

POSITION TITLE: Post-Graduate and/or Faculty, Geological & Environmental Sciences, Groundwater Impacts

DEPARTMENT: U.S. Department of Energy

AGENCY: National Energy Technology Laboratory (NETL)

LEVEL: Post-Graduate, Faculty

POSITION INFORMATION: Temporary, ~12 months Full-Time, (40 hours per week), with opportunity for renewal. Part-time faculty appointment.

DUTY LOCATION: Pittsburgh, PA

WHO MAY BE CONSIDERED: United States Citizens & Foreign Nationals with appropriate approval

SUMMARY:

Through the Oak Ridge Institute for Science and Education (ORISE) this posting seeks motivated, post-graduates (M.S. and/or PhD) and faculty interested in researching as part of the geologic and environmental sciences focus area research team at NETL. NETL is a multi-disciplinary, scientific and technical-oriented national laboratory. NETL's Office of Research and Development (ORD) conducts research to evaluate environmental impacts and risk assessments associated with domestic energy resource development.

As carbon storage sites are developed, monitoring strategies are needed in order to evaluate whether CO₂ or fluids have leaked into shallower geologic reservoirs such as groundwater aquifers. Tracking produced waters and other fluids associated with energy development, such as those generated during hydraulic fracturing of gas shales, also requires monitoring strategies. Impacts to groundwater above background levels are being investigated for all systems.

Applicants for this position must have experience and capability to develop laboratory experiments evaluating water-rock interactions under CO₂ storage and groundwater conditions. A candidate will be expected to develop experimental studies on samples from a variety of CO₂ storage aquifer classes to focus on responses based on aquifer class. Applicants must have a strong background chemistry, mineralogy, and/or biogeochemistry. Applicants must also be proficient at interpretation of wet-chemistry data (ICP-MS, ICP-OES), and also capable of mineral characterization.

Successful candidates will work in the geochemistry facilities associated with NETL and collaborator institutions. The candidate should be able to perform independent research projects, and perform work as part of an interdisciplinary team, including colleagues at NETL, site support contract staff, and university collaborators. Familiarity with statistics, groundwater geochemistry, mineral reactions, and oil and gas operations would be beneficial.

KEY REQUIREMENTS:

- Applicants must be U.S. Citizens or approved Foreign Nationals
- Must hold a M.S. or PhD degree in Geology, Environmental Engineering, or related field from an accredited institution.

HOW TO APPLY:

Applicants should apply through the Oak Ridge Institute for Science and Education (ORISE) program. The ORISE Program provides opportunities for undergraduate students, recent graduates, graduate students, postdoctoral researchers, and faculty researchers. NETL utilizes the ORISE program to support research and work within NETL's Office of Research & Development.

- Interested applicants should complete the online application at <http://www.ornl.gov/netl/>
- In the online application **list Christina Lopano as your requested mentor**. This will associate your application with this job posting. If you have additional questions please contact Nancy Andres, Nancy.Andres@NETL.DOE.GOV, who is the NETL ORISE program contact.