



IDENTIFICATION

Department	Position Title	
Industry, Tourism and Investment	Manager, Energy Geosciences	
Position Number	Community	Division/Region
63-481	Yellowknife	NWT Geological Survey/HQ

PURPOSE OF THE POSITION

The Manager, Energy Geosciences is the most senior Energy Geoscience scientist at the Northwest Territories Geological Survey (NTGS). The incumbent leads NTGS' energy-related geoscience activities that enhance the geoscience knowledge base of the Northwest Territories (NWT) and promote the responsible development of the NWT's energy resources. The incumbent also provides information and assistance to the department, NTGS partners and clients, and the public.

The Manager, Energy Geosciences is responsible for the management of NTGS staff and financial resources provided by ITI and other external funding sources. The incumbent also coordinates NTGS' energy geoscience activities with those of other partner organizations (e.g., Geological Survey of Canada (GSC), academia, and the private sector).

SCOPE

Located in Yellowknife, the NTGS is part of the Department of Industry, Tourism and Investment (ITI). The Manager, Energy Geosciences reports directly to the Director, NTGS.

The Manager also provides supervision to two (2) FTEs, namely the Energy Geologist and the Senior Energy Geologist.

The NTGS provides expertise on the mineral and petroleum resources of the NWT. It also carries out mineral and energy potential studies, and renewable as well as non-renewable resource assessments in support of land use planning, land claim processes, and conservation initiatives. The NTGS also compiles, manages and makes available a variety of geoscientific data, and provides public education and outreach services.

The Manager, Energy Geosciences works with and through other Federal and Territorial government geoscience agencies, department regional offices, Indigenous organizations, the private sector, and academia on specific projects and general geoscience priorities. Regular discussion and consultation with staff at the NTGS and relevant energy industries are required to ensure a constant critical review of work underway and high technical quality of completed work.

The Manager, Energy Geosciences is responsible for the design, planning, and implementation of new projects and the annual delivery of products and services pursuant to funding from a number of sources.

The Manager, Energy Geosciences oversees a variety of projects that run concurrently and will be challenged to optimize the opportunity afforded through advanced planning and promoting the NTGS and its programs and projects to external clients (e.g., oil and gas companies) to ensure the sustainability of the energy resource sector. The incumbent makes regular decisions on energy geoscience needs and priorities of the NTGS, and is also responsible for determining research directions, developing projects and budgets, and liaising with other geoscience organizations. The incumbent also collaborates with NTGS partners in order to ensure efficiencies of field and office-based activities (e.g., coordinating field logistics).

Effective management of the department's geoscience responsibilities has the potential to directly affect the development of the NWT's energy resources, and the socio-economic benefits to the NWT and Canada that are derived from that development.

RESPONSIBILITIES

1. Manages Energy Geosciences staff and programs through:

- Scientific supervision and coordination of the work activities of the NTGS' Energy Geosciences unit;
- Direct supervision of two employees, including coordinating and approving leaves;
- Developing, motivating, and annually evaluating the work performance of Energy Geosciences staff in order to achieve NTGS objectives and the human resource planning objectives of ITI;
- Planning new projects within the mandate of the NTGS and in consultation with NTGS Senior
- Managers, government and academic partners, industry, and other clients;
- Providing guidance and input to staff, contractors, and clients on all aspects of NTGS' Energy Geosciences initiatives;
- Overseeing and assisting with field work planning and logistics;
- Carrying out duties related to the hiring of Energy Geosciences staff, including casual, term and indeterminate employees of the department;
- Assisting with other NTGS staffing actions and initiatives as required;
- Preparing contracting documents, evaluating contractor bids and technical proposals, and overseeing the work of contractors including the on-time delivery of final products and services;

- Ensuring that project milestones are met and annual project deliverables are completed on time;
- Developing both short and long-term operational plans, strategies, and research directions;
- Promoting team effectiveness among Energy Geosciences staff;
- Organizing and attending workshops that address NTGS research activities and needs, and enhance communication and collaboration amongst NTGS and its research partners;
- Clearly and consistently communicate ITI and the GNWT1s vision and priorities to unit staff and other stakeholders.
- Supervising graduate and undergraduate student research projects as required, in conjunction with university staff.

2. Administers NTGS' Energy Geosciences funding, including:

- Ongoing management or oversight of fiscal resources in the order of hundreds of thousands of dollars;
- Preparing detailed project budgets;
- Determining appropriate external sources of funding for various projects;
- Preparing estimates of the financial resources required for new and ongoing Energy Geosciences projects;
- Providing financial advice and recommendations on Energy Geosciences spending decisions; and
- Ensuring that approved objectives and budgets are met in an effective manner consistent with prescribed operational policies and procedures and the stated values and principles of the NTGS.

3. Presents and oversees the publication of Energy Geosciences information by:

- Preparing and editing reports and maps as needed to meet project requirements and deadlines;
- Ensuring that the products of Energy Geosciences are of high quality and are widely and efficiently distributed;
- Preparing or overseeing preparation of geological compilations and databases that aid in the promotion and development of the NWT1s energy resources;
- Using geological expertise to critically interpret and evaluate geological data, both as an author or co-author and as a critical peer reviewer;
- Maintaining awareness of the NWT activities, research, and publications of other geoscience organizations;
- Assembling information for verbal, audio -visual, and poster presentations;
- Presenting results of NTGS Energy Geosciences and planning activities at academic and industry conferences, community meetings, etc.;
- Organizing and manning tradeshow booths that highlight NTGS in general, and NTGS' Energy Geosciences activities and products in particular;
- Working with other agencies (e.g., GSC, Canadian Energy Regulator, Office of the Regulator of Oil and Gas Operations) to produce joint publications and data releases;

- Contributing to corporate communications and public outreach on energy related issues in collaboration with NTGS Senior Managers, other staff, and ITI Communications staff;
- Raising the profile of the NTGS through positive communication with Indigenous organizations, industry groups, and other current or potential NTGS clients;
- Undertaking other presentation and publication activities that will increase development within the NWT energy sector;
- Building collaborative relationships with stakeholders to facilitate successful policy development and program delivery;
- Managing the provision of advice to individuals, communities, governments and industry on regional bedrock mapping and mineral deposits, and mineral and energy resource assessments.

4. Contributes to the achievement of NTGS objectives by:

- Working with NTGS Senior Managers to ensure that maximum advantage is taken of the potential spin-off benefits to the NWT from geoscience activities;
- Preparing Ministerial briefings, Financial Management Board sub missions and other documentation, as required;
- Reporting on NTGS activities to ITI and GSC colleagues, including details of new projects and products;
- Contributing to the development and evaluation of strategies, plans and objectives;
- Contributing to the effective management of the NTGS through positive collaboration with NTGS Senior Managers;
- Providing advice and guidance to achieve the NTGS' objectives and the human resource planning objectives of ITI;
- Collaborating with NTGS partners to ensure implementation of the shared goals;
- Managing the planning, implementation and reporting of quality energy resource studies in the NWT in the context of broader ITI and GNWT objectives .

5. Organizes, undertakes and reports on field research programs, typically as the project leader.

- Responsible for the financial, scientific and logistical management of the field program, which is often in remote fly-in locations.
- Contributes to obtaining field support services (e.g. aircraft charters).
- Contributes to the organization of contribution agreements for research partners.
- Responsible for human resource management of field crews, which include up to 6-8 participants and may include summer students.
- Responsible for safe conduct of all field operations.
- The incumbent leads or participates in pre- and post-fieldwork research activities, and fosters an ongoing healthy and productive partnership with external research partners.
- The incumbent may also participate fully in collaborative field research activities organized by other groups (e.g. universities and the GSC).

- 6. The Manager, Energy Geosciences, reviews all publications of the Energy Geosciences group before submitting them for publication (internal or external). The incumbent also performs peer-review of manuscripts by other NTGS colleagues and other colleagues outside the NTGS for both internal NTGS and external publications (e.g. GSC Reports, Journal Articles, conference abstracts). The incumbent may perform confidential peer-reviews of relevant scientific journal articles for scientific journals if requested by the journal's editorial board.**

WORKING CONDITIONS

Physical Demands

Normal office environment for most of the year, with up to eight weeks of fieldwork during summer months.

Fieldwork is physically taxing; the incumbent will be hiking over rough terrain with a backpack, often carrying rock samples (up to 50 pounds) for 8 hours a day. Fieldwork related logistics (sleeping arrangements in tents, travel arrangements in small aircraft and helicopters, loading and unloading vehicles, preparing meals, etc.) can be physically demanding.

Environmental Conditions

Normal office environment for most of the year, with up to eight weeks of fieldwork during summer months.

While in the field, the incumbent can be exposed to: rapidly changing weather and to conditions such as cold (hypothermia), intense sun (burn), wind, rain; helicopters, airplanes, ATV's, road vehicles (physical injury, hearing loss, gas/fumes); insects and insect bites; dangerous, unforeseen, uncontrolled field situations such as vehicular accidents, attack by wild animals, falls and other accidents while on traverse (broken bones, cuts, etc.). The incumbent will be exposed to these environment conditions every day while in the field.

Sensory Demands

Normal office environment outside of field season.

Field work requires a state of heightened alertness to ensure a safe working environment for the team, and the incumbent is subject to impacts associated with long hours of field work (e.g. fatigue). The incumbent will likely be exposed to these environmental conditions every day in the field.

Mental Demands

Multiple concurrent and conflicting tasks, leading to conflicting work priorities and time pressures .

While in the field, the incumbent is subject to substantial disruption of family life due for field work in distant locations. The incumbent is also responsible for the continuous management of scientific and logistical activities and safe work practices while in the field, including the prediction and mitigation of potentially hazardous situations and managing personality conflicts amongst field staff. The incumbent will be exposed to these demands every day up to three weeks per year.

The incumbent is also required to present research or work plans to scientific peers, collaborators, community groups, etc. and attend research meetings in Southern Canada two to four times per year.

KNOWLEDGE, SKILLS AND ABILITIES

- A good understanding of the importance of geoscience to the economic development of the NWT, including the role of renewable and non-renewable energy industries in the economy of the NWT, and the potential effect of land claims, environmental legislation, and devolution on the petroleum industry.
- Knowledge of geological principles as they relate to energy related geological disciplines, including but not limited to: sedimentology, stratigraphy, sedimentary basin analysis, tectonics, fluid movement in the subsurface and basic geochemical principles.
- Knowledge of geophysical methods such as seismic profile interpretation and well log analysis, as well as basic reservoir engineering concepts, in order to interpret original data and assess industry interpretations.
- Ability to undertake regional surface and subsurface studies aimed at predicting and evaluating hydrocarbon, geothermal, and other energy related geological occurrences.
- Ability to conceptualize, design, implement, and carry out or coordinate integrated research projects involving a number of staff from beginning to end with professional quality results, including multi-disciplinary projects.
- Knowledge of budgeting principles and the ability to manage multiple budgets.
- Knowledge of technical proposal writing and budgeting to generate external funding.
- Knowledge of typical computer hardware and software requirements for surface and subsurface geological research projects, with a focus on petroleum and geothermal systems.
- Knowledge of management theory, principles, and practices required to supervise, motivate, guide, and communicate with NTGS staff, consultants, external researchers, and contractors.
- Knowledge of staff training opportunities and requirements.
- Expertise in technical and scientific writing including publishing procedures of NTGS Open Reports, Open Files, maps, databases, as well as peer-reviewed scientific journal papers.
- Experience and proficiency with Internet-based research, the Microsoft Office suite of programs (e.g. Excel, Word, PowerPoint), graphics programs (e.g. CorelDraw, illustrator).
- Experience in the use of large-scale petroleum industry software and databases such as, GeoScout, WellCad, Zetaware, and GIS software (e.g. ArcMap).

- Scientific editorial skills for critical peer review of project design and interpretations.
- Basic techniques of wilderness survival, first aid, aircraft safety, water craft and land vehicle operation and firearms operation in order to ensure safety and well-being of field crews and successful execution of field activities in remote areas.
- Knowledge of the Financial Administration Manual is required in order to award contracts and monitor funds designated for geoscience research.
- Verbal communication skills required to obtain and exchange information, solve problems, and present information to peers and the public.
- Organizational skills to plan, conduct, collaborate on, and supervise multidisciplinary research projects and to effectively contribute to field- or office- based geoscience projects.
- Leadership and supervisory skills to oversee technical contracts and supervise subordinates, research teams, contractors, and casual staff.
- Interpersonal skills such as tact and diplomacy to effectively liaise with individuals in other departments, other governments, Indigenous organizations, industry, research organizations, community groups, and special interest groups.
- Ability to work both in a team situation and independently with minimal direction.
- Ability to handle confidential data and information in a discrete and professional manner.
- Ability to communicate and work effectively with the public media and community representatives.
- Ability to effectively lead and manage a diverse team of professionals.
- Ability to work to regular, critical deadlines.
- Knowledge of the legal and ethical obligations of the Geosciences profession.
- Ability to manage competing and conflicting priorities.

Typically, the above qualifications would be attained by:

A minimum of a Master of Science degree or Ph.D. in Earth Sciences with a specialization in a petroleum or sedimentary geology related field, and at least five to seven years work experience in industry, academic or a government agency in a related capacity including at least two years supervisory experience. The incumbent will have a proven record of conducting field work, writing peer-reviewed scientific publications, managing research teams and mentoring scientists and presenting the results of their original scientific work to colleagues.

The incumbent must be eligible for professional registration in the NWT and Nunavut Association of Professional Engineers and Geoscientists (NAPEG).

ADDITIONAL REQUIREMENTS

Position Security (check one)

- No criminal records check required
- Position of Trust – criminal records check required
- Highly sensitive position – requires verification of identity and a criminal records check

French language (check one if applicable)

- French required (must identify required level below)

Level required for this Designated Position is:

ORAL EXPRESSION AND COMPREHENSION

Basic (B) Intermediate (I) Advanced (A)

READING COMPREHENSION:

Basic (B) Intermediate (I) Advanced (A)

WRITING SKILLS:

Basic (B) Intermediate (I) Advanced (A)

- French preferred

Indigenous language: Select language

- Required
 Preferred