Environmental and Social Impact Assessment for the Troilus Mine Project

ECONOMIC CONDITIONS

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF MAPS

Acronyms and abbreviations

CFP	Centre de formation professionnelle
CSD	Census Subdivision of Statistic Canada
CSMO	Comité sectoriel de la main-d'œuvre
ESIA	Environmental and Social Impact Assessment
GBA Plus	Gender-Based Analysis Plus
GDP	Gross Domestic Product
IACC	Impact Assessment Agency of Canada
IBA	Impact and Benefit Agreement
INMQ	Institut national des mines du Québec
LSA	Local Study Area
MELCCFP	Ministère de l'Environnement et de la Lutte contre les changements climatiques, de la Faune et des Parcs (Ministry of the Environment and the Fight against Climate Change, Wildlife and Parks)
PDA	Project Development Area
PY	Person Year
QIM	Quebec intersectoriel model
RSA	Regional Study Area
SADCC	Société d'aide aux collectivités de Chibougamau
VC	Valued Component

21. Economic Conditions

Economic Conditions was selected as a Valued Component (VC) for assessment because economic activities, such as employment and business, support the economic livelihoods of residents and provide associated social benefits stemming from earned income. Economic impacts (e.g., labour, labour income, and contributions to Gross Domestic Product [GDP] and government revenues) are of interest to Indigenous nations, the public, stakeholders, regulators, and governments.

The Tailored Impact Statement Guidelines (federal guidelines) and the MELCCFP's Directive (provincial guidelines) require consideration of the potential positive and adverse effects of the Project on Indigenous Peoples and to the local, regional, provincial, and national economies, including employment, business environment, and economy.

Economic Conditions are linked to other VCs / chapters, including:

- Social Conditions (Chapters 19 and 20), whereby changes in employment, labour capacity, and investment may impact housing and community well-being, including for diverse subgroups;
- Health (Chapter 22), whereby changes to economic conditions may impact the social determinants of health, including the health of Indigenous Peoples;
- Indigenous Interests (Chapters 24), whereby changes in economic conditions may impact economic conditions of Indigenous nations;
- Sustainability (Chapter 29), whereby economic conditions contribute to the well-being of present and future generations.

21.1 Scope of Assessment

This section defines and describes the scope of the assessment of potential effects on Economic Conditions, including employment, business environment, and local economy.

21.1.1 Regulatory and Policy Setting

The Project is being assessed in accordance with the Impact Assessment Act, 2019, which requires that the assessment include a description of the baseline environmental, health, social and economic conditions related to the Project. The Impact Assessment Act, 2019, also requires a consideration of Gender Based Analysis Plus (GBA Plus) through the disaggregation of baseline data where possible. There are no provincial requirements for the Project.

The requirements to consider potential Project effects on economic conditions are described in section 9 of the federal guidelines and in section 5.1.2 of the provincial guidelines for the Project.

21.1.2 Influence of Consultation and Engagement

Troilus has engaged with potentially affected Indigenous nations, regulators, the public, and stakeholders. table 21.1 provides a summary of the topics, key information including Indigenous knowledge, and concerns that Troilus identified as part of their engagement initiatives that relate to Economic Conditions, as well as a summary of the influence that the outcomes of this engagement had on the assessment.

Feedback on Economic Conditions has been received during the various consultation and engagement activities. Concerns related to Economic Conditions include economic and infrastructure development in northern Quebec, government support for housing, mine start-up and closure funding, and cost of living, and worker retention. Feedback was also received on positive economic effects through employment, labour availability, tax revenue generation, local procurement, and economic impacts extending beyond the Project footprint.

This information was considered when evaluating whether Troilus's planned mitigation and enhancement measures will effectively manage the identified potential interactions, or whether additional or refined mitigation is warranted. Specific concerns regarding Economic Conditions raised during engagement for the Project and any additional and specific mitigation measures added to address one or more of the concerns, are described in table 21.1.

Table 21.1 Summary of Key Information, Indigenous Knowledge, and Concerns for the Project Related to Economic Conditions

Topic	Key Information, Indigenous Knowledge, and Concerns	Influence on the Assessment	Where Information is Addressed in the ESIA
Economic Benefits	Concerns shared by Cree First Nations and surrounding communities to ensure economic benefits are present for their communities, including contracts and procurement locally.	An impacts and benefits agreement will be drawn up with the communities to ensure local spin-offs from each phase of the project. A monitoring committee will be set up to ensure that these targets are met. This will continue over the life of the project.	Section 21.4.3.2
Economic Benefits	Nibiischii Corporation expressed that they wish the Project does not impact tourism activities in the Assinica reserve.	The proponent will work with the Nibiischii Corporation to mitigate as much as possible the impact of the project on tourist activities in the Assinica reserve. Measures that could be put in place include: establishing a procedure for communicating activities, and ensuring tourist safety by implementing a procedure for traffic on the Northern route.	21.4.3.2
Economic Benefits	Communities of Chibougamau and Chapais requested information respecting the tendering procedure with local companies.	The developer will work with SADCC and Societe du Plan Nord to ensure that local companies are familiar with the call for tenders procedure so that they can bid on the various contracts.	21.4.3.2
Employment Benefits	Concerns shared by land users about prioritizing local workforce	Support will be provided to assist local residents to find employment. In addition, local workforce will be prioritized for employment.	21.4.2.2
Employment Benefits	Questions whether Cree workers will be taxed on their income.	Taxation related to the Cree will be included as a topic in the impact benefit agreement.	21.4.2.2

Topic	Key Information, Indigenous Knowledge, and Concerns	Influence on the Assessment	Where Information is Addressed in the ESIA
Employment Benefits	Concerns shared by the Cree with respect to how the work rotation will impact their cultural activities.	Proposed work shifts are 7/7 and 14/14 Employees will be able to chose preferred schedule when possible.	21.4.2.2
Employment Benefits	The establishment of a relevant training program that is targeted specifically for minorities and Indigenous nations.	A program for the recognition of prior learning will be set up so that employees who leave their current jobs can access a similar position at Troilus. Training programs will be set up in partnership with Apitsiwin Skills Development (ASD) to ensure that the Indigenous labour pool in Mistissini and Ouje-Bougoumou has access to available jobs.	21.4.2.2
Employment Benefits	Communities of Chibougamau and Chapais requested that Troilus encourage out-of-town workers to relocate to their communities, and that their residents have equal access to Project incentives.	Measures will be developed to promote the integration of out-of-town workers as well as others from outside the company. Examples may include support for spouses during workers' shifts, a guaranteed childcare space, advantageous mortgages, etc.	21.4.2.2
Employment Benefits	Communities of Chibougamau and Chapais has asked how the mine will impact labour availability for existing companies.	It is possible that existing companies will experience an adverse impact from the Project due to pressure for upward wages and employee turnover. However, given the location of the Project, the current composition of the LSA workforce and the projected arrival of a new workforce, the impact is expected to be low. The arrival of worker family members also has potential to contribute to an increase in workers in the region.	21.4.2.2
Employee Benefits	Targeted interviews with minority groups expressed concern over the hiring process, specifying that there would be preferential treatment or discrimination towards potential candidates and/or workers based on their gender, race, or background.	Troilus has diversity and anti-discrimination policies to ensure there is a respectful workplace and hiring policy. This is developed to allow prospective candidates from diverse subgroups to have access to a positive working environment.	21.4.2.2

Where made available by Indigenous nations through engagement, information gathering, and voluntary information sharing, Indigenous knowledge has been considered and incorporated into the Impact Statement, as applicable. Refer to the Description of Engagement with Indigenous Peoples (Chapter 4 of the ESIA) for detailed methods regarding the incorporation of Indigenous knowledge to the ESIA.

21.1.3 Potential Impacts, Pathways and Measurable Parameters

For this assessment, changes to economic conditions are defined as direct, indirect, and induced economic impacts. Direct impact measures the value-added to the economy attributed directly from the wages earned and the revenues generated from the workforce spending in Quebec and Canada. Indirect impact measures the value-added generated within the economy through business and organizational demand for intermediate inputs or other support services (e.g., the supply chain). Induced impacts are

derived when workers in the various industries spend their earnings. These purchases lead to more employment, higher wages and increased income and tax revenues, and can be felt across a wide range of industries. Project-related effects to be assessed for Economic Conditions are identified in table 21.2 and have been determined by the federal and provincial guidelines. For each effect in table 21.2, effect pathways and indicators/measurable parameters have been identified to facilitate the quantitative and qualitative measurement of change in Project-specific and cumulative effects potentially caused by the Project.

Where possible, the assessment of potential effects on infrastructure and services used measurable parameters that are quantifiable (e.g., GDP). However, not all effects pathways can be quantified (e.g., impacts to sub-populations identified through GBA Plus). Therefore, some effects are predicted qualitatively through use of published literature, professional judgment, and project experience.

Table 21.2 Potential Impacts, Impacts Pathways and Measurable Parameters Economic Conditions

Potential Impact	Impact Pathway	Measurable Parameters and Units of Measurement
Change in employment	• Positive economic effects may occur when project-related employment and other expenditures have direct, indirect and induced beneficial effects on employment, incomes, business activity, and government tax revenues • Adverse economic effects may occur when the labour, goods, and services required for a project exceeds the existing capacity, leading to supply issues and cost increases (e.g., wage and price inflation)	• Qualified labour supply (persons), employment rate, participation rate, wage levels, labour income • Economic indicators of relevant sub-populations (e.g. age, gender, indigeneity, other identity factors) identified through GBA Plus • Project workforce
Change in business		• Value of local and regional spending and related employment • Cost of labour
Change in provincial economy		• Value of provincial spending, and related employment • GDP • Government revenue and expenditures

21.1.4 Boundaries

21.1.4.1 Spatial Boundaries

The **Project Development Area (PDA)** encompasses the Project footprint and is the anticipated area of physical disturbance associated with the construction, operation and decommissioning/closure of the Project.

The Economic Conditions **Local Study Area (LSA)** encompasses the area in which Project-related effects (direct or indirect) are predicted or measured with a level of confidence appropriate for the assessment and in which there is a reasonable expectation that the potential effects in the LSA are of public interest. This includes the PDA and, to comply with provincial regulatory requirements and capture effects of the specific components being assessed, includes the Cree communities of Mistissini and Oujé-Bougoumou and the municipalities of Chibougamau and Chapais.

The **Regional Study Area (RSA)** is the area within which cumulative effects on Economic Conditions are likely to occur, depending on the location of other past, present or reasonably foreseeable future projects or activities. The RSA for the Project is the same as the LSA because the LSA encompasses a sufficiently wide area to assess cumulative effects.

21.1.4.2 Temporal Boundaries

The temporal boundary of the assessment includes all Project phases from the start of construction through to the end of closure. Based on the current Project schedule, the Project phases include:

- Construction (Year -3 to Year -1)
- Operations
  - Operations phase 1 (Year 1 to Year 21): milling with ore extraction
  - Operations phase 2 (Year 22): milling with no ore extraction
- Decommissioning and closure
  - Active closure (Year 22 to Year 24)
  - Passive closure (Year 24+)

Refer to Chapter 3 of the ESIA (Project Description) for a detailed description of the activities anticipated to occur during each phase.

21.1.5 Residual Impacts Characterization

The characterizations used to assess residual effects on economic conditions are provided in table 21.3.

Table 21.3 Characterization of Residual Impacts on Economic Conditions

Characterization	Description	Quantitative Measure or Definition of Qualitative Categories
Direction	The long-term trend of the residual impact	**Positive –** a residual impact that moves measurable parameters in a direction beneficial to economic conditions relative to baseline. **Adverse –** a residual impact that moves measurable parameters in a direction detrimental to economic conditions relative to baseline.
Magnitude	The amount of change in measurable parameters or the VC relative to existing conditions	**No Measurable Change –** no measurable change in the impact can be noted. **Low –** A measurable change in employment and economic conditions but residual effects cannot be distinguished from existing conditions within normal range of variability **Moderate –** A measurable change but not likely to pose a serious risk or benefit to employment and economic conditions **High –** Measurable change that is likely to pose a serious risk or benefit to employment and economic conditions

Characterization	Description	Quantitative Measure or Definition of Qualitative Categories
Geographic Extent	The geographic area in which a residual impact occurs	**PDA –** residual Impacts are restricted to the PDA **LSA –** residual Impacts extend into the LSA **RSA –** residual Impacts extend into the RSA
Timing	Considers when the residual impact is expected to occur, where relevant to the VC.	**No sensitivity** – timing does not affect VC. **Moderate sensitivity**– timing may affect VC during lower sensitivity period, but the effects are manageable with proper planning and mitigation measures. **High sensitivity** – residual effects occur during high sensitivity period.
Duration	The time required until the measurable parameter or the VC returns to its existing condition, or the residual impact can no longer be measured or otherwise perceived	**Short-term –** the residual effect is restricted to construction (<3 years) **Medium-term –** the residual effect extends through the operations phase (3 to 24 years) **Long-term –** the residual effect extends beyond the life of the Project (>25 years)
Frequency	Identifies how often the residual impact occurs and how often during the project or in a specific phase	**Single event** **Multiple irregular event** – occurs at no set schedule **Multiple regular event** – occurs at regular intervals **Continuous** – occurs continuously
Reversibility	Pertains to whether a measurable parameter or the VC can return to its existing condition after the project activity ceases	**Reversible** – the residual impact is likely to be reversed after activity completion and reclamation **Irreversible** – the residual impact is unlikely to be reversed

21.1.6 Significance Definition

A significant residual adverse effect on Economic Conditions is defined as a residual Project-related change to the environment that results in being distinguishable from current conditions and trends; and cannot be managed or mitigated through adjustments to programs, policies, plans, or through other mitigation or enhancement. A significant adverse effect occurs if there are residual adverse effects disproportionately experienced by one or more identified sub-populations.

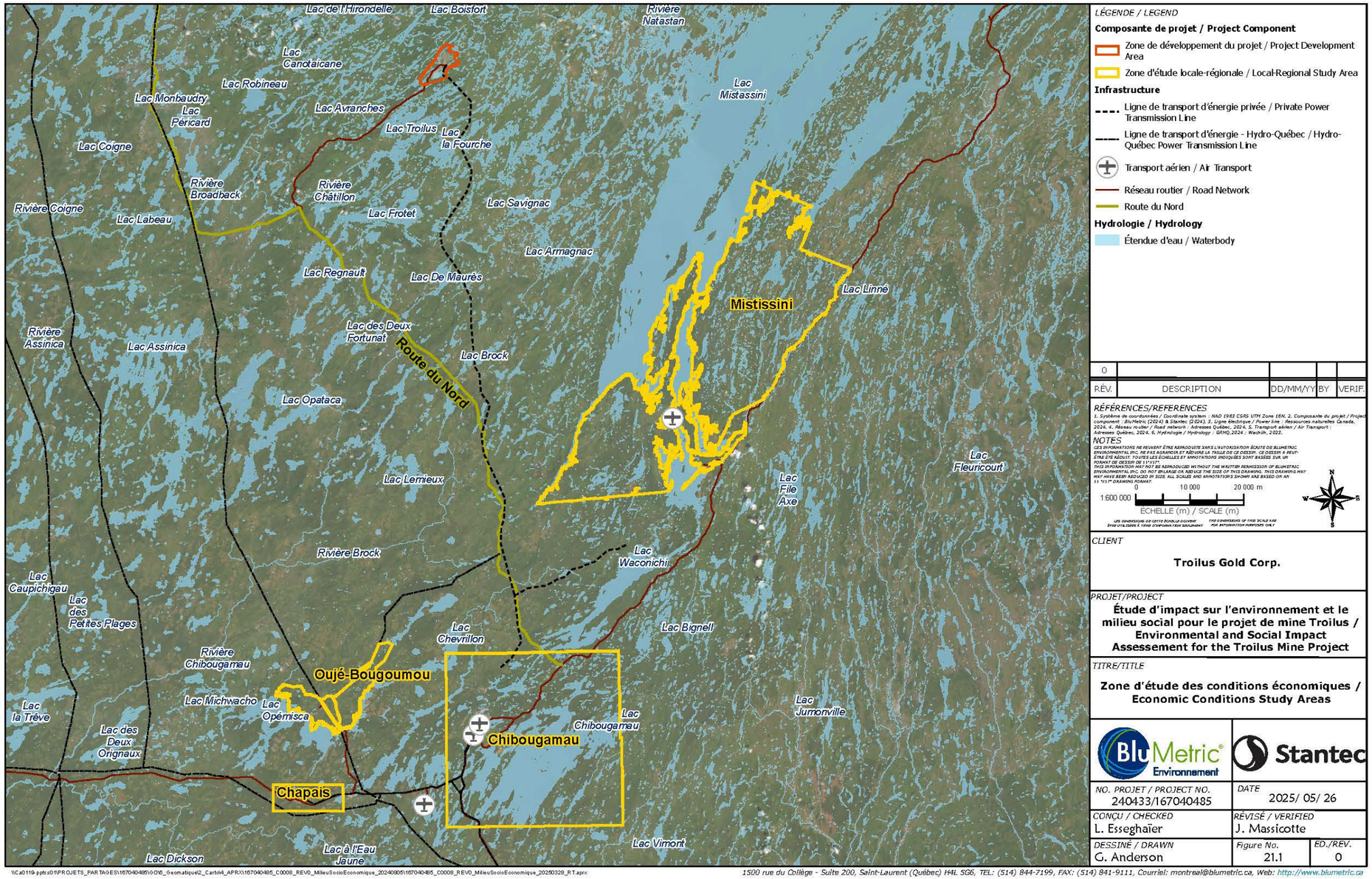
A residual effect is low or negligible when there is a measurable change in employment and economic conditions but residual effects cannot be distinguished from existing conditions within normal range of variability.

A residual effect is moderate when there is a measurable change but not likely to pose a serious risk or benefit to employment and economic conditions.

A residual effect is high when there is a measurable change that is likely to pose a serious risk or benefit to employment and economic conditions and is irreversible.

The residual effects assessment considers both positive and adverse effects after mitigation and enhancement measures are implemented. However, the significance determination is made for adverse effects only.

Map 21.1 Local/Regional Assessment Area



LÉGENDE / LEGEND

Composante de projet / Project Component

- Zone de développement du projet / Project Development Area
- Zone d'étude locale-régionale / Local-Regional Study Area

Infrastructure

- Ligne de transport d'énergie privée / Private Power Transmission Line
- Ligne de transport d'énergie - Hydro-Québec / Hydro-Québec Power Transmission Line
- Transport aérien / Air Transport
- Réseau routier / Road Network
- Route du Nord

Hydrologie / Hydrology

- Étendue d'eau / Waterbody

RÉV.	DESCRIPTION	DD/MM/YY	BY	VERIF.
0				

RÉFÉRENCES/REFERENCES

1. Système de coordonnées / Coordinate system : NAD 1983 CSRS UTM Zone 18N. 2. Composante du projet / Project component : BluMetric (2024) & Stantec (2024). 3. Ligne électrique / Power line : Ressources naturelles Canada, 2024. 4. Réseau routier / Road network : Adresses Québec, 2024. 5. Transport aérien / Air Transport : Adresses Québec, 2024. 6. Hydrologie / Hydrology : GRHQ,2024 ; Wachih, 2023.

NOTES

CES INFORMATIONS NE PEUVENT ÊTRE REPRODUITES SANS L'AUTORISATION ÉCRITE DE BLUMETRIC ENVIRONMENTAL INC. NE PAS AGRANDIR ET RÉDUIRE LA TAILLE DE CE DESSIN. CE DESSIN A ÉTÉ RÉDUIT. TOUTES LES ÉCHELLES ET ANNOTATIONS INDIQUÉES SONT BASÉES SUR UN FORMAT DE DESSIN DE 11"X17".
THIS INFORMATION MAY NOT BE REPRODUCED WITHOUT THE WRITTEN PERMISSION OF BLUMETRIC ENVIRONMENTAL INC. DO NOT BALANCE OR REDUCE THE SIZE OF THIS DRAWING. THIS DRAWING MAY HAVE BEEN REDUCED IN SIZE. ALL SCALES AND ANNOTATIONS SHOWN ARE BASED ON AN 11"X17" DRAWING FORMAT.

0 10 000 20 000 m
1:600 000 ECHELLE (m) / SCALE (m)

LES DIMENSIONS DE CETTE ÉCHELLE DOIVENT ÊTRE UTILISÉES À TITRE D'INFORMATION SEULEMENT / THE DIMENSIONS OF THIS SCALE ARE FOR INFORMATION PURPOSES ONLY

CLIENT

Troilus Gold Corp.

PROJET/PROJECT

Étude d'impact sur l'environnement et le milieu social pour le projet de mine Troilus / Environmental and Social Impact Assessement for the Troilus Mine Project

TITRE/TITLE

Zone d'étude des conditions économiques / Economic Conditions Study Areas

NO. PROJET / PROJECT NO. 240433/167040485	DATE 2025/ 05/ 26
CONÇU / CHECKED L. Esseghaïer	RÉVISÉ / VERIFIED J. Massicotte
DESSINÉ / DRAWN G. Anderson	Figure No. 21.1 / ÉD./RÉV. 0

\\Ca0119-pptfs01\PROJETS_PARTAGES\167040485\GO6_Geomatique\2_Carto\4_APRX\167040485_C0008_REV0_MilieuSocioEconomique_20240805\167040485_C0008_REV0_MilieuSocioEconomique_20250328_RT.aprx

1500 rue du Collège - Suite 200, Saint-Laurent (Québec) H4L 5G6, TEL: (514) 844-7199, FAX: (514) 841-9111, Courriel: montreal@blumetric.ca, Web: http://www.blumetric.ca

21.2 Existing Conditions

21.2.1 Methods

Secondary sources of information were used to describe existing conditions. Secondary information included government sources (e.g., Statistics Canada), publicly available data and literature, as well as previously prepared information (e.g., reports, studies).

Much of this report relies on government databases, including Census data from Statistics Canada. Statistics Canada regularly suppresses (e.g., selectively does not disclose) survey information to protect the identity of individuals and to address data quality issues, particularly in Census divisions that have small populations. The 2021 Census of the Population (Census), which is used in this section is subject, in part, to such data suppression.

Results of engagement with stakeholders and Indigenous nations have also been integrated into the description of existing conditions, where applicable.

The Project Guidelines require that baseline information includes information on sub-populations and sub-groups of the Local Study Area (LSA) and Regional Study Area (RSA) population who may experience disproportionate effects from the Project, where such information is available. This baseline information will contribute to an analysis of disproportionate effects through GBA+. Sub-populations and sub-groups may include women, Indigenous groups, visible minorities, persons with disabilities, youth, and older adults, among others, and groups who demonstrate any intersection of those characteristics.

To obtain information regarding the sub-populations and sub-groups that may be disproportionately affected by the Project, results of Project engagement to date and comments from stakeholders on Project documents were reviewed. Concerns and issues brought forward by members of vulnerable groups were documented and have informed the description of existing socio-economic conditions. They will also be carried through the assessment.

Troilus has used engagement methods that are inclusive and will contribute to the GBA+ analysis. Troilus has and will continue to identify, engage and collaborate with organizations that may work with and/or represent under-represented, potentially impacted populations. Examples include organizations that provide supportive housing, shelter, and related services; organizations that represent visible minority groups; and organizations that work with or advocate for the homeless, low-income households, and other vulnerable populations. Troilus has and will continue to: share Project information with these organizations and work to identify issues, interests, and concerns with respect to the Project; seek feedback on potential means of limiting adverse effects and enhancing beneficial effects on vulnerable sub-populations; and seek qualitative and quantitative information on vulnerable sub-populations.

With respect to quantitative data, where possible, disaggregated data have been used to describe baseline conditions for diverse or distinct subgroups to support the GBA+ analysis of effects, as described in guidance from the Impact Assessment Agency of Canada. Both qualitative and quantitative data have been used to describe baseline conditions across diverse or distinct subgroups, where GBA+ factors have the potential to be relevant to the understanding of effects.

21.2.2 Overview

21.2.2.1 Population

Table 21.4 shows the population changes in the Census areas between 2016 and 2021. During this period, the towns of Chapais and Chibougamau both experienced a decline in population. Chapais, which had a population of 1,499 in 2016, had a population of 1,470 in 2021, a decline of 1.9%. Chibougamau's population fell from 7,504 in 2016 to 7,230 in 2021, a decline of 3.7%.

The situation is different in the Indigenous communities of Mistissini and Oujé-Bougoumou, which have both seen their populations increase. Mistissini, which had a population of 3,523 in 2016, had a population of 3,730 in 2021, an increase of 5.9%. The population of Oujé-Bougoumou rose from 740 in 2016 to 795 in 2021, an increase of 7.4%, the highest of the four areas analyzed.

These population changes, which are declining in Chapais and Chibougamau and increasing in Mistissini and Oujé-Bougoumou, are generally more pronounced among women+, particularly in Chapais and Oujé-Bougoumou. In the first case, the decrease for men+ was 1.3% and for women+ 4.2%, and in the second, the increase for men+ was 9.2% and for women+ 7.0%.

Table 21.4 Population change – 2016-2021

	Mistissini, Terres réservées aux Cris (TC) [Census subdivision], Québec			Oujé-Bougoumou, Terres réservées aux Cris (TC) [Census subdivision], Québec			Chibougamau, Ville (V) [Census subdivision], Québec			Chapais, Ville (V) [Census subdivision], Québec		
	Total	**Men+[1]**	**Women+[2]**	**Total**	**Men+[1]**	**Women+[2]**	**Total**	**Men+[1]**	**Women+[2]**	**Total**	**Men+[1]**	**Women+[2]**
Total - Population age groups - Full data (100%) 2021	3730	1835	1900	795	415	380	7230	3730	3505	1470	770	690
Total - Population age groups - Full data (100%) 2016	3523	1735	1790	740	380	355	7504	3860	3650	1499	780	720
Percentage change in population, 2016 to 2021	5.9%	5.8%	6.2%	7.4%	9.2%	7.0%	-3.7%	-3.4%	-4.0%	-1.9%	-1.3%	-4.2%
Indigenous identity[3] (2021)	3445	1690 (92.5%)	1755 (92.6%)	735 (92.5%)	380 (91.6%)	355 (93.4%)	560 (7.8%)	315 (8.5%)	245 (7.1%)	100 (6.9%)	55 (7.1%)	40 (6.0%)

Table 21.4 Population change – 2016-2021 (continued)

	Eeyou Istchee Baie-James, Regional Government (GR) [Census Subdivision], Québec			Nord-du-Québec, Census Division (CDR) [Census Division], Québec			Québec [Province]		
	Total	**Men+[1]**	**Women+[2]**	**Total**	**Men+[1]**	**Women+[2]**	**Total**	**Men+[1]**	**Women+[2]**
Total - Population age groups - Full data (100%) 2021	2635	1420	1215	45740	22510	23230	8501835	4201960	4299870
Total - Population age groups - Full data (100%) 2016	1579	935	650	44561	22775	21785	8164361	4016760	4147605
Percentage change in population, 2016 to 2021	66.9%	51.9%	86.9%	2.7%	-1.2%	6.6%	4.1%	4.6%	3.7%
Indigenous identity[3] (2021)	1465 (56.2%)	765 (56.0%)	700 (56.5%)	31170 (68.5%)	15600 (67.6%)	15570 (69.6%)	205010 (2.5%)	101150 (2.5%)	103865 (2.5%)

Notes:

1. This category includes men (and/or boys), as well as some non-binary persons.
2. This category includes women (and/or girls), as well as some non-binary persons.
3. Indigenous and non-Indigenous totals may not sum to equal total population counts as they are based on a 25% population sample size.

2021 'Total Population' and 'Indigenous Population' data from 2021 Census of the Population – Census Profile.
Values shown in "Total" columns are the sum of male and female Census Subdivision (CSD) subsets taken from Statistics Canada's 2021 Census Profile (Census of the Population). Due to Statistics Canada rounding (Statistics Canada 2022) totals may not exactly align with those shown on CSD Census Profiles and may not sum across tables.

Source: Statistics Canada 2022

21.2.2.2 Education

Table 21.5 shows the education level of residents in the Census areas analyzed. In Chapais and Chibougamau, the percentage of the population aged 15 and over with a high school diploma (or equivalency certificate) or higher is 83.9% and 89.9% respectively. In Mistissini and Oujé-Bougoumou, these percentages are 68.9% and 77.1% respectively, which are below the Quebec average of 81.8% in 2020. Lower averages are also found within the Indigenous populations for all communities.

Table 21.5 Education levels of the population aged 15 and over in 2021

Location	Group	No certificate, diploma or degree	High school diploma or equivalent certificate	Postsecondary certificate, diploma or degree	Post-secondary certificate or diploma below the baccalaureate level	Apprentice or trade school certificate or diploma	Certificate or diploma from a trade school, other than an apprenticeship certificate	Apprentice certificate in a trade	Certificate or diploma from a college, CEGEP or other non-university institution	University certificate or diploma below the baccalaureate	Bachelor's degree or higher
Mistissini	Total (%)	51	15.3	33.7	23.7	6.4	2.8	3.6	15	2.4	9.9
	Men+[1] (%)	52.1	17.1	30.7	23.3	9.7	4.3	5.1	11.7	2.3	7.4
	Women+[2] (%)	50.2	13.4	36.5	24.2	3.2	1.8	1.8	18.1	2.5	12.3
	Indigenous Identity[3] (%)	54.7	16	29.5	22.5	6.6	3.1	3.7	14.1	1.8	6.8
Oujé-Bougoumou	Total (%)	41	19	40	30.5	9.5	5.7	3.8	18.1	2.9	8.6
	Men+[1] (%)	47.2	13.2	37.7	30.2	15.1	7.5	7.5	13.2	3.8	7.5
	Women+[2] (%)	34.6	23.1	42.3	30.8	3.8	3.8	0	23.1	0	11.5
	Indigenous Identity[3] (%)	44.8	19.8	35.4	30.2	9.4	7.3	4.2	18.8	2.1	4.2
Chibougamau	Total (%)	23.3	18	58.7	46.3	24	18.3	5.8	18.8	3.5	12.5
	Men+1 (%)	26.6	14.8	58.7	48.9	31.4	22	9.7	15.6	2	9.8
	Women+[2] (%)	19.8	21.6	58.8	43.4	16.1	14.3	1.6	22.3	5.2	15.4
	Indigenous Identity[3] (%)	30.6	16.5	52.9	49.4	28.2	20	7.1	20	2.4	3.5
Chapais	Total (%)	35.8	18.1	46.5	43.8	31	20.4	10.2	11.9	1.3	2.7
	Men+[1] (%)	36.3	16.1	46.8	46	34.7	23.4	12.1	9.7	0	1.6
	Women+[2] (%)	33.3	20.6	46.1	41.2	26.5	16.7	7.8	13.7	2	3.9
	Indigenous Identity[3] (%)	56.3	18.7	25	25	18.7	0	12.5	0	0	0
Eeyou Istchee Baie James	Total (%)	18.2	21.4	60.4	36.9	15.8	11.5	4.4	17.4	3.7	23.5
	Men+[1] (%)	19.2	21.1	59.7	38	19.5	12.5	7	15.5	3	21.7
	Women+[2] (%)	17.1	21.8	61.1	35.8	12.3	10.4	1.8	19.2	4.3	25.3
	Indigenous Identity[3] (%)	45.6	24	30.4	27.9	10.3	7.4	2.9	15.2	2.4	2.4
Nord-du-Québec	Total (%)	44	18.7	37.3	29.9	14.6	9.3	5.2	13	2.3	7.4
	Men+[1] (%)	46	16.5	37.5	31.9	19.3	11.7	7.7	11	1.6	5.6
	Women+[2] (%)	41.9	21	37.1	27.9	9.7	7	2.7	15.1	3.1	9.2
	Indigenous Identity[3] (%)	55.5	19.2	25.3	22.3	9.7	4.9	4.9	10.7	1.8	3.1
Province de Québec	Total (%)	18.2	21.4	60.4	36.9	15.8	11.5	4.4	17.4	3.7	23.5
	Men+[1] (%)	19.2	21.1	59.7	38	19.5	12.5	7	15.5	3	21.7

Location	Group	No certificate, diploma or degree	High school diploma or equivalent certificate	Postsecondary certificate, diploma or degree	Post-secondary certificate or diploma below the baccalaureate level	Apprentice or trade school certificate or diploma	Certificate or diploma from a trade school, other than an apprenticeship certificate	Apprentice certificate in a trade	Certificate or diploma from a college, CEGEP or other non-university institution	University certificate or diploma below the baccalaureate	Bachelor's degree or higher
	Women+[2] (%)	17.1	21.8	61.1	35.8	12.3	10.4	1.8	19.2	4.3	25.3
	Indigenous Identity[3] (%)	30.7	21.2	48.1	37.8	19.4	13.5	5.9	15.6	2.8	10.4

Notes:

1. This category includes men (and/or boys), as well as some non-binary persons.
2. This category includes women (and/or girls), as well as some non-binary persons.
3. Indigenous and non-Indigenous totals may not sum to equal total population counts as they are based on a 25% population sample size.

2021 ‘Total Population’ and ‘Indigenous Population’ data from 2021 Census of the Population – Census Profile.

Values shown in “Total” columns are the sum of male and female Census Subdivision (CSD) subsets taken from Statistics Canada’s 2021 Census Profile (Census of the Population). Due to Statistics Canada rounding (Statistics Canada 2022) totals may not exactly align with those shown on CSD Census Profiles and may not sum across tables.

Source: Statistics Canada 2022

21.2.2.3 Labour Force

Table 21.6 shows the population aged 15 and over by labour force activity status. The population of the census areas analyzed is 1,130 in Chapais and 5,805 in Chibougamau, for a total of 6,935 people. For the Cree First Nations, the population is 2,675 in Mistissini and 525 in Oujé-Bougoumou, for a total of 3,200 people. The non-Indigenous population in the municipalities of Chapais and Chibougamau is twice as large as the Indigenous population in the municipalities of Mistissini and Oujé-Bougoumou.

In Chapais and Chibougamau, the active population accounts for 63.7% and 69.2% of the population respectively. This percentage is slightly lower in Mistissini and Oujé-Bougoumou, where the active population accounts for 60.4% and 56.2% of the population respectively. This proportion is almost identical for women+, at plus or minus two percentage points.

Table 21.6 Labour Force – 2021

	Mistissini				Oujé-Bougoumou				Chibougamau				Chapais			
	Total	Men+[1]	Women+[2]	Indigenous Identity[3]	Total	Men+[1]	Women+[2]	Indigenous Identity[3]	Total	Men+[1]	Women+[2]	Indigenous Identity[3]	Total	Men+[1]	Women+[2]	Indigenous Identity[3]
Total - Population aged 15 and over	2675	1285	1385	2440	525	265	260	480	5805	3005	2800	390	1130	620	510	80
Labour force	1615	790	820	1410	295	150	145	260	4015	2105	1910	225	720	400	320	45
Active population	1510	740	770	1315	290	145	140	250	3870	2005	1860	205	685	380	305	45
Unemployed	100	50	45	95	15	10	10	15	150	100	50	20	40	20	20	0
Inactive population	1060	495	565	1025	225	115	110	215	1790	900	885	165	410	220	190	35
Activity rate (%)	60.4	61.5	59.2	57.8	56.2	56.6	55.8	54.2	69.2	70.0	68.2	57.7	63.7	64.5	62.7	56.3
Employment rate (%)	56.4	57.6	55.6	53.9	55.2	54.7	53.8	52.1	66.7	66.7	66.4	52.6	60.6	61.3	59.8	56.3
Unemployment rate (%)	6.2	6.3	5.5	6.5	5.1	6.7	6.9	5.8	3.7	4.8	2.6	8.9	5.6	5.0	6.3	0

	Eeyou Istchee Baie James				Nord-du-Québec				Province de Québec			
	Total	Men+[1]	Women+[2]	Indigenous Identity[3]	Total	Men+[1]	Women+[2]	Indigenous Identity[3]	Total	Men+[1]	Women+[2]	Indigenous Identity[3]
Total - Population aged 15 and over	2005	1050	955	1020	32690	16515	16175	20895	6918730	3414515	3504210	161910
Labour force	1145	615	535	535	20615	10570	10050	12395	4435465	2302595	2132870	97150
Active population	1060	570	495	500	19115	9720	9390	11200	4100450	2126350	1974095	87480
Unemployed	85	45	40	35	1500	840	660	1195	335015	176245	158775	9675
Inactive population	855	435	420	490	12075	5950	6125	8500	2483265	1111920	1371340	64755
Activity rate (%)	57.1	58.6	56.0	52.5	63.1	64.0	62.1	59.3	64.1	67.4	60.9	60
Employment rate (%)	52.9	54.3	51.8	49	58.5	58.9	58.1	53.6	59.3	62.3	56.3	54
Unemployment rate (%)	7.4	7.3	7.5	6.5	7.3	7.9	6.6	9.6	7.6	7.7	7.4	10

Notes:
1. This category includes men (and/or boys), as well as some non-binary persons.
2. This category includes women (and/or girls), as well as some non-binary persons.
3. Indigenous and non-Indigenous totals may not sum to equal total population counts as they are based on a 25% population sample size.

2021 ‘Total Population’ and ‘Indigenous Population’ data from 2021 Census of the Population – Census Profile.
Values shown in “Total” columns are the sum of male and female Census Subdivision (CSD) subsets taken from Statistics Canada’s 2021 Census Profile (Census of the Population). Due to Statistics Canada rounding (Statistics Canada 2022) totals may not exactly align with those shown on CSD Census Profiles and may not sum across tables. Source: Statistics Canada 2022

21.2.2.4 Labour by Industry

Table 21.7 shows the population aged 15 and over by industry. The industries likely to benefit most from the project in terms of job creation are: 1) mining, quarrying and oil and gas extraction, 2) construction, 3) manufacturing, 4) transportation and warehousing, and 5) professional, scientific and technical services.

These sectors are generally dominated by men+, especially in Chibougamau, with the only sector where women+ outnumber men+ is professional, scientific and technical services (4.5% v. 2.6%). In Chapais, the situation is quite different, with a higher proportion of women+ in the construction (4.7% v. 3.8%) and professional, scientific and technical services (4.7% v. 0%) sectors. In the transportation and warehousing sector, the percentage of participation between men+ and women+ is identical at 6.3%. In the Indigenous community of Mistissini, the presence of men+ is higher in all sectors of activity. In Oujé-Bougoumou, women+ are absent from all the sectors referenced above.

Table 21.7 Working population aged 15 and over by industry

	Mistissini				Oujé-Bougoumou			
	Total	Men+[1]	Women+[2]	Indigenous Identity[3]	Total	Men+[1]	Women+[2]	Indigenous Identity[3]
Total - Labour force aged 15 and over by industry - number	1610	795	820	1410	300	150	150	260
Industry - not applicable (%)	1.6	0.0	1.8	1,8	0.0	0.0	0.0	0,0
All industries (%)	98.4	98.7	97.6	98,2	100.0	100.0	100.0	100,0
11 Agriculture, forestry, fishing and hunting (%)	1.9	2.5	1.2	2,5	0.0	0.0	0.0	0,0
21 Mining, quarrying, and oil and gas extraction (%)	3.4	4.4	3.0	3,5	5.0	10.0	0.0	5,8
22 Public services (%)	1.2	2.5	0.0	1,1	0.0	0.0	0.0	0,0
23 Construction (%)	5.6	8.8	1.8	5,7	3.3	6.7	0.0	3,8
31-33 Manufacturing (%)	0.9	1.3	1.2	0,7	0.0	0.0	0.0	0,0
41 Wholesale trade (%)	0.0	1.3	0.0	0,0	0.0	0.0	0.0	0,0
44-45 Retail (%)	6.5	8.2	4.9	6,7	3.3	0.0	6.7	3,8
48-49 Transportation and storage (%)	1.6	2.5	1.2	1,8	0.0	0.0	0.0	0,0
51 Information industry and cultural industry (%)	1.2	1.9	1.2	1,1	0.0	0.0	6.7	0,0
52 Finance and insurance (%)	0.0	0.0	0.0	0,0	0.0	0.0	6.7	0,0
53 Real estate services and rental and leasing services (%)	1.9	3.1	0.0	2,1	0.0	0.0	0.0	0,0
54 Professional, scientific and technical services (%)	1.6	1.3	1.2	0,7	0.0	0.0	0.0	0,0
55 Management of companies and businesses (%)	0.6	0.0	1.2	0,7	0.0	0.0	0.0	0,0
56 Administrative services, support services, waste management services and sanitation services (%)	2.2	3.1	1.8	2,5	0.0	0.0	0.0	0,0

	Mistissini				Oujé-Bougoumou			
	Total	Men+[1]	Women+[2]	Indigenous Identity[3]	Total	Men+[1]	Women+[2]	Indigenous Identity[3]
61 Educational services (%)	14.9	10.7	18.9	12,8	11.7	6.7	16.7	7,7
62 Health care and social assistance (%)	27.3	17.0	37.8	25,9	23.3	10.0	33.3	23,1
71 Arts, entertainment and leisure (%)	1.6	1.9	1.2	1,4	6.7	6.7	6.7	7,7
72 Accommodation and catering services (%)	4.0	5.0	3.0	4,3	3.3	6.7	0.0	3,8
81 Other services (except public administration) (%)	2.2	3.1	1.2	2,5	3.3	0.0	0.0	3,8
91 Public administration (%)	20.2	22.0	18.3	22,7	33.3	40.0	23.3	36,5

Table 21.7 Working population aged 15 and over by industry (continued)

	Chibougamau			
	Total	Men+[1]	Women+[2]	Indigenous Identity[3]
Total - Labour force aged 15 and over by industry - number	4015	2105	1910	245
Industry - not applicable (%)	1.1	1.2	1.0	4,1
All industries (%)	99.0	99.0	99.0	95,9
11 Agriculture, forestry, fishing and hunting (%)	1.6	2.9	0.0	0,0
21 Mining, quarrying, and oil and gas extraction (%)	6.1	9.3	2.4	8,2
22 Public services (%)	2.5	4.5	0.5	0,0
23 Construction (%)	4.6	7.8	1.0	4,1
31-33 Manufacturing (%)	15.3	25.7	4.2	8,2

	Chibougamau			
	Total	**Men+[1]**	**Women+[2]**	**Indigenous Identity[3]**
41 Wholesale trade (%)	1.2	1.4	1.0	0,0
44-45 Retail (%)	11.7	10.9	12.6	10,2
48-49 Transportation and storage (%)	2.6	3.6	1.6	4,1
51 Information industry and cultural industry (%)	0.7	1.2	0.0	0,0
52 Finance and insurance (%)	2.0	0.0	3.9	0,0
53 Real estate services and rental and leasing services (%)	0.7	0.7	0.5	0,0
54 Professional, scientific and technical services (%)	3.6	2.6	4.5	4,1
55 Management of companies and businesses (%)	0.0	0.0	0.0	0,0
56 Administrative services, support services, waste management services and sanitation services (%)	2.5	2.6	2.6	10,2
61 Educational services (%)	6.4	2.6	10.7	4,1
62 Health care and social assistance (%)	18.8	8.1	30.4	24,5
71 Arts, entertainment and leisure (%)	2.0	2.1	1.6	0,0
72 Accommodation and catering services (%)	5.6	2.6	8.9	6,1
81 Other services (except public administration) (%)	4.0	4.0	4.2	6,1
91 Public administration (%)	6.8	6.2	7.3	6,1

Table 21.7 Working population aged 15 and over by industry (continued)

	Chapais				Eeyou Istchee Baie James			
	Total	Men+[1]	Women+[2]	Indigenous Identity[3]	Total	Men+[1]	Women+[2]	Indigenous Identity[3]
Total - Labour force aged 15 and over by industry - number	720	400	320	45	1150	615	535	535
Industry - not applicable (%)	1.4	2.5	0.0	0.0	1.7	1.6	0.0	2,8
All industries (%)	98.6	98.8	100.0	100.0	98.3	97.6	98.1	97.2
11 Agriculture, forestry, fishing and hunting (%)	3.5	3.8	3.1	0.0	3.5	4.9	1.9	1.9
21 Mining, quarrying, and oil and gas extraction (%)	8.3	15.0	0.0	22.2	13.0	19.5	4.7	4.7
22 Public services (%)	4.2	6.3	0.0	0.0	0.9	1.6	0.0	0,0
23 Construction (%)	4.2	3.8	4.7	0.0	4.8	5.7	3.7	4.7
31-33 Manufacturing (%)	22.9	3.8	3.1	0.0	1.3	2.4	1.9	1.9
41 Wholesale trade (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
44-45 Retail (%)	12.5	7.5	18.8	0.0	6.5	6.5	5.6	3.7
48-49 Transportation and storage (%)	5.6	6.3	6.3	0.0	3.9	5.7	0.0	0.0
51 Information industry and cultural industry (%)	0.0	0.0	0.0	0.0	0.9	1.6	0.0	0.0
52 Finance and insurance (%)	0.0	0.0	0.0	0.0	0.9	0.0	1.9	1.9
53 Real estate services and rental and leasing services (%)	0.0	0.0	0.0	0.0	0.9	1.6	0.0	0.0
54 Professional, scientific and technical services (%)	2.1	0.0	4.7	0.0	2.6	1.6	2.8	1.9
55 Management of companies and businesses (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
56 Administrative services, support services, waste management services and sanitation services (%)	2.1	2.5	0.0	0.0	3.0	4.1	1.9	3.7
61 Educational services (%)	2.8	0.0	4.7	0.0	11.3	5.7	17.8	15.0
62 Health care and social assistance (%)	12.5	3.8	21.9	22.2	16.1	6.5	27.1	23.4
71 Arts, entertainment and leisure (%)	0.0	0.0	0.0	0.0	0.9	1.6	0.0	1.9

	Chapais				Eeyou Istchee Baie James			
	Total	Men+[1]	Women+[2]	Indigenous Identity[3]	Total	Men+[1]	Women+[2]	Indigenous Identity[3]
72 Accommodation and catering services (%)	8.3	2.5	17.2	33.3	3.5	1.6	5.6	1.9
81 Other services (except public administration) (%)	2.8	2.5	3.1	0.0	4.8	3.3	6.5	3.7
91 Public administration (%)	5.6	2.5	9.4	0.0	20.4	24.4	15.0	29.0

Table 21.7 Working population aged 15 and over by industry (continued)

	Nord-du-Québec				Province de Québec			
	Total	Men+[1]	Women+[2]	Indigenous Identity[3]	Total	Men+[1]	Women+[2]	Indigenous Identity[3]
Total - Labour force aged 15 and over by industry - number	20615	10565	10050	12395	4435460	2302590	2132870	97150
Industry - not applicable (%)	2.4	2.7	2.0	3.4	2.0	1.9	2.2	2.9
All industries (%)	97.6	97.3	98.0	96.6	98.0	98.1	97.8	97.1
11 Agriculture, forestry, fishing and hunting (%)	2.2	3.0	1.3	2.3	1.8	2.4	1.1	2.6
21 Mining, quarrying, and oil and gas extraction (%)	4.7	7.6	1.7	2.7	0.6	0.9	0.2	1.3
22 Public services (%)	1.8	3.3	0.2	1.6	0.7	1.0	0.4	1.0
23 Construction (%)	4.5	7.3	1.4	4.6	6.7	11.1	1.9	8.0
31-33 Manufacturing (%)	5.4	9.1	1.4	0.6	10.1	13.9	6.0	7.2
41 Wholesale trade (%)	0.7	0.9	0.4	0.4	3.3	4.2	2.4	2.0
44-45 Retail (%)	9.3	9.1	9.6	8.4	11.6	10.8	12.4	10.9
48-49 Transportation and storage (%)	3.3	4.9	1.7	3.5	4.7	7.0	2.3	4.5
51 Information industry and cultural industry (%)	0.9	0.9	0.7	0.9	2.1	2.5	1.7	1.2
52 Finance and insurance (%)	0.7	0.1	1.4	0.3	3.8	3.2	4.5	1.9
53 Real estate services and rental and leasing services (%)	1.7	2.3	1.0	2.2	1.4	1.5	1.3	1.4

	Nord-du-Québec				Province de Québec			
	Total	**Men+[1]**	**Women+[2]**	**Indigenous Identity[3]**	**Total**	**Men+[1]**	**Women+[2]**	**Indigenous Identity[3]**
54 Professional, scientific and technical services (%)	1.7	1.6	1.9	1.1	7.8	8.4	7.1	4.1
55 Management of companies and businesses (%)	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
56 Administrative services, support services, waste management services and sanitation services (%)	2.9	3.5	2.2	3.2	3.9	4.5	3.1	4.1
61 Educational services (%)	11.1	6.6	15.9	12.1	7.7	4.5	11.1	7.3
62 Health care and social assistance (%)	20.9	9.5	32.9	22.7	13.9	5.3	23.2	15.3
71 Arts, entertainment and leisure (%)	1.7	2.0	1.3	2.0	1.6	1.7	1.6	1.8
72 Accommodation and catering services (%)	4.1	2.6	5.7	3.5	5.2	4.8	5.7	5.4
81 Other services (except public administration) (%)	3.3	3.8	2.8	2.9	4.3	3.9	4.7	4.5
91 Public administration (%)	16.6	19.0	14.1	21.6	6.6	6.3	6.8	12.3

Notes:

1. This category includes men (and/or boys), as well as some non-binary persons.
2. This category includes women (and/or girls), as well as some non-binary persons.
3. Indigenous and non-Indigenous totals may not sum to equal total population counts as they are based on a 25% population sample size.

2021 'Total Population' and 'Indigenous Population' data from 2021 Census of the Population – Census Profile.
Values shown in "Total" columns are the sum of male and female Census Subdivision (CSD) subsets taken from Statistics Canada's 2021 Census Profile (Census of the Population). Due to Statistics Canada rounding (Statistics Canada 2022) totals may not exactly align with those shown on CSD Census Profiles and may not sum across tables.
Source: Statistics Canada 2022

21.2.2.5 Labour by Occupation

Table 21.8 shows the working population aged 15 and over by occupation. The occupations with the highest number of participants are: 1) Business, finance, administration, 2) Sales and service, 3) Trades, transport, equipment operators and related occupations, 4) Education, Law, and community and government social services, and 5) Health sector. These occupations are present in all four Census territories analyzed, with the exception of the 'Teaching, law and community and government social services' category, which, in Chapais, ranks fifth among the occupations with the highest number of participants, after the 'Manufacturing and utilities' and 'Business, finance and administration' categories.

Table 21.8 Labour force 15 years and over by occupation

	Mistissini				Oujé-Bougoumou			
	Total	**Men+[1]**	**Women+[2]**	**Indigenous Identity[3]**	**Total**	**Men+[1]**	**Women+[2]**	**Indigenous Identity[3]**
Total - Active population aged 15 and over by occupation	1610	795	820	1410	300	150	150	260
Profession - not applicable (%)	1.6	0.0	1.8	1.8	0.0	0.0	0.0	0.0
All professions (%)	98.4	98.7	97.6	98.2	100.0	100.0	100.0	100.0
0 Members of legislative bodies and senior executives (%)	0.6	1.3	0.0	0.7	3.3	0.0	0.0	3.8
1 Business, finance and administration (%)	18.0	11.9	23.8	18.8	21.7	13.3	33.3	23.1
2 Natural and applied sciences and related fields (%)	2.2	3.8	1.2	1.8	3.3	6.7	0.0	0.0
3 Health sector (%)	5.9	2.5	8.5	3.9	3.3	0.0	6.7	3.8
4 Education, law and social, community and government services (%)	26.4	15.7	36.6	23.8	26.7	20.0	36.7	23.1
5 Arts, culture, sports and leisure (%)	4.0	3.8	4.3	4.3	10.0	10.0	0.0	7.7
6 Sales and services (%)	22.4	25.8	19.5	24.5	15.0	13.3	16.7	17.3
7 Trades, transport, machinery and related fields (%)	15.2	28.3	2.4	16.3	13.3	23.3	0.0	15.4
8 Natural resources, agriculture and related production (%)	3.1	4.4	1.8	3.5	3.3	6.7	0.0	3.8
9 Manufacturing and utilities (%)	1.2	2.5	0.0	1,1	0.0	0.0	0.0	0.0

Table 21.8 Labour force 15 years and over by occupation (continued)

	Chibougamau			
	Total	**Men+**	**Women+[2]**	**Indigenous Identity[3]**
Total - Active population aged 15 and over by occupation	4015	2105	1910	245
Profession - not applicable (%)	1.1	1.2	1.0	4.1
All professions (%)	99.0	99.0	99.0	95.9
0 Members of legislative bodies and senior executives (%)	0.7	1.0	0.5	0.0
1 Business, finance and administration (%)	14.4	6.2	23.3	14.3
2 Natural and applied sciences and related fields (%)	6.6	10.2	2.4	12.2
3 Health sector (%)	10.2	3.1	18.1	14.3
4 Education, law and social, community and government services (%)	12.8	6.2	20.2	6.1
5 Arts, culture, sports and leisure (%)	2.4	1.7	3.1	0.0
6 Sales and services (%)	21.8	17.3	26.7	26.5
7 Trades, transport, machinery and related fields (%)	20.5	37.1	2.1	20.4
8 Natural resources, agriculture and related production (%)	3.6	6.4	0.5	4.1
9 Manufacturing and utilities (%)	6.2	9.7	2.1	0.0

Table 21.8 Labour force 15 years and over by occupation (continued)

	Chapais				Eeyou Istchee Baie James			
	Total	**Men+[1]**	**Women+[2]**	**Indigenous Identity[3]**	**Total**	**Men+[1]**	**Women+[2]**	**Indigenous Identity[3]**
Total - Active population aged 15 and over by occupation	720	400	320	45	1150	615	535	535
Profession - not applicable (%)	1.4	2.5	0.0	0.0	1.7	1.6	0.0	2.8
All professions (%)	98.6	98.8	100.0	100.0	98.3	97.6	98.1	97.2
0 Members of legislative bodies and senior executives (%)	0.0	0.0	0.0	0.0	2.6	2.4	2.8	2.8
1 Business, finance and administration (%)	13.9	6.3	23.4	0.0	12.6	6.5	20.6	16.8
2 Natural and applied sciences and related fields (%)	2.1	3.8	0.0	0.0	2.2	3.3	0.0	1.9
3 Health sector (%)	4.2	0.0	7.8	0.0	4.8	1.6	7.5	4.7
4 Education, law and social, community and government services (%)	8.3	3.8	12.5	0.0	20.9	12.2	29.9	25.2
5 Arts, culture, sports and leisure (%)	0.0	0.0	0.0	0.0	1.3	1.6	0.0	1.9
6 Sales and services (%)	27.1	15.0	42.2	44.4	23.0	18.7	28.0	23.4
7 Trades, transport, machinery and related fields (%)	20.1	32.5	4.7	0.0	20.9	34.1	5.6	13.1
8 Natural resources, agriculture and related production (%)	4.2	6.3	0.0	0.0	9.6	15.4	1.9	5.6
9 Manufacturing and utilities (%)	17.4	27.5	3.1	22.2	1.7	3.3	0.0	1.9

Table 21.8 Labour force 15 years and over by occupation (continued)

	Nord-du-Québec				Province de Québec			
	Total	**Men+[1]**	**Women+[2]**	**Indigenous Identity[3]**	**Total**	**Men+[1]**	**Women+[2]**	**Indigenous Identity[3]**
Total - Active population aged 15 and over by occupation	20615	10565	10050	535	4435460	2302590	2132870	535
Profession - not applicable (%)	2.4	2.7	2.0	2.8	2.0	1.9	2.2	2.8
All professions (%)	97.6	97.3	98.0	97.2	98.0	98.1	97.8	97.2
0 Members of legislative bodies and senior executives (%)	1.1	1.4	0.8	2.8	1.8	2.5	1.0	2.8
1 Business, finance and administration (%)	14.5	6.7	22.6	16.8	17.6	11.1	24.5	16.8
2 Natural and applied sciences and related fields (%)	3.2	5.1	1.3	1.9	8.1	11.8	4.1	1.9
3 Health sector (%)	5.6	2.4	9.0	4.7	8.1	3.0	13.6	4.7
4 Education, law and social, community and government services (%)	19.2	10.2	28.6	25.2	12.6	7.2	18.4	25.2
5 Arts, culture, sports and leisure (%)	3.1	2.7	3.6	1.9	3.3	3.1	3.5	1.9
6 Sales and services (%)	23.9	21.0	26.9	23.4	24.0	21.7	26.5	23.4
7 Trades, transport, machinery and related fields (%)	19.7	35.7	2.9	13.1	15.8	28.0	2.7	13.1
8 Natural resources, agriculture and related production (%)	3.8	6.1	1.4	5.6	2.0	3.0	0.8	5.6
9 Manufacturing and utilities (%)	3.6	6.2	0.9	1.9	4.7	6.5	2.7	1.9

Notes:
1. This category includes men (and/or boys), as well as some non-binary persons.
2. This category includes women (and/or girls), as well as some non-binary persons.
3. Indigenous and non-Indigenous totals may not sum to equal total population counts as they are based on a 25% population sample size.

2021 'Total Population' and 'Indigenous Population' data from 2021 Census of the Population – Census Profile.
Values shown in "Total" columns are the sum of male and female Census Subdivision (CSD) subsets taken from Statistics Canada's 2021 Census Profile (Census of the Population). Due to Statistics Canada rounding (Statistics Canada 2022) totals may not exactly align with those shown on CSD Census Profiles and may not sum across tables.
Source: Statistics Canada 2022

21.2.2.6 Estimated Labour requirements for the mining sector in Québec 2023-2028

In its most recent publication, the *Institut national des mines du Québec* (INMQ) estimates the labour requirements of the mining sector in Québec for the period 2023-2028 and provides an overview of trends up to 2023 (CSMO, 2023). As of December 31, 2022, Quebec had 18 operating mines, 5 mines under construction and 15 advanced and active mining projects with 'positive' economic potential, for a total of 38 mines and projects.

The INMQ model forecasts that 25 mines will be in operation in Quebec in 2028, 7 more than in 2022. The projection of mining projects at the development stage by region is as follows: Abitibi-Témiscamingue (9), Côte-Nord (4), Nord-du-Québec (9, including the project in question), rest of Quebec (3).

According to INMQ's 2023 estimates presented in table 21.9, the total number of workers employed by the industry (workforce) will rise from 17,711 in 2022 to 19,125 in 2028, an increase of 1,414. There will also be 14,358 job vacancies between 2023 and 2028 due to retirement and outmigration. The INMQ's estimate of labour requirements is based on the sum of two elements: the total number of new positions to be filled as a result of mine openings and closings, and the total number of positions to be filled as a result of workers leaving the industry (turnover) (CSMO, 2023). The table shows the breakdown of the workforce and job openings by region, as well as the total number of job openings for the 17 mining trades and occupations most in demand.

Table 21.9 Workforce requirements by region for the 2023-2028 period

Needs	Region			
	Abitibi-Témiscamingue	Côte-Nord	Nord-du-Québec	Rest of Québec
Workforce	6,413	4,848	6,886	978
Vacancies	4,552	3,202	5,935	666

Source : CSMO, 2023

Table 21.10 details the 17 mining trades and occupations most in demand, by region, for Quebec's three main mining regions, Abitibi-Témiscamingue, Nord-du-Québec and Côte-Nord. It should be noted that the trades and occupations are not necessarily the same depending on the region (CSMO, 2023).

For example, the trades and occupations most in demand in Abitibi-Témiscamingue and Nord-du-Québec are, from highest to lowest: Miner (drilling, securing drifts / rockbolting, machinery operator); Driller and diamond drill helper; Heavy equipment mechanic, hydraulic equipment mechanic; and mobile heavy equipment mechanic

In the Côte-Nord region, the heavy equipment operator trade ranks first, the heavy equipment mechanic/hydraulic mechanic/mobile heavy equipment mechanic trade ranks second, the driller/blaster (surface) trade ranks third and the ore processing machinery operator/concentrator trade ranks fourth. In short, demand by region is highly diversified, both in terms of the trades and occupations in demand and the number of positions to be filled for each (CSMO, 2023).

Table 21.10 Labour requirements by region for the period 2023-2028

Trades / professions	Regions		
	Nord-du-Québec	Côte-Nord	Abitibi-Témiscamingue
Miner (drilling, securing drifts, machinery operator)			
New positions to be filled	51	---	230
Positions to be filled due to turnover	766		848
Total	817		1078
Diamond driller and helper			
New positions to be filled	9	---	20
Positions to be filled due to turnover	456		300
Total	465		320
Heavy equipment mechanic/hydraulic mechanic/mobile heavy equipment mechanic			
New positions to be filled	10	13	10
Positions to be filled due to turnover	267	193	210
Total	277	206	220
Mineral processing machine operator - concentrator			
New positions to be filled	79	8	25
Positions to be filled due to turnover	197	147	153
Total	276	155	178
Heavy equipment operator			
New positions to be filled	14	22	---
Positions to be filled due to turnover	177	346	
Total	191	368	
Geologist/(engineer)			
New positions to be filled	6	---	10
Positions to be filled due to turnover	173		121
Total	179		131
Metal worker			
New positions to be filled	10	5	13
Positions to be filled due to turnover	156	84	128
Total	166	89	141
Cook and kitchen helper			

Trades / professions	Regions		
	Nord-du-Québec	Côte-Nord	Abitibi-Témiscamingue
New positions to be filled	12	---	---
Positions to be filled due to turnover	146		
Total	158		
Industrial mechanic/ ore processing equipment repairer/ power plant (boiler)			
New positions to be filled	45	5	12
Positions to be filled due to turnover	107	104	80
Total	152	109	92
Exploration labourer			
New positions to be filled	2	---	3
Positions to be filled due to turnover	143		91
Total	145		94
Building maintenance worker			
New positions to be filled	---	8	---
Positions to be filled due to turnover		116	
Total		124	
Fixed machinery mechanic			
New positions to be filled	---	3	---
Positions to be filled due to turnover		91	
Total		94	
Metallurgy technician			
New positions to be filled		4	
Positions to be filled due to turnover	---	74	---
Total		78	
Welder			
New positions to be filled	---	3	---
Positions to be filled due to turnover		72	
Total		75	
Production supervisor (foreman, mine captain)			
New positions to be filled	---	---	22
Positions to be filled due to turnover			115
Total			137

Trades / professions	Regions		
	Nord-du-Québec	Côte-Nord	Abitibi-Témiscamingue
Foreman/ Mechanical planner			
New positions to be filled	---	---	10
Positions to be filled due to turnover			88
Total			98
Driller, blaster (surface)			
New positions to be filled		11	
Positions to be filled due to turnover		172	
Total		183	

Source : CSMO 2023

As identified by CSMO (2023) in table 21.9, which accounts for the active, inactive, and prospective projects as of the end of 2022, it was determined that the mining workforce in Nord-du-Quebec is anticipated to be 12,821, which will include 6,886 individuals employed and 5,935 vacancies, resulting in a 46% vacancy rate. This is largely attributed to retirements and outmigration (CSMO, 2023). Given that the RSA is within the Nord-du-Quebec region, and considering the life of the project, project workforce scenarios are expected to be within 46-53% vacancies, which is similar to other jurisdictions in Northern Canada within the mining sector (FNETB, 2018). As such, labour may be supplemented for the project via recruitment outside the RSA and the Nord-due-Quebec region, as well as targeted training plans, including those dedicated for Indigenous people, such as ones offered by CFP Baie James (CFP Baie James, 2025). Throughout Project engagement, there have been various reasons identified that indicate why workers are reluctant to move to the Nord-du-Quebec region, such as being away from family and friends, being removed from urban amenities, changes in social and cultural life, access to consumer goods, and access to other services such as health care professionals.

To account for mining working conditions in mining in Quebec, the industry predominantly employs males (up to 82%), which is corresponds with the qualified and educated workforce highlighted in table 21.5 which is predominantly males. The average hourly wage of workers in the mining sector was $42.52 in 2022 compared to the average wage of all industries which was $27.30. Approximately 9.0% of the total mining workforce in-Nord du-Quebec identifies as Indigenous, compared 2.3% of individuals that identify as Indigenous across all industries, as per table 21.8 (Statistics Canada, 2022).

While youth outmigration may affect the labour capacity in the region, a recent report focused on youth outmigration in Northern Canada has suggested this trend may change. Survey respondents indicated the value they have of the North, highlighting the nature and nature-based activities in particular. As such, the research suggests that youth outmigration will likely see a boomerang effect, where youth will move out of their communities after graduating high school for different experiences, but have a desire to settle in Northern Canada (Ouellet and Lefebvre, 2022).

21.2.2.7 Salaries by Sector across Quebec

Table 21.11 shows the average hourly rate for workers in the five main sectors of activity likely to be mobilized by the project: 1) forestry, fishing, mining, quarrying, oil and gas, 2) construction, 3) manufacturing, 4) transportation and warehousing, and 5) professional, scientific and technical services. Three methods of calculating the annual salary are also presented. The first is based on the assumption of full-time employment totalling 2,100 hours/year. The second is based on the assumption of a 12-hour working day, alternating two weeks of continuous work and two weeks off. The third is based on the assumption of a 10-hour working day, alternating three weeks of continuous work and one week off.

Table 21.11 Average hourly and annual earnings in Quebec industries – 2023

Sectors of activity	Average Hourly Wage	Annual Income		
		Scenario 1 – Annual Wage (based on 2,100 hrs/year)	Scenario 2 – Annual Wage (based on 12-hour 2x2 work schedule = 2,764 hrs/year)[1]	Scenario 3 – Annual Wage (based on 10-hour 3x1 work schedule = 3,585 hrs/year)1
Forestry, fishing, mining, quarrying, oil and gas	$42.52	$89,292	$117,504	$152,434
Construction	$35.85	$75,285	$99,071	$128,522
Manufacturing	$32.91	$69,090	$90,947	$117,982
Transportation and Warehousing	$30.02	$63,420	$82,960	$107,622
Professional, scientific and technical services	$40.23	$84,483	$111,176	$144,245

Note:
[1] Assumes overtime payments beyond 40 hours per week; rounded down to the nearest thousand.
Source: Statistics Canada, 2024

21.2.2.8 Individual income and income inequality

Table 21.12 presents the median and average total income and employment income for the five Census subdivisions analyzed for the year 2020. Total income is the sum of certain incomes of the statistical unit during a given reference period. For individuals, total income refers to money received from certain sources, before income tax and other deductions, during a given reference period. The income included is generally regular and recurring (Statistics Canada, 2022).

The median total incomes for Chapais and Chibougamau were $43,600 and $49,200 respectively, and the average income were $47,800 and $54,900. For the Mistissini and Oujé-Bougoumou Census subdivision, the median income was $43,200 and $46,800 respectively, and the average income was $51,200 and $50,200.

Table 20.12 also shows median and average employment income. Employment income, as defined by Statistics Canada, includes all income received in the form of wages, salaries, commissions, bonuses, tips, gratuities, and honoraria.

In 2020, the median employment incomes for Chapais and Chibougamau were $42,800 and $46,800 respectively, and the average employment incomes were $45,200 and $51,400. For the Indigenous territories of Mistissini and Oujé-Bougoumou, the median employment income in both cases was $36,800 and the average employment income was $44,440 and $40,000 respectively.

In Chapais and Chibougamau , the income of women+ was lower than that of men+, for all types of income. However, in Mistissini and Oujé-Bougoumou women+'s income is higher than that of men+. In Mistissini, the percentage for all types of income combined (with the exception of average employment income) is +10.8%, and in Oujé-Bougoumou it is +7.0%.

Table 21.12 Annual individual income before tax in 2020 for the population aged 15 and over in private households

	Mistissini					Oujé-Bougoumou				
	Total	Men+[1]	Women+[2]	Difference (M-F)	Indigenous Identity	Total	Men+[1]	Women+[2]	Difference (M-F)	Indigenous Identity
Median[3] total income[4] ($)	43,200	40,800	46,000	-5,200	41,200	46,800	44,800	48,400	-3,600	46,400
Median employment income ($)	36,800	32,000	38,400	-6,400	32,400	36,800	35,200	38,800	-3,600	35,600
Average total income in 2020 ($)	51,200	49,900	52,400	-2,500	48,880	50,200	47,200	53,200	-6,000	49,000
Average employment income in 2020 ($)	44,440	45,200	43,700	1,500	41,160	40,000	40,000	40,400	-400	38,000

Table 21.12 Annual individual income before tax in 2020 for the population aged 15 and over in private households (continued)

	Chibougamau				
	Total	Men+[1]	Women+[2]	Difference (M-F)	Indigenous Identity
Median[3] total income[4] ($)	49,200	57,200	40,000	17,200	46,400
Median employment income ($)	46,800	56,400	34,800	21,600	28,600
Average total income in 2020 ($)	54,900	61,450	47,880	13,570	47,400
Average employment income in 2020 ($)	51,400	57,700	44,280	13,420	39,600

Table 21.12 Annual individual income before tax in 2020 for the population aged 15 and over in private households (continued)

	Chapais					Eeyou Istchee Baie James				
	Total	Men+[1]	Women+[2]	Difference (M-F)	Indigenous Identity	Total	Men+[1]	Women+[2]	Difference (M-F)	Indigenous Identity
Median total income ($)	43,600	55,200	31,200	24,000	37,600	41,600	46,800	39,600	7,200	42,000
Median employment income ($)	42,800	58,000	27,600	30,400	19,400	38,800	45,200	30,800	14,400	31,200
Average total income in 2020 ($)	47,800	57,200	36,600	20,600	42,000	50,560	54,200	46,600	7,600	46,600
Average employment income in 2020 ($)	45,200	55,000	32,400	22,600	27,000	46,000	51,300	39,900	11,400	36,100

Table 21.12 Annual individual income before tax in 2020 for the population aged 15 and over in private households (continued)

	Nord-du-Québec					Province de Québec				
	Total	Men+[1]	Women+[2]	Difference (M-F)	Indigenous Identity	Total	Men+[1]	Women+[2]	Difference (M-F)	Indigenous Identity
Median total income ($)	43,600	43,600	43,200	400	39,600	40,800	44,800	37,200	7,600	37,200
Median employment income ($)	36,400	40,800	32,800	8,000	27,800	36,000	40,400	31,600	8,800	30,600
Average total income in 2020 ($)	51,080	52,700	49,480	3,220	46,480	51,160	57,550	44,960	12,590	44,600
Average employment income in 2020 ($)	44,840	48,560	40,960	7,600	37,680	46,240	51,950	40,040	11,910	39,080

1. This category includes men (and/or boys), as well as some non-binary persons.
2. This category includes women (and/or girls), as well as some non-binary persons.
3. Income includes: 1) . Employment income, as defined by Statistics Canada, includes all income received in the form of wages, salaries, commissions, bonuses, tips, gratuities, and honoraria., 2) investment income, such as dividends and interest on bonds, accounts, guaranteed investment certificates (GICs) and mutual funds, 3) income from employer pension schemes and personal pension funds, such as private retirement annuities, annuities and payments received from a registered retirement income fund (RRIF), 4) other regular cash income, such as child support payments received, alimony received and scholarships, 5) income from government sources, such as social assistance benefits, child benefits, employment insurance benefits, Old Age Security pension, COVID-19 benefits and benefits from the Quebec Pension Plan and Canada Pension Plan and disability pensions. Source: Statistics Canada 2021
4. The median income of a specific group is the amount that divides the income distribution of this group into two halves, i.e. the incomes of half of the units in this group are below the median, while the incomes of the second half are above the median. Median incomes for individuals are calculated for those with an income (positive or negative).

Source: Statistics Canada, 2022

21.2.2.9 Provincial Economy

After experiencing stagnant growth in 2023 (0.2%), economic growth is gradually increasing in Quebec. In 2024, Quebec's gross domestic product (GDP) reached $ 452.1 billion, with growth of 1.9% since 2019. Businesses in Quebec employed a total of 2,844,320 people in 2024, with average annual employment growth over the past five years of 1.2% (IBISWorld, 2024).

Quebec produces 25% of North America's hydroelectricity, contains 3% of the world's freshwater reserves and many mineral deposits, and 45% of its territory is covered by forest. Natural resource development activities create thousands of jobs, stimulate regional economic development, and fund public services through the taxes they generate (Kozhaya, 2015).

In 2014, companies in forestry generated a combined annual revenue of $15.7 billion. The sector also provided about 61,000 direct jobs and 100,000 indirect and induced jobs, for an annual payroll of $3.1 billion. It is one of Quebec's main exporters, selling $8 billion in products abroad annually (Kozhaya, 2015).

Mining has been an important contributor the provincial economy, particularly in northern regions. Historically, the value of Quebec mineral exports grew consistently from 1989 to 2005, at an average rate of 2% per year. As of 2005, propelled by a sharp increase in metal and mineral prices, the value of mineral shipments grew at an average annual rate of 11%, for an increase of close to 160% over a 10-year period, from 2006 to 2016. In 2013, the Quebec mining sector employed about 88,000 people, including 18,000 in mining and quarrying and mining support activities. Quebec mineral shipments were valued at $8.7 billion in 2014. Four regions of Quebec were responsible for 88% of mineral shipments in 2013: Côte-Nord, Abitibi-Témiscamingue, Montérégie and Nord-du-Québec (Kozhaya, 2015). By 2022, the value of the Quebec's GDP from the mining industry reached $12 billion. The number of women working in the mining industry has increased by 57.4%, and the total number of Indigenous workers employed by mining companies in Quebec has increased from 258 to 426, from 2014 to 2022, a rise of 76.7%. In addition, there is a total of 3,847 companies in Quebec that are mining industry suppliers, with potential to provide support to the Project (EcoTec Consultants, 2024).

There has been a relative decline in natural resources' importance to the Quebec economy in recent years, given the long-term trend towards expansion of the service sector and negative growth in various resource sectors. In 2024, the top three sectors by total in Quebec for employment are: manufacturing; real estate and rental and leasing; and health care and social assistance. In 2024, The manufacturing, real estate and rental and leasing sector and the healthcare and social assistance sector contributed a combined 32.7% of to Quebec's GDP (IBISWorld, 2024).

The Government of Quebec focused on enhancing the provincial economy by investing $24 billion in the 2023-24 provincial budget into growing Quebec's wealth and increasing the productivity of the province's economy, initiatives to help youth succeed, improving health care, facilitating access to affordable housing and childcare, and investing in the environment (IBISWorld, 2024).

The average value of residential properties in Québec grew substantially from 1999 to 2024. The average value of single-family homes increased from $92,608 to $464,561 over this period, while the average value of condominiums grew from $86,081 to $439,620 (Government of Quebec, 2024). This growth,

which accelerated after the start of the COVID-19 pandemic, was observed in all of Québec's regions, but particularly in Montréal and Laval. The value of single-family homes increased sharply in Montérégie, Laurentides and Lanaudière, while the value of condominiums grew substantially in Mauricie and Outaouais. Several factors contributed to this growth, including increases in full-time work, household disposable income and construction costs, as well as a greater number of households combined with a reduction in household size (Government of Quebec, 2024).

21.2.2.10 Regional and Local Economy

In 2024, the Canadian Northern Economic Development Agency announced their 2024-2025 Departmental Plan for Northern Canada, which includes Northern Quebec. Priorities of this plan include driving economic development through strengthening business and community development through a suite of funding programs, helping Northerners meet their housing needs, and encouraging economic development by infusing capital into the region. (CanNor, 2024).

In 2023, the Government of Quebec announced its investment of nearly $2.6 billion in the sustainable development of Quebec's North through The Northern Action Plan 2023-2028. The plan encompasses four key directions for the region: increase connectivity to the territory, build on northern economic strengths, stimulate community vitality, and preserve a unique environment. Some of the economic activities proposed include developing an incubator and accelerator program for northern entrepreneurs, assisting with supply chain development in the mining industry, as well as working with Indigenous organizations to develop specific resources to enhance economic development (Government of Quebec, 2023).

According to preliminary data for 2022, five regions of northern Quebec had a GDP per capita above the provincial average. These include the three regions in Québec whose economy depends largely on mining, namely Nord-du-Québec ($126,049) Côte-Nord ($100,252), and Abitibi-Témiscamingue ($71,527). (Government of Quebec, 2024).

Mineral deposits in northern Quebec account for all of the province's production of nickel, cobalt, zinc, iron, and platinum and ilmenite group metals. It also accounts for a significant portion of Québec production of precious metals, such as gold.

The City of Chibougamau is one of the largest communities in Northern Quebec and serves as the economic and urban hub of the Nord-du-Quebec region. To assist in the development of the municipality, the City adopted a Downtown Revitalization Plan in 2024. This plan included various initiatives to facilitate economic development in the downtown core, which included linking businesses downtown to the natural resource opportunities in Northern Quebec, as well as branding its community as 'downtown of the north' (Town of Chibougamau, 2024). In addition, Chibougamau has historically relied on the forestry industry as a key economic driver for the region, which predominantly employs local workers. In recent years, there has been challenges with the forestry industry in northern Quebec, particularly in light of climate change and the impact of forest fires, conservation plans for woodland caribou in the region, as well as tariffs on wood and wood products from the United States (Onishi, 2023).

The Corporation de développement économique de Chapais (CDEC) is that town's authorized body in matters of economic development. It was established in the 2010s with the mandate to implement the town's 2017 Economic Diversification Plan and to assist with the overall 2013-2023 strategic plan for the Town of Chapais. Recent initiatives for the Chapais Economic Development Corporation have included providing support to businesses negatively affected by forest fires, facilitate initiatives related to the circular economy, and pursue sustainable mining activities (Town of Chapais, 2023).

21.2.2.11 Gold and Copper Production

National and International Context

World gold production has since 2013, going from 2800 tonnes in 2013 to 3317 tonnes by 2019, before falling to 3020 tonnes in 2020 and then increasing to 3100 tonnes by 2022. As seen in table 21.13, 43% of the world's gold production comes from the top five producers, with Canada ranked fourth with 6.6% of the total world gold production.

Table 21.13 World gold mine production, by country, 2022 (p)

Ranking	Country	Tonnes	Percentage of total
1	China	330	10.6 %
2	Australia	320	10.3 %
3	Russia	320	10.3 %
4	Canada	204	6.6 %
5	United States	170	5.5 %
6	Ghana	130	4.2 %
-	Other countries	1,626	52.5 %
World total		3,100	100.0 %

Notes : (p) = predicted
Source : U.S. Geological Survey, 2022. and Natural Resources Canada, 2024b

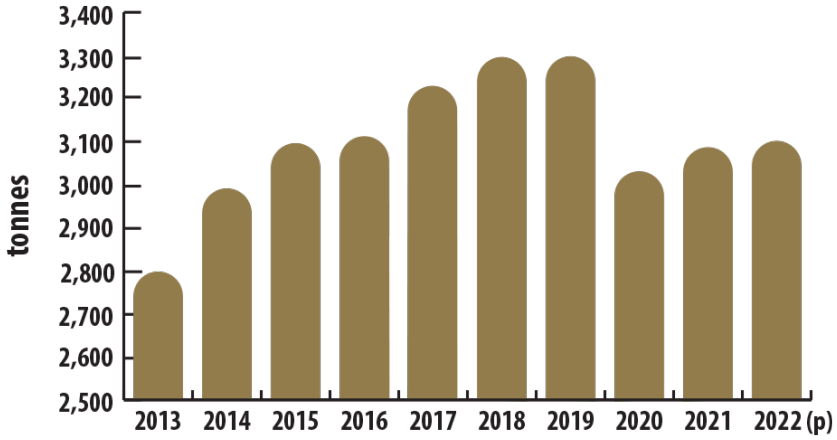


Figure 21.1 Canadian mines production of gold, 2013-2022 (p)

Notes: (p) = predicted.
Source: Natural Resources Canada, 2024b.

Canada is ranked fourth in the world for gold production, with approximately 204 tonnes of gold produced in 2022 and exports of gold and gold-based products valued at $22.3 billion during the same year. In 2022, gold reached a decade-high demand. This was largely due to global economic uncertainties and inflation. Jewelry is its primary use, with 7% used in technology applications. 46% of Canada's gold comes from Ontario, with 26% coming from Québec. Gold production has been increasing steadily in Canada for the last decade, being 55% higher in 2023 compared to 2013. Changes in Canadian gold production is indicated in figure 21.1.

In 2022, Canada's gold export was valued at $22.3 billion, a 4% increase from 2021. Out of this total, 53% was exported to the United Kingdom. The London Bullier Market Association, being very active in the international investment of purchasing and selling of gold, is the reason why the United Kingdom is a major importer of gold (Natural Resources Canada, 2024b).

World copper production has been steadily increasing since 2013, going from 18.2 million tonnes in 2013 to 22.0 million tonnes by 2022. As seen in the table 21.14, 24.0% of the world's copper production comes from Chile, with Canada ranked 12th with 2.4% of the world total.

Table 21.14 World copper mine production, by country, 2022 (p)

Ranking	Country	Thousand tonnes	Percentage
1	Chile	5,200	24
2	Democratic Republic of Congo (DRC)	2,200	10
3	Peru	2,200	10
4	China	1,900	9
5	United States	1,300	6

Ranking	Country	Thousand tonnes	Percentage
6	Russia	1,000	5
7	Indonesia	920	4
8	Australia	830	4
9	Zambia	770	4
10	Mexico	740	3
Other countries	4,900	22	
Total (rounded)		22,000	100

Notes: (p) = predicted
Source: U.S. Geological Survey, 2024. and Natural Resources Canada, 2024a

Canada produced 510,782 tonnes of copper in 2022, and exports of copper and gold-based products were valued at $9.4 billion during the same year. Due to the green energy transition, copper is expected to be increasingly in demand because of its uses in expanding electricity networks and clean energy technologies, especially with electric vehicles. 52.8% of Canada's copper comes from Ontario, with 31.2% of coming from Ontario. Copper production has been slowly decreasing in Canada for over a decade, being 17% lower compared to 2013 (Natural Resources Canada, 2024b)

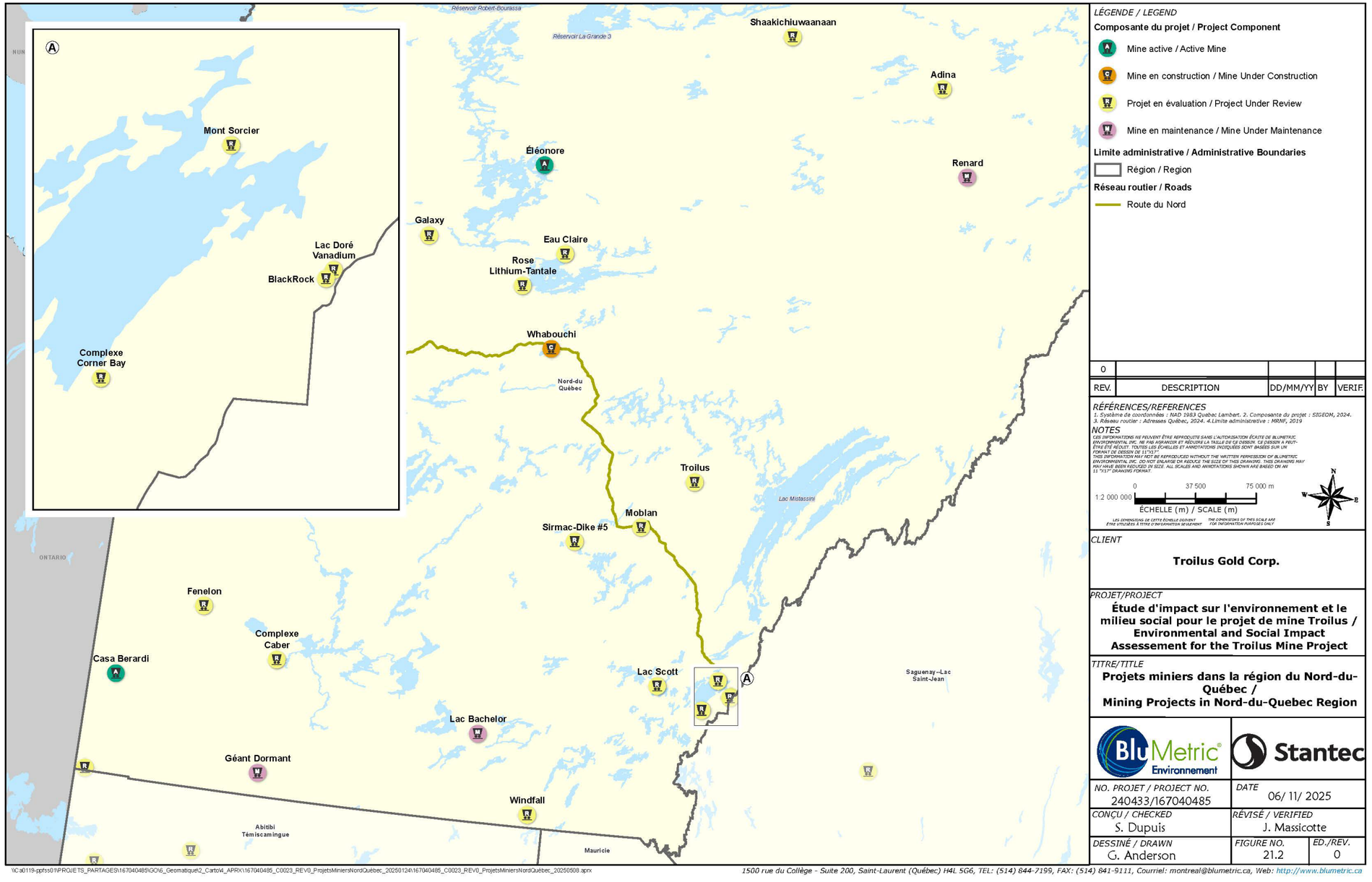
In 2022, Canada's copper and copper-based products for domestic export were valued at $9.4 billion, for a total of 5% decrease from 2021. Out of this total, 52% was exported to the United States, followed by China (17%) and Japan (13%) (Natural Resources Canada, 2024a). This includes operations for iron, gold, and other base metals.

Quebec Context

The mining industry is an important economic contributor to the Province of Québec. It is mostly concentrated in three different regions: Abitibi-Témiscamingue, Côte-Nord and Nord-du-Québec. In 2021, Québec's mining industry produced approximately $11.9 billion in minerals, which accounted for 21.4% of Canada's total production value. Mining in Québec contributed approximately $10.5 billion in GDP in 2020 (Natural Resources Canada, 2024c). This supported 39,745 direct and indirect jobs in 2019 (MRNF, 2023).

In 2021, 30 mining projects exist in Québec, 22 being active mines, four being mines in maintenance and three being mines in construction. Six active mines were located in Abitibi-Témiscamingue, five in Côte-Nord and two in Nord-du-Québec (MRNF, 2021). As identified in Map 21.2, in addition to the active mines, there are 15 mines (including Troilus) that are currently under review, as well as three in maintenance. These mines are in predominantly remote locations and away from communities and highways. Future mining activities remains a key economic interest for the province of Québec. This is shown in its Plan for the Development of Critical and Strategic Minerals 2020-2025. This plan outlines the actions planned to achieve the goal to become a leader in the production, transformation and recycling of critical and strategic minerals (CSMs), all while remaining partners with local and Indigenous communities (Government of Québec, 2020).

Map 21.2 Mining Projects in Nord-du-Quebec Region



\\Ca0119-ppfss01\PROJETS_PARTAGES\167040485\GO\6_Geomatique\2_Cartoi_APRX\167040485_C0023_REV0_ProjetsMiniersNordQuébec_20250124\167040485_C0023_REV0_ProjetsMiniersNordQuebec_20250508.aprx

1500 rue du Collège - Suite 200, Saint-Laurent (Québec) H4L 5G6, TEL: (514) 844-7199, FAX: (514) 841-9111, Courriel: montreal@blumetric.ca, Web: http://www.blumetric.ca

21.3 Project Interactions with Economics

Table 21.15 identifies, for each potential impact, the physical activities that might interact with the VC and result in the identified impact. These interactions are indicated by a check mark or a dash and are discussed in detail in Section 21.4, in the context of impacts pathways, standard and project-specific mitigation/enhancement, and residual impacts.

Table 21.15 Project Interactions with Economics

Physical Activities	Change in employment	Change in business	Change in provincial economy
Construction			
Labour, equipment and materials transport to the site.	-	-	-
Vehicles and equipment operation and maintenance within the PDA.	-	-	-
Tree cutting, vegetation clearing, soil stripping and earthworks.	-	-	-
Handling and use of explosives, including blasting	-	-	-
Construction of temporary and permanent buildings, including wastewater treatment system and drinking water collection and distribution system. a	-	-	-
Construction of mining infrastructures such as stockpiles, pits and the raising of tailings management facility.	-	-	-
Construction of roads and preparation of construction surfaces including the crushing of material used for construction. Relocation of a section of the access road and power line.	-	-	-
Construction of water management systems including ditches, diversion channel, sedimentation ponds and the water treatment plant.	-	-	-
Dewatering of natural water bodies and pits, lowering water level in tailings management facility and management of contact water.	-	-	-
Diversion of Bibou Creek (CE2).	-	-	-
Management of waste materials, including hazardous waste.	-	-	-
Purchases of goods and services.	√	√	√
Employment and expenditures.[1]	√	√	√
Operation			
Labour, equipment and materials transport to the site.	-	–	-
Vehicles and equipment operation and maintenance within the PDA.	–	-	-
Handling and use of explosives, including blasting.	-	-	-
Ore extraction from pits including drilling and hauling of waste rock.	-	-	-

Physical Activities	Change in employment	Change in business	Change in provincial economy
Ore, waste rock and tailings storage.	-	-	-
Ore processing including conveyor, crushing, loading and hauling on site.	-	-	-
Transportation of concentrate to a smelter or a wharf.	-	-	-
Management and treatment of water on the mine site and to the environment, including drainage and contact water.	-	-	-
Progressive reclamation of disturbed areas.	-	-	-
Management of waste materials, including hazardous waste.	-	-	-
Purchases of goods and services.	√	√	√
Employment and expenditures.[1]	√	√	√
Decommissioning and Closure			
Labour, equipment and materials transport to the site.	-	-	–
Vehicles and equipment operation and maintenance within the PDA.	–	-	-
Decommissioning, dismantling and disposal of buildings and equipment.	-	-	-
Relocation of a section of the Bibou Creek.	-	-	-
Pits flooding, surface and groundwater management.	-	-	-
Reclamation of disturbed areas, including earthworks, placement of overburden and revegetation.	-	-	-
Management of waste materials, including hazardous waste.	-	-	-
Purchases of goods and services.	√	√	√
Employment and expenditures[1].	√	√	√

Notes:
 = Potential interaction
– = No interaction
1. Project employment and expenditures are generated by most Project activities and are the main drivers of many potential socio-economic effects. Rather than acknowledging this by placing a checkmark against each of these activities, ‘employment and expenditures’ is listed as a separate item under each phase of the Project.

Project demand for and expenditures on services, labour, materials, and equipment are the primary pathways through which changes in the labour force, business, and economy occur. All pathways are captured through the identified interaction with economic conditions. All remaining Project activities and components are identified as having no interaction, because it is the employment and expenditures component of these activities that interacts with economic conditions, not the physical activities of the Project themselves. The assessment of change in labour force, business, and economy is considered in the overall context of each Project phase (i.e., construction, operations, and decommissioning).

21.4 Assessment of Residual Impact on Economic Conditions

21.4.1 Analytical Assessment Techniques

Economic impacts of Project construction, operations, and decommissioning and closure were generated by the Institut de la Statistique de Quebec and were estimated at the provincial level using the Quebec Intersectoral model (QIM). The QIM is an Input-Output Model that estimates the valued added, employment and imports required to respond to a demand shock on the Quebec economy. As such, the basis of the model is the value of income and its effect on the economy. These are estimated by applying federal and provincial effective tax rates, based on income bracket and province, to modelled labour income per person year (PY) of employment adjusted to represent mean taxable income. Modelled direct impacts of labour and labour income stemming from turnarounds were not estimated (Institut de la Statistique de Quebec, 2025a, b).

The QIM does not provide economic impact multipliers at the local or regional level. Economic impacts to the RSA and LSA were estimated through customized location quotients based on available provincial level information, including employment, labour, and GDP coefficients.

Economic impacts are described in terms of direct and indirect and are described below. Given the basis of the model reflects the impact of income, induced impacts were not included:

- Direct effects result from labour, materials, and services demand from the proponents and its contractors during Project construction and operations (e.g., labour, project management);
- Indirect effects result from contractor expenditures on goods and services (e.g., employment with 34 suppliers/manufacturers of materials used during construction).

A brief overview of how Project construction and operations were estimated is included in the feasibility study provided by AGP Mining Consultants Inc. (2024). A summary of the capital and operational expenditures is presented below. Economic information related to decommissioning was not provided in the feasibility study. The feasibility study calculated the economic impacts using US dollars. For this Project, US dollars were converted to Canadian dollars based on the exchange rate of 1.3687, which is rate identified by the Bank of Canada on June 28, 2024, the day the feasibility study was released.

21.4.1.1 Construction

The capital expenditures estimate includes costs such as local infrastructure upgrades, open pit mine development, ore processing facility, tailings management facility, high-voltage substation and power supply infrastructure, offices, maintenance shops and utilities, as provided in the feasibility study. The estimate conforms to Class 3 guidelines for a feasibility study level estimate with a ±15% accuracy according to the Association of the Advancement of Cost Engineering International (AACE International). Most costs have a base date of H2 2023.

The following items were not included in the cost estimate:

- Financing charge;
- Residual value of temporary equipment and facilities;
- Environmental approvals;
- Further Project studies;
- Force majeure events;
- Future scope changes;
- Special incentives (e.g., schedule, safety, or others);
- Strikes or other work stoppages;
- Management reserve above the Project contingency included;
- Foreign exchange exposure;
- Land acquisition.

Costs are generally grouped into two categories:

1. Initial Capital – initial Project development;
2. Sustaining Capital – all costs subsequent to completion of the expansion.

Table 21.16 identifies the capital expenditures planned for these two phases. The initial capital investment is projected to be 1,824.2 millions of Canadian dollars (C$M), and the sustaining capital investment is projected at 514.5 C$M bringing the total capital investment to 2,228.7 C$M.

Table 21.16 Capital Expenditures (C$M) for the Project by Phase

Area	Initial Capital	Sustaining Capital	Total Capital
Open Pit – Prestrip (capitalized)	291.5	-	291.5
Open Pit – Capital	62.0	135.9	197.9
Open Pit Mining – Subtotal	353.5	135.9	489.4
Processing	606.3	20.7	627.0
Infrastructure	137.3	37.9	175.2
Environmental	14.6	92.3	107.0
Indirects	236.8	69.1	305.8
Contingency	122.2	22.7	144.9
Total	**1,824.2**	**514.5**	**2,228.7**

Source : AGP Mining Consultants Inc., 2024

The estimates include site preparation, stripping, fleet, buildings and mechanical infrastructure, electrical infrastructure, and trolley assist. Process activities including crushing, grinding, floatation, and mineral separation to begin the magnetic recovery and concentrate filtration. Utilities involve costs associated with powering the facility during construction. Tailings and water management expenditures are for activities associated with establishing infrastructure required for the management of water within the site. On-site infrastructure predominantly includes site preparation work as well as the development of additional ancillary buildings, whereas off-site infrastructure involves investments in transportation and the transmission line. Indirect costs predominantly involve the establishment of temporary infrastructure and equipment, such as first aid centres, temporary roads temporary utilities, as well as engineering procurement, and construction management. Owner's costs are administrative costs associated with the construction of the Project. The contingency allowance is provided to reflect the accuracy of the estimate based on 9% of the total Project cost.

21.4.1.2 Operations

The operating cost estimate (Table 21.17) is composed of mining, tailings/water management, processing, and general and administrative costs. Over the life of the mine, the operational expenditures are expected to total approximately $9.9 billion.

Table 21.17 Estimated Operational Expenditures (C$M) for the Life of the Project

Cost Area	Cost	Unit Cost ($/t Mill Feed)
Open Pit Mining	6014.8	15.88
Processing	2922.7	7.72
General and Administration	589.2	1.56
Concrete Trucking	163.4	0.44
Port Costs	45.0	0.12
Shipping to Smelter	146.6	0.38
Total Operating Cost	**9,881.7**	**26.1**

Source : AGP Mining Consultants Inc., 2024

As identified in table 21.17, open pit mining makes up the largest operational expense in the Project. The mining costs are associated with activities such as drilling and blasting, loading, hauling, revegetation, and other ongoing maintenance. Process operating costs include areas such as labour, power, consumables, maintenance materials, mobile equipment, and laboratory and assays. General and administrative costs are based upon the level of service required for the size of the operation, which include transporting employees to the site, providing personal protective equipment, as well as other administrative services, including information technology, finance, security, and cleaning.

21.4.2 Change in Employment

21.4.2.1 Project Pathways

Project demand for labour can result in positive effects on employment, including increased local employment and income during all phases of the Project, including construction, operations, and decommissioning and closure. Employment numbers will fluctuate over the life of the mine based on demand and services required. Based on existing labour force conditions, positive effects may not be equitably distributed across subpopulations.

21.4.2.2 Mitigation and Enhancement Measures

The following mitigation and enhancement measures have been incorporated into the design of the Project and/or are proposed to avoid or reduce Project-related effects with respect to employment:

- Troilus is committed to prioritize hiring from local communities and the region, pending the availability of qualified applicants;
- Troilus is in regular communication with local training/education institutions regarding existing, upcoming, and potential course and training offerings, and how this aligns with Troilus's anticipated needs. Trolius continues to explore education, training opportunities and will develop hiring practices that encourages the employment and retention of qualified Indigenous peoples and local community members, including opportunities targeted towards youth;
- Troilus will explore opportunities to support training, education, and scholarship programs that improve employment opportunities, including participation in and contribution to local training networks, which are targeted at diverse groups such as Indigenous nations, local youth, and various relevant subgroups, such as the Indigenous Skills and Employment Training Program;
- Troilus will take into consideration traditional and cultural activities to propose measures to enable the continued participation of Indigenous employees. Further details will be presented in the impact and benefits agreement (IBA);
- Employee schedules will be adapted to community needs and work-life balance;(14/14 and 7/7 schedules)
- Troilus will develop and implement a Diversity and Inclusion Policy, which encompasses respectful workplace behaviours for diverse groups such as Indigenous nations, local youth, seniors, 2SLGBTQQIA+, visible minorities, persons with disabilities and other members of the GBA Plus community. Such a policy and subsequent training consist of awareness training for employees to foster a respectful working relationship with Indigenous employees, visible minorities and contractors;
- Troilus will put in place measures to encourage and increase women’s participation in the mining industry such as; targeted training opportunities and job offers for women as well as work policies to eliminate harassment and discrimination;
- An integration committee will be put in place with the Jamesian communities (Chapais/Chibougamau) to address issues and opportunities pertaining to employment;

- An advisory committee has been established with the Cree Nation of Mistissini to address issues such as employment. This committee will be maintained through the IBA.

21.4.2.3 Project Residual Impact

Estimated Workforce Size

During the construction and operations phase, staff will be on site 24-hours a day, seven days a week, 365 days a year. This will be achieved by employing a 12-hour shift on a 7 day on, 7 day off rotation system alternatively 14 day schedule will also be offered. A complement of office, environmental and other support staff will work a 4 day on, 3 day off rotation system. The estimated and modelling labour assumes that labour will be sourced from Quebec.

The estimated number of direct and indirect workers for the construction and operations phase is summarized is table 21.18. Employment forecasts for decommissioning were not available at the time of the study, but they are expected to be reduced relative to the construction and operations phase.

Table 21.18 Direct and Indirect Labour (Person Year) Generated from the Project

Impact	Construction	Operations
Direct (modelled)	2,548	10,384
Direct (estimate)	4,676	14,036
Indirect (modelled)	949	10,558

Notes:
- Modelled values are based on the results of the Institut de la statistique du Québec (2025a, b).
- Estimated values are those provided by Troilus

Direct employment estimates are also provided based on the estimates generated from Troilus and converted into PY, which is used to provide a more accurate representation about the level of labour required throughout the duration of the Project. It is expected that the estimates provided by Troilus are a more accurate representation of the labour required for the Project. The estimate numbers are based on a detailed labour needs assessment while the modelled results are based on expenditures. While it is estimated that direct and indirect labour will be generated across Quebec, there will be substantial labour required for Project-based activities in the LSA and RSA during both construction and operations.

Estimate Workforce Availability

Table 21.9 and table 21.10 highlight workforce projections for the mining industry in the RSA, which accounts for the active, inactive, and prospective projects as of the end of 2022. It was determined that the mining workforce in Nord-du-Quebec will be 12,821 full-time employees, which will include 6,886 individuals employed and 5,935 vacancies, resulting in a 46% vacancy rate. Given the size of the labour force within the LSA and RSA as identified in table 21.7 and table 21.8, and the low rates of employment in the mining sector, it is likely that the vacancy rates will not be fulfilled by the local workforce, and that the incorporation of mitigation and enhancement measures to fulfill the labour required for the Project will be needed.

While estimates of local and regional employment are provided, the degree to which residents of the LSA and RSA secure employment with the Project depends on numerous considerations, including existing levels of educational attainment, labour force conditions, and the extent to which local workers wish to participate in the Project. The extent to which contractors draw on labour from outside the LSA and RSA to complete Project work also affects levels of Project-related local and regional employment. For example, in 2018, Stornoway Diamonds' Renard Mine 525-person workforce consisted of 34% of residing in Northern Quebec (28% which were Cree), with 61% come from the remainder of the province, and 5% from other areas of Canada (Stornoway Diamonds, 2019). Based on the composition of similarly sized past mining and construction projects, the current population, education, and workforce within the LSA and RSA, and the forecasted mining operations within the region, it is reasonable to expect that the local labour component during operations would reach approximately 35% of the Project labour force, with up to 30% of the workforce representing members from local Indigenous organizations.

Troilus is committed to enhancing the local positive impacts of the Project through the inclusion of mitigation and enhancement measures. Troilus's corporate gender equity and diversity policies include provisions to hire locally first, with a focus on hiring members of Indigenous nations, women, and youth to increase Project employment among underrepresented populations, as well as to reduce the wage inequality gap between men, women, and Indigenous populations. This includes providing accommodations during the hiring process, as well as providing training opportunities for local people. For Indigenous peoples, accommodations are provided to allow employees to engage in traditional and cultural activities. Further, Troilus will develop a Diversity and Inclusion Policy, which does not discriminate against employees or contractors of the company based on race, ethnicity, physical/mental capabilities, sexual orientation, or Indigeneity, and requires employees to adhere to respectful workplace practices. Troilus is exploring options to attract mobile workers to relocate to the LSA and RSA, such as incentives for housing, spouses, and families.

Effects on Sub-populations identified through Gender Based Assessment Plus

Recognizing that there is a non-Indigenous population in the LSA and RSA (Table 21.4), it is conservatively assumed that the Project will employ more non-Indigenous than Indigenous persons. It is also likely that the Project will employ more males than females because most jobs associated with the Project will be in trades and construction-related occupations and industries that employ disproportionately high numbers of males (Table 21.7 and table 21.8). To enhance diversity and inclusion within the workforce, Troilus will implement the mitigation and enhancement measures identified in Section 21.4.2.2, such as the Diversity and Inclusion Policy, which will assist in recruiting and retained sub-populations, include those identifying as Indigenous. Nevertheless, despite mitigation and enhancement measures it is likely that more men, specifically more non-Indigenous men, than women will be employed by the Project. While mitigation and enhancement measures are expected to have a positive effect on employment and income inequality at the Project level (with baseline information identified in Section 21.2) given the size of the Project's construction, operations, and decommissioning and closure workforces relative to the size of the LSA labour force, the Project is not expected to measurably reduce employment and income inequality across genders or between persons of Indigenous and non-Indigenous identity within the LSA given the small size of the Project workforce relative to the size of the LSA labour force. However, the effects of this Project will be to provide a greater opportunity for employment in the LSA, including the employment of underrepresented individuals in the workforce.

Summary

With the implementation of mitigation and enhancement measures, Project residual effects on the LSA labour force are expected to be positive in direction and high in magnitude during construction and operations. Moderate magnitude adverse effects are anticipated as the Project transitions from operations through decommissioning and closure (i.e., loss of direct employment). Positive and adverse effects are expected to extend to the RSA. Effects are short-term in duration during construction and decommissioning and closure, and medium-term during operations. Effects occur continuously throughout each Project phase and are reversible following the completion of construction and operations; however, these are irreversible following the completion of decommissioning and closure due to potential permanent loss of Project-related employment.

In other words, the benefits of employment through job creation during construction and operations will be reversed as project activities, and the corresponding workforce requirements of the Project, are reduced. During the transition from operations to closure, there will be a phased lay off approach which will prioritize retaining workforce that resides locally. These jobs will provide for full time employment for a substantial number of individuals within the LSA and RSA over the life of the Project, and while these numbers are expected to be reduced during the later stages of operations and decommissioning, the benefits of long-term employment (> 22 years) and training/skills development that will result will be realized.

21.4.3 Change in Business

21.4.3.1 Project Pathways

Project expenditures on materials, equipment, and services could result in both positive and adverse effects on business. Positive effects include increased business revenue, which can support capital investment and hiring, thereby increasing capabilities and capacity among local businesses. Spending of income by direct and indirect workers contributes to positive effects on local businesses, primarily within the service sector, resulting in induced employment effects. Adverse effects include labour drawdown (i.e., workers leave current employers to secure employment with the Project due to wage differentials or a desire to work on the Project) and wage inflation (i.e., to attract and retain workers local employers may increase compensation paid to workers).

21.4.3.2 Mitigation and Enhancement Measures

The following mitigation and enhancement measures have been incorporated into the design of the Project and/or are proposed to avoid or reduce Project-related effects that affect business:

- Troilus will prepare and implement plans, programs and policies to encourage contracting and procurement opportunities for Indigenous and local businesses. Such plans will include the enhancement of supplier network development initiatives, including keeping a repository of local and Indigenous suppliers with potential to bid on the Project. Troilus will establish a clear communication procedure to establish procurement opportunities for Cree and Jamesian communities and Troilus will accommodate barriers there may be to bid on a contract (such as translation services), where feasible;

- Troilus commits to consider bids from qualified locally-owned businesses first, including those submitted from diverse groups such as Indigenous-owned companies, women-owned companies, 2SLGBTQQIA+-owned companies, persons with disabilities-owned companies and visible minority-owned companies, as per Troilus's Local Procurement Policy;
- An integration committee will be put into place with the Jamesian communities (Chapais/Chibougamau) to address issues and opportunities pertaining to procurement;
- An advisory committee has been established with the Cree Nation of Mistissini to address issues such as procurement. This committee will be maintained through the IBA. Further mitigation and enhancement measures will be detailed in the IBA.

21.4.3.3 Project Residual Impact

Construction

Accounting for the capital expenditures provided in Section 21.4.1.1, table 21.19 presents the estimated direct and indirect economic impacts via sector as a result of the value added from the Project.

Table 21.19 Direct and Indirect Economic Impacts via Sector, Construction (C$M)

Sector	Direct	Indirect	Total
Primary sectors	$0.3	$1.6	$1.9
Utilities	-	$3.4	$3.4
Construction	$50.2	$4.0	$55.0
Manufacturing	$60.5	$17.7	$78.2
Other services	$220.2	$83.4	$303.5
Non-commercial sectors	-	$3.8	$3.8
Total	**$331.1**	**$114.7**	**$445.8**

Source : Statistics Quebec, 2025a

As identified in table 21.19, 68.1% of sectoral spending during construction is expected to be in other services[1], 17.5% in manufacturing, and 12.3% in construction. The degree to which LSA businesses benefit from Project contracting and supply opportunities, and therefore result in indirect employment, depends on several factors, including their size, capability and capacity to accommodate Project requirements. Specifically, indirect employment resulting from Project spending on goods and services would only be expected to result in 'net new' (i.e., creation of) indirect employment if businesses become established or expand (by increasing workforces) to meet Project demands. In consideration of the LSA's industrial composition, existing labour force conditions, and using employment as a measure of capacity (as noted in Sections 21.2.2.3, 21.2.2.4, and 21.2.2.5) businesses within the LSA are likely well

[1] Statistics Quebec (2025) did not provide a definition for what is included in other services.

positioned to compete for small- to medium-sized service and supply contracts, particularly those related to construction, transportation, and manufacturing.

Operations

Accounting for the capital expenditures provided in Section 21.4.1.1, table 21.20 presents the estimated direct and indirect economic impacts via sector as a result of the value added from the Project.

Table 21.20 Direct and Indirect Economic Impacts via Sector, Operations (C$M)

Sector	Direct	Indirect	Total
Primary sectors	$1,346	$172.0	$1,518
Utilities	-	$481.2	$481.2
Construction	-	$33.7	$33.7
Manufacturing	-	$353.5	$353.5
Other services	-	$620.3	$620.2
Non-commercial sectors	-	$14.4	$14.4
Total	**$1,346**	**$1,675**	**$3,021**

Source : Statistics Quebec, 2025b

As identified in table 21.20, 50.2% of sectoral spending during operations is expected to be in primary sectors, 20.5% in other services, 15.9% in utilities and 11.7% in manufacturing. Similar to the construction phase, the degree to which LSA businesses benefit from Project contracting and supply opportunities, and therefore result in indirect employment, depends on several factors, including their size, capability and capacity to accommodate Project requirements. Again, indirect employment resulting from Project spending on goods and services would only be expected to result in ‘net new’ (i.e., creation of) indirect employment if businesses become established or expand (by increasing workforces) to meet Project demands. In consideration of the LSA’s industrial composition, existing labour force conditions, and using employment as a measure of capacity (as noted in Sections 21.2.2.3, 21.2.2.4, and 21.2.2.5) businesses within the LSA are likely well positioned to compete for small- to medium-sized service and supply contracts, particularly those related to primary sectors, utilities, and manufacturing.

With respect to upward pressure on local employers, wages paid to the Project’s direct workforce are predicted to be substantially higher than the average wage rates paid within the LSA and RSA. However, when compared to the range of mean annual wages paid to Quebec workers employed in other provinces, and in reference industries and sectors, projected wages fall within existing levels of compensation (see Sections 21.2.2.7 and 21.2.2.8).

While Project wages are likely to fall within the existing range of compensation paid to Quebec workers of industries and sectors most applicable to Project-related work, due to differentials between existing LSA and RSA conditions, the Project has the potential to contribute to upward pressure on wages through increased competition for labour among local employers. Combined with the potential for Project-related

employment to be perceived as being more desirable than other forms of employment within the LSA and RSA, the Project could result in increased difficulty for local businesses to recruit or retain qualified workers. Alternatively, the Project will require employees to work long hours and long rotations, which may serve as a barrier among local employees to a certain degree.

To manage the Project's contribution to upward pressure on wages, Troilus will pay its direct workforce wages that are consistent with Quebec's mining industry. Combined with the anticipated size of the Project's local direct workforce, adverse effects on local and regional businesses (in terms of upward pressure on wages and associated increased difficulty to recruit or retain workers) is expected to be low in magnitude.

Decommissioning and Closure

Given the length of construction, operations, and decommissioning and closure, it is possible that local businesses could expand (workforce size) or new businesses could be established (especially those seeking to fulfill operational service and supply contracts) to meet Project demands. It is possible that new and expanded businesses will be established in the LSA, particularly as the Project has the potential to stimulate a new and specialized industry for the province and the country, which would stimulate further indirect impacts and induced spending. Given the potential for increases for indirect spending in the LSA, paired with the low likelihood that all indirect Quebec-based employment effects will occur in the LSA, resulting in 'net-new' employment, residual effects within the LSA are considered moderate in magnitude.

No economic modelling has been done for the decommissioning and closure phase given the likelihood that the economy will continue to change during the life of the Project. However, the closure of the Troilus operation will likely result in an adverse effect on regional businesses. The potential for benefits associated with indirect and induced employment and direct, indirect, and induced spending will be realized during Project construction and operations and the conclusion of the Project will present an irreversible residual effect. The establishment of this Project may stimulate further developments of similar projects in the LSA of which regional businesses will have the potential to avail. Nord-du-Quebec has a history of an active workforce in the region, and an increase in mining activity is predicted, as identified in Map 21.2. As such, it is reasonable to assume that some of the Troilus workforce will remain in the mining sector in Nord-du-Quebec once the Project is decommissioned.

Effects on Sub-populations identified through Gender Based Analysis Plus

By implementing measures specifically aimed at increasing economic participation among local and Indigenous businesses a disproportionate amount of Project contracting and procurement in Quebec is expected to be realized by these groups. While mitigation and enhancement measures are expected to have a positive effect on Indigenous and local procurement at the Project level, the Project is expected to have a low impact in reducing inequalities within the LSA. The likelihood of residual effects occurring as assessed is moderate. Mitigation and enhancement measures are specifically targeted at increasing local content and participation among Indigenous and local businesses. With the inclusion of such mitigation and enhancement measures, it is not expected that the Project will directly or indirectly create economic hardships or the displacement of Indigenous businesses.

Summary

With the implementation of mitigation and enhancement measures, Project residual effects on local and regional businesses are expected to be mixed in direction (positive and adverse) and predominantly moderate in magnitude. Positive effects relate to Project spending on goods and service contracts, and direct, indirect and induced employment effects alongside the prospect of improved financial positions of LSA constituents. Adverse effects may result from anticipated upward pressure on wages, increased difficulty of local employers to recruit or retain workers who may be qualified for employment with the Project.

Positive and adverse effects on regional businesses are expected to extend to the RSA. Effects are short-term in duration during construction, and during decommissioning and closure, and medium-term during operations. Effects are expected to occur continuously throughout each Project phase and are reversible following the completion of construction and operations; however, these are irreversible following the completion of decommissioning and closure (due to the potential for permanent loss of Project-related expenditures and employment). Based on existing conditions, effects occur within a resilient socio-economic context within the LSA and RSA.

21.4.4 Change in Provincial Economy

21.4.4.1 Project Pathways

Project spending will result in overall increased economic activity in the LSA and RSA and will also contribute to provincial and federal government revenues through royalty payments and taxation on production, labour, goods, and services.

21.4.4.2 Mitigation and Enhancement Measures

Troilus has and will continue to engage local Indigenous nations and has established agreements to support present engagement and participation in the Project. Additional long-term agreements are currently being developed (e.g., Impact Benefit Agreement) as well as additional agreements, as appropriate. These agreements may include elements to assist in mitigating the adverse economic impacts from the Project and enhance the positive economic impacts for these Indigenous nations.

21.4.4.3 Project Residual Impact

Construction

Accounting for the capital expenditures provided in Section 21.4.1.1, table 21.21 presents the estimated direct and indirect economic impacts as a result of the value added from the Project. The average salaries for the sectors affected are those for the year 2024. The indirect taxation matrix used for the economic model takes into account the 2024 tax regime, with goods and services tax at 5% and the Quebec sales tax at 9.975%. The leakage was calculated based on an assessment of 2024 inventories of supplies in Quebec and the sale of used products and, as such, references updated data.

Table 21.21 Direct and Indirect Economic Impacts, Construction (C$M)

Type	Direct	Indirect	Total
Labour			
Workforce (PY)	2,548	949	3,496
Wages and salaries before tax	$201.8	$58.3	$260.1
Gross mixed income	$3.4	$7.6	$11.0
Other gross income before tax	$125.8	$48.8	$174.6
Subtotal	$331.1	$114.7	$445.8
Product			
Product taxes	$7.4		
Product subsidies	- $1.7		
Subtotal	$5.7		
Leakage			
Leaks – imports	$866.4		
Leaks – other	$1.0		
Subtotal	$867.4		
Total	**$1,318**		

Source : Institut de la statistique du Québec, 2025a

As identified in table 21.21, there is expected to be a total of 3,496 PY of employment to support the Project during the construction phase, which is expected to generate $445.8 million in GDP ($331.1 from direct impacts), of which $260.1 million is paid in wages and salaries. The model accounts for the total impact of an expenditure shock and is broken down based on gross value, which includes economic leakage that is now captured in the Quebec production process. Given that, the initial spending figure for construction has a gross value at $1.3 billion GDP. However, based on the economic leakage, approximately 34.2% - the value of income and product taxes totalling $451.5 million - of this spending will actually take place in Quebec, with the remaining 65.8% ($867.4 million) to be accounted for outside of Quebec (15.7% interprovincially and 50.1% internationally). A breakdown of these construction phase imports is provided in table 21.22.

Table 21.22 Interprovincial and International Imports by Product, Construction (C$M)

Type	Interprovincial	International	Total
Machinery	$36.5	$525.4	$561.9
Margin and services, retail	$112.8	$0.9	$113.7
Transport equipment	$0.5	$52.1	$52.6
Services, transport and storage	$15.4	$7.4	$22.8
Primary metal products	$6.6	$11.2	$17.8
Other goods and services	$47.8	$54.8	$97.6
Other leaks	$1.0		
Total	**$214.5**	**$651.9**	**$867.4**

Source :Institut de la statistique du Québec, 2025a

The economic model calculates taxes and levies on wages and salaries paid to employees. To do so, the number of jobs is first estimated by dividing the wages and salaries in a sector by the average wage in the same sector. Taxable income is then estimated, taking into account the various deductions credited at source. Quebec and federal taxation is then applied, taking into account certain adjustments such as tax credits and surtaxes. The model thus permits tax revenues generated according to the two levels of government, taking into account certain average deductions. The model also estimates employee and employer contributions to the various social security funds. In Quebec, the parafiscal charges estimated by the model correspond to amounts paid to the Commission des normes de l'équité de la santé et de la sécurité du travail (CNESST), the Fonds des services de santé (FSS), the Régime québécois d'assurance parentale, (RQAP) and the Régie des rentes du Québec, (RRQ). For parafiscal charges for the federal government, the model takes into account contributions to the Employment Insurance (EI) fund. table 21.23 highlights the impact of government revenues from the Project during the construction phase.

Table 21.23 Government Revenues, Construction (C$M)

Type	Direct	Indirect	Total
Local Authorities			
Municipal taxes	$0.5	-	$0.5
Government of Quebec			
Taxes on wages and salaries	$20.2	$5.1	$25.3
Sales tax	$0.05	$0.34	$0.39
Specific taxes	$3.6	$1.0	$4.6
Subtotal	$23.8	$6.5	$30.3
Government of Canada			
Taxes on wages and salaries	$14.8	$3.6	$18.4
Sales tax	$0.06	$0.30	$0.36
Excise taxes	$1.0	$0.3	$1.3
Customs duties	$0.25	$0.05	$0.3
Subtotal	$16.1	$4.2	$20.3

Type	Direct	Indirect	Total
Parafiscal Charges			
Quebec	$33.2	$10.0	$43.2
Federal	$4.9	$1.5	$6.4
Subtotal	$38.1	$11.5	$49.6
Total	**$78.5**	**$22.2**	**$100.7**

Source :Institut de la statistique du Québec, 2025a

A large part of the direct revenues for the Governments of Quebec and Canada come from taxes on wages and salaries, where $20.2 (Quebec) and $14.8 (Canada) million is expected. Municipal government taxes are also only applied directly, which is anticipated to be $0.5 million during construction. Sales tax has a higher indirect vs. direct impact across both the provincial and federal government, given the sources of potential sources of spend from the workforce. The parafiscal charges represent the largest components of revenue for the Government of Quebec, totalling at $43.2 million.

Operations

Accounting for the operational expenditures provided in Section 21.4.1.2, table 21.24 presents the estimated direct and indirect economic impacts as a result of the value added from the Project.

Table 21.24 Direct and Indirect Economic Impacts via Labour, Operations ($CAD/M)

Type	Direct	Indirect	Total
Labour			
Workforce (PY)	10,384	10,558	20,942
Wages and salaries before tax	$1,148	$715.0	$1,863
Gross mixed income	-	$51.9	$51.9
Other gross income before tax	$198.1	$805.9	$1,004
Subtotal	$1,346	$1,294	$3,020
Product			
Product taxes	$164.2		
Product subsidies	- $6.3		
Subtotal	$157.9		
Leakage			
Leaks – imports	$3,490		
Leaks – other	$18.0		
Subtotal	$3,508		
Total	**$6,686**		

Source : Institut de la statistique du Québec, 2025b

As identified in table 21.24, there is expected to be a total of 20,942 PY of employment to support the Project during the operations phase, which is expected to generate a GDP of $3.0 billion ($1.3 billion from direct impacts), of which nearly $1.9 billion is paid in wages and salaries. The model accounts for the total impact of an expenditure shock and is broken down based on gross value, which includes economic

leakage that is now captured in the Quebec production process. Given that, the initial spending figure for operations has a gross value at approximately $6.7 billion GDP. However, based on the economic leakage, approximately 47.5% - the value of income and product taxes totalling nearly $3.2 billion - of this spending will actually take place in Quebec, with the remaining 52.5% ($3.5 million) to be accounted for outside of Quebec (22.6% interprovincially and 29.9% internationally). A breakdown of these operations phase imports is provided in table 21.25.

Table 21.25 Interprovincial and International Imports by Product, Operations ($CAD/M)

Type	Interprovincial	International	Total
Chemical and pharmaceutical products	$66.0	$684.1	$750.1
Mineral fuels	$176.7	$390.9	$567.6
Rubber and plastic products	$146.2	$255.6	$401.8
Petroleum and coal products	$235.8	$134.2	$370.0
Utility services	$280.3	$10.0	$290.3
Other products	$600.9	$509.3	$1,110
Other leaks	$18.0		
Total	**$1,524**	**$1,984**	**$3,508**

Source : Institut de la statistique du Québec, 2025b

Similar with construction, the economic model calculates taxes and levies on wages and salaries paid to employees. To do so, the number of jobs is first estimated by dividing the wages and salaries in a sector by the average wage in the same sector. Taxable income is then estimated, taking into account the various deductions credited at source. Quebec and federal taxation is then applied, taking into account certain adjustments such as tax credits and surtaxes. The model thus permits tax revenues generated according to the two levels of government, taking into account certain average deductions. The model also estimates employee and employer contributions to the various social security funds. table 21.26 highlights the impact of government revenues from the Project during the construction phase.

Table 21.26 Government Revenues, Operations (C$M)

Type	Direct	Indirect	Total
Local Authorities			
Municipal taxes	-	-	-
Government of Quebec			
Taxes on wages and salaries	$134.2	$66.5	$200.7
Sales tax	$4.6	$1.5	$6.1
Specific taxes	$93.9	$10.7	$104.6
Subtotal	$232.7	$98.8	$331.5
Government of Canada			
Taxes on wages and salaries	$103.6	$47.4	$151.0
Sales tax	$0.2	$1.3	$1.5
Excise taxes	$46.8	$3.1	$49.9
Customs duties	$1.5	$0.5	$2.0

Type	Direct	Indirect	Total
Subtotal	$152.0	$52.4	$204.4
Parafiscal Charges			
Quebec	$177.5	$160.5	$338.0
Federal	$20.8	$17.9	$38.7
Subtotal	$198.3	$178.3	$376.7
Total	**$583.0**	**$329.5**	**$912.5**

Source: Institut de la statistique du Québec, 2025a

A large part of the direct revenues for the Governments of Quebec and Canada come from taxes on wages and salaries, where $331.5 (Quebec) and $151.0 (Canada) million is expected. Municipal government taxes were only calculated during the permitting process during construction, and as such revenue during operations (i.e., annual property / business taxation) is not provided. Sales tax has a higher indirect vs. direct impact across both the provincial and federal government, given the sources of potential sources of spend from the workforce. The parafiscal charges represent the largest components of revenue for the Government of Quebec, totalling at $33.8 million.

While estimates of GDP contributions to the LSA have not been prepared, the Project is inherently beneficial to the local and regional economy. Because GDP is a measure of overall economic activity, the magnitude of effect is represented through the additive effect of Project-related changes in the local and regional labour force and businesses. The Project is expected to have a moderate magnitude positive effect on the GDP of the LSA and RSA during construction and operations. Because the Project transitions from operations, and into and through decommissioning and closure, Project contributions to the GDP of the LSA and RSA will cease; however, contributions made during the decommissioning and closure phase are estimated to be positive in direction and low in magnitude.

Decommissioning and Closure

The model did not calculate the economic impacts for decommissioning. However, once decommissioning of the Project is complete, the economic benefits for the LSA and the RSA will have been realized. The Project will no longer contribute towards GDP growth, presenting an irreversible adverse residual effect. However, it is likely that the Project will further enhance the specialization of mining activity in the LSA and RSA, which may provide labour market benefits once the decommissioning of the Project is complete.

Effects on Sub-populations identified through Gender Based Assessment Plus

By implementing measures specifically aimed at increasing diverse employment opportunities as well as economic participation among local and Indigenous businesses, a disproportionate amount of positive economic effects can be realized by sub-populations. While mitigation and enhancement measures are expected to have a positive effect on Indigenous and local procurement at the Project level, the Project is not expected to measurably reduce inequalities across within the LSA. The likelihood of residual effects occurring as assessed is moderate. Mitigation and enhancement measures are specifically targeted at increasing local content and participation among Indigenous, women-led, and other local businesses.

Summary

With the implementation of mitigation and enhancement measures, Project residual effects on the economy are predicted to be positive in direction and moderate in magnitude during construction and operations. Adverse effects are anticipated during decommissioning and closure. Effects are expected to primarily extend to the RSA, although it is recognized that Project expenditures and, therefore, contributions to GDP will extend beyond Quebec. Effects are expected to be short-term in duration during construction and decommissioning and closure, and medium-term in duration during operations. Effects are expected to occur continuously throughout each Project phase and are reversible following the completion of construction and operations, and irreversible for decommissioning and closure. Because Project effects are inherently beneficial, the socio-economic context in which effects occur is characterized as being resilient.

21.4.5 Summary of Project Residual Impacts

Table 21.27 summarizes project residual impacts on Economic Conditions.

Table 21.27 Project Residual Impacts on Economic Conditions

Residual Impact	Residual Impact Characterization							
	Project Phase	Direction	Magnitude	Geographic Extent	Timing	Duration	Frequency	Reversibility
Change in Employment	C	P	H	LSA / RSA	NS	ST	C	R
	O	P	H	LSA / RSA	NS	MT	C	R
	D	A	M	LSA / RSA	NS	ST	C	IR
Change in Business	C	P / A	M	LSA / RSA	NS	ST	C	R
	O	P / A	H	LSA / RSA	NS	MT	C	R
	D	P / A	M	LSA / RSA	NS	ST	C	IR
Change in Provincial Economy	C	P	M	LSA / RSA	NS	ST	C	R
	O	P	M	LSA / RSA	NS	MT	C	R
	D	A	M	LSA / RSA	NS	ST	C	IR

KEY

Project Phase
C: Construction
O: Operation
D: Decommissioning

Direction:
P: Positive
A: Adverse

Magnitude:
NMC: No Measurable Change
L: Low
M: Moderate
H: High

Geographic Extent:
PDA: Project Development Area
LAA: Local Assessment Area
RAA: Regional Assessment Area

Timing
NS: No sensitivity
MS: Moderate sensitivity
HS: High sensitivity

Duration:
ST: Short-term
MT: Medium-term
LT: Long-term
N/A: Not applicable

Frequency:
S: Single event
IR: Irregular event
R: Regular event
C: Continuous

Reversibility:
R: Reversible
I: Irreversible

21.4.5.1 Summary of Adverse Residual Impacts

The Project is anticipated to result in low magnitude adverse effects on business during all Project phases (construction, operations, and decommissioning and closure). Adverse effects on business stem from increased competition for labour and upward pressure on wages. Adverse effects stem from Project-related wages being greater than existing conditions, albeit consistent with wages in the mining industry, and due to the potential for Project employment to be deemed more desirable than other forms of employment in the LSA, both of which can result in increased competition for labour and upward pressure on wages (to attract and retain workers). Adverse effects will be present during the decommissioning and closure of the Project as all potential employment and economic impacts will end.

21.4.5.2 Summary of Positive Residual Impacts

The Project is anticipated to result in positive effects on employment, business, and the economy during all Project phases (construction, operations, and decommissioning). Positive effects in the form of direct, indirect, and induced employment and labour income in the LSA and other parts of Quebec and Canada and contributions to local, regional, provincial, and federal GDP and government revenues stem from Project demand and expenditures on labour, goods, and services.

The total capital investment for the Project is estimated at 2,229C$M, which will substantially contribute to both the provincial and federal GDP. The total direct GDP contributions from capital expenditures is expected to have a gross value of 1,318 C$M, of which 451.5C$M is expected to occur within Quebec, with the remaining 867.4 C$M to occur outside the province.

Operational expenditures for the Project are expected to reach 9,881C$M, which will also substantially contribute to both the provincial and federal GDP. The total direct GDP contributions from operational expenditures is expected to have a gross value of 6,686C$M, of which approximately 3,178C$M is expected to occur within Quebec, with the remaining 3,508C$M to occur outside the province.

Positive effects of the Project are expected to be unevenly distributed among the LSA labour force. Given existing labour force characteristics, it is likely that a larger percentage of non-Indigenous men will be employed on the Project than other subpopulations. Mitigation and enhancement measures will be implemented to increase participation among underrepresented groups on the Project who will disproportionally benefit from these measures; however, given the estimated size of the Project's workforce, measurable changes in employment equity across the LSA are not expected. Increased employment in the LSA is expected to have positive effects on unemployment rates, increase income levels for individuals (and families) who secure employment with the Project and will provide valuable employment experience that can be leveraged by workers to secure employment with other projects/employers following completion of Project-related work.

21.5 Prediction Confidence

There is a moderate degree of confidence in the assessment of effects on economy, employment, and business. While an economic model was developed and labour capacity was assessed based on available data, there remains uncertainty about future economic conditions in the LSA and RSA. The extent of local and regional employment will also depend on finalized Project workforce planning, while the extent to which businesses are affected depends on how they choose to respond to the opportunities presented by Project spending.

21.6 References

AGP Mining Consultants Inc. 2024. NI 43-101 Feasibility Study: Troilus Gold – Copper Project Quebec Canada.

Canadian Northern Economic Development Agency (CanNor). 2024. 2024-2025 Departmental Plan. Available at: https://www.cannor.gc.ca/eng/1707325947720/1707325961735

CFP Baie James. 2025. Training Courses. Disponible en ligne : https://cfpbj.ca/saebj/

Comité sectoriel de main-d'œuvre de l'industrie des mines (CSMO Mines). 2023. « Estimation des besoins de main-d'œuvre du secteur minier au Québec ». Institut national des mines du Québec. 48 p. Document disponible à l'adresse : https://inmq.gouv.qc.ca/medias/files/Publications/Rapports_de_recherche/2023-EstimationBesoinMOWeb.pdf

EcoTec Consultants. 2024. Economic benefits generated by Quebec's mining industry in 2022. Disponible en ligne : https://acrobat.adobe.com/id/urn:aaid:sc:VA6C2:febd351a-dea7-4052-84c0-eb166cb99be5?viewer%21megaVerb=group-discover

FNETB. 2018. Local Labour Market Forecast 2016-2036 Part One. Prepared by the Far Northeast Training Board.

Government of Canada. 2022. Sectoral Profile – Mining, Quarrying, and Oil and Gas Extraction NAICS 21. Available at: https://jobbank-guichetemplois.service.canada.ca/SectoralProfiles/ON/2022/2022-2024Mining_FinalE.pdf

Government of Québec. 2020. Québec Plan for the development of critical and strategic mineral 2020-2025. Report. 62p. Available online at: Québec Plan for the Development of Critical and Strategic Minerals 2020-2025

Government of Quebec. 2023. Northern Quebec, At The Heart Of Our Future. Northern Action Plan 2023-2028. Available at: https://cdn-contenu.quebec.ca/cdn-contenu/adm/org/spn/Publications/Plans_action/Plan_d_action_nordique_2023-2028_EN.pdf

Government of Quebec. 2024. Panorama des régions du Québec. Available at: https://statistique.quebec.ca/en/fichier/panorama-des-regions-du-quebec-edition-2024.pdf

IBISWorld. 2024. Quebec – Province Economic Profile. Available at: https://www.ibisworld.com/canada/economic-profiles/quebec/#EconomicOverview

Institut de la Statistique de Quebec. 2025a. Economic impact study for Quebec and environmental impact in terms of greenhouse gas emissions. Economic impact of the Troilus mining project – construction.

Institut de la Statistique de Quebec. 2025b. Economic impact study for Quebec and environmental impact in terms of greenhouse gas emissions. Economic impact of the Troilus mining project – operations.

Kozhaya, N. 2015. Quebec's Natural Resources: A Natural Source of Prosperity. Available at: https://www.cpq.qc.ca/wp-content/uploads/2022/11/etude2prosperite080615_en.pdf

Ministère des Resources naturelles et des Forêts (MRNF). 2021. Activité minière 2021 : sommaire de l'année. Available online at: Activité minière 2021 : sommaire de l'année - Ministère des Ressources naturelles et des Forêts

Ministère des Resources naturelles et des Forêts (MRNF). 2023. Retombées économiques et fiscales du secteur minier Québécois – Août 2023. Report. 29p. Available online at: Retombées économiques et fiscales du secteur minier québécois

Natural Resources Canada. 2024a. Copper facts. Available online at: https://natural-resources.canada.ca/our-natural-resources/minerals-mining/mining-data-statistics-and-analysis/minerals-metals-facts/copper-facts/20506 (Consulted on November 18th, 2024)

Natural Resources Canada. 2024b. Gold facts. Available online at: https://natural-resources.canada.ca/our-natural-resources/minerals-mining/mining-data-statistics-and-analysis/minerals-metals-facts/gold-facts/20514 (Consulted on November 15th, 2024)

Natural Resources Canada, 2024c. Canadian Mineral Production. Available online at: Canadian Mineral Production

Onishi, N. 2023. 'How could this happen?': Canadian fires burning where they rarely have before. The New York Times.

Ouellet, A., and Lefebvre, M. 2022. A Reason to Stay: Retaining Youth in Northern Canada. Northern Policy Institute.

Statistics Canada. 2022. Census Profile. 2021 Census. Statistics Canada Catalogue no. 98-316-X2021001. Ottawa. Released November 30, 2022. Available at: https://www12.statcan.gc.ca/census-recensement/2021/dp-pd/prof/index.cfm?Lang=E

Statistics Canada. 2024. Employee wages by industry, annual, Available online at: https://www150.statcan.gc.ca/t1/tbl1/fr/tv.action?pid=1410006401 (website consulted on august 15th 2024)

Stornoway Diamonds. 2019. Working Together for a Sustainable Future – 2018 Hights. Available at: https://stornowaydiamonds.com/s2.q4cdn.com/850616047/files/doc_downloads/Sustainable%20Policy/2018/SDR-2018-20-Eng.pdf

Town of Chapais. 2023. Annual Report. Available at: https://villedechapais.com/images/RAPPORT_ANNUEL_2023.pdf

Town of Chibougamau. 2024. Downtown North. Available at: https://vplus-documents.s3.ca-central-1.amazonaws.com/chibougamau/_structure/fichiers/ppu_dec2024(1).pdf

U.S. Geological Survey. 2022. Mineral Commodity Summaries. Available online at: Mineral commodity summaries 2022