ROBERT LANGDON

Education

B.S., Geology, University of Wisconsin-Madison, 1993

Master's coursework in hydrogeology, San Jose State University, California, 1994

Professional Experience

Mr. Langdon has three decades of experience in the environmental field, including project management, hydraulic testing, site characterization, groundwater modeling, environmental site assessment, and vapor intrusion assessment and mitigation with an emphasis on dry cleaner and industrial chlorinated solvent sites. His responsibilities have included management of site investigation and remediation programs, coordination of hydraulic testing programs, designing groundwater flow models, preparing Environmental Site Assessments, and performing a variety of investigative fieldwork including soil and soil gas sampling, drilling oversight, groundwater monitoring well installation, and groundwater sampling.

Groundwater Modeling

Alameda Naval Air Station, Alameda, California. Collected data and prepared steady state and transient numerical groundwater flow models, simulating flow through a "funnel and gate" groundwater treatment system. Model results were used to predict groundwater capture zones under varying hydraulic conditions and system designs.

B & J Landfill, Vacaville, California. Coordinated data collection and prepared a steady-state numerical flow model. The model was used to predict the effectiveness of a proposed inward-gradient groundwater treatment system used to control the migration of impacted groundwater from the landfill.

Various Sites, California. Worked on numerous groundwater treatment projects where numerical groundwater models were used to predict groundwater capture and determine effective treatment design.

City Disposal Landfill, Town of Dunn, Wisconsin. Prepared groundwater capture model for an air sparge treatment system.

Madison Gas & Electric, Madison, Wisconsin. Conducted groundwater flow modeling of Dane County to assist with permitting and installation of high-capacity water supply wells.

Environmental Site Investigation/Remedial Action

Various Sites, Wisconsin. Manages dry cleaner cleanup projects under the Wisconsin Department of Natural Resources' (WDNR's) Drycleaner Environmental Repair Program (DERP) and petroleum cleanup projects under WDNR's Petroleum Environmental Cleanup Award (PECFA) program.

Various Sites, Wisconsin. Conducted various environmental investigation, remediation, vapor assessment, and vapor mitigation activities at several dry cleaner sites in Wisconsin including:

- Donaldson's One Hour Cleaners (Neenah)
- Paul's Classic Cleaners (Madison)
- Classic Cleaners (Monona)
- Monroe One Hour Cleaners (Monroe)
- Platteville Cleaners (Platteville)
- Arctic Cleaners (Kenosha)
- Sandies Dry Cleaners (Little Chute)
- Klinke Cleaners (Monona)
- Vogues Cleaners (Madison)
- Fabric Care Specialists (Madison)
- Nimitz Laundry (Wisconsin Dells)
- Larson Cleaners (Chilton)
- So's Cleaners (Appleton)
- Kessler Cleaners (Cuba City)
- J & J Laundry (Waupaca)
- Laundry & Drycleaning Supply (Milwaukee)
- Other historic dry cleaner facilities

Closed Alameda Naval Air Station, Alameda, California. Conducted investigation of a large chlorinated solvent groundwater plume. Work included management of well installation, groundwater sampling, and reporting activities focused on defining the degree and extent of contamination.

Various Sites, Wisconsin. Conducted site investigation and remedial action work at several industrial and commercial facilities with chlorinated solvent contamination.

Aquifer Hydraulic Testing and Analysis

Various Sites, Wisconsin. Coordinated various hydraulic testing programs for groundwater flow and transport analysis at dozens of petroleum, chlorinated solvent, and solid waste landfill sites.

Pacific Gas & Electric (PG&E) Compressor Station, Hinkley, California. Managed hydraulic tests within a shallow chromium-impacted aquifer. Tests performed included 72-hour pumping tests and single well "slug" tests. Test results were reduced, and calculated aquifer parameters were used for a large-scale numerical groundwater model.

RocketDyne, Canoga Park, California. Oversaw borehole packer testing within a fractured sandstone aquifer. Test results were used to calculate aquifer permeability and assess potential contaminant migration pathways.

Furnace Creek, Death Valley, Inyo County, California. Supervised a 72-hour pumping test at a Park Service municipal supply well. The test was performed to assess supply well capacity for anticipated future water supply to Death Valley National Park.

Norton Energy Storage, LLC, Doylestown, Ohio. Instrumented and monitored a 72-hour pumping test at a new municipal well. Test results were reduced to determine well capacity and the influence of the pumping on nearby municipal and private wells.

Alameda Naval Air Station, Alameda, California. Oversaw 24-hour injection tests within an aquifer that feeds into the San Francisco Bay. Test results were incorporated into a numerical groundwater flow model and used to predict the effectiveness of a groundwater treatment system.

Vapor Assessment and Mitigation

Various Sites, Wisconsin. Conducted vapor assessment and mitigation work for several of the above-noted dry cleaner project sites.

Various Sites, Wisconsin. Assisted the WDNR Remediation and Redevelopment Group with development of their RR-800 Vapor Intrusion Guidance Document. Work included meetings and correspondence with WDNR staff.

Various Sites, Wisconsin. Since 2013, managed state-wide Vapor Intrusion Zone Contract (VIZC) for WDNR's state-lead vapor projects. Work includes coordinating access to various properties, conducting sub-slab and indoor air sampling, and installing vapor mitigation systems for mostly chlorinated solvent sites.

Madison Kipp, Madison, Wisconsin. Coordinated vapor assessment sampling and mitigation for the WDNR's project. Work included sub-slab and ambient air sampling for 42 homes to assess the potential for vapor intrusion of tetrachloroethylene (PCE). Mitigation systems were installed in 27 homes.

Former Gardner Manufacturing, Horicon, Wisconsin. Coordinated vapor assessment sampling for the WDNR's project. Work included sub-slab and ambient air sampling at 14 homes to assess the potential for vapor intrusion of trichloroethylene (TCE). The WDNR installed vapor mitigation systems at some of the homes based on investigation findings.

Former Burdick Property, Milton, Wisconsin. Managed vapor assessment and vapor mitigation for redevelopment. This former manufacturing facility was redeveloped as Blackhawk Technical College. Primary contaminants of concern included chlorinated solvents from former manufacturing operations.

Water Resources

Proposed Yucca Mountain Nuclear Repository, Nevada. Installed instrumentation to gather weather and stream flow data from a remote high desert valley. Data were collected over a 2-year period, reduced, and submitted to the client for incorporation into a regional water budget study.

Diablo Grande Golf Course, Patterson, California. Performed stream flow monitoring and long-term pumping tests to assess the availability of groundwater for irrigation and drinking water.