



PROFESSIONAL PROFILE



Haley Kmetz, LSRP, PG (PA, DE)

Principal Hydrogeologist

CONTACT INFORMATION

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EDUCATION

MS, Geology, Temple University,
2015
BS, Earth and Environmental
Sciences, Lehigh University,
2013

PROFESSIONAL LICENSES

Licensed Geologist in
Pennsylvania (#PG005416)
Licensed Geologist in Delaware
(#S4-0011409)
Licensed Site Remediation
Professional in New Jersey
(#1028902)

EXPERIENCE SUMMARY

Ms. Kmetz is a New Jersey Licensed Site Remediation Professional (LSRP) and Professional Geologist in Pennsylvania and Delaware. She holds a BS in Earth and Environmental Science from Lehigh University and a MS in Geology from Temple University, where her studies focused on contaminant transport in fractured bedrock. Ms. Kmetz's career has solely been at Roux, where she began with her internships while completing her graduate studies. Projects to date have included conducting, managing, or overseeing investigations and remediations at many sites across the northeast, including Pennsylvania with Act 2 and Hazardous Sites Cleanup Act (HSCA) projects, as well as Delaware Hazardous Substance Cleanup Act, New Jersey Industrial Site Recovery Act (ISRA) and Spill Act. In addition, Ms. Kmetz has performed due diligence across the United States. Expertise includes development and implementation of soil and groundwater investigation (including emerging contaminants such as PFAS and 1,4-dioxane), remediation activities, groundwater fate and transport, and due diligence support associated with asset acquisitions.

TECHNICAL SPECIALTIES

Ms. Kmetz's technical specialties consist of the following:

- Environmental Due Diligence for Property Transactions
- Compliance with the New Jersey Industrial Site Recovery Act
- Development and Management of Soil, Groundwater and Vapor Intrusion Investigation/Remediation Activities
- Hydrogeology/Complex Bedrock Investigations
- Investigation and Remediation of Bulk Storage Petroleum Terminals
- Technical Support and Cost Review Associated with Environmental Liabilities for Insurance Claims

REPRESENTATIVE PROJECTS

- Project Manager associated with assisting the client with the acquisition of a former steel manufacturing plant in Piscataway, New Jersey. Responsibilities included completion of initial due diligence support; assigning environmental liability costs to allow the client to negotiate with the seller and providing design; and management and direction for the remediation of chlorinated volatile organic compounds (CVOCs) in groundwater and polychlorinated biphenyls (PCBs) in soil. Additional activities included the development of a 3D conceptual site model (CSM) for a complex geological framework at the site and the implementation of in situ chemical reduction of CVOC-impacted groundwater in fractured bedrock by pneumatically enhancing the fractured bedrock and injecting 400,000 pounds of carbon and zero-valent iron (ZVI) substrate as deep as 130 feet below ground surface (bgs). PDI and remedial activities were implemented within a strict, one-year timeline to meet the proposed future redevelopment of the property.
- Professional Geologist for the remedial investigation and remedial action on a former steel mill site in Northern Delaware with seven different operable units spanning over 420 acres. Contaminants comprised heavy metals, polycyclic aromatic hydrocarbons (PAHs), PCBs, and pesticide soil contamination from historic facility operations. The Site was located adjacent to a major body of water, resulting in several ecological concerns from local government agencies. Therefore, an investigation was required to characterize multi-media contamination. Data evaluation included calculating 95% concentrations using the ProUCL Model provided by the United States Environmental Protection Agency (USEPA) and was incorporated into the USEPA's Risk Assessment Information System (RAIS) model of current and future site scenarios for potential exposure to contaminants, ultimately negating human risk.

Completion of the remediation investigation and remedial action for most of the operable units was granted by the regulatory agency (except those pending final implementation of remedial action).

- Project Manager for a large bulk storage petroleum terminal in Linden, New Jersey. Primary responsibilities included the investigation of approximately 155 separate discharges ranging from 25 gallons of diesel fuel up to 7,000 gallons of transmix (diesel fuel, gasoline, and jet fuel). Additional responsibilities include the active recovery of light non-aqueous phase liquids (LNAPL) and remediation of soil and groundwater impacts. Soil and groundwater impacts are commingled with the previous property owner and technical support is provided regularly to the client for defense of liabilities relating to new versus historic releases.
- Project Manager associated with assisting the client with the acquisition of an 80-acre former lube plant operating since the 1800s in Bayonne, New Jersey. Responsibilities included completion of initial due diligence support; assigning environmental liability costs to allow the client to negotiate with the seller and providing design; and management and direction for the multi-million-dollar remediation focusing on the treatment of extractable petroleum hydrocarbons (EPH) in soil, LNAPL, and associated dissolved-phase constituents in groundwater. Additional activities included investigation and remediation of PAHs, heavy metals, PCBs (regulated under both NJDEP and USEPA Toxic Substance Control Act), and VOCs in soil, along with PFAS, PAHs, heavy metals, and VOCs in groundwater. Remedial activities consisted of excavation of LNAPL-impacted material for off-Site disposal and implementation of in situ stabilization to treat approximately 400,000 cubic yards of LNAPL-impacted material as deep as 23 feet below ground surface (bgs).
- Professional Geologist managing and assisting clients with the acquisition of a bulk storage petroleum terminal in Philadelphia, Pennsylvania. Responsibilities included completion of initial due diligence support; assigning environmental liability costs to allow the client to negotiate with the seller, demolition support and oversight of million-gallon bulk storage aboveground storage tanks (ASTs) and providing design; and management and direction for the remediation of VOCs in groundwater and LNAPL in soil. The site is managed under both Pennsylvania Act 2 – Land Recycling Program and Act 32 – Storage Tank and Spill Prevention Act. Remedial activities consisted of hot spot excavation to address LNAPL impacts, long-term groundwater monitoring, and establishment of institutional controls at the site. Redevelopment activities included communication with the general contractor and Client to ensure the construction schedule is maintained given unexpected Site conditions are

encountered, along with permitting support for Temporary Discharge Authorization (TDA).

Environmental Due Diligence

- Project manager for numerous complex New Jersey commercial/industrial Sites, to complete Phase I Environmental Site Assessment (ESA)/Preliminary Assessment (PA) and Phase II/Site Investigation (SI) projects in accordance with ASTM E1527-13 and ASTM E1527-21. Project responsibilities included Phase I ESA/PA proposal preparation; database search coordination and review; NJDEP regulatory review; Phase I site visit and field documentation; Phase I/PA report preparation; Phase II proposal preparation; NJDEP soil sampling protocols/regulatory requirements; coordination and management of laboratory and equipment; management of subcontractor pre-access coordination and documentation; execution of Phase II/SI fieldwork including Per- and polyfluoroalkyl (PFAS), groundwater sampling per March 2019 updated NJDEP Interim Specific Groundwater Quality Standard (ISGWQS) for Constituents in Class II-A Groundwater; Phase II/SI report preparation; logistics coordination and various communications with client, designated site contacts, property owner's designated site contacts, and H&S divisions; budget tracking; and associated travel arrangements preparation, property owner training requirement completion, and general project management.
- Completed 20 Phase I ESAs and PAs in New Jersey for a portfolio of retail gas stations. Project responsibilities included Phase I ESA/PA proposal preparation; database search coordination and review; NJDEP regulatory review; Phase I site visit and field documentation; Phase I/PA report preparation; logistics coordination and various communications with the client, designated site contacts, property owner's designated site contacts, and health and safety divisions; budget tracking; and associated travel arrangements preparation, property owner training requirement completion, and general project management.
- Conducted eight (8) Phase II ESAs in five (5) states throughout the United States. Project responsibilities included Phase II proposal preparation; applicable state/regulatory soil sampling protocols/regulatory requirements; coordination and management of laboratory and equipment; management of subcontractor pre-access coordination and documentation; execution of Phase II fieldwork; Phase II report preparation; logistics coordination and various communications with the client, designated site contacts, property owner's designated site contacts, and health and safety divisions; budget tracking; and associated travel arrangements preparation, property owner training requirement completion, and general project management.

- Project Manager for a due diligence project in accordance with ASTM E1527-13 for the purchase of over 40 sites, consisting of commercial properties, industrial properties, undeveloped land, etc., in approximately ten states throughout the United States. Project responsibilities included Phase I proposal preparation; database search coordination and review; Phase I Site visit and field documentation; Phase I report preparation; logistics coordination and various communications with the client, designated Site contacts, property owner's designated Site contacts, and health and safety divisions; budget tracking; and associated travel arrangement preparation, property owner training requirement completion, and general project management.
 - Project Manager for due diligence project in accordance with ASTM E1527-13 for the purchase of one site in New Jersey with a two-week turnaround time. Project responsibilities included Phase I proposal preparation; database search coordination and review; Phase I Site visit and field documentation; Phase I report preparation; logistics coordination and various communications with the client, designated site contacts, property owner's designated site contacts, review of historical data from the 1980s, and health and safety divisions; budget tracking; and associated travel arrangements preparation, property owner training requirement completion, and general project management. Developed order of magnitude future costs associated with remediation of the Site, including costs for Natural Resources Damage (NRD).
- ### Brownfields and Redevelopment
- Project manager for construction oversight for redevelopment of superfund site regulated under USEPA's Resource Conservation and Recovery Act (RCRA). Communications as part of this project included correspondence with Responsible Parties (RPs), USEPA, and the NJDEP. Activities included characterization and off-Site disposal of excess soils generated during redevelopment activities, management of unanticipated materials during site redevelopment activities, raising and refinishing of 120 biosparge wells and 40 biosparge vaults as part of site regrading, raising and refinishing of 40 monitoring wells as part of site regrading, and rehabilitation of biosparge wells.
 - Active LSRP for former automobile repair site being redeveloped into a self-storage facility. Initially provided client support via completion of a Phase I ESA/PA, an estimate of the order of magnitude (OOM) costs for the closure of the Site and Potential Purchaser Administrative Consent Order (PPACO) negotiations with the NJDEP. Current activities include the preparation and implementation of remedial investigation and remedial actions, including the removal of nine underground storage tanks (USTs) and the investigation of PCBs in concrete pursuant to USEPA TSCA.
 - Project management for a former paper mill and recycling facility under ISRA. Initially provided client support via completion of a Phase I ESA/PA, implementation of Phase II investigation, estimate of OOM costs for closure of Site and compliance with ISRA trigger due to property transaction with the NJDEP. Implemented predesign investigation to address LNAPL released from Former No. 6 fuel oil UST and remedial activities via ISS up to a depth of 35 feet bgs via auger mixing to stabilize No.6 fuel oil. Additional activities include construction support during site redevelopment, characterization of building materials for reuse on-site, and incorporation of final site design into site remedy (i.e., asphalt parking lot and building acting as engineering controls on-Site).
 - Active LSRP for site formerly operating as pallet storage and tractor-trailer maintenance repair shop with a known off-site classification exception area (CEA) underneath a portion of the site. Future use proposed for industrial outdoor storage (IOS). Initially provided client support via completion of a Phase I ESA/PA, an estimate of order of magnitude (OOM) costs for the closure of Site, and asbestos containing material (ACM) survey. Ongoing activities include remedial investigation of residual benzene impacts in soil from former USTs, investigation of PAHs in soil, and volatile organic compounds (VOCs) identified in sub-slab soil gas (SSSG) and indoor air (IA). Proposed remedial action includes excavation of residual benzene source, establishment of institutional controls, and long-term SSSG and IA monitoring.
 - Project manager for construction oversight of former Manufactured Gas Plant (MGP) for the redevelopment of property for future logistic warehousing. Responsible for communication with the general contractor, responsible party, and Client to ensure construction schedule is maintained given unexpected Site conditions are encountered. Redevelopment activities also included permitting support with the PADEP and the USACE for constructed wetland mitigation areas.
 - LSRP for a site formerly operating as an equipment storage facility. Future use proposed for industrial outdoor storage (IOS). Initially provided client support via completion of a Phase I ESA/PA, an estimate of order of magnitude (OOM) costs for the closure of Site and Phase II investigation. Activities implemented at the site included preparation of RIR and RAR, utilizing compliance averaging and SPLP to address impacts identified during Phase II investigation, along with a Preliminary Assessment Report (PAR) to outline multiple lines of evidence attributing PFAS identified in groundwater to an off-Site, regional source. Closure of the site was addressed via the issuance of RAO.
 - Project manager of due diligence activities and ecological risk assessment (ERA) for property consisting of six impoundments

containing cyanide-impacted sludge material, which were used for over thirty (30) years. ERA included the sampling of sediment, surface water, and pore water in wetlands, creeks, and a river via boat within a limited time frame, along with conducting food chain modeling for calculated risk for Environmentally Sensitive Natural Resources (ESNRs) at the Site. Additional activities included the completion of a Phase I Environmental Site Assessment/Preliminary Assessment and estimate of order of magnitude (OOM) costs for closure of Site.

- Project manager for Immediate Environmental Concern (IEC) of commercial property in residential area for elevated mercury vapors. Followed appropriate, strict New Jersey Department of Environmental Protection (NJDEP) regulations for reporting aspects of the IEC. Communicated with current property owner, property owner's legal counsel, property owner's insurance, and insurance party's environmental consultant for fluid project progress. Investigated the source and extent of mercury vapors in the building's crawl space. Implemented the excavation of the source soils in the crawl space in NJDEP's source removal time frame of one year, including the structural supporting of the building with the expertise of a licensed structural engineer.
- Project manager for construction oversight of 1,300 acre former bulk storage petroleum facility for the redevelopment of property for future logistic warehousing, e-commerce, life science, and innovation leaders. Responsible for communication with the general contractor, responsible party, and Client to ensure construction schedule is maintained given unexpected Site conditions are encountered.
- Active LSRP on three industrial sites. Future use proposed for IOS. Initially provided client support via completion of a Phase I ESA/PA, an estimate of order of magnitude (OOM) costs for the closure of Site and Phase II investigation. Activities implemented at the site include preparation of RIR and RAR, utilizing compliance averaging and SPLP to address impacts identified during Phase II investigation, along with a Preliminary Assessment Report (PAR) to outline multiple lines of evidence attributing off-site identified in groundwater to an off-Site, regional source.

Energy/Industry Experience

- Project manager for the failure of a pipeline, resulting in a release of 353 barrels of unleaded gasoline to adjacent soils, sediments, and surface waters at the site. Immediate response activities included installation of booms in waterways to absorb and contain residual product, enhanced fluid recovery in the area of release and excavation, and off-site disposal of impacted soils and sediments. Approximately 186 barrels of pure product were recovered and 2,400 barrels of mixed product/water were recovered from response activities.

Ongoing activities include preparation of RIR, implementation of hot spot removal in upland areas, and correspondence with the NJDEP regarding the ongoing Ecological Risk Assessment (ERA) via Technical Consultations.

- Project manager on a future linear construction project in Linden, New Jersey for installation of petroleum pipeline through a wetland area known to be contaminated. Project support includes preparation and submittal of necessary NJDEP permits for groundwater treatment systems, including a New Jersey Discharge Elimination System (NJPDES) permit, Temporary Works Approval (TWA) permit, and a Water Allocation Permit (BWA). Additional activities include due diligence sampling to design an appropriate water treatment system, coordination with the responsible party and the current property owner, as well as necessary reporting to NJDEP as part of linear construction activities.
- Active LSRP for release from leaving valve in manifold area of large bulk storage petroleum terminal in Linden, New Jersey. Activities included implementation and oversight of emergency response activities (i.e., enhanced fluid recovery and excavation activities) at the detection of the failed valve, necessary notification to the NJDEP, preparation and submittal of Remedial Investigation Report (RIR) and Remedial Action Report (RAR). Closure of the release was addressed via the issuance of Response Action Outcome (RAO).
- Portfolio manager of ten (10) petroleum facilities in New Jersey. Management includes client communication, emergency response services, light non-aqueous phase liquid (LNAPL) recovery, remedial investigation, and remedial action implementation and reporting in accordance with NJDEP regulations and health and safety requirements set forth by the client. Reporting tasks extend from historical document request and review, data processing, and synthesis and articulation of data and associated findings.
- Active LSRP for release of 150-gallon release of Drag Reducing Agent (DRA) from leaving needle valve in manifold area of large bulk storage petroleum terminal in Linden, New Jersey. Activities included implementation and oversight of emergency response activities (i.e., enhanced fluid recovery and excavation activities) at the detection of the failed valve, necessary notification to the NJDEP, preparation and submittal of RIR and RAR. Closure of the release was addressed via the issuance of RAO.
- Active LSRP for four sites in New Jersey with biennial certification reporting and sampling/inspection requirements. Where applicable, biennial reporting is supported with necessary financial assurance documentation.

- Field team manager for LA County Exide project as part of a successful execution of the rapid assessment for lead at 500 residential parcels over two weeks in the communities of Commerce, Maywood, and East Los Angeles. Responsibilities included soil assessment field team oversight, preparation of field documentation, onsite health and safety management, soil sample preparation, XRF analysis of soil samples, and sample collection.
- Project manager for an industrial site in northern New Jersey requiring monitored natural attenuation biannual recertification as the remedial approach in accordance with NJDEP regulations. Responsibilities included coordination with laboratory and equipment companies, collection of groundwater samples, and management of other field personnel. The Site was granted a Remedial Action Outcome with unrestricted use.

Insurance/Litigation Experience

- Project Manager and lead investigator on multiple claim review projects for a major insurance company. Projects involved reviewing the scope of investigations and remediation and evaluating the reasonableness and appropriateness of the costs relative to the terms of the insurance policies.
- Project Manager and lead investigator on a Site under multiple major insurance companies. The project involved reviewing the scope of investigation and remediation, and the reasonableness and appropriateness of the costs relative to the terms of the insurance policies. Periodically, Roux reviewed claim documentation and evaluated the validity of the claimed costs. Other responsibilities included management of the remedial investigation at the multi-tenant property including management of field teams and overseeing and implementing soil and groundwater samples.
- Provided litigation support on two separate cases. Created site background and developed site history for understanding and

implementation of expert reports. Determined the reasonableness and appropriateness of the costs relative to the terms of the insurance policies.

PROFESSIONAL TRAININGS

- OSHA 40-Hour Health and Safety Training, 2013
- OSHA 8-Hour Refresher Training, 2014-2024
- ExxonMobil Loss Prevention System Training
- Buckeye Partners Person-In-Charge Training

PROFESSIONAL AFFILIATIONS

- Association of Medical Facility Professionals
- National Association of Women in Construction
- NAIOP – Commercial Real Estate Development Association

PRESENTATIONS

- Remediation of Chlorinated Solvent Plume in Fractured Bedrock via Pneumatically-Enhanced Injections of Zero-Valent Iron and Carbon Substrate, Twelfth International Conference on Remediation of Chlorinated and Recalcitrant Compounds, Palm Springs, California, 2022
- Importance of Matrix Diffusion in Remediation Pumping: Sensitivity Analysis of Fracture Geometry and Matrix Parameters, Geological Society of America Annual Meeting, Vancouver, British Columbia, 2014

PUBLICATIONS

- Using Fracture Flow Modeling to Understand the Effectiveness of Pump and Treat Remediation in Dual Permeability Media, 2015
- Paleo-stream competency as a test of distributary fluvial system model: Upper Devonian Catskill Formation, Central Pennsylvania, Geological Society of America Northeastern Meeting, Bretton Woods, New Hampshire, 2015