118 South Adams Street
Rockville, MD 20850
Phone 301/309-0061
Fax 301/309-6693
Email franksbiz@his.com

## **SCA** Associates

# Resume of FRANK S. ANASTASI, PG

Principal, Independent Consulting Practice (SCA Associates), 1997 - present. Frank Anastasi has 40 years of experience working on complex projects involving the study and remediation of soil, ground water, and surface water/sediment contamination at industrial facilities and hazardous-waste sites; human-health and environmental risk assessments; and environmental compliance programs. His practice focuses on Technical Expert and Expert Witness assignments related to disputes concerning environmental contamination at Superfund sites and other hazardous waste sites. Such disputes include litigation of toxic torts and liability allocations among multiple parties, and settlement of environmental impairment insurance claims. He has supported clients through the allocation-of-liability process at large Superfund sites such as Gowanus Canal, NY, Diamond Alkali/Passaic River NJ, BROS, NJ, and Pennsauken Landfill, NJ. He is a Licensed Professional Geologist in Wyoming, Pennsylvania, and North Carolina.

Frank's work for private-sector and government clients also has included environmental assessments and in-plant-process and waste management/disposal audits. He often evaluates operational histories of industrial operations at manufactured gas plant sites, chemical and petroleum production facilities, and manufacturing plants where past-practices released contaminants into the environment and impaired natural resources. For many assignments, he evaluates past and proposed future cleanup actions and their costs, and develops alternative cleanup approaches and cost estimates. Frank also serves as Community Technical Advisor, facilitating public involvement at USEPA Superfund sites and at contaminated military installations across the U.S. He has significant experience preparing Expert Reports, and providing Expert Testimony in depositions and at trials.

#### **Recent Technical Expert and Expert Witness Assignments**

Expert Witness, Toxic Tort related to Residential Exposures to Waste Industrial Solvents Dumped into Leaking Sewers, Franklin IN, 2021 - present. Retained by Plaintiffs who allege health impacts (including cancer mortality) caused by exposures to chlorinated hydrocarbon compounds (PCE and TCE) via vapor intrusion into homes and inhalation of ambient air contaminated by industrial solvents that were spilled at a metal-parts plant and dumped into leaking sewers that spread the hazardous wastes throughout the residential class-area. Mr. Anastasi reviewed the extensive case file spanning more than fifty years, recreated the operational history of the plant, and evaluated soil, ground water, surface

water, soil vapor, and sewer vapor data and demonstrated that the residents continue to be exposed to the contaminants to the present day. As only a marginally-effective ground water pump-and-treat system had been operated, extensive residual contamination is still present in fine-grained sedimentary deposits beneath the plant site and the residential area, providing continued releases to ground water, soil vapor, sewer vapor, and indoor air. Mr. Anastasi prepared an Expert Report and testified in deposition; he expects to testify at trial.

Expert Witness, Insurance Coverage Suit, Legacy Contamination at an Underground Uranium Mine, Grants, NM, 2022 - 2023. Assisted Counsel for a major insurer defend against mining company's claims for coverage of costs to remediate radiological and heavymetal contamination at the site of a former mine and surrounding properties. Mr. Anastasi reviewed mine-operations reports and other information to recreate the operational history of the area from early exploratory drilling, through mine development, and ore production. Of importance is the nature and timing of all mine activities, including mine-waste generation and management, mine water treatment and discharge, and reclamation after mining ceased. Complicating the situation, contaminated uranium mill tailings were brought to the mine site, stockpiled and injected into the underground workings, as well as spread about the surrounding area. He opined on mining and waste-management practices utilized in uranium mining in the 1960s and 1970s; industry's understanding of the environmental effects of mining practices at the time; and the timing, location, and cause of environmental contamination for which coverage was sought. Mr. Anastasi testified in deposition in October 2022; the case was settled on terms favorable to the client, shortly thereafter.

Expert Witness, Class Action against Municipality for Improper Operation and Closure of a Landfill, West Bend, WI, 2022 - present. Retained by Plaintiffs who experienced diminished property values caused by ground water, soil vapor, and residential indoor air contamination from a closed landfill. Mr. Anastasi reviewed and evaluated the operational history of the landfill, finding that liquid industrial wastes had been dumped at the landfill and on adjacent property. Both deep residential wells in the area and shallow ground water were found to contain hazardous substances including TCE, PCE and vinyl chloride soon after closure, however nearby residents were never warned about potential health impacts via vapor intrusion until around 2018. Mr. Anastasi reviewed and evaluated all available data to determine the nature and extent of contamination in the class area currently, some fifty years after the landfill was closed. Secondary residual sources of contamination appear to be present beneath the neighborhood today as well. Anastasi prepared Exert reports, and expects to testify in deposition and at trial.

Expert Witness, Toxic Tort related to Large Release from Gasoline Pipeline, Kankakee, IL, 2018 - 2020. Retained by Plaintiffs who alleged health impacts (including cancer mortality) caused by exposures to benzene and MTBE via ingestion of drinking water and inhalation of ambient air contaminated by release of 100,000 + gallons of refined gasoline. Reviewed extensive file of historical records on spill response, site investigations, and cleanup actions taken at the site. Developed conceptual model and historical

timeline/account showing that the owner/operator and its contractors failed to investigate the spill site adequately, and completely ignored the fractured-bedrock ground water flow regime that enabled contamination to travel rapidly and become entrained in capture zones of a community wellfield located within one mile of the spill site. Mr. Anastasi found that the pipeline's owner/operator focused exclusively on shallow-soil and ground water impacts, ignoring what its initial contractor reported was the "worst-case scenario" of rapid flow through fractured bedrock toward the community wellfields. From his fate and transport analysis, he estimated that the contamination likely arrived at the wellfield within months to less than two years after the spill. It was not until four years after the spill that the community wellfield was first monitored as the owner/operator's contractor had recommended when the spill occurred, finding high levels of contamination. Mr. Anastasi prepared an Expert Report and opined that if the fracture-flow regime had been addressed early on, and actions known at that time to be appropriate (and recommended by its contractors) had been taken, human exposures would have been prevented. He provided testimony in deposition; the case was settled favorably for client shortly afterwards.

Expert Witness, Liability Allocation at Gowanus Canal Superfund Site, NY, 2015 – 2019. Retained by a leading telecom firm that was a potentially responsible party (PRP) that operated multiple facilities along the canal to research and evaluate potential historical releases, and to determine if they could have contributed materially to the contamination that U.S. EPA determined requires cleanup. The contaminants of concern are PCBs, PAHs, other volatile and semi-volatile organic compounds, and certain heavy metals. The historical record demonstrates that the PRP's operations at its facilities could not have released significant amounts of the contaminants into the canal, and that the contaminants now present in the canal sediments and underlying native soil that are driving the cleanup were released by other PRPs. A multi-tiered case for the allocation process was developed to explain client's past operations and potential releases from its facilities, compare that to the major PRPs' documented releases, and therefore demonstrate no significant contribution from the client's facilities. Other Parties' allegations of contributions from the client's operations were countered, and methods used by other parties to estimate the client's share of liability were shown to be both unrealistic and technically unsound. Expert Reports were prepared, and Expert Testimony was given in the allocation process. The client received an allocation among the lowest tiers of liability.

## Technical Expert/Expert Witness, Portland Harbor Superfund Site, OR, 2018 – present.

Retained in late 2018 by counsel for a cost-characterization study and insurance settlement support related to one of several primary PRPs at this high-profile Superfund Site with widespread sediment contamination. EPA has proposed a \$1 Billion remedy -- dredging and capping over almost 400 acres of the harbor sediments plus cleanup along miles riverbank on the Lower Willamette River. The PRP is contributing very large sums to fund pre-remedial action studies including hundreds of sediment and water samples, fish-tissue sampling and analysis, extensive bathymetric surveys to map the river bottom, and acoustic tracking of fish migration patterns (with potential critical impact on Native Americans).

Expert Witness, Liability Allocation at Diamond Alkali/Passaic River Superfund Site, NJ, 2015 - present. Retained by a PRP to support it through the allocation process among multiple PRPs at this Superfund Site. Researched and evaluated potential historical releases, and determined if they could have made a material contribution to the existing sediment contamination that U.S. EPA has determined requires cleanup. Contaminants include PCBs, PAHs, organic pesticides such as 2,4,5-trichlorophenoxyacetic acid (2,4,5-T, commonly known as Agent Orange), and associated compounds such as 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) and dibenzo-furan (TCDF). Contrary to assertions of the main PRP, operations at this facility could not have released significant amounts of contaminants, if any, into the Passaic River. Multiple lines of evidence were pursued to document the facility's past operations, characterize actual and potential releases from it, and compare that to the main PRP's documented releases. These efforts demonstrated no significant contribution. Expert Reports were prepared, and a very favorable preliminary allocation has been given to this PRP.

Expert Witness, Gasoline Distribution Pipeline Leaks, MS and AL, 2016 -2019. Retained by defendants in two separate cases of refined gasoline releases from pipelines. In one case, the primary focus was to determine if the source of petroleum-hydrocarbon compounds found in 2011 at a private well was a release of approximately 200,000 gallons of gasoline that had occurred in 1966 from a pipeline located about one mile from the well. In the other case, catastrophic releases first caused extensive contamination of surface waters and soils at one location, then resulted in explosion, fire, and loss of life at another location. Examined all available historical documentation on the release and technical data, and researched local hydrogeological conditions. In the first case, determined that there was no basis to conclude that the leak was the source of the well contamination with any degree of scientific certainty. In the other case, determined that pipeline owner and contractors failed to provide adequate information to determine an accurate chronology of the response actions conducted following the releases. Reviewed and evaluated response actions and costs reported by the pipeline owners to investigate contamination and protect human health and environmental resources. Prepared Expert Reports and provided testimony at trial. First case was settled favorably following testimony; other case is pending.

Expert Witness, Source of Chlorinated Solvent Compounds at Commercial Property, NJ, 2012-2014. Retained by defendant to determine if the source of tetrachloroethylene and trichloroethylene (PCE and TCE) allegedly present in ground water at a former automotive facility could be a nearby drycleaner. Found critical weaknesses in plaintiff's case, including high degree of uncertainty that PCE and TCE were actually present in ground water at the site, due to extremely limited data of very-poor quality. Researched historic commercial activity; identified numerous releases in vicinity; found that PCE and TCE soil contamination from a leaking waste oil/solvent tank at the former automotive facility itself had required remediation previously. Found no basis to conclude that ground water flowed from the drycleaner to the automotive facility, as opposing Expert had assumed without

performing any independent analyses. Provided testimony in deposition and at trial that the data limitations precluded any scientific determination on not only the source of contamination, but whether it was actually present in ground water at the site. Numerous other up-gradient releases, including at the site itself, invalidated the opposing Expert's opinion that the former drycleaner was the single, off-site source of contamination. Court ruled in our client's favor in 2015.

Expert Witness, Toxic Tort at Former Nuclear Fuel Manufacturing Plant Site, NY, 2008-2011. Assisted counsel for a leading telecom corporation successfully defend toxic tort claims brought in multiple actions by former workers who alleged health impacts from residual contamination. Reviewed and evaluated soil and ground water contamination, historical industrial operations, and efforts of \$100-million-plus site characterization and remediation program. Developed opinions on the adequacy of response actions taken by corporate successor to former site owner/operator when it was informed of potential risks at the site more than 30 years after operations ceased; the effectiveness of the cleanup actions taken over a ten-year period; and compliance with regulatory requirements. Prepared Expert Report and provided testimony in depositions and at initial trial. Later, reconstructed history of industrial operations and developed opinions on the nature of those activities. Prepared Expert Report, and testified in deposition and at appeal trial. Counsel described testimony, especially on cross examination, as crucial to Court's ruling in client's favor.

Insurance Settlement Support, Urban Manufacturing Plant Site, WI, 2012-2013. Retained by insurers' counsel for independent evaluation of site conditions and likely risk/exposure in State lawsuit for non-compliance with response requirements and two Class Action lawsuits by residents. Releases of chlorinated-solvent compounds (PCE, TCE, etc.) and PCBs at the 100-year old industrial facility had contaminated soil, soil vapor, and ground water both on-site and across an undetermined surrounding area, causing indoor-air contamination at adjacent residences. Identified critical uncertainties in site characterization by owner's prior contractors, especially concerning deep ground water in complex, Reconstructed operational history of manufacturing and waste fractured bedrock. management/disposal operations, contaminant sources, and release mechanisms. Reviewed and evaluated site investigations and interim remedial actions and created conceptual model of exposure scenarios, including impact on municipal water supply wells. Prioritized exposures/liabilities, and predicted directions of agency enforcement. Assisted counsel in understanding options for meeting State regulatory-agency and U.S. EPA requirements, and reviewed new contractor's proposals and performance (cost and technical). Advised on state-of-the-practice investigatory and remedial options and likely future costs, supporting counsel through settlement negotiations.

Insurance Settlement Support/Expert Witness, Former Coal Gas Manufacturing Plant Site, AL, 2010-2013. Assisted counsel for insurer defend against claims for liability for past and future remediation costs at site with current residential use. Reviewed and evaluated historical operations, contamination conditions and exposures, alleged occurrence, and

involvement of third parties. Evaluated removal actions conducted voluntarily by utility (formerly site operator) compared to removal action that U.S. EPA considered adequate to reduce risks. Developed cost estimates for alternative remediation scenarios. Prepared Expert Reports; provided testimony in deposition. Lawsuit was dismissed in favor of client.

Expert Witness, Ground Water Contamination at Former Aircraft Manufacturing Plant, NY, 2014 - Present. Researched operational history and plant management's knowledge that industrial wastewater disposal practices had caused ground water contamination. Found that local health agency had notified operators that releases had caused significant contamination of its production wells in the early 1940s. Nearby municipal water supply wells became contaminated soon thereafter and had to be closed. Reconstructed involvement of local, state, and Federal agencies (U.S. Public Health Service first, then U.S. EPA after it was established) from the 1940s through 1980s as they learned how vulnerable Long Island's ground water was to contamination from industrial wastewater disposal by numerous facilities. Provided counsel with opinions relative to standards of Due Care during historical plant operations, including routine dumping of large quantities of industrial wastes and other waste disposal activities that were not in accordance with permits, even though local and state health and environmental agencies continued to alert plant management to the resulting ground water contamination. Contributed to technical presentations for mediation sessions, and expect to prepare Expert Report and testify at trial.

Insurance Settlement Support/Expert Witness, Industrial Plant Sites, NJ, 2012. Retained by counsel for insurers to determine historical causes of soil and ground water contamination by petroleum- and chlorinated-hydrocarbon compounds at very old industrial facilities. Rebutted owners' expert opinions about the origin and age of contaminants, nature and timing of releases, and release mechanisms. Prepared Expert Report considered by counsel as highly influential in reaching favorable settlement within days of service.

Insurance Settlement Support, Former Manufactured Gas Plants, OH, 2015 - present. Evaluated past remediation and proposed future actions totaling approximately \$150 million at two former MGPs for environmental impairment liability insurance settlement case. Researching operational histories, timing of releases, past practices and necessity for actions in the absence of any regulatory-agency pressure to clean up sites. Key issues include proposed remediation of MGP wastes in adjacent Ohio River sediments. Prepared Expert Report, currently assisting client during mediation/settlement.

Expert Witness, Litigation Concerning Substandard Performance of Technical Expert in Environmental Insurance Claim Support, TX, 2007-2008. Provided a "Second Opinion" for an insurer who had retained a consultant to evaluate environmental remediation costs of a large claim. Reviewed nature of claim, consulting assignment, and work performed. Compared own experience and industry's standards-of-practice to consultant's performance. Developed opinions about the reasonableness of consultant's fees for results provided. Prepared Expert Report.

Insurance Settlement Support, Liability Evaluations at Ten Manufactured Gas Plant Sites, Mid-Atlantic US, 2013. Conducting in-depth independent review and analysis for insurer of site conditions, response actions and past and estimated future costs of response actions at ten sites to support claim settlement. Reviewed available documentation, researched and obtained additional information and data on costs incurred and predicted. Interviewed regulatory-agency personnel currently providing oversight to confirm status of investigation/cleanup activities and plans for future agency actions. Prepared detailed analyses of owners' costs and independent estimates for alternative remedies for each site. Supported client through settlement negotiations.

Expert Witness, Pennsauken Landfill Litigation, NJ, 2006-2008. Reviewed site conditions and historical waste management practices at municipal disposal facility to assist counsel in defending a private waste hauler against claims for liability. Evaluated information on approximately 200 waste generators and their waste streams for potential contribution to site contamination. Researched nature of waste streams generated by 10 types of industries during the period 1970-1985. Prepared an Expert Report of opinions on potential for generators' waste streams to have contained specific contaminants of concern. Provided testimony in depositions. Rebutted opponents' Experts' Reports.

Insurance Settlement Support, Public Educational Institution/Waste Disposal Site Litigation, NJ, 2007-2008. Reviewed and evaluated information on the existence of municipal and industrial waste at school and its financial impact on construction of a new facility. Reconstructed chain of events from waste disposal beginning in the 1950s to 2008. Determined "who knew what and when", developed opinions about adequacy of the organization's due diligence and prudence in managing environmental affairs, planning and constructing a new facility and responding to encountered hazardous wastes. Prepared Expert Report.

Consulting Expert, Class Action Toxic Tort Against Industrial Park, IL, 2006. Assisted counsel in defending claims of liability for domestic ground-water well contamination. Evaluated site conditions and hydrogeology. Identified and recruited testifying experts. Facilitated experts' review of data and understanding of site conditions. Peer-reviewed Experts' Reports and provided other litigation support.

### Other Technical Expert and Litigation/Settlement Support Assignments

**Expert Witness, Superfund Site, PA.** Assisted counsel in case of environmental contamination of farmland, ground and surface water from an adjacent landfill where hazardous/industrial wastes had been disposed. Reviewed technical information, prepared Expert Reports and provided testimony at trial.

Insurance Settlement Support/Expert Witness, BROS Superfund Site, NJ. Evaluated site conditions and potential contribution of a waste generator to contamination at this site.

Reviewed technical reports, regulatory agency files and transcripts of depositions from siterelated litigation. Prepared Expert Report and provided testimony in deposition.

Technical Consultant, Former Military Equipment Manufacturing and Testing Facilities, Nationwide. Reviewed site histories, contamination conditions, and past and proposed remedial actions and their costs for former facilities in CA, FL, NY, NJ, CT and NE. Evaluated nature/extent of contamination and effectiveness of remedial actions; past and future costs of remedial actions; and likelihood of cleanup scenarios envisioned by responsible party. Developed alternative approaches and estimated their costs.

Litigation Support, Industrial Site, MI. Assisted U.S. Department of Justice defend against liability for site contamination. Performed technical analyses and briefed counsel on environmental conditions. Evaluated remedial action plans. Prepared summary report and opinions for counsel, and testified in depositions.

Expert Witness, Former Chemicals and Munitions Manufacturing Plants and Third-Party Disposal Sites. Reviewed history of operations, regulatory actions and site investigation/cleanup activities at former manufacturing plants and USEPA Superfund Sites where plant wastes allegedly were disposed. Evaluated nature/extent of contamination and effectiveness of remedial actions; costs for past and future remedial activities; and likelihood of cleanup scenarios envisioned by insured. Determined in some cases that claimant had little to no future remediation liability in contrast to what was claimed. Prepared Expert Report and provided testimony in deposition.

Litigation Support, Former Waste Disposal and PCB-spill Site, Washington, DC. Assisted U.S. Department of Justice defend against liability for site contamination. Analyzed data, adequacy of past remediation, and need for further cleanup. Evaluated remedial action plan and cost estimate. Provided opinions, deposition and written testimony.

Litigation Support, Superfund Site, WA. Assisted U.S. Department of Defense, Air Force and Military Services, in limiting liability for remedial costs for groundwater contamination. Researched prior site and adjacent property uses, users of contaminants and site hydrogeology to reduce liability by millions of dollars. Prepared summary report.

Technical Evaluations of Contaminated Hazardous Waste Sites, Nationwide. Analyzed geological, hydrological and other site characterization data to evaluate the nature, extent and sources of contamination at sites where manufacturing activities and waste disposal practices resulted in releases to the environment. Evaluated conditions at more than 100 former manufactured gas plants (MGPs), military, industrial, and waste disposal sites located in more than 20 states across the U. S. Prepared Expert Reports concerning contamination and detailed analyses of remedial actions, plans and their costs.

Insurance Settlement Support, Manufactured Gas Plant Sites, Power Generating Stations, and Related Facilities, AZ, IN, IL, OH, MA, MD, MI, NH, NM, PA, RI, TX, VT, and WV. Conducted an in-depth review and analysis of site conditions, response actions and costs of environmental response actions and potential future remediation at 22 sites to support the insurance-settlement process. Reviewed available documentation, researched and obtained additional information and data on costs incurred and expected. Interviewed regulatory agency personnel currently providing oversight to confirm status of investigation/cleanup activities and plans for future agency actions. Prepared detailed analyses of owners' costs and independent estimates for alternative remedies for each site.

Review of Pilot Studies and Risk Assessment/Remedial Alternatives for Contaminated Sediments in the Peconic River, NY. Reviewed efforts to characterize contamination, evaluate potential remedial alternatives, assess human health and environmental risk, and pilot-test innovative technologies at DOE's Brookhaven National Laboratory on Long Island. Technologies included phyto- and electrochemical - remediation, constructed wetlands and vacuum dredging. Contaminants included heavy metals, PCBs and organic compounds. Observed full-scale remediation and reported on its progress.

Insurance Settlement Support, Military and Business Equipment Manufacturing Plants, CA. Provided technical analysis and opinions concerning the need for and costs of past investigation and clean-up of soil and ground water contaminated by solvents and heavy metals. Releases from past operations at these two plants contaminated soil and ground water and affected municipal well fields where communities were dependent on ground water for domestic use and agricultural purposes. Provided independent estimate of likely future environmental liabilities and costs of further investigation and remediation.

Insurance Settlement Support, Petroleum Refinery and Petrochemical Plant Complex, NJ. Reviewed history of operations, contaminant investigations and remedial actions at this 100-year old facility. Liabilities included free-phase petroleum, soil and ground water contamination and highly contaminated sediments. Evaluated past costs for investigation and clean-up and potential costs for future remediation for on-site waste management units, discharges to surface waters and off-site properties. Analyzed environmental cost database for over \$60 million paid to contractors and internal/corporate costs to estimate appropriate past costs and to estimate reasonable ranges of future liabilities (\$100s of millions).

Technical Analyses, Phosphate Mine, Waste Disposal Facilities and Chemical Plants, FL, OH and WV. Provided EIL settlement support for former plant sites where past operations and waste disposal activities contaminated soil, surface water and ground water. Performed file reviews, detailed analysis of technical and cost reports and evaluated whether past and proposed investigations and remedial actions were appropriate as well as the reasonableness of costs. Prepared report of findings, including independent cost estimates.

Insurance Settlement and Litigation Support, Rail Yard and Maintenance/Repair Facilities, Wood Treatment Plant and Lead/Zinc Smelter, VA. Reviewed history of operations, regulatory actions, site investigation/cleanup activities at three separate industrial facilities. Evaluated nature/extent of contamination and the effectiveness of remedial actions. Evaluated past and future costs for remedial activities and likelihood of cleanup scenarios for soil, ground water and wetlands sediment. Determined probable remediation liability of only a fraction of the claim. Prepared Expert Report.

Insurance Settlement Support, Elk Trucking Superfund Site, NJ. Evaluated site characterization data reports, remediation plan and risk assessment for site of former coal gasification plant. Evaluated ground water and soil remediation plan, and identified opportunities to enhance efficiency and effectiveness of clean-up. Evaluated preliminary remedial design and cost estimate and identified errors and changes reducing the cost by approximately 30 percent. Prepared report of findings.

#### **Representative Community Technical Advisor Assignments**

Technical Advisor at the U.S. Department of Energy's Brookhaven National Laboratory, Long Island, NY. Retained under U.S. EPA Technical Assistance Grant (TAG) program to advise area citizens of community action group at this nuclear research facility. Assisted the community in understanding technical details of the investigation and remediation of this high-profile federal facility addressed under CERCLA. Over 50 years of research/industrial R&D activity had contaminated soil, ground water and surface water resources with organic compounds, heavy metals and radionuclides. Reviewed and evaluated CERCLA activities and helped the community contribute to effective decision-making. Interpreted technical information concerning ground water contamination from experimental reactor-fueling procedures, and mercury and other contaminants in sediments of the Peconic River. Advised a community coalition of more than 20 organizations with diverse views and interests. Provided neutral, balanced assistance to facilitate clean-up progress in the face of intense pressure from political, environmental and public health activists.

Technical Advisor to POWER Action Group at CTS Superfund Site, Asheville NC. Another EPA TAG project where a community action group sought relief from contamination of drinking-water resources due to historical releases of solvent as dense non-aqueous phase liquid (DNAPL). Residual waste contaminated on- and off-site soil and ground water with extremely high levels of TCE, including regional, fractured-bedrock ground water supply. Identified uncontrolled off-site exposures through ground- and surface-water pathways as primary threats to human health and environmental receptors. Reviewed and critiqued site characterization plans and RP contractor's technical reports, and identified appropriate technologies for interim remedial actions using Electrical Resistance Heating and In-situ Chemical Oxidation to destroy residual DNAPL and soil and ground water contamination and stop off-site migration. Interpreted technical details about site conditions and remedial technologies, facilitated interactions with U.S. EPA, and

assisted client develop and communicate messages to the community and the media. Participated in public meetings and acted as a bridge between the community and an extremely recalcitrant and combative PRP.

Technical Advisor to Glynn Environmental Coalition at Three Superfund Sites, Brunswick, GA. Another EPA TAG project where an historic coastal community is living with the legacy of more than one hundred years of industrial activities including petroleum refineries, pesticide and chemical plants, wood preserving operations, aquatic dredge-disposal areas, and hazardous waste landfills. Industrial discharges contaminated hundreds of square miles of sensitive estuary and marshland with mercury, PCBs, the long-banned pesticide Toxaphene, and other chemicals leading to widespread fishing advisories. At one plant, thousands of pounds of mercury were released into the environment along with other chemicals, contaminating soil, ground water, and thousands of acres of wetlands. SCA has reviewed and evaluated site characterization data and proposed cleanup plans, partnered with regulatory agencies to hold public workshops on the Superfund process and risk assessment, and assisted the client develop and communicate messages to stakeholders and the media.

Technical Advisor to the Restoration Advisory Boards at Defense Supply Center Philadelphia (PA), McClellan (CA) and Lowry (CO) Air Force Bases, Calverton Naval Weapons Plant (NY), and Philadelphia Naval Shipyard (PA). Supported community involvement in the clean-up process at these military installations under the Defense Department's Technical Assistance for Public Participation (TAPP) program. Reviewed and interpreted investigation and remediation activities to keep concerned citizens informed about progress. Participated in public meetings, facilitated interactions between installation personnel, regulatory agencies and the public, and helped other stakeholders appreciate the public's concerns. Enhanced citizens' understanding of the technical details of environmental clean-up projects so they had more impact on the decision-making process. Instrumental in selection of effective and efficient remedies to halt migration of ground water contamination to off-site private properties and discharges into wetlands and rivers.

Technical Advisor, New Bedford Harbor (MA) and Lackawanna (PA) Superfund Sites. Assisted concerned citizens understand remediation of hazardous wastes including solvents, PCBs, and other chemicals in their communities. Interpreted technical details, articulated citizen concerns to state agencies and U.S. EPA and facilitated public meetings. Monitored progress of remedial actions and performed interim and post-closure inspections. Appeared in Earthkeeping, 1993 PBS documentary on citizen involvement in environmental issues.

#### Representative Technical/Project Management Assignments

**Project Manager, U.S. Army Cameron Station RI/FS/ROD, VA.** Responsible for technical and financial planning and performance on multi-million dollar base-closure project completed on schedule and under budget. Supervised geophysical studies; asbestos,

soil-gas and PCB transformer surveys; UST integrity testing; soil borings and ground water monitor well installation; aquifer testing; and sampling of all media. Implemented pilot tests and interim remedial actions. Applied innovative techniques for groundwater assessment to meet demanding schedule. Led remedial action negotiations for 12 Operable Units with the state and EPA, including many "no-further-action" determinations.

Project Manager, Cosden Chemical Superfund Site Remedial Design, NJ. Technical and management responsibility for remedial design project for soil and ground water contamination and D&D of on-site structures. Developed pre-design field tests to prove that site conditions did not warrant ROD-specified ground water clean-up for metals. Project included pilot tests for cost-effective alternative to treat VOCs in soil and ground water, in-situ soil stabilization treatability study, aquifer tests, and remedy design.

**Project Manager, Fort Detrick RI/FS Scoping, MD.** Planned innovative approach to prioritize sites, use on-site laboratories and field screening to minimize cost/expedite characterization of over 40 waste sites. Planned Focused Feasibility Study to immediately address the suspected source of TCE in groundwater, which was found not to be an active source of contamination. Extensive interaction with regulators and citizen Restoration Advisory Board ensured community acceptance of approach.

Quality Assurance Officer, Western Boundary Area RI/FS, Aberdeen Proving Ground, MD. Ensured quality for investigation and selection of remedial alternative for municipal supply wells affected by contamination from Fire Training Area. Conceptual regional groundwater flow and transport modeling allowed rapid delineation, proving that the supply-wells capture zone contained the plume.

*Project Manager/Hydrogeologist, RCRA Program Designs/Implementation, Various Sites U.S. and Canada.* Planned and implemented environmental monitoring programs at landfills in VA, MD, PA, NJ, MI and Quebec. Designed and installed systems, performed sampling/analyses, negotiated with regulators. Performed post-closure monitoring.

Project Manager/Hydrogeologist, Solley Road (MD), Monroe Township (NJ) and South Brunswick (NJ) Superfund Sites RI/FS projects. Planned, negotiated with regulators and conducted investigations at solid/hazardous waste sites. Evaluated and applied control technologies (liners, caps, slurry/clay cutoff walls, gas/leachate systems, erosion controls).

Project Manager, Environmental Site Assessments and Compliance Audits, Nationwide. Evaluated baseline environmental conditions at over 50 industrial facilities for mergers/acquisitions, including mining, military products manufacturing, refining, transportation and waste disposal facilities. Estimated costs for compliance, investigation and clean-up of soil and ground water contamination.

Task Manager/Lead Auditor, Environmental Compliance Audits of Federal Facilities. Managed and conducted multi-media audits of facilities in MD, OH, FL, GA, OK, RI, OR, NJ, IL for compliance with federal/state/local regulations and EPA policies. Identified areas of noncompliance, recommended corrective action, developed/revised audit protocols.

Project Manager, Nuclear Regulatory Commission EISs, Reviews of Department of Energy EAs for High-Level Nuclear Waste Repository, and Oversight of Uranium Mills and Mines. Led detailed assessments by scientific and engineering experts into impacts and performance of proposed high-level nuclear waste repositories in salt-dome formations in southeastern U.S. Coordinated with EPA, DOE, states and Congress. Prepared EIS on decommissioning the Edgemont, SD uranium mill. Responded to public comments. Participated in development of standards for monitoring and remediation of UMTRA sites. Monitored contamination and remediation efforts at mines and mills.

#### **Previous Senior-Level Positions**

Manager, Environmental Programs Business Unit, 1995-1997. Developed Strategic Business Unit Plan for this new initiative. Planned and implemented marketing efforts focused on senior executives of major contractors. Identified target opportunities and potential clients, and marketed services. Recruited and managed senior-level consultants and facilitated teaming to help clients compete successfully for major DOD and DOE environmental-cleanup contracts. Performed Litigation Support and Expert Witness Assignments for U.S. Department of Justice.

Group Leader, Assessment and Remediation, 1990-1995. Led an effective and profitable team of multi-disciplinary professionals on environmental assessment and compliance programs, base-closure and installation-restoration projects, and Superfund RI/FS/RODs and RDs. Line manager, leader, and mentor for 17-member group of engineers, geologists, chemists, toxicologists and support staff. As a founding member of the regional federal-programs office, played key role in recruiting, training and coaching staff that eventually numbered nearly 100 people.

Board of Directors Member, and Technical Practices Committee Chairman, Hazardous Waste Action Coalition, 1995-1998. Advocated environmental industry positions, promoted advancement of the state-of-the-practice to enhance business opportunities. Facilitated interactions of agency representatives, policy makers and industry leaders on technical and business-related matters.

Program Manager, U. S. Army Environmental Center Contracts 1990-1995. Identified opportunities for business and developed task orders for \$15 million Total Environmental Program Support (TEPS) ID/IQ contract. Planned, estimated and negotiated work scopes, costs and schedules; staffed projects and managed Project Managers; ensured superior technical and financial performance. Projects included a base-closure RI/FS/ROD; remedial

action for soil/groundwater contamination; NIKE site ground water monitoring; Rocky Mountain Arsenal air quality monitoring; air emission inventories for 27 Army installations; RI/FS planning for Fort Detrick, MD, and RCRA studies at the U.S. Military Academy. Technical Proposal Manager and Program Manager for follow-on \$30 million contract.

#### Certifications/Registrations/Affiliations

Licensed Professional Geologist, Wyoming, Pennsylvania, North Carolina Certified Professional Geologist, American Institute of Professional Geologists Director, Technical Committee Chairman, Hazardous Waste Action Coalition, 1995-1998 Member, Advisory Board, U.S. EPA Site Characterization Technology, 1995-1997

#### **Education**

University of Idaho, M.S. Ground Water Hydrology, 1984 University of Maryland, B.S. Geology, 1980

#### **Professional History**

SCA Associates, Principal, 1997-present

Kelly, Anderson, & Associates, Senior Associate, 1995-1997

Woodward-Clyde Federal Services, *Project and Program Manager, Group Leader*, 1990-1995

ENVIRON Corporation, Senior Associate, 1988-1990

Booz-Allen & Hamilton, Senior Consultant, 1987-1988

Browning-Ferris Industries, Project Manager and Hydrogeologist, 1985-1987

U.S. Nuclear Regulatory Commission, *Hydrogeologist, Project Manager* 1981-1985 (and University of Idaho, *Research Fellow*, 1982-1984)

#### **Presentations and Publications**

EPA's Peer-Reviewed Toxicity Assessment for Toxaphene. Presentation at U.S. EPA/Glynn Environmental Community Workshop on Superfund Process and Risk Assessment, Brunswick, Georgia. June 22, 2019.

Site Status and Preliminary Understanding of Contamination at the CTS of Asheville Superfund Site, North Carolina. Presentation at Road to Cleanup public meeting, sponsored by POWER Action Group and U.S. EPA, July 29, 2014. Asheville, NC. Community Involvement in Remedy Selection for Calverton's Southern Area Plume... You *Can* Get There from Here. Presentation for Public Comment Meeting. Calverton Naval Weapons Industrial Reserve Plant. Calverton, NY. December 13, 2011.

Analysis and Review of Feasibility Studies/Corrective Measure Studies and Remedy Selection for Contaminated Soil and Ground Water at Fuel Calibration Area, Engine Test House, and Off-Site Areas. Presentations to Calverton Naval Weapons Industrial Reserve Plant Restoration Advisory Board. Calverton, NY 2006-2011.

Analysis and Review of Colorado Department of Public Health and Environment, U.S. Air Force, and Developers/Builders Efforts to Remediate Asbestos-contaminated Soil in Northwest Neighborhood. Presentation to Lowry Air Force Base Restoration Advisory Board. Denver, CO. February 18, 2004.

Evaluation of Phase 2 Remedial Investigation and Recommendations for Remedial Action at the former Calverton Naval Weapons Industrial Reserve Plant. Presentation to Calverton NWIRP Restoration Advisory Board. Calverton, NY. May 15, 2003.

Evaluation of Phase 3 Ground Water to Indoor Air VOC Migration Pathway Investigation. Lowry Air Force Base, Colorado. Presentation to Lowry AFB Restoration Advisory Board. Denver, Colorado. August 2002.

Review and Analysis of Key Issues for Peconic River Sediments Risk Assessment and Remedial Action. Brookhaven National Laboratory, New York. Presentation to DOE/BNL and Community Advisory Council. August 2002.

Evaluation of Phase I Pilot Studies for Interim Remedial Actions to Control Ground Water Contamination at the Former Lowry Air Force Base, Colorado. Presentation to Lowry AFB Restoration Advisory Board. Denver, Colorado. July 2002.

Review and Summary of Ground Water Monitoring Program at the Girard Point Management Area. Presentation to Philadelphia Naval Shipyard Restoration Advisory Board Meeting. Philadelphia, PA. October 30, 2000.

Environmental Career Opportunities: Outlook and Perspectives. Johns Hopkins University Environmental Sciences Policy Graduate Program. Baltimore, MD. November 8, 1999.

Summary of Installation Restoration Program Progress and Cleanup Plans, Defense Supply Center, PA. Restoration Advisory Board Meeting, Philadelphia, PA. September 14, 1999.

Technical Assistance: Knowledge is Power. Invited Panelist at the U.S. EPA 1999 National Community Involvement Conference, Kansas City, MO, May 26, 1999.

The Role of the Consultant in Environmental Remediation. Graduate Student Seminar, Interdisciplinary Sciences. University of Maryland, College Park, MD. October 27, 1998.

Innovative Management Techniques Accelerate Cleanup at DOE's Fernald Site. John Bradburne and Frank Anastasi, Advances in Environmental Technology, Engineering News-Record, December 9, 1996.

Federal Agency Partnering: DOD. Invited Panelist with Army, Navy and Air Force Environmental Program Directors. Hazardous Waste World/Superfund XVII, Washington, D.C., October 13, 1996.

Remedial Design for Petroleum Hydrocarbons: Soil Vapor Extraction, Product Skimmers and Air Stripping. Anastasi, Frank S. and Hunter J. Loftin, Presented at Ground Water Remediation: Existing Technology and Future Directions, National Ground Water Association Conference, Las Vegas, NV, October 1994.

The Fort Detrick Remedial Investigation: Innovative Approaches to Expedite Site Characterization and Remediation. Anastasi, Frank S., Catherine Johnson, David Hoffman. 18th Annual Army Environmental R&D Symposium, Williamsburg, VA, June, 1994.

Using New Approaches to Meet Army Base Closure Schedules. Anastasi, Frank S., R. Alan Freed, Dennis Bowser. Superfund '92 Conference, Washington, D.C., December, 1992.

RI/FS Field Investigations and Interim Remedial Actions Supporting the Closure of Cameron Station, Virginia. Olinger, Lawrence W., Frank S. Anastasi, Kristine M. Kingery. Presented at the Federal Environmental Conference, Alexandria, VA, February 24, 1992.

Volumetric vs. Non-volumetric Testing: A Case Study of Apparently Conflicting Results from Two Different Methods of Testing the Integrity of Underground Storage Tanks. Anastasi, Frank S., Presented at ASTM Symposium on Leak Detection for Underground Storage Tanks, January 1992 in New Orleans, LA and Presented and Published in Proceedings of Superfund '91 National Conference, Washington, D.C., December 1991.

A Method for Collecting Soil Samples Beneath Lake-Bottom Sediments. Anastasi, F.S. and L.W. Olinger, 15th Annual Army Environmental R&D Symposium, June, 1991.

Providing Technical Assistance Under the USEPA's TAG Grant Program. Anastasi, F.S., L. Van Hine. J. Pomeroy. Superfund '90 National Conference, November, 1990.

An Analysis of Excursions at Selected In-Situ Uranium Mines in Wyoming and Texas. Staub, W.P. and N. E. Hinkle (Oak Ridge National Laboratory), R.E. Williams, F.S. Anastasi, J. Osenski and D. Rogness (Univ. of Idaho), NUREG/CR-3967, July 1986.

Aquifer Restoration at Uranium In-Situ Mines. Anastasi, F.S. and R.E. Williams, Low Level, Uranium Mill Tailings and Hazardous Wastes Symposium, Colorado State Univ., February, 1985.

Aquifer Restoration at Uranium In-Situ Leach Sites. Anastasi, F.S. and R.E. Williams, International Journal of Mine Water, Vol. 3, No. 4, December 1984.

#### RECENT EXPERT WITNESS TESTIMONY

Testimony at Deposition, January 25, 2023. In the matters of Denny v. Amphenol, Bromley v. Amphenol, and Rhinehart v. Amphenol. Causes No. 1:19-CV-04757-TWPDLP; 49D02-1912-CT-050268; and 49D06-2010-CT-037131. U.S. District Court, Southern District of Indiana, Indianapolis Division.

Testimony at Deposition, October 19, 2022. In the matter of Hecla Limited v. Travelers Indemnity Company. Case No. D-1113-CV-2018-00086. Eleventh Judicial District Court 2, McKinley County 3, State of New Mexico.

Testimony at Deposition, February 7, 2020. In the matter of Edith Quick et al. v. Shell Oil Co. Case No. 01 L 147, Kankakee County, IL, Circuit Court, 21st Judicial Circuit.

Presentation and Testimony in Allocation Proceedings, June 2017. In the matter of a \$500 M Superfund Site Remediation project in New York, for a leading telecom firm.

Testimony at Trial, December 7, 2016. In the matter of Plantation Pipe Line Company v. The Travelers Indemnity Company. Case No. 4:15-cv-00944, U. S. District Court for the Southern District of Texas, Houston Division.

Testimony at Trial, October 29-30 2014. In the matter of Sumner Realty, LLC v. Ronald Breslow, The Village of Ridgewood, and Chapman, Inc. Superior Court of New Jersey. Law Division: Bergen County.

Deposition, December 13, 2013. In the matter of Sumner Realty, LLC v. Ronald Breslow, The Village of Ridgewood, and Chapman, Inc. Superior Court of New Jersey. Law Division: Bergen County.

Deposition, October 20, 2011. In the matter of Alabama Gas Corporation v. Travelers Casualty and Surety Company, et al. US District Court. Northern District Alabama.

Testimony at Trial, August 2011. In the matter of Gerard DePascale, et al. v Sylvania Electric Products, Inc. et al. US District Court. Eastern District New York.

Deposition, July, 2011. In the matter of Gerard DePascale, et al. v Sylvania Electric Products, Inc. et al. US District Court. Eastern District New York.

Testimony at Trial, November 2009. In the matter of Gerard DePascale, et al. v Sylvania Electric Products, Inc. et al. US District Court. Eastern District New York.

Deposition, March 2009. In the matter of Gerard DePascale, et al. v Sylvania Electric Products, Inc. et al. US District Court. Eastern District New York.