



Agence canadienne
d'évaluation environnementale

Canadian Environmental
Assessment Agency

**BlackRock Mining Project, Chibougamau Area
by BlackRock Metals Inc.**

**Information Document on the Project and the Conduct of the
Comprehensive Study Established Under
the *Canadian Environmental Assessment Act***

Canadian Environmental Assessment Registry Reference Number: 11-03-62105

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Canada 



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LIST OF ACRONYMS

CEA Act: *Canadian Environmental Assessment Act*

CEAR: Canadian Environmental Assessment Registry

CN: Canadian National

COMEX: Provincial Review Committee established under Section 22 of the JBNQA

COMEV: Evaluating Committee established under Section 22 of the JBNQA

CRA: Cree Regional Authority

CTA: Canadian Transportation Agency

DFO: Department of Fisheries and Oceans

HADD: Harmful alteration, disruption or destruction of fish habitat

JBNQA: *James Bay and Northern Quebec Agreement*

NRCan: Natural Resources Canada

NWPA: *Navigable Waters Protection Act*

SARA: *Species at Risk Act*

1 INTRODUCTION

The purpose of this document is to inform the public about the comprehensive study process established under the *Canadian Environmental Assessment Act* (CEA Act) for the BlackRock Mining Project in the Chibougamau area proposed by BlackRock Metals Inc.

The purpose of the federal environmental assessment process is to ensure that the environmental effects of projects are carefully reviewed before federal authorities make an irrevocable decision about the projects. The environmental assessment is an effective tool for promoting sustainable development by taking environmental factors into consideration in the planning and decision-making processes.

The proponent, BlackRock Metals Inc., has submitted a project notice, and the federal government must demonstrate how it intends to conduct the comprehensive study of the project. **At this early planning stage, the Canadian Environmental Assessment Agency (the Agency) provides the public with an opportunity to comment on the project, the scoping of the environmental assessment and the conduct of the federal comprehensive study. A notice about this consultation has been posted on the Canadian Environmental Assessment Registry (CEAR) Web site (<http://www.acee-ceaa.gc.ca/050/index-eng.cfm>) with the following reference number:11-03-62105**

Section 5.2 below outlines the procedure for submitting comments, observations or concerns about the project or about the procedures of the federal comprehensive study. **Only comments received by June 30, 2011, will be taken into consideration.**

This document describes the federal environmental assessment process, the opportunities for public participation, and the proposed scope of the federal environmental assessment. “Scope of the environmental assessment” means the framework and limits within which the federal environmental assessment will be conducted, i.e., the project and environmental components that will be described and examined by the federal authorities for decision-making purposes.

1.1 Why does the *Canadian Environmental Assessment Act* apply to this project?

On the basis of information received from the proponent, the Agency has determined that an environmental assessment is required for the BlackRock Mining Project since the following federal departments may issue authorizations under the *Law List Regulations*:

- Department of Fisheries and Oceans (DFO) under section 32 and subsection 35(2) of the *Fisheries Act*;
- Natural Resources Canada (NRCan) under paragraph 7(1)(a) of the *Explosives Act*; and

- Canadian Transportation Agency (CTA) under subsection 98(2) of the *Canada Transportation Act*.

This project is described in the comprehensive study list under subsection 16(a) of the *Comprehensive Study List Regulations*, which states:

The proposed construction, decommissioning or abandonment of a metal mine, other than a gold mine, with an ore production capacity of 3 000 t/d or more.

Therefore, as prescribed by section 11.01 of the CEA Act, the Agency commences the comprehensive study of the BlackRock Mining Project.

This project is a major resource project requiring the involvement of the Major Projects Management Office (MPMO).

1.2 How does the comprehensive study process work?

In accordance with section 11.01 of the CEA Act, the Agency will perform the duties and functions of the responsible authority in relation to the environmental assessment of the BlackRock Mining Project. The Agency will work closely with the federal authorities (DFO, NRCan, CTA) to coordinate their participation in the environmental assessment process and facilitate communication and cooperation between them and the other participants for the purpose of preparing the comprehensive study report (CSR).

To perform the analysis of the project, the Agency has established a federal environmental assessment committee (the federal committee) made up of representatives of DFO, Environment Canada, CTA, NRCan, the Cree Regional Authority (CRA) and the Major Project Management Office. Other departments may be added if necessary.

The federal committee has established the scope of the environmental assessment to guide the analysis of the proponent's environmental impact statement. The scope that will be considered is set out in section 3 below. The proponent, BlackRock Metals Inc., will present its impact study assessing the environmental effects of the project to the Agency for review and comments. During this analysis, the Agency will offer the public a second opportunity for consultation. A Comprehensive Study Report detailing the conclusions of the Agency and the federal committee on the environmental effects of the project will then be prepared. This report will be submitted to the Minister of the Environment (the Minister) and will also be made available for public review and comments.

The Minister will review the CSR, the summary of the consultation of Aboriginal groups, the assessment of the adequacy of the consultation, and public concerns. If the Minister is of the opinion that additional information or specific actions are needed to address the concerns of the public or Aboriginal groups, he may require the Agency or proponent to ensure that additional

information be gathered or that measures be taken to resolve those issues.

Once all the necessary information has been provided, the concerns of the public have been addressed, and the Aboriginal consultation has been deemed sufficient for a decision, the Minister will issue an environmental assessment decision statement. The environmental assessment decision statement sets out the Minister's opinion as to whether the project is likely to cause significant adverse environmental effects, taking into account the implementation of the mitigation measures and follow-up program that the Minister considers appropriate.

Once the Minister has issued an environmental assessment decision statement, the project is referred back to the federal authorities for their respective decisions under section 37 of the CEA Act. The federal authorities can then take appropriate regulatory actions, such as issuing permits, licences or approvals, depending on the outcome of the environmental assessment.

1.3 Environmental assessment process under the *James Bay and Northern Quebec Agreement*

The project is subject to a provincial environmental and social impact assessment pursuant to section 22 of the *James Bay and Northern Quebec Agreement* (JBNQA). Since the project is provincial in nature, the provincial administrator, following the recommendations of the Evaluating Committee (COMEV), has issued a guideline for the conduct of impact studies by the proponent. The Provincial Review Committee (COMEX) has been mandated to assess the project.

2 PROJECT PROPOSED BY THE PROPONENT¹

2.1 Project location

The project is located on the territory of the James Bay and Northern Quebec Agreement (JBNQA).

The geographic coordinates of the centre of the project are:

- longitude 74 degrees 25 minutes west
- latitude 49 degrees 50 minutes north

The project is located 30 kilometres (straight-line distance) southeast of Chibougamau. It is reached by driving south on Route 167 and forest road 210 (also known as “Chemin de la mine Lemoine” or “Chemin Gagnon Frères”) for 26 kilometres. BlackRock Metals Inc. has built a temporary access road that runs approximately 3 kilometres northeast from this road to the first proposed mine site. The project would be located in the township of Lemoine and would also fall within the Municipality of James Bay.

The processing plant would be located within the mining concessions held by BlackRock Metals Inc. An approximately 20-kilometre road would be built to link the plant with the Canadian National (CN) railroad, which lies about 1.8 kilometres from Route 167.

2.2 Background

The goal of the proponent is to produce an iron ore concentrate for shipment by rail to Québec City, and from the Port of Québec to one or more steel mills in China. The proponent’s rationale for the project is:

- The marked interest in base metals on the Chinese market and the long-term supply needs of that market
- The size of the lac Doré deposits, which, being several kilometres long, would ensure a long-term supply to certain Chinese steel mills, thus amortizing the cost of developing the project while enabling Chinese clients to adapt the metallurgical processes of their furnaces to this type of ore
- The favourable logistics of the project, namely its location in a mining area with suitable service infrastructure and its proximity to the public CN railway and the Port

¹ The information provided in this section is taken from the project notice submitted by the proponent.

of Québec, from which ships of more than 100 000 tonnes would transport the ore overseas

2.3 Description of the project

This project involves the mining of an iron, titanium and vanadium deposit located near Chibougamau, in the lac Doré area. The mining area would be about 2.5 kilometre long and 100 to 400 metres wide. The maximum elevation of the proposed mining area is about 100 m, and the mineralized area would be mined to a depth of 200 metres. The area to be mined is known as the southwest deposit. The proponent has indicated that it is covered only by a thin layer of overburden and that most of the area has been cleared of trees by logging companies.

Concentrate would be produced from ore processed on-site, trucked to the existing rail line at Chibougamau and sent by rail to the Port of Québec. The project also includes a 25-kilometre access road and a power line to meet the project's energy needs. BlackRock Metals Inc. is examining three options for transporting the ore:

- Trucking, with intensive use of the access road
- The construction and use of a conveyor to move the ore from the plant to the existing CN railway
- The construction of a rail line from the plant to the existing CN railway

The concentrate would then be sent to the Beauport terminal of the Port of Québec and loaded on 100 000–130 000-tonne cargo ships bound for Asia. The processing plant would be built at the edge of the mineralized zone. The area proposed for the plant by the proponent would be no larger than 200 metres by 150 metres. Two potential sites have been initially identified in outcrop areas far from major watercourses and within the mining concessions held by BlackRock Metals Inc. The proponent plans to use aggregate materials for road construction, including those that will enable the establishment of waste dumps.

The material would be drilled, dynamited, loaded with power shovels into trucks, and trucked a few kilometres to the plant, where it would be coarsely and finely crushed and then magnetically separated in multiple steps using electromagnets to produce a magnetite concentrate. The concentrate will then be trucked to the rail line, though the ultimate objective is to eventually install a conveyor system for transport to the CN rail line. The distance from the plant to the rail line would be about 25 kilometres over a road that the proponent plans to build either parallel to or along the line of the existing forest service road. A concentrate handling area would also be developed near the railway. The proponent plans to use only mechanical processing methods, rather than chemical processes.

Upon leaving the plant, the concentrate would be dried for transportation. In the winter, a

humidity level of less than 3% is required for rail transport to prevent ore from freezing in the cars and becoming impossible to unload.

The plant is expected to process about 20,000 tonnes of raw ore per day for the first year, with the rate increasing to up to 50,000 tonnes per day over a period of two to three years. The mine would be operational 320 days per year. This would translate into 2 000 000 tonnes of concentrate for transportation initially and could increase to a maximum of 5 000 000 tonnes.

2.4 Project schedule

The proponent plans to submit its impact statement in the fall of 2011. The proponent is expecting to begin building in the summer of 2012, with concentrate production beginning by late 2012.

3 PROPOSED SCOPE OF THE ENVIRONMENTAL ASSESSMENT

The federal committee will ensure that the environmental assessment is conducted in accordance with the scope of the project, as set out in the following section. In its review, the federal committee will consider the factors indicated in section 3.2 within the limits described in section 3.3 and the following sections.

3.1 Project scope

The scope of the project includes the activities and works that will be considered in the federal environmental assessment. For the purposes of the application of the CEA Act, the scope of the project encompasses all of the project components submitted by the proponent, including:

- Mining pits
- Extraction of iron, titanium and vanadium ore (open-pit mines)
- Ore crushers
- Waste rock dumps
- Ore processing plant
- Tailings sites
- Polishing ponds
- Water intakes
- Access roads and secondary roads
- Transportation of concentrate
- Manufacture and storage of explosives
- Power line
- Alternative means of transportation to the CN railway: conveyor system or rail line

- construction
- Transfer point
- Borrow pits
- Administrative buildings and staff accommodations if required

All other works, permanent or temporary structures, or activities directly related to the project are also included in the project scope (e.g., temporary access roads, tree clearing, cofferdams, earthworks and revegetation).

3.2 Factors to be considered

The environmental assessment will include consideration of the following factors, listed in paragraphs 16(1)(a) to (e) and subsection 16(2) of the CEA Act:

- The purpose of the project
- Alternative means of carrying out the project that are technically and economically feasible and the environmental effects of any such alternative means
- The environmental effects of the project, including the environmental effects of malfunctions or accidents that may occur in connection with the project and any cumulative environmental effects that are likely to result from the project in combination with other projects or activities that have been or will be carried out
- The significance of the effects referred to above
- The capacity of renewable resources that are likely to be significantly affected by the project to meet the needs of the present and those of the future
- Comments from the public that are received during the environmental assessment process
- Measures that are technically and economically feasible and that would mitigate any significant adverse environmental effects of the project
- The need for, and requirements of, any follow-up program in respect of the project

Subsection 2(1) of the CEA Act defines an environmental effect as any change that the project may cause in the environment, including any change it may cause to a listed wildlife species, its critical habitat or the residences of individuals of that species, as those terms are defined in subsection 2(1) of the *Species at Risk Act* (SARA); any effect of any such change on health and socio-economic conditions, physical and cultural heritage, the current use of lands and resources for traditional purposes by Aboriginal persons, or any structure, site or thing that is of historical, archaeological, paleontological or architectural significance, or any change to the project that may be caused by the environment.

3.3 Scope of factors to be considered

Given the information available regarding the project, the environmental assessment will consider, but not necessarily be limited to, all of the valued environmental components present in the study area before the start of the project. Table 1 lists the main environmental components to be documented and considered in the analysis of environmental effects.

Table 1: Environmental Components to be Documented and Considered in the Analysis of Environmental Effects	
Environmental component	Factors to consider
Physical environment	<ul style="list-style-type: none"> • Water regime • Surface water and groundwater quality • Air quality • Soil quality
Biological environment	<ul style="list-style-type: none"> • Species at risk and their habitat as defined in subsection 2(1) of SARA • Fish and fish habitat • Wildlife and wildlife habitat, including migratory birds and their habitat • Wetlands • Terrestrial and aquatic vegetation
Human environment ² (human occupation and use of terrestrial and aquatic resources)	<ul style="list-style-type: none"> • Current use of lands and resources for traditional purposes by Cree communities • Use of resources by residents of neighbouring communities • Boating and boater safety • Safety concerns regarding explosives manufacturing and magazines • Health of land users, particularly if there is metal accumulation in wild plants and animals • Socio-economic activities and heritage, historical, cultural and archaeological resources

² In its definition of the term “environmental effect,” the Act includes changes in economic or social conditions that are related to changes to the biophysical environment. Direct effects of a project on economic and social conditions are not covered by the definition.

3.4 Study area and temporal limits

The study area includes at least the factors listed in section 3.1 and their entire zone of influence, meaning the area within which the direct and indirect environmental effects of the project components will occur.

The time period targeted by the environmental assessment includes the construction, operation, modification, decommissioning and closure of the project, ensuring that all short, medium and long-term effects can be studied.

3.5 Malfunctions and accidents

The probability of possible malfunctions or accidents during construction, operation, modification or any other undertaking in relation to the project, and the potential significant adverse environmental effects of such events, will be identified and described in the environmental assessment. The description will include, but is not limited to, the following:

- Accidental spills of hazardous materials
- Contingency plans and measures for responding to emergencies that may involve risks to environmental components

3.6 Effects of the environment on the project

Environmental hazards that may affect the project will be described, and their predicted effects and consideration in the design of the project will be documented. The proponent will take into consideration, in particular, the following factors:

- Seismic activity
- The influence of climatic conditions: the impact of precipitation and temperature on the construction and operation of the road infrastructure

3.7 Cumulative environmental effects

Cumulative effects are changes to the environment that are caused by an action in combination with other past, present and future human actions. The cumulative environmental effects that may result from the project in combination with other projects or activities that have been or will be carried out will be identified and assessed. The cumulative effects assessment will be carried out on the valued environmental components for which the project has an adverse residual effect and for which cumulative effects are likely to occur.

The proponent will submit a rationale for the geographic boundaries of the cumulative effects assessment. It should be noted that these boundaries may vary depending on the components

selected for cumulative effects assessment. The proponent will propose and justify the projects and activities selected for cumulative effects assessment; these projects should be from the past, present and future (with a high likelihood of implementation).

3.8 Public and Aboriginal consultation by the proponent

The proponent is encouraged to consult the public and Aboriginal peoples and to provide details on the project consultations and information sessions he will be offering or has already offered at the local and regional levels. The information required in this regard includes the identification of the groups with which the proponent has met, the concerns they expressed, and the extent to which these concerns were incorporated into the project design and impact statement.

The federal environmental assessment process includes participation and consultation opportunities for the public and Aboriginal peoples (see Section 5).

3.9 Sustainability of the resource

The environmental assessment will consider the renewable resources that may be significantly affected by the project and the criteria used to determine whether their sustainable use will be compromised.

3.10 Follow-up program

The purpose of a follow-up program is to verify the accuracy of the assessment of the adverse environmental effects or to determine the effectiveness of the mitigation measures for the environment and resources. The relevance of this type of follow-up program will be analyzed and its objectives will be presented.

4 ENVIRONMENTAL ASSESSMENT SCHEDULE

Table 2: Comprehensive Study Schedule	
Key stages	Period (approximate dates)³
Public consultation on the project and on the conduct of the comprehensive study	May 30 to June 30, 2011
Submission of the impact statement by BlackRock Metals Inc.	August 2011
Analysis by the federal committee, questions and comments to the proponent	September 2011 to February 2012
Second public consultation opportunity	December 2011 to February 2012
Drafting and submission of the CSR by the Agency	December 2011 to April 2012
Public consultation on the CSR	May to June 2012
Decision of the Minister of the Environment and responsible authorities	Summer 2012

³ This schedule will change depending on proponent delivery of required information

5 PUBLIC PARTICIPATION

5.1 Opportunities for public participation

Public participation is a crucial component of the environmental assessment process. When the public has the opportunity to participate fully in the process, the quality and credibility of the environmental assessment are enhanced. Observations, comments and concerns expressed by the public following the consultation will be listed in the Canadian Environmental Assessment Registry (CEAR) and made available to the public on request. Personal information will be protected under the *Privacy Act*.

The public has three opportunities to comment:

- An initial consultation on the project and on the conduct of the comprehensive study
- A second consultation during the environmental assessment
- A third consultation on the CSR prepared by the Agency

Documents will be made available to the public through the CEAR and at specific locations, including Chibougamau, Chapais, Oujé-Bougoumou, Mistissini and Waswanipi. Meetings may be held with target groups during the second participation and consultation opportunity.

5.2 How are comments submitted at this stage?

At this stage of the environmental assessment of the project, the public is invited to submit its observations, comments and concerns on the following aspects:

- The project
- The conduct of the comprehensive study

Following public comments on the project, the scoping of the environmental assessment and the conduct of the comprehensive study, the Agency may, if necessary, amend elements of the environmental assessment to address the comments received.

Observations, comments and concerns must be received by June 30, 2011, by one of the following means:

By email at: MinierBlackRockMining@ceaa-acee.gc.ca

By mail at:

BlackRock Mining Project, Chibougamau Area
Canadian Environmental Assessment Agency
Kambale Katahwa, Senior Advisor
1141 Route de l'Église, 2nd Floor
P.O. Box 9514, Sainte-Foy Station
Québec City, Québec G1V 4B8

By fax at: 418-649-6443

5.3 Participant funding

The Government of Canada, through the Agency, will provide funding to assist groups and individuals to participate in the comprehensive study of the BlackRock Mining Project in the Chibougamau area.

The Agency is making available \$ 50 000 under its Participant Funding Program to assist groups and individuals to participate in the federal environmental assessment of this project. This funding is intended for activities related to the second and third public consultation periods. **Financial assistance applications must be received by June 30, 2011.** Notices concerning available financial assistance will be posted on the CEAR Web site at <http://www.acee-ceaa.gc.ca/050/index-eng.cfm> with the reference number 11-03-62105.

Information on the Participant Funding Program, including the Participant Funding Program Guide and application form, are available at www.ceaa-acee.gc.ca.

To submit an application or obtain additional information on the program, contact:

Participant Funding Program
Canadian Environmental Assessment Agency
Suzanne Osborne
160 Elgin Street, 22nd Floor
Ottawa, Ontario K1A 0H3
Tel.: 1-866-582-1884 or 613-948-1738
Fax: 613-948-9172
PAFP.PFP@acee-ceaa.gc.ca

5.4 Canadian Environmental Assessment Registry

For the application of the CEA Act, the Government of Canada is committed to promoting public participation in the environmental assessment of projects and providing access to the information on which environmental assessments are based. In connection with this commitment, section 55 of the CEA Act requires the responsible authority to maintain a public registry concerning every project for which an environmental assessment is carried out.

All documents prepared or submitted by the proponent or any other stakeholder in relation to the environmental assessment are listed in the CEAR and made available to the public on request. Certain confidential or sensitive documents that should be protected and not made public may be excluded from the CEAR. In such cases, the Agency, which is responsible for maintaining the CEAR, must be provided with arguments demonstrating a likely risk of probable harm.

The CEAR may be consulted at http://www.acee-ceaa.gc.ca/050/index_e.cfm

6 APPENDIX 1: PROJECT LOCATION MAPS

Source : Entraco, Projet minier BlackRock, Secteur Chibougamau, demande d'information additionnelle, décembre 2010. pages 2 et 17

Figure 1 : Blackrock Mining Project Location : Chibougamau Area
Figure 3 : Blackrock Mining Project, Infrastructures



Figure 1 Localisation du projet minier BlackRock - secteur Chibougamau

Projet P0919
Projet BlackRock - secteur Chibougamau
Etude d'impact environnementale / décembre 2010

Groupe-conseil Entraco Inc.

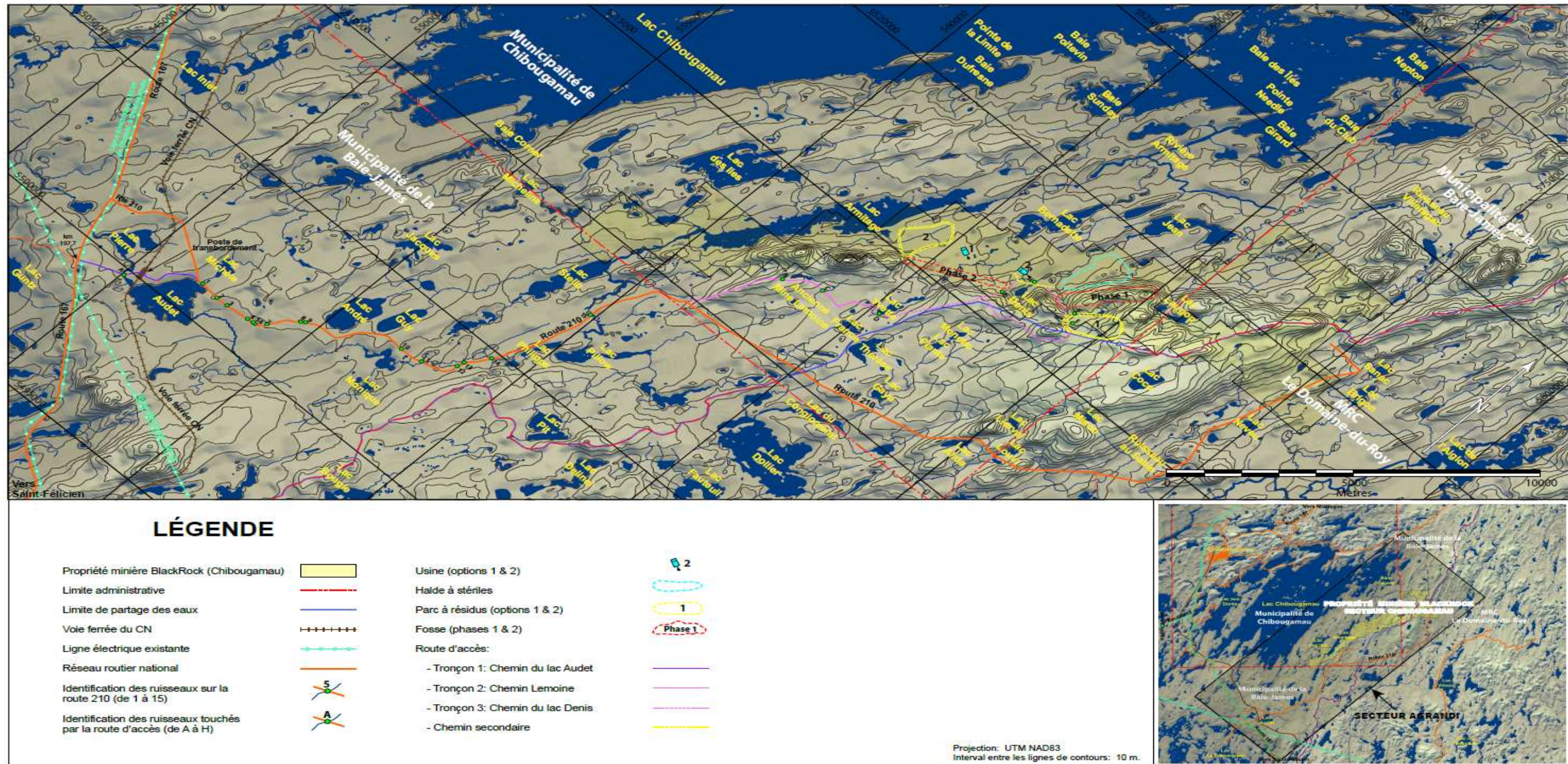


Figure 3 Projet minier BlackRock - Infrastructures

Projet F0919
 Projet BlackRock - secteur Chibougamau
 Etude d'impact environnementale / décembre 2010

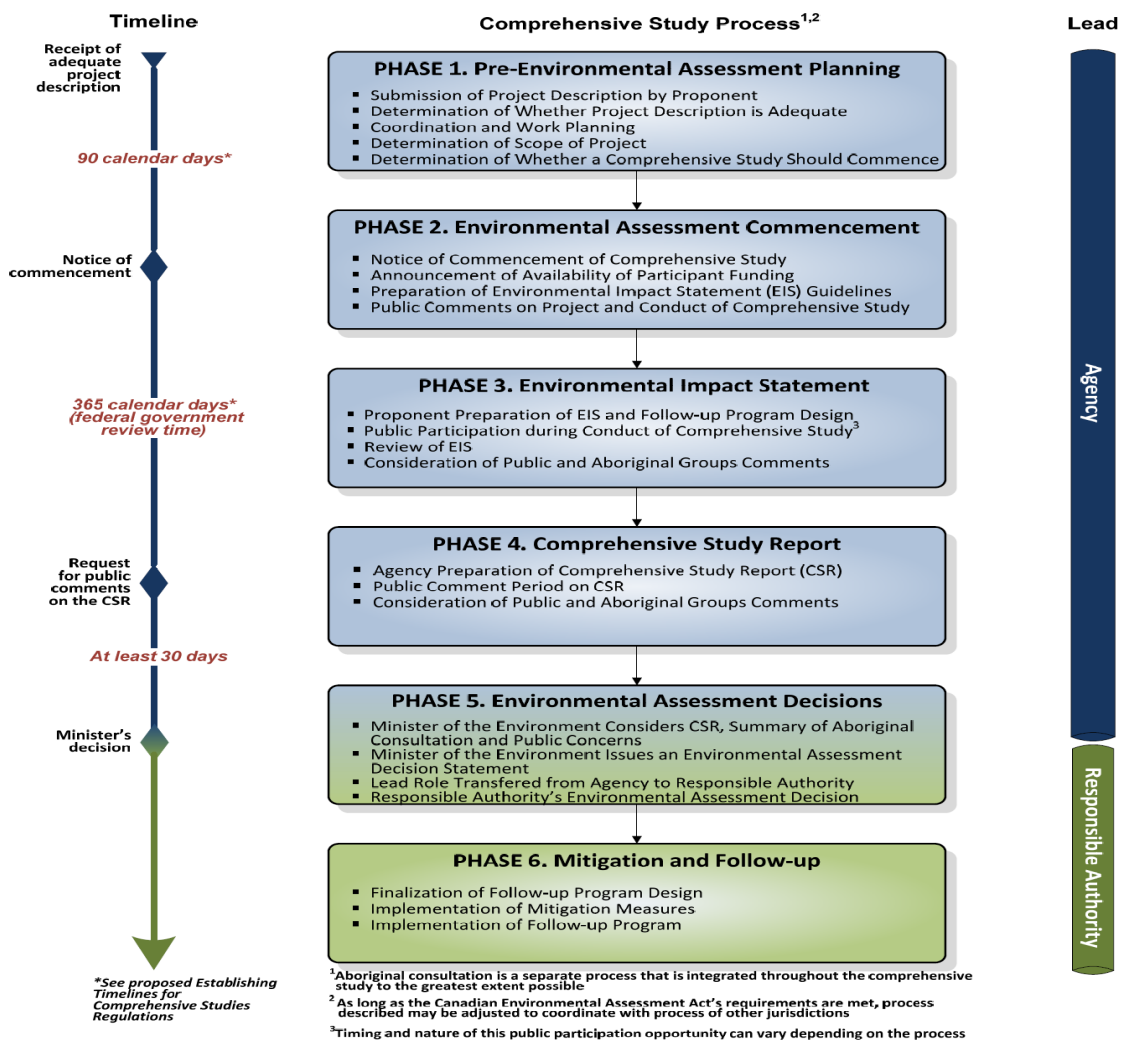
Groupe-conseil Entraco Inc.

7 APPENDIX 2: COMPREHENSIVE STUDY PROCESS



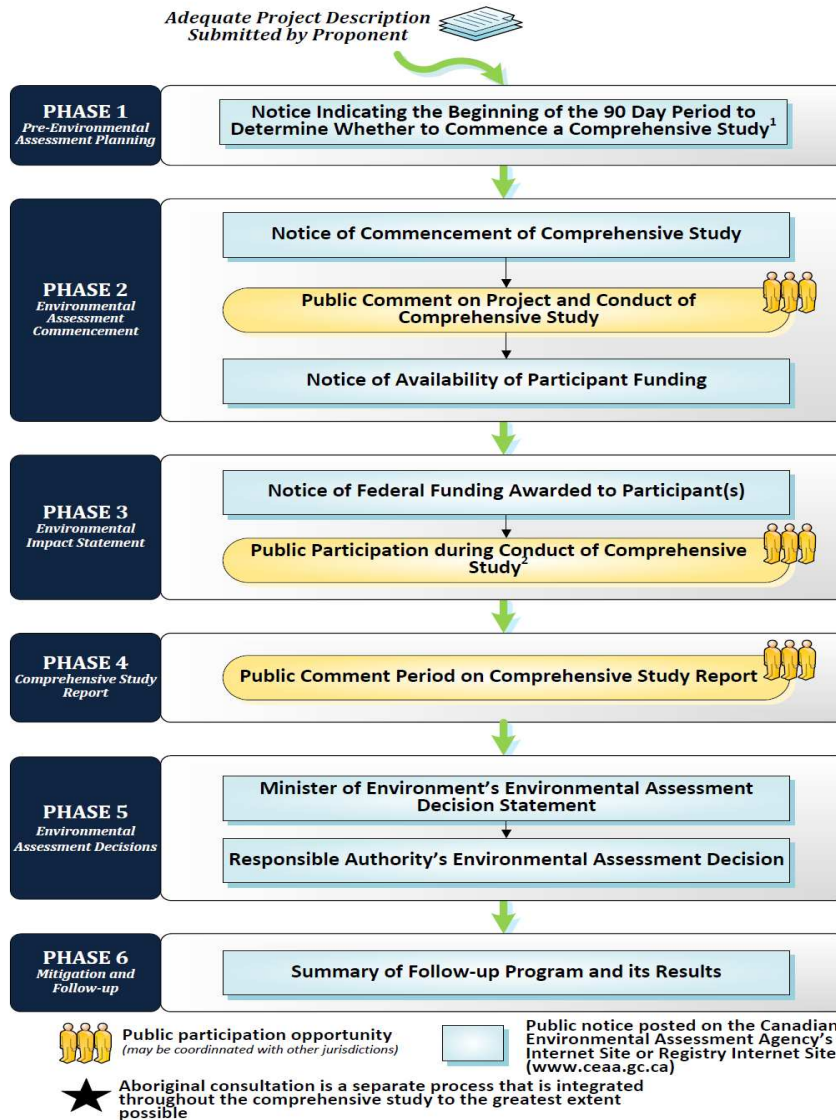
COMPREHENSIVE STUDY PROCESS *at a glance*

For Comprehensive Studies conducted by the Canadian Environmental Assessment Agency



PUBLIC NOTICES & PUBLIC PARTICIPATION OPPORTUNITIES

For Comprehensive Studies conducted by the Canadian Environmental Assessment Agency



¹As proposed in the Establishing Timelines for Comprehensive Studies Regulations. Would be implemented when the Regulations come into force

²Timing and nature of this public participation opportunity can vary depending on the process