCRIPTION:	Δ.		
_	42'26	z 2.0"	76° 30'	53.12	Water Depth 801	<del></del>	<u>,</u>	
_ o				7				
						H-10-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1		
				3				
1								
_				1	, and the second			
				'				
		<b>V</b>		2				
_		0"		2				
- 2				ì	4" Brown fine to 10	redum gram SANO	<0	
				{	with some silt		59	
			<del>                                     </del>	ı	- 11	<del>, -</del>	1	
				1	3" Soaked wood		- account	
- 3				7	all an Comb	andim grained		
				Z	8" Brown fine to SAND with	som 5:11- 25%	59	
			<del>                                     </del>		J/11415 W.F.	American Service and American	†	
		1531		3				
_ 4		1.5			71 / i	ALAAR SANIA	<del>                                     </del>	
				2	17" Gray medium to	olastic division with	5ρ	
		<del>                                     </del>		<del>  ,  </del>	Some grass and	plantic dubris with	<del>                                     </del>	
				1	the sind 210.	w aw gill - o o		
<del>-</del> 5							+	
				3				
1							<u> </u>	
		17"		3				
- 6		- '		/		N. CA 10	<u> </u>	
				2	16" Gray time to in	redium SANO with	SP	
					Some coarse:	sand and gravel	ļ .	
				2	some Silf les	s < 5%		
- 7				_			<del> </del>	·**
				3	8" Brown fine t	o medium grained	SP-Sm	
							<del> </del>	. ,
		244		5	SAND with	n some silt		
_ 8 ]		7.			a 15%			

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**Boring Number** 

5788 Widewaters Parkway, Dewitt, New York 13214

### 12

DEPTH		SAMPL	ES			
(ft below grade)	Sample Number	Recovery (teet)	FID/ PID (ppm)	Blow Counts	SOIL DESCRIPTION	REMARKS
8 =		ſ		3	13" Gay and brown medium to coarse SAND with some fine send < 108	58-SM
- 9 -				3	no sit	
				4	5" wood - brangh segment	
- 10 -		18"		5		
			<b>-</b> ₩₩.	5	2011 median to coarse SAND some small graval at bottom of interal	5 P
- 11 -				5	5:14 4 5%	
				4	4" Brown SILT with some fine sound 25%	mL
- 12 -		24"		3		
				2	411 Brown SILT with some fine sound 65%	m L
- 13 -				Z	201 medium to coarse SAND with	5P
				3	Some fine Sound 210% and Solt 2 5%	A PARAMANA AND AND AND AND AND AND AND AND AND
- 14 -		2411		4		
						·
- 15 -						
					Sample while 1045 Ith-12 (1-14)	
16						

Page	Z	of	2	Signature:	Date:	20 NW 08
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5788 Widewaters Parkway, Dewitt, New York 13214

Boring Number

roject Name					Project Number 0080140	Date & Time Started: 21	No.108 0820	
Itnaca I	Oredgin	<b>წ</b>			Foreman	Date & Time Completed: 210 Sampler(s)	Sampler Hammer	Drop
Parratt	Wolff				Joel Rauscher	Todd Marsh	NO#	30 "
Orilling Equi					Method Colit Speep	Elevation & Datum	Completion Depth	Rock Depth
Barge w	// tripo	<u></u>			Split Spoon  Core Barrel(s)	Geologist(s)	74	
2"			<u></u>		2"	Todd Marsh		
DEPTH		SAMPLI			COIT INFO	CRIPTION	DEM	DIC
(ft below	Sample	Recovery	FID/ PID	Blow	SOIL DES	CAIF HON	REMA	CAM
grade)	Number LOCATION	(teet)	(ppm)	Counts	SURFACE DESCRIPTION:		1	
:		: 5- NU	j		Depth to writer ?	7.5-1		
— o i				ì	3" Brown Coarse		SP	
				į		2/4NV ~+1	٦٢	
				1	gravel			
1		\_		(				
				1				
		<del>-</del>			- to an a fix world			
_		3 <sup>11</sup>		l				
— 2 <del> </del>		1		)	10" Coarse SANG graval 240% Some madam	) ad gravel -	58-5m	
				ı	graval 240°1	also centermy	J. V.71	
_ 3 -				3	Some medum Some Silt.	grand sind ay		
· .				4		<b></b>		
		10"		3				
4		,0		<u> </u>				
				Z	Course SAND gravel 240	and grovel - The with some 5:14 < 10°6	5P-3m	
				Z	fore sand and	5,14 <10°6		
<del></del> 5				. 4				
				4				
		9"		3				
— 6 ·				Z	21" Brown STLT o	at two of interest	ML	
				2	Sand content 1	at top of intered 0-15%		
<del>-</del> 7 ·				Z	- Administrative Control of the Cont			
				<i>ــ</i>				
8 ]		21"		2				
	Page	/	of	2	Signature:		Date: Z	1 Na 08



**Boring Number** 

5788 Widewaters Parkway, Dewitt, New York 13214

## 13

### **BORING LOG**

<u>DEPTH</u>		SAMPL	ES			
(ft below grade)	Sample Number	Recovery (teet)	FID/ PID (ppm)	Blow Counts	SOIL DESCRIPTION	REMARKS
8 -	:			Z	Brun SILT with fine sand at 10-15%.	ML
- 9 -				2		
				3		
- 10 -		1 24"		2		
		1		Z	Brown 5:11 with fine sand at	mL
- 11 -				3		
		1	**-	3		
- 12 -		24"	•	5	Brown SILT with five said 25%	
		<del>-\</del>		2	Missey 2111 With the 2004 T.2 TO	ML
- 13 -	***************************************			2		
	**************************************			4		
- 14 -		24 4		4		
					,	
- 15 -					Samples certerful	
					0830 Ith-13(1-10) 6940 Ith-13(10-14)	
_ 16 _					_	

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Date:

21 NNO8



5788 Widewaters Parkway, Dewitt, New York 13214

Boring Number

#### **BORING LOG**

Ithaca l	e & Location Dredgir	ıg			Project Number 0080140	Date & Time Completed: 2/1	0J05 0A45- Vev 05 1150	
Orilling Con Parratt					Foreman Joel Rauscher	Sampler(s) Todd Marsh	Sampler Hammer	Drop "Zc."(
Parratt Orilling Equ					Method	Elevation & Datum	Completion Depth	Rock Depth
	v/ tripo	d			Split Spoon		141	
Bit Size(s) 2"					Core Barrel(s) 2"	Geologist(s) Todd Marsh		
<u>DEPTH</u>		SAMPL	ES	_				
(ft below grade)	Sample Number	Recovery (feet)	FID/ PID (ppm)	Blow Counts	SOIL DI	ESCRIPTION	REN	IARKS
	LOCATION らり	!: 5 - Nu	,	1 80000	SURFACE DESCRIPTION: Wester depth 4.	0'		
<del>-</del> 0				4	Gravel GRAV	EL with course grant 60°6	GP	
1				S				
				İ				
2		9=9		12				
2				13	coasse SAND . Some 5:14 <	with graval (30%) 5%	SP	
<b>—</b> 3				9				
- 3				8				
_ 4		19,1		6				
•				5	GRAVEL with	h coarse sund but Extb	6P	
<b>—</b> 5			<u>-</u>	5				
Ü				7		W-1-3-7-		···-
<b>—</b> 6		3"		5			٠	
Ü				8	Brown fine-grad	and SAND with	5M	
<b>—</b> 7		- announce of the same of the		5-			·	
,				3				
8		10"		6				

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5788 Widewaters Parkway, Dewitt, New York 13214

Boring Number	
14	

DEPTH		SAMPL	ES			
(ft below grade)	Sample Number	Recovery (feet)	FID/ PID (ppm)	Blow Counts	SOIL DESCRIPTION	REMARKS
8 =				l	6" Brown SILT with fine simd at 40%	ML
- 9 -				l	i" mat of roots	
				3	5" Brown SILT with fine sand	mL
- 10 -		以		3	at 25%	
				3	19" Brown SILT with fine send	mŁ
- 11 -				2	at 15%	
	,			3		
- 12 -		19"		3		
:				3	Brain SILT with fine sand between 15-20%	ML
- 13 -				3		
				2		
- 14 -		15"		2		
- 15 -					Sample collected 0850 Ith-14(1-14)	
_ <b>-</b>						
16						
			***************************************			

Page Z	of	2	Signature:	Date:	21 NW 05
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5788 Widewaters Parkway, Dewitt, New York 13214

Boring Number

ay, Dewitt, New York 13214

#### ERM

Ithaca l	Dredgin	g			0080140	Date & Time Completed: '20	MN 92 10.29	
Drilling Com	-	<u> </u>	- 11		Foreman	Sampler(s)	Sampler Hammer	Drop
Parratt					Joel Rauscher	Todd Marsh	140H	3.4
Drilling Equi	_	a a			Method	Elevation & Datum	Completion Depth	Rock Depth
Bit Size(s)	v/ tripo	u.			Split Spoon  Core Barrel(s)	- ••		
2"					2"	Geologist(s) Todd Marsh		
DEPTH		SAMPLE	is					
(ft below	Sample	Recovery	FID/ PID	Blow	SOIL DE	SCRIPTION	REMA	ARKS
grade)	Number	(feet)	(ppm)	Counts				
	LOCATION		<b>-</b> .6	h h	SURFACE DESCRIPTION:	· .)		
L 0	42026	18.2	76 3	\$ 58.5	Depth to water	7.0		
U		- [		wk				
				WK .				
				WR				
1				WK				
_				2				·
		-{		WR				:
		<b>V</b> .		WR				
_		0,,		WP				
— 2 ·		1			10" Brown and GARY	Fine to medium	58-5m	
				WH	10" Brun and Gory grained SANG	5:14 2 10%	24 - 2011	
		1			·			
				Z				:
<u> </u>								
				2				
		V						
		10 11		2				
_ 4				7	6" power and Good fin	e SAND with	SW-SM	
		\		Z	6" proun ad Gray from silt content a	+ 20%	700 311	
				3				
					8" Brown SILT:	fore sand <10%	m L	
<b>—</b> 5		1 1		4			<0 t -	
					10" Brown and Gray grained SA/ content < 10°	VD with sitt	SP-Sm	
		1		U	content 210°	<i>16</i>		
		241		4	<del>-</del> -	**		
<u> </u>		$\frac{\cdot}{t}$			1611 Ava - 1	fine to medium		
				2	16" Brown of grand SAN	do with some	5P	
		1 1			s:1+ < 5%	-		
		)		1	3:17 € 3 /2	?		
7								
				つ				
		5		Z				
8 ]	<u> </u>							
	Page	/	of	フ	Signature		Date: Ze/	VIVUS



5788 Widewaters Parkway, Dewitt, New York 13214

Boring Number

<u>DEPTH</u>		SAMPL	ES			
(ft below grade)	Sample Number	Recovery (feet)	FID/ PID (ppm)	Blow Counts	SOIL DESCRIPTION	REMARKS
8 -			:	4	20" Gray all brown fine to medice in graind SANO with Sill & 5% Some pines of word	SP
- 9 -				6	Some places of word	
				6		
- 10 -	:	20"		5		
		\		3	15" Graz ad brown medium grains SAND with some fine	SP
_ 11				4	GAND with some fine ground sand becoming coarser with digth	
:				3	9" Brown SILT with fine ground	mЬ
– 12 –		24"		3	Sund army 25% - Less sard with depth	
_ 12 -					16" Brown SILT with fine ground sound less than 10%	mL
- 13 -				1		
13				3	8" yellow brown SILT with some Clay 215% low philary	ML
- 14 -		24"		2	,	
- 15 <del>-</del>					Samples collected at 092	
					Ith-16 (1-14) Eth-16ms0 (1-14) Ith-16ms0 (1-14)	
16					I+h-16ms0 (1-14)	

Page	2	of	2	Signature:	Date:	20NW 05	

# ATTACHMENT D Tables

TABLE 1
SUMMARY OF SAMPLE ANALYSIS, NOVEMBER 2008
CITY OF ITHACA DREDGING STUDY
ERM PROJECT NO. 0080140

Boring Location	Sta	ndards		1		2			3		4	į	5		6		7
Sample ID	TOGs 5.1.9:	Part 375 Unrestricted	Icl	h-1		Ich-2		Ic	h-3	Ic	h-4	Icl	h-5		Ich-6		Ich-7
Sample Depth <sup>1</sup>	Class A	Soil Standards	1 - 6	6 - 12	1 - 6	6 - 10	10 - 14	1-6	6 -12	1 - 6	6 - 12	4 - 10	10 - 14	1 - 6	6 - 10	10 - 14	1 - 14
BTEX (μg/Kg)																	
Toluene	BTEX < 960	700															
SVOC's (μg/Kg)																	
2-Methylnaphthalene	NS	NS				180 J											90 J
Acenaphthene	NS	20,000				750											120 J
Acenaphthylene	NS	100,000				92 J											
Anthracene	NS	100,000				300 J											230 J
Benzo[a]anthracene	NS	1,000	170 J	140 J	150 J	610		240 J		83 J				88 J			390 J
Benzo[a]pyrene	NS	1,000	170 J	140 J	170 J	510		280 J		91 J				98 J			350 J
Benzo[b]fluoranthene	NS	1,000	230 J	240 J	300 J	650		550 J		140 J				160 J			590
Benzo[g,h,i]perylene	NS	100,000	86 J		110 J	150 J		170 J		58 J				64 J			130 J
Benzo[k]fluoranthene	NS	800	110 J	90 J	140 J	270 J		190 J		60 J				71 J			210 J
Chrysene	NS	1,000	190 J	170 J	210 J	630		350 J		99 J				120 J			460 J
Fluoranthene	NS	100,000	370 J	350 J	410 J	1,100		700		210 J				220 J	65 J		1,200
Fluorene	NS	30,000				380											160 J
Indeno[1,2,3-cd]pyrene	NS	500	63 J		71 J	65 J		100 J									70 J
Naphthalene	NS	12,000				240 J											130 J
Phenanthrene	NS	100,000	170 J	230 J	180 J	1200		280 J		91 J				92 J	71 J		1,500
Pyrene	NS	100,000	290 J	330 J	330 J	1400		630 J		160 J				180 J	54 J		1,100
Total PAHs	4,000	NS	1,849	1,690	2,071	8,527		3,490		992				1,093	190		6,730
Metals (mg/Kg)																	
Arsenic	< 8.2	13	3.5	6.5	5.6	2.8	3.3	5.4	2.1	4.3	2.2	4	1.3 J	4.5	2.3	2.5	4.8
Cadmium	< 1.2	2.5		0.29 J													
Chromium	NS	30	12	19	19	13	12	18	7.6	12	10	13	6.8	14	8.2	8.7	13
Copper	< 33	50	18	31	27	16	15	29	7.3	18	12	16	4.7	21	11	11	19
Lead	< 47	63	13	32	21	11	7.4	25		12	8.4	10	3.5	20	7.1	5.4	27
Mercury	< 0.17	0.18	0.055 J	0.3	0.076 J	0.18	0.047	0.076 J	0.033 J	0.043 J	0.043 J	0.15	0.087 J	0.047 J	0.03 J	0.031 J	0.13 J
Nickel	NS	30	17	26	26	19	18	24	10	17	14	19	9.1	20	12	13	18
Zinc	NS	109	68	98	97	61	58	100	31	60	46	57	30	70	42	37	70
PCB's (mg/Kg)																	
Aroclor 1254	Total PCB < 0.1	0.10		0.0657		0.0294	0.0152				0.0423	0.00546 J					0.0427
Total Organic Carbon (mg/Kg)																	
TOC	NS	NS	23,700	17,600	17,500	22,900	20,400	25,200	10,500	15,100	10,400	26,700	3,970	17,200	34,900	30,500	14,400

#### Notes:

-- = Analyte not detected.

J = Concentration Estimated: Result below the Practical Quantitation Limit (PQL).

NS = No Standard

 $\mu$ g/Kg = Is equal to Parts Per Billion (ppb).

mg/Kg = Is equal to Parts Per Million (ppm).

<sup>1</sup> = Sample composite interval in feet below sediment/water interface.

**Bold** = Sample exceeds Applicable Standard.

TABLE 1
SUMMARY OF SAMPLE ANALYSIS, NOVEMBER 2008
CITY OF ITHACA DREDGING STUDY
ERM PROJECT NO. 0080140

Boring Location	Standards		8		9	10	11	12	13		14	16
Sample ID	TOGs 5.1.9:	Part 375 Unrestricted	Ich	Ich-8		Ich-10	Ich-11	Ich-12	Ich	-13	Ich-14	Ich-16
Sample Depth <sup>1</sup>	Class A	Soil Standards	2 - 10	10 - 14	1 - 14	1 - 14	1 - 14	1 - 14	1 - 10	10 - 14	1 - 14	1 - 14
BTEX (μg/Kg)												
Toluene	BTEX < 960	700									0.94 J	
SVOC's (μg/Kg)												
2-Methylnaphthalene	NS	NS		69 J								
Acenaphthene	NS	20,000										
Acenaphthylene	NS	100,000										
Anthracene	NS	100,000										
Benzo[a]anthracene	NS	1,000	190 J									
Benzo[a]pyrene	NS	1,000	190 J									
Benzo[b]fluoranthene	NS	1,000	370 J						48 J			
Benzo[g,h,i]perylene	NS	100,000	80 J									
Benzo[k]fluoranthene	NS	800	190 J									
Chrysene	NS	1,000	240 J									
Fluoranthene	NS	100,000	440 J						63 J			
Fluorene	NS	30,000										
Indeno[1,2,3-cd]pyrene	NS	500										
Naphthalene	NS	12,000										
Phenanthrene	NS	100,000	230 J	68 J								
Pyrene	NS	100,000	400 J		1		1	1	59 J		1	
Total PAHs	4,000	NS	2,330	137					170			
Metals (mg/Kg)												
Arsenic	< 8.2	13	4.2	2.1	3.2	3	2.5	1.9	3.6	3.9	3.6	2.5
Cadmium	< 1.2	2.5										
Chromium	NS	30	14	8.5	11	9.9	10	11	12	13	13	10
Copper	< 33	50	25	9.2	16	14	15	8.5	12	13	12	8
Lead	< 47	63	32	5	9.3	8.2	7.5	8.4	7.7	6.2	6.8	5.5
Mercury	< 0.17	0.18	0.2		0.072 J	0.037 J	0.027 J	0.024 J	0.082 J	0.037 J	0.029 J	0.058 J
Nickel	NS	30	19	12	16	14	15	16	17	17	20	15
Zinc	NS	109	80	39	48	42	42	47	52	55	47	43
PCB's (mg/Kg)												
Aroclor 1254	Total PCB < 0.1	0.10	0.0361	0.093 J								
Total Organic Carbon (mg/Kg)												
TOC	NS	NS	18,900	23,900	26,600	33,600	27,700	21,100	11,300	15,200	14,000	7,760

#### Notes:

-- = Analyte not detected.

J = Concentration Estimated: Result below the Practical Quantitation Limit (PQL).

NS = No Standard

 $\mu$ g/Kg = Is equal to Parts Per Billion (ppb).

mg/Kg = Is equal to Parts Per Million (ppm).

 $^{1}$  = Sample composite interval in feet below sediment/water interface.

**Bold** = Sample exceeds Applicable Standard.

TABLE 2 SEDIMENT PHYSICAL CHARACTERISTICS CITY OF ITHACA DREDGING STUDY ERM PROJECT NO. 0080140

Sample ID	Depth (feet)	Percent Water Content	Percent Gravel	Percent Sand	Percent Fines (Silt & Clay)	Specific Gravity	Percent Organic Content
Ith-1	6.0 - 12.0	51.8	0.0	9.4	49.3	2.65	1.76
T41- 0	6.0 - 10.0	55.1	1.9	8.2	89.9	2.62	2.29
Ith-2	10.0 - 14.0	43.6	1.4	9.6	89.0	2.58	2.04
Ith-3	6.0 - 12.0	29.6	0.5	50.2	49.3	2.65	1.05
Ith-4	6.0 - 12.0	37.4	0.2	38.1	61.7	2.60	1.04
Ith-5	4.0 - 10.0	51.1	1.5	36.1	62.4	2.68	2.67
itn-5	10.0 - 14.0	31.1	0.9	64.9	34.2	2.67	0.40
Ith-6	6.0 - 10.0	51.6	2.0	25.1	72.9	2.62	3.49
Itn-6	10.0 - 14.0	52.6	0.2	5.6	94.2	2.64	3.05
Ith-7	7.0 - 14.0	37.4	0.1	52.4	47.5	2.55	1.44
Ith-8	2.0 - 10.0	49.9	2.4	28.8	68.8	2.62	1.89
1111-0	10.0 - 14.0	40.5	7.5	26.6	65.9	2.67	2.39
Ith-9	1.0 - 14.0	58.3	3.9	17.9	78.2	2.58	2.66
Ith-10	1.0 - 14.0	57.1	1.6	19.3	79.1	2.64	3.36
Ith-11	1.0 - 14.0	54.2	0.5	28.4	71.1	2.66	2.77
Ith-12	1.0 - 14.0	34.5	7.0	72.7	20.3	2.64	2.11
Ith-13	1.0 - 14.0	48.1	2.0	8.9	89.1	2.64	1.13
1111-13	1.0 - 10.0	37.0	15.2	27.7	57.1	2.62	1.52
Ith-14	1.0 - 14.0	32.7	28.2	18.0	53.8	2.70	1.40
Ith-16	1.0 - 14.0	28.7	2.4	70.1	27.5	2.69	0.78

# ATTACHMENT E Laboratory Analytical Reports

### Life Science Laboratories, Inc.

5000 Brittonfield Parkway, Suite 200 East Syracuse, NY 13057

(315) 437-0200

Wednesday, January 07, 2009

Ed Hinchy ERM Consulting & Engineering 5788 Widewaters Pkwy Dewitt, NY 13214

TEL: (315) 445-2554

Project: ITHACA DREDGING

RE: Analytical Results

Order No.: 0811131, 0811142

0811166

Dear Ed Hinchy:

Life Science Laboratories, Inc. received samples on 11/18/08, 11/20/08 and on 11/21/08 for the analyses presented in the following report.

Very truly yours, Life Science Laboratories, Inc.

Anthony Crescenzi Project Manager

# Sample Data Summary Package

#### NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

#### FORM S-I

# SAMPLE IDENTIFICATION AND ANALYTICAL SUMMARY

NYS DEC SAMPLE ID	LABORATORY SAMPLE ID	Туре	Analytical Requirements							
			VOA GC/MS Method #	BNA GC/MS Method #		MISC GC Method #	METALS Method #	OTHER Method #		
lth-3 (6-12)	0811131-001	SAMP	SW8260B	SW8270C	:	SW8082 SW8081A	SW7471A SW6010B	SM 2540 G		
lth-4 (6-12)	0811131-002	SAMP	SW8260B	SW8270C	:	SW8082 SW8081A	SW7471A SW6010B	SM 2540 G		
lth-2 (6-10)	0811131-003	SAMP	SW8260B	SW8270C		SW8082 SW8081A	SW7471A SW6010B	SM 2540 G		
lth-2 (10-14)	0811131-004	SAMP	SW8260B	SW8270C		SW8082 SW8081A	SW7471A SW6010B	SM 2540 G		
lth-6 (6-10)	0811131-005	SAMP	SW8260B	SW8270C		SW8082 SW8081A	SW7471A SW6010B	SM 2540 G		
lth-6 (10-14)	0811131-006	SAMP	SW8260B	SW8270C		SW8082 SW8081A	SW7471A SW6010B	SM 2540 G		

## NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

#### FORM S-I

# SAMPLE IDENTIFICATION AND ANALYTICAL SUMMARY

			Analytical Requirements							
NYS DEC SAMPLE ID	LABORATORY SAMPLE ID	Туре	VOA GC/MS Method#	BNA GC/MS Method #		MISC GC Method #	METALS Method #	OTHER Method #		
Ith-8 (2-10)	0811142-001	SAMP	SW8260B	SW8270C		SW8082 SW8081A	SW7471A SW6010B	SM 2540 G		
lth-8 (10-14)	0811142-002	SAMP	SW8260B	SW8270C		SW8082 SW8081A	SW7471A SW6010B	SM 2540 G		
lth-7 (1-14)	0811142-003	SAMP	SW8260B	SW8270C		SW8082 SW8081A	SW7471A SW6010B	SM 2540 G		
lth-5 (4-10)	0811142-004	SAMP	SW8260B	SW8270C		SW8082 SW8081A	SW7471A SW6010B	SM 2540 G		
ith-5 (10-14)	0811142-005	SAMP	SW8260B	SW8270C		SW8082 SW8081A	SW7471A SW6010B	SM 2540 G		
lth-1 (6-12)	0811142-006	SAMP	SW8260B	SW8270C		SW8082 SW8081A	SW7471A SW6010B	SM 2540 G		
4th-Dup1	0811142-007	SAMP	SW8260B	SW8270C		SW8082 SW8081A	SW7471A SW6010B	SM 2540 G		

# NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION FORM S-I

# SAMPLE IDENTIFICATION AND ANALYTICAL SUMMARY

NYS DEC SAMPLE ID			Analytical Requirements							
	LABORATORY SAMPLE ID	Туре	VOA GC/MS Method #	BNA GC/MS Method #	VOA GC Method #	MISC GC Method #	METALS Method #	OTHER Method #		
Ith-9 (1-14)	0811166-001	SAMP	SW8260B	SW8270C	***************************************	SW8082 SW8081A	SW7471A SW6010B	SM 2540 (		
Ith-10 (1-14)	0811166-002	SAMP	SW8260B	SW8270C		SW8082 SW8081A	SW7471A SW6010B	SM 2540		
lth-11 (1-14)	0811166-003	SAMP	SW8260B	SW8270C		SW8082 SW8081A	SW7471A SW6010B	SM 2540 (		
Ith-12 (1-14)	0811166-004	SAMP	SW8260B	SW8270C		SW8082 SW8081A	SW7471A SW6010B	SM 2540 (		
Ith-16 (1-14)	0811166-005	DUP						SM 2540 (		
Ith-16 (1-14)	0811166-005	MS	SW8260B	SW8270C		SW8081A SW8082	SW6010B SW7471A	·		
lth-16 (1-14)	0811166-005	MSD	SW8260B	SW8270C		SW8081A SW8082	SW6010B SW7471A			
Ith-16 (1-14)	0811166-005	SAMP	SW8260B	SW8270C		SW8082 SW8081A	SW7471A SW6010B	SM 2540 (		
ith-14 (1-14)	0811166-006	SAMP	SW8260B	SW8270C		SW8082 SW8081A	SW7471A SW6010B	SM 2540 (		
Ith-13 (1-10)	0811166-007	SAMP	SW8260B	SW8270C		SW8082 SW8081A	SW7471A SW6010B	SM 2540		
lth-13 (10-14)	0811166-008	SAMP	SW8260B	SW8270C		SW8082	SW7471A SW6010B	SM 2540 (		
lth-1 (1-6)	0811166-009	SAMP	SW8260B	SW8270C		SW8082 SW8081A	SW7471A SW6010B	SM 2540 (		
lth-DUP2	0811166-010	SAMP	SW8260B	SW8270C		SW8082 SW8081A	SW7471A SW6010B	SM 2540 (		
ith-2 (1-6)	0811166-011	SAMP	SW8260B	SW8270C		SW8082 SW8081A	SW7471A SW6010B	SM 2540 (		
Ith-3 (1-6)	0811166-012	SAMP	SW8260B	SW8270C		SW8082 SW8081A	SW7471A SW6010B	SM 2540 (		
Ith-4 (1-6)	0811166-013	SAMP	SW8260B	SW8270C		SW8082 SW8081A	SW7471A SW6010B	SM 2540 (		
lth-6 (1-6)	0811166-014	SAMP	SW8260B	SW8270C		SW8082 SW8081A	SW7471A SW6010B	SM 2540 (		

7/2005

#### SW8260B

## NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION FORM S-IIb

## SAMPLE PREPARATION AND ANALYSIS SUMMARY VOLATILE (VOA) ANALYSES

LABORATORY SAMPLE ID	MATRIX	DATE COLLECTED	DATE REC'D AT LAB	DATE EXTRACTED	DATE ANALYZED
0811131-001A	Soil	11/17/08	11/18/08		11/21/08
0811131-002A	Soil	11/18/08	11/18/08		11/21/08
0811131-003A	Soil	11/18/08	11/18/08		11/21/08
0811131-003C	Soil	11/18/08	11/18/08		11/24/08
0811131-004A	Soil	11/18/08	11/18/08		11/24/08
0811131-005A	Soil	11/18/08	11/18/08		11/24/08
0811131-006A	Soil	11/18/08	11/18/08		11/21/08
0811142-001A	Soil	11/19/08	11/20/08		11/21/08
0811142-001ARA	Soil	11/19/08	11/20/08		11/24/08
0811142-002A	Soil	11/19/08	11/20/08		11/24/08
0811142-003A	Soil	11/19/08	11/20/08		11/21/08
0811142-004A	Soil	11/19/08	11/20/08		11/21/08
0811142-005A	Soil	11/19/08	11/20/08		11/21/08
0811142-006A	Soil	11/19/08	11/20/08		11/21/08
0811142-007A	Soil	11/19/08	11/20/08		11/21/08
0811166-001A	Soil	11/20/08	11/21/08	-	11/24/08
0811166-002A	Soil	11/20/08	11/21/08		11/24/08
0811166-003A	Soil	11/20/08	11/21/08		11/25/08
0811166-004A	Soil	11/20/08	11/21/08		11/24/08
0811166-005A	Soil	11/20/08	11/21/08		11/25/08
0811166-005AMS	Soil	11/20/08	11/21/08		11/25/08
0811166-005AMSD	Soil	11/20/08	11/21/08		11/25/08
0811166-006A	Soil	11/21/08	11/21/08		11/24/08
0811166-007A	Soil	11/21/08	11/21/08		11/24/08
0811166-008A	Soil	11/21/08	11/21/08		11/24/08
0811166-009A	Soil	11/20/08	11/21/08		11/25/08
0811166-010A	Soil	11/20/08	11/21/08		11/25/08
0811166-011ARA	Soil	11/20/08	11/21/08		11/25/08
0811166-011A	Soil	11/20/08	11/21/08		11/25/08
0811166-012A	Soil	11/20/08	11/21/08		11/26/08
0811166-013A	Soil	11/20/08	11/21/08		11/25/08
0811166-014A	Soil	11/20/08	11/21/08		11/25/08

#### SW8260B

# NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION FORM S-III

LABORATORY SAMPLE ID	MATRIX	ANALYTICAL	EXTRACTION	AUXILIARY	DIL/CONC FACTOR
		PROTOCOL	METHOD	CLEANUP	
0811131-001A	Soil	SW8260B	NONE	NONE	0.96X
0811131-002A	Soil	SW8260B	NONE	NONE	0.75X
0811131-003A	Soil	SW8260B	NONE	NONE	0.66X
0811131-003C	Soil	SW8260B	NONE	NONE	2.3X
0811131-004A	Soil	SW8260B	NONE	NONE	0.91X
0811131-005A	Soil	SW8260B	NONE	NONE	1,47X
0811131-006A	Soil	SW8260B	NONE	NONE	0.98X
0811142-001A	Soil	SW8260B	NONE	NONE	1.13X
0811142-001ARA	Soil	SW8260B	NONE	NONE	0.8X
0811142-002A	Soil	SW8260B	NONE	NONE	0.56X
0811142-003A	Soil	SW8260B	NONE	NONE	1.13X
0811142-004A	Soil	SW8260B	NONE	NONE	0.91X
0811142-005A	Soil	SW8260B	NONE	NONE	0.8X
0811142-006A	Soil	SW8260B	NONE	NONE	0.72X
0811142-007A	Soil	SW8260B	NONE	NONE	1.01X
0811166-001A	Soil	SW8260B	NONE	NONE	0.96X
0811166-002A	Soil	SW8260B	NONE	NONE	0.71X
0811166-003A	Soil	SW8260B	NONE	NONE	0.9X
0811166-004A	Soil	SW8260B	NONE	NONE	0.92X
0811166-005A	Soil	SW8260B	NONE	NONE	0.82X
0811166-005AMS	Soil	SW8260B	NONE	NONE	0.94X
0811166-005AMSD	Soil	SW8260B	NONE	NONE	X8.0
0811166-006A	Soil	SW8260B	NONE	NONE	0.79X
0811166-007A	Soil	SW8260B	NONE	NONE	0.56X
0811166-008A	Soil	SW8260B	NONE	NONE	0.72X
0811166-009A	Soil	SW8260B	NONE	NONE	0.77X
0811166-010A	Soil	SW8260B	NONE	NONE	0.76X
0811166-011A	Soil	SW8260B	NONE	NONE	0.74X
0811166-011ARA	Soil	SW8260B	NONE	NONE	0.86X
0811166-012A	Soil	SW8260B	NONE	NONE	0.92X
0811166-013A	Soil	SW8260B	NONE	NONE	0.77X
0811166-014A	Soil	SW8260B	NONE	NONE	0.76X

#### SW8270C

## NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION FORM S-IIa

## SAMPLE PREPARATION AND ANALYSIS SUMMARY SEMIVOLATILE (BNA) ANALYSES

LABORATORY SAMPLE	MATRIX	DATE	DATE REC'D AT LAB	DATE EXTRACTED	DATE ANALYZED
0811131-001D	Soil	11/17/08	11/18/08	11/21/08	12/01/08
0811131-002D	Soil	11/18/08	11/18/08	11/21/08	12/01/08
0811131-002D	· ··-		1111111	11/21/08	12/01/08
0811131-003DDL	Soil	11/18/08	11/18/08	11/21/08	12/01/08
	Soil	11/18/08	11/18/08		
0811131-004D	Soil	11/18/08	11/18/08	11/21/08	12/01/08
0811131-005D	Soil	11/18/08	11/18/08	11/21/08	12/01/08
0811131-006D	Soil	11/18/08	11/18/08	11/21/08	12/01/08
0811142-001D	Soil	11/19/08	11/20/08	11/21/08	12/01/08
0811142-002D	Soil	11/19/08	11/20/08	11/21/08	12/01/08
0811142-003D	Soil	11/19/08	11/20/08	11/21/08	12/01/08
0811142-004D	Soil	11/19/08	11/20/08	11/21/08	12/01/08
0811142-005D	Soil	11/19/08	11/20/08	11/21/08	12/01/08
0811142-006D	Soil	11/19/08	11/20/08	11/21/08	12/01/08
0811142-007D	Soil	11/19/08	11/20/08	11/21/08	12/01/08
0811166-001D	Soil	11/20/08	11/21/08	11/24/08	12/03/08
0811166-002D	Soil	11/20/08	11/21/08	11/24/08	12/03/08
0811166-003D	Soil	11/20/08	11/21/08	11/24/08	12/03/08
0811166-004D	Soil	11/20/08	11/21/08	11/24/08	12/03/08
0811166-005D	Soil	11/20/08	11/21/08	11/24/08	12/03/08
0811166-005DMS	Soil	11/20/08	11/21/08	11/24/08	12/03/08
0811166-005DMSD	Soil	11/20/08	11/21/08	11/24/08	12/03/08
0811166-006D	Soil	11/21/08	11/21/08	11/24/08	12/03/08
0811166-007D	Soil	11/21/08	11/21/08	11/24/08	12/03/08
0811166-008D	Soil	11/21/08	11/21/08	11/24/08	12/03/08
0811166-009D	Soil	11/20/08	11/21/08	11/24/08	12/03/08
0811166-010D	Soil	11/20/08	11/21/08	11/24/08	12/03/08
0811166-011D	Soil	11/20/08	11/21/08	11/24/08	12/03/08
0811166-012D	Soil	11/20/08	11/21/08	11/24/08	12/04/08
0811166-013D	Soil	11/20/08	11/21/08	11/24/08	12/03/08
0811 <b>16</b> 6-014D	Soil	11/20/08	11/21/08	11/24/08	12/03/08

NYSDEC ASP. 7/2005

#### SW8270C

## NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION FORM S-III

LABORATORY SAMPLE ID	MATRIX	ANALYTICAL PROTOCOL	EXTRACTION METHOD	AUXILIARY CLEANUP	DIL/CONC FACTOR
0811131-001D	Soil	SW8270C	SW3550B	NONE	1X
0811131-002D	Soil	SW8270C	SW3550B	NONE	1X
0811131-003D	Soil	SW8270C	SW3550B :	NONE	1X
0811131-003DDL	Soil	SW8270C	SW3550B	NONE	10X
0811131-004D	Soil	SW8270C	SW3550B	NONE	1X
0811131-005D	Soil	SW8270C	SW3550B	NONE	1X
0811131-006D	Soil	SW8270C	SW3550B	NONE	1X
0811142-001D	Soil	SW8270C	SW3550B	NONE	1X
0811142-002D	Soil	SW8270C	SW3550B	NONE	1X
0811142-003D	Soil	SW8270C	SW3550B	NONE	1X
0811142-004D	Soil	SW8270C	SW3550B	NONE	1X
0811142-005D	Soil	SW8270C	SW3550B	NONE	1X
0811142-006D	Soil	SW8270C	SW3550B	NONE	1X
0811142-007D	Soil	SW8270C	SW3550B	NONE	1X
0811166-001D	Soil	SW8270C	SW3550B	NONE	1X
0811166-002D	Soil	SW8270C	SW3550B	NONE	1X
0811166-003D	Soil	SW8270C	SW3550B	NONE	1X
0811166-004D	Soil	SW8270C	SW3550B	NONE	1X
0811166-005D	Soil	SW8270C	SW3550B	NONE	1X
0811166-005DMS	Soil	SW8270C	SW3550B	NONE	1X
0811166-005DMSD	Soil	SW8270C	\$W3550B	NONE	1X
0811166-006D	Soil	SW8270C	SW3550B	NONE	1X
0811166-007D	Soil	SW8270C	SW3550B	NONE	1X
0811166-008D	Soil	SW8270C	SW3550B	NONE	1X
0811166-009D	Soil	SW8270C	SW3550B	NONE	1X
0811166-010D	Soil	SW8270C	SW3550B	NONE	1X
0811166-011D	Soil	SW8270C	SW3550B	NONE	1X
0811166-012D	Soil	SW8270C	SW3550B	NONE	1X
0811166-013D	Soil	SW8270C	SW3550B	NONE	1X
0811166-014D	Soil	SW8270C	SW3550B	NONE	1X

#### SW8081A

## NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION FORM S-IIc

LABORATORY SAMPLE	MATRIX	DATE	DATE REC'D	DATE	DATE
ID		COLLECTED	AT LAB	EXTRACTED	ANALYZED
0811131-001D	Soil	11/17/08	11/18/08	11/21/08	12/19/08
0811131-002D	Soil	11/18/08	11/18/08	11/21/08	12/19/08
0811131-003D	Soil	11/18/08	11/18/08	11/21/08	12/19/08
0811131-004D	Soil	11/18/08	11/18/08	11/21/08	12/19/08
0811131-005D	Soil	11/18/08	11/18/08	11/21/08	12/19/08
0811131-006D	Soil	11/18/08	11/18/08	11/21/08	12/19/08
0811142-001D	Soil	11/19/08	11/20/08	11/21/08	12/19/08
0811142-002D	Soil	11/19/08	11/20/08	11/21/08	12/19/08
0811142-003D	Soil	11/19/08	11/20/08	11/21/08	12/19/08
0811142-004D	Soil	11/19/08	11/20/08	11/21/08	12/19/08
0811142-005D	Soil	11/19/08	11/20/08	11/21/08	12/19/08
0811142-006D	Soil	11/19/08	11/20/08	11/21/08	12/19/08
0811142-007D	Soil	11/19/08	11/20/08	11/21/08	12/19/08
0811166-001D	Soil	11/20/08	11/21/08	11/24/08	12/19/08
0811166-002D	Soil	11/20/08	11/21/08	11/24/08	12/19/08
0811166-003D	Soil	11/20/08	11/21/08	11/24/08	12/20/08
0811166-004D	Soil	11/20/08	11/21/08	11/24/08	12/20/08
0811166-005D	Soil	11/20/08	11/21/08	11/24/08	12/20/08
0811166-006D	Soil	11/21/08	11/21/08	11/24/08	12/20/08
0811166-007D	Soil	11/21/08	11/21/08	11/24/08	12/20/08
0811166-008D	Soil	11/21/08	11/21/08	11/24/08	12/20/08
0811166-009D	Soil	11/20/08	11/21/08	11/24/08	12/20/08
0811166-010D	Soil	11/20/08	11/21/08	11/24/08	12/20/08
0811166-011D	Soil	11/20/08	11/21/08	11/24/08	12/20/08
0811166-012D	Soil	11/20/08	11/21/08	11/24/08	12/20/08
0811166-013D	Soil	11/20/08	11/21/08	11/24/08	12/20/08
0811166-014D	Soil	11/20/08	11/21/08	11/24/08	12/20/08

#### SW8081A

# NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION FORM S-III

		OCINI-A OFWITT	ANAL I OLO		
LABORATORY SAMPLE ID	MATRIX	ANALYTICAL PROTOCOL	EXTRACTION METHOD	AUXILIARY CLEANUP	DIL/CONC FACTOR
0811131-001D	Soil	SW8081A	SW3550B	GPC, Florisil	1X
0811131-002D	Soil	SW8081A	SW3550B	GPC, Florisil	1X
0811131-003D	Soil	SW8081A	SW3550B	GPC, Florisil	1X
0811131-004D	Soil	SW8081A	SW3550B	GPC, Florisil	1X
0811131-005D	Soil	SW8081A	SW3550B	GPC, Florisil	1X
0811131-006D	Soil	SW8081A	SW3550B	GPC, Florisil	1X
0811142-001D	Soil	SW8081A	SW3550B	GPC, Florisil	1X
0811142-002D	Soil	SW8081A	SW3550B	GPC, Florisil	1X
0811142-003D	Soil	SW8081A	SW3550B	GPC, Florisil	1X
0811142-004D	Soil	SW8081A	SW3550B	GPC, Florisil	1X
0811142-005D	Soil	SW8081A	SW3550B	GPC, Florisil	1X
0811142-006D	Soil	SW8081A	SW3550B	GPC, Florisil	1X
0811142-007D	Soil	SW8081A	SW3550B	GPC, Florisil	1X
0811166-001D	Soil	SW8081A	SW3550B	GPC, Florisii	1X
0811166-002D	Soil	SW8081A	SW3550B	GPC, Florisil	1X
0811166-003D	Soil	SW8081A	SW3550B	GPC, Florisil	1X
0811166-004D	Soil	SW8081A	SW3550B	GPC, Florisil	1X
0811166-005D	Soil	SW8081A	SW3550B	GPC, Florisil	1X
0811166-006D	Soil	SW8081A	SW3550B	GPC, Florisil	1X
0811166-007D	Soil	SW8081A	SW3550B	GPC, Florisil	1X
0811166-008D	Soil	SW8081A	SW3550B	GPC, Florisil	1X
0811166-009D	Soil	SW8081A	SW3550B	GPC, Florisil	1X
0811166-010D	Soil	SW8081A	SW3550B	GPC, Florisil	1X
0811166-011D	Soil	SW8081A	SW3550B	GPC, Florisil	1X
0811166-012D	Soil	SW8081A	, SW3550B	GPC, Florisil	1X
0811166-013D	Soil	SW8081A	SW3550B	GPC, Florisil	1X
0811166-014D	Soil	SW8081A	SW3550B	GPC, Florisil	1X

#### SW8082

## NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION FORM S-IIc

LABORATORY SAMPLE	MATRIX	DATE	DATE REC'D	DATE	DATE
aı		COLLECTED	AT LAB	EXTRACTED	ANALYZED
0811131-001D	Soil	11/17/08	11/18/08	11/21/08	12/01/08
0811131-002D	Soil	11/18/08	11/18/08	11/21/08	12/01/08
0811131-003D	Soil	11/18/08	11/18/08	11/21/08	12/01/08
0811131-004D	Soil	11/18/08	11/18/08	11/21/08	12/01/08
0811131-005D	Soil	11/18/08	11/18/08	11/21/08	12/01/08
0811131-006D	Soil	11/18/08	11/18/08	11/21/08	12/01/08
0811142-001D	Soil	11/19/08	11/20/08	11/21/08	12/01/08
0811142-002D	Soil	11/19/08	11/20/08	11/21/08	12/01/08
0811142-003D	Soil	11/19/08	11/20/08	11/21/08	12/01/08
0811142-004D	Soil	11/19/08	11/20/08	11/21/08	12/01/08
0811142-005D	Soil	11/19/08	11/20/08	11/21/08	12/02/08
0811142-006D	Soil	11/19/08	11/20/08	11/21/08	12/02/08
0811142-007D	Soil	11/19/08	11/20/08	11/21/08	12/02/08
0811166-001D	Soil	11/20/08	11/21/08	11/24/08	12/12/08
0811166-002D	Soil	11/20/08	11/21/08	11/24/08	12/12/08
0811166-003D	Soil	11/20/08	11/21/08	11/24/08	12/12/08
0811166-004D	Soil	11/20/08	11/21/08	11/24/08	12/12/08
0811166-005D	Soil	11/20/08	11/21/08	11/24/08	12/12/08
0811166-006D	Soil	11/21/08	11/21/08	11/24/08	12/12/08
0811166-007D	Soil	11/21/08	11/21/08	11/24/08	12/12/08
0811166-008D	Soil	11/21/08	11/21/08	11/24/08	12/12/08
0811166-009D	Soil	11/20/08	11/21/08	11/24/08	12/12/08
0811166-010D	Soil	11/20/08	11/21/08	11/24/08	12/12/08
0811166-011D	Soil	11/20/08	11/21/08	11/24/08	12/12/08
0811166-012D	Soil	11/20/08	11/21/08	11/24/08	12/12/08
0811166-013D	Soil	11/20/08	11/21/08	11/24/08	12/12/08
0811166-014D	Soil	11/20/08	11/21/08	11/24/08	12/12/08

#### SW8082

## NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION FORM S-III

LABORATORY SAMPLE ID	MATRIX	ANALYTICAL PROTOCOL	EXTRACTION METHOD	AUXILIARY CLEANUP	DIL/CONC FACTOR
0811131-001D	Soil	SW8082	SW3550B	PC, Acid wash, Cu Clea	1X
0811131-002D	Soil	SW8082	SW3550B	SPC, Acid wash, Cu Clear	1X
0811131-003D	Soil	SW8082	SW3550B	PC, Acid wash, Cu Clear	1X
0811131-004D	Soil	SW8082	SW3550B	PC, Acid wash, Cu Clear	1X
0811131-005D	Soil	SW8082	SW3550B	PC, Acid wash, Cu Clea	1X
0811131-006D	Soil	SW8082	SW3550B	PC, Acid wash, Cu Clea	1X
0811142-001D	Soil	SW8082	SW3550B	PC, Acid wash, Cu Clear	1X
0811142-002D	Soil	SW8082	SW3550B	SPC, Acid wash, Cu Clea	1X
0811142-003D	Soil	SW8082	SW3550B	SPC, Acid wash, Cu Clear	1X
0811142-004D	Soil	SW8082	SW3550B	PC, Acid wash, Cu Clear	1X
0811142-005D	Soil	SW8082	SW3550B	PC, Acid wash, Cu Clear	1X
0811142-006D	Soil	SW8082	SW3550B	PC, Acid wash, Cu Clear	1X
0811142-007D	Soil	SW8082	SW3550B	SPC, Acid wash, Cu Clear	1X
0811166-001D	Soil	SW8082	SW3550B	PC, Acid Wash, Cu Clea	1X
0811166-002D	Soil	SW8082	SW3550B	PC, Acid Wash, Cu Clea	1X
0811166-003D	Soil	SW8082	SW3550B	PC, Acid Wash, Cu Clea	1X
0811166-004D	Soîl	SW8082	SW3550B	PC, Acid Wash, Cu Clea	1X
0811166-005D	Soil	SW8082	SW3550B	PC, Acid Wash, Cu Clea	1X
0811166-006D	Soil	SW8082	SW3550B	PC, Acid Wash, Cu Clea	1X
0811166-007D	Soil	SW8082	SW3550B	PC, Acid Wash, Cu Clea	1X
0811166-008D	Soil	SW8082	SW3550B	PC, Acid Wash, Cu Clea	1X
0811166-009D	Soil	SW8082	SW3550B	PC, Acid Wash, Cu Clea	1X
0811166-010D	Soil	SW8082	SW3550B	PC, Acid Wash, Cu Clea	1X
0811166-011D	Soil	SW8082	SW3550B	PC, Acid Wash, Cu Clea	1X
0811166-012D	Soil	SW8082	SW3550B	PC, Acid Wash, Cu Clea	1X
0811166-013D	Soil	SW8082	SW3550B	PC, Acid Wash, Cu Clea	1X
0811166-014D	Soil	SW8082	SW3550B	PC, Acid Wash, Cu Clea	1X

# NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION FORM S-IV

## SAMPLE PREPARATION AND ANALYSIS SUMMARY INORGANIC ANALYSES

LABORATORY SAMPLE ID	MATRIX	METALS REQUESTED	DATE REC'D AT LAB	DATE DIGESTED	DATE ANALYZED
0811131-001D	0.3		1		
······································	Soil	As Cd Cr Cu Ni Pb Zn	11/18/2008	12/02/2008	12/03/2008
0811131-002D	Soil	As Cd Cr Cu Ni Pb Zn	11/18/2008	12/02/2008	12/03/2008
0811131-003D	Soil	As Cd Cr Cu Ni Pb Zn	11/18/2008	12/02/2008	12/03/2008
0811131-004D	Soil	As Cd Cr Cu Ni Pb Zn	11/18/2008	12/02/2008	12/03/2008
0811131-005D	Soil	As Cd Cr Cu Ni Pb Zn	11/18/2008	12/02/2008	12/03/2008
0811131-006D	Soil	As Cd Cr Cu Ni Pb Zn	11/18/2008	12/02/2008	12/03/2008
0811142-001D	Soil	As Cd Cr Cu Ni Pb Zn	11/20/2008	12/02/2008	12/03/2008
0811142-002D	Soil	As Cd Cr Cu Ni Pb Zn	11/20/2008	12/02/2008	12/03/2008
0811142-003D	Soil	As Cd Cr Cu Ni Pb Zn	11/20/2008	12/02/2008	12/03/2008
0811142-004D	Soil	As Cd Cr Cu Ni Pb Zn	11/20/2008	12/02/2008	12/03/2008
0811142-005D	Soil	As Cd Cr Cu Ni Pb Zn	11/20/2008	12/02/2008	12/03/2008
0811142-006D	Soil	As Cd Cr Cu Ni Pb Zn	11/20/2008	12/02/2008	12/03/2008
0811142-007D	Soil	As Cd Cr Cu Ni Pb Zn	11/20/2008	12/02/2008	12/03/2008
0811166-001D	Soil	As Cd Cr Cu Ni Pb Zn	11/21/2008	12/02/2008	12/03/2008
0811166-002D	Soil	As Cd Cr Cu Ni Pb Zn	11/21/2008	12/02/2008	12/03/2008
0811166-003D	Soil	As Cd Cr Cu Ni Pb Zn	11/21/2008	12/02/2008	12/03/2008
0811166-004D	Soil	As Cd Cr Cu Ni Pb Zn	11/21/2008	12/02/2008	12/03/2008
0811166-005D	Soil	As Cd Cr Cu Ni Pb Zn	11/21/2008	12/02/2008	12/03/2008
0811166-005DMS	Soil	As Cd Cr Cu Ni Pb Zn	11/21/2008	12/02/2008	12/03/2008
0811166-005DMSD	Soil	As Cd Cr Cu Ni Pb Zn	11/21/2008	12/02/2008	12/03/2008
0811166-006D	Soil	As Cd Cr Cu Ni Pb Zn	11/21/2008	12/02/2008	12/03/2008
0811166-007D	Soil	As Cd Cr Cu Ni Pb Zn	11/21/2008	12/02/2008	12/03/2008
0811166-008D	Soil	As Cd Cr Cu Ni Pb Zn	11/21/2008	12/02/2008	12/03/2008
0811166-009D	Soil	As Cd Cr Cu Ni Pb Zn	11/21/2008	12/02/2008	12/03/2008
0811166-010D	Soil	As Cd Cr Cu Ni Pb Zn	11/21/2008	12/02/2008	12/03/2008
0811166-011D	Soil	As Cd Cr Cu Ni Pb Zn	11/21/2008	12/02/2008	12/03/2008
0811166-012D	Soil	As Cd Cr Cu Ni Pb Zn	11/21/2008	12/02/2008	12/03/2008
0811166-013D	Soil	As Cd Cr Cu Ni Pb Zn	11/21/2008	12/02/2008	12/03/2008
0811166-014D	Soil	As Cd Cr Cu Ni Pb Zn	11/21/2008	12/02/2008	12/03/2008

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# NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION FORM S-IV

## SAMPLE PREPARATION AND ANALYSIS SUMMARY INORGANIC ANALYSES

LABORATORY SAMPLE ID	MATRIX	METALS REQUESTED	DATE REC'D	DATE	DATE
	MIXTINX	METALS REQUESTED	AT LAB	DIGESTED	ANALYZED
0811131-001D	Soil	Hg	11/18/2008	12/01/2008	12/03/2008
0811131-002D	Soil	Hg	11/18/2008	12/01/2008	12/03/2008
0811131-003D	Soil	Hg	11/18/2008	12/01/2008	12/03/2008
0811131-004D	Soil	Hg	11/18/2008	12/01/2008	12/03/2008
0811131-005D	Soil	Hg	11/18/2008	12/01/2008	12/03/2008
0811131-006D	Soil	Hg	11/18/2008	12/01/2008	12/03/2008
0811142-001D	Soil	Hg	11/20/2008	12/01/2008	12/03/2008
0811142-002D	Soil	Hg	11/20/2008	12/01/2008	12/03/2008
0811142-003D	Soil	Hg	11/20/2008	12/01/2008	12/03/2008
0811142-004D	Soil	Hg	11/20/2008	12/01/2008	12/03/2008
0811142-004DMS	Soil	Hg	11/20/2008	12/01/2008	
0811142-004DMSD	Soil	Hg	11/20/2008	12/01/2008	12/03/2008 12/03/2008
0811142-005D	Soil	Hg	11/20/2008	12/01/2008	12/03/2008
0811142-006D	Soil		11/20/2008	12/01/2008	<del></del>
0811142-007D	Soil	Hg		12/01/2008	12/03/2008
0811166-001D	Soil	Hg	11/20/2008		12/03/2008
0811166-002D	Soil	Hg	11/21/2008	12/01/2008	12/03/2008
0811166-003D	Soil	Hg	11/21/2008	12/01/2008	12/03/2008
0811166-004D		Hg	11/21/2008	12/01/2008	12/03/2008
	Soil	Hg	11/21/2008	12/01/2008	12/03/2008
0811166-005D	Soil	Hg Hg	11/21/2008	12/01/2008	12/03/2008
0811166-005DMS	Soil	Hg	11/21/2008	12/01/2008	12/03/2008
0811166-005DMSD	Soil	Hg	11/21/2008	12/01/2008	12/03/2008
0811166-006D	Soil	Hg	11/21/2008	12/01/2008	12/03/2008
0811166-006D	Soil	Hg	11/21/2008	12/01/2008	12/03/2008
0811166-007D	Soil	Нg	11/21/2008	12/01/2008	12/03/2008
0811166-008D	Soil	Hg	11/21/2008	12/01/2008	12/03/2008
0811166-009D	Soil	Hg	11/21/2008	12/01/2008	12/03/2008
0811166-010D	Soil	Hg	11/21/2008	12/01/2008	12/03/2008
0811166-011D	Soil	Hg	11/21/2008	12/01/2008	12/03/2008
0811166-012D	Soil	Hg	11/21/2008	12/01/2008	12/03/2008
0811166-013D	Soil	Hg	11/21/2008	12/01/2008	12/03/2008
0811166-014D	Soil	Hg	11/21/2008	12/01/2008	12/03/2008

NYSDEC ASP 7/2005 14

#### **Project Management Case Narrative**

### INTRODUCTION/ANALYTICAL RESULTS

This report summarizes the laboratory results for ERM Consulting & Engineering, Ithaca Dredging Project. New York State Department of Environmental Conservation forms are included in the Sample Data Summary Package.

### CONDITION UPON RECEIPT/CHAIN OF CUSTODY

The cooler(s) were received intact. When the cooler(s) were received by the laboratory, the sample custodian(s) opened and inspected the shipment(s) for damage and custody inconsistencies. Chain of custodies documenting receipt are presented in the chain of custody section. Each sample was assigned a unique laboratory number and a custody file created. The samples were placed in a secured walk-in cooler and signed in and out by the chemists performing the tests. The sign out record, or lab chronicle, is presented in the chain of custody section.

No discrepancies were noted upon receipt. The temperature of the iced cooler was 2.6°C.

#### **METHODOLOGY**

The following methods were used to perform the analyses:

PARAMETER	METHOD	REFERENCE
Volatile Organics	SW8260B	1
Semivolatile Organics	SW8270C	1
Pesticide	SW8081	î
PCB	SW8082	î
ICP Metals	SW6010B	î
Mercury	SW7471A	1

1) New York State Department of Environmental Conservation Analytical Services Protocol, June 2000.

#### **QUALITY CONTROL**

QA/QC results are summarized in the Laboratory Report Package and are also included in the raw data.

#### RAW DATA

The raw data is organized in the New York State Department of Environmental Conservation Analytical Services Protocol Category "B" order of data requirements.

Total#	of pages	in	this	report	
A -0 000A 11	Or Perbos		CITIO	report	

#### GC/MS Volatile Organics Case Narrative

Client:

**ERM** 

Project/Order:

Ithaca Dredging

Work Order #:

0811131, 0811142, 0811166

Methodology:

8260B/5035A

Analyzed/Reviewed by (Initials/Date):

MW) 1Z-18-08

Supervisor/Reviewed by (Initials/Date):

W) (2-18-0S

QA/QC Review (Initials/Date):

acfulk 12-22-08

File Name:

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#### **GC/MS Volatile Organics**

The GC/MS Volatile instruments are equipped with a Restek Rtx-VMS, 40 m x 0.18 mm ID capillary column (MS01 & MS03), Restek Rtx-502.2, 105 m x 0.53 mm ID capillary column (MS02), and Restek Rtx-VMS, 60 m x 0.25mm ID capillary column (MS04), and a Vocarb 3000 adsorbent trap.

#### **Holding Times and Sample Preservation**

All samples were prepared and analyzed within the method and/or QAPP specified holding time requirements.

#### **Laboratory Control Sample**

The following compound(s) did not meet laboratory control sample recovery criteria:

LCS No.	Compound	Corrective Action
LCS-15620	Benzene	1
LCS-15645	Benzene	1
	Toluene	1

The recovery marginally exceeded the lower control limit and was not detected above the PQL/RL in the associated samples. No corrective action was taken.

#### MS/MSD/MSB

All spike recovery and RPD data met method and/or project specific QC criteria.

#### Surrogate Standards

The following sample(s) did not meet surrogate recovery criteria:

Sample Description	Sample #	Surrogate	Corrective Action
Ith-2 (6-10)		4-Bromofluorobenzene	1
Ith-8 (2-10)	0811142-001A	4-Bromofluorobenzene	2

- 1 The recovery met acceptance criteria when reanalyzed at a higher dilution on an aliquot from the bulk container [0811131-003C]. Matrix interference is suspected. Both sets of data are reported. No further corrective action was taken.
- 2 The sample met criteria for this surrogate when previously analyzed at the same dilution. Both

#### GC/MS Volatile Organics Case Narrative - Page 2

Client:

**ERM** 

Project/Order:

Ithaca Dredging

Work Order #:

0811131, 0811142, 0811166

Methodology:

8260B/5035A

analyses are reported for confirmation of internal standard criteria.

#### **Internal Standards**

The internal standard area for the following sample(s) did not meet abundance criteria:

Sample Description	Sample #	Internal Standard	Corrective Action
Ith-2 (6-10)	0811131-003A	1,4-Dichlorobenzene-d4	1
Ith-8 (2-10)	0811142-001A	1,4-Dichlorobenzene-d4	2
Ith-2 (1-6)	0811166-011A	1,4-Dichlorobenzene-d4	2

- 1 The recovery met acceptance criteria when reanalyzed at a higher dilution on an aliquot from the bulk container [0811131-003C]. Matrix interference is suspected. Both sets of data are reported. No further corrective action was taken.
- 2 The recovery was confirmed by analysis of the sample at the same dilution. Both sets of data are reported. No further corrective action was taken.

#### **Calibrations**

All initial calibrations and calibration verifications met method and/or project specific QC criteria.

#### **Preparation Blanks**

All preparation blanks met method and/or project specific QC criteria.

#### GC/MS Semi-Volatile Organics Case Narrative

Client ID:

**ERM** 

Project/Order:

Ithaca Dredging

Work Order #:

0811131,0811142,0811166

Methodology:

8270C

Analyzed/Reviewed by (Initials/Date):

Supervisor/Reviewed by (Initials/Date);

QA/QC Review (Initials/Date):

File Name:

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GC/MS Semi-Volatile Organics

The GC/MS Semi-volatile instruments used a J & W DB-5MS, 30 m x 0.25 mm ID capillary column.

**Holding Times and Sample Preservation** 

All samples were prepared and analyzed within the method and/or QAPP specified holding time requirements.

**Laboratory Control Sample** 

All spike recoveries met method and/or project specific QC criteria.

#### MS/MSD/MSB

All spike recovery and RPD data met method and/or project specific QC criteria.

#### **Surrogate Standards**

All surrogate standard recoveries met method and/or project specific QC criteria.

#### Internal Standards

The internal standard area for the following sample(s) did not meet abundance criteria:

Sample Description	Sample #	Internal Standard	Corrective Action
Ith-2(6-10)	0811131-003D	Perylene-d12	1

The recovery met acceptance criteria when reanalyzed at a higher dilution. Matrix interference is suspected. Both sets of data are reported. No further corrective action was taken.

#### **Calibrations**

All initial calibrations and calibration verifications met method and/or project specific QC criteria.

#### **Preparation Blanks**

All preparation blanks met method and/or project specific QC criteria.

#### Miscellaneous

The breakdown of DDT in the tune analysis for 12/3/08[TD120308A6] could not be calculated due to the elution of an extraneous interference peak. The tune analysis was scanned for ions representing potential breakdown and included in the raw data. Results were within criteria. No corrective action was taken.

### GC Semivolatile Organics Case Narrative - Page 1

Client:

**ERM** 

Project/Order:

Ithaca Dredging

Work Order:

0811131, 0811142, 0811166

Methodology:

8081

Analyzed/Reviewed by (Initials/Date):

5/80 1/2/09

Supervisor/Reviewed by (Initials/Date):

te):

QA/QC Review (Initials/Date):

MC11210

File Name:

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#### **Pesticides**

#### **Holding Times**

All samples were prepared and analyzed within the method and/or QAPP specified holding time requirements.

#### **Laboratory Control Samples**

The following compound(s) did not meet laboratory control sample recovery criteria:

LCS No.	Сотроила	Column	Corrective Action
LCSD-8505	gamma-Chlordane	RTX-CLP2	1

1. The compound failed high, was not detected in any samples, and passed on the RTX-CLP column. No corrective action was taken.

#### MS/MSD

The following compound(s) did not meet matrix spike/matrix spike duplicate percent recovery and/or RPD criteria:

Sample Description	Sample #	Compound	% REC	RPD	Corrective Action
[Ith-16(1-14)MS]	0811166-005DMS	gamma-Chlordane	X		1
[Ith-16(1-14)MSD]	0811166-005DMSD	gamma-Chlordane	X		1

1. The compound failed high, was not detected in any samples, and passed on the RTX-CLP column. No corrective action was taken.

#### Surrogates

All surrogate recoveries met method and/or project specific criteria.

### GC Semivolatile Organics Case Narrative - Page 2

Client:

**ERM** 

Project/Order:

Ithaca Dredging

Work Order:

0811131, 0811142, 0811166

Methodology:

8081

#### **Calibrations**

All calibrations and calibration verifications met method and/or project specific QC criteria.

#### **Preparation Blanks**

All preparation blanks met method and/or project specific QC criteria.

#### GC Semivolatile Organics Case Narrative - Page 1

Client:

**ERM** 

Project/Order:

Ithaca Dredging

Work Order:

0811131, 0811142, 0811166

Methodology:

8082

Analyzed/Reviewed by (Initials/Date):

Supervisor/Reviewed by (Initials/Date):

QA/QC Review (Initials/Date):

File Name:

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#### **PCBs**

#### **Holding Times**

All samples were prepared and analyzed within the method and/or QAPP specified holding time requirements.

#### **Laboratory Control Samples**

All spike recoveries met method and/or project specific QC criteria.

#### MS/MSD

All spike recovery and RPD data met method and/or project specific QC criteria.

#### Surrogates

All surrogate recoveries met method and/or project specific criteria.

The following samples did not meet criteria for surrogate recoveries for Tetrachloro-m-xylene (TCMX) and/or Decachlorobiphenyl (DCBP):

Sample Description	Sample #	Column	Corrective Action
[Ith-1(6-12)]	0811142-006D	DB-1701	1
[Ith-Dup1]	0811142-007D	DB-1701	1

1. One of the two surrogates met criteria, therefore no corrective action was taken.

#### **Calibrations**

All calibrations and calibration verifications met method and/or project specific QC criteria.

#### **Preparation Blanks**

All preparation blanks met method and/or project specific QC criteria.

#### Trace Metals Case Narrative

Client ID:

**ERM** 

Project/Order:

Ithaca Dredging

Work Order #:

0811131,0811142,0811166

Methodology:

ICP metals - SW 6010B

Analyzed/Reviewed by (Date/Initials):

12-11-08 CT

Supervisor/Reviewed by (Date/Initials): 12-11-03

QA/QC Review (Date/Initials):

#### Trace Metals

There were no excursions to note. All QC results were within established control limits.

#### Trace Metals Case Narrative

Client ID:

**ERM** 

Project/Order:

Ithaca Dredging

Work Order:

0811131,0811142,0811166

Methodology;

Mercury - SW 7471A

Analyzed/Reviewed by (Date/Initials):

12-12-08 CT

Supervisor/Reviewed by (Date/Initials): \_\_\_\_\_ 13 - 12 - 08 w

QA/QC Review (Date/Initials):

#### Trace Metals

#### **Holding Times**

All samples were prepared and analyzed within the method and/or QAPP specified holding time requirements.

#### Laboratory Control Sample

All spike recoveries met method and/or project specific QC criteria.

#### MS/MSD AND MS/MSD RPD

The following analyte did not meet matrix spike duplicate MS/MSD RPD criteria:

Sample	172 174 174 174 174 174 174 174 174 174 174	***************************************	************************	***************************************	Corrective
Description	Sample #	Analyte	% REC	RPD	Action
Ith-16 (1-14)	0811166-005D	Hg		Х	1

1. A post-digestion spike was performed. No further corrective action was taken.

#### **CVAA Dilution Test**

All percent differences met method and/or project specific QC criteria.

#### **CVAA Recovery Test**

All spike recoveries met method and/or project specific QC criteria.

#### Calibrations

All calibrations and calibration verifications met method and/or project specific QC criteria.

#### Preparation Blanks

All preparation blanks met method and/or project specific QC criteria.

Date: 07-Jan-09

CLIENT: ERM Consulting & Engineering

Project: Ithaca Dredging

**Lab Order:** 0811131

Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received
0811131-001A	Ith-3 (6-12)		11/17/2008	11/18/2008
0811131-001B	Ith-3 (6-12)		11/17/2008	11/18/2008
0811131-001C	Ith-3 (6-12)		I I/1 <b>7/2008</b>	11/18/2008
0811131-001D	Ith-3 (6-12)		11/17/2008	11/18/2008
0811131-002A	Ith-4 (6-12)		11/18/2008	11/18/2008
0811131-002B	Ith-4 (6-12)		11/18/2008	11/18/2008
0811131-002C	Ith-4 (6-12)		11/18/2008	11/18/2008
0811131-002D	Ith-4 (6-12)		11/18/2008	11/18/2008
0811131-003A	Ith-2 (6-10)		11/18/2008	11/18/2008
0811131-003B	Ith-2 (6-10)		11/18/2008	11/18/2008
0811131-003C	Ith-2 (6-10)	•	11/18/2008	11/18/2008
0811131-003D	Ith-2 (6-10)		11/18/2008	11/18/2008
0811131-004A	Ith-2 (10-14)		11/18/2008	11/18/2008
0811131-004B	Ith-2 (10-14)		11/18/2008	11/18/2008
0811131-004C	Ith-2 (10-14)		11/18/2008	11/18/2008
0811131-004D	lth-2 (10-14)		11/18/2008	11/18/2008
0811131-005A	lth-6 (6-10)		11/18/2008	11/18/2008
0811131-005B	Ith-6 (6-10)		11/18/2008	11/18/2008
0811131-005C	Ith-6 (6-10)		11/18/2008	11/18/2008
0811131-005D	Ith-6 (6-10)		11/18/2008	11/18/2008
)811131-006A	Ith-6 (10-14)		11/18/2008	11/18/2008
)811131-006В	Ith-6 (10-14)		11/18/2008	11/18/2008
)811131-006C	Ith-6 (10-14)	•	11/18/2008	11/18/2008
0811131-006D	Ith-6 (10-14)		11/18/2008	11/18/2008

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CLIENT: ERM Consulting & Engineering

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Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received
0811142-001A	Ith-8 (2-10)		11/19/2008	11/20/2008
0811142-001B	Ith-8 (2-10)		11/19/2008	11/20/2008
0811142-001C	Ith-8 (2-10)		11/19/2008	11/20/2008
0811142-001D	Ith-8 (2-10)		11/19/2008	11/20/2008
0811142-002A	Ith-8 (10-14)		11/19/2008	11/20/2008
0811142-002B	Ith-8 (10-14)		11/19/2008	11/20/2008
0811142-002C	Ith-8 (10-14)		11/19/2008	11/20/2008
0811142-002D	Ith-8 (10-14)		11/19/2008	11/20/2008
0811142-003A	Ith-7 (1-14)		11/19/2008	11/20/2008
0811142-003B	Ith-7 (1-14)		11/19/2008	11/20/2008
0811142-003C	Ith-7 (1-14)		11/19/2008	11/20/2008
0811142-003D	Ith-7 (1-14)	·	11/19/2008	11/20/2008
0811142-004A	Ith-5 (4-10)		11/19/2008	11/20/2008
0811142-004B	Ith-5 (4-10)		11/19/2008	11/20/2008
0811142-004C	Ith-5 (4-10)		11/19/2008	11/20/2008
0811142-004D	Ith-5 (4-10)		11/19/2008	11/20/2008
0811142-005A	Ith-5 (10-14)		11/19/2008	11/20/2008
0811142-005B	Ith-5 (10-14)		11/19/2008	11/20/2008
0811142-005C	Ith-5 (10-14)		11/19/2008	11/20/2008
0811142-005D	Ith-5 (10-14)		11/19/2008	11/20/2008
0811142-006A	Ith-1 (6-12)		11/19/2008	11/20/2008
0811142-006B	Ith-I (6-12)		11/19/2008	11/20/2008
0811142-006C	Ith-1 (6-12)		11/19/2008	11/20/2008
0811142-006D	Ith-1 (6-12)		11/19/2008	11/20/2008
0811142-007A	Ith-Dup1		11/19/2008	11/20/2008
0811142-007B	Ith-Dup l		11/19/2008	11/20/2008
0811142-007C	Ith-Dup1	•	11/19/2008	11/20/2008
0811142-007D	Ith-Dup1		11/19/2008	11/20/2008

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Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received
0811166-001A	Ith-9 (1-14)		11/20/2008	11/21/2008
0811166-001B	Ith-9 (1-14)		11/20/2008	11/21/2008
0811166-001C	Ith-9 (1-14)		11/20/2008	11/21/2008
0811166-001D	Ith-9 (1-14)		11/20/2008	11/21/2008
0811166-002A	Ith-10 (1-14)		11/20/2008	11/21/2008
0811166-002B	Ith-10 (1-14)		11/20/2008	11/21/2008
0811166-002C	Ith-10 (1-14)		11/20/2008	11/21/2008
0811166-002D	Ith-10 (1-14)		11/20/2008	11/21/2008
0811166-003A	Ith-11 (1-14)		11/20/2008	11/21/2008
0811166-003B	Ith-11 (1-14)		11/20/2008	11/21/2008
0811166-003C	Ith-11 (1-14)		11/20/2008	11/21/2008
0811166-003D	Ith-11 (1-14)	•	11/20/2008	11/21/2008
0811166-004A	Ith-12 (1-14)		11/20/2008	11/21/2008
0811166-004B	Ith-12 (1-14)		11/20/2008	11/21/2008
0811166-004C	Ith-12 (1-14)		11/20/2008	11/21/2008
0811166-004D	Ith-12 (1-14)		11/20/2008	11/21/2008
0811166-005A	Ith-16 (1-14)		11/20/2008	11/21/2008
0811166-005B	Ith-16 (1-14)		11/20/2008	11/21/2008
0811166-005C	Ith-16 (1-14)		11/20/2008	11/21/2008
0811166-005 <b>D</b>	Ith-16 (1-14)		11/20/2008	11/21/2008
0811166-006A	Ith-14 (1-14)		11/21/2008	11/21/2008
0811166-006B	Ith-14 (1-14)		11/21/2008	11/21/2008
0811166-006C	Ith-14 (1-14)		11/21/2008	11/21/2008
0811166-006D	Ith-14 (1-14)		11/21/2008	11/21/2008
0811166-007A	Ith-13 (1-10)		11/21/2008	11/21/2008
0811166-007B	Ith-13 (1-10)		11/21/2008	11/21/2008
0811166-007C	Ith-13 (1-10)		11/21/2008	11/21/2008
)811166-007D	Ith-13 (1-10)		11/21/2008	11/21/2008
811166-008A	Ith-13 (10-14)		11/21/2008	11/21/2008
0811166-008B	Ith-13 (10-14)		11/21/2008	11/21/2008
811166-008C	Ith-13 (10-14)		11/21/2008	11/21/2008
811166-008D	Ith-13 (10-14)		11/21/2008	11/21/2008
811166-009A	Ith-1 (1-6)		11/20/2008	11/21/2008
811166-009B	Ith-1 (1-6)		11/20/2008	11/21/2008
811166-009C	Ith-1 (1-6)		11/20/2008	11/21/2008
811166-009D	Ith-1 (1-6)		11/20/2008	11/21/2008
811166-010A	Ith-DUP2		11/20/2008	11/21/2008
811166-010B	Ith-DUP2		11/20/2008	11/21/2008

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Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received
0811166-010C	Ith-DUP2		11/20/2008	11/21/2008
0811166-010D	1th-DUP2		11/20/2008	11/21/2008
0811166-011A	Ith-2 (1-6)		11/20/2008	11/21/2008
0811166-011B	Ith-2 (1-6)		11/20/2008	11/21/2008
0811166-011C	Ith-2 (1-6)		11/20/2008	11/21/2008
0811166-011D	Ith-2 (1-6)		11/20/2008	11/21/2008
0811166-012A	lth-3 (1-6)		11/20/2008	11/21/2008
0811166-012B	Ith-3 (1-6)		11/20/2008	11/21/2008
0811166-012C	Ith-3 (1-6)		11/20/2008	11/21/2008
0811166-012D	Ith-3 (1-6)		11/20/2008	11/21/2008
0811166-013A	Ith-4 (1-6)		11/20/2008	11/21/2008
0811166-013B	Ith-4 (1-6)		11/20/2008	11/21/2008
0811166-013C	Ith-4 (1-6)		11/20/2008	11/21/2008
0811166-013D	Ith-4 (1-6)		11/20/2008	11/21/2008
0811166-014A	Ith-6 (1-6)		11/20/2008	11/21/2008
0811166-014B	Ith-6 (1-6)		11/20/2008	11/21/2008
0811166-014C	Ith-6 (1-6)		11/20/2008	11/21/2008
0811166-014D	Ith-6 (1-6)		11/20/2008	11/21/2008

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Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
0811131-001A	Ith-3 (6-12)	11/17/2008 2:50:00 PM	Soil	Volatile Organic Compounds by GC/MS			11/21/2008
0811131-001D				Mercury		12/1/2008	12/3/2008
				Organochlorine Pesticides by GC/ECD		11/21/2008	12/19/2008
				Organochlorine Pesticides by GC/ECD		11/21/2008	12/19/2008
				Percent Moisture			11/20/2008
				Polychlorinated Biphenyls by GC/ECD		11/21/2008	12/1/2008
				Semivolatile Organic Compounds by GC/MS		11/21/2008	12/1/2008
				Total Metals by ICP		12/2/2008	12/3/2008
0811131-002A	Ith-4 (6-12)	11/18/2008 9:20:00 AM		Volatile Organic Compounds by GC/MS			11/21/2008
0811131-002D				Mercury		12/1/2008	12/3/2008
				Organochlorine Pesticides by GC/ECD		11/21/2008	12/19/2008
				Organochlorine Pesticides by GC/ECD		11/21/2008	12/19/2008
				Percent Moisture			11/20/2008
•		•		Polychlorinated Biphenyls by GC/ECD		11/21/2008	12/1/2008
				Polychlorinated Biphenyls by GC/ECD		11/21/2008	12/1/2008
				Semivolatile Organic Compounds by GC/MS		11/21/2008	12/1/2008
				Total Metals by ICP		12/2/2008	12/3/2008
0811131-003A	Ith-2 (6-10)	11/18/2008 10:10:00 AM		Volatile Organic Compounds by GC/MS			11/21/2008
0811131-003C				Volatile Organic Compounds by GC/MS			11/24/2008
0811131-003D				Mercury		12/1/2008	12/3/2008
				Organochlorine Pesticides by GC/ECD		11/21/2008	12/19/2008
				Organochlorine Pesticides by GC/ECD		11/21/2008	12/19/2008
				Percent Moisture			11/20/2008
				Polychlorinated Biphenyls by GC/ECD		11/21/2008	12/1/2008
				Polychlorinated Biphenyls by GC/ECD		11/21/2008	12/1/2008
				Semivolatile Organic Compounds by GC/MS		11/21/2008	12/1/2008
				Semivolatile Organic Compounds by GC/MS		11/21/2008	12/1/2008
				Total Metals by ICP		12/2/2008	12/3/2008

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ample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
811131-004A	Ith-2 (10-14)	11/18/2008 10:20:00 AM	Soil	Volatile Organic Compounds by GC/MS	<del></del>		11/24/2008
811131-004D				Mercury		12/1/2008	12/3/2008
				Organochlorine Pesticides by GC/ECD		11/21/2008	12/19/2008
				Organochlorine Pesticides by GC/ECD		11/21/2008	12/19/2008
				Percent Moisture			11/20/2008
				Polychlorinated Biphenyls by GC/ECD		11/21/2008	12/1/2008
				Polychlorinated Biphenyls by GC/ECD		11/21/2008	12/1/2008
				Semivolatile Organic Compounds by GC/MS		11/21/2008	12/1/2008
				Total Metals by ICP		12/2/2008	12/3/2008
811131-005A	Ith-6 (6-10)	11/18/2008 2:10:00 PM		Volatile Organic Compounds by GC/MS			11/24/2008
B11131-005D				Mercury		12/1/2008	12/3/2008
				Organochlorine Pesticides by GC/ECD		11/21/2008	12/19/2008
				Organochlorine Pesticides by GC/ECD		11/21/2008	12/19/2008
	•			Percent Moisture		•	11/20/2008
				Polychlorinated Biphenyls by GC/ECD		11/21/2008	12/1/2008
				Semivolatile Organic Compounds by GC/MS		11/21/2008	12/1/2008
				Total Metals by ICP		12/2/2008	12/3/2008
311131-006A	lth-6 (10-14)	11/18/2008 2:20:00 PM		Volatile Organic Compounds by GC/MS			11/21/2008
311131-006D				Mercury		12/1/2008	12/3/2008
				Organochlorine Pesticides by GC/ECD		11/21/2008	12/19/2008
				Organochlorine Pesticides by GC/ECD		11/21/2008	12/19/2008
				Percent Moisture			11/20/2008
				Polychlorinated Biphenyls by GC/ECD		11/21/2008	12/1/2008
		•		Semivolatile Organic Compounds by GC/MS		11/21/2008	12/1/2008
				Total Metals by ICP		12/2/2008	12/3/2008

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Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
0811142-001A	Ith-8 (2-10)	11/19/2008 2:30:00 PM	Soil	Volatile Organic Compounds by GC/MS			11/24/2008
				Volatile Organic Compounds by GC/MS			11/21/2008
0811142-001D				Mercury		12/1/2008	12/3/2008
				Organochlorine Pesticides by GC/ECD		11/21/2008	12/19/2008
				Organochlorine Pesticides by GC/ECD		11/21/2008	12/19/2008
				Percent Moisture			11/20/2008
				Polychlorinated Biphenyls by GC/ECD		11/21/2008	12/1/2008
				Polychlorinated Biphenyls by GC/ECD		11/21/2008	12/1/2008
				Semivolatile Organic Compounds by GC/MS		11/21/2008	12/1/2008
				Total Metals by ICP		12/2/2008	12/3/2008
0811142-002A	Ith-8 (10-14)	11/19/2008 2:45:00 PM		Volatile Organic Compounds by GC/MS			11/24/2008
0811142-002D				Mercury		12/1/2008	12/3/2008
				Organochlorine Pesticides by GC/ECD		11/21/2008	12/19/2008
*		•		Organochlorine Pesticides by GC/ECD		11/21/2008	12/19/2008
				Percent Moisture			11/20/2008
				Polychlorinated Biphenyls by GC/ECD		11/21/2008	12/1/2008
				Semivolatile Organic Compounds by GC/MS		11/21/2008	12/1/2008
				Total Metals by ICP		12/2/2008	12/3/2008
0811142 <b>-</b> 003A	Ith-7 (1-14)	11/19/2008 1:50:00 PM		Volatile Organic Compounds by GC/MS			11/21/2008
0811142-003D				Mercury		12/1/2008	12/3/2008
				Organochlorine Pesticides by GC/ECD		11/21/2008	12/19/2008
				Organochlorine Pesticides by GC/ECD		11/21/2008	12/19/2008
				Percent Moisture			11/20/2008
	•		•	Polychlorinated Biphenyls by GC/ECD		11/21/2008	12/1/2008
				Polychlorinated Biphenyls by GC/ECD		11/21/2008	12/1/2008
				Semivolatile Organic Compounds by GC/MS		11/21/2008	12/1/2008
				Total Metals by ICP		12/2/2008	12/3/2008
0811142-004A	Ith-5 (4-10)	11/19/2008 12:40:00 PM		Volatile Organic Compounds by GC/MS			11/21/2008

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Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
0811142-004D	Ith-5 (4-10)	11/19/2008 12:40:00 PM	Soil	Mercury		12/1/2008	12/3/2008
				Organochlorine Pesticides by GC/ECD		11/21/2008	12/19/2008
				Organochlorine Pesticides by GC/ECD		11/21/2008	12/19/2008
				Percent Moisture			11/20/2008
				Polychlorinated Biphenyls by GC/ECD		11/21/2008	12/1/2008
				Polychlorinated Biphenyls by GC/ECD		11/21/2008	12/1/2008
				Semivolatile Organic Compounds by GC/MS		11/21/2008	12/1/2008
·				Total Metals by ICP		12/2/2008	12/3/2008
811142-005A	Ith-5 (10-14)	11/19/2008 12:50:00 PM		Volatile Organic Compounds by GC/MS			11/21/2008
811142-005D				Mercury		12/1/2008	12/3/2008
				Organochlorine Pesticides by GC/ECD		11/21/2008	12/19/2008
				Organochlorine Pesticides by GC/ECD		11/21/2008	12/19/2008
				Percent Moisture			11/20/2008
		•		Polychlorinated Biphenyls by GC/ECD		11/21/2008	12/2/2008
				Semivolatile Organic Compounds by GC/MS		11/21/2008	12/1/2008
				Total Metals by ICP		12/2/2008	12/3/2008
811142-006A	Ith-1 (6-12)	11/19/2008 10:30:00 AM		Volatile Organic Compounds by GC/MS			11/21/2008
811142-006D				Mercury		12/1/2008	12/3/2008
				Organochlorine Pesticides by GC/ECD		11/21/2008	12/19/2008
				Organochlorine Pesticides by GC/ECD		11/21/2008	12/19/2008
				Percent Moisture			11/20/2008
				Polychlorinated Biphenyls by GC/ECD		11/21/2008	12/2/2008
				Polychlorinated Biphenyls by GC/ECD		11/21/2008	12/2/2008
		•		Semivolatile Organic Compounds by GC/MS		11/21/2008	12/1/2008
				Total Metals by ICP		12/2/2008	12/3/2008
811142-007A	Ith-Dup1	11/19/2008		Volatile Organic Compounds by GC/MS			[1/21/2008
811142-007D				Mercury		12/1/2008	12/3/2008
		•		Organochlorine Pesticides by GC/ECD		11/21/2008	12/19/2008

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Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
0811142-007D	Ith-Dup1	11/19/2008	Soil	Organochlorine Pesticides by GC/ECD	<del></del> -	11/21/2008	12/19/2008
				Percent Moisture			11/20/2008
				Polychlorinated Biphenyls by GC/ECD		11/21/2008	12/2/2008
				Polychlorinated Biphenyls by GC/ECD		11/21/2008	12/2/2008
				Semivolatile Organic Compounds by GC/MS		11/21/2008	12/1/2008
				Total Metals by ICP		12/2/2008	12/3/2008

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nple ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1166-001A	Ith-9 (1-14)	11/20/2008 3:15:00 PM	Soil	Volatile Organic Compounds by GC/MS	-	"	11/24/2008
1166-001D				Mercury		12/1/2008	12/3/2008
				Organochlorine Pesticides by GC/ECD		11/24/2008	12/19/2008
				Organochlorine Pesticides by GC/ECD		11/24/2008	12/19/2008
				Percent Moisture			11/24/2008
				Polychlorinated Biphenyls by GC/ECD		11/24/2008	12/12/2008
				Semivolatile Organic Compounds by GC/MS		11/24/2008	12/3/2008
				Total Metals by ICP		12/2/2008	12/3/2008
1166-002A	Ith-10 (1-14)	11/20/2008 2:15:00 PM		Volatile Organic Compounds by GC/MS			11/24/2008
1166-002D				Mercury		12/1/2008	12/3/2008
				Organochlorine Pesticides by GC/ECD		11/24/2008	12/19/2008
				Organochlorine Pesticides by GC/ECD		11/24/2008	12/19/2008
				Percent Moisture		•	11/24/2008
	·			Polychlorinated Biphenyls by GC/ECD		11/24/2008	12/12/2008
				Semivolatile Organic Compounds by GC/MS		11/24/2008	12/3/2008
				Total Metals by ICP		12/2/2008	12/3/2008
1166-003A	Ith-11 (1-14)	11/20/2008 12:20:00 PM		Volatile Organic Compounds by GC/MS			11/25/2008
1166-003D				Mercury		12/1/2008	12/3/2008
				Organochlorine Pesticides by GC/ECD		11/24/2008	12/20/2008
			•	Organochlorine Pesticides by GC/ECD		11/24/2008	12/20/2008
				Percent Moisture			11/24/2008
				Polychlorinated Biphenyls by GC/ECD		11/24/2008	12/12/2008
				Semivolatile Organic Compounds by GC/MS		11/24/2008	12/3/2008
		•		Total Metals by ICP		12/2/2008	12/3/2008
l166-004A	Ith-12 (1-14)	11/20/2008 10:45:00 AM		Volatile Organic Compounds by GC/MS			11/24/2008
1166-004D				Mercury		12/1/2008	12/3/2008
				Organochlorine Pesticides by GC/ECD		11/24/2008	12/20/2008
				Organochlorine Pesticides by GC/ECD		11/24/2008	12/20/2008

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Analysis Date	Prep Date	TCLP Date	Test Name	Matrix	Collection Date	Client Sample ID	Sample ID
11/24/2008			Percent Moisture	Soil	11/20/2008 10:45:00 AM	Ith-12 (1-14)	0811166-004D
12/12/2008	11/24/2008		Polychlorinated Biphenyls by GC/ECD				
12/3/2008	11/24/2008		Semivolatile Organic Compounds by GC/MS				
12/3/2008	12/2/2008		Total Metals by ICP				
11/25/2008			Volatile Organic Compounds by GC/MS		11/20/2008 9:30:00 AM	Ith-16 (1-14)	0811166-005A
12/3/2008	12/1/2008		Mercury				0811166-005D
12/20/2008	11/24/2008		Organochlorine Pesticides by GC/ECD				
12/20/2008	11/24/2008		Organochlorine Pesticides by GC/ECD				
11/24/2008			Percent Moisture				
12/12/2008	11/24/2008		Polychlorinated Biphenyls by GC/ECD				
12/3/2008	11/24/2008		Semivolatile Organic Compounds by GC/MS				
12/3/2008	12/2/2008		Total Metals by ICP				
11/24/2008			Volatile Organic Compounds by GC/MS		11/21/2008 9:50:00 AM	Ith-14 (1-14)	0811166-006A
12/3/2008	12/1/2008		Mercury	•			0811166-006D
12/3/2008	12/1/2008		Mercury				
12/20/2008	11/24/2008		Organochlorine Pesticides by GC/ECD				
12/20/2008	11/24/2008		Organochlorine Pesticides by GC/ECD				
11/24/2008			Percent Moisture				
12/12/2008	11/24/2008		Polychlorinated Biphenyls by GC/ECD				
12/3/2008	11/24/2008		Semivolatile Organic Compounds by GC/MS				
12/3/2008	12/2/2008		Total Metals by ICP				
11/24/2008			Volatile Organic Compounds by GC/MS		11/21/2008 8:30:00 AM	Ith-13 (1-10)	0811166-007A
12/3/2008	12/1/2008		Мегситу				0811166-007D
12/20/2008	11/24/2008		Organochlorine Pesticides by GC/ECD			•	
12/20/2008	11/24/2008		Organochlorine Pesticides by GC/ECD				
11/24/2008			Percent Moisture				
12/12/2008	11/24/2008		Polychlorinated Biphenyls by GC/ECD				
12/3/2008	11/24/2008		Semivolatile Organic Compounds by GC/MS		•		

0811166

Client:

ERM Consulting & Engineering

Project:

Ithaca Dredging

Analysis Date	Prep Date	TCLP Date	Test Name	Matrix	Collection Date	Client Sample ID	Sample ID
12/3/2008	12/2/2008	- CDI Date	Total Metals by ICP	Soil	11/21/2008 8:30:00 AM	Ith-13 (1-10)	0811166-007D
11/24/2008	12/12/2000		Volatile Organic Compounds by GC/MS		11/21/2008 8:40:00 AM	lth-13 (10-14)	0811166-008A
12/3/2008	12/1/2008		Mercury				0811166-008D
12/20/2008	11/24/2008		Organochlorine Pesticides by GC/ECD				
12/20/2008	11/24/2008		Organochlorine Pesticides by GC/ECD				
11/24/2008			Percent Moisture				
12/12/2008	11/24/2008		Polychlorinated Biphenyls by GC/ECD				
12/3/2008	11/24/2008		Semivolatile Organic Compounds by GC/MS				
12/3/2008	12/2/2008		Total Metals by ICP		•		
11/25/2008	2000		Volatile Organic Compounds by GC/MS		11/20/2008 4:00:00 PM	Ith-1 (1-6)	0811166-009A
12/3/2008	12/1/2008		Mercury				0811166-009D
12/20/2008	11/24/2008		Organochlorine Pesticides by GC/ECD				
12/20/2008	11/24/2008		Organochlorine Pesticides by GC/ECD				
11/24/2008			Percent Moisture		•		
12/12/2008	11/24/2008		Polychlorinated Biphenyls by GC/ECD				
12/3/2008	11/24/2008		Semivolatile Organic Compounds by GC/MS				
12/3/2008	12/2/2008		Total Metals by ICP				
11/25/2008			Volatile Organic Compounds by GC/MS		11/20/2008	Ith-DUP2	811166-010A
12/3/2008	12/1/2008		Mercury				0811166-010D
12/20/2008	11/24/2008		Organochlorine Pesticides by GC/ECD			•	
12/20/2008	11/24/2008		Organochlorine Pesticides by GC/ECD				
11/24/2008			Percent Moisture				
12/12/2008	11/24/2008		Polychlorinated Biphenyls by GC/ECD				
12/3/2008	11/24/2008		Semivolatile Organic Compounds by GC/MS		•		-
12/3/2008	12/2/2008		Total Metals by ICP				
11/25/2008			Volatile Organic Compounds by GC/MS		11/20/2008 4:10:00 PM	lth-2 (1-6)	811166-011A
11/25/2008			Volatile Organic Compounds by GC/MS				
12/3/2008	12/1/2008		Mercury				D110-66111B

0811166

Client:

ERM Consulting & Engineering

Project:

Ithaca Dredging

ample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
811166-011D	Ith-2 (1-6)	11/20/2008 4:10:00 PM	Soil	Organochlorine Pesticides by GC/ECD	-	11/24/2008	12/20/2008
				Organochlorine Pesticides by GC/ECD		11/24/2008	12/20/2008
				Percent Moisture			11/24/2008
				Polychlorinated Biphenyls by GC/ECD		11/24/2008	12/12/2008
				Semivolatile Organic Compounds by GC/MS		11/24/2008	12/3/2008
				Total Metals by ICP		12/2/2008	12/3/2008
311166-012A	Ith-3 (1-6)	11/20/2008 4:15:00 PM		Volatile Organic Compounds by GC/MS			11/26/2008
311166-012D				Mercury		12/1/2008	12/3/2008
				Organochlorine Pesticides by GC/ECD		11/24/2008	12/20/2008
				Organochlorine Pesticides by GC/ECD		11/24/2008	12/20/2008
				Percent Moisture			11/24/2008
				Polychlorinated Biphenyls by GC/ECD		11/24/2008	12/12/2008
				Semivolatile Organic Compounds by GC/MS		11/24/2008	12/4/2008
	·			Total Metals by ICP		12/2/2008	12/3/2008
311166-013A	Ith-4 (1-6)	11/20/2008 4:20:00 PM		Volatile Organic Compounds by GC/MS			11/25/2008
11166-013D				Mercury		12/1/2008	12/3/2008
				Organochlorine Pesticides by GC/ECD		11/24/2008	12/20/2008
				Organochlorine Pesticides by GC/ECD		11/24/2008	12/20/2008
				Percent Moisture			11/24/2008
				Polychlorinated Biphenyls by GC/ECD		11/24/2008	12/12/2008
				Semivolatile Organic Compounds by GC/MS		11/24/2008	12/3/2008
			i	Total Metals by ICP		12/2/2008	12/3/2008
11166-014A	Ith-6 (1-6)	11/20/2008 4:25:00 PM		Volatile Organic Compounds by GC/MS			11/25/2008
11166-014D		•		Mercury		12/1/2008	12/3/2008
				Organochlorine Pesticides by GC/ECD		11/24/2008	12/20/2008
				Organochlorine Pesticides by GC/ECD		11/24/2008	12/20/2008
				Percent Moisture			11/24/2008
				Polychlorinated Biphenyls by GC/ECD		11/24/2008	12/12/2008

07-Jan-09

Lab Order:

0811166

Client:

ERM Consulting & Engineering

Project:

Ithaca Dredging

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
0811166-014D	lth-6 (1-6)	11/20/2008 4:25:00 PM	Soil	Semivolatile Organic Compounds by GC/MS	TOD: Date	11/24/2008	12/3/2008
				Total Metals by ICP		12/2/2008	12/3/2008

## **Analytical Results**

### **Analytical Results**

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

StateCertNo: 10155

Client Sample ID: Ith-3 (6-12)

0811131-001A

11/17/08 14:50

11/18/08 16:28

**CLIENT:** ERM Consulting & Engineering

Ithaca Dredging

W Order: 0811131 Matrix:

SOIL Inst. ID: MS03 10

ColumnID: Rtx-VMS

Revision:

11/25/08 11:40

Sample Size: 5.21 g

%Moisture: 24.7 TestCode: 8260S

PrepDate: BatchNo:

FileID:

Lab ID:

**Collection Date:** 

Date Received:

R15605

1-SAMP-J7632.D

Col Type:

Project:

Analyte	Result Qı	al PQL	MDL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNI	DS BY GC/MS			SW8260	В	
Benzene	ND	3.2	0.64	μg/Kg-dry	0.96	11/21/08 21:12
Ethylbenzene	ND	3.2	0.64	μg/Kg-dry	0.96	11/21/08 21:12
Toluene	ND	3.2	0.64	μg/Kg-dry	0.96	11/21/08 21:12
Xylenes (total)	ND	6.4	1.9	μg/Kg-dry	0.96	11/21/08 21:12
Surr: 1,2-Dichloroethane-d4	95.7	71-128	0.64	%REC	0.96	11/21/08 21:12
Surr: Toluene-d8	100	75-125	0.64	%REC	0.96	11/21/08 21:12
Surr: 4-Bromofluorobenzene	92.5	59-125	0.64	%REC	0.96	11/21/08 21:12

Qualifiers:

Print Date: 11/25/08 13:51

Value exceeds Maximum Contaminant Level

Value exceeds the instrument calibration range

Analyte detected below the PQL

Prim./Conf. column %D or RPD exceeds limit

Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

Spike Recovery outside accepted recovery limits

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

**Analytical Results** 

StateCertNo: 10155

CLIENT:

**ERM Consulting & Engineering** 

Lab ID:

0811131-002A

Project:

Ithaca Dredging

W Order:

11/25/08 11:40

Client Sample ID: Ith-4 (6-12)

0811131

**Collection Date:** 

11/18/08 9:20

Matrix:

SOIL

Date Received:

11/18/08 16:28

Inst. ID:

MS03 10

Sample Size: 6.66 g

PrepDate:

R15605

Column TD: Rtx-VMS

%Moisture: 28.6

TestCode: 8260S

BatchNo: FileID:

1-SAMP-J7633.D

**Revision:** Col Type:

Analyte	Result Qu	ıal PQL	MDL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUND	S BY GC/MS			SW82601	В	
Benzene	ND	2.6	0.53	μg/Kg-dry	0.75	11/21/08 21:46
Ethylbenzene	ND	2.6	0.53	µg/Kg-dry	0.75	11/21/08 21:46
Toluene	ND	2.6	0.53	μg/Kg-dry	0.75	11/21/08 21:46
Xylenes (total)	ND	5.3	1.6	μg/Kg-dry	0.75	11/21/08 21:46
Surr: 1,2-Dichloroethane-d4	81.0	71-128	0.53	%REC	0.75	11/21/08 21:46
Surr: Toluene-d8	114	75-125	0.53	%REC	0.75	11/21/08 21:46
Surr: 4-Bromofluorobenzene	110	59-125	0.53	%REC	0.75	11/21/08 21:46

Qualifiers:

Value exceeds Maximum Contaminant Level

Value exceeds the instrument calibration range

Analyte detected below the PQL

Prim./Conf. column %D or RPD exceeds limit

Analyte detected in the associated Method Blank

Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

Spike Recovery outside accepted recovery limits

LSL 5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

**Analytical Results** 

StateCertNo: 10155

CLIENT:

ERM Consulting & Engineering

Project:

Ithaca Dredging

W Order:

0811131 SOIL

Matrix: Inst. ID:

Col Type:

MS03 10

ColumnID: Rtx-VMS Revision:

11/25/08 11:40

%Moisture: 31.9 TestCode:

Sample Size: 7.61 g

8260S

Lab ID:

0811131-003A

Client Sample ID: Ith-2 (6-10)

Collection Date: Date Received:

11/18/08 10:10 11/18/08 16:28

PrepDate:

BatchNo:

R15605

FileID:

1-SAMP-J7620.D

Result Qual PQL		MDL	Units	DF	Date Analyzed	
VOLATILE ORGANIC COMPOUNDS BY GC/MS						
ND	2.4	0.48	µg/Kg-dry	0.66	11/21/08 14:38	
ND	2.4	0.48	µg/Kg-dry	0.66	11/21/08 14:38	
ND	2.4	0.48	μg/Kg-dry	0.66	11/21/08 14:38	
ND	4.8	1.5	μg/Kg-dry	0.66	11/21/08 14:38	
85.8	71-128	0.48	%REC	0.66	11/21/08 14:38	
121	75-125	0.48	%REC	0.66	11/21/08 14:38	
146 S	59-125	0.48	%REC	0.66	11/21/08 14:38	
	ND ND ND 85.8	ND 2.4 ND 2.4 ND 2.4 ND 2.4 ND 4.8 85.8 71-128 121 75-125	ND 2.4 0.48 ND 2.4 0.48 ND 2.4 0.48 ND 2.4 0.48 ND 4.8 1.5 85.8 71-128 0.48 121 75-125 0.48	SBY GC/MS  ND 2.4 0.48 µg/Kg-dry  ND 2.4 0.48 µg/Kg-dry  ND 2.4 0.48 µg/Kg-dry  ND 4.8 1.5 µg/Kg-dry  85.8 71-128 0.48 %REC  121 75-125 0.48 %REC	SBY GC/MS  ND 2.4 0.48 µg/Kg-dry 0.66  ND 2.4 0.48 µg/Kg-dry 0.66  ND 2.4 0.48 µg/Kg-dry 0.66  ND 4.8 1.5 µg/Kg-dry 0.66  85.8 71-128 0.48 %REC 0.66  121 75-125 0.48 %REC 0.66	

Qualifiers:

Print Date: 11/25/08 13:51

- Value exceeds Maximum Contaminant Level
- Value exceeds the instrument calibration range
- Analyte detected below the PQL
- Prim./Conf. column %D or RPD exceeds limit
- Analyte detected in the associated Method Blank
- Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
  - Spike Recovery outside accepted recovery limits

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

**Analytical Results** 

StateCertNo: 10155 0811131-003C

11/18/08 10:10

11/18/08 16:28

CLIENT:

ERM Consulting & Engineering

Project:

Ithaca Dredging

W Order:

0811131 SOIL

Matrix: Inst. ID:

MS03 10

ColumnID: Rtx-VMS

Col Type:

Revision:

12/05/08 14:21

TestCode:

%Moisture: 31.9 8260S

PrepDate: Sample Size: 2.16 g BatchNo:

FileID:

Lab ID:

**Collection Date:** 

Date Received:

R15608

Client Sample ID: Ith-2 (6-10)

1-SAMP-J7648.D

Analyte	Result Qu	ıal PQL	MDL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUN	OS BY GC/MS			SW8260	3	
Benzene	ND	8.4	1.7	μg/Kg-dry	2.3	11/24/08 17:04
Ethylbenzene	ND	8.4	1.7	μg/Kg-dry	2.3	11/24/08 17:04
Toluene	ND	8.4	1,7	μg/Kg-dry	2.3	11/24/08 17:04
Xylenes (total)	ND	17	5.1	μg/Kg-dry	2.3	11/24/08 17:04
Surr: 1,2-Dichloroethane-d4	82.4	71-128	1.7	%REC	2.3	11/24/08 17:04
Surr: Toluene-d8	111	75-125	1.7	%REC	2.3	11/24/08 17:04
Surr: 4-Bromofluorobenzene	104	59-125	1.7	%REC	2.3	11/24/08 17:04

Qualifiers:

Print Date: 12/05/08 14:22

- Value exceeds Maximum Contaminant Level
- Value exceeds the instrument calibration range

406835

- Analyte detected below the PQL
- Prim./Conf. column %D or RPD exceeds limit
- Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
- Spike Recovery outside accepted recovery limits

42 Project Supervisor: Anthony Crescenzi

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

**Analytical Results** 

StateCertNo: 10155

CLIENT:

ERM Consulting & Engineering

Project:

Ithaca Dredging

W Order:

0811131

Matrix:

Revision:

Col Type:

SOIL

MS03 10

Inst. ID:

ColumnID: Rtx-VMS

11/25/08 13:42

%Moisture: 34.5 TestCode:

8260S

Sample Size: 5.51 g

Lab ID:

0811131-004A

Client Sample ID: Ith-2 (10-14)

**Collection Date:** 

11/18/08 10:20

Date Received:

11/18/08 16:28

PrepDate:

BatchNo:

R15608

FileID:

1-SAMP-J7644.D

Analyte	Result Qu	ıal PQL	MDL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS					В	
Benzene	ND	3.5	0.69	μg/Kg-dry	0.91	11/24/08 14:48
Ethylbenzene	ND	3.5	0.69	μg/Kg-dry	0.91	11/24/08 14:48
Toluene	ND	3.5	0.69	μg/Kg-dry	0.91	11/24/08 14:48
Xylenes (total)	ND	6.9	2.1	μg/Kg-dry	0.91	11/24/08 14:48
Surr: 1,2-Dichloroethane-d4	81.0	71-128	0.69	%REC	0.91	11/24/08 14:48
Surr: Toluene-d8	114	75-125	0.69	%REC	0.91	11/24/08 14:48
Surr: 4-Bromofluorobenzene	112	50_125	0.60	%REC	0.01	11/24/08 14:48

Qualifiers:

Print Date: 11/25/08 13:51

Value exceeds Maximum Contaminant Level

Value exceeds the instrument calibration range

Analyte detected below the PQL

Prim./Conf. column %D or RPD exceeds limit

Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

**Analytical Results** 

StateCertNo: 10155

0811131-005A

11/18/08 14:10

11/18/08 16:28

CLIENT:

**ERM Consulting & Engineering** 

Project: Ithaca Dredging

W Order:

0811131 Matrix: SOIL

Inst. ID: MS03 10

ColumnID: Rtx-VMS Revision:

11/25/08 13:42

%Moisture: 30.4 TestCode:

Sample Size: 3.41 g

8260S

Date Received: PrepDate:

Lab ID:

BatchNo:

**Collection Date:** 

R15608

Client Sample ID: Ith-6 (6-10)

FileID:

1-SAMP-J7645.D

Col Type:

Analyte	Result Qu	ıal PQL	MDL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS					3	
Benzene	ND	5.3	1.1	μg/Kg-dry	1.47	11/24/08 15:22
Ethylbenzen <del>e</del>	ND	5.3	1.1	μg/Kg-dry	1.47	11/24/08 15:22
Toluene	ND	5.3	1.1	μg/Kg-dry	1.47	11/24/08 15:22
Xylenes (total)	ND	11	3.2	μg/Kg-dry	1,47	11/24/08 15:22
Surr: 1,2-Dichloroethane-d4	82.7	71-128	1.1	%REC	1.47	11/24/08 15:22
Surr: Toluene-d8	116	75-125	1.1	%REC	1.47	11/24/08 15:22
Surr: 4-Bromofluorobenzene	111	59-125	1.1	%REC	1.47	11/24/08 15:22

- Value exceeds Maximum Contaminant Level
- E Value exceeds the instrument calibration range
- Analyte detected below the POL
- Prim./Conf. column %D or RPD exceeds limit
- Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
  - Spike Recovery outside accepted recovery limits

**Analytical Results** 

LSL 5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

StateCertNo: 10155

**CLIENT:** 

**ERM Consulting & Engineering** 

Lab ID:

0811131-006A

Project:

Ithaca Dredging

Client Sample ID: Ith-6 (10-14)

W Order:

0811131

**Collection Date:** 

11/18/08 14:20

Matrix:

SOIL

Date Received:

11/18/08 16:28

Inst. ID:

MS03 10

Sample Size: 5.08 g

ColumnID: Rtx-VMS

%Moisture: 34.7

PrepDate: BatchNo:

R15605

Revision: 11/25/08 11:40 TestCode: 8260S

FileID:

1-SAMP-J7624.D

Col Type:

Analyte	Result Qu	ial PQL	MDL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNI	SW8260	3				
Benzene	ND	3.8	0.75	μg/Kg-dry	0.98	11/21/08 16:40
Ethylbenzene	ND	3.8	0.75	μg/Kg-dry	0.98	11/21/08 16:40
Toluene	ND	3.8	0.75	μg/Kg-dry	0.98	11/21/08 16:40
Xylenes (total)	ND	7.5	2.3	μg/Kg-dry	0.98	11/21/08 16:40
Surr: 1,2-Dichloroethane-d4	82.4	71-128	0.75	%REC	0.98	11/21/08 16:40
Surr: Toluene-d8	116	75-125	0.75	%REC	0.98	11/21/08 16:40
Surr: 4-Bromofluorobenzene	109	59-125	0.75	%REC	0.98	11/21/08 16:40

Qualifiers:

Value exceeds Maximum Contaminant Level

Value exceeds the instrument calibration range

J Analyte detected below the PQL

Prim./Conf. column %D or RPD exceeds limit

Analyte detected in the associated Method Blank

Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

Col Type:

### Life Science Laboratories, Inc.

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

**Analytical Results** 

StateCertNo: 10155

CLIENT: **ERM Consulting & Engineering** 

Project: Ithaca Dredging

W Order: 0811142 Matrix: SOIL

Inst. ID: MS03 10

ColumnID: Rtx-VMS Revision:

11/25/08 11:40

Sample Size: 4.43 g %Moisture: 38.2

TestCode: 8260S Lab ID:

0811142-001A

Client Sample ID: Ith-8 (2-10)

**Collection Date:** Date Received:

11/19/08 14:30 11/20/08 9:25

PrepDate:

BatchNo:

R15605

FileID:

1-SAMP-J7625.D

Analyte	Result Qu	ıal PQL	MDL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS					В	
Benzene	ND	4.6	0.91	μg/Kg-dry	1.13	11/21/08 17:14
Ethylbenzene	ND	4.6	0.91	μg/Kg-dry	1.13	11/21/08 17:14
Toluene	ND	4.6	0.91	μg/Kg-dry	1.13	11/21/08 17:14
Xylenes (total)	ND	9.1	2.7	μg/Kg-dry	1.13	11/21/08 17:14
Surr: 1,2-Dichloroethane-d4	83.1	71-128	0.91	%REC	1.13	11/21/08 17:14
Surr: Toluene-d8	120	75-125	0.91	%REC	1.13	11/21/08 17:14
Surr: 4-Bromofluorobenzene	123	59-125	0.91	%REC	1.13	11/21/08 17:14

Qualifiers:

Value exceeds Maximum Contaminant Level

E Value exceeds the instrument calibration range

Analyte detected below the PQL

Prim./Conf. column %D or RPD exceeds limit

Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

Spike Recovery outside accepted recovery limits

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

8260S

Sample Size: 6.22 g

%Moisture: 38.2

TestCode:

**Analytical Results** 

StateCertNo: 10155

CLIENT: Project:

**ERM Consulting & Engineering** 

Ithaca Dredging

W Order: 0811142 Matrix: SOIL

Inst. ID: MS03 10

ColumnID: Rtx-VMS Revision:

11/25/08 13:42

Lab ID:

0811142-001ARA

Client Sample ID: Ith-8 (2-10)

**Collection Date:** Date Received:

11/19/08 14:30 11/20/08 9:25

PrepDate:

BatchNo:

R15608

FileID:

1-RA-J7647.D

Col Type:

Analyte	Result Qua	al PQL	MDL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUND	SW8260	3				
Benzene	ND	3.2	0.65	μg/Kg-dry	8.0	11/24/08 16:30
Ethylbenzene	ND	3.2	0.65	μg/Kg-dry	8.0	11/24/08 16:30
Toluene	ND	3.2	0.65	μg/Kg-dry	8.0	11/24/08 16:30
Xylenes (total)	ND	6.5	1.9	μg/Kg-dry	0.8	11/24/08 16:30
Surr: 1,2-Dichloroethane-d4	83.6	71-128	0.65	%REC	8.0	11/24/08 16:30
Surr: Toluene-d8	123	75-125	0.65	%REC	0.8	11/24/08 16:30
Surr: 4-Bromofluorobenzene	126 S	59-125	0.65	%REC	0.8	11/24/08 16:30

- Value exceeds Maximum Contaminant Level
- Value exceeds the instrument calibration range
- Analyte detected below the PQL
- Prim./Conf. column %D or RPD exceeds limit

406826

- Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
- Spike Recovery outside accepted recovery limits

LSL 5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

**Analytical Results** 

StateCertNo: 10155

CLIENT:

**ERM Consulting & Engineering** 

Project:

Ithaca Dredging

W Order:

0811142

Matrix:

SOIL

Inst. ID:

MS03 10

Col Type:

ColumnID: Rtx-VMS Revision:

11/25/08 13:42

Sample Size: 9 g %Moisture: 31.3

TestCode: 8260S

Lab ID:

0811142-002A

Client Sample ID: *Ith-8 (10-14)* 

**Collection Date:** 

11/19/08 14:45

Date Received:

11/20/08 9:25

PrepDate:

BatchNo:

R15608

FileID:

1-SAMP-J7646.D

Analyte	Result Qu	ıal PQL	MDL	Units	DF	Date Analyzed		
VOLATILE ORGANIC COMPOUNDS BY GC/MS					В			
Benzene	ND	2.0	0.41	μg/Kg-dry	0.56	11/24/08 15:56		
Ethylbenzene	ND	2.0	0.41	μg/Kg-dry	0.56	11/24/08 15:56		
Toluene	ND	2.0	0.41	μg/Kg-dry	0.56	11/24/08 15:56		
Xylenes (total)	ND	4.1	1.2	μg/Kg-dry	0.56	11/24/08 15:56		
Surr: 1,2-Dichloroethane-d4	85.8	71-128	0.41	%REC	0.56	11/24/08 15:56		
Surr: Toluene-d8	110	75-125	0.41	%REC	0.56	11/24/08 15:56		
Surr: 4-Bromofluorobenzene	100	59-125	0.41	%REC	0.56	11/24/08 15:56		

Qualifiers:

Value exceeds Maximum Contaminant Level

Ε Value exceeds the instrument calibration range

Analyte detected below the PQL

Prim./Conf. column %D or RPD exceeds limit

Analyte detected in the associated Method Blank

Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

Spike Recovery outside accepted recovery limits

 $oldsymbol{LSL}$  5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

**Analytical Results** 

StateCertNo: 10155

**CLIENT:** 

**ERM Consulting & Engineering** 

Project:

Ithaca Dredging

W Order:

0811142

Matrix:

SOIL

Inst. ID:

Revision:

Col Type:

ColumnID: Rtx-VMS

MS03 10

11/25/08 11:40

%Moisture: 30.2 TestCode:

8260S

Sample Size: 4.42 g

Lab ID:

0811142-003A

Client Sample ID: Ith-7 (1-14)

Collection Date:

11/19/08 13:50 11/20/08 9:25

Date Received:

PrepDate:

BatchNo:

R15605

FileID:

1-SAMP-J7627.D

Analyte	Result Qu	ıal PQL	MDL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS					3	
Benzene	ND	4.0	0.81	μg/Kg-dry	1.13	11/21/08 18:22
Ethylbenzene	ND	4.0	0.81	μg/Kg-dry	1.13	11/21/08 18:22
Toluene	ND	4.0	0.81	µg/Kg-dry	1.13	11/21/08 18:22
Xylenes (total)	ND	8.1	2.4	μg/Kg-dry	1.13	11/21/08 18:22
Surr: 1,2-Dichloroethane-d4	81.4	71-128	0.81	%REC	1.13	11/21/08 18:22
Surr: Toluene-d8	113	75-125	0.81	%REC	1.13	11/21/08 18:22
Surr: 4-Bromofluorobenzene	111	59-125	0.81	%REC	1.13	11/21/08 18:22

#### Qualifiers:

- Value exceeds Maximum Contaminant Level
- Value exceeds the instrument calibration range
- Analyte detected below the POL
- Prim./Conf. column %D or RPD exceeds limit
- Analyte detected in the associated Method Blank
- Holding times for preparation or analysis exceeded
- Not Detected at the Practical Quantitation Limit (PQL)
- Spike Recovery outside accepted recovery limits

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

**Analytical Results** 

StateCertNo: 10155

CLIENT:

ERM Consulting & Engineering

Project:

Ithaca Dredging

W Order: Matrix:

0811142 SOIL

Inst. ID:

Col Type:

MS03 10

ColumnID: Rtx-VMS

Revision:

11/25/08 11:40

%Moisture: 34.3 TestCode:

8260S

Sample Size: 5.47 g

Lab ID:

0811142-004A

Client Sample ID: Ith-5 (4-10)

**Collection Date:** Date Received:

11/19/08 12:40 11/20/08 9:25

PrepDate:

BatchNo:

R15605

FileID:

1-SAMP-J7628.D

Analyte	Result Qu	ıal PQL	MDL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS					3	
Benzene	ND	3.5	0.69	µg/Kg-dry	0.91	11/21/08 18:56
Ethylbenzene	ND	3.5	0.69	μg/Kg-dry	0.91	11/21/08 18:56
Toluene	ND	3.5	0.69	μg/Kg-dry	0.91	11/21/08 18:56
Xylenes (total)	ND	6.9	2.1	ug/Kg-dry	0.91	11/21/08 18:56
Surr: 1,2-Dichloroethane-d4	80.8	71-128	0.69	%REC	0.91	11/21/08 18:56
Surr: Toluene-d8	118	75-125	0.69	%REC	0.91	11/21/08 18:56
Surr: 4-Bromofluorobenzene	118	59-125	0.69	%REC	0.91	11/21/08 18:56

Qualifiers:

Value exceeds Maximum Contaminant Level

Value exceeds the instrument calibration range

Analyte detected below the PQL

Prim./Conf. column %D or RPD exceeds limit

Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

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**Analytical Results** 

StateCertNo: 10155

CLIENT: **ERM Consulting & Engineering** 

Project: Ithaca Dredging

W Order: 0811142 Matrix: SOIL

Inst. ID: MS03 10

ColumnID: Rtx-VMS

Revision:

11/25/08 11:40

Sample Size: 6,25 g

TestCode:

%Moisture: 29.0 8260S Lab ID:

0811142-005A

Client Sample ID: Ith-5 (10-14) **Collection Date:** 

Date Received:

11/19/08 12:50 11/20/08 9:25

PrepDate:

BatchNo:

R15605

FileID:

1-SAMP-J7629.D

Col Type:

Analyte	Result Qu	ıal PQL	MDL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUN	SW8260	3				
Benzene	NĐ	2.8	0.56	μg/Kg-dry	8.0	11/21/08 19:30
Ethylbenzene	ND	2.8	0.56	μg/Kg-dry	8.0	11/21/08 19:30
Toluene	ND	2.8	0.56	μg/Kg-dry	8.0	11/21/08 19:30
Xylenes (total)	ND	5.6	1.7	μg/Kg-dry	8.0	11/21/08 19:30
Surr: 1,2-Dichloroethane-d4	81.7	71-128	0.56	%REC	8.0	11/21/08 19:30
Surr: Toluene-d8	111	75-125	0.56	%REC	8.0	11/21/08 19:30
Surr: 4-Bromofluorobenzene	97.4	59-125	0.56	%REC	0.8	11/21/08 19:30

Qualifiers:

Print Date: 11/25/08 13:52

Value exceeds Maximum Contaminant Level

Value exceeds the instrument calibration range

Analyte detected below the PQL

Prim./Conf. column %D or RPD exceeds limit

Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

**Analytical Results** 

StateCertNo: 10155

CLIENT:

**ERM Consulting & Engineering** 

Project:

Ithaca Dredging

W Order:

0811142

Matrix:

SOIL

Inst. ID:

MS03 10

ColumnID: Rtx-VMS Revision:

Col Type:

11/25/08 11:40

TestCode:

%Moisture: 34.9 8260S

Sample Size: 6.89 g

Lab ID:

0811142-006A

Client Sample ID: Ith-1 (6-12)

**Collection Date:** 

11/19/08 10:30

Date Received:

11/20/08 9:25

PrepDate:

BatchNo:

R15605

FileID:

1-SAMP-J7630.D

	1 11 11 11 11 11 11 11 11 11 11 11 11 1					
Analyte	Result Qu	ıal PQL	MDL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUN	SW8260	В				
Benzene	ND	2.8	0.55	μg/Kg-dry	0.72	11/21/08 20:04
Ethylbenzene	ND	2.8	0.55	μg/Kg-dry	0.72	11/21/08 20:04
Toluene	ND	2.8	0.55	μg/Kg-dry	0.72	11/21/08 20:04
Xylenes (total)	ND	5.5	1.7	μg/Kg-dry	0.72	11/21/08 20:04
Surr: 1,2-Dichloroethane-d4	81.3	71-128	0.55	%REC	0.72	11/21/08 20:04
Surr: Toluene-d8	115	75-125	0.55	%REC	0.72	11/21/08 20:04
Surr: 4-Bromofluorobenzene	103	59-125	0.55	%REC	0.72	11/21/08 20:04

Qualifiers:

Print Date: 11/25/08 13:52

Value exceeds Maximum Contaminant Level

Value exceeds the instrument calibration range E

Analyte detected below the PQL

Prim./Conf. column %D or RPD exceeds limit

Analyte detected in the associated Method Blank

Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

Spike Recovery outside accepted recovery limits

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**Analytical Results** 

StateCertNo: 10155

CLIENT: Project:

ERM Consulting & Engineering

Ithaca Dredging

W Order: 0811142

Matrix: SOIL

Inst. ID: MS03 10

Col Type:

ColumnID: Rtx-VMS

Revision:

11/25/08 11:40

%Moisture: 33.4 TestCode:

Sample Size: 4.95 g

8260S

Lab ID:

0811142-007A

Client Sample ID: Ith-Dup1

**Collection Date:** 

11/19/08 0:00

Date Received:

11/20/08 9:25

PrepDate:

BatchNo:

R15605

FileID:

1-SAMP-J7631.D

Analyte	Result Qu	ial PQL	MDL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUN	SW8260	3				
Benzene	ND	3,8	0.76	μg/Kg-dry	1.01	11/21/08 20:38
Ethylbenzene	ND	3.8	0.76	μg/Kg-dry	1.01	11/21/08 20:38
Toluene	ND	3.8	0.76	μg/Kg-dry	1.01	11/21/08 20:38
Xylenes (total)	ND	7.6	2.3	µg/Kg-dry	1.01	11/21/08 20:38
Surr: 1,2-Dichloroethane-d4	81.8	71-128	0.76	%REC	1.01	11/21/08 20:38
Surr: Toluene-d8	115	75-125	0.76	%REC	1.01	11/21/08 20:38
Surr: 4-Bromofluorobenzene	113	59-125	0.76	%REC	1.01	11/21/08 20:38

Qualifiers:

Value exceeds Maximum Contaminant Level

Value exceeds the instrument calibration range Ε

Analyte detected below the POL

Prim./Conf. column %D or RPD exceeds limit

Analyte detected in the associated Method Blank

Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

**Analytical Results** 

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

StateCertNo: 10155 0811166-001A

11/20/08 15:15

11/21/08 16:16

CLIENT: **ERM Consulting & Engineering** 

Project: Ithaca Dredging

W Order: 0811166 Matrix: SOIL

Inst. ID: MS03 10

ColumnID: Rtx-VMS Revision:

11/25/08 13:42

%Moisture: 35.0 TestCode: 8260S

Sample Size: 5.2 g

PrepDate:

Lab ID:

**Collection Date:** 

Date Received:

BatchNo:

R15608

FileID: 1-SAMP-J7653.D

Client Sample ID: Ith-9 (1-14)

Col Type:

Analyte	Result Qu	ıal PQL	MDL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS					3	
Benzene	ND	3.7	0,74	μg/Kg-dry	0.96	11/24/08 19:54
Ethylbenzene	ND	3.7	0.74	μg/Kg-dry	0.96	11/24/08 19:54
Toluene	ND	3.7	0.74	μg/Kg-dry	0.96	11/24/08 19:54
Xylenes (total)	ND	7.4	2.2	μg/Kg-dry	0.96	11/24/08 19:54
Surr: 1,2-Dichloroethane-d4	80.4	71-128	0.74	%REC	0.96	11/24/08 19:54
Surr: Toluene-d8	116	75-125	0.74	%REC	0.96	11/24/08 19:54
Surr: 4-Bromofluorobenzene	112	59-125	0.74	%REC	0.96	11/24/08 19:54

- Value exceeds Maximum Contaminant Level
- Value exceeds the instrument calibration range
- Analyte detected below the PQL
- Prim./Conf. column %D or RPD exceeds limit
- Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
  - Spike Recovery outside accepted recovery limits

Print Date: 12/02/08 15:54

406828

Project Supervisor: Anthony Crescenzi

Project:

#### Life Science Laboratories, Inc.

**Analytical Results** 

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

8260S

Sample Size: 7.04 g

%Moisture: 34.1

103

TestCode:

StateCertNo: 10155

CLIENT: ERM Consulting & Engineering

Ithaca Dredging

W Order: 0811166 Matrix: SOIL

Inst. ID: MS03 10

ColumnID: Rtx-VMS

Revision: 11/25/08 13:42 Col Type:

Surr: 4-Bromofluorobenzene

Lab ID:

0811166-002A

Client Sample ID: Ith-10 (1-14)

11/20/08 14:15 **Collection Date:** Date Received: 11/21/08 16:16

%REC

PrepDate:

BatchNo:

R15608

FileID:

0.54

1-SAMP-J7654.D

0.71

11/24/08 20:28

Analyte	Result Qu	ıal PQL	MDL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUN	DS BY GC/MS			SW8260	В	
Benzene	ND	2.7	0.54	μg/Kg-dry	0.71	11/24/08 20:28
Ethylbenzene	ND	2.7	0.54	μg/Kg-dry	0.71	11/24/08 20:28
Toluene	ND	2.7	0.54	μg/Kg-dry	0.71	11/24/08 20:28
Xylenes (total)	ND	5.4	1.6	μg/Kg-dry	0.71	11/24/08 20:28
Surr: 1,2-Dichloroethane-d4	81.5	71-128	0.54	%REC	0.71	11/24/08 20:28
Surr: Toluene-d8	113	75-125	0.54	%REC	0.71	11/24/08 20:28

59-125

Qualifiers:

- Value exceeds Maximum Contaminant Level
- Value exceeds the instrument calibration range
- Analyte detected below the PQL
- Prim./Conf. column %D or RPD exceeds limit
- Analyte detected in the associated Method Blank
- Holding times for preparation or analysis exceeded
- Not Detected at the Practical Quantitation Limit (PQL)
  - Spike Recovery outside accepted recovery limits



5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

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**Analytical Results** 

StateCertNo: 10155

CLIENT: **ERM Consulting & Engineering** 

Ithaca Dredging

0811166

W Order: Matrix:

Project:

SOIL

Inst. ID:

MS03 10

ColumnID: Rtx-VMS

12/01/08 11:52

%Moisture: 32.2

Sample Size: 5.58 g

TestCode: 8260S

Lab ID:

0811166-003A

Client Sample ID: Ith-11 (1-14)

Collection Date:

11/20/08 12:20

Date Received:

11/21/08 16:16

PrepDate:

R15620

BatchNo: FileID:

1-SAMP-J7669.D

Revision: Col Type:

Analyte	Result Qu	ial PQL	MDL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS					3	
Benzene	ND	3.3	0.66	µg/Kg-dry	0.9	11/25/08 13:08
Ethylbenzene	ND	3,3	0.66	µg/Kg-dry	0.9	11/25/08 13:08
Toluene	ND	3.3	0.66	μg/Kg-dry	0.9	11/25/08 13:08
Xylenes (total)	ND	6,6	2.0	μg/Kg-dry	0.9	11/25/08 13:08
Surr: 1,2-Dichloroethane-d4	81.4	71-128	0.66	%REC	0.9	11/25/08 13:08
Surr: Toluene-d8	117	75-125	0.66	%REC	0.9	11/25/08 13:08
Surr: 4-Bromofluorobenzene	112	59-125	0.66	%REC	0.9	11/25/08 13:08

Qual	lifiers:
------	----------

- Value exceeds Maximum Contaminant Level
- Е Value exceeds the instrument calibration range
- Analyte detected below the PQL
- Prim./Conf. column %D or RPD exceeds limit
- Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
- Spike Recovery outside accepted recovery limits

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

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#### **Analytical Results**

StateCertNo: 10155

CLIENT:

**ERM Consulting & Engineering** 

Lab ID:

0811166-004A

Project:

Ithaca Dredging

11/25/08 13:42

Client Sample ID: Ith-12 (1-14)

W Order:

0811166

11/20/08 10:45

Matrix:

SOIL

Collection Date: Date Received:

11/21/08 16:16

Inst. ID:

MS03 10

Sample Size: 5.43 g

PrepDate:

R15608

ColumnID: Rtx-VMS

%Moisture: 36.2 TestCode:

BatchNo: FileID: 8260S

1-SAMP-J7656.D

Revision: Col Type:

Analyte	Result Qı	ial PQL	MDL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS					3	
Benzene	ND	3.6	0.72	μg/Kg-dry	0.92	11/24/08 21:36
Ethylbenzene	ND	3.6	0.72	μg/Kg-dry	0.92	11/24/08 21:36
Toluene	ND	3.6	0.72	μg/Kg-dry	0.92	11/24/08 21:36
Xylenes (total)	ND	7.2	2.2	μg/Kg-dry	0.92	11/24/08 21:36
Surr: 1,2-Dichloroethane-d4	82.0	71-128	0.72	%REC	0.92	11/24/08 21:36
Surr: Toluene-d8	113	75-125	0.72	%REC	0.92	11/24/08 21:36
Surr: 4-Bromofluorobenzene	<b>10</b> 5	59-125	0.72	%REC	0.92	11/24/08 21:36

Qualifiers:

Print Date: 12/02/08 15:54

- Value exceeds Maximum Contaminant Level
- Value exceeds the instrument calibration range
- Analyte detected below the PQL
- Prim./Conf. column %D or RPD exceeds limit

406831

- Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
  - Spike Recovery outside accepted recovery limits

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

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**Analytical Results** 

StateCertNo: 10155

CLIENT:

**ERM Consulting & Engineering** 

Project:

Ithaca Dredging

W Order:

0811166

Matrix:

SOIL MS03 10

Inst. ID:

Col Type:

ColumnID: Rtx-VMS Revision:

12/01/08 11:52

%Moisture: 25.2 TestCode:

8260S

Sample Size: 6.06 g

Lab ID:

0811166-005A

Client Sample ID: Ith-16 (1-14)

**Collection Date:** Date Received:

11/20/08 9:30 11/21/08 16:16

PrepDate:

BatchNo:

R15620

FileID:

1-SAMP-J7671,D

Analyte	Result Qu	ıal PQL	MDL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS					<del></del> В	
Benzene	ND	2.7	0.55	μg/Kg-dry	0.82	11/25/08 14:16
Ethylbenzene	ND	2.7	0.55	ug/Kg-dry		11/25/08 14:16
Toluene	ND	2.7	0.55	µg/Kg-dry		11/25/08 14:16
Xylenes (total)	ND	5.5	1.6	µg/Kg-dry		11/25/08 14:16
Surr: 1,2-Dichloroethane-d4	80.1	71-128	0.55	%REC	0.82	11/25/08 14:16
Surr: Toluene-d8	111	75-125	0.55	%REC	0.82	11/25/08 14:16
Surr: 4-Bromofluorobenzene	102	59-125	0.55	%REC	0.82	11/25/08 14:16

Qualifiers:

Value exceeds Maximum Contaminant Level

Value exceeds the instrument calibration range

Analyte detected below the PQL

Prim./Conf. column %D or RPD exceeds limit

Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

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East Syracuse, NY 13057

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**Analytical Results** 

StateCertNo: 10155

0811166-006A

11/21/08 9:50

11/21/08 16:16

CLIENT:

ERM Consulting & Engineering

Project: Ithaca Dredging

W Order: 0811166 Matrix: SOIL

Inst. ID: MS03 10

ColumnID: Rtx-VMS

Revision:

11/25/08 13:42

Sample Size: 6.3 g

TestCode: 8260S

%Moisture: 25.2

PrepDate: BatchNo:

Collection Date:

Date Received:

Lab ID:

R15608

Client Sample ID: Ith-14 (1-14)

FileID:

1-SAMP-J7657.D

Col Type:

Analyte	Result Qual PQL		MDL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS					3	
Benzene	ND	2.6	0.53	μg/Kg-dry	0.79	11/24/08 22:10
Ethylbenzene	ND	2.6	0.53	μg/Kg-dry	0.79	11/24/08 22:10
Toluene	0.94 J	2.6	0.53	μg/Kg-dry	0.79	11/24/08 22:10
Хуleпes (total)	ND	5.3	1.6	μg/Kg-dry	0.79	11/24/08 22:10
Surr: 1,2-Dichloroethane-d4	81.5	71-128	0.53	%REC	0.79	11/24/08 22:10
Surr: Toluene-d8	120	75-125	0.53	%REC	0.79	11/24/08 22:10
Surr: 4-Bromofluorobenzene	111	59-125	0.53	%REC	0.79	11/24/08 22:10

- Value exceeds Maximum Contaminant Level
- Value exceeds the instrument calibration range
- Analyte detected below the PQL
- Prim./Conf. column %D or RPD exceeds limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
  - Spike Recovery outside accepted recovery limits

#### Life Science Laboratories, Inc. 5000 Brittonfield Parkway, Suite 200

#### **Analytical Results**

East Syracuse, NY 13057

(315) 437-0200

StateCertNo: 10155

CLIENT: **ERM Consulting & Engineering** 

Ithaca Dredging

W Order: 0811166 Matrix:

Project:

Col Type:

SOIL Inst. ID: MS03 10

ColumnID: Rtx-VMS

11/25/08 13:42 Revision:

Sample Size: 9 g %Moisture: 30.9

TestCode: 8260S Lab ID:

0811166-007A Client Sample ID: Ith-13 (1-10)

11/21/08 8:30 **Collection Date:** 

Date Received:

11/21/08 16:16

PrepDate:

R15608

BatchNo: FileID:

1-SAMP-J7658.D

Analyte	Result Qu	ıal PQL	MDL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNI	SW82601	В				
Benzene	ND	2.0	0.41	μg/Kg-dry	0.56	11/24/08 22:44
Ethylbenzene	ND	2.0	0.41	μg/Kg-dry	0.56	11/24/08 22:44
Toluene	ND	2.0	0.41	μg/Kg-dry	0.56	11/24/08 22:44
Xylenes (total)	ND	4.1	1,2	μg/Kg-dry	0.56	11/24/08 22:44
Surr: 1,2-Dichloroethane-d4	84.7	71-128	0.41	%REC	0.56	11/24/08 22:44
Surr: Toluene-d8	107	75-125	0.41	%REC	0.56	11/24/08 22:44
Surr: 4-Bromofluorobenzene	96.5	59-125	0.41	%REC	0.56	11/24/08 22:44

Qualifiers:

Print Date: 12/02/08 15:54

Value exceeds Maximum Contaminant Level

Value exceeds the instrument calibration range

Analyte detected below the PQL

Prim./Conf. column %D or RPD exceeds limit

406833

Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

**Analytical Results** 

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

StateCertNo: 10155 0811166-008A

**ERM Consulting & Engineering** 

Project: Ithaca Dredging .

W Order: 0811166 Matrix: SOIL

Inst. ID: MS03 10 ColumnID: Rtx-VMS

Revision: 11/25/08 13:42 Sample Size: 6.94 g

TestCode: 8260S

PrepDate: %Moisture: 31.1 BatchNo:

FileID:

**Collection Date:** 

Date Received:

Lab ID:

R15608

Client Sample ID: Ith-13 (10-14)

1-SAMP-J7659.D

11/21/08 8:40

11/21/08 16:16

Col Type:

Analyte	Result Qu	ıal PQL	MDL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUND	SW8260B					
Benzene	ND	2.6	0.52	μg/Kg-dry	0.72	11/24/08 23:18
Ethylbenzene	ND	2.6	0.52	μg/Kg-dry	0.72	11/24/08 23:18
Toluene	ND	2.6	0.52	µg/Kg-dry	0.72	11/24/08 23:18
Xylenes (total)	ND	5.2	1.6	µg/Kg-dry	0.72	11/24/08 23:18
Surr: 1,2-Dichloroethane-d4	80.8	71-128	0.52	%REC	0.72	11/24/08 23:18
Surr: Toluene-d8	114	75-125	0.52	%REC	0.72	11/24/08 23:18
Surr: 4-Bromofluorobenzene	106	59-125	0.52	%REC	0.72	11/24/08 23:18

Ų	ua	HI)	er	82

Print Date: 12/02/08 15:54

- Value exceeds Maximum Contaminant Level
- Ε Value exceeds the instrument calibration range
- Analyte detected below the PQL
- Prim./Conf. column %D or RPD exceeds limit

406834

- Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND: Not Detected at the Practical Quantitation Limit (PQL)
  - Spike Recovery outside accepted recovery limits

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

**Analytical Results** 

StateCertNo: 10155

CLIENT: **ERM Consulting & Engineering** 

Project: Ithaca Dredging

W Order: 0811166 Matrix: SOIL

Inst. ID: MS03 10

Col Type:

ColumnID: Rtx-VMS

Revision:

12/01/08 11:52

Sample Size: 6.49 g %Moisture: 40.0

TestCode: 8260S Lab ID:

0811166-009A

Client Sample ID: Ith-1 (1-6)

**Collection Date:** Date Received:

11/20/08 16:00 11/21/08 16:16

PrepDate:

BatchNo:

R15620

FileID:

1-SAMP-J7670.D

Analyte	Result Qu	ial PQL	MDL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUN	DS BY GC/MS			SW82601	3	
Benzene	ND	3.2	0.64	µg/Kg-dry	0.77	11/25/08 13:42
Ethylbenzene	ND	3.2	0.64	µg/Kg-dry	0.77	11/25/08 13:42
Toluene	ND	3.2	0.64	µg/Kg-dry	0.77	11/25/08 13:42
Xylenes (total)	ND	6.4	1.9			11/25/08 13:42
Surr: 1,2-Dichloroethane-d4	79.6	71-128	0.64	%REC	0.77	11/25/08 13:42
Surr: Toluene-d8	116	75-125	0.64	%REC	0.77	11/25/08 13:42
Surr: 4-Bromofluorobenzene	113	59-125	0.64	%REC	0.77	11/25/08 13:42

Qualifiers:

Print Date: 12/02/08 15:54

Value exceeds Maximum Contaminant Level

Value exceeds the instrument calibration range

Analyte detected below the PQL

Prim./Conf. column %D or RPD exceeds limit

Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

**Analytical Results** 

StateCertNo: 10155

CLIENT:

**ERM Consulting & Engineering** 

Project:

Ithaca Dredging

W Order:

0811166

Matrix:

Revision:

Col Type:

SOIL

Inst. ID:

MS03 10

ColumnID: Rtx-VMS

12/01/08 11:52

TestCode:

%Moisture: 41.2 8260S

Sample Size: 6.54 g

Lab ID:

0811166-010A

Client Sample ID: Ith-DUP2

**Collection Date:** 

Date Received:

11/20/08 0:00 11/21/08 16:16

PrepDate:

BatchNo:

R15620

FileID:

1-SAMP-J7672.D

Analyte	Result Qu	al PQL	MDL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS					3	
Benzene	ND	3.2	0.65	μg/Kg-dry	0.76	11/25/08 14:51
Ethylbenzene	ND	3.2	0.65	μg/Kg-dry	0.76	11/25/08 14:51
Toluene	ND	3.2	0.65	µg/Kg-dry		11/25/08 14:51
Xylenes (total)	ND	6.5	1.9	µg/Kg-dry	0.76	11/25/08 14:51
Surr: 1,2-Dichloroethane-d4	81.9	71-128	0.65	%REC	0.76	11/25/08 14:51
Surr: Toluene-d8	116	75-125	0.65	%REC	0.76	11/25/08 14:51
Surr: 4-Bromofluorobenzene	107	59-125	0.65	%REC	0.76	11/25/08 14:51

Qualifiers:

- Value exceeds Maximum Contaminant Level
- Value exceeds the instrument calibration range
- Analyte detected below the PQL
- Prim./Conf. column %D or RPD exceeds limit
- Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
  - Spike Recovery outside accepted recovery limits

Col Type:

### Life Science Laboratories, Inc.

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

**Analytical Results** 

StateCertNo: 10155

ERM Consulting & Engineering CLIENT:

Project: Ithaca Dredging

W Order: 0811166 Matrix: SOIL

Inst. ID: MS03 10

ColumnID: Rtx-VMS

Revision: 12/01/08 11:52

Sample Size: 6.74 g

%Moisture: 47.6 TestCode:

8260S

Lab ID:

0811166-011A

Client Sample ID: Ith-2 (1-6)

**Collection Date:** Date Received:

11/20/08 16:10 11/21/08 16:16

PrepDate:

BatchNo:

R15620

FileID:

1-SAMP-J7673.D

Analyte	Result Qu	al POL	MDL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUND				SW8260	В	
Benzene	ND	3.5	0.71	µg/Kg-dry	0.74	11/25/08 15:25
Ethylbenzene	ND	3.5	0.71	µg/Kg-dry	0.74	11/25/08 15:25
Toluene	ND	3.5	0.71	μg/Kg-dry	0.74	11/25/08 15:25
Xylenes (total)	ND	7.1	2.1	μg/Kg-dry	0.74	11/25/08 15:25
Surr: 1,2-Dichloroethane-d4	77.9	71-128	0.71	%REC	0.74	11/25/08 15:25
Surr: Toluene-d8	120	75-125	0.71	%REC	0.74	11/25/08 15:25
Surr: 4-Bromofluorobenzene	119	59-125	0.71	%REC	0.74	11/25/08 15:25

Qualifiers:

Print Date: 12/02/08 15:54

Value exceeds Maximum Contaminant Level

 $\mathbf{E}$ Value exceeds the instrument calibration range

Analyte detected below the PQL

Prim./Conf. column %D or RPD exceeds limit

Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

Col Type:

### Life Science Laboratories, Inc.

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

**Analytical Results** 

StateCertNo: 10155

0811166-011ARA

CLIENT: **ERM Consulting & Engineering** Project:

Ithaca Dredging

W Order: 0811166 Matrix: SOIL

Inst. ID: MS03 10 ColumnID: Rtx-VMS

Revision: 12/01/08 11:52

Sample Size: 5.8 g

%Moisture: 47.6 TestCode: 8260S

PrepDate:

BatchNo: FileID:

Lab ID:

**Collection Date:** 

Date Received:

R15620

Client Sample ID: Ith-2 (1-6)

1-RA-J7677.D

11/20/08 16:10

11/21/08 16:16

Analyte	Result Qı	ıal PQL	MDL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS					В	
Benzene	ND	4.1	0.82	μg/Kg-dry	0.86	11/25/08 17:41
Ethylbenzene	ND	4.1	0.82	μg/Kg-dry	0.86	11/25/08 17:41
Toluene	ND	4.1	0.82	μg/Kg-dry	0.86	11/25/08 17:41
Xylenes (total)	ND	8.2	2.5	μg/Kg-dry	0.86	11/25/08 17:41
Surr: 1,2-Dichloroethane-d4	82.7	71-128	0.82	%REC	0.86	11/25/08 17:41
Surr: Toluene-d8	118	75-125	0.82	%REC	0.86	11/25/08 17:41
Surr: 4-Bromofluorobenzene	118	59-125	0.82	%REC	0.86	11/25/08 17:41

Qualifiers:
-------------

- Value exceeds Maximum Contaminant Level
- Value exceeds the instrument calibration range
- Analyte detected below the POL
- Prim./Conf. column %D or RPD exceeds limit
- Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
  - Spike Recovery outside accepted recovery limits

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

**Analytical Results** 

StateCertNo: 10155

CLIENT:

**ERM Consulting & Engineering** 

Project:

Ithaca Dredging

W Order: Matrix:

0811166 SOIL

Col Type:

MS03 10

Inst. ID:

ColumnID: Rtx-VMS

Revision: 12/02/08 16:13

%Moisture: 48.3

TestCode: 8260S

Sample Size: 5.45 g

Lab ID:

0811166-012A

Client Sample ID: Ith-3 (1-6)

11/20/08 16:15

**Collection Date:** Date Received:

11/21/08 16:16

PrepDate:

BatchNo:

R15645

FileID:

1-SAMP-J7692.D

Analyte	Result Qu	ıal PQL	MDL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				SW8260	 В	· · · · · · · · · · · · · · · · · · ·
Benzene	ND	4.4	0.89	μg/Kg-dry	0.92	11/26/08 14:01
Ethylbenzene	ND	4.4	0.89	µg/Kg-dry	0.92	11/26/08 14:01
Toluene	ND	4.4	0.89	μg/Kg-dry	0.92	11/26/08 14:01
Xylenes (total)	ND	8.9	2.7	µg/Kg-dry		11/26/08 14:01
Surr: 1,2-Dichloroethane-d4	81.6	71-128	0.89	%REC	0.92	11/26/08 14:01
Surr: Toluene-d8	117	75-125	0.89	%REC	0.92	11/26/08 14:01
Surr: 4-Bromofluorobenzene	117	59-125	0.89	%REC	0.92	11/26/08 14:01

Qualifiers:

Value exceeds Maximum Contaminant Level

Value exceeds the instrument calibration range

Analyte detected below the PQL

Prim./Conf. column %D or RPD exceeds limit

Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

**Analytical Results** 

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

StateCertNo: 10155

**ERM Consulting & Engineering** 

Project:

Ithaca Dredging

W Order:

0811166

Matrix:

Revision:

Col Type:

SOIL

Inst. ID: MS03 10

ColumnID: Rtx-VMS

12/01/08 11:52

%Moisture: 37.0 TestCode:

Sample Size: 6.49 g

8260S

Lab ID:

0811166-013A

Client Sample ID: Ith-4 (1-6)

**Collection Date:** 

11/20/08 16:20

Date Received:

11/21/08 16:16

PrepDate:

BatchNo:

R15620

FileID:

1-SAMP-J7675.D

Analyte	Result Qu	ıal PQL	MDL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUN	DS BY GC/MS			SW8260	В	
Benzene	ND	3.1	0.61	μg/Kg-dry	0.77	11/25/08 16:33
Ethylbenzene	ND	3.1	0.61	μg/Kg-dry		11/25/08 16:33
Toluene	ND	3.1	0.61	μg/Kg-dry		11/25/08 16:33
Xylenes (total)	ND	6.1	1.8	μg/Kg-dry		11/25/08 16:33
Surr: 1,2-Dichloroethane-d4	81.2	71-128	0.61	%REC	0.77	11/25/08 16:33
Surr: Toluene-d8	120	75-125	0.61	%REC	0.77	11/25/08 16:33
Surr: 4-Bromofluorobenzene	111	59-125	0.61	%REC	0.77	11/25/08 16:33

Qualifiers:

Value exceeds Maximum Contaminant Level

Value exceeds the instrument calibration range

Analyte detected below the PQL

Prim./Conf. column %D or RPD exceeds limit

Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

Spike Recovery outside accepted recovery limits

Print Date: 12/02/08 15:54

407101

Project Supervisor: Anthony Crescenzi

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

**Analytical Results** 

StateCertNo: 10155

CLIENT:

**ERM Consulting & Engineering** 

Project:

Ithaca Dredging

W Order:

0811166 SOIL

Matrix: Inst. ID:

ColumnID: Rtx-VMS

Revision: 12/01/08 11:52 Col Type:

MS03 10

%Moisture: 39.7 TestCode: 8260S

Sample Size: 6.62 g

Lab ID:

0811166-014A

Client Sample ID: Ith-6 (1-6)

Collection Date:

Date Received:

11/20/08 16:25 11/21/08 16:16

PrepDate:

BatchNo:

R15620

FileID:

1-SAMP-J7676.D

Analyte	Result Qu	ıal PQL	MDL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS					В	<del></del>
Benzene	ND	3.2	0.63	µg/Kg-dry	0.76	11/25/08 17:07
Ethylbenzene	ND	3.2	0.63	μg/Kg-dry	0.76	11/25/08 17:07
Toluene	ND	3.2	0.63	μg/Kg-dry	0.76	11/25/08 17:07
Xylenes (total)	ND	6.3	1.9	μg/Kg-dry		11/25/08 17:07
Surr: 1,2-Dichloroethane-d4	81.1	71-128	0.63	%REC	0.76	11/25/08 17:07
Surr: Toluene-d8	117	75-125	0.63	%REC	0.76	11/25/08 17:07
Surr: 4-Bromofluorobenzene	108	59-125	0.63	%REC	0.76	11/25/08 17:07

Qualifiers:

- Value exceeds Maximum Contaminant Level
- Value exceeds the instrument calibration range
- J Analyte detected below the PQL
- Prim./Conf. column %D or RPD exceeds limit
- Analyte detected in the associated Method Blank
- Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
  - Spike Recovery outside accepted recovery limits



**Analytical Results** 

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

Sample Size: 30 g

%Moisture: 24.7

TestCode: 8270S

StateCertNo: 10155 0811131-001D

CLIENT: ERM Consulting & Engineering

Project: Ithaca Dredging

W Order: 0811131 Matrix: SOIL

Inst. ID: MS06 40 ColumnID: DB-5MS

12/02/08 11:37

\_\_\_\_\_

Lab ID: 0811131-001 Client Sample ID: *Ith-3* (6-12)

Collection Date: Date Received:

PrepDate:

11/18/08 16:28 11/21/08 15:07 8508/R15641

11/17/08 14:50

**BatchNo:** 8508/R15641 **FileID:** 1-SAMP-K5198,D

Revision: Col Type:

Analyte	Result Qu	al PQL	MDL	Units	DF	Date Analyzed
SEMIVOLATILE ORGANIC COMPO	OUNDS BY GC/M	S		SW8270	C	(SW3550B)
2-Chloronaphthalene	ND	440	4.9	μg/Kg-dry	1	12/01/08 10:47
2-Methylnaphthalene	ND	440	2.1	μg/Kg-dry	1	12/01/08 10:47
Acenaphthene	ND	440	4.4	µg/Kg-dry	1	12/01/08 10:47
Acenaphthylene	ND	<del>44</del> 0	5.3	μg/Kg-dry	1	12/01/08 10:47
Anthracene	ND	440	3.1	μg/Kg-dry	1	12/01/08 10:47
Benzo[a]anthracene	ND	440	4.6	µg/Kg-dry	1	12/01/08 10:47
Benzo[a]pyrene	ND	440	13	μg/Kg-dry	1	12/01/08 10:47
Benzo[b]fluoranthene	ND	440	15	μg/Kg-dry	1	12/01/08 10:47
Benzo[g,h,i]perylene	ND	440	18	µg/Kg-dry	1	12/01/08 10:47
Benzo[k]fluoranthene	ND	440	15	μg/Kg-dry	1	12/01/08 10:47
Chrysene	ND	440	3.7	µg/Kg-dry	1	12/01/08 10:47
Dibenz[a,h]anthracene	ND	440	18	μg/Kg-dry	1	12/01/08 10:47
Fluoranthene	· ND	440	13	μg/Kg-dry	1	12/01/08 10:47
Fluorene	ND	440	4.5	μg/Kg-dry		12/01/08 10:47
Indeno[1,2,3-cd]pyrene	ND	440	18	µg/Kg-dry	1	12/01/08 10:47
Naphthalene	ND	440	3.4	µg/Kg-dry	1	12/01/08 10:47
Phenanthrene	ND	440	1.9	µg/Kg-dry	1	12/01/08 10:47
Pyrene	. ND	440	3.0	µg/Kg-dry	1	12/01/08 10:47
Surr: 2,4,6-Tribromophenol	58	20-143	0	%REC	1	12/01/08 10:47
Surr: 2-Fluorobiphenyl	77	46-130	0	%REC	1	12/01/08 10:47
Surr: 2-Fluorophenol	78	22-130	0	%REC	1	12/01/08 10:47
Surr: Nitrobenzene-d5	78	39-130	0	%REC	1	12/01/08 10:47
Surr: Phenol-d5	81	33-130	0	%REC	1	12/01/08 10:47
Surr: Terphenyl-d14	85	36-146	0	%REC	1	12/01/08 10:47

Qualifiers:	Qı	ıati	fie	rs	:
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Print Date: 12/02/08 11:38

- Value exceeds Maximum Contaminant Level
- E Value exceeds the instrument calibration range
- J Analyte detected below the PQL
- Primt/Conf. column %D or RPD exceeds limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
- S Spike Recovery outside accepted recovery limits

# LSL

### Life Science Laboratories, Inc.

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

8270S

**Analytical Results** 

0811131-002D

StateCertNo: 10155

**CLIENT:** ERM Consulting & Engineering

Project: Ithaca Dredging

W Order: 0811131 Matrix: SOIL

Inst. ID: MS06 40 ColumnID: DB-5MS

**Revision:** 12/02/08 11:37

Sample Size: 30 g

%Moisture: 28.6

TestCode:

Lab ID: 0811131-002. Client Sample ID: *Ith-4 (6-12)* 

Collection Date:
Date Received:

PrepDate: BatchNo: 11/18/08 16:28 11/21/08 15:07 8508/R15641

11/18/08 9:20

FileID: 1-SAMP-K5199.D

Col Type:

Analyte	Result Qual	PQL	MDL	Units	DF	Date Analyzed
SEMIVOLATILE ORGANIC COM	POUNDS BY GC/MS			SW82700	>	(SW3550B)
2-Chloronaphthalene	ND	460	5.1	μg/Kg-dry	1	12/01/08 11:26
2-Methylnaphthalene	ND	460	2.2	μg/Kg-dry	1	12/01/08 11:26
Acenaphthene	ND	460	4.6	μg/Kg-d <b>ry</b>	1	12/01/08 11:26
Acenaphthylene	ND	460	5.6	μg/Kg-dry	1	12/01/08 11:26
Anthracene	ND	460	3.3	μg/Kg-dry	1	12/01/08 11:26
Benzo[a]anthracene	ND	460	4.8	µg/Kg-dry	1	12/01/08 11:26
Benzo[a]pyrene	ND	460	14	μg/Kg-dry	1	12/01/08 11:26
Benzo[b]fluoranthene	ND	460	16	μg/Kg-dry	1	12/01/08 11:26
Benzo[g,h,i]perylene	ND	460	19	μg/Kg-dry	1	12/01/08 11:26
Benzo[k]fluoranthene	ND	460	16	µg/Kg-dry	1	12/01/08 11:26
Chrysene	ND	460	3.9	μg/Kg-dry	1	12/01/08 11:26
Dibenz[a,h]anthracene	ND	460	19	µg/Kg-dry	1	12/01/08 11:26
Fluoranthene	ND	460	14	μg/Kg-dry	1	12/01/08 11:26
Fluorene	ND	460	4.8	μg/Kg-dry	1	12/01/08 11:26
Indeno[1,2,3-cd]pyrene	ND	460	19	μg/Kg-dry	1	12/01/08 11:26
Naphthalene	ND	460	3.5	μg/Kg-dry	1	12/01/08 11:26
Phenanthrene	ND	460	2.0	μg/Kg-dry	1	12/01/08 11:26
Pyrene	ND	460	3.2	μg/Kg-dry	1	12/01/08 11:26
Surr: 2,4,6-Tribromophenol	52	20-143	0	%REC	1	12/01/08 11:26
Surr: 2-Fluorobiphenyl	67	46-130	0	%REC	1	12/01/08 11:26
Surr: 2-Fluorophenol	67	22-130	0	%REC	1	12/01/08 11:26
Surr: Nitrobenzene-d5	68	39-130	0	%REC	1	12/01/08 11:26
Surr: Phenol-d5	72	33-130	O	%REC	1	12/01/08 11:26
Surr: Terphenyl-d14	74	36-146	0	%REC	1	12/01/08 11:26

- Value exceeds Maximum Contaminant Level
- E Value exceeds the instrument calibration range
- J Analyte detected below the PQL
- Prim./Conf. column %D or RPD exceeds limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
  - S Spike Recovery outside accepted recovery limits



**Analytical Results** 

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

Sample Size: 30 g

%Moisture: 31.9

TestCode: 8270S

StateCertNo: 10155

**CLIENT:** ERM Consulting & Engineering

Project: Ithaca Dredging

W Order: 0811131 Matrix: SOIL

Inst. ID: MS06 40 ColumnID: DB-5MS

**Revision:** 12/02/08 11:37

Lab ID:

0811131-003D

Client Sample ID: Ith-2 (6-10)

Collection Date:
Date Received:

11/18/08 10:10 11/18/08 16:28

PrepDate: BatchNo: 11/21/08 15:07 8508/R15641

FileID: 1-SAMP-K5200.D

Col Type:

Analyte	Result Qua	l PQL	MDL	Units	DF	Date Analyzed
SEMIVOLATILE ORGANIC COMPOUN	DS BY GC/MS			SW82700	C	(SW3550B)
2-Chloronaphthalene	ND	480	5.4	μg/Kg-dry	1	12/01/08 12:05
2-Methylnaphthalene	180 J	480	2.3	μg/Kg-dry	1	12/01/08 12:05
Acenaphthene	750	480	4.9	μg/Kg-dry	1	12/01/08 12:05
Acenaphthylene	92 J	480	5.9	μg/Kg-dry	1	12/01/08 12:05
Anthracene	300 J	480	3.4	μg/Kg-dry	1	12/01/08 12:05
Benzo[a]anthracene	610	480	5.1	µg/Kg-dry	1	12/01/08 12:05
Benzo[a]pyrene	510	480	15	μg/Kg-dry	1	12/01/08 12:05
Benzo[b]fluoranthene	650	480	17	µg/Kg-dry	1	12/01/08 12:05
Benzo[g,h,i]perylene	150 J	480	20	μg/Kg-dry	1	12/01/08 12:05
Benzo[k]fluoranthene	270 J	480	16	µg/Kg-dry	1	12/01/08 12:05
Chrysene	630	480	4.1	μg/Kg-dry	1	12/01/08 12:05
Dibenz[a,h]anthracene	ND	480	20	μg/Kg-dry	1	12/01/08 12:05
Fluoranthene	1100	480	15	µg/Kg-dry	1	12/01/08 12:05
Fluorene	380 J	480	5.0	μg/Kg-dry	1	12/01/08 12:05
Indeno[1,2,3-cd]pyrene	65 J	480	20	μg/Kg-dry	1	12/01/08 12:05
Naphthalene	240 J	480	3.7	µg/Kg-dry	1	12/01/08 12:05
Phenanthrene	1200	480	2.1	μg/Kg-dry	1	12/01/08 12:05
Pyrene	1400	480	3.3	μg/Kg-dry	1	12/01/08 12:05
Surr: 2,4,6-Tribromophenol	55	20-143	0	%REC	1	12/01/08 12:05
Surr: 2-Fluorobiphenyl	71	46-130	0	%REC	1	12/01/08 12:05
Surr: 2-Fluorophenol	72	22-130	0	%REC	1	12/01/08 12:05
Surr: Nitrobenzene-d5	71	39-130	0	%REC	1	12/01/08 12:05
Surr: Phenol-d5	75	33-130	0	%REC	1	12/01/08 12:05
Surr: Terphenyl-d14	93	36-146	0	%REC	1	12/01/08 12:05

- Value exceeds Maximum Contaminant Level
- E Value exceeds the instrument calibration range
- J Analyte detected below the PQL
- Prim./Conf. column %D or RPD exceeds limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
  - S Spike Recovery outside accepted recovery limits

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

**Analytical Results** 

StateCertNo: 10155

CLIENT:

**ERM Consulting & Engineering** 

Project:

Ithaca Dredging

W Order:

0811131 SOIL

Matrix:

MS06 40

Inst. ID:

ColumnID: DB-5MS

12/02/08 11:37

%Moisture: 31.9 TestCode:

8270S

Sample Size: 30 g

Lab ID:

0811131-003DDL

Client Sample ID: Ith-2 (6-10)

Collection Date:

11/18/08 10:10

Date Received:

11/18/08 16:28

PrepDate: BatchNo:

11/21/08 15:07 8508/R15641

FileID:

1-DL-K5211.D

Revision: Col Type:

Analyte	Result Qua	ıl PQL	MDL	Units	DF	Date Analyzed	
SEMIVOLATILE ORGANIC COMPOUNDS BY GC/MS				SW82700	;	(SW3550B)	
2-Chloronaphthalene	ND	4800	54	μg/Kg-dry	10	12/01/08 19:12	
2-Methylnaphthalene	ND	4800	23	μg/Kg-dry	10	12/01/08 19:12	
Acenaphthene	780 J	4800	49	μg/Kg-dry	10	12/01/08 19:12	
Acenaphthylene	ND	4800	59	μg/Kg-dry	10	12/01/08 19:12	
Anthracene	ND	4800	34	μg/Kg-dry	10	12/01/08 19:12	
Benzo[a]anthracene	690 J	4800	51	µg/Kg-dry	10	12/01/08 19:12	
Benzo[a]pyrene	550 J	4800	150	μg/Kg-dry	10	12/01/08 19:12	
Benzo[b]fluoranthene	630 J	4800	170	μg/Kg-dry	10	12/01/08 19:12	
Benzo[g,h,i]perylene	ND	4800	200	μg/Kg-dry	10	12/01/08 19:12	
Benzo[k]fluoranthene	ND	4800	160	μg/Kg-dry	10	12/01/08 19:12	
Chrysene	690 J	4800	41	μg/Kg-dry	10	12/01/08 19:12	
Dibenz[a,h]anthracene	ND	4800	200	μg/Kg-dry	10	12/01/08 19:12	
Fluoranthene	980 J	4800	150	µg/Kg-dry	10	12/01/08 19:12	
Fluorene	ND	4800	50	μg/Kg-dry	10	12/01/08 19:12	
Indeno[1,2,3-cd]pyrene	ND	4800	200	μg/Kg-dry	10	12/01/08 19:12	
Naphthalene	ND	4800	37	μg/Kg-dry	10	12/01/08 19:12	
Phenanthrene	1300 J	4800	21	μg/Kg-dry	10	12/01/08 19:12	
Pyrene	1100 J	4800	33	μg/Kg-dry	10	12/01/08 19:12	
Surr: 2,4,6-Tribromophenol	46	20-143	0	%REC	10	12/01/08 19:12	
Surr: 2-Fluorobiphenyl	65	46-130	0	%REC	10	12/01/08 19:12	
Surr: 2-Fluorophenol	69	22-130	0	%REC	10	12/01/08 19:12	
Surr: Nitrobenzene-d5	72	39-130	0	%REC	10	12/01/08 19:12	
Surr: Phenol-d5	74	33-130	0	%REC	10	12/01/08 19:12	
Surr: Terphenyl-d14	74	36-146	O	%REC	10	12/01/08 19:12	

#### Qualifiers:

- Value exceeds Maximum Contaminant Level
- Value exceeds the instrument calibration range
- Analyte detected below the PQL
- Prim./Conf. column %D or RPD exceeds limit
- Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
  - Spike Recovery outside accepted recovery limits

**Analytical Results** 

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

8270S

StateCertNo: 10155

CLIENT: **ERM Consulting & Engineering** 

Project: Ithaca Dredging

W Order: 0811131

Matrix: SOIL Inst. ID: MS06 40

ColumnID: DB-5MS 12/02/08 11:37 Revision:

Sample Size: 30 g

%Moisture: 34.5

TestCode:

0811131-004D Lab ID:

Client Sample ID: Ith-2 (10-14) 11/18/08 10:20

**Collection Date:** Date Received: PrepDate:

11/18/08 16:28 11/21/08 15:07 8508/R15641

BatchNo: 1-SAMP-K5201.D FileID:

Col Type:

Analyte	Result Qua	l PQL	MDL	Units	DF	Date Analyzed	
SEMIVOLATILE ORGANIC COMPOU	NDS BY GC/MS			SW82700	3	(SW3550B)	
2-Chloronaphthalene	ND	500	5.6	μg/Kg-dry	1	12/01/08 12:44	
2-Methylnaphthalene	ND	500	2.4	µg/Kg-dry	1	12/01/08 12:44	
Acenaphthene	ND	500	5.1	µg/Kg-dry	1	12/01/08 12:44	
Acenaphthylene	ND	500	6.1	µg/Kg-dry	1	12/01/08 12:44	
Anthracene	ND	500	3.6	μg/Kg-dry	1	12/01/08 12:44	
Benzo[a]anthracene	ND	500	5.3	μg/Kg-dry	1	12/01/08 12:44	
Benzo[a]pyrene	ND	500	15	µg/Kg-dry	1	12/01/08 12:44	
Benzo[b]fluoranthene	ND	500	18	μg/K <b>g-d</b> ry	1	12/01/08 12:44	
Benzo[g,h,i]perylene	ND	500	20	µg/Kg-dry	1	12/01/08 12:44	
Benzo[k]fluoranthene	ND	500	17	µg/Kg-dry	1	12/01/08 12:44	
Chrysene	ND	500	4.3	μg/Kg-dry	1	12/01/08 12:44	
Dibenz[a,h]anthracene	ND	500	20	μg/Kg-dry	1	12/01/08 12:44	
Fluoranthene	ND	500	15	µg/Kg-dry	1	12/01/08 12:44	
Fluorene	ND	500	5.2	µg/Kg-dry	1	12/01/08 12:44	
Indeno[1,2,3-cd]pyrene	ND	500	20	μg/Kg-dry	1	12/01/08 12:44	
Naphthalene	ND	500	3.9	µg/Kg-dry	1	12/01/08 12:44	
Phenanthrene	ND	500	2.2	μg/Kg-dry	1	12/01/08 12:44	
Pyrene	ND	500	3.4	µg/Kg-dry	1	12/01/08 12:44	
Surr: 2,4,6-Tribromophenol	58	20-143	0	%REC	1	12/01/08 12:44	
Surr: 2-Fluorobiphenyl	75	46-130	0	%REC	1	12/01/08 12:44	
Surr: 2-Fluorophenol	77	22-130	0	%REC	1	12/01/08 12:44	
Surr: Nitrobenzene-d5	75	39-130	0	%REC	1	12/01/08 12:44	
Surr: Phenol-d5	80	33-130	0	%REC	1	12/01/08 12:44	
Surr: Terphenyl-d14	86	36-146	0	%REC	1	12/01/08 12:44	

Onalifiers	ı

- Value exceeds Maximum Contaminant Level
- E Value exceeds the instrument calibration range
- Analyte detected below the PQL
- Prim./Conf. column %D or RPD exceeds limit
- Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
  - Spike Recovery outside accepted recovery limits

# LSL

### Life Science Laboratories, Inc.

**Analytical Results** 

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

8270S

Sample Size: 30 g

%Moisture: 30.4

TestCode:

StateCertNo: 10155

CLIENT: ERM Consulting & Engineering

Project: Ithaca Dredging

W Order: 0811131 Matrix: SOIL

Inst. ID: MS06 40 ColumnID: DB-5MS

Revision: 12/02/08 11:37

Lab ID:

BatchNo:

FileID:

0811131-005D

Client Sample ID: Ith-6 (6-10)

Collection Date:
Date Received:
PrepDate:

11/18/08 14:10 11/18/08 16:28 11/21/08 15:07

8508/R15641 1-SAMP-K5202.D

Col Type:

Analyte	Result Qua	PQL	MDL	Units	DF	Date Analyzed
SEMIVOLATILE ORGANIC COMPOUNDS BY GC/MS				SW8270C		(SW3550B)
2-Chloronaphthalene	ND	470	5.3	μg/Kg-dry	1	12/01/08 13:23
2-Methylnaphthalene	ND	470	2.3	μg/Kg-dry	1	12/01/08 13:23
Acenaphthene	ND	470	4.8	μg/Kg-dry	1	12/01/08 13:23
Acenaphthylene	ND	470	5.7	μg/Kg-dry	1	12/01/08 13:23
Anthracene	ND	470	3.3	μg/Kg-dry	1	12/01/08 13:23
Benzo[a]anthracene	ND	470	5.0	µg/Kg-dry	1	12/01/08 13:23
Benzo[a]pyrene	ND	470	14	µg/Kg-dry	1	12/01/08 13:23
Benzo[b]fluoranthene	ND	470	17	μg/Kg-dry	1	12/01/08 13:23
Benzo[g,h,i]perylene	ND	470	19	µg/Kg-dry	1	12/01/08 13:23
Benzo[k]fluoranthene	ND	470	16	µg/Kg-dry	1	12/01/08 13:23
Chrysene	ND	470	4.0	µg/Kg-dry	1	12/01/08 13:23
Dibenz[a,h]anthracene	ND	470	19	μg/Kg-dry	1	12/01/08 13:23
Fluoranthene	65 J	470	14	μg/Kg-dry	1	12/01/08 13:23
Fluorene	ND	470	4.9	μg/Kg-dry	1	12/01/08 13:23
Indeno[1,2,3-cd]pyrene	ND	470	19	μg/Kg-dry	1	12/01/08 13:23
Naphthalene	ND	470	3.6	μg/Kg-dry	1	12/01/08 13:23
Phenanthrene	71 J	470	2.1	μg/Kg-dry	1	12/01/08 13:23
Pyrene	54 J	470	3.2	μg/Kg-dry	1	12/01/08 13:23
Surr: 2,4,6-Tribromophenol	52	20-143	0	%REC	1	12/01/08 13:23
Surr: 2-Fluorobiphenyl	69	46-130	0	%REC	1	12/01/08 13:23
Surr: 2-Fluorophenol	71	22-130	0	%REC	1	12/01/08 13:23
Surr: Nitrobenzene-d5	69	39-130	0	%REC	1	12/01/08 13:23
Surr: Phenol-d5	75	33-130	0	%REC	1	12/01/08 13:23
Surr: Terphenyl-d14	80	36-146	0	%REC	1	12/01/08 13:23

Qua	lifiers
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- Value exceeds Maximum Contaminant Level
- E Value exceeds the instrument calibration range
- J Analyte detected below the PQL
- P Prim./Conf. column %D or RPD exceeds limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
  - S Spike Recovery outside accepted recovery limits

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

Sample Size: 30 g

%Moisture: 34.7

TestCode:

**Analytical Results** 

StateCertNo: 10155

CLIENT: **ERM Consulting & Engineering** 

Project: Ithaca Dredging W Order: 0811131

Matrix: SOIL

MS06 40 Inst. ID: ColumnID: DB-5MS

Revision: 12/02/08 11:37

8270S

0811131-006D Lab ID:

Client Sample ID: Ith-6 (10-14) **Collection Date:** 11/18/08 14:20

Date Received: PrepDate:

BatchNo:

FileID:

11/18/08 16:28 11/21/08 15:07

8508/R15641 1-SAMP-K5203.D

Col Type:

Analyte	Result Qu	al PQL	MDL	Units	DF	Date Analyzed
SEMIVOLATILE ORGANIC COMP	OUNDS BY GC/M	3		SW82700	2	(SW3550B)
2-Chloronaphthalene	ND	510	5.6	μg/Kg-dry	1	12/01/08 14:02
2-Methylnaphthalene	ND	510	2.5	μg/Kg-dry	1	12/01/08 14:02
Acenaphthene	ND	510	5.1	μg/Kg-dry	1	12/01/08 14:02
Acenaphthylene	ND	510	6.1	μg/Kg-dry	1	12/01/08 14:02
Anthracene	ND	510	3.6	μg/Kg-dry	1	12/01/08 14:02
Benzo[a]anthracene	ND	510	5.3	μg/Kg-dry	1	12/01/08 14:02
Benzo[a]pyrene	ND	510	15	μg/Kg-dry	1	12/01/08 14:02
Benzo[b]fluoranthene	ND	510	18	μg/Kg-dry	1	12/01/08 14:02
Benzo[g,h,i]perylene	ND	510	20	μg/Kg-dry	1	12/01/08 14:02
Benzo[k]fluoranthene	ND	510	17	μg/Kg-dry	1	12/01/08 14:02
Chrysene	ND	510	4.3	μg/Kg-dry	1	12/01/08 14:02
Dibenz[a,h]anthracene	ND	510	20	μg/Kg-dry	1	12/01/08 14:02
Fluoranthene	ND	510	15	μg/Kg-dry	1	12/01/08 14:02
Fluorene	ND	510	5.2	μg/Kg-dry	1	12/01/08 14:02
indeno[1,2,3-cd]pyrene	ND	510	20	μg/Kg-dry	1	12/01/08 14:02
Naphthalene	ND	510	3.9	μg/Kg-dry	1	12/01/08 14:02
Phenanthrene	ND	510	2.2	μg/Kg-dry	1	12/01/08 14:02
Pyrene	ND	510	3.4	μg/Kg-dry	1	12/01/08 14:02
Surr: 2,4,6-Tribromophenol	55	20-143	٥	%REC	1	12/01/08 14:02
Surr: 2-Fluorobiphenyl	72	46-130	D	%REC	1	12/01/08 14:02
Surr: 2-Fluorophenol	74	22-130	0	%REC	1	12/01/08 14:02
Surr: Nitrobenzene-d5	73	39-130	0	%REC	1	12/01/08 14:02
Surr: Phenol-d5	79	33-130	0	%RÉC	1	12/01/08 14:02
Surr: Terphenyl-d14	<b>85</b> .	36-146	0	%REC	1	12/01/08 14:02

- Value exceeds Maximum Contaminant Level
- Value exceeds the instrument calibration range
- Analyte detected below the PQL
- Prim./Conf. column %D or RPD exceeds limit
- Analyte detected in the associated Method Blank
- Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
  - Spike Recovery outside accepted recovery limits

**Analytical Results** 

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

8270S

Sample Size: 30 g

%Moisture: 38.2

TestCode:

StateCertNo: 10155

CLIENT: **ERM Consulting & Engineering** 

Project: Ithaca Dredging

W Order: 0811142

Matrix: SOIL

MS06 40 Inst. ID: ColumnID: DB-5MS Revision:

12/02/08 11:37

Lab ID:

0811142-001D

Client Sample ID: Ith-8 (2-10)

Collection Date: Date Received:

11/19/08 14:30 11/20/08 9:25

PrepDate: BatchNo:

11/21/08 15:07 8508/R15641

FileID:

1-SAMP-K5204.D

Col Type:

Analyte	Result Qua	al PQL	MDL	Units	DF	Date Analyzed
SEMIVOLATILE ORGANIC COMP	POUNDS BY GC/MS	}		SW8270	<b>;</b>	(SW3550B)
2-Chloronaphthalene	ND	530	5.9	μg/Kg-dry	1	12/01/08 14:41
2-Methylnaphthalene	ND	530	2.6	µg/Kg-dry	1	12/01/08 14:41
Acenaphthene	ND	530	5.4	µg/Kg-dry	1	12/01/08 14:41
Acenaphthylene	ND	530	6.5	µg/Kg-dry	1	12/01/08 14:41
Anthracene	ND	530	3.8	µg/Kg-dry	1	12/01/08 14:41
Benzo[a]anthracene	190 J	530	5.6	μg/Kg-dry	1	12/01/08 14:41
Benzo[a]pyrene	190 J	530	16	μg/Kg-dry	1	12/01/08 14:41
Benzo[b]fluoranthene	370 J	530	19	μg/Kg-dry		12/01/08 14:41
Benzo[g,h,i]perylene	80 J	530	22	μg/Kg-dry	1	12/01/08 14:41
Benzo[k]fluoranthene	190 J	530	18	µg/Kg-dry	1	12/01/08 14:41
Chrysene	240 J	530	4.5	µg/Kg-dry	1	12/01/08 14:41
Dibenz[a,h]anthracene	ND	530	22	µg/Kg-dry	1	12/01/08 14:41
Fluoranthene	440 J	530	16	µg/Kg-dry	1	12/01/08 14:41
Fluorene	ND	530	5.5	µg/Kg-dry	1	12/01/08 14:41
Indeno[1,2,3-cd]pyrene	ND	530	22	μg/Kg-dry	1	12/01/08 14:41
Naphthalene	ND	530	4.1	µg/Kg-dry	1 .	12/01/08 14:41
Phenanthrene	230 J	530	2.3	μg/Kg-dry	1	12/01/08 14:41
Pyrene	400 J	530	3.6	μg/Kg-dry	1	12/01/08 14:41
Surr: 2,4,6-Tribromophenol	58	20-143	0	%REC	1	12/01/08 14:41
Surr: 2-Fluorobiphenyl	78	46-130	0	%REC	1	12/01/08 14:41
Surr: 2-Fluorophenol	77	22-130	0	%REC	1	12/01/08 14:41
Surr: Nitrobenzene-d5	77	39-130	0	%REC	1	12/01/08 14:41
Surr: Phenof-d5	83	33-130	0	%REC	1	12/01/08 14:41
Surr: Terphenyl-d14	94	36-146	0	%REC	1	12/01/08 14:41

Ou	o l	lif	iers	

- Value exceeds Maximum Contaminant Level
- Value exceeds the instrument calibration range
- Analyte detected below the POL
- Prim./Conf. column %D or RPD exceeds limit
- Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
  - Spike Recovery outside accepted recovery limits



Project:

# Life Science Laboratories, Inc.

**Analytical Results** 

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

StateCertNo: 10155 0811142-002D

CLIENT: ERM Consulting & Engineering

Ithaca Dredging

W Order: 0811142

Matrix: SOIL

Inst. ID: MS06 40 ColumnID: DB-5MS

Revision: 12/02/08 11:37

Sample Size: 30 g %Moisture: 31.3

TestCode: 8270S

Client Sample ID: *Ith-8 (10-14)*Collection Date: 11/19/08 14:45

Date Received: PrepDate:

Lab ID:

BatchNo:

11/20/08 9:25 11/21/08 15:07 8508/R15641

FileID: 1-SAMP-K5205.D

Col Type:

Analyte	Result Qua	al PQL	MDL	Units	DF	Date Analyzed
SEMIVOLATILE ORGANIC COMPOUNDS BY GC/MS					C	(SW3550B)
2-Chloronaphthalene	ND	480	5.3	µg/Kg-dry	1	12/01/08 15:19
2-Methylnaphthalene	69 J	480	2.3	µg/Kg-dry	1	12/01/08 15:19
Acenaphthene	ND	480	4.8	μg/Kg-dry	1	12/01/08 15:19
Acenaphthylene	ND	480	5.8	μg/Kg-dry	1	12/01/08 15:19
Anthracene	ND	480	3.4	μg/Kg-dry	1	12/01/08 15:19
Benzo[a]anthracene	ND	480	5.0	μg/Kg-dry	1	12/01/08 15:19
Benzo[a]pyrene	ND	480	15	μg/Kg-dry	1	12/01/08 15:19
Benzo[b]fluoranthene	NĐ	480	17	μg/Kg-dry	1	12/01/08 15:19
Benzo[g,h,i]perylene	ND	480	19	µg/Kg-dry	1	12/01/08 15:19
Benzo[k]fluoranthene	ND	480	16	μg/Kg-dry	1	12/01/08 15:19
Chrysene	ND	480	4.1	μg/Kg-dry	1	12/01/08 15:19
Dibenz[a,h]anthracene	ND	480	19	μg/Kg-dry		12/01/08 15:19
Fluoranthene	ND	480	15	μg/Kg-dry		12/01/08 15:19
Fluorene	ND	480	5.0	µg/Kg-dry	1	12/01/08 15:19
Indeno[1,2,3-cd]pyrene	ND	480	19	μg/Kg-dry	1	12/01/08 15:19
Naphthalene	ND	480	3.7	µg/Kg-dry	1	12/01/08 15:19
Phenanthrene	68 J	480	2.1			12/01/08 15:19
Pyrene	ND	480	3.3	µg/Kg-dry	1	12/01/08 15:19
Surr: 2,4,6-Tribromophenol	53	20-143	0	%REC	1	12/01/08 15:19
Surr: 2-Fluorobiphenyl	70	46-130	0	%REC	1	12/01/08 15:19
Surr: 2-Fluorophenol	72	22-130	0	%REC	1	12/01/08 15:19
Surr: Nitrobenzene-d5	72	39-130	0	%REC	1	12/01/08 15:19
Surr: Phenol-d5	77	33-130	0	%REC	1	12/01/08 15:19
Surr: Terphenyl-d14	82	36-146	0	%REC	1	12/01/08 15:19

Quali	F4
4 Birgi	HIGTE

- Value exceeds Maximum Contaminant Level
- E Value exceeds the instrument calibration range
- J Analyte detected below the PQL
- Prim./Conf. column %D or RPD exceeds limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
  - S Spike Recovery outside accepted recovery limits

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

**Analytical Results** 

StateCertNo: 10155

CLIENT:

**ERM Consulting & Engineering** 

Project:

Ithaca Dredging

W Order:

0811142

Matrix:

SOIL

Inst. ID:

MS06 40

ColumnID: DB-5MS

12/02/08 11:37

%Moisture: 30.2 TestCode:

8270S

Sample Size: 30 g

Lab ID:

0811142-003D

Client Sample ID: Ith-7 (1-14)

Collection Date:

11/19/08 13:50 11/20/08 9:25

Date Received: PrepDate:

11/21/08 15:07

BatchNo:

8508/R15641

FileID:

I-SAMP-K5206.D

Revision: Col Type:

Analyte	Result Qua	l PQL	MDL	Units	DF	Date Analyzed
SEMIVOLATILE ORGANIC COM	POUNDS BY GC/MS			SW82700	>	(SW3550B)
2-Chloronaphthalene	ND	470	5.3	μg/Kg-dry	1	12/01/08 15:58
2-Methylnaphthalene	90 J	470	2.3	μg/Kg-dry	1	12/01/08 15:58
Acenaphthene	120 J	470	4.7	μg/Kg-dry	1	12/01/08 15:58
Acenaphthylene	ND	470	5.7	µg/Kg-dry	1	12/01/08 15:58
Anthracene	230 J	470	3.3	μg/Kg-dry		12/01/08 15:58
Benzo[a]anthracene	390 J	470	5.0	µg/Kg-dry	1	12/01/08 15:58
Benzo[a]pyrene	350 J	470	14	µg/Kg-dry		12/01/08 15:58
Benzo[b]fluoranthene	590	470	17	μg/Kg-dry	1	12/01/08 15:58
Benzo[g,h,i]perylene	130 J	470	19	μg/Kg-dry	1	12/01/08 15:58
Benzo[k]fluoranthene	210 J	470	16	µg/Kg-dry	1	12/01/08 15:58
Chrysene	460 J	470	4.0	μg/Kg-dry	1	12/01/08 15:58
Dibenz[a,h]anthracene	ND	470	19	µg/Kg-dry		12/01/08 15:58
Fluoranthene	1200	470	14	μg/Kg-dry		12/01/08 15:58
Fluorene	160 J	470	4.9	μg/Kg-dry	1	12/01/08 15:58
Indeno[1,2,3-cd]pyrene	70 J	470	19	μg/Kg-dry		12/01/08 15:58
Naphthalene	130 J	470	3.6	μg/Kg-dry		12/01/08 15:58
Phenanthrene	1500	470	2.1	μg/Kg-dry		12/01/08 15:58
Pyrene	1100	470	3.2	μg/Kg-dry	1	12/01/08 15:58
Surr: 2,4,6-Tribromopheno!	51	20-143	0	%REC	1	12/01/08 15:58
Surr: 2-Fluorobiphenyl	68	46-130	0	%REC	1	12/01/08 15:58
Surr: 2-Fluorophenol	71	22-130	0	%REC	1	12/01/08 15:58
Surr: Nitrobenzene-d5	68	39-130	0	%REC	1	12/01/08 15:58
Surr: Phenol-d5	74	33-130	0	%REC	1	12/01/08 15:58
Surr: Terphenyl-d14	78	36-146	O	%REC	1	12/01/08 15:58

- Value exceeds Maximum Contaminant Level
- Value exceeds the instrument calibration range
- Analyte detected below the POL
- Prim./Conf. column %D or RPD exceeds limit
- Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
  - Spike Recovery outside accepted recovery limits

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

**Analytical Results** 

StateCertNo: 10155

CLIENT:

**ERM** Consulting & Engineering

Project:

Ithaca Dredging

W Order:

0811142

Matrix:

SOIL

Inst. ID:

MS06 40

ColumnID: DB-5MS

12/02/08 11:37

%Moisture: 34.3

TestCode:

8270S

Sample Size: 30 g PrepDate: BatchNo:

FileID:

Lab ID:

Collection Date:

Date Received:

0811142-004D

Client Sample ID: Ith-5 (4-10)

11/19/08 12:40 11/20/08 9:25

11/21/08 15:07

8508/R15641

1-SAMP-K5207.D

Revision:
Col Type:

Analyte	Result Qu	al PQL	MDL	Units	DF	Date Analyzed
SEMIVOLATILE ORGANIC COMPOUNDS BY GC/MS				SW82700	3	(SW3550B)
2-Chloronaphthalene	ND	500	5.6	μg/Kg-dry	1	12/01/08 16:37
2-Methylnaphthalene	ND	500	2.4	µg/Kg-dry	1	12/01/08 16:37
Acenaphthene	ND	500	5.0	μg/Kg-dry	1	12/01/08 16:37
Acenaphthylene	ND	500	6.1	μg/Kg-dry	1	12/01/08 16:37
Anthracene	ND	500	3.5	μg/Kg-dry	1	12/01/08 16:37
Benzo[a]anthracene	ND	500	5.3	μg/Kg-dry	1	12/01/08 16:37
Benzo[a]pyrene	ND	500	15	μg/Kg-dry	1	12/01/08 16:37
Benzo[b]fluoranthene	ND	500	18	μg/Kg-dry		12/01/08 16:37
Benzo[g,h,i]perylene	ND	500	20	μg/Kg-dry	1	12/01/08 16:37
Benzo[k]fluoranthene	ND	500	17	μg/Kg-dry	1	12/01/08 16:37
Chrysene	ND	500	4.3	μg/Kg-dry	1	12/01/08 16:37
Dibenz[a,h]anthracene	ND	500	20	μg/Kg-dry		12/01/08 16:37
Fluoranthene	ND	500	15	µg/Kg-dry		12/01/08 16:37
Fluorene	ND	500	5.2	μg/Kg-dry	1	12/01/08 16:37
Indeno[1,2,3-cd]pyrene	ND	500	20	μg/Kg-dry		12/01/08 16:37
Naphthalene	ND	500	3.9	μg/Kg-dry	1	12/01/08 16:37
Phenanthrene	ND	500	2.2		1	12/01/08 16:37
Pyrene	ND	500	3.4	µg/Kg-dry	1	12/01/08 16:37
Surr: 2,4,6-Tribromophenol	56	20-143	0	%REC	1	12/01/08 16:37
Surr: 2-Fluorobiphenyl	73	46-130	0	%REC	1	12/01/08 16:37
Surr: 2-Fluorophenol	73	22-130	0	%REC	1	12/01/08 16:37
Surr: Nitrobenzene-d5	70	39-130	0	%REC	1	12/01/08 16:37
Surr: Phenol-d5	79	33-130	0	%REC	1	12/01/08 16:37
Surr: Terphenyl-d14	86	36-1 <i>4</i> 6	0	%REC	1	12/01/08 16:37

Qualifiers:

- Value exceeds Maximum Contaminant Level
- Value exceeds the instrument calibration range
- Analyte detected below the PQL
- Prim./Conf. column %D or RPD exceeds limit

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- Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
  - Spike Recovery outside accepted recovery limits

# LSL

## Life Science Laboratories, Inc.

**Analytical Results** 

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

8270S

Sample Size: 30 g

%Moisture: 29.0

TestCode:

StateCertNo: 10155

**CLIENT:** ERM Consulting & Engineering

Project: Ithaca Dredging

W Order: 0811142 Matrix: SOIL

Inst. ID: MS06 40 ColumnID: DB-5MS

Revision: 12/02/08 11:37

Lab ID:

0811142-005D

Collection Date: 11/19/08 12:50

Collection Date: 11/19/08 12:50
Date Received: 11/20/08 9:25

PrepDate: 11/21/08 15:07
BatchNo: 8508/R15641
FileID: 1-SAMP-K5208.D

Col Type:

Analyte	Result Qua	l PQL	MDL	Units	DF	Date Analyzed
SEMIVOLATILE ORGANIC COMPOUNDS BY GC/MS				SW8270	0	(SW3550B)
2-Chloronaphthalene	ND	460	5.2	μg/Kg-dry	1	12/01/08 17:16
2-Methylnaphthalene	ND	460	2.3	μg/Kg-dry	1	12/01/08 17:16
Acenaphthene	ND	460	4.7	μg/Kg-dry	1	12/01/08 17:16
Acenaphthylene	ND	460	5.6	μg/Kg-dry	1	12/01/08 17:16
Anthracene	ND	460	3.3	μg/Kg-dry	1	12/01/08 17:16
Benzo[a]anthracene	ND	460	4.9	μg/Kg-dry	1	12/01/08 17:16
Benzo[a]pyrene	ND	460	14	μg/Kg-dry	1	12/01/08 17:16
Benzo[b]fluoranthene	ND	460	16	μg/Kg-dry	1	12/01/08 17:16
Benzo[g,h,i]perylene	ND	460	19	μg/Kg-dry	1	12/01/08 17:16
Benzo[k]fluoranthene	ND	460	16	μg/Kg-dry	1	12/01/08 17:16
Chrysene	ND	460	3.9	μg/Kg-dry	1	12/01/08 17:16
Dibenz[a,h]anthracene	ND	460	19	μg/Kg-dry	1	12/01/08 17:16
Fluoranthene	ND	460	14	μg/Kg-dry	1	12/01/08 17:16
Fluorene	ND	460	4.8	μg/Kg-dry	1	12/01/08 17:16
Indene[1,2,3-cd]pyrene	ND	460	19	μg/Kg-dry	1	12/01/08 17:16
Naphthalene	ND	460	3.6	μg/Kg-dry	1	12/01/08 17:16
Phenanthrene	ND	460	2.0	µg/Kg-dry	1	12/01/08 17:16
Pyrene	ND	460	3.2	μg/Kg-dry	1	12/01/08 17:16
Surr: 2,4,6-Tribromophenol	49	20-143	0	%REC	1	12/01/08 17:16
Surr: 2-Fluorobiphenyl	65	46-130	0	%REC	1	12/01/08 17:16
Surr: 2-Fluorophenol	67	22-130	0	%REC	1	12/01/08 17:16
Surr: Nitrobenzene-d5	66	39-130	0	%REC	1	12/01/08 17:16
Surr: Phenol-d5	· 72	33-130	0	%REC	1	12/01/08 17:16
Surr: Terphenyl-d14	77	36-146	n	%REC	1	12/01/08 17:16

Qualifiers
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Print Date: 12/02/08 11:39

- Value exceeds Maximum Contaminant Level
- E Value exceeds the instrument calibration range
- J Analyte detected below the PQL
- Prim./Conf. column %D or RPD exceeds limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
  - S Spike Recovery outside accepted recovery limits



**Analytical Results** 

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

8270S

Sample Size: 30 g

%Moisture: 34.9

TestCode:

StateCertNo: 10155 0811142-006D

CLIENT: ERM Consulting & Engineering

Project: Ithaca Dredging

W Order: 0811142 Matrix: SOIL

Inst. ID: MS06 40 ColumnID: DB-5MS

ColumnID: DB-5MS Revision: 12/02/08 11:37 Lab ID: Client Sample ID:

Client Sample ID: *Ith-1 (6-12)*Collection Date: 11/19/08 10:30

Collection Date:
Date Received:
PrepDate:

11/20/08 9:25 11/21/08 15:07 8508/R15641

**BatchNo:** 8508/R15641 FileID: 1-SAMP-K5209.D

Col Type:

Analyte	Result Qua	al PQL	MDL	Units	DF	Date Analyzed
SEMIVOLATILE ORGANIC COMPOUNDS BY GC/MS				SW8270C (SW3550B		(SW3550B)
2-Chloronaphthalene	ND	510	5.6	µg/Kg-dry	1	12/01/08 17:55
2-Methylnaphthalene	ND	510	2,5	µg/Kg-dry	1	12/01/08 17:55
Acenaphthene	ND	510	5.1	µg/Kg-dry	1	12/01/08 17:55
Acenaphthylene	ND	510	6.1	µg/Kg-dry	1	12/01/08 17:55
Anthracene	ND	510	3.6	µg/Kg-dry	1	12/01/08 17:55
Benzo[a]anthracene	140 J	510	5.3	μg/Kg-dry	1	12/01/08 17:55
Benzo[a]pyrene	140 J	510	15	µg/Kg-dry	1	12/01/08 17:55
Benzo[b]fluoranthene	240 J	510	18	µg/Kg-dry	1	12/01/08 17:55
Benzo[g,h,i]perylene	ND	510	20	μg/Kg-dry	1	12/01/08 17:55
Benzo[k]fluoranthene	90 J	510	17	μg/Kg-dry	1	12/01/08 17:55
Chrysene	170 J	510	4.3	μg/Kg-dry	1	12/01/08 17:55
Dibenz[a,h]anthracene	ND	510	20	µg/Kg-dry	1	12/01/08 17:55
Fluoranthene	350 J	510	15	μg/Kg-dry	1	12/01/08 17:55
Fluorene	ND	510	5.2	μg/Kg-dry	1	12/01/08 17:55
Indeno[1,2,3-cd]pyrene	ND	510	20	μg/Kg-dry	1	12/01/08 17:55
Naphthalene	ND	510	3.9	μg/Kg-dry	1	12/01/08 17:55
Phenanthrene	230 J	510	2.2	μg/Kg-dry	1	12/01/08 17:55
Pyrene	330 J	510	3.5	μg/Kg-dry	1	12/01/08 17:55
Surr: 2,4,6-Tribromophenol	53	20-143	0	%REC	1	12/01/08 17:55
Surr: 2-Fluorobiphenyl	72	46-130	0	%REC	1	12/01/08 17:55
Surr: 2-Fluorophenol	73	22-130	0	%REC	1	12/01/08 17:55
Surr: Nitrobenzene-d5	71	39-130	0	%REC	1	12/01/08 17:55
Surr: Phenol-d5	77	33-130	0	%REC	1	12/01/08 17:55
Surr: Terphenyl-d14	85	36-146	0	%REC	1	12/01/08 17:55

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Print Date: 12/02/08 11:39

- Value exceeds Maximum Contaminant Level
- E Value exceeds the instrument calibration range
- J Analyte detected below the PQL
- P Prim./Conf. column %D or RPD exceeds limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
  - S Spike Recovery outside accepted recovery limits

# LSL

# Life Science Laboratories, Inc.

**Analytical Results** 

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

StateCertNo: 10155

**CLIENT:** ERM Consulting & Engineering

Project: Ithaca Dredging

W Order: 0811142 Matrix: SOIL

Inst. ID: MS06 40

ColumnID: DB-5MS
Revision: 12/02/08 11:37

12/02/08 11:37 **TestCode** 

Sample Size: 30 g %Moisture: 33.4

TestCode: 8270S

0811142-007D

Collection Date: 11/19/08 0:00

Date Received: 11/20/08 9:25
PrepDate: 11/21/08 15:07

Lab ID:

BatchNo:

FileID:

11/21/08 15:07 8508/R15641 1-SAMP-K5210.D

Col Type:

Analyte	Result Qua	l PQL	MDL	Units	DF	Date Analyzed
SEMIVOLATILE ORGANIC COMPOUNDS BY GC/MS				SW82700	;	(SW3550B)
2-Chloronaphthatene	ND	500	5.5	µg/Kg-dry	1	12/01/08 18:34
2-Methylnaphthalene	ND	500	2.4	µg/Kg-dry	1	12/01/08 18:34
Acenaphthene	ND	500	5.0	μg/Kg-dry	1	12/01/08 18:34
Acenaphthylene	ND	500	6.0	μg/Kg-dry	1	12/01/08 18:34
Anthracene	ND	500	3.5	μg/Kg-dry	1	12/01/08 18:34
Benzo[a]anthracene	150 J	500	5.2	µg/Kg-dry	1	12/01/08 18:34
Benzo[a]pyrene	140 J	500	15	µg/Kg-dry	1	12/01/08 18:34
Benzo[b]fluoranthene	240 J	500	17	µg/Kg-dry	1	12/01/08 18:34
Benzo[g,h,i]perylene	51 J	500	20	µg/Kg-dry	1	12/01/08 18:34
Benzo[k]fluoranthene	100 J	500	17	µg/Kg-dry	1	12/01/08 18:34
Chrysene	170 J	500	4.2	µg/Kg-dry	1	12/01/08 18:34
Dibenz[a,h]anthracene	ND	500	20	µg/Kg-dry	1	12/01/08 18:34
Fluoranthene	350 J	500	15	µg/Kg-dry	1	12/01/08 18:34
Fluorene	ND	500	5.1	µg/Kg-dry	1	12/01/08 18:34
Indeno[1,2,3-cd]pyrene	ND	500	20	µg/Kg-dry	1	12/01/08 18:34
Naphthalene	ND	500	3.8	µg/Kg-dry	1	12/01/08 18:34
Phenanthrene	230 J	500	2.2	µg/Kg-dry	1	12/01/08 18:34
Pyrene	330 J	500	3.4	µg/Kg-dry	1	12/01/08 18:34
Surr: 2,4,6-Tribromophenol	55	20-143	0	%REC	1	12/01/08 18:34
Surr: 2-Fluorobiphenyl	73	46-130	0	%REC	.1	12/01/08 18:34
Surr: 2-Fluorophenol	74	22-130	0	%REC	1	12/01/08 18:34
Surr: Nitrobenzene-d5	72	39-130	0	%REC	1	12/01/08 18:34
Surr: Phenol-d5	79	33-130	0	%REC	1	12/01/08 18:34
Surr: Terphenyl-d14	88	36-146	0	%REC	1	12/01/08 18:34

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- Value exceeds Maximum Contaminant Level
- E Value exceeds the instrument calibration range
- J Analyte detected below the PQL
- P Prim./Conf. column %D or RPD exceeds limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
  - S Spike Recovery outside accepted recovery limits

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

**Analytical Results** 

StateCertNo: 10155

0811166-001D

CLIENT:

**ERM Consulting & Engineering** 

Project:

Ithaca Dredging

W Order:

0811166

Matrix: Inst. ID:

SOIL MS06 40

ColumnID: DB-5MS

Revision:

12/04/08 12:59

%Moisture: 35.0 TestCode:

8270S

Sample Size: 30 g

Client Sample ID: Ith-9 (1-14)

Lab ID:

**Collection Date:** 11/20/08 15:15 11/21/08 16:16 Date Received:

PrepDate: BatchNo:

FileID:

11/24/08 16:01 8521/R15678

1-SAMP-K5224.D

Col Type:

Analyte	Result Qua	al PQL	MDL	Units	DF	Date Analyzed
SEMIVOLATILE ORGANIC COM	SW8270	С	(SW3550B)			
2-Chloronaphthalene	ND	510	5.6	μg/Kg-dry	1	12/03/08 18:28
2-Methylnaphthalene	ND	510	2.5	μg/Kg-dry	1	12/03/08 18:28
Acenaphthene	ND	510	5.1	μg/Kg-dry	1	12/03/08 18:28
Acenaphthylene	ND	510	6.2	μg/Kg-dry	1	12/03/08 18:28
Anthracene	ND	510	3.6	μg/Kg-dry	1	12/03/08 18:28
Benzo[a]anthracene	ND	51 <del>0</del>	5.3	µg/Kg-dry	1	12/03/08 18:28
Benzo[a]pyrene	ND	510	15	µg/Kg-dry	1	12/03/08 18:28
Benzo[b]fluoranthene	ND	510	18	µg/Kg-dry	1	12/03/08 18:28
Benzo[g,h,i]perylene	ND	510	20	μg/Kg-dry	1	12/03/08 18:28
Benzo[k]fluoranthene	ND	510	17	µg/Kg-dry	1	12/03/08 18:28
Chrysene	ND	510	4.3	µg/Kg-dry	1	12/03/08 18:28
Dibenz[a,h]anthracene	ND	510	20	µg/Kg-dry	1	12/03/08 18:28
Fluoranthene	ND	510	15	μg/Kg-dry	1	12/03/08 18:28
Fluorene	ND	510	5.2	µg/Kg-dry	1	12/03/08 18:28
Indeno[1,2,3-cd]pyrene	ND	510	20	µg/Kg-dry	1	12/03/08 18:28
Naphthalene	ND	510	3.9	μg/Kg-dry	1	12/03/08 18:28
Phenanthrene	ND	510	2.2	μg/Kg-dry	1	12/03/08 18:28
Pyrene	. ND	510	3.5	μg/Kg-dry	1	12/03/08 18:28
Surr: 2,4,6-Tribromophenol	58	20-143	0	%REC	1	12/03/08 18:28
Surr: 2-Fluorobiphenyl	72	46-130	0	%REC	1	12/03/08 18:28
Surr: 2-Fluorophenol	73	22-130	0	%REC	1	12/03/08 18:28
Surr: Nitrobenzene-d5	70	39-130	0	%REC	1	12/03/08 18:28
Surr: Phenol-d5	77	33-130	0	%REC	1	12/03/08 18:28
Surr: Terphenyl-d14	86	36-146	0	%REC	1	12/03/08 18:28

Anal	ifiers	

- Value exceeds Maximum Contaminant Level
- Value exceeds the instrument calibration range
- Analyte detected below the PQL
- Prim./Conf. column %D or RPD exceeds limit
- Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
  - Spike Recovery outside accepted recovery limits

**Analytical Results** 

LSL 5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

8270S

StateCertNo: 10155

CLIENT:

**ERM Consulting & Engineering** 

0811166-002D Lab ID:

Project:

Ithaca Dredging

Client Sample ID: Ith-10 (1-14)

W Order:

0811166

Matrix:

SOIL

**Collection Date:** 

11/20/08 14:15

Inst. ID:

MS06 40

Date Received:

FileID:

11/21/08 16:16 11/24/08 16:01

1-SAMP-K5225.D

ColumnID: DB-5MS

12/04/08 12:59

Sample Size: 30 g %Moisture: 34.1

TestCode:

PrepDate: BatchNo:

8521/R15678

Revision: Col Type:

Analyte Result Qual PQL MDL Units DF Date Analyzed SEMIVOLATILE ORGANIC COMPOUNDS BY GC/MS SW8270C (SW3550B) 2-Chloronaphthalene ND 500 5.6 µg/Kg-dry 1 12/03/08 19:07 2-Methylnaphthalene ND 500 2.4 μg/Kg-dry 1 12/03/08 19:07 Acenaphthene ND 500 5.0 μg/Kg-dry 1 12/03/08 19:07 Acenaphthylene µg/Kg-dry 1 12/03/08 19:07 ND 500 6.1 Anthracene µg/Kg-dry 1 12/03/08 19:07 ND 500 3.5 12/03/08 19:07 Benzo[a]anthracene ND 500 5.3 µg/Kg-dry 1 Benzolalpyrene ND 500 15 µg/Kg-dry 1 12/03/08 19:07 Benzo[b]fluoranthene ND 500 17 µg/Kg-dry 1 12/03/08 19:07 Benzo[g,h,i]perylene 12/03/08 19:07 ND 500 20 µg/Kg-dry 1 Benzo[k]fluoranthene ND 500 17 µg/Kg-dry 1 12/03/08 19:07 Chrysene 12/03/08 19:07 ND µg/Kg-dry 1 500 4.2 Dibenz[a,h]anthracene 12/03/08 19:07 ND 500 20 µg/Kg-dry 1 Fluoranthene ND 500 15 µg/Kg-dry 1 12/03/08 19:07 Fluorene ND 500 5.2 µg/Kg-dry 1 12/03/08 19:07 Indeno[1,2,3-cd]pyrene ND 500 20 µg/Kg-dry 1 12/03/08 19:07 Naphthalene 12/03/08 19:07 ND 3.8 µg/Kg-dry 1 500 Phenanthrene µg/Kg-dry 1 12/03/08 19:07 ND 500 2.2 Pyrene µg/Kg-dry 1 ND 500 3.4 12/03/08 19:07 Surr: 2,4,6-Tribromophenol 58 20-143 0 %REC 1 12/03/08 19:07 Surr: 2-Fluorobiphenyl 74 46-130 0 %REC 1 12/03/08 19:07 Surr: 2-Fluorophenol 0 %REC 1 12/03/08 19:07 73 22-130 Surr: Nitrobenzene-d5 72 ٥ %REC 1 12/03/08 19:07 39-130 Surr: Phenol-d5 77 33-130 0 %REC 1 12/03/08 19:07 Surr: Terphenyl-d14 36-146 %REC 12/03/08 19:07

Project Supervisor: Anthony Crescenzi

## Qualifiers:

- Value exceeds Maximum Contaminant Level
- Value exceeds the instrument calibration range
- Analyte detected below the POL
- Prim/Conf. column %D or RPD exceeds limit
- Analyte detected in the associated Method Blank
- Holding times for preparation or analysis exceeded
- Not Detected at the Practical Quantitation Limit (PQL)
  - Spike Recovery outside accepted recovery limits

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

**Analytical Results** 

StateCertNo: 10155

**CLIENT: ERM Consulting & Engineering** 

Project: Ithaca Dredging

W Order: 0811166 Matrix: SOIL

Inst. ID: MS06 40 ColumnID: DB-5MS

12/04/08 12:59

Sample Size: 30 g %Moisture: 32.2

TestCode: 8270S Lab ID:

0811166-003D

Client Sample ID: Ith-11 (1-14) 11/20/08 12:20 **Collection Date:** 

Date Received: PrepDate:

11/21/08 16:16 11/24/08 16:01

BatchNo: 8521/R15678 FileID:

1-SAMP-K5226.D

Revision: Col Type:

Analyte	Result Qua	l PQL	MDL	Units	DF	Date Analyzed
SEMIVOLATILE ORGANIC COMPOUNDS BY GC/MS					2	(SW3550B)
2-Chloronaphthalene	ND	490	5.4	μg/Kg-dry	1	12/03/08 19:46
2-Methylnaphthalene	ND	490	2.4	µg/Kg-dry	1	12/03/08 19:46
Acenaphthene	ND	490	4.9	μg/Kg-dry	1	12/03/08 19:46
Acenaphthylene	ND	490	5.9	μg/Kg-dry	1	12/03/08 19:46
Anthracene	ND	490	3.4	μg/Kg-dry	1	12/03/08 19:46
Benzo[a]anthracene	ND	490	<b>5.1</b> .	µg/Kg-dry	1 .	12/03/08 19:46
Benzo[a]pyrene	ND	490	15	µg/Kg-dry	1	12/03/08 19:46
Benzo[b]fluoranthene	· ND	490	17	µg/Kg-dry	1	12/03/08 19:46
Benzo[g,h,i]perylene	ND	490	20	μg/Kg-dry	1	12/03/08 19:46
Benzo[k]fluoranthene	ND	490	16	µg/Kg-dry	1	12/03/08 19:46
Chrysene	ND	490	4.1	µg/Kg-dry	1	12/03/08 19:46
Dibenz[a,h]anthracene	ND	490	20	μg/Kg-dry	1	12/03/08 19:46
Fluoranthene	ND	490	15	µg/Kg-dry	1	12/03/08 19:46
Fluorene	ND	490	5.0	µg/Kg-dry	1	12/03/08 19:46
Indeno[1,2,3-cd]pyrene	ND	490	20	μg/Kg-dry	1	12/03/08 19:46
Naphthalene	ND	490	3.7	µg/Kg-dry	1	12/03/08 19:46
Phenanthrene	ND	490	2.1	μg/Kg-dry	1	12/03/08 19:46
Pyrene	ND	490	3.3	μg/Kg-dry	1	12/03/08 19:46
Surr: 2,4,6-Tribromophenol	55	20-143	0	%REC	1	12/03/08 19:46
Surr: 2-Fluorobiphenyl	61	46-130	0	%REC	1	12/03/08 19:46
Surr: 2-Fluorophenol	59	22-130	0	%REC	1	12/03/08 19:46
Surr: Nitrobenzene-d5	59	39-130	0	%REC	1	12/03/08 19:46
Surr: Phenol-d5	64	33-130	0	%REC	1	12/03/08 19:46
Surr: Terphenyl-d14	82	36-146	0	%REC	1	12/03/08 19:46

|--|

Print Date: 12/04/08 12:59

- Value exceeds Maximum Contaminant Level
- Value exceeds the instrument calibration range
- Analyte detected below the PQL
- Prim./Conf. column %D or RPD exceeds limit
- B Analyte detected in the associated Method Blank
- Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
  - Spike Recovery outside accepted recovery limits

CLIENT:

W Order:

Project:

Matrix:

Inst. ID:

# Life Science Laboratories, Inc.

5000 Brittonfield Parkway, Suite 200

**ERM Consulting & Engineering** 

East Syracuse, NY 13057

Ithaca Dredging

12/04/08 12:59

0811166

MS06 40

SOIL

ColumnID: DB-5MS

(315) 437-0200

8270S

Sample Size: 30 g

%Moisture: 36.2

TestCode:

**Analytical Results** 

Lab ID:

0811166-004D

StateCertNo: 10155

Client Sample ID: Ith-12 (1-14)

11/20/08 10:45

**Collection Date:** 

Date Received:

11/21/08 16:16

PrepDate:

11/24/08 16:01

BatchNo: FileID:

8521/R15678 1-SAMP-K5217.D

Revision: Col Type:

Analyte	Result Qua	al PQL	MDL	Units	DF	Date Analyzed
SEMIVOLATILE ORGANIC COM	SW8270	C	(SW3550B)			
2-Chloronaphthalene	ND	520	5.8	µg/Kg-dry	1	12/03/08 13:57
2-Methylnaphthalene	ND	520	2.5	μg/Kg-dry	1	12/03/08 13:57
Acenaphthene	ND	520	5.2	μg/Kg-dry	1	12/03/08 13:57
Acenaphthylene	ND	520	6.3	µg/Kg-dry	1	12/03/08 13:57
Anthracene	DN	520	3.7	μg/Kg-dry	1	12/03/08 13:57
Benzo[a]anthracene	· ND	520	5.4	μg/Kg-dry	1	12/03/08 13:57
Benzo[a]pyrene	ND	520	16	μg/Kg-dry	1	12/03/08 13:57
Benzo[b]fluoranthene	ND	520	18	μg/Kg-dry	1	12/03/08 13:57
Benzo[g,h,i]perylene	ND	520	21	μg/Kg-dry	1	12/03/08 13:57
Benzo[k]fluoranthene	ND	520	17	μg/Kg-dry	1	12/03/08 13:57
Chrysene	ND	520	4.4	µg/Kg-dry	1	12/03/08 13:57
Dibenz[a,h]anthracene	ND	520	21	μg/Kg-dry	1	12/03/08 13:57
Fluoranthene	ND	520	16	μg/Kg-dry	1	12/03/08 13:57
Fluorene	ND	520	5.3	μg/Kg-dry	1	12/03/08 13:57
Indeno[1,2,3-cd]pyrene	ND	520	21	μg/Kg-dry	1	12/03/08 13:57
Naphthalene	ND	520	4.0	μg/Kg-dry	1	12/03/08 13:57
Phenanthrene	ND	520	2.3	µg/Kg-dry	1	12/03/08 13:57
Pyrene	ND	520	3.5	µg/Kg-dry	1	12/03/08 13:57
Surr: 2,4,6-Tribromophenol	62	20-143	0	%REC	1	12/03/08 13:57
Surr: 2-Fluorobiphenyl	78	46-130	Q	%REC	1	12/03/08 13:57
Surr: 2-Fluorophenol	80	22-130	0	%REC	1	12/03/08 13:57
Surr: Nitrobenzene-d5	77	39-130	0	%REC	1	12/03/08 13:57
Surr: Phenol-d5	84	33-130	0	%REC	1	12/03/08 13:57
Surr: Terphenvl-d14	88	36-146	O	%REC	1	12/03/08 13:57

Qua	lifiers
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Print Date: 12/04/08 12:59

- Value exceeds Maximum Contaminant Level
- Value exceeds the instrument calibration range
- Analyte detected below the POL
- Prim./Conf. column %D or RPD exceeds limit
- Analyte detected in the associated Method Blank
- Holding times for preparation or analysis exceeded
- Not Detected at the Practical Quantitation Limit (PQL)
- Spike Recovery outside accepted recovery limits

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

**Analytical Results** 

StateCertNo: 10155 0811166-005D

CLIENT:

**ERM Consulting & Engineering** 

Project:

Ithaca Dredging

W Order:

0811166

Matrix: Inst. ID:

SOIL MS06 40

ColumnID: DB-5MS Revision:

12/04/08 12:59

%Moisture: 25.2

TestCode:

Sample Size: 30 g

8270S

**Collection Date:** Date Received:

BatchNo:

FileID:

Lab ID:

PrepDate:

Client Sample ID: Ith-16 (1-14)

11/24/08 16:01 8521/R15678

11/20/08 9:30

11/21/08 16:16

1-SAMP-K5221.D

Col Type:

Analyte	Result Qua	al PQL	MDL	Units	DF	Date Analyzed
SEMIVOLATILE ORGANIC COMPOUNDS BY GC/MS					)	(SW3550B)
2-Chloronaphthalene	ND	440	4.9	μg/Kg-dry	1	12/03/08 16:32
2-Methylnaphthalene	ND	440	2.1	μg/Kg-dry	1	12/03/08 16:32
Acenaphthene	ND	440	4.4	μg/Kg-dry	1	12/03/08 16:32
Acenaphthylene	ND	440	5.3	μg/Kg-dry	1	12/03/08 16:32
Anthracene	ND	440	3.1	µg/Kg-dry	1	12/03/08 16:32
Benzo[a]anthracene	ND	440	4.6	μg/Kg-dry	1	12/03/08 16:32
Benzo[a]pyrene	ND	440	13	μg/Kg-dry	1	12/03/08 16:32
Benzo[b]fluoranthene	ND	440	15	μg/Kg-dry	1	12/03/08 16:32
Benzo[g,h,i]perylene	ND	440	18	μg/Kg-dry	1	12/03/08 16:32
Benzo[k]fluoranthene	ND	440	15	μg/Kg-dry	1	12/03/08 16:32
Chrysene	ND	440	3.7	μg/Kg-dry	1	12/03/08 16:32
Dibenz[a,h]anthracene	ND	440	18	µg/Kg-dry	1	12/03/08 16:32
Fluoranthene	ND	440	13	μg/Kg-dry	1	12/03/08 16:32
Fluorene	ND	<b>44</b> 0	4.6	µg/Kg-dry	1	12/03/08 16:32
Indeno[1,2,3-cd]pyrene	ND	440	18	μg/Kg-dry	1	12/03/08 16:32
Naphthalene	ND	440	3.4	µg/Kg-dry	1	12/03/08 16:32
Phenanthrene	ND	440	1.9	μg/Kg-dry	1	12/03/08 16:32
Pyrene	ND	440	3.0	μg/Kg-dry	1	12/03/08 16:32
Surr: 2,4,6-Tribromophenol	62	20-143	0	%REC	1	12/03/08 16:32
Surr: 2-Fluorobiphenyl	81	46-130	0	%REC	1	12/03/08 16:32
Surr: 2-Fluorophenol	80	22-130	0	%REC	1	12/03/08 16:32
Surr: Nitrobenzene-d5	80	39-130	0	%REC	1	12/03/08 16:32
Surr: Phenol-d5	85	33-130	0	%REC	1	12/03/08 16:32
Surr: Terphenyl-d14	91	36-146	0	%REC	1	12/03/08 16:32

## Qualifiers:

- Value exceeds Maximum Contaminant Level
- Value exceeds the instrument calibration range
- Analyte detected below the PQL
- Prim./Conf. column %D or RPD exceeds limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
  - Spike Recovery outside accepted recovery limits

LSL 5000 Brittonfield Parkway, Suite 200

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**Analytical Results** 

CLIENT:

**ERM Consulting & Engineering** 

Project:

Ithaca Dredging

W Order:

0811166

Matrix:

SOIL

Inst. ID:

MS06 40

ColumnID: DB-5MS Revision:

12/04/08 12:59

%Moisture: 25.2 TestCode: 8270S

Sample Size: 30 g

Lab ID:

StateCertNo: 10155 0811166-006D

Client Sample ID: *Ith-14 (1-14)* 

**Collection Date:** 

11/21/08 9:50

Date Received:

11/21/08 16:16

PrepDate: BatchNo:

11/24/08 16:01 8521/R15678

FileID:

1-SAMP-K5218.D

Col Type:

Analyte	Result Qua	l PQL	MDL	Units	DF	Date Analyzed
SEMIVOLATILE ORGANIC COMPOUND	SW82700	;	(SW3550B)			
2-Chloronaphthalene	ND	440	4.9	μg/Kg-dry	1	12/03/08 14:36
2-Methylnaphthalene	ND	440	2.1	µg/Kg-dry	1	12/03/08 14:36
Acenaphthene	ND	440	4.4	µg/Kg-dry	1	12/03/08 14:36
Acenaphthylene	ND	440	5.3	μg/Kg-dry	1	12/03/08 14:36
Anthracene	ND	440	3.1	µg/Kg-dry	1	12/03/08 14:36
Benzo[a]anthracene	ИD	440	4.6	µg/Kg-dry	1	12/03/08 14:36
Benzo[a]pyrene	ND	440	13	μg/Kg-dry	1	12/03/08 14:36
Benzo[b]fluoranthene	ND	440	15	μg/Kg-dry	1	12/03/08 14:36
Benzo[g,h,i]perylene	ND	440	18	μg/Kg-dry	1	12/03/08 14:36
Benzo[k]fluoranthene	ND	440	15	μg/Kg-dry	1	12/03/08 14:36
Chrysene	ND	440	3.7	μg/Kg-dry	1	12/03/08 14:36
Dibenz[a,h]anthracene	ND	440	18	µg/Kg-dry	1	12/03/08 14:36
Fluoranthene	ND	440	13	μg/Kg-dry	1	12/03/08 14:36
Fluorene	ND	440	4.6	µg/Kg-dry	1	12/03/08 14:36
Indeno[1,2,3-cd]pyrene	ND	440	18	μg/Kg-dry	1	12/03/08 14:36
Naphthalene	ND	440	3.4	μg/Kg-dry	1	12/03/08 14:36
Phenanthrene	ND	440	1.9	µg/Kg-dry	1	12/03/08 14:36
Pyrene	ND	440	3.0	μg/Kg-dry	1	12/03/08 14:36
Surr: 2,4,6-Tribromophenol	63	20-143	0	%REC	1	12/03/08 14:36
Surr: 2-Fluorobiphenyl	81	46-130	0	%REC	1	12/03/08 14:36
Surr: 2-Fluorophenol	79	22-130	0	%REC	1	12/03/08 14:36
Surr: Nitrobenzene-d5	77	39-130	0	%REC	1	12/03/08 14:36
Surr: Phenol-d5	84	33-130	0	%REC	1	12/03/08 14:36
Surr. Terphenyl-d14	90	36-146	0	%REC	1	12/03/08 14:36

Qualifiers:

- Value exceeds Maximum Contaminant Level
- Value exceeds the instrument calibration range
- Analyte detected below the PQL
- Prim./Conf. column %D or RPD exceeds limit
- Analyte detected in the associated Method Blank
- Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
  - Spike Recovery outside accepted recovery limits

**Analytical Results** 

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

StateCertNo: 10155

CLIENT:

**ERM Consulting & Engineering** 

Lab ID:

0811166-007D

Project:

Ithaca Dredging

Client Sample ID: Ith-13 (1-10)

W Order:

0811166

**Collection Date:** 

11/21/08 8:30

Matrix:

SOIL

Date Received:

11/21/08 16:16

Inst. ID:

MS06 40

Sample Size: 30 g

11/24/08 16:01

ColumnID: DB-5MS

PrepDate: BatchNo:

8521/R15678

Revision:

12/04/08 12:59

%Moisture: 30.9 TestCode: 8270S

FileID:

1-SAMP-K5219.D

Col Type:

Analyte	Result Qua	PQL	MDL	Units	DF	Date Analyzed
SEMIVOLATILE ORGANIC COM	SW8270	C	(SW3550B)			
2-Chloronaphthalene	ND	480	5.3	μg/Kg-dry	1	12/03/08 15:14
2-Methylnaphthalene	ND	480	2.3	μg/Kg-dry	1	12/03/08 15:14
Acenaphthene	ND	480	4.8	µg/Kg-dry	1	12/03/08 15:14
Acenaphthylene	ND	480	5.8	µg/Kg-dry	1	12/03/08 15:14
Anthracene	ND	480	3.4	µg/Kg-dry	1	12/03/08 15:14
Benzo[a]anthracene	ND	480	5.0	µg/Kg-dry	1	12/03/08 15:14
Benzo[a]pyrene	ND	480	14	μg/Kg-dry	1	. 12/03/08 15:14
Benzo[b]fluoranthene	48 J	480	17	µg/Kg-dry	1	12/03/08 15:14
Benzo[g,h,i]perylene	ND	480	19	µg/Kg-dry	1	12/03/08 15:14
Benzo[k]fluoranthene	СІИ	480	16	µg/Kg-dry	1	12/03/08 15:14
Chrysene	ND	480	4.1	μg/Kg-dry	1	12/03/08 15:14
Dibenz[a,h]anthracene	ND	480	19	µg/Kg-dry	1	12/03/08 15:14
Fluoranthene	63 J	480	14	µg/Kg-dry	1	12/03/08 15:14
Fluorene	ND	480	4.9	μg/Kg-dry	1	12/03/08 15:14
Indeno[1,2,3-cd]pyrene	ND	480	19	μg/Kg-dry	1	12/03/08 15:14
Naphthalene	ND	480	3.7	μg/Kg-dry	1	12/03/08 15:14
Phenanthrene	ND	480	2.1	μg/Kg-dry	1	12/03/08 15:14
Pyrene	54 J	480	3.3	μg/Kg-dry	1	12/03/08 15:14
Surr. 2,4,6-Tribromophenol	59	20-143	0	%REC	1	12/03/08 15:14
Surr: 2-Fluorobiphenyl	74	46-130	0	%REC	1	12/03/08 15:14
Surr: 2-Fluorophenol	73	22-130	0	%REC	1	12/03/08 15:14
Surr: Nitrobenzene-d5	71	39-130	0	%REC	1	12/03/08 15:14
Surr: Phenol-d5	78	33-130	0	%REC	1	12/03/08 15:14
Surr: Terphenyl-d14	85	36-146	0	%REC	1	12/03/08 15:14

## Qualifiers:

- Value exceeds Maximum Contaminant Level
- Value exceeds the instrument calibration range
- Analyte detected below the PQL
- Prim./Conf. column %D or RPD exceeds limit
- Analyte detected in the associated Method Blank
- Holding times for preparation or analysis exceeded
- Not Detected at the Practical Quantitation Limit (PQL)
- Spike Recovery outside accepted recovery limits



LSL 5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

8270S

**Analytical Results** 

StateCertNo: 10155

CLIENT:

**ERM Consulting & Engineering** 

Project:

Ithaca Dredging

W Order:

0811166

Matrix:

SOIL MS06 40

Inst. ID:

ColumnID: DB-5MS Revision:

12/04/08 12:59

Sample Size: 30 g %Moisture: 31.1

TestCode:

**Collection Date:** 

Lab ID:

Client Sample ID: Ith-13 (10-14)

11/21/08 8:40

Date Received:

11/21/08 16:16

0811166-008D

PrepDate: BatchNo:

11/24/08 16:01 8521/R15678

FileID:

1-SAMP-K5220.D

Col Type:

Analyte	Result Qual	PQL	MDL	Units	DF	Date Analyzed
SEMIVOLATILE ORGANIC COMPOUNDS BY GC/MS					)	(SW3550B)
2-Chloronaphthalene	ND	480	5.3	µg/Kg-dry	1	12/03/08 15:53
2-Methylnaphthalene	ND	480	2.3	μg/Kg-dry	1	12/03/08 15:53
Acenaphthene	ND	480	4.8	μg/Kg-dry	1	12/03/08 15:53
Acenaphthylene	ND	480	5.8	μg/Kg-dry	1	12/03/08 15:53
Anthracene	ND	480	3.4	μg/Kg-dry	1	12/03/08 15:53
Benzo[a]anthracene	ND	480	5.0	μg/Kg-dry	1	12/03/08 15:53
Benzo[a]pyrene	ND	480	15	μg/Kg-dry	1	12/03/08 15:53
Benzo[b]fluoranthene	ND	480	17.	μg/Kg-dry	1	12/03/08 15:53
Benzo[g,h,i]perylene	ND	480	19	μg/Kg-dry	1	12/03/08 15:53
Benzo[k]fluoranthene	ND	480	16	µg/Kg-dry	1	12/03/08 15:53
Chrysene	ND	480	4.1	μg/Kg-dry	1	12/03/08 15:53
Dibenz[a,h]anthracene	ND	480	19	μg/Kg-dry	1	12/03/08 15:53
Fluoranthene	ND	480	15	μg/Kg-dry	1	12/03/08 15:53
Fluorene	ND	480	4.9	μg/Kg-dry	1	12/03/08 15:53
Indeno[1,2,3-cd]pyrene	ND	480	19	μg/Kg-dry		12/03/08 15:53
Naphthalene	ND	480	3.7	μg/Kg-dry	1	12/03/08 15:53
Phenanthrene	ND	480	2.1	μg/Kg-dry	1	12/03/08 15:53
Pyrene	ND	480	3.3	μg/Kg-dry	1	12/03/08 15:53
Surr: 2,4,6-Tribromophenol	58	20-143	0	%REC	1	12/03/08 15:53
Surr: 2-Fluorobiphenyl	75	46-130	0	%REC	1	12/03/08 15:53
Surr: 2-Fluorophenol	76	22-130	0	%REC	1	12/03/08 15:53
Surr: Nitrobenzene-d5	73	39-130	0	%REC	1	12/03/08 15:53
Surr: Phenol-d5	81	33-130	0	%REC	1	12/03/08 15:53
Surr: Terphenyl-d14	85	36-146	0	%REC	1	12/03/08 15:53

## Qualifiers:

- Value exceeds Maximum Contaminant Level
- Value exceeds the instrument calibration range
- Analyte detected below the PQL
- Prim./Conf. column %D or RPD exceeds limit
- Analyte detected in the associated Method Blank
- Holding times for preparation or analysis exceeded
- Not Detected at the Practical Quantitation Limit (PQL)
  - Spike Recovery outside accepted recovery limits

CLIENT:

# Life Science Laboratories, Inc. 5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

8270S

Sample Size: 30 g

%Moisture: 40.0

TestCode:

**Analytical Results** 

StateCertNo: 10155

ERM Consulting & Engineering

Project: Ithaca Dredging

W Order: 0811166 Matrix: SOIL Inst. ID: MS06 40

ColumnID: DB-5MS

Revision: 12/04/08 12:59 Lab ID:

0811166-009D

Client Sample ID: Ith-1 (1-6)

**Collection Date:** Date Received:

11/20/08 16:00 11/21/08 16:16

PrepDate: BatchNo:

11/24/08 16:01 8521/R.15678

FileID:

1-SAMP-K5230.D

Col Type:

Analyte	Result Qua	al PQL	MDL	Units	DF	Date Analyzed
SEMIVOLATILE ORGANIC COMPOUN	SW82700	3	(SW3550B)			
2-Chloronaphthalene	ND	550	6.1	μg/Kg-dry	1	12/03/08 22:22
2-Methylnaphthalene	ND	550	2.7	μg/Kg-dry	1	12/03/08 22:22
Acenaphthene	ND	550	5.5	μg/Kg-dry	1	12/03/08 22:22
Acenaphthylene	ND	550	6.7	µg/Kg-dry	1	12/03/08 22:22
Anthracene	ND	550	3.9	µg/Kg-dry	1	12/03/08 22:22
Benzo[a]anthracene	170 J	550	5.8	µg/Kg-dry	1	12/03/08 22:22
Benzo[a]pyrene	170 J	550	17	µg/Kg-dry	1	12/03/08 22:22
Benzo[b]fluoranthene	230 J	550	19	µg/Kg-dry	1	12/03/08 22:22
Benzo[g,h,i]perylene	86 J	550	22	µg/Kg-dry	1	12/03/08 22:22
Benzo[k]fluoranthene	110 J	550	19	µg/Kg-dry	1	12/03/08 22:22
Chrysene	190 J	550	4.7	μg/Kg-dry	1	12/03/08 22:22
Dibenz[a,h]anthracene	ND	550	22	μg/Kg-dry	1	12/03/08 22:22
Fluoranthene	370 J	550	17	μg/Kg-dry	1	12/03/08 22:22
Fluorene	ND	550	5.7	μg/Kg-dry	1	12/03/08 22:22
Indeno[1,2,3-cd]pyrene	63 J	550	22	µg/Kg-dry	1	12/03/08 22:22
Naphthalene	ND	550	4.2	µg/Kg-dry	1	12/03/08 22:22
Phenanthrene	170 J	550	2.4	μg/Kg-dry	1	12/03/08 22:22
Pyrene	290 J	550	3.8	μg/Kg-dry	1	12/03/08 22:22
Surr: 2,4,6-Tribromophenol	64	20-143	0	%REC	1	12/03/08 22:22
Surr: 2-Fluorobiphenyl	84	46-130	0	%REC	1	12/03/08 22:22
Surr: 2-Fluorophenol	84	22-130	0	%REC	1	12/03/08 22:22
Surr: Nitrobenzene-d5	81	39-130	0	%REC	1	12/03/08 22:22
Surr: Phenol-d5	88	33-130	0	%REC	1	12/03/08 22:22
Surr: Terphenyl-d14	94	36-146	0	%REC	1	12/03/08 22:22

Qual	lifiers
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Print Date: 12/04/08 12:59

- Value exceeds Maximum Contaminant Level
- E Value exceeds the instrument calibration range
- Analyte detected below the POL
- Prim./Conf. column %D or RPD exceeds limit
- B Analyte detected in the associated Method Blank
- Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
- Spike Recovery outside accepted recovery limits

LSL 5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

**Analytical Results** 

StateCertNo: 10155

CLIENT: Project:

**ERM Consulting & Engineering** 

Ithaca Dredging

W Order: Matrix:

0811166 SOIL

Inst. ID:

MS06 40

ColumnID: DB-5MS Revision:

Col Type:

12/04/08 12:59

%Moisture: 41.2 TestCode:

Sample Size: 30 g

8270S

Client Sample ID: Ith-DUP2

Lab ID:

0811166-010D

**Collection Date:** Date Received:

11/20/08 0:00 11/21/08 16:16

PrepDate:

11/24/08 16:01

BatchNo:

8521/R15678

FileID:

1-SAMP-K5227.D

Analyte	Result Qu	ıal PQL	MDL	Units	DF	Date Analyzed
SEMIVOLATILE ORGANIC COMPOUNDS BY GC/MS					C	(SW3550B)
2-Chloronaphthalene	ND	560	6.2	μg/Kg-dry	1	12/03/08 20:25
2-Methylnaphthalene	ND	560	2.7	μg/Kg-dry	1	12/03/08 20:25
Aceπaphthene	ND	560	5.6	μg/Kg-dry	1	12/03/08 20:25
Acenaphthylene	ND	560	6.8	μg/Kg-dry	1	12/03/08 20:25
Anthracene	ND	560	4.0	μg/Kg-dry		12/03/08 20:25
Benzo[a]anthracene	ND	560	5.9	μg/Kg-dry	1	12/03/08 20:25
Benzo[a]pyrene	ND	560	17	μg/Kg-dry		12/03/08 20:25
Benzo[b]fluoranthene	ND	560	20	µg/Kg-dry	1	12/03/08 20:25
Benzo[g,h,i]perylene	ND	560	23	μg/Kg-dry	1	12/03/08 20:25
Benzo[k]fluoraпthene	ND	560	19	μg/Kg-dry	1	12/03/08 20:25
Chrysene	ND	560	4.8	μg/Kg-dry	1	12/03/08 20:25
Dibenz[a,h]anthracene	ND	560	23	μg/Kg-dry		12/03/08 20:25
luoranthene	ND	560	17	μg/Kg-dry		12/03/08 20:25
Fluorene	ND	560	5.8			12/03/08 20:25
ndeno[1,2,3-cd]pyrene	ND	560	23	μg/Kg-dry		12/03/08 20:25
Naphthalene	ND	560	4.3	µg/Kg-dry		12/03/08 20:25
<sup>o</sup> henanthrene	ND	560	2.5	ug/Kg-dry		12/03/08 20:25
<sup>o</sup> yrene	ND	560	3.8	μg/Kg-dry		12/03/08 20:25
Surr: 2,4,6-Tribromophenol	58	20-143	0	%REC	1	12/03/08 20:25
Surr: 2-Fluorobiphenyl	75	46-130	0	%REC	1	12/03/08 20:25
Surr: 2-Fluorophenol	75	22-130	0	%REC	1	12/03/08 20:25
Surr: Nitrobenzene-d5	72	39-130	0	%REC	1	12/03/08 20:25
Surr: Phenol-d5	79	33-130	0	%REC	1	12/03/08 20:25
Surr: Terphenyl-d14	84	36-146	0	%REC	1	12/03/08 20:25

## Qualifiers:

Print Date: 12/04/08 13:00

- Value exceeds Maximum Contaminant Level
- E Value exceeds the instrument calibration range
- Analyte detected below the PQL
- P Prim./Conf. column %D or RPD exceeds limit
- Analyte detected in the associated Method Blank
- Holding times for preparation or analysis exceeded
- Not Detected at the Practical Quantitation Limit (PQL)
- Spike Recovery outside accepted recovery limits

# LSL Science Laboratories, Inc. 5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

**Analytical Results** 

StateCertNo: 10155

CLIENT:

**ERM Consulting & Engineering** 

Project:

Ithaca Dredging

W Order: Matrix:

0811166 SOIL

Inst. ID:

MS06 40

ColumnID: DB-5MS Revision:

12/04/08 12:59

%Moisture: 47.6 TestCode: 8270S

Sample Size: 30 g

Lab ID:

0811166-011D

Client Sample ID: Ith-2 (1-6) **Collection Date:** 

11/20/08 16:10 11/21/08 16:16

Date Received: PrepDate:

11/24/08 16:01

BatchNo:

8521/R15678

FileID:

1-SAMP-K5231.D

Analyte	Result Qu	al PQL	MDL	Units	DF	Date Analyzed
SEMIVOLATILE ORGANIC COMPOUNDS BY GC/MS					SW8270C (S	
2-Chloronaphthalene	ND	630	7.0	μg/Kg-dry	1	12/03/08 23:01
2-Methylnaphthalene	ND	630	3.1	μg/Kg-dry	1	12/03/08 23:01
Acenaphthene	ND	630	6.3	μg/Kg-dry	1	12/03/08 23:01
Acenaphthylene	ND	630	7.6	μg/Kg-dry	1	12/03/08 23:01
Anthracene	ND	630	4.4	μg/Kg-dry	1	12/03/08 23:01
Benzo[a]anthracene	150 J	630	6.6	μg/Kg-dry	1	12/03/08 23:01
Benzo[a]pyrene	170 J	630	19	μg/Kg-dry	1	12/03/08 23:01
Benzo[b]fluoranthene	300 J	630	22	μg/Kg-dry	1	12/03/08 23:01
Benzo[g,h,i]perylene	110 J	630	25	μg/Kg-dry	1	12/03/08 23:01
Benzo[k]fluoranthene	140 J	630	21	μg/Kg-dry	1	12/03/08 23:01
Chrysene	210 J	630	5.3	μg/Kg-dry	1	12/03/08 23:01
Dibenz[a,h]anthracene	ND	630	25	µg/Kg-dry	1	12/03/08 23:01
Fluoranthene	410 J	630	19	µg/Kg-dry	1	12/03/08 23:01
Fluorene	ND	630	6.5	μ <b>g</b> /Kg-dry	1	12/03/08 23:01
Indeno[1,2,3-cd]pyrene	71 J	630	25	μg/Kg-dry	1	12/03/08 23:01
Naphthalene	ND	630	4.8	μg/Kg-dry	1	12/03/08 23:01
Phenanthrene	180 J	630	2.8	μg/Kg-dry	1	12/03/08 23:01
Pyrene	330 J	630	4.3	μg/Kg-dry	1	12/03/08 23:01
Surr: 2,4,6-Tribromophenol	66	20-143	0	%REC	1	12/03/08 23:01
Surr: 2-Fluorobiphenyl	82	46-130	0	%REC	1	12/03/08 23:01
Surr: 2-Fluorophenol	84	22-130	0	%REC	1	12/03/08 23:01
Surr: Nitrobenzene-d5	80	39-130	0	%REC	1	12/03/08 23:01
Surr: Phenol-d5	88	33-130	O	%REC	1	12/03/08 23:01
Surr: Terphenyl-d14	96	36-146	O	%REC	1	12/03/08 23:01

Qualifiers:

Print Date: 12/04/08 13:00

- Value exceeds Maximum Contaminant Level
- Value exceeds the instrument calibration range
- Analyte detected below the PQL
- Prim./Conf. column %D or RPD exceeds limit
- Analyte detected in the associated Method Blank
- Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
  - Spike Recovery outside accepted recovery limits

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

**Analytical Results** 

StateCertNo: 10155

**CLIENT:** 

**ERM Consulting & Engineering** 

Project:

Ithaca Dredging

W Order: Matrix:

0811166

Inst. ID:

SOIL MS06 40

ColumnID: DB-5MS Revision:

12/04/08 14:38

%Moisture: 48.3 TestCode:

8270S

Sample Size: 30 g

Lab ID:

0811166-012D

Client Sample ID: Ith-3 (1-6)

**Collection Date:** 

11/20/08 16:15

Date Received: PrepDate:

11/21/08 16:16 11/24/08 16:01

BatchNo:

8521/R15681

FileID:

1-SAMP-K5235,D

Analyte	Result Qua	ıl PQL	MDL	Units	DF	Date Analyzed
SEMIVOLATILE ORGANIC COMP	OUNDS BY GC/MS	3		SW8270C		(SW3550B)
2-Chloronaphthalene	ND	640	7.1	µg/Kg-dry	1	12/04/08 13:51
2-Methylnaphthalene	ND	640	3.1	μg/Kg-dry	1	12/04/08 13:51
Acenaphthene	ND	640	6.4	μg/Kg-dry	1	12/04/08 13:51
Acenaphthylene	ND	640	7.7	µg/Kg-dry	1	12/04/08 13:51
Anthracene	ИD	640	4.5	μg/Kg-dry	1	12/04/08 13:51
Benzo[a]anthracene	240 J	640	6.7	μg/Kg-dry	1	12/04/08 13:51
Benzo[a]pyrene	280 J	640	19	μg/Kg-dry	1	12/04/08 13:51
Benzo[b]fluoranthene	550 J	640	22	µg/Kg-dry	1	12/04/08 13:51
Benzo[g,h,i]perylene	170 J	640	26	μg/Kg-dry	1	12/04/08 13:51
Benzo[k]fluoranthene	190 J	640	22	μg/Kg-dry	1	12/04/08 13:51
Chrysene	350 J	640	5.4	μg/Kg-dry	1	12/04/08 13:51
Dibenz[a,h]anthracene	ND	640	26	μg/Kg-dry		12/04/08 13:51
Fluoranthene	700	640	19	μg/Kg-dry	1	12/04/08 13:51
Fluorene	ND	640	6.6	μg/Kg-dry	1	12/04/08 13:51
Indeno[1,2,3-cd]pyrene	. 100 J	640	، 26	µg/Kg-dry	1 .	12/04/08 13:51
Naphthalene	ND	640	4.9	µg/Kg-dry	1	12/04/08 13:51
Phenanthrene	280 J	640	2.8	μg/Kg-dry	1	12/04/08 13:51
Pyrene	630 J	640	4.4	μg/Kg-dry	1	12/04/08 13:51
Surr: 2,4,6-Tribromophenol	72	20-143	0	%REC	1	12/04/08 13:51
Surr: 2-Fluorobiphenyl	83	46-130	0	%REC	1	12/04/08 13:51
Surr: 2-Fluorophenol	87	22-130	0	%REC	1	12/04/08 13:51
Surr: Nitrobenzene-d5	86	39-130	0	%REC	1	12/04/08 13:51
Surr: Phenol-d5	98	33-130	0	%REC	1	12/04/08 13:51
Surr: Terphenyl-d14	105	36-146	0	%REC	1	12/04/08 13:51

## Qualifiers:

Print Date: 12/04/08 14:39

- Value exceeds Maximum Contaminant Level
- Value exceeds the instrument calibration range
- Analyte detected below the PQL
- Prim./Conf. column %D or RPD exceeds limit
- Analyte detected in the associated Method Blank
- Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
  - Spike Recovery outside accepted recovery limits

LSL 5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

**Analytical Results** 

StateCertNo: 10155

CLIENT:

**ERM Consulting & Engineering** 

Project:

Ithaca Dredging

W Order:

0811166

Matrix: Inst. ID: SOIL MS06 40

ColumnID: DB-5MS

12/04/08 12:59

%Moisture: 37.0

TestCode:

Sample Size: 30 g

8270S

Lab ID:

0811166-013D

Client Sample ID: Ith-4 (1-6)

11/20/08 16:20 **Collection Date:** 

Date Received:

11/21/08 16:16

PrepDate: BatchNo:

11/24/08 16:01 8521/R15678

FileID:

1-SAMP-K5228.D

Revision: Col Type:

Analyte	Result Qua	al PQL	MDL	Units	DF	Date Analyzed
SEMIVOLATILE ORGANIC COMP	OUNDS BY GC/MS	3		SW8270	C	(SW3550B)
2-Chloronaphthalene	ND	520	5.8	μg/Kg-dry	1	12/03/08 21:04
2-Methylnaphthalene	ND	520	2.5	μg/Kg-dry	1	12/03/08 21:04
Acenaphthene	ND	520	5.3	μg/Kg-dry	1	12/03/08 21:04
Acenaphthylene	ND	520	6.3	µg/Kg-dry	1	12/03/08 21:04
Anthracene	ND	520	3.7	μg/Kg-dry	1	12/03/08 21:04
Benzo[a]anthracene	83 J	520	5.5	μg/Kg-dry	1	12/03/08 21:04
Benzo[a]pyrene	91 J	520	16	μg/Kg-dry	1	12/03/08 21:04
Benzo[b]fluoranthene	140 J	520	18	μg/Kg-dry	1	12/03/08 21:04
Benzo[g,h,i]perylene	58 J	520	21	μg/Kg-dry	1	12/03/08 21:04
Benzo[k]fluoranthene	60 J	520	18	μg/Kg-dry	1	12/03/08 21:04
Chrysene	J 99 J	520	4.4	μg/Kg-dry	1	12/03/08 21:04
Dibenz[a,h]anthracene	ND	520	21	μg/Kg-dry	1	12/03/08 21:04
Fluoranthene	210 J	520	16	μg/Kg-dry	1	12/03/08 21:04
Fluorene	ND	520	5.4	μg/Kg-dry	1	12/03/08 21:04
Indeno[1,2,3-cd]pyrene	ND	520	21	μg/Kg-dry	1	12/03/08 21:04
Naphthalene	ND	520	4.0	μg/Kg-dry	1	12/03/08 21:04
Phenanthrene	91 J	520	2.3	μg/Kg-dry	1	12/03/08 21:04
Pyrene	160 J	520	3.6	μg/Kg-dry	1	12/03/08 21:04
Surr: 2,4,6-Tribromophenol	67	20-143	0	%REC	1	12/03/08 21:04
Surr: 2-Fluorobiphenyl	80	46-130	0	%REC	1	12/03/08 21:04
Surr: 2-Fluorophenol	79	22-130	0	%REC	1	12/03/08 21:04
Surr: Nitrobenzene-d5	77	39-130	0	%REC	1	12/03/08 21:04
Surr: Phenol-d5	84	33-130	0	%REC	1	12/03/08 21:04
Surr: Terphenyl-d14	96	36-146	0	%REC	1	12/03/08 21:04

## Qualifiers: .

- Value exceeds Maximum Contaminant Level
- Value exceeds the instrument calibration range
- Analyte detected below the POL
- Prim./Conf. column %D or RPD exceeds limit
- Analyte detected in the associated Method Blank
- Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
- Spike Recovery outside accepted recovery limits

LSL 5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

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**Analytical Results** 

StateCertNo: 10155

CLIENT: ERM Consulting & Engineering

Lab ID:

0811166-014D

Project:

Ithaca Dredging

Client Sample ID: Ith-6 (1-6)

W Order: Matrix:

0811166

**Collection Date:** 

11/20/08 16:25

SOIL

Date Received:

11/21/08 16:16

Inst. ID:

MS06 40

Sample Size: 30 g

11/24/08 16:01

ColumnID: DB-5MS

PrepDate: %Moisture: 39.7 BatchNo:

8521/R15678

Revision:

12/04/08 12:59

TestCode: 8270S FileID:

1-SAMP-K5229.D

Col Type:

Analyte	Result Qu	al PQL	MDL	Units	DF	Date Analyzed
SEMIVOLATILE ORGANIC COMPOUNDS BY GC/MS					;	(SW3550B)
2-Chloronaphthalene	ND	550	6.1	μg/Kg-dry	1	12/03/08 21:43
2-Methylnaphthalene	ND	550	2.7	μg/Kg-dry	1	12/03/08 21:43
Acenaphthene	ND	550	5.5	μg/Kg-dry	1	12/03/08 21:43
Acenaphthylene	ND	550	6.6	µg/Kg-dry	1	12/03/08 21:43
Anthracene	ND	550	3.9	µg/Kg-dry	1	12/03/08 21:43
Велzo[a]anthracene	L 88	550	5.7	μg/Kg-dry	1	12/03/08 21:43
Benzo[a]pyrene	98 J	550	17	µg/Kg-dry	1	12/03/08 21:43
Benzo[b]fluoranthene	160 J	550	19	μg/Kg-dry	1	12/03/08 21:43
Benzo[g,h,i]perylene	64 J	550	22	μg/Kg-dry	1	12/03/08 21:43
Benzo[k]fluoranthene	71 J	550	18	μg/Kg-dry	1	12/03/08 21:43
Chrysene	120 J	550	4.6	μg/Kg-dry	1	12/03/08 21:43
Dibenz[a,h]anthracene	ND	550	22	μg/Kg-dry	1	12/03/08 21:43
Fluoranthene	220 J	550	17	µg/Kg-dry		12/03/08 21:43
Fluorene	ND	550	5.7	μg/Kg-dry	1	12/03/08 21:43
Indeno[1,2,3-cd]pyrene	ND	550	22	µg/Kg-dry	1	12/03/08 21:43
Naphthalene	NĐ	550	4.2	µg/Kg-dry	1	12/03/08 21:43
Phenanthrene	92 J	550	2.4	μg/Kg-dry	1	12/03/08 21:43
Pyrene	180 J	550	3.7	μg/Kg-dry	1	12/03/08 21:43
Surr: 2,4,6-Tribromophenol	65	20-143	0	%REC	1	12/03/08 21:43
Surr: 2-Fluorobiphenyl	81	<b>46</b> -130	0	%REC	1	12/03/08 21:43
Surr: 2-Fluorophenol	80	22-130	0	%REC	1	12/03/08 21:43
Surr: Nitrobenzene-d5	76	39-130	0	%REC	1	12/03/08 21:43
Surr: Phenol-d5	87	33-130	0	%REC	1	12/03/08 21:43
Surr: Terphenyl-d14	95	36-146	0	%REC	1	12/03/08 21:43

Qua	lific	١.

Print Date: 12/04/08 13:00

- Value exceeds Maximum Contaminant Level
- Value exceeds the instrument calibration range
- Analyte detected below the PQL
- Prim./Conf. column %D or RPD exceeds limit
- Analyte detected in the associated Method Blank
- Holding times for preparation or analysis exceeded
- Not Detected at the Practical Quantitation Limit (PQL)
- Spike Recovery outside accepted recovery limits

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

8081S

Sample Size: 30 g

%Moisture: 24.7

TestCode:

**Analytical Results** 

StateCertNo: 10155

CLIENT: **ERM Consulting & Engineering** 

Project: Ithaca Dredging

W Order: 0811131 Matrix: SOIL

Inst. ID: GCGT 57G ColumnID: RtxCLP

Revision: 12/22/08 15:26

Lab ID:

0811131-001D

Client Sample ID: Ith-3 (6-12)

**Collection Date:** Date Received:

11/17/08 14:50 11/18/08 16:28

PrepDate: BatchNo:

11/21/08 10:57 8505/R15901

FileID:

1-SAMP-E:\Gtdec08\G121912.r

Col Type: Primary

Analyte	Result Qu	ıal PQL	MDL	Units	DF	Date Analyzed
ORGANOCHLORINE PESTICIDES BY GC/ECD					Α	(SW3550B)
4,4'-DDD	ND	0.0022	0.00023	mg/Kg-dr	y 1	12/19/08 15:05
4,4'-DDE	ND	0.0022	0.00025	mg/Kg-dr	у 1	12/19/08 15:05
4,4'-DDT	ND	0.0022	0.00029	mg/Kg-dr	у 1	12/19/08 15:05
alpha-Chlordane	ND	0.0011	0.00023	mg/Kg-dr	- y 1	12/19/08 15:05
Dieldrin	ND	0.0022	0.00028	mg/Kg-dr	y 1	12/19/08 15:05
garnma-Chlordane	ND	0.0011	0.00028	mg/Kg-dr	у 1	12/19/08 15:05
Surr: Tetrachloro-m-xylene	86	37-125	0	%REC	1	12/19/08 15:05
Surr: Decachlorobiphenyl	52	25-145	0	%REC	1	12/19/08 15:05

Qualifiers:

Print Date: 12/22/08 15:41

Value exceeds Maximum Contaminant Level

Value exceeds the instrument calibration range

Analyte detected below the PQL

Prim./Conf. column %D or RPD exceeds limit

Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

Spike Recovery outside accepted recovery limits

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

**Analytical Results** 

StateCertNo: 10155 0811131-001D

CLIENT: **ERM Consulting & Engineering** 

Project: Ithaca Dredging

W Order: 0811131 Matrix: SOIL

Inst. ID: GCGT 57H

Revision: 12/22/08 15:33

ColumnID: RtxCLP2

TestCode:

Sample Size: 30 g BatchNo: %Moisture: 24.7

8081S

Date Received: PrepDate:

**Collection Date:** 

Lab ID:

11/18/08 16:28 11/21/08 10:57 8505/R15903

11/17/08 14:50

FileID:

Client Sample ID: Ith-3 (6-12)

1-SAMP-E:\Gtdec08\H121912.r

Col Type: Confirm

Analyte	Result Qu	ıal PQL	MDL	Units DF	Date Analyzed
ORGANOCHLORINE PESTICIDES	SW8081A	(SW3550B)			
4,4'-DDD	ND	0.0022	0.00023	mg/Kg-dry 1	12/19/08 15:05
4,4'-DDE	· ND	0.0022	0.00025	mg/Kg-dry 1	12/19/08 15:05
4,4´-DDT	ND	0.0022	0.00029	mg/Kg-dry 1	12/19/08 15:05
alpha-Chlordane	ND	0.0011	0.00023	mg/Kg-dry 1	12/19/08 15:05
Dieldrin	ND	0.0022	0.00028	mg/Kg-dry 1	12/19/08 15:05
gamma-Chlordane	ND	0.0011	0.00028	mg/Kg-dry 1	12/19/08 15:05
Surr: Tetrachloro-m-xylene	91	37-125	0	%REC 1	12/19/08 15:05
Surr: Decachlorobiphenyl	53	25-145	0	%REC 1	12/19/08 15:05

Qualifiers:

Value exceeds Maximum Contaminant Level

Value exceeds the instrument calibration range

Analyte detected below the PQL

Prim./Conf. column %D or RPD exceeds limit

414529

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

S Spike Recovery outside accepted recovery limits

Project Supervisor: Anthony Crescenzi

# Life Science Laboratories, Inc. 5000 Brittonfield Parkway, Suite 200

**Analytical Results** 

East Syracuse, NY 13057

(315) 437-0200

StateCertNo: 10155

CLIENT: Project:

ERM Consulting & Engineering

Ithaca Dredging

W Order:

0811131

Matrix:

Revision:

Col Type:

SOIL

Inst. ID:

GCGT 57G

ColumnID: RtxCLP

12/22/08 15:26 Primary

Sample Size: 30 g %Moisture: 28.6

TestCode: 8081S Lab ID:

0811131-002D

Client Sample ID: Ith-4 (6-12)

**Collection Date:** 

Date Received: PrepDate:

11/18/08 16:28 11/21/08 10:57

11/18/08 9:20

BatchNo:

8505/R15901

FileID:

1-SAMP-E:\Gtdec08\G121913.r

Analyte	Result Qu	al PQL	MDL	Units	DF	Date Analyzed
ORGANOCHLORINE PESTICIDES		SW8081	A	(SW3550B)		
4,4'-DDD	0.0012J	0.0023	0.00025	mg/Kg-dr	y 1	12/19/08 15:29
4,4′-DDE	ND	0.0023	0.00026	mg/Kg-dr	- y 1	12/19/08 15:29
4,4'-DDT	ND	0.0023	0.00030	mg/Kg-dr	y 1	12/19/08 15:29
alpha-Chlordane	ND	0.0012	0.00025	mg/Kg-dr	y 1	12/19/08 15:29
Dieldrin	ND	0.0023	0.00029	mg/Kg-dr	y 1	12/19/08 15:29
gamma-Chlordane	ND	0.0012	0.00029	mg/Kg-dr	y 1	12/19/08 15:29
Surr: Tetrachloro-m-xylene	66	37-125	0	%REC	1	12/19/08 15:29
Surr: Decachlorobiphenyl	37	25-145	0	%REC	1	12/19/08 15:29

Qualifiers:

Value exceeds Maximum Contaminant Level

Value exceeds the instrument calibration range

Analyte detected below the PQL

Prim./Conf. column %D or RPD exceeds limit

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

S Spike Recovery outside accepted recovery limits

# SL

Project:

# Life Science Laboratories, Inc.

**Analytical Results** 

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

Sample Size: 30 g

%Moisture: 28.6

TestCode: 8081S

StateCertNo: 10155

**CLIENT:** ERM Consulting & Engineering

Ithaca Dredging

W Order: 0811131

Matrix: SOIL Inst. ID: GCGT 57H

ColumnID: RtxCLP2 Revision: 12/22/08 15:33

Col Type: Confirm

Lab ID:

0811131-002D

Client Sample ID: Ith-4 (6-12)

Collection Date:

Date Received:

11/18/08 9:20 11/18/08 16:28

PrepDate: BatchNo:

FileID:

11/21/08 10:57 8505/R15903

1-SAMP-E:\Gtdec08\H121913.r

Analyte	Result Qu	al PQL	MDL	Units	DF	Date Analyzed
ORGANOCHLORINE PESTICIDES BY GC/ECD					A	(SW3550B)
4,4'-DDD	0.0014 J	0.0023	0.00025	mg/Kg-di	y 1	12/19/08 15:29
4,4'-DDE	ND	0.0023	0.00026	mg/Kg-di	y 1	12/19/08 15:29
4,4'-DDT	ND	0.0023	0.00030	mg/Kg-di	y 1	12/19/08 15:29
alpha-Chlordane	ND	0.0012	0.00025	mg/Kg-di	y 1	12/19/08 15:29
Dieldrin	ND	0.0023	0.00029	mg/Kg-di	y 1	12/19/08 15:29
gamma-Chlordane	ND	0.0012	0.00029	mg/Kg-di	y 1	12/19/08 15:29
Surr: Tetrachioro-m-xylene	71	37-125	0	%REC	1	12/19/08 15:29
Surr: Decachlorobiphenyl	51	25-145	0	%RFC	1	12/19/08 15:29

- Value exceeds Maximum Contaminant Level
- E Value exceeds the instrument calibration range
- J Analyte detected below the PQL
- P Prim./Conf. column %D or RPD exceeds limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
- S Spike Recovery outside accepted recovery limits

Print Date: 12/22/08 15:41 414530 Project Su

Project Supervisor: Anthony Crescenzi

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

8081S

Sample Size: 30 g

%Moisture: 31.9

TestCode:

**Analytical Results** 

StateCertNo: 10155

CLIENT: **ERM Consulting & Engineering** 

Project: Ithaca Dredging

W Order: 0811131 Matrix: SOIL

Inst. ID: GCGT 57G ColumnID: RtxCLP

Primary

Revision: 12/22/08 15:26 Col Type:

Lab ID:

0811131-003D

Client Sample ID: Ith-2 (6-10)

Collection Date: Date Received:

11/18/08 10:10 11/18/08 16:28 11/21/08 10:57

PrepDate: BatchNo:

8505/R15901

FileID:

1-SAMP-E:\Gtdec08\G121914.r

Analyte	Result Qu	ıal PQL	MDL	Units DF	Date Analyzed
ORGANOCHLORINE PESTICIDE	SW8081A	(SW3550B)			
4,4'-DDD	ND	0.0024	0.00026	mg/Kg-dry 1	12/19/08 15:53
4,4*-DDE	ND	0.0024	0.00027	mg/Kg-dry 1	12/19/08 15:53
4,4´-DDT	ND	0.0024	0.00032	mg/Kg-dry 1	12/19/08 15:53
alpha-Chlordane	ND	0.0012	0.00026	mg/Kg-dry 1	12/19/08 15:53
Dieldrin	ND	0.0024	0.00031	mg/Kg-dry 1	12/19/08 15:53
gamma-Chlordane	ND	0.0012	0.00031	mg/Kg-dry 1	12/19/08 15:53
Surr: Tetrachloro-m-xylene	67	37-125	0	%REC 1	12/19/08 15:53
Surr: Decachlorobiphenyl	30	25-145	0	%REC 1	12/19/08 15:53

Qualifiers:

Value exceeds Maximum Contaminant Level

Value exceeds the instrument calibration range

Analyte detected below the PQL

Prim./Conf. column %D or RPD exceeds limit

Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

S Spike Recovery outside accepted recovery limits

# LSL

## Life Science Laboratories, Inc.

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

8081S

Sample Size: 30 g

%Moisture: 31.9

TestCode:

**Analytical Results** 

StateCertNo: 10155

CLIENT: ERM Consulting & Engineering

Project: Ithaca Dredging

W Order: 0811131 Matrix: SOIL

Inst. ID: GCGT 57H ColumnID: RtxCLP2

Revision: 12/22/08 15:33

Col Type: Confirm

Lab ID:

0811131-003D

Client Sample ID: Ith-2 (6-10)

Collection Date: Date Received:

11/18/08 10:10 11/18/08 16:28 11/21/08 10:57

PrepDate: BatchNo:

8505/R15903

FileID:

1-SAMP-E:\Gtdec08\H121914.r

Analyte	Result Qu	ıal PQL	MDL	Units	DF	Date Analyzed
ORGANOCHLORINE PESTICIDES BY GC/ECD					A	(SW3550B)
4,4'-DDD	ND	0.0024	0.00026	mg/Kg-di	y 1	12/19/08 15:53
4,4'-DDE	ND	0.0024	0.00027	mg/Kg-di	y 1	12/19/08 15:53
4,4'-DDT	ND	0.0024	0.00032	mg/Kg-di	y 1	12/19/08 15:53
alpha-Chlordane	ND	0.0012	0.00026	mg/Kg-di	y 1	12/19/08 15:53
Dieldrin	ND	0.0024	0.00031	mg/Kg-di	y 1	12/19/08 15:53
gamma-Chlordane	ND	0.0012	0.00031	mg/Kg-dı	y 1	12/19/08 15:53
Surr. Tetrachloro-m-xylene	73	37-125	0	%REC	1	12/19/08 15:53
Surr: Decachlorobiphenyl	73	25-145	0	%REC	1	12/19/08 15:53

Qualifiers:

Value exceeds Maximum Contaminant Level

8 Value exceeds the instrument calibration range

Analyte detected below the PQL

Prim./Conf. column %D or RPD exceeds limit

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

S Spike Recovery outside accepted recovery limits

# Life Science Laboratories, Inc. 5000 Brittonfield Parkway, Suite 200

## **Analytical Results**

East Syracuse, NY 13057

(315) 437-0200

Sample Size: 30 g

StateCertNo: 10155

CLIENT:

**ERM Consulting & Engineering** 

Project:

Ithaca Dredging

W Order:

0811131 SOIL

Matrix:

GCGT 57G

Inst. ID:

Col Type:

ColumnID: RtxCLP

Revision:

12/22/08 15:26

**Primary** 

%Moisture: 34.5 TestCode:

8081S

Lab ID:

0811131-004D

Client Sample ID: Ith-2 (10-14)

**Collection Date:** 

11/18/08 10:20 11/18/08 16:28

Date Received: PrepDate:

11/21/08 10:57

BatchNo:

FileID:

8505/R15901

1-SAMP-E:\Gtdec08\G121915.r

Analyte	Result Qu	nal PQL	MDL	Units	DF	Date Analyzed
ORGANOCHLORINE PESTICIDES BY GC/ECD					IA	(SW3550B)
4,4'-DDD	ND	0.0025	0.00027	mg/Kg-di	y 1	12/19/08 16:17
4,4'-DDE	ND	0.0025	0.00028	mg/Kg-di	y 1	12/19/08 16:17
4,4'-DDT	ND	0.0025	0.00033	mg/Kg-di	y 1	12/19/08 16:17
alpha-Chlordane	ND	0.0013	0.00027	mg/Kg-di	y 1	12/19/08 16:17
Dieldrin	ИD	0.0025	0.00032	mg/Kg-di	y 1	12/19/08 16:17
gamma-Chlordane	ND	0.0013	0.00032	mg/Kg-di	y 1	12/19/08 16:17
Surr: Tetrachloro-m-xylene	44	37-125	0	%REC	1	12/19/08 16:17
Surr: Decachlorobiphenyl	27	25-145	0	%REC	1	12/19/08 16:17

Qualifiers:

Value exceeds Maximum Contaminant Level

Value exceeds the instrument calibration range

Analyte detected below the PQL

Prim./Conf. column %D or RPD exceeds limit

Analyte detected in the associated Method Blank

H. Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

Spike Recovery outside accepted recovery limits

Project:

Col Type:

# Life Science Laboratories, Inc.

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

8081S

Sample Size: 30 g

%Moisture: 34.5

TestCode:

**Analytical Results** 

StateCertNo: 10155

**CLIENT:** ERM Consulting & Engineering

Ithaca Dredging

W Order: 0811131 Matrix: SOIL

Inst. ID: GCGT 57H ColumnID: RtxCLP2

12/22/08 15:33 Revision:

Confirm

Lab ID:

0811131-004D

Client Sample ID: Ith-2 (10-14)

**Collection Date:** Date Received:

11/18/08 10:20 11/18/08 16:28 11/21/08 10:57

PrepDate: BatchNo:

8505/R15903

FileID: 1-SAMP-E:\Gtdec08\H121915.r

Analyte	Result Qu	ıal PQL	MDL	Units	DF	Date Analyzed
ORGANOCHLORINE PESTICIDES BY GC/ECD					A	(SW3550B)
4,4'-DDD	ND	0.0025	0.00027	mg/Kg-dry	1	12/19/08 16:17
4,4'-DDE	ND	0.0025	0.00028	mg/Kg-dry	1	12/19/08 16:17
4,4'-DDT	ND	0.0025	0.00033	mg/Kg-dry	1	12/19/08 16:17
alpha-Chlordane	ND	0.0013	0.00027	mg/Kg-dry	1	12/19/08 16:17
Dieldrin	ND	0.0025	0.00032	mg/Kg-dry	1	12/19/08 16:17
gamma-Chlordane	ND	0.0013	0.00032	mg/Kg-dry	1	12/19/08 16:17
Surr: Tetrachloro-m-xylene	56	37-125	0	%REC	1	12/19/08 16:17
Surr: Decachlorobiphenyl	40	25-145	0	%REC	1	12/19/08 16:17

Qualifiers:

- Value exceeds Maximum Contaminant Level
- Value exceeds the instrument calibration range
- Analyte detected below the PQL
- Prim./Conf. column %D or RPD exceeds limit
- Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
  - Spike Recovery outside accepted recovery limits

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

**Analytical Results** 

12/19/08 16:41

StateCertNo: 10155

CLIENT:

**ERM Consulting & Engineering** 

Lab ID:

0811131-005D

Project:

Ithaca Dredging

Client Sample ID: Ith-6 (6-10)

W Order:

0811131

Collection Date:

11/18/08 14:10

Matrix:

11/18/08 16:28

SOIL

Date Received: PrenDate:

11/21/08 10:57

Inst. ID:

GCGT 57G

Sample Size: 30 g %Moisture: 30.4

36

%REC

1

Revision:

ColumnID: RtxCLP 12/22/08 15:26

TestCode:

BatchNo: 8081S FileID:

8505/R15901 1-SAMP-E:\Gtdec08\G121916.r

Col Type: Primary

Surr: Decachlorobiphenyl

Date Analyzed Analyte Result Qual POL **MDL** Units DF ORGANOCHLORINE PESTICIDES BY GC/ECD SW8081A (\$W3550B) 4,4'-DDD 0.0024 0.00025 mg/Kg-dry 1 12/19/08 16:41 4,4'-DDE ND 0.0024 0.00027 mg/Kg-dry 1 12/19/08 16:41 4,4'-DDT ND 0.0024 0.00031 mg/Kg-dry 1 12/19/08 16:41 alpha-Chlordane ND 0.0012 0.00025 mg/Kg-dry 1 12/19/08 16:41 Dieldrin ND 0.00030 mg/Kg-dry 1 12/19/08 16:41 0.0024 gamma-Chlordane ND 0.0012 0.00030 mg/Kg-dry 1 12/19/08 16:41 Surr: Tetrachloro-m-xylene %REC 12/19/08 16:41 55 37-125

25-145

0

Qualifiers:

Value exceeds Maximum Contaminant Level

Е Value exceeds the instrument calibration range

Analyte detected below the PQL

Prim./Conf. column %D or RPD exceeds limit

Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

Spike Recovery outside accepted recovery limits

# LSL

# Life Science Laboratories, Inc.

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

Sample Size: 30 g

%Moisture: 30.4

TestCode: 8081S

**Analytical Results** 

StateCertNo: 10155

CLIENT: ERM Consulting & Engineering

Project: Ithaca Dredging

W Order: 0811131 Matrix: SOIL

Inst. ID: GCGT 57H

ColumnID: RtxCLP2 Revision: 12/22/08 15:33

Col Type: Confirm

Lab ID:

0811131-005D

Client Sample ID: Ith-6 (6-10)

Collection Date: Date Received:

11/18/08 14:10 11/18/08 16:28 11/21/08 10:57

PrepDate: BatchNo:

11/21/08 10:57 8505/R15903

FileID:

1-SAMP-E:\Gtdec08\H121916.r

Analyte	Result Qı	ıal PQL	MDL	Units	DF	Date Analyzed
ORGANOCHLORINE PESTICIDES BY GC/ECD					IA	(SW3550B)
4,4′-DDD	ND	0.0024	0.00025	mg/Kg-di	y 1	12/19/08 16:41
4,4'-DDE	ND	0.0024	0.00027	mg/Kg-di	y 1	12/19/08 16:41
4,4´-ĐĐT	ND	0.0024	0.00031	mg/Kg-di	y 1	12/19/08 16:41
alpha-Chlordane	ND	0.0012	0.00025	mg/Kg-di	у 1	12/19/08 16:41
Dieldrin	ND	0.0024	0.00030	mg/Kg-di	y 1	12/19/08 16:41
gamma-Chlordane	ND	0.0012	0.00030	mg/Kg-di	y 1	12/19/08 16:41
Surr: Tetrachloro-m-xylene	79	37-125	0	%REC	1	12/19/08 16:41
Surr: Decachlorobiphenyl	45	25-145	0	%REC	1	12/19/08 16:41

Qualifiers:

Value exceeds Maximum Contaminant Level

E Value exceeds the instrument calibration range

J Analyte detected below the PQL

P Prim./Conf. column %D or RPD exceeds limit

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

S Spike Recovery outside accepted recovery limits

**Analytical Results** 

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

8081S

Sample Size: 30 g

%Moisture: 34.7

TestCode:

StateCertNo: 10155

CLIENT: ERM Consulting & Engineering

Project: Ithaca Dredging

W Order: 0811131 Matrix: SOIL

Inst. ID: GCGT 57G

ColumnID: RtxCLP Revision:

12/22/08 15:26

Lab ID:

0811131-006D

Client Sample ID: Ith-6 (10-14)

**Collection Date:** Date Received:

11/18/08 14:20 11/18/08 16:28

PrepDate: BatchNo:

11/21/08 10:57 8505/R15901

FileID:

1-SAMP-E:\Gtdec08\G121917.r

Col Type: **Primary** 

Analyte	Result Qu	al PQL	MDL	Units	DF	Date Analyzed
ORGANOCHLORINE PESTICIDES BY GC/ECD					4	(SW3550B)
4,4´-DDD	ND	0.0025	0.00027	mg/Kg-dry	1	12/19/08 17:05
4,4´-DDE	ИD	0.0025	0.00028	mg/Kg-dry	1	12/19/08 17:05
4,4'-DDT	ND	0.0025	0.00033	mg/Kg-dry	1	12/19/08 17:05
alpha-Chlordane	ND	0.0013	0.00027	mg/Kg-dry	1	12/19/08 17:05
Dieldrin	ND	0.0025	0.00032	mg/Kg-dry	1	12/19/08 17:05
gamma-Chiordane	ND	0.0013	0.00032	mg/Kg-dry	1	12/19/08 17:05
Surr: Tetrachloro-m-xylene	64	37-125	0	%REC	1	12/19/08 17:05
Surr: Decachlorobiphenyl	38	25-145	0	%REC	1	12/19/08 17:05

Qualif	iers
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Print Date: 12/22/08 15:41

- Value exceeds Maximum Contaminant Level
- E Value exceeds the instrument calibration range
- Analyte detected below the POL
- Prim./Conf. column %D or RPD exceeds limit

414487

- Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
- Spike Recovery outside accepted recovery limits

**Analytical Results** 

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

StateCertNo: 10155

CLIENT:

ERM Consulting & Engineering

Lab ID:

0811131-006D

Project:

Ithaca Dredging

Client Sample ID: *Ith-6 (10-14)* 

W Order:

0811131

Collection Date:

11/18/08 14:20

Matrix:

11/18/08 16:28

SOIL

Date Received:

11/21/08 10:57

Inst. ID: ColumnID: RtxCLP2

GCGT 57H

Sample Size: 30 g

PrepDate: BatchNo:

8505/R15903

Revision:

12/22/08 15:33

%Moisture: 34.7 8081S TestCode:

FileID:

1-SAMP-E:\Gtdec08\H121917.r

Col Type: Confirm

Analyte	Result Qual PQL		MDL	Units	DF	Date Analyzed
ORGANOCHLORINE PESTICIDE		SW8081A	<b>\</b>	(SW3550B)		
4,4'-DDD	ND	0.0025	0.00027	mg/Kg-dry	1	12/19/08 17:05
4,4'-DDE	ND	0.0025	0.00028	mg/Kg-dry	1	12/19/08 17:05
4,4'-DDT	<b>N</b> D	0.0025	0.00033	mg/Kg-dry	1	12/19/08 17:05
alpha-Chlordane	ND	0.0013	0.00027	mg/Kg-dry	1	12/19/08 17:05
Dieldrin	ND	0.0025	0.00032	mg/Kg-dry	1	12/19/08 17:05
gamma-Chlordane	ND	0.0013	0.00032	mg/Kg-dry	1	12/19/08 17:05
Surr: Tetrachloro-m-xylene	85	37-125	O	%REC	1 .	12/19/08 17:05
Surr: Decachlorobiphenyl	54	25-145	0	%REC	1	12/19/08 17:05

Qual	lifiers
------	---------

- Value exceeds Maximum Contaminant Level
- E Value exceeds the instrument calibration range
- Analyte detected below the PQL
- Prim./Conf. column %D or RPD exceeds limit
- Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
  - Spike Recovery outside accepted recovery limits

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

**Analytical Results** 

StateCertNo: 10155

CLIENT:

ERM Consulting & Engineering

Project:

Ithaca Dredging

W Order:

0811142

Matrix:

SOIL

Inst. ID:

**Primary** 

Col Type:

Revision:

ColumnID: RtxCLP

12/22/08 15:26

GCGT 57G

%Moisture: 38.2 TestCode:

8081S

Sample Size: 30 g

Lab ID:

0811142-001D

Client Sample ID: Ith-8 (2-10)

**Collection Date:** 

11/19/08 14:30

Date Received:

11/20/08 9:25 11/21/08 10:57

PrepDate: BatchNo:

8505/R15901

FileID:

1-SAMP-E:\Gtdec08\G121918.r

Analyte	Result Qual PQL MDL			Units	DF	Date Analyzed
ORGANOCHLORINE PESTICIDES	SW8081	A	(SW3550B)			
4,4'-DDD	0.0020 J	0.0027	0.00028	mg/Kg-dry	r <b>1</b>	12/19/08 17:29
4,4'-DDE	0.0028	0.0027	0.00030	mg/Kg-dry	r <b>1</b>	12/19/08 17:29
4,4'-DDT	ND	0.0027	0.00035	mg/Kg-dry	1	12/19/08 17:29
alpha-Chlordane	ND	0.0014	0.00028	mg/Kg-dry	r 1	12/19/08 17:29
Dieldrin	ND	0.0027	0.00034	mg/Kg-dry	r 1	12/19/08 17:29
gamma-Chlordane	ND	0.0014	0.00034	mg/Kg-dry	r 1	12/19/08 17:29
Surr: Tetrachloro-m-xylene	61	37-125	0	%REC	1	12/19/08 17:29
Surr. Decachlorobiphenyl	41	25-145	0	%REC	1	12/19/08 17:29

Qualifiers:

Value exceeds Maximum Contaminant Level

Value exceeds the instrument calibration range

Analyte detected below the PQL

Prim./Conf. column %D or RPD exceeds limit

Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

Spike Recovery outside accepted recovery limits

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

**Analytical Results** 

StateCertNo: 10155 0811142-001D

CLIENT: ERM Consulting & Engineering

Project: Ithaca Dredging

W Order: 0811142 Matrix: SOIL

Inst. ID: GCGT 57H ColumnID: RtxCLP2

Revision: 12/22/08 15:33

Sample Size: 30 g

TestCode: 8081S

%Moisture: 38.2

Lab ID:

Client Sample ID: Ith-8 (2-10) 11/19/08 14:30

Collection Date: Date Received:

11/20/08 9:25 11/21/08 10:57

PrepDate: BatchNo:

FileID:

8505/R15903 1-SAMP-E:\Gtdec08\H121918.r

Col Type: Confirm

Analyte	Result Qu	al PQL	MDL	Units	DF	Date Analyzed
ORGANOCHLORINE PESTICIDES BY GC/ECD					A	(SW3550B)
4,4'-DDD	0.0022 J	0.0027	0.00028	mg/Kg-drj	y 1	12/19/08 17:29
4,4'-DDE	0.0030	0.0027	0.00030	mg/Kg-dr	y 1	12/19/08 17:29
4,4'-DDT	ND	0.0027	0.00035	mg/Kg-dr	y 1	12/19/08 17:29
alpha-Chlordane	ND	0.0014	0.00028	mg/Kg-dr	y 1	12/19/08 17:29
Dieldrin	ND	0.0027	0.00034	mg/Kg-dr	y 1	12/19/08 17:29
gamma-Chlordane	ND	0.0014	0.00034	mg/Kg-dr	y 1	12/19/08 17:29
Surr: Tetrachloro-m-xylene	68	37-125	0	%REC	1	12/19/08 17:29
Surr: Decachlorobiphenyl	65	25-145	0	%REC	1	12/19/08 17:29

Print Date: 12/22/08 15:48

- Value exceeds Maximum Contaminant Level
- E Value exceeds the instrument calibration range
- Analyte detected below the PQL
- Prim./Conf. column %D or RPD exceeds limit
- Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
  - Spike Recovery outside accepted recovery limits

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

8081S

Sample Size: 30 g

%Moisture: 31.3

TestCode:

**Analytical Results** 

StateCertNo: 10155

CLIENT: **ERM Consulting & Engineering** 

Project: Ithaca Dredging

W Order: 0811142 Matrix: SOIL

Inst. ID: GCGT 57G ColumnID: RtxCLP

Revision: 12/22/08 15:26

Lab ID:

0811142-002D

Client Sample ID: Ith-8 (10-14) **Collection Date:** 11/19/08 14:45

Date Received:

11/20/08 9:25 11/21/08 10:57

PrepDate: BatchNo:

8505/R15901

FileID: 1-SAMP-E:\Gtdec08\G121919.r

Col Type: **Primary** 

Analyte	Result Qu	ıal PQL	MDL	Units	DF	Date Analyzed
ORGANOCHLORINE PESTICIDES	SW8081A		(SW3550B)			
4,4'-DDD	ND	0.0024	0.00025	mg/Kg-dry	1	12/19/08 17:53
4,4'-DDE	ND	0.0024	0.00027	mg/Kg-dry	1	12/19/08 17:53
4,4'-DDT	ND	0.0024	0.00031	mg/Kg-dry	1	12/19/08 17:53
alpha-Chlordane	ND	0.0012	0.00025	mg/Kg-dry	1	12/19/08 17:53
Dieldrin	ND	0.0024	0.00031	mg/Kg-dry	1	12/19/08 17:53
gamma-Chlordane	ND	0.0012	0.00031	mg/Kg-dry	1	12/19/08 17:53
Surr: Tetrachloro-m-xylene	46	37-125	0	%REC	1	12/19/08 17:53
Surr: Decachlorobiphenyl	28	25-145	0	%REC	1	12/19/08 17:53

- Value exceeds Maximum Contaminant Level
- Value exceeds the instrument calibration range
- Analyte detected below the PQL
- Prim./Conf. column %D or RPD exceeds limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
  - Spike Recovery outside accepted recovery limits

CLIENT:

W Order:

Project:

Matrix:

Inst. ID:

## Life Science Laboratories, Inc.

5000 Brittonfield Parkway, Suite 200

**ERM Consulting & Engineering** 

East Syracuse, NY 13057

Ithaca Dredging

0811142

GCGT 57H

SOIL

(315) 437-0200

8081S

Sample Size: 30 g

%Moisture: 31.3

TestCode:

**Analytical Results** 

Lab ID:

StateCertNo: 10155 0811142-002D

Client Sample ID: Ith-8 (10-14)

**Collection Date:** 

11/19/08 14:45

Date Received:

11/20/08 9:25

11/21/08 10:57

PrepDate:

8505/R15903

BatchNo: FileID:

1-SAMP-E:\Gtdec08\H121919.r

Revision: 12/22/08 15:33 Col Type: Confirm

ColumnID: RtxCLP2

Analyte	Result Qual PQL		MDL	Units	DF	Date Analyzed
ORGANOCHLORINE PESTICIDES BY GC/ECD					A	(SW3550B)
4,4'-DDD	ND	0.0024	0.00025	mg/Kg-dr	y 1	12/19/08 17:53
4,4'-DDE	ND	0.0024	0.00027	mg/Kg-dr	y 1	12/19/08 17:53
4,4'-DDT	ND	0.0024	0.00031	mg/Kg-dr	y 1	12/19/08 17:53
alpha-Chlordane	ND	0.0012	0.00025	mg/Kg-dr	y 1	12/19/08 17:53
Dieldrin	ND	0.0024	0.00031	mg/Kg-dr	y 1	12/19/08 17:53
gamma-Chlordane	ND	0.0012	0.00031	mg/Kg-dr	y 1	12/19/08 17:53
Surr: Tetrachloro-m-xylene	60	37-125	0	%REC	1	12/19/08 17:53
Surr: Decachlorobiphenyl	35	25-145	0	%REC	1	12/19/08 17:53

Qualifiers	
------------	--

- Value exceeds Maximum Contaminant Level
- Value exceeds the instrument calibration range
- Analyte detected below the PQL
- Prim./Conf. column %D or RPD exceeds limit
- Analyte detected in the associated Method Blank
- Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
  - Spike Recovery outside accepted recovery limits

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

**Analytical Results** 

StateCertNo: 10155

CLIENT:

**ERM Consulting & Engineering** 

Project:

Ithaca Dredging

W Order:

0811142

Matrix:

SOIL

Inst. ID:

GCGT 57G

ColumnID: RtxCLP

Revision:

12/22/08 15:26

%Moisture: 30.2 TestCode: 8081S

Sample Size: 30 g

Lab ID:

0811142-003D

Client Sample ID: Ith-7 (1-14)

Collection Date:

11/19/08 13:50 11/20/08 9:25

Date Received:

11/21/08 10:57

PrepDate: BatchNo:

8505/R15901

FileID:

I-SAMP-E:\Gtdec08\G121920.r

Col Type: **Primary** 

Analyte	Result Qua	l PQL	MDL	Units	DF	Date Analyzed
ORGANOCHLORINE PESTICIDE	S BY GC/ECD			SW8081	A	(SW3550B)
4,4'-DDD	0.0069 P	0.0024	0,00025	mg/Kg-dry	1	12/19/08 18:17
4,4 -DDE	0.0025	0.0024	0.00027	mg/Kg-dry	1	12/19/08 18:17
4,4'-DDT	0.0024 P	0.0024	0.00031	mg/Kg-dry	1	12/19/08 18:17
alpha-Chlordane	ND	0.0012	0.00025	mg/Kg-dry	1	12/19/08 18:17
Dieldrin	0.00064 JP	0.0024	0.00030	mg/Kg-dry	1	12/19/08 18:17
gamma-Chlordane	ND	0.0012	0.00030	mg/Kg-dry	1	12/19/08 18:17
Surr: Tetrachloro-m-xylene	61	37-125	0	%REC	1	12/19/08 18:17
Surr: Decachlorobiphenyl	40	25-145	0	%REC	1	12/19/08 18:17

Qualifiers:

Value exceeds Maximum Contaminant Level

E Value exceeds the instrument calibration range

Analyte detected below the POL

Prim./Conf. column %D or RPD exceeds limit

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

S Spike Recovery outside accepted recovery limits

**Analytical Results** 

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

Sample Size: 30 g

%Moisture: 30.2

TestCode: 8081S

StateCertNo: 10155

**ERM Consulting & Engineering** 

Project: Ithaca Dredging

W Order:

0811142

Matrix:

SOIL GCGT 57H

Inst. ID:

ColumnID: RtxCLP2

Confirm

Revision: Col Type: 12/22/08 15:33

Lab ID:

0811142-003D

Client Sample ID: Ith-7 (1-14)

**Collection Date:** 

11/19/08 13:50

Date Received:

11/20/08 9:25 11/21/08 10:57

PrepDate: BatchNo:

8505/R15903

FileID:

1-SAMP-E:\Gtdec08\H121920.r

Analyte	Result Qu	al PQL	MDL	Units DF	Date Analyzed
ORGANOCHLORINE PESTICIDE	S BY GC/ECD		SW8081A	(SW3550B)	
4,4'-DDD	0.010 P	0.0024	0.00025	mg/Kg-dry 1	12/19/08 18:17
4,4'-DDE	0.0025	0.0024	0.00027	mg/Kg-dry 1	12/19/08 18:17
4,4'-DDT	0.0050 P	0.0024	0.00031	mg/Kg-dry 1	12/19/08 18:17
alpha-Chlordane	ND	0.0012	0,00025	mg/Kg-dry 1	12/19/08 18:17
Dieldrin	0.0035 P	0.0024	0.00030	mg/Kg-dry 1	12/19/08 18:17
gamma-Chlordane	ND	0.0012	0.00030	mg/Kg-dry 1	12/19/08 18:17
Surr: Tetrachloro-m-xylene	70	37-125	0	%REC 1	12/19/08 18:17
Surr: Decachlorobiohenvi	81	25-145	Ö	%REC 1	12/19/08 18:17

Qualifiers:

Value exceeds Maximum Contaminant Level

Value exceeds the instrument calibration range

Analyte detected below the POL

Prim./Conf. column %D or RPD exceeds limit

Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

Spike Recovery outside accepted recovery limits

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

Sample Size: 30 g

%Moisture: 34.3

**Analytical Results** 

StateCertNo: 10155

CLIENT:

**ERM Consulting & Engineering** 

Project:

Ithaca Dredging

W Order:

0811142

Matrix:

SOIL

Inst. ID:

GCGT 57G

Col Type:

ColumnID: RtxCLP

Revision:

12/22/08 15:26

TestCode: 8081S Primary

Lab ID:

0811142-004D

Client Sample ID: Ith-5 (4-10)

**Collection Date:** 

Date Received:

11/19/08 12:40 11/20/08 9:25

PrepDate: BatchNo:

11/21/08 10:57 8505/R15901

FileID:

1-SAMP-E:\Gtdec08\G121921.r

Analyte	Result Qua	d PQL	MDL	Units	DF	Date Analyzed
ORGANOCHLORINE PESTICIDES		SW8081	A	(SW3550B)		
4,4'-DDD	0.0015 J	0.0025	0.00027	mg/Kg-dr	y 1	12/19/08 18:41
4,4'-DDE	ND	0.0025	0.00028	mg/Kg-dr	y 1	12/19/08 18:41
4,4'-DDT	0.0014 JP	0.0025	0.00033	mg/Kg-dr	y 1	12/19/08 18:41
alpha-Chlordane	ND	0.0013	0.00027	mg/Kg-dr	y 1	12/19/08 18:41
Dieldrin	ND	0.0025	0.00032	mg/Kg-dr	y 1	12/19/08 18:41
gamma-Chlordane	ND	0.0013	0.00032	mg/Kg-dr	<b>y</b> 1	12/19/08 18:41
Surr: Tetrachloro-m-xylene	48	37-125	0	%REC	1	12/19/08 18:41
Surr: Decachlorobiphenyl	34	25-145	0	%REC	1	12/19/08 18:41

Qualifiers:

Print Date: 12/22/08 15:48

Value exceeds Maximum Contaminant Level

Е Value exceeds the instrument calibration range

Analyte detected below the PQL

Prim./Conf. column %D or RPD exceeds limit

414491

Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

Spike Recovery outside accepted recovery limits

**Analytical Results** 

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

StateCertNo: 10155

CLIENT:

**ERM Consulting & Engineering** 

Lab ID:

0811142-004D

Project:

Ithaca Dredging

Client Sample ID: Ith-5 (4-10)

W Order:

0811142

Collection Date:

11/19/08 12:40

SOIL

Date Received:

11/20/08 9:25

Matrix:

PrepDate:

11/21/08 10:57

Inst. ID: ColumnID: RtxCLP2

GCGT 57H

Sample Size: 30 g %Moisture: 34.3

BatchNo:

8505/R15903

Revision:

12/22/08 15:33

TestCode: 8081S

FileID:

1-SAMP-E:\Gtdec08\H121921.r

Col Type: Confirm

Analyte	Result Qua	il PQL	MDL	Units 1	DF	Date Analyzed
ORGANOCHLORINE PESTICIDE	\$W8081A		(SW3550B)			
4,4'-DDD	0.0015 J	0.0025	0.00027	mg/Kg-dry 1	1	12/19/08 18:41
4,4'-DDE	ND	0.0025	0.00028	mg/Kg-dry	1	12/19/08 18:41
4,4´-DDT	0.00079 JP	0.0025	0.00033	mg/Kg-dry	1	12/19/08 18:41
alpha-Chlordane	ND	0.0013	0.00027	mg/Kg-dry	1	12/19/08 18:41
Dieldrin	ND	0.0025	0,00032	mg/Kg-dry	1	12/19/08 18:41
gamma-Chlordane	ND	0.0013	0.00032	mg/Kg-dry	1	12/19/08 18:41
Surr: Tetrachloro-m-xylene	67	37-125	0	%REC	1	12/19/08 18:41
Surr: Decachlorobiphenyl	39	25-145	0	%REC	1	12/19/08 18:41

Qualifiers:

Value exceeds Maximum Contaminant Level

E Value exceeds the instrument calibration range

Analyte detected below the POL

Prim./Conf. column %D or RPD exceeds limit

Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

Spike Recovery outside accepted recovery limits

## Life Science Laboratories, Inc. 5000 Brittonfield Parkway, Suite 200

**Analytical Results** 

East Syracuse, NY 13057

(315) 437-0200

StateCertNo: 10155

CLIENT: Project:

**ERM Consulting & Engineering** 

Ithaca Dredging

W Order:

0811142

Matrix:

SOIL

Inst. ID:

GCGT 57G

ColumnID: RtxCLP

Revision:

12/22/08 15:26

Sample Size: 30 g %Moisture: 29.0 TestCode: 8081S

Lab ID:

0811142-005D

Client Sample ID: Ith-5 (10-14)

**Collection Date:** 

11/19/08 12:50 11/20/08 9:25

Date Received: PrepDate:

11/21/08 10:57 8505/R15901

BatchNo: FileID:

1-SAMP-E:\Gtdec08\G121922.r

Col Type: **Primary** 

Analyte	Result Qu	ial PQL	MDL	Units	DF	Date Analyzed
ORGANOCHLORINE PESTICIDE	S BY GC/ECD			SW8081.	A.	(SW3550B)
4,4'-DDD	ND	0.0023	0.00025	mg/Kg-dry	/ 1	12/19/08 19:05
4,4'-DDE	ND	0.0023	0.00026	mg/Kg-dry	/ 1	12/19/08 19:05
4,4´-DDT	ND	0.0023	0.00030	mg/Kg-dry	/ 1	12/19/08 19:05
alpha-Chlordane	ND	0.0012	0.00025	mg/Kg-dry	/ 1	12/19/08 19:05
Dieldrin	ND	0.0023	0.00030	mg/Kg-dry	/ 1	12/19/08 19:05
gamma-Chlordane	ND	0.0012	0.00030	mg/Kg-dry	/ 1	12/19/08 19:05
Surr: Tetrachloro-m-xylene	44	37-125	0	%REC	1	12/19/08 19:05
Surr: Decachlorobiphenyl	26	25-145	0	%REC	1	12/19/08 19:05

Qualifiers:

Value exceeds Maximum Contaminant Level

Ε Value exceeds the instrument calibration range

Analyte detected below the POL

Prim./Conf. column %D or RPD exceeds limit

Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

Spike Recovery outside accepted recovery limits

## Life Science Laboratories, Inc. 5000 Brittonfield Parkway, Suite 200

**Analytical Results** 

East Syracuse, NY 13057

(315) 437-0200

Sample Size: 30 g

%Moisture: 29.0

TestCode: 8081S

StateCertNo: 10155

CLIENT: **ERM Consulting & Engineering** 

Project: Ithaca Dredging

W Order: 0811142 Matrix: SOIL

Inst. ID: GCGT 57H ColumnID: RtxCLP2

12/22/08 15:33 Revision:

Lab ID:

0811142-005D

Client Sample ID: Ith-5 (10-14)

Collection Date: Date Received:

11/19/08 12:50 11/20/08 9:25 11/21/08 10:57

PrepDate: BatchNo:

8505/R15903

FileID:

1-SAMP-E:\Gtdec08\H121922.r

Col Type: Confirm

Analyte	Result Qu	ıal PQL	MDL	Units	DF	Date Analyzed
ORGANOCHLORINE PESTICIDES	BY GC/ECD			SW80814	4	(SW3550B)
4,4'-DDD	ND	0.0023	0.00025	mg/Kg-dry	1	12/19/08 19:05
4,4´-DDE	ND	0.0023	0.00026	mg/Kg-dry	1	12/19/08 19:05
4,4'-DDT	ND	0.0023	0.00030	mg/Kg-dry	1	12/19/08 19:05
alpha-Chlordane	ND	0.0012	0.00025	mg/Kg-dry	1	12/19/08 19:05
Dieldrin	ND	0.0023	0.00030	mg/Kg-dry	1	12/19/08 19:05
gamma-Chlordane	ND	0.0012	0.00030	mg/Kg-dry	1	12/19/08 19:05
Surr: Tetrachloro-m-xylene	54	37-125	0	%REC	1	12/19/08 19:05
Surr: Decachlorobiphenyl	36	25-145	O	%REC	1	12/19/08 19:05

Qualifiers:	*	Value exceeds Maximum Contaminant Level	В	Analyte detected in the associated Method Blank
•	E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
	P	Prim /Conf. column %D or RPD exceeds limit	S	Snike Recovery outside accepted recovery limits

Print Date: 12/22/08 15:48

414539

**Analytical Results** 

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

StateCertNo: 10155

CLIENT:

ERM Consulting & Engineering

Project:

Ithaca Dredging

W Order:

0811142

Matrix:

SOIL

Inst. ID:

GCGT 57G

Revision:

Col Type:

ColumnID: RtxCLP

**Primary** 

12/22/08 15:26

Sample Size: 30 g %Moisture: 34.9

TestCode: 8081S

Lab ID:

0811142-006D

Client Sample ID: Ith-1 (6-12)

**Collection Date:** 

11/19/08 10:30

Date Received:

11/20/08 9:25

PrepDate: BatchNo:

11/21/08 10:57 8505/R15901

FileID:

1-SAMP-E:\Gtdec08\G121923.r

Analyte	Result Qua	ıl PQL	MDL	Units DF	Date Analyzed
ORGANOCHLORINE PESTICIDE	S BY GC/ECD			SW8081A	(SW3550B)
4,41-DDD	0.0023 JP	0.0025	0.00027	mg/Kg-dry 1	12/19/08 19:28
4,4'-DDE	0.0054 P	0.0025	0.00028	mg/Kg-dry 1	12/19/08 19:28
4,4'-DDT	ND	0.0025	0.00033	mg/Kg-dry 1	12/19/08 19:28
alpha-Chlordane	0.00079 JP	0.0013	0.00027	mg/Kg-dry 1	12/19/08 19:28
Dieldrin	ND	0.0025	0.00032	mg/Kg-dry 1	12/19/08 19:28
gamma-Chlordane	ND	0.0013	0.00032	mg/Kg-dry 1	12/19/08 19:28
Surr: Tetrachloro-m-xylene	53	37-125	0	%REC 1	12/19/08 19:28
Surr: Decachlorobiphenyl	29	25-145	0	%REC 1	12/19/08 19:28

Qualifiers:

Value exceeds Maximum Contaminant Level

Value exceeds the instrument calibration range

Analyte detected below the PQL

Prim./Conf. column %D or RPD exceeds limit

Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

Spike Recovery outside accepted recovery limits

Print Date: 12/22/08 15:48

414493

# SL

# Life Science Laboratories, Inc.

**Analytical Results** 

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

StateCertNo: 10155

**CLIENT:** ERM Consulting & Engineering

Project: Ithaca Dredging

W Order: 0811142 Matrix: SOIL

Inst. ID: GCGT 57H ColumnID: RtxCLP2

**Revision:** 12/22/08 15:33

CGT 57H Sample Size: 30 g

%Moisture: 34.9 TestCode: 8081S Lab ID: 0811142-006D

Client Sample ID: Ith-1 (6-12)

Collection Date: 11/19/08 10:30
Date Received: 11/20/08 9:25

PrepDate:
BatchNo:

11/21/08 10:57 8505/R15903

FileID: 1-SAMP-E:\Gtdec08\H121923.r

Col Type: Confirm

Analyte	Result Qua	l PQL	MDL	Units	DF	Date Analyzed
ORGANOCHLORINE PESTICIDE	S BY GC/ECD			SW8081/	١.	(SW3550B)
4,4'-DDD	0.0030 P	0.0025	0.00027	mg/Kg-dry	1	12/19/08 19:28
4,4"-DDE	0.0033 P	0.0025	0.00028	mg/Kg-dry	1	12/19/08 19:28
4,4'-DDT	ND	0.0025	0.00033	mg/Kg-dry	1	12/19/08 19:28
alpha-Chlordane	0.00059 JP	0.0013	0.00027	mg/Kg-dry	1	12/19/08 19:28
Dieldrin	ND	0.0025	0.00032	mg/Kg-dry	1	12/19/08 19:28
gamma-Chlordane	ND	0.0013	0.00032	mg/Kg-dry	1	12/19/08 19:28
Surr: Tetrachloro-m-xylene	69	37-125	0	%REC	1	12/19/08 19:28
Surr: Decachlorobiphenyl	53	25-145	0	%REC	1	12/19/08 19:28

- Value exceeds Maximum Contaminant Level
- E Value exceeds the instrument calibration range
- J Analyte detected below the PQL
- Prim./Conf. column %D or RPD exceeds limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
- S Spike Recovery outside accepted recovery limits

**Analytical Results** 

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

80818

Sample Size: 30 g

%Moisture: 33.4

TestCode:

StateCertNo: 10155

CLIENT: **ERM Consulting & Engineering** 

Project: Ithaca Dredging

W Order: 0811142 Matrix: SOIL

GCGT 57G Inst. ID:

ColumnID: RtxCLP

12/22/08 15:26 Revision:

Lab ID:

0811142-007D

Client Sample ID: Ith-Dup1 **Collection Date:** 11/19/08 0:00

Date Received:

11/20/08 9:25

PrepDate: BatchNo:

11/21/08 10:57 8505/R15901

FileID:

1-SAMP-E:\Gtdec08\G121924.r

Col Type: Primary

Analyte	Result Qua	l PQL	MDL	Units	DF	Date Analyzed
ORGANOCHLORINE PESTICIDE			SW8081	A	(SW3550B)	
4,4'-DDD	0.0019 JP	0.0025	0.00026	mg/Kg-dr	y 1	12/19/08 19:52
4,4'-DDE	0.0043 P	0.0025	0.00028	mg/Kg-dr	y 1	12/19/08 19:52
4,4"-DDT	ND	0.0025	0.00032	mg/Kg-dr	y 1	12/19/08 19:52
alpha-Chlordane	Q.00063 JP	0.0013	0.00026	mg/Kg-dr	y 1	12/19/08 19:52
Dieldrin	ND	0.0025	0.00032	mg/Kg-đr	y 1	12/19/08 19:52
gamma-Chiordane	ND	0.0013	0.00032	mg/Kg-dr	y 1	12/19/08 19:52
Surr: Tetrachloro-m-xylene	53	37-125	0	%REC	1	12/19/08 19:52
Surr: Decachlorobiphenyl	26	25-145	0	%REC	1	12/19/08 19:52

Qua	ìiſ	ìe	rs	:
-----	-----	----	----	---

Print Date: 12/22/08 15:48

- Value exceeds Maximum Contaminant Level
- Value exceeds the instrument calibration range
- Analyte detected below the PQL
- Prim./Conf. column %D or RPD exceeds limit
- Analyte detected in the associated Method Blank
- Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
  - Spike Recovery outside accepted recovery limits

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

**Analytical Results** 

StateCertNo: 10155

CLIENT:

**ERM Consulting & Engineering** 

Project:

Ithaca Dredging

W Order:

0811142

Matrix:

SOIL

Inst. ID:

GCGT 57H

Revision:

Col Type:

ColumnID: RtxCLP2

Confirm

12/22/08 15:33

%Moisture: 33.4 TestCode:

Sample Size: 30 g

8081S

Lab ID:

0811142-007D

Client Sample ID: Ith-Dup1

**Collection Date:** 

11/19/08 0:00

Date Received:

11/20/08 9:25 11/21/08 10:57

PrepDate: BatchNo:

8505/R15903

FileID:

1-SAMP-E:\Gtdec08\H121924.r

Analyte	Result Qua	I PQL	MDL	Units	DF	Date Analyzed
ORGANOCHLORINE PESTICIDE		SW8081	A	(SW3550B)		
4,4'-DDD	0.0024 JP	0.0025	0.00026	mg/Kg-dr	y 1	12/19/08 19:52
4,4'-DDE	0.0022 JP	0.0025	0.00028	mg/Kg-dr	y 1	12/19/08 19:52
4,4'-DDT	ND	0.0025	0.00032	mg/Kg-dr	y 1	12/19/08 19:52
alpha-Chlordane	0.00040 JP	0.0013	0.00026	mg/Kg-dr	y 1	12/19/08 19:52
Dieldrin	ND	0.0025	0.00032	mg/Kg-dr	y 1	12/19/08 19:52
gamma-Chlordane	ND	0,0013	0.00032	mg/Kg-dr	y 1	12/19/08 19:52
Surr: Tetrachloro-m-xylene	58	37-125	0	%REC	1	12/19/08 19:52
Surr: Decachlorobiphenyl	46	25-145	0	%REC	1	12/19/08 19:52

Qualifiers:

Value exceeds Maximum Contaminant Level

Value exceeds the instrument calibration range

Analyte detected below the PQL

Analyte detected in the associated Method Blank

Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

Spike Recovery outside accepted recovery limits

Prim./Conf. column %D or RPD exceeds limit

# **Analytical Results**

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

StateCertNo: 10155

CLIENT:

ERM Consulting & Engineering

Project:

Ithaca Dredging

W Order:

0811166 SOIL

Matrix:

GCGT 57G

Inst. ID:

Col Type:

Primary

ColumnID: RtxCLP

Revision:

12/22/08 15:26

%Moisture: 35.0 TestCode:

Sample Size: 30 g

8081S

Lab ID:

0811166-001D

Client Sample ID: Ith-9 (1-14)

Collection Date: Date Received:

11/20/08 15:15 11/21/08 16:16

PrepDate:

11/24/08 10:57

BatchNo:

8516/R15901

FileID:

1-SAMP-E:\Gtdec08\G121933.r

Analyte	Result Qua	Result Qual PQL		Units	DF	Date Analyzed	
ORGANOCHLORINE PESTICIDES BY GC/ECD				SW808	1A	(SW3550B)	
4,4'-DDD	0.00077 JP	0.0025	0.00027	mg/Kg-d	гу 1	12/19/08 23:28	
4,4'-DDE	ND	0.0025	0.00028	mg/Kg-d	ry 1	12/19/08 23:28	
4,4'-DDT	ND	0.0025	0.00033	mg/Kg-d	гу 1	12/19/08 23:28	
alpha-Chlordane	. ND	0.0013	0.00027	mg/Kg-dry 1	ry 1	12/19/08 23:28	
Dieldrin	ND	0.0025	0.00032	mg/Kg-d	ry 1	12/19/08 23:28	
gamma-Chlordane	ND	0.0013	0.00032	mg/Kg-d	ry 1	12/19/08 23:28	
Surr: Tetrachloro-m-xylene	61	37-125	0	%REC	1	12/19/08 23:28	
Surr: Decachlorobiohenvl	36	25-145	0	%REC	1	12/19/08 23:28	

Qualifiers:

Value exceeds Maximum Contaminant Level

Value exceeds the instrument calibration range

Analyte detected below the PQL

P Prim./Conf. column %D or RPD exceeds limit

Analyte detected in the associated Method Blank

Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

Spike Recovery outside accepted recovery limits

# **Analytical Results**

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

StateCertNo: 10155

CLIENT:

ERM Consulting & Engineering

Project:

Ithaca Dredging

W Order:

0811166 SOIL

Matrix: Inst. ID:

GCGT 57H

ColumnID: RtxCLP2

Confirm

Revision: Col Type:

12/22/08 15:33

%Moisture: 35.0 TestCode:

Sample Size: 30 g

8081S

Lab ID:

0811166-001D

Client Sample ID: Ith-9 (1-14)

Collection Date:

11/20/08 15:15

Date Received:

11/21/08 16:16

PrepDate: BatchNo:

FileID:

11/24/08 10:57 8516/R15903

1-SAMP-E:\Gtdec08\H121933.r

Analyte	Result Qual PQL		MDL	Units	DF	Date Analyzed
ORGANOCHLORINE PESTICIDES		SW8081A		(SW3550B)		
4,4'-DDD	0.00056 JP	0.0025	0.00027	mg/Kg-d	гу 1	12/19/08 23:28
4,4'-DDE	ND	0.0025	0.00028	mg/Kg-d	ry 1	12/19/08 23:28
4,4'-DDT	ND	0.0025	0.00033	mg/Kg-d	гу 1	12/19/08 23:28
alpha-Chlordane	ND	0.0013	0.00027	mg/Kg-d	ry 1	12/19/08 23:28
Dieldrin	ND	0.0025	0.00032	mg/Kg-d	гу 1	12/19/08 23:28
gamma-Chlordane	ND	0.0013	0.00032	mg/Kg-d	гу 1	12/19/08 23:28
Surr: Tetrachloro-m-xylene	69	37-125	0	%REC	1	12/19/08 23:28
Surr: Decachlorobiphenyl	43	25-145	0	%REC	1	12/19/08 23:28

Qualifiers:

Value exceeds Maximum Contaminant Level

Value exceeds the instrument calibration range

Prim./Conf. column %D or RPD exceeds limit

Analyte detected below the PQL

Analyte detected in the associated Method Blank

Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

S Spike Recovery outside accepted recovery limits

Print Date: 12/22/08 15:51 414545

**Analytical Results** 

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

8081S

Sample Size: 30 g

%Moisture: 34.1

33

TestCode:

StateCertNo: 10155

CLIENT:

Project:

Col Type:

**ERM Consulting & Engineering** 

Ithaca Dredging

W Order: 0811166

Matrix: SOIL

Inst. ID: GCGT 57G

ColumnID: RtxCLP

Revision:

Primary

12/22/08 15:26

Lab ID:

0811166-002D

Client Sample ID: Ith-10 (1-14)

Collection Date:

Date Received:

11/20/08 14:15 11/21/08 16:16

PrepDate:

11/24/08 10:57

BatchNo:

FileID:

0

8516/R15901

1-SAMP-E:\Gtdec08\G121934.r

**Date Analyzed** DF Analyte Result Qual PQL MDL Units ORGANOCHLORINE PESTICIDES BY GC/ECD SW8081A (SW3550B) 4.4'-DDD 0.00027 mg/Kg-dry 1 12/19/08 23:52 0.0025 4,4 -DDE ND 0.0025 0.00028 mg/Kg-dry 1 12/19/08 23:52 4,4 -DDT ND 0.0025 0.00033 mg/Kg-dry 1 12/19/08 23:52 alpha-Chlordane 0.00027 mg/Kg-dry 1 12/19/08 23:52 ND 0.0013. Dieldrin 0.00032 mg/Kg-dry 1 12/19/08 23:52 ND 0.0025 gamma-Chlordane ND 0.0013 0.00032 mg/Kg-dry 1 12/19/08 23:52 Surr: Tetrachloro-m-xylene 53 37-125 0 %REC 12/19/08 23:52 Surr: Decachlorobiphenyl %REC 12/19/08 23:52

25-145

**Oualifiers:** 

Value exceeds Maximum Contaminant Level

 $\mathbf{E}$ Value exceeds the instrument calibration range

Analyte detected below the PQL

Prim./Conf. column %D or RPD exceeds limit

Analyte detected in the associated Method Blank

Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

Spike Recovery outside accepted recovery limits

# **Analytical Results**

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

StateCertNo: 10155

0811166-002D

CLIENT: ERM Consulting & Engineering

Project: Ithaca Dredging

W Order: 0811166 Matrix: SOIL

Inst. ID: GCGT 57H

ColumnID: RtxCLP2 Revision: 12/22/08 15:33 Sample Size: 30 g

%Moisture: 34.1

TestCode: 8081S

Client Sample ID: *Ith-10 (1-14)*Collection Date: 11/20/08 14:15

Lab ID:

BatchNo:

**Date Received:** 11/21/08 16:16 **PrepDate:** 11/24/08 10:57

8516/R15903

**FileID:** 1-SAMP-E:\Gtdec08\H121934.r

Col Type: Confirm

Analyte	Result Qual PQL		MDL	Units	DF	Date Analyzed
ORGANOCHLORINE PESTICIDES	BY GC/ECD			SW8081A		(SW3550B)
4,4'-DDD	ND	0.0025	0.00027	mg/Kg-dry	1	12/19/08 23:52
4,4'-DDE	ND	0.0025	0.00028	mg/Kg-dry	1	12/19/08 23:52
4,4'-DDT	ND	0.0025	0.00033	mg/Kg-dry	1	12/19/08 23:52
alpha-Chlordane	ND	0.0013	0.00027	mg/Kg-dry	1	12/19/08 23:52
Dieldrin	ND	0.0025	0.00032	mg/Kg-dry	1	12/19/08 23:52
gamma-Chlordane	ND	0.0013	0.00032	mg/Kg-dry	1	12/19/08 23:52
Surr: Tetrachloro-m-xylene	65	37-125	0	%REC	1	12/19/08 23:52
Surr: Decachlorobiphenyl	37	25-145	0	%REC	1	12/19/08 23:52

Qualifiers:	*
	E

- Value exceeds Maximum Contaminant Level
- E Value exceeds the instrument calibration range
- J Analyte detected below the PQL
- P Prim./Conf. column %D or RPD exceeds limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
- S Spike Recovery outside accepted recovery limits

Print Date: 12/22/08 15:51

414546

Project:

# Life Science Laboratories, Inc.

**Analytical Results** 

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

8081S

Sample Size: 30 g

%Moisture: 32.2

TestCode:

StateCertNo: 10155

CLIENT: **ERM Consulting & Engineering** 

Ithaca Dredging

W Order: 0811166

Matrix: SOIL

Inst. ID: GCGT 57G ColumnID: RtxCLP

Revision: 12/22/08 15:26

Lab ID:

0811166-003D

Client Sample ID: Ith-11 (1-14)

**Collection Date:** Date Received:

11/20/08 12:20 11/21/08 16:16

PrepDate:

11/24/08 10:57

8516/R15901 BatchNo: FileID:

1-SAMP-E:\Gtdec08\G121935.r

Col Type: **Primary** 

Analyte	Result Qu	ıal PQL	MDL	Units	DF	Date Analyzed
ORGANOCHLORINE PESTICIDES BY GC/ECD					1A	(SW3550B)
4,4'-DDD	ND	0.0024	0.00026	mg/Kg-d	ry 1	12/20/08 0:16
4,4'-DDE	ND	0.0024	0.00027	mg/Kg-d	ry 1	12/20/08 0:16
4,4'-DDT	ND	0.0024	0.00032	mg/Kg-d	ry 1	12/20/08 0:16
alpha-Chlordane	ND	0.0013	0.00026	mg/Kg-di	ry 1	12/20/08 0:16
Dieldrin	ND	0.0024	0.00031	mg/Kg-d	ry 1	12/20/08 0:16
gamma-Chlordane	ND	0.0013	0.00031	mg/Kg-d	гу 1	12/20/08 0:16
Surr: Tetrachloro-m-xylene	53	37-125	0	%REC	1	12/20/08 0:16
Surr: Decachlorobiphenyl	36	25-145	0	%REC	1	12/20/08 0:16

- Value exceeds Maximum Contaminant Level
- E Value exceeds the instrument calibration range
- Analyte detected below the POL
- Prim./Conf. column %D or RPD exceeds limit
- Analyte detected in the associated Method Blank
- Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
  - Spike Recovery outside accepted recovery limits

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

**Analytical Results** 

StateCertNo: 10155

CLIENT: Project:

**ERM Consulting & Engineering** 

Client Sample ID: Ith-11 (1-14)

0811166-003D

Ithaca Dredging

W Order:

0811166

**Collection Date:** 

11/20/08 12:20

Matrix:

SOIL

Date Received:

11/21/08 16:16

Inst. ID:

GCGT 57H

Sample Size: 30 g

ColumnID: RtxCLP2

%Moisture: 32.2

PrepDate: BatchNo:

11/24/08 10:57 8516/R15903

Revision:

12/22/08 15:33

TestCode: 8081S

FileID:

Lab ID:

1-SAMP-E:\Gtdec08\H121935.r

Col Type: Confirm

Analyte	Result Qual PQL		MDL	Units	DF	Date Analyzed	
ORGANOCHLORINE PESTICIDES BY GC/ECD						(SW3550B)	
4,4'-DDD	ND	0.0024	0.00026	mg/Kg-dry	1	12/20/08 0:16	
4,4´-DDE	ND	0.0024	0.00027	mg/Kg-dry	1	12/20/08 0:16	
4,4´-DDT	ND	0.0024	0.00032	mg/Kg-dry	1	12/20/08 0:16	
alpha-Chlordane	ND	0.0013	0.00026	mg/Kg-dry	1	12/20/08 0:16	
Dieldrin	ND	0.0024	0.00031	mg/Kg-dry	1	12/20/08 0:16	
gamma-Chlordane	ND	0.0013	0.00031	mg/Kg-dry	1	12/20/08 0:16	
Surr: Tetrachloro-m-xylene	62	37-125	0	%REC	1	12/20/08 0:16	
Surr: Decachlorobiphenyl	44	25-145	0	%REC	1	12/20/08 0:16	

Quali	fiers:
-------	--------

- Value exceeds Maximum Contaminant Level
- Value exceeds the instrument calibration range
- Analyte detected below the POL
- Prim./Conf. column %D or RPD exceeds limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
  - Spike Recovery outside accepted recovery limits

Print Date: 12/22/08 15:51

414547

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

**Analytical Results** 

StateCertNo: 10155

CLIENT: **ERM Consulting & Engineering** 

Project: Ithaca Dredging

W Order: 0811166 Matrix: SOIL

Coi Type:

Inst. ID: GCGT 57G ColumnID: RtxCLP

Revision: 12/22/08 15:26

**Primary** 

%Moisture: 36.2

TestCode: 8081S

Sample Size: 30 g

0811166-004D Lab ID:

Client Sample ID: Ith-12 (1-14)

11/20/08 10:45 Collection Date: Date Received: 11/21/08 16:16

11/24/08 10:57

PrepDate: BatchNo: 8516/R15901

FileID: 1-SAMP-E:\Gtdec08\G121936.r

Analyte	Result Qual PQL		MDL	Units	DF	Date Analyzed	
ORGANOCHLORINE PESTICIDES BY GC/ECD				SW8081A		(SW3550B)	
4,4´-DDD	ND	0.0026	0.00027	mg/Kg-dr	y 1	12/20/08 0:40	
4,4´-DDE	ND	0.0026	0.00029	mg/Kg-dr	y 1	12/20/08 0:40	
4,4'-DDT	ND	0.0026	0.00034	mg/Kg-dr	y 1	12/20/08 0:40	
alpha-Chlordane	ND	0.0013	0.00027	mg/Kg-dry 1	y 1	12/20/08 0:40	
Dieldrin	ND	0.0026	0.00033	mg/Kg-dr	y 1	12/20/08 0:40	
gamma-Chlordane	ND	0.0013	0.00033	mg/Kg-dr	y 1	12/20/08 0:40	
Surr: Tetrachloro-m-xylene	58	37-125	0	%REC	1	12/20/08 0:40	
Surr: Decachlorobiphenyl	42	25-145	0	%REC	1	12/20/08 0:40	

Qualifiers:

Print Date: 12/22/08 15:51

Value exceeds Maximum Contaminant Level

Value exceeds the instrument calibration range

Analyte detected below the POL

Prim./Conf. column %D or RPD exceeds limit

414501

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

S Spike Recovery outside accepted recovery limits

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

8081S

**Analytical Results** 

StateCertNo: 10155

CLIENT:

**ERM Consulting & Engineering** 

Lab ID:

0811166-004D

Project:

W Order:

Ithaca Dredging

Client Sample ID: Ith-12 (1-14)

0811166

**Collection Date:** 

11/20/08 10:45

SOIL

Date Received:

Matrix:

11/21/08 16:16 11/24/08 10:57

Inst. ID: ColumnID: RtxCLP2

GCGT 57H

Sample Size: 30 g

PrepDate: BatchNo:

8516/R15903

Revision:

12/22/08 15:33

%Moisture: 36.2 TestCode:

FileID:

1-SAMP-E:\Gtdec08\H121936.r

Col Type: Confirm

Analyte	Result Qual PQL		MDL	Units	DF	Date Analyzed	
ORGANOCHLORINE PESTICIDES BY GC/ECD					A	(SW3550B)	
4,4′-DDD	ND	0.0026	0.00027	mg/Kg-dry	1	12/20/08 0:40	
4,4'-DDE	ND	0.0026	0.00029	mg/Kg-dry	1	12/20/08 0:40	
4,4′-DDT	ND 0,0026 0.00034		mg/Kg-dry	1	12/20/08 0:40		
alpha-Chlordane	ND	0.0013	0.00027	mg/Kg-dry	1	12/20/08 0:40	
Dieldrin	ND	0.0026	0.00033	mg/Kg-dry	1	12/20/08 0:40	
gamma-Chlordane	ND	0.0013	0.00033	mg/Kg-dry	1	12/20/08 0:40	
Surr: Tetrachloro-m-xylene	71	37-125	0	%REC	1	12/20/08 0:40	
Surr: Decachiorobiphenyl	58	25-145	0	%REC	1	12/20/08 0:40	

- Value exceeds Maximum Contaminant Level
- Value exceeds the instrument calibration range
- Analyte detected below the PQL
- Prim./Conf. column %D or RPD exceeds limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
- S Spike Recovery outside accepted recovery limits

Print Date: 12/22/08 15:51

414548

**Analytical Results** 

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

StateCertNo: 10155

**ERM Consulting & Engineering** 

Project: Ithaca Dredging

W Order: 0811166 Matrix: SOIL

Col Type: Primary

GCGT 57G Inst. ID: ColumnID: RtxCLP

Revision: 12/22/08 15:26

Sample Size: 30 g

%Moisture: 25.2

TestCode: 8081S

0811166-005D Lab ID:

Client Sample ID: *Ith-16 (1-14)* 

11/20/08 9:30 **Collection Date:** Date Received: 11/21/08 16:16

11/24/08 10:57 PrepDate: BatchNo: 8516/R15901

FileID: 1-SAMP-E:\Gtdec08\G121937.r

Analyte	Result Qual PQL		MDL	Units	DF	Date Analyzed	
ORGANOCHLORINE PESTICIDES BY GC/ECD				SW8081A		(SW3550B)	
4,4'-DDD	ND	0.0022	0.00023	mg/Kg-dry	1	12/20/08 1:04	
4,4'-DDE	ND	0.0022	0.00025	mg/Kg-dry	1	12/20/08 1:04	
4,4'-DDT	ND	0.0022	0.00029	mg/Kg-dry	1	12/20/08 1:04	
alpha-Chlordane	ND	0.0011	0.00023	mg/Kg-dry	1	12/20/08 1: <b>0</b> 4	
Dieldrin	ND	0.0022	0.00028	mg/Kg-dry	1	12/20/08 1:04	
gamma-Chlordane	ND	0.0011	0.00028	mg/Kg-dry	1	12/20/08 1:04	
Surr: Tetrachloro-m-xylene	59	37-125	0	%REC	1	12/20/08 1:04	
Surr: Decachlorobiphenyl	40	25-145	0	%REC	1	12/20/08 1:04	

Qualifiers:	*	Value exceeds Maximum Contaminant Level	В	Analyte detected in the associated Method Blank
_	Е	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
	Р	Prim /Conf. column %D or RPD exceeds timit	C	Snike Recovery outside accented recovery limits

Print Date: 12/22/08 15:51

414502

# **Analytical Results**

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

StateCertNo: 10155 0811166-005D

CLIENT:

**ERM Consulting & Engineering** 

Project:

Ithaca Dredging

W Order:

0811166

Matrix:

SOIL

Inst. ID:

Col Type:

GCGT 57H

ColumnID: RtxCLP2

Confirm

Revision:

12/22/08 15:33

%Moisture: 25.2 TestCode: 8081S

Sample Size: 30 g

**Collection Date:** 

Lab ID:

Date Received: PrepDate: BatchNo:

11/24/08 10:57 8516/R15903

11/20/08 9:30

11/21/08 16:16

Client Sample ID: Ith-16 (1-14)

FileID:

1-SAMP-E:\Gtdec08\H121937.r

Analyte	Result Qu	al PQL	MDL	Units	DF	Date Analyzed
ORGANOCHLORINE PESTICIDES		SW8081.	A	(SW3550B)		
4,4´-DDD	ND	0.0022	0.00023	mg/Kg-dry	r <b>1</b>	12/20/08 1:04
4,4´-DDE	ND	0.0022	0.00025	mg/Kg-dry	1	12/20/08 1:04
4,4'-DDT	ND	0.0022	0.00029	mg/Kg-dry	1 1	12/20/08 1:04
alpha-Chlordane	ND	0.0011	0.00023	mg/Kg-dry	1	12/20/08 1:04
Dieldrin	ND	0.0022	0.00028	mg/Kg-dry	1	12/20/08 1:04
gamma-Chlordane	ND	0.0011	0.00028	mg/Kg-dry	<i>t</i> 1	12/20/08 1:04
Surr: Tetrachloro-m-xylene	96	37-125	0	%REC	1	12/20/08 1:04
Surr: Decachlorobiphenyl	56	25-145	0	%REC	1	12/20/08 1:04

Qualifiers:

Value exceeds Maximum Contaminant Level

Value exceeds the instrument calibration range

Analyte detected below the PQL

P Prim./Conf. column %D or RPD exceeds limit

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

Spike Recovery outside accepted recovery limits

Print Date: 12/22/08 15:51

414549

Project:

Col Type:

# Life Science Laboratories, Inc.

# **Analytical Results**

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

Sample Size: 30 g

%Moisture: 25.2

TestCode: 8081S

StateCertNo: 10155

CLIENT: **ERM Consulting & Engineering** 

Ithaca Dredging

W Order: 0811166 Matrix: SOIL

Inst. ID: GCGT 57G ColumnID: RtxCLP

Revision:

12/22/08 15:26 **Primary** 

Lab ID:

0811166-006D

Client Sample ID: Ith-14 (1-14)

**Collection Date:** Date Received:

11/21/08 9:50 11/21/08 16:16

PrepDate: BatchNo:

11/24/08 10:57 8516/R15901

FileID:

1-SAMP-E:\Gtdec08\G121940.r

Analyte	Result Qu	ıal PQL	MDL	Units	DF	Date Analyzed
ORGANOCHLORINE PESTICIDE	SW8081	Α	(SW3550B)			
4,4'-DDD	ND	0.0022	0.00023	mg/Kg-dr	y 1	12/20/08 2:16
4,4'-DDE	ND	0.0022	0.00025	mg/Kg-dr	y 1	12/20/08 2:16
4,4'-DDT	ND	0.0022	0.00029	mg/Kg-dr	y 1	12/20/08 2:16
alpha-Chlordane	ND	0.0011	0.00023	mg/Kg-dr	y 1	12/20/08 2:16
Dieldrin	ND	0.0022	0.00028	mg/Kg-dr	y 1	12/20/08 2:16
gamma-Chlordane	ND	0.0011	0.00028	mg/Kg-dr	y 1	12/20/08 2:16
Surr: Tetrachloro-m-xylene	61	37-125	0	%REC	1	12/20/08 2:16
Surr Decachiorobiobanyl	12	25 146	n	% PEC	1	12/20/08 2:16

Qual	ifiers:
------	---------

- Value exceeds Maximum Contaminant Level
- Value exceeds the instrument calibration range
- Analyte detected below the POL
- Prim./Conf. column %D or RPD exceeds limit
- Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
  - Spike Recovery outside accepted recovery limits

**Analytical Results** 

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

StateCertNo: 10155

Project:

Col Type:

ERM Consulting & Engineering

Ithaca Dredging

W Order: 0811166

Matrix: SOIL Inst. ID:

ColumnID: RtxCLP2

Revision: 12/22/08 15:33

GCGT 57H

Confirm

%Moisture: 25.2 TestCode: 8081S

Sample Size: 30 g

0811166-006D Lab ID:

Client Sample ID: Ith-14 (1-14)

11/21/08 9:50 **Collection Date:** Date Received: 11/21/08 16:16 PrepDate:

11/24/08 10:57

BatchNo: 8516/R15903

FileID: 1-SAMP-E:\Gtdec08\H121940.r

Analyte	Result Qı	ıal PQL	MDL	Units	DF	Date Analyzed
ORGANOCHLORINE PESTICIDE	SW8081	A	(SW3550B)			
4,4°-DDD	ND	0.0022	0.00023	mg/Kg-dry	r 1	12/20/08 2:16
4,4´-DDE	ND	0.0022	0.00025	mg/Kg-dry	<i>r</i> 1	12/20/08 2:16
4,4′-DDT	ND	0.0022	0.00029	mg/Kg-dry	r 1	12/20/08 2:16
alpha-Chiordane	ND	0.0011	0.00023	mg/Kg-dry	/ <b>1</b> ,	12/20/08 2:16
Dieldrin	ND	0.0022	0,00028	mg/Kg-dry	/ 1	12/20/08 2:16
gamma-Chlordane	ND	0.0011	0.00028	mg/Kg-dry	1	12/20/08 2:16
Surr: Tetrachloro-m-xylene	68	37-125	Ø	%REC	1	12/20/08 2:16
Surr: Decachlorobiphenyl	40	25-145	O	%REC	1	12/20/08 2:16

Qualifiers:	*	Value exceeds Maximum Contaminant Level	В	Analyte detected in the associated Method Blank
	E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
	1	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
	P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Print Date: 12/22/08 15:51

414552

Project:

# Life Science Laboratories, Inc.

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

**Analytical Results** 

StateCertNo: 10155 0811166-007D

ERM Consulting & Engineering

Ithaca Dredging

W Order: 0811166

Matrix: SOIL

Inst. ID: GCGT 57G ColumnID: RtxCLP

Revision: 12/22/08 15:26

Sample Size: 30 g

%Moisture: 30.9

BatchNo:

PrepDate:

Lab ID:

**Collection Date:** 

Date Received:

11/21/08 16:16 11/24/08 10:57

11/21/08 8:30

Client Sample ID: Ith-13 (1-10)

8516/R15901

8081S FileID: 1-SAMP-E:\Gtdec08\G121941.r TestCode: Col Type: **Primary** 

Analyte	Result Q	ial PQL	MDL	Units	DF	Date Analyzed
ORGANOCHLORINE PESTICIDE	SW8081A	\	(SW3550B)			
4,4′-DDD	ND	0.0024	0.00025	mg/Kg-dry	1	12/20/08 2:40
4,4'-DDE	ND	0.0024	0.00027	mg/Kg-dry	1	12/20/08 2:40
4,4'-DDT	ND	0.0024	0.00031	mg/Kg-dry	1	12/20/08 2:40
alpha-Chlordane	ND	0.0012	0.00025	mg/Kg-dry	1	12/20/08 2:40
Dieldrin	ND	0.0024	0.00030	mg/Kg-dry	1	12/20/08 2:40
gamma-Chlordane	ND	0.0012	0.00030	mg/Kg-dry	1	12/20/08 2:40
Surr: Tetrachloro-m-xylene	50	37-125	0	%REC	1	12/20/08 2:40
Surr: Decachlorobiphenyl	34	25-145	a	%REC	1	12/20/08 2:40

Qualifiers:
-------------

- Value exceeds Maximum Contaminant Level
- Value exceeds the instrument calibration range
- Analyte detected below the PQL
- Prim./Conf. column %D or RPD exceeds limit
- Analyte detected in the associated Method Blank
- Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
- Spike Recovery outside accepted recovery limits

**Analytical Results** 

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

StateCertNo: 10155

CLIENT:

**ERM Consulting & Engineering** 

Ithaca Dredging

Project: W Order:

0811166

Matrix:

SOIL

Inst. ID: Revision:

Col Type:

GCGT 57H

ColumnID: RtxCLP2

12/22/08 15:33

Confirm

Sample Size: 30 g %Moisture: 30.9

TestCode: 8081S

Lab ID:

0811166-007D

Client Sample ID: Ith-13 (1-10)

**Collection Date:** Date Received:

11/21/08 8:30 11/21/08 16:16

PrepDate:

11/24/08 10:57

BatchNo:

8516/R15903

FileID:

1-SAMP-E:\Gtdec08\H121941.r

Analyte	Result Qu	al PQL	MDL	Units	DF	Date Analyzed
ORGANOCHLORINE PESTICIDE		SW8081	A	(SW3550B)		
4,4'-DDD	ND	0,0024	0.00025	mg/Kg-dry	1	12/20/08 2:40
4,4´-DDE	ND	0.0024	0.00027	mg/Kg-dry	1	12/20/08 2:40
4,4´-DDT	ND	0.0024	0.00031	mg/Kg-dry	1	12/20/08 2:40
alpha-Chlordane	ND	0.0012	0.00025	mg/Kg-dry	1	12/20/08 2:40
Dieldrin	ND	0.0024	0.00030	mg/Kg-dry	1	12/20/08 2:40
gamma-Chlordane	ND	0.0012	0.00030	mg/Kg-dry	1	12/20/08 2:40
Surr: Tetrachloro-m-xylene	68	37-125	0	%REC	1	12/20/08 2:40
Surr: Decachlorobiphenyl	40	25-145	0	%REC	1	12/20/08 2:40

Qualifiers:

Value exceeds Maximum Contaminant Level

Value exceeds the instrument calibration range

Analyte detected below the PQL

Prim./Conf. column %D or RPD exceeds limit

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

Spike Recovery outside accepted recovery limits

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

8081S

Sample Size: 30 g

%Moisture: 31.1

TestCode:

**Analytical Results** 

StateCertNo: 10155

CLIENT:

ERM Consulting & Engineering

Project:

Ithaca Dredging

W Order:

0811166

Matrix:

SOIL

GCGT 57G

Inst. ID:

Col Type:

ColumnID: RtxCLP Revision:

12/22/08 15:26

Primary

Lab ID:

0811166-008D

Client Sample ID: Ith-13 (10-14)

**Collection Date:** 

11/21/08 8:40

Date Received:

11/21/08 16:16

PrepDate: BatchNo:

11/24/08 10:57 8516/R15901

FileID:

1-SAMP-E:\Gtdec08\G121942.r

Analyte	Result Qu	ial PQL	MDL	Units	DF	Date Analyzed
ORGANOCHLORINE PESTICIDES		SW8081	A	(SW3550B)		
4,4'-DDD	ND	0.0024	0.00025	mg/Kg-dr	y 1	12/20/08 3:04
4,4'-DDE	ND	0.0024	0.00027	mg/Kg-dr	<b>y</b> 1	12/20/08 3:04
4,4'-DDT	ND	0.0024	0.00031	mg/Kg-dr	<b>y</b> 1	12/20/08 3:04
alpha-Chlordane	ND	0.0012	0.00025	mg/Kg-dr	y 1	12/20/08 3:04
Dieldrin	ND	0.0024	0.00030	mg/Kg-dr	y 1	12/20/08 3:04
gamma-Chlordane	ND	0.0012	0.00030	mg/Kg-dn	y 1	12/20/08 3:04
Surr: Tetrachloro-m-xylene	55	37-125	0	%REC	1	12/20/08 3:04
Surr: Decachlorobiphenyl	39	25-145	0	%REC	1	12/20/08 3:04

Qualifiers:

Value exceeds Maximum Contaminant Level

E Value exceeds the instrument calibration range

Analyte detected below the PQL

Prim./Conf. column %D or RPD exceeds limit

Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

Spike Recovery outside accepted recovery limits

# Life Science Laboratories, Inc. 5000 Brittonfield Parkway, Suite 200

# **Analytical Results**

East Syracuse, NY 13057

(315) 437-0200

StateCertNo: 10155

**CLIENT:** 

ERM Consulting & Engineering

Project:

Ithaca Dredging

W Order:

0811166

Matrix:

SOIL

Inst. ID:

Revision:

Col Type:

GCGT 57H

ColumnID: RtxCLP2

Confirm

%Moisture: 31.1 12/22/08 15:33

8081S TestCode:

Sample Size: 30 g

Lab ID:

0811166-008D

Client Sample ID: Ith-13 (10-14)

Collection Date:

Date Received:

11/21/08 8:40 11/21/08 16:16

PrepDate:

11/24/08 10:57

BatchNo:

8516/R15903

FileID:

1-SAMP-E:\Gtdec08\H121942.r

Analyte	Result Qu	nal PQL	MDL	Units	DF	Date Analyzed
ORGANOCHLORINE PESTICIDE		SW808	1A	(SW3550B)		
4,4*-DDD	ND	0.0024	0.00025	mg/Kg-d	ry 1	12/20/08 3:04
4,4'-DDE	ND	0.0024	0.00027	mg/Kg-d	ry 1	12/20/08 3:04
4,4'-DDT	ND	0.0024	0.00031	mg/Kg-d	ry 1	12/20/08 3:04
alpha-Chlordane	ND	0.0012	0.00025	mg/Kg-d	гу 1	12/20/08 3:04
Dieldrin	ND .	0.0024	0.00030	mg/Kg-d	ry 1	12/20/08 3:04
gamma-Chlordane	ND	0.0012	0.00030	mg/Kg-d	ry 1	12/20/08 3:04
Sum: Tetrachloro-m-xylene	70	37-125	0	%REC	1	12/20/08 3:04
Surr: Decachlorobiphenyl	54	25-145	0	%REC	1	12/20/08 3:04

Qualifiers:

Value exceeds Maximum Contaminant Level

Value exceeds the instrument calibration range

Analyte detected below the PQL

Prim./Conf. column %D or RPD exceeds limit

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

Spike Recovery outside accepted recovery limits

# **Analytical Results**

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

8081S

StateCertNo: 10155

CLIENT:

**ERM Consulting & Engineering** 

Lab ID:

0811166-009D

Project:

Ithaca Dredging

Client Sample ID: Ith-1 (1-6)

12/22/08 15:26

11/20/08 16:00

W Order:

0811166

**Collection Date:** 

Matrix:

SOIL

Date Received:

11/21/08 16:16

Inst. ID:

PrepDate:

11/24/08 10:57 8516/R15901

ColumnID: RtxCLP

GCGT 57G

Sample Size: 30 g %Moisture: 40.0

TestCode:

BatchNo: FileID:

1-SAMP-E:\Gtdec08\G121943.r

Revision: Col Type:

Primary

	The second secon					
Analyte	Result Qual PQL		MDL	Units	DF	Date Analyzed
ORGANOCHLORINE PESTICIDES BY GC/ECD				SW8081	A	(SW3550B)
4,4'-DDD	0.0011 JP	0.0028	0.00029	mg/Kg-dry	1 1	12/20/08 3:28
4,4'-DDE	ND	0.0028	0.00031	mg/Kg-dry	/ <b>1</b>	12/20/08 3:28
4,4′-DDT	0.0023 JP	0.0028	0.00036	mg/Kg-dry	, 1	12/20/08 3:28
alpha-Chlordane	ND	0.0014	0.00029	mg/Kg-dry	1 1	12/20/08 3:28
Dieldrin	0.00044 JP	0.0028	0.00035	mg/Kg-dry	<i>!</i> 1	12/20/08 3:28
gamma-Chlordane	ND	0.0014	0.00035	mg/Kg-dry	/ 1	12/20/08 3:28
Surr: Tetrachloro-m-xylene	85	37-125	0	%REC	1	12/20/08 3:28
Surr: Decachlorobiphenyl	37	25-145	0	%REC	1	12/20/08 3:28

- Value exceeds Maximum Contaminant Level
- Value exceeds the instrument calibration range
- Analyte detected below the PQL
- Prim./Conf. column %D or RPD exceeds limit
- Analyte detected in the associated Method Blank
- Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
- S Spike Recovery outside accepted recovery limits

Print Date: 12/22/08 15:51

414508

# **Analytical Results**

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

StateCertNo: 10155

**CLIENT:** 

**ERM Consulting & Engineering** 

Project:

Ithaca Dredging

W Order: Matrix:

0811166 SOIL

GCGT 57H

Inst. ID:

Revision: Col Type:

ColumnID: RtxCLP2

Confirm

Surr: Decachlorobiphenyl

12/22/08 15:33

Sample Size: 30 g %Moisture: 40.0

TestCode:

8081S

72

Lab ID:

0811166-009D

%REC

Client Sample ID: Ith-1 (1-6)

**Collection Date:** Date Received:

11/20/08 16:00 11/21/08 16:16

PrepDate:

11/24/08 10:57

BatchNo:

8516/R15903

FileID:

0

1-SAMP-E:\Gtdec08\H121943.r

12/20/08 3:28

Analyte	Result Qua	I PQL	MDL	Units	DF	Date Analyzed
ORGANOCHLORINE PESTICIDE		SW808	A	(SW3550B)		
4,4'-DDD	0.00058 JP	0.0028	0.00029	mg/Kg-d	ry 1	12/20/08 3:28
4.4′-DDE	ND	0.0028	0.00031	mg/Kg-d	ry 1	12/20/08 3:28
4,4'-DDT	9,00086 JP	0.0028	0.00036	mg/Kg-d	ry 1	12/20/08 3:28
alpha-Chlordane	ND	0.0014	0.00029	mg/Kg-d	ry 1	12/20/08 3:28
Dieldrin	0.0025 JP	0.0028	0.00035	mg/Kg-d	ry 1	12/20/08 3:28
gamma-Chlordane	ND	0.0014	0.00035	mg/Kg-d	ry 1	12/20/08 3:28
Surr:-Tetrachloro-m-xylene	86	37-125	0	%REC	1	12/20/08 3:28

25-145

Qualifiers:

Value exceeds Maximum Contaminant Level

Value exceeds the instrument calibration range

Analyte detected below the PQL

Prim./Conf. column %D or RPD exceeds limit

Analyte detected in the associated Method Blank

Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

Spike Recovery outside accepted recovery limits

Print Date: 12/22/08 15:51

414555

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

**Analytical Results** 

StateCertNo: 10155

CLIENT:

**ERM Consulting & Engineering** 

Project:

Ithaca Dredging

W Order:

0811166 SOIL

Matrix:

GCGT 57G

Inst. ID: Revision:

Col Type:

ColumnID: RtxCLP

**Primary** 

12/22/08 15:26

TestCode:

Sample Size: 30 g %Moisture: 41.2

8081S

Lab ID:

0811166-010D

Client Sample ID: Ith-DUP2

**Collection Date:** Date Received:

11/20/08 0:00 11/21/08 16:16

PrepDate:

11/24/08 10:57

BatchNo:

8516/R15901

1-SAMP-E:\Gtdec08\G121944.r FileID:

Date Analyzed DF **MDL** Units Result Qual PQL Analyte (SW3550B) SW8081A **ORGANOCHLORINE PESTICIDES BY GC/ECD** 12/20/08 3:52 4,4'-DDD 0.0028 0.00030 mg/Kg-dry 1 0.0028 0.00031 mg/Kg-dry 1 12/20/08 3:52 4,4'-DDE ND 12/20/08 3:52 0.00037 mg/Kg-dry 1 4,4'-DDT ND 0.0028 12/20/08 3:52 0.00030 mg/Kg-dry 1 0.0014 alpha-Chlordane ND 12/20/08 3:52 ND 0.0028 0.00036 mg/Kg-dry 1 Dieldrin 12/20/08 3:52 0.00036 mg/Kg-dry 1 gamma-Chlordane ND 0.0014 %REC 12/20/08 3:52 37-125 0 54 Surr: Tetrachloro-m-xylene 12/20/08 3:52 %REC 0 Surr: Decachlorobiphenyl 29 25-145

Qualifiers:

Value exceeds Maximum Contaminant Level

Value exceeds the instrument calibration range

Analyte detected below the PQL

Prim./Conf. column %D or RPD exceeds limit

Analyte detected in the associated Method Blank

Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

Spike Recovery outside accepted recovery limits

**Analytical Results** 

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

StateCertNo: 10155 0811166-010D

11/20/08 0:00

11/21/08 16:16

**CLIENT:** 

**ERM Consulting & Engineering** 

Project:

Ithaca Dredging

W Order:

0811166

Matrix:

SOIL

Inst. ID: Revision:

Col Type:

GCGT 57H

ColumnID: RtxCLP2

Confirm

12/22/08 15:33

Sample Size: 30 g

TestCode: 8081S

**Collection Date:** 

%Moisture: 41.2

Date Received: PrepDate:

11/24/08 10:57

BatchNo:

Client Sample ID: Ith-DUP2

8516/R15903

FileID:

Lab ID:

1-SAMP-E:\Gtdec08\H121944.r

Result Qu	al PQL	MDL	Units	DF	Date Analyzed
GC/ECD			SW808	IA	(SW3550B)
ND	0.0028	0.00030	mg/Kg-di	ry 1	12/20/08 3:52
ND	0.0028	0.00031	mg/Kg-di	ry 1	12/20/08 3:52
ND	0.0028	0.00037	mg/Kg-di	ry 1	12/20/08 3:52
ND	0.0014	0.00030	mg/Kg-di	ry 1	12/20/08 3:52
ND	0.0028	0.00036	mg/Kg-d	ry 1	12/20/08 3:52
ND	0.0014	0.00036	mg/Kg-di	ry 1	12/20/08 3:52
59	37-125	0	%REC	1	12/20/08 3:52
39	25-145	0	%REC	1	12/20/08 3:52
	GC/ECD ND	ND 0.0028 ND 0.0028 ND 0.0014 ND 0.0028 ND 0.0028 ND 0.0014 S9 37-125	GC/ECD  ND 0.0028 0.00030  ND 0.0028 0.00031  ND 0.0028 0.00037  ND 0.0014 0.00030  ND 0.0028 0.00036  ND 0.0014 0.00036  ND 0.0014 0.00036  S9 37-125 0	GC/ECD         SW8087           ND         0.0028         0.00030         mg/Kg-di           ND         0.0028         0.00031         mg/Kg-di           ND         0.0028         0.00037         mg/Kg-di           ND         0.0014         0.00030         mg/Kg-di           ND         0.0028         0.00036         mg/Kg-di           ND         0.0014         0.90036         mg/Kg-di           59         37-125         0         %REC	GC/ECD         SW8081A           ND         0.0028         0.00030         mg/Kg-dry 1           ND         0.0028         0.00031         mg/Kg-dry 1           ND         0.0028         0.00037         mg/Kg-dry 1           ND         0.0014         0.00030         mg/Kg-dry 1           ND         0.0028         0.00036         mg/Kg-dry 1           ND         0.0014         0.00036         mg/Kg-dry 1           59         37-125         0         %REC         1

Qualifiers:

Value exceeds Maximum Contaminant Level

Value exceeds the instrument calibration range

Analyte detected below the PQL

P Prim./Conf. column %D or RPD exceeds limit

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

Spike Recovery outside accepted recovery limits

Project Supervisor: Anthony Crescenzi Print Date: 12/22/08 15:51 414556

# **Analytical Results**

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

StateCertNo: 10155

CLIENT:

**ERM Consulting & Engineering** 

Project:

Ithaca Dredging

W Order:

0811166

Matrix:

SOIL

Inst. ID:

GCGT 57G

Revision:

Col Type:

ColumnID: RtxCLP

**Primary** 

12/22/08 15:26

Sample Size: 30 g %Moisture: 47.6

TestCode:

8081S

Lab ID:

0811166-011D

Client Sample ID: Ith-2 (1-6)

**Collection Date:** 

11/20/08 16:10

11/21/08 16:16

Date Received: PrepDate:

11/24/08 10:57

BatchNo:

8516/R15901

FileID:

1-SAMP-E:\Gtdec08\G121945.r

Analyte	Result Qua	l PQL	MDL	Units DF	Date Analyzed
ORGANOCHLORINE PESTICIDE	S BY GC/ECD			SW8081A	(SW3550B)
4.4´-DDD	0,0011 JP	0.0031	0.00033	mg/Kg-dry 1	12/20/08 4:16
4.4´-DDE	0.0013 JP	0.0031	0.00035	mg/Kg-dry 1	12/20/08 4:16
4.4′-DDT	QL 08000.0	0.0031	0.00041	mg/Kg-dry 1	12/20/08 4:16
aipha-Chiordane	ND	0.0016	0.00033	mg/Kg-dry 1	12/20/08 4:16
Dieldrin	0.00060 JP	0.0031	0.00040	mg/Kg-dry 1	12/20/08 4:16
gamma-Chlordane	ND	0.0016	0.00040	mg/Kg-dry 1	12/20/08 4:16
Surr: Tetrachloro-m-xylene	82	37-125	0	%REC 1	12/20/08 4:16
Surr: Decachlorobiphenyl	35	25-145	0	%REC 1	12/20/08 4:16

Qualifiers:

Value exceeds Maximum Contaminant Level

Value exceeds the instrument calibration range

Analyte detected below the PQL

P Prim./Conf. column %D or RPD exceeds limit

Analyte detected in the associated Method Blank

Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

Spike Recovery outside accepted recovery limits

# **Analytical Results**

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

8081S

Sample Size: 30 g

%Moisture: 47.6

TestCode:

StateCertNo: 10155

CLIENT:

**ERM Consulting & Engineering** 

Ithaca Dredging

W Order: Matrix:

Project:

0811166 SOIL

Inst. ID:

GCGT 57H

ColumnID: RtxCLP2 Revision:

12/22/08 15:33

Col Type: Confirm Lab ID:

0811166-011D

Client Sample ID: Ith-2 (1-6)

**Collection Date:** 

Date Received:

11/20/08 16:10 11/21/08 16:16

PrepDate: BatchNo:

11/24/08 10:57 8516/R15903

FileID:

1-SAMP-E:\Gtdec08\H121945.r

		Result Qual POL MDL				
Analyte	Result Qua	Result Qual PQL		Units	DF	Date Analyzed
ORGANOCHLORINE PESTICIDE	SW8081	Α	(SW3550B)			
4,4'-DDD	0,0017 JP	0,0031	0.00033	mg/Kg-dr	y 1	12/20/08 4:16
4,4'-DDE	0.0019 JP	0.0031	0.00035	mg/Kg-di	y 1	12/20/08 4:16
4.4'-DDT	0.0019 JP	0.0031	0.00041	mg/Kg-di	y 1	12/20/08 4:16
alpha-Chlordane	ND	0.0016	0.00033	mg/Kg-di	y 1	12/20/08 4:16
Dieldrin	0.0015 JP	0.0031	0.00040	mg/Kg-di	y 1	12/20/08 4:16
gamma-Chlordane	ND	0.0016	0.00040	mg/Kg-di	y 1	12/20/08 4:16
Surr: Tetrachloro-m-xylene	61	37-125	0	%REC	1	12/20/08 4:16
Surr: Decachlorobiohenvl	58	25-145	0	%REC	1	12/20/08 4:16

Qualifiers:

Value exceeds Maximum Contaminant Level

Value exceeds the instrument calibration range

Analyte detected below the PQL

P Prim./Conf. column %D or RPD exceeds limit

Analyte detected in the associated Method Blank

Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

Spike Recovery outside accepted recovery limits

# **Analytical Results**

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

StateCertNo: 10155

CLIENT:

**ERM Consulting & Engineering** 

Project:

Ithaca Dredging

W Order:

0811166

Matrix:

SOIL

Inst. ID:

Col Type:

GCGT 57G

ColumnID: RtxCLP Revision:

Primary

12/22/08 15:26

Sample Size: 30 g

TestCode: 8081S

%Moisture: 48.3

Lab ID:

0811166-012D

Client Sample ID: Ith-3 (1-6)

Collection Date: Date Received:

11/20/08 16:15 11/21/08 16:16

PrepDate:

BatchNo:

11/24/08 10:57

8516/R15901

1-SAMP-E:\Gtdec08\G121946.r FileID:

Analyte	Result Qu	al PQL	MDL	Units	ÐF	Date Analyzed
ORGANOCHLORINE PESTICIDE	SW8081.	A	(SW3550B)			
4.4'-DDD	0.0015 J	0.0032	0.00034	mg/Kg-dry	/ 1	12/20/08 4:40
4,4'-DDE	0,0033	0.0032	0.00036	mg/Kg-dry	/ 1	12/20/08 4:40
4.4'-DDT	0.010 P	0.0032	0.00042	mg/Kg-dry	/ 1	12/20/08 4:40
alpha-Chlordane	ND	0.0016	0.00034	mg/Kg-dry	<i>f</i> 1	12/20/08 4:40
Dieldrin	ND	0.0032	0.00041	mg/Kg-dry	/ 1	12/20/08 4:40
gamma-Chlordane	ND	0,0016	0.00041	mg/Kg-dn	/ 1	12/20/08 4:40
Surr: Tetrachloro-m-xylene	75	37-125	0	%REC	1	12/20/08 4:40
Surr: Decachlorobiphenyl	39	25-145	٥	%REC	1	12/20/08 4:40

Qualifiers:

Value exceeds Maximum Contaminant Level

Value exceeds the instrument calibration range

Analyte detected below the PQL

Prim./Conf. column %D or RPD exceeds limit

Analyte detected in the associated Method Blank

Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

Spike Recovery outside accepted recovery limits

# **Analytical Results**

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

8081S

Sample Size: 30 g

%Moisture: 48.3

StateCertNo: 10155

CLIENT:

**ERM Consulting & Engineering** 

Project:

Ithaca Dredging

W Order:

0811166 SOIL

Matrix:

Inst. ID: Revision:

Col Type:

ColumnID: RtxCLP2

GCGT 57H

12/22/08 15:33

TestCode: Confirm

Lab ID:

0811166-012D

Client Sample ID: Ith-3 (1-6)

Collection Date: Date Received:

11/20/08 16:15 11/21/08 16:16

PrepDate: BatchNo:

11/24/08 10:57 8516/R15903

FileID:

1-SAMP-E:\Gtdec08\H121946.r

Analyte	Result Qu	al PQL	MDL	Units	DF	Date Analyzed
ORGANOCHLORINE PESTICIDE	SW808	IA	(SW3550B)			
4.4'-DDD	0.0015 J	0.0032	0,00034	mg/Kg-di	y 1	12/20/08 4:40
4.4′-DDE	0.0033	0.0032	0.00036	mg/Kg-di	y 1	12/20/08 4:40
4.4'-DDT	0.013 P	0.0032	0.00042	mg/Kg-d	ry 1	12/20/08 4:40
alpha-Chlordane	ND	0.0016	0.00034	mg/Kg-d	y 1	12/20/08 4:40
Dieldrin	ND	0.0032	0.00041	mg/Kg-d	y 1	12/20/08 4:40
gamma-Chlordane	ND	0.0016	0.00041	mg/Kg-d	ry 1	12/20/08 4:40
Surr: Tetrachloro-m-xylene	67	37-125	0	%REC	1	12/20/08 4:40
Surr: Decachlorobiohenyl	77	25-145	0	%REC	1	12/20/08 4:40

Qualifiers:

- Value exceeds Maximum Contaminant Level
- Value exceeds the instrument calibration range
- Analyte detected below the PQL
- Prim./Conf. column %D or RPD exceeds limit
- Analyte detected in the associated Method Blank
- Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
  - Spike Recovery outside accepted recovery limits

**Analytical Results** 

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

StateCertNo: 10155

CLIENT:

ERM Consulting & Engineering

Ithaca Dredging

Project: W Order:

0811166

Matrix:

SOIL

Inst. ID: Revision:

Col Type:

GCGT 57G

**Primary** 

12/22/08 15:26

ColumnID: RtxCLP

TestCode:

Sample Size: 30 g

%Moisture: 37.0

8081S

Lab ID:

0811166-013D

Client Sample ID: Ith-4 (1-6)

Collection Date:

Date Received:

11/20/08 16:20 11/21/08 16:16

PrepDate:

11/24/08 10:57 8516/R15901

BatchNo: FileID:

1-SAMP-E:\Gtdec08\G121947.r

Analyte	Result Qua	ıl PQL	MDL	Units	DF	Date Analyzed
ORGANOCHLORINE PESTICIDES		SW8081A		(SW3550B)		
4.4'-DDD	ND	0.0026	0.00028	mg/Kg-dt	y 1	12/20/08 5:04
4,4'-DDE	ND	0.0026	0.00029	mg/Kg-dr	y 1	12/20/08 5.04
4.4´-DDT	0.00042 JP	0.0026	0.00034	mg/Kg-dr	y 1	12/20/08 5:04
alpha-Chlordane	ND	0.0013	0.00028	mg/Kg-dr	y 1	12/20/08 5:04
Dieldrin	0.00058 JP	0.0026	0.00033	mg/Kg-dr	y 1	12/20/08 5:04
gamma-Chlordane	ND	0.0013	0.00033	mg/Kg-dr	y 1	12/20/08 5:04
Surr: Tetrachloro-m-xylene	55	37-125	0	%REC	1	12/20/08 5:04
Surr: Decachlorobiphenyl	34	25-145	0	%REC	1	12/20/08 5:04

Qualifiers	7
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- Value exceeds Maximum Contaminant Level
- E Value exceeds the instrument calibration range
- Analyte detected below the PQL
- Prim./Conf. column %D or RPD exceeds limit
- Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
- Spike Recovery outside accepted recovery limits

**Analytical Results** 

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

8081S

Sample Size: 30 g

%Moisture: 37.0

TestCode:

StateCertNo: 10155

CLIENT: Project:

**ERM Consulting & Engineering** 

Ithaca Dredging

W Order: 0811166

Matrix:

SOIL

Inst. ID:

GCGT 57H

ColumnID: RtxCLP2

Revision: 12/22/08 15:33 Lab ID:

0811166-013D

Client Sample ID: Ith-4 (1-6)

**Collection Date:** Date Received:

11/20/08 16:20 11/21/08 16:16

PrepDate:

11/24/08 10:57 8516/R15903

BatchNo: FileID:

1-SAMP-E:\Gtdec08\H121947.r

Col Type: Confirm

Analyte	Result Qua	l PQL	MDL	Units	DF	Date Analyzed
ORGANOCHLORINE PESTICIDES BY GC/ECD				SW8081A		(SW3550B)
4,4'-DDD	ND	0.0026	0.00028	mg/Kg-dr	y 1	12/20/08 5:04
4,4'-DDE	ND	0.0026	0.00029	mg/Kg-dr	y 1	12/20/08 5:04
4.4'-DDT	0.0011 JP	0.0026	0.00034	mg/Kg-di	y 1	12/20/08 5:04
alpha-Chlordane	ND	0.0013	0.00028	mg/Kg-di	y 1	12/20/08 5:04
Dieldrin	0.0012 JP	0.0026	0.00033	mg/Kg-di	ry 1	12/20/08 5:04
gamma-Chlordane	ND	0.0013	0.00033	mg/Kg-di	ry 1	12/20/08 5:04
Surr: Tetrachloro-m-xylene	62	37-125	0	%REC	1	12/20/08 5:04
Surr: Decachlorobiphenyl	55	25-145	0	%REC	1	12/20/08 5:04
24.1. 22						

Qualifiers:

- Value exceeds Maximum Contaminant Level
- Value exceeds the instrument calibration range
- Analyte detected below the PQL
- P Prim./Conf. column %D or RPD exceeds limit
- Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
  - Spike Recovery outside accepted recovery limits

### **Analytical Results**

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

8081S

Sample Size: 30 g

%Moisture: 39.7

TestCode:

StateCertNo: 10155 0811166-014D

CLIENT:

**ERM Consulting & Engineering** 

Project:

Ithaca Dredging

W Order: Matrix:

0811166 SOIL

Inst. ID:

GCGT 57G

Col Type:

Revision:

ColumnID: RtxCLP

Primary

12/22/08 15:26

Lab ID: Client Sample ID: Ith-6 (1-6)

**Collection Date:** 

Date Received: PrepDate:

11/21/08 16:16 11/24/08 10:57 8516/R15901

11/20/08 16:25

BatchNo: FileID:

1-SAMP-E:\Gtdec08\G121948.r

Analyte	Result Qu	al PQL	MDL	Units DF	Date Analyzed
ORGANOCHLORINE PESTICIDE	SW8081A	(SW3550B)			
4,4′-DDD	ND	0.0027	0.00029	mg/Kg-dry 1	12/20/08 5:27
4,4'-DDE	ND	0.0027	0.00031	mg/Kg-dry 1	12/20/08 5:27
4,4'-DDT	0.00041 J	0.0027	0.00036	mg/Kg-dry 1	12/20/08 5:27
alpha-Chlordane	NĎ	0.0014	0.00029	mg/Kg-dry 1	12/20/08 5:27
Dieldrin	ND	0.0027	0.00035	mg/Kg-dry 1	12/20/08 5:27
gamma-Chlordane	ND	0.0014	0.00035	mg/Kg-dry 1	12/20/08 5:27
Surr: Tetrachioro-m-xylene	76	37-125	0	%REC 1	12/20/08 5:27
Surr: Decachlorobiphenyl	42	25-145	0	%REC 1	12/20/08 5:27

Qualifiers:

Print Date: 12/22/08 15:52

Value exceeds Maximum Contaminant Level

Value exceeds the instrument calibration range

Analyte detected below the PQL

Prim./Conf. column %D or RPD exceeds limit

414513

Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

Spike Recovery outside accepted recovery limits

### Life Science Laboratories, Inc. 5000 Brittonfield Parkway, Suite 200

### **Analytical Results**

East Syracuse, NY 13057

(315) 437-0200

StateCertNo: 10155

CLIENT:

**ERM Consulting & Engineering** 

Project:

Ithaca Dredging

W Order:

0811166 SOIL

Matrix:

Inst. ID: Revision: GCGT 57H

ColumnID: RtxCLP2

12/22/08 15:33

Sample Size: 30 g %Moisture: 39.7

> TestCode: 8081S

Lab ID:

0811166-014D

Client Sample ID: Ith-6 (1-6)

**Collection Date:** 

11/20/08 16:25 11/21/08 16:16

Date Received: PrepDate:

11/24/08 10:57

BatchNo: FileID:

8516/R15903 1-SAMP-E:\Gtdec08\H121948.r

Col Type: Confirm

**							
Analyte	Result Qual PQ		MDL	Units	DF	Date Analyzed	
ORGANOCHLORINE PESTICIDE	CHLORINE PESTICIDES BY GC/ECD			SW8081A		(SW3550B)	
4,4'-DDD	ND	0.0027	0.00029	mg/Kg-dr	y 1	12/20/08 5:27	
4,4'-DDE	ND	0.0027	0.00031	mg/Kg-dr	y 1	12/20/08 5:27	
4.4'-DDT	0.00041 J	0.0027	0.00036	mg/Kg-dr	y 1	12/20/08 5:27	
alpha-Chlordane	ND	0.0014	0.00029	mg/Kg-dr	y 1	12/20/08 5:27	
Dieldrin	ND	0.0027	0.00035	mg/Kg-dr	y 1	12/20/08 5:27	
gamma-Chlordane	ND	0.0014	0.00035	mg/Kg-di	ry 1	12/20/08 5:27	
Surr: Tetrachloro-m-xylene	63	37-125	0	%REC	1	12/20/08 5:27	
Surr: Decachlorobiphenyl	56	25-145	0	%REC	1	12/20/08 5:27	

Qualifiers:

Value exceeds Maximum Contaminant Level

Value exceeds the instrument calibration range

Analyte detected below the PQL

Prim./Conf. column %D or RPD exceeds limit

Analyte detected in the associated Method Blank

Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

Spike Recovery outside accepted recovery limits

**Analytical Results** 

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

StateCertNo: 10155

CLIENT:

**ERM Consulting & Engineering** 

Project:

Ithaca Dredging

W Order:

0811131

Matrix:

SOIL

Inst. ID:

GC90 20C

Revision:

Col Type:

ColumnID: DB-608

Primary

12/08/08 12:20

TestCode: 8082S

Sample Size: 30 g

%Moisture: 24.7

Lab ID:

0811131-001D

Client Sample ID: Ith-3 (6-12)

**Collection Date:** 

11/17/08 14:50 11/18/08 16:28

Date Received:

11/21/08 11:03

PrepDate: BatchNo:

8506/R15633

FileID:

1-SAMP-E:\90dec08\C120112.r

Analyte	Result Qu	ıal PQL	MDL	Units	DF	Date Analyzed
POLYCHLORINATED BIPHENYLS BY GC/ECD				SW8082		(SW3550B)
Aroclor 1016	ND	0.0113	0.00145	mg/Kg-dr	y 1	12/01/08 18:42
Aroclor 1221	ND	0.0113	0.00147	mg/Kg-dr	y 1	12/01/08 18:42
Aroclor 1232	ND	0.0113	0.00090	mg/Kg-dr	y 1	12/01/08 18:42
Aroclor 1242	ND	0.0113	0.00122	mg/Kg-dr	y 1	12/01/08 18:42
Aroclor 1248	ND	0.0113	0.00237	mg/Kg-dr	y 1	12/01/08 18:42
Aroclor 1254	ND	0.0113	0.00315	mg/Kg-dr	y 1	12/01/08 18:42
Aroclor 1260	ND-	0.0113	0.00133	mg/Kg-dr	у 1	12/01/08 18:42
Surr: Tetrachioro-m-xylene	80	44-134	O	%REC	1	12/01/08 18:42
Surr: Decachlerobinheavi	50	36-141	a	%REC	1	12/01/08 18:42

Qualifiers:

Value exceeds Maximum Contaminant Level

Value exceeds the instrument calibration range

Analyte detected below the PQL

Prim./Conf. column %D or RPD exceeds limit

Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

Spike Recovery outside accepted recovery limits

Print Date: 12/15/08 15:08

409300

Project Supervisor: Anthony Crescenzi

### Life Science Laboratories, Inc. 5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

**Analytical Results** 

StateCertNo: 10155

CLIENT:

**ERM Consulting & Engineering** 

Project:

Ithaca Dredging

W Order:

0811131

Matrix:

SOIL

Inst. ID:

GC90 20C

Col Type:

Revision:

12/08/08 12:20 **Primary** 

ColumnID: DB-608

%Moisture: 28.6 TestCode:

Sample Size: 30 g

8082S

Lab ID:

0811131-002D

Client Sample ID: Ith-4 (6-12)

Collection Date:

11/18/08 9:20

Date Received:

11/18/08 16:28 11/21/08 11:03

PrepDate: BatchNo:

8506/R15633

FileID:

1-SAMP-E:\90dec08\C120113.r

Analyte	Result Qu	ıal POL	MDL	Units	DF	Date Analyzed
POLYCHLORINATED BIPHENYL		· · · · · · · · · · · · · · · · · · ·		SW8082		(SW3550B)
Aroclor 1016	ND	0.0119	0.00153	mg/Kg-dry	1	12/01/08 19:14
Aroclor 1221	ND	0.0119	0.00155	mg/Kg-dry	1	12/01/08 19:14
Aroclor 1232	ND	0.0119	0.00095	mg/Kg-dry	1	12/01/08 19:14
Aroclor 1242	ND	0.0119	0.00128	mg/Kg-dry	1	12/01/08 19:14
Aroclor 1248	ND	0.0119	0.00250	mg/Kg-dry	1	12/01/08 19:14
Aroclor 1254	0.0466	0.0119	0.00332	mg/Kg-dry	1	12/01/08 19:14
Aroclor 1260	ND	0.0119	0.00140	mg/Kg-dry	1	12/01/08 19:14
Surr: Tetrachloro-m-xylene	71	44-134	0	%REC	1	12/01/08 19:14
Surr: Decachiorobiphenyl	46	36-141	0	%REC	1	12/01/08 19:14

Qualifiers:

Value exceeds Maximum Contaminant Level

E Value exceeds the instrument calibration range

Analyte detected below the PQL

Prim./Conf. column %D or RPD exceeds limit

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

Spike Recovery outside accepted recovery limits

**Analytical Results** 

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

8082S

Sample Size: 30 g

%Moisture: 28.6

TestCode:

StateCertNo: 10155

CLIENT:

**ERM** Consulting & Engineering

Project:

Ithaca Dredging

W Order:

0811131

Matrix:

SOIL

GC90 20D

Inst. ID: Revision:

Col Type:

ColumnID: DB-1701

12/08/08 12:33 Confirm

Lab ID:

0811131-002D

Client Sample ID: Ith-4 (6-12)

11/18/08 9:20

Collection Date:

11/18/08 16:28

Date Received: PrepDate:

11/21/08 11:03

BatchNo:

8506/R15711

FileID:

1-SAMP-E:\90dec08\D120112.r

Analyte	Result Qu	al PQL	MDL	Units	DF	Date Analyzed
POLYCHLORINATED BIPHENYL	SW8082		(SW3550B)			
Aroclor 1016	ND	0.0119	0.00153	mg/Kg-dry	1	12/01/08 18:42
Aroclor 1221	ND	0.0119	0.00155	mg/Kg-dry	1	12/01/08 18:42
Aroclor 1232	ND	0.0119	0.00095	mg/Kg-dry	1	12/01/08 18:42
Aroclor 1242	ND	0.0119	0.00128	mg/Kg-dry	1	12/01/08 18:42
Aroclor 1248	ND	0.0119	0.00250	mg/Kg-dry	1	12/01/08 18:42
Aroclor 1254	0.0423	0.0119	0.00332	mg/Kg-dry	1	12/01/08 18:42
Aroclor 1260	ND	0.0119	0.00140	mg/Kg-dry	1	12/01/08 18:42
Surr: Tetrachloro-m-xylene	75	44-134	0	%REC	1	12/01/08 18:42
Surr: Decachlorobiphenyl	39	36-141	0	%REC	1	12/01/08 18:42

Qualifiers:

Value exceeds Maximum Contaminant Level

Value exceeds the instrument calibration range

Analyte detected below the PQL

Prim./Conf. column %D or RPD exceeds limit

Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

Spike Recovery outside accepted recovery limits

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

**Analytical Results** 

CLIENT:

ERM Consulting & Engineering

Project:

Ithaca Dredging

W Order:

0811131

Matrix:

SOIL

Inst. ID:

GC90 20C

ColumnID: DB-608 Revision:

Col Type:

Primary

12/08/08 12:20

%Moisture: 31.9 TestCode:

Sample Size: 30 g

8082S

Lab ID:

0811131-003D

StateCertNo: 10155

Client Sample ID: Ith-2 (6-10)

Collection Date: 11/18/08 10:10

Date Received: PrepDate:

11/18/08 16:28 11/21/08 11:03

BatchNo:

8506/R15633

FileID:

1-SAMP-E:\90dec08\C120114.r

Analyte	Result Qual PQL		MDL	Units	DF	Date Analyzed				
POLYCHLORINATED BIPHENYLS BY GC/ECD		· · · · · · · · · · · · · · · · · · ·		SW8082		(SW3550B)				
Aroclor 1016	ND	0.0125	0.00161	mg/Kg-dry	1	12/01/08 19:46				
Aroclor 1221	ND	0.0125	0.00163	mg/Kg-dry	1	12/01/08 19:46				
Aroclor 1232	ND	0.0125	0.00099	mg/Kg-dry	1	12/01/08 19:46				
Aroclor 1242	ND	0.0125	0.00134	mg/Kg-dry	1	12/01/08 19:46				
Aroclor 1248	ND	0.0125	0.00262	mg/Kg-dry	1	12/01/08 19:46				
Aroclor 1254	. 0.0324	0.0125	0.00348	mg/Kg-dry	1	12/01/08 19:46				
Aroclor 1260	ND	0.0125	0.00147	mg/Kg-dry	1	12/01/08 19:46				
Surr: Tetrachloro-m-xylene	60	44-134	0	%REC	1	12/01/08 19: <b>46</b>				
Surr: Decachlorobiphenyl	43	36-141	0	%REC	1	12/01/08 19:46				

Qualifiers:

Print Date: 12/15/08 15:08

- Value exceeds Maximum Contaminant Level
- Value exceeds the instrument calibration range
- Analyte detected below the PQL
- Prim./Conf. column %D or RPD exceeds limit
- Analyte detected in the associated Method Blank
- Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
  - Spike Recovery outside accepted recovery limits

### **Analytical Results**

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

8082S

Sample Size: 30 g

%Moisture: 31.9

StateCertNo: 10155

CLIENT:

**ERM Consulting & Engineering** 

Project:

Ithaca Dredging

W Order:

0811131

Matrix:

SOIL

Inst. ID:

GC90 20D

ColumnID: DB-1701 Revision:

Col Type:

Confirm

12/08/08 12:33

TestCode:

Lab ID:

0811131-003D

Client Sample ID: Ith-2 (6-10)

Collection Date:

Date Received:

11/18/08 10:10 11/18/08 16:28

PrepDate:

11/21/08 11:03 8506/R15711

BatchNo: FileID:

1-SAMP-E:\90dec08\D120113.r

Analyte	Result Qu	al PQL	MDL	Units	DF	Date Analyzed
POLYCHLORINATED BIPHENYL		\$W8082		(SW3550B)		
Aroclor 1016	ND	0.0125	0.00161	mg/Kg-dry	1	12/01/08 19:14
Aroclor 1221	ND	0.0125	0.00163	mg/Kg-dry	1	12/01/08 19:14
Aroclor 1232	ND	0.0125	0.00099	mg/Kg-dry	1	12/01/08 19:14
Aroclor 1242	ND	0.0125	0.00134	mg/Kg-dry	1	12/01/08 19:14
Aroclor 1248	ND	0.0125	0.00262	mg/Kg-dry	1	12/01/08 19:14
Arocler 1254	0.0294	0.0125	0.00348	mg/Kg-dry	1	12/01/08 19:14
Aroclor 1260	ND	0.0125	0.00147	mg/Kg-dry	1	12/01/08 19:14
Surr: Tetrachloro-m-xylene	60	44-134	0	%REC	1	12/01/08 19:14
Surr: Decachlorobiphenyl	36	36-141	0	%REC	1	12/01/08 19:14

Qualifiers:

Print Date: 12/15/08 15:08

- Value exceeds Maximum Contaminant Level
- Value exceeds the instrument calibration range
- Analyte detected below the PQL
- Prim./Conf. column %D or RPD exceeds limit

409329

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
- Spike Recovery outside accepted recovery limits

**Analytical Results** 

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

StateCertNo: 10155

CLIENT:

**ERM Consulting & Engineering** 

Project:

Ithaca Dredging

W Order:

0811131

Matrix:

SOIL

Inst. ID:

Revision: Col Type: GC90 20C

ColumnID: DB-608

12/08/08 12:20

Primary

TestCode:

%Moisture: 34.5 8082S

Sample Size: 30 g

Lab ID:

0811131-004D

Client Sample ID: Ith-2 (10-14)

**Collection Date:** Date Received:

11/18/08 10:20 11/18/08 16:28

PrepDate: BatchNo:

11/21/08 11:03 8506/R15633

FileID:

1-SAMP-E:\90dec08\C120115.r

	· · · · · · · · · · · · · · · · · · ·					
Analyte	Result Qu	al PQL	MDL	Units	DF	Date Analyzed
POLYCHLORINATED BIPHENYLS BY GC/ECD				SW8082		(SW3550B)
Aroclor 1016	ND	0.0130	0.00167	mg/Kg-dry	1	12/01/08 20:19
Aroclor 1221	ND	0.0130	0.00169	mg/Kg-dry	1	12/01/08 20:19
Aroclor 1232	ND	0.0130	0.00103	mg/Kg-dry	1	12/01/08 20:19
Aroclor 1242	ND	0.0130	0.00140	mg/Kg-dry	1	12/01/08 20:19
Aroclar 1248	ND	0.0130	0.00273	mg/Kg-dry	1	12/01/08 20:19
Aroclar 1254	0.0170	0.0130	0.00362	mg/Kg-dry	/ 1	12/01/08 20:19
Aroclor 1260	ND	0.0130	0,00153	mg/Kg-dry	<i>r</i> 1	12/01/08 20:19
Surr: Tetrachloro-m-xylene	73	44-134	0	%REC	1	12/01/08 20:19
Surr: Decachlorobiphenyl	44	36-141	0	%REC	1	12/01/08 20:19
Surr: Decachioropiphenyi	44	30-141	U	MINEO	•	12/01/00 2

Qual	lifiers
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- Value exceeds Maximum Contaminant Level
- E Value exceeds the instrument calibration range
- Analyte detected below the PQL
- Prim./Conf. column %D or RPD exceeds limit
- Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
  - Spike Recovery outside accepted recovery limits

Print Date: 12/15/08 15:08

409303

Project Supervisor: Anthony Crescenzi

### **Analytical Results**

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

StateCertNo: 10155

CLIENT:

ERM Consulting & Engineering

Project:

Ithaca Dredging

W Order:

0811131

Matrix:

SOIL

Inst. ID:

GC90 20D

Revision:

Col Type:

Confirm

ColumnID: DB-1701

12/08/08 12:33

%Moisture: 34.5 TestCode:

8082S

Sample Size: 30 g

Lab ID:

0811131-004D

Client Sample ID: *Ith-2 (10-14)* 

11/18/08 10:20

Collection Date: Date Received:

11/18/08 16:28

PrepDate:

11/21/08 11:03

BatchNo:

8506/R15711

1-SAMP-E:\90dec08\D120114.r FileID:

Analyte	Result Qu	al PQL	MDL	Units	DF	Date Analyzed
POLYCHLORINATED BIPHENYL	S BY GC/ECD			SW8082		(SW3550B)
Aroclor 1016	ND	0.0130	0.00167	mg/Kg-dry	1	12/01/08 19:46
Aroclor 1221	ND	0.0130	0.00169	mg/Kg-dry	1	12/01/08 19:46
Aroclor 1232	ND	0.0130	0.00103	mg/Kg-dry	1	12/01/08 19:46
Aroclor 1242	ND	0,0130	0.00140	mg/Kg-dry	1	12/01/08 19:46
Aroclor 1248	ND	0.0130	0.00273	mg/Kg-dry	1	12/01/08 19:46
Arcclor 1254	0.0152	0.0130	0.00362	mg/Kg-dry	1	12/01/08 19:46
Aroclor 1260	ND	0.0130	0.00153	mg/Kg-dry	1	12/01/08 19:46
Surr: Tetrachloro-m-xylene	76	44-134	0	%REC	1	12/01/08 19:46
Surr: Decachlorobiohenvi	38	36-141	0	%REC	1	12/01/08 19:46

Qualifiers:

Value exceeds Maximum Contaminant Level

Value exceeds the instrument calibration range

Analyte detected below the PQL

P Prim./Conf. column %D or RPD exceeds limit

Analyte detected in the associated Method Blank

Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

Spike Recovery outside accepted recovery limits

**Analytical Results** 

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

StateCertNo: 10155

CLIENT:

**ERM Consulting & Engineering** 

Project:

Ithaca Dredging

W Order:

0811131

Matrix:

SOIL

Inst. ID:

GC90 20C

ColumnID: DB-608

Col Type:

Revision:

12/08/08 12:20 Primary

Sample Size: 30 g %Moisture: 30.4

8082S TestCode:

Lab ID:

0811131-005D

Client Sample ID: Ith-6 (6-10)

Collection Date:

Date Received:

11/18/08 14:10 11/18/08 16:28

PrepDate:

11/21/08 11:03

BatchNo: FileID:

8506/R15633

1-SAMP-E:\90dec08\C120116.r

Analyte	Result Qu	ıal PQL	MDL	Units	DF	Date Analyzed
POLYCHLORINATED BIPHENYLS BY GC/ECD						(SW3550B)
Aroclor 1016	ND	0.0122	0.00157	mg/Kg-dry	1	12/01/08 20:51
Aracior 1221	ND	0.0122	0.00159	mg/Kg-dry	1	12/01/08 20:51
Aroclor 1232	ND	0,0122	0.00097	mg/Kg-dry	1	12/01/08 20:51
Aroclor 1242	ND	0.0122	0.00131	mg/Kg-dry	1	12/01/08 20:51
Aroclor 1248	ND	0.0122	0.00256	mg/Kg-dry	1	12/01/08 20:51
Aroclor 1254	ND	0.0122	0.00341	mg/Kg-dry	1	12/01/08 20:51
Arcclor 1260	ND	0.0122	0.00144	mg/Kg-dry	1	12/01/08 20:51
Surr: Tetrachloro-m-xylene	80	44-134	0	%REC	1	12/01/08 20:51
Surr: Decachiorobiohenvi	48	36-141	0	%REC	1	12/01/08 20:51

Qualifiers:

- Value exceeds Maximum Contaminant Level
- E Value exceeds the instrument calibration range
- Analyte detected below the PQL
- Prim./Conf. column %D or RPD exceeds limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
  - Spike Recovery outside accepted recovery limits

Project:

Col Type:

### Life Science Laboratories, Inc.

### **Analytical Results**

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

Sample Size: 30 g

%Moisture: 34.7

TestCode: 8082S

StateCertNo: 10155

CLIENT:

ERM Consulting & Engineering

Ithaca Dredging

W Order: 0811131

Matrix: SOIL

Inst. ID: GC90 20C ColumnID: DB-608

Revision: 12/08/08 12:20

**Primary** 

Lab ID:

0811131-006D

Client Sample ID: *Ith-6 (10-14)* 

**Collection Date:** 

11/18/08 14:20 11/18/08 16:28

Date Received: PrepDate:

11/21/08 11:03

BatchNo:

FileID:

8506/R15633

1-SAMP-E:\90dec08\C120117.r

Analyte	Result Qu	ıal PQL	MDL	Units	DF	Date Analyzed
POLYCHLORINATED BIPHENYLS BY GC/ECD						(SW3550B)
Aroclor 1016	ND	0.0130	0.00168	mg/Kg-dry	<i>f</i> 1	12/01/08 21:24
Aroclor 1221	ND	0.0130	0.00170	mg/Kg-dr	y 1	12/01/08 21:24
Aroclor 1232	ND	0.0130	0,00103	mg/Kg-dr	y 1	12/01/08 21:24
Aroclor 1242	ND	0.0130	0.00140	mg/Kg-dry	y. 1	12/01/08 21:24
Aroclor 1248	ND	0.0130	0.00273	mg/Kg-dr		12/01/08 21:24
Aroclor 1254	ND	0.0130	0.00363	mg/Kg-dry	y 1	12/01/08 21:24
Aroclor 1260	ND	0.0130	0.00153	mg/Kg-dr	y 1	12/01/08 21:24
Surr: Tetrachloro-m-xylene	79	44-134	0	%REC	1	12/01/08 21:24
Surr: Decachlorobiphenyl	47	36-141	0	%REC	1	12/01/08 21:24

Quai	ifiers
------	--------

- Value exceeds Maximum Contaminant Level
- E Value exceeds the instrument calibration range
- Analyte detected below the PQL
- Prim./Conf. column %D or RPD exceeds limit
- Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
  - Spike Recovery outside accepted recovery limits

Print Date: 12/15/08 15:08

409305

Project Supervisor: Anthony Crescenzi

**Analytical Results** 

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

StateCertNo: 10155

CLIENT:

**ERM Consulting & Engineering** 

Project:

Ithaca Dredging

W Order:

0811142

Matrix:

SOIL

Inst. ID:

GC90 20C

ColumnID: DB-608

Revision: Col Type:

Primary

12/08/08 12:20

TestCode:

Sample Size: 30 g

%Moisture: 38.2

8082S

Lab ID:

0811142-001D

Client Sample ID: Ith-8 (2-10) 11/19/08 14:30

**Collection Date:** Date Received:

11/20/08 9:25

PrepDate: BatchNo:

11/21/08 11:03 8506/R15633

FileID:

1-SAMP-E:\90dec08\C120118.r

Cor kyper training					-	
Analyte	Result Qual PQL		MDL	Units	DF	Date Analyzed
POLYCHLORINATED BIPHENYLS BY GC/ECD				SW8082		(SW3550B)
Arocior 1016	ND	0.0138	0.00177	mg/Kg-dry	1 1	12/01/08 21:58
Aroclor 1221	ND	0.0138	0.00180	mg/Kg-dry	1 1	12/01/08 21:58
Araclor 1232	ND	0.0138	0.00109	mg/Kg-dry	1 1	12/01/08 21:58
Aroclor 1242	ND	0.0138	0.00148	mg/Kg-dry	1	12/01/08 21:58
Aroclor 1248	ND	0.0138	0.00289	mg/Kg-dry	/ 1	12/01/08 21:58
Aroclor 1254	0.0395	0.0138	0.00383	mg/Kg-dry	/ 1	12/01/08 21:58
Araclor 1260	ND	0.0138	0.00162	mg/Kg-dry	<i>t</i> 1	12/01/08 21:58
Surr Tetrachloro-m-xylene	67	44-134	0	%REC	1	12/01/08 21:58
Surr Decachlorobiphenyl	45	36-141	0	%REC	1	12/01/08 21:58

Qualifiers:

Value exceeds Maximum Contaminant Level

Value exceeds the instrument calibration range

Analyte detected below the PQL

Prim./Conf. column %D or RPD exceeds limit

409306

Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

Spike Recovery outside accepted recovery limits

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

8082S

Sample Size: 30 g

%Moisture: 38.2 TestCode:

**Analytical Results** 

StateCertNo: 10155

CLIENT: ERM Consulting & Engineering

Ithaca Dredging Project:

W Order: 0811142 Matrix: SOIL

Inst. ID: GC90 20D ColumnID: DB-1701

12/08/08 12:33 Revision:

Col Type: Confirm Lab ID:

0811142-001D

Client Sample ID: Ith-8 (2-10)

**Collection Date:** Date Received:

11/19/08 14:30 11/20/08 9:25

PrepDate: BatchNo:

FileID:

11/21/08 11:03 8506/R15711

1-SAMP-E:\90dec08\D120117.r

Analyte	Result Qu	ıal PQL	MDL	Units	DF	Date Analyzed
POLYCHLORINATED BIPHENYL	SW8082		(SW3550B)			
Aroclar 1016	ND	0.0138	0.00177	mg/Kg-dry	/ 1	12/01/08 21:24
Arocior 1221	ND	0.0138	0.00180	mg/Kg-dry	/ 1	12/01/08 21:24
Aroclor 1232	ND	0.0138	6.00109	mg/Kg-dry	/ 1	12/01/08 21:24
Aroclor 1242	ND	0.0138	0.00148	mg/Kg-dry	/ 1	12/01/08 21:24
Aroclor 1248	ND	0.0138	0.00289	mg/Kg-dn	/ 1	12/01/08 21:24
Aroclar 1254	0.0361	0.0138	0.00383	mg/Kg-dry	/ 1	12/01/08 21:24
Aroclor 1260	ND	0.0138	0.00162	mg/Kg-dry	<i>y</i> 1	12/01/08 21:24
Surr: Tetrachloro-m-xylene	68	44-134	0	%REC	1	12/01/08 21:24
Surr: Decachlorobiphenyl	36	36-141	0	%REC	1	12/01/08 21:24

Qualifiers:

- Value exceeds Maximum Contaminant Level
- Value exceeds the instrument calibration range
- Analyte detected below the PQL
- Prim./Conf. column %D or RPD exceeds limit
- Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
  - Spike Recovery outside accepted recovery limits

**Analytical Results** 

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

StateCertNo: 10155

CLIENT:

ERM Consulting & Engineering

Project:

Ithaca Dredging

W Order:

0811142

Matrix:

SOIL

Inst. ID:

GC90 20C

Col Type:

ColumnID: DB-608

Revision:

12/08/08 12:20 **Primary** 

TestCode:

Sample Size: 30 g

%Moisture: 31.3

8082S

Lab ID:

0811142-002D

Client Sample ID: Ith-8 (10-14)

Collection Date:

11/19/08 14:45

Date Received:

11/20/08 9:25

PrepDate:

11/21/08 11:03

BatchNo:

8506/R15633

FileID:

1-SAMP-E:\90dec08\C120119.r

Analyte	Result Qu	al PQL	MDL	Units	DF	Date Analyzed
POLYCHLORINATED BIPHENYL	<u> </u>	SW8082	2000 000 000 000 000 000 000 000 000 00	(SW3550B)		
Araclor 1016	ND	0.0124	0.00159	mg/Kg-dry	/ 1	12/01/08 22:31
Aroclor 1221	ND	0.0124	0.00162	mg/Kg-dry	7 1	12/01/08 22:31
Aroclor 1232	ND	0.0124	0.00098	mg/Kg-dry	/ 1	12/01/08 22:31
Aroclor 1242	ND	0.0124	0.00133	mg/Kg-dry	/ 1	12/01/08 22:31
Aroclor 1248	ND	0.0124	0.00260	mg/Kg-dry	1 1	12/01/08 22:31
Areclor 1254	ND	0.0124	0.00345	mg/Kg-dry	1 1	12/01/08 22:31
Aroclor 1260	ND	0.0124	0.00146	mg/Kg-dry	<i>i</i> 1	12/01/08 22:31
Surr: Tetrachioro-m-xylene	70	44-134	0	%REC	1	12/01/08 22:31
Surr: Decachlorobiphenyl	41	36-141	0	%REC	1	12/01/08 22:31

### Qualifiers:

- Value exceeds Maximum Contaminant Level
- Value exceeds the instrument calibration range
- Analyte detected below the PQL
- Prim./Conf. column %D or RPD exceeds limit
- Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
  - Spike Recovery outside accepted recovery limits

### **Analytical Results**

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

StateCertNo: 10155

**ERM Consulting & Engineering** 

Project: Ithaca Dredging

W Order: 0811142 Matrix: SOIL

Col Type:

Inst. ID: GC90 20C ColumnID: DB-608

Revision:

12/08/08 12:20 Primary

Sample Size: 30 g

%Moisture: 30.2 TestCode: 8082S

0811142-003D Lab ID:

Client Sample ID: Ith-7 (1-14) 11/19/08 13:50

**Collection Date:** Date Received: 11/20/08 9:25

11/21/08 11:03

PrepDate: 8506/R15633 BatchNo:

FileID: 1-SAMP-E:\90dec08\C120120.r

Analyte	Result Qu	al PQL	MDL	Units	DF	Date Analyzed
POLYCHLORINATED BIPHENYL		SW8082		(SW3550B)		
Aroclor 1016	ND	0.0122	0.00157	mg/Kg-dry	1	12/01/08 23:03
Aroclor 1221	ND	0.0122	0.00159	mg/Kg-dry	1	12/01/08 23:03
Aroclor 1232	ND	0.0122	0.00097	mg/Kg-dry	1	12/01/08 23:03
Aroclor 1242	ND	0.0122	0.00131	mtg/Kg-dry	1	12/01/08 23:03
Aroclor 1248	ND	0.0122	0.00256	mg/Kg-dry	1	12/01/08 23:03
Aroclor 1254	0.0345	0.0122	0.00340	mg/Kg-dry	1	12/01/08 23:03
Aroclor 1260	ND	0.0122	0.00143	mg/Kg-dry	1	12/01/08 23:03
Surr: Tetrachloro-m-xylene	66	44-134	a	%REC	1	12/01/08 23:03
Surr: Decachlorobiphenyl	47	36-141	a	%REC	1	12/01/08 23:03

Qualifiers:

- Value exceeds Maximum Contaminant Level
- E Value exceeds the instrument calibration range
- Analyte detected below the PQL
- Prim./Conf. column %D or RPD exceeds limit
- Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
- Spike Recovery outside accepted recovery limits

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

8082S

Sample Size: 30 g

%Moisture: 30.2

TestCode:

**Analytical Results** 

StateCertNo: 10155

CLIENT:

**ERM Consulting & Engineering** 

Project:

Ithaca Dredging

W Order:

0811142

Matrix:

SOIL

Inst. ID:

Revision:

Col Type:

GC90 20D

ColumnID: DB-1701

Confirm

12/08/08 12:33

Lab ID:

0811142-003D

Client Sample ID: Ith-7 (1-14)

**Collection Date:** 

11/19/08 13:50

Date Received:

11/20/08 9:25 11/21/08 11:03

PrepDate: BatchNo:

8506/R15711

FileID:

1-SAMP-E:\90dec08\D120119.r

Analyte	Result Qu	ıal PQL	MDL	Units	DF	Date Analyzed
POLYCHLORINATED BIPHENYL		SW8082		(SW3550B)		
Aroclor 1016	ND	0.0122	0.00157	mg/Kg-dry	1	12/01/08 22:31
Aroclor 1221	ND	0.0122	0.00159	mg/Kg-dry	1	12/01/08 22:31
Aroclor 1232	ND	0.0122	0.00097	mg/Kg-dry	1	12/01/08 22:31
Aroclor 1242	ND	0.0122	0.00131	mg/Kg-dry	1	12/01/08 22:31
Arector 1248	ND	0.0122	0.00256	mg/Kg-dry	1	12/01/08 22:31
Aroclor 1254	0.0427	0.0122	0.00340	mg/Kg-dry	1	12/01/08 22:31
Araclor 1260	ND	0.0122	0.00143	mg/Kg-dry	1	12/01/08 22:31
Surr: Tetrachioro-m-xylene	66	44-134	0	%REC	1	12/01/08 22:31
Surr: Decachlorobiphenyl	39	36-141	Ö	%REC	1	12/01/08 22:31

Qualifiers:

Value exceeds Maximum Contaminant Level

E Value exceeds the instrument calibration range

Analyte detected below the PQL

Prim./Conf. column %D or RPD exceeds limit

409333

Analyte detected in the associated Method Blank-

H Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

Spike Recovery outside accepted recovery limits

Col Type:

### Life Science Laboratories, Inc.

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

Sample Size: 30 g

%Moisture: 34.3

TestCode: 8082S

**Analytical Results** 

StateCertNo: 10155

ERM Consulting & Engineering CLIENT:

Project: Ithaca Dredging W Order: 0811142

Matrix: SOIL

Inst. ID: GC90 20C ColumnID: DB-608

12/08/08 12:20 Revision:

**Primary** 

Lab ID:

0811142-004D

Client Sample ID: Ith-5 (4-10) 11/19/08 12:40

**Collection Date:** Date Received:

11/20/08 9:25 11/21/08 11:03

PrepDate: BatchNo:

8506/R15633

FileID:

1-SAMP-E:\90dec08\C120121.r

Analyte	Result Qu	al PQL	MDL	Units	DF	Date Analyzed
POLYCHLORINATED BIPHENYL	SW8082		(SW3550B)			
Areclor 1016	ND	0.0129	0.00167	mg/Kg-dry	1	12/01/08 23:36
Aroclor 1221	ND	0.0129	0.00169	mg/Kg-dry	1	12/01/08 23:36
Areclor 1232	ND	0.0129	0.00103	mg/Kg-dry	1	12/01/08 23:36
Aroclor 1242	ND	0.0129	0.00139	mg/Kg-dry	1	12/01/08 23:36
Araclor 1248	ND	0.0129	0.00272	mg/Kg-dry	1	12/01/08 23:36
Aroclor 1254	0.00509 J	0.0129	0.00361	mg/Kg-dry	1	12/01/08 23:36
Araclor 1260	ND	0.0129	0.00152	mg/Kg-dry	1	12/01/08 23:36
Surr: Tetrachloro-m-xylene	72	44-134	0	%REC	1	12/01/08 23:36
Surr: Decachlorobiohenvi	44	36-141	0	%REC	1	12/01/08 23:36

iers:

- Value exceeds Maximum Contaminant Level
- E Value exceeds the instrument calibration range
- Analyte detected below the POL
- Primt/Conf. column %D or RPD exceeds limit
- Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
  - Spike Recovery outside accepted recovery limits

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

**Analytical Results** 

StateCertNo: 10155

ERM Consulting & Engineering CLIENT:

Project: Ithaca Dredging

W Order: 0811142 Matrix: SOIL

Inst. ID: GC90 20D ColumnID: DB-1701

12/08/08 12:33 Revision:

Sample Size: 30 g %Moisture: 34.3

TestCode:

8082S

0811142-004D Lab ID:

Client Sample ID: Ith-5 (4-10)

11/19/08 12:40 Collection Date: Date Received: 11/20/08 9:25 11/21/08 11:03 PrepDate:

8506/R15711 BatchNo:

1-SAMP-E;\90dec08\D120120.r FileID:

Col Type: Confirm

Analyte	Result Qu	al PQL	MDL	Units	DF	Date Analyzed
POLYCHLORINATED BIPHENYL	SW8082		(SW3550B)			
Aroclor 1016	ND	0.0129	0.00167	mg/Kg-dry	1	12/01/08 23:03
Aroclor 1221	ND	0.0129	0.00169	mg/Kg-dry	1	12/01/08 23:03
Aroclor 1232	ND	0.0129	0.00103	mg/Kg-đry	1	12/01/08 23:03
Aroclor 1242	ND	0.0129	0.00139	mg/Kg-dry	1	12/01/08 23:03
Aroctor 1248	ND	0,0129	0.00272	mg/Kg-dry	1	12/01/08 23:03
Arecfor 1254	0.00546 J	0.0129	0.00361	mg/Kg-dry	1	12/01/08 23:03
Aroclor 1260	ND	0.0129	0.00152	mg/Kg-dry	1	12/01/08 23:03
Surr: Tetrachioro-m-xylene	76	44-134	0	%REC	1	12/01/08 23:03
Surr: Decachlorobiphenyl	38	36-141	0	%REC	1	12/01/08 23:03

Qualifiers:

- Value exceeds Maximum Contaminant Level
- Value exceeds the instrument calibration range
- Analyte detected below the PQL
- Prim./Conf. column %D or RPD exceeds limit
- Analyte detected in the associated Method Blank
- Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
  - Spike Recovery outside accepted recovery limits

Print Date: 12/15/08 15:09

409334

Project Supervisor: Anthony Crescenzi

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

8082S

Sample Size: 30 g

%Moisture: 29.0

41

TestCode:

**Analytical Results** 

StateCertNo: 10155 0811142-005D

CLIENT:

**ERM Consulting & Engineering** 

Project:

Ithaca Dredging

W Order:

0811142

Matrix:

SOIL GC90 20C

Inst. ID:

Revision:

Col Type:

ColumnID: DB-608

Sum: Decachlorobiphenyl

12/08/08 12:20

**Primary** 

Lab ID:

FileID:

Client Sample ID: Ith-5 (10-14) 11/19/08 12:50

**Collection Date:** Date Received:

PrepDate: BatchNo:

11/21/08 11:03 8506/R15633

11/20/08 9:25

1-SAMP-E:\90dec08\C120126.r

Analyte	Result Qu	al PQL	MDL	Units	DF	Date Analyzed
POLYCHLORINATED BIPHENYL	SW8082	2	(SW3550B)			
Arocfor 1016	ND	0.0120	0.00154	mg/Kg-di	ry 1	12/02/08 2:17
Aroclor 1221	ND	0.0120	0.00156	mg/Kg-di	ry 1	12/02/08 2:17
Aroclor 1232	ND	0.0120	0.00095	mg/Kg-d	ry 1	12/02/08 2:17
Aroclor 1242	ND	0.0120	0.00129	mg/Kg-d	ry 1	12/02/08 2:17
Arocior 1248	ND	0.0120	0.00251	mg/Kg-d	ry 1	12/02/08 2:17
Aroclor 1254	ND	0.0120	0.00334	mg/Kg-d	ry 1	12/02/08 2:17
Aroclor 1254 Aroclor 1260	ND	0.0120	0.00141	mg/Kg-d	ry 1	12/02/08 2:17
Sur: Tetrachloro-m-xylene	68	44-134	0	%REC	1	12/02/08 2:17
Sur: Decachlorohinhenvi	41	36-141	0	%REC	1	12/02/08 2:17

36-141

Qualifiers:

- Value exceeds Maximum Contaminant Level
- Value exceeds the instrument calibration range
- Analyte detected below the PQL
- Prim./Conf. column %D or RPD exceeds limit
- B Analyte detected in the associated Method Blank
- Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
  - Spike Recovery outside accepted recovery limits

Print Date: 12/15/08 15:09

409312

Project Supervisor: Anthony Crescenzi

**Analytical Results** 

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

8082S

Sample Size: 30 g

%Moisture: 34.9

TestCode:

StateCertNo: 10155

CLIENT:

ERM Consulting & Engineering

Project:

Ithaca Dredging

W Order:

0811142

Matrix:

SOIL

Inst. ID:

GC90 20C

Revision:

Col Type:

ColumnID: DB-608

12/08/08 12:20

**Primary** 

Lab ID:

0811142-006D

Client Sample ID: Ith-1 (6-12)

Collection Date:

11/19/08 10:30

Date Received:

11/20/08 9:25

PrepDate: BatchNo:

11/21/08 11:03 8506/R15633

FileID:

1-SAMP-E:\90dec08\C120127.r

Analyte	Result Qu	al PQL	MDL	Units	DF	Date Analyzed
POLYCHLORINATED BIPHENYL	SW8082		(SW3550B)			
Aroclar 1016	ND	0.0131	0.00168	mg/Kg-dry	1	12/02/08 2:50
Aroclor 1221	ND	0.0131	0.00171	mg/Kg-dry	1	12/02/08 2:50
Aroclor 1232	ND	0.0131	0.00104	mg/Kg-dry	1	12/02/08 2:50
Aroclor 1242	ND	0.0131	0.00141	mg/Kg-dry	1	12/02/08 2:50
Aroclor 1248	ND	0.0131	0.00274	mg/Kg-dry	1	12/02/08 2:50
Aroclor 1254	0.0740	0.0131	0.00364	mg/Kg-dry	1	12/02/08 2:50
Arocior 1260	ND	0.0131	0.00154	mg/Kg-dry	1	12/02/08 2:50
Surr: Tetrachloro-m-xylene	63	44-134	0	%REC	1	12/02/08 2:50
Surr: Decachlorobiphenyl	43	36-141	0	%REC	1	12/02/08 2:50

Qualifiers:

Value exceeds Maximum Contaminant Level

Value exceeds the instrument calibration range

Analyte detected below the PQL

Prim./Conf. column %D or RPD exceeds limit

Analyte detected in the associated Method Blank

Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

Spike Recovery outside accepted recovery limits

**Analytical Results** 

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

8082S

Sample Size: 30 g

%Moisture: 34.9

TestCode:

StateCertNo: 10155

CLIENT:

**ERM Consulting & Engineering** 

Project:

Ithaca Dredging

W Order:

0811142

Matrix:

SOIL

Inst. ID:

Col Type:

GC90 20D

ColumnID: DB-1701 Revision:

12/08/08 12:33

Confirm

Lab ID:

0811142-006D

Client Sample ID: Ith-1 (6-12)

**Collection Date:** 

11/19/08 10:30 11/20/08 9:25

Date Received: PrepDate:

11/21/08 11:03

BatchNo: FileID:

8506/R15711

1-SAMP-E:\90dec08\D120126.r

Analyte	Result Qua	al PQL	MDL	Units	DF	Date Analyzed
POLYCHLORINATED BIPHENYL	SW8082	******	(SW3550B)			
Aroclor 1016	ND	0.0131	0.00168	mg/Kg-dry	1	12/02/08 2:17
Aroclor 1221	ND	0.0131	0.00171	mg/Kg-dry	1	12/02/08 2:17
Aroclor 1232	ND	0.0131	0.00104	mg/Kg-dry	1	12/02/08 2:17
Aroclor 1242	ND	0.0131	0.00141	mg/Kg-dry	1	12/02/08 2:17
Aroclor 1248	ND	0.0131	0.00274	mg/Kg-dry	1	12/02/08 2:17
Aroclor 1254	0.0657	0.0131	0.00364	mg/Kg-dry	1	12/02/08 2:17
Aroclor 1260	ND	0.0131	0.00154	mg/Kg-dry	1	12/02/08 2:17
Surr: Tetrachloro-m-xylene	65	44-134	0	%REC	1	12/02/08 2:17
Surr: Decachlorobiphenyl	34 S	36-141	0	%REC	1	12/02/08 2:17

Qualifiers:

Value exceeds Maximum Contaminant Level

Value exceeds the instrument calibration range E

Analyte detected below the PQL

Prim./Conf. column %D or RPD exceeds limit

B Analyte detected in the associated Method Blank

Holding times for preparation or analysis exceeded H

ND Not Detected at the Practical Quantitation Limit (PQL)

Spike Recovery outside accepted recovery limits

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

**Analytical Results** 

StateCertNo: 10155

CLIENT:

**ERM Consulting & Engineering** 

Project:

Ithaca Dredging

W Order:

0811142

Matrix:

SOIL

Inst. ID: Revision: GC90 20C

ColumnID: DB-608

12/08/08 12:20

%Moisture: 33.4 TestCode: 8082S

Sample Size: 30 g

Lab ID:

0811142-007D

Client Sample ID: Ith-Dup1

**Collection Date:** 

Date Received:

11/19/08 0:00 11/20/08 9:25

PrepDate: BatchNo:

11/21/08 11:03 8506/R15633

FileID:

1-SAMP-E:\90dec08\C120128.r

Col Type: Primary

Analyte	Result Qu	ıal PQL	MDL	Units	DF	Date Analyzed
POLYCHLORINATED BIPHENYL	SW8082		(SW3550B)			
Aroclor 1016	ND	0.0128	0,00164	mg/Kg-dry	1	12/02/08 3:22
Aroclor 1221	ND	0.0128	0.00167	mg/Kg-dry	1	12/02/08 3:22
Aroclor 1232	ND	0.0128	0.00101	mg/Kg-dry	1	12/02/08 3:22
Arocler 1242	ND	0.0128	0.00137	mg/Kg-dry	1	12/02/08 3:22
Aroclor 1248	ND	0.0128	0.00268	mg/Kg-dry	1	12/02/08 3:22
Arocior 1254	0.0568	0.0128	0.00356	mg/Kg-dry	1	12/02/08 3:22
Aroclor 1260	ND	0.0128	0.00150	mg/Kg-dry	1	12/02/08 3:22
Surr: Tetrachloro-m-xylene	58	44-134	0	%REC	1	12/02/08 3:22
Surr: Decachlorobiphenyl	38	36-141	0	%REC	1	12/02/08 3:22

Qualifiers:

- Value exceeds Maximum Contaminant Level
- E Value exceeds the instrument calibration range
- Analyte detected below the PQL
- Prim./Conf. column %D or RPD exceeds limit
- Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
  - Spike Recovery outside accepted recovery limits

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East Syracuse, NY 13057

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**Analytical Results** 

StateCertNo: 10155

CLIENT:

**ERM Consulting & Engineering** 

Project:

Ithaca Dredging

W Order:

0811142

Matrix:

SOIL

GC90 20D

Inst. ID: Revision:

Col Type:

ColumnID: DB-1701

Confirm

12/08/08 12:33

TestCode:

Sample Size: 30 g

%Moisture: 33.4 8082S Lab ID:

0811142-007D

Client Sample ID: Ith-Dup1

**Collection Date:** 

11/19/08 0:00

Date Received:

11/20/08 9:25

PrepDate: BatchNo:

11/21/08 11:03 8506/R15711

FileID:

1-SAMP-E:\90dec08\D120127.r

Analyte	Result Qua	al PQL	MDL	Units	DF	Date Analyzed
POLYCHLORINATED BIPHENYLS	SW8082		(SW3550B)			
Aroclor 1016	ND	0.0128	0.00164	mg/Kg-dry	1	12/02/08 2:50
Aroclor 1221	ND	0.0128	0.00167	mg/Kg-dry	1	12/02/08 2:50
Aroclor 1232	ND	0.0128	0.00101	mg/Kg-dry	1	12/02/08 2:50
Aroclor 1242	ND	0.0128	0.00137	mg/Kg-dry	1	12/02/08 2:50
Aroclor 1248	ND	0.0128	0.00268	mg/Kg-dry	1	12/02/08 2:50
Aroclor 1254	0.0499	0.0128	0.00356	mg/Kg-dry	1	12/02/08 2:50
Aroclor 1260	ND	0.0128	0.00150	mg/Kg-dry	1	12/02/08 2:50
Surr: Tetrachloro-m-xylene	60	44-134	0	%REC	1	12/02/08 2:50
Surr: Decachlorobiphenyl	32 S	36-141	0	%REC	1	12/02/08 2:50

Qualifiers:

Value exceeds Maximum Contaminant Level

Value exceeds the instrument calibration range

Analyte detected below the PQL

Prim./Conf. column %D or RPD exceeds limit

Analyte detected in the associated Method Blank

Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

Spike Recovery outside accepted recovery limits

**Analytical Results** 

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

StateCertNo: 10155

CLIENT:

**ERM Consulting & Engineering** 

Project:

Ithaca Dredging

W Order:

0811166

Matrix:

SOIL

Inst. ID:

GC90 20C

ColumnID: DB-608 Revision:

12/15/08 13:04

Sample Size: 30 g %Moisture: 35.0

TestCode: 8082S Lab ID:

0811166-001D

Client Sample ID: Ith-9 (1-14)

Collection Date:

11/20/08 15:15 11/21/08 16:16

Date Received: PrepDate:

11/24/08 10:58

BatchNo:

FileID:

8517/R15806

1-SAMP-E:\90dec08\C121116.r

Col Type: **Primary** 

Analyte	Result Qu	al PQL	MDL	Units	DF	Date Analyzed
POLYCHLORINATED BIPHENYL		SW8082		(SW3550B)		
Aroclor 1016	ND	0.0131	0.00168	mg/Kg-dry	1	12/12/08 1:45
Aroclor 1221	ND	0.0131	0.00171	mg/Kg-dry	1	12/12/08 1:45
Aroclor 1232	ND	0.0131	0.00104	mg/Kg-dry	1	12/12/08 1:45
Aroclor 1242	ND	0.0131	0.00141	mg/Kg-dry	1	12/12/08 1:45
Aroclor 1248	ND	0.0131	0.00275	mg/Kg-dry	1	12/12/08 1:45
Arocler 1254	ND	0.0131	0.00365	mg/Kg-dry	1	12/12/08 1:45
Aroclor 1260	ND	0.0131	0.00154	mg/Kg-dry	1	12/12/08 1:45
Surr. Tetrachloro-m-xylene	78	44-134	0	%REC	1	12/12/08 1:45
Surr: Decachlorobiphenyl	57	36-141	0	%REC	1	12/12/08 1:45

Qualifiers:

Value exceeds Maximum Contaminant Level

Value exceeds the instrument calibration range

Analyte detected below the PQL

Prim./Conf. column %D or RPD exceeds limit

B Analyte detected in the associated Method Blank

Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

Spike Recovery outside accepted recovery limits

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

**Analytical Results** 

StateCertNo: 10155

CLIENT: **ERM Consulting & Engineering** 

Project: Ithaca Dredging

W Order: 0811166 Matrix:

SOIL

Inst. ID: GC90 20C ColumnID: DB-608

Revision: 12/15/08 13:04

Sample Size: 30 g %Moisture: 34.1

TestCode: 8082S Lab ID:

0811166-002D

Client Sample ID: Ith-10 (1-14)

**Collection Date:** Date Received:

11/20/08 14:15 11/21/08 16:16 11/24/08 10:58

PrepDate: BatchNo:

8517/R15806

1-SAMP-E:\90dec08\C121117.r FileID:

Col Type: Primary

- Store -					
Result Qu	ial PQL	MDL	Units	DF	Date Analyzed
POLYCHLORINATED BIPHENYLS BY GC/ECD					(SW3550B)
ND	0.0129	0.00166	mg/Kg-dry	r 1	12/12/08 2:17
ND	0.0129	0.00168	mg/Kg-dry	1	12/12/08 2:17
ND	0.0129	0.00102	mg/Kg-dry	r 1	12/12/08 2:17
ND	0.0129	0.00139	mg/Kg-dry	1	12/12/08 2:17
ND	0.0129	0.00271	mg/Kg-dry	1	12/12/08 2:17
ND	0.0129	0.00360	mg/Kg-dry	1	12/12/08 2:17
ND	0.0129	0.00152	mg/Kg-dry	1	12/12/08 2:17
87	44-134	0	%REC	1	12/12/08 2:17
64	36-141	0 .	%REC	1	12/12/08 2:17
	S BY GC/ECD  ND  ND  ND  ND  ND  ND  ND  ND  ND	ND 0.0129 ND 0.0129 ND 0.0129 ND 0.0129 ND 0.0129 ND 0.0129 ND 0.0129 ND 0.0129	Result Qual PQL MDL  S BY GC/ECD  ND 0.0129 0.00166  ND 0.0129 0.00168  ND 0.0129 0.00102  ND 0.0129 0.00139  ND 0.0129 0.00271  ND 0.0129 0.00360  ND 0.0129 0.00152  87 44-134 0	Result Qual PQL         MDL         Units           S BY GC/ECD         SW8082           ND         0.0129         0.00166         mg/Kg-dry           ND         0.0129         0.00168         mg/Kg-dry           ND         0.0129         0.00102         mg/Kg-dry           ND         0.0129         0.00271         mg/Kg-dry           ND         0.0129         0.00360         mg/Kg-dry           ND         0.0129         0.00152         mg/Kg-dry	Result Qual PQL         MDL         Units         DF           S BY GC/ECD         SW8082           ND         0.0129         0.00166         mg/Kg-dry         1           ND         0.0129         0.00168         mg/Kg-dry         1           ND         0.0129         0.00102         mg/Kg-dry         1           ND         0.0129         0.00271         mg/Kg-dry         1           ND         0.0129         0.00360         mg/Kg-dry         1           ND         0.0129         0.00152         mg/Kg-dry         1           ND         0.0129         0.00152         mg/Kg-dry         1           87         44-134         0         %REC         1

Qualifiers:

- Value exceeds Maximum Contaminant Level
- Value exceeds the instrument calibration range
- Analyte detected below the PQL
- Prim./Conf. column %D or RPD exceeds limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
  - Spike Recovery outside accepted recovery limits

**Analytical Results** 

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

8082S

Sample Size: 30 g

%Moisture: 32.2

TestCode:

StateCertNo: 10155

CLIENT:

ERM Consulting & Engineering

Ithaca Dredging

W Order: Matrix:

Project:

0811166 SOIL

Inst. ID:

GC90 20C

ColumnID: DB-608

Revision:

12/15/08 13:04

Lab ID:

0811166-003D Client Sample ID: *Ith-11 (1-14)* 

Collection Date:

11/20/08 12:20 11/21/08 16:16

Date Received: PrepDate:

11/24/08 10:58

BatchNo: FileID:

8517/R15806 1-SAMP-E:\90dec08\C121118.r

Col Type: Primary

<b>J F</b>					
Analyte	Result Q	ıal PQL	MDL	Units DF	Date Analyzed
POLYCHLORINATED BIPHENYL	S BY GC/ECD			SW8082	(SW3550B)
Aroclor 1016	ND	0.0125	0.00162	mg/Kg-dry 1	12/12/08 2:49
Aroclor 1221	ND	0.0125	0.00164	mg/Kg-dry 1	12/12/08 2:49
Aroclor 1232	ND	0.0125	0.00100	mg/Kg-dry 1	12/12/08 2:49
Areclor 1242	ND	0,0125	0.00135	mg/Kg-dry 1	12/12/08 2:49
Aroclor 1248	ND	0.0125	0.00263	mg/Kg-dry 1	12/12/08 2:49
Aroclor 1254	ND	0.0125	0.00350	mg/Kg-dry 1	12/12/08 2:49
Aroclor 1260	ND	0.0125	0.00147	mg/Kg-dry 1	12/12/08 2:49
Surr: Tetrachloro-m-xylene	83	44-134	0	%REC 1	12/12/08 2: <b>49</b>
Surr: Decachlorobiphenyl	59	36-141	0	%REC 1	12/12/08 2:49

- Value exceeds Maximum Contaminant Level
- $\mathbf{E}$ Value exceeds the instrument calibration range
- Analyte detected below the PQL
- Prim./Conf. column %D or RPD exceeds limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
  - Spike Recovery outside accepted recovery limits

Print Date: 12/15/08 15:10

411931

Project Supervisor: Anthony Crescenzi

**Analytical Results** 

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

StateCertNo: 10155

**CLIENT:** ERM Consulting & Engineering

Project:

Ithaca Dredging

W Order:

0811166

Matrix:

SOIL

Inst. ID:

ColumnID: DB-608

Revision: 12/15/08 13:04

GC90 20C Sample Size: 30 g %Moisture: 36.2

> TestCode: 8082S

Lab ID:

0811166-004D

Client Sample ID: Ith-12 (1-14)

**Collection Date:** Date Received:

11/21/08 16:16 11/24/08 10:58

11/20/08 10:45

PrepDate: BatchNo:

8517/R15806

FileID:

1-SAMP-E:\90dec08\C121119.r

Primary Col Type:

Analyte	Result Qu	ıal PQL	MDL	Units	DF	Date Analyzed
POLYCHLORINATED BIPHENYL	S BY GC/ECD			SW8082		(SW3550B)
Aroclor 1016	ND	0.0133	0,00172	mg/Kg-dry	1	12/12/08 3:22
Aroclor 1221	ND	0.0133	0,00174	mg/Kg-dry	1	12/12/08 3:22
Aroclor 1232	ND	0.0133	0.00106	mg/Kg-dry	1	12/12/08 3:22
Aroclor 1242	ND	0.0133	0.00143	mg/Kg-dry	1	12/12/08 3:22
Aroctor 1248	ND	0.0133	0.00280	mg/Kg-dry	1	12/12/08 3:22
Aroclor 1254	ND	0.0133	0.00371	mg/Kg-dry	1	12/12/08 3:22
Aroclor 1260	ND	0.0133	0.00157	mg/Kg-dry	1	12/12/08 3:22
Surr: Tetrachioro-m-xylene	86	44-134	0	%REC	1	12/12/08 3:22
Surr: Decachlorobiphenyl	53	36-141	O	%REC	1	12/12/08 3:22

Qualifiers:

Print Date: 12/15/08 15:10

- Value exceeds Maximum Contaminant Level
- Value exceeds the instrument calibration range
- Analyte detected below the PQL
- Prim./Conf. column %D or RPD exceeds limit
- Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
- Spike Recovery outside accepted recovery limits

**Analytical Results** 

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

8082S

Sample Size: 30 g

%Moisture: 25.2

TestCode:

StateCertNo: 10155

CLIENT:

**ERM Consulting & Engineering** 

Project:

Ithaca Dredging

W Order:

0811166

Matrix:

SOIL

Inst. ID:

Revision: Col Type: GC90 20C

ColumnID: DB-608

12/15/08 13:04

Primary

Lab ID:

0811166-005D

Client Sample ID: Ith-16 (1-14)

**Collection Date:** 

11/20/08 9:30

Date Received:

11/21/08 16:16

PrepDate: BatchNo:

11/24/08 10:58 8517/R15806

FileID:

1-SAMP-E:\90dec08\C121120.r

Analyte	Result Qu	ıal PQL	MDL	Units	DF	Date Analyzed
POLYCHLORINATED BIPHENYL	S BY GC/ECD			SW8082		(SW3550B)
Aroclor 1016	ND	0.0114	0.00146	mg/Kg-dry	1	12/12/08 3:54
Arocler 1221	ND	0.0114	0.00148	mg/Kg-dry	1	12/12/08 3:54
Aroclor 1232	ND	0.0114	0.00090	mg/Kg-dry	<del>.</del> 1	12/12/08 3:54
Araclor 1242	ND	0.0114	0.00122	mg/Kg-dry	1	12/12/08 3:54
Aroclor 1248	ND	0.0114	0.00239	mg/Kg-dry	1 1	12/12/08 3:54
Aroclor 1254	ND	0.0114	0.00317	mg/Kg-dry	/ 1	12/12/08 3:54
Aroclor 1260	ND	0.0114	0.00134	mg/Kg-dry	<i>i</i> 1	12/12/08 3:54
Surr: Tetrachloro-m-xylene	84	44-134	. 0	%REC	1	12/12/08 3:54
Surr: Decachlorobiphenyl	57	36-141	0	%REC	1	12/12/08 3:54

### Qualifiers:

- Value exceeds Maximum Contaminant Level
- Value exceeds the instrument calibration range
- Analyte detected below the PQL
- Prim./Conf. column %D or RPD exceeds limit
- B Analyte detected in the associated Method Blank
- Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
- Spike Recovery outside accepted recovery limits

**Analytical Results** 

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

8082S

Sample Size: 30 g

%Moisture: 25.2

TestCode:

StateCertNo: 10155

CLIENT:

**ERM Consulting & Engineering** 

Ithaca Dredging Project:

W Order: 0811166

Matrix:

SOIL

GC90 20C Inst. ID: ColumnID: DB-608

Revision: 12/15/08 13:04

Lab ID:

0811166-006D

Client Sample ID: Ith-14 (1-14)

Collection Date:

11/21/08 9:50

Date Received: PrepDate:

11/21/08 16:16 11/24/08 10:58

BatchNo:

8517/R15806

FileID:

1-SAMP-E:\90dec08\C121123.r

Col Type: Primary

Analyte	Result Qu	ıal PQL	MDL	Units	DF	Date Analyzed
POLYCHLORINATED BIPHENYL:	-0	SW8082	16.62 Holis de 12.00	(SW3550B)		
Aroclor 1016	ND	0,0114	0.00146	mg/Kg-dry	1	12/12/08 5:31
Aroclor 1221	ND	0,0114	0.00148	mg/Kg-dry	1	12/12/08 5:31
Aroclor 1232	ND	0,0114	0,00090	mg/Kg-dry	1	12/12/08 5:31
Aroclor 1242	ND	0.0114	0.00122	mg/Kg-dry	1	12/12/08 5:31
Aroclor 1248	ND	0.0114	0.00239	mg/Kg-dry	1	12/12/08 5:31
Aroclor 1254	ND	0.0114	0.00317	mg/Kg-dry	1	12/12/08 5:31
Arccior 1260	ND	0.0114	0.00134	mg/Kg-dry	1	12/12/08 5:31
Surr: Tetrachloro-m-xvlene	84	44-134	0	%REC	1	12/12/08 5:31
Surr: Decachlorobiphenyl	54	36-141	0	%REC	1	12/12/08 5:31

- Value exceeds Maximum Contaminant Level
- Value exceeds the instrument calibration range
- Analyte detected below the PQL
- Prim./Conf., column %D or RPD exceeds limit
- B Analyte detected in the associated Method Blank
- Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
  - Spike Recovery outside accepted recovery limits

Project Supervisor: Anthony Crescenzi

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

**Analytical Results** 

StateCertNo: 10155

CLIENT:

**ERM Consulting & Engineering** 

Project:

Ithaca Dredging

W Order:

0811166

Matrix:

SOIL

Inst. ID:

GC90 20C

Revision:

12/15/08 13:04

ColumnID: DB-608

TestCode:

%Moisture: 30.9 8082S

Sample Size: 30 g

Lab ID:

0811166-007D

Client Sample ID: Ith-13 (1-10)

**Collection Date:** 

11/21/08 8:30 11/21/08 16:16

Date Received: PrepDate:

11/24/08 10:58

BatchNo:

8517/R15806

FileID:

1-SAMP-E:\90dec08\C121127.r

Col Type: Primary

Analyte	Result Qu	ial PQL	MDL	Units	DF	Date Analyzed
POLYCHLORINATED BIPHENYL		SW8082		(SW3550B)		
Aracler 1016	ND	0.0123	0.00158	mg/Kg-dry	1	12/12/08 7:41
Aroclor 1221	ND	0.0123	0.00161	mg/Kg-dry	1	12/12/08 7:41
Aroclor 1232	ND	0.0123	0.00098	mg/Kg-dry	1	12/12/08 7:41
Aroclor 1242	ND	0.0123	0.00132	mg/Kg-dry	1	12/12/08 7:41
Arocior 1248	ND	0.0123	0,00258	mg/Kg-dry	1	12/12/08 7:41
Aroclor 1254	ND	0.0123	0.00343	mg/Kg-dry	1	12/12/08 7:41
Aroclor 1260	ND	0.0123	0,00145	mg/Kg-dry	1	12/12/08 7:41
Surr: Tetrachioro-m-xylene	77	44-134	0	%REC	1	12/12/08 7:41
Surr: Decachiorobiphenyl	52	36-141	O	%REC	1	12/12/08 7:41

Qualifiers:

Print Date: 12/15/08 15:10

- Value exceeds Maximum Contaminant Level
- Value exceeds the instrument calibration range
- Analyte detected below the PQL
- Prim./Conf. column %D or RPD exceeds limit
- Analyte detected in the associated Method Blank
- Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
- Spike Recovery outside accepted recovery limits

**Analytical Results** 

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

Sample Size: 30 g

%Moisture: 31.1

StateCertNo: 10155

CLIENT:

**ERM Consulting & Engineering** 

Project:

Ithaca Dredging

W Order:

0811166

Matrix:

SOIL

Inst. ID:

Revision: Col Type: GC90 20C

ColumnID: DB-608

Primary

12/15/08 13:04

TestCode: 8082S Lab ID:

0811166-008D

Client Sample ID: Ith-13 (10-14)

Collection Date:

11/21/08 8:40

Date Received:

11/21/08 16:16 11/24/08 10:58

PrepDate: BatchNo:

FileID:

8517/R15806

1-SAMP-E:\90dec08\C121128.r

Analyte	Result Qu	ıal PQL	MDL	Units	DF	Date Analyzed
POLYCHLORINATED BIPHENYL	SW8082		(SW3550B)			
Aroclor 1016	ND	0,0123	0.00159	mg/Kg-dry	1	12/12/08 8:13
Aroclor 1221	ND	0.0123	0.00161	mg/Kg-dry	1	12/12/08 8:13
Aroclor 1232	ND	0.0123	0.00098	mg/Kg-dry	1	12/12/08 8:13
Aroclor 1242	ND	0.0123	0.00133	mg/Kg-dry	1	12/12/08 8:13
Aroclor 1248	ND	0.0123	0.00259	mg/Kg-dry	1	12/12/08 8:13
Aroclor 1254	ND	0.0123	0.00344	mg/Kg-dry	1	12/12/08 8:13
Aroclor 1260	ND	0.0123	0.00145	mg/Kg-dry	1	12/12/08 8:13
Surr: Tetrachloro-m-xylene	108	44-134	0	%REC	1	12/12/08 8:13
Surr: Decachlorobiphenyl	74	36-141	0	%REC	1	12/12/08 8:13

Qualifiers:

Value exceeds Maximum Contaminant Level

Value exceeds the instrument calibration range

Analyte detected below the PQL

Prim./Conf. column %D or RPD exceeds limit

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

Spike Recovery outside accepted recovery limits

**Analytical Results** 

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

StateCertNo: 10155

CLIENT:

ERM Consulting & Engineering

Project:

Ithaca Dredging

W Order:

0811166

Matrix:

SOIL

Inst. ID:

Revision:

GC90 20C

ColumnID: DB-608

12/15/08 13:04

%Moisture: 40.0 TestCode: 8082S

Sample Size: 30 g

Lab ID:

FileID:

0811166-009D

Client Sample ID: Ith-1 (1-6)

11/20/08 16:00

Collection Date: Date Received:

11/21/08 16:16

PrepDate: BatchNo:

11/24/08 10:58 8517/R15806

1-SAMP-E:\90dec08\C121129.r

Col Type: Primary

Analyte	Result Qu	al PQL	MDL	Units	DF	Date Analyzed
POLYCHLORINATED BIPHENYL	S BY GC/ECD			SW8082		(SW3550B)
Arocler 1016	ND	0.0142	0.00182	mg/Kg-dry	1	12/12/08 8:46
Aroclor 1221	ND	0.0142	0.00185	mg/Kg-dry	1	12/12/08 8:46
Aroclor 1232	ND	0.0142	0.00113	mg/Kg-dry	1	12/12/08 8:46
Aroclor 1242	ND	0.0142	0.00152	mg/Kg-dry	1	12/12/08 8:46
Aroclor 1248	ND	0.0142	0.00298	mg/Kg-dry	1	12/12/08 8:46
Arpolor 1254	ND	0.0142	0.00395	mg/Kg-dry	1	12/12/08 8:46
Aroclor 1260	ND	0.0142	0.00167	mg/Kg-dry	1	12/12/08 8:46
Surr: Tetrachloro-m-xylene	76	44-134	0	%REC	1	12/12/08 8:46
Surr: Decachlorobiphenyl	52	36-141	0	%REC	1	12/12/08 8:46

Qualifiers:

Value exceeds Maximum Contaminant Level

Value exceeds the instrument calibration range

Analyte detected below the PQL

Prim./Conf. column %D or RPD exceeds limit

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

Spike Recovery outside accepted recovery limits

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

**Analytical Results** 

StateCertNo: 10155

CLIENT:

**ERM** Consulting & Engineering

Project: Ithaca Dredging

W Order:

0811166

Matrix:

SOIL

Inst. ID:

GC90 20C

ColumnID: DB-608 Revision:

12/15/08 13:04

TestCode:

%Moisture: 41.2 8082S

Sample Size: 30 g

Lab ID:

0811166-010D

Client Sample ID: Ith-DUP2

**Collection Date:** 

11/20/08 0:00 11/21/08 16:16

Date Received: PrepDate:

11/24/08 10:58

BatchNo:

8517/R15806

FileID:

1-SAMP-E:\90dec08\C121130.r

Col Type: Primary

Analyte	Result Qu	al PQL	MDL	Units	DF	Date Analyzed
POLYCHLORINATED BIPHENYLS BY GC/ECD					S	(SW3550B)
Aroclor 1016	ND	0.0145	0.00186	mg/Kg-dry	1	12/12/08 9:18
Aroclar 1221	ND	0.0145	0.00189	mg/Kg-dry	1	12/12/08 9:18
Aroclar 1232	ND	0.0145	0.00115	mg/Kg-dry	1	12/12/08 9:18
Aroclor 1242	ND	0.0145	0.00156	mg/Kg-dry	1	12/12/08 9:18
Aroclor 1248	ND	0.0145	0.00304	mg/Kg-dry	1	12/12/08 9:18
Aroclor 1254	ND	0.0145	0.00403	mg/Kg-dry	1	12/12/08 9:18
Aroclor 1260	ND	0.0145	0.00170	mg/Kg-dry	1	12/12/08 9:18
Surr: Tetrachloro-m-xvlene	74	44-134	0	%REC	1	12/12/08 9:18
Surr: Decachlorobiphenyl	54	36-141	0	%REC	1	12/12/08 9:18

Qualifiers:

- Value exceeds Maximum Contaminant Level
- Value exceeds the instrument calibration range
- Analyte detected below the PQL
- Prim./Conf. column %D or RPD exceeds limit
- B Analyte detected in the associated Method Blank
- Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
  - Spike Recovery outside accepted recovery limits

**Analytical Results** 

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

8082S

Sample Size: 30 g

%Moisture: 47.6

TestCode:

StateCertNo: 10155

CLIENT:

**ERM Consulting & Engineering** 

Project:

Ithaca Dredging

W Order:

0811166

Matrix:

SOIL

Inst. ID:

GC90 20C

Revision:

Col Type:

ColumnID: DB-608

12/15/08 13:04

**Primary** 

Lab ID:

0811166-011D

Client Sample ID: Ith-2 (1-6) 11/20/08 16:10

Collection Date: Date Received:

11/21/08 16:16 11/24/08 10:58

PrepDate: BatchNo:

FileID:

8517/R15806

1-SAMP-E:\90dec08\C121131.r

Analyte	Result Qual PQL		MDL	Units	DF	Date Analyzed
POLYCHLORINATED BIPHENYL	SW8082		(SW3550B)			
Aroclor 1016	ND	0.0162	0.00209	mg/Kg-dry	1	12/12/08 9:50
Aroclor 1221	ND	0.0162	0.00212	mg/Kg-dry	1	12/12/08 9:50
Aroclor 1232	ND	0.0162	0.00129	mg/Kg-dry	1	12/12/08 9:50
Aroclor 1242	ND	0.0162	0.00175	mg/Kg-dry	1	12/12/08 9:50
Aroclor 1248	ND	0.0162	0.00341	mg/Kg-dry	1	12/12/08 9:50
Aroclor 1254	ND	0.0162	0.00452	mg/Kg-dry	1	12/12/08 9:50
Aroclor 1260	ND	0.0162	0.00191	mg/Kg-dry	1	12/12/08 9:50
Surr: Tetrachioro-m-xylene	72	44-134	0	%REC	1	12/12/08 9:50
Surr: Decachlorobiphenyl	52	36-141	0	%REC	1	12/12/08 9:50

Qualifiers:

Print Date: 12/15/08 15:10

Value exceeds Maximum Contaminant Level

Value exceeds the instrument calibration range

Analyte detected below the PQL

Prim./Conf. column %D or RPD exceeds limit

Analyte detected in the associated Method Blank

Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

Spike Recovery outside accepted recovery limits

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

**Analytical Results** 

Lab ID:

StateCertNo: 10155

CLIENT: Project:

ERM Consulting & Engineering

Client Sample ID: Ith-3 (1-6)

0811166-012D

Ithaca Dredging

11/20/08 16:15

W Order:

0811166

**Collection Date:** 

11/21/08 16:16

Matrix:

SOIL

Date Received: PrepDate:

11/24/08 10:58

Inst. ID: ColumnID: DB-608

GC90 20C

Sample Size: 30 g %Moisture: 48.3 TestCode:

BatchNo:

8517/R15806

Revision:

12/15/08 13:04

8082S

FileID:

1-SAMP-E:\90dec08\C121132.r

Col Type: Primary

Analyte	Result Qual PQL		MDL	Units	DF	Date Analyzed	
POLYCHLORINATED BIPHENYLS BY GC/ECD				SW8082		(SW3550B)	
Araclor 1016	ND	0.0164	0.00212	mg/Kg-dry	1	12/12/08 10:23	
Aroclor 1221	ND	0.0164	0.00215	mg/Kg-dry	1	12/12/08 10:23	
Aroclor 1232	ND	0.0164	0.00131	mg/Kg-dry	1	12/12/08 10:23	
Aroclor 1242	ND	0.0164	0.00177	mg/Kg-dry	1	12/12/08 10:23	
Aroclor 1248	ND	0.0164	0.00345	mg/Kg-dry	1	12/12/08 10:23	
Areclor 1254	ND	0.0164	0.00458	mg/Kg-dry	1	12/12/08 10:23	
Aroclor 1260	ND	0.0164	0.00193	mg/Kg-dry	1	12/12/08 10:23	
Surr: Tetrachloro-m-xylene	71	44-134	0	%REC	1	12/12/08 10:23	
Sur: Decachlorobiphenyl	52	36-141	0	%REC	1	12/12/08 10:23	

Qualifiers:

Print Date: 12/15/08 15:10

- Value exceeds Maximum Contaminant Level
- Value exceeds the instrument calibration range
- Analyte detected below the PQL
- Prim./Conf. column %D or RPD exceeds limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)

183

Spike Recovery outside accepted recovery limits

# LSL

### Life Science Laboratories, Inc.

**Analytical Results** 

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

Sample Size: 30 g

%Moisture: 37.0

TestCode: 8082S

StateCertNo: 10155

**CLIENT:** ERM Consulting & Engineering

Project: Ithaca Dredging

W Order: 0811166 Matrix: SOIL

Inst. ID: GC90 20C

ColumnID: DB-608

Revision: 12/15/08 13:04

Revision: 12/15/08 13:04 Col Type: Primary Lab ID:

FileID:

0811166-013D

Client Sample ID: Ith-4 (1-6)

Collection Date: Date Received: 11/20/08 16:20 11/21/08 16:16 11/24/08 10:58

PrepDate: BatchNo:

11/24/08 10:58 8517/R15806

1-SAMP-E:\90dec08\C121133.r

Analyte	Result Qu	al PQL	MDL	Units	DF	Date Analyzed
POLYCHLORINATED BIPHENYL	SW8082	2	(SW3550B)			
Aroclor 1016	ND	0.0135	0.00174	m <b>g/K</b> g-dr	y 1	12/12/08 10:55
Aroclor 1221	ND	0.0135	0.00176	mg/Kg-dr	y 1	12/12/08 10:55
Aroclor 1232	ND	0.0135	0.00107	mg/Kg-dr	у 1	12/12/08 10:55
Aroclor 1242	ND	0.0135	0.00145	mg/Kg-dr	y 1	12/12/08 10:55
Aroclor 1248	МD	0.0135	0.00283	mg/Kg-dr	y 1	12/12/08 10:55
Aroclor 1254	ИĎ	0.0135	0.00376	mg/Kg-di	у 1	12/12/08 10:55
Aroclor 1260	ND	0.0135	0,00159	mg/Kg-di	y 1	12/12/08 10:55
Surr: Tetrachloro-m-xylene	82	44-134	0	%REC	1	12/12/08 10:55
Surr: Decachlorobiphenyl	57	36-141	0	%REC	1	12/12/08 10:55

Qualifiers:

Value exceeds Maximum Contaminant Level

E Value exceeds the instrument calibration range

J Analyte detected below the PQL

Prim./Conf. column %D or RPD exceeds limit

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

S Spike Recovery outside accepted recovery limits

**Analytical Results** 

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

8082S

Sample Size: 30 g

**%Moisture:** 39.7

TestCode:

StateCertNo: 10155

ERM Consulting & Engineering CLIENT:

Project: Ithaca Dredging

W Order: 0811166 Matrix: SOIL

Inst. ID: GC90 20C

ColumnID: DB-608

12/15/08 13:04 Revision:

Lab ID:

0811166-014D

Client Sample ID: Ith-6 (1-6) 11/20/08 16:25

Collection Date: Date Received:

11/21/08 16:16 11/24/08 10:58

PrepDate: BatchNo:

8517/R15806

FileID:

1-SAMP-E:\90dec08\C121134.r

Col Type: Primary

Analyte	Result Qu	ıal PQL	MDL	Units	DF	Date Analyzed
POLYCHLORINATED BIPHENYL	S BY GC/ECD			SW8082		(SW3550B)
Aroclor 1016	ND	0.0141	0.00182	mg/Kg-dry	1	12/12/08 11:28
Aroclor 1221	ND	0.0141	0.00184	mg/Kg-dry	1	12/12/08 11:28
Aroclor 1232	ND	0.0141	0.00112	mg/Kg-dry	1	12/12/08 11:28
Aroclor 1242	ND	0.0141	0.00152	mg/Kg-dry	1	12/12/08 11:28
Aroclor 1248	ND	0.0141	0.00296	mg/Kg-dry	1	12/12/08 11:28
Aroclor 1254	ND	0.0141	0.00393	mg/Kg-dry	1	12/12/08 11:28
Aroclor 1260	ND	0.0141	0.00166	mg/Kg-dry	1	12/12/08 11:28
Surr: Tetrachloro-m-xylene	76	44-134	0	%REC	1	12/12/08 11:28
Surr: Decachlorobiphenyl	53	36-141	0	%REC	1	12/12/08 11:28

Qualifiers:

Value exceeds Maximum Contaminant Level

Value exceeds the instrument calibration range

Analyte detected below the PQL

Prim./Conf. column %D or RPD exceeds limit

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

**Analytical Results** 

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

StateCertNo: 10155 0811131-001D

11/17/08 14:50

11/18/08 16:28

CLIENT:

**ERM Consulting & Engineering** 

Project:

Ithaca Dredging

W Order:

0811131 SOIL

Matrix:

Inst. ID: ColumnID: ICAP 61E

12/05/08 8:41

%Moisture: 24.7 TestCode: 6010S

Sample Size: 0.5 g

Date Received:

Collection Date:

Lab ID:

PrepDate: BatchNo:

FileID:

12/02/08 10:09 8538/R15689

1-SAMP-95680

Client Sample ID: Ith-3 (6-12)

Revision: Col Type:

Result Qu	al PQL	MDL	Units	DF	Date Analyzed	
			SW6010	)B	(SW3050B)	
2.1	1.3	0.53	mg/Kg-d	ry 1	12/03/08 15:57	
ND	0.66	0.13	mg/Kg-d	ry 1	12/03/08 15:57	
	1.3	0.53	mg/Kg-d	ry 1	12/03/08 15:57	
		0.27	mg/Kg-d	ry 1	12/03/08 15:57	
		0.53	mg/Kg-d	ry 1	12/03/08 15:57	
***		0.27	mg/Kg-d	ry 1	12/03/08 15:57	
31	2.7	0.53		•	12/03/08 15:57	
	2.1 ND 7.6 7.3 4.1	ND 0.66 7.6 1.3 7.3 1.3 4.1 1.3 10 6.6	2.1 1.3 0.53 ND 0.66 0.13 7.6 1.3 0.53 7.3 1.3 0.27 4.1 1.3 0.53 10 6.6 0.27	SW6016  2.1 1.3 0.53 mg/Kg-d  ND 0.66 0.13 mg/Kg-d  7.6 1.3 0.53 mg/Kg-d  7.3 1.3 0.27 mg/Kg-d  4.1 1.3 0.53 mg/Kg-d  10 6.6 0.27 mg/Kg-d	SW6010B  2.1 1.3 0.53 mg/Kg-dry 1  ND 0.66 0.13 mg/Kg-dry 1  7.6 1.3 0.53 mg/Kg-dry 1  7.3 1.3 0.27 mg/Kg-dry 1  4.1 1.3 0.53 mg/Kg-dry 1  10 6.6 0.27 mg/Kg-dry 1	

Qualifiers:

- Value exceeds Maximum Contaminant Level
- Value exceeds the instrument calibration range
- Analyte detected below the PQL
- Prim./Conf. column %D or RPD exceeds limit
- Analyte detected in the associated Method Blank
- Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
  - Spike Recovery outside accepted recovery limits

Print Date: 12/11/08 15:25

408598

**Analytical Results** 

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

StateCertNo: 10155

CLIENT:

**ERM Consulting & Engineering** 

Project:

Ithaca Dredging

W Order:

0811131

Matrix:

SOIL

Inst. ID: ColumnID:

ICAP 61E

12/05/08 8:41

Sample Size: 0.5 g %Moisture: 28.6

TestCode: 6010S

Lab ID:

0811131-002D

Client Sample ID: Ith-4 (6-12)

11/18/08 9:20 Collection Date:

Date Received:

11/18/08 16:28 12/02/08 10:09

PrepDate: BatchNo:

FileID:

8538/R15689

1-SAMP-95681

Revision: Col Type:

Analyte	Result Qu	al PQL	MDL	Units	DF	Date Analyzed	
TOTAL METALS BY ICP				SW6010	)B	(SW3050B)	
Arsenic	2.2	1.4	0.56	mg/Kg-di	ry 1	12/03/08 16:00	
Cadmium	ND	0.70	0.14	mg/Kg-d	ry 1	12/03/08 16:00	
Chromium	10	1.4	0.56	mg/Kg-d	ry 1	12/03/08 16:00	
Copper	12	1. <del>4</del>	0.28	mg/Kg-d	ry 1	12/03/08 16:00	
Lead	8.4	1.4	0.56	mg/Kg-d	ry 1	12/03/08 16:00	
Nickel	14	7.0	0.28	mg/Kg-d	ry 1	12/03/08 16:00	
Zinc	46	2.8	0.56	mg/Kg-d	ry 1	12/03/08 16:00	

- Value exceeds Maximum Contaminant Level
- E Value exceeds the instrument calibration range
- Analyte detected below the PQL
- Prim./Conf. column %D or RPD exceeds limit
- Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
  - Spike Recovery outside accepted recovery limits

**Analytical Results** 

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

StateCertNo: 10155

CLIENT:

**ERM Consulting & Engineering** 

Project:

Ithaca Dredging

W Order:

0811131

Matrix:

SOIL

Inst. ID:

ICAP 61E

ColumnID: Revision:

12/05/08 8:41

%Moisture: 31.9

TestCode:

Sample Size: 0.5 g

6010S

Lab ID:

0811131-003D

Client Sample ID: Ith-2 (6-10)

Collection Date:

11/18/08 10:10 11/18/08 16:28

Date Received: PrepDate:

12/02/08 10:09

BatchNo:

8538/R15689

FileID:

1-SAMP-95682

Col Type:

DF	Date Analyzed		
В	(SW3050B)		
y 1	12/03/08 16:04		
y 1	12/03/08 16:04		
y 1	12/03/08 16:04		
y 1	12/03/08 16:04		
y 1	12/03/08 16:04		
y 1	12/03/08 16:04		
у 1	12/03/08 16:04		
y y y	1 1 1		

Qualifiers:

Value exceeds Maximum Contaminant Level

Value exceeds the instrument calibration range

Analyte detected below the PQL

Prim./Conf. column %D or RPD exceeds limit

Analyte detected in the associated Method Blank

Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

**Analytical Results** 

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

StateCertNo: 10155

CLIENT:

ERM Consulting & Engineering

Project:

Ithaca Dredging

W Order:

0811131

Matrix:

SOIL

Inst. ID:

Col Type:

ICAP 61E

ColumnID:

Revision:

12/05/08 8:41

Sample Size: 0.5 g %Moisture: 34.5

6010S TestCode:

Lab ID:

0811131-004D

Client Sample ID: Ith-2 (10-14)

**Collection Date:** Date Received:

11/18/08 10:20 11/18/08 16:28

PrepDate: BatchNo:

FileID:

12/02/08 10:09

8538/R15689

1-SAMP-95686

DF

Date Analyzed

Analyte	Result Qu	al PQL	MDL	Units
TOTAL METALS BY ICP				SW6010
Arsenic	3.3	1.5	0.61	mg/Kg-dry
				**4 1

0B (SW3050B) 12/03/08 16:18 ry 1 12/03/08 16:18 mg/Kg-dry 1 ND 0.76 0.15 Cadmium 12/03/08 16:18 mg/Kg-dry 1 0.61 Chromium 12 1.5 12/03/08 16:18 0.31 mg/Kg-dry 1 Copper 15 1.5 12/03/08 16:18 mg/Kg-dry 1 Lead 7,4 1.5 0.61 12/03/08 16:18 7.6 0.31 mg/Kg-dry 1 Nickel 18 12/03/08 16:18 mg/Kg-dry 1 0.61 Zinc

Qualifiers:

Value exceeds Maximum Contaminant Level

Value exceeds the instrument calibration range

Analyte detected below the PQL

Prim./Conf. column %D or RPD exceeds limit

Analyte detected in the associated Method Blank

Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

Spike Recovery outside accepted recovery limits

408604

# Life Science Laboratories, Inc. 5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

**Analytical Results** 

0811131-005D Lab ID:

Client Sample ID: Ith-6 (6-10)

CLIENT: **ERM Consulting & Engineering** 

Ithaca Dredging Project:

0811131 W Order: Matrix: SOIL

Inst. ID: ICAP 61E

ColumnID:

12/05/08 8:41 Revision:

Sample Size: 0.5 g

TestCode: 6010S

%Moisture: 30.4

Date Received:

FileID:

PrepDate: BatchNo:

Collection Date:

12/02/08 10:09 8538/R15689

11/18/08 14:10

11/18/08 16:28

StateCertNo: 10155

1-SAMP-95687

Col Type:

Analyte	Result Qual PQL		MDL	Units	DF	Date Analyzed
TOTAL METALS BY ICP				SW6010	)B	(SW3050B)
Arsenic	2,3	1.4	0.57	mg/Kg-d	ry 1	12/03/08 16:22
Cadmium	ND	0.72	0.14	mg/Kg-d	ry 1	12/03/08 16:22
Chromium	8.2	1.4	0.57	mg/Kg-di	ry 1	12/03/08 16:22
Copper	11	1. <del>4</del>	0.29	mg/Kg-d	ry 1	12/03/08 16:22
Lead	7.1	1. <del>4</del>	0.57	mg/Kg-d	ry 1	12/03/08 16:22
Nickel	12	7.2	0.29	mg/Kg-d	гу 1	12/03/08 16:22
Zinc	42	2.9	0.57	mg/Kg-d	ry 1	12/03/08 16:22

Oua	ı	ifi	iei	ret
Qua	J	811	n.	20

- Value exceeds Maximum Contaminant Level
- Value exceeds the instrument calibration range Ε
- Analyte detected below the PQL
- Prim./Conf. column %D or RPD exceeds limit
- Analyte detected in the associated Method Blank
- Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
  - Spike Recovery outside accepted recovery limits

Print Date: 12/11/08 15:25

408605

**Analytical Results** 

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

StateCertNo: 10155

ERM Consulting & Engineering CLIENT:

Project:

Ithaca Dredging

W Order:

0811131 SOIL

Matrix: Inst. ID:

ICAP 61E ColumnID:

12/05/08 8:41

Sample Size: 0.5 g %Moisture: 34.7

TestCode: 6010S

Lab ID:

0811131-006D Client Sample ID: Ith-6 (10-14)

Collection Date: Date Received:

11/18/08 14:20 11/18/08 16:28 12/02/08 10:09

PrepDate: BatchNo:

8538/R15689

1-SAMP-95688 FileID:

Revision:
Col Type:

Analyte	Result Qual PQL		MDL	Units	DF	Date Analyzed
TOTAL METALS BY ICP				SW6010	)B	(SW3050B)
Arsenic	2.5	1.5	0.61	mg/Kg-di	ry 1	12/03/08 16:25
Cadmium	ND	0.77	0.15	mg/Kg-di	ry 1	12/03/08 16:25
Chromium	8.7	1.5	0.61	mg/Kg-di	ry 1	12/03/08 16:25
Copper	11	1.5	0.31	mg/Kg-di	ry 1	12/03/08 16:25
Lead	5.4	1.5	0.61	mg/K <b>g-d</b> i	ry 1	12/03/08 16:25
Nickel	13	7,7	0.31	mg/K <b>g-d</b> i	ry 1	12/03/08 16:25
Zinc	37	3.1	0.61	mg/K <b>g-d</b> i	ry 1	12/03/08 16:25

Oualifiers:	*	Value exceeds Maximum Contaminant Level		Analyte detected in the associated Method Blank
Quanticis.	E	Value exceeds the instrument calibration range	Н	Holding times for preparation or analysis exceeded
	J	Analyte detected below the PQL		Not Detected at the Practical Quantitation Limit (PQL)
	P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

**Analytical Results** 

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

StateCertNo: 10155

CLIENT: **ERM Consulting & Engineering** 

Project:

Ithaca Dredging

W Order:

0811142

Matrix:

SOIL

Inst. ID:

ColumnID:

ICAP 61E

12/05/08 8:41

Sample Size: 0.5 g %Moisture: 38.2

> TestCode: 6010S

Lab ID:

0811142-001D

Client Sample ID: Ith-8 (2-10)

Collection Date: Date Received:

11/19/08 14:30 11/20/08 9:25 12/02/08 10:09

PrepDate: BatchNo:

FileID:

8538/R15689

1-SAMP-95689

Revision: Col Type:

Result Qu	ial PQL	MDL	Units	DF	Date Analyzed
· · · · · · · · · · · · · · · · · · ·			SW6010	В	(SW3050B)
4.2	1,6	0.65	mg/Kg-dr	y 1	12/03/08 16:29
ND	0.81	0.16	mg/Kg-dr	y 1	12/03/08 16:29
14	1.6	0.65	mg/Kg-dr	y 1	12/03/08 16:29
25	1.6	0.32	mg/Kg-dr	y 1	12/03/08 16:29
32	1.6	0.65	mg/Kg-dr	y 1	12/03/08 16:29
19	8.1	0.32	mg/Kg-dr	y 1	12/03/08 16:29
80	3.2	0.65	mg/Kg-da	у 1	12/03/08 16:29
	4.2 ND 14 25 32 19	ND 0.81 14 1.6 25 1.6 32 1.6 19 8.1	4.2 1.6 0.65 ND 0.81 0.16 14 1.6 0.65 25 1.6 0.32 32 1.6 0.65 19 8.1 0.32	\$\begin{array}{cccccccccccccccccccccccccccccccccccc	SW6010B  4.2 1.6 0.65 mg/Kg-dry 1  ND 0.81 0.16 mg/Kg-dry 1  14 1.6 0.65 mg/Kg-dry 1  25 1.6 0.32 mg/Kg-dry 1  32 1.6 0.65 mg/Kg-dry 1  19 8.1 0.32 mg/Kg-dry 1

- Value exceeds Maximum Contaminant Level
- Value exceeds the instrument calibration range
- Analyte detected below the POL
- Prim./Conf. column %D or RPD exceeds limit
- Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
  - Spike Recovery outside accepted recovery limits

**Analytical Results** 

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

StateCertNo: 10155

CLIENT:

ERM Consulting & Engineering

Project:

Ithaca Dredging

W Order:

0811142

Matrix:

SOIL

Inst. ID:

Revision:

ICAP 61E

ColumnID:

12/05/08 8:41

%Moisture: 31.3

TestCode: 6010S

Sample Size: 0.5 g

Lab ID:

0811142-002D

Client Sample ID: Ith-8 (10-14)

Collection Date:

11/19/08 14:45

Date Received:

11/20/08 9:25

PrepDate:

12/02/08 10:09

BatchNo: FileID:

8538/R15689

1-SAMP-95690

Col Type:	
Amalusta	

Analyte	Result Qual PQL		MDL	Units DF	Date Analyzed
TOTAL METALS BY ICP				SW6010B	(SW3050B)
Arsenic	2.1	1,5	0.58	mg/Kg-dry 1	12/03/08 16:32
Cadmium	ND	0.73	0.15	mg/Kg-dry 1	12/03/08 16:32
Chromium	8.5	1.5	0.58	mg/Kg-dry 1	12/03/08 16:32
Copper	9.2	1.5	0.29	mg/Kg-dry 1	12/03/08 16:32
Lead	5.0	1,5	0.58	mg/Kg-dry 1	12/03/08 16:32
Nickel	12.	7.3	0.29	mg/Kg-dry 1	12/03/08 16:32
Zinc	39	2.9	0.58	mg/Kg-dry 1	12/03/08 16:32

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-----	---	---	----	---	---	---

- Value exceeds Maximum Contaminant Level
- E Value exceeds the instrument calibration range
- Analyte detected below the PQL
- Prim./Conf. column %D or RPD exceeds limit
- Analyte detected in the associated Method Blank
- Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
  - Spike Recovery outside accepted recovery limits

## **Analytical Results**

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

StateCertNo: 10155

CLIENT:

**ERM Consulting & Engineering** 

Project:

Ithaca Dredging

W Order:

0811142

Matrix:

SOIL

Inst. ID:

Revision: Col Type:

ICAP 61E

ColumnID:

12/05/08 8:41

%Moisture: 30.2 6010S TestCode:

Sample Size: 0.5 g

Lab ID:

0811142-003D

Client Sample ID: Ith-7 (I-14)

11/19/08 13:50

Collection Date: Date Received:

11/20/08 9:25

PrepDate:

12/02/08 10:09

BatchNo:

8538/R15689

FileID:

1-SAMP-95691

				D-4a Analyses		
Analyte	Result Qu	Result Qual PQL		Units DF	Date Analyzed	
TOTAL METALS BY ICP				SW6010B	(SW3050B)	
Arsenic	4.8	1.4	0.57	mg/Kg-dry 1	12/03/08 16:36	
Cadmium	ND	0.72	0,14	mg/Kg-dry 1	12/03/08 16:36	
Chromium	13	1.4	0.57	mg/Kg-dry 1	12/03/08 16:36	
Copper	19	1.4	0.29	mg/Kg-dry 1	12/03/08 16:36	
Lead	27	1.4	0.57	mg/Kg-dry 1	12/03/08 16:36	
Nickel	18	7.2	0.29	mg/Kg-dry 1	12/03/08 16:36	
7inc	70	2.9	0.57	mg/Kg-dry 1	12/03/08 16:36	

Qualifiers:

Value exceeds Maximum Contaminant Level

E Value exceeds the instrument calibration range

Analyte detected below the PQL

Prim./Conf. column %D or RPD exceeds limit

Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

**Analytical Results** 

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

6010S

Sample Size: 0.5 g

%Moisture: 34.3

TestCode:

StateCertNo: 10155 0811142-004D

11/19/08 12:40

11/20/08 9:25

CLIENT:

**ERM Consulting & Engineering** 

Project:

Ithaca Dredging

W Order:

0811142

Matrix:

SOIL

Inst. ID: ColumnID:

ICAP 61E

12/05/08 8:41

Lab ID: Client Sample ID: Ith-5 (4-10)

Collection Date:

Date Received:

PrepDate: BatchNo:

FileID:

12/02/08 10:09 8538/R15689

1-SAMP-95692

Revision: Col Type:

JE						
Analyte	Result Qı	ial PQL	MDL	Units	DF	Date Analyzed
TOTAL METALS BY ICP				SW601	)B	(SW3050B)
Arsenic	4.0	1.5	0.61	mg/Kg-d	ry 1	12/03/08 16:39
Cadmium	ND	0.76	0.15	mg/Kg-d	ry 1	12/03/08 16:39
Chromium	13	1.5	0.61	mg/Kg-d	ry 1	12/03/08 16:39
Copper	16	1.5	0.30	mg/Kg-d	ry 1	12/03/08 16:39
Lead	10	1.5	0.61	mg/Kg-d	ry 1	12/03/08 16:39
Nickel	19	7.6	0.30	mg/Kg-d	ry 1	12/03/08 16:39
Zing	57	3.0	0,61	mg/Kg-d	ry 1	12/03/08 16:39

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Qua	шисгэ

- Value exceeds Maximum Contaminant Level
- Value exceeds the instrument calibration range
- Analyte detected below the PQL
- Prim./Conf. column %D or RPD exceeds limit
- Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
- Spike Recovery outside accepted recovery limits

Print Date: 12/11/08 15:26

408610

**Analytical Results** 

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

StateCertNo: 10155

ERM Consulting & Engineering

Project:

Ithaca Dredging

W Order:

0811142

Matrix:

SOIL

Inst. ID:

Col Type:

ColumnID:

Revision: 12/05/08 8:41

ICAP 61E

%Moisture: 29.0

TestCode: 6010S

Sample Size: 0.5 g

Lab ID:

0811142-005D

Client Sample ID: Ith-5 (10-14)

**Collection Date:** Date Received:

11/19/08 12:50 11/20/08 9:25

PrepDate:

12/02/08 10:09

BatchNo:

FileID:

8538/R15689

1-SAMP-95693

Analyte	Result Qual PQL		MDL	Units	DF	Date Analyzed
TOTAL METALS BY ICP				SW6010	)B	(\$W3050B)
Arsenic	1.3 J	1.4	0.56	mg/Kg-di	y 1	12/03/08 16:43
Cadmium	ND	0.70	0.14	mg/Kg-di	ry 1	12/03/08 16:43
Chromium	6.8	1.4	0.56	mg/Kg-di	ry 1	12/03/08 16:43
Copper	4.7	1.4	0.28	mg/Kg-d	ry 1	12/03/08 16:43
Lead	3.5	1.4	0.56	mg/Kg-d	ry 1	12/03/08 16:43
Nickel	9.1	7.0	0.28	mg/Kg-d	ry 1	12/03/08 16:43
Zinc	30	2.8	0.56	mg/Kg-d	ry 1	12/03/08 16:43

Qualifiers:

Value exceeds Maximum Contaminant Level

E Value exceeds the instrument calibration range

Analyte detected below the PQL

Prim./Conf. column %D or RPD exceeds limit

Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

Spike Recovery outside accepted recovery limits

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

**Analytical Results** 

StateCertNo: 10155

CLIENT:

**ERM Consulting & Engineering** 

Project:

Ithaca Dredging

W Order:

0811142

Matrix:

SOIL

Inst. ID:

ICAP 61E

ColumnID:

12/05/08 8:41

%Moisture: 34.9 TestCode: 6010S

Sample Size: 0.5 g

Lab ID:

0811142-006D

Client Sample ID: Ith-1 (6-12)

**Collection Date:** 

Date Received:

PrepDate: BatchNo:

FileID:

11/19/08 10:30 11/20/08 9:25 12/02/08 10:09

8538/R15689

1-SAMP-95694

Revision: Col Type:

Analyte	Result Qu	al PQL	MDL	Units	DF	Date Analyzed
TOTAL METALS BY ICP		and the second s		SW6010B		(SW3050B)
Arsenic	6.5	1.5	0.61	mg/Kg-dry	1	12/03/08 16:47
Cadmium	0.29 J	0.77	0.15	mg/Kg-dry	1	12/03/08 16:47
Chromium	19	1.5	0.61	mg/Kg-dry	1	12/03/08 16:47
Copper	31	1.5	0.31	mg/Kg-dry	1	12/03/08 16:47
Lead	32	1.5	0.61	mg/Kg-dry	1	12/03/08 16:47
Nickel	26	7.7	0.31	mg/Kg-dry	1	12/03/08 16:47
Zinc	98	3.1	0.61	mg/Kg-dry	1	12/03/08 16:47

Qualifiers:

Value exceeds Maximum Contaminant Level

E Value exceeds the instrument calibration range

Analyte detected below the PQL

Prim./Conf. column %D or RPD exceeds limit

B Analyte detected in the associated Method Blank

Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

**Analytical Results** 

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

Sample Size: 0.5 g

%Moisture: 33.4

TestCode: 6010S

StateCertNo: 10155

ERM Consulting & Engineering CLIENT:

Ithaca Dredging Project:

0811142 W Order: Matrix: SOIL

ICAP 61E Inst. ID:

ColumnID:

12/05/08 8:41 Revision:

Lab ID:

0811142-007D

Client Sample ID: Ith-Dup1

Collection Date: Date Received:

11/19/08 0:00 11/20/08 9:25

PrepDate: BatchNo:

12/02/08 10:09 8538/R15689

FileID:

1-SAMP-95695

Col Type:

Our ville.				and the second second		A STATE OF THE PARTY OF THE PAR		
Analyte	Result Qı	al PQL	MDĽ	Units	DF	Date Analyzed		
TOTAL METALS BY ICP			ETALS BY ICP			SW601	0B	(SW3050B)
Arsenic	6.8	1.5	0.60	mg/Kg-d	ry 1	12/03/08 16:50		
Cadmium	ND	0.75	0.15	mg/Kg-d	ry 1	12/03/08 16:50		
Chromium	18	1.5	0.60	mg/Kg-d	ry 1	12/03/08 16:50		
Copper	28	1.5	0.30	mg/Kg-d	ry 1	12/03/08 16:50		
• •	30	1.5	0.60	mg/Kg-d	ry 1	12/03/08 16:50		
Lead	25	7.5	0.30	mg/Kg-d	- iry 1	12/03/08 16:50		
Nickel Zinc	94	3.0	0.60	mg/Kg-d	•	12/03/08 16:50		
LITTO	u i							

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- Value exceeds Maximum Contaminant Level
- E Value exceeds the instrument calibration range
- Analyte detected below the PQL
- Prim./Conf. column %D or RPD exceeds limit
- Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
  - Spike Recovery outside accepted recovery limits

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

**Analytical Results** 

StateCertNo: 10155

CLIENT:

**ERM Consulting & Engineering** 

Project:

Ithaca Dredging

W Order:

0811166

Matrix:

SOIL

Inst. ID:

ICAP 61E

ColumnID:

12/05/08 8:41

%Moisture: 35.0 TestCode: 6010S

Sample Size: 0.5 g

Lab ID:

0811166-001D

Client Sample ID: Ith-9 (1-14)

11/20/08 15:15

Collection Date: Date Received:

11/21/08 16:16

PrepDate:

12/02/08 10:11

BatchNo:

8539/R15689

1-SAMP-95652 FileID:

Revision: Col Type:

Analyte	Result Qu	ıal PQL	MDL	Units	DF	Date Analyzed
TOTAL METALS BY ICP				SW6010	В	(SW3050B)
Arsenic	3.2	1.5	0.62	mg/Kg-dr	y 1	12/03/08 12:22
Cadmium	ND	0.77	0.15	mg/Kg-dr	y 1	12/03/08 12:22
Chromium	11	1.5	0.62	mg/Kg-dr	y 1	12/03/08 12:22
Copper	16	1.5	0.31	mg/Kg-dr	y 1	12/03/08 12:22
Lead	9.3	1.5	0.62	mg/Kg-dr	y 1	12/03/08 12:22
Nickel	16	7.7	0.31	mg/Kg-dr	y 1	12/03/08 12:22
Zinc	48	3.1	0.62	mg/Kg-dr	y 1	12/03/08 12:22

Qualifiers:

Print Date: 12/11/08 15:29

Value exceeds Maximum Contaminant Level

Value exceeds the instrument calibration range

Analyte detected below the PQL

Prim./Conf. column %D or RPD exceeds limit

Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

**Analytical Results** 

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

StateCertNo: 10155

CLIENT:

**ERM Consulting & Engineering** 

Project:

Ithaca Dredging

W Order:

0811166

Matrix:

SOIL

Inst. ID:

Revision: Col Type:

ColumnID:

ICAP 61E

12/05/08 8:41

%Moisture: 34.1 TestCode: 6010S

Sample Size: 0.5 g

Lab ID:

0811166-002D

Client Sample ID: Ith-10 (1-14)

Collection Date:

11/20/08 14:15 11/21/08 16:16

Date Received: PrepDate:

12/02/08 10:11

BatchNo:

8539/R15689

FileID:

1-SAMP-95653

Analyte	Result Qu	al PQL	MDL	Units DF	Date Analyzed
TOTAL METALS BY ICP				SW6010B	(SW3050B)
Arsenic	3.0	1.5	0.61	mg/Kg-dry 1	12/03/08 12:26
Cadmium	ND	0.76	0.15	mg/Kg-dry 1	12/03/08 12:26
Chromium	9.9	1.5	0.61	mg/Kg-dry 1	12/03/08 12:26
Copper	14	1.5	0.30	mg/Kg-dry 1	12/03/08 12:26
Lead	8.2	1.5	0.61	mg/Kg-dry 1	12/03/08 12:26
Nickel	14	7.6	0.30	mg/Kg-dry 1	12/03/08 12:26
Zinc	42	3.0	0.61	mg/Kg-dry 1	12/03/08 12:26

Qualifiers:

Value exceeds Maximum Contaminant Level

Value exceeds the instrument calibration range

Analyte detected below the PQL

Prim./Conf. column %D or RPD exceeds limit

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

### Life Science Laboratories, Inc. 5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

**Analytical Results** 

StateCertNo: 10155

CLIENT:

ERM Consulting & Engineering

Project: Ithaca Dredging

W Order: Matrix:

0811166 SOIL

Inst. ID:

ColumnID:

12/05/08 8:41

ICAP 61E

%Moisture: 32.2 TestCode: 6010S

Sample Size: 0.5 g

Lab ID:

BatchNo:

FileID:

0811166-003D

Client Sample ID: Ith-11 (1-14)

**Collection Date:** 

11/21/08 16:16 Date Received: PrepDate:

12/02/08 10:11

11/20/08 12:20

8539/R15689 1-SAMP-95654

Revision: Col Type:

Analyte	Result Qual PQL		MDL	Units	DF	Date Analyzed
TOTAL METALS BY ICP				SW6010B		(SW3050B)
Arsenic	2.5	1.5	0.59	mg/Kg-dr	/ 1	12/03/08 12:29
Cadmium	ND	0.74	0.15	mg/Kg-dr	y 1	12/03/08 12:29
Chromium	10	1.5	0.59	mg/Kg-dr	y 1	12/03/08 12:29
Copper	15	1.5	0.29	mg/Kg-dr	y 1	12/03/08 12:29
Lead	7.5	1.5	0.59	mg/Kg-dr	y 1	12/03/08 12:29
Nickel	15	7.4	0.29	mg/Kg-dr	y 1	12/03/08 12:29
Zinc	42	2.9	0.59	mg/Kg-dr	y 1	12/03/08 12:29

Qua	lifiers
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- Value exceeds Maximum Contaminant Level
- Value exceeds the instrument calibration range
- Analyte detected below the POL
- Prim./Conf. column %D or RPD exceeds limit
- Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
  - Spike Recovery outside accepted recovery limits

**Analytical Results** 

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

StateCertNo: 10155

CLIENT:

ERM Consulting & Engineering

Project:

Ithaca Dredging

W Order:

0811166

Matrix:

SOIL

Inst. ID:

ICAP 61E

ColumnID:

12/05/08 8:41

%Moisture: 36.2

TestCode: 6010S

Sample Size: 0.5 g

Lab ID:

0811166-004D

Client Sample ID: Ith-12 (1-14)

**Collection Date:** 

11/20/08 10:45

Date Received:

11/21/08 16:16

PrepDate: BatchNo:

FileID:

12/02/08 10:11 8539/R15689

1-SAMP-95655

Revision: Col Type:

Analyte	Result Qu	esult Qual PQL MDL		Units	DF	Date Analyzed
TOTAL METALS BY ICP			100 · · · · · · · · · · · · · · · · · ·	SW6010B		(SW3050B)
Arsenic	1.9	1.6	0.63	mg/Kg-d	y 1	12/03/08 12:33
Cadmium	ND	0.78	0.16	mg/Kg-d	ry 1	12/03/08 12:33
Chromium	11	1.6	0.63	mg/Kg-d	ry 1	12/03/08 12:33
Copper	8.5	1.6	0.31	mg/Kg-d	ry 1	12/03/08 12:33
Lead	8.4	1. <del>6</del>	0.63	mg/Kg-d	ry 1	12/03/08 12:33
Nickel	16	7.8	0.31	mg/Kg-d	ry 1	12/03/08 12:33
Zinc	47	3.1	0.63	mg/Kg-d	ry 1	12/03/08 12:33

Qualifiers:

Value exceeds Maximum Contaminant Level

Value exceeds the instrument calibration range

Analyte detected below the PQL

Prim./Conf. column %D or RPD exceeds limit

Analyte detected in the associated Method Blank

Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

### Life Science Laboratories, Inc. 5000 Brittonfield Parkway, Suite 200

### **Analytical Results**

East Syracuse, NY 13057

(315) 437-0200

StateCertNo: 10155

CLIENT:

ERM Consulting & Engineering

Project:

Ithaca Dredging

W Order:

0811166

Matrix:

SOIL

Inst. ID:

ColumnID:

ICAP 61E

12/05/08 8:41

TestCode: 6010S

Sample Size: 0.5 g

%Moisture: 25.2

Lab ID:

0811166-005D

Client Sample ID: Ith-16 (1-14) 11/20/08 9:30

Collection Date:

11/21/08 16:16

Date Received: PrepDate:

12/02/08 10:11

BatchNo: FileID:

8539/R15689 1-SAMP-95656

Revision: Col Type:

Analyte	Result Qual PQL		MDL	Units	DF	Date Analyzed
TOTAL METALS BY ICP			7 · · · · · · · · · · · · · · · · · · ·	SW6010	)B	(SW3050B)
Arsenic	2.5	1.3	0.53	mg/Kg-dr	y 1	12/03/08 12:37
Cadmium	ND	0.67	0.13	mg/Kg-dr	y 1	12/03/08 12:37
Chromium	10	1.3	0.53	mg/Kg-di	y 1	12/03/08 12:37
Copper	8.0	1.3	0.27	mg/Kg-di	y 1	12/03/08 12:37
Lead	5.5	1.3	0.53	mg/Kg-di	y 1	12/03/08 12:37
Nickel	15	6.7	0.27	mg/Kg-di	y 1	12/03/08 12:37
Zinc	43	2.7	0.53	mg/Kg-di	y 1	12/03/08 12:37

Qualifiers:

Value exceeds Maximum Contaminant Level

E Value exceeds the instrument calibration range

Analyte detected below the PQL

Prim./Conf. column %D or RPD exceeds limit

Analyte detected in the associated Method Blank

Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

Spike Recovery outside accepted recovery limits

**Analytical Results** 

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

StateCertNo: 10155

CLIENT:

**ERM Consulting & Engineering** 

Project:

Ithaca Dredging

W Order:

0811166

Matrix:

SOIL

Inst. ID:

Col Type:

ICAP 61E

ColumnID: Revision:

12/05/08 8:41

Sample Size: 0.5 g %Moisture: 25.2 TestCode:

6010S

Lab ID:

0811166-006D

Client Sample ID: Ith-14 (1-14)

Collection Date:

11/21/08 9:50 11/21/08 16:16

Date Received: PrepDate:

12/02/08 10:11

BatchNo:

8539/R15689

FileID:

1-SAMP-95664

Analyte	Result Qu	Result Qual PQL		Units DF	Date Analyzed	
TOTAL METALS BY ICP				SW6010B	(SW3050B)	
Arsenic	3.6	1.3	0.53	mg/Kg-dry 1	12/03/08 13:05	
Cadmium	ND	0.67	0.13	mg/Kg-dry 1	12/03/08 13:05	
Chromium	13	1.3	0.53	mg/Kg-dry 1	12/03/08 13:05	
Copper	12	1.3	0.27	mg/Kg-dry 1	12/03/08 13:05	
Lead	6.8	1.3	0.53	mg/Kg-dry 1	12/03/08 13:05	
Nickel	20	6.7	0.27	mg/Kg-dry 1	12/03/08 13:05	
Zinc	47	2.7	0.53	mg/Kg-dry 1	12/03/08 13:05	

Qualifiers:

Value exceeds Maximum Contaminant Level

Value exceeds the instrument calibration range

Analyte detected below the PQL

P Prim./Conf. column %D or RPD exceeds limit

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

Spike Recovery outside accepted recovery limits

Print Date: 12/11/08 15:29

408583

### Life Science Laboratories, Inc. 5000 Brittonfield Parkway, Suite 200

### **Analytical Results**

East Syracuse, NY 13057

(315) 437-0200

StateCertNo: 10155

CLIENT:

**ERM Consulting & Engineering** 

Project:

Ithaca Dredging

W Order:

0811166

Matrix:

SOIL

Inst. ID:

ColumnID:

ICAP 61E

12/05/08 8:41

Sample Size: 0.5 g %Moisture: 30.9

TestCode: 6010S

Lab ID:

0811166-007D

Client Sample ID: Ith-13 (1-10)

Collection Date:

11/21/08 8:30 11/21/08 16:16

Date Received: PrepDate:

12/02/08 10:11

BatchNo:

8539/R15689

FileID:

1-SAMP-95665

Revision: Col Type:

Analyte	Result Qu	al PQL	MDL	Units	DF	Date Analyzed
TOTAL METALS BY ICP		1		SW6010	В	(SW3050B)
Arsenic	3.6	1.4	0.58	mg/Kg-dt	y 1	12/03/08 13:08
Cadmium	ND	0.72	0.14	mg/Kg-dr	y 1	12/03/08 13:08
Chromium	12	1.4	0.58	mg/Kg-di	y 1	12/03/08 13:08
Copper	12	1.4	0.29	mg/Kg-di	y 1	12/03/08 13:08
Lead	7.7	1.4	0.58	mg/Kg-di	y 1	12/03/08 13:08
Nickel	17	7.2	0.29	mg/Kg-di	y 1	12/03/08 13:08
Zīnc	52	2,9	0.58	mg/Kg-di	y 1	12/03/08 13:08

Qualifiers:

- Value exceeds Maximum Contaminant Level
- Value exceeds the instrument calibration range
- Analyte detected below the PQL
- Prim./Conf. column %D or RPD exceeds limit
- Analyte detected in the associated Method Blank
- Holding times for preparation or analysis exceeded H
- ND Not Detected at the Practical Quantitation Limit (PQL)
- Spike Recovery outside accepted recovery limits

Print Date: 12/11/08 15:29

408584

Project Supervisor: Anthony Crescenzi

**Analytical Results** 

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

Sample Size: 0.5 g

%Moisture: 31.1

TestCode: 6010S

StateCertNo: 10155

**ERM Consulting & Engineering** 

Project: Ithaca Dredging

W Order: 0811166 Matrix: SOIL

Inst. ID: ICAP 61E

ColumnID:

**Revision:** 12/05/08 8:41

Lab ID:

0811166-008D

11/21/08 8:40

Client Sample ID: Ith-13 (10-14)

Collection Date: Date Received:

PrepDate:

11/21/08 16:16 12/02/08 10:11

8539/R15689

BatchNo: FileID: 1-SAMP-95666

Col Type:

Analyte	Result Qu	ıal PQL	MDL	Units	DF	Date Analyzed	
TOTAL METALS BY ICP	V		<u> </u>	SW6010B		(SW3050B)	
Arsenic	3.9	1.5	0.58	mg/Kg-d	ry 1	12/03/08 13:12	
Cadmium	ND	0.73	0.15	mg/Kg-d	ry 1	12/03/08 13:12	
Chromium	13	1.5	0.58	mg/Kg-d	ry 1	12/03/08 13:12	
Copper	13	1.5	0.29	mg/Kg-d	ry 1	12/03/08 13:12	
Lead	6.2	1.5	0.58	mg/Kg-d	ry 1	12/03/08 13:12	
Nickel	17	7.3	0.29	mg/Kg-d	ry 1	12/03/08 13:12	
Zinc	55	2.9	0.58	mg/Kg-d	ry 1	12/03/08 13:12	

Qualifiers
------------

- Value exceeds Maximum Contaminant Level
- E Value exceeds the instrument calibration range
- Analyte detected below the PQL
- Prim./Conf. column %D or RPD exceeds limit
- Analyte detected in the associated Method Blank
- Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
  - Spike Recovery outside accepted recovery limits

408585

**Analytical Results** 

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

StateCertNo: 10155

CLIENT: ERM Consulting & Engineering

Project:

Ithaca Dredging

W Order: Matrix:

0811166 SOIL

Inst. ID:

ICAP 61E

ColumnID:

12/05/08 8:41

Sample Size: 0.5 g

%Moisture: 40.0 TestCode: 6010S Lab ID:

0811166-009D

Client Sample ID: Ith-1 (1-6)

**Collection Date:** 

11/20/08 16:00 11/21/08 16:16

Date Received: PrepDate:

12/02/08 10:11 8539/R15689

BatchNo: FileID:

1-SAMP-95667

Revision: Col Type:

				and the second s				
Analyte	Result Qı	Result Qual PQL		Units	DF	Date Analyzed		
TOTAL METALS BY ICP				SW6010B		(SW3050B)		
Arsenic	3.5	1.7	0.67	mg/Kg-dry	1	12/03/08 13:15		
Cadmium	ND	0.83	0.17	mg/Kg-dry	1	12/03/08 13:15		
Chromium	12	1.7	0.67	mg/Kg-dry	1	12/03/08 13:15		
Copper	18	1,7	0.33	mg/Kg-dry	1	12/03/08 13:15		
Lead	13	1.7	0.67	mg/Kg-dry	1	12/03/08 13:15		
Nickel	17	8.3	0.33	mg/Kg-dry	1	12/03/08 13:15		
Zinç	68	3.3	0.67	mg/Kg-dry	1	12/03/08 13:15		

Qualifiers:

- Value exceeds Maximum Contaminant Level
- Value exceeds the instrument calibration range Ε
- Analyte detected below the PQL
- Prim./Conf. column %D or RPD exceeds limit
- Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
  - Spike Recovery outside accepted recovery limits

**Analytical Results** 

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

StateCertNo: 10155

CLIENT:

**ERM Consulting & Engineering** 

Project:

Ithaca Dredging

W Order:

0811166

Matrix:

SOIL

Inst. ID:

ICAP 61E

ColumnID:

12/05/08 8:41

TestCode:

Sample Size: 0.5 g

%Moisture: 41.2 6010S Lab ID:

0811166-010D

Client Sample ID: Ith-DUP2

Collection Date:

11/20/08 0:00

Date Received:

11/21/08 16:16

PrepDate: BatchNo:

12/02/08 10:11 8539/R15689

FileID:

1-SAMP-95668

Revision: Col Type:

Analyte	Result Ou	Result Qual PQL		Units	DF	Date Analyzed
				SW6010	)B	(SW3050B)
TOTAL METALS BY ICP	2.5	1.7	0.68	mg/Kg-di	ry 1	12/03/08 13:19
Arsenic	ND	0.85	0.17	mg/Kg-di	ry 1	12/03/08 13:19
Cadmium	12	1.7	0.68	mg/Kg-d	ry 1	12/03/08 13:19
Chromium	16	1.7	0.34	mg/Kg-d	ry 1	12/03/08 13:19
Copper	7.8	1.7	0.68	mg/Kg-d	ry 1	12/03/08 13:19
Lead	18	8.5	0.34	mg/Kg-d	ry 1	12/03/08 13:19
Nickel Zinc	49	3.4	0.68	mg/Kg-d	ry 1	12/03/08 13:19

Qualifiers:

Value exceeds Maximum Contaminant Level

Value exceeds the instrument calibration range

Analyte detected below the PQL

Prim./Conf. column %D or RPD exceeds limit

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

**Analytical Results** 

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

StateCertNo: 10155

CLIENT: Project:

**ERM Consulting & Engineering** 

Ithaca Dredging

W Order:

0811166 SOIL

Matrix: Inst. ID:

ICAP 61E

ColumnID:

%Moisture: 47.6

Sample Size: 0.5 g

Lab ID:

0811166-011D

Client Sample ID: Ith-2 (1-6)

Collection Date:

11/20/08 16:10 11/21/08 16:16

Date Received: PrepDate:

12/02/08 10:11

BatchNo:

8539/R15689

Col Type:

TestCode: 6010S Revision: 12/05/08 8:41

FileID:

1-SAMP-95669

<b>.</b> .							
Analyte	Result Qual PQL		MDL	Units	DF	Date Analyzed	
TOTAL METALS BY ICP				SW6010B		(SW3050B)	
Arsenic	5.6	1.9	0.76	mg/Kg-di	ry 1	12/03/08 13:23	
Cadmium	ND	0.95	0.19	mg/Kg-d	ry 1	12/03/08 13:23	
Chromium	19	1.9	0.76	mg/Kg-d	ry 1	12/03/08 13:23	
Copper	27	1.9	0.38	mg/Kg-d	ry 1	12/03/08 13:23	
Lead	21	1.9	0.76	mg/Kg-d	ry 1	12/03/08 13:23	
Nickel	26	9.5	0.38	mg/Kg-d	ry 1	12/03/08 13:23	
Zinc	97	3.8	0.76	mg/Kg-d	ry 1	12/03/08 13:23	

Qualifiers:

Value exceeds Maximum Contaminant Level

Value exceeds the instrument calibration range

Analyte detected below the PQL

Prim./Conf. column %D or RPD exceeds limit

Analyte detected in the associated Method Blank

Holding times for preparation or analysis exceeded Η

ND Not Detected at the Practical Quantitation Limit (PQL)

Spike Recovery outside accepted recovery limits

**Analytical Results** 

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

StateCertNo: 10155

CLIENT:

**ERM Consulting & Engineering** 

Project:

Ithaca Dredging

W Order:

0811166

Matrix:

SOIL

Inst. ID:

Col Type:

ICAP 61E

ColumnID:

Revision:

12/05/08 8:41

TestCode: 6010S

Sample Size: 0.5 g

%Moisture: 48.3

Lab ID:

0811166-012D

Client Sample ID: Ith-3 (1-6)

Collection Date:

11/20/08 16:15 11/21/08 16:16

Date Received: PrepDate:

12/02/08 10:11

BatchNo:

8539/R15689

FileID:

1-SAMP-95673

Result Qual PQL		MDL	Units DF	Date Analyzed		
			SW6010B	(SW3050B)		
5.4	1.9	0.77	mg/Kg-dry 1	12/03/Q8 13:37		
ND	0.97	0.19	mg/Kg-dry 1	12/03/08 13:37		
18	1.9	0.77	mg/Kg-dry 1	12/03/08 13:37		
29	1.9	0.39	mg/Kg-dry 1	12/03/08 13:37		
25	1.9	0.77	mg/Kg-dry 1	12/03/08 13:37		
24	9.7	0.39	mg/Kg-dry 1	12/03/08 13:37		
100	3.9	0.77	mg/Kg-dry 1	12/03/08 13:37		
	5.4 ND 18 29 25 24	5.4 1.9 ND 0.97 18 1.9 29 1.9 25 1.9 24 9.7	5.4 1.9 0.77 ND 0.97 0.19 18 1.9 0.77 29 1.9 0.39 25 1.9 0.77 24 9.7 0.39	SW6010B  5.4 1.9 0.77 mg/Kg-dry 1  ND 0.97 0.19 mg/Kg-dry 1  18 1.9 0.77 mg/Kg-dry 1  29 1.9 0.39 mg/Kg-dry 1  25 1.9 0.77 mg/Kg-dry 1  24 9.7 0.39 mg/Kg-dry 1		

Qualifiers:

Value exceeds Maximum Contaminant Level

Value exceeds the instrument calibration range

Analyte detected below the PQL

Prim./Conf. column %D or RPD exceeds limit

Analyte detected in the associated Method Blank

Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

**Analytical Results** 

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

StateCertNo: 10155

CLIENT:

**ERM Consulting & Engineering** 

Project:

Ithaca Dredging

W Order:

0811166

Matrix:

SOIL

Inst. ID:

ICAP 61E

ColumnID: Revision:

Col Type:

12/05/08 8:41

%Moisture: 37.0 TestCode: 6010S

Sample Size: 0.5 g

Lab ID:

0811166-013D

Client Sample ID: Ith-4 (1-6)

Collection Date:

11/20/08 16:20

Date Received:

11/21/08 16:16

PrepDate: BatchNo:

12/02/08 10:11 8539/R15689

FileID:

1-SAMP-95674

Analyte	Result Qu	t Qual PQL MI		Units DF	Date Analyzed
TOTAL METALS BY ICP				SW6010B	(SW3050B)
Arsenic	4.3	1.6	0.63	mg/Kg-dry 1	12/03/08 13:40
Cadmium	ND	0.79	0.16	mg/Kg-dry 1	12/03/08 13:40
Chromium	12	1.6	0.63	mg/Kg-dry 1	12/03/08 13:40
Copper	18	1.6	0.32	mg/Kg-dry 1	12/03/08 13:40
Lead	12	1.6	0.63	mg/Kg-dry 1	12/03/08 13:40
Nickel	17	7.9	0.32	mg/Kg-dry 1	12/03/08 13:40
Zinc	60	3.2	0.63	mg/Kg-dry 1	12/03/08 13:40

Qualifiers:

Value exceeds Maximum Contaminant Level

E Value exceeds the instrument calibration range

Analyte detected below the PQL

Prim./Conf. column %D or RPD exceeds limit

Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

Spike Recovery outside accepted recovery limits

**Analytical Results** 

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

StateCertNo: 10155

**ERM Consulting & Engineering** CLIENT:

Project:

Ithaca Dredging

W Order: Matrix:

0811166 SOIL

Inst. ID:

ICAP 61E

ColumnID:

12/05/08 8:41

Sample Size: 0.5 g %Moisture: 39.7

TestCode: 6010S

Lab ID:

0811166-014D

Client Sample ID: Ith-6 (1-6)

**Collection Date:** 

Date Received:

11/20/08 16:25 11/21/08 16:16

PrepDate:

12/02/08 10:11

BatchNo: FileID:

8539/R15689 1-SAMP-95675

Revision: Col Type:

our rapper						····
Analyte	Result Qu	al PQL	MDL	Units	DF	Date Analyzed
TOTAL METALS BY ICP				SW601	0B	(SW3050B)
Arsenic	4.5	1.7	0.66	mg/Kg-d	ry 1	12/03/08 13:44
Cadmium	ND	0.83	0.17	mg/Kg-d	ry 1	12/03/08 13:44
Chromium	14	1.7	0.66	mg/Kg-d	ry 1	12/03/08 13:44
Copper	21	1.7	0.33	mg/Kg-d	ry 1	12/03/08 13:44
Lead	20	1.7	0.66	mg/Kg-d	ry 1	12/03/08 13:44
Nickel	20	8.3	0.33	mg/Kg-d	ry 1	12/03/08 13:44
Zinc	70	3.3	0.66	mg/Kg-d	ry 1	12/03/08 13:44

Qualifiers:

Value exceeds Maximum Contaminant Level

Value exceeds the instrument calibration range

Analyte detected below the PQL

Prim./Conf. column %D or RPD exceeds limit

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

Spike Recovery outside accepted recovery limits

# Life Science Laboratories, Inc. 5000 Brittonfield Parkway, Suite 200

**Analytical Results** 

East Syracuse, NY 13057

(315) 437-0200

StateCertNo: 10155

CLIENT:

ERM Consulting & Engineering

Project:

Ithaca Dredging

W Order:

0811131 SOIL

Matrix:

Inst. ID:

**FIMS 100** 

ColumnID:

Revision:

Col Type:

12/04/08 10:00

Sample Size: 0.3 g

%Moisture: 24.7 TestCode: HG7471S Lab ID:

0811131-001D

Client Sample ID: Ith-3 (6-12)

**Collection Date:** 

11/17/08 14:50 11/18/08 16:28

Date Received:

12/01/08 0:00

PrepDate: BatchNo:

8535/R15669

FileID:

1-SAMP-

Analyte	Result Qual PQL		MDL	Units	DF	Date Analyzed
MERCURY				SW7471	IA	(SW7471A)
Mercury	0.033 J	0.13	0.011	mg/Kg-dr	y 1	12/03/08 15:44

Qualifiers:

Value exceeds Maximum Contaminant Level

Value exceeds the instrument calibration range

Analyte detected below the PQL

Prim./Conf. column %D or RPD exceeds limit

Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

Spike Recovery outside accepted recovery limits

Project Supervisor: Anthony Crescenzi

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

**Analytical Results** 

StateCertNo: 10155

CLIENT:

ERM Consulting & Engineering

Project:

Ithaca Dredging

W Order:

0811131 SOIL

Matrix:

**FIMS 100** 

Inst. ID: ColumnID:

Revision:

12/04/08 10:00

%Moisture: 28.6 TestCode: HG7471S

Sample Size: 0.3 g

Lab ID:

0811131-002D

Client Sample ID: Ith-4 (6-12)

Collection Date:

11/18/08 9:20

Date Received: PrepDate:

11/18/08 16:28 12/01/08 0:00

BatchNo: FileID:

8535/R15669

1-SAMP-

Col Type:

Analyte	Result Qua	l PQL	MDL	Units	DF	Date Analyzed
MERCURY Mercury	0.043 J	0.14	0.012	<b>SW747</b> 1 mg/Kg-di		(SW7471A) 12/03/08 15:46

Qualifiers:

Value exceeds Maximum Contaminant Level

Value exceeds the instrument calibration range

Analyte detected below the PQL

Prim./Conf. column %D or RPD exceeds limit

Analyte detected in the associated Method Blank

Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

Spike Recovery outside accepted recovery limits

### Life Science Laboratories, Inc. 5000 Brittonfield Parkway, Suite 200

**Analytical Results** 

East Syracuse, NY 13057

(315) 437-0200

StateCertNo: 10155 0811131-003D

11/18/08 10:10

11/18/08 16:28

CLIENT:

ERM Consulting & Engineering

Project:

Ithaca Dredging

W Order:

0811131

Matrix:

SOIL

Inst. ID:

ColumnID:

12/04/08 10:00

Revision:

**FIMS 100** 

TestCode: HG7471S

Sample Size: 0.3 g

%Moisture: 31.9

**Collection Date:** Date Received:

Lab ID:

PrepDate: BatchNo:

FileID:

12/01/08 0:00 8535/R15669

1-SAMP-

Client Sample ID: Ith-2 (6-10)

Col Type:

Analyte	Result Qu	al PQL	MDL	Units	DF	Date Analyzed
MERCURY				SW747		(SW7471A)
Mercury	0.18	0.15	0.012	mg/Kg-d	ry 1	12/03/08 15:48

Qualifiers:

Value exceeds Maximum Contaminant Level

Value exceeds the instrument calibration range

Analyte detected below the PQL

Prim./Conf. column %D or RPD exceeds limit

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

Spike Recovery outside accepted recovery limits

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

**Analytical Results** 

StateCertNo: 10155

CLIENT:

**ERM Consulting & Engineering** 

Project:

Ithaca Dredging

W Order:

0811131 SOIL

Matrix:

**FIMS 100** 

Inst. ID: ColumnID:

Revision: Col Type:

12/04/08 10:00

Collection Date:

Sample Size: 0.3 g

%Moisture: 34.5

TestCode: HG7471S

Lab ID:

0811131-004D

Client Sample ID: Ith-2 (10-14)

11/18/08 10:20

Date Received:

11/18/08 16:28 12/01/08 0:00

PrepDate: BatchNo:

8535/R15669

FileID:

1-SAMP-

Analyte	Result Qua	l PQL	MDL	Units	DF	Date Analyzed
MERCURY Mercury	0.047 J	0.15	0.013	SW7471 mg/Kg-dr		(SW7471A) 12/03/08 15:50

Qualifiers:

Value exceeds Maximum Contaminant Level

Value exceeds the instrument calibration range

Analyte detected below the PQL

Prim./Conf. column %D or RPD exceeds limit

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

Spike Recovery outside accepted recovery limits

Print Date: 12/12/08 9:02

408174

Project Supervisor: Anthony Crescenzi

**Analytical Results** 

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

StateCertNo: 10155

CLIENT:

ERM Consulting & Engineering

Project:

Ithaca Dredging

W Order:

0811131

Matrix:

SOIL

Inst. ID:

**FIMS 100** 

ColumnID: Revision:

Col Type:

12/04/08 10:00

TestCode:

Sample Size: 0.3 g %Moisture: 30.4

**HG7471S** 

Lab ID:

0811131-005D

Client Sample ID: Ith-6 (6-10) 11/18/08 14:10

Collection Date: Date Received:

11/18/08 16:28

PrepDate:

12/01/08 0:00

BatchNo:

8535/R15669

FileID:

1-SAMP-

Analyte	Result Qual PQL		MDL	Units	DF	Date Analyzed
MERCURY				SW747	IA	(SW7471A)
Mercury	0.030 J	0.14	0.012	mg/Kg-di	ry 1	12/03/08 15:57

Qualifiers:

Value exceeds Maximum Contaminant Level

Value exceeds the instrument calibration range

Analyte detected below the PQL

Prim./Conf. column %D or RPD exceeds limit

Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

Spike Recovery outside accepted recovery limits

### **Analytical Results**

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

StateCertNo: 10155

Project:

**ERM Consulting & Engineering** 

Ithaca Dredging

W Order:

0811131 SOIL

Matrix:

Inst. ID: ColumnID:

Col Type:

FIMS 100

12/04/08 10:00 Revision:

Sample Size: 0.3 g

%Moisture: 34.7

TestCode: HG7471S

Lab ID:

0811131-006D

Client Sample ID: Ith-6 (10-14)

Collection Date: Date Received:

11/18/08 14:20 11/18/08 16:28

PrepDate: BatchNo:

FileID:

12/01/08 0:00 8535/R15669

1-SAMP-

Analyte	Result Qual I	PQL MD)	L Units DF	Date Analyzed
MERCURY			SW7471A	(SW7471A)
Mercury	0.031 J	3.15 0.013	mg/Kg-dry 1	12/03/08 15:59

Qualifiers:

Value exceeds Maximum Contaminant Level

Value exceeds the instrument calibration range

Analyte detected below the PQL

Prim./Conf. column %D or RPD exceeds limit

Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

Not Detected at the Practical Quantitation Limit (PQL)

Spike Recovery outside accepted recovery limits

**Analytical Results** 

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

StateCertNo: 10155

CLIENT:

**ERM Consulting & Engineering** 

Project:

Ithaca Dredging

W Order:

0811142

Matrix:

SOIL

Inst. ID:

**FIMS 100** 

ColumnID: Revision:

Col Type:

12/04/08 10:00

TestCode:

Sample Size: 0.3 g

%Moisture: 38.2

**HG7471S** 

Lab ID:

0811142-001D

Client Sample ID: Ith-8 (2-10)

**Collection Date:** 

11/19/08 14:30

Date Received:

11/20/08 9:25

PrepDate:

12/01/08 0:00

BatchNo:

FileID:

8536/R15669

1-SAMP-

Analyte	Result Qua		MDL	Units	DF	Date Analyzed
MERCURY				SW7471		(SW7471A)
Mercury	0.20	0.16	0.014	mg/Kg-dr	ry 1	12/03/08 15:15

Qualifiers:

Value exceeds Maximum Contaminant Level

Value exceeds the instrument calibration range

Analyte detected below the PQL

Prim./Conf. column %D or RPD exceeds limit

Analyte detected in the associated Method Blank

Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

Spike Recovery outside accepted recovery limits

**Analytical Results** 

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

StateCertNo: 10155

CLIENT:

**ERM Consulting & Engineering** 

Project:

Ithaca Dredging

W Order:

0811142 SOIL

Matrix:

Inst. ID:

**FIMS 100** 

ColumnID:

Revision:

12/04/08 10:00

%Moisture: 31.3 TestCode: HG7471S

Sample Size: 0.3 g

Lab ID:

0811142-002D

Client Sample ID: Ith-8 (10-14)

Collection Date: Date Received:

11/19/08 14:45 11/20/08 9:25

PrepDate:

12/01/08 0:00 8536/R15669

BatchNo: FileID:

1-SAMP-

Col Type:

Analyte	Result Qua	l PQL	MDL	Units	DF	Date Analyzed
MERCURY				SW7471		(SW7471A)
Mercury	0.093 J	0.15	0.012	mg/K <b>g-d</b> r	y 1	12/03/08 15:18

Qualifiers:

Value exceeds Maximum Contaminant Level

Value exceeds the instrument calibration range

Analyte detected below the PQL

Prim./Conf. column %D or RPD exceeds limit

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

Spike Recovery outside accepted recovery limits

**Analytical Results** 

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

StateCertNo: 10155

CLIENT:

**ERM Consulting & Engineering** 

Project:

Ithaca Dredging

W Order:

0811142 SOIL

Matrix:

Inst. ID:

**FIMS 100** 

ColumnID:

12/04/08 10:00 Revision:

%Moisture: 30.2 TestCode: HG7471S

Sample Size: 0.3 g

Lab ID:

0811142-003D

Client Sample ID: Ith-7 (1-14)

Collection Date:

11/19/08 13:50

Date Received:

11/20/08 9:25

PrepDate: BatchNo:

12/01/08 0:00

FileID:

8536/R15669 1-SAMP-

Col Type:

Analyte	Result Qua	I PQL	MDL	Units	DF	Date Analyzed
MERCURY Mercury	0.13 J	0.14	0,012	SW7471 mg/Kg-di		(SW7471A) 12/03/08 15:20

Qualifiers:

Value exceeds Maximum Contaminant Level

Value exceeds the instrument calibration range

Analyte detected below the PQL

Prim./Conf. column %D or RPD exceeds limit

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

Spike Recovery outside accepted recovery limits

Project Supervisor: Anthony Crescenzi

**Analytical Results** 

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

StateCertNo: 10155

CLIENT:

ERM Consulting & Engineering

Project:

Ithaca Dredging

W Order:

0811142

Matrix:

SOIL

Inst. ID:

ColumnID:

Revision: Col Type:

12/04/08 10:00

**FIMS 100** 

%Moisture: 34.3

TestCode:

Sample Size: 0.3 g

HG7471S

Lab ID:

0811142-004D

Client Sample ID: Ith-5 (4-10)

Collection Date:

11/19/08 12:40 11/20/08 9:25

Date Received: PrepDate:

12/01/08 0:00

BatchNo:

8536/R15669

FileID:

1-SAMP-

Analyte	Result Qu	al PQL	MDL	Units	DF	Date Analyzed
MERCURY Mercury	0.15	0.15	0.013	<b>SW747</b> 1 mg/Kg-dr		(SW7471A) 12/03/08 15:22

Qualifiers:

Value exceeds Maximum Contaminant Level

Value exceeds the instrument calibration range

Analyte detected below the PQL

Prim./Conf. column %D or RPD exceeds limit

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

Spike Recovery outside accepted recovery limits

Print Date: 12/12/08 9:03

408161

Project Supervisor: Anthony Crescenzi

**Analytical Results** 

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

StateCertNo: 10155

ERM Consulting & Engineering

Project:

Ithaca Dredging

W Order:

0811142

Matrix:

SOIL

Inst. ID:

Revision: Col Type:

**FIMS 100** 

ColumnID:

12/04/08 10:00

%Moisture: 29.0

TestCode: HG7471S

Sample Size: 0.3 g

Lab ID:

0811142-005D

11/19/08 12:50

Client Sample ID: Ith-5 (10-14)

Collection Date:

Date Received:

PrepDate:

BatchNo:

11/20/08 9:25 12/01/08 0:00 8536/R15669

FileID:

1-SAMP-

Analyte	Result Qual PQ	L MDL	Units DI	Date Analyzed
MERCURY			SW7471A	(SW7471A)
Mercury	0.087 J 0.14	0.012	mg/Kg-dry 1	12/03/08 15:33

Qualifiers:

Value exceeds Maximum Contaminant Level

Value exceeds the instrument calibration range

Analyte detected below the PQL

Prim./Conf. column %D or RPD exceeds limit

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

Spike Recovery outside accepted recovery limits

Project Supervisor: Anthony Crescenzi

## Life Science Laboratories, Inc. 5000 Brittonfield Parkway, Suite 200

**Analytical Results** 

East Syracuse, NY 13057

(315) 437-0200

StateCertNo: 10155

CLIENT:

**ERM Consulting & Engineering** 

Project:

Ithaca Dredging

W Order:

0811142 SOIL

Matrix:

Inst. ID:

**FIMS 100** 

ColumnID:

Revision:

Col Type:

12/04/08 10:00

%Moisture: 34.9

Sample Size: 0.3 g

TestCode: HG7471S

Lab ID:

0811142-006D

Client Sample ID: Ith-1 (6-12)

**Collection Date:** Date Received:

11/19/08 10:30 11/20/08 9:25

PrepDate:

12/01/08 0:00 8536/R15669

BatchNo: FileID:

1-SAMP-

Analyte	Result Qua	l PQL	MDL	Units	DF	Date Analyzed
MERCURY				SW7471	Α	(SW7471A)
Mercury	0.30	0.15	0.013	mg/Kg-dr	y 1	12/03/08 15:35

Qualifiers:

Value exceeds Maximum Contaminant Level

Value exceeds the instrument calibration range

Analyte detected below the PQL

Prim./Conf. column %D or RPD exceeds limit

Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

Spike Recovery outside accepted recovery limits

Project Supervisor: Anthony Crescenzi

**Analytical Results** 

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

StateCertNo: 10155

CLIENT:

ERM Consulting & Engineering

Project:

Ithaca Dredging

W Order:

0811142

Matrix:

SOIL

Inst. ID:

ColumnID:

**FIMS 100** 

Revision:

12/04/08 10:00

%Moisture: 33.4 TestCode: HG7471S

Sample Size: 0.3 g

Lab ID:

0811142-007D

Client Sample ID: Ith-Dup!

Collection Date:

Date Received:

11/19/08 0:00 11/20/08 9:25

PrepDate: BatchNo:

12/01/08 0:00

FileID:

8536/R15669 1-SAMP-

Col Type: DF MDL Units Result Qual PQL Analyte SW7471A

0.31

**MERCURY** Mercury

0.15

0.013

mg/Kg-dry 1

(SW7471A) 12/03/08 15:37

Date Analyzed

Qualifiers:

Value exceeds Maximum Contaminant Level

Value exceeds the instrument calibration range

Analyte detected below the POL

Prim./Conf. column %D or RPD exceeds limit

Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

Spike Recovery outside accepted recovery limits

## **Analytical Results**

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

StateCertNo: 10155

CLIENT:

ERM Consulting & Engineering

Project:

Ithaca Dredging

W Order:

0811166

Matrix:

SOIL

Inst. ID:

**FIMS 100** 

ColumnID: Revision:

Col Type:

12/04/08 10:00

Sample Size: 0.3 g

%Moisture: 35.0 TestCode:

HG7471S

Lab ID:

0811166-001D

Client Sample ID: Ith-9 (1-14)

Collection Date: Date Received:

11/20/08 15:15 11/21/08 16:16

PrepDate: BatchNo:

FileID:

12/01/08 0:00 8535/R15669

1-SAMP-

Analyte	Result Qua	i PQL	MDL	Units	DF	Date Analyzed
MERCURY				SW7471	A	(SW7471A)
Mercury	0.072 J	0.15	0.013	mg/K <b>g-d</b> r	y 1	12/03/08 16:01

Qualifiers:

Value exceeds Maximum Contaminant Level

Value exceeds the instrument calibration range

Analyte detected below the PQL

Prim./Conf. column %D or RPD exceeds limit

Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

Spike Recovery outside accepted recovery limits

**Analytical Results** 

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

StateCertNo: 10155

CLIENT:

**ERM Consulting & Engineering** 

Project:

Ithaca Dredging

W Order:

0811166

Matrix:

SOIL

Inst. ID:

**FIMS 100** 

ColumnID: Revision: Col Type:

12/04/08 10:00

%Moisture: 34.1

Sample Size: 0.3 g

TestCode: HG7471S

Lab ID:

0811166-002D

Client Sample ID: Ith-10 (1-14)

Collection Date:

Date Received:

11/20/08 14:15 11/21/08 16:16

PrepDate: BatchNo:

12/01/08 0:00 8535/R15669

1-SAMP-

FileID:

Analyte	Result Qua	l PQL	MDL	Units	DF	Date Analyzed
MERCURY				SW7471		(SW7471A)
Mercury	0. <b>037 J</b>	0.15	0.013	mg/Kg-dr	y 1	12/03/08 16:03

Qualifiers:

Value exceeds Maximum Contaminant Level

Value exceeds the instrument calibration range

Analyte detected below the PQL

Prim./Conf. column %D or RPD exceeds limit

Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

Not Detected at the Practical Quantitation Limit (PQL)

Spike Recovery outside accepted recovery limits

**Analytical Results** 

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

StateCertNo: 10155

CLIENT:

**ERM Consulting & Engineering** 

Project:

Ithaca Dredging

W Order:

0811166 SOIL

Matrix:

Revision:

Col Type:

Inst. ID:

**FIMS 100** 

ColumnID:

12/04/08 10:00

%Moisture: 32.2

Sample Size: 0.3 g

TestCode: HG7471S

Lab ID:

0811166-003D

Client Sample ID: Ith-11 (1-14)

11/20/08 12:20

Collection Date: Date Received:

11/21/08 16:16

PrepDate:

12/01/08 0:00

BatchNo:

8535/R15669

FileID:

1-SAMP-

Analyte	Result Qual PQL	MDL	Units DF	Date Analyzed
MERCURY			SW7471A	(SW7471A)
Mercury	0.027 J 0.15	0.012	mg/Kg-dry 1	12/03/08 16:05

Qualifiers:

Value exceeds Maximum Contaminant Level

E Value exceeds the instrument calibration range

Analyte detected below the PQL

Prim./Conf. column %D or RPD exceeds limit

Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

Spike Recovery outside accepted recovery limits

**Analytical Results** 

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

StateCertNo: 10155

ERM Consulting & Engineering

Project:

Ithaca Dredging

W Order: Matrix:

0811166

SOIL

Inst. ID:

Col Type:

**FIMS 100** 

ColumnID:

Revision:

12/04/08 10:00

TestCode: HG7471S

Sample Size: 0.3 g

%Moisture: 36.2

Lab ID:

FileID:

0811166-004D Client Sample ID: Ith-12 (1-14)

11/20/08 10:45

Collection Date: Date Received:

PrepDate: BatchNo:

11/21/08 16:16 12/01/08 0:00 8535/R15669

1-SAMP-

Analyte	Result Qua	al PQL	MDL	Units	DF	Date Analyzed
MERCURY				SW747	1A	(SW7471A)
Mercury	0.024 J	0.16	0.013	mg/Kg-di	ry 1	12/03/08 16:07

Qualifiers:

Value exceeds Maximum Contaminant Level

Value exceeds the instrument calibration range

Analyte detected below the PQL

Prim./Conf. column %D or RPD exceeds limit

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

Spike Recovery outside accepted recovery limits

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

**Analytical Results** 

StateCertNo: 10155

CLIENT:

**ERM Consulting & Engineering** 

Project:

Ithaca Dredging

W Order:

0811166

Matrix:

SOIL

Inst. ID:

Col Type:

**FIMS 100** 

ColumnID: Revision:

12/04/08 10:00

Sample Size: 0.3 g %Moisture: 25.2

TestCode: HG7471S

Lab ID:

0811166-005D

Client Sample ID: Ith-16 (1-14)

Collection Date: Date Received:

11/20/08 9:30 11/21/08 16:16

PrepDate: BatchNo:

12/01/08 0:00 8535/R15669

FileID:

1-SAMP-

Analyte	Result Qua	al PQL	MDL	Units	DF	Date Analyzed
MERCURY				SW747	1A	(SW7471A)
Mercury	0.058 J	0.13	0.011	mg/Kg-d	ry 1	12/03/08 16:10

Qualifiers:

Value exceeds Maximum Contaminant Level

Value exceeds the instrument calibration range

Analyte detected below the PQL

Prim./Conf. column %D or RPD exceeds limit

Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

Spike Recovery outside accepted recovery limits

Project Supervisor: Anthony Crescenzi

**Analytical Results** 

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

StateCertNo: 10155

CLIENT:

**ERM Consulting & Engineering** 

Project:

Ithaca Dredging

W Order:

0811166

Matrix:

SOIL **FIMS 100** 

Inst. ID:

ColumnID:

Revision: Col Type:

12/04/08 10:00

Sample Size: 0.3 g

%Moisture: 25.2.

TestCode: HG7471S

Lab ID:

0811166-006D

Client Sample ID: Ith-14 (1-14)

Collection Date: Date Received:

11/21/08 16:16

PrepDate: BatchNo:

12/01/08 0:00 8535/R15669

11/21/08 9:50

FileID:

1-SAMP-

Analyte	Result Qua	ıl PQL	MDL	Units	DF	Date Analyzed
MERCURY Mercury	0.029 J	0.13	0.011	SW7471 mg/Kg-di		(SW7471A) 12/03/08 16:58

Qualifiers:

Value exceeds Maximum Contaminant Level

Value exceeds the instrument calibration range

Analyte detected below the PQL

P Prim./Conf. column %D or RPD exceeds limit

Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

Spike Recovery outside accepted recovery limits

Project Supervisor: Anthony Crescenzi

## **Analytical Results**

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

StateCertNo: 10155 0811166-007D

11/21/08 8:30

12/01/08 0:00

11/21/08 16:16

CLIENT:

ERM Consulting & Engineering

Project:

Ithaca Dredging

W Order:

0811166 SOIL

Matrix:

Inst. ID:

ColumnID:

Revision: Col Type:

**FIMS 100** 

12/04/08 10:00

%Moisture: 30.9

TestCode: HG7471S

Sample Size: 0.3 g

Date Received:

Collection Date:

Lab ID:

PrepDate: BatchNo:

FileID:

8535/R15669

1-SAMP-

Client Sample ID: Ith-13 (1-10)

Analyte	Result Qua	l PQL	MDL	Units	DF	Date Analyzed
MERCURY				SW7471/		(SW7471A)
Mercury	D.082 J	0.14	0.012	mg/Kg-dry	1	12/03/08 16:27

Qualifiers:

Value exceeds Maximum Contaminant Level

Value exceeds the instrument calibration range

Analyte detected below the PQL

Prim./Conf. column %D or RPD exceeds limit

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

Spike Recovery outside accepted recovery limits

**Analytical Results** 

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

StateCertNo: 10155

CLIENT:

ERM Consulting & Engineering

Project:

Ithaca Dredging

W Order:

0811166 SOIL

Matrix:

Inst. ID: ColumnID:

**FIMS 100** 

Revision:

12/04/08 10:00

Sample Size: 0.3 g

%Moisture: 31.1 TestCode: HG7471S Lab ID:

0811166-008D

Client Sample ID: *Ith-13 (10-14)* 

11/21/08 8:40 Collection Date:

Date Received:

PrepDate: BatchNo:

FileID:

11/21/08 16:16 12/01/08 0:00 8535/R15669

1-SAMP-

Col Type:

Analyte	Result Qu	al PQL	MDL	Units	DF	Date Analyzed
MERCURY				SW747	iA	(SW7471A)
Mercury	0.037 J	0.15	0.012	mg/Kg-d	гу 1	12/03/08 16:2 <del>9</del>

Qualifiers:

Print Date: 12/12/08 9:06

Value exceeds Maximum Contaminant Level

Value exceeds the instrument calibration range

Analyte detected below the PQL

Prim./Conf. column %D or RPD exceeds limit

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

Spike Recovery outside accepted recovery limits

408190

Project Supervisor: Anthony Crescenzi

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

**Analytical Results** 

StateCertNo: 10155

**CLIENT:** 

**ERM Consulting & Engineering** 

Project:

Ithaca Dredging

W Order:

0811166

Matrix:

SOIL

Inst. ID:

**FIMS 100** 

ColumnID:

Revision: Col Type: 12/04/08 10:00

TestCode:

Sample Size: 0.3 g

%Moisture: 40.0 HG7471S Lab ID:

0811166-009D

Client Sample ID: Ith-1 (1-6)

11/20/08 16:00 11/21/08 16:16

Collection Date: Date Received:

12/01/08 0:00

PrepDate: BatchNo:

8535/R15669

FileID:

1-SAMP-

Analyte	Result Qua	l PQL	MDL	Units	DF	Date Analyzed
MERCURY Mercury	0.055 J	0.17	0.014	SW7471 mg/Kg-dry		(SW7471A) 12/03/08 16:31

Qualifiers:

Value exceeds Maximum Contaminant Level

Value exceeds the instrument calibration range

Analyte detected below the PQL

Prim./Conf. column %D or RPD exceeds limit

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

Spike Recovery outside accepted recovery limits

Print Date: 12/12/08 9:06

408191

Project Supervisor: Anthony Crescenzi

**Analytical Results** 

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

StateCertNo: 10155

CLIENT:

**ERM Consulting & Engineering** 

Project:

Ithaca Dredging

W Order:

0811166

Matrix:

SOIL

Inst. ID:

**FIMS 100** 

ColumnID:

Revision:

12/04/08 10:00

Sample Size: 0.3 g %Moisture: 41.2

TestCode: HG7471S

Lab ID:

0811166-010D

Client Sample ID: Ith-DUP2

Collection Date: Date Received:

11/20/08 0:00 11/21/08 16:16

PrepDate:

12/01/08 0:00

BatchNo: FileID:

8535/R15669 1-SAMP-

Col Type:

Analyte	Result Qua	ıl PQL	MDL	Units	DF	Date Analyzed
MERCURY Mercury	0,029 J	0.17	0.014	<b>SW747</b> 1 mg/Kg-di		(SW7471A) 12/03/08 16:33

Qualifiers:

Value exceeds Maximum Contaminant Level

Value exceeds the instrument calibration range

Analyte detected below the PQL

Prim./Conf. column %D or RPD exceeds limit

Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

Spike Recovery outside accepted recovery limits

Project Supervisor: Anthony Crescenzi

**Analytical Results** 

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

StateCertNo: 10155

CLIENT:

ERM Consulting & Engineering

Project:

Ithaca Dredging

W Order: Matrix:

0811166 SOIL

Inst. ID:

ColumnID:

Revision:

**FIMS 100** 

12/04/08 10:00

Sample Size: 0.3 g %Moisture: 47.6

TestCode:

HG7471S

Lab ID:

0811166-011D

Client Sample ID: Ith-2 (1-6)

Collection Date: Date Received:

11/20/08 16:10 11/21/08 16:16

PrepDate: BatchNo:

12/01/08 0:00 8535/R15669

FileID:

1-SAMP-

Col Type:

Analyte	Result Qua	l PQL	MDL	Units	DF	Date Analyzed
MERCURY				SW7471	- "	(SW7471A)
Mercury	0. <b>0</b> 76 <b>J</b>	0.19	0.016	mg/Kg-dr	y 1	12/03/08 16:36

Qualifiers:

Print Date: 12/12/08 9:06

Value exceeds Maximum Contaminant Level

Value exceeds the instrument calibration range

Analyte detected below the PQL

Prim./Conf. column %D or RPD exceeds limit

408193

Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

Spike Recovery outside accepted recovery limits

Project Supervisor: Anthony Crescenzi

**Analytical Results** 

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

StateCertNo: 10155

**CLIENT:** 

ERM Consulting & Engineering

Lab ID:

0811166-012D

Project:

Ithaca Dredging

Client Sample ID: Ith-3 (1-6)

W Order:

0811166

Collection Date:

11/20/08 16:15

Matrix:

SOIL

Date Received:

11/21/08 16:16

Inst. ID:

**FIMS 100** 

Sample Size: 0.3 g

PrepDate:

12/01/08 0:00

ColumnID:

12/04/08 10:00

%Moisture: 48.3 TestCode: HG7471S BatchNo: FileID:

8535/R15669 1-SAMP-

Revision: Col Type:

Analyte	Result Qua		MDL	Units	DF	Date Analyzed
MERCURY				SW7471	1A	(SW7471A)
Mercury	0.076 J	0.19	0.016	mg/Kg-di	ry 1	12/03/08 16:38

Qualifiers:

Value exceeds Maximum Contaminant Level

Value exceeds the instrument calibration range

Analyte detected below the PQL

Prim./Conf. column %D or RPD exceeds limit

Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

Spike Recovery outside accepted recovery limits

**Analytical Results** 

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

StateCertNo: 10155

CLIENT:

ERM Consulting & Engineering

Project:

Ithaca Dredging

W Order:

0811166 SOIL

Matrix: Inst. ID:

**FIMS 100** 

ColumnID:

Revision: Col Type: 12/04/08 10:00

TestCode: HG7471S

Sample Size: 0.3 g

%Moisture: 37:0

Lab ID:

0811166-013D

Client Sample ID: Ith-4 (1-6)

11/20/08 16:20

Collection Date: Date Received:

11/21/08 16:16

PrepDate:

12/01/08 0:00

BatchNo: FileID:

8535/R15669 1-SAMP-

Analyte	Result Qua	l PQL	MDL	Units	DF	Date Analyzed
MERCURY Mercury	0.043 J	0,16	0.013	SW747 <sup>-</sup> mg/Kg-d		(SW7471A) 12/03/08 16:41

Qualifiers:

Value exceeds Maximum Contaminant Level

Value exceeds the instrument calibration range

Analyte detected below the PQL

Prim./Conf. column %D or RPD exceeds limit

Analyte detected in the associated Method Blank

Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

Spike Recovery outside accepted recovery limits

238

Project Supervisor: Anthony Crescenzi

**Analytical Results** 

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

StateCertNo: 10155

CLIENT:

**ERM Consulting & Engineering** 

Project:

Ithaca Dredging

W Order: Matrix:

0811166 SOIL

Inst. ID:

ColumnID:

Revision: Col Type: **FIMS 100** 

12/04/08 10:00

%Moisture: 39.7

Sample Size: 0.3 g

TestCode: HG7471S

Lab ID:

0811166-014D

Client Sample ID: Ith-6 (1-6)

11/20/08 16:25 Collection Date: 11/21/08 16:16

Date Received: PrepDate:

12/01/08 0:00 8535/R15669

BatchNo: 1-SAMP-FileID:

Analyte	Result Qual PQL	MDL	Units DF	Date Analyzed
MERCURY			SW7471A	(SW7471A)
Mercury	0.047 J 0.17	0.014	mg/Kg-dry 1	12/03/08 16:43

Qualifiers:

Value exceeds Maximum Contaminant Level

Value exceeds the instrument calibration range

Analyte detected below the PQL

Prim./Conf. column %D or RPD exceeds limit

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

Spike Recovery outside accepted recovery limits

## **Quality Control Results**

## GC/MS Volatile Organics Data

2B SOIL VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: Life Science Laboratories, Inc Contract:

SAS No. \_\_\_\_\_ SDG No.: <u>0811131B</u> Lab Code: LSLB Case No.: ERM

Level: (low/med) LOW

EPA		SMC1	SMC2	SMC3	TOT
SAMPLE NO.	LSL ID	(DCE) 1 #	(TOL) 1 #	(BFB) 1 #	TUO
01 LCS-15605	LCS-15605	81	101	82	0
02MB-15605	MB-15605	85	106	94	0
03 Ith-2 (6-10)	0811131-003A	86	121	146 *	1
04 Ith-6 (10-14)	0811131-006A	82	116	109	: O-
05 Ith-8 (2-10)	0811142-001A	83	120	123	0
06 Ith-7 (1-14)	0811142-003A	81	113	111	0
07 Ith-5 (4-10)	0811142-004A	81	118	118	0
08 Ith-5 (10-14)	0811142-005A	82	111	97	0
09 Ith-1 (6-12)	0811142-006A	. 81	115	103	0
10 Ith-Dup1	0811142-007A	82	115	113	0
11 Ith-3 (6-12)	0811131-001A	96	100	92	0
12 Ith-4 (6-12)	0811131-002A	. 81	114	110	0
13 LCSD-15605	LCSD-15605	84	103	90	0
14 LCS-15608	LCS-15608	82	102	82	0
15 LCSD-15608	LCSD-15608	: 82	102	84	0
16 MB-15608	MB-15608	84	107	92	0
17 Ith-2 (10-14)	0811131-004A	81	114	112	0
18 Ith-6 (6-10)	0811131-005A	83	116	111	0
19 Ith-8 (10-14)	0811142-002A	86	110	100	0
20 Ith-8 (2-10) RA	0811142-001ARA	84	123	126 *	1
21 Ith-2 (6-10)	0811131-003C	82	111	104	0
22 Ith-9 (1-14)	0811166-001A	80	116	112	. 0
23 Ith-10 (1-14)	0811166-002A	82	113	103	0
24 Ith-12 (1-14)	0811166-004A	82	113	105	0
25 Ith-14 (1-14)	0811166-006A	81	120	111	0
26 Ith-13 (1-10)	0811166-007A	85	107	97	. 0
27 Ith-13 (10-14)	0811166-008A	81	114	106	0

QC Limit

SMC 1 (DCE) 1 = 1,2-Dichloroethane-d4 71-128 SMC 2 (TOL) 1 = Toluene-d875-125 59-125 SMC 3 (BFB) 1 = 4-Bromofluorobenzene

# Column to be used to flag recovery values

 $\mbox{\scriptsize \star}$  Values outside of contract required QC limits

Page 1 of 2 FORM II VOA-2

SW8260B

2B SOIL VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: Life Science Laboratories, Inc Contract:

Lab Code: LSLB Case No.: ERM SAS No. SDG No.: 0811131B

Level: (low/med) LOW

EPA		SMC1	SMC2	SMC3	TOT
SAMPLE NO.	LSL ID	(DCE) 1	# (TOL) 1 #	(BFB) 1 #	OUT
28 MSB-15620	MSB-15620	83	101	84	. 0
29 LCS-15620	LCS-15620	83	101	84	0
30 Ith-16 (1-14) MS	0811166-005AMS	81	110	96	0
31 Ith-16 (1-14) MSD	0811166-005AMSD	83	116	103	0
32 MB-15620	MB-15620	85	107	95	0
33 Tth-11 (1-14)	0811166-003A	81	117	112	0
34 Ith-1 (1-6)	0811166-009A	80	116	113	0
35 Ith-16 (1-14)	0811166-005A	. 80	111	102	0
36 Ith-DUP2	0811166-010A	82	116	107	. 0
37 Ith-2 (1-6)	0811166-011A	78	. 120	119	0
38 Ith-4 (1-6)	0811166-013A	81	120	111	0
39 Ith-6 (1-6)	0811166-014A	81	117	108	0
40 Ith-2 (1-6) RA	0811166-011ARA	83	118	118	0
41 LCS-15645	LCS-15645	86	101	85	0
42 MB-15645	MB-15645	87	106	96	0
43 Ith-3 (1-6)	0811166-012A	82	117	117	0

QC Limit

 SMC 1 (DCE) 1 = 1,2-Dichloroethane-d4
 71-128

 SMC 2 (TOL) 1 = Toluene-d8
 75-125

 SMC 3 (BFB) 1 = 4-Bromofluorobenzene
 59-125

# Column to be used to flag recovery values

\* Values outside of contract required QC limits

Page 2 of 2

FORM II VOA-2

SW8260B

2B SOIL VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: Life Science Laboratories, Inc Contract:

Lab Code: <u>LSLB</u> Case No.: <u>ERM</u> SAS No. \_\_\_\_\_\_ SDG No.: <u>0811131B</u>

Level: (low/med) LOW

EPA		SMC1	SMC2	SMC3		TOT
SAMPLE NO.	LSL ID	(DCE) 1 #	(TOL) 1#	(BFB) 1 #		OUT
LCS-15605	LCS-15605	81	101	82		0
MB-15605	MB-15605	85	106	94		0
3 Ith-2 (6-10)	0811131-003A	86	121	146 *		1
1Tth-6 (10-14)	0811131-006A	82	116	109		0
5 Ith-8 (2-10)	0811142-001A	83	120	123		0
6 Ith-7 (1-14)	0811142-003A	81	113	111		0
7 Ith-5 (4-10)	0811142-004A	81	118	118		0
8 Ith-5 (10-14)	0811142-005A	82	111	97		0
9 Ith-1 (6-12)	0811142-006A	81	115	103		0
0 Ith-Dup1	0811142-007A	82	115	113		0
1 Ith-3 (6-12)	0811131-001A	96	100	92		0
2 Ith-4 (6-12)	0811131-002A	. 81	114	110		0
3 LCSD-15605	LCSD-15605	84	103	90 -		0
4 LCS-15608	LCS-15608	82	102	82		0
5 LCSD-15608	LCSD-15608	82	102	84		0
6МВ-15608	MB-15608	84	107	92	·	0
7 Ith-2 (10-14)	0811131-004A	81	114	112		0
8 Ith-6 (6-10)	0811131-005A	83	116	111		. 0
9 Ith-8 (10-14)	0811142-002A	. 86	110	100		. 0
0 Ith-8 (2-10) RA	0811142-001ARA	84	123	126 *		1
1 Ith-2 (6-10)	0811131-003C	82	111	104		0
2 Ith-9 (1-14)	0811166-001A	80	116	112		. 0
3 Ith-10 (1-14)	0811166-002A	82	113	103		. 0
4 Ith-12 (1-14)	0811166-004A	82	113	105		0
5 Ith-14 (1-14)	0811166-006A	81	120	111		0
6 Ith-13 (1-10)	0811166-007A	85	107	97		0
7 Ith-13 (10-14)	0811166-008A	81	114	106		0

QC Limit

 SMC1 (DCE) 1 = 1,2-Dichloroethane-d4
 71-128

 SMC2 (TOL) 1 = Toluene-d8
 75-125

 SMC3 (BFB) 1 = 4-Bromofluorobenzene
 59-125

# Column to be used to flag recovery values

\* Values outside of contract required QC limits

Page 1 of 2

FORM II VOA-2

SW8260B

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5000 Brittonfield Parkway, Suite 200

East Syracuse. NY 13057

(315) 437-0200

SW8260B Method:

ANALYTICAL QC SUMMARY REPORT

East Dyracuse, ive 1909/	0070-/C# (CIC) /C					Work	Work Order: 0811166	0811166			
CLIENT: ERM Cons	ERM Consulting & Engineering	•				Project:		Ithaca Dredging	gu	rithmenic	
Sample ID: 0811166-005AMS Client ID: Ith-16 (1-14) Instrument: MS03_10	MS SampType: MS Batch ID: R15620 ColumnID: Rtx-VMS	TestCode: 8260S Method: SW826 Rtx-VM	SW8260B SW8260B Rtx-VMS, 1.0 df	Units: µg/Kg-dry	Pre	Prep Date: Analysis Date:	11/25/2008	RunNo: 8 SeqNo:		15620 407082	
Analyte	QC Sample Result	Pol	SPK.Added	Parent Sample Result %	REC L	owLimit F	%REC LowLimit HighLimit RPD Ref Val	o Ref Val	%RP	%RPD RPDLimit	Qual
Benzene	45.2	3.1	62.8	0	72	70	130				
Ethylbenzene	52.0	3.1	62.8	0	83	70	130				
Toluene	48.2	3.1	62.8	0	7.7	70	130			•	
Xylenes (total)	155	6,3	189	0	82	20	130				
Sur: 1,2-Dichloroethane-d4	44 50.8	0.13	62.8	Ф	81	7	128				
Surr: Toluene-d8	69.3	0.13	62.8	0	110	75	125				
Sur: 4-Bromofluorobenzene	ene 60.2	0.13	62.8	0	96	26	125				

Value exceeds the instrument calibration range

шк

Not Detected at the Practical Quantitation Limit (PQL) Analyte detected in the associated Method Blank

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Qualifiers:

RPD exceeds accepted precision limit

Spike Recovery outside accepted recovery limits Analyte detected below the PQL

> Not Detected at the MDC or RL 01-Dec-08 g ¬

> > 245

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oratories, Inc.	ite 200	(315) 437-0200
Life Science Laboratories, Inc.	5000 Brittonfield Parkway, Suite 200	East Syracuse, NY 13057

Life Science Laboratories, Inc.	boratories, L	1c.				ANAI	XTIC	ANALYTICAL QC SUMMARY REPORT	MMAR	KRE	ORT
5000 Brittonfield Parkway, Suite 200 East Syracuse, NY 13057 (315	Suite 200 (315) 437-0200					Method: Work Order:	: rder:	SW8260B 0811166			
CLIENT: ERM Consulting & Engineering	g & Engineering					Project:		Ithaca Dredging			Y Tolkies
Sample ID: 0811166-005AMSD SampType: MSD	SampType: MSD	TestCode: 8260S	82605	Units: µg/Kg-dry	ā.	Prep Date:		RunNo:	15620		
Client ID: Ith-16 (1-14)	Batch ID: R15620	Method:	SW8260B		₹	Analysis Date:	11/25/2008	08 SeqNo:	407093		
Instrument: MS03_10	ColumnID: Rtx-VMS		Rtx-VMS, 1.0 df	df.							
	- { (	٠		Parent							
Analyte	QC Sample Result	Pol	SPK Added		%REC	LowLimit HighLimit	hLimit F	RPD Ref Val	%RPD RPDLimit	)Limit	Qual
Benzene	45.5	2.7	53,5	0	35	0/	130	45.2	7	20	
Ethylbenzene	51.8	2.7	53.5	0	97	70	130	52	0	20	
Toluene	45.9	2.7	53.5	0	98	70	130	48.2	so.	20	
Xylenes (total)	153	5.3	160	0	95	70	130	155	7	20	
Surr: 1,2-Dichloroethane-d4	44.3	0.11	53.5	0	83	7.1	128	0		0	
Surr: Toluene-d8	62.1	0.11	53.5	٥	116	22	125	0		0	
Surr: 4-Bromofluorobenzene	55.3	0.11	53.5	0	103	29	125	0		0	

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01-Dec-08

Analyte detected in the associated Method Blank g p В Qualifiers:

Value exceeds the instrument calibration range RPD exceeds accepted precision limit 巨比

Spike Recovery outside accepted recovery limits Analyte detected below the PQL

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

ERM Consulting & Engineering

CLIENT:

(315) 437-0200

Method:

SW8260B

ANALYTICAL QC SUMMARY REPORT

Ithaca Dredging 0811166 Work Order: Project:

Qual %RPD RPDLimit 407104 15620 RunNo: SeqNo: LowLimit HighLimit RPD Ref Val Analysis Date: 11/25/2008 130 130 130 128 125 Prep Date: 55 55 57 55 85 55 57 57 58 77 88 88 88 101 101 88 Units: µg/Kg 0 0 000 Parent Sample Result Rtx-VMS, 1.0 df SW8260B SPK Added TestCode: 8260S Method: 2.5 2.5 2.5 5.0 0.10 0.10 집 ColumnID: Rtx-VMS Batch ID: R15620 38.6 43.1 41.5 128 41.3 50.6 QC Sample Result SampType: MSB Surr; 4-Bromofluorobenzene Surr: 1,2-Dichloroethane-d4 Sample ID: MSB-15620 Instrument: MS03\_10 Surr: Toluene-d8 77777 Xylenes (total) Ethylbenzene Client ID: Benzene Toluene Analyte

Qualifiers:	щ	Analyte detected in the associated Method Blank	ш	Value exceeds the instrument calibration range	J Analyte detected below the PQL
	뒫	ND Not Detected at the Practical Quantitation Limit (PQL)	ద	RPD exceeds accepted precision limit	S Spike Recovery outside accepted recovery limits
2	n	Not Detected at the MDC or RL			

01-Dec-08

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

ERM Consulting & Engineering

CLIENT:

(315) 437-0200

Method:

SW8260B

ANALYTICAL QC SUMMARY REPORT

0811131

Ithaca Dredging Work Order: Project:

Sample ID: LCS-15605 Client ID: ZZZZZ	SampType: LCS Batch ID: R15605	TestCode:	TestCode: 8260S Method: SW8260B	Units: µg/Kg		Prep Date: Analysis Date:	e: 11/21/08	:	RunNo: 15605 SegNo: 405790		
Instrument MS03_10	ColumnID: Rtx-VMS		Rtx-VMS, 1.0 df	·df		1					
Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit	DLimit	Qual
Benzene	45.6	2.5	50	0	91	80	121				
Ethylbenzene	51.8	2.5	20	0	104	80	121				
Toluene	49.2	2.5	20	0	86	80	121				
Xylenes (total)	153	5.0	150	0	102	76	124			•	
Surr: 1,2-Dichloroethane-d4	40.3	0.10	50	0	81	71	128				
Surr: Toluene-d8	9.05	0.10	20	0	101	75	125				
Surr: 4-Bromofluorobenzene	41.2	0.10	20	O	82	59	125				

Not Detected at the MDC or RL

Not Detected at the Practical Quantitation Limit (PQL) Analyte detected in the associated Method Blank Ð Þ B Qualifiers:

Value exceeds the instrument calibration range EL) 文

Spike Recovery outside accepted recovery limits Analyte detected below the PQL

RPD exceeds accepted precision limit

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

SW8260B Method:

ANALYTICAL QC SUMMARY REPORT

						Work	Work Order:	0811131			
CLIENT: ERM Consult	ERM Consulting & Engineering	i		List William .		Project	ct:	Ithaca Dredging	ą		
Sample ID: LCSD-15605	SampType: LCSD	TestCode:	: 82608	Units: µg/Kg		Prep Date:		RunNo:	lo: 15605	105	
Client ID: ZZZZZ	Batch ID: R15605	Method:	SW8260B			Analysis Date:	a: 11/21/08	SeqNo:		406802	
Instrument: MS03_10	ColumnID: Rtx-VMS		Rtx-VMS, 1.0 df	<b>10</b>							•••
	•			Parent							<u> </u>
Analyte	QC Sample Resuff	Ö	SDK Addod	Sample	9	i and leave	C series	197.1970		: : : :	
Sign	uped)	L	or n Added	LESINE	WAS C	WALL LUWLING HIGHLING		AFU Ker vai	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	בובות בובות	Cual
Benzene	46.5	2.5	50	0	93	80	121	45.6	2	20	1
Ethylbenzene	50.8	2.5	50	O	102	80	121	51.8	8	20	
Toluene	48.4	2.5	20	0	97	8	121	49.2	7	20	
Xylenes (total)	150	5.0	150	0	100	76	124	153	2	20	
Surr: 1,2-Dichloroethane-d4	42.0	0.10	50	0	\$	7.	128	0		0	
Surr. Toluene-d8	51.7	0.10	20	0	103	75	125	0		0	
Surr: 4-Bromofluorobenzene	44.8	0.10	50	a	80	29	125	0	-	0	

E Value exceeds the instrument calibration	QL) R RPD exceeds accepted precision limit
Analyte detected in the associated Method Blank	Not Detected at the Practical Quantitation Limit (PQL)

רט ריי 80

Not Detected at the MDC or RL

m Q >

Qualifiers:

Spike Recovery outside accepted recovery limits Analyte detected below the PQL

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

SW8260B Method:

ANALYTICAL QC SUMMARY REPORT

0811131	Ithaca Dredging
Work Order:	Project:

CLIENT: ERM Consulting & Engineering	ing & Engineering					Project:	ct:	Ithaca Dredging	ing		
Sample ID: LCS-15608 Client ID: ZZZZZ Instrument: MS03_10	SampType: LCS Batch ID: R15608 ColumnID: Rtx-VMS	TestCode Method:	TestCade: 8260S (Method: SW8260B	Units: µg/Kg	· · · · · · · · · · · · · · · · · · ·	Prep Date: Analysis Date: 11/24/08	e: 11/24/0		RunNo: SeqNo:	15608 406820	
Analyte	QC Sample Result	Pol	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	%REC LowLimit HighLimit RPD Ref Val	%RP	%RPD RPDLimit	Qual
Benzene	45.2	2.5	20	0	90	98	121				
Ethylbenzene	52.2	2.5	50	0	104	80	121				
Toluene	48.9	2.5	20	0	86	88	121				
Xvienes (total)	156	5.0	150	0	104	9/	124				
Surr. 1.2-Dichloroethane-d4	41.2	0.10	50	0	82	71	128				
Surr: Toluene-d8	51.2	0.10	20	0	102	75	125				
Surr: 4-Bromofluorobenzene	40.8	0.10	50	0	82	59	125				

Not Detected at the MDC or RL

Not Detected at the Practical Quantitation Limit (PQL) Analyte detected in the associated Method Blank 9 ф Qualifiers:

Value exceeds the instrument calibration range RPD exceeds accepted precision limit <u>ш</u> ж

Spike Recovery outside accepted recovery limits Analyte detected below the PQL

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

Method:

SW8260B 0811131

ANALYTICAL QC SUMMARY REPORT

Work Order:

thaca Dredging
Project: It

ERM Consulting & Engineering         Permitted & Engineering         President of the property of	***************************************		RPDLimit Qual	20	20	20	20	0	0	c	
ERM Consulting & Engineering         Figure 1 (1) Figure 1)         Figure 1) <th co<="" td=""><td></td><td>15608 406821</td><td></td><td>5</td><td>2</td><td>4</td><td>က</td><td></td><td></td><td></td></th>	<td></td> <td>15608 406821</td> <td></td> <td>5</td> <td>2</td> <td>4</td> <td>က</td> <td></td> <td></td> <td></td>		15608 406821		5	2	4	က			
ERM Consulting & Engineering           LCSD-15608         SampType: LCSD         TestCode: 8260S         Units: µg/Kg           ZZZZZ         Batch ID: R15608         Method: SW8260B         Units: µg/Kg           MS03_10         ColumnID: Rtx-VMS         Rtx-VMS, 1.0 df         Parent           Result         PQL         SPK Added         Result           Result         PQL         SPK Added         Result           A7.7         2.5         50         0           al)         53.4         2.5         50         0           al)         160         5.0         150         0           Dichloroethane-d4         40.8         0.10         50         0           nene-d8         50.8         0.10         50         0	Ithaca Dredging			45.2	52.2	48.9	156	0	0	c	
ERM Consulting & Engineering           LCSD-15608         SampType: LCSD         TestCode: 8260S         Units: µg/Kg           ZZZZZ         Batch ID: R15608         Method: SW8260B         Units: µg/Kg           MS03_10         ColumnID: Rtx-VMS         Rtx-VMS, 1.0 df         Parent           Result         PQL         SPK Added         Result           Result         PQL         SPK Added         Result           A7.7         2.5         50         0           al)         53.4         2.5         50         0           al)         160         5.0         150         0           Dichloroethane-d4         40.8         0.10         50         0           nene-d8         50.8         0.10         50         0	<b></b>		lighLímít l	121	121	121	124	128	125	100 8	
ERM Consulting & Engineering           LCSD-15608         SampType: LCSD         TestCode: 8260S         Units: µg/Kg           ZZZZZ         Batch ID: R15608         Method: SW8260B         Units: µg/Kg           MS03_10         ColumnID: Rtx-VMS         Rtx-VMS, 1.0 df         Parent           Result         PQL         SPK Added         Result           Result         PQL         SPK Added         Result           A7.7         2.5         50         0           al)         53.4         2.5         50         0           al)         160         5.0         150         0           Dichloroethane-d4         40.8         0.10         50         0           nene-d8         50.8         0.10         50         0	Projec	Prep Date: Analysis Date:	LowLimit P	80	80	80	9/	71	75	5	
ERM Consulting & Engineering           LCSD-15608         SampType: LCSD         TestCode: 8260S           ZZZZZ         Batch ID: R15608         Method: SW8260B           MS03_10         ColumnID: Rtx-VMS         Rtx-VMS, 1.0 df           Rx-VMS, 1.0 df         Rtx-VMS, 1.0 df           Result         PQL         SPK Added         R           Result         PQL         SPK Added         R           A7.7         2.5         50           al)         53.4         2.5         50           al)         160         5.0         150           Dichloroethane-d4         40.8         0.10         50           Bene-d8         50.8         0.10         50			%REC	95	107	102	107	82	102	č	
ERM Consulting & Engineering           LCSD-15608         SampType: LCSD         TestCode:           ZZZZZ         Batch ID: R15608         Method:           MS03_10         ColumnID: Rtx-VMS         Method:           QC Sample         PQL SI         SI           Result         PQL SI         SI           47.7         2.5         SI           al)         53.4         2.5           al)         160         5.0           Dichloroethane-d4         40.8         0.10           sene-d8         50.8         0.10		Units: µg/Kg	Parent Sample Result	0	0	0	0	0	0	•	
ERM Consulting & Engineering           LCSD-15608         SampType: LCSD         TestCode           ZZZZZ         Batch ID: R15608         Method:           MS03_10         ColumnID: Rtx-VMS         Method:           QC Sample Result         PQL           Result         PQL           47.7         2.5           al)         53.4         2.5           al)         160         5.0           Dichloroethane-d4         40.8         0.10           sene-d8         50.8         0.10		8260S SW8260B Rtx-VMS, 1.0	PK Added	20		20	150	20	20	•	
ERM Consulting of LCSD-15608 ZZZZZ MS03_10  ie  ie  al) Dichloroethane-d4 sene-d8		TestCode: Method:		2.5	2.5	2.5	5.0	0.10	0.10		
<u>                                     </u>	& Engineering	SampType: LCSD Batch ID: R15608 ColumnID: Rtx-VMS	QC Sample Result	47.7	53.4	51.2	160	40.8	50.8	•	
CLIENT: Sample ID: L Client ID: Z Instrument: N Instrument: N Analyte Benzene Ethylbenzene Toluene Xylenes (total) Surr: 1,2-Di Surr: Tolue	CLIENT: ERM Consulting	Sample ID: LCSD-15608 Client ID: ZZZZZ Instrument: MS03_10			\$ 12 E		Yvlenes (fotal)	(12.12) 1.2-Dichloroethane-d4	Tolnene-d8		

Value exceeds the instrument calibration range RPD exceeds accepted precision limit

Not Detected at the Practical Quantitation Limit (PQL) Not Detected at the MDC or RL <u>B</u> >

25-Nov-08

Analyte detected in the associated Method Blank

83

Qualifiers:

Analyte detected below the PQL

Spike Recovery outside accepted recovery limits

5000 Brittonfield Parkway, Suite 200 East Syracuse, NY 13057

(315) 437-0200

SW8260B Method:

ANALYTICAL QC SUMMARY REPORT

0811166 Work Order:

Project: I TestCode: 8260S Units: µg/Kg Prep Date:
30B S, 1.0 df
Parent Sample SPK Added Result
50 0
50 0
50 0
150 0
50 0
50 0
50 0

Value exceeds the instrument calibration range na ex Not Detected at the Practical Quantitation Limit (PQL) Analyte detected in the associated Method Blank

RPD exceeds accepted precision limit

Spike Recovery outside accepted recovery limits Analyte detected below the PQL - ×

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Not Detected at the MDC or RL

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Qualifiers:

01-Dec-08

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

ERM Consulting & Engineering

CLIENT:

Method:

SW8260B

ANALYTICAL QC SUMMARY REPORT

Ithaca Dredging

0811166 Work Order: Project:

Sample ID: 1.CS-15645	SampType: LCS	TestCode:	82605	Units: µg/Kg		Prep Date:			RunNo:	15645	
Client ID: ZZZZZ	Batch ID: R15645	Method:	SW8260B		-	Analysis Date:	e: 11/26/08		SeqNo:	407503	
Instrument: MS03_10	ColumnID: Rtx-VMS		Rtx-VMS, 1.0 df	df							
	QC Sample			Parent Sample					ì		
Analyte	Result	PO	SPK Added	Result	%REC	LowLimit	HighLimit	%REC LowLimit HighLimit RPD Ref Val	1%	%RPD RPDLimit Qual	Quai
Benzene	37.3	2.5	50	0	75	80	121				တ
Ethylbenzene	40.7	2.5	90	0	81	80	121				
Toluene	39.5	2.5	90	0	79	80	121				ဟ
Xylenes (total)	122	5.0	150	Ö	82	76	124				
Surr. 1,2-Dichloroethane-d4	43.1	0.10	20	0	98	71	128				
Surr: Toluene-d8	50.4	0.10	20	0	101	75	125				
Surr. 4-Bromofluorobenzene	42.4	0.10	20	D	85	69	125				

Qualifiers:

02-Dec-08

Value exceeds the instrument calibration range RPD exceeds accepted precision limit च स Not Detected at the Practical Quantitation Limit (PQL) Analyte detected in the associated Method Blank Not Detected at the MDC or RL

Spike Recovery outside accepted recovery limits Analyte detected below the PQL ~ s

## VOLATILE METHOD BLANK SUMMARY

	MB-15605
Contract:	

Lab Code: LSLB Case No.: ERM SAS No.: SDG No.: 0811131B

Lab File ID: J7617.D Lab Sample ID: MB-15605

Date Analyzed: 11/21/2008 Time Analyzed: 12:56

GC Column: Rtx-VMS ID: 0.18 (mm) Heated Purge: (Y/N)  $\underline{Y}$ 

Instrument ID: MS03 10

Lab Name: Life Science Laboratorie

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA	LAB	LAB	TIME
i	SAMPLE NO.	SAMPLE ID	FILE ID	ANALYZED
01	LCS-15605	LCS-15605	J7614.D	11:15
02	lth-2 (6-10)	0811131-003A	J7620.D	14:38
03	lth-6 (10-14)	0811131-006A	J7624.D	16:40
04	lth-8 (2-10)	0811142-001A	J7625.D	17:14
05	lth-7 (1-14)	0811142-003A	J7627.D	18:22
06	lth-5 (4-10)	0811142-004A	J7628.D	18:56
07	lth-5 (10-14)	0811142-005A	J7629.D	19:30
38	lth-1 (6-12)	0811142-006A	J7630.D	20:04
09	Ith-Dup1	0811142-007A	J7631.D	20:38
10	ith-3 (6-12)	0811131-001A	J7632.D	21:12
11	Ith-4 (6-12)	0811131-002A	J7633.D	21:46
12	LCSD-15605	LCSD-15605	J7635.D	22:54

COMMENTS:	

page 3 of 4

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

ERM Consulting & Engineering

CLIENT:

(315) 437-0200

Method:

SW8260B

ANALYTICAL QC SUMMARY REPORT

0811131

Work Order:

Ithaca Dredging

Project:

				Qual							
90	791			%RPD RPDLimit							
15605	406791	-		%RPD							
RunNo:	SeqNo:										
	80/1			%REC LowLimit HighLimit RPD Ref Val					m	10	ıń
	11/21			HighLimi					128	125	125
Prep Date:	Analysis Date: 11/21/08			LowLimit					7.1	75	59
				%REC					85	106	94
pg/Kg											0
Units: µg/Kg		0 df	Parent Sample	Result					_	-	_
8260S	SW8260B	Rtx-VMS, 1.0 df		SPK Added					22	<u>2</u>	20
TestCode: 8260S	Method:			POLS	2.5	2.5	2.5	5.0	0.10	0.10	0.10
SampType: MBLK	Batch ID: R15605	ColumnID: Rtx-VMS	QC Sample	Result	QN	Q	Q	2	42.4	53.1	47.0
Sample ID: MB-15605	Client ID: ZZZZZ B	instrument: MS03_10 C		Analyte	Benzene	Ethylbenzene	Toluene	Xylenes (total)	Surr. 1,2-Dichloroethane-d4	Surr. Toluene-d8	Surr: 4-Bromofluorobenzene

Qualifiers:	щ	Analyte detected in the associated Method Blank	ΉĴ
	£	ND Not Detected at the Practical Quantitation Limit (PQL)	×
2	Þ	U Not Detected at the MDC or RL	

Value exceeds the instrument calibration range RPD exceeds accepted precision limit ×

Spike Recovery outside accepted recovery limits Analyte detected below the PQL

## VOLATILE METHOD BLANK SUMMARY

MB-15608 Lab Name: Life Science Laboratorie Contract:

Time Analyzed: 14:14

Lab Code: LSLB Case No.: ERM SAS No.: SDG No.: 0811131B

Lab Sample ID: MB-15608 Lab File ID: J7643.D

Date Analyzed: <u>11/24/2008</u>

GC Column: Rtx-VMS ID: 0.18 (mm) Heated Purge: (Y/N)  $\underline{Y}$ 

Instrument ID: MS03 10

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

[	EPA	LAB	LAB	TIME
į	SAMPLE NO.	SAMPLE ID	FILE ID	ANALYZED
01	LCS-15608	LCS-15608	J7640.D	12:33
02	LCSD-15608	LCSD-15608	J7641.D	13:06
03	lth-2 (10-14)	0811131-004A	J7644.D	14:48
04	ith-6 (6-10)	0811131-005A	J7645.D	15:22
05	Ith-8 (10-14)	0811142-002A	J7646.D	15:56
06	Ith-8 (2-10)RA	0811142-001ARA	J7647.D	16:30
07	Ith-2 (6-10)	0811131-003C	J7648.D	17:04
08	lth-9 (1-14)	0811166-001A	J7653.D	19:54
09	lth-10 (1-14)	0811166-002A	J7654.D	20:28
10	lth-12 (1-14)	0811166-004A	J7656.D	21:36
11	Ith-14 (1-14)	0811166-006A	J7657.D	22:10
12	ith-13 (1-10)	0811166-007A	J7658.D	22:44
13	lth-13 (10-14)	0811166-008A	J7659.D	23:18

COMMENTS:		•	

5000 Brittonfield Parkway, Suite 200 East Syracuse, NY 13057

(315) 437-0200

SW8260B Method:

ANALYTICAL QC SUMMARY REPORT

Ithaca Dredging 0811131 Work Order: Project:

Project: Ithaca Dru Units: µg/Kg Prep Date: Analysis Date: 11/24/08 df Parent Sample %REC LowLimit HighLimit RPD Ref Val	e: 8260S Units: µg/Kg SW8260B Rtx-VMS, 1.0 df Parent Sample SPK Added Result	de: 8260S Units: µg/Kg  Sw8260B  Rtx-VMS, 1.0 df  Parent  Sample  SPK Added Result
	w   o	LK TestCode: 608 Method: -VMS NP 2.5 ND 2.5

25-Nov-08

Value exceeds the instrument calibration range RPD exceeds accepted precision limit 巨瓦 B Analyte detected in the associated Method Blank

Spike Recovery outside accepted recovery limits Analyte detected below the PQL

### VOLATILE METHOD BLANK SUMMARY

,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	MB-15620
ontract:	

Lab Name: Life Science Laboratorie Con

Lab Code: LSLB Case No.: ERM SAS No.: SDG No.: 0811131B

Lab File ID: J7668.D

Lab Sample ID: MB-15620

Date Analyzed: 11/25/2008 Time Analyzed: 12:34

GC Column: Rtx-VMS ID: 0.18 (mm) Heated Purge: (Y/N)  $\underline{Y}$ 

Instrument ID: MS03 10

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

:	EPA	LAB	LAB	TIME
İ	SAMPLE NO.	SAMPLE ID	FILE ID	ANALYZED
01	MSB-15620	MSB-15620	J7664.D	8:56
02	LCS-15620	LCS-15620	J7664.D	8:56
03	ith-16 (1-14)MS	0811166-005AMS	J7665.D	9:42
04	Ith-16 (1-14)MSD	0811166-005AMSD	J7666.D	11:26
05	lth-11 (1-14)	0811166-003A	J7669.D	13:08
06	lth-1 (1-6)	0811166-009A	J7670.D	13:42
07	Jth-16 (1-14)	0811166-005A	J7671.D	14:16
08	Ith-DUP2	0811166-010A	J7672.D	14:51
09	Ith-2 (1-6)	0811166-011A	J7673.D	15:25
10	lth-4 (1-6)	0811166-013A	J7675.D	16:33
11	Ith-6 (1-6)	0811166-014A	J7676.D	17:07
12	Ith-2 (1-6)RA	0811166-011ARA	J7677.D	17:41

COMMENTS:		 	 

page  $\underline{1}$  of  $\underline{4}$ 

8260S

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

ERM Consulting & Engineering

CLIENT:

(315) 437-0200

SW8260B Method:

ANALYTICAL QC SUMMARY REPORT

0811166 Work Order:

Ithaca Dredging Project:

Sample ID: MB-15620 Client ID: ZZZZZ Instrument: MS03 10	SampType: MBLK Batch ID: R15620 ColumnID: Rtx-VMS	TestCode: 8260S Method: SW826 Rtx-VM	8260S SW8260B Rtx-VMS, 1.0 df	Units: µg/Kg		Prep Date: Analysis Dat	Prep Date: Analysis Date: 11/25/2008		RunNo: 1 SeqNo: 4	15620 407094	
Analyte	QC Sample Result	Pol	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	%REC LowLimit HighLimit RPD Ref Val	%RPI	%RPD RPDLimit Qual	Qual
Benzene	ΩN	2.5									
Ethylbenzene	Ð	2.5									
Toluene	QV	2.5									
Xylenes (total)	S	5.0									
Surr: 1,2-Dichloroethane-d4	42.6	0.10	50	0	82	71	128				
Surr. Toluene-d8	53.3	0.10	90	0	107	75	125				
Surr; 4-Bromofluorobenzene	47.4	0.10	20	O	95	99	125				

01-Dec-08

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Value exceeds the instrument calibration range <u>ш</u> **к** Not Detected at the Practical Quantitation Limit (PQL) Analyte detected in the associated Method Blank

RPD exceeds accepted precision limit

Spike Recovery outside accepted recovery limits Analyte detected below the PQL ري س

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### VOLATILE METHOD BLANK SUMMARY

SAM	LTE	NO

MB-	1	5	6	4	5
-----	---	---	---	---	---

Lab Name: Life Science Laboratorie Contract:

Lab Code: LSLB Case No.: ERM SAS No.: SDG No.: 0811131B

Lab File ID: <u>J7691.D</u>

Lab Sample ID: MB-15645

Date Analyzed: <u>11/26/2008</u>

Time Analyzed: 13:27

GC Column: Rtx-VMS ID: 0.18 (mm) Heated Purge: (Y/N)  $\underline{Y}$ 

Instrument ID: MS03 10

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA	LAB	LAB	TIME
	SAMPLE NO.	SAMPLE ID	FILE ID	ANALYZED
01	LCS-15645	LCS-15645	J7687.D	11:11
02	Ith-3 (1-6)	0811166-012A	J7692.D	14:01

COMMENTS:	

Inc.
ratories,
Labo
Science
Life

(315) 437-0200

Method:

Ithaca Dredging SW8260B 0811166 Work Order:

ANALYTICAL QC SUMMARY REPORT

CLIENT: ERM Consult	ERM Consulting & Engineering					Project:	Ithaca Dredging	8	
Sample ID: MB-15645 Client ID: ZZZZZ Instrument: MS03_10	SampType: MBLK Batch ID: R15645 ColumnID: Rtx-VMS	TestCode: Method:	SW8260B SW8260B Rtx-VMS, 1.0 df	Units: µg/Kg		Prep Date: Analysis Date: 11/26/08	RunNo: 5/08 SeqNo:	lo: 15645 lo: 407504	
Analyte	QC Sample Result	POL	SPK Added	Parent Sample Result	%REC	%REC LowLimit HighLimit RPD Ref Val	t RPD Ref Val	%RPD RPDLimit Qual	Qual
Benzene	ON	2.5							
Ethylbenzene	QN	2.5							
Toluene	Q	2.5							
Xvlenes (total)	8	5.0							
Surr: 1.2-Dichloroethane-d4	43.3	0.10	50	0	87	71 128	8		
Sur: Toluene-d8	53.1	0.10	20	o	106	75 125	5		
Surr. 4-Bromofillombenzene	48.0	0.10	90	0	8	59 125	rc.		

Analyte detected in the associated Method Blank	m	Value exceeds the instrume
Not Detected at the Practical Quantitation Limit (PQL)	24	nit (PQL) R RPD exceeds accepted prec

ent calibration range cision limit

Not Detected at the MDC or RL

g Þ

Qualifiers:

Spike Recovery outside accepted recovery limits Analyte detected below the PQL

Lab Name:

Life Science Laboratories, Inc.

SDG No.:

0811131B

Lab Code:

LSLB

Lab File ID (Standard);

J7613.D

Date Analyzed:

11/21/2008

Instrument ID:

MS03\_10

Time Analyzed:

10:41

GC Column:

Rtx-VMS ID: 0.18

(mm)

Heated Purge: (Y/N)

Y

	IS1		IS2		153		
	AREA#	RT#	AREA#	RT #	AREA#	RT#	
12 HOUR STD	2370333	10.90	894097	15.81	772102	19.88	!
UPPER LIMIT	4740666	11.40	1788194	16.31	1544204	20.38	
LOWER LIMIT	1185167	10.40	447049	15.31	386051	19.38	
SAMPLE		:			ļ Į		
NO.		;					
LCS-15605 (LCS-15605)	2399564	10.90	932376	15.81	793570	19.88	
MB-15605 (MB-15605)	2277467	10.90	855045	15.82	629992	19.68	
lth-2 (6-10) (0811131-003A)	1757314	10.90	492620	15.81	251938*	19.88	
Itth-6 (10-14) (0811131-006A)	2235483	10.90	770894	15.82	434904	19.88	
ith-8 (2-10) (0811142-001A)	1987828	10.90	611413	15.81	317670*	19.68	
ilth-7 (1-14) (0811142-003A)	2211415	10.90	755520	15.81	451801	19.68	
th-5 (4-10) (0811142-004A)	2217691	10.90	718268	15.81	391658	19.88	
Ith-5 (10-14) (0811142-005A)	2377877	10,90	864955	15.81	600434	19.88	
lth-1 (6-12) (0811142-006A)	2300991	10.90	788749	15.81	503217	19.88	
) ith-Dup1 (0811142-007A)	2195132	10.90	749427	15.81	435741	19.88	
Ith-3 (6-12) (0811131-001A)	2294731	10.90	948820	15.81	761267	19.88	
th-4 (6-12) (0811131-002A)	2361997	10.90	809919	15.82	476B42	19.88	
LCSD-15605 (LCSD-15605)	2190425	10.90	818253	15.81	- 600872	19.88	

IS1 = Fluorobenzene

IS2 = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk.

Page 1 of 8

IS3 = 1,4-Dichlorobenzene-d4

SW8260B

<sup>\*</sup> Values outside of QC limits.

ab Name:

Life Science Laboratories, Inc.

SDG No.:

0811131B

ab Code:

LSLB

ab File ID (Standard):

J7638.D

Date Analyzed:

11/24/2008

istrument ID:

MS03 10

Time Analyzed:

<u>11:18</u>

C Column:

Rtx-VMS ID: 0.18

(mm)

Heated Purge: (Y/N)

Y

	IS1		IS2		IS3		
	AREA#	RT#	AREA#	RT#	AREA#	RT#	
12 HOUR STD	2412138	10.90	938367	15.81	768156	19.88	
UPPER LIMIT	4824276	11.40	1876734	16.31	1536312	20.38	
LOWER LIMIT	1206069	10.40	469184	15.31	384078	19.38	
SAMPLE							
NO.							
LCS-15608 (LCS-15608)	2432346	10.90	935415	15,81	807890	19.88	
LCSD-15608 (LCSD-15608)	2457598	10,90	954651	15.81	791797	19.88	
MB-15608 (MB-15608)	2411688	10,90	893964	15.81	659915	19.88	
lth-2 (10-14) (0811131-004A)	2277463	10.90	773641	15.81	455223	19.88	
lth-6 (6-10) (0811131-005A)	2365720	10,90	801314	15.82	446590	19,88	
Ith-B (10-14) (0811142-002A)	2290634	10.90	831829	15,81	556906	19,88	
lth-8 (2-10)RA (0811142- 001ARA)	2057477	10.90	612116	15.81	325262*	19.88	
lth-2 (6-10) (0811131-003C)	2282163	10.90	808385	15.81	519554	19.88	
lth-9 (1-14) (0811166-001A)	2213588	10.90	740321	15,82	417600	19.88	
tth-10 (1-14) (0811166-002A)	2212483	10.90	770225	15.82	486552	19.88	
lth-12 (1-14) (0811166-004A)	2260766	10.90	786747	15.82	476074	19.88	
lth-14 (1-14) (0811166-006A)	2252218	10.90	742167	15.81	409826	19.88	
lth-13 (1-10) (0811166-007A)	2327248	10,90	884585	15.82	633250	19.88	
lth-13 (10-14) (0811166-008A)	2202249	10.90	762451	15.81	451935	19.88	

IS1 = Fluorobenzene

IS2 = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk.

IS3 = 1,4-Dichlorobenzene-d4

<sup>\*</sup> Values outside of QC limits.

Lab Name:

Life Science Laboratories, Inc.

SDG No.:

0811131B

Lab Code:

**LSLB** 

Lab File ID (Standard):

J7663.D

Date Analyzed:

11/25/2008

Instrument ID:

MS03 10

Time Analyzed:

<u>8:22</u>

GC Column:

Rtx-VMS ID: 0.18

(mm)

Heated Purge: (Y/N)

<u>Y</u>

	IS1		IS2	-	IS3		
	AREA#	RT#	AREA#	. RT #	AREA#	RT#	
12 HOUR STD	2175193	10,90	860694	15.81	706313	19.88	
UPPER LIMIT	4350386	11.40	1721388	16.31	1412626	20.38	
LOWER LIMIT	1087597	10.40	430347	15.31	353157	19.38	
SAMPLE							
NO.						<u> </u>	
LCS-15620 (LCS-15620)	2325277	10.90	905732	15.81	747050	19.88	
MSB-15620 (MSB-15620)	2325277	10.90	905732	15.81	747050	19.86	
Ith-16 (1-14)MS (0811166- 005AMS)	2489207	10.98	909197	15.81	645379	19.88	1
th-16 (1-14)MSD (0811166- 005AMSD)	2425441	10,90	824166	15.82	520428	19.88	
MB-15620 (MB-15620)	2302952	10,90	872999	15.82	630561	19.88	
ith-11 (1-14) (0811166-003A)	2222385	10.90	746593	15.82	411485	19.88	
7 lth-1 (1-6) (0811166-009A)	2148260	10.90	731312	15.82	386463	19.88	
3 lth-16 (1-14) (0811166-005A)	2242339	10.90	798385	15.81	505163	19.88	
Hh-DUP2 (0811166-010A)	2140666	10.90	716623	15.82	408182	19.88	
(1-6) (0811166-011A)	2002250	10.90	636555	15.82	317324*	19.88	
Ith-4 (1-6) (0811166-013A)	2043379	10,90	673619	15.82	356317	19.88	
Ith-6 (1-6) (0811166-014A)	1994839	10.90	669743	15.81	380871	19.88	
3 (1-6) (4-6) RA (0811166- 011ARA)	1947886	10.90	631865	15.82	309264*	19.88	

IS1 = Fluorobenzene

IS2 = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk.

IS3 = 1,4-Dichlorobenzene-d4 ·

<sup>\*</sup> Values outside of QC limits.

Lab Name:

Life Science Laboratories, Inc.

\$DG No.:

0811131B

Lab Code:

LSLB

Lab File ID (Standard):

J7686.D

Date Analyzed:

11/26/2008

Instrument ID:

MS03 10

Time Analyzed:

<u>10:37</u>

GC Column:

Rtx-VMS ID: 0.18

(m**m**)

Heated Purge: (Y/N)

Y

	IS1 AREA#	RT #	IS2 AREA#	RT#	IS3 AREA#	RT#	
12 HOUR STD	2090325	10.90	839559	15.82	692571	19.88	
UPPER LIMIT	4180650	11.40	1679118	16.32	1385142	20.38	
LOWER LIMIT	1045163	10.40	419780	15.32	346286	19.38	
SAMPLE							
NO.							
1 LCS-15645 (LCS-15645)	2285753	10.90	892578	15.81	733189	19.88	
2 MB-15645 (MB-15645)	2270018	10,90	865299	15.82	620999	19.88	
3 lth-3 (1-6) (0811166-012A)	2114714	10.90	698220	15.82	351845	19.88	

IS1 = Fluorobenzene

IS2 = Chlorobenzene-d5

IS3 = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk.

<sup>\*</sup> Values outside of QC limits.

### GC/MS Semivolatile Organics Data

SOIL SEMIVOLATILE SURROGATE RECOVERY

Life Science Laboratories, Inc Contract: Lab Name:

SDG No.: 0811131B SAS No. \_\_\_\_ Case No.: ERM Lab Code: LSLB

Level: (low/med) LOW

EPA		S1	S2	<b>S</b> 3	S4	S5	S6	TOT
SAMPLE NO.	LSL ID	(2FP) 1	#(FBP) 1#			(TBP) 1 #	(TPH) 1 #	OUT
1 MB-8508	MB-8508	78	78	80	83	51	86	0
2 LCS-8508	LCS-8508	75	71	75	79	56	77	0
3 LCSD-8508	LCSD-8508	82	78	82	85	60	82	0
4 Ith-3 (6-12)	0811131-001D	78	77	78	81	58	85	0
5 Ith-4 (6-12)	0811131-002D	67	67	68	72	52	74	0
6 Ith-2 (6-10)	0811131-003D	72	71	71	75	55	93	0
7 Ith-2 (10-14)	0811131-004D	77	75	75	80	58	86	0
8 Ith-6 (6-10)	0811131-005D	71	69	69	75	52	80	0
9 Ith-6 (10-14)	0811131-006D	74	72	73	79	55	85	0
0 Ith-8 (2-10)	0811142-001D	77	78	77	83	58	94	0
1 Ith-8 (10-14)	0811142-002D	72	70	72	77	53	82	0
2 Ith-7 (1-14)	0811142-003D	71	68	68	74	51	78	0
3 Ith-5 (4-10)	0811142-004D	73	73	70	79	56	86	0
4 Ith-5 (10-14)	0811142-005D	67	65	66	72	49	77	0
5 Ith-1 (6-12)	0811142-006D	73	72	71	77	53	85	10
6 Ith-Dup1	0811142-007D	74	73	72	79	55	88	10
.7 Ith-2 (6-10) DL	0811131-003DDL	69	65	72	74	46	74	0
.8 MB-8521	MB-8521	82	83	80	86	55	95	0
9 LCS-8521	LCS-8521	85	83	82	89	64	89	0
20 MSB-8521	MSB-8521	89	84	85	93	68	90	0
21 Ith-12 (1-14)	0811166-004D	. 80	78	77	84	62	88	0
22 Ith-14 (1-14)	0811166-006D	79	81	77	84	63	90	0
23 Ith-13 (1-10)	0811166-007D	73	74	71	78	59	85	0
24 Ith-13 (10-14)	0811166-008D	76	75	73	81	58	85	0
25 Ith-16 (1-14)	0811166-005D	i 80	81	80	85	62	91	0
26 Ith-16 (1-14) MS	0811166-005DMS	79	78	76	84	63	87	0
27 Ith-16 (1-14)MSD	0811166-005DMSD	80	77	77	84	60	82	0

QC Limit

<b>S</b> 1	(2FP)	1	=	2-Fluorophenol	22-130
<b>S</b> 2	(FBP)	1	per:	2-Fluorobiphenyl	46-130
	-			Nitrobenzene-d5	39-130
S 4	(PHL)	1	=	Phenol-d5	33-130
S 5	(TBP)	1		2,4,6-Tribromophenol	20-143
	· · · · ·			Terphenyl-d14	36-146

# Column to be used to flag recovery values

\* Values outside of contract required QC limits

Page 1 of 2 FORM II SV-2

SW8270C

### 2D SOIL SEMIVOLATILE SURROGATE RECOVERY

Lab Name: Life Science Laboratories, Inc Contract:

SDG No.: SAS No. Case No.: Lab Code: LSLB

Level: (low/med) LOW

EPA		S1	. S2 .	\$3	S4	S5	86	TOT
SAMPLE NO.	LSL ID		(FBP) 1 #	(NBZ) 1 #	(PHL) 1 #	(TBP) 1 #	(TPH) 1 #	TUO
8 Ith-9 (1-14)	0811166-001D	73	72	70	77	58	86	0
9 Ith-10 (1-14)	0811166-002D	73	74	72	77	58	85	0
0 Ith-11 (1-14)	0811166-003D	59	61	59	64	55	82	0
1 Tth-DUP2	0811166-010D	75	75	72	, 79	58	84	0
2 Tth-4 (1-6)	0811166-013D	79	80	77	84	67	96	0
3 Ith-6 (1-6)	0811166-014D	80	81	76	87	65	95	0
4 Ith-1 (1-6)	0811166-009D	84	84	81	88	64	94	0
5 Ith-2 (1-6)	0811166-011D	84	82	80	88	66	96	0
6 Ith-3 (1-6)	0811166-012D	87	83	86	98	72	105	0

					QC Limit
S 1	(2FP)	1		2-Fluorophenol	22-130
S 2	(FBP)	1	<del>11</del> 2	2-Fluorobiphenyl	46-130
				Nitrobenzene-d5	39-130
				Phenol-d5	33-130
				2,4,6-Tribromophenol	20-143
				Terphenyl-d14	36-146

# Column to be used to flag recovery values

\* Values outside of contract required QC limits

Page 2 of 2 FORM II SV-2

SW8270C

5000 Brittonffeld Parkway, Suite 200

East Syracuse, NY 13057

ERM Consulting & Engineering

CLIENT:

(315) 437-0200

SW8270C 0811166 Work Order: Method:

ANALYTICAL QC SUMMARY REPORT

Ithaca Dredging

Project:

Client ID: ##-46 (4-44)	:									
	Batch (D: 8521	Method:	SW8270C	(SW3550B)	4	Analysis Date:	12/3/2008	SedNo:	408353	
44			ZB-5, 0.5 df							
				Parent						
Analyte	QC Sample Result	PQ	SPK Added	Sample	%REC	LowLimit H	HighLimit RPD Ref Val		%RPD RPDLimit	Qual
2.Chlompaphthalene	1740	440	2230	0	78	46	130			
2-Methylpachthalene	1590	440	2230	0	72	43	130			
Acenanthene	1750	440	2230	0	79	43	130			
Acenaphthylene	1730	440	2230	0	78	46	130			
Anthracene	2050	440	2230	0	92	37	130			
Benzolalanthracene	1840	440	2230	o	85	40	130			
Benzolalpyrene	1980	440	2230	0	88	44	130			
Benzofolfluoranthene	1970	440	2230	0	68	59	154			
Benzola h Iberylene	1890	440	2230	0	85	10	130		-	
Benzofkifiloranthene	2120	440	2230	0	92	35	143			
Chrysene	1990	440	2230	0	83	43	130			
Dibenzia hlanfhracene	2130	440	2230	0	96	16	135			
Finoranthene	1990	440	2230	O	83	45	130			
Fliorepa	1720	440	2230	0	11	45	130			
Indeno[1,2,3-cd]pyrene	1660	440	2230	O	74	10	134			
Naphthalene	1730	440	2230	0	77	8	130			
Phenanthrene	2050	440	2230	0	95	45	<del>2</del>			
Pyrene	1960	440	2230	0	88	18	164			
Sur: 2.4.6-Tribromophenol	4210	0	6680	0	63	20	143		·	
Sur: 2-Fluorobiphenyi	3480	O	4460	0	78	46	130			
Surr 2-Figorophenol	5260	0	6680	O	43	22	130			
Surr Nitrobenzene d5	3380	0	4460	٥	92	39	130			
Surr Phenol-d5	5590	0	6680	0	84	33	130			
Surr Temberyl-d14	3860	0	4460	٥	87	36	146			

Not Detected at the MDC or RL

Not Detected at the Practical Quantitation Limit (PQL) Analyte detected in the associated Method Blank g p B Qualifiers:

Value exceeds the instrument calibration range Ш

RPD exceeds accepted precision limit

Analyte detected below the PQL

Spike Recovery outside accepted recovery limits

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

SW8270C Method:

ANALYTICAL QC SUMMARY REPORT

0811166	Ithaca Dredging
Work Order:	Project:

CT. TENT: FRM Consulting & Engineering	g & Engineering					Project:		Ithaca Dredging	36 31		
ļ							000	older: G		4 5279	
lä	SampType: MSD	TestCode: Method:	9: 8270S SW8270C	Units: µg/Kg-dry (SW3550B)		Prep Date: Analysis Date:	11/24/2008 12/3/2008	.o	_	408354	
Instrument: MS06_40			ZB-5, 0.5 df								
l				Parent							
41	QC Sample Result	Por	SPK Added	Sample Result	%REC	LowLimit H	HighLimit F	RPD Ref Val	%RPD	RPDLimit	Qual
Analyte	1750	440	2230	0	11	46	130	1740	1	30	
2-Chloronaphthalene	200	2 2	0866	C	72	43	130	1590	_	35	
2-Methylnaphthalene	1610	7 5	2330	· c	1.2	43	130	1750	ľV	30	
Acenaphthene	1710	34 6	2230	. 0	76	46	130	1730	ന	30	
Acenaphthylene	1000	2 4	2230	0	8	37	130	2050	ന	ଚ	
Anthracene	1990	740	2230		79	40	130	1840	4	සි	
Benzo[a]anthracene	1,60	7 5	2230	· c	82	44	130	1980	(I)	ଚ୍ଚ	
Benzo[a]pyrene	1880	7	2230	0	25	29	154	1970	ω,	32	
Benzo[b]fluoranthene	1880	2 4	22.20		20	10	130	1890	ហ	ଚ୍ଚ	
Benzo[g,h,i]perylene	0081	7 ;	2230	· c	; G	35	143	2120	KO.	99 99	
Benzo[k]fluoranthene	2010	7	2230	, c	98	43	130	1990	4	8	
Chrysene	0161	2 5	2230	· c	6	16	135	2130	r.	S	
Dibenz[a,h]anthracene	7030	1 3	2230	. =	88	45	130	1990	τ-	ଚ୍ଚ	
Fluoranthene	1960	1	0577	o c	92	45	130	1720	2	33	
Fluorene	0601	2 5	2230	, c	72	10	<del>2</del> 2	1660	4	ଚ	
Indeno[1,2,3-od]pyrene	0961	7 9	2230	) C	78	40	130	1730	•	33	
Naphthalene	1/40	044	2230	» с	8	45	130	2050	e		
Phenanthrene	1980	<b>1</b> 9	2230		82	18	164	1960	7	8	
Pyrene	1830	}	2230 6680	· c	8	20	143	0		0	
Surr: 2,4,6-Tribromophenol	3990	<b>-</b>	4460	o C	1	46	130	0		0	
Surr: 2-Fluorobiphenyl	3420	<b>&gt;</b> (	4400	<b>,</b>	: &	22	130	0		0	
Surr: 2-Fluorophenol	5320	<b>S</b> •	0000	, c	4 2	o	130	0			0
Surr: Nitrobenzene-d5	3440	D 1	4460	<b>.</b>	2	3 6	130	0		_	0
Surr: Phenol-d5	5600	0	က္ကရင္	י כ	5 6	9 %	146	c			Ö
Surr: Terphenyl-d14	3640	0	4460	2	70	3	2	•			

Not Detected at the MDC or RL

g

Not Detected at the Practical Quantitation Limit (PQL) Analyte detected in the associated Method Blank М Qualifiers:

Value exceeds the instrument calibration range ш &

RPD exceeds accepted precision limit

Analyte detected below the PQL - v

Spike Recovery outside accepted recovery limits

Inc.
ries.
ratori
Lab
cience
(A)
+ pro-

ERM Consulting & Engineering

CLIENT:

(315) 437-0200

SW8270C Method:

ANALYTICAL QC SUMMARY REPORT

Wark Order:

0811166

0011100	Ithaca Dredging
Work Oraer:	Project:

1 1		· (		1 12 18 18 18 18 18		Dran Date	441241200R	RunNo:	15678	
Sample ID: MSB-8521	SampType: MSB	lestCode:		ouice para	-	rep care.	20074711	Course.	400047	
Client ID: ZZZZZ	Batch ID: 8521	Method:	SW8270C	(SW3550B)	•	Analysis Date:	12/3/2008	Sedino:	406347	
Instrument: MS06_40	ColumnID: DB-5MS		ZB-5, 0.5 df							
				Parent						
	QC Sample		Acht A VICO	Sample	WREC.	1 owd imit	High Limit RPD Ref Val		%RPD RPDLIMIT	Qual
Analyte	Result		DEN Added	Nosau	3 1					
2-Chloronaphthalene	1400	330	1670	0	ጃ	94	130			
2-Methylnaphthalene	1330	330	1670	0	8	43	130			
Acenanthane	1390	330	1670	0	83	43	130			
Acenanhthylene	1390	330	1670	0	\$	46	130			
Anthracene	1660	330	1670	o	66	37	130			
Renzolalanthracene	1500	330	1670	O	06	40	130			
Renzolainvrene	1610	330	1670	0	26	4	130			
Bear/of Hinoranthene	1560	330	1670	O	93	59	萃			
Boozofa h ilherylepe	1670	330	1670	a	100	10	130			
Benzolkifluoranthene	1640	330	1670	0	86	35	143		-	
Chargone	1610	330	1670	0	97	43	130			
Discourse bloothracene	1800	330	1670	0	108	18	135			
	1660	330	1670	0	100	45	130			
	1410	330	1670	O	85	45	130			
Indeport 2 3-cdlovrene	1470	330	1670	0	88	10	134			
Nanhtalene	1430	330	1670	0	98	40	130			
	1670	330	1670	0	100	45	130			
Dyrana	1540	330	1670	0	93	18	164			
Sur: 2 4 & Tribromonhenol	3380	0	2000	Q.	68	20	143			
Sign 2-Floorbinhand	2800	0	3330	0	84	46	130			
Cont. 2-1 tooloopping.	4430	0	2000	0	83	22	130			
	0830	o	3330	0	82	39	130			
Suff: Nitropenzene-do	2002		2000	O	83	33	130			
Sur: Phenol-do		• •	3330	c	G	36	146			
Surr: Terphenyl-d14	3020	•	Occ.	•	)	}				

Not Detected at the MDC or RL

Not Detected at the Practical Quantitation Limit (PQL) Analyte detected in the associated Method Blank m E Qualifiers:

Value exceeds the instrument calibration range RPD exceeds accepted precision limit <u>ш</u> 🗠

Spike Recovery outside accepted recovery limits Analyte detected below the PQL

5000 Brittonfield Parkway, Suite 200 East Syracuse, NY 13057

ERM Consulting & Engineering

CLIENT:

(315) 437-0200

Work Order: Method:

Ithaca Dredging 0811131 Project:

SW8270C

ANALYTICAL QC SUMMARY REPORT

Sample ID: LCS-8508 Client ID: ZZZZZ Instrument: MS06_40	SampType: LCS Batch ID: 8508 ColumnID: DB-5MS	TestCode Method:	e: 8270S SW8270C ZB-5, 0.5 df	Units: µg/Kg (SW3550B)	a d	Prep Date: Analysis Date:	11/21/2008 3: 12/1/2008	80	RunNo: SeqNo:	15641 407336	·
Analyte	QC Sample Result	Pol	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimít	%REC LowLimit HighLimit RPD Ref Val	%	%RPD RPDLimit Qual	Qual
2-Chloronaphthalene	1200	330	1670	0	7.2	49	126				

Client ID: ZZZZZ	Batch ID: 8508	Method:	SW8270C	(SW3550B)		Analysis Date:	12/1/2008	SedNo	407336	99	
Instrument: MS06_40	ColumnID: DB-5MS		ZB-5, 0.5 df								
Analyte	QC Sample Result	Pol	SPK Added	Parent Sample Result	%REC	LowLimit Hi	HighLimit RPD Ref Val		%RPD	RPDLimit	Qual
2-Chloronaphthalene	1200	330	1670	0	7.2	49	126				
2-Methylnaphthalens	1190	330	1670	٥	7.	44	125				
Acenaohthene	1200	330	1670	0	72	49	125				
Acenaphthylene	1190	330	1670	o	72	47	125				
Anthracene	1370	330	1670	0	82	90	125				
Benzofalanthracene	1200	330	1670	0	72	09	125				
Benzo[a]pyrene	1290	330	1670	0	77	53	129				
Benzo[b]fluoranthene	1220	330	1670	0	73	55	126				
Benzo[g,h,i]perylene	1310	330	1670		78	51	134				
Benzo[k]fluoranthene	1350	330	1670	0	<del>8</del>	49	132				
Chrysene	1290	330	1670	0	11	55	127				
Dibenz[a,h]anthracene	1350	330	1670	0	93	47	142				
Fluoranthene	1330	330	1670	0	80	54	131				
Fluorene	1140	330	1670	0	69	50	126				
Indeno[1,2,3-cd]pyrene	1100	330	1670	0	99	48	138				
Naphthalene	1280	330	1670	0	76	46	125				
Phenanthrene	1380	330	1670	0	83	58	125				
Pyrene	1270	330	1670	0	76	55	127				
Surr. 2.4.6-Tribromophenol	2780	0	2000	0	29	20	143				
Surr: 2-Fluorobiphenyl	2350	0	3330	Q	74	46	130				
Surr: 2-Fluorophenol	3730	0	2000	0	75	22	130				,
Surr: Nitrobenzene-d5	2510		3330	0	75	33	130				
Surr: Phenol-d5	3970	0	2000	0	79	33	130				
Surr: Terphenyl-d14	2560	0	3330	0	11	ဆို	146				

Not Detected at the Practical Quantitation Limit (PQL) Analyte detected in the associated Method Blank a g p Qualifiers:

Value exceeds the instrument calibration range RPD exceeds accepted precision limit 日氏

Spike Recovery outside accepted recovery limits Analyte detected below the PQL - m

Not Detected at the MDC or RL

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

SW8270C Method:

ANALYTICAL QC SUMMARY REPORT

Ithaca Dredging 0811131 Work Order: Project:

CLIENT: ERM Consulti	ERM Consulting & Engineering					Project:		Ithaca Dredging	50		
Sample ID: 1 CSD-8508	SampType: LCSD	TestCode:	82705	Units: µg/Kg		Prep Date:	11/21/2008			<b>~</b>	
	Batch ID: 8508	Method:	SW8270C	(SW3550B)		Analysis Date:	12/1/2008	SedNo	o: 407337	37	
₩	ColumnID: DB-5MS		ZB-5, 0.5 df								
				Parent							
Analyte	QC Sample Result	PaL	SPK Added	Sample Result	%REC	LowLimit H	HighLimit RF	RPD Ref Val	%RPD	RPDLimit	Qual
2 Chloropaphthalene	1340	330	1670	0	80	49	126	1200	11	ଚ	
2.Methylpachthalene	1290	330	1670	0	11	44	125	1190	∞	32	
Acanaphthana	1310	330	1670	0	79	49	125	1200	<b>ດ</b>	8	
Acenaphibylene	1310	330	1670	O	78	47	125	1190	တ	30	
Anthracene	1480	330	1670	0	88	90	125	1370	_	8	
Renzolalanthracene	1270	330	1670	0	92	9	125	1200	ග	ଚ୍ଚ :	
	1380	330	1670	O	83	53	129	1290	7	8	
Benzofhilioranthene	1340	330	1670	0	8	55	126	1220	ത	32	
Benzola h ilperviene	1380	330	1670	Q	83	51	134	1310	Ω	8	
Benzolkifinganthene	1420	330	1670	0	82	49	132	1350	LΩ.	္က	
	1380	330	1670	0	æ	55	127	1290	~	8	
City action	1460	330	1670	0	87	47	142	1350	ťΩ	8	
Circonthere	1420	330	1670	0	85	54	131	1330	7	30	
	1240	330	1670	0	75	50	126	1140	ά	ස	
Indepot 2 3-cdiovespe	1180	330	1670	0	20	48	138	1100	တ	30	
Nanhthalene	1390	330	1670	O	83	46	125	1280	<b>80</b> .	: 33	
Dhananthrana	1470	330	1670	0	88	58	125	1380	ග	ଚ୍ଚ	
Dyrana	1360	330	1670	۵	85	55	127	1270	7	၉	
Surr 2.4 6-Tribromonhenol	3000	0	2000	0	99	20	143	0		0	
Surr 2-Fluorohiphenyl	2610	0	3330	0	78	46	130	0		Φ .	
Surr 2-Fluorophenol	4110	0	2000	0	82	22	130	0		0	
Surr Nitrobenzene-d5	2740	0	3330	O	82	39	130	a		0	
Surr Dhanol-da	4250	0	2000	0	85	33	130	o		0	
Surr: Terphenyl-d14	2730	0	3330	0	82	36	146	o		0	

273

Not Detected at the Practical Quantitation Limit (PQL) Analyte detected in the associated Method Blank m Q ⊃ Qualifiers:

Value exceeds the instrument calibration range RPD exceeds accepted precision limit ш×

Analyte detected below the PQL ~ v2

Spike Recovery outside accepted recovery limits

5000 Brittonfield Parkway, Suite 200 East Syracuse, NY 13057

ERM Consulting & Engineering

CLIENT:

(315) 437-0200

Work Order: Method:

Ithaca Dredging Project:

SW8270C 0811166

ANALYTICAL QC SUMMARY REPORT

	30 - Outstand	Tector	TectCode: 8270S	Units: ua/Ka		Prep Date:	11/24/2008	RunNo:		15678	
Sample ID: LCS-8521	Samplybe, Los			) 				Southo.		ADRIAG	
Client ID: ZZZZZ	Batch ID: 8521	Method:	SW8270C	(SW3550B)		Analysis Date.	12/3/2000	r Sector		24000	
ين	ColumnID: DB-5MS		ZB-5, 0.5 df								
				Parent							
	QC Sample	į		Sample	5 L	tieni pro-	High! imit RD	RDD Ref Val	%RPD	D RPDLimit	Onal
Analyte	Result	PQL	SPK Added	Kesuit	NAKEL V	- 1					
2-Chloropaphthalene	1380	330	1670	0	83	48	126				
2. Methylnanhthalene	1290	330	1670	0	77	4	125				
Accountification	1380	330	1670	0	83	49	125				
Accidentification	1360	330	1670	0	윤	47	125				
Authoropo	1560	330	1670	0	93	60	125				
Benzolelenthracene	1440	330	1670	0	98	09	125				
Bonzofajammaano	1530	330	1670	Ö	95	53	129				
Denzelajpyrone	1460	330	1670	0	88	55	126				
Denzole hilloandana	1610	330	1670	O	97	51	134				
Desizo[g.i.,i]peryient	1580	330	1670	0	92	49	132				
	1550	330	1670	0	93	55	127				
City series	1740	330	1670	0	105	47	142				
	1550	330	1670	0	93	\$	131				
	1350	330	1670	0	26	20	126				
Fluorence Indone[1-9-3-cd]payrene	1450	330	1670	0	87	48	138				
Nanhthalene	1410	330	1670	0	85	46	125				
Chononthrond	1570	330	1670	0	94	58	125				
	1490	330	1670	0	88	55	127				
Fyleile Fire 2 4 6 Tehomonhond	3200	0	2000	O	54	20	143				
Sulf. Z.4,0-1110/Gitabrication	2780	0	3330	0	83	46	130				
	4260		5000	O	85	22	130				
Surr. Z-Fluolophenol	0326		3330	0	82	39	130				
Surr. Nitropenzene-do	07470		5000	0	89	33	130				
Suff: Phenol-do	7 1		0000	c	ă	36	146				
Surr: Terphenyl-d14	7950	0	Dece C	o	3	3	!				

Analyte detected in the associated Method Blank Qualifiers:

Not Detected at the Practical Quantitation Limit (PQL) Not Detected at the MDC or RL 

Value exceeds the instrument calibration range RPD exceeds accepted precision limit **122** 22

Spike Recovery outside accepted recovery limits Analyte detected below the PQL **–** 00

₫B

MB-8508

Lab Name: Life Science Laboratorie Contract: Life Science

Lab Code: LSLB Case No.: ERM

SAS No.: SDG No.: 0811131B

Lab File ID: K5195.D

Lab Sample ID:

MB-8508

Instrument ID:

MS06 40

Date Extracted:

11/21/2008

Matrix: (soil/water)

SOIL.

Date Analyzed:

<u>12/1/2008</u>

Level: (low/med)

Time Analyzed:

8:51

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

ļ <del></del>	EPA	LAB	LAB	TIME
	SAMPLE NO.	SAMPLE ID	FILE ID	ANALYZED
)1	LCS-8508	LCS-8508	K5196.D	9:30
)2	LCSD-8508	LCSD-8508	K5197.D	10:09
)3	Ith-3 (6-12)	0811131-001D	K5198.D	10:47
)4	Ith-4 (6-12)	0811131-002D	K5199.D	11:26
)5	Ith-2 (6-10)	0811131-003D	K5200.D	12:05
)6	Ith-2 (10-14)	0811131-004D	K5201.D	12:44
)7	Ith-6 (6-10)	0811131-005D	K5202.D	13:23
08	lth-6 (10-14)	0811131-006D	K5203.D	14:02
29	lth-8 (2-10)	0811142-001D	K5204.D	14:41
10	Ith-8 (10-14)	0811142-002D	K5205.D	15:19
11	Ith-7 (1-14)	0811142-003D	K5206.D	15:58
12	lth-5 (4-10)	0811142-004D	K5207.D	16:37
13	lth-5 (10-14)	0811142-005D	K5208.D	17:16
14	Ith-1 (6-12)	0811142-006D	K5209.D	17:55
15.	Ith-Dup1	0811142-007D	K5210.D	18:34
16	Ith-2 (6-10)DL	0811131-003DDL	K5211.D	19:12

• •		
COMMENTS:		

page  $\underline{1}$  of  $\underline{2}$ 

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

ERM Consulting & Engineering

CLIENT:

(315) 437-0200

Method:

ANALYTICAL QC SUMMARY REPORT

SW8270C 0811131

Ithaca Dredging Work Order: Project:

							00000170777	BunNo.	15641	
Sample ID: MB-8508	SampType: MBLK	TestCod	TestCode: 8270S	Units: pg/Kg	_	rrep Dale:	11/2 11/2000	Training.	100101	
Client ID: 7777	Batch ID: 8508	Method:	SW8270C	(SW3550B)		Analysis Date:	12/1/2008	SedNo:	40/335	
¥			ZB-5, 0,5 df							
l				Parent						
Analyte	QC Sample Result	Pol	SPK Added	Sample Result	%REC	LowLimit H	HighLimit RPD Ref Val		%RPD RPDLimit	Qual
2-Chloronaphthalene	QN	330							. ,	
2-Methylnaphthalene	Q	330								
Acenaphthene	QN	330								
Acenaphthylene	Q	330								
Anthracene	QN	330								
Benzo[a]anthracene	QN	330								
Benzo[a]pyrene	Q	330								
Benzo[b]fluoranthene	QN	330								
Benzo[g,h,i]penylene	Q	330				٠				
Benzolklfluoranthene	Q	330								
Chrysene	QN	330								
Dibenz[a,h]anthracene	R	330								
Fluoranthene	QV	330								
Fluorene	ON	330								
Indeno[1,2,3-cd]pyrene	QN	330								
Naphthalene	ON	330								
Phenanthrene	QN	330								
Pyrene	2	330				,	(			
Surr. 2.4.6-Tribromophenol	2530	0	2000	O	5	50	143			
Surr 2-Fluorobiohenvi	2580	0	3330	0	78	46	130			
Sur: 2-Fluorophenol	3880	0	5000	0	78	55	130			
Sur- Nitrobenzene-d5	2660	0	3330	c	8	33	130			
Sur Phenol-d5	4150	0	2000	o	83	33	130			
Surr. Terphenyl-d14	2860	0	3330	C3	8	36	146			

Not Detected at the Practical Quantitation Limit (PQL) Analyte detected in the associated Method Blank m Q Qualifiers:

Value exceeds the instrument calibration range RPD exceeds accepted precision limit 

Spike Recovery outside accepted recovery limits Analyte detected below the PQL

Not Detected at the MDC or RL

мв-8521

Lab Name: Life Science Laboratorie Contract: Life Science

Lab Code: LSLB Case No.: ERM SAS No.: SDG No.: 0811131B

Lab Sample ID:

Lab File ID: K5214.D

MB-8521

Instrument ID: MS06 40

Date Extracted:

11/24/2008

Matrix: (soil/water)

SOIL

Date Analyzed:

12/3/2008

Level: (low/med)

Time Analyzed:

12:01

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA	LAB	LAB	TIME
	SAMPLE NO.	SAMPLE ID	FILE ID	ANALYZED
01	LCS-8521	LCS-8521	K5215.D	12:40
)2	MSB-8521	MSB-8521	K5216.D	13:18
)3: 	lth-12 (1-14)	0811166-004D	K5217.D	13:57
04	Ith-14 (1-14)	0811166-006D	K5218.D	14:36
05:	(th-13 (1-10)	0811166-007D	K5219.D	15:14
06	Ith-13 (10-14)	0811166-008D	K5220.D	15:53
77	Ith-16 (1-14)	0811166-005D	K5221.D	16:32
08	Ith-16 (1-14)MS	0811166-005DMS	K5222.D	17:10
09	Ith-16 (1-14)MSD	0811166-005DMSD	K5223.D	17:49
10	Ith-9 (1-14)	0811166-001D	K5224.D	18:28
11	Ith-10 (1-14)	0811166-002D	K5225.D	19:07
12	lth-11 (1-14)	0811166-003D	K5226.D	19:46
13	lth-DUP2	0811166-0100	K5227.D	20:25
14	Ith-4 (1-6)	0811166-013D	K5228.D	21:04
15	Ith-6 (1-6)	0811166-014D	K5229.D	21:43
16	Ith-1 (1-6)	0811166-009D	K5230.D	22:22
17	ith-2 (1-6)	0811166-011D	K5231.D	23:01
18	lth-3 (1-6)	0811166-012D	K5235.D	13:51

COMMENTS:	

page 2 of 2

Inc.
Laboratories,
Science
Life S

ERM Consulting & Engineering

CLIENT:

(315) 437-0200

SW8270C Method:

ANALYTICAL QC SUMMARY REPORT

Ithaca Dredging 0811166 Work Order: Project:

										Q1-0-1-7	
Sample ID: MB-8521	SampType: MBLK	TestCode:	le: 8270S	Units: µg/Kg	ā	Prep Date:	11/24/2008	33	(AUNO:	120/8	
Client ID: ZZZZZ	Batch ID: 8521	Method:	SW8270C	(SW3550B)	¥	Analysis Date:	12/3/2008		SedNo:	408345	
Instrument: MS06_40	ColumnID: DB-5MS		ZB-5, 0.5 df								
Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit HighLimit RPD Ref Val	InLimit R	RPD Ref Val	% R%	%RPD RPDLimit Qual	Qual
2.Chloronaphthalene	QN	330									

Analyte	Result	Pol	SPK Added	Result	%REC	LowLimit HighLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit
and in the second				***************************************						
2-Chloronaphthalene	2	330								
2-Methylnaphthalene	Q	330								
Acenaphthene	QN	330								
Acenaphthylene	Q	330								
Anthracene	Q	330								
Benzo[a]anthracene	Q	330								
Benzo[a]pyrene	S	330								
Benzolbifluoranthene	Q	. 330								
Benzo[g,h,i]perylene	2	330								
Benzo[k]fluoranthene	Q	330								
Chrysene	2	330							•	
Dibenz[a,h]anthracene	Q	330								
Fluoranthene	Q	330								
Fluorene	2	330	٠	•						
Indeno[1,2,3-cd]pyrene	Q	330								
Naphthalene	9	330								
Phenanthrene	Q.	330								
Pyrene	QN	330								
Surr: 2,4,6-Tribromophenol	2750	O		0	55	20	143			
Surr 2-Fluorobiphenyl	2760	0		0	83	46	130			
Sur- 2-Fluorophenol	4120	0		0	82	22	130			
Surr Nitrobenzene d5	2680	0		0	80	33	130			
Surr Phenol-d5	4320	0	2000	a	98	8	130			
Surr Terphenyl-d14	3180	0		0	35	36	146			
•										

RPD exceeds accepted precision limit Not Detected at the Practical Quantitation Limit (PQL) Analyte detected in the associated Method Blank Not Detected at the MDC or RL a Q Qualifiers:

Value exceeds the instrument calibration range 田民

Spike Recovery outside accepted recovery limits Analyte detected below the PQL

ab Name:

Life Science Laboratories, Inc.

SDG No.:

0811131B

.ab Code:

**LSLB** 

.ab File ID (Standard):

K5194.D

Date Analyzed:

12/01/2008

nstrument ID:

MS06 40

Time Analyzed:

<u>8:12</u>

€C Column:

DB-5MS ID: 0.25 (mm)

	IS1 (DCB)		IS2 (NPT)	_	IS3 (ANT)		IS4 (PHN)	
	AREA#	RT#	AREA#	RT#	AREA#	RT#	AREA#	RT#
12 HOUR STD	97480	10.22	415733	12,59	206214	15.93	392981	18.79
UPPER LIMIT	194960	10.72	831466	13.09	412428	16.43	785962	19.29
LOWER LIMIT	48740	9.72	207867	12.09	103107	15.43	196491	18.29
SAMPLE						ļ	- - - -	
NO.	ļ							
MB-8508 (MB-8508)	127465	10.22	547095	12.58	267385	15.92	443407	18.79
LCS-8508 (LCS-8508)	127286	10.22	541936	12.58	272714	15.93	450759	18.79
3 LCSD-8508 (LCSD-8508)	136355	10.22	568893	12.58	281772	15.93	471505	18.79
4 8th-3 (6-12) (0811131-001D)	131087	10.22	562417	12.57	273257	15.93	439345	18.79
5 lth-4 (6-12) (0811131-002D)	130301	10.22	566322	12.58	275787	15.93	427420	18.79
6 lth-2 (6-10) (0811131-003D)	122033	10.22	510111	12.58	248731	15.93	407241	18.79
7 lth-2 (10-14) (0811131-004D)	129671	10.22	559614	12.58	282212	15.93	449358	18.78
8 Hh-6 (6-10) (0811131-005D)	133899	10.22	583209	12.58	288504	15.93	460142	18.74
9 lth-6 (10-14) (0811131-006D)	132761	10.22	575307	12.58	287125	15.92	462141	18.78
0 lth-8 (2-10) (0811142-001D)	133773	10.22	570793	12.58	277761	15.93	430828	18.78
1 lth-8 (10-14) (0811142-002D)	129313	10.21	556018	12,58	280414	15.92	448263	18.79
2 lth-7 (1-14) (0811142-003D)	129184	10.22	552346	12.58	275157	15.93	441548	18.7
3 lth-5 (4-10) (0811142-004D)	125931	10.21	543289	12.58	275222	15.92	434675	18.7
4 lth-5 (10-14) (0811142-005D)	143347	10.21	620136	12.57	312737	15.92	505299	18.7
5 lth-1 (6-12) (0811142-006D)	140156	10.21	597162	12.57	296949	15.92	472055	18.7
6 lth-Dup1 (0811142-007D)	127013	10.21	543399	12.57	273941	15.92	429908	18.7
7 lth-2 (6-10)DL (0811131- 003DDL)	109484	10.21	463926	12.57	237176	15.92	375787	18.7

IS1 (DCB) = 1,4-Dichlorobenzene-d4

IS2 (NPT) = Naphthalene-d8

IS3 (ANT) = Acenaphthene-d10 IS4 (PHN) = Phenanthrene-d10

AREA UPPER LIMIT = +100% of internal standard area AREA LOWER LIMIT = -50% of internal standard area RT UPPER LIMIT = +0.50 minutes of internal standard RT RT LOWER LIMIT = -0.50 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk.

<sup>\*</sup> Values outside of QC limits.

.ab Name:

Life Science Laboratories, Inc.

SDG No.:

0811131B

.ab Code:

<u>LSLB</u>

.ab File ID (Standard):

K5194.D

Date Analyzed:

12/01/2008

nstrument ID:

MS06 40

Time Analyzed:

8:12

3C Column:

DB-5MS ID:

(mm)

0.25

IS5 (CRY) IS6 (PRY) RT# AREA# RT# AREA# 345876 27.06 23.86 12 HOUR STD 401176 24.36 691752 27,56 UPPER LIMIT 802352 26,56 172938 LOWER LIMIT 200588 23.36 SAMPLE NO. 27.05 23.85 400392 01 MB-8508 (MB-8508) 487514 507552 23,86 407916 27.06 02 LCS-8508 (LCS-8508) 419875 27.06 03 LCSD-8508 (LCSD-8508) 523897 23.86 453951 23,85 360693 27.05 04 lth-3 (6-12) (0811131-001D) 27.06 340246 05 lth-4 (6-12) (0811131-002D) 455030 23.85 27.07 390169 23.88 164584\* 06 lth-2 (6-10) (0811131-003D) 27.06 23.85 343561 07;ffb-2 (10-14) (0811131-004D) 458443 27.06 23,85 350486 08 Hh-6 (6-10) (0811131-005D) 466171 09 lth-6 (10-14) (0811131-006D) 466239 23,85 356059 27.05 27.06 10 lth-8 (2-10) (0811142-001D) 434153 23.86 209873 443797 23.85 327282 27.05 11 Hh-8 (10-14) (0811142-002D) 27.07 12 lth-7 (1-14) (0811142-003D) 465787 23.87 243582 267454 27.04 13 lth-5 (4-10) (0811142-004D) 23.85 426904 23.85 371770 27.04 14 lth-5 (10-14) (0811142-005D) 509949 27.07 23.87 232519 15 kh-1 (6-12) (0811142-006D) 498094 210656 27.07 16 lth-Dup1 (0811142-007D) 442391 23.86 27.04 17 lth-2 (6-10)DL (0811131-388086 23.85 273459

IS5 (CRY) = Chrysene-d12

003DDL)

IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk.

\* Values outside of QC limits.

12/04/08 14:40

Page 2 of 6 SW8270C

ab Name:

Life Science Laboratories, Inc.

SDG No.:

0811131B

ab Code:

<u>LSLB</u>

ab File ID (Standard):

K5213.D

Date Analyzed:

12/03/2008

istrument ID:

MS06 40

Time Analyzed:

11:22

iC Column:

<u>DB-5MS</u> ID: <u>0.25</u>

(mm)

	IS1 (DCB)		IS2 (NPT)		IS3 (ANT)		IS4 (PHN)	
	AREA#	RT#	AREA#	RT#	AREA#	RT#	AREA#	RT#
12 HOUR STD	110729	10.16	455050	12.53	224058	15.88	437083	18.74
UPPER LIMIT	221458	10.66	910100	13.03	448116	16.38	874166	19.24
LOWER LIMIT	55365	9.66	227525	12.03	112029	15.38	218542	18.24
SAMPLE					:			
NO.	:							
MB-8521 (MB-8521)	138055	10.16	578402	12.53	279915	15.87	460813	18.73
LCS-8521 (LCS-8521)	138061	10.17	563859	12.53	278989	15.88	475222	18.74
MSB-8521 (MSB-8521)	122868	10.17	510526	12.53	252980	15.88	429934	18.74
lth-12 (1-14) (0811166-004D)	128760	10.16	539409	12,53	263391	15.87	428128	18.73
lth-14 (1-14) (0811166-006D)	141058	10.17	585190	12.53	275835	15.88	435133	18.74
lth-13 (1-10) (0811166-007D)	125054	10.17	529885	12.53	250192	15.88	404540	18.74
lth-13 (10-14) (0811166-008D)	124338	10.17	529143	12.53	255633	15,88	409039	18.74
Ith-16 (1-14) (0811166-005D)	123766	10.17	520528	12.53	251100	15.88	400453	18.74
Ith-16 (1-14)MS (0811166- 005DMS)	131398	10.17	548970	12.54	267593	15.89	440256	18.75
lth-16 (1-14)MSD (0811166- 905DMSD)	122908	10.17	514108	12.53	254512	15.88	408861	18.74
lth-9 (1-14) (0811166-001D)	135833	10.17	578949	12,53	285596	15.88	458877	18.74
ith-10 (1-14) (0811166-002D)	127537	10.17	541464	12.53	263951	15.88	429141	18.74
ith-11 (1-14) (0811166-003D)	119090	10,17	503226	12.53	243000	15.88	387478	18.74
Ith-DUP2 (0811166-010D)	124832	10.18	532442	12.53	256341	15.88	409385	18.75
lth-4 (1-6) (0811166-013D)	130773	10.18	551607	12.54	262023	15.89	426223	18.7
lth-6 (1-6) (0811166-014D)	131228	10.18	556391	12.53	269020	15.88	433239	18.7
   [lth-1 (1-6) (0811166-009D)	130655	10.18	546223	12.54	268251	15.89	428618	18.79
ith-2 (1-8) (0811166-011D)	123152	10.18	516843	12.54	256791	15.89	423600	18.7

IS1 (DCB) = 1,4-Dichlorobenzene-d4

IS2 (NPT) = Naphthalene-d8

IS3 (ANT) = Acenaphthene-d10

IS4 (PHN) = Phenanthrene-d10

AREA UPPER LIMIT = +100% of internal standard area AREA LOWER LIMIT = -50% of internal standard area RT UPPER LIMIT = +0.50 minutes of internal standard RT RT LOWER LIMIT = -0.50 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk.

Page 3 of 6

SW8270C

<sup>\*</sup> Values outside of QC limits.

.ab Name:

Life Science Laboratories, Inc.

SDG No.:

0811131B

.ab Code:

<u>LSLB</u>

.ab File ID (Standard):

K5213.D

Date Analyzed:

12/03/2008

nstrument ID:

MS06 40

Time Analyzed:

11:22

3C Column:

DB-5MS ID: 0.25

(mm)

	1S5 (CRY)		IS6 (PRY)					
	AREA#	RT#	AREA#	RT#				
12 HOUR STD	470062	23.82	410422	26.99				
UPPER LIMIT	940124	24.32	820844	27.49				į
LOWER LIMIT	235031	23.32	205211	26.49				
SAMPLE								
NO.								
1 MB-8521 (MB-8521)	495632	23.80	427769	26.98	1			
2 LCS-8521 (LCS-8521)	532874	23.81	447503	26.99	:			
3 MSB-8521 (MSB-8521)	497181	23.82	407843	26.99				
4 lth-12 (1-14) (0811166-004D)	463967	23.61	376096	26.99				
5 (th-14 (1-14) (0811166-006D)	484470	23.81	407599	26.99				
6 lth-13 (1-10) (0811166-007D)	436749	23.81	364271	26.99				1
7 lth-13 (10-14) (0811166-008D)	435852	23.81	364596	26.99				
8 lth-16 (1-14) (0811166-005D)	429008	23.81	361188	26.99				
9 lth-16 (1-14)MS (0811166- 005DMS)	482268	23.62	382593	27.00				
0 lth-16 (1-14)MSD (0811166- 005DMSD)	469476	23.82	375218	27.01				
1 lth-9 (1-14) (0811166-001D)	483330	23.81	386969	27.00				}
2 lth-10 (1-14) (0811166-002D)	440801	23.81	358384	27.00				
3 lth-11 (1-14) (0811166-003D)	407772	23.81	336495	27.00				
4 (th-DUP2 (0811166-010D)	435268	23.82	354014	27.01				
5 lth-4 (1-6) (0811166-013D)	476476	23.82	365471	27.01				
6 Hh-6 (1-6) (0811166-014D)	469130	23.82	348149	27.01	1			
7,Hh-1 (1-6) (0811166-009D)	453080	23.83	330618	27.02	· · · · · · · · · · · · · · · · · · ·			
iB lth-2 (1-6) (0811166-011D)	444592	23,82	302051	27.02		į		

IS5 (CRY) = Chrysene-d12

IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk.

Page 4 of 6

SW8270C

<sup>\*</sup> Values outside of QC limits.

ab Name:

Life Science Laboratories, Inc.

SDG No.:

0811131B

ab Code:

LSLB

ab File ID (Standard):

K5234.D

Date Analyzed:

12/04/2008

istrument ID:

MS06 40

<u>DB-5MS</u> ID: <u>0.25</u>

Time Analyzed:

<u>13:12</u>

C Column:

(mm)

	IS1 (DCB) AREA#	RT#	IS2 (NPT) AREA#	RT#	IS3 (ANT) AREA#	RT#	IS4 (PHN) AREA #	RT#
12 HOUR STD	107410	10.16	434674	12.53	250302	15.88	529047	18.74
UPPER LIMIT	214820	10.66	869348	13.03	500604	16.38	1058094	19.24
LOWER LIMIT	53705	9.66	217337	12.03	125151	15.38	264524	18.24
SAMPLE								
NO.							: -	
lth-3 (1-6) (0811166-012D)	111984	10,16	460577	12.52	256581	15,87	456256	18.74

IS1 (DCB) = 1,4-Dichlorobenzene-d4

IS2 (NPT) = Naphthalene-d8

IS3 (ANT) = Acenaphthene-d10

IS4 (PHN) = Phenanthrene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk.

<sup>\*</sup> Values outside of QC limits.

ıb Name:

Life Science Laboratories, Inc.

SDG No.:

0811131B

ıb Code:

LSLB

ib File ID (Standard):

K5234.D

Date Analyzed:

12/04/2008

strument ID:

MS06 40

DB-5MS ID: 0.25

Time Analyzed:

<u>13:12</u>

C Column:

(mm)

	IS5 (CRY)		IS6 (PRY)				
	AREA#	RT #	AREA#	RT#			
12 HOUR STD	490586	23.82	420062	27.00			
UPPER LIMIT	981172	24.32	840124	27.50			
LOWER LIMIT	245293	23.32	210031	26.50			<u> </u>
SAMPLE					į.		
NO.							
1 Nh-3 (1-6) (0811166-012D)	422257	23.81	261901	26.99			

IS5 (CRY) = Chrysene-d12

IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

<sup>#</sup>Column used to flag values outside QC limits with an asterisk.

<sup>\*</sup> Values outside of QC limits.

### **Pesticide Data**

2FSOIL PESTICIDE SURROGATE RECOVERY

Lab Name: Life Science Laboratories, Inc Contract:

Case No.: <u>ERM</u> SAS No. \_\_\_\_\_ SDG No.: <u>0811131B</u> Lab Code: <u>LSLB</u>

GC Column(1): RtxCLP ID: 0.53 (mm) GC Column(2): RtxCLP2 ID: 0.53

EPA		. % REC1	% REC2	% REC3	% REC4	TOT
SAMPLE NO.	LSL ID	(TCX) 1 #	(TCX) 2 #	(DCB) 1 #		OUT
1MB-8505	MB-8505	78	79	48	45	0
2 LCS-8505	LCS-8505	72	78	4.7	47	0
3 LCSD-8505	LCSD-8505	66	70	45	43	0
4 MB-8516	MB-851.6	65	70	42	43	, 0
5LCS-8516	LCS-8516	68	72	44	4.4	0
6MSB-8516	MSB-8516	73	77	48	49	0
7 Ith-3 (6-12)	0811131-001D	86	91	52	53	0
8 Ith-4 (6-12)	0811131-002D	66	71	37	51	0
9 Ith-2 (6-10)	0811131-003D	67	73	30	73	0
0 Ith-2 (10-14)	0811131-004D	44	56	27	40	0
1   1th-6 (6-10)	0811131-005D	55	79	36	45	0
2 Ith-6 (10-14)	0811131-006D	64	85	38	54	0
3 Ith-8 (2-10)	0811142-001D	61	68	41	65	0
4 Ith-8 (10-14)	0811142-002D	46	60	28	35	0
5 Ith-7 (1-14)	0811142-003D	61	70	40	81	0
6 Ith-5 (4-10)	0811142-004D	48	67	34	39	0
7 Ith-5 (10-14)	0811142-005D	44	54	26	36	0
8 Ith-1 (6-12)	0811142-006D	53	69	29	53	0
9 Ith-Dup1	0811142-007D	53	58	26	46	0
0 Ith-9 (1-14)	0811166-001D	61	69	36	43	0
1 Ith-10 (1-14)	0811166-002D	53	65	33	37	0
2 Ith-11 (1-14)	0811166-003D	53	62	36	44	0
3 Ith-12 (1-14)	0811166-004D	58	71	42	58	0
4 Ith-16 (1-14)	0811166-005D	59	96	40	56	0
5 Ith-16 (1-14) MS	0811166-005DMS	58	61	31	34	0
6 Ith-16 (1-14) MSD	0811166-005DMSD	; 51	65	35	38	0
7.Ith-14 (1-14)	0811166-006D	61	68	42	40	. 0

QC Limit

% REC1	(TCX)	1	=	Tetrachloro-m-xylene	37-125
% REC2	(TCX)	2	=	Tetrachloro-m-xylene	37-125
% REC3	(DCB)	1	=	Decachlorobiphenyl	25-145
% REC4	(DCB)	2	=	Decachlorobiphenyl	25-145

# Column to be used to flag recovery values

\* Values outside of contract required QC limits

Page 1 of 2 FORM II PEST-2

SW8081A

2F SOIL PESTICIDE SURROGATE RECOVERY

Lab Name: Life Science Laboratories, Inc Contract:

Lab Code: LSLB Case No.: ERM

SAS No. \_\_\_\_\_ SDG No.: <u>0811131B</u>

GC Column(1); RtxCLP ID: 0.53 (mm) GC Column(2); RtxCLP2 ID: 0.53 (mm)

EPA		% REC1	% REC2	% REC3	% REC4	TOT
SAMPLE NO.	LSL ID	(TCX) 1 #	(TCX) 2 #	(DCB) 1 #	(DCB) 2 #	TUO
8 Ith-13 (1-10)	0811166-0070	50	68	34	40	0
9 Ith-13 (10-14)	0811166-008D	55	70	39	54	0
0 Ith-1 (1-6)	0811166-009D	85	86	37	72	0
1 Ith-DUP2	0811166-010D	54	59	29	39	0
2 Ith-2 (1-6)	0811166-011D	82	61	35	58	0
3 Ith-3 (1-6)	0811166-012D	75	67	39	77	0
4 Ith-4 (1-6)	0811166-013D	55	62	34	55	0
5 Ith-6 (1-6)	0811166-014D	76	. 63	42	56	. 0

QC Limit

ક	REC 1	(TCX)	1	=	Tetrachloro-m-xylene	37-125
충	REC 2	(TCX)	2	=	Tetrachloro-m-xylene	37-125
Ş.	REC 3	(DCB)	1	=	Decachlorobiphenyl	25-145
용	REC 4	(DCB)	2	=	Decachlorobiphenyl	25-145

<sup>#</sup> Column to be used to flag recovery values

Page 2 of 2 FORM II PEST-2

SW8081A

<sup>\*</sup> Values outside of contract required QC limits

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(315) 437-0200

Method:

Project:

Ithaca Dredging

SW8081A 0811166 Work Order:

ANALYTICAL QC SUMMARY REPORT

ERM Consultin	ERM Consulting & Engineering			**************************************		Project:		Ithaca Dredging	59		
Sample ID: 0811166-005D Client ID: 1th-16 (1-14)	SampType: MS Batch ID: 8516	TestCode:	e: 8081S SW8081A	Units: mg/Kg-dry (SW3550B)		Prep Date: Analysis Date:	11/24/2008	RunNo: SeqNo:		15901 417134	
Instrument: GCGT_57G	ColumnID: RtxCLP	-	Rtx-CLPest, 0.50 df	30 df							
				Parent							
	QC Sample Result	Pol	SPK Added	Sample Result	%REC	LowLimit F	LowLimit HighLimit RPD Ref Val	Ref Val	%RPD	%RPD RPDLimit	Qual
	0.00584	0.0022	0.0114	О	51	30	133		·		
	0.00550	0.0022	0.0114	0	48	26	130				
	0.00450	0.0022	0.0114	0	40	9	173				
alpha-Chlordane	0.00472	0.0011	0.0114	0	42	30	130				
	0.00615	0.0022	0.0114	0	25	24	130				
gamma-Chlordane	0.00508	0.0011	0.0114	0	45	33	147				
Surr: Tetrachloro-m-xylene	0.00775	o	0.0134	0	28	37	125				
Sur: Decachlorobiphenyl	0.00419	0	0.0134	0	31	22	145				

Qualifiers:

Not Detected at the MDC or RL

Not Detected at the Practical Quantitation Limit (PQL) Analyte detected in the associated Method Blank **a Q** a

Value exceeds the instrument calibration range RPD exceeds accepted precision limit 田氏

Spike Recovery outside accepted recovery limits Analyte detected below the PQL -- va

Inc.
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CLIENT:

(315) 437-0200

SW8081A Method:

ANALYTICAL QC SUMMARY REPORT

0811166 Work Order:

ERM Consult	ERM Consulting & Engineering			The state of the s	Project:	<b>T</b>	thaca Dredging	- vvvvend d
0811166-005D	SampType: MSD	TestCode: 8081S	80815	Units: mg/Kg-dry	Prep Date:	11/24/2008	RunNo: 15901	15901
Ith-16 (1-14)	Batch ID: 8516	Method:	Method: SW8081A	(SW3550B)	Analysis Date: 12/20/2008	12/20/2008	SeqNo: 417135	417135
	!						•	

Sample ID: 0811166-005D Client ID: 1th-16 (1-14) Instrument: GCGT_57G	SampType: MSD Batch ID: 8516 ColumnID: RtxCLP	TestCode: Method: Rtx	le: 8081S L SW8081A ( Rtx-CLPest, 0.50 df	Units: mg/Kg-dry (SW3550B) 0 df		Prep Date: Analysis Date:	11/24/2008 e: 12/20/2008		RunNo: 1 SeqNo: 4	15901 417135	
Analyte	QC Sample Result	PaL	SPK Added	Parent Sample Result	%REC	LowLimit	High <b>L</b> imit	LowLimit HighLimit RPD Ref Val	%RPD	) RPDLimit	Qual
4,4'-DDD	0.00635	0.0022	0.0114	0	56	8	133	0.00584		3 50	
4,4'-DDE	0.00611	0.0022	0.0114	O	54	26	130	0.0055	7	36	
4,4'-DDT	0.00586	0.0022	0.0114	0	52	10	173	0.0045	26	9 60	
alpha-Chlordane	0.00521	0.0011	0.0114	0	46	99	130	0.00472	Ŧ	) 42	
Dieldrin	0,00653	0.0022	0.0114	0	25	24	130	0.00615	•	\$ 40	
gamma-Chlordane	0.00539	0.0011	0.0114	0	47	33	147	0.00508	J	15	
Surr: Tetrachloro-m-xylene	0.00686	0	0.0134	0	51	37	125	0		0	
Surr: Decachlorobiphenyl	0.00466	0	0.0134	0	35	25	145	0		0	

Ħ	Analyte detected in the associated Method Blank	Ш	E Value exceeds the instrument calibration range
Q.	Not Detected at the Practical Quantitation Limit (PQL)	ഷ	R RPD exceeds accepted precision limit
n	U Not Detected at the MDC or RL		

30-Dec-08

Not Detected at the MDC or RL

Spike Recovery outside accepted recovery limits J Analyte detected below the PQL Spike Recovery outside accented

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ERM Consulting & Engineering

CLIENT:

(315) 437-0200

SW8081A Method:

ANALYTICAL QC SUMMARY REPORT

Ithaca Dredging 0811166 Work Order: Project:

Sample ID: 0811166-005D Clent ID: 1th-16 (1-14)	SampType: MS Batch ID: 8516	TestCode:	8081S SW8081A	Units: mg/Kg-dry (SW3550B)		Prep Date: Analysis Date:	11/24/2008	RunNo:	15903	
Instrument: GCGT_57H	ColumnID: RtxCLP2	DZ.	Rfx-CLPest II,0.42df	42df	•				-	
	QC Sample			Parent Sample						
Analyte	Result	PQ	SPK Added	Result	%REC	LowLimit	%REC LowLimit HighLimit RPD Ref Val	tef Val	%RPD RPDLimit Qual	t Qual
4,4′-DDD	0.00633	0.0022	0.0114	0	56	33	133			
4,4'-DDE	0.00637	0.0022	0.0114	0	56	56	130			
4,4'-DDT	0,00755	0.0022	0.0114	0	99	10	173			
alpha-Chlordane	0.00626	0.0011	0.0114	0	55	8	130			
Dieldrin	0.00729	0.0022	0.0114	0	9	24	130			
gamma-Chlordane	0.0227	0.0011	0.0114	0	200	33	147			S E E
Surr: Tetrachloro-m-xylene	0.00816	0	0.0134	0	61	37	125			•
Surr: Decachlorobiphenyl	0.00450	0	0.0134	0	34	25	145			אָ אל
										12/30/08

Not Detected at the MDC or RL

30-Dec-08

压队 Not Detected at the Practical Quantitation Limit (PQL) Analyte detected in the associated Method Blank g p 2

Value exceeds the instrument calibration range RPD exceeds accepted precision limit

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Life

(315) 437-0200

Work Order: Method:

Ithaca Dredging Project:

SW8081A 0811166

ANALYTICAL QC SUMMARY REPORT

		Qual	L. Control of the Con					RES		ダベス
	- <del>-</del>	RPDLimit (	20	36	90	42	4	15	0	O
	15903 417181	%RPD F	9	80	4	တ	7	۳		
redging	RunNo; SeqNo;	=	3	7	5	ω	on.	7	0	0
Ithaca Dredging	800	RPD Ref Val	0.00633	0.00637	0.00755	0.00626	0.00729	0.0227		-
#	11/24/2008	lighLimít	133	130	173	130	130	147	125	145
Project:	Prep Date: Analysis Date:	LowLimit HighLimit	30	26	10	30	24	33	37	25
		%REC	59	6	69	58	65	203	65	38
	Units: mg/Kg-dry (SW3550B) 42df	Parent Sample Result	0	0	0	0	o	0	0	o
	: 8081S U SW8081A (S X-CLPest II,0.42df	SPK Added	0.0114	0.0114	0.0114	0.0114	0.0114	0.0114	0.0134	0.0134
	TestCode: Method: Rt	Pal	0.0022	0.0022	0.0022	0.0011	0.0022	0.0011	0	0
ng & Enginecring	SampType: MSD Batch ID: 8516 ColumnID: RtxCLP2	QC Sample Resuft	0.00671	0.00691	0.00787	0.00664	0.00740	0.0231	0.00873	0.00506
CLIENT: ERM Consulting & Engineering	Sample ID: 0811166-005D Client ID: Ith-16 (1-14) Instrument: GCGT_57H	Analyte	4,4'-DDD	4,4'-DDE	4,4'-DDT	alpha-Chlordane	Dieldrin	gamma-Chlordane	Surr: Tetrachloro-m-xylene	Surr: Decachlorobiphenyl

Not Detected at the MDC or RL

30-Dec-08

EI K ND Not Detected at the Practical Quantitation Limit (PQL) U Not Detected at the MDC or RL Analyte detected in the associated Method Blank д

Value exceeds the instrument calibration range RPD exceeds accepted precision limit

Spike Recovery outside accepted recovery limits Analyte detected below the PQL

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

ERM Consulting & Engineering

CLIENT:

(315) 437-0200

SW8081A Method:

ANALYTICAL QC SUMMARY REPORT

0811166 Work Order: Ithaca Dredging Project:

Sample ID: MSB-8516	SampType: MSB	TestCode:	Je: 8081S	Units: mg/Kg		Prep Date:	11/24/2008	RunNo:	15901	
Client ID: ZZZZZ Instrument: GCGT_57G	Batch ID: 8516 ColumnID: RtxCLP	Method:	SW8081A (5 Rtx-CLPest, 0.50 df	(SW3550B) 0 af		Analysis Date:	e: 12/19/2008	SedNo:	417110	
Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	LowLimit HighLimit RPD Ref Val	tef Val	%RPD RPDLimit Qual	Qual
4,4'-DDD	0.00662	0.0017	0.0085	0	78	30	133			
4,4'-DDE	0.00655	0.0017	0.0085	0	77	56	130			
4,4'-DDT	0.00668	0.0017	0.0085	0	79	4	173			
alpha-Chlordane	0.00600	0.00085	0.0085	0	71	30	130			
Dieldrin	0.00660	0.0017	0.0085	0	78	24	130			
gamma-Chlordane	0.00552	0.00085	0.0085	0	92	33	147			
Surr: Tetrachloro-m-xylene	0.00732	0	0.01	0	73	37	125			
Surr: Decachlorobiphenyl	0.00482	0	0.01	0	84	25	145			

RPD exceeds accepted precision limit

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ND Not Detected at the Practical Quantitation Limit (PQL)
U Not Detected at the MDC or RL

Not Detected at the MDC or RL

30-Dec-08

Analyte detected in the associated Method Blank

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Analyte detected below the PQL Value exceeds the instrument calibration range

Spike Recovery outside accepted recovery limits

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5000 Brittonfield Parkway, Suite 200 East Syracuse, NY 13057

CLIENT:

(315) 437-0200

SW8081A 0811166 Work Order: Method:

ANALYTICAL QC SUMMARY REPORT

Sample ID: MSB-8516 Client ID: ZZZZZ	SampType: MSB Batch ID: 8516	TestCode: Method:	e: 8081S SW8081A	Units: mg/Kg (SW3550B)		Prep Date: Analysis Date:	11/24/2008		RunNo: SeqNo:	15903 417156	
Instrument: GCGT_57H	ColumnID: RtxCLP2		Rtx-CLPest II,0,42df	t2df							
Analyte	QC Sample Result	POL	SPK Added	Parent Sample Result	%REC	Lowlimit	Low imit Hightimit RPD Ref Val	O Ref Val	%	%RPD RPDI imit	Q Q
4,4'-DDD	0.00685	0.0017	0.0085	0	81	98	133				
4,4'-DDE	0.00650	0.0017	0.0085	0	76	26	130				
4,4'-DDT	0.00708	0.0017	0.0085	0	83	10	173				
alpha-Chlordane	0.00678	0.00085	0.0085	0	80	30	130				
Dieldrin	0.00640	0.0017	0.0085	0	75	24	130				
gamma-Chlordane	0.00700	0.00085	0.0085	0	82	33	147				كصر
Surr: Tetrachloro-m-xylene	0.00770	0	0.01	0	11	37	125				
Surr. Decachlorobiphenyl	0.00490	0	0.01	0	49	25	145				22,

30-Dec-08

Not Detected at the MDC or RL

ДÌ

Value exceeds the instrument calibration range <u>ы</u> ~ ND Not Detected at the Practical Quantitation Limit (PQL)
U Not Detected at the MDC or RL Analyte detected in the associated Method Blank

<sup>-</sup> v RPD exceeds accepted precision limit

Spike Recovery outside accepted recovery limits Analyte detected below the PQL

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East Syracuse, NY 13057

ERM Consulting & Engineering

CLIENT:

(315) 437-0200

SW8081A Method:

ANALYTICAL QC SUMMARY REPORT

0811131	Ithaca Dredging
Work Order:	Project:

Sample ID: LCS-8505	SampType: LCS	TestCode	80815	Units: mg/Kg		Prep Date:	11/21/2008	Run	RunNo:	15901	
Client ID: ZZZZZ	Batch ID: 8505	Method:	SW8081A	(SW3550B)	•	Analysis Date:	12/19/2008	Seq	SedNo:	417106	
Instrument: GCGT_57G	ColumnID: RtxCLP	uz.	Rtx-CLPest, 0.50 df	) df							
	QC Sample			Parent Sample							
Analyte	Result	PQ	SPK Added	Result	%REC	LowLimit	%REC LowLimit HighLimit RPD Ref Val	Cef Val	% E	%RPD RPDLimit	Qual
4,4′-DDD	0.00628	0,0017	0.0085	0	74	55	125	Water the second			
4,4'-DDE	0.00630	0.0017	0.0085	0	74	ચ	125				
4,4'-DDT	0.00655	0.0017	0.0085	0	77	58	125				
alpha-Chlordane	0.00577	0.00085	0.0085	ō	68	53	125				
Dieldrin	0.00640	0.0017	0.0085	0	75	55	125				
gamma-Chlordane	0.00540	0.00085	0.0085	0	4	24	125				
Surr: Tetrachloro-m-xylene	0.00725	O	0.01	0	72	37	125				
Surr: Decachforobiphenyl	0.00473	0	0.01	0	47	25	145				

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30-Dec-08

Analyte detected in the associated Method Blank

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Analyte detected below the PQL <u>-</u> თ Value exceeds the instrument calibration range RPD exceeds accepted precision limit

Spike Recovery outside accepted recovery limits

Not Detected at the Practical Quantitation Limit (PQL) Not Detected at the MDC or RL 

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East Syracuse, NY 13057

ERM Consulting & Engineering

CLIENT:

(315) 437-0200

SW8081A Method:

ANALYTICAL QC SUMMARY REPORT

Ithaca Dredging Project:

0811131 Work Order:

				5.								
Sample ID: LCSD-8505	SampType: LCSD	TestCode	le: 8081S	Units: mg/Kg		Prep Date:	11/21/2008	2008	RunNo:	15901	-	
Client ID: ZZZZZ	Batch ID: 8505	Method:	SW8081A	(SW3550B)	•	Analysis Date:	12/19/2008	2008	SeqNo:	417107	07	
Instrument: GCGT_57G	ColumnID: RtxCLP		Rtx-CLPest, 0.50 df	0 df								
Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	RPD Ref Val	%	%RPD	RPDLimit	Qual
4,4'-DDD	0.00580	0.0017	0.0085	0	89	55	125	0.00628		œ	20	
4,4'-DDE	0.00575	0.0017	0.0085	0	89	51	125	0.0063		6)	98	
4,4'-DDT	0.00558	0.0017	0.0085	0	99	58	125	0.00655		16	90	
alpha-Chlordane	0.00533	0.00085	0.0085	0	63	53	125	0.00577		φ	42	
Dieldrin	0.00590	0.0017	0.0085	0	69	55	125	0.0064		00)	40	
gamma-Chlordane	0.00482	0.00085	0.0085	0	25	57	125	0.0054		11	22	
Surr: Tetrachloro-m-xylene	0.00562	0	0.01	0	99	37	125	0			0	
Surr: Decachlorobiphenyl	0.00453	0	0.01	0	45	25	145	0			0	

30-Dec-08

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Value exceeds the instrument calibration range RPD exceeds accepted precision limit Not Detected at the Practical Quantitation Limit (PQL) Analyte detected in the associated Method Blank Not Detected at the MDC or RL

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5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

ERM Consulting & Engineering

CLIENT:

(315) 437-0200

Method:

Ithaca Dredging Project:

SW8081A 0811131 Work Order:

ANALYTICAL QC SUMMARY REPORT

Sample ID: LCS-8505	SampType: LCS	TestCode	TestCode: 8081S	Units: mg/Kg		Prep Date:	11/21/2008	308 RunNo:		15903	
Client ID: ZZZZZ	Batch ID: 8505	Method:	Method: SW8081A	(SW3550B)	`	Analysis Date: 12/19/2008	e: 12/19/20		SeqNo: 4	417152	
Instrument: GCGT_57H	ColumnID: RtxCLP2	LE.	Rtx-CLPest II,0.42df	42df							
	QC Sample			Parent Sample							
Analyte	Result	PQL	PQL SPK Added	Result	%REC	LowLimit	HighLimit	WREC LowLimit HighLimit RPD Ref Val	%RP	%RPD RPDLimit	Quai
4,4'-DDD	0.00652	0.0017	0.0085	0	77	92	125				
4,4'-DDE	0.00647	0.0017	0.0085	0	92	27	125				
4,4′-DDT	0.00688	0.0017	0.0085	0	8	28	125				
alpha-Chlordane	0.00662	0.00085	0.0085	0	78	53	125				
Dieldrin	0.00610	0.0017	0.0085	0	72	55	125				
gamma-Chlordane	0.00687	0.00085	0.0085	0	81	27	125				嫍
Surr: Tetrachloro-m-xylene	0.00777	0	0.01	0	78	37	125				, \
Surr: Decachlorobiphenyl	0.00467	0	0.01	O	47	25	145				ξ,
											(2/50/08
											-

Not Detected at the MDC or RL

ы **ж** ND Not Detected at the Practical Quantitation Limit (PQL)
U Not Detected at the MDC or RL Analyte detected in the associated Method Blank m Qualifiers:

Value exceeds the instrument calibration range RPD exceeds accepted precision limit

Spike Recovery outside accepted recovery limits

# Life Science Laboratories, Inc.

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(315) 437-0200

ERM Consulting & Engineering

CLIENT:

SW8081A Method:

ANALYTICAL QC SUMMARY REPORT

Ithaca Dredging 0811131 Work Order: Project:

Sample ID: LCSD-6505 Client ID: ZZZZZ Instrument: GCGT_57H	SampType: LCSD Batch ID: 8505 ColumnID: RtxCLP2	TestCode: Method: Rtb	le: 8081S U/ SW8081A (S Rtx-CLPest II,0,42df	Units: mg/Kg (SW3550B) 42df	•	Prep Date: Analysis Date:	11/21/2008 e: 12/19/2008		RunNo: SeqNo:	15903 417153		
Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	HighLimit RPD Ref Val	1%	%RPD RPD	RPDLimit	Quaf
4,4'-DDD	0.00603	0.0017	0.0085	0	71	55	125	0.00652		8	22	
4,4'-DDE	0.00593	0.0017	0.0085	0	70	57	125	0.00647		6	36	
4,4'-DDT	0.00630	0.0017	0.0085	Ö	74	58	125	0.00688		6	8	
alpha-Chlordane	0.00597	0.00085	0.0085	O	70	53	125	0.00662		10	42	
Dieldrin	0.00550	0.0017	0.0085	O	65	55	125	0.0061		40	40	
gamma-Chlordane	0.0113	0.00085	0.0085	0	133	27	125	0,00687		49	22	RS
Surr: Tetrachloro-m-xylene	0.00697	0	0.01	0	20	37	125	0			0	•
Surr: Decachlorobiphenyl	0.00430	0	0.01	o	43	25	145	0			۵	Æ

Δì	Analyte detected in the associated Method Blank	щ	Value exceeds the instrument calibration range	ſ	Analyte detected below the PQL
Z ON	Not Detected at the Practical Quantitation Limit (PQL)	~	RPD exceeds accepted precision limit	S	Spike Recovery outside accepted r
n	Not Detected at the MDC or RL				

30-Dec-08

297

5000 Brittonfield Parkway, Suite 200 East Syracuse, NY 13057

ERM Consulting & Engineering

CLIENT:

(315) 437-0200

Method:

Ithaca Dredging Project:

0811166 Work Order:

SW8081A

ANALYTICAL QC SUMMARY REPORT

Sample ID: LCS-8516	SampType: LCS	TestCode:	e: 8081S	Units: mg/Kg		Prep Date:	11/24/2008	RunNo:		15901	
Client ID: ZZZZZ	Batch ID: 8516	Method:	SW8081A	(SW3550B)	~*	Analysis Date:	e: 12/19/2008	SeqNo:		417109	
Instrument: GCGT_57G	ColumnID: REXCLP	<u>.</u>	Rtx-CLPest, 0.50 df	) df							
Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	%REC LowLimit HighLimit RPD Ref Val	Ref Val	%RPI	%RPD RPDLimit	Qual
4,4'-DDD	0.00608	0.0017	0.0085	0	72	55	125				
4,4'-DDE	0.00623	0.0017	0.0085	a	73	51	125				
4,4'-DDT	0.00635	0.0017	0.0085	0	75	28	125				
alpha-Chlordane	0.00593	0.00085	0.0085	0	20	23	125				
Dieldrin	0.00607	0.0017	0.0085	0	7	92	125				
gamma-Chlordane	0.00587	0.00085	0.0085	0	69	27	125				
Surr: Tetrachloro-m-xylene	0.00678	0	0.01	0	89	37	125				
Surr. Decachlorobiphenyl	0.00435	0	0.01	0	44	25	145				

В	B Analyte detected in the associated Method Blank	Ħ	Value exceeds the instrument calibration range	Ţ
	Not Detected at the Practical Quantitation Limit (PQL)	×	R RPD exceeds accepted precision limit	<b>42</b>
$\supset$	U Not Detected at the MDC or RL			

Analyte detected in the associated Method Blank

Qualifiers:

Analyte detected below the PQL

Spike Recovery outside accepted recovery limits

, Inc.
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5000 Brittonfield Parkway, Suite 200 East Syracuse, NY 13057

(315) 437-0200

Method:

SW8081A

ANALYTICAL QC SUMMARY REPORT

0811166 Work Order:

CLIENT: ERM Consul	ERM Consulting & Engineering					Project:	ct:	Ithaca Dredging	dging			
Sample ID: LCS-8516 Client ID: ZZZZZ Instrument: GCGT_57H	SampType: LCS Batch ID: 8516 ColumnID: RtxCLP2	TestCode: Method: Rt	ie: 8081S Ur SW8081A (S Rtx-CLPest II,0.42df	Units: mg/Kg (SW3550B) -42df		Prep Date: Analysis Date:	11/24/2008 e: 12/19/2008		RunNo: SeqNo:	15903	<u></u>	
	QC Sample Result	Ы	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	%REC LowLimit HighLimit RPD Ref Val	8	RPD R	%RPD RPDLimit Qual	Qual
	0.00623	0.0017	0.0085	0	73	55	125	-				
	0.00605	0.0017	0.0085	O	7.1	51	125					
	0.00637	0.0017	0.0085	Ö	75	28	125					
	0.00618	0.00085	0.0085	۵	73	53	125					
	0.00625	0.0017	0.0085	0	74	55	125					
	0.00625	0.00085	0.0085	0	74	57	125					Á
Surr: Tetrachloro-m-xylene	0.00718	0	0.01	0	72	37	125					· }
Surr: Decachlorobiphenyl	0.00440	0	0.01	0	4	25	145					<u>ک</u> ۲

Value exceeds the instrument calibration range	R RPD exceeds accepted precision limit
凹	~
Analyte detected in the associated Method Blank	Not Detected at the Practical Quantitation Limit (PQL)

Qualifiers:

Not Detected at the MDC or RL

Spike Recovery outside accepted recovery limits Analyte detected below the PQL - o

MB-8505

Lab Name: Life Science Laboratories Contract:

Lab Code: LSLB

Case No.: ERM

SAS No.:\_\_\_\_\_SDG No.: 0811131B

Lab Sample ID:

MB-8505

Lab File ID: 121904.rst

Matrix: (soil/water) §

Extraction: (Type) SONC

Sulfur Cleanup: (Y/N)  $\underline{N}$ 

Date Extracted: <u>11/21/2008</u>

Date Analyzed (1):

12/19/2008

Date Analyzed (2): 12/19/2008

Time Analyzed (1):

<u>11:53</u>

Time Analyzed (2): 11:53

Instrument ID (1):

GCGT 57G

Instrument ID (2): GCGT 57H

GC Column (1): RtxCLP ID: 0.5 (mm) GC Column (2): RtxCLP2 ID: 0.5 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA	LAB	DATE	DATE
	SAMPLE NO.	SAMPLE ID	ANALYZED 1	ANALYZED 2
1	LCS-8505	LCS-8505	12/19/2008	12/19/2008
2	LCSD-8505	LCSD-8505	12/19/2008	12/19/2008
3	Ith-3 (6-12)	0811131-001D	12/19/2008	12/19/2008
4	Ith-4 (6-12)	0811131-002D	12/19/2008	12/19/2008
5	Ith-2 (6-10)	0811131-003D	12/19/2008	12/19/2008
3	Ith-2 (10-14)	0811131-004D	12/19/2008	12/19/2008
7	Ith-6 (6-10)	0811131-005D	12/19/2008	12/19/2008
3	Ith-6 (10-14)	0811131-006D	12/19/2008	12/19/2008
9	Ith-8 (2-10)	0811142-001D	12/19/2008	12/19/2008
0	lth-8 (10-14)	0811142-002D	12/19/2008	12/19/2008
1	lth-7 (1-14)	0811142-003D	12/19/2008	12/19/2008
2	lth-5 (4-10)	0811142-004D	12/19/2008	12/19/2008
3	Ith-5 (10-14)	0811142-005D	12/19/2008	12/19/2008
4	Ith-1 (6-12)	0811142-006D	12/19/2008	12/19/2008
5	lth-Dup1	0811142-007D	12/19/2008	12/19/2008

COMMENTS:						
	 	 	······································	 	 	

page  $\underline{1}$  of  $\underline{2}$ 

FORM IV

8081S

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

ERM Consulting & Engineering

CLIENT:

SW8081A 0811131 Work Order: Method:

ANALYTICAL QC SUMMARY REPORT

Ithaca Dredging Project:

Sample ID: MB-8505	SampType: MBLK	TestCox	TestCode: 8081S	Units: mg/Kg		Prep Date:	11/21/2008	Run	RunNo: 15	15901	
Client ID: ZZZZZ	Batch ID: 8505	Method:	SW8081A	(SW3550B)		Analysis Date: 12/19/2008	12/19/2008	Sed	SeqNo: 41	417105	-
Instrument: GCGT_57G	ColumnID: RECLP		Rtx-CLPest, 0.50 df	o af							
Analyte	QC Sample Result	PoL	SPK Added	Parent Sample Result	%REC	LowLimit H	%REC LowLimit HighLimit RPD Ref Val	Ref Val	%RPD	%RPD_RPDTimit_Cust	Ğ
4 4. DDD		7 700 0									7
4,4 -000	2	0.001									
4,4'-DDE	QN	0.0017									
4,4'-DDT	Q	0.0017									
alpha-Chlordane	Q	0.00085									
Dieldrin	Q	0.0017									
gamma-Chlordane	9	0.00085									
Surr: Tetrachloro-m-xylene	0.00775	0	0.01	0	78	37	125				
Surr: Decachlorobiphenyl	0.00478	0	0.01	0	48	25	145				

Ţ	603
Value exceeds the instrument calibration range	RPD exceeds accepted precision limit
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Spike Recovery outside accepted recovery limits Analyte detected below the PQL

ND Not Detected at the Practical Quantitation Limit (PQL) U Not Detected at the MDC or RL

30-Dec-08

Analyte detected in the associated Method Blank

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Qualifiers:

301

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

ERM Consulting & Engineering

CLIENT:

SW8081A Method:

ANALYTICAL QC SUMMARY REPORT

Work Order:

0811131

Ithaca Dredging

Project:

Sample ID: MB-8505	SampType: MBLK	TestCod	TestCode: 8081S	Units: mg/Kg		Prep Date:	11/21/2008		RunNo:	15903		_
Client ID: ZZZZZ	Batch ID: 8505	Method	SW8081A	(SW3550B)	•	Analysis Date: 12/19/2008	e: 12/19/2		SeqNo:	417151		
Instrument: GCGT_57H	ColumnID: RtxCLP2	<b>L#.</b>	Rtx-CLPest II,0.42df	42df								
Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	%REC LowLimit HighLimit RPD Ref Val	%	%RPD RPDLimit Qual	Qual	
4,4'-DDD	QN	0.0017	111111111111111111111111111111111111111	777								-
4,4'-DDE	QN	0.0017										
4,4'-DDT	QN	0.0017										
alpha-Chlordane	Q	0.00085										
Dieldrín	ON.	0.0017										
gamma-Chlordane	2	0.00085										
Surr: Tetrachloro-m-xylene	0.00792	0	0.01	0	6/	37	125					
Surr: Decachlorobiphenyl	0.00453	0	0.01	0	45	25	145					

Analyte detected in the associated Method Blank

Not Detected at the MDC or RL

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Qualifiers:

30-Dec-08

Spike Recovery outside accepted recovery limits

Value exceeds the instrument calibration range RPD exceeds accepted precision limit 医鼠 Not Detected at the Practical Quantitation Limit (PQL)

MB-8516

Lab Name: Life Science Laboratories Contract:

Lab Code: LSLB Case No.: ERM

SAS No.: SDG No.: 0811131B

Lab Sample ID:

MB-8516

Lab File ID: 121907.rst

Matrix: (soil/water) S

Extraction: (Type) SONC

Sulfur Cleanup: (Y/N) N

Date Extracted: <u>11/24/2008</u>

Date Analyzed (1): 12/19/2008 Date Analyzed (2): 12/19/2008

Time Analyzed (1):

<u>13:05</u> Time Analyzed (2): <u>13:05</u>

Instrument ID (1): GCGT 57G

Instrument ID (2): GCGT 57H

GC Column (1): RtxCLP ID: 0.5 (mm) GC Column (2): RtxCLP2 ID: 0.5 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA	LAB	DATE	DATE
	SAMPLE NO.	SAMPLE ID	ANALYZED 1	ANALYZED 2
1	LCS-8516	LCS-8516	12/19/2008	12/19/2008
2	MSB-8516	MSB-8516	12/19/2008	12/19/2008
3	ith-9 (1-14)	0811166-001D	12/19/2008	12/19/2008
4	Ith-10 (1-14)	0811166-002D	12/19/2008	12/19/2008
5	Ith-11 (1-14)	0811166-003D	12/20/2008	12/20/2008
6'	lth-12 (1-14)	0811166-004D	12/20/2008	12/20/2008
7	lth-16 (1-14)	0811166-005D	12/20/2008	12/20/2008
8	Ith-16 (1-14)MS	0811166-005DMS	12/20/2008	12/20/2008
9	Ith-16 (1-14)MSD	0811166-005DMSD	12/20/2008	12/20/2008
10	Ith-14 (1-14)	0811166-006D	12/20/2008	12/20/2008
11	Ith-13 (1-10)	0811166-007D	12/20/2008	12/20/2008
12	lth-13 (10-14)	0811166-008D	12/20/2008	12/20/2008
13	lth-1 (1-6)	0811166-009D	12/20/2008	12/20/2008
14	ith-DUP2	0811166-010D	12/20/2008	12/20/2008
15	(th-2 (1-6)	0811166-011D	12/20/2008	12/20/2008
16	lth-3 (1-6)	0811166-012D	12/20/2008	12/20/2008
17	lth-4 (1-6)	0811166-013D	12/20/2008	12/20/2008
18	lth-6 (1-6)	0811166-014D	12/20/2008	12/20/2008

COMMENTS:	

page 2 of 2

FORM IV

8081S

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

ERM Consulting & Engineering

CLIENT:

(315) 437-0200

SW8081A Method:

ANALYTICAL QC SUMMARY REPORT

0811166 Work Order:

Ithaca Dredging **Project:** 

Sample ID: MB-8516	SampType: MBLK	TestCode:	e: 8081S	Units: mg/Kg		Prep Date:	11/24/2008	RunNo:	15901	
Client ID: ZZZZZ	Batch ID: 8516	Method:	SW8081A	(SW3550B)		Analysis Date:	Analysis Date: 12/19/2008	SeqNo:	417108	
Instrument: GCGT_57G	ColumniD: RtxCLP		Rtx-CLPest, 0.50 df	) df						
Analyte	QC Sample Result	<u>S</u>	SPK Added	Parent Sample Result	%REC	LowLimit	%REC LowLimit HighLimit RPD Ref Val	,	%RPD RPDLimit Qual	Qual
4 4'-DDD	QN	0.0017			E					
,; <u></u>	S	0.0017								
4,4'-DDT	ON	0.0017								
alpha-Chlordane	Q	0.00085			-					
Dieldrin	S	0.0017								
gamma-Chlordane	9	0.00085								
Surr: Tetrachloro-m-xylene	0.00653	0	0.01	0	65	37	125			
Surr: Decachlorobiphenyl	0.00418	0	0.01	0	42	25	145			

Spike Recovery outside accepted recovery limits Analyte detected below the PQL - v Value exceeds the instrument calibration range RPD exceeds accepted precision limit 田氏 Not Detected at the Practical Quantitation Limit (PQL) Analyte detected in the associated Method Blank Not Detected at the MDC or RL ₽ ¤ Д Qualifiers:

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

ERM Consulting & Engineering

CLIENT:

SW8081A Method:

ANALYTICAL QC SUMMARY REPORT

0811166 Work Order:

Ithaca Dredging Project:

Sample ID; MB-8516	SampType: MBLK	TestCode	TestCode: 8081S	Units: mg/Kg		Prep Date:	11/24/2008	RunNo:	15903	
Client ID: ZZZZZ	Batch ID: 8516	Method:	SW8081A	(SW3550B)	_	malysis Date:	Analysis Date: 12/19/2008	SeqNo:	417154	
Instrument: GCGT_57H	ColumnID: RtxCLP2	œ	Rtx-CLPest II, 0.42df	12df						
Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	%REC LowLimit HighLimit RPD Ref Val		%RPD RPDLimit Qual	Quai
4,4'-DDD	QN .	0.0017								
4,4'-DDE	2	0.0017								
4,4'-DDT	Q	0.0017								
alpha-Chlordane	QN	0.00085								
Dieldrin	9	0.0017								
gamma-Chlordane	S	0.00085								
Surr: Tetrachloro-m-xylene	0.00695	0	0.01	0	70	37	125			
Surr: Decachlorobiphenyl	0.00427	0	0.01	0	43	25	145			

30-Dec-08

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Spike Recovery outside accepted recovery limits Analyte detected below the PQL Value exceeds the instrument calibration range RPD exceeds accepted precision limit E A Not Detected at the Practical Quantitation Limit (PQL) Analyte detected in the associated Method Blank Not Detected at the MDC or RL

#### **PCB Data**

2F SOIL PESTICIDE SURROGATE RECOVERY

Lab Name:	Life Science Laboratori	les, Inc	Contract:	

 Lab Code:
 LSLB
 Case No.:
 ERM
 SAS No.
 SDG No.:
 0811131B

GC Column(1): DB-608 ID: 0.53 (mm) GC Column(2): DB-1701 ID: 0.53 (mm)

EPA		% REC1	% REC2	% REC3	% REC4		TOT
SAMPLE NO.	LSL ID	(TCX) 1#	(TCX) 2 #	(DCB) 1 #	(DCB) 2 #		רטס
01 MB-8506	MB-8506	84	92	50	49		0
02 LCS-8506	LCS-8506	82	88	50	50		0
03 LCSD-8506	LCSD-8506	88	95	53	53		Ō
04 Ith-3 (6-12)	0811131-001D	80	////	50			0
)5 Ith-4 (6-12)	0811131-002D	71	75	46	39	-	0
06 Ith-2 (6-10)	0811131-003D	60	60	43	36		0
07 Ith-2 (10-14)	0811131-004D	73	76	44	38		ő
08 Ith-6 (6-10)	0811131-005D	80		48			Q
9   Ith-6 (10-14)	0811131-006D	79		47			0
LOIth-8 (2-10)	0811142-001D	67	68	45	36	:	0
l1 Ith-8 (10-14)	0811142-002D	70		41			0
12 Ith-7 (1-14)	0811142-003D	66	66	47	39		0
3 Ith-5 (4-10)	0811142-004D	72	76	44	38		0
14 Ith-5 (10-14)	0811142-005D	68		41	-		0
15 Ith-1 (6-12)	0811142-006D	63	65	43	34 *		1
16 Ith-Dup1	0811142-007D	58	60	38	32 *		1
17 MB-8517	MB-8517	92		57			0
L8 LCS-8517	LCS-8517	90		56			0
19MSB-8517	MSB-8517	88		54			0
20 Ith-9 (1-14)	0811166-001D	78		57			0
21 Ith-10 (1-14)	0811166-002D	87		64			0
22 Ith-11 (1-14)	0811166-003D	83		59			0
23 Ith-12 (1-14)	0811166-004D	86		53			0
24 Ith-16 (1-14)	0811166-005D	84		57		-	0
25 Tth-16 (1-14)MS	0811166-005DMS	76		52			0
26 Ith-16 (1-14) MSD	0811166-005DMSD	77		50			0
27 Ith-14 (1-14)	0811166-006D	84	,	54			0
horassan a succession and the second			I			<u> </u>	

QC Limit

ક્ર	REC 1	(TCX)	1	=	Tetrachloro-m-xylene	44-134
용	REC 2	(TCX)	2	=	Tetrachloro-m-xylene	44-134
용	REC 3	(DCB)	1.	===	Decachlorobiphenyl	36-141
용	REC 4	(DCB)	2	===	Decachlorobiphenyl	36-141

<sup>#</sup> Column to be used to flag recovery values

Page 1 of 2 FORM II PEST-2 SW8082

<sup>\*</sup> Values outside of contract required QC limits

2F SOIL PESTICIDE SURROGATE RECOVERY

Lab Name: Life Science Laboratories, Inc Contract:

Lab Code: LSLB Case No.: ERM SAS No. SDG No.: 0811131B

GC Column(1):  $\overline{DB-608}$  ID:  $\overline{0.53}$  (mm) GC Column(2):

ID: (mm)

EPA		% REC1 % REC2	% REC3 % REC4	TOT
SAMPLE NO.	LSL ID	(TCX) 1 # (TCX) 2	# (DCB) 1 # (DCB) 2 #	OUT
28 Ith-13 (1-10)	0811166-007D	77	52	0
29 Ith-13 (10-14)	0811166-008D	108	74	0
30 Ith-1 (1-6)	0811166-009D	76	52	0
31 Ith-DUP2	0811166-010D	74	54 ·	0
32.Ith-2 (1-6)	0811166-011D	72	52	0
33:Tth-3 (1-6)	0811166-012D	71	52	0
34 Ith-4 (1-6)	0811166-013D	82	57	0
35 Ith-6 (1-6)	0811166-014D	. 76	53	0

QC Limit

કૃ	REC 1	(TCX)	1	=	Tetrachloro-m-xylene	44-134
ક્ર	REC 2	(TCX)	2	=	Tetrachloro-m-xylene	44-134
뭥	REC 3	(DCB)	1.	=	Decachlorobiphenyl	36-141
Po	REC 4	(DCB)	2	=	Decachlorobiphenyl	36-141

# Column to be used to flag recovery values

\* Values outside of contract required QC limits

Page 2 of 2 FORM II PEST-2

SW8082

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

SW8082 Method:

ANALYTICAL QC SUMMARY REPORT

0811166 Work Order:

Project:         Ithaca Dredging           TestCode:         8082S         Units:         mg/Kg-dry         Prep Date:         11/24/2008         RunNo:         15806           J&W DB-608, 0.82 df         Analysis Date:         12/12/2008         SeqNo:         411834           Parent           PQL         SPK Added         Result         %REC         LowLimit         HighLimit         RPD Ref Val         %RPD         RPDLimit         Qual           1.0114         0.0446         0         81         29         167         A         A         A         A         A         A           0         0.0134         0         81         22         163         A         B         B         B         B         B         B         B         B         B         B         B         B         B         B         B         B         B												
Units:         mg/Kg-dry         Prep Date:         11/24/2008         RunNo:           38, 0.82 df         Analysis Date:         12/12/2008         SeqNo:           98, 0.82 df         Parent         Sample         Secondary         SeqNo:           ed         Result         %REC         LowLimit         HighLimit         RPD Ref Val           46         0         81         29         167           46         0         76         44         134           34         0         52         36         141	CLIENT: ERM Consulting & Engineering						Proje		haca Dredgin	80		
W3550B)         Analysis Date: 12/12/2008         SeqNo.           ent         SeqNo.         SeqNo.           ple         %REC         LowLimit         HighLimit         RPD Ref Val           0         83         29         167           0         81         22         163           0         76         44         134           0         52         36         141	SampType: MS Test	Tes	Code	80825	Units: mg/Kg→		Prep Date:	11/24/2008	Runk			
ple %REC LowLimit HighLimit RPD Ref Val 0 83 29 167 0 81 22 163 0 76 44 134 0 52 36 141	Batch ID: 8517 Method:	Meth	ij	SW8082	(SW3550B)	*	Analysis Dat	e: 12/12/2008	SeqN		<u> </u>	
Parent         %REC         LowLimit         HighLimit         RPD Ref Val           0         83         29         167           0         81         22         163           0         76         44         134           0         52         36         141	ColumnID: DB-608		Ť	&W DB-608, 0.	.82 df							
Result         %REC         LowLimit         HighLimit         RPD Ref Val           0         83         29         167           0         81         22         163           0         76         44         134           0         52         36         141	QC Sample				Parent Sample							
0 83 29 0 81 22 0 76 44 0 52 36	Result PQL	전		SPK Added	Result	%REC	LowLimit	HighLimit RPC	) Ref Val	%RPD R	PDLimit	Qual
0 81 22 0 76 44 0 52 36	0.0370 0.0114	0.0114	ı	0.0446	0	83	29	167				
0 76 44 0 52 36	0.0362 0.0114	0.0114		0.0446	0	84	22	163				
0 52 36	0.0102 0	۵		0.0134	0	9/	44	£ 2				
	0.00689 0	0		0.0134	0	52	36	141				

Not Detected at the MDC or RL

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Qualifiers:

Value exceeds the instrument calibration range RPD exceeds accepted precision limit E N Not Detected at the Practical Quantitation Limit (PQL) Analyte detected in the associated Method Blank

Spike Recovery outside accepted recovery limits Analyte detected below the PQL

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Life

5000 Brittonfield Parkway, Suite 200 East Syracuse, NY 13057

(315) 437-0200

SW8082 Work Order: Method:

0811166

ANALYTICAL QC SUMMARY REPORT

CLIENT:	CLIENT: ERM Consulting & Engineering	& Engineering	,		1 111		Project:	ect:	Ithaca Dredging	dging			
Sample ID: 0811166-00 Client ID: 1th-16 (1-14 Instrument: GC90_20C	Sample ID:         0811166-005DMSD         SampType:         MSD           Client ID:         Ith-16 (1-14)         Batch ID:         8517           Instrument:         GC90_20C         ColumnID:         DB-6	SampType: MSD Batch ID: 8517 ColumnID: DB-608	TestCode Method:	TestCode: 8082S Ur Method: SW8082 (S J&W DB-608, 0.82 df	Units: mg/Kg-dry (SW3550B) .82 df		Prep Date: Analysis Date:	11/24/2008 e: 12/12/2008		RunNo: SeqNo:	15806	ນ	
Analyte		QC Sample Result	Pol	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	%REC LowLimit HighLimit RPD Ref Val	₩	PD R	%RPD RPDLimit	Qual
Aroclor 1016		0.0379	0.0114	0.0446	0	85	29	167	0.037		2.5	90	
Aroclor 1260		0.0359	0.0114	0.0446	0	8	22	163	0.0362		<del></del>	59	
Surr: Tetra	Surr: Tetrachloro-m-xylene	0.0103	0	0.0134	0	11	4	134	0			0	
Surr. Deca	Surr. Decachlorobiphenyl	0.00664	0	0.0134	0	20	38	141	0			0	

Qualifiers:

15-Dec-08

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Analyte detected in the associated Method Blank

ND Not Detected at the Practical Quantitation Limit (PQL) U Not Detected at the MDC or RI, В

Not Detected at the MDC or RI.

Value exceeds the instrument calibration range RPD exceeds accepted precision limit

Analyte detected below the PQL ~ v3

Spike Recovery outside accepted recovery limits

5000 Brittonfield Parkway, Suite 200 East Syracuse, NY 13057

ERM Consulting & Engineering

CLIENT:

(315) 437-0200

Method:

SW8082

ANALYTICAL QC SUMMARY REPORT

0811166 Work Order: Ithaca Dredging

Project:

Sample ID: MSB-8517 Client ID: ZZZZ	SampType: MSB Batch ID: 8517	TestCode: Method:	8082S SW8082	Units: mg/Kg (SW3550B)		Prep Date: 11/24/2008 Analysis Date: 12/11/2008	11/24/2008	308	RunNo: Sectio	15806	
Instrument: GC90_20C	ColumnID: DB-608	i	3	82 df	•				<u>}</u>		
	QC Sample			Parent Sample							
Analyte	Result	PQ	SPK Added	Result	%REC	LowLimit	HighLimit 1	%REC LowLimit HighLimit RPD Ref Val	28	%RPD RPDLimit Qual	Qual
Aroclor 1016	0.0313	0.00850	0.0334	0	94	09	140				
Aroclor 1260	0.0339	0.00850	0.0334	0	102	9	138				
Surr: Tetrachloro-m-xylene	0.00877	0	0.01	0	88	44	134				
Surr: Decachlorobiphenyl	0.00542	0	0.01	0	54	36	141				

Analyte detected in the associated Method Blank	Ш	E Value exceeds the instrument calibration range
Not Detected at the Practical Quantitation Limit (PQL)	ద	RPD exceeds accepted precision limit
Not Detected at the MDC or RL		

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15-Dec-08

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5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

SW8082 Method:

ANALYTICAL QC SUMMARY REPORT

0811131 Work Order:

CLIENT:	ERM Consulti	ERM Consulting & Engineering			:		Project:	ct:	Ithaca Dredging	dging		
Sample ID: LCS-8506 Client ID: ZZZZZ Instrument: GC90_20C	LCS-8506 ZZZZZ GC90_20C	SampType: LCS Batch ID: 8506 ColumnID: DB-608	TestCode: Method: J&V	de: 8082S Un : SW8082 (S' J&W DB-608, 0.82 df	Units: mg/Kg (SW3550B) .82 df		Prep Date: 11/21/200 Analysis Date: 12/1/2008	11/21/2008 (e: 12/1/2008	œ	RunNo: SeqNo:	15633 409298	
Analyte		QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimíť	%REC LowLimit HighLimit RPD Ref Val	1%	%RPD RPDLimit	Qual
Aroclor 1016		0.0298	0.00850	0.0334	0	68	99	140				1
Aroclor 1260		0.0283	0.00850	0.0334	0	85	9	138				
Sur: Tetra	Surr: Tetrachloro-m-xylene	0.00825	a	0.01	0	82	4	134				
Surr: Deca	Surr: Decachlorobiphenyl	0.00497	0	0.01	0	20	36	141				

M	Analyte detected in the associated Method Blank	m	Value exceeds the instrumen
S	ND Not Detected at the Practical Quantitation Limit (PQL)	ద	R RPD exceeds accepted preci-
D	Not Detected at the MDC or RL		

ceeds the instrument calibration range ision fimit

Qualifiers:

Spike Recovery outside accepted recovery limits Analyte detected below the PQL

5000 Brittonfield Parkway, Suite 200 East Syracuse, NY 13057

ERM Consulting & Engineering

CLIENT:

(315) 437-0200

SW8082 Method:

ANALYTICAL QC SUMMARY REPORT

Ithaca Dredging

Project:

0811131 Work Order:

Sample ID: LCSD-8506	SampType: LCSD	TestCode	e: 8082S	Units: mg/Kg		Prep Date:	11/21/2008		RunNo:	15633	_	
Client ID: ZZZZZ	Batch ID: 8506	Method:	SW8082	(SW3550B)	•	Analysis Date:	: 12/1/2008		SeqNo:	409299	6	
Instrument: GC90_20C	ColumniD: DB-608	80	&W DB-608, 0.82 df	.82 df								
	QC Sample			Parent Samole								
Analyte	Result	Pol	SPK Added	Result	%REC	LowLimit	-lighLimit	%REC LowLimit HighLimit RPD Ref Val	%	%RPD F	RPDLimit	Qua
Aroclor 1016	0.0322	0.00850	0.0334	0	96	9	140	0.0298		7.6	99	
Aroclor 1260	0.0310	0.00850	0.0334	0	93	90	138	0.0283		9.3	29	
Surr: Tetrachloro-m-xylene	0.00882	o	0.01	0	88	44	134	0			0	
Surr: Decachlorobiphenyl	0.00528	0	0.01	0	53	36	141	0			0	

<u>α</u>
the
below
detected
Analyte
_

Value exceeds the instrument calibration range RPD exceeds accepted precision limit

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Not Detected at the Practical Quantitation Limit (PQL)

Analyte detected in the associated Method Blank

M

Spike Recovery outside accepted recovery limits S)

Not Detected at the MDC or RL  $I5 ext{-}Dec ext{-}08$ 

5000 Brittonfield Parkway, Suite 200 East Syracuse, NY 13057

(315) 437-0200

SW8082 Work Order: Method:

ANALYTICAL QC SUMMARY REPORT

Ithaca Dredging Project:

0811131

CLIENT: EF	M Consultin	CLIENT: ERM Consulting & Engineering					Project:	ct:	Ithaca Dredging	dging			
Sample ID: LCS-8506 Client ID: ZZZZZ Instrument: GC90_20D	8506 7Z 7_20D	SampType: LCS Batch ID: 8506 ColumnID: DB-1701	TestCode: Method:	\$ 8082\$ \$W8082 J&W DB-1701	Units: mg/Kg (SW3550B) 701		Prep Date: 11/21/2001 Analysis Date: 12/1/2008	11/21/2008 e: 12/1/2008		RunNo: SeqNo:	15711 409326		
Analyte		QC Sample Result	Pol	SPK Added	Parent Sample Result	%REC	LowLimit	HighLimit	%REC LowLimit HighLimit RPD Ref Val	%	%RPD RPDLimit Qual	)Limit	Qual
Aroclor 1016		0.0313	0.00850	0.0334	0	94	09	140					
Aroctor 1260		0.0304	0.00850	0.0334	0	91	99	138					
Surr: Tetrachioro-m-xylene	ro-m-xylene	0.00885	٥	0.01	0	88	44	134					
Surr: Decachlorobiphenyl	robiphenyl	0.00497	O	0.01	0	20	36	141					

	E Value exceeds the instrument calibration ran	R RPD exceeds accepted precision limit	
**************************************	Analyte detected in the associated Method Blank	ND Not Detected at the Practical Quantitation Limit (PQL)	U Not Detected at the MDC or RL
	西	2	⊋

Spike Recovery outside accepted recovery limits Analyte detected below the PQL

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5000 Brittonfield Parkway, Suite 200 East Syracuse, NY 13057

ERM Consulting & Engineering

CLIENT:

(315) 437-0200

Method:

Ithaca Dredging SW8082 0811131 Work Order: Project:

ANALYTICAL QC SUMMARY REPORT

Sample ID: LCSD-8506	SampType: LCSD	TestCode:	: 8082S	Units: mg/Kg		Prep Date:	11/21/2008		RunNo:	15711	
Client ID: ZZZZZ	Batch ID: 8506	Method:	SW8082	(SW3550B)	`	Analysis Date:	a: 12/1/2008		SeqNo:	409327	
Instrument: GC90_20D	ColumnID: DB-1701		J&W DB-1701	701							
	OC Sample			Parent Samble							
Analyte	Result	PQ	SPK Added	Result	%REC	LowLimit	HighLimit	%REC LowLimit HighLimit RPD Ref Val	%	%RPD RPDLimit	Quai
Aroclor 1016	0.0338	0.00850	0.0334	0	101	9	140	0.0313		7.8 60	
Aroclor 1260	0.0331	0.00850	0.0334	0	66	9	138	0.0304		8.4 59	
Surr: Tetrachloro-m-xylene	0.00950	0	0.01	Û	95	4	134	0		U	
Surr: Decachlorobiphenyl	0.00527	0	0.01	0	53	36	141	0			

Analyte detected in the associated Method Blank	Ħ	Value exceeds the instrument calibration range
Not Detected at the Practical Quantitation Limit (PQL)	ద	R RPD exceeds accepted precision limit
Not Detected at the MDC or RL		

Spike Recovery outside accepted recovery limits

15-Dec-08

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5000 Brittonfield Parkway, Suite 200 East Syracuse, NY 13057

(315) 437-0200

Method:

ANALYTICAL QC SUMMARY REPORT

SW8082 0811166 Work Order:

CLIENT: ERM Consuit	ERM Consulting & Engineering			- 1 mm (00-4-00) (0.4-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1		Project:		Ithaca Dredging			
Sample ID: LCS-8517 Client ID: ZZZZZ Instrument: GC90_20C	SampType: LCS Batch ID: 8517 ColumnID: DB-608	TestCode Method: J	TestCode: 8082S Ur Method: SW8082 (S' J&W DB-608, 0.82 df	Units: mg/Kg (SW3550B) .82 df		Prep Date: Analysis Date	Prep Date: 11/24/2008 Analysis Date: 12/11/2008	Runño: SeqNo:	15806 411922	. 27	
Anatyte	QC Sample Result	PQ	SPK Added	Parent Sample Result	%REC	LowLimit	%REC LowLimit HighLimit RPD Ref Val		%RPD F	%RPD RPDLimit	Qual
Aroclor 1016	0.0327	0.00850	0.0334	0	96	9	140		:		
Arodor 1260	0.0326	0.00850	0.0334	0	98	99	138				
Surr: Tetrachioro-m-xylene	0.00895	0	0.01	0	8	44	134				
Surr: Decachlorobionenvi	0.00562	0	0.01	0	26	36	141				

15-Dec-08

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Value exceeds the instrument calibration range RPD exceeds accepted precision limit ലമ Not Detected at the Practical Quantitation Limit (PQL) Analyte detected in the associated Method Blank Not Detected at the MDC or RL

Spike Recovery outside accepted recovery limits Analyte detected below the PQL

MB-8506

Lab Name: Life Science Laboratories Contract:

Lab Code: LSLB

Case No.: ERM

SAS No.: \_\_\_\_\_SDG No.: <u>0811131B</u>

Lab Sample ID:

MB-8506

Lab File ID: 120109.rst

Matrix: (soil/water)

<u>s</u>

Extraction: (Type) SONC

Sulfur Cleanup: (Y/N)

N

Date Extracted: 11/21/2008

Date Analyzed (1):

12/1/2008

Date Analyzed (2): 12/1/2008

Time Analyzed (1):

17:04

Time Analyzed (2): 16:32

Instrument ID (1):

GC90 20C

Instrument ID (2): GC90 20D

GC Column (1):  $\underline{DB-608}$  ID:  $\underline{0.5}$  (mm) GC Column (2):  $\underline{DB-1701}$  ID:  $\underline{0.5}$  (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA	LAB	DATE	DATE
	SAMPLE NO.	SAMPLE ID	ANALYZED 1	ANALYZED 2
1	LCS-8506	LCS-8506	12/1/2008	12/1/2008
2	LCSD-8506	LCSD-8506	12/1/2008	12/1/2008
3	Ith-3 (6-12)	0811131-001D	12/1/2008	
4	Ith-4 (6-12)	0811131-002D	12/1/2008	12/1/2008
5	Ith-2 (6-10)	0811131-003D	12/1/2008	12/1/2008
6	lth-2 (10-14)	0811131-004D	12/1/2008	12/1/2008
7	lth-6 (6-10)	0811131-005D	12/1/2008	
8	Ith-6 (10-14)	0811131-006D	12/1/2008	
9	Ith-8 (2-10)	0811142-001D	12/1/2008	12/1/2008
O	Ith-8 (10-14)	0811142-002D	12/1/2008	
1	Ith-7 (1-14)	0811142-003D	12/1/2008	12/1/2008
2	Ith-5 (4-10)	0811142-004D	12/1/2008	12/1/2008
3	lth-5 (10-14)	0811142-005D	12/2/2008	
4	ith-1 (6-12)	0811142-006D	12/2/2008	12/2/2008
5	Ith-Dup1	0811142-007D	12/2/2008	12/2/2008

COMMENTS:		
	 	······································

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

ERM Consulting & Engineering

CLIENT:

Method:

SW8082 0811131 Work Order:

ANALYTICAL QC SUMMARY REPORT

Ithaca Dredging Project:

Sample ID: MB-8506	SampType: MBLK	TestCode:	e: 8082S	Units: mg/Kg		Prep Date:	11/21/2008		RunNo:	15633	
Client ID: ZZZZZ	Batch ID: 8506	Method:	SW8082	(SW3550B)	*	Analysis Date: 12/1/2008	12/1/2008		SeqNo:	409297	
Instrument. GC90_20C	ColumnID: DB-608	7	J&W DB-608, 0.82 df	82 df							
Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	%REC LowLimit HighLimit RPD Ref Val	lighLimit RF	ט Ref Val	4%	%RPD RPDLimit Qual	t Qual
Aroclor 1016	QN	0.00850									
Aroclor 1221	2	0.00850									
Aroclor 1232	QN	0.00850									
Aroclor 1242	Q	0.00850									
Aroclor 1248	Q	0.00850									
Aroclor 1254	QN	0.00850									
Aroclor 1260	Q	0.00850									
Sur: Tetrachloro-m-xylene	0.00842	0	0.01	0	84	44	134				
Surr: Decachlorobiphenyl	0.00498	o	0.01	0	20	98	141				

ualifiers:	m Q	B Analyte detected in the associated Method Blank ND Not Detected at the Practical Quantitation Limit (PQL)	日氏	Value exceeds the instrument calibration range RPD exceeds accepted precision limit	J Analyte detected below the PQL S Spike Recovery outside accepted recover	ary limits
	$\supset$	Not Detected at the MDC or RL				

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(315) 437-0200

Method:

SW8082

ANALYTICAL QC SUMMARY REPORT

0811131 Work Order:

CLIENT: ERM Consulting & Engineering	g & Engineering					Project:	Ithaca Dredging	edging		
Sample ID: MB-8506 Client ID: ZZZZZ Instrument: GC90_20D	SampType: MBLK Batch ID: 8506 ColumnID: DB-1701	TestCode: 8082S Method: SW808	8082S SW8082 J&W DB-1701	Units: mg/Kg (SW3550B) 101	H d	Prep Date: 11/21/2009 Analysis Date: 12/1/2008	11/21/2008 12/1/2008	RunNo: SeqNo:	15711 409325	
Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Resuft	%REC	LowLimit High	%REC LowLimit HighLimit RPD Ref Val	%	%RPD RPDLimit	Qua
Aroclor 1016	QN	0.00850								
Araclor 1221	QN	0.00850								
Aroclor 1232	QN	0.00850								
Arocior 1242	Q	0.00850								
Aroclor 1248	ON	0.00850								
Aroclor 1254	2	0.00850								
Aroclor 1260	<del>Q</del>	0.00850							-	
Surr: Tetrachloro-m-xylene	0.00920	0	0.01	0	92	44	<del>1</del> 3			
Surr: Decachlorobiphenyl	0.00492	0	0.01	0	49	36	141			

Analyte detected in the associated Method Blank

**B** 9 >

Qualifiers:

Not Detected at the MDC or RL

Spike Recovery outside accepted recovery limits Analyte detected below the PQL Value exceeds the instrument calibration range RPD exceeds accepted precision limit шқ Not Detected at the Practical Quantitation Limit (PQL)

MB-8517

Lab Name: Life Science Laboratories Contract:

Lab Code: <u>LSLB</u>

Case No.: ERM

SAS No.: \_\_\_\_SDG No.: \_\_0811131B

Lab Sample ID:

MB-8517

Lab File ID: 121108.rst

Matrix: (soil/water)

<u>s</u>

Extraction: (Type) SONC

Sulfur Cleanup: (Y/N)

N

Date Extracted: 11/24/2008

Date Analyzed (1): 12/11/2008 Date Analyzed (2):

Time Analyzed (1):

<u>21:26</u> Time Analyzed (2):

Instrument ID (1): GC90 20C

Instrument ID (2):

GC Column (1):  $\underline{DB-608}$  ID:  $\underline{0.5}$  (mm) GC Column (2):

ID: (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA	LAB	DATE	DATE
	SAMPLE NO.	SAMPLE ID	ANALYZED 1	ANALYZED 2
1	LCS-8517	LCS-8517	12/11/2008	
2	MSB-8517	MSB-8517	12/11/2008	
3	lth-9 (1-14)	0811166-001D	12/12/2008	
4	ith-10 (1-14)	0811166-002D	12/12/2008	
5	Ith-11 (1-14)	0811166-003D	12/12/2008	
6	Ith-12 (1-14)	0811166-004D	12/12/2008	
7	lth-16 (1-14)	0811166-005D	12/12/2008	
8	lth-16 (1-14)MS	0811166-005DMS	12/12/2008	
9	ith-16 (1-14)MSD	0811166-005DMSD	12/12/2008	
10	Ith-14 (1-14)	0811166-006D	12/12/2008	
11	Ith-13 (1-10)	0811166-007D	12/12/2008	
12	lth-13 (10-14)	0811166-008D	12/12/2008	
13	Ith-1 (1-6)	0811166-009D	12/12/2008	
14	Ith-DUP2	0811166-010D	12/12/2008	
15	Ith-2 (1-6)	0811166-011D	12/12/2008	<u> </u>
16	Ith-3 (1-6)	0811166-012D	12/12/2008	T
17	Ith-4 (1-6)	0811166-013D	12/12/2008	
18	Ith-6 (1-6)	0811166-014D	12/12/2008	

COMMENTS:					
	 		<del></del>	 	 

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(315) 437-0200

ERM Consulting & Engineering

CLIENT:

SW8082

ANALYTICAL QC SUMMARY REPORT

Ithaca Dredging

Project:

0811166 Work Order: Method:

	ភ្ជ									
	it Qual									
32.1	%RPD RPDLIMI(									
15806 411921	RPD									
RunNo: SeqNo:	%									
<u> </u>	%REC LowLimit HighLimit RPD Ref Val									
11/24/2008 12/11/2008	t RPE								<del></del>	
Prep Date: 11/24/2008 Analysis Date: 12/11/2008	ighLimi								<u>\$</u>	14
ate; is Date:	imit T								44	36
Prep Date: Analysis Da	Low									
	%REC								92	57
Units: mg/Kg (SW3550B) 82 df	Parent Sample Result								0	0
de: 8082\$ Un : SW8082 (S) J&W DB-608, 0.82 df	SPK Added								0.01	0.01
TestCode: 8082S Method: SW808 J&W DB-60	Pal. s	0.00850	0.00850	0.00850	0.00850	0.00850	0.00850	0.00850	0	0
. –		ō	ö	ö	ö	Ö	ä	ö		
MBLK 1517 38-608	mple ult	9	2	2	Q	Q	9	9	0.00917	0.00567
SampType: MBLK Batch ID: 8517 ColumnID: DB-608	QC Sample Result								Ö	Ö
Sample ID: MB-8517 Client ID: ZZZZ Instrument: GC90 20C	,	016	1221	1232	242	248	254	260	Surr: Tetrachloro-m-xylene	Surr: Decachlorobiphenyl
Sample Client ID Instrume	Analyte	Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	Surr:	Sur: I

æ

Qualifiers:

RPD exceeds accepted precision limit

Spike Recovery outside accepted recovery limits Analyte detected below the PQL ĽΩ

Value exceeds the instrument calibration range 日氏 ND Not Detected at the Practical Quantitation Limit (PQL)  $\,$   $\,$   $\,$   $\,$  Not Detected at the MDC or RL  $\,$ Analyte detected in the associated Method Blank

#### **Trace Metals Data**

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

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ERM Consulting & Engineering

CLIENT:

SW6010B Method:

ANALYTICAL QC SUMMARY REPORT

0811166 Work Order:

Ithaca Dredging Project:

99	79		: : :	%RPD RPDLIMIT Qual							
RunNo: 15689	SeqNo: 408579			%RPD							
12/2/2008	12/3/2008			LowLimit HighLimit RPD Ref Val	0	0	0	0	0	0	<b>c</b>
	Date: 12/3/		:	oit HighLimi	60 140	60 140	60 140	60 140	60 140	60 140	60 140
Prep Date:	Analysis Date:			%REC LowLin	€ 66	92 6	93	96	93 86	92 (	8
Units: mg/Kg-dry	(SW3050B)			Result %Ri	2.45	0	10.1	8	5.51	14.8	777
60108	SW6010B			SPK Added	53.5	53.5	53.5	53.5	53.5	53.5	#3 #
 TestCode: 6010S	Method:			Pol	1.3	0.67	1.3	1.3	1.3	6.7	1.4
SampType: MS	Batch ID: 8539	ColumnID;	QC Sample	Result	55.6	49.0	59.7	61.2	55.5	63.9	4 40
Sample ID: 0811166-005DMS	Client ID: Ith-16 (1-14)										
Sample ID:	Client ID:	Instrument		Analyte	Arsenic	Cadmium	Chromium	Copper	Lead	Nickel	7:20

Not Detected at the MDC or RL

m Q D

Qualifiers:

II-Dec-08

Value exceeds the instrument calibration range **н** 4 Not Detected at the Practical Quantitation Limit (PQL) Analyte detected in the associated Method Blank

RPD exceeds accepted precision limit

Spike Recovery outside accepted recovery limits Analyte detected below the PQL -> **6**3

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ERM Consulting & Engineering

CLIENT:

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SW6010B 0811166 Work Order: Method:

ANALYTICAL QC SUMMARY REPORT

Ithaca Dredging Project:

Sample (D: 0811166-005DMSD SampType: MSD	SampType: MSD	TestCode:	Ι-	Units: mg/Kg-dry		Prep Date:			RunNo:	15689	١.
Client ID: Ith-16 (1-14)	Batch  D; 8539	Method:	SW6010B	(SW3050B)	•	Analysis Date:	: 12/3/2008		SedNo:	408580	
Instrument:	ColumnID:										
	QC Sample			Parent Sample							
Analyte	Result	Pal	SPK Added	Result	%REC	"REC LowLimit HighLimit	HighLimit	RPD Ref Val	%RPD	D RPDLimit	Qual
Arsenic	55.3	1,3	53,5	2.45	66	9	140	55.6		1 20	
Cadmium	49.3	0.67	53.5	0	82	9	140	49		1 20	
Chromium	9'69	<u>د.</u> دن	53,5	10.1	92	09	140	59.7		0 20	
Copper	60.7	1.3	53.5	æ	66	09	140	61.2		1 20	
Lead	55.0	1.3	53.5	5.51	66	9	140	55.5		1 20	
Nicke!	63.6	6.7	53.5	8.4	9	90	140	63.9		1 20	
Zinc	89.5	2.7	53.5	43.1	87	9	140	91.1		2 20	

Value exceeds the instrument calibration range B Analyte detected in the associated Metnon Diana

ND Not Detected at the Practical Quantitation Limit (PQL)

U Not Detected at the MDC or RL

Qualifiers:

RPD exceeds accepted precision limit

Spike Recovery outside accepted recovery limits Analyte detected below the PQL <u>-</u> თ

II-Dec-08

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CLIENT:

Method:

SW6010B

ANALYTICAL QC SUMMARY REPORT

Ithaca Dredging Project:

0811166 Work Order:

Method:         SW6010B         (SW3050B)         Analysis Date:         12/3/2008         SeqNo:           PQL         SPK Added         Result         %REC         LowLimit         HighLimit         RPD Ref Vat         %RF           .7         0.67         53.5         0         89         75         125           .1         1.3         53.5         10.1         92         75         125           .5         1.3         53.5         8         96         75         125           .5         1.3         53.5         14.8         92         75         125           .6         1.3         53.5         96         75         125           .7         1.3         53.5         14.8         96         75         125           .7         1.3         53.5         14.8         92         75         125           .7         53.5         43.1         92         75         125         125           .7         53.5         43.1         92         75         125         125           .7         53.5         43.1         92         75         125         125           .7 <th>Sample ID: 0811166-005D</th> <th>SampType: PDS</th> <th>TestCod</th> <th>as as</th> <th>Units: mg/Kg-dry</th> <th></th> <th>Prep Date:</th> <th>12/2/2008</th> <th></th> <th>RunNo:</th> <th>15689</th> <th></th>	Sample ID: 0811166-005D	SampType: PDS	TestCod	as as	Units: mg/Kg-dry		Prep Date:	12/2/2008		RunNo:	15689	
Sample Sample Sult         Parent Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sample Sand Total Sand	th-16 (1-14)	Batch ID; 8539	Method:	SW6010B	(SW3050B)	***	Analysis Dat	e: 12/3/20		edNo:	408582	
PQL         SPK Added         Result         %REC         LowLimit         HighLimit         RPD Ref Val         %RPD         RPDLimit           1         1.3         53.5         2.45         96         75         125         PC		ColumnID:										
PQL         SPK Added         Result         %REC         LowLimit         HighLimit         RPD Ref Val         %RPD         RPDLimit           3.8         1.3         53.5         2.45         96         75         125         RPDLimit         RPDLimit         RPDLimit           7.7         0.67         53.5         0         89         75         125         RPDLimit         RPDLimit           9.1         1.3         53.5         8         96         75         125         RPDLimit         RPDLimit           3.5         1.3         53.5         8         96         75         125         RPDLimit         RPDLimit           4.1         6.7         53.5         96         75         125         RPDLimit         RPDLimit           2.0         2.7         53.5         96         75         125         RPDLimit         RPDLimit           4.1         6.7         53.5         96         75         125         RPDLimit         RPDLimit           5.5         1.3         53.5         43.1         92         75         125         RPDLimit           2.0         2.7         53.5         43.1         92         75 </th <th></th> <th>QC Sample</th> <th></th> <th></th> <th>Parent Sample</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th>		QC Sample			Parent Sample							
1.3     53.5     2.45     96     75       0.67     53.5     0     89     75       1.3     53.5     10.1     92     75       1.3     53.5     8     96     75       1.3     53.5     5.51     90     75       6.7     53.5     14.8     92     75       2.7     53.5     43.1     92     75		Result	Po	SPK Added	Result	%REC	LowLimit	HighLimit	RPD Ref Val	% E	PD RPDLimit	Qual
0.67     53.5     0     89     75       1.3     53.5     10.1     92     75       1.3     53.5     8     96     75       1.3     53.5     5.51     90     75       6.7     53.5     14.8     92     75       2.7     53.5     43.1     92     75		53.8	1.3	53.5	2.45	96	75	125			- Parkers	
1.3     53.5     10.1     92     75       1.3     53.5     8     96     75       1.3     53.5     5.51     90     75       6.7     53.5     14.8     92     75       2.7     53.5     43.1     92     75		47.7	0.67	53.5	o	83	75	125				
1.3     53.5     8     96     75       1.3     53.5     5.51     90     75       6.7     53.5     14.8     92     75       2.7     53.5     43.1     92     75		59.1	<u>t.</u>	53.5	10.1	92	75	125				
1.3     53.5     5.51     90     75       6.7     53.5     14.8     92     75       2.7     53.5     43.1     92     75		59.5	1.3	53.5	<b>6</b> 0	96	75	125				
6.7 53.5 14.8 92 75 2.7 53.5 43.1 92 75		53.5	1.3	53.5	5.51	8	75	125				
2.7 53.5 43.1 92 75		1.2	6.7	53.5	14.8	92	75	125				
		92.0	2.7	53.5	43.1	35	75	125				

Value exceeds the instrument calibration range 日丸 Not Detected at the Practical Quantitation Limit (PQL) Analyte detected in the associated Method Blank

Spike Recovery outside accepted recovery limits Analyte detected below the PQL

RPD exceeds accepted precision limit

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ERM Consulting & Engineering

CLIENT:

(315) 437-0200

SW6010B 0811142 Work Order: Method:

ANALYTICAL QC SUMMARY REPORT

Ithaca Dredging Project:

Sample ID: LCS-8538	SampType: LCS	TestCode:	1	Units: mg/Kg		Prep Date:	12/2/2008	RunNo:		15689	
Client ID; 22222 Instrument:	Batch ID: 8538 ColumnID:	Method:	SW6010B	(SW3050B)	•	Anatysis Date	Anafysis Date: 12/3/2008	SedNo		408597	
Analyte	QC Sample Result	POL	3PK Added	Parent Sample Result	%REC	%REC LowLimit HighLimit	HighLimit RP	RPD Ref Val	%RPD	%RPD RPDLIMI	Qual
Arsenic	19.7	1,0	50	0	66	85	115				
Cadmium	19.4	0.50	20	0	97	85	115				
Chromium	20.0	1.0	20	0	100	85	115				
Copper	19.9	1.0	20	0	5	85	115				
Lead	19.5	1.0	20	0	86	85	115				
Nickel	20.3	5.0	20	0	102	85	115				
Zinc	21.9	2.0	70	0	110	88	115				

Analyte detected in the associated Method Blank

Value exceeds the instrument calibration range RPD exceeds accepted precision limit Not Detected at the Practical Quantitation Limit (PQL)

<sup>—</sup> თ

Spike Recovery outside accepted recovery limits Analyte detected below the PQL

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(315) 437-0200

ERM Consulting & Engineering

CLIENT:

Method:

SW6010B

ANALYTICAL QC SUMMARY REPORT

0811166 Work Order:

Ithaca Dredging Project:

Sample ID: LCS-8539	SampType: LCS	TestCode	TestCode: 6010S	Units: mg/Kg		Prep Date:	12/2/2008	RunNo:	15689		
Client ID: ZZZZZ	Batch ID: 8539	Method:	SW6010B	(SW3050B)	_	Analysis Date:	3: 12/3/2008	SedNo:	408570		
Instrument:	ColumnID:										
	QC Sample			Parent Sample							
Analyte	Result	Pol	SPK Added	Result	%REC	LowLimit	LowLimit HighLimit RPD Ref Val		RPD R	%RPD RPDLImit	Quai
Arsenic	8'61	1.0	20	o	66	85	115				
Cadmium	19.5	0.50	20	O	86	85	115				
Chromium	20.1	1.0	20	0	100	85	115				
Copper	19.9	1.0	20	0	66	85	115				
Lead	19.9	1.0	50	0	100	85	115				
Nickel	20.5	5.0	50	0	103	85	115				
Zinc	20.6	2.0	20	o	103	85	115				

Not Detected at the Practical Quantitation Limit (PQL) Analyte detected in the associated Method Blank B S D Qualifiers:

Value exceeds the instrument calibration range RPD exceeds accepted precision limit யல

Spike Recovery outside accepted recovery limits Analyte detected below the PQL - v

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(315) 437-0200

SW6010B Method:

ANALYTICAL QC SUMMARY REPORT

0811142 Work Order:

							11 04 8	TO CIACLO	711100				
CLEENT:	ERM Consult	CLIENT: ERM Consulting & Engineering					Project:	et:	Ithaca Dredging	edging			
Sample (D: MB-8538 Client ID: ZZZZZ Instrument:	MB-8538 72222	SampType: MBLK Batch ID; 8538 ColumnID:	TestCode: 6010S Method: SW601	6010S SW6010B	Units: mg/Kg (SW3050B)		Prep Date: Analysis Date	Prep Date: 12/2/2008 Analysis Date: 12/3/2008		RunNo: SeqNo:	15689 408596	<u></u>	
Analyte		QC Sample Result	Pat	SPK Added	Parent Sample Result	%REC	LowLimit	%REC LowLimit HighLimit RPD Ref Val	Ref Val	l%	RPD R	%RPD RPDLimit	Qual
Arsenic		QN	1.0										
Cadmium		Q	0.50										
Chromium		Ð	1.0										
Copper		2	1.0										
Lead		QN	1.0										
Nickel		<del>Q</del>	2.0										
Zinc		0.532	2.0										~

Value exceeds the instrument calibration range ш 🗠 Not Detected at the Practical Quantitation Limit (PQL)

Analyte detected in the associated Method Blank

Qualifiers:

RPD exceeds accepted precision limit

Spike Recovery outside accepted recovery limits Analyte detected below the PQL

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11-Dec-08

Not Detected at the MDC or RL

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CLIENT:

SW6010B Method:

ANALYTICAL QC SUMMARY REPORT

Ithaca Dredging 0811166 Work Order: Project:

Sample ID: MB-8539	SampType: MBLK	TestCode	: 6010S	Units: mg/Kg		Prep Date:	12/2/2008	RunNo:	15689		
Client ID: ZZZZZ	Batch (D: 8539	Method:	SW6010B	(SW3050B)	**	Analysis Date:	12/3/2008	SegNo:	408569	o	
Instrument:	ColumnID:										
	QC Sample			Parent Sample							
Analyte	Result	Po	SPK Added	Result	%REC	LowLimit High	%REC LowLimit HighLimit RPD Ref Val		RPD R	%RPD RPDLimit	Qual
Arsenic	QV	1,0		- separate							
Cadmium	Q	0.50									
Chromium	Q	1.0									
Copper	g	1.0									
Lead	2	1.0									
Nickel	9	5.0									
Zinc	0.657	2.0									ت.

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Not Detected at the Practical Quantitation Limit (PQL)

Analyte detected in the associated Method Blank

Qualifiers:

Analyte detected below the PQL Value exceeds the instrument calibration range RPD exceeds accepted precision limit

Spike Recovery outside accepted recovery limits

### Mercury Data

5000 Brittonfield Parkway, Suite 200 East Syracuse, NY 13057

CLIENT: ERM Consulting & Engineering

(315) 437-0200

SW7471A Method:

ANALYTICAL QC SUMMARY REPORT

Work Order:

0811142

Ithaca Dredging

Project:

Sample ID: 0811142-004DMS	S SampType: MS	TestCode:	HG7471S	Units: mg/Kg-dry	Pre	Prep Date:	12/1/08	Run	RunNo: 15	15669	
Client ID; Ith-5 (4-10)	Batch ID: 8536	Method:	SW7471A	(SW7471A)	Ana	Analysis Date:	12/3/08	Seq	SeqNo: 40	408162	
Instrument	ColumnID:										
	QC Sample			Parent Sample							
Analyte	Result	Pag	SPK Added	_	SEC LC	wLimit Hi	%REC LowLimit HighLimit RPD Ref Val	D Ref Val	%RPD	RPDLimit Qual	Quai
Mercury	0.636	0.15	0.508	0.155	95	27	153				

Qualifiers:	æ	Analyte detected in the associated Method Blank	ш	Walue exceeds the instrument calibration range	_	Analyte detected
	g	ND Not Detected at the Practical Quantitation Limit (PQL)	~	RPD exceeds accepted precision limit	ď	Spike Recovery
4	n	Not Detected at the MDC or RL				

ry outside accepted recovery limits ted below the PQL

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12-Dec-08

5000 Brittonfield Parkway, Suite 200 East Syracuse, NY 13057

ERM Consulting & Engineering

CLIENT:

(315) 437-0200

SW7471A Method:

ANALYTICAL QC SUMMARY REPORT

Ithaca Dredging 0811142 Work Order:

Project:

Sample ID:	Sample ID: 0811142-004DMSD SampType: MSD	SampType: MSD	TestCode	TestCode: HG7471S	Units: mg/Kg-dry		Prep Date:	12/1/08	CC	RunNo: 16	15669	
Client ID:	Client ID: Ith-5 (4-10)	Batch ID: 8536	Method:	SW7471A	(SW7471A)	Ψ	Analysis Date:	: 12/3/08	w	seqNo: 4(	408165	
Instrument:		ColumnID:										<del></del>
		QC Sample			Parent Sample							
Analyte		Result	PQL	SPK Added	•	«REC	-owLimit	- - - - - - - - - - - - - - - - - - -	%REC LowLimit HighLimit RPD Ref Val	%RPD	%RPD RPDLimit	Quai
Mercury		0.581	0.15	0.508	0,155	48	27	153	0.636	0.6	15	

Value exceeds the instrument calibration range RPD exceeds accepted precision limit

EII ec

Not Detected at the Practical Quantitation Limit (PQL)

Analyte detected in the associated Method Blank

М

Qualifiers:

Analyte detected below the PQL - vi

Spike Recovery outside accepted recovery limits

5000 Brittonfield Parkway, Suite 200 East Syracuse, NY 13057

(315) 437-0200

SW7471A Method:

ANALYTICAL QC SUMMARY REPORT

0811166 Work Order:

CLIENT:	CLIENT: ERM Consulting & Engineering	g & Engineering					Project:	اید	Ithaca Dredging	dging		
Sample ID: Client ID: Instrument:	Sample ID: 0811166-005DMS Client ID: Ith-16 (1-14) Instrument:	SampType: MS Batch ID: 8535 ColumnID:	TestCode: Method:	e: HG7471S SW7471A	Units: mg/Kg-dry (SW7471A)		Prep Date: Analysis Date:	12/1/08 12/3/08		RunNo: 1; SeqNo: 40	15669 408184	
Analyte		QC Sample Result	g	SPK Added	Parent Sample Result	%REC	LowLimit H	ighLimit	%REC LowLimit HighLimit RPD Ref Val	%RPD	%RPD RPDLimit Qual	Qual
Mercury		0.509	0.13	0.447	0.0581	101	27	27 153				

Value exceeds the instrument calibration range ш **ж** B Analyte detected in the associated Method Blank

ND Not Detected at the Practical Quantitation Limit (PQL)

U Not Detected at the MDC or RL Analyte detected in the associated Method Blank Qualifiers:

RPD exceeds accepted precision limit

Spike Recovery outside accepted recovery limits Analyte detected below the PQL

333

12-Dec-08

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

SW7471A Method:

ANALYTICAL QC SUMMARY REPORT

0811166

Work Order:

CLIENT:	CLIENT: ERM Consulting & Engineering	g & Engineering					Project:	:t:	Ithaca Dredging	ing		
Sample ID: Client ID:	Sample ID: 0811166-005DMSD SampType: MSD Client ID: 1th-16 (1-14) Batch ID: 8535	SampType: MSD Batch ID: 8535	TestCode: Method:		HG7471S Units: mg/Kg-dry SW7471A (SW7471A)		Prep Date: Analysis Date:	12/1/08		RunNo: 18 SeqNo: 40	15669 408185	
Instrument:		ColumnID;										
Analyte		QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC L	.owLimit P	∃ighLimiť	%REC LowLimit HighLimit RPD Ref Val	%RPD	%RPD RPDLimit Qual	Qual
Mercury		0.427	0.13	0,447	0.0581	83	27	153	0.509	17	15	œ

Not Detected at the Practical Quantitation Limit (PQL) Analyte detected in the associated Method Blank Q ⊃ Œ Qualifiers:

RPD exceeds accepted precision limit

Value exceeds the instrument calibration range

Spike Recovery outside accepted recovery limits Analyte detected below the PQL - v

> Not Detected at the MDC or RL 12-Dec-08

> > 334

## Page 1 of 1

# Life Science Laboratories, Inc.

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

ERM Consulting & Engineering

CLIENT:

(315) 437-0200

Method:

SW7471A

ANALYTICAL QC SUMMARY REPORT

0811166 Work Order:

Ithaca Dredging Project:

Sample ID: 0811166-005D Client ID: 1th-16 (1-14) Instrument:	SampType: PDS Batch ID: 8535 ColumnID:	TestCode Method:	TestCode: HG7471S Method: SW7471A	Units: mg/Kg-dry (SW7471A)	Prep Date: Analysis De	Ę.		RunNo: SeqNo:	15669 408202	
Analyte	QC Sample Result	Pol	SPK Added	Parent Sample Result %F	EC LowLi	mit HighLin	%REC LowLimit HighLimit RPD Ref Val	% R	%RPD RPDLimit Qual	Qual
Mercury	0.505	0.13	0.447	0.0581	100	85 1	115			

Analyte detected	,
<b></b> 3	Ę
Value exceeds the instrument calibration range	

Spike Recovery outside accepted recovery limits below the PQL S

Analyte detected in the associated Method Blank

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Qualifiers:

Inc.
tories,
Labora
Science
Life

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

CLIENT:

(315) 437-0200

Method:

0811166 Work Order:

SW7471A

ANALYTICAL QC SUMMARY REPORT

Ithaca Dredging Project: ERM Consulting & Engineering

Sample ID: LCS-8535	SampType: LCS	TestCode:	TestCode: HG7471S	Units: mg/Kg	п.	Prep Date:	12/1/08		RunNo: 1	15669	
Client ID: ZZZZZ Instrument:	Batch ID: 8535 ColumnID:	Method:	SW7471A	(SW7471A)	∢(	Analysis Date:	12/3/08	•	SeqNo: 4	408170	
Analyte	QC Sample Result	PQL	SPK Added	Parent Sample Result	%REC	LowLimit +	- HighLimit	WREC LowLimit HighLimit RPD Ref Val	%RPD	RPDLimit Qual	Qual
Mercury	0.851	0.10	0.835	0	102	85	115				

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Not Detected at the Practical Quantitation Limit (PQL)

Not Detected at the MDC or RL

見ロ щ

Qualifiers:

12-Dec-08

Analyte detected in the associated Method Blank

Spike Recovery outside accepted recovery limits

Analyte detected below the PQL - a Value exceeds the instrument calibration range RPD exceeds accepted precision limit

## Page 8 of 8

# Life Science Laboratories, Inc.

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

ERM Consulting & Engineering

CLIENT:

(315) 437-0200

SW7471A Method:

ANALYTICAL QC SUMMARY REPORT

0811142

Work Order:

Ithaca Dredging Project:

Sample ID: LCS-8536	SampType: LCS	TestCode	TestCode: HG7471S	Units: mg/Kg	4	Prep Date:	12/1/08		RunNo:	15669	
Client ID; ZZZZZ	Batch ID: 8536	Method:	SW7471A	(SW7471A)	đ	Analysis Date:	3: 12/3/08		SeqNo:	408205	
Instrument:	ColumnID:										
	QC Sample			Parent Sample							
Analyte	Result	Por	SPK Added	Result	%REC	LowLimit	HighLimit	%REC LowLimit HighLimit RPD Ref Val	%RPD	'D RPDLimit Qual	Qual
Mercury	0.842	0.10	0.835	0	101	85	115				

Not Detected at the Practical Quantitation Limit (PQL) Not Detected at the MDC or RL

Analyte detected below the PQL

Spike Recovery outside accepted recovery limits

337

12-Dec-08

g p 户

Qualifiers:

Value exceeds the instrument calibration range RPD exceeds accepted precision limit ы к Analyte detected in the associated Method Blank

## Page 1 of 6

# Life Science Laboratories, Inc.

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

SW7471A Method:

ANALYTICAL QC SUMMARY REPORT

Work Order:

0811166

CLIENT:	CLIENT: ERM Consulting & Engineering	ig & Engineering					Project:	<b></b>	Ithaca Dredging	ing		
Sample ID: MB-8535 Client ID: ZZZZZ Instrument:	MB-8535 ZZZZZ	SampType: MBLK Batch ID: 8535 ColumnID:	TestCode Method:	TestCode: HG7471S Method: SW7471A	Units: mg/Kg (SW7471A)		Prep Date: Analysis Date:	12/1/08	Rui	RunNo: 15 SeqNo: 40	15669 408169	
Analyte		QC Sample Result	Po	SPK Added	Parent Sample Result	%REC	%REC LowLimit HighLimit RPD Ref Val	ghLimit R	PD Ref Val	%RPD	%RPD RPDLimit	Qual
Mercury		QN	0.10									

Value exceeds the instrument calibration range	<b>-</b>	Analyte detected
RPD exceeds accepted precision limit	တ	Spike Recovery

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Analyte detected in the associated Method Blank

Qualifiers:

ry outside accepted recovery limits d below the PQL

B Analyte detected in the associated Method Blank

ND Not Detected at the Practical Quantitation Limit (PQL)

U Not Detected at the MDC or RL

12-Dec-08

338

## Page 7 of 8

Inc.
Laboratories.
borat
Life Science
Life S

5000 Brittonfield Parkway, Suite 200 East Syracuse, NY 13057

(315) 437-0200

Method:

ANALYTICAL OC SUMMARY REPORT

0811142

SW7471A Work Order:

Project:

RunNo: Ithaca Dredging

Prep Date: Units: mg/Kg (SW7471A)

SW7471A

Method:

8536

ColumnID: Batch ID:

Instrument:

Analyte Mercury

Client ID:

FestCode: HG7471S

SampType: MBLK

Sample ID: MB-8536

ERM Consulting & Engineering

CLIENT:

12/1/08 Analysis Date: 12/3/08

408204 15669

SeqNo:

%REC LowLimit HighLimit RPD Ref Val

Parent Sample Result

SPK Added

PQ P 0.10

QC Sample Result

2

Qual

%RPD RPDLimit

Analyte detected in the associated Method Blank В Qualifiers:

Not Detected at the Practical Quantitation Limit (PQL) g p

Value exceeds the instrument calibration range RPD exceeds accepted precision limit EI CK

Spike Recovery outside accepted recovery limits Analyte detected below the PQL

Not Detected at the MDC or RL

12-Dec-08

339

## Llyod Kahn *TOC*

Lab Name:

TESTAMERICA PITTSBURGH

Method:

**EPA** 

Lloyd Kahn

Client Name:

Life Science Laboratories Inc

Lot Number:

C8K260239

Matrix: SOLID

#### NO SAMPLE PREPARATION PERFORMED / DIRECT INJECTION

Client Sample ID	Sample Number	Workorder	Result	Units	Min. Detection Limit	Reporting Limit	Dilution Factor	Prep Date - Analysis Date/Time	QC Batch
ITH-9 (1-14)	C8K280239 001	K3QAP1AC	28600	mg/kg	363	1580	2.07	11/28/2008 - 11/28/2008 14:28	8333068
ITH-10 (1-14)	C8K280239 002	K3QA31AC	33600	mg/kg	364	1670	2.21	11/28/2008 - 11/28/2008 14:36	8333068
ITH-11 (1-14)	C8K280239 003	K3QA51AC	27700	mg/kg	369	1610	2.14	11/28/2008 - 11/28/2008 14:49	8333068
iTH-12 (1-14)	C8K260239 004	K3QAB1AC	21100	mg/kg	428	1860	2.21	11/28/2008 ~ 11/28/2008 14:59	8333068
ITH-16 (1-14)	C8K280239 005	K3QA91AC	7760	mg/kg	280	1220	1.79	11/28/2008 - 12/2/2008 11:09	8333069
ITH-14 (1-14)	C8K260239 006	K3QCD1AC	14000	mg/kg	264	1150	1.78	11/28/2008 - 12/2/2008 11:40	8333069
ITH-13 (1-10)	C8K260239 007	K3QCH1AC	11300	mg/kg	348	1510	2.33	11/28/2008 - 12/2/2008 12:00	8333069
ITH-13 (10-14)	C8K260239 008	K3QCV1AC	15200	mg/kg	293	1270	1.77	11/28/2008 - 12/2/2008 12:10	8333069
ITH-1 (1-8)	C8K260239 009	K3QC01AC	23700	mg/kg	350	1520	1.84	11/28/2008 - 12/2/2008 12:20	8333069
ITH-DUP2	C8K280239 010	K3QC41AC	35500	mg/kg	378	1640	2.05	11/28/2008 - 12/2/2008 12:31	8333069
ITH-2 (1-6)	C8K280239 011	K3QC71AC	17500	mg/kg	439	1910	1.98	11/28/2008 - 12/2/2008 12:41	8333069
ITH-3 (1-6)	C8K260239 012	K3QC91AC	25200	mg/kg	421	1830	1.89	11/28/2908 - 12/2/2008 12:51	8333069
ITH-4 (1-6)	C8K260239 013	K3QDC1AC	15100	mg/kg	269	1170	1.47	11/28/2008 - 12/2/2008 13:01	8333069
ITH-6 (1-8)	C8K260239 014	K3QDD1AC	17200	mg/kg	383	1660	2.04	11/28/2008 - 12/2/2008 13:11	8333069
ITH-3 (6-12)	C8K280239 015	K3QDH1AC	10500	mg/kg	301	1310	1.92	11/28/2008 - 11/28/2008 15:09	8333068
ITH-4 (6-12)	C8K260239 016	K3QDL1AC	10400	mg/kg	355	1540	2.29	11/28/2008 - 11/28/2008 15:19	8333068
ITH-2 (6-10)	C8K280239 017	K3QDQ1AC	22900	mg/kg	349	1520	2.07	11/28/2008 - 11/28/2008 15:30	8333068
ITH-2 (10-14)	C8K260239 018	K3QDT1AC	20400	mg/kg	340	1480	1.98	11/28/2008 - 12/2/2008 08:17	6337046

## Llyod Kahn *TOC*

Lab Name:

**TESTAMERICA PITTSBURGH** 

Method:

EPA

Lloyd Kahn

Client Name:

Life Science Laboratories Inc

Lot Number:

C8K260239

Matrix: S

SOLID

!TH-6 (6-10)	C8K260239 019	K3QDW1A	34900	mg/kg	324	1410	1.82	11/28/2008 ~ 12/2/2008 08:27	8337046
ITH-6 (10-14)	C8K260239 020	K3QD21AC	30500	mg/kg	380	1650	2.16	11/28/2008 - 12/2/2006 08:37	8337046
ITH-8 (2-10)	C8K260239 021	K3QD51AC	18900	mg/kg	279	1210	1.76	11/28/2008 - 12/2/2008 08:47	8337046
ITH-8 (10-14)	C8K260239 022	K3QD91AC	23900	mg/kg	299	1300	1.85	11/28/2008 - 12/2/2008 08:57	8337046
ITH-7 (1-14)	C8K260239 023	K3QED1AC	14400	mg/kg	270	1170	1.74	11/28/2008 - 12/2/2008 09:07	8337046
ITH-5 (4-10)	C6K260239 024	K3QEH1AC	26700	mg/kg	287	1250	1.83	11/28/2008 - 12/2/2008 09:17	8337046
ITH-5 (10-14)	C8K280239 025	K3QEM1AC	3970	mg/kg	162	708	1.1	12/2/2008 - 12/2/2008 22:31	8333215
ITH-1 (6-12)	C8K280239 026	K3QEQ1AC	17600	mg/kg	344	1490	1.98	11/28/2008 - 12/2/2008 09:38	8337046
TH-DUP1	C8K260239 027	K3QET1AC	18200	mg/kg	320	1390	1.89	11/28/2008 - 12/2/2008 09:48	8337046



PW LABORATORIES, INC. P.O. BOX 56, 5879 FISHER ROAD, EAST SYRACUSE, NY 13057

315-437-1420 • 866-7PW-LABS

Fax 315-437-1752

December 9, 2008

Mr. Todd Marsh Environmental Resources Management (ERM) 5788 Widewaters Parkway Dewitt, New York 13214

Re:

L-08199

Laboratory Testing Ithaca Project

Dear Mr. Marsh:

Enclosed are the results of laboratory testing performed at your request on twenty-five bulk soil samples delivered to our laboratory on November 24, 2008 for the above referenced project. Results include:

 Natural Moisture Content ASTM D2216 Laboratory I.D. #'s 23845 – 23869

25 Each

Sieve Analysis ASTM D422 & D1140
 Laboratory I.D. #'s 23845 – 23869

25 Each

 Hydrometer Analysis ASTM D422 Laboratory I.D. #'s 23845 – 23869

25 Each

Atterberg Limits ASTM D4318
 Laboratory I.D. #'s 23845 – 23869

25 Each

 Specific Gravity ASTM D854 Laboratory I.D. #'s 23845 – 23869

25 Each

All requested tests have been completed on the previously received sample(s) for the above project. All sample remains are scheduled to be disposed of on January 10, 2009. Please notify PW Laboratories, Inc. by letter or telephone prior to January 10, 2009 if you would prefer to pick up the sample(s) or that the sample(s) be retained by PW Laboratories, Inc. for an additional period of time.

Thank you for this opportunity to work with you.

Very truly yours,

PW LABORATORIES, INC.

Virginia J. Thoma

Manager - Laboratory Services

VJT/bll Encs:



December 9, 2008

#### L-08199 Laboratory Testing Ithaca Project

### NATURAL MOISTURE CONTENT <u>ASTM D2216</u>

Lab I.D.#	Cl- #	Depth	Moisture Content as a
Lab I.D.#	Sample #	(feet)	Percent of Dry Weight
23845	Ith-3	6.0-12.0	29.6
23846	Ith-4	6.0-12.0	37.4
23847	Ith-2	6.0-10.0	55.1
23848	Ith-2	10,0-14.0	43.6
23849	Ith-6	6.0-10.0	51.6
23850	Ith-6	10.0-14.0	52.6
23851	Ith-8	2.0-10.0	49.9
23852	Ith-8	10.0-14.0	40.5
23853	. Ith-7	7.0-14.0	37.4
23854	Ith-5	4.0-10.0	S1.1
23855	Ith-5	10.0-14.0	31.1
23856	Ith-1	6.0-12.0	51.8
23857	Ith-9	1.0-14.0	58.3
23858	Ith-10	1.0-14.0	S7.1
23859	Ith-11	1.0-14.0	54.2
23860	Ith-12	1.0-14.0	34.5
23861	Ith-16	1.0-14.0	28.7
23862	Ith-14	1.0-14.0	32.7
23863	Ith-13	1.0-14.0	48.1
23864	Ith-13	1.0-10.0	37.0
23865	Sample #1	Surface	72.2
23866	Sample #2	Surface	84.3
23867	Sample #3	Surface	78.0
23868	Sample #4	Surface	50.2
23869	Sample #6	Surface	62.4



Page One of Three

### SIEVE ANALYSIS OF SOIL / AGGREGATE

Laboratory Testing
Ithaca Project

Project Title:

Project #: Test Method:	L-08199 ASTM D422 8	& D1140	-										Report #: ort Date:	D	<u> </u>	2000
			-									кер	on Date:	Dec	ember 9,	2008
	and a second sec						· · · · · · · · · · · · · · · · · · ·	Sieve S	Size - Pero	ent Passi	ng Sieve			<del></del>		
Lab I.D.#	Sample	Depth (feet)	2"	1 1/2"	1"	3/4"	1/2"	3/8"	1/4"	#4	#10	#30	#40	#60	#100	#200
23845	Ith-3	6.0-12.0								100	99.5	97.2	96.0	92.3	82.8	49.3
23846	Ith-4	6.0-12.0								100	99.8	98.9	98.2	95.2	85.6	61.7
23847	Ith-2	6.0-10.0					100	99.0	98.7	98.3	98.1	97.6	97.2	96.1	94.5	89.9
23848	Ith-2	10.0-14.0			100	99.2	99.2	99.2	99.2	99.1	98.6	97.9	97.6	96.8	95.6	89.0
23849	Ith-6	6.0-10.0					100	99.8	99.4	99.1	98.0	93.4	90.0	83.4	79.8	72.9
23850	Ith-6	10.0-14.0								100	99.8	99.2	98.8	98.0	97.1	94.2
23851	Ith-8	2.0-10.0					100	99.5	99.2	98.6	97.6	94.7	92.8	89.0	81.7	68.8
23852	lth-8	10.0-14.0					100	99.2	96.6	95.2	92.5	90.0	89.2	86.7	78.4	65.9
23853	Ith-7	7.0-14.0								100	99.9	98.6	97.6	90.6	71.2	47.5
Sample mass, as rec	ceived, meets minimu	ım mass requiremer	nts of test n	nethod:		Yes		No	Х		Prewashed	1:	Yes	Х	No	
Remarks:								•		•	Performed	l By:	·	ES 8	& SC	
										<del>-</del>	Checked I	Ву:		V.J. 'I	Thoma	



Page Two of Three

### SIEVE ANALYSIS OF SOIL / AGGREGATE

Laboratory Testing
Ithaca Project

Project Title:

Project #: Test Method:	L-08199 ASTM D422.8	& D1140	-										Report #: ort Date:	Dec	l cember 9,	2008
												1				2000
								Sieve S	Size - Perc	ent Passi	ng Sieve					
Lab I.D. #	Sample	Depth (feet)	2"	1 1/2"	1"	3/4"	1/2"	3/8"	1/4"	#4	#10	#30	#40	#60	#100	#200
23854	Ith-5	4.0-10.0					100	99.7	99.5	99.4	98.5	95.7	94.2	89.8	80.1	62.4
23855	Ith-5	10.0-14.0					100	99.4	99.3	99.2	99.1	98.7	98.1	92.2	67.2	34.2
23856	Ith-1	6.0-12.0									100	99.8	99.6	99.1	98.2	90.6
23857	Ith-9	1.0-14.0					100	99.5	98.6	98.0	96.1	91.7	90.1	87.7	84.8	78.2
23858	Ith-10	1.0-14.0					100	99.7	99.4	99.2	98.4	94.7	92.2	88.4	85.4	79.1
23859	lth-11	1.0-14.0						100	99.9	99.8	99.5	96.6	93.2	83.5	78.6	71.1
23860	Ith-12	1.0-14.0				100	99.8	99.8	99.1	97.9	93.0	80.8	73.2	45.2	27.5	20.3
23861	Ith-16	1.0-14.0						100	99.8	99.7	97.6	90.1	85.4	66.0	42.2	27.5
23862	Ith-14	1.0-14.0			100	94.6	88.7	85.6	80.0	77.0	71.8	66.0	63.8	61.1	59.2	53.8
Sample mass, as rec	eived, meets minimu	ım mass requiremer	its of test n	ethod:		Yes		No	Х		Prewashed	:	Yes	Х	No	
Remarks:											Performed	Ву:	•	ES 8	· & SC	
											Checked F	by:		V.J. T	`homa	



Page Three of Three

### SIEVE ANALYSIS OF SOIL / AGGREGATE

Laboratory Testing
Ithaca Project

Project Title:

Project #: Test Method:	L-08199 ASTM D422 8	× D1140											Report #: ort Date:	Dec	l tember 9,	2008
								Sieve S	Size - Perc	ent Passi	ng Sieve					
Lab 1.D. #	Sample	Depth (feet)	2"	1 1/2"	1"	3/4"	1/2"	3/8"	1/4"	#4	#10	#30	#40	#60	#100	#200
23863	Ith-13	1.0-14.0				100	98.8	98.5	98.3	98.3	98.0	97.3	96.1	95.4	94.4	89.1
23864	Ith-13	1.0-10.0				100	98.2	96.4	92.8	90.7	84.8	76.9	74.2	69.8	66.2	57.1
23865	Sample #1	Surface								100	99.8	99.0	98.6	97.7	95.4	71.3
23866	Sample #2	Surface								100	99.9	99.3	98.8	97.9	97.1	92.3
23867	Sample #3	Surface								100	99.7	97.7	96.9	95.7	94.2	82.4
23868	Sample #4	Surface								100	99.9	99.5	99.2	98.6	95.9	73.8
23869	Sample #6	Surface			a					100	99.9	99.4	99.1	98.4	95.5	74.6
Sample mass, as rec	eived, meets minimur	m mass requiremen	nts of test m	ethod:		Yes		No	X		Prewashed	l:	Yes	X	No	
Remarks:											Performed	Ву:		ES 8	· & SC	
											Checked B	y:		V.J. T	'homa	



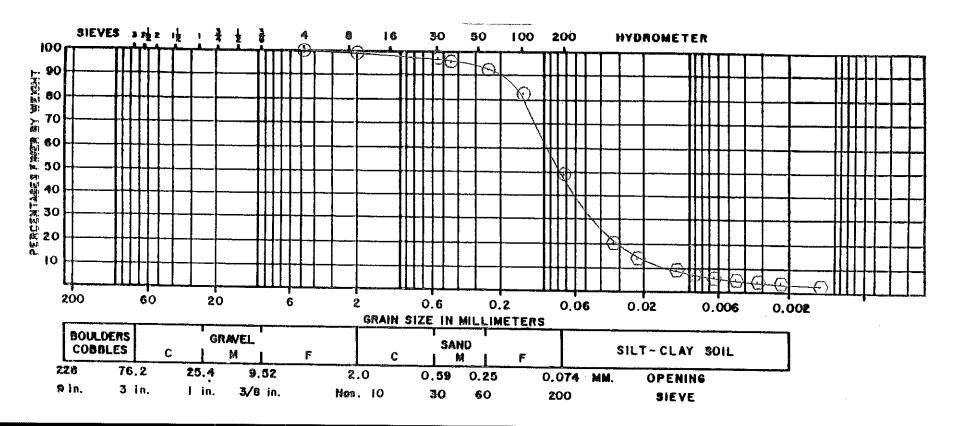
PW LABORATORIES, INC.

P.O. BOX 56, 5879 FISHER ROAD, EAST SYRACUSE, NY 13057 315-437-1420 • 866-7PW-LABS • Fax 315-437-1752

 Job No.:
 L-08199

 Report No:
 1

 Date
 December 9, 2008



L-08199	Lab I.D. #:	23845
Laboratory Testing	Sample:	Ith-3
Ithaca Project	Depth (feet):	6.0 - 12.0
⊙ Sieve Analysis ASTM D422 & D1140		

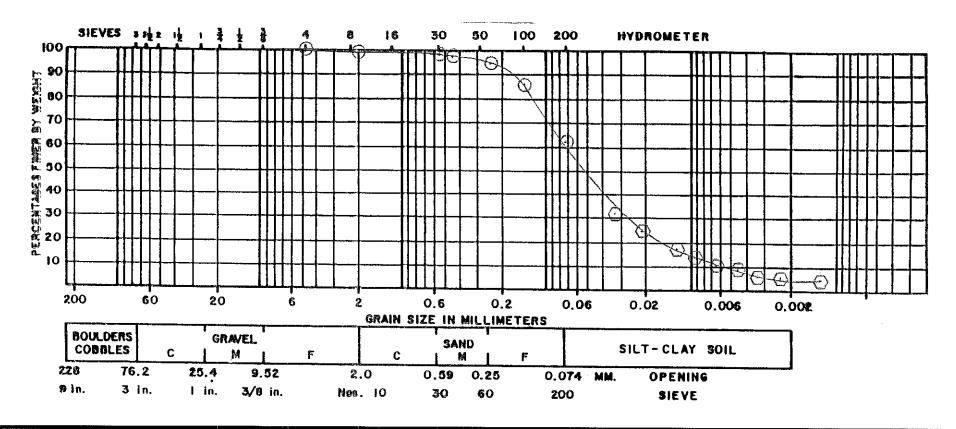


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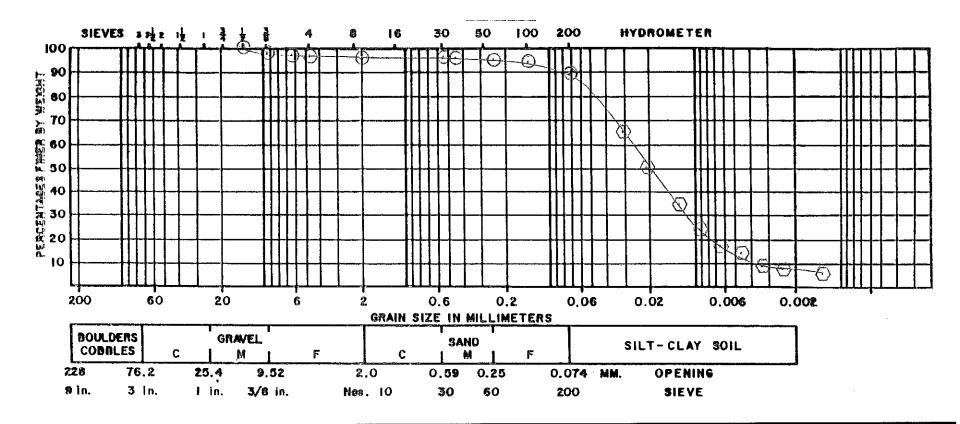
L-08199	Lab I.D. #:	23846 .
Laboratory Testing	Sample:	Ith-4
Ithaca Project	Depth (feet):	6.0 - 12.0
⊙ Sieve Analysis ASTM D422 & D1140		
Hydrometer Analysis ASTM D422		



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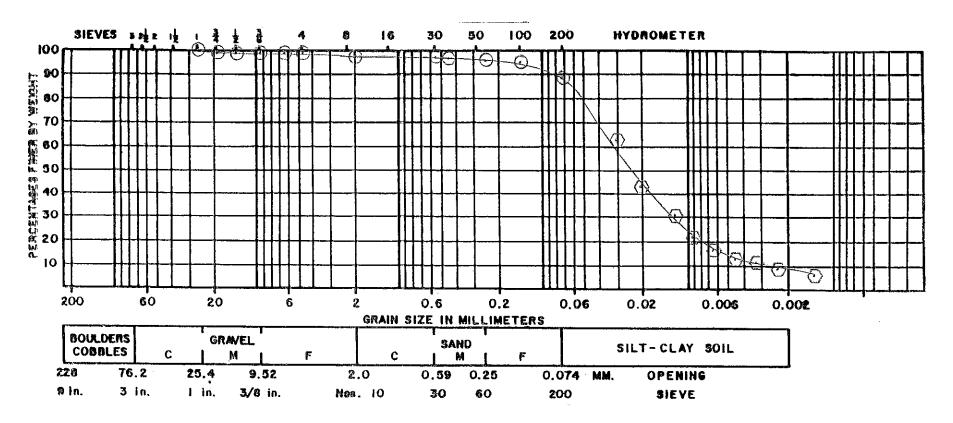
L-08199	Lab I.D. #:	23847 .
Laboratory Testing	Sample:	Ith-2
Ithaca Project	Depth (feet):	6.0 - 10.0
C		
Sieve Analysis ASTM D422 & D1140		
<ul><li>○ Sieve Analysis ASTM D422 &amp; D1140</li><li>○ Hydrometer Analysis ASTM D422</li></ul>		



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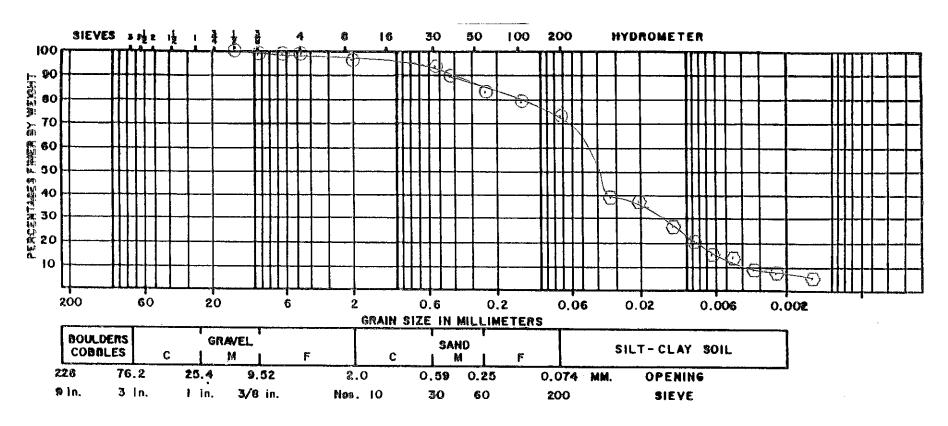
L-08199	Lab I.D. #:	23848
Laboratory Testing	Sample:	Ith-2
Ithaca Project	Depth (feet):	10.0-14.0
⊙ Sieve Analysis ASTM D422 & D1140		
( ) Hydrometer Analysis ASTM D422		



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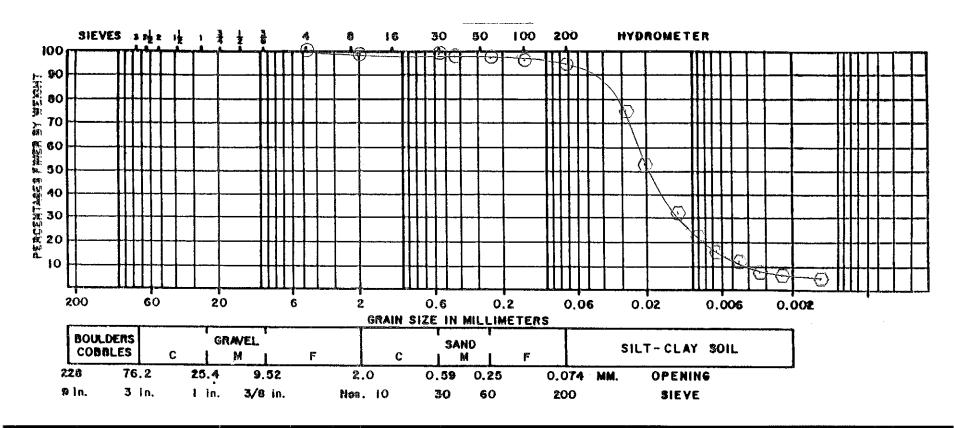
L-08199	Lab I.D. #:	23849
Laboratory Testing	Sample:	Ith-6
Ithaca Project	Depth (feet):	6.0-10.0
⊙ Sieve Analysis ASTM D422 & D1140		
( ) Hydrometer Analysis ASTM D422		



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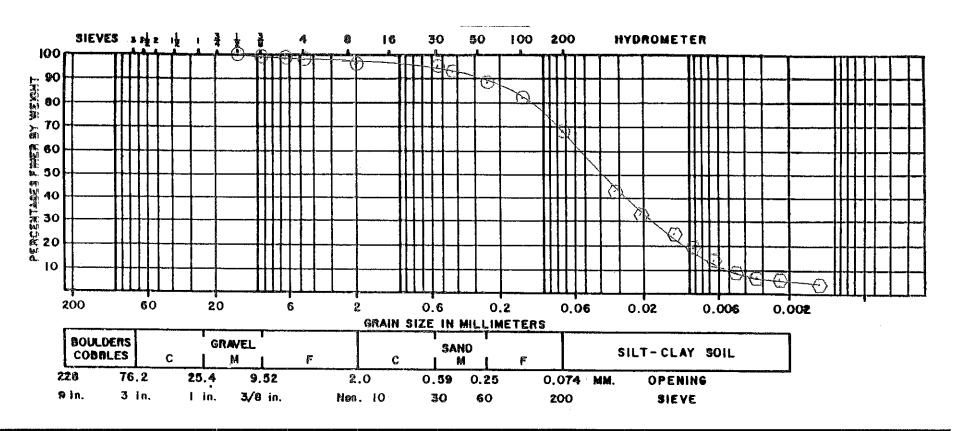
L-08199	Lab I.D.#:	23850 .
Laboratory Testing	Sample:	Ith-6
Ithaca Project	Depth (feet):	10.0-14.0
⊙ Sieve Analysis ASTM D422 & D1140		



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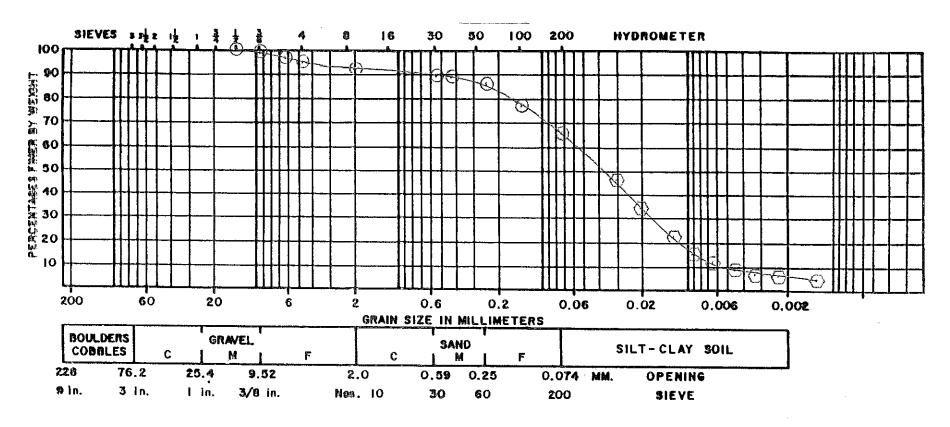
L-08199	Lab I.D. #:	23851
Laboratory Testing	Sample:	Ith-8
Ithaca Project	Depth (feet):	2.0-10.0
◯ Sieve Analysis ASTM D422 & D1140		



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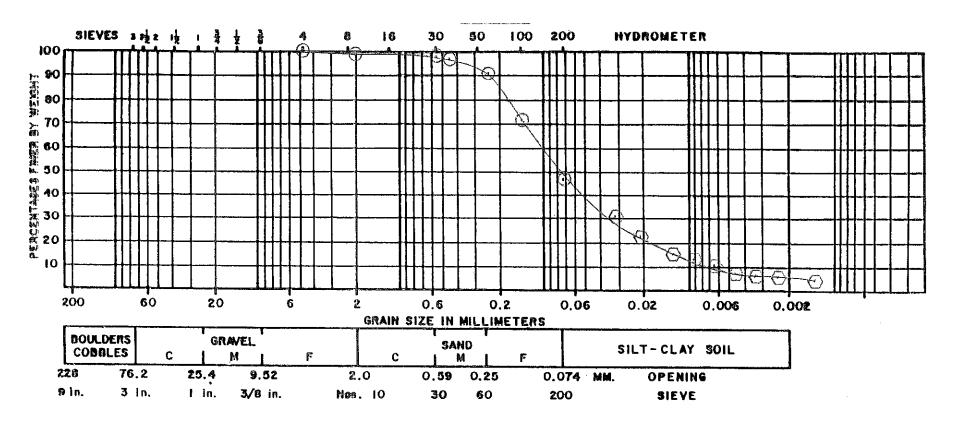
L-08199	Lab I.D. #:	23852 .
Laboratory Testing	Sample:	Ith-8
Ithaca Project	Depth (feet):	10.0-14.0
⊙ Sieve Analysis ASTM D422 & D1140		
(i) Hydrometer Analysis ASTM D422		



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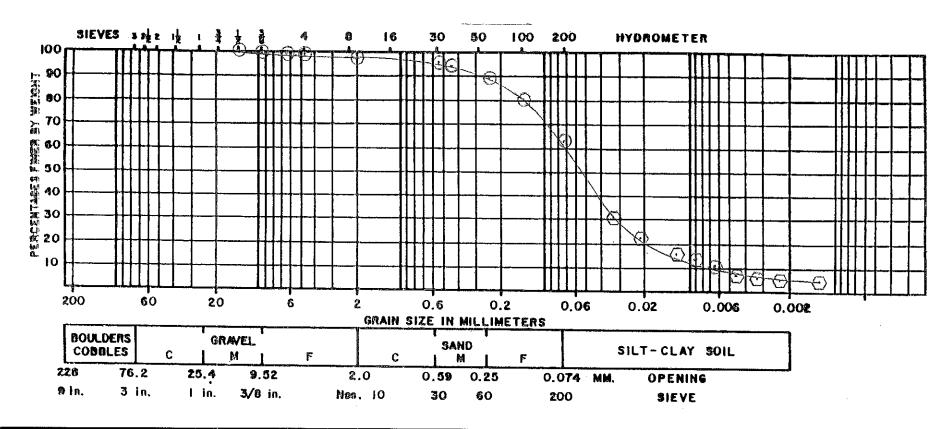
L-08199	Lab I.D. #:	23853
Laboratory Testing	Sample:	Ith-7
Ithaca Project	Depth (feet):	7.0-14.0
	***	
⊙ Sieve Analysis ASTM D422 & D1140		
0 0.01011111111111111111111111111111111		
<ul> <li>→ Hydrometer Analysis ASTM D422</li> </ul>		



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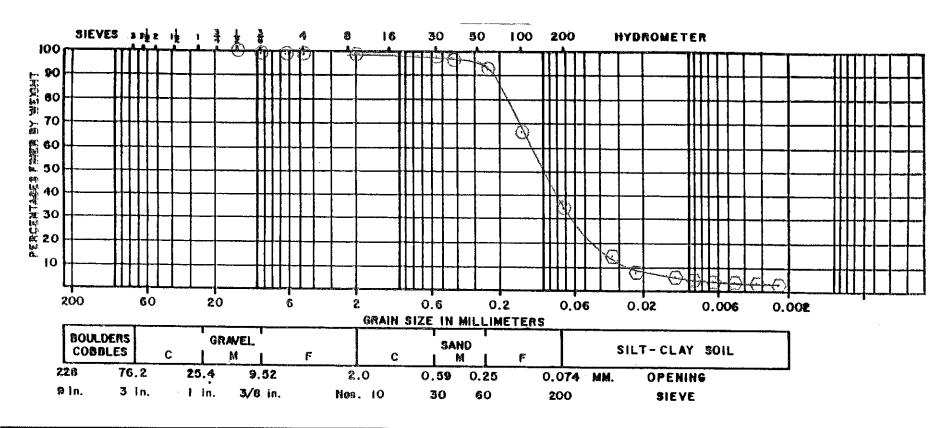
L-08199	Lab I.D. #:	23854
Laboratory Testing	Sample:	Ith-5
Ithaca Project	Depth (feet):	4.0-10.0
⊙ Sieve Analysis ASTM D422 & D1140		
<u> </u>		



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L-08199	Lab I.D. #:	23855
Laboratory Testing	Sample:	Ith-5
Ithaca Project	Depth (feet):	10.0-14.0
Ciovo Androio ACTM DA22 & D1140		
⊙ Sieve Analysis ASTM D422 & D1140		
Hydrometer Analysis ASTM D422		



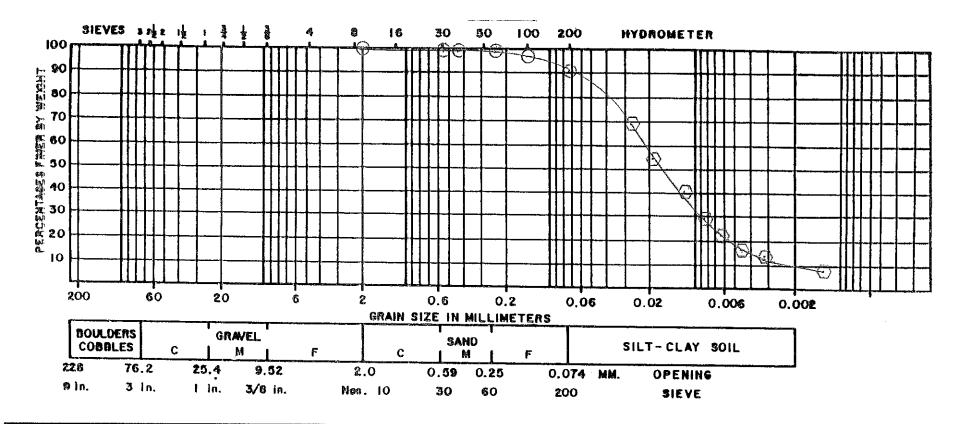
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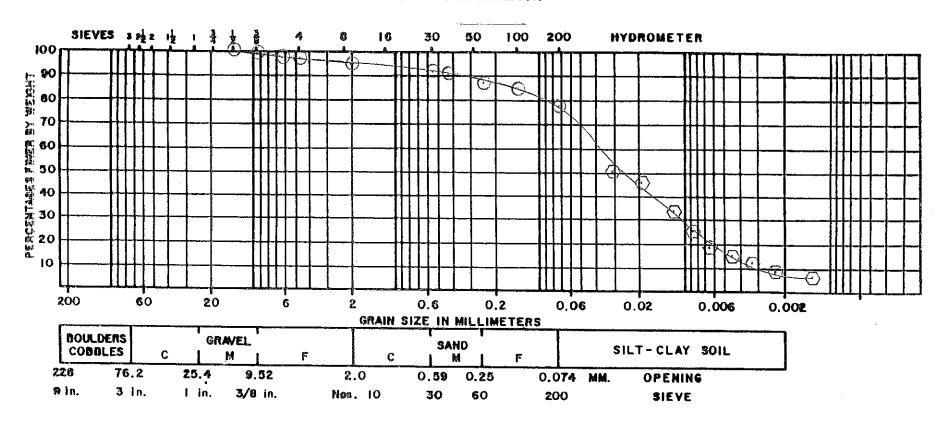
L-08199	Lab I.D. #:	23856
Laboratory Testing	Sample:	Ith-1
Ithaca Project	Depth (feet):	6.0-12.0
⊙ Sieve Analysis ASTM D422 & D1140		



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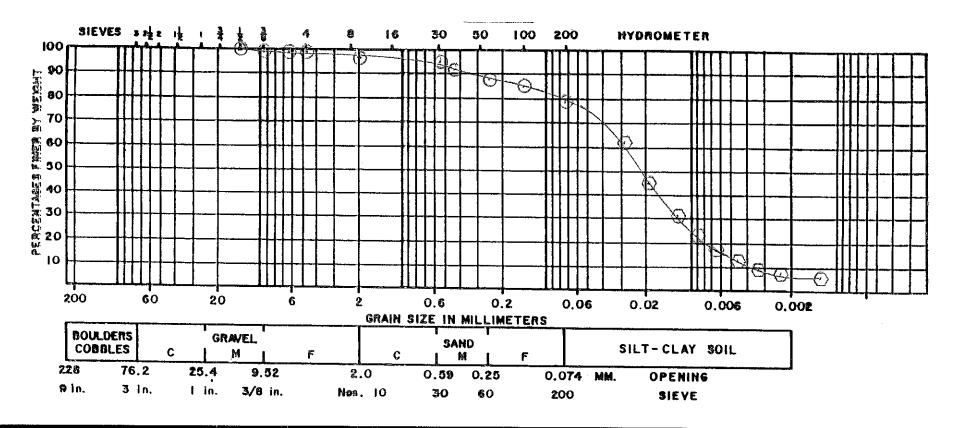
L-08199	Lab I.D. #:	23857
Laboratory Testing	Sample:	Ith-9
Ithaca Project	Depth (feet):	1.0-14.0
⊙ Sieve Analysis ASTM D422 & D1140		



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L-08199	Lab I.D. #:	23858 .
Laboratory Testing	Sample:	Ith-10
Ithaca Project	Depth (feet):	1.0-14.0
⊙ Sieve Analysis ASTM D422 & D1140		

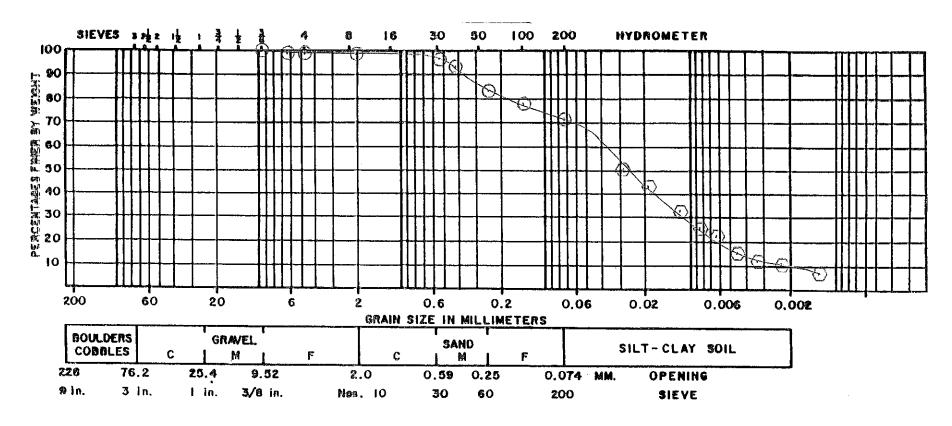


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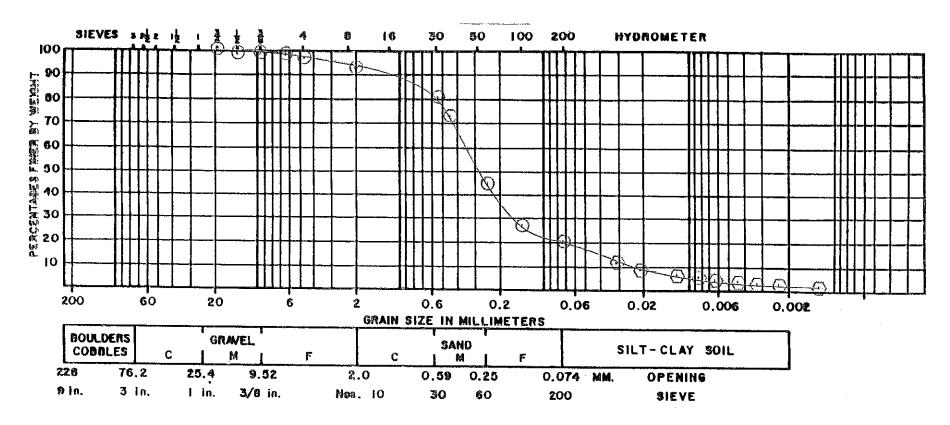
L-08199	Lab I.D. #:	23859 .
Laboratory Testing	Sample:	Ith-11
Ithaca Project	Depth (feet):	1.0-14.0
⊙ Sieve Analysis ASTM D422 & D1140		
C Signa Analysis ACTM D422 8- D1140		



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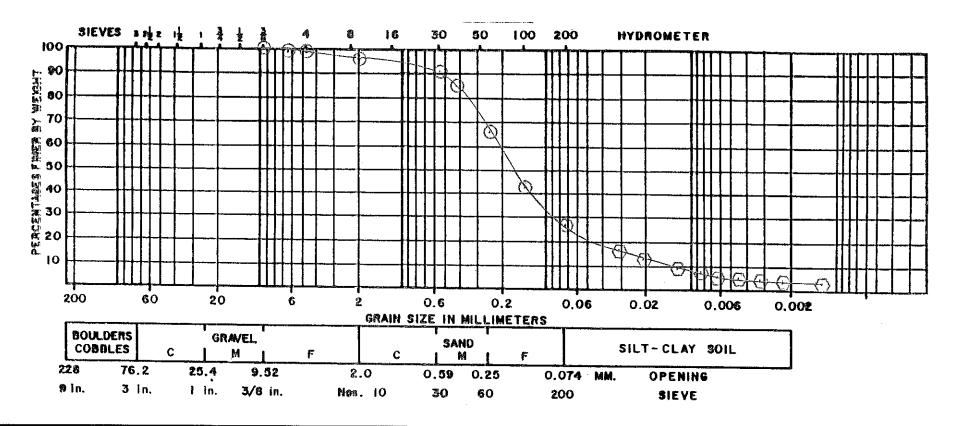
L-08199	Lab I.D. #:	23860
Laboratory Testing	Sample:	Ith-12
Ithaca Project	Depth (feet):	1.0-14.0



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Sample: Depth (feet):	Ith-1 <i>6</i> 1.0-14.0
Depth (feet):	1.0-14.0

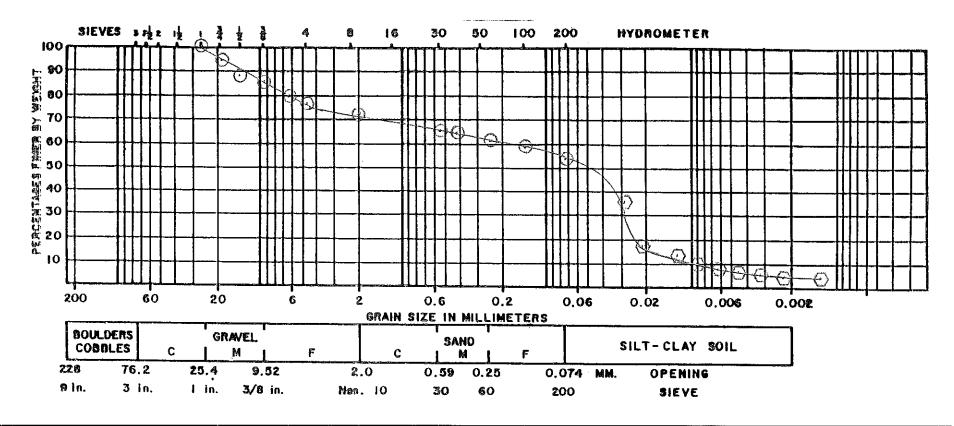


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L-08199	Lab I.D. #:	23862
Laboratory Testing	Sample:	Ith-14
Ithaca Project	Depth (feet):	1.0-14.0
○ C' A . I A CTM (D 422.0 D 1140		
⊙ Sieve Analysis ASTM D422 & D1140		
( ) Hydrometer Analysis ASTM D422		
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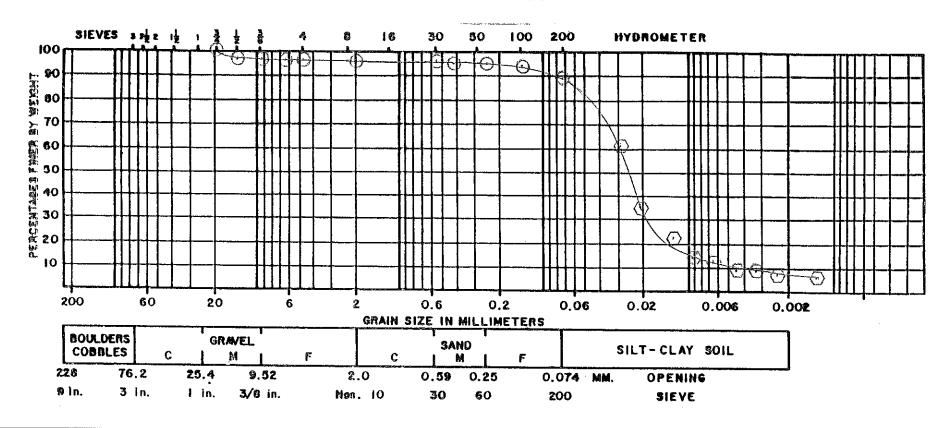


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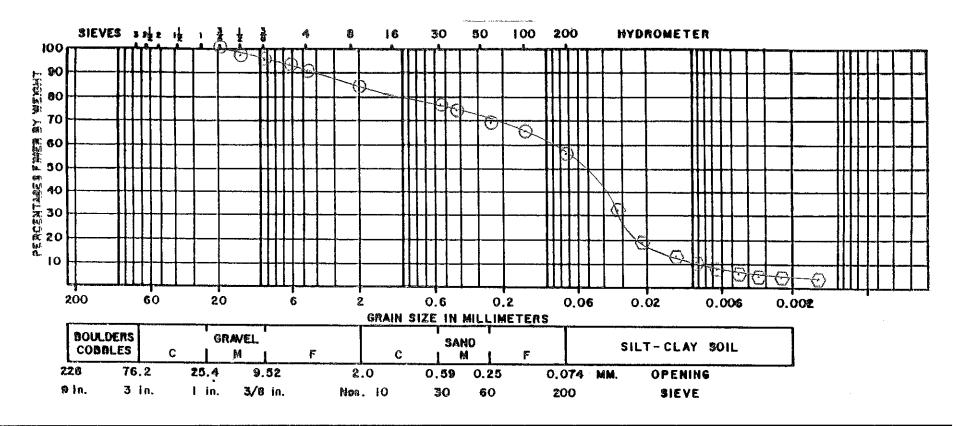
L-08199	Lab I.D. #:	23863
Laboratory Testing	Sample:	Ith-13
Ithaca Project	Depth (feet):	1.0-14.0
· · · · · · · · · · · · · · · · · · ·		
⊙ Sieve Analysis ASTM D422 & D1140		
⟨→ Hydrometer Analysis ASTM D422		



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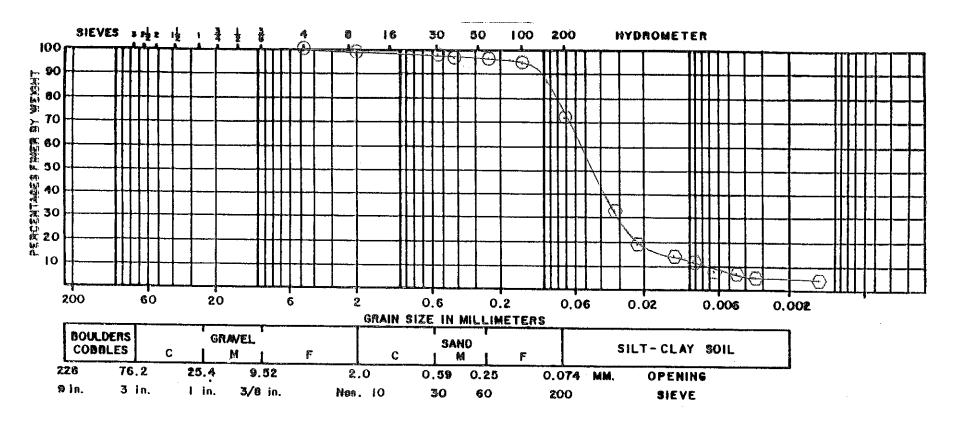
L-08199	Lab I.D. #:	23864
Laboratory Testing	Sample:	Ith-13
Ithaca Project	Depth (feet):	1.0-10.0
⊙ Sieve Analysis ASTM D422 & D1140		
( ) Hydrometer Analysis ASTM D422		



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L-08199	Lab I.D. #:	23865
Laboratory Testing	Sample:	#1
Ithaca Project	Depth (feet):	Surface
, , , , , , , , , , , , , , , , , , , ,		
⊙ Sieve Analysis ASTM D422 & D1140		

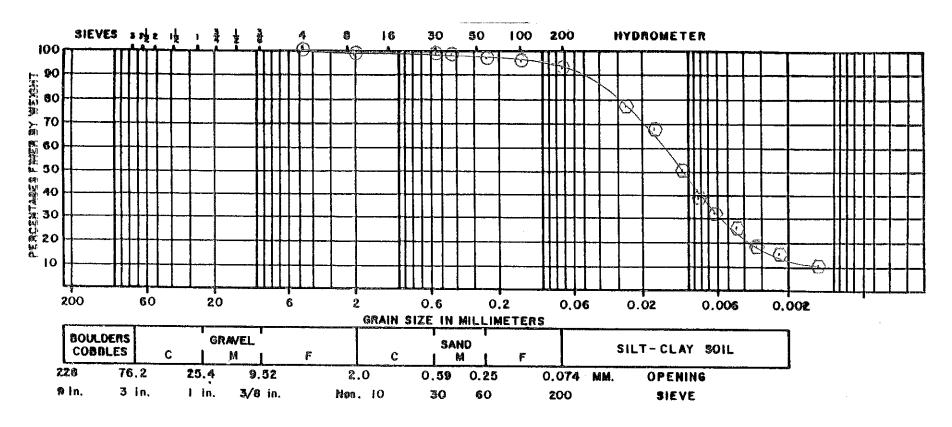


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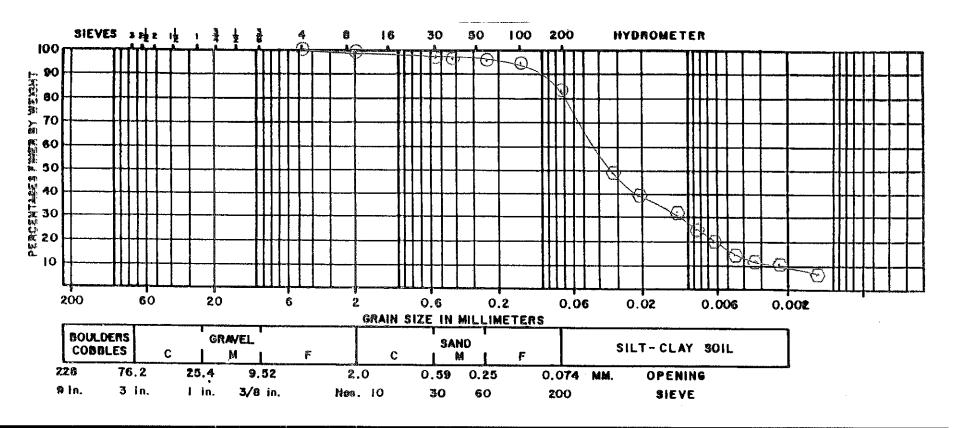
L-08199	Lab I.D. #:	23866
Laboratory Testing	Sample:	#2
Ithaca Project	Depth (feet):	Surface
<ul><li>Sieve Analysis ASTM D422 &amp; D1140</li><li>Hydrometer Analysis ASTM D422</li></ul>		
C Lyndromotor Applyric ACTM D422		
(-) Hydroffield Affalysis AST M D4ZZ		



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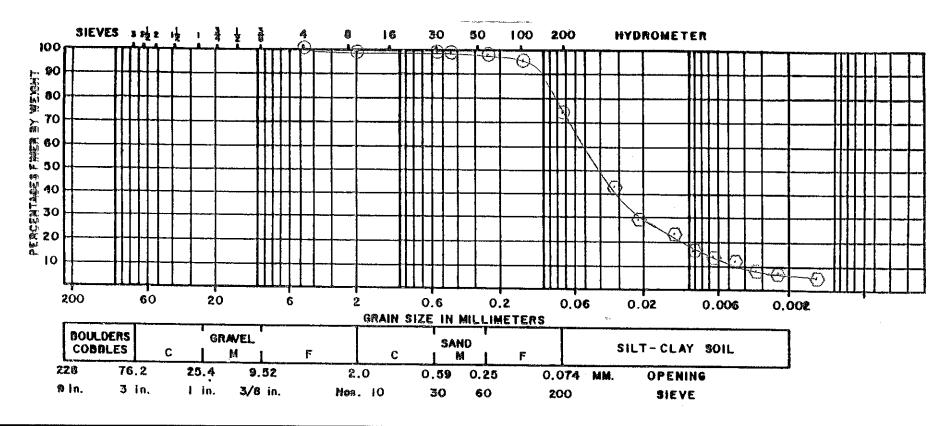
L-08199	Lab I.D. #:	23867
Laboratory Testing	Sample:	#3
Ithaca Project	Depth (feet):	Surface
⊙ Sieve Analysis ASTM D422 & D1140		
(7) Hydrometer Analysis ASTM D422		
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L-08199	Lab I.D. #:	23868
Laboratory Testing	Sample:	#4
Ithaca Project	Depth (feet):	Surface
⊙ Sieve Analysis ASTM D422 & D1140		
Trydrometer I marysis 115 1 1V1 D+ZZ		

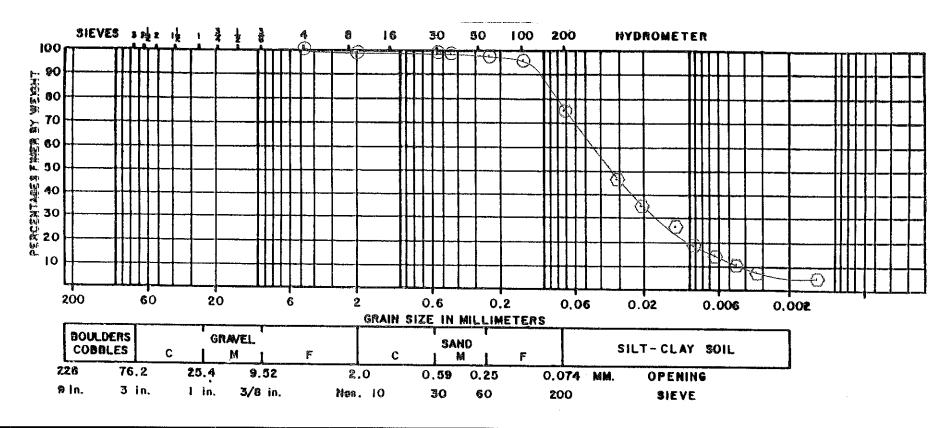


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Lab I.D. #:	23869
Sample:	#6
Depth (feet):	Surface
	Sample:



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#### L-08199 Laboratory Testing Ithaca Project

### ATTERBERG LIMITS ASTM D4318

Lab I.D.#	Sample #	Depth (feet)	Plastic Limit	Liquid Limit	Plasticity Index
23845	Ith-3	6.0-12.0	Non-Plastic	<del></del>	
23846	Ith-4	6.0-12.0	Non-Plastic		
23847	Ith-2	6.0-10.0	28	34	6
23848	Ith-2	10.0-14.0	28	33	5
23849	Ith-6	6.0-10.0	Non-Plastic		
23850	Ith-6	10.0-14.0	Non-Plastic		
23851	Ĭth-8	2.0-10.0	Non-Plastic		
23852	Ith-8	10.0-14.0	Non-Plastic	<del></del>	
23853	Ith-7	7.0-14.0	Non-Plastic		
23854	Ith-5	4.0-10.0	Non-Plastic		
23855	Ith-5	10.0-14.0	Non-Plastic		
23856	Ith-1	6.0-12.0	28	35	7
23857	Ith-9	1.0-14.0	35	40	5
23858	Ith-10	1.0-14.0	34	38	4
23859	Ith-11	1.0-14.0	31	35	4
23860	Ith-12	1.0-14.0	Non-Plastic		
23861	Ith-16	1.0-14.0	Non-Plastic		
23862	Ith-14	1.0-14.0	Non-Plastic	Ma and	
23863	Ith-13	1.0-14.0	Non-Plastic		
23864	Ith-13	1.0-10.0	Non-Plastic		
23865	Sample #1	Surface	Non-Plastic		
23866	Sample #2	Surface	30	39	9
23867	Sample #3	Surface	30	35	5
23868	Sample #4	Surface	Non-Plastic		
23869	Sample #6	Surface	Non-Plastic		



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#### L-08199 Laboratory Testing Ithaca Project

### SPECIFIC GRAVITY OF SOILS ASTM D854

- Committee - Comm			(D854)
			Minus No. 4
			Fraction
			Specific
Lab		Depth	Gravity
ID#	Sample	(feet)	of Solids(G)
23845	lth-3	6.0-12.0	2.65
23846	lth-4	6.0-12.0	2.60
23847	Ith-2	6.0-10.0	2.62
23848	Ith-2	10.0-14.0	2.58
23849	Ith-6	6.0-10.0	2.62
23850	lth-6	10.0-14.0	2.64
23851	lth-8	2.0-10.0	2.62
23852	Ith-8	10.0-14.0	2.67
23853	lth-7	7.0-14.0	2.55
23854	Ith-5	4.0-10.0	2.68
23855	Ith-5	10.0-14.0	2.67
23856	Ith-1	6.0-12.0	2.65
23857	lth-9	1.0-14.0	2.58
23858	Ith-10	1.0-14.0	2.64
23859	lth-11	1.0-14.0	2.66
23860	Ith-12	1.0-14.0	2.64
23861	lth-16	1.0-14.0	2.69
23862	lth-14	1.0-14.0	2.70
23863	Ith-13	1.0-14.0	2.64
23864	Ith-13	1.0-10.0	2.62
23865	Sample #1	Surface	2.66
23866	Sample #2	Surface	2.64
23867	Sample #3	Surface	2.64
23868	Sample #4	Surface	2.60
23869	Sample #6	Surface	2.66