

## M.S. Graduate Research Assistantship: Idaho State University & USGS Water Science Center at the Idaho National Laboratory

**Igneous petrology, volcanology, and geochemistry in the Quaternary eastern Snake River Plain volcanic province.**



**Overview:** The graduate student will work with faculty in the Department of Geosciences at Idaho State University (ISU) and geoscientists at the U.S. Geological Survey (USGS) Water Science Center at the Idaho National Laboratory (INL). Ongoing work by the USGS at the INL aims to characterize the eastern Snake River Plain aquifer with respect to the migration of radioactive and chemical wastes. To this end, the USGS has drilled deep boreholes in order to monitor groundwater and better constrain the stratigraphy beneath the INL by regionally correlating subsurface volcanic and sedimentary rocks. The rock core recovered from these boreholes also offers a unique 4D perspective on the spatial, temporal, and geochemical evolution of this active volcanic province. The details of the MS thesis project are flexible but will fit within the framework of the USGS's goals to better characterize the subsurface; it may also contribute to the INL's active Probabilistic Volcanic Hazard Assessment. The student will work with surface and subsurface data (including logging of basalt-dominated core) and likely apply various analytical techniques (e.g., geochemical analysis, geochronology, petrography, etc.). The start date is August of 2022.

**Qualifications:** B.S. in geology or related field; minimum undergraduate GPA of 3.0; and three excellent letters of recommendation. GRE quantitative, verbal, and writing scores above the 50<sup>th</sup> percentile are preferred. The student must be able to work in a collaborative environment with ISU faculty and the USGS. For information about ISU Geosciences or the USGS Water Science Center, visit <https://isu.edu/geosciences/> or <https://www.usgs.gov/centers/id-water/science/idaho-national-laboratory-project-office>.

**Funding:** The two-year MS project in the ISU Department of Geosciences is fully funded by the USGS. The student will receive a monthly stipend, including summer support, and a tuition scholarship to pursue graduate studies. Support also includes a \$5,000 research budget and \$1,500 for conference travel.



**To apply:** Email a letter of interest and CV/resume to Dr. Kendra Murray ([kendramurray@isu.edu](mailto:kendramurray@isu.edu)). Then, submit a formal application for this position by **January 31, 2022** (slightly later than the deadline for other graduate applications to ISU Geosciences), including official transcripts, three letters of recommendation, official GRE scores (not required for fall 2022 admission), and a letter of intent. More information about the application process and requirements can be found at: <https://isu.edu/geosciences/graduate/m.s.-geology/>.