Job Class Profile: Geologist II

Pay Level: CG-41 Point Band: 950-993

Factor	Knowledge	Interpersonal Skills	Physical Effort	Concentration	Complexity	Accountability & Decision Making	Impact	Development and Leadership	Environmental Working Conditions	Total Points
Rating	7	5	4	5	6	5	5	3	5	
Points	327	83	25	24	180	108	103	64	54	968

JOB SUMMARY

The Geologist II is responsible for assessing mineral resources, geological mapping and related research. Work includes responsibility for conducting minor field projects in an assigned area of the province.

Key and Periodic Activities:

- Organizes and conducts geological mapping surveys in an assigned area of the province; examines mineral deposits; investigates geological problems; analyzes the information obtained for publication reports, maps and diagrams embodying the results of the field work and of laboratory studies.
- Identifies geological formations visually by rock type and records in field notes; collects information and manual samples; plots precise location on base maps.
- Selects and codes data into a computerized database; maintains database quality control by verifying data for inclusion into the database; performs periodic and systemic updates; provides input into the choice of software and hardware systems.
- Supervises field staff; plans and schedules daily work; discusses findings and makes recommendations.
- Assists in monitoring exploration activity within an assigned region of the Province.
- Assists mining and exploration interests by identifying rocks and minerals, supplying geological data and advising on the conduct of mineral exploration program.
- Prepares annual project proposals and budgets for assigned area (field staff; helicopter and fixed wing aircraft; fuel and equipment supplies).
- Prepares papers dealing with the geological sciences and mining industry for presentation to meetings of technical and professional organizations or for publications by them.
- Attends professional development seminars.
- Presents displays at local, national and international conferences, workshops and other public forums.

SKILL

Knowledge

General and Specific Knowledge:

— Specific knowledge of geological field work such as sampling.

— Specific knowledge and use of Geographical Information Systems (GIS) software, database, spreadsheet, presentation, graphics, text and other customized software.

— Specialized knowledge of the fields of geochemistry, structural geology and tectonics and cognizance of the geological evolution of areas of the Province.

Formal Education and/or Certification(s):

— Minimum: Graduate Degree in Geology (Masters or PhD)

Years of Experience:

— Minimum: 3 - 4 years

Competencies:

— Analytical skills

— Written and verbal communication skills

— Ability to operate GPS and other technology

— Creative problem solving skills

Interpersonal Skills

— A range of interpersonal skills are used to communicate complex information, prepare concise, technical and scientific reports and publications, listen to staff for recent scientific and technical advice, providing expert advice and guidance to others, prepare and deliver presentations and technical talks, collaborate with exploration industry personnel, and provide instruction and direction to staff.

— Communications occur with employees within the immediate work area and department, senior Geologist/supervisor, managers, industry clients and students.

— The most significant contact is with senior Geologist/supervisor for discussion, procedures and time lines; professional employees within immediate work area for collaboration, theoretical and logistical scientific advice, and industry clients.

EFFORT

Physical Effort

— Work regularly results in considerable fatigue requiring periods of rest during field work.

— Field work requires almost constant physical movement and exertion; hiking with heavy backpack in rugged terrain in variable weather conditions, collecting and carrying rock samples, using hammers and digging, recording data using hand held computer and GPS. Also, while in the field may have to unload equipment and supplies from planes, helicopters, trucks and boats, setting up field camp and using mechanical equipment and general camp maintenance. Field work entails working long days to maximize the season. Lifting items such as equipment, supplies and samples is also required.

— Fine finger and precision work is required for computer use, operating microscopes, using cameras and rock saws. Occasionally uses rock saws to prepare rocks for processing.

Concentration

— **Visual** concentration is required when staring at a computer screen, staring at samples through

a microscope, identifying rocks and minerals and reading reports.

— **Auditory** concentration may include awareness of unique hazards and machines in the field and listening to client questions.

— **Time pressures** to write reports, analyze data and present findings for industry use. Also, during field work, transportation **interruptions** due to weather cause additional time pressures to complete required work in the remaining time.

— **Eye/hand coordination** is required both in office and field work to use equipment such as hammers to extract samples, drive ATVs, boats and trucks, digitizing data in map creation, using microscopes.

— **Exact results and precision** are regular requirements while conducting analytical work using scientific equipment; for navigating in the field; sample processing and data entry.

— Concentration effort may include sample extraction (fossils and minerals), navigation on land and water; determine exact location in dense woods, computerized drawing of complex 3D models and detailed map preparation.

Complexity

— Tasks and activities range from repetitive/well-defined to different and unrelated. Class collects and interprets scientific data, performs examination of mineral deposits and investigation of geological problems calling upon a broad range of skill and knowledge to define new problems and develop solutions, some of which require creative problem definition and analysis. Problems are often unique and multi-faceted, at other times will require practical solutions. Technical and administrative supervision is provided by a senior Geologist.

— Reference material to assist in solving problems including policies and procedures, external documents and advice from colleagues and subject matter experts.

RESPONSIBILITY

Accountability and Decision-Making

— Responsible for the management of digital data within their section and the integration of digital maps. Collects and interprets scientific data. Responsible for logistics and supervision of field operations.

— Scientific interpretation and findings based on professional research, analysis and investigation stimulate industry action and investment, affect departmental initiatives and policy.

— Formal reports and maps are reviewed by the Senior Geologist before approval for publication is given.

— Project proposals and budgets are prepared under guidelines from senior staff and are submitted to senior staff for approval.

— Works independently when supervising and conducting field work and uses independent decision making and exercises a high degree of discretion when interpreting and analyzing data.

— In isolated field situations, provides support to and ensures the safety of all field staff, especially students.

Impact

— Generally have an impact within immediate work area, department and group, outside the

organization and on customers and clients. Results impact information, processes and systems, and corporate image.

— Successful completion and implementation of projects have a direct impact on industries such as Mineral Exploration Industry, potentially providing economic stimulus through investment. Assists in monitoring exploratory activity within an assigned region of the province and supplying geological data to support decision making.

— In the event of an error or mistake, time and financial investment can be lost.

Development and Leadership of Others

— There is no supervision of staff.

— Oversees field party staff and serves as team lead on field research and technical projects.

WORKING CONDITIONS

Environmental Working Conditions

— Safety precautions such as safety and first aid (standard and wilderness) and extensive safety equipment are required prior to beginning of field work.

— There is a limited to moderate likelihood for injuries or illness resulting from hazards.

— May be exposed to undesirable conditions and natural dangers during field work (i.e. glare, dirt, hazardous chemicals, temperature extremes, biting insects and potentially dangerous animals, sharp objects, noisy and vibrating mechanical equipment, heavy machinery, travel and adverse weather conditions).