

# 1 General Information and Contacts

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## 1.1 Nature of Project

Champion Iron Mines Ltd. is a Canadian-based mining exploration and development company. Champion is one of the largest landholders of highly prospective iron ore claims, with holdings located southwest of Fermont and northeast of Schefferville, Quebec.

Champion Iron Mines Ltd. intends to develop the deposit located on its Fire Lake North property near Fermont, Quebec. The project includes the construction of an access road linking the site to Route 389, along with the construction of a railway line and an ore storage area in Pointe-Noire.

## 1.2 Proponent Contact Information

Project Title: Fire Lake North Iron Ore Project

Proponent Name: Champion Iron Mines Ltd.

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## 1.3 Consultations

Consultations have been held with local and regional stakeholders to gather as much information as possible on the local and regional biophysical environment as well as the social environment. Solid relationships and partnerships have been forged as a result of these discussions with the City of Fermont.

Relations with the Innu Uashat mak Mani-Utenam (ITUM<sup>1</sup>) First Nation are progressing well, although it has not yet been possible to gather information that would be directly useful for the environmental assessment of the project. Consultations with ITUM have been held on a regular basis since 2009, consisting first of information sessions and discussions on various potential joint business opportunities. These efforts resulted in an exclusive memorandum of agreement with ITUM regarding the potential development of a multi-user rail service. In May, moreover, Champion met with representatives of families with traplines along the proposed rail line. At the same time, discussions continued with the Band Council regarding the development of an Impact Benefit Agreement (IBA).

Additional information on consultations is provided in chapters 6 and 7 of this project description.

## **1.4 Other Relevant Information**

### **1.4.1 Environmental Assessment in other Jurisdictions**

The Fire Lake North mining project is subject to Quebec legislation.

Under Division IV.1 of the *Environment Quality Act* (c. Q-2) (EQA), any person or group is required to follow the environmental impact assessment and review procedure before undertaking a project indicated in the *Regulation respecting environmental impact assessment and review* (c. Q-2, r.23). Given that iron ore production is expected to exceed 7,000 t/d, the Fire Lake North mining project is subject to this procedure. A certificate of authorization from the Quebec government will also be required under Section 31.5 of the EQA.

Once the EIS is deemed acceptable by the MDDEP, the Minister will mandate the Bureau d'audiences publiques sur l'environnement (BAPE) to hold a public information and consultation period. If a request for a public hearing addressed to the Minister is deemed valid, BAPE will be awarded a mandate to hold public hearings under Section 31.3 of the EQA. The final decision by the Minister to authorize the project will be based on the BAPE's Inquiry and Public Hearing Report and the MDDEP's Environmental Assessment Report.

### **1.4.2 Other Regional Environmental Assessments**

Based on information provided by the CEA Agency, no regional environmental assessment under the Canadian Environmental Assessment Act (2012) has been performed in this region.

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<sup>1</sup> ITUM: Innu Takuikan Uashat mak Mani-Utenam

## 2 Information on the Project

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### 2.1 General Description and Objectives

#### 2.1.1 General Description

The Fire Lake North mine project consists of an open pit mine and an iron ore concentrate processing facility at the site of the mining property south of Fermont. Also included is the construction of a railway line between the mine and Sept-Îles, and the development of an ore storage area in Pointe-Noire.

#### 2.1.2 Objectives

The main objective of the project is to produce high grade iron oxide (essentially hematite) for use in the steel industry. Specular hematite on the Fire Lake North property occurs in coarse-grained form. The iron concentrate can therefore be used directly by the steel plants without having to produce iron pellets in a pellet plant. The deposits at the Fire Lake North property are also low in impurities such as phosphorus, silica and aluminum. The resulting concentrate will therefore be ideal for blast furnace production of steel.

The construction of the facilities and project operations should generate many direct and indirect well-paying jobs, and provide the various levels of government with substantial revenues through taxes, duties and royalties.

### 2.2 Provisions of the Regulations Designating Physical Activities

The following provisions from the *Regulations Designating Physical Activities* apply to the Fire Lake North iron mine project:

- 8. The construction, operation, decommissioning and abandonment of a facility for the extraction of 200 000 m<sup>3</sup>/a or more of ground water or an expansion of such a facility that would result in an increase in production capacity of more than 35%.
- 15. The construction, operation, decommissioning and abandonment of
  - (a) metal mine, other than a gold mine, with an ore production capacity of 3 000 t/d or more;
  - (b) a metal mill with an ore input capacity of 4 000 t/d or more;
- 28. The construction, operation, decommissioning and abandonment of
  - (a) a railway line more than 32 km in length on a new right of way;

### 2.3 Project Components and Activities

#### 2.3.1 Fire Lake North Mine

##### 2.3.1.1 Related structures

The main elements of the Fire Lake North project include:

- Two open pit mines;
- Three waste rock piles;

- One overburden pile;
- Temporary ore storage area;
- Ore processing facility;
- A tailings pond;
- Concentrate silo;
- A water treatment system with sedimentation basins;
- Process water treatment system;
- Housing and services complex;
- A mine garage;
- Water supply system;
- Wastewater treatment system;
- A residual and hazardous materials storage, management and recycling area;
- Trench landfill site;
- Explosive storage site;
- Secondary roads on site;
- Rail facilities;
- Electrical facilities;
- Fuel tank farm and service stations.

### **2.3.1.2 Operations**

Conventional open pit mining operations will be used. The two open pits, the West and East pits, correspond to two deposits. Drilling and blasting will be used to extract the ore and waste rock required to release the ore. The material will be loaded onto off-road trucks then transported to their respective storage areas.

The preliminary dimensions of the pits are:

- West pit: 4600 m by 900 m and 564 m deep;
- East pit: 4200 m by 900 m and 488 m deep.

A conventional gravity-separation circuit will be used to increase the iron concentration and produce iron concentrate. The circuit consists of primary crushing in a gyratory crusher, autogenous (AG) mill grinding, three-stage spiral gravity separation, and concentrate dewatering in pan filters. The final concentrate will be dewatered in the winter months using steam to prevent ice forming in the concentrate.

Tailings will be dewatered then stored in a tailings pond. Most of the process water will come from the tailings thickener. The rest of the water used in the concentrator will come from surplus water in the polishing pond.



An area, which will also include crushing equipment, will be developed for stockpiling the ore. The crushed ore will be stored temporarily in a dedicated pile. Belt conveyors will transfer the ore to the concentrator.

### **2.3.2 Rail Line**

A new rail line will be required to transport iron ore to the planned Pointe-Noire ore storage area in Sept-Îles. On August 29, 2012, Champion Iron Mines Ltd. announce the signing of an agreement with Canadian National Railway Company (CN) to participate in the feasibility study of a proposed new multi-user railway that would connect mining projects in the Labrador Trough to the deep water port of Sept-Îles, Quebec. CN's partner in this proposed venture is La Caisse de dépôt et placement du Québec which, together with a group of iron ore exploration and mining companies, including Champion, are contributing to the cost of the feasibility study which is anticipated to be carried out over the next ten months.

CN is coordinating the application to the Canadian Environmental Assessment Agency for required permitting, which will allow the study to commence with appropriate consultation with First Nations, local communities and other stakeholders.

However, since the CN project is only at the feasibility study level, i.e. they are still at evaluating its economical viability, Champion cannot entirely rely on this option. Therefore, Champion is alternatively planning a 320-km long rail line which was designed in terms of natural elements such as land profiles and watercourses, as well as the proximity of other railway lines and roads. That option is included in the present Description of a Designated Project.

A 6-km rail loop would be built on the mining property, which is long enough to position an empty train and a full train between the switch point and the loading point. Additional sidings would be needed at the entry point to Sept-Îles. Branch lines and secondary sidings would be built at regular intervals along the line to ensure the smooth operation of the rail system.

A complete transportation cycle would include loading on the property, transport on the new rail line, unloading, then the return of the empty train.

A maintenance workshop would be set up on the mining property for minor repairs along with a garage with a pit for locomotive and car inspection if this work is not outsourced to service providers' workshops. Another garage would also be required for storage of tools and parts used to maintain the locomotives and cars.

### **2.3.3 Ore Storage Area – Pointe-Noire**

The planned ore storage area is the subject of an agreement with the Port Authorities of Sept-Îles. The Champion Iron Mines Ltd. facilities were designed to fit in with the new facilities planned for the Port of Sept-Îles, specifically a multi-user ship loading facility slated for completion in the spring 2014. This wharf

will be used by other iron ore producers who are presently using or considering the use of Pointe-Noire as their concentrate loading port.

The Champion Iron Mines Ltd. facilities include a concentrate unloading and stacker system, as well as a system to transfer concentrate from the stockpile to the multi-user wharf. The storage area will be roughly 50 m x 420 m and will have a capacity of 500,000 tonnes of concentrate.

However, the storage site is located west of Pointe-Noire (Map 3.4). The concentrate would then be transferred from the storage site to the multi-user wharf by a conveyor system.

An electric substation will be installed to meet the needs of Champion Iron Mines Ltd. ore storage area.

### **2.3.4 Production Capacity**

The Fire Lake North mine project will have a production capacity greater than the thresholds defined in paragraphs (a) and (b) of Section 15 of the *Regulations Designating Physical Activities*, namely, “The construction, operation, decommissioning and abandonment of (a) metal mine, other than a gold mine, with an ore production capacity of 3 000 t/d or more; and (b) a metal mill with an ore input capacity of 4,000 t/d or more.”

The deposit potential of the mining property was upgraded in compliance with the *Regulation 43-101 respecting standards of disclosure for mineral projects* (regulation pursuant to the *Securities Act*). The total combined indicated and measured mineral resources were estimated in January 2012 at 394.0 million tonnes (Mt) with 30.4% Fe for all the deposits in the West, East and Don Lake sectors of the Fire Lake North property (527.8 Mt at 27.7% for inferred resources). The anticipated production rate for the entire mine life is estimated at 65,700 t/d.

### **2.3.5 Related Infrastructure**

Electricity will be supplied at 161 kV by Hydro-Québec via a tap off the existing line between the Normand and Hart-Jaune substations to the west of the mining property. This line follows Highway 389. The project includes the installation of a substation on the mine site to step down the power to 34.5 kV, along with the construction of a power transmission line between the substation and the existing line. The connection will be done by Hydro-Québec. A feasibility study is underway, one of the objectives of which is to establish a project schedule. Note that the existing 161 kV transmission line is not currently in use. Hydro-Québec confirmed its potential use for the Fire Lake North project.

A road will link the main infrastructure to Highway 389, which crosses the western side of the mining property. The exploration camp and permanent dormitory complex will be located near Highway 389.

## 2.4 Emissions, Discharges and Waste

### 2.4.1 Management Approach

The main wastes likely to be produced during the various phases of the project are: materials from mining operations (overburden, waste rock and tailings), domestic wastewater, mine effluent, residual materials and air contaminants.

These wastes will all be subject to a detailed characterization in compliance with recognized methods, specifically those used by the MDDEP's Centre d'expertise en analyse environnementale (CEAEQ). The essential focus of solid waste characterization will be on metal content, acid generating potential and leaching potential. For domestic wastewater, the characterization will primarily examine loadings of organic matter, nutrients and certain metals. Mine effluent will be characterized on the basis of the *Canadian Water Quality Guidelines for the Protection of Aquatic Life* established by the Canadian Council of Ministers of the Environment (CCME) and the MDDEP's Directive 019.

Management plans will be put in place for all discharges and waste. They will essentially entail various containment facilities and treatment systems at discharge points in compliance with applicable legislation.

Clarifications required with respect to waste characterization and management will be set out in the environmental assessment report. This assessment will be based on technical data provided in the feasibility study, which is expected to be released in the 3<sup>rd</sup> quarter of 2012.

Included among the major emissions, discharge and waste management components are:

- Development and management of the tailings pond and other accumulation and storage areas;
- Water management;
- Site restoration.

### 2.4.2 Tailings Pond and Stockpile Areas

#### 2.4.2.1 Tailings pond and polishing pond

The tailings pond will be located on the southeast side of the mining property, and a polishing pond will be installed downstream of the tailings pond. Water will be recirculated to the concentration from the polishing pond.

Not all the water from the tailings and polishing ponds can be recirculated. Effluent from the polishing basin will be treated before being released into the environment in compliance with applicable regulations and requirements, specifically those specified in *Directive 019 for the Mining Industry*.

Ore and waste rock samples generated from the pilot plant for mineralogical testwork was examined in the exhaustive characterization program undertaken in the summer of 2012. Water treatment will more than likely entail sedimentation of suspended solids.

#### **2.4.2.2 Waste rock disposal areas**

Three preliminary waste rock disposal areas have been defined. The planned geotechnical and hydrogeological studies at the site will enable a refinement of those parameters and thereby ensure the appropriate structures are in place for environmental protection at the site. Other studies to be performed as part of the social and environmental assessment will help define appropriate structures to ensure environmental protection on the site. Given the results of the ore and waste rock testwork, it is improbable that the waste rock will be acid generating.

#### **2.4.2.3 Overburden disposal area**

An overburden disposal area is planned. It will be located in the northwest section of the West Pit (Map 3.2).

#### **2.4.2.4 Temporary ore storage area**

A small area will be set up to stockpile ore near the concentrator. It is improbable that the ore will be acid generating. Ore samples were examined in the exhaustive characterization program undertaken in the summer 2012.

### **2.4.3 Water Management**

To maintain a dry pit while mining, dewatering wells can be installed around the pit or water pumped from a low point at the bottom of the pit. A hydrogeological study will be undertaken as part of the feasibility study to identify the most appropriate method. Rainwater that accumulates in the pit during operations will be pumped to the tailings pond. The water will be controlled and treated as necessary before being released into the environment.

### **2.4.4 Site Restoration**

Upon completion of the project, restoration activities will be undertaken to return the site to a satisfactory condition. The restoration activities primarily address the pits, accumulation areas (tailings and polishing ponds, waste rock and overburden stockpiles and basins, etc.) along with the dismantling of infrastructure. Where feasible, a gradual restoration process will be undertaken. In compliance with the *Mining Act*, a restoration plan will be prepared and submitted for approval.

## **2.5 Project Steps and Activities**

### **2.5.1 Schedule**

The schedule for the Fire Lake North mining project includes:

- Feasibility study: Late 2012
- Environmental baseline study for rail and port sectors: 2011-2012
- Environmental impact assessment: Late 2012

- Inquiry and public hearings procedure: January 2013 - January 2014
- Permit application: February 2014 (start-up)
- Construction: April 2014 (start-up)
- Operation : End of 2016
- Estimated Life of Mine : 25 years

The feasibility study currently under way will precise the anticipated life of mine as well as the approximated date of decommissioning. These timeframes will be taken into consideration in the environmental assessment of the project.

Also note that the Fire Lake North project could feasibly extend over a longer timeframe given the additional resources and reserves that are likely to be identified in exploration work on the Fire Lake North property and other Champion Iron Mines Ltd properties, including the Oil Can and Midway mining projects immediately north of the Fire Lake North site.

## **2.5.2 Primary Activities:**

Typical activities involved in the preparatory phase of the project:

- Clearing work;
- Stripping
- Earthwork and levelling activities;
- Blasting and drilling;
- Drainage work;
- Dewatering of specified bodies of water;
- Development of borrow pits;
- Installation of facilities and amenities;
- Road and air travel.

The following activities are anticipated during mine operations:

- Extraction, handling and storage of ore;
- Ore processing;
- Rail transport of ore and port transshipment operations;
- Various facilities and machinery maintenance activities;
- Road transportation of workforce and goods;
- Management of materials produced by mining operations (tailings and waste rock);
- Water management;
- Residual materials stockpiling and management;
- Hazardous materials and fuel storage and management;
- Mine decommissioning and site rehabilitation work.

These activities, all of which are potential sources of environmental and social impact, will be described in detail in the environmental assessment.

## 3 Project Location

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### 3.1 Project Coordinates

The centre point of the mining facilities is located at:

52° 27' 07" north latitude

67° 19' 21" west longitude

The north end of the planned rail line is located at:

52° 28' 16" north latitude

67° 18' 01" west longitude

The south end of the planned rail line, i.e., where the ore storage area is located at:

50° 10' 45" north latitude

66° 33' 06" west longitude

### 3.2 Mapping

This report contains maps illustrating the location of Fire Lake North mining project components and activities:

- Map 3.1 Overview of project
- Map 3.2 Facilities on the Fire Lake North mining property
- Map 3.3 Alignment of proposed rail line
- Map 3.4 Pointe-Noire ore storage area
- Map 3.5 Location of Champion Iron Mines Ltd. holdings

### 3.3 Project Site Features

The above maps identify most of the features of the locations where the mine, rail line and ore storage area are to be developed.

#### Watercourses and Water Bodies

Hippocampe, Demi-Mille and Éva lakes are located on the mine site. A total of 20 lakes and watercourses are present on the Fire Lake North property.

The rail line runs along a certain number of water bodies, the largest being the Sainte-Marguerite River on which the Sainte-Marguerite 3 dam is located. It also runs next to the Moisie River to the east for 10 to 20 km stretches. Some 160 permanent river crossings were surveyed. But only one major crossing at Kaussehkau River was noted.

The ore storage area is near the St. Lawrence River, specifically on Sainte-Marguerite Bay. But no watercourse was surveyed in this sector.

#### Linear and Other Transportation Components

The city of Fermont is accessible in three ways: by car, taking Highway 389 from Baie-Comeau (565 km), by train (Tshiuetin Rail Transportation) from Sept-Îles via Emeril Junction in Labrador (90 km east of Fermont) and by plane from the Wabush airport located in Labrador (35 km east of Fermont). Highway 389 connects the airport to the Fire Lake North property.

The Fermont region is supplied with electricity from the Normand substation, via a 315 kV power line coming from the Montagnais substation. Also, Hydro-Québec anticipates construction of a new single-circuit 315 kV power line (Montagnais-Normand) (Hydro-Québec, 2011). There is also a 161 kV line along Highway 389, which is however not currently in use.

The Pointe-Noire ore storage area is located south of Highway 138.

#### Other Features related to Current or Past Land Use

Currently there are no known archaeological sites within the limits of the Fire Lake North project. The Marconi, peninsula where the Pointe-Noire port is located, has nine potential archaeological areas, including two classified sites. These sites are located outside the planned location for the Champion Iron Mines Ltd. ore storage area.

#### Permanent, Seasonal and Temporary Housing

The Fire Lake North mining property is in an area where there are a number of active mining claims. IN the vicinity of the Fire Lake North property there are two claims held by ArcelorMittal Canada Inc, to the south and others held by Quinto Mining Corporation, Fancamp Exploration Ltd and Cliffs Natural Resources to the west. The Fire Lake mine, an ArcelorMittal property, operates in summer immediately south of the Champion Iron Mines Ltd. property

The Fire Lake North study area includes three leased holiday resort sites (cabins) and two temporary forest shelters, which are mostly used for hunting and sport fishing. Except for the forest shelter at the north end of the study area, the other leaseholds are along Highway 389. In the northwest area of the study area there are four vacation leaseholds and one temporary forest shelter. Three of these cottages are on Lake Gull Nord.

Limited access along the rail line significantly reduces the potential presence of recreational leasehold or temporary shelters in that area. A study is under way to validate the presence of leaseholds and shelters along the selected alignment.



The area where the ore storage area is to be installed is located in Pointe-Noire near Sept-Îles. This area is home to many other mining companies, including Cliffs Natural Resources (formerly Mines Wabush) and Aluminerie Alouette.

#### Location of Aboriginal Groups

The Fire Lake North mine project is located on the traditional territory of the Innu of Uashat mak Mani-Utenam, known as the Uashaunnuat.

There are also various traplines in the Sept-Îles division of the Saguenay Beaver Reserve, which are reserved for the Innu of Uashat mak Mani-Utenam. This beaver reserve was created by the Quebec government in 1954. This form of land allocation is superimposed on the traditional distribution of land practised by the Innu families on the territory.

The Uashaunnuat are divided into two reserves: Uashat, which is physically integrated into the urban core of the city of Sept-Îles, and Mani-Utenam, which is located east of the city.

#### Federal Lands

Ore transportation to the existing port facilities in Pointe-Noire may require renting lands to the Sept-Îles Port Administration, lands which are considered as federal lands. The study area used for environmental assessment will include all federal lands concerned by the Project.

#### Fisheries and Fishing Areas

The Bay of Sept Îles is a prized fishing area in that a number of commercial and a few sportfishing species are found in the waters of the bay. Limited commercial fishing is therefore tolerated on the periphery of the existing Pointe-Noire port facilities. This is the case for herring, which has been fished for close to 50 years in the western and southern parts of the bay from wharfs 30 and 31 to Marmite Point.

#### Environmentally Sensitive Areas

The project does not affect any protected area. To the east, however, the Moisie River Aquatic Reserve is planned.

A number of small wetland areas are present on the property, specifically ponds, riparian marshes and peatbogs. Also, on the banks of some streams there are monospecific and relatively dense alder stands. The peatbogs are small, but relatively numerous, especially on stream banks. This specific vegetation has been thoroughly analyzed and will be considered in the environmental assessment of the project.

#### Provincial and International Boundaries

The project is located entirely within the province of Quebec.

The Labrador boundary (Province of Newfoundland and Labrador) is about 30 km northwest of the mining property.

## **3.4 Official Description of the Land**

In the Fire Lake sector, Champion Iron Mines Ltd. owns 17 mining properties including 1,288 claims totalling an area of 717.9 km<sup>2</sup>.

The Fire Lake North property includes 279 contiguous claims covering an area of 142.5 km<sup>2</sup>. Map 3.5 shows the location of the mining rights with 100 % Champion interest.

Surface property rights belong to the Government of Quebec. Champion Iron Mines Ltd. will submit an application for a mining lease in due course.

The land on the railway line also belongs to the Government of Quebec and authority to use the right-of-way will be acquired in accordance with applicable legislation.

The planned ore storage area is located primarily on MRNF land in the Pointe-Noire sector and on a limited amount of private land.

## **3.5 Land and Water Use**

### **3.5.1 Zoning**

The Fire Lake North project is located north of the 49<sup>th</sup> parallel, and is therefore within the geographical limits of the Plan Nord initiative to develop mineral resources. The properties are also included in an area that is slated to be zoned as “natural resources” land (revised Development Plan) by the Caniapiscau RCM, which authorizes mine zoning.

The rail line is located primarily on recreational forest land according to the Sept-Rivières RCM's revised Development Plan. To the south it runs through land zoned for agroforestry use and an area zoned for industrial use.

The sector proposed for the ore storage area is zoned for “heavy industry” under the Sept-Îles Urban Plan.

### **3.5.2 Land Titles**

See section 3.4 above.

### **3.5.3 Land Use Plans**

In addition to the RCM development plans and the City of Sept-Îles Urban Plan, the mining site and rail right-of-way are subject to the Public Land Use Plan produced by the Quebec Ministry of Natural Resources and Wildlife. Most of the railway study area falls within the 09-006-000 land use area to the south and 09-005-00 to the north of the SM-3 reservoir. The first zone is designated “multiple modulated usage”, which means “using the land and developing the resources for recreational tourism purposes”, whereas the second area is zoned “multiple use”, which means “using the land and developing the resources”. The mining site is included in the “multiple use” zone.

Also note that, as specified in section 48 of the *Canada Marine Act*, the Port Authority of Sept-Îles (APSI) produced a land use plan outlining the objectives and policies established for the physical development of immovables it manages, holds or occupies. This plan confirms that the Pointe-Noire sector is zoned for heavy industry. Improvements to the bulk transshipment operations are planned with the installation of handling and storage facilities, along with facilities enabling the simultaneous loading and unloading of several ships.

The mine site and rail line will in addition require access to lands used for traditional activities by the Innu of Uashat mak Mani-Utenam. The project is however not expected to adversely impact the use of these lands.



## 4 Federal Government Participation

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### 4.1 Financial Support

No federal authority will be providing any financial support for the project and this option has not been considered to date.

### 4.2 Federal Land

Ore transportation to the existing port facilities in Pointe-Noire may require renting lands to the Sept-Îles Port Administration, lands which are considered as federal lands.

### 4.3 Legislative or Regulatory Requirements

Under the new *Canadian Environmental Assessment Act (2012)* (CEAA), only those projects specifically designated by the *Regulations Designating Physical Activities* now require an environmental assessment by the Canadian Environmental Assessment Agency (CEAA). In addition, the Minister of the Environment may designate a project not identified in regulations if there is the potential for adverse environmental effects or sufficient public concerns about such environmental effects. The following provisions from the *Regulations Designating Physical Activities* apply to the Fire Lake North mining project:

- 8. The construction, operation, decommissioning and abandonment of a facility for the extraction of 200 000 m<sup>3</sup>/a or more of ground water or an expansion of such a facility that would result in an increase in production capacity of more than 35%.
- 15. The construction, operation, decommissioning and abandonment of
  - metal mine, other than a gold mine, with an ore production capacity of 3 000 t/d or more;
  - a metal mill with an ore input capacity of 4 000 t/d or more;
- 28. The construction, operation, decommissioning and abandonment of
  - a railway line more than 32 km in length on a new right of way;

Section 35 of the *Fisheries Act* specifies that:

“(1) No person shall carry on any work, undertaking or activity that results in the harmful alteration or disruption, or the destruction, of fish habitat.

(2) No person contravenes subsection (1) by causing the alteration, disruption or destruction of fish habitat by any means or under any conditions authorized by the Minister or under regulations made by the Governor in Council under this Act.”

In the case of the Fire Lake North project, the Minister of Fisheries and Oceans (DFO) will need to issue an authorization for altering fish habitat under section 35(2) of the *Fisheries Act*.

Also note that rail crossings over navigable waters are governed by the provisions of the *Navigable Waters Protection Act* (NWPA). However, no navigable waters have been found to date on the mining site or the sites selected for the ore storage area. Surveys were carried out in the summer of 2012 to confirm

the presence or absence of navigable waters along the planned rail alignment. According to currently available information, it is likely that at least one watercourse, Kausseshkau River, may be considered a navigable waterway under the NWPA.

It should also be noted that the Project will required the implementation of a mining effluent monitoring program in line with *Metal Mining Effluent Regulations* (MMER).

## 5 Environmental Effects

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### 5.1 Description of Physical and Biological Environment

The information in this section was drawn from the Champion Iron Mines Ltd data base that was essentially compiled from field surveys in 2011 by Roche Ltd, Consulting Group. Complementary surveys are currently under way to collect more data on the physical and biological environment and to better define the potential impacts of the proposed project.

#### 5.1.1 Climate and Air Quality

The Fermont area has a sub-arctic, continental climate with very severe winters typical of north central Quebec. The prevailing winds are from the west. The Sept-Îles region is located in a humid continental climatic zone. The average annual daily temperature is 0.8°C. The mean average wind speed is 14.7 km/h with prevailing winds from the east.

No air quality measurement has been taken in the field. However, given the location of the development, it can be assumed that air quality is good in the region of the mine and the rail line.

No ambient air quality monitoring station whose data are public is currently in operation in the Sept-Îles region. Since the local population has expressed concern in this regard, the MDDEP is currently setting up a monitoring network. The data collected from this network will be considered in the environmental assessment.

#### 5.1.2 Geomorphology

The Fire Lake North sector consists of a peneplain from 500 m to 900 m above sea level. The area drains southward to the St. Lawrence Estuary through the Nipissis and Manicouagan River systems. Glaciation left a veneer of moraine boulder till and eskers that cover much of the local bedrock. These glacial deposits dominate the local topography and control most of the surface drainage.

The rail alignment was designed to avoid challenging terrain. A more thorough characterization of the topography of the receiving environment is currently under way.

#### 5.1.3 Soils

A soil characterization for the mining property was carried out in 2011. The soil characterization for the rail right-of-way is currently under way. Additional samples were also collected in 2012.

According to currently available information, it seems that the zone where the ore storage area is to be built consists of unconsolidated silt and clay deposits, organic soil on moraine deposits, silt and clay and a number of rock outcrops. The north end of the Marconi Peninsula is mostly flat, whereas the south end is very rugged.

#### **5.1.4 Water System and Surface Water Quality**

The mining property is located on the Pékans River and Petite Rivière Manicouagan watersheds. The source of the Petite Rivière Manicouagan is northwest of the study area flowing toward the Manicouagan reservoir. The Pékans River, which originates west of the city of Fermont, drains into the Moisie River.

The project area includes more than 20 lakes of varying sizes including the Don, Lamêlée, Hippocampe, Demi-Mille and Éva lakes. The only named watercourse that crosses the area is the Petite Rivière Manicouagan, toward which the entire western section of the property drains. More than 30 small permanent streams, however, traverse the property. Most of the streams flow through valley bottoms, wooded or open wetlands.

The rail line will cross over a number of streams. A detailed characterization of the stream crossings is underway.

On the Marconi Peninsula, where the ore storage area is to be built, there is Brochu Stream which flows into Anse à Brochu as well as a small unnamed stream which drains into Anse à la Baleine. A small unnamed stream drains part of the southwest side of the peninsula and flows into Anse de la Grande Coulée. The proposed infrastructure are however located outside these zones.

#### **5.1.5 Hydrogeology and Groundwater Quality**

Groundwater samples collected as part of the 2011 characterization study at the mining site showed that concentrations that were below the guidelines set out in Quebec's *Soil Protection and Land Rehabilitation Policy*. A hydrogeological study is under way and more sampling was done in 2012.

#### **5.1.6 Plant Communities**

The area where the mine and rail line are to be developed is located in the boreal zone, more specifically at the transition between the spruce-moss forest domain in the east and the lichen woodland domain to the north. The uniform forest cover is clearly dominated by black spruce. The stands are mostly monospecific but black spruce is associated on occasion with balsam fir and tamarack. The odd hardwood specimen, such as white birch, trembling aspen or balsam poplar, can also be seen in the landscape.

The sides of hills are occupied by denser spruce moss stands and the bottom of valleys by dense softwood stands and shrubs, or wetland areas. The summits are generally occupied by very open spruce lichen woodlands similar to the lichen woodland domain.

The more poorly drained areas, such as valleys and the bottom of slopes, are occupied by moss spruce stands with a significant amount of sphagnum moss. A number of small wetland areas are present on the property, specifically ponds, riparian marshes, and peatbogs. Monospecific and relatively dense alder swamps have also been observed on the banks of some streams. The peatbogs are small in size, but relatively numerous, especially on stream banks.



No threatened or vulnerable species, or species likely to be so designated, were surveyed in the 2011 characterization study.

In the area where the ore storage area is planned, the Anse à Brochu sector is located in the eastern subdomain of the fir-white birch bioclimatic domain (boreal zone, continuous boreal forest subzone). The forest landscape in this domain is dominated by fir and white spruce stands, mixed with white birch on mesic sites. On less favourable sites, black spruce, jackpine and larch are often associated with white birch and trembling aspen. Stands on the edge of the bay are mixed and softwood type stands.

The dominant forest species on the Marconi Peninsula are softwood stands consisting of fir and spruce. These stands are omnipresent, except near existing industrial and port facilities and on the highest parts of the south shore of the peninsula where there is barren or semi-barren land. To the south, the vegetation comprises softwoods primarily fir with the odd spruce and hardwood specimens.

### **5.1.7 Wildlife and Wildlife Habitats**

#### Large Animals

Large animals on the proposed mining and rail sites are represented by the woodland caribou ecotype, moose and black bear. The woodland caribou is an ecotype that is considered to be threatened in Canada under the *Species at Risk Act*, and vulnerable in Quebec under the *Act respecting threatened or vulnerable species*.

In recent surveys, two herds of 30 and 15-20 woodland caribou were observed near Price Lake and the Petite Rivière Manicouagan. These two herds were about 25 km apart when they were sited and about 15 km from the exploration camp. On 19 recently observed sets of moose tracks, 25 moose were sited during the survey.

According to the literature and the results of large animal surveys, there is good moose and woodland caribou potential on the mining property sector. However, in the 2011 survey, no caribou were observed in the vicinity of the Champion Iron Mines Ltd exploration camp. A similar inventory was done along the rail line in 2012.

The density of moose in south hunting area No. 19 is generally one of the lowest in Quebec. Little information is available on the abundance of black bear in the study area.

#### Small Animals

Based on a literature review and the results of a small animal survey, the most abundant species in the sector are the grey wolf, Canadian lynx, snowshoe hare, and grouse species. Species present in smaller numbers are the red fox, ermine, American beaver and the porcupine. No mink, muskrat or fishers were sited during the inventory. No small animal species with a special status was detected in the study area.

Note that the Canadian lynx, black bear, red fox, American marten, mink, ermine, beaver, muskrat, striped skunk or red squirrel are likely to frequent the Marconi Peninsula. Owing to the many human activities present locally, there was considered to be limited terrestrial fauna on the peninsula. Also, given the proximity of the industrial facilities, it is improbable that these diverse species frequent, at least on a regular basis, the local residual habitats in the proposed project area.

## Birds

In the vicinity of the mine site, the goose and duck family and the grouse and ptarmigan family (which is of interest to hunters) are potentially represented by fifteen and three species respectively. There are respectively nine and four species of diurnal and nocturnal raptors potentially present in the study area.

About 65 bird species have been sited within a 70 km radius of the mining property during breeding season. More than half of these species nest in the sector with a high level of certainty: 14 were found to be confirmed breeders (including herring gull, American black duck, Canada goose, osprey, bald eagle, Savannah sparrow, Lincoln's sparrow and Canada jay) and 20 were considered probable breeders (including Arctic tern, red-breasted merganser, common merganser, surf scoter, greater yellowlegs, [http://www.termiuplus.gc.ca/tpv2source?lang=eng&srchtxt=grand%20chevalier&i=1&index=alt&src\\_id=BT%2D2021990%2CSP%2D4831994&rlang=en&titl=greater%20yellowlegs&fchrcrdnm=1&mob=0](http://www.termiuplus.gc.ca/tpv2source?lang=eng&srchtxt=grand%20chevalier&i=1&index=alt&src_id=BT%2D2021990%2CSP%2D4831994&rlang=en&titl=greater%20yellowlegs&fchrcrdnm=1&mob=0) dark-eyed junco, Boreal chickadee and ruby-crowned kinglet).

Populations of waterfowl and aquatic birds however are relatively unknown in the [http://www.termiuplus.gc.ca/tpv2source?lang=eng&srchtxt=roitelet%20%E0%20couronne%20rubis&i=1&index=alt&src\\_id=NOFOM1993&rlang=en&titl=ruby%2Dcrowned%20kinglet&fchrcrdnm=1&mob=0](http://www.termiuplus.gc.ca/tpv2source?lang=eng&srchtxt=roitelet%20%E0%20couronne%20rubis&i=1&index=alt&src_id=NOFOM1993&rlang=en&titl=ruby%2Dcrowned%20kinglet&fchrcrdnm=1&mob=0) Fire Lake North project area. In the spring 2012, a wildfowl count involving a direct visual count of breeding couples as part of a helicopter survey of aquatic environments in the study area was conducted using the method developed by the Canadian Wildlife Service (CWS). Another objective of the survey was to validate the presence of harlequin duck, an at-risk species. These data are currently being compiled and analyzed. The inventory methods and detailed wildfowl results will be presented in the environmental assessment report along with the results of the forest bird inventory also carried out in 2012.

According to the literature, at least 87 bird species belonging to 34 families nest on the edge of the Marconi Peninsula. Five diurnal raptor species (osprey, Northern harrier, red-tailed hawk, [http://www.termiuplus.gc.ca/tpv2source?lang=eng&srchtxt=buse%20%E0%20queue%20rousse&i=1&index=alt&src\\_id=BT%2D2021990&rlang=en&titl=red%2Dtailed%20hawk&fchrcrdnm=1&mob=0](http://www.termiuplus.gc.ca/tpv2source?lang=eng&srchtxt=buse%20%E0%20queue%20rousse&i=1&index=alt&src_id=BT%2D2021990&rlang=en&titl=red%2Dtailed%20hawk&fchrcrdnm=1&mob=0) American kestrel

[http://www.termiuplus.gc.ca/tpv2source?lang=eng&srchtxt=cr%E9cerelle%20d%27Am%E9rique&i=1&index=alt&src\\_id=BT%2D2021990%2CSP%2D4831994&rlang=en&titl=American%20kestrel&fchrcrdnm=1&mob=0](http://www.termiuplus.gc.ca/tpv2source?lang=eng&srchtxt=cr%E9cerelle%20d%27Am%E9rique&i=1&index=alt&src_id=BT%2D2021990%2CSP%2D4831994&rlang=en&titl=American%20kestrel&fchrcrdnm=1&mob=0) and merlin) and one nocturnal raptor species (short-eared owl) were surveyed. Most of the sea birds inventoried are unlikely to nest on Marconi Peninsula, but rather on nearby islands and islets.

In addition to offering favourable nesting habitats for several bird species, the Bay of Sept-Îles is a major staging area for birds that nest further north. In the spring and fall, Bay of Sept-Îles hosts thousands of wildfowl, shorebird and seabird specimens migrating to nesting and overwintering sites. A large variety of migratory shorebirds can be seen on marshland on Bay of Sept-Îles.

### Fish

In the 2011 mining site characterization study, of the 135 specimens caught in the streams, the highly prized game fish brook trout was the most abundant species with a catch rate of 94%, followed by lake chub (3%), burbot (2.3%) and white sucker (0.7%). In the lakes surveyed, brook trout was the most abundant fish with 56% catch rate, followed by northern pike (17%), northern sucker (12%), white sucker (8%), lake trout (4%) and lake chub (3%).

Fish habitat and the feeding, fry rearing and reproduction functions of the water bodies affected by the mine and the streams that will be crossed by the rail line were also characterized in the summer 2012. This information is currently being compiled and analyzed and will be considered in the environmental impact assessment of the project.

In the vicinity of the planned ore storage area, several commercial species inhabit the Bay of Sept-Îles because it is a larval retention area where a number of fish species spend the first part of their life cycle. In the littoral zone, eelgrass beds are an essential habitat for fish in the Bay of Sept-Îles. Fourteen species were in fact observed there in inventories conducted by Fisheries and Oceans Canada. Benthic fauna in the Bay of Sept-Îles is known to be abundant and diversified. Invertebrates belonging to several phyla are found there including crustaceans (lobster, snow crab, rock crab, Northern shrimp, sand shrimp, etc.), molluscs (soft-shelled clam, sea scallop, blue mussel, etc.) and echinoderms (green sea urchin, sand dollar, etc.). Note that large cetaceans are rarely found in the Bay of Sept-Îles, probably because of its shallow waters. The minke whale and harbour porpoise can be observed there from May to June during the capelin spawning season. The pinnipeds that frequent the area include grey seal, harbour seal and harp seal.

[http://www.termiumplus.gc.ca/tpv2source?lang=eng&srchtxt=cetace&i=1&index=alt&src\\_id=O1057&rlang=en&titl=cetacean&fchrdrnm=1&mob=0](http://www.termiumplus.gc.ca/tpv2source?lang=eng&srchtxt=cetace&i=1&index=alt&src_id=O1057&rlang=en&titl=cetacean&fchrdrnm=1&mob=0)

### **5.1.8 Special Status Species and Sites of Importance for Nature Conservation**

The abundance of small boggy areas both locally and regionally diminishes their value given that they are not unique and not relatively rare, and especially since the species richness associated with these sites is hardly significant.

Only one species that is likely to be designated as threatened or vulnerable is present close to the property (rosy pussy-toes, *Antennaria rosea* ssp. *confinis*). No species on Quebec's list of threatened or vulnerable species was identified in the 2011 characterization.

For large animals, the woodland caribou, which is present in the study area, is considered threatened in Canada under the *Species at Risk Act*, and vulnerable in Quebec under the *Act respecting threatened or vulnerable species*. No small animal species with special status has been inventoried in the study area.

Seven bird species with special status either federally or provincially are potentially present in the region based on their distribution ranges. Preferred nesting habitats seem to be present for three species (common

nighthawk [http://www.termiumplus.gc.ca/tpv2source?lang=eng&srchtxt=engoulevent%20d%27Am%E9ricue&i=1&index=alt&src\\_id=BT%2D2021990&rlang=en&titl=common%20nighthawk&fchrcrdnm=1&mob=0](http://www.termiumplus.gc.ca/tpv2source?lang=eng&srchtxt=engoulevent%20d%27Am%E9ricue&i=1&index=alt&src_id=BT%2D2021990&rlang=en&titl=common%20nighthawk&fchrcrdnm=1&mob=0),

Boreal [http://www.termiumplus.gc.ca/tpv2source?lang=eng&srchtxt=moucherolle%20%E0%20c%F4t%E9s%20olive&i=1&index=alt&src\\_id=NOFOM1993&rlang=en&titl=Boreal%20pewee&fchrcrdnm=1&mob=0](http://www.termiumplus.gc.ca/tpv2source?lang=eng&srchtxt=moucherolle%20%E0%20c%F4t%E9s%20olive&i=1&index=alt&src_id=NOFOM1993&rlang=en&titl=Boreal%20pewee&fchrcrdnm=1&mob=0) and

rusty

blackbird [http://www.termiumplus.gc.ca/tpv2source?lang=eng&srchtxt=quiscale%20rouilleux&i=1&index=alt&src\\_id=NOFOM1993&rlang=en&titl=rusty%20blackbird&fchrcrdnm=1&mob=0](http://www.termiumplus.gc.ca/tpv2source?lang=eng&srchtxt=quiscale%20rouilleux&i=1&index=alt&src_id=NOFOM1993&rlang=en&titl=rusty%20blackbird&fchrcrdnm=1&mob=0)). Nesting habitats may

also be present for three other species (golden eagle, bald eagle [http://www.termiumplus.gc.ca/tpv2source?lang=eng&srchtxt=pygargue%20%E0%20t%Eate%20blanche&i=1&index=alt&src\\_id=BT%2D2021990&rlang=en&titl=bald%20eagle&fchrcrdnm=1&mob=0](http://www.termiumplus.gc.ca/tpv2source?lang=eng&srchtxt=pygargue%20%E0%20t%Eate%20blanche&i=1&index=alt&src_id=BT%2D2021990&rlang=en&titl=bald%20eagle&fchrcrdnm=1&mob=0) and short-eared owl).

In the sector proposed for the ore storage area, two fish species in the Bay of Sept-Îles are listed as species that are likely to be designated as threatened or vulnerable in Quebec, the American eel and Atlantic cod (north Laurentian population). These two species have no legal protection status in Canada given that they are not listed in Schedule 1 of the [http://www.termiumplus.gc.ca/tpv2source?lang=eng&srchtxt=anguille%20amerique&i=1&index=alt&src\\_id=SRCL194576301&rlang=en&titl=The%20American%20Eel&fchrcrdnm=1&mob=0](http://www.termiumplus.gc.ca/tpv2source?lang=eng&srchtxt=anguille%20amerique&i=1&index=alt&src_id=SRCL194576301&rlang=en&titl=The%20American%20Eel&fchrcrdnm=1&mob=0) *Species at Risk Act*. Although no fraying site was identified for these species inside the Bay of Sept-Îles, knowledge of the ecology of these species suggest that they could well reproduce in the area or in tributaries to the bay. Atlantic cod would make use of the eelgrass beds in various stages of their lifecycle.

Two special status bird species, common nighthawk [http://www.termiumplus.gc.ca/tpv2source?lang=eng&srchtxt=engoulevent%20amerique&i=1&index=alt&src\\_id=BT%2D2021990&rlang=en&titl=common%20nighthawk&fchrcrdnm=1&mob=0](http://www.termiumplus.gc.ca/tpv2source?lang=eng&srchtxt=engoulevent%20amerique&i=1&index=alt&src_id=BT%2D2021990&rlang=en&titl=common%20nighthawk&fchrcrdnm=1&mob=0) and Canada warbler, may well nest in the vicinity of Anse à Brochu.

## 5.2 Description of Changes

### 5.2.1 Fish and Fish Habitats

At the mine site, mine effluent could potentially alter fish habitats and it is likely that the planned development of the two pits could lead to existing lakes being totally or partially (installation of a dyke)

emptied. Final selection of storage sites in the feasibility study will take the presence of these bodies of water and wetlands into consideration.

For the rail line, site-specific fish habitats may be affected. This issue will be considered and analyzed in the environmental assessment undertaken on the project. The main potential impacts on fish and fish habitat are:

- A decrease in the quality of fish habitat immediately downstream of rail crossings;
- Changes to habitat use by fish at crossing points;
- Potential decrease in richness of benthic communities (which fish feed on);
- Habitat loss for fish located primarily at crossing sites caused by encroachment of infrastructure on fish habitat.

The proposed ore storage area will not be located in aquatic environments.

Fish habitat, along with the feeding, fraying and reproduction functions in the bodies of water affected by the mine and the streams the rail line crosses were characterized in summer 2012. Fish inventories have also been performed. The results will be used to assess habitat loss and potential compensation options under the *Fisheries Act*.

### **5.2.2 Aquatic Species**

At this stage, no impact on aquatic species is anticipated as defined under the *Species At Risk Act*.

### **5.2.3 Migratory Birds**

Based on other mine project studies, potential impacts on migratory birds appear to be relatively negligible since it would be limited to noise disturbances in the vicinity of infrastructure along with limited aquatic habitat loss at any lake or stream affected by the mine or terrestrial habitat loss where wood-cutting activities will take place. It should also be noted that such activities could impact nesting and habitat availability for wildfowl and other aquatic bird species where infrastructures are expected to be located. Moreover, the development of a linear railway could increase pressure by Innu hunters on those species. The final assessment of those impacts on migratory birds will be performed as part of the Environmental and Social Impact Assessment. That study will also include mitigation measures in order to minimize impacts on migratory birds.

Populations of wildfowl and aquatic birds are relatively unknown in the Fire Lake North project area. In the spring 2012 a wildfowl count consisting of a direct visual count of nesting couples as part of a helicopter survey of aquatic environments in the study area was conducted based on the method developed by the Canadian Wildlife Service (CWS). This inventory was also aimed at validating the presence of harlequin duck, an at-risk species. These data are currently being compiled and analyzed. The methods and detailed results of the wildfowl inventories will be presented in the project environmental assessment report.

## 5.2.4 Aboriginal Peoples

According to information gathered in the field and from studies pertaining to the territory, the mine and rail line projects are not expected to have a significant negative direct effect on current traditional land and resource use or on a building found on the traplines involved namely traplines 255, 256, 265, 278, 277-A, 286 and 299. Based on available data, the mine and the projected railway would not be located where existing Innu camps are and would not interfere with any valued territory. This information will however need to be validated with Innu trapline users since available data are too general to adequately assess such issues.

To date, there are no known archaeological sites within the boundaries of the mining property. An analysis however identified 99 potential archaeological areas in the surrounding areas. These potential areas are essentially on the shoreline of lakes in the region, specifically Lamêlée, Don, Hippocampe and Éva lakes on the property. No study of potential archaeological sites is currently available for the rail line. This area will be investigated as part of the environmental assessment.

The anticipated socio-economic effects of the project are expected to be positive overall and essentially involve employment and business opportunities. Every effort will be made to promote Innu employment along with business opportunities for Innu enterprises.

Moreover, the project is not expected to have any direct effect on the physical health of Aboriginal people, given that health and safety measures will be put in place as part of the project and that applicable environmental standards will be met. The literature and past experience on other projects however indicate that increased revenues in Aboriginal communities and workers being away from their families can lead to mental health issues. An increase in alcoholism and family conflict has in some cases been observed. In cooperation with community social and health service providers, every effort will be made to minimize these risks.

The full range of environmental and social issues associated with the Fire Lake North mining project for the Innu Uashat mak Mani-Utenam community cannot be adequately evaluated and managed without consulting the main stakeholders. As already mentioned, preliminary contacts have been made with the community, but have not yet resulted in a collaborative agreement.

A work plan for the analysis of Innu land use has been prepared. This exercise will be undertaken as part of the project environmental assessment process, as soon as an agreement is reached with Innu authorities. Issues with respect to land claims and proposed development projects on community territory will be broached more specifically by those in charge of negotiations with the Innu Takuaikan Uashat mak Mani-Utenam.

The information gathered from this process will be used to create a portrait of land use practices and their significance to the users along with the importance of natural resources and other relevant elements with a view to assessing project impacts.

### **5.3 Federal Lands**

Ore transportation to the existing port facilities in Pointe-Noire may require renting lands to the Sept-Îles Port Administration, lands which are considered as federal lands. The study area used for environmental assessment will include all federal lands concerned by the Project.





## **6 Proponent's Consultations with Aboriginal Groups**

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### **6.1 Aboriginal Group**

The Fire Lake North mine project is located within the limits of the Province of Quebec. With regards to traditional hunting, fishing and trapping, the study area is located in the Saguenay Beaver Reserve, division Sept-Îles, and within the Fur-Bearing Animal Management Unit (UGAF) #60. Consequently, consultations have so far focused and will continue focusing on the concerned Innu community, namely the Uashat mak Mani-Utenam (ITUM) First Nation. Consultation will cover land use as well as traditional knowledge and concerns raised by its members. All relevant information pertaining to the Ashuanipi Corporation will also be gathered. That Corporation was born in 2006 as part of a global territorial negotiation with the Government of Quebec and regroups both ITUM and Matimekush-Lac John Innu First Nation. If the Project was to be modified and include lands located in Newfoundland-and-Labrador, the Innu Nation of Labrador would also be consulted. Contacts for ITUM are:

Innu Uashat mak Mani-Utenam (ITUM) First Nation  
P.O. Box 8000  
265 Montagnais Blvd  
Uashat QC G4R 4L9

Phone: 418-962-0327  
Fax: 418-968-0937  
Email: [info@itum.qc.ca](mailto:info@itum.qc.ca)

Chief: Georges-Ernest Grégoire  
General Manager: Louis Vollant

### **6.2 Consultation Activities**

No formal consultations have to date been held with the Innu Uashat mak Mani-Utenam First Nation. Champion Iron Mines Ltd is continuing efforts in this regard. In April 2012, however, Champion Iron Mines Ltd reached an exclusive memorandum of understanding with ITUM for the potential development of a multi-user rail network. Under this agreement, the intention of both parties is that ITUM's interests and long-term vision be integrated into the project planning process in compliance with both parties' desire to create a sustainable development project that will promote the economic development of the region in keeping with established objectives as regards social and environmental responsibility.

### **6.3 Comments and Concerns**

The Fire Lake North mining project will take into consideration all the concerns expressed by stakeholders. To establish sustainable relationships, Champion Iron Mines Ltd. will continue to pursue its

consultation and communication efforts with the various parties, including the Uashat mak Mani-Utenam community. Information and consultation sessions will also be held to inform those concerned and obtain feedback on their concerns.

## **6.4 Information on Current Use**

The Fire Lake North property and the proposed rail right-of-way are part of the traditional territory used by the Uashat mak Mani-Utenam Innu (ITUM).

In 1954, the Quebec government created Saguenay Beaver Reserve and established a regional network of traplines to rationalize the harvesting of fur-bearing animals. This form of land use is superimposed over the traditional division of land by Innu families on the territory. It features close management of land use, which is assumed by the holder of the individual traplines.

The typical pattern of use for hunting, fishing and trapping are seasonal by nature. The period of greatest activity runs from late August to mid-December. This is an intensive period of trapping. Winter hunting begins when winter sets in, as of mid-December, and continues to mid-February with a focus on caribou hunting. Late winter, before the rivers thaw, is marked by the return of trapping activities. Spring hunting starts in late April with the return of the Canada geese and continues through to mid June. The annual cycle ends in summer, when communities gather to celebrate and reconnect.

Traplines involved by the proposed Fire Lake North mining and rail line projects are traplines 255, 256, 265, 278, 277-A, 286 and 299. As noted in Section 5.2.4 herein, with the ITUM's consent, exhaustive consultations with trapline users will be carried out to complete the information on land and resource use and to hear about their concerns and gather their comments vis-à-vis the project.

## **6.5 Consultation and Information Gathering Plan**

The information gathering exercise to be undertaken with Aboriginal users was outlined in Section 5.2.4 of the full document.

Champion Iron Mines Ltd will complete its consultations with Aboriginal people interested in the project in collaboration with representatives of the Innu Uashat mak Mani-Utenam First Nation.

## 7 Consultations with the General Public and Other Parties

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### 7.1 Interested Groups

Other parties who may be interested in and possibly affected by the project are:

Côte-Nord Health and Social Services Agency  
Côte-Nord Regional Conference of Elected Officials  
Côte-Nord Regional Environmental Board  
Corporation de protection de l'environnement de Sept-Îles  
Québec Snowmobiling Federation  
Fermont Citizens' Movement  
Caniapiscau RCM (and City of Fermont and LDC)  
Sept-Rivières RCM  
Duplessis Watershed Organization  
Uashat mak Mani-Utenam First Nation  
Produits forestiers Arbec  
Côte-Nord/Duplessis Tourism Board  
City of Sept-Îles  
Matimek ZEC

Other authorities consulted to date are:

- City of Sept-Îles;
- Caniapiscau RCM;
- MNRF;
- MTQ;
- MDDEP;
- Canadian Environmental Assessment Agency;
- Major Projects Management Office (federal);
- Newfoundland and Labrador Environmental Agency;

The Fire Lake North mining project will take into consideration all the concerns of the stakeholders. With a view to building sustainable relationships, Champion Iron Mines Ltd. will continue pursuing its

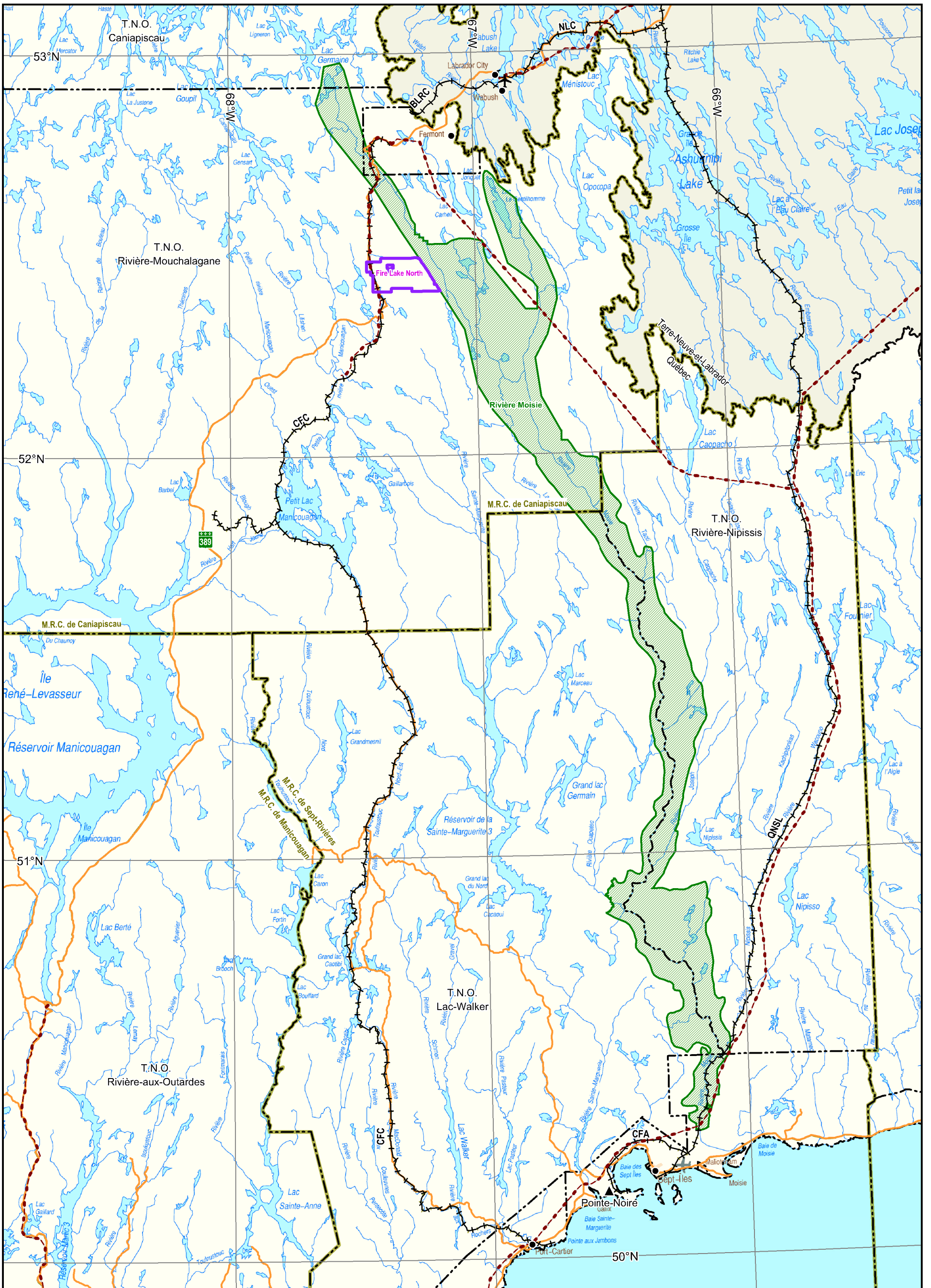
consultation and communications efforts with project stakeholders. Information and consultation sessions will also be held to inform those interested in the project and to learn about their concerns.

## **7.2 Consultation Plan**

Champion Iron Mines Ltd will complete its consultation of those interested in the project in collaboration with local representatives.

## **7.3 Consultations with other Regulatory Authorities**

In March 2012, Champion Iron Mines Ltd submitted its project notice to the Minister of Sustainable Development, Environment and Parks (MDDEP). The MDDEP is responsible for applying Quebec's *Regulation respecting environmental impact assessment and review*. Following receipt of the notice, the MDDEP prepared a directive indicating the nature and scope of the environmental impact assessment (EIA) that Champion Iron Mines Ltd. is required to prepare. The EIA will be prepared in compliance with the various provisions of *Directive 019 for the Mining Industry*.



Propriété minière / Mining Property  
(GESTIM, 120213)

Fire Lake North

Projets d'aires protégées /  
Protected Areas

--- Ligne de transport d'énergie /  
Power Line

— Route principale / Main Road

▲ Site d'entreposage (Pointe-Noire) /  
Ore Storage Area (Pointe-Noire)

— Voie ferrée existante /  
Existing Railway

CFA : Compagnie de chemin de fer Arnaud (fédéral)

CFC : Chemin de fer Cartier (Québec)

QNSL : Quebec North Shore & Labrador Railway Company inc. (Qc, T-N & L)

BLRC : Bloom Lake Railway Company (T-N & L)

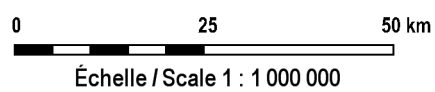
NLC : Northern Land Company Ltd (T-N & L)

**CHAMPION**

Projet de mise en valeur de  
la propriété Fire Lake North /  
Development of the Fire Lake  
North Property

Description de projet / Project Description

**Localisation générale de la propriété minière /  
General Location of the Mining Property**








**ROCHE**

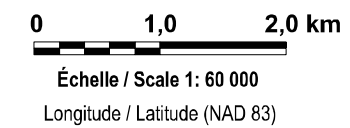
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63457\_ACEE\_C3-1\_loc\_gen\_120927.WOR  
Septembre 2012 / September 2012

Carte / Map  
3.1



-  Fire Lake North
-  Autre propriété minière de Champion Iron Mines Ltd / Other Mining Properties Owned Champion Iron Mines Ltd
-  Route principale / Main Road
-  Voie ferrée existante / Existing Railway
-  Voie ferrée proposée / Proposed Railway

Source : Propriété minière / Mining Property (GESTIM, 120213)



Base carto / Base Map : CanVec, 1: 50 000, 23B6 et 23B11, RNCan, 2010  
 Réseau ferroviaire / Railroad Network : BDGA, 1: 1 000 000  
 Fichier / File : 63457\_ACEE\_C3-2\_Installations\_120927.WOR

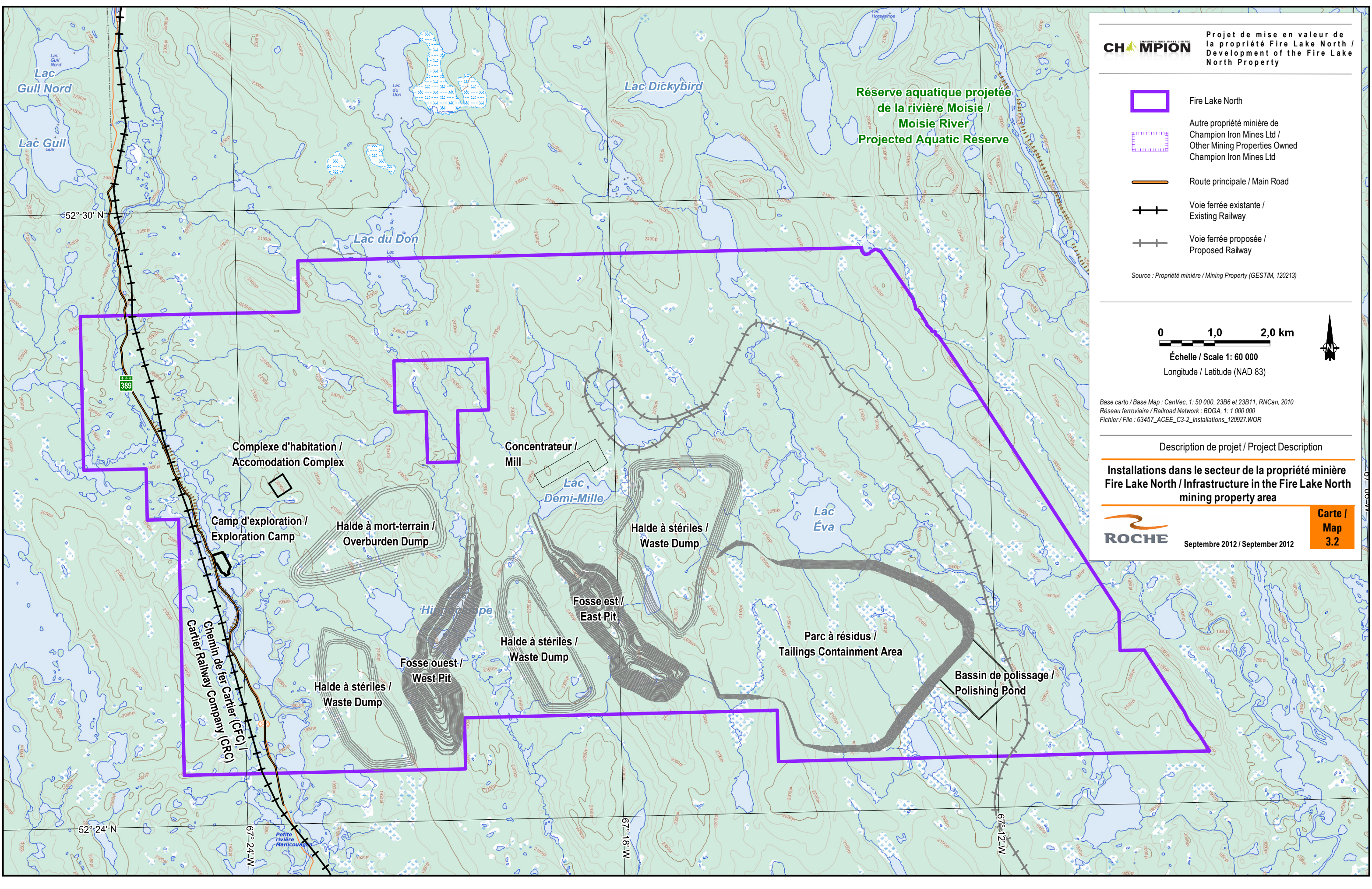
Description de projet / Project Description

**Installations dans le secteur de la propriété minière Fire Lake North / Infrastructure in the Fire Lake North mining property area**



Septembre 2012 / September 2012

**Carte / Map 3.2**



Chemin de fer Cartier (CFC)

Réserve aquatique projetée de la rivière Moisie / Moisie River Projected Aquatic Reserve

Complexe d'habitation / Accomodation Complex

Camp d'exploration / Exploration Camp

Halde à mort-terrain / Overburden Dump

Concentrateur / Mill

Halde à stériles / Waste Dump

Fosse est / East Pit

Parc à résidus / Tailings Containment Area

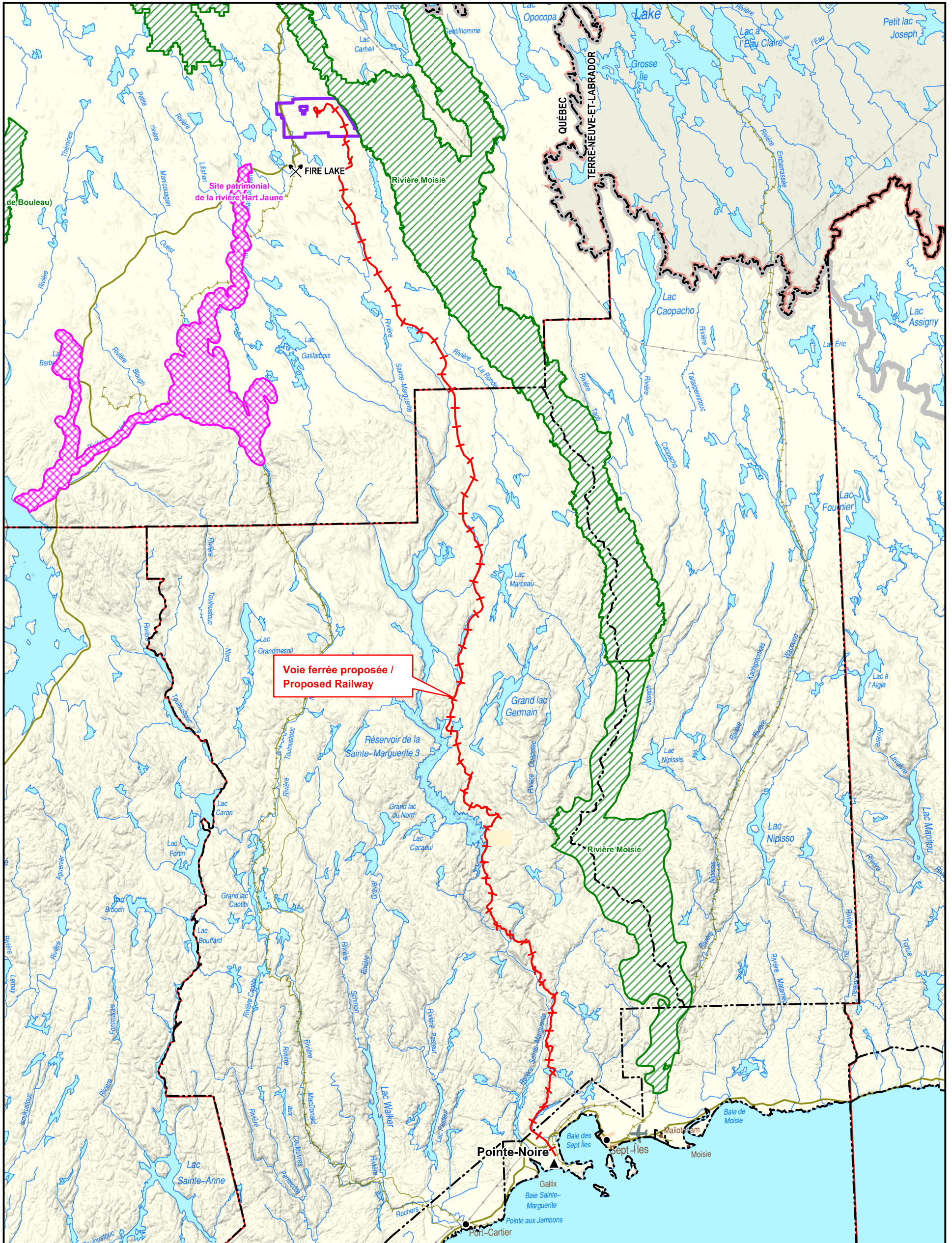
Bassin de polissage / Polishing Pond

Halde à stériles / Waste Dump

Fosse ouest / West Pit


Halde à stériles / Waste Dump





Propriété minière / Mining Property  
(GESTIM, 120213)

 Fire Lake North

 Projets d'aires protégées /  
Protected Areas

**CHAMPION**

Projet de mise en valeur de  
la propriété Fire Lake North /  
Development of the Fire Lake  
North Property

Description de projet / Project Description

**Tracé de la voie ferrée proposée /  
Proposed Railway**

0 20 40 km

Échelle / Scale 1 : 900 000

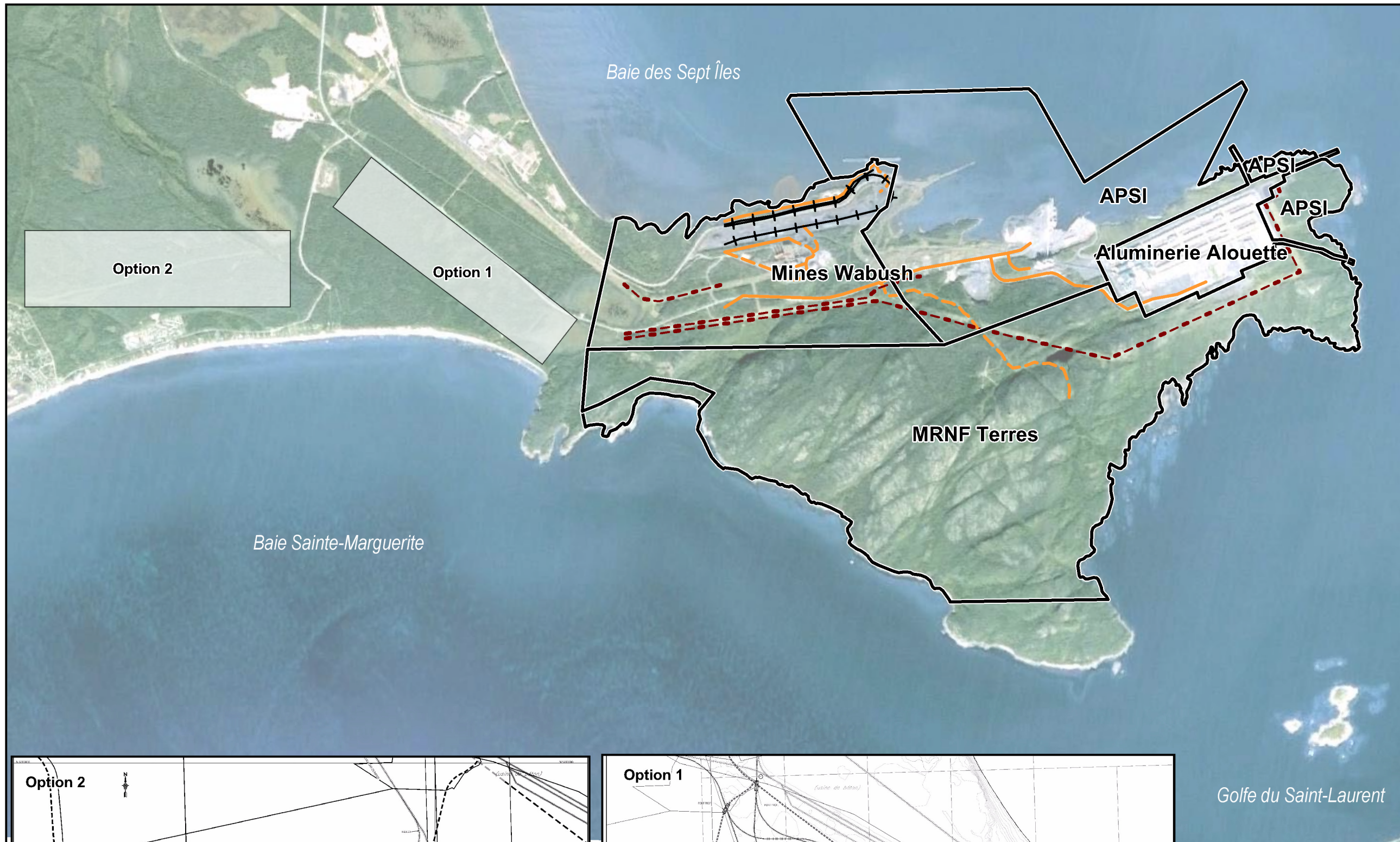


**ROCHE**

Fichier / File :  
63457\_ACEE\_C3-3\_Voieferrée\_120927.WOR  
Septembre 2012 / September 2012

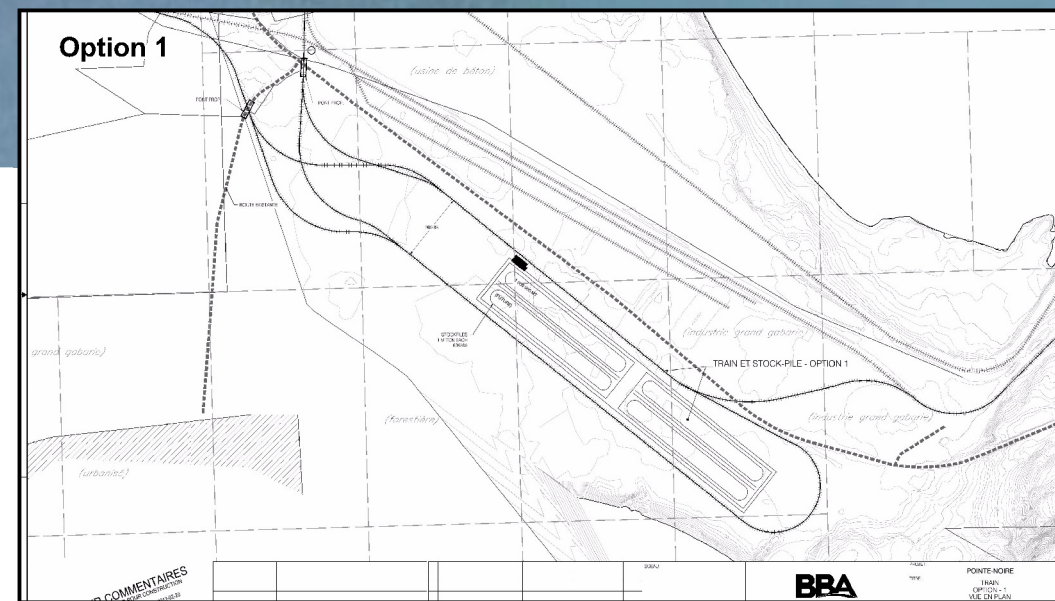
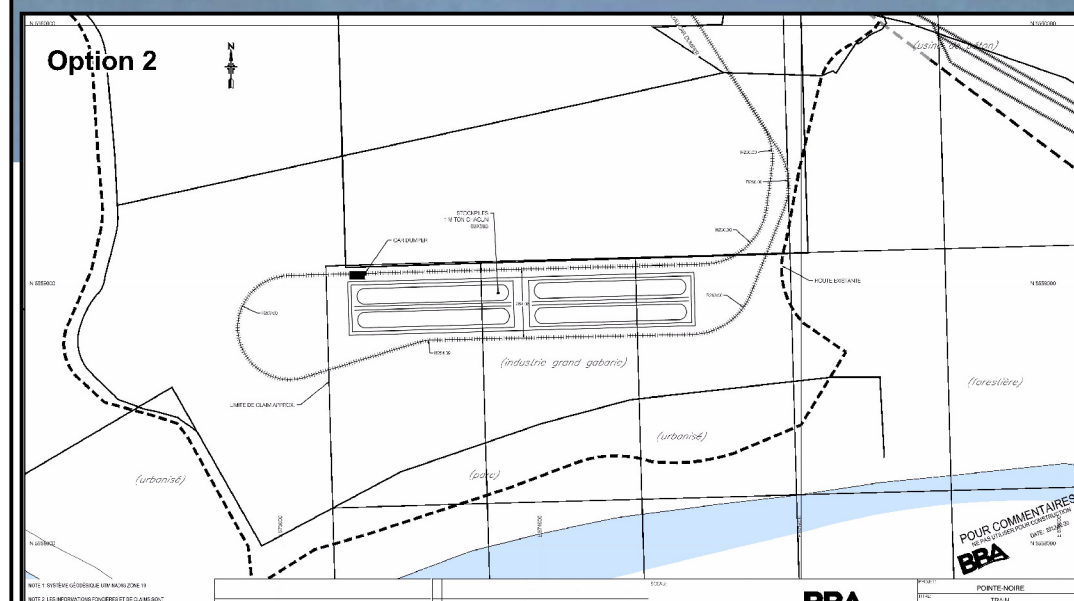
**Carte / Map  
3.3**





- Limite de propriété / Property Limit
- Ligne de transport d'énergie / Powerline
- Route et chemin d'accès / Road and Access Trail
- Voie ferrée existante / Existing Railway

APSI : Administration portuaire de Sept-Îles



Golfe du Saint-Laurent

0 0,5 1,0 km

Longitude / Latitude (NAD 83)



Base carto / Base Map : Google Earth, 2006  
Fichier / File : 63457\_ACEE\_C3-4\_Portuaire\_120927.WOR

Description de projet / Project Description

Sites d'entreposage potentiels à Pointe-Noire / Potential Ore Storage Areas in Pointe-Noire