

STATE OF MONTANA

JOB DESCRIPTION

Montana state government is an equal opportunity employer. The State shall, upon request, provide reasonable accommodations to otherwise qualified individuals with disabilities.

Job Title: Geotechnical Materials Lab Specialist **Position Number:** 40037, 46019

Location: Helena

Department: Transportation

Division and Bureau: Engineering Division/Geotechnical and Pavement Bureau

Section and Unit: Geotechnical Engineering Section

Job Overview: This position is responsible for laboratory testing of a variety of soil, aggregate, and rock samples used in the geotechnical design of highway construction projects. Testing is performed to ensure compliance with professional engineering design standards, project specifications, and State and Federal regulations. The test results also provide information to construction staff, contractors, and project managers on the engineering parameters of these materials for construction and contract administration.

Essential Functions (Major Duties or Responsibilities):

Laboratory Testing

80%

Perform laboratory tests on various soil and rock specimens including split spoon samples, shelly tubes, bulk samples, and rock core to identify engineering parameters as well as physical characteristics of material to be used for the design of the proposed project.

- Ensure samples are received according to Bureau's standard receiving protocol for sample preservation and storage.
- Performs testing to determine material strength, physical properties, settlement characteristics, and other engineering parameters.
- Ensures accurate results for all test data. Research and pinpoint inconsistencies in the preparation, procedure and/or the calculations so as not to send out erroneous information.
- Prepares data packages to be presented to Geotechnical Professionals.

Laboratory Management

20%

This position is responsible for assisting the lab manager in maintaining and operating a fully functional Geotechnical Testing Laboratory.

- maintain standard operating procedures for the Geotechnical Lab.

- Responsible for quality control and implementing quality assurance procedures and resolving quality assurance problems.
- Responsible for maintaining all lab equipment. Cleans, repairs, calibrates, verifies, and orders replacement parts.
- Organize and maintain an electronic filing system where all documents, test data, office memos, equipment manuals, calibration records, and monitoring site locations can be stored conveniently and securely.
- Create and maintain inventory log to track all samples received, disposed of, distributed for testing, and stored.
- Comply with AASHTO Accreditation Inspections.
- Instructs and trains other technicians in appropriate sample preparation techniques, testing of samples, and maintenance of equipment.

Supervision

The number of employees supervised is: 0

The position number for each supervised employee is: N/A

Physical and Environmental Demands: Work is performed in a laboratory environment with exposure to health hazards such as chemicals, reagents, flammable materials, dust and gases. This position requires the ability to lift heavy items on an occasional basis (40-80 lbs.). Work often requires standing for long periods of time, as well as frequent walking. Proper use of Personal Protective Equipment (PPE) and strict adherence to safety policies and procedures is required.

Knowledge, Skills and Abilities (Behaviors): This work requires thorough knowledge of MDT testing, sample preparation, and inspection procedures; mathematical, algebraic, and geometric formulas; laboratory and equipment safety procedures. The position requires a thorough knowledge and understanding of the standards set for soil/rock testing by governing bodies (ASTM, COE, AASHTO, Materials Bureau). The incumbent must have a thorough knowledge and familiarity of rock/soil materials and an ability to recognize when a discrepancy between the material and its representing data occurred.

The incumbent will be responsible for coordination with other labs in the Materials Bureau for calibration and production testing programs involving multistage sampling, preparation, and evaluation of materials through different areas of the Materials Testing Section. The incumbent must be cognizant of and is responsible for strict adherence to Department sampling and testing standards and procedures and recognize the severe impact errors or omissions may have on the engineering design and long-term performance of features reliant on the testing data produced.

Minimum Qualifications (Education and Experience):

- The required knowledge and skills are typically acquired through a combination of education and experience equivalent to a high school diploma or equivalent.
- Preferred: One year of geotechnical lab technician related work experience or qualification based upon Helena Materials Lab Advancement Policies.
- Combinations of additional related work experience and education equivalent to the minimum qualifications may be considered.

Special Requirements:

List any other special required information for this position

- | | |
|--|---|
| <input type="checkbox"/> Fingerprint check | <input type="checkbox"/> Valid driver’s license |
| <input type="checkbox"/> Background check | <input type="checkbox"/> Other; Describe |
| 035-MFPE Union Code | Safety Responsibilities |

The specific statements shown in each section of this description are not intended to be all inclusive. They represent typical elements and criteria considered necessary to perform the job successfully.

Signatures

My signature below indicates the statements in the job description are accurate and complete.

Immediate Supervisor	Title	Date
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Administrative Review	Title	Date
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My signature below indicates that I have read this job description.

Employee	Title	Date
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Human Resources Review

Job Code Title: Materials Tech. 1 **Job Code Number:** U96011

My signature below indicates that Human Resources has reviewed this job description for completeness and has made the following determinations:

- | | |
|---|--|
| <input type="checkbox"/> FLSA Exempt | <input checked="" type="checkbox"/> FLSA Non-Exempt |
| <input type="checkbox"/> Telework Available | <input checked="" type="checkbox"/> Telework Not Available |
| <input checked="" type="checkbox"/> Classification Complete | <input type="checkbox"/> Organizational Chart attached |

Human Resources:

Tiffany Thornton HR Generalist 3/1/2022

Signature	Title	Date
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