

# **GEOLOGIST 1**

## **GENERAL**

This is an entry level to the Geologist series or a full working level for geological assistants. This level requires responsible professional work performed under direct supervision. An incumbent assists a more senior Geologist collecting, collating and compiling geological data. Assignments normally comprise part of broad projects, are of limited scope and complexity and follow standard procedures.

## **TYPICAL DUTIES**

Assists in planning logistics of annual field work programs.

Participates in and, upon instruction, supervises the work of a field party; monitors collection and transference of field data, checking for accuracy and omissions.

Prepares working copies of graphs, maps, diagrams and stereographic projections from field and laboratory data.

Conducts specific technical tests and analyses on rock specimens and drill core.

Undertakes compilations and computations of geological and/or exploration data prior to detailed analysis.

Performs other duties as assigned.

## **QUALIFICATIONS**

### **Knowledge, Abilities and Skills**

Practical knowledge of exploration techniques and evaluation of geological data.

Practical knowledge of geological principles and their application.

Practical knowledge of geological survey methods and laboratory techniques.

Ability to make basic assessments of geological, geotechnical and geophysical data.

### **Education, Training and Experience**

B.Sc. in geology or geological engineering with a minimum of two seasons' related experience.

# **GEOLOGIST 2**

## **GENERAL**

This is a full working level in which an incumbent is responsible for undertaking field and office investigations on both a regional and detailed scale. Work is not supervised in detail but findings and recommendations are subject to technical review. Specific direction is received on long term assignments. Projects are of an exploratory, evaluative or survey nature where an incumbent collects, compiles, analyzes and presents all relevant data pertaining to the project. The complexity of projects undertaken at this level requires broad knowledge and experience and also the capability to direct and supervise all activities undertaken by Geologists 1.

## **TYPICAL DUTIES**

Performs regional and detailed geological, geophysical and geochemical surveys and investigations and conducts laboratory examinations supplemental to field study.

Determines the best method of conducting the survey and/or investigation.

Prepares comprehensive geological reports and maps for internal and/or external use.

Reviews and assesses geological, technical and exploration reports.

Supervises and participates in the administration of Acts and Regulations pertaining to minerals.

Performs other duties as assigned.

## **QUALIFICATIONS**

### **Knowledge, Abilities and Skills**

Comprehensive knowledge of geological principles, survey field methods and laboratory techniques.

Comprehensive knowledge of geophysical and geochemical exploration methods and their application.

Ability to review, analyze and synthesize geological information into comprehensive and lucid reports.

Ability to plan, assign and evaluate the work of both technical and professional staff.

Ability to both live and work co-operatively in remote areas, and to represent the department to the mining community and local residents.

### **Education, Training and Experience**

M.Sc. preferred in geology or geological engineering and at least two years' related experience or B.Sc. (Honours preferred) and at least three years' related experience for other than geological survey work or technical school graduation and five years' directly related experience.

# **GEOLOGIST 3**

## **GENERAL**

This is the first level of direct and sustained supervision of professionals and/or the first level of full specialization. An incumbent performs geological work at an advanced professional level under limited direction from a Section Head or Branch Director. An incumbent may be responsible for long-term survey projects, have responsibility for planning and executing all phases of exploration projects, or conduct comprehensive evaluations of mineral deposits (including oil and natural gas) in Manitoba. This level differs from a Geologist 2 in that an incumbent supervises other professionals and is required to have a detailed and specific knowledge of particular aspects of geology and is responsible for long-term projects, or for conducting original research on specialized aspects of geology.

## **TYPICAL DUTIES**

Plans, co-ordinates, supervises and participates in field and laboratory investigations related to both short and long-term projects and research on either a regional or detailed scale.

Conducts specialized research on specific aspects of geology such as fossil fuels, metallic minerals and industrial minerals.

Prepares and edits comprehensive reports and maps and supervises their compilation for internal and/or external use.

Recommends potential targets for investigations, details proposals for approved projects indicating objectives, methodology, personnel requirements and cost analysis.

Determines and/or develops the best method of conducting a survey or investigation and its logistical requirements.

Supervises and participates in implementation of projects.

Makes recommendations regarding policy and assists in its implementation.

Monitors contracts and agreements.

Maintains liaison with the private sector, government agencies and other branches of the department.

Performs other duties as assigned.

## **QUALIFICATIONS**

### **Knowledge, Abilities and Skills**

Thorough knowledge of geological principles and techniques and their application, preferably relating to Manitoba.

Thorough understanding of current concepts of mineral deposits and a working knowledge of the application of modern geophysical and geochemical methods used in mineral exploration.

Specialized knowledge of one or more fields of geology.

Ability to independently conduct all phases of a project including supervision and co-ordination of personnel.

Ability to prepare and edit comprehensive reports and maps from a wide variety of primary and secondary source material.

Demonstrated ability to perform at an advanced professional level.

### **Education, Training and Experience**

M.Sc. or Ph.D. in geology or geological engineering and several years' directly related experience, or B.Sc. and seven to ten years' directly related experience.

# **GEOLOGIST 4**

## **GENERAL**

This is senior professional and managerial work involving the planning, organization and direction of technical and administrative activities of a major section of a branch. The incumbent determines operating policies, sees that projects and programs are carried to a conclusion, approves expenditures of money, effects co-ordination on a broad scale, making most technical and administrative decisions without reference to a supervisor. Work is performed independently under general policy and budget guidelines. Considerable latitude and independent professional judgment exists in the development of projects.

## **TYPICAL DUTIES**

In collaboration with the Branch Director, prepares recommendations and plans for the section's projects including methodology, operational strategy, budget, staff and equipment requirements, logistics, reporting format and deadlines.

Initiates, supervises and participates in projects and provides guidance to staff on all aspects of the section's programs, including review and edit of the work of subordinates

On assignment, acts on behalf of the Director in his absence.

Maintains effective liaison with and provides consultation to the private sector, government agencies and other branches of the department.

Participates in formulation and implementation of branch policy and program.

Performs other duties as assigned.

## **QUALIFICATIONS**

### **Knowledge, Abilities and Skills**

Thorough geological knowledge of survey, mining or exploration geology, preferably with application to Manitoba.

Thorough knowledge of mining legislation and regulations.

Demonstrated ability to complete and prepare for publication results of investigations.

Ability to effectively communicate with senior professionals in other disciplines.

Ability to initiate, plan, and supervise all phases of major projects.

Ability to co-ordinate all administrative aspects of the operation of a section of a branch.

**Education, Training and Experience**

Ph.D. (preferred) or M.Sc. in geology or geological engineering and considerable directly related experience, preferably some of which relates to Manitoba.

Demonstrated satisfactory experience managing professional and technical staff.