

**Daniel R. Pasteris, Ph.D.**  
**Environmental Scientist and Geochemist**

**Professional Experience**

Dr. Pasteris is an Environmental Scientist and Geochemist with ten years of experience in applied geology, hydrology, and geochemistry. In the environmental field, Dr. Pasteris has conducted National Environmental Policy Act (NEPA) studies, preparation of mining permit applications, and baseline hydrological and geochemical studies, Resource Conservation and Recovery Act (RCRA) hazardous waste determinations and management, and Phase I and Phase II environmental site assessments. His experience in geology, hydrology and geochemistry, gives Dr. Pasteris the versatility to provide a range of technical solutions.

**Education**

Ph.D., Hydrology, University of Nevada, Reno, Nevada, 2013.

M.S., Hydrology, University of Nevada, Reno, Nevada, 2009.

B.S., Geology, University of Massachusetts, Amherst, Massachusetts, 2001.

**Certifications and Registrations**

OSHA, 29 CFR 1910 40-Hour, Hazardous Waste Operations and Emergency Response (HAZWOPER).

MSHA Part 48, Surface Miner Training.

**Project Experience**

*Select Mining Environmental Permitting and Compliance Projects*

Dr. Pasteris has performed mine closure hydrogeologic assessments, prepared reclamation cost estimate (RCE) updates, updated notices of intent and plans of operations, served as regulatory liaison for bonding and permitting decisions, and conducted third-party review of baseline geochemical and hydrologic studies. With his background in hydrology and geochemistry, Dr. Pasteris is poised to conduct studies such as waste rock characterization, predictive pit lake water quality assessments, heap leach drain down studies, and hydrogeologic baseline studies. Select projects include:

- **Florida Canyon Mine, Imlay, Nevada** – Project Hydrologist collaborating on the predictive modeling of heap leach pad drain down, to support a revision of bonding; the numerical model HYDRUS was chosen over the state-provided Heap Leach Draindown Estimator (HLDE) in order to more realistically incorporate spatial data and harness a wider range of modeling tools and concepts, including evapotranspiration (ET) cover design.
- **Dry Canyon Mine, Winnemucca, Nevada** – Project Manager responsible for overhauling the RCE for the Dry Canyon mine near Winnemucca, Nevada. Negotiated on behalf of the mine with regulators from the BLM and the NDEP to improve the accuracy and scope of reclamation plan to meet commonly applied standards of public safety, visual aesthetics, and ecology. The cost associated with an increase in reclamation activities was offset by savings found elsewhere in the previous RCE, such that there was no overall increase in the reclamation bond amount.

- **Third Party Document Review, Multiple Mines throughout Nevada** – Project Geochemist responsible for evaluating geochemical and hydrogeological studies, generating review comments with the goal of meeting agency standards of acceptance and maintaining or improving project time schedules, and serving as regulatory liaison. Mines for which studies have been reviewed include Phoenix, Marigold, Round Mountain, Goldstrike, Relief Canyon and others. The breadth of review work and regulatory liaison activity have provided valuable insight into the expectations of each agency.

### *Select Phase I Environmental Site Assessments Projects*

Staff Geologist and Project Manager responsible for performing over 150 Phase I Environmental Site Assessments (ESAs) in the states of Nevada, Idaho, Oregon, Washington, and California. The assessed sites have included gas stations, manufacturing facilities, food processing facilities, commercial developments, and former ranch land. The Phase I's were conducted in accordance with ASTM 1527E and accepted industry standards, and are fully compliant with the standards for All Appropriate Inquiries (AAI) set by the EPA. Select projects include:

- **Geothermal Power Plant, Humboldt County, Nevada** – Project Manager responsible for conducting a Phase I ESA on a geothermal power plant that contained hazardous water treatment chemicals, several electrical transformers, large quantities of lubricating oil, and three fuel ASTs. The potential for impacts to the surface aquifer from discharge of deep geothermal fluid were assessed through review of the facility discharge permits and reports and determined to be insignificant.
- **Former Ranch, Sparks, Nevada** – Project Manager responsible for conducting a Phase I ESA of large former ranch that included former home sites and an unresolved heating oil underground storage tank (UST) release. Recognized environmental conditions were addressed in a Phase II ESA and soil remediation project to bring the site into compliance with unrestricted residential use criteria.
- **Former Concrete Finisher, Sparks, Nevada** – Project Manager responsible for conducting a Phase I and Phase II ESA of a 60 year-old construction company property with two generations of underground storage tank (UST) systems, a waste oil UST, a heating oil UST, and a dry well located within a vehicle maintenance shop. A Phase II ESA and limited remediation work were conducted to address all the recognized environmental conditions.
- **Casino-Hotel Property, Stateline, Nevada** – Project Manager responsible for conducting a Phase I ESA of a large casino resort that included extensive file review of a historical release at the site. The Phase I ESA concluded that additional investigation for due diligence purposes was not warranted because the case had received a properly administered no-further-action determination from the applicable regulatory agency.
- **Hotel Property, Sparks, Nevada** – Project Manager responsible for conducting a Phase I ESA on a hotel property located immediately downgradient of a large petroleum bulk plant with a plume of solvent and petroleum contaminated groundwater that extended beneath the Subject Property. The Phase I ESA concluded that additional assessment was not warranted because an off-site responsible party had been identified and the case was being overseen by the applicable regulatory agency.

- **Casino-Hotel Property, Reno, Nevada** – Project Manager responsible for conducting a Phase I ESA on a large hotel property built on a collection of parcels that had been previously used as residences, gas stations, a car wash, and a lumber mill. The Phase I ESA concluded that a Phase II was not necessary for due diligence purposes because the gas station USTs had been closed with subsurface assessment that was overseen by the applicable regulatory agency. It was determined that the historical presence of a lumber mill did not by itself warrant additional due diligence assessments.

### *Select Phase II Environmental Site Assessment and Remediation Projects*

Dr. Pasteris has conducted numerous Phase II ESAs involving subsurface soil, groundwater, and vapor sampling. The Phase II ESAs were used to establish the presence or absence of environmental impacts prior to commercial real estate transactions. Responsibilities included project management, field work, technical report writing, and regulatory liaison activity with the NDEP. Select projects include:

- **Cattle Pesticide Disposal, Washoe County, Nevada** – Project Manager responsible for clearing a site of three cattle oilers containing a hazardous pesticide. Some of the pesticide/oil mixture had leaked into the ground, requiring excavation and disposal of the impacted soil. RCRA hazardous waste determinations were performed, and the various waste streams were disposed of at the appropriate offsite facilities. The project was managed to ensure that all of the pesticide impacted material was removed from the site while also minimizing the amount of hazardous waste generated and limiting regulatory reporting requirements.
- **Former Concrete Finisher, Sparks, Nevada** – Project Manager responsible for a Phase II ESA conducted to assess several recognized environmental conditions (RECs) on the property. Three USTs were removed, one was closed in place, and one dry well was excavated in a vehicle maintenance shop. The assessment revealed that no extensive releases had occurred, and the real estate transaction was able to proceed.
- **Heating Oil Tank Release, Sparks, Nevada** – Project Manager responsible for finding and excavating heating oil-impacted soil remaining beneath a house, following demolition. The soil was successfully located using aerial photography, and its extent and magnitude was verified using a Geoprobe investigation. The heart of the contaminated soil was then excavated to meet unrestricted residential use criteria.
- **Motorcycle Dealership, Carson City, Nevada** – Project Manager responsible for assessing soil, groundwater, and soil gas (vapor) impacts to a Subject Property from a large adjacent gasoline leaking underground storage tank (LUST) release. The assessment identified high concentrations of gasoline constituents remaining in groundwater at concentrations similar to those present twenty years earlier, when the LUST case was closed. Concentrations in soil and soil gas were limited however, such that human health at the Subject Property was not threatened. The due diligence assessment provided the purchaser with eligibility for landowner liability protections (LLPs) from cleanup costs, should the remaining contaminated groundwater ever need to be cleaned up in the future.