

Linda L. Cook
Senior Scientist

Professional Profile

Ms. Linda Cook is a Senior Scientist in Exponent's Environmental Science practice. She has 17 years' experience in the field of environmental chemistry, consulting, and data quality management. Her areas of expertise include: analytical organic chemistry, project management, quality assurance oversight, data validation and assessment, analytical laboratory auditing, forensic chemistry, data interpretation and analysis, and statistics. Ms. Cook has applied her expertise to a variety of environmental assessment programs including hazardous waste site investigations, marine monitoring programs, environmental forensic investigations, and litigation support.

Ms. Cook has written and has performed technical reviews of sampling and analysis plans (SAPs), quality assurance project plans (QAPPs), and analytical chemistry standard operating procedures (SOPs). Ms. Cook has performed on-site audits of environmental testing laboratories throughout the country to assess technical competency, quality assurance and quality control procedures, and compliance with project-specific requirements. As part of these audits, Ms. Cook developed and refined comprehensive laboratory auditing checklists. Prior to joining Exponent, Ms. Cook served as Deputy Investigator and Project Manager for a large marine monitoring program conducted in the Beaufort Sea. Her responsibilities associated with this program included: budget management, management of subcontractors, oversight of the sediment and tissue sample laboratory analyses, drafting of project documents, and evaluation and statistical analyses of sample data.

Academic Credentials and Professional Honors

M.S., Nutrition Science, Tufts University, 1999
B.S., Biology, Salem State College, 1987

Licenses and Certificates

Hazardous Waste Operations and Emergency Response 40-hour training program; American Red Cross Adult CPR and Standard First Aid Training

Publications

Brown JS, Trefry JH, Cook LL, Boehm PD. ANIMIDA Task 2: Hydrocarbon and metal characterization of sediment cores in the ANIMIDA study area—Special report. OCS Study MMS 2004-023, Minerals Management Service, Department of Interior, Anchorage, AK, 2003.

Project Experience

Served as Deputy Investigator and Project Manager for a large marine monitoring program conducted in the Beaufort Sea for the U.S. DOI Minerals Management Services.

Responsibilities included: budget management, management of subcontractors, oversight of the sediment and tissue sample laboratory analyses, drafting of project documents, and evaluation and statistical analyses of sample data.

Provided technical support on a litigation case involving PCB contamination in soils at a former junkyard. Project involved review and evaluation of historic reports, a large field investigation, data analysis, and interpretation. The investigation was conducted in order to recover cleanup costs from responsible parties.

Acted as lead chemist for Elizabeth Mine, an abandoned Copper mine Superfund site in South Strafford, Vermont. Oversaw the generation of CLP compliant documentation, performed on-site field sampling audits, managed in-house data validation efforts, drafted project QAPPs, drafted and edited project reports, and oversaw subcontract laboratory analyses.

Provided analytical chemistry support for the Navy SINKEX project. The Navy was requested by EPA to provide an environmental impact statement for deep-water disposal of ships removed from service. Remote deep-sea vehicles and precision location systems were used to collect sediment samples at approximately 3,000 feet deep near the sunken vessel. Chemical analysis such as 210Pb dating, PCB, and PAH analysis was used to assess the extent and timing of site contamination from the vessel as well as to support human and ecological risk assessment. Evaluated and assessed the chemistry data and drafted sections for final reports.

Provided analytical chemistry support for the multi-million-dollar, multi-year contract with the U.S. Navy SPAWAR System Center in San Diego, California. Evaluated and assessed the analytical chemistry data and drafted sections of the final data assessment reports submitted to the client.

Served as Metcalf and Eddy's Lead Chemist for the U.S. EPA Remedial Action Contract (RAC) program. Supervised the environmental chemistry staff of 7 full-time and on-call chemists, performed reviews of technical reports and documents, drafted SAPs, and drafted data usability assessment and validation reports for many Region I Superfund site programs. Provided statistical data analysis support on various RAC work orders.

Drafted methods for non-standard analyses performed under EPA's Delivery of Analytical Services (DAS) program and oversaw the qualification and selection of subcontract laboratories to perform DAS analyses.

Managed a large data quality services project for the Exxon Bayway Refinery and other Exxon refinery sites, and was responsible for preparing budgets, proposals, work plans and reports; managed a staff of 3-5 chemists, represented EXXON in regulatory meetings with NJDEP; tracked budgets, and communicated with the client. The data quality services provided under this project included data usability assessments for risk, data validation, database management, and laboratory auditing. Ms. Cook was able to save Exxon significant costs in resampling and reanalysis at one refinery. Originally, 90% of the data associated with one large-scale environmental site assessment was considered unusable according to NJDEP data validation guidelines. After in-depth technical evaluation of environmental laboratory data and negotiations with NJDEP, the data were considered to be usable.

Performed more than 30 on-site audits of environmental testing laboratories throughout the country for various clients. Developed and refined comprehensive laboratory auditing checklists.

Performed data validations for organic and wet chemistry data according to U.S.EPA Functional Guidelines and according to validation guidelines for specific U.S.EPA Regions (Region I, Region II, Region III, Region IV, Region V) and according to New York and New Jersey validation requirements for various projects and clients.

Performed data validation, chemistry and data quality consulting, laboratory audits and oversight, data validation, and prepared SAPs in support of remedial investigations of oil refinery sites for OXY USA on various projects.

Performed EPA Region II data validation, laboratory auditing and oversight, method development, and chemistry consulting in support of the Hudson River RI/FS. Oversaw development of a state-of-the-art polychlorinated biphenyl (PCB) congener method, wrote method specific data validation guidance, and trained EPA chemists to perform validation of the data generated for the program.

Managed the data validation efforts for soil and groundwater samples according to NYSDEC ASP protocols on various projects for a photographic film manufacturer.

Performed data usability assessment for volatile organic compound, gasoline range hydrocarbon, and diesel range hydrocarbon analyses for samples collected at gasoline stations located throughout the U.S. on various projects for a petroleum company.

Developed project specific validation worksheets and validated high-resolution polychlorinated dioxin and furan analytical data for several hundred aqueous and soil samples for an industrial client.

Drafted SAPs according to U.S. EPA guidance for hazardous waste site investigations for various projects and clients.

Provided supported to an expert witness in a litigation case involving a condensate gathering and former processing facility in East Texas. Oversaw analyses at a subcontract laboratory and evaluated the analytical data.

Supervised a staff of 3-4 chemists in the semivolatile organic laboratory, scheduled workflow to meet deadlines, and performed final technical review of data. Developed routine laboratory procedures and computer programs to aid in the electronic transfer of data from the instruments to the reporting programs. Performed validation and beta testing of a CLP reporting software package.

Analyzed and reported samples for semivolatile and volatile organic compounds and for pesticides/PCBs by standard and non-standard analysis methods for various project and clients.

Analyzed and reported hundreds of samples for semivolatile organic compounds by GC/MS isotope dilution methods for an engineering firm.

Performed analyses for pesticides Kepone, Mirex, and Photomirex using negative chemical ionization GC/MS/SIM in tissue, aqueous, and soil samples for an industrial client.