



Troilus Mining Project

Detailed Project Description - English Summary

011-21497249-Rev1

January 2023



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PART G – SUMMARY

1.0 BACKGROUND

Troilus Gold Corp (TSX: TLG) is a mineral exploration society, whose objective is to reopen the former Troilus gold and copper mine. This mine is located in the southeastern part of the Nord-du-Québec Administrative Region, on the Eeyou Istchee James Bay Territory, about 76 km northwest of the Cree community of Mistissini and about 170 km north of the city of Chibougamau. A maximum daily production of 40,000 tonnes per day (tpd) is currently planned for the mine with an estimated 10-year production period.

1.1 Information on the Proponent

The proponent's contact information is presented in the following table.

Table 1: Proponent's Contact Information

Information	Description
Proponent	Troilus Gold Corp
Website	https://fr.troilusgold.com/
Corporate Contact	Jacqueline Leroux Troilus Gold Corp.
Address	715, Square Victoria, Suite 705 Montréal (Quebec) H2Y 2H7 email: <email address removed>
Proponent Contact	Mathieu Michaud, Environmental Coordinator Troilus Gold Corp.
Address	334, 3 ^e Rue Chibougamau (Quebec) G8P 1N5 email: <email address removed>

1.2 Regional Studies, Plans or Assessments

To our knowledge, no regional study or assessment and no regional plan relevant to the project are available.

1.3 Strategic Assessments

The only strategic assessment relevant to the project is the Strategic Assessment of Climate Change published by Environment and Climate Change Canada (ECCC)¹. The objective of this assessment is to ensure consistent, predictable, efficient, and transparent consideration of climate change throughout the project impact assessment process.

¹ Strategic Assessment of Climate Change (<https://www.strategicasessmentclimatechange.ca/>)

1.4 Applicable Provisions

Potentially applicable provisions of the *Physical Activities Regulation's* schedule describing the project in whole or in part would be the following:

- 18(c): The construction, operation, decommissioning and abandonment of a new metal mine, other than a rare earth element mine, placer mine or uranium mine, with an ore production capacity of 5 000 tpd or more.

Troilus Gold plans the construction and operation of a metal mine (gold and copper) of a minimum capacity of 10 000 tpd.

- 18(d): The construction, operation, decommissioning and abandonment of a new metal mill, other than a uranium mill, with an ore input capacity of 5 000 tpd or more.

The project also includes the construction of a new metal mill of a minimum ore processing capacity of 10 000 tpd.

- 60: The construction, operation, decommissioning and abandonment of a new structure for the diversion of 10 000 000 m³/year or more of water from a natural water body into another natural water body.

Finally, the construction and operation of the mining site could require the diversion of 10 000 000 m³/year or more of water from a natural water body into another natural water body.

The Troilus mining project is not part of a larger project that is not on the project list.

1.5 Financial Support

No financial support will be provided by a federal authority regarding the project.

2.0 JUSTIFICATION FOR THE PROJECT

The development of the Troilus mining project is relevant in the current context. According to Natural Resources Canada (2022)², 8% of the gold produced worldwide is used for technological applications, 47.2% for investment purposes, 37.5% to meet jewelry needs and 7.3% for central bank net purchases. Worldwide gold production in 2020 was of 3,200 tonnes while Canada accounted for 5.7% of worldwide gold production or 182 tonnes. Quebec accounted for 30.9% of gold production in Canada in 2020 or 56.2 tonnes.

The results of the preliminary economic assessment conducted in 2020 are positive and validate the reopening of the former Troilus mine. This project will allow the development of a gold and copper deposit which is economically viable, and a more thorough exploitation of the resource.

In addition, the project represents an opportunity to maximize local and regional benefits and economic gains in a region that has historically relied on the mining industry to generate employment.

² Natural Resources Canada. 2022. Gold facts. Online: <https://www.nrcan.gc.ca/our-natural-resources/minerals-mining/minerals-metals-facts/gold-facts/20514>. Accessed in October 2022.

3.0 PROJECT DESCRIPTION

3.1 Project Activities

Generally, the Troilus mining project will include the following main activities:

- Development and exploitation of a new open pit (South-West pit);
- Expansion and exploitation of two previously exploited open pits (pit 87 and pit J4);
- Exploitation of these three open pits by the following activities: rock blasting, loading of the ore or waste rock by electric mechanical shovels, transport of the ore or waste rock by trucks of 200 to 240 tonnes;
- Construction and operation of an ore processing plant (maximum capacity of 10,000 tpd);
- Construction and operation of an ore storage area covered by a dome;
- Reuse of the existing tailings management facility, including dike lifts and construction;
- Construction and operation of the waste rock and overburden piles;
- Construction and operation of an industrial and domestic water treatment plant;
- Construction of ditches and basins to collect water in contact with waste rock, ore or overburden;
- Diversion of a stream (ruisseau Bibou) on a length of up to 10 km;
- Modification of about 7 km existing access routes and installation of a gatehouse to control access to the site;
- Relocation of the existing 161 kV power line over a length of approximately 10 km and upgrade of the existing power station;
- Construction of a permanent camp for workers with a capacity of 450 persons;
- Construction of related buildings (administration, garage, etc.); and
- Expansion and operation of an existing in-trench landfill site.

3.2 Ore Treatment Process

A maximum daily production of 40 000 tpd is currently planned for an estimated 10-year mine life. The main steps of the production process will include notably:

- Primary crushing using a gyratory crusher and secondary crusher using a high-pressure roller crusher (HPRC), transfer by conveyors;
- Grinding, with a ball mill, transfer by pumping;
- Recovery of gold by gravimetry using Knelson-type centrifugal concentrators;
- Copper flotation in conventional cells for roughing and depleting and in flotation columns for concentrate cleaning;

- Regrinding of the concentrate from the roughing and depleting cells in a ball mill;
- Thickening and filtration of the concentrate in a thickener/settler and filtration in a filter-press;
- Thickening of mine tailings in a thickener/settler; and
- Transport of mine tailings by pumping to the tailings management facility: the thickened pulp will be pushed by approximately 100 HP pumps through a pipe of about 24 in.

Troilus Gold plans to produce 200 000 ounces of gold per year, or approximately 550 ounces per day (15 400 g), in the form of ingots. Troilus Gold plans to also produce 16 million pounds of copper per year, or approximately 44 000 pounds per day (20 000 kg) in the form of copper concentrate (moist powder). Gold revenues are approximately 80 % of the mine’s revenues and copper revenues are approximately 20 %, at current metal prices. The gold and copper concentrates will then be transported to a smelter.

3.3 Project Schedule

The following table presents the main steps of the Troilus mining project realization.

Table 2: Main Steps of the Project Realization

Planned Period	Realization Steps
Q3 2020	Submission of the preliminary economical assessment
Q2 2022	Start of the project’s impact assessment process
Q3 2022	Prefeasibility study
Q2 2023	Feasibility study
Q1 2025	Decision making by federal authorities as part of the impact assessment process
2025-2027	Preparation and construction work
2028-2038	Mining operation
2039-2040	Site closure, restoration, and rehabilitation phase
2040-2045	Post-closure monitoring

Notes: Q1: January to March, Q2: April to June, Q3: July to September, Q4: October to December.

3.4 Description of the Proposed Location

The project is located in the southeastern part of the Nord-du-Québec administrative region in the Eeyou Istchee James Bay territory, approximately 76 km northwest of the Cree community of Mistissini and approximately 170 km north of the town of Chibougamau. The geographical coordinates (latitude/longitude, NAD 83) of the main components of the Troilus mining project are the following:

- Pit 87: 51°0'34.14"N; 74°28'3.12"O
- Pit J4: 51°1'9.90"N; 74°28'10.60"O
- South-West Pit: 50°58'56.70"N; 74°30'31.50"O
- Tailings management facility: 50°59'21.54"N; 74°28'52.89"O
- Industrial sector³ : 51°0'22.855"N; 74°27'31.774"O

A road of an approximate length of 44 km, beginning at kilometre point (KP) 108 of the Route du Nord, provides access to the mining site.

The spatial limits of the study corridor proposed for the impact study of Troilus mining project include the following localities: Cree community of Mistissini, Cree community of Oujé-Bougoumou, town of Chibougamau, and town of Chapais. The precise boundaries of this corridor will be defined based on the different environmental and social components of the receiving environment and the potential effects of the project on them.

A figure showing the site location as well as a site plan are included in the detailed project description (DPD).

The project site is located in the registration division of Lac Saint-Jean Ouest, in unorganized territory, more precisely on lot 1 of the Rupert River Basin cadastre, and is located on the territory of the Cree community of Mistissini, on category III lands according to the James Bay and Northern Quebec Agreement (JBNQA).

Only one Cree camp is permanently inhabited in the vicinity of the mining site (about 3 km) while no other buildings permanently inhabited by non-indigenous are located in the vicinity of the Troilus mining project. Furthermore, there are three other seasonally inhabited camps along the access road to the mining site (about 10 km) as well as the presence of a lease for lodging purposes in an outfitter without exclusive rights at approximately 11 km southwest of the future South-West pit.

3.5 Federal Lands

No federal land will be used for the project.

³ The industrial sector refers to the location of the industrial buildings, including the ore treatment plant (crusher, mill, concentrator) and the tailings thickening plant.

4.0 POTENTIAL ALTERNATIVES

The study of potential project alternatives has already started, including the following:

- Electrification of mobile equipments;
- Location of mining and industrial infrastructures;
- Management of mining waste (type of mining waste, storage methods, location);
- Water management;
- Waste management; and
- Transport options and routes (mining waste, concentrate and workers).

It is important to note that due to the nature of the deposit, only an open-pit mining exploitation is possible.

5.0 ENGAGEMENT ACTIVITIES AND FUTURE ENGAGEMENT PLAN

Engagement activities are ongoing with the various stakeholders and Indigenous groups concerned by the Troilus mining project. The main objectives of these activities are to present an overview of the project in its current stage and to gather comments and initial concerns. To this day, the following authorities and non-indigenous organisms have been met by Troilus Gold representatives:

- James Bay Regional Administration;
- Développement économique Chapais;
- Développement économique Chibougamau;
- City of Chapais;
- City of Chibougamau;
- Centre de formation professionnelle de la Baie-James;
- Carrefour Communautaire de Chibougamau; and
- Organization FaunENord;

The main issues and comments raised by the authorities and organisms met were the following: wildlife (protection of fauna species at risk and fish protection), air quality (dust emissions generated by the mining site), water quality (watercourses' water quality preservation), socioeconomic aspects (labour shortage, housing need, mine's local employment rate/ number of jobs, working hours, retention of workers in the region, and local and regional economic benefits), other social aspects (road transport and waste management), consultation (information and periodic consultation of the stakeholders, equity between efforts made to indigenous and allochthonous communities as well as the duplication of the federal and provincial assessment processes).

It is important to note that a future engagement plan will be developed as part of the impact assessment study to ensure continuous and transparent communication with all the concerned stakeholders.

Furthermore, several discussions and consultations happened since 2017 with the Cree community of Mistissini, which was closely involved in the former mining operation. A pre-development agreement was signed with the Cree community of Mistissini regarding the development of the Troilus mining project. Information and consultation meetings took place with families whose trapping territory overlaps the project site (M-34, M-39A and M-40). In addition to the impacted families, the following authorities and indigenous organisms were met by Troilus Gold representatives:

- Mistissini Native Women's Association;
- Cree Trappers' Association of Mistissini;
- Cree Board of Health and Social Services of James Bay (CBHSSJB);
- Elders Council of Mistissini;
- Mistissini Youth Council;
- Nibiischii Corporation of Mistissini;
- Grand Council of the Crees; and
- Cree Nation of Mistissini.

Furthermore, Troilus Gold also welcomed students of the Eeyou Itun cohort, a training program set up by Cégep de Saint-Félicien in partnership with the Cree Trappers' Association, for a short presentation and a visit of the site.

The main issues and comments raised by the authorities and indigenous organisms met were the following: environment (dust emissions, particularly of the tailings management facility, diversion of a watercourse, possible flooding, oil spill risk, collection of surface runoff from waste rock, overburden management for use during the restoration phase, location of underground drinking water sources and effects of the project on them, gradual revegetation, gentle slopes to be prioritized, proximity of infrastructures to existing campsites, avoid building a dam if possible/ if a dam has to be built, its security must be ensured, effect of the type of concentrator tailings on the vegetation of the site), wildlife (wildlife circulation in the sector, movement of fish between lake A and Amont lake and vice versa, impacts of the diversion of ruisseau Bibou on spawning grounds and fish), light pollution (dark sky park recognition process ongoing), cultural aspects (enhanced security of traditional activities in the restored sectors/design of new development, circulation of users of the territory in the sector), socioeconomic aspects (distribution of economic benefits in the community, prioritization of impacted families for hiring and training, impact on tourism activities, income taxation by employment status, training and experience recognition, including women, importance of setting up training programs for the Cree community of Mistissini), other social aspects (difficulty of long work rotations for family life, in particular for women, road transport/ road conditions and user safety, health and safety procedures and emergency response plans, drinking water supply and monitoring of the quality of the water consumed).

A future mobilization plan will be developed as part of the impact assessment study collaboratively with the Cree communities identified by the Cree Nation Government.

The joint assessment comity comprising the Impact Assessment Agency of Canada (IAAC) and the Cree Nation Government (CNG) has provided Troilus Gold with a summary of the questions received by the comity as part of the consultation completed regarding the initial project description (IPD). The responses prepared by Troilus Gold to address the issues raised in the question summary are presented in Appendix B of the DPD.

6.0 BIOLOGICAL AND PHYSICAL ENVIRONMENTS

The project site is part of Eastmain lowlands, division of the physiographic unit of the James region. The terrain is rugged. To the south, there are rocky hills with a maximum altitude of 520 m and to the north, there is a rocky ridge with a maximum altitude of 430 m.

The project site is located within the Rupert River watershed, more precisely in the sub watershed of Boisfort Lake. It is important to note that the water quality in the area of the mining site is altered by the presence of the mining infrastructures and some parameters are above the surface water criteria for the protection of aquatic life (chronic effect), for instance aluminum, cadmium, copper, and zinc.

Recent hydrogeological characterization work as well as the distribution of surface deposits have identified five distinct hydrostratigraphic units with their associated geometric mean hydraulic conductivity: mine tailings (3×10^{-6} m/s), mine waste rock, juxtaglacial deposits (9×10^{-5} m/s), glacial till / undifferentiated sandy deposits (1×10^{-5} m/s) and bedrock (variable following depths of 2×10^{-5} m/s to 2×10^{-9} m/s). Groundwater levels measured in May 2021 are generally near the ground surface and between -0.6 m (artesian) and 16.2 m deep. Groundwater flow directions are controlled by topography and are locally influenced by radial flow towards pit 87. Historical groundwater monitoring in the project site indicates that the groundwater upstream of the tailings facility is naturally acidic (pH lower than 6), of good quality upstream of the site, and does not contain any contaminants above the values established by the groundwater criteria. Dissolved copper and zinc concentrations fluctuate in the groundwater of the former industrial sector seasonally, with higher concentrations during the fall low flow comparatively the spring flood period. The project is located within the boreal vegetation zone and more particularly in the continuous boreal forest subzone as well as in the bioclimatic domain of spruce-moss, west subdomain. The main tree species present within the project sector are jack pine and black spruce. Wetlands are present in the project's sector. There are mainly open peatlands, forested peatlands, ponds, marshes, and shrub swaps.

Field surveys were conducted in 2018, 2019, 2021 and 2022 to characterize all water bodies potentially impacted by the project, being lakes A, A1, A2 and B, as well as watercourses connecting these water bodies, including ruisseau Bibou. In the lakes, the main fish species are walleye, lake herring, lake whitefish, northern pike, and white sucker.

Among the bird species observed in the project's sector, four species at risk were identified; they are the following: common nighthawk, short-eared owl, olive-sided flycatcher, and bank swallow. The big brown bat is the only bat species identified during inventory conducted in the project sector. Herpetofauna species recorded in the project sector are the following: northern spring peeper, American toad, wood frog, north frog, northern two-lined salamander, blue-spotted salamander, and common garter snake. Most abundant micromammals species in the project sector are the red-backed vole and the common shrew. Among large wildlife species present in the project sector, there is the boreal woodland caribou, the moose, the black bear, and the grey wolf.

7.0 HEALTH, SOCIAL AND ECONOMIC CONTEXT

The following table presents socio-demographic data for Mistissini, Chibougamau and Chapais for 2021 and 2016.

Table 3: Socio-Demographic Data for Mistissini, Chibougamau and Chapais (2021 and 2016)

Community/Municipality	2021	2016
Mistissini		
Population	3,731	3,523
Population density per km ²	4.6	4.1
Average age	31.3	29.8
Median age	29.0	26.5
Average household size	3.6	3.9
First official language	English	English
No certificate, diploma, or degree	-	54.3%
High school diploma or equivalency certificate	-	8.4%
Postsecondary certificate, diploma, or degree	-	37.3%
Chibougamau		
Population	7,233	7,504
Population density per km ²	10.4	10.7
Average age	40.5	39.5
Median age	40.8	39.8
Average household size	2.2	2.3
First official language	French	French
No certificate, diploma, or degree	-	25.5%
High school diploma or equivalency certificate	-	18.1%
Postsecondary certificate, diploma, or degree	-	56.3%
Chapais		
Population	1,468	1,499
Population density per km ²	23.6	23.5
Average age	40.2	41.4
Median age	40.4	43.8
Average household size	2.2	2.2
First official language	French	French
No certificate, diploma, or degree	-	33.3%
High school diploma or equivalency certificate	-	15.2%
Postsecondary certificate, diploma, or degree	-	51.4%

Notes: -: not available

A survey conducted on the health of Canadian communities in 2003 has shown that in the region of Iiyiyiu Aschii, one in six residents estimates its health as “passable or bad”. Also, more than half of the residents of Iiyiyiu Aschii have reported having had at least one long-term health problem. In 2009, a review of the health and well-being of the Jamesians was conducted for the Nord-du-Québec Health Region. Here are some of the results of this review:

- The quality of drinking water and exposition to tobacco smoke in the environment are the two documented indicators that show the most potential for adverse effects on health.
- Proportions of smokers and alcohol consumers are decreasing even if the age at the time of the first completely smoked cigarette is lower than in Quebec.
- The physical health perceived by the Jamesians is similar to the one of the Quebec population.
- The Jamesians show comparable or better mental health compared to Quebec with the exception of suicidal thoughts that show no gap.
- The life expectancy of Jamesians is not significantly different from the one for Quebecers.

Nord-du-Québec, Abitibi-Témiscamingue and Côte-Nord are the three main mining regions of Quebec. They provide most jobs in the mining sector. The following table shows economic data for Mistissini, Chibougamau and Chapais in 2015 and 2016.

Table 4: Economic Data for Mistissini, Chibougamau and Chapais

Community/Municipality	Both Sexes	Men	Women
Mistissini			
Median total income in 2015	\$35,392	\$35,691	\$35,072
Average total income in 2015	\$40,203	\$40,572	\$39,871
Median total income of households in 2015	\$92,928	-	-
Average total income of households in 2015	\$102,080	-	-
In the labour force in 2016	1,590	805	785
Participation rate in 2016	65.2%	68.8%	61.8%
Employment rate in 2016	54.1%	54.7%	53.5%
Unemployment rate in 2016	16.7%	20.5%	13.4%
Chibougamau			
Median total income in 2015	\$39,215	\$47,440	\$30,464
Average total income in 2015	\$45,702	\$53,215	\$37,506
Median total income of households in 2015	\$71,899	-	-
Average total income of households in 2015	\$83,031	-	-
In the labour force in 2016	4,345	2,330	2,015
Participation rate in 2016	72.1%	74.8%	69.2%
Employment rate in 2016	67.1%	67.9%	66.3%
Unemployment rate in 2016	6.9%	9.0%	4.5%

Community/Municipality	Both Sexes	Men	Women
Chapais			
Median total income in 2015	\$34,912	\$49,280	\$23,467
Average total income in 2015	\$43,531	\$54,484	\$31,285
Median total income of households in 2015	\$67,174	-	-
Average total income of households in 2015	\$75,742	-	-
In the labour force in 2016	800	435	370
Participation rate in 2016	65.6%	67.4%	64.3%
Employment rate in 2016	60.7%	61.2%	60.0%
Unemployment rate in 2016	7.5%	8.0%	6.8%

Notes: -: not available

8.0 ENVIRONMENTAL AUTHORIZATIONS AND PERMITS

As part of the environmental assessment process, Troilus Gold will proceed with applications for authorizations and permits for the construction as well as the operation of the Troilus mining project. The following table presents a preliminary, non exhaustive list of the authorizations and permits potentially required at the federal level.

Table 5: Preliminary List of Potentially Required Federal Authorizations and Permits

Authorizations/permits	Regulation and responsible authority
License to manufacture and store explosives	<i>Explosives Act</i> (Natural Resources Canada)
Permit for the transportation of explosives	<i>Explosives Act</i> (Natural Resources Canada)
Authorization for activities resulting in the mortality of fish and/or harmful alteration, destruction or disturbance of fish habitat.	<i>Fisheries Act</i> (Fisheries and Oceans Canada (DFO))
Authorization for the deposit of deleterious substances into waters frequented by fish	<i>Metal and Diamond Mining Effluent Regulations</i> (DFO and ECCC)
Permit to carry out an activity involving a species at risk	<i>Species at Risk Act</i> (DFO and ECCC)
Authorization for obstruction of navigation	<i>Canadian Navigable Waters Act</i> (Transport Canada)

An environmental and social impact assessment will also be required in accordance with the provincial environmental assessment process. Moreover, authorization and permit applications will then be made at the provincial level and a certificate of non-conformity will be requested from the regional government of Eeyou Istchee James Bay, if applicable.

9.0 CHANGES TO THE ENVIRONMENT AND IMPACTS ON INDIGENOUS PEOPLES

Carrying out the project could lead to potential changes to components of the environment that are within the legislative authority of Parliament, like fish and its habitat, and migratory birds. Mitigation measures will be implemented during the impact assessment study to reduce impacts of the project on those components.

Carrying out the project could also have impacts on Indigenous peoples, including on the current use of the lands and resources for traditional purposes as well as on physical and cultural heritage. Furthermore, the development of the project could lead to potential changes to health, social and economic conditions of Indigenous peoples. Mitigation measures will be implemented during the impact assessment study to reduce impacts of the project on those components.

The following table presents the matrix of interrelationships between the potential effect sources of the project and the environmental components and health, social and economic conditions of Indigenous peoples.

Table 6: Interrelationship Matrix

Sources of Potential Effects	Environment Components / Health, Social or Economic Conditions of Indigenous Peoples						
	Fish and Fish Habitat	Migratory Birds	Current Use of Lands and Resources for Traditional Purposes	Physical and Cultural Heritage	Health Conditions	Social Conditions	Economic Conditions
Construction Phase							
Installation and presence of the construction site		X	X			X	
Ground preparation (deforestation, stripping, excavation, landscaping, blasting)	X	X	X	X	X	X	X
Construction of infrastructures as well as temporary and permanent facilities	X	X	X	X	X	X	X
Vehicles and heavy machinery circulation as well as use and maintenance of equipment/heavy machinery	X	X	X	X	X	X	
Purchase of goods and services							X
Presence of workforce (including workers camp)	X	X	X		X	X	X

Sources of Potential Effects	Environment Components / Health, Social or Economic Conditions of Indigenous Peoples						
	Fish and Fish Habitat	Migratory Birds	Current Use of Lands and Resources for Traditional Purposes	Physical and Cultural Heritage	Health Conditions	Social Conditions	Economic Conditions
Operation Phase							
Operation of the mine and ore processing	X	X	X		X	X	X
Management of tailings and waste rocks	X	X			X		
Waste management (in-trench landfill site)	X	X			X		
Water management and treatment	X	X			X		
Vehicles and heavy machinery circulation as well as use and maintenance of equipment/heavy machinery	X	X	X		X	X	
Purchase of goods and services							X
Presence of workforce (including workers camp)	X	X	X		X	X	X
Closing Phase							
Dismantling of infrastructures and facilities		X	X		X	X	X
Pits flooding		X			X		
Site restoration	X	X	X		X	X	X
Vehicles and heavy machinery circulation as well as use and maintenance of equipment/heavy machinery	X	X	X		X	X	
Presence of workforce (including workers camp)	X	X	X		X	X	X

10.0 CHANGES TO THE ENVIRONMENTAL COMPONENTS

Carrying out the project could lead to potential changes to the components of the environment, namely:

- Fish and fish habitat:
 - Potential modification of water quality
 - Potential habitat loss
 - Potential degradation/disturbance of habitat quality
 - Potential disturbance of fish communities
 - Potential death of individuals

- Migratory birds:
 - Potential habitat loss, damage, and fragmentation
 - Potential disturbance during nesting period
 - Disturbance of individuals or communities
 - Accidental death of individuals

11.0 IMPACTS ON INDIGENOUS PEOPLES

The development of the project could lead to impacts on Indigenous peoples, namely:

- Current use of land and resources for traditional purposes:
 - Disturbance of traditional activities that happen on the territory (hunting, fishing, trapping, picking, etc.)
 - Potential loss of places to practise traditional activities (hunting, fishing, trapping, picking, etc.)
 - Collision/accident risks due to increased circulation on the territory
 - Change in quality and quantity of available resources of hunting, fishing and gathering activities by First Nations
- Physical and cultural heritage:
 - Change to the physical heritage by addition of anthropogenic features in the landscape
 - Change to the physical heritage by alterations of physical components of the environment (for example, deforestation, diversion of a watercourse)
 - Potential damages to elements of cultural heritage (for example, archeological remains)
 - Potential lost of traditional and cultural plant species

12.0 CHANGES TO HEALTH, SOCIAL OR ECONOMIC CONDITIONS OF INDIGENOUS PEOPLES

Carrying out the project could lead to change to health, social or economic conditions of Indigenous peoples, namely:

- Health conditions:
 - Potential effects on human health (air emissions, noise)
 - Collision/accident risks due to increased circulation on the territory
 - Potential change in surface water quality

- Risk of transmission and spread of diseases/virus due to the presence of outside workers and commuters in the project area
- Social conditions:
 - Change in hunting, fishing, and trapping habits on the territory
 - Change in the current family dynamic
 - Change in the quality of life
 - Alteration of sense of safety for indigenous girls and women due to the presence of outside workers and commuters in the project area
- Economic conditions:
 - Regional and local economic benefits
 - Job creation and training opportunities
 - Acquisition of goods and services
 - Business opportunities for Indigenous companies

13.0 GREENHOUSE GAS EMISSIONS

The main source of greenhouse gas (GHG) emissions from the project will be from the combustion of fossil fuels by fixed and mobile equipment.

The GHG estimation was calculated by taking into account available information at this stage of the project and considering the maximum production of the project during the operation phase. It should be noted that the estimated GHG values will be reassessed as part of the impact assessment study. Direct emissions of the project are estimated at 134 088 tonnes CO₂Eq annually, while indirect emissions from electricity consumption are estimated to 920 tonnes CO₂Eq annually.

14.0 WASTES AND EMISSIONS

Various types of wastes and emissions into water, air and soil will be generated as a result of the Troilus mining project. These are mainly comprised of residual materials, residual hazardous materials, air emissions and liquid discharges. A brief description of these is included in the DPD and a complete list of the wastes and emissions that may be generated by the project will be presented during the impact assessment study.

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