

## PATRIOT BATTERY METALS INC. (INNOVA LITHIUM INC.)

# CORVETTE MINING PROJECT

## PRELIMINARY INFORMATION DOCUMENT

EEYOU ISTCHEE JAMES BAY, NORD-DU-QUÉBEC, QUÉBEC

NOVEMBER 2023

WSP REFERENCE: CA0001724.3318

CONFIDENTIAL FINAL VERSION



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November 27, 2023

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November 27, 2023

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#### REFERENCE TO BE CITED

WSP. 2023. Corvette Mining Project. Preliminary information document. Eeyou Istchee James Bay, Nord-du-Québec, Québec. Report produced for Patriot Battery Metals Inc. (Innova Lithium Inc.). WSP reference: CA0001724.3318. 59 pages and appendices.

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- A Preliminary information form
- B Resolution of the organization

# FOREWORD

On October 5, 2023, Patriot Battery Metals Inc. ("Patriot") established a wholly owned 100% Québec-based subsidiary, Innova Lithium Inc. ("Innova"). Innova is the registered owner of the claims of Patriot's flagship Corvette property located in the Eeyou Istchee James Bay region of Québec, Canada. This submission is by Patriot as the owner of Innova.

This document presents the preliminary information required for the realization of a project in a northern location listed in Schedule A of the *Environment Quality Act*. Its structure is identical to that of the Preliminary Information Form, which describes the general characteristics of the project. A completed version of the Preliminary Information Form, referencing this document where appropriate, is presented in Appendix A of this document.

# 1 Identification and Coordinates of the Proponent

This section presents the proponent's identification and information, and the identification of the consultant mandated by the proponent.

## 1.1 Identification of the Proponent

The information requested on the form is presented on the Table 1.

#### Table 1 Proponent's Identification

Name	Patriot Battery Metals Inc. ("Patriot") Innova Lithium Inc. (« Innova »)
Civic Address	1801 McGill College, Suite 900 Montreal, Québec, H3A 1Z4
Postal Address (if different from civic address)	n/a
Name and Function of the Signatory(s) Authorized to Submit the Application	Alix Drapack, P.Eng, MBA Vice-President–ESG
Telephone	416-606-1692
Telephone (other)	n/a
Email	adrapack@patriotbatterymetals.com

n/a Not applicable.

## 1.2 Company Number

The Innova number in the Québec Enterprise Register (Registre des entreprises du Québec) is shown in Table 2.

Table 2	Proponent's Québec Enterprise Number		
Québec Enterpris	e Number (NEQ)	1179161253	

## 1.3 Resolution of the Municipal Council, Band Council, Northern Village, or Responsible Body

A copy of Innova's resolution authorizing the signatory to submit the application is attached as Appendix A.

## 1.4 Identification of the Consultant Mandated by the Proponent

Name	WSP Canada inc.
Civic Address	<b>Global Headquarters</b> 1600 boul. René-Lévesque west, 11 <sup>th</sup> floor Montréal (Québec) H3H 1P9 Canada
	Project Coordination Office 3535, boul. LPNormand, 2 <sup>nd</sup> floor Trois-Rivières (Québec) G9B 0G8 Canada
Postal Address (if different from civic address)	n/a
Telephone	+1-819-375-1292
Telephone (other)	n/a
Email	carl.martin@wsp.com
Description of Mandate	Coordination and preparation of documents required as part of the environmental and social assessment process

#### Table 3 Consultant Identification Information

n/a Not aplicable.

# **2** General Presentation of the Project

This section presents a brief description of the Project, its alternatives, its related activities, and its justification and objectives.

## 2.1 **Project title**

The Project is a mining development for the exploitation of a spodumene pegmatite deposit in Eeyou Istchee James Bay (Map 1)

The Project title is "Corvette Mining Project" (also named the "Project").

## 2.2 Article of Accordance

Schedule 1 of Section 22 of the *James Bay and Northern Quebec Agreement* (JBNQA) contains a list of projects subject to the environmental and social impact assessment and review procedure described in Division III of Chapter II of Title II of the Environment Quality Act (EQA; c. Q-2). Schedule A of the EQA repeats this list and refines it to make it operational. The Corvette Mining Project, as a mining project on the territory of the JBNQA, is designated by paragraph a) of Schedule A of the EQA:

 all mining developments, including the additions to, alterations or modifications of existing mining developments.

## 2.3 **Objectives and Justification of the Project**

Spodumene (a lithium aluminum silicate) is the world's most widely mined hard rock lithium mineral and is hosted within a rock type called pegmatite. The main objective of the Corvette Mining Project is to mine a spodumene pegmatite deposit in Eeyou Istchee James Bay, and to produce a spodumene mineral concentrate. This concentrate can be sold to one or more customers for conversion into lithium hydroxide (LiOH), used in the production of lithium batteries.

Lithium is a key element in the infrastructure and technology of tomorrow's world. With a range of target markets from personal electronics and transportation to large-scale energy storage and distribution projects, lithium is a major asset with almost limitless use scenarios.

As the World continues its transition to a cleaner, greener future, lithium, in the form of lithium-ion batteries, and its use in energy storage and distribution systems and, of course, electric vehicles (EVs), continues to be an essential resource for reducing its global environmental impact. This inevitably leads to strong market growth in this sector.

In this global context, the governments of Québec and Canada have elaborated strategies for the development of critical and strategic minerals, as well as for the battery supply chain. Development of the Corvette Mining Project will enable Québec and Canada to meet global demand for lithium and is part of this approach. Patriot's goal is to develop North America's next lithium district and specifically to develop the Corvette Project, which contains numerous spodumene-bearing pegmatites, including CV5, one of the pegmatite clusters that has been the subject of a first inferred mineral resource estimate of 109.2 Mt at 1.42% of lithium oxide (Li<sub>2</sub>O) and 160 ppm of tantalum oxide (Ta<sub>2</sub>O<sub>5</sub>); in the inferred category (at a cut-off of 0.40% of Li<sub>2</sub>O) (Patriot, 2023). By bringing the Corvette Mining Project into production, Patriot also aims to create sustainable value and benefits for local communities, shareholders, and employees.

#### Positive Spin-offs to Seize

In October 2020, the Government of Québec announced the *Québec Plan for the Development of Critical and Strategic Minerals* (Gouvernement du Québec, 2023a), which aligns itself with the government's goal to foster prosperity in Québec's regions and the transition to a lower-carbon economy. Similarly, in March 2021, Natural Resources Canada published a list of Canada's critical minerals (NRC, 2021). This list identifies 31 minerals deemed essential to the long-term economic prosperity of Canada and its allies; minerals that can be produced in Canada are essential to domestic industry and security and can fuel reliable and resilient supply chains to meet global demand. Both lists identify lithium as essential to technologies that reduce greenhouse gas emissions.

These national strategies are aligned with the global assessment of the lithium market. The European Union has sounded the alarm on critical raw material shortages, estimating that, to meet its climate neutrality target, demand for lithium could increase by 1,800% by 2030. If this timeframe is extended to 2050, the increase could reach 6,000%.

#### Benefits

During the development stage and when the Corvette Mining Project goes into operation, positive spin-offs will be created for local communities. From mineral exploration to production, the need for goods and services is varied. This creates business and employment occasions for local communities and enables individuals and companies to develop new areas of expertise, thereby contributing to the growth of Québec's regions. In fact, right from the exploration phase, in 2023, the Corvette Project has employed over 200 workers, at least 27 of whom came from First Nations communities, most of them from Cree communities. This number continues to grow as exploration activities increase and Patriot's relationships with local Cree communities become stronger. On a larger scale, the Project will generate economic spin-offs in Québec and Canada, and help supply spodumene concentrate to lithium hydroxide conversion plants and potentially tantalum concentrate as a by-product for use in the high-tech industry.



La précision des limites et les mesures montrées sur ce document ne doivent pas servir à des fins d'ingénierie ou de délimitation foncière. Aucune analyse foncière n'a été effectuée par un arpenteur-géomètre.

## 2.4 Brief Description of the Project and Alternatives

In September 2023, Patriot published the first estimate of the Corvette Project's mineral resources (Patriot, 2023). The maiden mineral resource estimate at the Corvette Mining Project has been completed for the CV5 Spodumene Pegmatite and does not include any of the other known spodumene pegmatite clusters on the Property (CV4, CV8, CV9, CV10, CV12, and CV13). The CV5 mineral resource<sup>1</sup> estimate is 109.2 Mt<sup>2</sup> at 1.42% Li<sub>2</sub>O and 160 ppm Ta<sub>2</sub>O<sub>5</sub> inferred, and is reported at a cut-off grade of 0.40% Li<sub>2</sub>O with an Effective Date of June 25, 2023 (through drill hole CV23-190). This resource ranks the CV5 Spodumene Pegmatite as one of the ten largest lithium pegmatites globally, as well as one of the largest tantalum pegmatites globally.

The Corvette Mining Project involves mining a spodumene pegmatite deposit using open pits and processing of the ore to produce a spodumene concentrate by a crushing, dense media and magnetic separation processes. The operating life of the Project is currently estimated at 23 years, and the mineral resource extracted during this period is estimated at 104 Mt.

The mine's maximum capacity is 50 Mt of displaced material per year. This includes a maximum of 5 Mt of mineral resources per year to feed the processing plant. The objective is to produce between 700 kt and 1,100 kt of spodumene concentrate per year at a grade of 5.5% of Li<sub>2</sub>O.

The mining complex will consist of various infrastructure described in more detail in the following subsections, including:

- a main access road to the mining site from the Trans-Taiga Road;
- on-site roads and bridges to connect various buildings and services during mining operations;
- a camp for workers during mine construction and operation;
- pit for the mining of CV5 deposit<sup>3</sup>;
- storage areas for waste rock and tailings;
- a storage area for ore;
- dams to isolate the CV5 mining pit from the Lake 01 that partly covers it;
- electrical power line;

<sup>&</sup>lt;sup>1</sup> Mineral resources are not mineral reserves as they do not have demonstrated economic viability. The Corvette Mining Project does not currently host any defined mineral reserves.

<sup>&</sup>lt;sup>2</sup> Mineral resources of 109.2 Mt are confined within a pit shell, while the pit design, including ramps, bench berms and geotechnical berms, yields a tonnage of 104 Mt out of the 109.2 Mt mineral resource.

<sup>&</sup>lt;sup>3</sup> Other spodumene pegmatite clusters with additional resource potential include CV8, CV9, CV10, CV12, and CV13, and CV4 to the west and east of CV5 respectively. Further details are provided in Section 7.

- site-wide electrical distribution and substations;
- ore processing plant;
- water treatment plant;
- an explosive emulsion plant;
- a garage and other auxiliary buildings;
- a fuel storage and refueling station.

The main components of the Project are illustrated on Map 2.

### 2.4.1 Development and Construction Phase

To enable construction of the infrastructures outlined in section 2.4, preparatory development work will be required. To install the planned infrastructures, the areas will first have to be cleared, stripped, graded, and excavated.

In the pit area, the purpose of this work is to expose the rock in preparation for the blasting required for the start of operation.

During this work, topsoil and overburden will be stored in a stockpile area for reuse in future needs or restauration work.

## 2.4.2 Operation Phase

#### 2.4.2.1 Ore Extraction

Mining on the Project site will be done by conventional open pit method. The mineral resources extracted over the 23-year mine life will total 104 Mt. To access the mineralisation, 679 Mt of waste rock and 8 Mt of overburden will have to be excavated.

The Project will be operated using a production fleet comprising drills, shovels, wheel loaders and mining trucks (240 t and 100 t). Ore extraction will include the following activities:

- production and pre-cutting drilling activities, and blasting activities;
- loading activities using front shovels and wheel loaders.

The CV5 pit will be mined in three phases, as shown on Figure 1to Figure 3.



#### Composantes du projet projetées / Projected project components

	Ligne de transport d'énergie / Power transmission line		
	Conduite (effluent) / Pipeline (effluent)		
▶→	Fossé / Ditch		
	Chemin d'accès / Access road		
	Chemin secondaire / Secondary road		
	Chemin de halage / Hauling road		
	Bassin / <i>Basin</i>		
	Digue / <i>Dam</i>		
	Aire d'entreposage du minerai / Ore storage area		
	Halde (co-disposition stériles et résidus grossiers) /Co- disposal stockpile		
	Halde à mort-terrain / Overburden dump		
	Halde à stériles / Waste rock stockpile		
	Fosse / Pit		
	Autre / Other		
523	Zone d'évacuation / Evacuation zone		
Comp Comp	Composantes de l'écosystème / Ecosystem Components		
	Plan d'eau / <i>Waterbody</i>		

Cours d'eau / Waterflow

## Infrastructure / Infrastructure

Projet minier Corvette / Corvette Mining Project Document de renseignements préliminaires / Preliminary Information Document

## Carte 2 / Map 2 Aperçu des installations minières / Overview of the Mining Installations

Sources / Sources ACrösseu+, réseau routier, MERN, 2016 BOGA, 1M. MERN, 2014 Projet, 7535006-000000-D20-0001.dwg, BBA, 31 octobre 2023

800 m UTM, fuseau 18, NAD83 (CSRS)

Préparation / Prepared by : C. Martin Dessin / Draw by : M. Leclair Approbation / Approved by : C. Martin CA00017243318\_ap\_aviz\_projet\_finale.aprx CA00017243318\_ap\_c02\_006\_comp\_proj\_231127

2023-11-27

**\\**\|)

The first phase of mining (Figure 1), year 1 to 2, will provide access to 11.5 Mt of mineral resources grading 1.14% Li<sub>2</sub>O. At this stage, the pit will measure approximately 850 m long by 360 m wide, and will avoid Lake 01, therefore limiting initial infrastructure requirements. Ore and waste rock will be transported by a road passing around the southwestern boundary of Lake 01. This sequence will allow mining to begin without completing the construction of the first dam.



#### Figure 1 Pit Mining of the CV5 Deposit–Phase 1

The second phase of mining (Figure 2), year 2 to 11, will provide access to 42.2 Mt of mineral resources, grading 1.19% Li<sub>2</sub>O. The pit will measure 2,000 m long by 600 m wide. Mining in this phase will require the construction of a dam approximately 5 m high over about 100 m length. This dam will isolate Lake 01, corresponding to around 7% of its total surface area (39 ha). Two options are being considered to divert water from the lake. The first option is to divert water to the north of the pit, the diverted water would thus flow through the same original watershed. The second option would divert the water to the south, into a neighbouring watershed. The option of diverting water to the south is currently shown on the Maps and Figures (see "Lake Water Diversion" subsection in section 2.4.2.6 for details).



#### Figure 2 Pit Mining of the CV5 Deposit–Phase 2

The third and final mining phase (Figure 3), year 6 to 23, will lead to a final pit measuring approximately 3,750 m long by 800 m wide. The final pit, including the first two phases, will provide access to 104 Mt of mineral resources grading 1.4% Li2O. To mine the entire pit, it will be necessary to build a larger dam, approximately 18 m deep and 600 m long. This second dam will isolate the downstream portion of the lake, now corresponding to around 27% of its total surface area (139 ha). Detour of water from the upstream portion of Lake 01 will have to be maintained to the north (same watershed) or to the south (neighbouring watershed).



Figure 3 Pit Mining of the CV5 Deposit–Phase 3 (Final Configuration)

#### 2.4.2.2 Ore transportation

From the open pit, the waste rock will be moved along the mining roads to waste rock storage areas (see Section 2.4.2.3) using mining trucks with a 240 t loading capacity.

On the same road network, ore will be moved from the pit to the primary crusher or to the ore stockpile using mining trucks with a 100 t load capacity. The same equipment will be used to transport overburden and tailings.

#### 2.4.2.3 Storage Areas

#### **Tailings and Waste Rock Management**

Operation of the Project will produce 679 Mt of waste rock and two types of tailings, totalling 86 Mt. The first type of tailings (58 Mt) will contain low-grade lithium and material amount of tantalum, which could be recovered if a flotation circuit were built in the future for the lithium, and a gravity circuit for the tantalum (both circuits are beyond the scope of the current Project). These tailings, consisting of fine particles, will be stored on their own, after being screened, filtered, and hauled by truck to the RTW-01 storage area located near the ore processing plant (see Map 2).

The second type of tailings will be coarse material with no potential for further processing. These tailings from the dense media separation circuits will be stored as co-disposal with waste rock. Three stockpiles will be required to store the 679 Mt of waste rock and the remaining tailings over the life of the mine (Map 2). The first (TW-01) will be used for the entire operating life to store co-disposed waste rock and coarse tailings (without lithium content). Two other stockpiles, W-01 and W-02, will be used for years 6 to 13. Additional waste rock, representing approximately 25% of the total waste rock produced, will be stored in the pits of mining phases 1 and 2 when mining there is complete.

Geochemical characterization of tailings and waste rock is currently underway and will identify leaching and acid generation risks. Based on the results, the design of the foundation for the stockpiles will take into account the sealing measures to be applied for groundwater protection, as presented in *Directive 019 sur l'industrie minière* (DIR019; MDDEP, 2012).

#### **Ore Management**

Ore extracted from CV5 and taken out of the pit will be stored on an ore stockpile next to the ore processing plant. This storage area has a capacity of 6 Mt; it is a temporary space where ore is deposited before being sent to the process plant. Geochemical characterization of the ore is currently underway and will identify leaching and acid-generation risks. Based on the results of this work, the design of the stockpile foundation will take into account the sealing measures to be applied for groundwater protection, as set out in the DIR019.

#### 2.4.2.4 Ore Processing

The spodumene concentration will be done at the mine site, where an ore processing plant will be built north of the CV5 pit and fed with the mined ore. The main treatment processes, also shown in Figure 4, will be as follows:

- crushing circuit (primary, secondary and tertiary);
- storage in piles for crushed feed;
- dense media separation (DMS) circuit (coarse, fine and recrush);
- magnetic separation and final product handling;
- fines bypass and middlings dewatering and handling;
- Final reject handling (mine tailings).

Ore from the pit (run-of-mine) is fed into the primary crushing circuit, which has a jaw crusher. The crushed ore is then sent to a screen. At this stage, coarse ore is sent to the secondary crusher, while the finer ore goes directly to the tertiary crusher circuit, which will be closed and equipped with a screen and a crusher. The product from the tertiary crushing circuit will finally be conveyed to a storage pile for crusher feed.

Material from the crushing circuit will be transported by conveyor to the top of a crusher feed storage pile, acting as a buffer zone between the crushing circuit and the processing plant. Three vibrating feeders in a tunnel beneath the storage pile will recover the crushed material and conduct it to a conveyor for transport to the ore processing plant.

At this separation stage, there are three DMS circuits:

- coarse dense media separation circuit (CDMS);
- fine dense media separation circuit (FDMS);
- recrush dense media separation circuit (RDMS).

Following dense media separation circuits, the magnetic separation circuit will be fed with part from the FDMS circuit and the RDMS circuit. These materials will be exposed to a strong magnetic field, which will separate from the concentrate (final product), the materials whose mineral composition contains higher proportions of iron. This magnetic circuit ensures that the final characteristics do not exceed the final ferrous impurity value. The magnetic fraction will be sent to the tailings. The non-magnetic fraction will be combined with a part of the products from the CDMS circuit to obtain a final concentrate, which will be loaded by a front-end loader into the trucks transporting spodumene concentrate.



#### Figure 4 Simplified flowsheet of ore treatment

PATRIOT BATTERY METALS INC. (INNOVA LITHIUM INC.) CORVETTE MINING PROJECT PRELIMINARY INFORMATION DOCUMENT WSP REFERENCE: CA0001724.3318 NOVEMBER 2023 15 The tailings will be directed to the fines bypass and middlings dewatering circuit, where it will be fed to hydrocyclones<sup>4</sup>. The overflow from the hydrocyclones will be sent to a thickener. The overflow from the thickener will be directed to the process water. The remaining material from both the hydrocyclones and the thickener will be transported by a conveyor belt to the storage pile for dense media separation intermediates. This product will then be transported by a wheel loader to a mining truck, which will store them in a designated area. This product will contain sufficient lithium and tantalum for further processing if the Project develops forward and flotation and gravity circuits are designed in the future.

Final process rejects (tailings) come from the separation circuits CDMS, FDMS and RDMS, as well as from the magnetic separation circuit. These rejects are stacked on a storage pile and then moved by truck to the tailings storage facility.

## 2.4.2.5 Spodumen Concentrate Shipping

The Corvette Mining Project will produce an average of 800,000 t of spodumene concentrate per year. A fleet of trucks will transport the concentrate from the mine site to the Matagami train station. The route to this station consists of two road segments and a transfer stop for the transported concentrate.

The first segment of the route, approximately 270 km long (one way), runs from the mining site to the transfer yard at the intersection of the Trans-Taiga Road and the Billy-Diamond Road. Trucks will leave their 45 t single-load trailers there and return to the mine to repeat the cycle.

The second segment, approximately 544 km along the Billy-Diamond Road, will be done by road trains. Each truck will carry two 45 t loads, for a total of 90 t. On arrival at the Matagami transshipment yard, they will be unloaded into a new building that will protect the concentrate from the elements. New infrastructure will have to be built at the station to be able to load the concentrate into the train's railcars. From there, the concentrate will be shipped to processing sites by train.

### 2.4.2.6 Water Management

#### Wastewater Management

Water requiring management (collection and treatment) and ultimately discharge to the environment consists of mine water and domestic wastewater. At this preliminary stage of the Project, it is assumed that each of these two types of wastewaters will generate a separate effluent and returned to the environment.

#### Domestic Wastewater

Domestic wastewater will be generated by the sanitary infrastructure (toilets, showers, taps, etc.) of the worker's camp and other buildings on the mine site. This water will be directed to a domestic water treatment unit before being returned into the environment in compliance with applicable standards and criteria.

<sup>&</sup>lt;sup>4</sup> The simplified process diagram (Figure 4) shows a tantalite circuit that exceeds the current scope of the Project. This circuit could be added to the Project in the future if its economic and technical feasibility is demonstrated.

#### Mine Water

Mine Water will consist of water in the open pit and surface water in contact with infrastructure (mine waste storage areas like tailings and waste rock, overburden storage areas if required, as well as runoff from the ore storage area and the ore processing plant area).

#### **Open Pit Water**

The dams, required to isolate the open pit from Lake 01 in which it encroaches, will limit the inflow of surface water into the pit. As a result, mine water will come from groundwater inflows and direct precipitation in the pit. Mine drainage will be pumped into a sedimentation pound, then directed to the water treatment plant.

#### Surface Water in Contact with Infrastructure

All rainwater and snow in contact with the mining infrastructure will be collected and managed by ditches, ponds, and pumping stations, before being sent to the water treatment plant. All water management structures (basins, ditches, etc.) will be designed in compliance with the criteria set out in the DIR019.

#### Mine Water Treatment Plant

Mining wastewater treatment will be required to ensure that mining effluent discharge meets the Québec requirements of DIR019 and the federal standards of the *Metal and Diamond Mining Effluent Regulations* (SOR/2002-222). Additional Environmental Discharge Objectives (EDOs) may be added to the above requirements. These EDOs will be defined if required by the *Ministère de l'Environnement, de la Lutte contre les changements climatiques, de la Faune et des Parcs* (MELCCFP) during the authorization process.

Geochemical characterization and modeling will determine the type of mine water treatment required to ensure effluent compliance.

#### **Non-Contact Water**

Detour structures will be built along the pit perimeter and other infrastructure to divert non-contact water from the Project footprint.

#### **Lake Water Diversion**

During pit operation phases 2 and 3, water of nearby Lake 01 will have to be diverted following the construction of the dams. As mentioned before, two options are being considered to divert water from the lake. A first option, of more complex technical feasibility and not yet proven, is to divert water to the north of the pit; the diverted water would thus flow through the same original watershed. Under the second option, the water would be diverted to the south, into a neighbouring watershed. This technically simpler option is included in the engineering work completed to date and shown on Map 2.

## 2.4.3 Closure and Restoration Phase

Following mining of the deposit, restoration measures will be taken to re-establish the original ecosystem or to create a new sustainable ecosystem as similar as possible to the original state. A rehabilitation and restoration plan will be prepared in accordance with the *Guide de préparation du plan de réaménagement et de restauration des sites miniers au Québec* (MERN, 2022) and submitted to the Ministère des Ressources naturelles et des Forêts (MRNF) for approval. All mining infrastructures will be covered by the redevelopment and restoration measures to be taken, including mine waste storage areas, the open pit, the various buildings and so on.

## 2.4.4 Alternatives

The evaluation of alternatives to the Project implementation focuses primarily on elements such as location, development or implementation methods, routes, designs, technologies, mitigation measures, and similar aspects. The assessment may also consider other ways of enhancing the positive impacts of the Corvette Mining Project. Optimization studies will be carried out to evaluate the most advanced technologies available in later stages of the Project development.

The Corvette Mining Project components, as indicated in Section 2.4, represent the alternatives considered most appropriate at the time of the writing of this document. The Project engineering development process will include a more in-depth analysis of possible alternatives, as well as the optimization of those alternatives considered to be the most favorable. Among other options, the impact assessment for the Corvette Mining Project could include the following alternatives:

- the location of mining infrastructure (ore processing plant and other buildings);
- the location of roads on the mine site;
- the mining waste management technologies and locations (tailings and waste rock) including co-disposition;
- the technology for extracting ore (i.e. open pit or underground mining, or both);
- the technology for transporting ore;
- the metallurgical process (flotation circuit, tantalite circuit, etc.);
- the water management (contact and non-contact);
- the diversion of water from Lake 01 in the pit footprint;
- the concentrate transportation.

Since the Project consists of mining a spodumene pegmatite deposit, there is no alternative to the Project. The only way to realize the Project is to build a mine to extract the ore.

## 2.5 Related activities

It is anticipated that certain infrastructure will be developed prior to the completion of the work and activities described in this document. These infrastructures and their construction are subject to prior authorization and are necessary for the development of the Corvette Mining Project, but are not included in the scope of its environmental and social impact assessment. These infrastructures are:

- construction of an exploration camp at km 270 of the Trans-Taiga Road;
- construction of a four-season road from the Trans-Taiga Road to the project site;
- construction of an electrical connection line for the temporary exploration camp (under review by Hydro-Québec);
- construction of an electrical connection line for the Project (under review by Hydro-Québec).

# 3 **Project Location and Schedule**

This section presents the location of the Corvette Mining Project and its activities, a description of the Project site and a schedule for completion.

## 3.1 Identification and Location of the Project and its Activities

Table 4 presents the information on the Project location.

#### Table 4 Location of the Project and its Activities

Name of the Municipality, Village, or Community		Eeyou Istchee James Bay Regional Government
Land Categories (I, II or III)		III
Coordinates (dd,ddddo)	Latitude	53,52236°N
	Longitude	73,93131°W

## 3.2 Description of the Project site

This section describes the main components of the physical, biological, and human environments likely to be affected by the Project.

## 3.2.1 Physical Environment

#### 3.2.1.1 Physiography

Natural provinces are large territories whose recognition is based on physiographic contrasts expressed by the nature and configuration of bedrock, relief, hydrography, and surface deposits. According to Québec's ecological reference framework, the Corvette Mining Project area is in the natural province of the Grande Rivière Low Hills (Li et coll., 2019). This natural province is characterized by low terrain with an undulating plain, which is succeeded inland by low hills. The geological bedrock of the Project consists mainly of amphibolite and metasediment, and various related rock units of the La Grande Greenstone Belt, as was tonalite and gneiss regionally. Thin glacial deposits interspersed with rocky outcrops cover the hills (MELCCFP, 2023). The study area lies at an altitude between 260 m and 350 m above sea level (BBA, 2022).

The CV5 Pegmatite is hosted within Lac Guyer Greenstone Belt, considered part of the larger La Grande River Greenstone Belt, and dominated by volcanic and sedimentary rocks metamorphosed up to amphibolite facies. The dominate immediate host rocks at CV5 are amphibolite, metasediment, and ultramafic. CV5 is a spodumene-quartz-felspar pegmatite, with accessory muscovite and occasional tourmaline, and consists of a principal dyke of approximately 8 to 130 m true width, which is flanked by several subordinate dykes. To date, the mineralized

corridor at CV5 has been traced by drilling to 4.35 km in length, and remains open at both ends along strike and to depth along most of its length.

### 3.2.1.2 Climate and Flora

The climate of the Grande Rivière Low Hills natural province, in which the study area is located, is characterized by cool summers and very cold winters (Environment Canada, 2023). The mean annual temperature is approximately - 4 °C, with a summer mean of 8.5 °C and a winter mean of -16.5 °C. Average annual precipitation ranges from less than 600 mm to 800 mm.

The Corvette Mining Project area is in the boreal vegetation zone, more specifically in the open boreal forest subzone, located between latitudes 52° N and 55° N (Gouvernement du Québec, 2022a). This subzone is characterized by low-density forests of black spruce with lichen beds. This area is also located in the Western subdomain of the spruce-lichen stands bioclimatic domain. Compared with the Eastern subdomain, the Western subdomain is characterized by a dry continental climate, where fire is more frequent and relief is less pronounced.

The study area is in the Eastmain and Sakami Rivers ecological region (No. 7d). The regional landscape unit is Corvette Lake (No. 720) and the ecological district is Lac Nochet Low Hills (No. 720-008). According to the ecoforestry map available online (Gouvernement du Québec, 2023b), vegetation in the study area generally consists of lichen and moss spruce stands, with areas of lichen barrens. Since fires have been burning in the area for the past 20 years, several burned areas are present. Wetlands are mainly represented by minerotrophic and ombrotrophic bogs. Surveys were completed in August 2023 by WSP to characterize the vegetation and wetlands and validate the presence of special-status species (see Section 3.2.2.8).

## 3.2.1.3 Hydrography

The Project site is in the James and Hudson Bays drainage area (Region 09), the largest in Québec in terms of surface area.

Within this large region that drains the inland waters of northwestern Québec to the west, the Corvette Mining Project is in the heart of the Grande Rivière watershed (level 1). The Grande Rivière (or Rivière La Grande) runs for over 800 km, flowing from east to west, from its source on the Québec-Labrador border to its mouth in James Bay. Its watershed covers a vast area of over 200,000 km<sup>2</sup>. In its natural state, this watershed was covering an area of 97,643 km<sup>2</sup>, but the La Grande Complex Hydroelectric Project has resulted in a major detour of water into this watershed. Just south of the proposed Corvette Mining Project area, the Pontois River watershed (level 2) drains an area of 19,142 km<sup>2</sup> westwards, and then join the Grande Rivière watershed, some 50 km from the Project site. The boundary between these two watersheds is located approximately 1 km south of the proposed open pit.

Locally, the Corvette Mining Project site is scattered with numerous bodies of water, some of which conflict with the infrastructure planned at this preliminary stage of the Project. This is particularly true in the case of Lake 01, which will be impacted by the establishment of the CV5 pit. The subsequent design phases of the Project will aim, among other things, to minimize infrastructure encroachments into the water environment, in order to protect this resource as much as possible.

#### 3.2.1.4 Surficial Deposits and Hydrogeology

At the time of writing, only preliminary data from 18 bore holes in the area of the future CV5 open pit have been collected. The information generated from the work to be carried out as part of the environmental and social impact
assessment and review procedure (ESIA) will be included in the ESIA report to be produced and submitted to the MELCCFP later.

# 3.2.2 Biological Environment

# 3.2.2.1 Aquatic Fauna

The James Bay region is characterized by countless bodies of water and watercourses that are home to a variety of aquatic life (CRNTBJ, 2010). Fish habitat in the region is omnipresent and protected by federal and provincial legislation. Generally, fish habitat in Nord-du-Québec is of very high quality due to low levels of human disturbance. Fish populations in this region generally grow slower, live longer, and have lower density associated with lower ecosystem productivity. According to the website of the Mirage Aventure Lodge (2023), located about 75 km from the study area, the fish generally caught are northern pike (*Esox lucius*), brook trout (*Salvelinus fontinalis*), lake trout (*Salvelinus namaycus*) and walleyes (*Sander sp.*).

Fishing activities were carried out in 2022 and 2023 by Groupe Synergis in the study area. Various fishing gears were used in addition to the environmental DNA collection method. A total of 10 species were captured or detected. These were the northern pike, the burbot (*Lota lota*), the lake chub (*Couesius plumbus*), the round whitefish (*Prosopium cylindraceum*), the white sucker (*Catostomus commersonii*), the longnose sucker (*Castostomus Catostomus*), pearl dace (*Margariscus margarita*), the eastern blacknose dace (*Rhinichthys atrtalutus*), the brook trout, and the lake trout. None of these species has any special status.

During surveys, particular attention was paid to the delimitation of legal fish habitat in all permanent and intermittent water bodies and streams. Under Canada's *Fisheries Act* and Québec's *Act Respecting the Conservation and Development of Wildlife*, any infrastructure encroaching on fish habitat and resulting in habitat loss must be compensated. As mentioned in the Section 3.2.1.3, the current development plan encroaches on fish habitat in certain areas, especially at pit CV5, where diking of Lake 01 will result in significant fish habitat loss. Subsequent design phases of the Project will aim, among other things, to minimize infrastructure encroachments into fish habitat.

## 3.2.2.2 Herpetofauna

According to the literature consulted, the study area is likely to be frequented by 10 species of herpetofauna (six anurans, three urodeles and one squamate). These are presented in Table 5. None of these species has any special status. Surveys will be carried out in the spring and summer of 2024 to provide a picture of the communities present in the study area.

#### Table 5 List of Herpetofauna Species Likely to Frequent the Study Area

Order	English Name	Scientific Name
Anurans	American toad	Anaxyrus americanus
	Wood frog	Lithobates sylvaticus
	Mink frog	Lithobates septentrionalis
	Northern leopard frog	Lithobates pipiens
	Green frog	Lithobates clamitans
	Northern spring peeper	Pseudacris crucifer
Urodeles	Northern two-lined salamander	Eurycea bislineata
	Blue-spotted slamander	Ambystoma laterale
	Yellow-spotted salamander	Ambystoma maculatum
Squamates	Common garter snake	Thamnophis sirtalis

Source: (AARQ, 2023), (CRNTBJ, 2010).

## 3.2.2.3 Avifauna

According to (CRNTBJ, 2010), 238 bird species have been recorded in the Project host region. Of these, several could be present in the study area. During the winter survey conducted by Groupe Synergis in March 2023, 12 species were inventoried, none of which had any special status. As for the nesting and migration periods, surveys will be carried out later to provide a picture of the communities that frequent the study site.

In terms of special status species, 12 species could potentially frequent the study area on an annual basis. These are the golden eagle (*Aquila chrysaetos*), the harlequin duck (*Histrionicus histrionicus*), the red crossbill *percna* subspecies (*Loxia curvirostra percna*), the common nighthawk (*Chordeiles minor*), the peregrine falcon *anatum* subspecies (*Falco peregrinus*), the Barrow's goldeneye (*Bucephala islandica*), the short-eared owl (*Asio flammeus*), the bank swallow (*Riparia riparia*), the olive-sided flycatcher (*Contopus cooperi*), the bald eagle (*Haliaeetus leucocephalus*), the rusty blackbird (*Euphagus carolinus*), and the yellow rail (*Coturnicops noveboracensis*) (see Section 3.2.2.8).

## 3.2.2.4 Chiroptera

Based on known bat ranges and past surveys conducted by WSP in the Project host region, the bat species potentially present in the study area are the big brown bat (*Eptesicus fuscus*), the little brown myotis (*Myotis lucifugus*), the northern myotis (*Myotis septentrionalis*), the hoary bat (*Lasiurus cinereus*), and the eastern red bat (*Lasiurus borealis*) (CRNTBJ, 2010). Of these species, only the big brown bat has no special status. The provincial and federal status of the various bat species is presented in Section 3.2.2.8. The wooded environments in the study area may be used by some species as maternity nests. Wetlands and water bodies may be used for feeding and hydration.

Acoustic surveys (16 automated recording stations) were carried out in the study area from August 16 to October 7, 2023. These recordings will be analyzed later. In addition, the potential of maternity and hibernacula sites was validated. For the maternity sites, most of the sites surveyed had little potential for use by bats. Hibernacula also showed little potential.

# 3.2.2.5 Small Mammals

Based on their ranges, the study area is likely to be frequented by 15 species of small mammals (Table 6). These include two special status species, the rock vole (*Microtus chrotorrhinus*) and the southern bog lemming (*Synaptomys cooperi*). Those are on the list of species likely to be designated as threatened or vulnerable (Gouvernement du Québec, 2023c). Surveys were also achieved in 2023 by Groupe Synergis and 747 specimens were captured. Identification will be done later, and a complementary survey will be performed in 2024.

Order	English Name	Scientific Name
Rodents	Southern red-backed vole	Myodes gapperi
	Meadow vole	Microtus pennsylvanicus
	Rock vole <sup>1</sup>	Microtus chrotorrhinus
	Western heather vole	Phenacomys intermedius
	Deer mouse	Peromyscus maniculatus
	Southern bog lemming <sup>1</sup>	Synaptomys cooperi
	Northern bog lemming	Synaptomys borealis
	Woodland jumping mouse <sup>1</sup>	Napaeozapus insignis
	Meadow jumping mouse	Zapus hudsonius
	Ungava lemming	Dicrostonyx hudsonius
Insectivores	Cinereous shrew	Sorex cinereus
	American water shrew	Sorex palustris
	Arctic shrew	Sorex arcticus
	Hoy's pigmy shrew	Sorex hoyi
	Star-nosed mole	Condylura cristata

#### Table 6 List of Small Mammals Likely to Frequent the Study Area

1: The study area is located northern of the known distribution range of theses species.

Bold: Species at risk (see section 3.2.2.8).

Source: (Desrosiers et coll., 2002).

## 3.2.2.6 Small Fauna and Fur Animals

According to (CRNTBJ, 2010), 25 species of small fauna and fur animals frequent the James Bay region. During surveys achieved in March 2023 by Groupe Synergis, the presence of 10 species was confirmed. These are the red squirrel (*Tamiasciurus hudsonicus*), the northern flying squirrel (*Glaucomys sabrinus*), the snowshoe hare (*Lepus americanus*), the river otter (*Lontra canadensis*), the Canadian lynx (*Lynx canadensis*), the American marten (*Martes americana*), the black bear (*Ursus americanus*), the porcupine (*Erethizon dorsatum*), the red fox (*Vulpes vulpes*), and the American mink (*Neovison vison*). Tracks of weasel sp. and mustelid sp. were also observed. To date, no species of small fauna or furbearer with a special status, or evidence of the presence of such species, has been observed in the study area.

# 3.2.2.7 Large Fauna

The study area is likely to be frequented by moose (*Alces alces*), as well as two caribou ecotypes: migratory caribou (*Rangifer tarandus caribou*) and boreal caribou (*Rangifer tarandus caribou*). To validate the presence of these species, a literature review and a survey were achieved.

From January 24 to 26, 2023, an heliborne survey of large wildlife was achieved in the study area, covering a surface area of 1,470 km<sup>2</sup>. The survey was carried out in the form of a series of manoeuvres at an average altitude of around 200 m and a speed of 100 km/h to 150 km/h. During the overflights, the identification of trail networks and of individuals was done by an experienced observer navigator assisted by two observers at the rear of the aircraft. No caribou were observed during this survey.

On January 28, 2023, members of the trapper's family surveyed the area, focusing particularly on points where individuals had been found in the previous days. This information, combined with interviews with the trapper's family, will feed into the traditional knowledge section of the ESIA report.

As part of the work executed by the *Ministère de l'Environnement, de la Lutte contre les changements climatiques, de la Faune et des Parcs* (MELCCFP), 762 telemetric locations of migratory caribou have been recorded close to the Project. These were recorded between 2003 and 2015, and none were reported after this period. During an aerial survey conducted by the *Ministère de la Faune, des Forêts et des Parcs* (MFFP) in 2020, covering the study area, no migratory caribou were recorded. No boreal caribou were observed in the study area during the 2020 MFFP survey, and no telemetric locations were recorded.

For moose, a total of 27 individuals in 14 groups were counted during the January 2023 survey, corresponding to a very low abundance of 0.18 moose/10 km<sup>2</sup>. Females accounted for 37% of the total, fawn for 22% and males for 41%. The presence of the species was also confirmed during a trail networks field survey in March 2023.

# 3.2.2.8 Species at Risk

Several species with a special status are likely to frequent the study area. Wildlife species and their status in Canada, as defined by the *Species at Risk Act* (SARA), and in Québec, as defined by the *Act Respecting Threatened or Vulnerable Species*, are presented in Table 7. According to the database of the *Centre de données sur le patrimoine naturel du Québec* (CDPNQ), available via the interactive online map, no plant or wildlife species are present within a 15 km radius of the Project (CDPNQ, 2023).

Regarding the special status for plant species, the "Potentiel" tool (Gouvernement du Québec, 2023d) was used to draw a preliminary list of threatened plant species potentially present in the Nord-du-Québec administrative region. Thus, 55 vascular plants are potentially present. This list will be refined later according to the habitats present in the study area. No special status plant species were observed during the surveys carried out by WSP in August 2023.

				Status	
Class	English Name	Scientific Name	LEMVQ <sup>2</sup>	COSEWIC <sup>3</sup>	SARA <sup>4</sup>
Avifauna	Golden eagle	Aquila chrysaetos	V	_	_
	Harlequin duck	Histrionicus histrionicus	V	SC	SC
	Red crossbill percna subspecies	Loxia curvirostra percna	_	Т	Т
	Common nighthawk	Chordeiles minor	LDTV	SC	SC
	Peregrine falcon anatum/tundrius	Falco peregrinus	V	-	_
	Barrow's goldeneye	Bucephala islandica	V	SC	SC
	Short-eared owl	Asio flammeus	LDTV	SC	Т
	Bank swallow	Riparia riparia	-	Т	Т
	Olive-sided flycatcher	Contopus cooperi	LDTV	SC	SC
	Bald eagle	Haliaeetus leucocephalus	V	-	_
	Rusty blackbird	Euphagus carolinus	LDTV	SC	SC
	Yellow rail	Coturnicops noveboracensis	Т	SC	SC
Chiroptera	Little brown myotis	Myotis lucifugus	Т	Е	Е
	Northern myotis	Myotis septentrionalis	Т	Е	Е
	Hoary bat	Lasiurus cinereus	LDTV	Е	_
	Eastern red bat	Lasiurus borealis	V	Е	_
Small Mammals	Rock vale	Microtus chrotorrhinus	LDTV	-	_
	Southern bog lemming	Synaptomys cooperi	LDTV	-	_
Small Fauna and Fur Animals	Least weasel	Mustela nivalis	LDTV	-	_
	Wolverine	Gulo gulo	Т	SC	SC
Large Fauna	Boreal caribou	Rangifer tarandus caribou	Т	Т	Т

#### Table 7 Special Status Wildlife Species Potentially Present in the Project Area

Status : E: endangered; LDTV: likely to be designated threatened or vulnerable specie; SC: special concern; T: threatened; V: vulnerable.

2: Liste des espèces désignées menacées ou vulnérables au Québec (LEMVQ). (Gouvernement du Québec, 2023c).

3: Committee on the Status of Endangered Wildlife in Canada (COSEWIC) (2023).

4: Species at Risk Act (SARA). (Gouvernement du Canada, 2023).

# 3.2.3 Human Environment

The following sections provide a brief description of the social context in which the Project takes place.

# 3.2.3.1 Administrative Context

The Project is in Québec's Nord-du-Québec administrative region (number 10), which is divided into two territories: Eeyou Istchee James Bay and Nunavik (Regional administration Kativik) (map 3). Located north of the 49<sup>th</sup> parallel, entirely on the Canadian Shield, the region covers just over half of Québec's total area and is the province's widest administrative region, covering 860,553 km<sup>2</sup> (MAMH, 2023).

More specifically, the Project lies within the territory of the Eeyou Istchee James Bay Regional Government (EIJBRG), which since 2014 has replaced the Municipality of James Bay. Nord-du-Québec is governed by the JBNQA and the *Agreement Concerning a New Relationship Between le Gouvernement du Québec and the Crees of Québec*, also known as the "Paix des Braves". The territorial regime introduced by the JBNQA is an important element of the land use. It divides the territory into category I, II, and III lands. The study area is located on category III lands, where the Crees have exclusive rights to trap fur animals, fish for certain species and enjoy various outfitting benefits, without having exclusive rights on category III lands.

# 3.2.3.2 Population, Living Conditions, and Socio-economic Context

EIJBRG's territory is made of the traditional territory of Eeyou Istchee, with the Indigenous nation of the Eastern Cree, as well as Jamésie, a non-Indigenous territory equivalent to a regional county municipality (RCM). Divided into 16 communities, the Jamésiens and the Crees live side by side. This section presents a portrait of Radisson and the Cree communities of Chisasibi, Wemindji and Mistissini, which are closest to the Corvette Mining Project (Table 8; Map 3).

First Nation / Non-Indigenous Town	Land Status	Name of the Community	Council / Affiliated Government	Approximate Distance from the Project
Cree Communities				
Cree Nation of Chisasibi	JBNQA territory	Chisasibi	Grand Council of the Crees / Cree Nation Government	330 km west
Cree Nation of Wemindji	JBNQA territory	Wemindji	Grand Council of the Crees / Cree Nation Government	330 km south-west
Cree Nation of Mistissini	JBNQA territory	Mistissini	Grand Council of the Crees / Cree Nation Government	350 km south
Jamésie	'			
Locality of Radisson	JBNQA territory	s. o.	s. o.	250 km west

#### Table 8 Cree Communities and Non-Indigenous Towns Near the Corvette Mining Project

JBNQA: James Bay and Northern Quebec Agreement.



	Projet / Project	
	Projet minier Corvette / Corvette Mining F	Project
	Zone d'inventaire / Inventory area	
12.20	Terres de catégorie (CBJNQ) / Category La (JBNQA)	ands
7	Terres de catégorie I / Category I lands	
- FF	Terres de catégorie II / Category II lands	
	Terres de catégorie III / Category III lands	:
5	Utilisation du territoire / Land Use	
22	Pourvoirie / Outfitter	
	Bail de villégiature / Lease	
	Aire de trappage / Trapline area	
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	Parcs et aires protégées projetés / Propos and Protected Areas	ed Parks
	Projet de parc / Proposed Park	
	Projet d'aire protégée / Proposed Protecte	ed Area
n	Titre minier / Mining Title	
64	Claim de Patriot Battery Metal inc. / Patrio Metal inc. claim	ot Battery
10- 11- 1	Divisions administratives / Administrative Departments	s
léservoir	Région administrative / Administrative Re	gion
aforge 1	Municipalité régionale de comté (MRC) et autochtones / Regional County Municipali and First Nations Territories	Territoires ity (RCM)
	Infrastructures / Infrastructures	
	Ligne de transport d'énergie / Electric pov transmission line	ver
°.	Réseau routier / Road Network	
54	Route nationale / National Road	
Aawiitakuch agrandissement)	——— Route régionale / Regional Road	
e/ 🏎	Voie ferrée / <i>Railway</i>	
ire Lodge	Route d'accès aux ressources / Resource route	e access
Long 1		
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*	PATIET	
1.2	Proiet minier Corvette / Corvette Mining Proiect	
a War	Document de renseignements préliminaires / Preliminary Inform	ation Document
3	Carte 3 / <i>Map 3</i> Inventaire du milieu humain / <i>Human Environment Inventory</i>	
Sature 1		
	Sources / Sources AOréseau+, réseau routier, MERN, 2016 BDGA, 1M, MERN, 2014 Contraintes et exclusions, GESTIM, 20 septembre 2023 Gestion des titres miniers GESTIM, 20 septembre 2023	
3	Terrains de trappe, Association des trappeurs cris Traités modernes autochtones, RNCan, 2022 Bail de villégiature, MERN, mars 2021.txt	
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#### **Cree Communities**

The Cree traditional territory (Eeyou Istchee) covers an area of over 400,000 km<sup>2</sup>, including nine Cree communities with a total of 5,586 km<sup>2</sup> and over three hundred traplines, or traditional family hunting and trapping grounds (CNG, 2022a). Its total population was 18,679 in 2021 (ISQ, 2022).

Located on category III lands according to the JBNQA, the Corvette Mining Project site does not contain any Indigenous land that has been set aside as a reserve but is divided into traplines occupied by Cree families. The Cree Nation of Chisasibi is the closest to the Project, about 330 km to the west. Two other communities are also located in areas near the Project: the Cree Nation of Wemindji, 330 km to the southwest, and the Cree Nation of Mistissini, 350 km to the south (Map 3).

#### Cree Nation of Chisasibi

Chisasibi is a Cree word that means Grande Rivière in French (Large River in English). Chisasibi is located on the south shore of the Grande River, on the coast of James Bay, and is the second most northern Cree community in Eeyou Istchee. Chisasibi is the largest Cree community in Eeyou Istchee, with a population of over 5,000 people (CNG, 2022b). Most of the population speaks Cree, while English is the second language. The Corvette Mining Project site is located almost entirely within the traditional territory of the Cree Nation of Chisasibi.

Chisasibi's commercial and administrative facilities, regional hospital and educational institutions make it a leading community in Northern Québec. The community has also an airport with daily flights. In addition to socio-economic activities, trapping, hunting, and fishing continue to characterize Chisasibi (Cree Nation of Chisasibi, 2023a).

The Chisasibi Hospital provides primary and secondary care services to the population of Eeyou Istchee, with a medical team of seven physicians and 27 registered nurses.

The Cree School Board provides services to two schools in the community of Chisasibi. Waapinichikush Elementary School offers instruction in Cree, English, and French. At the secondary (high school) level, James Bay Eeyou High School also offers instruction in all three languages. In 2021, for the population aged 15 and over in private households, 67.3% of men and 52.9% of women in Chisasibi had no secondary (high) school diploma or equivalency certificate, a proportion almost three times higher than in Québec (men 22.6% and women 18.6%) and Canada (men 19.6% and women 16.6%) (Statistics Canada, 2023).

In 2020, the median total income among recipients aged 15 and over in Chisasibi was \$43,200 (\$37,200 for men and \$50,000 for women), while the average total income was \$48,800 (\$43,240 for men and \$54,100 for women) (Statistics Canada, 2023). The income gap may be related to the higher level of education among women in the community.

#### Cree Nation of Wemindji

The second closest Cree community to the Corvette Mining Project site (330 km to the west) is Wemindji. Wemindji is located at the mouth of the Maquatua River and is the third most northern community on the James Bay coast. Wemindji is a Cree word meaning painted hills or red-ochre mountain. Its population was 1,562 people in 2021 (Statistics Canada, 2023). The first official language spoken is English, although the language most spoken at home is Cree (Statistics Canada, 2023).

The Cree Nation of Wemindji is served by the Community Miyupimaatisiiun Centre (CMCs) located in Wemindji. The CMCs provides front line services and represents the community presence of the CBHSSJB. The Wemindji CMCs includes a walk-in clinic as well as community health clinics for different age groups.

Wemindji also has an elementary school (Joy Ottereyes Rainbow Memorial) and a secondary (high) school (Maquatua Eeyou). In 2021, for the population aged 15 and over in private households, 52.8% of men and 46% of women in Wemindji had no secondary (high) school diploma or equivalency certificate, a proportion almost three times higher than in Québec (men 22.6% and women 18.6%) and Canada (men 19.6% and women 16.6%) (Statistics Canada, 2023).

In 2020, the median total income among recipients aged 15 and over in Wemindji was \$42,800 (\$37,200 for men and \$50,000 for women), while the average total income was \$46,000 (\$41,000 for men and \$50,600 for women) (Statistics Canada, 2023).

#### Cree Nation of Mistissini

Mistissini is one of the Cree communities located inland, about 350 km south of the Corvette Mining Project, on the shore of Lake Mistissini. Mistissini is a Cree word meaning "big rock". In 2021, Mistissini's population was 3,190 people compared with 3,523 people in 2016 (Statistics Canada, 2023). The first official language spoken is English, for both men and women, while the language most spoken at home is Cree (Statistics Canada, 2023).

The Cree Nation of Mistissini is served by the Community Miyupimaatisiiun Centre (CMCs) located in Mistissini, which offers medical and other more specific services for children, youth, and adults.

The Voyageur Memorial School is located in the center of Mistissini, and consists of three buildings (a high school, an elementary school and a pre-kindergarten building). There are also two adult education centers, known as sabtuans, located next to the secondary (high) school and offering courses in Cree culture. In 2021, for the population aged 15 and over in private households, 59.7% of men and 57.4% of women in Mistissini had no secondary (high) school diploma or equivalency certificate, a proportion almost three times higher than in Québec (men 22.6% and women 18.6%) and Canada (men 19.6% and women 16.6%) (Statistics Canada, 2023).

In 2020, the median total income among recipients aged 15 and over in Mistissini was \$43,200 (\$40,800 for men and \$46,000 for women), while the average total income was \$51,200 (\$49,900 for men and \$52,400 for women) (Statistics Canada, 2023).

#### Jamésie

#### Locality of Radisson

The locality of Radisson, in Eeyou Istchee James Bay, is one of the few non-Indigenous communities in Québec beyond the 53<sup>rd</sup> parallel, at the northern end of the paved portion of the Billy-Diamond Road (Map 3). In 2021, it had a population of just over 200 people (Statistics Canada, 2023). The first official language spoken is French. The language most spoken at home is also French (Statistics Canada, 2023). Radisson is located 250 km west of the Corvette Mining Project.

The locality of Radisson is served primarily by the Centre régional de santé et de services sociaux de la Baie-James (James Bay Regional Health and Social Services Centre; CRSSSBJ), which provides health and social services to the population of the Nord-du-Québec health and social services region. In Radisson, the Centre de santé Radisson

(Radisson Health Center; CLSC) serves the population primarily for health needs, but residents can regularly consult a doctor at the Centre hospitalier régional de Chisasibi (Chisasibi Regional Hospital Centre), for specialist visits, radiological examinations, clinical and medical observations.

Under the responsibility of the Centre de services scolaires de la Baie-James (James Bay School Service Centre), the Jacques-Rousseau school is in the community of Radisson. The school offers educational services for young people from preschool to the fifth year of secondary (high) school (CSSBJ, 2023).

Statistics on income in 2020 for the population aged 15 and over in private households in Radisson are not available and must remain confidential under the *Statistics Act*, as only 150 people were counted.

# 3.2.3.3 Main Human Receptors

The receptors where human may be affected by the Corvette Mining Project are temporary or permanent. They include hunting camps, waterways, burial grounds, and other sites used for traditional or cultural activities. No permanent residences are located within the footprint of the proposed mining infrastructure. However, some seasonal human receptors, mainly resort leases, are located nearby, the closest being approximately 18 km southwest of the Corvette Mining Project, on the west shore of Lac De la Corvette (Map 3). Traps and other temporary facilities used for hunting may also be found near the Project site.

Furthermore, Mirage Adventure Lodge is located about 75 km east of the Project, at kilometer 358 on the Trans-Taiga Road and the Sakami Lake Campground, is located at kilometer 56 also on the Trans-Taiga Road, more than 175 km west of the Project (Map 3).

All human receptors can be identified and located through field surveys and stakeholder interviews as part of the environmental and social assessment currently underway. The impacts of the Corvette Mining Project on these temporary and seasonal human receptors will then be identified and management measures will be proposed as part of the impact assessment.

As for the location of permanent human receptors, they are all far from the Project components, since they are in the Cree Nations of Chisasibi, Wemindji, and Mistissini, as well as in the community of Radisson, all more than 250 km away from the Project.

# 3.2.3.4 Economic Activities

The Nord-du-Québec economy is mainly based on the retrieval and production of raw material. In 2022, the part of the primary sector was nine times higher than in the rest of Québec (24.4% vs. 2.3%), while the tertiary sector seems less present (57.3% vs. 79.6%) (Table 9).

#### Table 9 Employment by Sector in 2022

Territory	Primary Sector	Secondary Sector	Tertiary Sector	Total
Nord-du-Québec region	21.4%	21.3%	57.3%	100%
Province of Québec	2.3%	18.1%	79.6%	100%

Source: Statistics Canada, special compilation.

The Nord-du-Québec region's main economic sectors, based on gross domestic product (GDP) in 2020, are mining, quarrying, along with oil and gas extraction representing 45.6%, followed by construction (10.3%), public services (9.7%), public administration (8.4%), and health care and social assistance (7.1%).

## 3.2.3.5 Transport Infrastructure

Beginning at kilometer 544 on the Billy-Diamond Road, the Trans-Taiga Road is a gravel road that extends 666 km generally in an east-west orientation (Tourism Eeyou Istchee Baie-James, 2016). The Project is located approximately 15 km south of the Trans-Taiga Road at kilometer 270 (Map 3).

The region also has several airports, including the La Grande 4 Airport located about 30 km northeast of the Project. This airport serves the La Grande 4 hydroelectric facilities and is owned by Hydro-Québec (operations gradually transferred to Société de développement de la Baie-James). There is also the La Grande-Rivière Regional Airport, located in the community of Radisson. This airport is operated by the Société de développement de la Baie-James (SDBJ, 2009). In the Cree community of Chisasibi, the Robert Kanatewat Airport handles Air Creebec aircraft and provides medical transport services for the Cree Board of Health and Social Services of James Bay (CBHSSJB) (Cree Nation of Chisasibi, 2023b). Finally, a landing strip is available at the Mirage Adventure Lodge.

#### La Grande Alliance

Launched in February 2020, the "La Grande Alliance" (meaning in English "The Great Alliance"; LGA) Project concerns the sustainable development of infrastructure in the Eeyou Istchee James Bay region. The primary objectives of LGA are the environmental protection of certain areas (protected areas) and increased access to Eeyou Istchee for the Crees. The transport infrastructure examined as part of LGA's feasibility studies are designed to meet specific needs or seize opportunities, with the aim of fully integrating the economy of the Eeyou Istchee James Bay region, and Cree communities specifically, with a view to sustainable resource development.

The main infrastructure studied by LGA involves (LGA, 2023):

- rehabilitation and paving of access roads to the communities of Waskaganish, Eastmain, Wemindji, Nemaska and Mistissini;
- rehabilitation and paving of the North Road;
- the rail link between Matagami and the Rupert River;
- reactivation of the Grevet-Chapais rail line;
- the rail link between the Rupert River and the La Grande River;
- the extension of the road to Whapmagoostui;
- the rehabilitation and extension of Road 167;

- the rail link between the La Grande River and Whapmagoostui;
- development of a seasonal port at Whapmagoostui.

For the Corvette Mining Project, Patriot plans to transport the spodumene concentrate to Matagami by truck, via the existing Billy-Diamond Road. In the context of LGA's development, Patriot will investigate and study all alternative transportation options including consideration of current or future transportation infrastructure that would offer alternatives to moving the concentrate. For instance, LGA's proposal for the possible extension of Road 167 to the Trans-Taiga Road, creating a second north-south transportation corridor to serve the eastern part of the territory, could be a beneficial alternative transportation corridor. This extension would significantly be reducing travel time between Mistissini/Chibougamau and Chisasibi and would link the two most populous regions in the area, facilitate interregional connectivity and provide access to currently isolated areas (LGA, 2023). In addition, the proposed rail and port would be instrumental in providing opportunities for movement of product, supplies and people to and from the project site.

# 3.2.3.6 Hunting, Fishing, and Trapping

The Project site is in the Hunting Zone number 22 north and overlaps with the Fur-Bearing Animal Management Units (UGAF) numbers 91 and 94 (Gouvernement du Québec, 2022b, 2022c). Additionally, lake trout and walleye fishing are activities of great interest.

As mentioned, the Corvette Mining Project is on category III lands. These lands are accessible to all communities, but the Cree population retains exclusive rights to hunt and trap fur-bearing animals, as well as to fish for certain aquatic species (including lake whitefish, lake sturgeon, burbot, and suckers).

In parallel with modern life, Cree communities continue to hunt, trap and fish as part of their traditional activities. The territory of Eeyou Istchee James Bay is divided into family traplines. These traplines are used year-round by Cree families for traditional activities (Conseil Cris-Québec sur la foresterie, 2018). Species trapped in the area mainly include beaver, marten, muskrat, otter, red fox, lynx, and mink (CTA, 2021).

The Project is located in the trapline of Mr. Paul Ratt (CH39) (Map 3) of the Chisasibi Cree Nation, covering an area of approximately 2,070 km<sup>2</sup> (Cree Geoportal, 2023). The southern portion of the claims are located at the border of the trapline of Mr. Rene Neeposh (M02A) of the Mistissini Cree Nation, which covers an area of approximately 2,202 km<sup>2</sup>, as well as the trapline of Mr. Melvin Shashaweskum (VC26) of the Wemindji Nation.

Goose and moose hunting are also important traditional activities for members of the Cree communities. The Goose Break is an age-old tradition practiced by the Cree in the Nord-du-Québec region that takes place during the Spring. Businesses and schools are shut down for a few weeks to allow the community members to take part in this traditional goose hunt (Air Tunilik, 2023). Besides geese, other species such as caribou, bear, lynx, red fox, ruffed grouse, and ptarmigan are also hunted by Cree throughout the year (CTA, 2022).

# 3.2.3.7 Heritage and Archaeology

According to the information available on the *Inventaire des Sites Archéologiques du Québec* (ISAQ) of the Ministère de la Culture et des Communications du Québec (MCC), no areas of high archeological potential have been identified near the Corvette Mining Project.

A more detailed analysis will be carried out through field surveys with the Cree communities and documentary analysis as part of the ESIA currently underway. The effects of the Project on this aspect will also be studied, and management measures will be proposed accordingly.

# 3.3 **Project Schedule**

The main stages in the development of the Corvette Mining Project are presented in Table 10.

#### Table 10 Main Stages of the Project's Implementation Schedule

Timeline	Main Stage
2 <sup>nd</sup> quarter (Q2) 2025	Feasibility study
3 <sup>rd</sup> quarter (Q3) 2025	Environmental impact assessment
1 <sup>st</sup> quarter (Q1) 2028 to 4 <sup>th</sup> quarter (Q4) 2028	Construction
4 <sup>th</sup> quarter (Q4) 2028	Start of commissioning
2052	Mine closure
2052-2055	Site restoration and rehabilitation

# 3.4 Location Plan

The location of the Project is shown on Map 1.

Map 2 illustrates the proposed development plan for the mine site. This plan shows the location of the main surface infrastructure, such as open pits, mine storage facilities for ore, waste rock and tailings, buildings (including the ore processing plant), access and traffic roads, and the main water management facilities. The plan also shows the existing surrounding infrastructure.

# 4 Information and Consultation Activities of the Public, Indigenous Communities and Users of the Territory

This section presents details of the consultation process with stakeholders affected or potentially affected by the Corvette Mining Project. An initial scoping of stakeholders was completed (Figure 5). It is based on publicly available information and focuses on stakeholders in the Eeyou Istchee James Bay Territory, as well as on officials of the various levels of government. Stakeholder mapping will be revisited throughout the life cycle of the Project. As it evolves, new stakeholders will be identified, and some of the identified stakeholders will have a lesser or a greater interest to be involved.



#### Figure 5 Stakeholder Mapping

This section also presents the main concerns expressed during the meetings initiated so far, as well as the future mobilization plan. The stakeholders identified so far are presented in Table 11.

Territory / Community / Locality / Organisation	Stakeholder
Eeyou Istchee James Bay	Cree Nation Government
	Cree Nation Youth Council
	Cree Women of Eeyou Istchee Association
	Apatsiiwin Skills Development
	Cree Board of Health and Social Services of James Bay (CBHSSJB)
	Cree School Board
	Cree Mineral Exploration Board (CMEB)
	Cree Trappers' Association (CTA)
Cree Nation of Chisasibi	Band Counsil of Chisasibi
	Chisasibi Hospital
	Waapinichikush Elementary School
	James Bay Eeyou High School
	Elders Counsil of Chisasibi
	Chisasibi Heritage & Cultural Centre
	Chisasibi Eeyou Resource and Research Institute (CERRI)
	Chisasibi Local Cree Trappers' Association Office
	Chisasibi Business and Development Group Inc.
	Trapline Owner–Paul Ratt (CH39)
Cree Nation of Wemindji	Band Counsil of Wemindji
	Joy Ottereyes Rainbow Memorial Elementary School
	Maquatua Eeyou High School
	Wemindji Local Cree Trappers' Association Office
	Trapline Owner–Melvin Shashaweskum (VC26)
Cree Nation of Mistissini	Band Counsil of Mistissini
	Voyageur Memorial Elementary School
	Voyageur Memorial High School
	Mistissini Local Cree Trappers' Association Office
	Trapline Owner–Rene Neeposh (M02A)
	Eskan Mistissini Economic Development Group

#### Table 11 Stakeholders Concerned or Potentially Concerned

Territory / Community / Locality / Organisation	Stakeholder
Radisson	Town Radisson
Government agencies	Administration Régionale Baie-James (ARBJ)
	Table Jamésienne de Concertation Minière (TJCM)
	Société d'aide au développement des collectivités (SADC) de Matagami, bureau de Radisson
	Société de Développement de la Baie-James (SDBJ)
	Hydro-Québec
	Société du Plan Nord
Eeyou Istchee James Bay Regional Government (EIJBRO	G)
Government of Quebec	
Government of Canada	

#### Table 11 Stakeholders Concerned or Potentially Concerned (cont.)

# 4.1 Information and Consultation Activities Carried Out

# 4.1.1 Consultation Process

As part of the design of the Corvette Mining Project, Patriot has organized initial information sessions, which began in January 2023. Recognizing the importance of involving Indigenous groups, local communities and authorities, interest groups and land users in the design, planning and development of the Project, the main objective of these sessions was to contextualize it within its environment and to gather preliminary concerns, recommendations, and interests of stakeholders about it.

It should be noted that Patriot started, in summer 2023, the ECOLOGO UL 2723 certification program for mining exploration companies. The purpose of this certification is to audit exploration companies and their service providers to ensure the application of best social, environmental, and economic practices. Patriot expects to complete the audit process in early 2024. Inspired by these orientations as well as the industry best practices, the consultation and mobilization program aims to meet the following objectives:

- encourage a transparent, proactive, and effective communication between Patriot, host communities and all the Project stakeholders;
- increase the sharing of information about the Project and ensure adequate accountability for associated activities;
- gather information related to the land use, culture, and traditions of local and Indigenous communities affected by the Project;

- identify the concerns of stakeholders and the local realities, as well as potential challenges related to Project realization;
- take a position on the concerns expressed, correct misperceptions when needed, and make the necessary commitments to answer the questions, comments, and issues about the Project;
- develop a sustainable relationship of trust with the various Indigenous groups and other stakeholders.

Through its consultation and mobilization approach, Patriot wishes to offer local communities the opportunity to participate proactively in the planning and monitoring of the Corvette Mining Project. The information gathered, especially the traditional knowledge of Indigenous groups, will thus be integrated into the design and impact analysis.

Various communication channels have been used to establish and maintain dialog with authorities, stakeholders, and Indigenous groups since 2023. These include the following:

- written communications (e-mails, letters, newsletters);
- verbal communications (telephone interviews, videoconferencing);
- face-to-face meetings;
- public events;
- radio broadcast.

The stakeholders targeted in this prior information process are presented in Table 12.

Especially with Indigenous groups, the Corvette Mining Project was presented in order to initiate communication, to explore points of interest, and to begin the development of a clear understanding of the issues of concern of the land users. Questions were asked, concerns were expressed, and suggestions were made by land users. Detailed land-use documentation will be developed and integrated as part of the environmental and social assessment.

Land users are interested in partnering and collaborating with Patriot in the various activities and work to be carried out on the land during the study phase. In general, the Indigenous parties insisted on the importance of their upstream involvement in planning activities to be done on the trapline as well as during the preparation of the Project's environmental and social assessment.

Category	Stakeholders
Indigenous Communities and Regional Organizations	<ul> <li>Cree Nation Gouvernment</li> <li>Band Counsil of Chisasibi</li> <li>Cree Nation of Chisasibi</li> <li>Cree Nation of Wemindji</li> <li>Cree Nation of Mistissini</li> <li>Main land users (traplines owner/families)</li> <li>Cree Trappers' Association</li> </ul>
Politic	<ul> <li>Eeyou Istchee James Bay Regional Gouvernment</li> <li>Ministère des Ressources naturelles et des Forêts</li> <li>Ministère de l'Économie, de l'Innovation et de l'Énergie</li> <li>Secrétariat aux relations avec les Premières Nations et les Inuits</li> <li>Impact Assessment Agency of Canada</li> </ul>
Municipal	<ul> <li>Locality of Radisson</li> </ul>
Economic	<ul><li>Hydro-Québec</li><li>Other companies from the mining industry</li></ul>

#### Table 12 Stakeholders Targeted as Part of the Prior Information Process

# 4.1.2 Main Concerns

## 4.1.2.1 Main Concerns of Non-Indigenous Groups

The main comments and concerns of non-Indigenous stakeholders expressed so far during the various consultation activities presented in the previous section are summarized in Table 13.

#### Table 13 Main Comments and Concerns Expressed During Consultation Activities with Non-Indigenous Stakeholders

Theme	Comment/Concern
Local and regional economy	<ul> <li>Radisson would like to take advantage of the opportunities offered by the Project to benefit from local and regional economic spin-offs.</li> <li>Risks associated with fluctuating lithium prices.</li> </ul>
Communication and consultation processes	<ul> <li>Initiate dialog with the Radisson population with a Project presentation session.</li> <li>Promote an inclusive approach to achieve greater social acceptability.</li> </ul>
Transport	<ul> <li>The various projects in the Eeyou Istchee James Bay region are increasing pressure on the region's only road access, the Billy-Diamond Road.</li> <li>Increased traffic may translate into more collisions on the Billy-Diamond Road.</li> </ul>
Health and quality of life	<ul> <li>How to maximize positive impacts of the Project to attract new residents to Radisson.</li> <li>Measures to reduce commuting (<i>Fly-In/Fly-Out</i>).</li> </ul>

# 4.1.2.2 Main Concerns of Indigenous Groups

The meetings held so far have identified the preliminary concerns shared by Indigenous groups. The main concerns expressed at these meetings are outlined in Table 14.

# Table 14Main Comments and Concerns Expressed by Indigenous Groups During Mobilization and<br/>Consultation Activities

Theme	Comment/Concern
Water and fish habitat	<ul> <li>Impact of mine effluent on the environment.</li> </ul>
	<ul> <li>Mine surface water/runoff management.</li> </ul>
	<ul> <li>Water requirements to supply the mine.</li> </ul>
	<ul> <li>Water protection and how water will be treated by the proponent.</li> </ul>
	<ul> <li>Cumulative impacts on fish habitat.</li> </ul>
Traditional use of land and resources for traditional purposes	<ul> <li>Disruption of traditional activities (hunting, fishing, trapping, berry picking, etc.) throughout the mine life cycle (construction, operation and closure).</li> </ul>
Cumulative impacts	<ul> <li>So far, the cumulative impact of disturbances on traplines is believed to have depleted the resource.</li> </ul>
	<ul> <li>Increased activity on the Trans-Taiga Road is influencing the decline in moose and caribou numbers in the area.</li> </ul>
	- Hydroelectric development tops the list of contributors to cumulative impacts.
	<ul> <li>Land users have mentioned that, due to the creation of Hydro-Québec reservoirs, fish quality has declined considerably.</li> </ul>
	<ul> <li>The various projects in Eeyou Istchee James Bay are increasing pressure on the region's only road access, the Billy-Diamond Road.</li> </ul>

# Table 14Main Comments and Concerns Expressed by Indigenous Groups During Mobilization and<br/>Consultation Activities (cont.)

Theme	Comment/Concern	
- Indigenous communities want to benefit from the opportunities the Project offers and suffer the negative impacts.		
	<ul> <li>Land users would be interested in partnering with the proponent in the various activities and works to be carried out on the land as the Project's environmental and social assessment progresses.</li> </ul>	
	<ul> <li>Comments were made on the importance of addressing future training and employment/contract opportunities within affected families and the community. It was also made clear that the current spirit of collaboration in these early stages of the Project does not translate into acceptance or approval of the Project.</li> </ul>	
	<ul> <li>Community representatives have questions about the Project schedule.</li> </ul>	
	<ul> <li>Stakeholders would like to know more about the economics of the lithium mining industry.</li> </ul>	
	<ul> <li>Suggests involving an Indigenous liaison officer to facilitate participation of the Cree community members (information sharing, jobs, contracts, etc.).</li> </ul>	
	<ul> <li>The importance of drawing up a list of training needs and the jobs that will be available was emphasized.</li> </ul>	
	<ul> <li>Issues concerning certain hiring criteria deemed too high, particularly concerning the French language.</li> </ul>	
	<ul> <li>Establishment of education agreements.</li> </ul>	
Communication and consultation processes	<ul> <li>All the Eeyouch (James Bay Cree) we met felt it was important to establish a relationship of trust.</li> </ul>	
	<ul> <li>For consultation events, the Crees favor the Café de conversation (also known as World Café) method as the most productive.</li> </ul>	
	<ul> <li>For the Crees, particularly the main users of the territory, the best communication tools for reaching communities would be local radio and television.</li> </ul>	
	<ul> <li>It's important to translate documentation and include Cree words when possible.</li> </ul>	
Transport	<ul> <li>Risk of accidents/collisions caused by increased traffic.</li> </ul>	
	<ul> <li>Impact of increased traffic on large wildlife.</li> </ul>	
Health and quality of life	<ul> <li>Several concerns related to social and quality of life issues were raised:</li> </ul>	
	<ul> <li>equity in employment and career development;</li> </ul>	
	<ul> <li>systemic racism problems;</li> </ul>	
	<ul> <li>greater openness of the territory comes with the risk of increased human trafficking (disappearance of Indigenous women);</li> </ul>	
	<ul> <li>risk to workers' health;</li> </ul>	
	<ul> <li>forest fire measures and evacuation plans;</li> </ul>	
	<ul> <li>difficulties in reconciling work and family life (rotating work schedules);</li> </ul>	
	<ul> <li>risks and failures related to site operations (exceptional events).</li> </ul>	

Patriot intends to continue to take into account the interests, aspirations, and culture of Indigenous peoples in the design, development, and operation of the Corvette Mining Project. Patriot also intends to expose the potential impacts, both the positive and negative, whether related to the disturbance of traditional lands and resources, or to natural, cultural, and spiritual heritage. At all times, Patriot will ensure that the results of any engagement and agreement processes are mutually well understood by Indigenous groups.

In light of the issues raised during the meetings held so far, Patriot confirms its commitment to place social acceptability, citizen participation, and the interests of Indigenous and non-Indigenous groups a top priority of the

planning and design of the Corvette Mining Project and the assessment of its impacts. The company's commitment is centered on four priorities:

- Working upstream, with Indigenous and non-Indigenous groups, to reduce impacts at the source, prevent them
  and avoid them when possible, including those set out in Table 13 and Table 14.
- Maximize positive spinoffs and benefits for parties affected by the Project.
- Co-define, with the community, the conditions to be put in place for the Project to integrate harmoniously into the receiving environment.
- Address a more in-depth approach on the elements of concern or interest to stakeholders in a spirit of collaboration and take them into account in developing the Project.

# 4.2 Information and Consultation Activities Planned During the Environmental and Social Impact Assessment Procedure

## 4.2.1.1 Future Mobilization Plan with Authorities and Other Parties

A first round of meetings has already taken place in 2023, targeting the frontline regional players operating in political, land use, geographic, social, financial, environmental, and technical spheres. The primary aim of this first round was to initiate a dialog, which has since continued, presenting the main outlines of the Corvette Mining Project to key Indigenous and non-Indigenous stakeholders as well as gathering general concerns about the Project before initiating the environmental and social assessment process. This approach established initial contact with stakeholders and opened up communication channels by sharing information on the Project (origins, future development stages, preliminary schedule, industrial and technological process, sources of supply, economic and social spin-offs).

Following the start of the environmental and social assessment process, more detailed formal consultations will be undertaken over time, as the Project progresses. For this second round of the consultation process, new stakeholders, who have not yet been met, will be added. Each of the targeted stakeholder groups will be consulted to gather and respond to their comments, questions, and concerns. Besides, information sessions for the public will be planned and advisory committees dealing with environmental, social, and economic issues will also be set up. At this stage, Patriot will focus on gathering stakeholders' comments, questions, and concerns about the Project, the aim being to optimize its overall performance and ensure that its integration into the local environment is well harmonized.

## 4.2.1.2 Future Mobilization Plan with Indigenous Groups

With a view to maintaining a strong and ongoing relationship with the Indigenous groups affected by the Corvette Mining Project, Patriot wishes to set up adapted, concerted information and consultation processes with Indigenous groups, and to establish mutual collaboration and partnership agreements with them.

To this end, Patriot will work with the communities to develop a consultation, communication and mobilization plan that will include ongoing Project updates. This approach will be flexible and can be adapted according to the feedback received. This plan will first aim to gather the concerns and interests of Indigenous groups, particularly

those relating to environmental issues, land use, employment, training opportunities, service provision, potential collaborations, etc.

Through this approach, Patriot seeks to understand the opinions and concerns of Indigenous groups, and to openly discuss its activities and to keep record. The company will encourage open dialog, both formally and informally, to give the involved communities the opportunity to express their opinions and concerns about the Project. The outcome of these discussions with Indigenous groups will enable the Project to address their concerns and interests, and to optimize its social acceptability.

It should be noted that a formal presentation of preliminary information on the Project is planned for members of the Chisasibi, Wemindji and Mistissini Nations at the end of 2023 or at the beginning of the year 2024. Meetings with socio-economic and education/training stakeholders of those communities will also be held at the same time.

# 5 Description of the Main Issues and Impacts of the Project on the Receiving Environment

# 5.1 Description of the Main Issues of the Project

Based on the preliminary information available on the Corvette Mining Project, its insertion environment as well as the comments and concerns raised by the authorities, stakeholders, and Indigenous groups we met, the main Project issues identified are the following:

- increased risk of accidents, wildlife collisions and wildlife disturbance on the Trans-Taiga Road and the Billy-Diamond Road due to increased heavy-vehicle traffic to transport the concentrate;
- increased traffic on the Billy-Diamond Road due to the Corvette Mining Project and numerous other potential projects in the region (cumulative effects);
- Project encroachment into fish habitat;
- protection of water quality and fish resources;
- potential disruption to traditional activities of land users;
- protection of the well-being and quality of life of local communities.

Patriot intends to address these issues with the relevant authorities, stakeholders, and Indigenous groups as soon as possible, in order to discuss them and develop strategies to mitigate their potential influence on the Project and its acceptability.

# 5.2 Description of the Main Anticipated Impacts of the Project on the Receiving Environment

This section presents the main impacts that could arise during the Project's implementation, for each of the different phases. It is currently too early in the Project's development to assess and present the mitigation measures that could be put in place to avoid or minimize the projected impacts. Similarly, as the technical design of the Project is still preliminary, it is not possible to precisely identify the significant impacts, and only the main ones are presented at a high level. These impacts have been defined following the identification of the main sources of potential impact for each of the Project's phases, which are presented in Table 15.

#### Table 15 Project's Potential Sources of impact

Project's Phase	Potential Source of impact	
Construction	<ul> <li>Construction site presence</li> <li>Site preparation (deforestation, stripping, excavation, grading, blasting, etc.)</li> <li>Construction of land-based mining infrastructure</li> <li>Construction of dams and detour of water from Lake 01</li> <li>Equipment operation and maintenance</li> <li>Transportation and traffic</li> <li>Labor and purchase of goods, services and materials</li> <li>Residual and hazardous materials management</li> </ul>	
Operation	<ul> <li>Presence of mining infrastructure</li> <li>Mine operations (management of ore, waste rock, tailings, and water)</li> <li>Equipment operation and maintenance</li> <li>Transportation and traffic</li> <li>Labor and purchase of goods, services and materials</li> <li>Residual and hazardous materials management</li> </ul>	
Closure and restauration	<ul> <li>Site presence</li> <li>Site closure, rehabilitation and restoration</li> <li>Infrastructure dismantling</li> <li>Use and maintenance of equipment</li> <li>Labor and purchase of goods, services and materials</li> <li>Residual and hazardous materials management</li> </ul>	

The main impacts of the Project on the receiving environment are presented in Tables 16 to 18, which show the potential impacts on the components of the physical, biological, and human environment for each Project phase.

#### Table 16 Main Potential Impacts on Components of the Physical Environment

Components	Project's Phase	Potential Impact Source	Potential Impact
Soils	Construction	<ul> <li>Site preparation (deforestation, stripping, excavation, grading, blasting, etc.)</li> <li>Construction of land-based mining infrastructure</li> <li>Equipment operation and maintenance</li> <li>Transportation and traffic</li> <li>Residual and hazardous materials management</li> </ul>	<ul> <li>Accentuation and modification of erosion phenomena</li> <li>Risk of accidental soil contamination</li> </ul>
	Operation	<ul> <li>Mine operations (management of ore, waste rock, tailings, and water)</li> <li>Equipment operation and maintenance</li> <li>Transportation and traffic</li> <li>Residual and hazardous materials management</li> </ul>	– Risk of accidental soil contamination
	Closure and Rehabilitation	<ul> <li>Site closure, rehabilitation and restoration</li> <li>Infrastructure dismantling</li> <li>Equipment operation and maintenance</li> <li>Residual and hazardous materials management</li> </ul>	<ul> <li>Re-establishment of conditions similar to pre-Project erosion risks</li> <li>Risk of accidental soil contamination</li> </ul>
Surface water and sediments	Construction	<ul> <li>Site preparation (deforestation, stripping, excavation, grading, blasting, etc.)</li> <li>Construction of land-based mining infrastructure</li> <li>Construction of dams and detour of water from Lake 01</li> <li>Equipment operation and maintenance</li> <li>Transportation and traffic</li> <li>Residual and hazardous materials management</li> </ul>	<ul> <li>Modification of natural surface water runoff patterns</li> <li>Increased soil impermeability and runoff</li> <li>Increase or decrease in characteristic flows of certain waterways</li> <li>Loss of bodies of water when diverting water from Lake 01</li> <li>Risk of accidental surface water contamination</li> <li>Risk of increased concentrations of suspended solids (SS) in streams and water bodies</li> </ul>
	Operation	<ul> <li>Mine operations (management of ore, waste rock, tailings, and water)</li> <li>Equipment operation and maintenance</li> <li>Transportation and traffic</li> <li>Residual and hazardous materials management</li> </ul>	<ul> <li>Risk of accidental surface water contamination</li> <li>Risk of increased concentrations of suspended solids (SS) in streams and water bodies</li> </ul>
	Closure and Rehabilitation	<ul> <li>Site closure, rehabilitation and restoration</li> <li>Infrastructure dismantling</li> <li>Equipment operation and maintenance</li> <li>Residual and hazardous materials management</li> </ul>	<ul> <li>Re-establishment of original hydrological conditions</li> <li>Risk of accidental surface water contamination</li> <li>Risk of increased concentrations of suspended solids (SS) in rivers and water bodies</li> </ul>
Groundwater	Construction	<ul> <li>Site preparation (deforestation, stripping, excavation, grading, blasting, etc.)</li> <li>Construction of land-based mining infrastructure</li> <li>Equipment operation and maintenance</li> <li>Transportation and traffic</li> <li>Residual and hazardous materials management</li> </ul>	<ul> <li>Modification of groundwater flow regime</li> <li>Reduction or increase in surface water infiltration and aquifer recharge</li> <li>Risk of accidental groundwater contamination</li> </ul>
	Operation	<ul> <li>Mine operations (management of ore, waste rock, tailings, and water)</li> <li>Presence of mining infrastructure</li> <li>Equipment operation and maintenance</li> <li>Transportation and traffic</li> <li>Residual and hazardous materials management</li> </ul>	<ul> <li>Modification of the groundwater flow regime, especially through open pits dewatering</li> <li>Lowering of the phreatic level</li> <li>Risk of accidental groundwater contamination</li> <li>Risk of groundwater contamination through leaching of metals or other substances</li> </ul>

#### Table 16 Main Potential Impacts on Components of the Physical Environment (cont.)

Components	Project's Phase	Potential Impact Source	
Groundwater (cont.)	Closure and Rehabilitation	<ul> <li>Site closure, rehabilitation and restoration</li> <li>Infrastructure dismantling</li> <li>Equipment operation and maintenance</li> <li>Residual and hazardous materials management</li> </ul>	<ul> <li>Risk of accidental groundwater contaminationc</li> <li>Restoration of original piezometric level</li> </ul>
Air quality	Construction	<ul> <li>Site preparation (deforestation, stripping, excavation, grading, blasting, etc.)</li> <li>Construction of land-based mining infrastructure</li> <li>Equipment operation and maintenance</li> <li>Transportation and traffic</li> </ul>	<ul> <li>Alteration of air quality, espetially through increase</li> <li>Greenhouse gas (GHG) emissions</li> </ul>
	Operation	<ul> <li>Mine operations (management of ore, waste rock, tailings, and water)</li> <li>Equipment operation and maintenance</li> <li>Transportation and traffic</li> </ul>	<ul> <li>Alteration of air quality, espetially through incre</li> <li>Greenhouse gas (GHG) emissions</li> </ul>
	Closure and Rehabilitation	<ul> <li>Site closure, rehabilitation and restoration</li> <li>Infrastructure dismantling</li> <li>Equipment operation and maintenance</li> </ul>	<ul> <li>Temporary alteration of air quality, espetially th</li> <li>Greenhouse gas (GHG) emissions</li> <li>Air quality improvement following restoration v</li> </ul>
Noise and vibration	Construction	<ul> <li>Site preparation (deforestation, stripping, excavation, grading, blasting, etc.)</li> <li>Construction of land-based mining infrastructure</li> <li>Construction of dams and detour of water from Lake 01</li> <li>Equipment operation and maintenance</li> <li>Transportation and traffic</li> </ul>	<ul> <li>Increase in noise and vibration levels</li> </ul>
	Operation	<ul> <li>Mine operations (management of ore, waste rock, tailings, and water)</li> <li>Equipment operation and maintenance</li> <li>Transportation and traffic</li> </ul>	<ul> <li>Increase in noise and vibration levels</li> </ul>
	Closure and Rehabilitation	<ul> <li>Site closure, rehabilitation and restoration</li> <li>Infrastructure dismantling</li> <li>Equipment operation and maintenance</li> </ul>	<ul> <li>Temporary increase in noise and vibration levels</li> <li>Return to original noise and vibration levels foll</li> </ul>

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#### Table 17 Main Potential Impacts on Components of the Biological Environment

Components	Project's Phase	Potential Impact Source	P
Wetlands and terrestrial vegetation	Construction	<ul> <li>Construction site presence</li> <li>Site preparation (deforestation, stripping, excavation, grading, blasting, etc.)</li> <li>Construction of land-based mining infrastructure</li> <li>Construction of dams and detour of water from Lake 01</li> <li>Equipment operation and maintenance</li> </ul>	<ul> <li>Loss of vegetated area and wetlands</li> <li>Disturbance of plant communities</li> <li>Potential introduction of invasive exotic species</li> </ul>
	Operation	<ul> <li>Presence of mining infrastructure</li> <li>Mine operations (management of ore, waste rock, tailings, and water)</li> </ul>	<ul> <li>Disturbance of plant communities</li> </ul>
	Closure and Rehabilitation	<ul> <li>Construction site presence</li> <li>Site closure, rehabilitation and restoration</li> </ul>	<ul> <li>Disturbance of plant communities</li> <li>Potential introduction of invasive exotic species</li> <li>Return of vegetation to natural conditions following</li> </ul>
Terrestrial fauna	Construction	<ul> <li>Construction site presence</li> <li>Site preparation (deforestation, stripping, excavation, grading, blasting, etc.)</li> <li>Construction of land-based mining infrastructure</li> <li>Construction of dams and detour of water from Lake 01</li> <li>Equipment operation and maintenance</li> <li>Transportation and traffic</li> </ul>	<ul> <li>Habitat loss and fragmentation</li> <li>Population disturbance</li> <li>Risk of collision or mortality</li> <li>Modification of habitat quality</li> </ul>
	Operation	<ul> <li>Presence of mining infrastructure</li> <li>Equipment operation and maintenance</li> <li>Transportation and traffic</li> </ul>	<ul> <li>Population disturbance</li> <li>Risk of collision or mortality</li> <li>Modification of habitat quality</li> </ul>
	Closure and Rehabilitation	<ul> <li>Construction site presence</li> <li>Site closure, rehabilitation and restoration</li> <li>Equipment operation and maintenance</li> </ul>	<ul> <li>Population disturbance</li> <li>Risk of collision or mortality</li> <li>Improved habitat quality following completion of</li> </ul>
Aquatic fauna and fish habitat	Construction	<ul> <li>Construction site presence</li> <li>Site preparation (deforestation, stripping, excavation, grading, blasting, etc.)</li> <li>Construction of land-based mining infrastructure</li> <li>Construction of dams and detour of water from Lake 01</li> <li>Equipment operation and maintenance</li> </ul>	<ul> <li>Loss of fish habitat</li> <li>Disturbance and degradation of fish habitat qualit</li> <li>Population disturbance and mortality</li> </ul>
	Operation	<ul> <li>Presence of mining infrastructure</li> <li>Mine operations (management of ore, waste rock, tailings, and water)</li> <li>Equipment operation and maintenance</li> </ul>	<ul> <li>Disturbance and degradation of fish habitat qualit</li> <li>Population disturbance</li> </ul>
	Closure and Rehabilitation	<ul> <li>Construction site presence</li> <li>Site closure, rehabilitation and restoration</li> <li>Equipment operation and maintenance</li> </ul>	<ul> <li>Temporary disruption and degradation of fish hab</li> <li>Temporary disturbance of populations</li> <li>Improvement in habitat quality following restorated</li> </ul>

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#### Table 18 Main Potential Impacts on Components of the Human Environment

Components	Project's Phase	Potential Impact Source	Pe
Employment and economy	Construction	<ul> <li>Construction site presence</li> <li>Labor and purchase of goods, services and materials</li> <li>Transportation and traffic</li> </ul>	<ul> <li>Stimulation of the local and regional economy</li> <li>Economic benefits for the region and Québec</li> <li>Job creation and maintenance</li> <li>Increased skills and employability of Cree and reg</li> <li>Premature road deterioration due to increased traff</li> </ul>
	Operation	<ul> <li>Presence of mining infrastructure</li> <li>Labor and purchase of goods, services and materials</li> <li>Transportation and traffic</li> </ul>	<ul> <li>Stimulation of the local and regional economy</li> <li>Economic benefits for the region and Québec</li> <li>Job creation and maintenance</li> <li>Increased skills and employability of Cree and reg</li> <li>Premature road deterioration due to increased traff</li> </ul>
	Closure and Rehabilitation	<ul> <li>Site closure, rehabilitation and restoration</li> <li>Labor and purchase of goods, services and materials</li> </ul>	<ul><li>Job and income losses</li><li>Reduced demand for labor, goods, services, and m</li></ul>
Social conditions and quality of life	Construction	<ul> <li>Construction site presence</li> <li>Transportation and traffic</li> <li>Labor and purchase of goods, services and materials</li> </ul>	<ul> <li>Improved economic security for the population</li> <li>Improved services</li> <li>Concerns about health risks (air, surface and grour</li> <li>Increased of heavy vehicle and worker traffic on the Risk of tension within the population</li> </ul>
	Operation	<ul> <li>Presence of mining infrastructure</li> <li>Labor and purchase of goods, services and materials</li> <li>Transportation and traffic</li> </ul>	<ul> <li>Improved economic security for the population</li> <li>Improved services</li> <li>Concerns about health risks (air, surface and grour</li> <li>Increased of heavy vehicle and worker traffic on the second second</li></ul>
	Closure and Rehabilitation	<ul> <li>Site closure, rehabilitation and restoration</li> <li>Labor and purchase of goods, services and materials</li> </ul>	<ul> <li>Improved quality of life due to less road transport</li> <li>Possible reduction of economic security for the po</li> <li>Possible reduction in services</li> </ul>
Traditional land use	Construction	<ul> <li>Construction site presence</li> <li>Transportation and traffic</li> </ul>	<ul> <li>Possible loss of sites for traditional activities</li> <li>Disruption of traditional activities near the Project</li> </ul>
	Operation	<ul> <li>Presence of mining infrastructure</li> <li>Transportation and traffic</li> </ul>	<ul> <li>Reduced quality of the surrounding area for users</li> <li>Disruption of traditional activities located near the</li> </ul>
	Closure and Rehabilitation	– Site closure, rehabilitation and restoration	<ul> <li>Reuse and reappropriation of land for traditional as</li> </ul>
Natural and cultural heritage	Construction	<ul> <li>Construction site presence</li> <li>Site preparation (deforestation, stripping, excavation, grading, blasting, etc.)</li> <li>Construction des infrastructures terrestres</li> <li>Construction of dams and detour of water from Lake 01</li> </ul>	<ul> <li>Possible uncovering or alteration of archaeologica</li> </ul>
	Operation	<ul> <li>No sources of impact have been identified at this stage of the Project.</li> </ul>	- No change is expected in this component at this sta
	Closure and Rehabilitation	<ul> <li>No sources of impact have been identified at this stage of the Project.</li> </ul>	<ul> <li>No change is expected in this component at this state</li> </ul>

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# 6 **Greenhouse Gas Emission**

This section describes the main sources of greenhouse gas emissions projected for each phase of the Project.

# 6.1 Greenhouse Gas Emission

Greenhouse gas emissions for the project were estimated on the basis of available preliminary engineering data. At this stage of the project, emissions were estimated for the construction and operation phases only.

Total construction-related emissions are estimated at 95 kt CO2eq, mainly due to site clearing. Emissions during this phase of the project can be broken down as follows:

- diesel consumption by machinery: 4,439 t CO<sub>2</sub>eq;
- deforestation: 88 kt CO<sub>2</sub>eq;
- diesel consumption for logistics transport: 2.1 kt CO<sub>2</sub>eq.

Annual emissions associated with operations are estimated at 101 kt CO2eq. Machinery accounts for 59% of these emissions, with logistics transport and explosives accounting for 38% and 3% respectively. It should be noted that these emissions are annual and vary from year to year during the operating phase. On an average basis during the operating phase, emissions can be broken down as follows:

- diesel consumption (mobile sources): 60 kt CO<sub>2</sub>eq per year;
- use of explosives: 3 kt CO<sub>2</sub>eq per year;
- logistics transport (truck): 25 kt CO<sub>2</sub>eq per year;
- logistics transport (train): 13.6 kt CO<sub>2</sub>eq per year.

# 7 Other Relevant Information

The Corvette Mining Project overlies a large portion of the Lac Guyer Greenstone Belt, considered part of the larger La Grande River Greenstone Belt, and dominated by volcanic and sedimentary rocks metamorphosed up to amphibolite facies. The claim block is dominantly host to rocks of the Guyer Group. Patriot owns 100% of a 214 km<sup>2</sup> land package situated along an approximately 50 km prospective lithium pegmatite trend.

To date, the pegmatites at the Project have been recognized within an approximate 1 km wide and more than 25 km long corridor, termed the CV Lithium Pegmatite Trend, and extends in a general east-west direction across the central portion of the Project. The trend is interpreted to extend across a significant portion of the Project; however, large areas remain to be explored for lithium pegmatite. To date, seven distinct lithium pegmatite clusters have been discovered along the CV Trend at the Corvette Mining Project, which are CV4, CV5 (mineral resource estimation), CV8, CV9, CV10, CV12, and CV13. Of these, the CV13 and CV9 pegmatites have received significant drill attention in addition to CV5.

The CV13 Spodumene Pegmatite is characterized by two shallows, to moderately dipping, sub-parallel, spodumene pegmatite bodies, which have been intersected in multiple drill holes along an overall 2.3 km trend. More than 20 spodumene pegmatite outcrops have been identified and 14 NQ holes, totalling 2,647 m, completed in initial drill testing (2022). The highlights include 22.6 m at 1.56% Li<sub>2</sub>O, and 22.4 m at 1.28% Li<sub>2</sub>O. Additional drill testing in 2023 returned 12.7 m at 2.46% Li<sub>2</sub>O and 10.7 m at 2.79% Li<sub>2</sub>O. The CV13 Spodumene Pegmatite is located approximately 3.15 km along geological trend of the CV5 and about 1.9 km along trend from the CV8 Spodumene Pegmatite.

The CV9 Spodumene Pegmatite is currently interpreted to be a single principal dyke, which outcrops at surface, has a steep northerly dip, and is moderately plunging to the east-southeast. A strike length of approximately 450 m has been defined to date by drilling and outcrop, which remains open. The width of the dyke is variable; however, preliminary geological modelling indicates the CV9 Pegmatite significantly thickens to at least 80 m width at one location and remains open in multiple directions. An initial drill program was completed at CV9 in 2023 and included approximately 4,000 m over 18 NQ-size drill holes. Multiple holes intersected pegmatite intervals over 10 m in length, including three which returned continuous pegmatite intersections over 60 m in length. No assays have been received; however, spodumene mineralization was observed in multiple holes. The CV9 Spodumene Pegmatite is located approximately 14 km west of the CV5 Spodumene Pegmatite, 9.5 km west-northwest of the CV13 Spodumene Pegmatite, and 11 km south of the Trans-Taiga Road and powerline infrastructure.

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# A PRELIMINARY INFORMATION FORM

PN1 – Preliminary information Project title: Proponent's name:

# FORM Preliminary information

### PREAMBLE

The James Bay and Northern Québec Agreement (JBNQA), by its chapters 22 and 23, establishes a system of protection for both the natural and social environment in the James Bay and Northern Quebec region. Depending on the type of project, some aspects of these chapters may report under the responsibility of the Government of Canada, or the Government of Québec or both levels of government. Some projects can also be reported under the responsibility of the Cree Nation Government, notably for projects conducted on Category IA lands. Title II of the Environment Quality Act (EQA) presents the environmental and social impact assessment and review procedures applicable in the James Bay region (section 133 of the EQA) and in Northern Quebec (section 168 of the EQA).

The projects mentioned in schedule A of the EQA are subjected to one of the procedures applicable in the Northern environment, contrary to those mentioned in schedule B, which are exempt from the procedures. Projects not outlined in either schedule are considered "grey zone" projects. Anyone who intends to undertake a project in a northern environment covered by schedule A of the EQA must apply for a certificate of authorization. For "grey zone" projects, a proponent must request an attestation of exemption and the Provincial Administrator will confirm to him, after analysis of the project by the northern committee concerned, whether the project is not subject to the Environmental and social impact assessment and review procedure or if it is subject to it. In the first case, an attestation of exemption will be issued to the proponent for the project and, in the second, a directive will be prepared and sent to him, which will indicate the nature, scope and extent of the impact study he must prepare. Thus, except for the projects listed in schedule B, a proponent must file a preliminary information form with the Provincial Administrator of the JBNQA.

If necessary, it is possible to confirm whether your project corresponds to an activity listed in schedules A and B of the EQA or a "grey zone" by sending an e-mail request for verification of exemption, including a short description of your project, its location and the anticipated impacts at the following email address: <u>dgees-assujettissement@environnement.gouv.qc.ca</u>.

The preliminary information form is used to describe the general characteristics of a project. It must be completed in a clear and concise manner and the information must be limited to the elements that are relevant for a proper understanding of the project, its anticipated impacts, and possible ramifications.

In accordance with the EQA, the preliminary information form is either sent to the Evaluating Committee (COMEV), if the project concerns the region south of the 55th parallel (James Bay), or to the Kativik Environmental Quality Commission (KEQC), if the project concerns the region north of the 55th parallel (Nunavik). These two committees review the preliminary information and, in the case of projects covered by schedule A of the EQA, produce a recommendation on the directive indicating the nature, scope and extent of the study impact that the proponent must prepare. For "grey zone" projects, these committees produce a recommendations and decisions are then forwarded to the Provincial Administrator who communicates his decision to the proponent. The proponent may be issued an attestation of exemption for projects that are exempt from the procedure or issued a directive for those subjected to the environmental and social impact assessment and review procedure.

The Evaluating Committee is a tripartite advisory body composed of representatives appointed by the Cree Nation Government and representatives of the Government of Canada and the Government of Quebec. The Kativik Environmental Quality Commission is a bipartite body of Inuit or Naskapi representatives appointed by the Kativik Regional Government and representatives of the Government of Quebec. While performing their duties, both bodies pay particular attention to the following principles, which are outlined in sections 152 and 186 of the EQA:

- a) the protection of the hunting, fishing and trapping rights of the Native people;
- b) the protection of the environment and social milieu;
- c) the protection of the Native people, of their societies, communities and economy;
- d) the protection of the wildlife, of the physical and biological milieu and of the ecological systems of the territory;
- e) the rights and guarantees of the Native people in Category II lands;
- f) the participation of the Crees, Inuit and Naskapis in the application of the environmental and social protection regime provided for in this division;
- g) any rights and interest of non-Native people, and
- h) the right of the persons acting lawfully to carry out projects in the territory.

Also note that the preliminary information form will be published in the <u>Environmental assessment register</u> (French only) as defined in section 118.5 of the EQA but only for projects for which a directive will be issued. The <u>COMEV</u> and <u>KEQC</u> also publish preliminary information form on their websites.

Since May 2022, the applicant for any authorization must produce, as a condition for the issuance of an authorization, the applicant's declaration of background (declaration d'antécédents). This declaration replaces the declaration of the applicant. You will find the form to be completed at the following address : <u>https://www.environnement.gouv.qc.ca/evaluations/declaration-antecedents.pdf</u> (French only).

The preliminary information form must be accompanied by the payment, charging the proponent for services provided under the environmental authorization system. This payment can be made by check to the ministre des Finances or via bank transfer. Details regarding the applicable rates are available in the <u>Tarification</u> section (French only) of the environmental assessment web page. It should be noted that the MELCCFP will not process the application until payment is received.

Once completed, the proponent must send its preliminary information form together with a letter of transmission, which must be sent to the JBNQA Provincial Administrator:

- Send the electronic copy of the documents (form and letter of transmission) to reception.30e@environnement.gouv.qc.ca including the Deputy minister (mariejosee.lizotte@environnement.gouv.qc.ca) as well as Vanessa Chalifour, coordinator/team leader for northern projects (vanessa.chalifour@environnement.gouv.qc.ca). The letter of transmission must confirm that the hard copies are consistent with the electronic ones. In case of large electronic documents, please consult the last bullet.
- Send a hard copy of the documents (French) to the Deputy minister office at the following address:

James Bay and Northern Quebec Agreement Provincial Administrator Deputy minister of the Environment, Fight against Climate change, Wildlife and Parks Édifice Marie-Guyart, 30e étage 675, boul. René-Lévesque Est, boîte 02 Québec (Québec) G1R 5V7

- Send the other hard copies and the USB keys (including the French and English versions) to the Direction de l'évaluation environnementale des projets industriels, miniers, énergétiques et nordiques at the following address:

Mélissa Gagnon, director Direction de l'évaluation environnementale des projets industriels, miniers, énergétiques et nordiques Ministère de l'Environnement, de la Lutte contre les changements climatiques , de la Faune et des Parcs Édifice Marie-Guyart, 6e étage, boîte 83 675, boul. René-Lévesque Est Québec (Québec) G1R 5V7

<u>Projects located south of the 55<sup>th</sup> parallel (James Bay)</u> Nine (9) hard copies, including six (6) in French and three (3) in English Three (3) PDF copies in electronic format Additional copies may be requested depending on the scope of the project.

<u>Projects located north of the 55<sup>th</sup> parallel (Northern Quebec/Nunavik)</u> Fourteen (14) hard copies, including seven (7) in French and seven (7) in English Three (3) PDF copies in electronic format Additional copies may be requested depending on the scope of the project.

- If the electronic documents are very large: Inform the Direction de l'évaluation environnementale des projets industriels, miniers, énergétiques et nordiques (vanessa.chalifour@environnement.gouv.qc.ca) and a secure link allowing you to send your documents on the ShareFile platform will be shared with you. This link will be valid for a period of 7 days. Attach the letter of transmission to the email, indicating that the electronic version will be transmitted via the ShareFile platform of the DGÉES.

# 1. IDENTIFICATION AND COORDINATES OF THE PROPONENT

# 1.1 Identification of the proponent

Name : Patriot Battery Metals Lithium Innova inc.

Civic address : 1801 McGill College, Suite 900, Montréal, Québec, H3A 1Z4

Postal address (if different from civic address) :

Name and function of the signatory(s) authorized to submit the application:

Alix Drapack, P.Eng, MBA

Telephone : 416 606-1692

Vice-Présidente – Environnement, Société et Gouvernance

Telephone (other) :

\_

Email : adrapack@patriotbatterymetals.com

# 1.2 Company number

Québec enterprise number (NEQ) : 1179161253

1.3 Resolution of the municipal council, band council, northern village, or responsible body

If the proponent is a municipality, the preliminary information form is accompanied by the resolution of the municipal council, band council, northern village, or the responsible body duly certified authorizing the signatory(s) of the application to present it. Add a copy of the resolution to appendix I.

# **1.4 Identification of the consultant mandated by the proponent (if applicable)**

Name : WSP Canada inc.

Civic address :

Siège social 1600 boul. René-Lévesque ouest, 11e étage Montréal (Québec) H3H 1P9 Canada Bureau de coordination du projet 3535, boul. L.-P.-Normand, 2e étage Trois-Rivières (Québec) G9B 0G8 Canada Postal address (if different from civic address) : Telephone : 819 375-1292 Telephone (other) : -Email : carl.martin@wsp.com Description of mandate : Coordination and preparation of documents required as part of the environmental and social assessment process

# 2. GENERAL PRESENTATION OF THE PROJECT

# 2.1 Project title

Project of ... (construction/extension/development/ etc.) of ... (installation/equipment/factory/etc.) in the territory of ... (municipality/village/community)

Projet minier Corvette

# 2.2 Article of accordance

To verify the accordance of your project, indicate which paragraph of schedule A of the Environment Quality Act your project is subjected to, in your opinion, and why (threshold, for example). Indicate if your project is considered a "grey zone" project, if applicable.

Paragraph a) of Schedule A of the EQA (see section 2.2 of the preliminary information document)

# 2.3 Objectives and justification of the project

Indicate the main objectives and highlight the reasons for implementing the project.

See section 2.3 of the preliminary information document

# 2.4 Brief description of the project and alternatives

Briefly describe the project (length, width, quantity, voltage, surface, etc.) and for each of its phases (development, construction, and operation and, when appropriate, closure and restoration), briefly describe the main characteristics associated with each of the project alternatives, including planned activities, developments, and construction (deforestation, expropriation, blasting, backfilling, etc.).

See section 2.4 of the preliminary information document

If relevant, add to appendix II all the documents allowing to better understand the characteristics of the project (diagram, sketch, cross-section, etc.).

See figures and maps in the preliminary information document

# 2.5 Related activities

Summarize, if applicable, related planned activities (ex: road access, crushing or milling, installation of a cofferdam, stream diversion) and any other projects that may influence the project design.

See section 2.5 of the preliminary information document

# 3. **PROJECT LOCATION AND SCHEDULE**

# 3.1 Identification and location of the project and its activities

Name of the municipality, village, or community where the project is located (indicate if several municipalities, villages, or communities are affected by the project):

Regional Government of Eeyou Istchee James Bay

Land categories (I, II and III): III

Geographical coordinates in decimal degrees of the central point of the project (for linear projects, provide the coordinates of the project start and end point):

Central point or start of the project: La	titude: 53,52236°N Longitude: 73,93131°W
-------------------------------------------	------------------------------------------

Project end point (if applicable) : Latitude: Longitude:

# 3.2 Description of the project site

Describe the main components of the physical, biological, and human environments likely to be affected by the project by focusing on the description on elements considered to be of scientific, social, cultural, economic, historical, archaeological, or aesthetic importance (environmental valued components). Indicate, if applicable, the ownership status of the lands where the project is planned, as well as the main features of the site: zoning, available space, sensitive environments, wetlands and bodies of water, compatibility with current uses, availability services, topography, presence of buildings, aboriginal land use and occupation, etc.

See section 3.2 of the preliminary information document

# 3.3 Project schedule

Provide the implementation schedule (estimated period and estimated duration of each step of the project) considering the time required for the preparation of the impact study, if applicable, and the progress of the procedure.

See section 3.3 of the preliminary information document

## 3.4 Location plan

Add to appendix III a topographic or cadastral map showing the location of the project and, if applicable, a plan for the location of development or activities on an appropriate scale indicating any existing infrastructure and its relation to the proposed work site.

See figures and maps in the preliminary information document

### 4. INFORMATION AND CONSULTATION ACTIVITIES OF THE PUBLIC, ABORIGINAL COMMUNITIES AND USERS OF THE TERRITORY

# 4.1 Information and consultation activities carried out

If applicable, indicate the terms and conditions relating to the public information and consultation activities carried out as part of the project design (methods used, number of participants and represented areas ), including those carried out with the local populations, among others the Crees, Inuit and Naskapi, as well as the users of the territory, and indicate, if needed, the concerns raised by the public and whether these concerns were taking into consideration in the design of the project.

See section 4.1 of the preliminary information document

# 4.2 Information and consultation activities planned during the environmental and social impact assessment procedure

If applicable, indicate the terms and conditions for public information and consultation activities during the environmental and social impact assessment procedure, including those planned for aboriginal communities and users of the territory impacted by the project.

See section 4.2 of the preliminary information document

# 5. DESCRIPTION OF THE MAIN ISSUES<sup>1</sup> AND IMPACTS OF THE PROJECT ON THE RECEIVING ENVIRONMENT

# 5.1 Description of the main issues of the project

Briefly describe the main issues regarding the development, construction, and operation phases and, when applicable, closure and restoration phases of the project.

See section 5.1 of the preliminary information document

# 5.2 Description of the main anticipated impacts of the project on the receiving environment

For the development, construction, and operation phases and, when appropriate, closure and restoration phases of the project, briefly describe what are the anticipated impacts of the project on the receiving environment (physical, biological, and human). Briefly outline the planned mitigation or remediation measures, if applicable.

See section 5.2 of the preliminary information document

For a "grey zone" project, provide sufficient information to assess its environmental and social impacts to determine whether it should be subjected to the environmental and social impact assessment and review procedure. Provide mitigation or remediation measures, if applicable.

# 6. GREENHOUSE GAS EMISSION

# 6.1 Greenhouse gas emission

Indicate if the project is likely to lead to the emission of greenhouse gases and, if so, which ones. Briefly describe the main sources of projected emissions at the various phases of the project.

See section 6.1 of the preliminary information document

# 7. OTHER RELEVANT INFORMATION

# 7.1 Other relevant information

Enter any other information deemed necessary for a better understanding of the project.

See section 7 of the preliminary information document

<sup>&</sup>lt;sup>1</sup> Issue: A major concern for the government, the scientific community, or the population, including the impacted indigenous communities, and whose analysis could influence the recommendations or decisions of the northern committees regarding the authorization or refusal of a project.

### 8. DECLARATION AND SIGNATURE

# 8.1 Declaration and signature

# I certify that :

1° the documents and information provided in this preliminary information form are accurate to the best of my knowledge.

Any misrepresentation may result in sanctions under the EQA. All information provided will form an integral part of the application and will be published on the website of the Evaluating Committee (COMEV) or the Kativik Environmental Quality Commission (KEQC) and the Environmental assessment register.

First and last name

Alix Drapack, P.Eng, MBA Vice-President – ESG

Signature

lexandra Drapack

Date

2023-11-27

**Appendix I** Resolution of the municipal council, band council, northern village, or responsible body

If applicable, insert below the resolution of the municipal council, band council, northern village or responsible body duly certified authorizing the signatory(s) of the application to present it.

# Appendix II Project characteristics

If relevant, insert below documents to better understand the characteristics of the project (diagram, sketch, cross-section, etc.).

# Appendix III Location plan

Insert a topographic or cadastral map showing the location of the project and, if applicable, a plan for the location of works or activities on an appropriate scale indicating in particular the infrastructures in place in relation to the work site.



# B RESOLUTION OF THE ORGANIZATION

### WRITTEN RESOLUTION OF THE DIRECTORS OF INNOVA LITHIUM INC. (the "Corporation")

Date: November 14, 2023

### DEMANDE D'AUTORISATION MINISTÉRIELLE OU DE TOUT AUTRE TYPE DE BAIL, PERMIS OU AUTORISATION AUPRÈS DU MINISTÈRE DES RESSOURCES NATURELLES ET FORÊTS, ET/OU AUPRÈS DU MININSTÈRE DE L'ENVIRONNEMENT, DE LA LUTTE CONTRE LES CHANGEMENTS CLIMATIQUES, DE LA FAUNE ET DES PARCS

REQUEST OF A MINISTERIAL AUTHORIZATION OR ANY TYPE OF LEASE, PERMIT OR AUTHORIZATION FROM THE MINISTÈRE DES RESSOURCES NATURELLES ET FORÊTS AND/OR FROM THE MININSTÈRE DE L'ENVIRONNEMENT, DE LA LUTTE CONTRE LES CHANGEMENTS CLIMATIQUES, DE LA FAUNE ET DES PARCS

ATTENDU QUE la Société a besoin de baux, permis et autorisations pour accomplir ses activités.

WHEREAS the Corporation needs leases, permits and authorizations to carry out its activities.

**PAR CONSÉQUENT IL EST RÉSOLU** d'autoriser Alexandra Drapack à agir au nom de la Société et de signer toute demande d'autorisation ministérielle ou toute autre demande de bail, permis ou autorisation ou de permis auprès du Ministère des Ressources naturelles et Forêts, et/ou auprès du Ministère de l'Environnement, de la Lutte contre les changements climatiques, de la Faune et des Parcs.

**NOW THEREFORE IT IS HEREBY RESOLVED THAT** Alexandra Drapack is authorized to act on the behalf of the Corporation to sign any request for ministerial authorization or any request for leases, permits or authorizations from the Ministère des Ressources naturelles et Forêts, et/ou auprès du Ministère de l'Environnement, de la Lutte contre les changements climatiques, de la Faune et des Parcs.

### VALIDITÉ

Une résolution écrite signées par tous les administrateurs habiletés à voter sur cette résolution lors des réunions du conseil d'administration ou des comités exécutifs a la même valeur que si elle avait été adoptée lors d'une de ces réunions.

### VALIDITY

A written resolution signed by all the directors entitled to vote on that resolution during Board of Directors meetings or executives committees is as valid if it had been passed at such meeting.

DocuSigned by:

Blair Way

Ken Brinsden

Brian Jennings

**Pierre Boivin** 

### WRITTEN RESOLUTION OF THE DIRECTORS OF INNOVA LITHIUM INC. (the "Corporation")

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Date: November 14, 2023

### DEMANDE D'AUTORISATION MINISTÉRIELLE OU DE TOUT AUTRE TYPE DE BAIL, PERMIS OU AUTORISATION AUPRÈS DU MINISTÈRE DES RESSOURCES NATURELLES ET FORÊTS, ET/OU AUPRÈS DU MININSTÈRE DE L'ENVIRONNEMENT, DE LA LUTTE CONTRE LES CHANGEMENTS CLIMATIQUES, DE LA FAUNE ET DES PARCS

REQUEST OF A MINISTERIAL AUTHORIZATION OR ANY TYPE OF LEASE, PERMIT OR AUTHORIZATION FROM THE MINISTÈRE DES RESSOURCES NATURELLES ET FORÊTS AND/OR FROM THE MININSTÈRE DE L'ENVIRONNEMENT, DE LA LUTTE CONTRE LES CHANGEMENTS CLIMATIQUES, DE LA FAUNE ET DES PARCS

ATTENDU QUE la Société a besoin de baux, permis et autorisations pour accomplir ses activités.

WHEREAS the Corporation needs leases, permits and authorizations to carry out its activities.

**PAR CONSÉQUENT IL EST RÉSOLU** d'autoriser Alexandra Drapack à agir au nom de la Société et de signer toute demande d'autorisation ministérielle ou toute autre demande de bail, permis ou autorisation ou de permis auprès du Ministère des Ressources naturelles et Forêts, et/ou auprès du Ministère de l'Environnement, de la Lutte contre les changements climatiques, de la Faune et des Parcs.

**NOW THEREFORE IT IS HEREBY RESOLVED THAT** Alexandra Drapack is authorized to act on the behalf of the Corporation to sign any request for ministerial authorization or any request for leases, permits or authorizations from the Ministère des Ressources naturelles et Forêts, et/ou auprès du Ministère de l'Environnement, de la Lutte contre les changements climatiques, de la Faune et des Parcs.

### VALIDITÉ

Une résolution écrite signées par tous les administrateurs habiletés à voter sur cette résolution lors des réunions du conseil d'administration ou des comités exécutifs a la même valeur que si elle avait été adoptée lors d'une de ces réunions.

### VALIDITY

A written resolution signed by all the directors entitled to vote on that resolution during Board of Directors meetings or executives committees is as valid if it had been passed at such meeting.

**Blair Way** 

Ken Brinsden

Brian Jennings

**Pierre Boivin**