

Position Number: **Benchmark Job #372**

Ministry: Transportation and Highways

Branch: Geotechnical and Materials

Location: Kamloops

Working Title **Geotechnical Assistant**

Level: Range 14 (Paid Range 15 per 13th Master.)

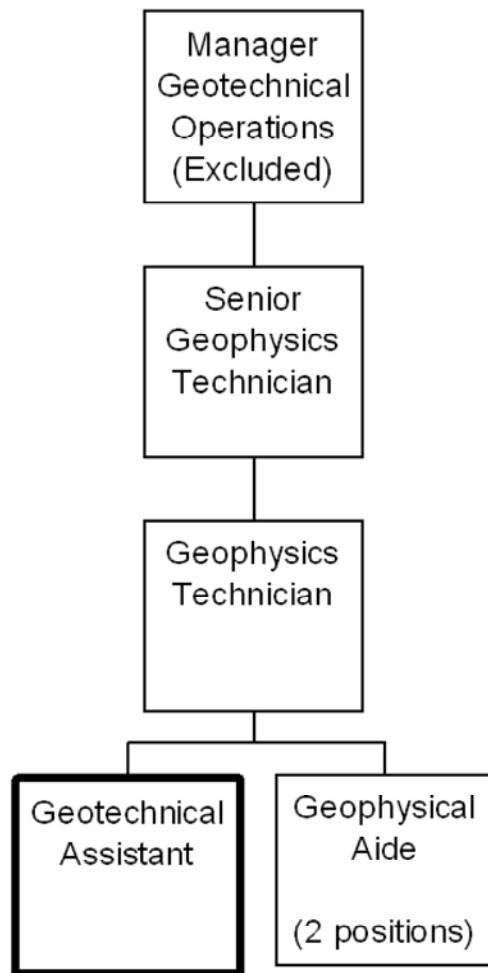
NOC Code: 2212

## PRIMARY FUNCTION

To coordinate the collection of geotechnical data for use in highway planning, design and construction.

## JOB DUTIES AND TASKS

1. Coordinates the collection and preliminary assessment of aggregate and soil data
  - a. operates and sets up electrical, electromagnetic, seismic, vibration monitoring and related sensitive test equipment
  - b. collects, records and charts instrumentation readings
  - c. surveys and plots slopes, cross-sections, grades and other geographic features
  - d. views maps, aerial photos and data bases
  - e. conducts initial mathematical calculations and makes preliminary interpretation of soil/aggregate composition
  - f. tests and performs light repairs on scientific instrumentation and equipment
  - g. leads a crew of 2-4 workers on a part-time basis in collecting and recording Geotechnical data
  - h. operates equipment such as power augers, backhoes, survey equipment and hand held power tools
2. Processes geotechnical data
  - a. processes data on computers using standard software programs including AutoCAD
  - b. prepares assessment of data using computer calculations
  - c. applies routine laboratory based test procedures on samples collected in the field
3. Performs other related duties
  - a. organizes staff in the collection, recording, and reporting of pavement evaluation data and pavement condition surveys
  - b. monitors the application of test procedures on various construction materials such as work products, print, concrete, laminated timbers, reinforcing steel and other procedures
  - c. conducts visual material inspections of roadway subgrades and manufactured products



FACTOR	REASON FOR CLASSIFICATION	DEGREE	POINTS
1	<p><b>JOB KNOWLEDGE</b></p> <p>Have a practical understanding of geophysical applications in highway design and construction to collect and record aggregate and soil data, perform field and lab tests, and conduct surveys.</p>	F	190
2	<p><b>MENTAL DEMANDS</b></p> <p>Judgement to apply analysis and interpretation to soil and aggregate surveys and choose an approach using a combination of accepted procedures to collect data through the use of testing equipment, make preliminary assessments of data, and determine where test samples should be collected by aides assigned to assist.</p>	E	150
3	<p><b>INTERPERSONAL COMMUNICATIONS SKILLS</b></p> <p>Discretion required to exchange information needing an explanation to explain test techniques and to direct others on the use of testing equipment.</p>	C	30
4	<p><b>PHYSICAL COORDINATION AND DEXTERITY</b></p> <p>Significant coordination and dexterity is required to test, repair and set-up sensitive data collection equipment.</p>	D	22.5
5	<p><b>RESPONSIBILITY FOR WORK ASSIGNMENTS</b></p> <p>Guided by general procedures or instructions, selects alternative course of action to coordinate the collection of field data, survey and draft geotechnical features, and explain results of readings from instrumentation.</p>	D	75
6	<p><b>RESPONSIBILITY FOR FINANCIAL RESOURCES</b></p> <p>Responsibility for financial resources to request consumable supplies.</p>	A	5

FACTOR	REASON FOR CLASSIFICATION	DEGREE	POINTS
7	<p><b>RESPONSIBILITY FOR PHYSICAL ASSETS/INFORMATION</b></p> <p>Significant responsibility to ensure geotechnical data is properly collected and recorded by others to meet prescribed standards for engineering based decisions.</p>	D	22.5
8	<p><b>RESPONSIBILITY FOR HUMAN RESOURCES</b></p> <p>Responsibility to assign, monitor and review the work of geotechnical aides and other crew engaged in data collection (up to 1 FTE).</p>	CC	13
9	<p><b>RESPONSIBILITY FOR WELL BEING/SAFETY OF OTHERS</b></p> <p>Moderate care and attention to operate a vehicle as a designated driver to attend the various testing sites.</p>	C	15
10	<p><b>SENSORY EFFORT/MULTIPLE DEMANDS</b></p> <p>Focused attention to detail to use frequently visually examine soil and aggregates.</p>	C	12
11	<p><b>PHYSICAL EFFORT</b></p> <p>Heavy physical effort to regularly lift and carry heavy weights such as soil samples, power augurs and test equipment.</p>	E	24
12	<p><b>SURROUNDINGS</b></p> <p>Exposure to the elements on a frequent basis while doing field work in all weather conditions with no available shelter.</p>	D	9
13	<p><b>HAZARDS</b></p> <p>Significant exposure to hazards from frequently performing work on field trips to remote areas.</p>	D	9

Total Points: 577

Level: Range 14

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