



IDENTIFICATION

Department	Position Title	
Industry, Tourism and Investment	Mineral Administration System Technician	
Position Number	Community	Division/Region
63-15988	Yellowknife	Mineral and Petroleum Resources/HQ

PURPOSE OF THE POSITION

The Mineral Administration System Technician is responsible for developing and implementing the standards, workflows and processes for a digital archives and geomatics related geospatial data, digital and online maps and products as well as to provide advice, recommendations and assistance enabling the effective acquisition, description, access, management and preservation of a broad range of digital content for the development of the Mineral Administration and Registry System (MAARS).

The Mineral Administration System Technician carries out activities in accordance with all relevant legislation, professional standards and institutional policies in order to ensure the long term preservation and accessibility by the public and government.

SCOPE

The Mineral Administration System Technician is located in Yellowknife and reports to the Application Solutions Manager. The incumbent will assist the manager on projects and provides operational digitization of legacy documents and mapping support for testing and implementation of the new enterprise solution - Mineral Administration and Registry System (i.e., the MAARS) and ensures operational transition between the current and the new registry systems.

The mineral resources industry contributes significantly to the economy of the Northwest Territories (NWT). Between 2008 and 2018, the Government of the Northwest Territories (GNWT) collected an average of approximately \$100 million annually in revenues from diamond mines. With exploration, operating mines, reclamation and closure, the industry provides NWT residents with procurement opportunities, jobs, training, scholarships and donations.

Successful implementation of the new *Mineral Resources Act*, including a state-of-the-art mineral tenure management system, is anticipated to place the NWT among the leading mining jurisdictions worldwide, attracting investment for the benefit of all NWT residents.

Critical for successful implementation of the *MRA* is the availability of modern electronic data and information systems to collect and allocate mineral (third party) rights. Current technology for administrators and clients will be critical for maintaining and enhancing the NWT's efficiency and competitiveness into the future.

The Mineral Administration System Technician is a team member of the technology modernization project to administer mineral (third party) rights. The proposed new software system (MAARS) will cover all aspects of mineral rights and build mineral resources administration capacity for governments, industry and the public. MAARS will establish a modernized information system for mineral interest management and administration. *MRA*

The Mining Recorder's Office of the Department of Industry, Tourism and Investment manages territorial-wide mineral resources administration and implementation of regulatory requirements. However, the existing Mineral Information Tenure System (MITS) is not capable of delivering the scope of functions demanded by the new *Mineral Resources Act*; therefore MAARS will replace MITS. Furthermore, *MRA* requires the development of new regulations which will ultimately replace the current Mining Regulations. The current Mining Regulations will remain in effect until the *MRA* and new regulations come into force.

MAARS will provide a new platform for proponent applications and submissions, map viewing, and data analysis. In addition, it will provide online map staking. Mineral claims are currently staked by physically placing boundary posts on the ground, often in remote locations with no road access. Online map staking would allow proponents to stake claims using an online portal, eliminating the costs of ground staking and redirecting cost savings toward prospecting and exploration activities.

Given the large scope and scale of the MAARS project and the lack of sufficient in-house capacity, the services of a third party will be required in order to develop and execute a multi-year, multi-phase project plan. The Mineral Administration System Technician will assist the manager with the development process and deliver the successful execution of the contract over the three-year period of the project.

The incumbent is expected to follow operational processes related to data and project management and is responsible for transformation of data. The incumbent will assist as needed with the development and facilitation of training activities.

RESPONSIBILITIES

1. Prepare, develop and implement digitization of the MAARS project and Geographic Information Systems products:

- Consults with project sponsors to establish and define project conditions, requirements and action plans;

- Assists the project team in defining the desired end product and clarify for them the steps required to do so with many different data sources;
- Reflects experience and creativity in the manipulation of digital data to allow its importation into the new database systems;
- Uses innovation and creativity in recommending products and deliverables for the project;
- Preparation and output of digital documents and map-based products;
- Geospatial data digitizing;
- Technical documentation of procedures, metadata and project history;
- Manages and supports additional digitization & GIS team members;
- Provides quality control and assurance of new data.

2. Conducts research and advises on conversion and maintenance for digital records:

- Researches and recommends methodologies and standards for input of digital records;
- Researches and recommends methodologies and standards for the administration and management of digital records;
- Researches and recommends methodologies and standards for the provision of access to digital records;
- Researches and recommends standards and protocols related to technical architecture, metadata schema, data structures, and file formats necessary to preserve digital records;
- Researches and recommends file and data preservation strategies related to migration, preservation and accessibility to ensure acquisition, preservation, maintenance and accessibility of authentic, reliable, and useable digital records;
- Provides advice on the technical framework (including technical infrastructure, software tools, metadata schema, data structures, and file formats) related to the digitization of analogue records.

3. Supports the management of contracts and 3rd party vendors/suppliers:

- Supports the Application Solutions Manager in the fulfillment of contractual obligations including application of contract terms;
- Supports and engages with experts and stakeholders to ensure continuous improvements are identified through review and benchmarking processes;
- Supports implementation of change management protocols.

4. Documents Business Processes, Business Rules and Best Practices:

- Works with clients and the Mining Recorder's Office to develop procedural manuals;
- Works with clients to streamline business processes for the new application systems;
- Identifies and documents business rules and best practices in regards to all aspects of MAARS;
- Works with other GNWT Departments on how MAARS can fit in with other GNWT Land and Resource platforms, such as the Land Tenure Online System (LTOS) and the Enterprise Licensing and Permits (ELP).

WORKING CONDITIONS

Physical Demands

The incumbent is expected to be able to lift heavy and/or awkward boxes of records. Boxes of records must be retrieved for the project and stored on shelving. These tasks may occur several times daily.

Environmental Conditions

No unusual conditions.

Sensory Demands

No unusual demands.

Mental Demands

Travel to may occasionally be required.

KNOWLEDGE, SKILLS AND ABILITIES

- Requires knowledge and understanding of federal and territorial legislation relevant to the management of information and records including Access to Information and Protection of Privacy Acts; and Copyright legislation;
- Requires knowledge of archival standards and practices related to digital records including the input and management of digital records; technical requirements for digital preservation including hardware, software and file formats; and the provision of access to digital records;
- Requires knowledge of metadata standards relevant to the archival control of digital collection materials;
- Requires knowledge of the technical requirements for digital preservation, including hardware, software, metadata schema and file formats;
- Knowledge of Geographic Information Systems (GIS), geodatabases, .NET (knowledge of Microsoft Dynamics would be an asset but is not required);
- Knowledge of Microsoft software products including Office Suite and Outlook;
- Knowledge of image analysis software would be an asset; Knowledge of natural resource sector administration would be an asset;
- Project management skills and the ability to work under minimal supervision;
- Analytic, cognitive and problem solving skills, and the ability to deal with complex information;
- Interpersonal skills in working with individuals at all levels of organizations;
- Proven verbal and presentation communications skills including the ability to translate complex technical information into plain language for Departmental Managers and systems users;
- Technical and non-technical writing abilities;

- Ability to maintain an awareness of new technology developments in the industry and apply it effectively and appropriately from applicable standards, methods and tools in the work place;
- Problem solving and analytical skills;
- Initiative and resourcefulness to work independently.
- Ability to work independently, taking responsibility for driving own development.
- Ability to implement standard project management concepts.

Typically, the above qualifications would be attained by:

These qualifications are typically acquired through a Bachelor's degree in geography or a geomatics related field, and 2 years of geomatics experience; OR a Technical diploma in GIS or a related field, with 3 years of geomatics experience including working with relevant digital tools, technology and metadata standards in an archival repository.

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

CERTIFICATION

Title: Mineral Administration System Technician

Position Number: 63-

<hr/> <p>Employee Signature</p> <hr/> <p>Printed Name</p> <hr/> <p>Date</p> <p><i>I certify that I have read and understand the responsibilities assigned to this position.</i></p>	<hr/> <p>Supervisor Signature</p> <hr/> <p>Printed Name</p> <hr/> <p>Date</p> <p><i>I certify that this job description is an accurate description of the responsibilities assigned to the position.</i></p>
<hr/> <p>Deputy Head/Delegate Signature</p> <p><i>I approve the delegation of the responsibilities outlined herein within the context of the attached organizational structure.</i></p>	
<p>Date</p>	

The above statements are intended to describe the general nature and level of work being performed by the incumbents of this job. They are not intended to be an exhaustive list of all responsibilities and activities required of this position.