

TECHNICAL SPECIALTIES

Mr. Hamper is a Professional Geologist with over 30 years of experience in the environmental field focusing on environmental due diligence, investigation, remediation and compliance including expert witness assignments. Mr. Hamper has experience with a range of environmental programs including RCRA, CERCLA, UST, TSCA/PCB, OPA, state remediation programs, and emergency response.

EXPERIENCE SUMMARY

Mr. Hamper began his career at the United States Environmental Protection Agency, Region 5 working on RCRA permitting, closure, corrective action and enforcement matters. After leaving the government and entering consulting, Mr. Hamper worked at Montgomery Watson (formerly Warzyn), Arcadis (formerly Geraghty & Miller), Bureau Veritas, and GZA GeoEnvironmental prior to joining Roux Associates.

CREDENTIALS

BS, University of Illinois at Chicago, Geological Sciences
MS, University of Illinois at Chicago, Geological Sciences
Professional Geologist, Illinois (#196.000263)
Professional Geologist, Indiana (#IN2042)
Professional Geologist, Wisconsin (#882-13)
Certified Professional Geologist, American Institute of Professional Geologists (#10250)

PROFESSIONAL AFFILIATIONS

National Groundwater Association

KEY PROJECTS**RCRA Corrective Action**

- Served as the Project Manager for the implementation of the Corrective Measures Study which included the installation of engineered caps and the construction and operation of a groundwater extraction pre-treatment system.
- Served as the Project Hydrogeologist for the development of RCRA Corrective Action Work Plans for the investigation of solid waste management units at a major integrated steel plant.
- Served as a Quality Auditor for the evaluation of the implementation of a RCRA groundwater investigation at a major integrated steel plant.
- Served as the Project Manager for the implementation of a RCRA RFI and CMS at a former rail car maintenance facility.
- Served as the Project Manager for the implementation of a RCRA RFI at a major petroleum refinery in Louisiana including the management of interim measures.

CERCLA

- Prepared an RI/FS report for the Pagel's Pit Landfill Superfund Site that described preferential contaminant transport within a fractured dolomite

bedrock aquifer which transitioned to a sand and gravel aquifer. Utilized landfill leachate chemistry to distinguish contributions from the upgradient ACME Solvents Site to the groundwater plume.

- Provided third-party review and strategic input on Work Plans for a CERCLA Engineering Evaluation/Cost Analysis (EE/CA) for the PRPs conducting an Area-Wide Superfund Site investigation.
- Authored RD/RA planning documents and implemented predesign studies, groundwater modeling and remedial technology bench testing for the American Chemical Service (ACS) Superfund Site.
- Conducted a review of historical data, review of aerial photographs for the Cam-Or Superfund Site to determine the former extent, use and burial of ponds. Also defined areas where the EPA conducted removal action and capping activities.
- Managed the investigation of a municipal sewer that traversed the Waste Inc. Landfill Superfund Site to inspect for damage, leaks, and root infiltration using televising technology.
- Developed Work Plans implementing a CERCLA Unilateral Order and a CERCLA Immediate Removal Order and conducted the sampling to characterize lagoon sediments.
- Served as lead technical team member negotiating CERCLA RD/RA Consent Orders for three PRP-lead sites.
- Provided support to PRPs regarding the proposed listing of an NPL site.
- Managed and directed the preparation of a report identifying PRPs for a commercial landfill and evaluating PRP financial viability.

RCRA Permitting and Closure

- Managed and directed the development of RCRA Part B permit applications for a commercial chemical treatment facility and a commercial thermal treatment facility.
- Prepared and managed a RCRA closure for container storage and tank storage units at a petrochemical large quantity generator.
- Managed and directed the RCRA closure plan development and implementation for a paint manufacturer, electrical component manufacturer, chemical facility, and an automobile parts manufacturer.

State Remediation Programs

- Served as the Project Manager for the investigation of a 400-acre former alumina plant and preparation of the Affected Property Assessment Report (APAR) under the Texas Corrective Action Program.

- Served as the Project Hydrogeologist to investigate soil and groundwater impacts at an inactive coke plant at a former integrated steel mill in Illinois. TarGost, a laser-induced fluorescence technique was used to define the extent of tar in the subsurface.
- Served as the Project Hydrogeologist for the investigation of a former integrated steel mill in Illinois which included historical data evaluation, aerial photo interpretation, monitoring well installation and sampling, groundwater flow analysis, pond sediment evaluation, and groundwater fate and transport modeling.
- Served as the Project Hydrogeologist for the investigation of a former manufactured gas plant (MGP) in Illinois.
- Served as the Project Hydrogeologist and Project manager for the investigation of a former farm equipment manufacturer in Illinois that included the in situ remediation of a hexavalent chromium groundwater plume, removal of 24 USTs, O&M of oil-skimming systems, remediation of tunnels and basements containing asbestos debris, surface cleanup of asbestos from a failed demolition, and removal of oil contaminated soils.
- Managed the entry of a closed landfill into the Indiana Voluntary Remediation program. Project included residential well sampling, soil sampling, and groundwater sampling.
- Served as the Project Manager for the Remedial Investigation of an operating tank car maintenance facility under an Order from the Ohio Environmental Protection Agency.
- Served as the Project Manager for the Remedial Investigation of an oil drilling rods manufacturing plant under an Order from the Oklahoma Department of Environmental Quality.
- Served as the Project Manager for the response to a spill under the Texas Petroleum Storage Tank program.

Oil Pollution Act (OPA)

- Managed the LNAPL investigation, and the design and operation of an oil recovery system required by an Order to mitigate a sheen on the Mississippi River.

Leaking Underground Storage Tanks

- Managed the development and implementation of Corrective Action Plans at more than a dozen retail gasoline services stations Illinois UST sites.
- Served as the field supervisor for the performance of a soil vapor extraction pilot test and groundwater extraction pilot test at an Illinois RCRA waste UST site.
- Managed the investigation and groundwater modeling for an Ohio UST site.

- Conducted a third-party review of an Ohio UST site and defined path to closure.
- Served as client manager for the resolution of closure issues for a New Jersey UST site due to NJDEP rescinding the RAO issued by others.

Federal PCB Remediation Program

- Prepared plans for and conducted self-implementing PCB cleanups meeting 40 CFR Part 761 at multiple sites.

Emergency Response/Spill Cleanup

- Worked in the Mobile Incident Command Post (ICP) as a Supervising Safety Advisor reporting to the Mobile ICP Safety Officer for the 2010 Deepwater Horizon/Gulf of Mexico Crude Oil Spill.
- Provided on-site investigation support to define the extent of releases of petroleum for two pipeline ruptures.
- Provided waste, soil and product characterization services on-site within a team for two major derailment spills.
- Prepared hexavalent chromic acid spill clean verification reports for an industrial lighting manufacturer and a hardware manufacturer.

RCRA Waste Characterization

- Provided RCRA waste characterization services for a variety of different waste types including hot-dip lead, lead remediation wastes, foundry sand, autofluff, chlorinated solvent remediation wastes, investigative-derived wastes, wood treatment wastes, spent pot liner wastes, and landfill leachate.
- Developed plans for the management and characterization of over 1,000 containers of raw materials, products and wastes at a site in Illinois and a site in Indiana.
- Provided technical support for the decommissioning of a petrochemical plant and laboratory including product and waste characterization.

Environmental Compliance

- Served as the Project Manager for the development of a Texas Pollutant Discharge Elimination System (TPDES) discharge permit. Also served as the Project Manager for the design and procurement of a pH adjustment system for the treatment of water prior to discharge.
- Served as Project Manager for multimedia compliance audits at primary and secondary aluminum production plants.
- Part of team that performed multimedia compliance audits at an Alaskan petroleum refinery.
- Managed compliance audit of a vacuum truck manufacturer.

- Conducted a RCRA compliance audit and provided compliance assistance for a pharmaceutical company.
- Conducted a RCRA compliance audit for a waste management company.
- Provided templates and guidance to a transportation company to implement the RCRA Generator Improvement Rule
- Provided RCRA training for the employees of an integrated meat and other food products producer.
- Conducted an audit of materials being used to reclaim inactive portions of an active aggregate mine.
- Provided RCRA compliance advice regarding the generation of equipment cleaning waste at a California bottled water plant.
- Provide guidance to companies implementing changes to comply with the EPA's Generator Improvement Rule.

Environmental Due Diligence

- Conducted a Phase I and a Phase II ESA at a 260-acre major integrated aluminum plant with over 80-acres under roof.
- Conducted Phase I and Phase II ESAs at steel parts manufacturers and steel coil processing facilities.
- Conducted Phase I ESAs for nine construction operations and managed the Phase II investigations.
- Part of team that conducted an environmental due diligence audit for a major petroleum pipeline system.
- Part of a team that performed Phase I ESAs at approximately 1,000 sites along rail lines for a railroad property management company.
- Part of a team that conducted an environmental due diligence evaluation of a bauxite ore processing plant in Louisiana.

Hydrogeology/Geochemistry/Modeling

- Served as the Project Hydrogeologist for a Hydrogeological Study for the design of a decline at an aggregate mine. The assignment included installing monitoring wells and conducting pump tests in an active mine. The pump test results were used as inputs to develop potential inflow rates to the proposed decline.
- Conducted a study to identify potential new frac sand mine sites in the upper Midwestern US and southwestern Canada. The study included reviewing available geologic maps and reports, selecting outcrop sampling locations, and the collection of representative samples for evaluation.
- Served as Project Hydrogeologist and lead modeler for the evaluation of groundwater protection alternatives for the 7.9 billion-gallon MWRDGC

Thornton Composite Reservoir. The reservoir is one lobe of a large, active aggregate mining complex.

- Conducted a hydrogeological study of an inactive aggregate mine and active aggregate mine to evaluate the effects of dewatering at the active mine on the groundwater flow from the inactive mine which was being used as a coal ash repository. Used boron and stable boron isotopes to determine the presence or absence of coal combustion waste leachate in the groundwater in the vicinity of residential wells.
- Provided peer review of an environmental investigation of the presence of volatile organic compounds in groundwater at an aggregate mine site.
- Conducted research on talc mines in northeastern North America identifying talc ore handling practices as related to the presence of asbestos.
- Conducted research on mining districts in Arizona to identify mines at which asbestos is or may be present.
- Project Hydrogeologist for the design and installation of 17 residential water supply wells into the Cambrian-Ordovician Aquifer and the abandonment of the Silurian Aquifer wells.
- Conducted review of aquifer testing, pump selection, well screen location, and well screen design for a million gallon per day process water supply well also used for the remediation of a chlorinated solvent plume.
- Conducted a major ion geochemical analysis of groundwater and leachate from seven on-site industrial landfills, successfully showing that the impacts from a specific landfill can be identified from the major ion chemistry.

Environmental Reserves/Insurance Cost Estimates

- Prepared annual cost estimates based on actual or potential remediation alternatives for a large portfolio of legacy properties for a chemical manufacturer.
- Project manager for the development of a post-closure care reserve analysis for nine landfills owned by a county government.
- Prepared annual cost estimates based on actual or potential remediation alternatives for a major truck manufacturer.
- Provided third-party review of remediation reserve estimates prepared by others.
- Provided technical support for insurance underwriters for a California dry cleaner site and a Texas petrochemical facility.
- Provided third-party review of PCB cleanup program on behalf of the insurer.

Radiological Issues

- Project manager for the investigation of suspected radiological contamination of scrap metal. The source of radiation was determined to originate from natural sources.
- Conducted a radiological investigation at a secondary lead smelter.
- Developed work plans for the investigation and remediation of a site contaminated with thorium waste from former gas mantle manufacturing operations.

Litigation Support

- Testified as a defense Expert Witness in the United States District Court, Northern District of Illinois, Eastern Division and provided an opinion on the timing of the placement of hazardous substances in a pond and the associated potential threat of release in CERCLA private party cost recovery matter.
- Prepared an Expert Report submitted to the United States District Court, Northern District of Illinois and was deposed providing an opinion that the defendant had not violated RCRA UST regulations and no release had occurred.
- Prepared an Expert Report submitted to the United States District Court, Southern District of Ohio rebutting the US EPA's expert regarding site characterization and effectiveness of remedial measures for a RCRA Corrective Action at a major integrated steel plant.
- Prepared an Expert Report for the defense submitted to the United States District Court, Northern District of Illinois providing an opinion on groundwater flow direction and the source of contamination in the Silurian Dolomite Aquifer.
- Prepared an Expert Report for the defense submitted to the United States District Court of St. Croix rebutting the plaintiff's expert report regarding the history of RCRA and HSWA.
- Prepared an Expert Report for the Defense submitted to the EPA Administrative Law Judge regarding waste characterization. EPA was accepted by the EPA as an Expert in hazardous waste compliance from an industry perspective.

PUBLICATIONS/PRESENTATIONS

Hamper, Martin, J., 2018, *RCRA Refresher*, 27th Annual Chicagoland Safety and Health Conference, Naperville, Illinois, September 18, 2018

Hamper, Martin, J., 2018, *Universal Wastes – Aerosol Cans*, Chemical Industry Council of Illinois (CICI) RCRA Hot Topics Seminar September 13, 2018, William Tell Conference Center, Countryside, Illinois

Hamper, Martin, J., 2018, *Results of an Evaluation of the Suitability of Passive Diffusion Samplers for Monitoring a Site*

with VOC and Arsenic-Impacted Groundwater, Air & Waste Management Association 111th Annual Conference & Exhibition, Hartford, Connecticut, June 25-28, 2018.

Hamper, Martin, J., 2018, *RCRA Refresher*, Chemical Industry Council of Illinois (CICI) RCRA Hot Topics Seminar March 15, 2018, William Tell Conference Center, Countryside, Illinois

Hamper, Martin, J., 2017, *RCRA Refresher*, 12th Annual 2017 LEPC Conference, Lake County, Illinois November 8, 2017

Hamper, Martin, J., 2017, *RCRA Refresher*, 26th Annual Chicagoland Safety and Health Conference, Naperville, Illinois, September 18, 2017

Hamper, Martin, J., 2017, *RCRA Refresher*, Chemical Industry Council of Illinois (CICI) RCRA Hot Topics Seminar March 16, 2017, William Tell Conference Center, Countryside, Illinois.

Hamper, Martin, J., 2017, *Hazardous Waste Generator Improvements Rule* Air & Waste Management Association 2017 Annual Waste Conference, Hilton Lisle, Illinois.

Hamper, Martin, J., 2016, *RCRA Refresher*, 26th Annual Chicagoland Safety and Health Conference, Naperville, Illinois, September 21, 2016

Hamper, Martin, J., 2016, *Managing Soil and Groundwater Cleanups in Illinois*, 26th Annual Chicagoland Safety and Health Conference, Naperville, Illinois, September 21, 2016

Hamper, Martin, J., 2016, *RCRA Refresher*, Huff & Huff/GZA GeoEnvironmental RCRA/DOT Training Course for Industry April 2016

Hamper, Martin, J., 2016, *RCRA Refresher*, Chemical Industry Council of Illinois (CICI) RCRA Hot Topics Seminar March 11, 2016, William Tell Conference Center, Countryside, Illinois.

Hamper, Martin, J., 2015, *RCRA Refresher*, Chemical Industry Council of Illinois (CICI) RCRA Hot Topics Seminar June 17, 2015, William Tell Conference Center, Countryside, Illinois.

Hamper, Martin, J., 2014, *SPCC Planning for the Oil Production and Oil Drilling and Workover Facilities*, American Society of Civil Engineers, Shale Energy Conference, Pittsburg, Pennsylvania.

Hamper, Martin, J., 2014, *RCRA Refresher*, Chemical Industry Council of Illinois (CICI) RCRA Hot Topics

Seminar, September 18, 2014, William Tell Conference Center, Countryside, Illinois.

Hamper, Martin, J., 2014, *RCRA Update, Solvent Wipes, Coal Ash Rulemaking and More*, Association of Hazardous Materials Professionals, Chicago Chapter Meeting, Argonne Guest House, Argonne National Laboratory, Argonne, Illinois February 20, 2014.

Hamper, Martin, J., 2013, *An Evaluation of Selected EPA Methods to Estimate Aqueous Diffusion Coefficients and Understanding the Relative Importance of Diffusion in Contaminant Transport and Remediation*, Air & Waste Management Association Annual Meeting, Chicago, Illinois.

Hamper, Martin, J., 2013, *Universal Wastes*, 25th Annual Chicagoland Safety and Health Conference, Naperville, Illinois, October 23, 2013.

Hamper, Martin, J., 2013, *RCRA Update, New and Proposed Regulations*, 26th Annual Chicagoland Safety and Health Conference, Naperville, Illinois, September 22, 2013

Hamper, Martin, J., 2013, *Small Quantity Generators and Satellite Accumulation*, Chemical Industry Council of Illinois (CICI) RCRA Hot Topics Seminar, January 29, 2013, Willowbrook Conference Center, Willowbrook, Illinois.

Hamper, Martin, J. and Reinganum, Charla, 2011, *LNAPL Recovery Evaluation Using API LNAPL Distribution and Recovery Model*. AIPG/AIH 2011 *Geosciences: The Road to a Sustainable Future* Conference, Bloomingdale, Illinois.

Hamper, Martin, J., 2010, *Hazardous Material Spill Response Waste Management Considerations*. Air & Waste Management Association. Indiana Chapter Newsletter. October 2010.

Hamper, Martin, J., 2010, *Oil Spill Response PPE for the Gulf of Mexico Spill Response*. Chemical Industry Council of Illinois. Fall Meeting. October 12, 2010.

Hamper, Martin, J., Sobanski, Joseph, Landis, Marcella, Song, Xin, Leone, Gaston, and Bartelt, Richard., 2009, *Simulation of Groundwater Protection System Alternatives for the Thornton Composite Reservoir of the Metropolitan Water Reclamation District of Greater Chicago Tunnel and Reservoir System*. 33rd International Association of Hydraulic Engineering & Research Congress, Vancouver, British Columbia, Canada.

Hamper, Martin, J., Bartelt, Richard, E., and Edith A. Ardiente, 2008, *Successful In-Situ Treatment of Chromium Contaminated Groundwater*, Air & Waste Management Association 101st Annual Conference and Exhibition, Portland, Oregon.

Hamper, Martin J., 2006, *Manufactured Gas History and Process*. *Environmental Forensics*, 7: 55-64.