

BLM Direct Hire Authority for Resource Assistant
Program
Geology Projects – Occupational Series 1350

GSA Project ID: 2017613

Project Title: Geology Resource Assistant

Location: BLM El Centro Field Office, California

Related Degree: Geology (GIS coursework recommended)

Project Mentor: Carrie Sahagun

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Project Description

The Field Office in coordination with the California State Office has been actively issuing and managing geothermal leases over the past 30 years. It is imperative that the BLM build a database that tracks temporally and spatially the current leases and their stipulations as well as the geothermal facilities that are in existence or to be added to the BLM's important renewable energy and fluid mineral program. The DHA intern would work with the State, District and Field Office Geologists to gather the leasing and project data and then build a tracking spreadsheet and database as well as a GIS layer that can be added to over time. In addition, the intern would assist the Field Office with inspections of geothermal and mining facilities in order grow their knowledge of the BLM minerals program. The goals of the project will be to build a geodatabase system, that tracks BLM El Centro Field Office geothermal leases and facilities located on the public lands, develop a management system to track lease and project stipulations to expedite review of sundries and other geothermal project changes and strengthen relationships with our geothermal lessees.

Project Expectations

- Work with office personnel, other agency partners, and permittees to gather background information and resources.
- Review case files for all current geothermal leases
- Create a stipulation tracking spreadsheet to record all relevant data. Coordination with office personnel ensuring the spreadsheet is available and useful for all staff.
- Coordinate with GIS specialist and create format for GIS lease layer
- Learn minerals permitting process.
- Contact lessees and schedule visits
- Conduct field visits to geothermal facilities as appropriate.
- Assist with preparation of NEPA compliance documents
- Update case files
- Learn how to conduct field visits to do compliance checks as appropriate.
- Learn about how the office processes minerals actions
- Display tracking spreadsheet, GIS layers, and report on compiled data.
- Attend office meetings as necessary and present on progress.
- Work with office staff to ensure the long-term accessibility and user-ability of the GIS layers and tracking spreadsheet.
- Prepare and present briefings for BLM Field Office staff and State Office staff on completion of project and geodatabase.
- Work with staff to ensure collected information is appropriately saved and accessible for future use.

BLM Direct Hire Authority for Resource Assistant
Program
Geology Projects – Occupational Series 1350

GSA Project ID: 2017679

Project Title: Geology/Geologic Engineering Resource Assistant

Location: BLM Lander Field Office, Wyoming

Related Degree: Geology or Geologic Engineering with successful completion of geologic field school

Project Mentor: Tom Sunderland & Benjamin Kniola

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Project Description

The Lander Field Office is completing a Mineral Potential Report for the proposed withdrawal of lands from locatable mineral entry to protect sage grouse habitat as described in the Lander Record of Decision and Approved Resource Management Plan (2014). A draft of the Mineral Potential Report was completed fall 2015, and subsequent supplemental reports were completed 2016; however, the remaining work load consists of completing a supplemental report for metals within the proposed withdrawal area. Work will consist of evaluating and collecting samples to determine mineral potential primarily in the South Pass area of Wyoming at the southern end of the Wind River Mountain range within portions of the South Pass/Atlantic City and Lewiston Mining Districts. Work will consist of detailed records review, preparation of a sampling plan, and collection and analysis of a representative number of samples to determine mineral potential within the area of interest. The finished product will consist of a supplemental report to the 2015 draft Mineral Potential Report on the potential for metal and metalliferous mineral deposits within the South Pass study area of the proposed withdrawal.

The project goal is to provide a clear and concise evaluation of the potential for deposits of metals and metalliferous minerals within the South Pass area of the Lander Field Office proposed withdrawal area in order to allow the Secretary of Interior to make a fully reasoned decision regarding the withdrawal for sage grouse protections.

Project Expectations

- Review and evaluate existing reports and applicable regulations; deliver summary of results
- Review current uses (mining and mining claim history) and become familiar with geology and geography of field area; deliver summary of results
- Prepare and submit sampling and testing plan including sampling techniques and a schedule. Contact labs available to complete analysis of samples in accordance with BLM guidance.
- Begin field work and sampling program working in conjunction with the Project Coordinator; field work will consist of interpreting and mapping site geology as necessary at selected sampling locations, and collecting samples consistent with BLM Handbook H-3890-1; samples will likely be collected with small-portable power tools, hand tools, and gold pans; samples with adequate chain of custody and notes to be delivered as collected; samples will be prepared as necessary and submitted to selected labs for preparation and analysis; field work schedule can be determined by the intern with coordination of the Project Coordinator.
- Compile sampling notes and information into report
- Analyze and interpret sampling results for incorporation into report
- Finalize and submit completed report

BLM Direct Hire Authority for Resource Assistant
Program
Geology Projects – Occupational Series 1350

GSA Project ID: 2017682

Project Title: Geology & Minerals Resource Assistant (2 Positions)

Location: BLM Wyoming State Office, National Minerals Testing Laboratory

Related Degree: Geology; must have successfully completed geology field camp

Project Mentor: Marilyn Wegweiser

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Project Description

PHASE 1 (about 1 month) Beginning in lands managed by BLM Wyoming, map outcrops of strata suspected of containing the mineral Erionite. Create geologic maps on a topographic base. Collect representative samples. Return to base and assemble collected data and compare it to existing information. Draw stratigraphic columns, and transfer the physical data collected to a GIS layer. Some field work will require overnight camping in remote areas, or hotel stays reasonably close. All field work will require travel from base (National Minerals Testing Laboratory, NMTL).

PHASE 2: (allot about 1 month) Return to the BLM NMTL and process the samples collected. Analyze the collected samples using the x-ray diffractometer (XRD) and the scanning electron microscope (SEM). The BLM needs this information to be better able to manage the public lands in their respective management areas. Erionite has three forms, and presently it is unknown which form, if any, is present in the suspect outcrops.

At the completion of the project, BLM will have the first phase of a regional map showing areas that are known to contain rocks that contain the mineral Erionite. BLM will immediately be able to use the information to avoid the areas when approving mineral material sales, as one example.

Project Expectations

- Field work in Hawk Butte area (nearest to Worland WY)
- Field work near Jim Mountain (nearest to Cody, WY)
- Field work near Beulah Bell Lake (nearest to Casper, WY)
- Field work mop up, prepare maps and strat columns, possible Pinedale Ash reconn
- Return to NMTL, process samples
- Analyze samples
- Prepare report from sample analysis
- Integrate results into Arc-GIS shape file
- Present report to Wyoming State Office and Chief Mineral Examiner, WO320