PDAC PROSPECTORS & DEVELOPERS ASSOCIATION OF CANADA
ASSOCIATION CANADIENNE DES PROSPECTEURS ET ENTREPRENEURS

SOOP STRATEGIES

SOCIAL IMPACT STUDY

EXPLORING THE SOCIAL IMPACT OF MINERAL DEVELOPMENT PROJECTS IN INDIGENOUS COMMUNITIES

The report cover photo displays the carved wooden entrance doors of the Gitanyow Community Hall, built in 1991 in Gitanyow, British Columbia. The images on the doors depict the four crests of the Gitxsan Nation. From left to right, we have the Lax Skiik (Eagle), Gis Ga'ast (Fireweed), Lax Gibuu (Wolf), and Lax Ganeda (Frog). Gitanyow is comprised of 8 historic Wilps (House groups), including four Lax Gibuu Wilps and four Lax Ganeda Wilps. The PDAC would like to thank Beverley Russell and her grandmother, Elder Dorinda Shirey for their gracious reflections and contributions to this important conversation.

It should be noted that Pretivm Resources, whose Brucejack Mine was the case study for this project, was acquired by Newcrest Gold in November 2021. The acquisition did not influence the outcome of this project.

SOOP Strategies, would like to thank the interview participants, along with the PDAC Indigenous Advisory Panel.
For more information or to get in touch SOOP Strategies, contact Founder and CEO, Sabrina Dias at sdias@soopstrategies.com or visit www.soopstrategies.com | 416-669-8436.

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1 Introduction

The Prospectors & Developers Association of Canada (PDAC) engaged the services of SOOP Strategies (SOOP) to identify social impacts and subsequent demands on social infrastructure within Indigenous host communities to mineral resource development projects in Canada. By applying an intersectional lens to this research we sought to understand how such impacts can affect women and girls, in particular, and the power dynamics between men and women in Indigenous communities.

This project was inspired by recommendations made to the extractive sector in the final report of the *National Inquiry into Missing Murdered Indigenous Women and Girls* (MMIWG), which calls upon government and industry to recognize that "social infrastructure must be expanded and service capacity built to meet the anticipated needs of the host communities in advance of the start of projects."[1] This research project aims to help fulfill this call and proactively mitigate negative social and cultural outcomes that an influx of transient workers can have on Indigenous communities resulting from extractive projects.

The goals of this research are two-fold:

1) Determine specific changes to social infrastructure that can mitigate negative impacts as identified through this study. We will propose specific recommendations that a company can action to prepare for the inevitable social changes that often accompany the development of a mine.

2) Create a web-based resource hosted on the PDAC website to provide guidance to companies on social impact mitigation strategies throughout the stages of mineral resource development.

1.1 Project Overview

Taking a gender and development approach, our research began with a comprehensive literature review followed by a case study of Pretivm Resources'[2] Brucejack Mine in British Columbia that was supplemented by interviews with members of local communities. The literature review entailed a survey of scholarly and open-source materials on the topics relevant to this research project. These include Indigenous Peoples and Canada's history with colonization, current social status of remote Indigenous communities, and possible impacts of mineral resource development projects on Indigenous host

[1] (National Inquiry into Missing and Murdered Indigenous Women and Girls (Canada) et al., 2019)
[2] Pretivm Resources was purchased by Newcrest in November 2021.

communities. Our research provided an overview of current knowledge, allowing us to identify the relevant theories, methods and gaps in the existing research.

Brucejack is a high-grade underground gold mine located in Northwestern British Columbia, on the traditional territory of the Skii km Lax Ha First Nation and the Tahltan First Nation. It was identified as a suitable case study due to the mine's proximity to several Indigenous communities and the company's project development history of engagement with local Indigenous Peoples. The Brucejack case study was first approached as a desktop study using open-source materials found on Pretivm Resources' corporate website, news articles, and project documents such as the NI 43-101. This research helped to build a foundation on the company and site and prepare for the interview phase of the project.

The interviews supported our goal to uncover unique perspectives and information that would otherwise not be found through a review of the documents. The full case study selection process can be found below (see Section 1.1.1.).

Using the results of the literature review and the case study, the project team developed recommendations for how mineral resource companies can design and execute projects that integrate principles of sustainability to mitigate social impacts on Indigenous host communities, and design mutually respectful, appropriate and effective Indigenous partnerships and programs.

1.1.1 *Criteria for Selecting Case Study*

The following key considerations were used to guide our selection of Pretivm Resources' Brucejack operation as a case study:

- A site currently in the operations phase that can share various perspectives and experiences during the different stages of the project's development before (consultation during exploration), during construction, and into operations. This would provide rich interviews and allow the research team to gather real evidence of social impacts to support the literature review findings.
- A site that is established in traditional territories and has relationships with the Indigenous communities that are hosting their operation.
- A site that demonstrated a long history of mining and other natural resource industries, which could speak to the long-standing interactions between the Indigenous communities present and mineral resource development projects.
- A site that is committed to sustainable resource development to explore the influence it has on the livelihood of the given Indigenous communities.

- A site that keeps record of data pertaining to their environmental and social impact on the given land and community.

The Brucejack operation was chosen based on the following qualities that satisfied the criteria stated above:

- Pretivm's collaborative approach with Indigenous Peoples from the Nisga'a Lisims, Tahltan, Tsetsaut Skii Km Lax Ha, Gitxsan, and Gitanyow First Nations.
- The mine's location within Northwestern British Columbia, which has a long history of mining and other natural resource industries. The potential impact of the recently adopted *Declaration on the Rights of Indigenous Peoples Act*[3] (DRIPA), UNDRIP in BC, may also introduce an interesting aspect of the social impact study.
- Pretivm's commitment towards sustainable resource development for the region, which balances environmental, social and economic interests as communicated via their website and sustainability report.
- Pretivm's tracking of their social and environmental impacts during the different stages of the project, and the data available that can be used for the purposes of this case study.

1.2 **Research Questions**

The findings of this study fulfill the following inquiries:

1. An understanding of the well-known changes to the social and cultural fabrics in Indigenous communities that may occur following the development of a mineral resource development project. The study considered different contexts such as size of the community, remoteness of the community to others (including urban centres), and jurisdiction.
2. How these changes affect the social infrastructure of an Indigenous host community. Social issues that were examined included impacts on:
    a. Violence against Indigenous women and girls
    b. Changes in community birthrate
    c. Implication of increased cost of living
    d. Disruption of traditional lifestyles

[3] DRIPA is British Columbia's Bill 41 (unveiled in 2019). It is legislation intended to harmonize BC's laws with the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP), making British Columbia the first province to do so since Canada endorsed the UN declaration in 2016. See www.bcdripa.org for more information.

e. Impacts on community infrastructure

3. Physical impacts from a mineral resource development project that could change the cultural fabric of an Indigenous community. Forms of social infrastructure and service capacities that must be built or expanded to meet the anticipated needs of the host communities in advance of the development of mineral resource projects.

1.3 **Defining Terms**

1.3.1 *Intersectional Lens*

Intersectionality can be defined as "the critical insight that race, class, gender, sexuality, ethnicity, nationality, ability, and age operate not as unitary, mutually exclusive entities, but as reciprocally constructing phenomena that in turn shape complex social inequalities" by scholar Patricia Hill Collins.[4] Therefore, an intersectional approach to this research acknowledges the multitude of interacting factors and forces such as race, gender, age, sexual orientation, or class that may form one's identity and dictate the level of discrimination or systems of oppression in action. Approaching this study with an intersectional lens provides the research team with a view into the holistic challenges faced by Indigenous Peoples, particularly Indigenous women, while recognizing "that oppression at the personal and structural levels create a social hierarchy."[5] This quote brings to light the intricate challenges associated with oppressed and marginalized groups and identities that give rise to harmful and detrimental social conditions. As previously stated the MMIWG has inspired this research, and as such we use an intersectional lens with purpose to uncover and unpack these intricate challenges. With an intersectional lens, power dynamics and adverse social conditions become evident and heighten the sensitivity of our approach to this research, allowing for the critical discussions that unpack power/social imbalances that create challenges for Indigenous Peoples to be had, in the context of mineral resource development projects.

1.3.2 *Gender Impacts*

Through this study we seek to understand the potential impacts of mineral resource development projects on women and girls, and how these impacts can affect the relationships and power imbalances between the women and men of Indigenous communities. The goal of understanding gender impacts is to then

[4] (Collins, 2015)
[5] (National Inquiry into Missing and Murdered Indigenous Women and Girls (Canada) et al., 2019)

contribute to the improvement of mineral resource development planning and policy design to avoid further exacerbating gender inequality and assist communities to move towards gender equality.

1.3.3 *Sustainability or Sustainable Development*

Development can be considered a complex process involving the social, economic, political and cultural betterment of individuals, and improvement of physical infrastructure. Betterment implies the improved ability of a society to meet the physical, social, wellness, emotional and cultural needs of the population.

The World Commission on Environment and Development defines sustainable development to be "development that meets the needs of the present without compromising the ability of future generations to meet their own needs." In other words, sustainability means changes in technological, social, economic, or other forms of development that do not involve damage to the environment, depletion of the world's natural resources, or exploitation of people.

When seeking to study the mineral resource development industry, it is important to approach sustainable development from the perspective of '*how they work*' as opposed to '*who they are*'. A mining company may never be 'sustainable' by the definitions of sustainable development offered above. However, it is essential for mineral resource companies to incorporate sustainable practices, so that direct and indirect negative impacts onto the future generation can be minimized and mitigated.

1.3.4 *Mineral Resources Development Cycle*

The mineral resources development cycle, as described by Natural Resources Canada (NRCan), encompasses the following stages of a project: pre-exploration, exploration, development, operation, and closure.[6]

1.3.5 *Social Infrastructure*

Social Infrastructure typically refers to assets that accommodate social services such as hospitals, clinics, schools, community centres, community housing and prisons. For the purposes of this project the term 'social infrastructure' also encapsulates the intangible social infrastructures or systems such as gender relationships and power dynamics, multi-family relationships and subtleties, reliance on and respect of elders, economic status, and so forth.

[6] (Natural Resources Canada, 2016)

2 Methodology and Scope

This study was a multi-phase project as presented below.

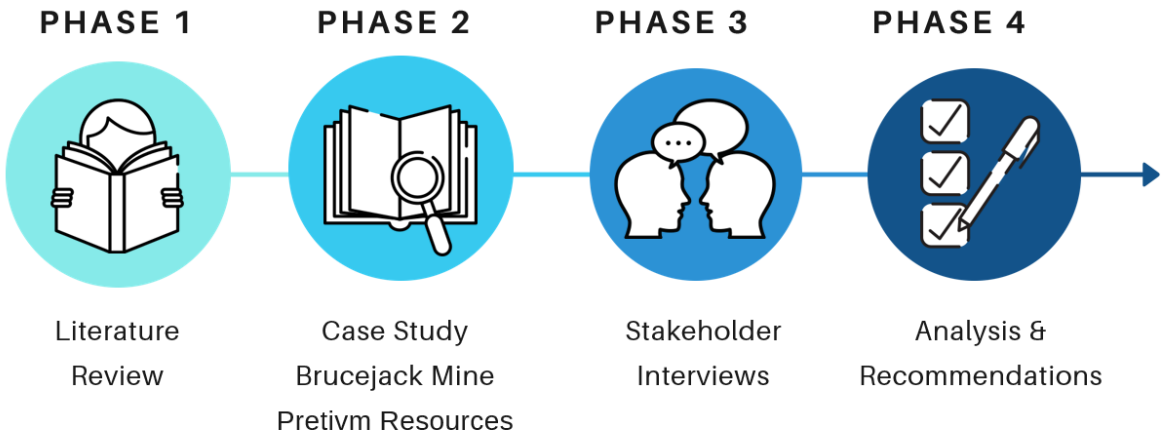

Figure 1 – Methodology

2.1 Phase 1: Literature Review

In order to identify the issues that contribute to the varying ways social impacts are often experienced by Indigenous communities, and how they affect social infrastructure, our research considered the following:

- An overview of Indigenous Peoples in Canada, including identity (First Nations, Métis, Inuit), size of communities, location, remoteness and jurisdiction. We also attempt to provide the reader with context and a historical overview of colonization, key systemic violations against Indigenous Peoples, how these traumas continue to affect Indigenous families and communities, and the government and extractives sector's relationships with Indigenous Peoples today.
- An overview of mineral resource development today and the typical community engagement practices and Indigenous relations throughout the mineral resources development sequence.
- Key aspects of the social infrastructure of remote Indigenous communities, including health and well-being, food insecurity, housing, education, and policing services with a focus on Indigenous women – aspects that are often impacted by mining developments.
- Impacts on the well-being of Indigenous Peoples using a gendered lens, including gender violence, rates of single parent families, implications of increased costs of living, changes in community

birthrate, disruption of traditional lifestyles, impacts on infrastructure, and how these impacts vary depending on aspects such as the size and remoteness of the community.

- Throughout the literature review a focus is taken on Indigenous Peoples of British Columbia, which are predominately First Nations. This focus is appropriate as it will provide context for the case study that will follow, Brucejack Mine, which is based in British Columbia on land that is significantly connected to First Nations.

2.2 Phase 2: Case Study – Brucejack Mine

Building on the findings from Phase 1, the research team pursued a deeper dive into the case study of Brucejack Mine starting with background research based on publicly available company documents, their corporate website, and online resources.

The following groups and communities were identified as communities of interest in Brucejack.

- First Nations:
    a. Nisga'a Lisims,
    b. Tahltan,
    c. Tsetsaut Skii Km Lax Ha, and
    d. Gitanyow First Nations
- Local communities:
    a. Smithers
    b. Terrace
    c. Stewart

2.3 Phase 3: Interviews

Six people were interviewed to share their perspectives and experiences with the development and operation of the mine – five external and one internal to Pretivm Resources. The research gathered in Phase 1 and 2 contributed to the development of our interview questions. The interview results were analyzed using qualitative research methods to extract key themes and critical information. Due to health and safety restrictions regarding COVID-19, all interviews were conducted over Zoom or telephone.

2.4 Phase 4: Analysis and Recommendations

The findings of this research project are captured in the body of this report (see Section 5). Our recommendations are based on the intention that the findings will be used by PDAC to develop a web-based resource hosted on the PDAC website that can concretely inform companies and the government on social impact mitigation strategies and impact benefit agreements throughout all stages of mineral resource development projects.

3 Literature Review

A literature review is a survey of scholarly and open-source materials on the topics relevant to the research project. For this project, the literature review included the topics of Indigenous Peoples and Canada's history with colonization, the current social status of remote Indigenous communities, and possible impacts of mineral resource development on Indigenous host communities. The case study of the Brucejack Mine was approached as a desktop study using open-source materials found on the Pretivm Resources corporate website, public document filings such as the NI 43-101, and news articles. This research, which helped prepare for the interview phase of the project, is summarized in Section 4.2.1.

Here we present the background research that aided further research, to fulfil the questions posed in Section 1.2. We offer overviews of Indigenous Peoples in Canada, mineral resource development, and key concepts related to potential impacts of resource development on Indigenous Peoples using a gendered and intersectional lens. Concepts include health and well-being, food insecurity, housing, education and policing services.

3.1 Indigenous Peoples and Canada

The Canadian Constitution identifies three groups of Aboriginal Peoples:

i) First Nations (legally referred to as Indians[7])

ii) Inuit

iii) Métis

These three groups differ in history, culture, language, traditional territories and spiritual perspective, among other distinctive qualities. In Canada, the term 'Indigenous Peoples' is the accepted term used to refer to the original peoples of North America and their descendants, even though the Canadian constitution uses the term Aboriginal Peoples and is also used interchangeably in the literature.

The following section briefly introduces each of the Indigenous groups to help situate the context for this research.

[7] Indian is a legal term used to describe the First Peoples of Canada, as recognized within the Indian Act of 1876, which remains in effect today.

3.1.1 *First Nations*

In 1985, the Canadian Parliament passed Bill C-31, amending the *Indian Act* (see Section 3.4.1.1 for overview of the *Indian Act*) and removing many of the discriminatory provisions which were included in the *Act* previously, giving First Nations greater freedom to determine their association. Bill C-31 also distinguished between band membership and Indian status, allowing communities to determine their membership.[8] There are 634 recognized First Nation communities in Canada, all with distinct First Nation governments.[9]

In 1995, the Canadian government addressed the issue of self-governance in First Nation communities:

> *"In 1995, the government launched the Inherent Right Policy to negotiate practical arrangements with Aboriginal groups to make a return to self-government a reality. This process involved extensive consultations with Aboriginal leaders at the local, regional, and national levels, and took the position that an inherent right of Aboriginal self-government already existed within the Constitution. Accordingly, new self-government agreements would then be partnerships between Aboriginal peoples and the federal government to implement that right. The policy also recognized that no single form of government was applicable to all Aboriginal communities. Self-government arrangements would therefore take many forms based upon particular historical, cultural, political, and economic circumstances of each respective Aboriginal group. Since the introduction of the policy, there have been 17 self-government agreements completed, many of which are part of larger Comprehensive Claims agreements."*[8]
>
> *Government of Canada, 1995*

As the largest Indigenous group in Canada, individuals identifying as First Nation can be found all across Canada in populated urban centres, as well as in rural and remote communities. For more information on locations of First Nations communities, please visit the Canadian Open Government Portal at https://open.canada.ca/data/en/dataset?q=first+nation&collection=fgp

3.1.2 *Inuit*

Inuit are the Indigenous Peoples of the Arctic. According to Inuit Tapiriit Kanatami, a Canadian organization protecting and advancing the rights of Inuit, there are 53 reported Inuit communities (Nunangat) in the northern regions of Canada, in Inuit Nunangat ("the place where Inuit live"), and mostly

[8] (Government of Canada, 2017)
[9] ("About AFN," n.d.)

in small, rural communities. [10] The Inuit Nunangat consists of four regions: Inuvialuit (NWT and Yukon), Nunavik (Northern Québec), Nunatsiavut (Labrador) and Nunavut.[11] Please see the resource https://www.itk.ca/about-canadian-inuit/ for more information.

3.1.3 *Métis:*

Métis people are of mixed European and Indigenous ancestry, and one of the three recognized Aboriginal Peoples in Canada. The use of the term Métis is complex and contentious and has different historical and contemporary meanings. Defined as the Métis Nation, the community originated largely in Western Canada and emerged as a political force in the 19th century.

While the Canadian government politically marginalized the Métis after 1885, they have since been recognized as Aboriginal People with rights enshrined in the Constitution of Canada and more clearly defined in a series of Supreme Court of Canada decisions." [12] In 2016, as a result of the historic *Daniels v. Canada*[13] case, Métis and non-status Indians were recognized under section 91 (24) of the *Constitution Act*.

In another Supreme Court of Canada case, the *Powley* decision resulted in "the Powley Test," which laid out a set of criteria to define what might constitute a Métis right and who is entitled to those rights.[14]

1. Does the person identify as a Métis person?
2. Is the person a member of a present-day Métis community?
3. Does the person have ties to a historic Métis community?

A person passing the three steps of the test is entitled to Aboriginal rights under s. 35 *Constitution Act*. Unlike First Nation and Inuit communities, individuals identifying as Métis are often settled in large urban areas, and less in remote rural communities. For more information on Métis, please visit the Canadian Open Government Portal at https://open.canada.ca/data/en/dataset?q=metis&collection=fgp&sort= .

[10] (Indigenous and Northern Affairs Canada, 2020)
[11] (Government of Canada, 2020)
[12] (The Canadian Encyclopedia, 2019)
[13] Daniels *v.* Canada (Indian Affairs and Northern Development), 2016 SCC 12, [2016] 1 S.C.R. 99
[14] (Government of Canada, 2016)

3.2 **Size and location of communities**

Infographics, according to the Canadian 2016 census:

- 1,673,785 Canadians who identify as Indigenous.[15]
    - Out of those, 977,230 identify as First Nation single identity,
    - 587,545 identify as Métis single identity, and
    - 65,025 identify as Inuit single identity.[16]
    - The Canadian Indigenous population is the fastest growing in Canada, at 42% in the decade of 2006 to 2016.[17]

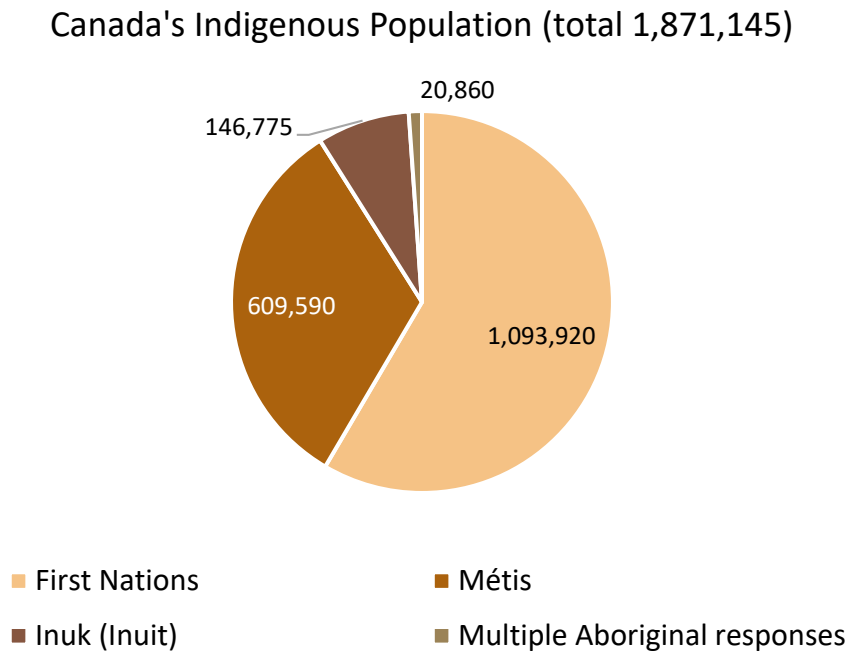

Figure 2 – Canada's Indigenous Population[18]

[15] (Statistics Canada, 2019)
[16] (Statistics Canada, 2021)
[17] (Government of Canada, 2017)
[18] (Statistics Canada, 2020)

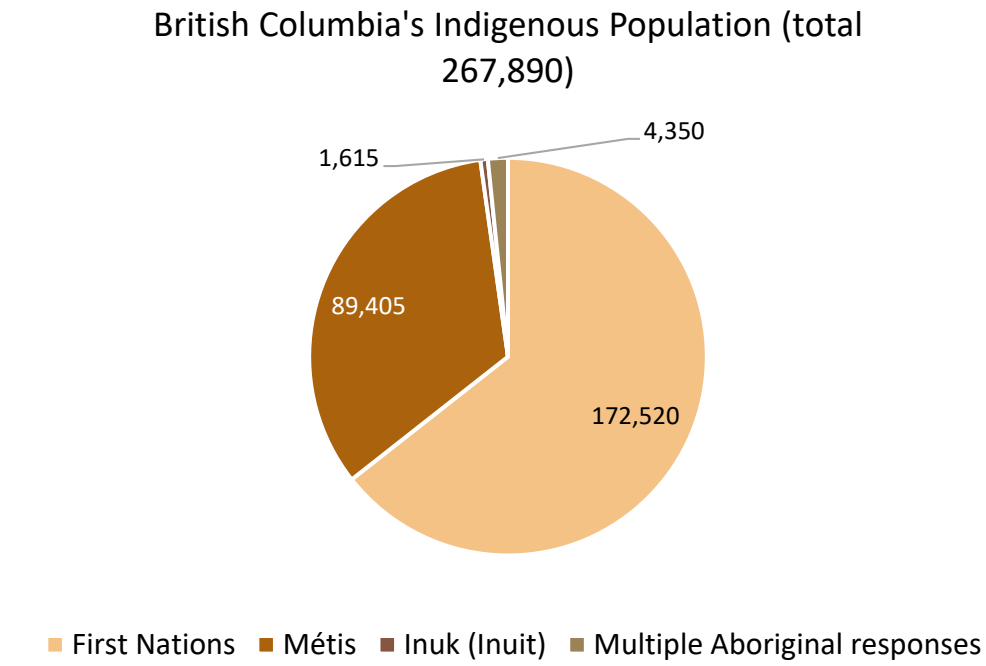

Figure 3 – British Columbia's Indigenous Population[19]

3.2.1 *Remote Indigenous Communities*

As of 2019, there are approximately:

- 170 Indigenous communities in Canada that are remote and isolated (representing 75% of all Canadian remote communities),
- with a combined population of over 100,000 people[20]

Indigenous communities are often small in size and located in remote, rural areas.[21] Additionally, most remote communities exist outside of the Canadian natural gas and electricity infrastructure, suffer from limited water supply, food insecurity, and are often difficult to access.[22] In Nunavut, for example, Inuit communities are not connected by roads. Instead, they rely on air transportation over an average distance of 2,000 kilometers to access supplies and medical support.[23]

[19] (Statistics Canada, 2020)
[20] (Heerema & Lovekin, 2019)
[21] (Jafri & Alasia, 2019) (Oosterveer & Young, 2015)
[22] (Heerema & Lovekin, 2019) (Bradford, Bharadwaj, Okpalauwaekwe, & Waldner, 2016) (Naylor, Deaton, & Ker, 2020)
[23] (Naylor, Deaton, & Ker, 2020)

3.3 Jurisdiction Over Land and Resources

The Government of Canada recognizes the following:

> *"Indigenous Peoples have lived on the land we now call Canada for thousands of years, with their own unique cultures, identities, traditions, languages and institutions."* [24]

A Royal Proclamation formally established the treaty-making process, which resulted in 70 historic treaties in Canada, including:

- Treaties of Peace and Neutrality
- Peace and Friendship Treaties
- Upper Canada Land Surrenders and the Williams Treaties
- Robinson Treaties and Douglas Treaties
- The Numbered Treaties

These historic agreements date back to 1701 and as recently as 1921.[25] The modern treaties, often referred to as land claim agreements, began in 1973 following the Supreme Court of Canada's recognition of Indigenous rights.[26] As of 2022, 25 modern treaties have been signed between Canada and different Indigenous communities, which include agreements relating to land ownership, capital payments, protection of Indigenous ways of life, and self-government rights.[27]

Although the province has a British Columbia Treaty Commission, very few treaties have been completed in British Columbia due to the historical lack of recognition of Indigenous title.[28] There are eight constitutionally entrenched treaties in British Columbia, including the Nisga'a treaty.[29] Today, the treaty-making process in Canada is still evolving, together with the legal landscape through dialogue with Indigenous Peoples.[30]

[24] (Government of Canada; Indigenous and Northern Affairs Canada; Communications, 2020)
[25] (Government of Canada; Indigenous and Northern Affairs Canada; Communications, 2020)
[26] (Government of Canada; Indigenous and Northern Affairs Canada; Communications, 2020)
[27] (Government of Canada; Indigenous and Northern Affairs Canada; Communications, 2020)
[28] (Government of British Columbia; Ministry of Indigenous Relations and Reconciliation, n.d.)
[29] (BC Treaty Commission, n.d.)
[30] (Government of Canada; Indigenous and Northern Affairs Canada; Communications, 2020)

3.3.1 *Duty to Consult*

A fundamental part of the relationship between the Canadian governments and Indigenous communities in Canada is the duty to consult on issues relating to the land and its resources. This duty is defined by the Government of Canada as follows:

> *"The Government of Canada has a duty to consult and, where appropriate, accommodate Indigenous groups when it considers conduct that might adversely impact potential or established Aboriginal or treaty rights… Since 2004, two national engagement processes on consultation and accommodation with First Nations, Inuit and Métis communities and organizations as well as provinces, territories and industry partners have informed the creation of the Interim Guidelines for Federal Officials to Fulfill the duty to consult (2008) and Updated Guidelines for Federal Officials to Fulfill the duty to consult (March 2011)… Government of Canada departments and agencies are responsible for understanding how and when their activities could have an adverse impact on Aboriginal and treaty rights."*[31]

The British Columbia-based advisory firm, Indigenous Corporate Training, describes the duty to consult's application as:

> *"The Supreme Court of Canada has confirmed, through a series of decisions since 1990, that both the Federal and the Provincial Crowns have a duty to consult Aboriginal people where a Crown decision or action may adversely affect Aboriginal rights and title. This duty to consult does not need to be expressed in any particular legislation or regulation for it to be of full force and effect; rather, it is an overarching constitutional obligation on the Crown that applies to any decision or activity that may adversely affect claims of Aboriginal rights or title. Examples of Crown decisions or actions that may trigger the duty to consult include the issuance of license, permits or approvals, and grants of rights to Crown resources and land. Where a court finds the Crown failed to meet its duty to consult, it will make an order to remedy that failure."*[32]

And finally, the *Exploration and Mining Guide for Aboriginal Communities* provides a succinct description of the jurisdiction for mining rights in Canada:

[31] (Government of Canada, 2019)
[32] (McInnes Cooper Lawyers, 2013)

"There are two types of land available for exploration: Crown land and some privately owned surface lands where the sub-surface mineral rights are owned by the Crown. The federal government, through AANDC, is responsible for federal Crown lands in Nunavut, the Northwest Territories, and on Indian Reserves, and has legislation covering its use. The provinces and the Yukon are responsible for Crown lands within their province or territory and have legislation covering its use and disposition. Governments control the surface and sub-surface rights for provincial, territorial, and federal Crown land."[33]

3.4 **Colonization**

To understand colonization is to understand that the land Canada occupies originally belonged to Indigenous Peoples. The rights of Indigenous Peoples are therefore inherent rights that they have practiced long before settler colonization.

Colonialization essentially creates a "situation where one individual is forced to relate to another on terms unilaterally defined by the other."[34] The colonial policy set by the British Crown, and later by the Canadian government, was established with the assumption that it would improve the quality of life for Indigenous Peoples through forced assimilation. In reality, the policy produced cultural degradation, social marginalization, economic exclusion, and disenfranchised the rights and identities of Indigenous Peoples.

"Encouraged to become self-sufficient, the Indian was prevented from being in almost every area – economic, political, and administrative. He was being asked to give up his traditional culture but was given little sense that he had any control in the process of change. In time, the colonial policy was partially successful as Indians became dependent upon the political, economic and legal structures of the dominant society." [35]

3.4.1 *Policies to eradicate the "Problem of the Indian"*

The Government of Canada implemented policies and regulations to assimilate Indigenous people into what would have been recognized as 'Canadian culture'. So, to get rid of 'the Indian problem' a system of reserves was designed and established to 'civilize' and 'protect' Indigenous Peoples.[36]

[33] (Government of Canada, 2013)
[34] (McCaskill, 1983)
[35] (McCaskill, 1983)
[36] (Eshet, 2015)

3.4.1.1 *The Indian Act*

Created in 1876, and later revised multiple times since – most notably in 1985 to eradicate the built-in gender bias – the *Indian Act* consisted of a collection of colonial laws that aimed to assimilate First Nations into Canadian culture.[37] The *Act* provided definitions and qualifications for 'Indian Status' as well as bands and reserves.[38]

It must be noted that Indigenous People have not and do not refer to themselves as Indian, by virtue. The *Indian Act* created a legal identity meant to define a group of people within Canadian context who already existed freely within their own definitions. However, these rigid definitions did not identify all First Nation people to be of 'Indian Status'.[39] The identification process that was laminated in the *Act* did not consider Inuit and Métis populations and thereby disregarded any of their rights and claims towards this Canadian imposed status. Claims to land reserves and band membership are examples of rights denied to those without status.[40]

Revealing the extent of colonization, the *Indian Act* was "invasive and paternalistic as it authorized the Canadian federal government to regulate and administer in the affairs and day-to-day lives of registered Indians and reserve communities."[41] Evidently, the *Indian Act* is a key component of the oppressive and colonial history in which Canada removed the social structures, economic livelihoods, political institutions, and cultural practices of Indigenous Peoples through assimilation policies.[42] The *Indian Act* also enforced enfranchisement through the termination of one's 'Indian Status' for the acceptance of full Canadian citizenship.[43] With a loss of 'Indian Status', came a loss of identity and legal rights.[44]

Furthermore, Indigenous women were heavily policed through enfranchisement. They easily lost their Indian status due to marrying non-status men, if they became widowed, or were abandoned by their husbands.[45] The government of Canada also disregarded the leadership roles of First Nation women with the central focus of the *Act* predominately being on men. As such, the gender equality reflected by the

[37] (Wilson et al., 2018)(Hanson, n.d.-a)
[38] (Wilson et al., 2018)
[39] (Wilson et al., 2018)
[40] (Eshet, 2015; Wilson et al., 2018)
[41] (Hanson, n.d.-b)
[42] (Hanson, n.d.-b)
[43] (Hanson, n.d.-b)
[44] (Wilson et al., 2018)
[45] (Wilson et al., 2018)

role of women in traditional Indigenous societies was undermined.[46] The *Indian Act*'s treatment of Indigenous women highlights the gender-based restrictions of 'Indian Status'. In fact, the "oppression of First Nations women under the *Indian Act* resulted in long-term poverty, marginalization and violence, which they are still trying to overcome today."[47]

3.4.1.2 *The Sixties Scoop*

The Sixties Scoop is a component of the larger picture that is colonization, characterized by the removal (or 'scooping') of Indigenous children from their mothers on reserves and off reserves between the 1960's and 1980's.[48] Similar to residential schools, Indigenous children were removed from their families. Through the Scoop, Indigenous children were routinely placed into the child welfare system, and consequently were disproportionately found under the care of the system and mainstream Canadian and American families.[49] Fundamentally, this process added to the erasure of Indigenous family structure, culture, lineage and identity.[50] The long-standing implications are evident in the current overrepresentation of Indigenous children in the child welfare system today.[51]

A factor contributing to the removal of Indigenous children was the lack of cultural awareness and sensitivity held by social workers resulting in Indigenous homes often being compared to Euro-Canadian middle-class families.[52] For instance, "when social workers entered the homes of families subsisting on a traditional Aboriginal diet of dried game, fish and berries, and didn't see fridges or cupboards stocked in typical Euro-Canadian fashion, they assumed that the adults in the home were not providing for their children."[53] Furthermore, the socio-economic underpinnings of reserve communities were assessed as unfit conditions for children.[54] Of the children taken, 70% were placed into non-Indigenous homes, whereas "many floated from foster home to foster home or lived in institutionalized care."[55] Indigenous children were not afforded the right to embrace their identity, often growing up with a false

[46] (Eshet, 2015)
[47] (Wilson et al., 2018)
[48] (Hanson, n.d.-a)
[49] (Hanson, n.d.-a)
[50] (Hanson, n.d.-a)
[51] (Hanson, n.d.-a)
[52] (Hanson, n.d.-a)
[53] (Hanson, n.d.-a)
[54] (Hanson, n.d.-a)
[55] (Hanson, n.d.-a)

understanding of who they are.[56] Subsequently, "children growing up in conditions of suppressed identity and abuse tended to eventually experience psychological and emotional problems."[57] In many cases for those children, "the roots of these problems did not emerge until later in life when they learned about their birth family or their heritage."[58]

Although described as a "dark time in history," Canada's historical relationship with Indigenous Peoples impacted Indigenous livelihood, familial relations, social networks, cultural practices, and healthy formative years of childhood that created the current socio-economic conditions and the collective intergenerational trauma that manifest today in Indigenous communities.[59] These factors have implications, both from within and without. They create barriers and challenges that impede their path towards self-sufficiency and self-determination.

3.5 Truth and Reconciliation Commission - Residential Schools

Indigenous Peoples in Canada endured heavy and undue hardships at the hands of the Canadian Government in association with Anglican, Presbyterian, Roman Catholic and United Churches through the enforcement of Indian Residential Schools.[60] Originating as policy and later enacted as a legal requirement under the *Indian Act*, the federal government dissevered hundreds of thousands of Indigenous families, stripped more than 150,000 children of their roots, tradition, culture, and spirituality, and enforced the assimilation of Indigenous Peoples to mainstream society.[61]

Essentially a system of cultural genocide and oppression, the residential schools began in the 1800's and existed up until 1996.[62] Although enacted as a form of education for Indigenous Peoples, the quality of education was unequal to the education given to the general public. In addition to the lack of quality, residential schools inflicted great harm onto Indigenous children, as acts of "abuse at the schools was widespread: emotional and psychological abuse was constant, physical abuse was metered out as punishment, and sexual abuse was common."[63]

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[56] (Hanson, n.d.-a)
[57] (Hanson, n.d.-a)
[58] (Hanson, n.d.-a)
[59] (Mitchell, 2019)
[60] (Hanson et al., 2020; Harper, 2008)
[61] (Hanson et al., 2020; Harper, 2008)
[62] (Hanson et al., 2020)
[63] (Hanson et al., 2020)

Tragically, many children died as a result of the ill-treatment they received in these residential schools. As of June 2021, the National Centre for Truth and Reconciliation reported the documentation of 4,117 First Nations, Inuit and Métis children whose lives were lost due to residential schools.[64] However, these numbers continue to grow as unofficial records of death are discovered post-closure.[65]

The effects of residential schools are still present owing to the fact that "residential schools systematically undermined Indigenous cultures across Canada and disrupted families for generations, severing the ties through which Indigenous culture is taught and sustained, and contributing to a general loss of language and culture."[66]

In 2002, a National Class Action was filed for survivors of residential schools and families to be compensated for the harm imposed by the Government of Canada and churches.[67] The Indian Residential School Settlement Agreement (IRSSA) was reached in 2006 in response to the legal pursuit for justice for Indigenous Peoples.[68] As per the IRSSA, Canada would provide survivors with individual compensation, fund the Aboriginal Healing Foundation, and develop the Truth and Reconciliation Commission (TRC).

In 2008, Prime Minister Stephen Harper (2006-2015) issued a formal apology for the treatment of children in Indian Residential Schools, noting that "the legacy of Indian Residential Schools has contributed to social problems that continue to exist in many communities today."[69] Indubitably, "the historic, intergenerational, and collective oppression of Indigenous Peoples continues to this day in the form of land disputes, over-incarceration, lack of housing, child apprehension, systemic poverty, marginalization and violence against Indigenous women, girls, and 2SLGBTQQIA[70] peoples, and other critical issues which neither began nor ended with residential schools."[71]

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[64] (NCTR, 2021)
[65] (Truth and Reconciliation Commission of Canada, 2015a)
[66] (Hanson et al., 2020)
[67] (Hanson et al., 2020)
[68] (CAIDC, n.d.)
[69] (Harper, 2008)
[70] "The National Inquiry has chosen to use the term '2SLGBTQ' (representing Two-Spirit, lesbian, gay, bisexual, transgender, queer and questioning people), By putting '2S' at the front, we are remembering that Two-Spirit people have existed in many Indigenous Nations and communities long before other understandings of gender and orientation came to us through colonization"(National Inquiry into Missing and Murdered Indigenous Women and Girls, 2018)
[71] (Hanson et al., 2020)

The TRC was created to promote healing, listening and education, and to prepare an official report for all parties as well as recommendations with respect to reconciliation approaches in which the Government of Canada should pursue.[72] Intending to provide the foundation for an appropriate approach towards reconciliation, the TRC focused on truth determination leading to the development of *The Final Report of the Truth and Reconciliation Commission of Canada* ('Final Report').[73]

Published in 2016, the Final Report highlighted 94 Calls to Action with an emphasis on the role and responsibility that all levels of Government in Canada should adhere to, while also calling on non-governmental bodies such as businesses to honour reconciliation through the framework of United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP).[74] Furthermore, the Final Report contends that responsibility for reconciliation should not be perceived as a governmental issue, rather "all Canadians must make a firm and lasting commitment to reconciliation."[75]

The mineral resource development sector's responsibility for reconciliation is solidified through the above statement. As well, the Final Report goes on to pronounce what reconciliation might look like for the mineral resource development sector.

> *"In the Commission's view, sustainable reconciliation on the land involves realizing the economic potential of Indigenous communities in a fair, just, and equitable manner that respects their right to self-determination. Economic reconciliation involves working in partnership with Indigenous Peoples to ensure that lands and resources within their traditional territories are developed in culturally respectful ways that fully recognize Treaty and Aboriginal rights and title."*[74]

After the release of the Final Report and the broad public dialogue about Indigenous Peoples that followed, all Canadians, including the mineral resource development sector, are now aware that "sustainable reconciliation on the land involves realizing the economic potential of Indigenous communities in a fair, just, and equitable manner that respects their right to self-determination."[76] In doing so, the mineral resource development industry can further work towards economic reconciliation that fosters partnerships with Indigenous Peoples in accordance with Treaty and Aboriginal rights and

[72] (CAIDC, n.d.)
[73] (Truth and Reconciliation Commission of Canada, 2015b)
[74] (Truth and Reconciliation Commission of Canada, 2015b)
[75] (Truth and Reconciliation Commission of Canada, 2015b)
[76] (Truth and Reconciliation Commission of Canada, 2015b)

title, to guarantee that development of resources and lands within traditional territories are culturally respected.[77]

The natural resource industry can continue to establish constructive partnerships and relationships with Indigenous communities that are mutually beneficial. Doing so will contribute towards improved well-being, community health and economic growth,[78] aspects that are beneficial for not only Indigenous Peoples, but also for the broader Canadian society and for environmental sustainability.[79]

TRC Call to Action 92

We call upon the corporate sector in Canada to adopt the United Nations Declaration on the Rights of Indigenous Peoples as a reconciliation framework and to apply its principles, norms, and standards to corporate policy and core operational activities involving Indigenous Peoples and their lands and resources. This would include, but not be limited to, the following:

I. Commit to meaningful consultation, building respectful relationships, and obtaining the free, prior, and informed consent of Indigenous Peoples before proceeding with economic development projects.

II. Ensure that Aboriginal peoples have equitable access to jobs, training, and education opportunities in the corporate sector, and that Aboriginal communities gain long-term sustainable benefits from economic development projects.

III. Provide education for management and staff on the history of Aboriginal peoples, including the history and legacy of residential schools, the United Nations Declaration on the Rights of Indigenous Peoples, Treaties and Aboriginal rights, Indigenous law, and Aboriginal–Crown relations. This will require skills-based training in intercultural competency, conflict resolution, human rights, and anti-racism.

[77] (Truth and Reconciliation Commission of Canada, 2015b)
[78] (Truth and Reconciliation Commission of Canada, 2015b)
[79] (Truth and Reconciliation Commission of Canada, 2015b)

3.5.1 *Missing and Murdered Indigenous Women and Girls*

In the Final Report of the TRC, the Federal Government of Canada was called upon to launch a public inquiry into the causes of Indigenous women and girls disproportionately found to be victims of violence.[80] Call to Action 41 specifically demanded an investigation into the excessively high cases of missing and murdered Indigenous women and girls in Canada, as statistics reported by Native Women's Association of Canada (NWAC) in 2010 and Royal Canadian Mounted Police (RCMP) in 2014 demonstrated a disturbing extent of victimization.[81]

A National Inquiry was launched in 2016 to investigate the disproportionate level of violence inflicted on Indigenous women and girls, leading to the 2019 release of *Reclaiming Power and Place: The Final Report of the National Inquiry into Missing and Murdered Indigenous Women and Girls*.[82] The report took an intersectional approach to unpack the compounding factors contributing to the victimization of Indigenous women, girls and 2SLGBTQQIA[83] such as social forces (colonization, patriarchy, etc.), forms of discrimination (racism, sexism, homophobia, etc.) and aspects of identity (Indigenous 'status', gender, sexuality, etc.).[84]

Taking a specific look at the resource extraction industry, the National Inquiry outlines how resource extraction projects often foster an environment that enables violence against Indigenous women and girls.[85] Instances of violence against Indigenous women in relation to resource extraction projects can be traced to "issues related to transient workers, harassment and assault in the workplace, rotational shift work, substance abuse and addictions, and economic insecurity."[86] Of particular concern, as highlighted in the report, is the denial of such issues existing in the industry that subsequently led to increased cases of violence against Indigenous women and violence within Indigenous communities, which "may mean

[80] Truth and Reconciliation Commission of Canada, 2015
[81] National Inquiry into Missing and Murdered Indigenous Women and Girls (Canada) et al., 2019
[82] National Inquiry into Missing and Murdered Indigenous Women and Girls (Canada) et al., 2019
[83] "The National Inquiry has chosen to use the term '2SLGBTQ' (representing Two-Spirit, lesbian, gay, bisexual, transgender, queer and questioning people), By putting '2S' at the front, we are remembering that Two-Spirit people have existed in many Indigenous Nations and communities long before other understandings of gender and orientation came to us through colonization"(National Inquiry into Missing and Murdered Indigenous Women and Girls, 2018)
[84] National Inquiry into Missing and Murdered Indigenous Women and Girls (Canada) et al., 2019
[85] (National Inquiry into Missing and Murdered Indigenous Women and Girls (Canada) et al., 2019)
[86] (National Inquiry into Missing and Murdered Indigenous Women and Girls (Canada) et al., 2019)

the difference between life and death."[87] A recent study titled *Never Until Now* (2021), by Ann Maje Raider of Laird Aboriginal Women's Society, has documented high percentages of women reporting harassment, discrimination and mental, physical, and sexual violence at mining camps in Northern British Columbia and the Yukon.[88] Studies such as these will make the denial of violence against Indigenous women impossible. Findings should lead to formal assessments, and action in the form of policy and process design to make mineral resource development project sites safer for Indigenous women and women of colour.

The influx of transient male workers who lack ties to host communities, are afforded high salaries and housing in proximity to vulnerable communities, and/or socially isolated in camp environments, can create vulnerable situations which can lead to increased levels of crime.[89] These crimes can include sexual abuse and sexual violence, as well as drug and alcohol-related offenses. Furthermore, the hyper masculinity perpetuated at these camp environments coupled with limited access and/or trust in law enforcement result in cases of harassment and assault in the workplace against Indigenous women.[90]

For Indigenous women and girls struggling with economic security, either due to barriers in the workforce or other causes, the influx of workers and money can exacerbate their condition further with housing shortages and high rates of inflation, among other factors.[91] More so, this "economic insecurity associated with resource extraction can also lead Indigenous women into unsafe situations to make ends meet," such as the safety risks they encounter due to sex work.[92]

Women's groups and Indigenous organizations underscore the critical need for a gender-based analysis within socio-economic impact assessments of proposed resource extraction projects.[93] As stated by Amnesty International focused on British Columbia, "gendered impacts of extraction are not adequately considered in decisions about extractions."[94] Accordingly, the National Inquiry reinstates the urgent need for the safety of Indigenous women to be consistently considered in all stages of "project planning,

[87] (National Inquiry into Missing and Murdered Indigenous Women and Girls (Canada) et al., 2019)
[88] (Gignac, 2021)
[89] National Inquiry into Missing and Murdered Indigenous Women and Girls (Canada) et al., 2019
[90] (National Inquiry into Missing and Murdered Indigenous Women and Girls (Canada) et al., 2019)
[91] (National Inquiry into Missing and Murdered Indigenous Women and Girls (Canada) et al., 2019)
[92] (National Inquiry into Missing and Murdered Indigenous Women and Girls (Canada) et al., 2019)
[93] (National Inquiry into Missing and Murdered Indigenous Women and Girls (Canada) et al., 2019)
[94] (National Inquiry into Missing and Murdered Indigenous Women and Girls (Canada) et al., 2019)

assessment, management and monitoring of resource extraction projects".[95] In addition, a gender-based analysis should be central to socio-economic assessments for proposed extractive projects and operating projects in proximity or within Indigenous territories.[96]

3.6 Summary

The intersectional lens used throughout this paper will provide context to the social, economic, political, physical and mental undertones of Indigenous discourse as it relates to mineral resource development. Understanding the sensitive history of Indigenous Peoples in this country will provide insight into the real needs of Indigenous communities that should be thoughtfully addressed when considering, developing, and operating a mineral resource project. The power dynamics that were forced upon Indigenous Peoples marginalized them and alienated them from their homelands. As such, mineral resource projects need to proceed with caution, care and empathy to mitigate harmful interactions and facilitate a productive coexistence.

3.7 Mineral Resource Development and Sustainability

A Closer Look

Historical cases like *Taku River Tlingit First Nation v British Columbia (Project Assessment Director) 2004* and *Tsilhqot'in Nation v. British Columbia 2014* demonstrate that the mineral resource sector can work within the understanding that the rights of Indigenous Peoples need to be upheld.[1] The duty to consult Indigenous People should not be taken lightly, as case law demonstrates. Indigenous perspective should be valued and appropriately incorporated into mineral resource development projects, not doing so may lead to procedural and developmental implications further down the project life.

For further reading:

- Taku River Tlingit First Nation v. British Columbia (Project Assessment Director) [2004] SCC 74
- Tsilhqot'in Nation v. British Columbia [2014] SCC 44

The World Commission on Environment and Development (WCED) defined sustainable development to be "development that meets the needs of the present without compromising the ability of future

[95] (National Inquiry into Missing and Murdered Indigenous Women and Girls (Canada) et al., 2019)
[96] (National Inquiry into Missing and Murdered Indigenous Women and Girls (Canada) et al., 2019)

generations to meet their own needs".[97] While the earth hosts a finite amount of mineral resources and mineral extraction cannot be sustained indefinitely, mineral resource development and exploration,

through activities like recycling and repurposing, will be necessary to support global development and economies into the future. Further industry steps toward environmental sustainability will continue to be important, for example ongoing reclamation and employing proper remediation programs to restore land back to a natural state. In addition, creating sustainable economic growth for neighboring local Indigenous communities through beneficial investments in infrastructure and education, among others.[98]

Being socially and environmentally responsible and respectful is at the heart of sustainable development and is something that the mineral development industry is largely aware of today. Corporate responsibility is a business approach to contributing to sustainable development by delivering economic, social, and environmental benefits for all stakeholders. Today's mining companies work for tomorrow's economy by keeping sustainable practices at the core of their business.[99]

[97] (WCED, 1987)
[98] https://newagemetals.com/mineral-development-a-short-guide-to-understanding-the-process/
[99] https://newagemetals.com/mineral-development-a-short-guide-to-understanding-the-process/

3.7.1 *Stages of Mineral Resource Development*

Mineral resource development can generally be organized into six stages. Each stage represents a certain period in the life of a mineral deposit. The stages, ordered chronologically from earliest and following the order in which they occur, are presented in the Figure below:[100]

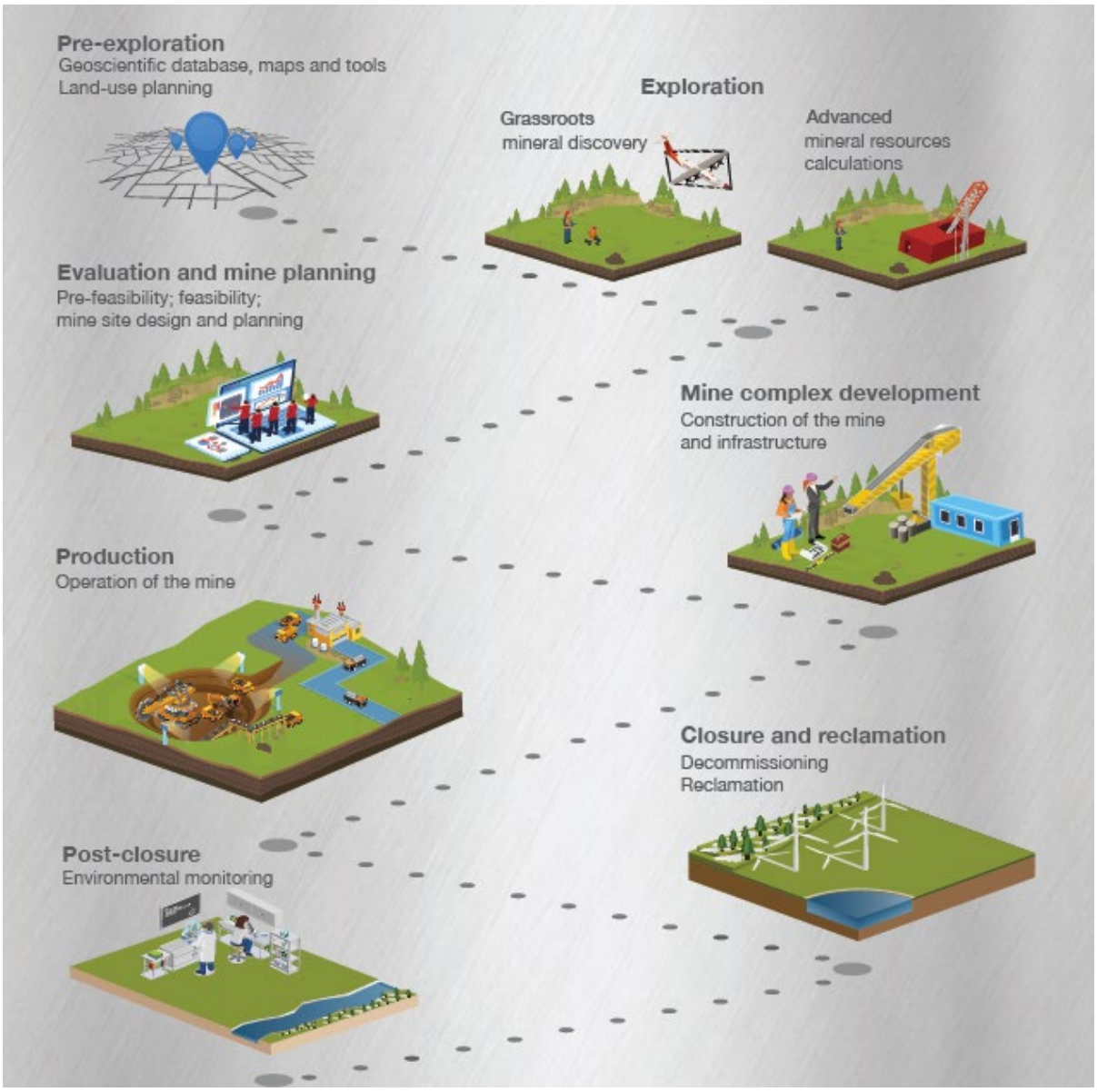

Figure 4 – Mine Development Sequence[100]

[100] https://www.minescanada.ca/sites/default/files/pictures/PDF/mining-sequence-en_accessible.pdf

3.7.2 *Mineral Resource Development and Indigenous Engagement*

Engagement with Indigenous communities can, and should, take place as early as the staking process. When a mineral resource company is interested in claiming a stake in a particular Crown land (or in an area where the Crown has mineral rights), it is best to determine if the area is used to harvest seasonally, used traditionally, or is part of a current or future land claim.[101] In Canada, land on Indigenous reserves cannot be staked, except in the provinces of British Columbia and Québec, where claim-staking is required even on reserve land in order to acquire exploration rights.[102]

The duty to consult is usually applied throughout the exploration and permitting process and can take some time to complete depending on the jurisdiction. Some provincial and territorial governments will lead the consultation process, whereas other governments will delegate procedural aspects of the consultation to the company. Since the duty to consult can be challenged in court by an Indigenous community, it is best for exploration and mining companies to engage early and often with Indigenous communities and document the engagement process, even in those jurisdictions where the government leads the consultation process. In some parts of Canada, the industry practice of having an agreement in place between the company and impacted Indigenous community is sometimes taken into consideration for the permitting process.

Communication can be challenging for both parties – the minerals resource development company, and the Indigenous community. It can be especially challenging for the elders who, in some cases, only speak their local language.

The International Council on Mining & Metals (ICMM) advises that exploration and mining companies ensure a comprehensive and inclusive engagement at all levels of the community, acknowledging the important role of the elders, women and other traditional community leaders. Furthermore, companies should not assume that those who occupy formal leadership positions (be they traditional or government-appointed), represent all interests in the community.[103]

It is important to build and maintain constructive and meaningful relationships with all sectors of the community, including the most vulnerable, in order to achieve stability for the future of a resource

[101] (Government of Canada, 2013)
[102] (Government of Canada, 2013)
[103] (International Council on Mining and Metals, 2015)

development project. These relationships should be based on respect, meaningful engagement, and mutual benefit.[104]

3.8 Social Infrastructure of Indigenous Host Communities – Current State

The purpose of this research project is to identify and anticipate impacts and subsequent increased demands on social infrastructure within host communities that are proximal to mineral resource development projects in Canada. Once established, this report will then determine specific changes to social infrastructure that can act or mitigate identified negative impacts.

For the purpose of this research, it is important to clarify that the circumstances of every Indigenous community are unique because of specific cultural practices, geographical locations, particular land use, and so forth. Circumstances and contexts vary from one community to another depending on their unique historical interactions and socio-economic conditions, such as the Indigenous group they belong to (i.e., First Nations, Inuit, Métis), the region where they are established, their historical background, and their traditional knowledge, among others. Therefore, Indigenous communities cannot be considered a single culture, and situations cannot be generalized.

The largely disparate socio-economic conditions of Indigenous communities in Canada, a highly developed country, are a constant expression of human rights concerns. In previous years, worldwide organizations such as the United Nations Human Rights Council have recommended that Canada intensify its efforts to close the human development indicator gap between Indigenous and non-Indigenous Canadians in health care, housing, education, welfare and social services.[105]

According to Canada's Community Well-being Index (CWB) – a system that measures socio-economic well-being for communities across Canada over time through four components: education, labour force activity, income and housing – the average score in 2016 represented a two-point increase from 2011.[106] This was the greatest increase for First Nations communities since 2001. However, the gap in average scores between First Nations and non-Indigenous communities was still substantial at 19.1 points lower than the average score for non-Indigenous communities, which is similar in size to the gap observed in 1981 (19.5 points).

[104] (International Council on Mining and Metals, 2015)
[105] (Stavenhagen, 2004)
[106] (Indigenous Services Canada, 2019)

When examined through a regional lens, First Nations communities in British Columbia, where the case study for this research is located, experienced the greatest increase in their CWB scores between 2011 and 2016. Overall, First Nations communities in Canada continue to make encouraging progress in the socio-economic outcomes represented by their CWB scores, notably in the areas of education and income. However, significant gaps remain to be observed in the areas of labour and housing.

3.8.1 *Health and Well-being*

The health of Indigenous Peoples is a matter of significant concern for the different levels of government (including federal, provincial and Aboriginal) as many Indigenous communities are remote, generally lacking adequate infrastructure and suffer chronic shortages of health care personnel.[107] Although the overall health situation of Indigenous Peoples in Canada has improved in recent years, significant gaps still remain in health outcomes of Indigenous Peoples as compared to non-Indigenous Canadians in terms of life expectancy, infant mortality, suicide, injuries, and communicable and chronic diseases such as diabetes. The health situation is exacerbated by overcrowded housing, high population growth rates, high poverty rates and the geographic remoteness of many communities.

COVID-19 further stressed existing social, economic and health-related vulnerabilities borne by Indigenous Peoples. As communities are starting to plan for economic recovery it is important to recognize the acute current and ongoing impact of the COVID-19 pandemic on the well-being and mental health of all Canadians, and specifically Indigenous Peoples. Connection with culture, including Indigenous languages, is a determinant of their health and wellness. Increased access to information and services in Indigenous languages also help remove barriers for individuals seeking supports for their personal and community well-being.

Health care for Indigenous Peoples is delivered through a complex array of federal, provincial and Aboriginal services, and concerns have been raised about the adequacy of coordination among them. A recent positive development in British Columbia, which according to the United Nations Human Rights Council, Report of the Special Rapporteur on the Rights of Indigenous Peoples could provide a model for other areas, is the implementation of a tripartite agreement to achieve a more responsive health-care system. The oversight and delivery of federally-funded health services in British Columbia have been

[107] (Michiel Oosterveer & Kue Young, 2015)

transferred to First Nations, while the three levels of government (Aboriginal, provincial and federal) work collaboratively to support integration and accountability.[108]

Indigenous Peoples and mineral resource development projects often coexist in remote areas and, depending on the scale of the camp, can lack access to basic health services. For example, an early phase exploration camp near a community will likely only have basic first aid. An advanced exploration phase camp, on the other hand, usually has basic support services, a trained First Responder, or a health care professional.

As mentioned in the previous paragraph, the provision of health services is the government's responsibility and Indigenous communities frequently suffer from serious health issues. However, in remote areas the government may not have the capacity or resources to provide these services in a timely manner. In such circumstances, mineral resource companies can be well-positioned to facilitate or provide preventive or basic health service delivery with better outcomes.[109]

3.8.2 *Mental Health and High Rates of Suicide*

As stated in the Centre for Suicide Prevention,[110] Indigenous Peoples have some of the highest suicide rates in the world. According to a Public Health Agency of Canada 2016 report, suicide and self-inflicted injuries are the leading causes of death for First Nations youth and adults up to 44 years of age.[111] For First Nations, the suicide rate is three times the national average. For Métis, the suicide rate is twice the national average, and for Inuit the suicide rate is nine times the national rate.[112] Indigenous People have nearly four times the risk of experiencing severe trauma than the non-Indigenous population.[113]

Historically, suicide was a very rare occurrence among First Nations and Inuit.[114] It was only after contact with Europeans and the subsequent effects of colonialism that suicide became prevalent. Intergenerational trauma experienced by Indigenous Peoples, which effects are passed on from one

[108] (Anaya, 2013)
[109] (International Council on Mining and Metals, 2015)
[110](Centre for Suicide Prevention, 2021)
[111] (Public Health Agency of Canada, 2016)
[112] (Kumar et al., 2019)
[113] (Haskell & Randall, 2009)
[114] (Kirmayer & Aboriginal Healing Foundation (Canada), 2007)

generation to the next, is one of the primary colonial effects contributing to the elevated rate of suicide among Indigenous People.

Colonization led to losses of culture, traditional values, and family stability because it was made impossible, in many cases, for parents and elders to pass along vital cultural knowledge and resilience to children who were taken away (see Section 3.4). In addition, relocation and settlement took many Indigenous Peoples away from their traditional ways of living and thriving. [115]

Indigenous Peoples have experienced trauma for generations. This situation puts them at greater risk for suicide and other mental health issues such as depression and addiction. When people have healthy coping mechanisms and strong support systems, they are better equipped to heal from trauma. Not only did acts of colonialism cause trauma in Indigenous Peoples, but it also affected their means of coping with and healing from trauma. This is how intergenerational trauma continues to negatively affect generation after generation of Indigenous Peoples today. [116]

The First Nations Mental Wellness Continuum Framework[117] proposes four key elements that are integral to mental wellness: hope, belonging, meaning and purpose. These four aspects work together and, when aligned, contribute to the mental wellness of individuals and communities.

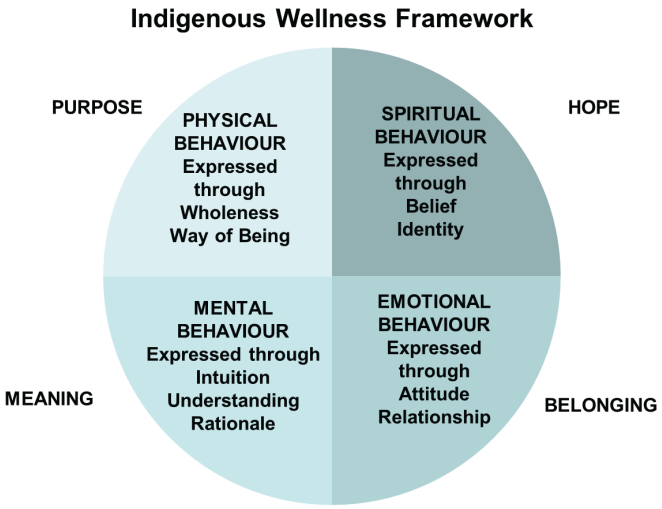

Figure 5 – Indigenous Wellness Framework[118]

[115] (Elias et al., 2012)
[116] (Linklater, 2014)
[117] (Canada et al., 2015)
[118] (Canada et al., 2015)

> *"From coast to coast, First Nations people have said that: a connection to spirit (identity, values, and belief) promotes hope; a connection to family, community, land, and ancestry promotes a strong sense of belonging; knowing who one is and where one comes from allows one to think and feel and understand life from an Indigenous perspective and promotes a sense of meaning; and an understanding of the unique First Nations way of being and doing in the world promotes purpose."* [117]

The development of a mineral resource development project in a remote area often facilitates a sense of community and belonging amongst its workforce, especially for those workers in long shifts (i.e., fly-in-fly-out) that keep them away from family and friends for extended periods of time. For local Indigenous employees, the sense of community in being able to work on their own land can strengthen their sense of belonging to their community, an important aspect of their mental well-being.[119]

Some companies help to facilitate a sense of belonging by supporting their Indigenous workforce through investments in social, traditional and cultural programs for Indigenous workers. Such programs, when designed and managed by Indigenous employees, could help integrate the four key elements for mental wellness mentioned earlier (hope, belonging, meaning, and purpose) into daily site life. Facilitating Indigenous cultural programs across the entire workforce to be inclusive of non-Indigenous workers can help build gaps across cultures, increase cross-cultural awareness, and raise levels of empathy for Indigenous Peoples. As an example, Pretivm Resources' Brucejack Mine, the focus of our case study for this research, invests in a social program for its workforce where some Indigenous workers lead hikes for non-Indigenous workers who would like to explore and learn about local landscapes, local histories, and cultural values of the ecosystems where the project is located.[120]

3.8.3 *Food Insecurity*

Many factors related to the remoteness of a community contribute to high food prices in the North. These include higher transportation, fuel and maintenance costs, and a complex food distribution system that is often restricted to limited deliveries by plane, as stated in the Food Secure Canada report, *Paying for Nutrition a Report of Food Costing in the North,* resulting in monopolies.[121] As Joseph LeBlanc, a Food

[119] https://sustainability.pretivm.com/highlight-stories/building-a-sense-of-community-at-the-mine/
[120] https://sustainability.pretivm.com/highlight-stories/building-a-sense-of-community-at-the-mine/
[121] (Veeraraghavan, et al., 2016)

Secure Canada board member told a media outlet in 2016: "In many cases, a northern community's only grocery store is part of a chain that holds a virtual monopoly on the supply of perishable food items. In doing that, they constrain the buying power of the consumer and undermine community initiatives that had been attempted to be developed to address this."[122]

Additionally, food systems are an incredibly complex and interdisciplinary network, affecting not only physical health but also economic development, social development, cultural continuity, environmental integrity, resource management, and mental health.

In March 2020, the British Columbia Assembly of First Nations (BCAFN) was given the mandate to engage regionally, nationally and internationally on food security and sovereignty issues as they relate to wellness and economic development. This mandate was quite timely considering advocacy needed regarding food insecurity was exacerbated by COVID-19.[123]

According to BCAFN and food system activists, the charity model of emergency food provision as a response to food insecurity is an extremely undignified and ineffective method to ensure that people have access to food.

3.8.4 *Housing*

The housing situation in many First Nations and other communities in Canada has reached a crisis level, especially in the North, where remoteness, extreme weather and COVID-19 have exacerbated housing problems. Overcrowded housing is endemic due to housing shortages and some homes are in dire conditions. These conditions add to the broader troubling state of clean drinking water on First Nations reserves, in which more than half of the water systems pose a medium or high health risk to their users.[124]

This housing crisis has been identified as a high-priority issue by Indigenous Peoples. It is worth noting that the chronic housing shortage has a severe negative effect on a wide variety of economic and social conditions. Overcrowding contributes to higher rates of respiratory illness, as we have recently seen with the COVID-19 pandemic, depression, sleep deprivation, family violence, poor educational achievement, and an inability to retain skilled and professional members in the community.

[122] (Puzic, 2016)
[123] (British Columbia Assembly of First Nations, 2021)
[124] (Auditor General of Canadato the House of Commons, 2011)

When a mineral resource project is developed in such areas, there may be increased competition between the company and the community for resources, including affordable and safe housing. With an already strained housing situation in First Nations communities, it is important that this adverse impact is addressed from the early stages of the project design. The building of appropriate camp housing facilities can reduce the risk of a workforce competing for accommodations in a local community.

3.8.5 *Lack of Safe Drinking Water*

As stated by the Council of Canadians:

> *"There is nothing more important than clean water, yet at any given time there are drinking water advisories in dozens of First Nations communities across Canada. The lack of clean, safe drinking water in First Nations is one of the greatest violations of the UN-recognized human rights to water and sanitation. In 2015, there were drinking water advisories in 126 First Nations."* [125]

According to a recent report from Human Rights Watch, the water supplied to many First Nations communities on reserve land is contaminated, hard to access, or at risk due to faulty treatment systems. The poor water and sanitation conditions have disparate and negative impacts on at-risk populations, particularly children. While the most severe public health concerns such as water-borne illnesses and related deaths have mostly been avoided through water advisories, the social costs and human rights impacts of the water crisis are considerable.[126]

The Government of Canada and First Nations are working in partnership to improve access to clean drinking water and lift all long-term drinking water advisories for public systems on reserves as soon as possible. According to a news release, as of May 17, 2021,[127] 106 long-term drinking water advisories have been lifted and safe drinking water has been restored for 77 communities since November 2015. Much work remains and projects are underway to address the remaining 53 long-term drinking water advisories in effect for 34 First Nations communities. The Government of Canada's commitment to improving access to clean drinking water on reserves now and into the future goes beyond lifting long-term drinking water advisories. It also includes increased support for operations and maintenance deemed essential to the

[125] (The Council of Canadians, n.d.)
[126] (HUMAN RIGHTS WATCH, 2021)
[127] (Government of Canada, 2021)

long-term sustainability of water infrastructure and preventing the reoccurrence of drinking water advisories in the future.

Mineral resource development companies are important water stewards wherever they operate – not only because of regulatory requirements, but also because of their own commitment to minimizing their impacts on the environment. They continually monitor water quality for operation and for local consumption.[128] The establishment of a mineral resource development project can provide an opportunity for necessary investments into water management programs that can benefit all communities, especially those in remote areas.

3.8.6 *Education*

In British Columbia, education for First Nation children is coordinated through a single province-wide education authority and delivered and regulated by individual First Nations, funded through a tripartite agreement with the provincial and federal government. At every level of education Indigenous Peoples overall, lag far behind the general population. Government representatives have attributed the gap in educational achievement to elevated levels of poverty, the historical context of residential schools, and systemic racism.[129]

Lack of education in First Nations communities has prevented access to jobs, including within the exploration and mining industry. Some groups may not always have the required skills and capabilities to adequately perform technical jobs, address risks, or manage impacts related to the activity. Today, more exploration and mining companies invest in training and education to enable genuine participation of First Nations groups in impact mitigation, the implementation of benefit agreements, and training and education programs. This helps to build capacity within the community and strengthen the company's workforce.[130]

3.8.7 *Indigenous Women*

Indigenous women and girls are a vulnerable group and through the years have been victims of violent crime disproportionately (see Section 3.5.1). The Native Women's Association of Canada has documented over 660 cases of women and girls across Canada who have gone missing or been murdered in the last 20

[128] https://sustainability.pretivm.com/protecting-the-environment/watershed-management/
[129] (Anaya, 2013)
[130] (International Council on Mining and Metals, 2015)

years, many of which remain unresolved. The exact number of unresolved cases remains to be determined.[131]

In 2004, the Committee on the Elimination of Discrimination Against Women within the United Nations noted on its General Recommendation 25, as follows:

> *"Certain groups of women, in addition to suffering from discrimination directed against them as women, may also suffer from multiple forms of discrimination based on additional grounds such as race, ethnic or religious identity, disability, age, class, caste or other factors. Such discrimination may affect these groups of women primarily, or to a different degree or in different ways than men. Governments may need to take specific, temporary, special measures to eliminate such multiple forms of discrimination against women and its compounded negative impact on them."* [132]

Indigenous women in northern Canada may endure several forms of discrimination and human rights violations. Creating safe spaces and support for healing is important to address this. Women, girls, and gender-diverse people must be able to feel safe and live their lives fully. They must have access to justice, must be supported to heal, and must be empowered as leaders.[133]

Further to this, researchers Koutouki and colleagues propose a rights-based approach to Indigenous women and gender inequities in mineral resource development in northern Canada.[134] A rights-based approach can address forms of discrimination, redefining decision-making around mineral resource development projects in a way that supports, rather than undermines, the human rights of Indigenous women.[135] The authors maintain that this approach can enhance the equity and effectiveness of regulatory and related processes concerning mineral resource development, increase the participation and inclusion of Indigenous women in resource-related decision making, and help ensure a more coherent legal and policy framework for the management of natural resources that align with Canada's international and domestic obligations. Koutouki et al also mentioned the need to implement a consistent framework to manage mineral resource development projects, based on the application of human rights principles that consider the experiences of Indigenous women.[136]

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[131] (Native Women's Association of Canada, 2013)
[132] (Committee on the Elimination of Discrimination against Women, 2004)
[133] (British Columbia Assembly of First Nations, 2021)
[134] (Koutouki, Lofts, & Davidian, 2018)
[135] (Koutouki, Lofts, & Davidian, 2018)
[136] (Koutouki, Lofts, & Davidian, 2018)

3.8.8 *Policing Services*

Many First Nations' policing services are severely underfunded and non-First Nation officers do not uphold the laws of First Nations. It is important for First Nations to have self-determined solutions to address the challenges they face. Every First Nations citizen, no matter where they reside, has a right to live in healthy and safe communities.

The Assembly of First Nations (AFN) is continually working to fight discrimination in all aspects of society, with special emphasis on their justice system.[137] AFN will continue to press for First Nations policing as an essential service, restorative justice initiatives, and other reforms to the justice system. By designating First Nations policing as an essential service, new approaches to policing can be developed that include community-based, self-determining models grounded in First Nations principles, laws and traditions. This needs to be accompanied by adequate funding for police services.

> *"This (First Nations police reform) work will be tough, and change cannot happen overnight, but I believe that we are making progress and will continue to do so in such a way that our people and our rights are respected and honoured."* [133]

3.9 **Impacts on the Well-being of Indigenous Peoples**

In Canada and other parts of the world, mineral resource development projects often take place on or near Indigenous lands, according to the International Council on Mining and Metals (ICMM). Furthermore, their Position Statement acknowledges the ethical imperative for having special regard for Indigenous Peoples' needs, interests and rights. The Statement also details that Indigenous Peoples may be affected by, or have an interest in, mining and metals projects in several different capacities. They may have, or claim to have, some form of legal ownership or control over the land or may be customary owners without formal recognition. They may be users of the land and its resources. The land may contain sites, objects, or resources of cultural significance. Or they may be residents of a community that is or will be affected in their social, economic, or physical environment by mining activities.

For decades, the exploration and mining sector has been a central economic driver in the Canadian North. Companies have been challenged with understanding the complexities within the development of a

[137] (BCFAN, 2020, p. 6)

project and how it may affect individuals, families, culture, environment, livelihood and health of Indigenous Peoples. There is a need to understand the factors that contribute to positive and negative effects on individuals, families and communities. The preservation of tradition through values, language, and customs may influence well-being and protect individuals and communities and create some resilience from mining effects.[138]

It is important to recognize that mineral resource developments on or near Indigenous lands and territories will have impacts that can be positive, negative, or a mix of both. This will depend on a number of different factors, such as unique community characteristics, geographical location, historical relationship with mining, and the nature of the mining project. Of critical importance to this research is how the company approaches the management of its impacts, and how it engages with the community in order to mitigate any negative impact and capitalize on the positive impacts that mineral resource exploration and mining can bring to the community and the future development of the project.

Mineral resource development projects can impact Indigenous Peoples in a variety of ways, both positive and negative. Below is a selection of common impacts.

3.9.1 *Violence Against Indigenous Women and Girls*

Canada is a signatory to a wide range of international human rights instruments relevant to the rights of Indigenous women in the context of mineral resource development.[139] As Amnesty International has expressed, "the international human rights standards that Canada has committed to uphold, require all levels of government to take every reasonable measure to ensure that the rights to health, livelihood, culture, and the right to live free from violence and discrimination are respected, protected and fulfilled."[140] This commitment requires due diligence at all levels of government to prevent human rights violations, including violations on the part of individuals and corporations, and includes the obligation to take positive actions with respect to the enjoyment of human rights by all.

The influx of a large workforce can result in a rapid, if not instantaneous, growth in the local population for a determined period of time. Much of the workforce includes men employed as labourers, skilled workers, or as professionals by the mining company. Consequently, they have higher incomes and often

[138] (Gibson & Klinck, 2005)
[139] (Government of Canada, 2017)
[140] (Amnesty International, 2016)

leave their families at home during their rotational work schedule. As reported by the Mining Association of Canada, and according to the 2016 census, men account for 78% of the mining workforce.[141]

Historically and globally, it has been a common occurrence within exploration and mining camps that company employees, typically expatriate men foreign to the region, can change the social fabric of local and Indigenous communities, introducing situations that allow for 'social ills' to flourish. For example, increased alcohol consumption and alcoholism, gambling, prostitution, violence and sexual harassment against women and children have historically been known to become prevalent issues in mining communities globally.[142]

Resource extraction industries such as mining and forestry often affect the most marginalized members of communities, and in most cases, this means that women and children are disproportionally impacted. The Pauktuutit Inuit Women of Canada ('Pauktuutit') Sexual Health Unit has stated that women carry most of the burden of modernization and industrialization, including increased violence. There is an increase in the number of unwanted pregnancies and sexually transmitted infections resulting from the exploitation of women. For example, the already high levels of sexually transmitted infections and frequency of HIV/AIDS in the North are being elevated by prostitution that caters to miners.[143]

Pauktuutit and other organizations have recently conducted research into the connections between the extractive resource industry and women's safety. One such study*, Never Until Now,*[144] conducted between 2020 and 2021 by Liard Aboriginal Women's Society in several mine sites in Yukon and Northern BC, found that Indigenous and racialized women employed at mineral resource development projects or operation sites that are predominantly male, are at high risk for physical, sexual, and mental assault and abuse – an observation reinforced by the Pauktuutit study, *Addressing Inuit Women's Economic Security and Prosperity in the Resource Extraction Industry*.[145] Ineffective prevention of harm from harassment or discrimination, the lack of safety in lodging formal complaints, and an absence of clear or available mechanisms to report grievances, were found as some of the reasons that violence and abuse against female workers continue.

[141] (Marshall, 2020)
[142] (International Institute for Environment and Development, 2002)
[143] (Gareau, 2021)
[144](CCSG Associates et al., 2021)
[145] (Pauktuutit Inuit Women of Canada, 2021)

The *Never Until Now* study[146] highlights the importance that Indigenous and racialized women be invited to provide leadership and oversight in developing future gender and racial equality policies, legislation and training initiatives in order to fulfill these women's economic and social rights. Establishing women's support groups at mine camps might create a safe space to problem-solve and discuss concerns specific to women and identify improved management responses with clear timelines and procedures to report, investigate, and respond to complaints of harassment, discrimination and violence.

3.9.2 *Rates of Single Parent Families*

Historical research by the Canadian Federal Government on family demographics has shown that single-parent families are much more likely to be headed by women than men.[147] While the number of single-parent families has increased through the years, the proportion between female and male lone parents has remained in the 80% to 20% range over the past decade.

Single Indigenous mothers in Canada tend to experience lower incomes and economic disadvantages as they are less often employed than Indigenous men or than non-Indigenous women in Canada. The low incomes of single-mother families and high rates of dependency on government transfer payments among Indigenous Peoples are clearly identified in the study, *Aboriginal Single Mothers in Canada, 1996: A Statistical Profile*.[148]

This situation is further aggravated by the development of a mineral resource project. When an almost all-male workforce arrives onsite, relationships may form between some workers and women from local Indigenous communities, sometimes resulting in pregnancies. In other cases, unwanted pregnancies are the result of violence against local Indigenous women. According to ICMM, single motherhood is one of the social issues exacerbated by resource development, further marginalizing this vulnerable group.[149]

However, there are also positive impacts that a mineral resource development project can bring, not only to single mothers but to other vulnerable groups in the community in the form of employment and business opportunities through the mining company and/or its contractors. These positive impacts could include, for example, childhood and adult education, daycare facilities, skills training for women, and improved living conditions due to better income.

[146](CCSG Associates et al., 2021)
[147] (Department of Justice, 2015)
[148] (Hull, 2004)
[149] ICMM. Good Practice Guide. Indigenous Peoples and Mining

3.9.3 *Changes in Community Birthrate*

According to the Statistics Canada 2016 census, the Indigenous population grew four times faster than the rest of the country. With nearly 1.7 million people identified as Aboriginal, representing a 4.9% share of the total population, and a 42.5% increase since 2006. [150]

Statistics Canada attributes this spike to two main factors: 1) natural growth, which includes increased life expectancy and high fertility rates; and 2) the fact that Indigenous Peoples appear to be more willing to identify themselves on the census as either First Nations, Métis or Inuit. Their projections show that the Indigenous population in Canada will top 2.5 million over the next 20 years.

What this means for mineral resource development companies is that the growing population of Indigenous Peoples provides an ongoing opportunity to employ more First Nation, Inuit or Métis individuals. Companies can look to facilitate broader and more specific skills training to increase the capacity of Indigenous employees, to more easily leverage Indigenous knowledge and integrate it into project planning and development. Mineral resource companies can then further foster talent management programs that will facilitate more Indigenous representation at the executive and board level of the organization.

3.9.4 *Implications of Increased Costs of Living*

According to Indigenous Services Canada, the cost of living in some areas, especially in the North, is higher than in urban centres across Canada.[151] The cost of groceries will likely be at least double what is paid elsewhere. The Federal Government of Canada delivers the Isolated Post Allowance, a program intended to offset the abnormal cost differentials between isolated and non-isolated locations, and to compensate members for harsh environmental conditions experienced in northern communities. The program helps reduce these costs somewhat, but not entirely.[152]

As stated earlier regarding the housing situation in Indigenous communities, the development of mineral resource projects in remote areas may contribute to increased competition for real estate between locals due to the influx of a large workforce. This situation intensifies with the possible increase in the cost of living and scarcity of food supply, which especially applies to communities with road access and an active

[150] (Statistics Canada, 2019)
[151] (Government of Canada, 2020)
[152] (Goevrnment of Canada, 2018)

housing market. Influx can rapidly exacerbate the underlying situation and trigger food inflation with serious health consequences for existing vulnerable populations.[153]

Health care for Indigenous People in Canada is another area where the cost of living could be impacted. As we have mentioned in a previous section, health care is delivered through a complex array of services from different levels of government and concerns have been raised about the adequacy of coordination among them. Indigenous Peoples in remote areas lack access to basic health services. Consequently, they frequently suffer from serious health issues.

The Canadian Pharmacists Association believes there are major barriers to access essential medicines for the Indigenous population.[154] One of the reasons is that there may be misconceptions about the advantages Indigenous Peoples have in terms of "free health care and provisions" with the Non-Insured Health Benefits (NIHB)[155] program. Although the program pays for some prescriptions, dental services, and other health-related costs that non-Indigenous Canadian citizens often have private responsibility for, such benefits can be outweighed by issues of accessibility, poor relationships with healthcare providers, jurisdictional disputes, and interpersonal and systemic racism.[156] Another reason is related to the shortage of physicians to meet the needs of the Indigenous population. As in many cases, patients rely on visiting specialists who are only available for appointments once a month, or are required to travel outside of their community for specialized care.

Indigenous communities face additional challenges that can affect the cost of living, such as the absence of amenities common to large or urban centres, like exercise gyms and restaurants. In many cases, each remote community has only one store where groceries and housewares are purchased. Internet access, which became a basic service during the pandemic, is a commodity for remote communities. As all have satellite-based internet access, the connection is usually much slower than what would be experienced in an urban setting. Inclement weather and power outages can also delay internet access.

With the arrival of a mineral resource development project, overall impacts with regard to cost of living are likely to be mixed, as both positive and negative effects may be seen, especially with a large-scale

[153] (International Finance Corporation, 2009)
[154] (The Pharmacare Working Group, 2018)
[155] The Non-Insured Health Benefits (NIHB) program provides eligible First Nations and Inuit clients with coverage for a range of health benefits that are not covered through other: social programs, private insurance plans, provincial or territorial health insurance.
[156] (Swidrovich, 2018)

project. On the negative side, food inflation and an increased cost of living should be anticipated. On the positive side, improved employment and income may result in increased living standards, nutrition and overall well-being – as long as supporting policies, systems and infrastructures are developed.

3.9.5 *Disruption of Traditional Lifestyles*

Harvesting activities such as hunting, fishing, trapping and gathering of wild plants have been part of Indigenous Peoples' way of life in Canada for more than 40,000 years.[157,158] According to the literature however, due to continuing economic, social and political pressures, emerging climatic factors, and potentially decreased transmission of traditional knowledge and skills, participation in these activities in many Indigenous communities is declining.[159] On the other hand, anecdotal evidence demonstrates that there is often a resurgence of land-based activities by Indigenous mine workers due to the fact that they could now afford equipment and gas to travel out on the land. Additionally, the reinstitution of land-based activities is being incentivized by government funding for the Indigenous Guardian Program and Indigenous Conservation and Parks Area, as well as charity foundation donations.[160]

Regardless of the anecdotal evidence, the significant reduction in harvesting activities by Indigenous People is of great concern considering the holistic benefits of engaging in these activities, which have been identified as important for protecting cultural identity and supporting good mental health. For some Indigenous Peoples on reserves, it is the key to meeting nutritional needs and supporting food security. Other advantages include increased physical activity, prevention of chronic disease, and lower food costs.[161] There are also mostly unrecognized benefits to the economy.

Many studies have explored barriers to participation in harvesting activities.[162] Time limitations due to employment are the most frequently reported barrier. In the context of harvesting activities, employment has been portrayed as a double-edged sword since it provides the financial resources to procure equipment and supplies, but reduces the time available for these activities. Other factors include a lack of

[157] (Kumar, Furgal, Hutchinson, Roseborough, & Kootoo-Chiarello, 2019)
[158] (Gareau, 2021)
[159] (Shirley, 2016)
[160] Interview with Indigenous People (2021), comments from PDAC Indigenous Advisory Panel (September 14, 2021).
[161] (Chan & Kuhnlein, 2000)
[162] (Shirley, 2016)

interest and/or knowledge required for harvesting activities, poor health or disability, school attendance, childcare, and declining game animal population numbers.[163]

For Indigenous people employed by a mining company who may be on a rotation schedule, less time can be spent on the land harvesting as these rotational shifts are usually organized to support the stage of development of a project and are not supportive of the traditional activities of Indigenous employees. During the time they have off, workers may prefer to spend more time at home with their families or simply resting from work. So, as observed by Gibson et al, men from the community who traditionally do the harvesting activities are likely unable to learn traditional skills and ecological knowledge from elders or pass this knowledge on to the younger generation.[164] Since learning processes within Indigenous Peoples have historically been oral-based and involve knowledge transmission through observing, decreased harvesting practices may also signal the loss of associated knowledge.[165]

Indigenous People employed at a local mine are often unable to attend cultural festivals and family rituals structured around meat harvests due to typical 12-hour shifts and weeks-long rotation schedules. This condition is further exacerbated because mining is continuous and year-round, and thus does not allow for prolonged hunting trips, which are necessary due to the long distances that may be traveled while following herds. The effectiveness of hunters that do go out onto the land can be compromised through the loss of traditional ecological knowledge. This can carry negative consequences, especially when considering that hunting and harvesting knowledge is site-specific.[166]

Some mineral resource companies are learning and beginning to understand how to manage and balance their economic needs with environmental considerations and the cultural traditions of people in the areas in which they operate, especially if they want to improve the diversity of their workforce with local and Indigenous employees. In recent times, mineral resource companies include in their Investment Benefit Agreements with Indigenous communities, time off for traditional activities, including extended time for funerals. According to ICMM, mineral resource companies understand that mineral resource project development activities have affected and will continue to affect the land, territories, resources, and way of life of Indigenous Peoples.[167] There is also a broad understanding of the importance of maintaining a

[163] (Shirley, 2016)
[164] (Gibson & Klinck, 2005)
[165] (Gibson & Klinck, 2005)
[166] (Gibson & Klinck, 2005)
[167] (International Council on Mining and Metals, 2015)

healthy and stable natural environment to support local communities, particularly those wishing to retain a traditional lifestyle.

3.9.6 *Community Infrastructure*

The development of a mineral resource project in remote areas may pose challenges to community infrastructure and availability of services. In some cases, Indigenous communities in these areas are already facing a strain on their basic infrastructure and services, such as housing availability, water supply, health clinics, poor condition of roads, among others. Although the provision of services is usually undertaken by the government, due to lack of capacity, organization and political decision-making they may not always be able to provide these services and amenities. In such cases, mineral resource companies have often been prepared to fulfil these service delivery gaps as doing so would satisfy their own needs while at the same time, support infrastructure development of the host community.[168]

Mineral resource development projects often come with the influx of a large workforce to an area. This contributes to many challenges, such as increased traffic on community roads, a strain on already insufficient housing or hotel accommodations used to lodge company employees, crowded health facilities, and a shortage of products at local stores due to higher demand. Likewise, on a larger scale, there is increased wear and tear or damage to roads due to the transit of heavy equipment, and depending on where the mine is located a strain on power and water supplies to respond to the project requirements.[169] These activities stress the local infrastructure even more, further jeopardizing the infrastructure risks of Indigenous host communities.

Lack of or deficient infrastructure can create a challenge for mineral resource companies, especially to the project economics. Frequently, companies that seek to develop mineral resource projects in remote areas must build the infrastructure they require for the operation. Historically, this has included the construction of roads, ports, railways, and airstrips, power generation and transmission lines, on-site accommodation for fly-in/fly-out employees, and health facilities.[170]

Like all complex issues, there are at least two sides. Development due to mineral resource projects can also create positive impacts for communities and women, in terms of improved health infrastructure and

[168] (International Council on Mining and Metals, 2015)
[169] (International Finance Corporation, 2009)
[170] (Marshall, 2020)

services, more schools and daycare services, potable water, improved roads, public transportation systems, and so on. As primary caregivers and household managers, women value these systems.[171]

3.9.7 *Land Use and Land Disturbances*

As mentioned earlier, harvesting activities such as hunting, fishing, trapping, and gathering of wild plants have been part of Indigenous Peoples' way of life in Canada for thousands of years. Mineral resource development projects can impact these traditional activities through the different stages of a project. These impacts are often negative because of the disturbance of land they cause. There are also positive impacts when mineral resource development activities take place in remote areas, as discovery of traditional and cultural activities often occur when prospecting and exploration begins. Additionally, baseline studies to better understand the cultural fabric help to document and record traditions.

Anecdotal evidence, on the other hand, reveals that sometimes when roads are built into traditional lands community members access land more efficiently thereby deriving greater benefit from the new roads. However, "it is a double-edged sword because road infrastructure also brings others into a region."[172]

Consultation with Indigenous communities and collaboration in assessments of traditional land is key before any field activity begins. Understanding specific, traditional use of the land allows mineral resource development projects and communities to unlock knowledge that can help to positively preserve and respect traditional land use and sites of cultural significance, or if it is the case, respectfully address mitigation measures of any negatively impacted activity or area.

For example, mineral resource development activities involve the movement, excavation or disturbance of the earth and have the potential to affect archaeological materials, if present. When local communities are involved and Indigenous knowledge is considered, mineral resource companies can plan their activities and take the appropriate measures to prevent the archeological site from being affected. This could include the clearing and grading of roads and transmission lines right of way, marking, clearing, and excavation of building foundations and footings, etc.[173]

In remote areas, mineral resource development activities may follow the routes of traditional harvesting activities, like in the case of a future roadway, remote camp, or power line installation. The mining

[171] (Dias, 2007)
[172] Provided from PDAC Indigenous Advisory Panel through research comment period (September 14, 2021)
[173] (Rescan Environmental Services Ltd., 2012)

company may look for the most efficient, or technically viable routes, or locations for these facilities that may transverse traditional trapping or hunting areas. In this case, the sharing of information in the early stages of the project could lead to findings that may have been previously known but have been forgotten or ignored over time. Working together with the local community on archaeological assessments and field mapping of historical camps, routes, or resources, generates a richer understanding of their traditional activity, which can contribute to a more comprehensive design of a mineral resource development project in which negative impacts could be minimal and sometimes even avoided.

4 Case Study

The case study of focus for this research is the Brucejack Project, located in the Golden Triangle region of Northern British Columbia on the traditional territory of the Skii km Lax Ha First Nation and the Tahltan First Nation.

4.1 Objective

The mineral resource development project site selected for this study is the Brucejack Mine ('Brucejack') owned and operated by Pretivm Resources ('Pretivm').[174] It is a high-grade, underground gold mine located in Northwestern British Columbia.

The findings of this study fulfill the following project inquiries:

1. What are the well-known changes to the social and cultural fabrics in Indigenous communities that may occur following the development of a mineral resource project? The study considered different contexts, such as the size of the community, remoteness to other communities and urban centres, and jurisdictions.
2. How do/can these changes affect the social infrastructure of a community? Social issues that were examined included impacts on:
    a. Violence Against Indigenous Women and Girls
    b. Changes in Community Birthrate
    c. Implications of Increased Costs of Living

Disruption of Traditional Lifestyles

    d. Community Infrastructure
    e. Land Use and Land Disturbances
3. To what degree should the forms of social infrastructure and service capacities be built or expanded to meet the anticipated needs of the host communities in advance of the development of mineral resource projects?

4.2 Case Study Research Approach

Initial research was executed through a comprehensive literature review (see Section 3), followed by interviews in the context of the Brucejack Case Study to support and enrich the literature review. The

[174] Prior to finalizing this research paper, in November 2021, Pretivm was acquired by Newcrest.

interviews were meant to uncover unique perspectives and experiences that would otherwise not be found through the literature review. Preparation for the interviews included background research of the Brucejack Mine using publicly available resources such as the Pretivm corporate website, sustainability reports and public filings.

4.2.1 *Selection of the Brucejack Case Study:*

To review the considerations that were used to guide our selection towards Brucejack Mine as a case study please reference Section 1.1.1.

4.2.2 *Location and Population of the Case Study*

Northwestern BC is a sparsely populated and relatively undeveloped region of the province. A large percentage of the smaller communities, composed predominantly of Indigenous populations, are secluded from one another as well as from Smithers and Terrace, the main regional centres.[175] In addition, roughly one-third of the 40,000 to 45,000 people in the region are Indigenous, which is a far higher proportion than the province as a whole.[176] Primary resource industries, principally mineral exploration, mining and forestry, are the mainstay of the economy. The forest industry in particular has been in decline in recent decades, which has significantly weakened the economy and lead to a steady decline in the regional population. Since the mid-1990's, the regional population has dropped almost 15% although the rate of decline has begun to slow in recent years.[177]

[175] (Skeena Resources, 2021)
[176] (Skeena Resources, 2021)
[177] (Skeena Resources, 2021)

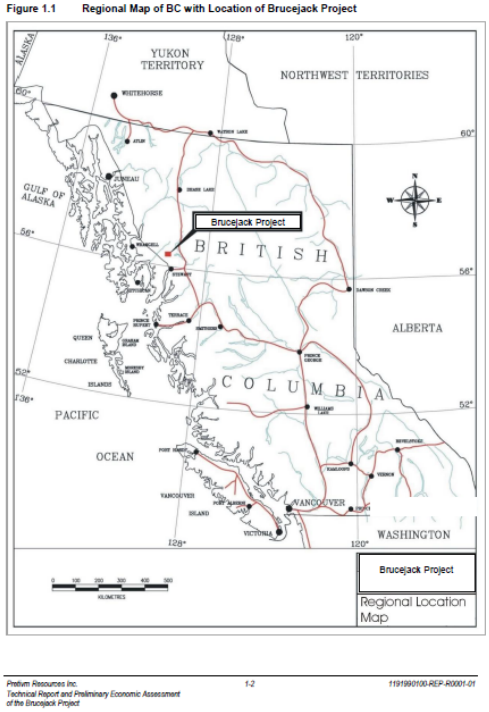

Figure 6 - Map of project site, location, proximity to FN communities

Socio-economic baseline studies were carried out by Pretivm during the early stages of the Brucejack Project. These studies covered the Regional District of Kitimat-Stikine, including all communities from Terrace to the north as far as Dease Lake, from the Town of Smithers in the east, and to the Port of Stewart in the west.

Community engagement and consultation are fundamental to the success of any mineral development project. As part of the BC environmental and social assessment process, Pretivm started consultation in 2011 with the Nisga'a Nation, Tahltan Nation, Skii km Lax Ha, and other First Nations. The company also participated in all BC Environmental Assessment Office (EAO) technical working group meetings, comprised of government agencies, First Nations, and Nisga'a Nation members. Pretivm continues to undertake engagement and consultation activities with government agencies (federal, provincial and

local), First Nations, the Nisga'a Nation, the public and other interested parties. Engagement, information sharing, and consultation have continued during each phase of the project lifecycle.[178]

As it was expressed in their Feasibility Study and Technical Report,[179] Pretivm respects the traditional knowledge of the Indigenous nations who have historically occupied the land and recognize the company's opportunity to learn from members who have generations of accumulated experience regarding the traditional care of the species on the land, and the spiritual significance of the area.

Positive community and socio-economic impacts of Brucejack are favourable for the region as new, long-term opportunities are created for local and regional workers. Such opportunities could reduce and possibly reverse the migration of Indigenous Peoples out of their communities and to larger urban centres. Pretivm has stated in their corporate materials that they will continue to work with Treaty Nation and First Nations groups and members of local communities to maximize benefits through employment and business opportunities, training, and skills development programs such as those showcased in their 2019 Sustainability Report.[180]

4.2.3 *Interview Methods*

Interview planning is an iterative process. The questions were designed based on assumptions gathered from the literature and focused on topics for further exploration via the interview process, such as: health and well-being, mental health, suicide rates among Indigenous youth, housing, lack of safe drinking water, food insecurity, Indigenous women, policing services, and changes to the social fabric of host communities due to mineral development projects. The drafted questions were reviewed by the PDAC Project Team, the PDAC Indigenous Advisory Panel, as well as by Pretivm. To accommodate participants, interview questions were modified based on the role of the interviewee to ensure we appropriately addressed their expertise or role in the community.

Our goal was to engage people who have ideally been members of the host community throughout various stages of the project lifecycle, including before project development, during and after. For example, Indigenous elders, community leaders, local teachers or educators, members of local

[178] Pretium Resources Inc. 20-2 1291990200-REP-R0012-02 Feasibility Study and Technical Report on the Brucejack Project, Stewart, BC
[179] Pretium Resources Inc. 20-2 1291990200-REP-R0012-02 Feasibility Study and Technical Report on the Brucejack Project, Stewart, BC
[180] https://sustainability.pretivm.com/

government, social service and health workers, local NGOs such as women's support organizations, and so forth.

Pretivm facilitated the introduction to interview participants. Participants were thanked for their time but did not receive monetary or in-kind compensation. Interviews were designed to be approximately 30-minutes long. However, the duration of the session depended on the participant's willingness and availability. Due to the current pandemic conditions, all interviews were conducted virtually via video conference over Zoom or by phone.

In addition to the five community respondents, an interview with Pretivm's Community Relations Manager was also conducted. It was important to understand the company's perspective in order to present a more fulsome view of the impacts of Brucejack on local communities.

The interviews helped us answer the main research questions in Section 4.1, identify emerging theories, reach conclusions, and provide practical and applicable recommendations for members of the mineral development industry.

4.2.4 *Interview Participants*

The researchers reached out to six individuals, five out of six responded and the interviews were conducted between August to October 2021.

Figure 7 – Interview Participants

Interviewee's Role	Community or Organization	Date of Interview
1) Community Relations Manager	Tahltan Band	18/08/21
2) Project Manager, Gitanyow Education & Training Institute, Gitanyow Hereditary Chiefs	Gitanyow Nation	24/08/21
3) Gitanyow Elder	Gitanyow Nation	24/08/21
4) Community Relations Manager	Pretivm Resources	29/09/21
5) CEO Gitwinksihlkw	Niga'a Nation	05/10/21

4.2.5 *Limitations of Case Study Research*

This section will discuss design and methodology aspects of our study that hold impact on our findings and are therefore defined as limitations of the research. The limitations below are highlighted to indicate the extent to which our research findings are replicable and generalizable. A significant limitation to our study is the unusual circumstance created as a result of the COVID-19 pandemic. Therefore, this research

took place in unprecedented times and faced unusual barriers such as communicating over Zoom to respect social distancing.

4.2.6 *Availability of Documentation*

As part of our research, a literature review was conducted to explore existing resources around Indigenous communities in Canada and the social impacts of resource development projects. However, there seems to be a lack of literature on this topic that takes on a gendered lens, therefore our literature review revealed the broader community member observation of these impacts. In order to strengthen the specific female perspective, we drew from our community member interviews, as all were female. This method of engagement helped bridge the gap to provide our research with the important point of view of women and an understanding of what social impacts affect them most.

4.2.7 *Communication and Engagement Limitations*

As mentioned before, this research was conducted during the COVID-19 pandemic, so there was no opportunity to do in-person site visits at the communities around Brucejack. The ability to conduct in-person site visits would have provided valuable insight into the actual conditions and fabrics of the communities, as well as a better understanding of their circumstances. Due to the limiting conditions of the pandemic, any insight and understanding of said communities were attained from virtual meetings and interviews. Interviewees were, therefore, limited to only include community members that had the ability to connect virtually. This, in return, excluded any interactions with community members that lacked the ability to digitally engage. In response to this limitation, as potential interviews were constrained by the above, all attempts were made to ensure diversity in other aspects such as requesting interviews with individuals from different community bands, different generations, and different genders (although primarily requesting women).

Meetings were held for approximately 30-45 minutes to maintain comfort, relevance and practicality for interviewees. However, interviews were conducted in such a manner that was open to elongated conversations going past the 45-minute mark so as to preserve the value of the interviewees input.

Nevertheless, another limitation with virtual meetings and interviews is that by its own virtue the interaction is more formal than it would have been in-person. The resulting constraint is that interviewees may feel less comfortable and more restricted in their responses. Furthermore, the concept of virtual interaction may seem daunting for some. To counter this limitation, interviewees were offered the option

to conduct the interview in a format they were most comfortable with, given the opportunity to ask questions before engaging in the interview, and informed about the relaxed tone of the interview.

Another circumstance to consider is the fact that interviews were conducted during the summer months when Indigenous People in the communities of interest are typically involved with traditional activities, such as fishing, hunting and harvesting, making their schedules demanding. To minimize the impact of this limitation, interviews were scheduled at a time most convenient for the interviewees as a means of working around their summer schedules.

4.2.8 *Scope*

Additionally, due to the scope of the project, only one case study was selected, and a limited number of interviews were carried out. As such, this limited the ability to engage with a wider range of participants and the opportunity to organize focus groups with women to obtain first-hand information about their experiences, beyond the Pretivm spectrum, to engage with individuals and groups of women different than those suggested by the company. Keeping this limitation in mind, our findings will not be generalizable to the vast Indigenous communities who face social impacts from mineral resource projects. Nevertheless, this specific case study will act as a primer into the various webs of social impacts experienced by Indigenous communities around Brucejack with a gendered perspective to spark dialogue and improve communal benefit.

4.2.9 *Bias*

A limitation to highlight is Pretivm's cooperation in this study and the fact that this could be misinterpreted as weighted collaboration. Pretivm did not have any weight in the methodology nor design of this study. However, Pretivm was consulted with to generate a list of potential participants to interview, considering their relationships and connections to local Indigenous communities. Along with that, Pretivm was given the opportunity to review interview questions. As the primary case study subject, we wanted to uphold positive relations and transparency with how we were conducting our study. As such, the input from Pretivm was limited but could be significant enough to deter participants from openly expressing their experiences and or thoughts. This is a limitation that was managed by communicating to participants being interviewed how the study is designed and who it is facilitated by PDAC and what the findings would be used for.

4.2.10 *Uniqueness of Company-Community Relationships*

There are large variations in the types of relationships that mineral resource companies have with local Indigenous communities. As an example, some companies have long-standing relationships with local Indigenous communities, sometimes over generations, whereas others are experiencing the mining process for the first time. Proximity to the site can also influence the nature of a company-community relationship. Communities farther away from the mine development site may experience very little to no impact (i.e., noise, traffic, influx of outside workers) but may still benefit from local employment and procurement programs. In other words, the nature of the relationships between Pretivm Resources and the local Indigenous communities, as learned via the interview process, are unique. However, the learnings are important and can be considered and applied to other situations.

4.3 **Overview of Brucejack Mine**

At the time of this research, the Brucejack Mine was owned and operated by Pretivm Resources. Materials for this part of the research included the corporate website, media articles, public filings such as impact assessments and mine study plans. Additionally, an interview was conducted with Ms. Aldea Lavallie, Community Relations Manager, who was with the company during the construction and operation of the Brucejack Mine.

Brucejack is situated approximately 950 kilometres northwest of Vancouver, 65 kilometres north-northwest of Stewart, and 21 kilometres south-southeast of the Eskay Creek Mine in the Province of BC, in a region that it is known as the Golden Triangle.[181] The Property consists of six mineral claims totaling 3,199.28 ha in area and all claims are in good standing until January 31, 2025.[182]

Brucejack and the Golden Triangle region have a history rich in exploration for precious and base metals dating back to the late 1800's. More recently, in 2009, Silver Standard Resources Inc. (Silver Standard) began work on the property. The 2009 program included drilling, rock-chip and channel sampling, and re-sampling of historical drill core. In 2010, pursuant to a purchase and sale agreement between Silver Standard (the seller) and Pretivm (the buyer), Silver Standard sold to Pretivm all of the issued shares of 0890693 BC Ltd., the owner of the project and the adjacent Snowfield Project.

[181] (Pretium Resources Inc., 2014)
[182] (Pretium Resources Inc., 2014)

According to Pretivm's corporate information, the Brucejack Mine is a high-grade, underground gold mine with a year-round, all-weather access road that connects the mine to the main highway. The road traverses the asserted traditional territory of the Skii km Lax Ha First Nation and the Tahltan First Nation. It has produced 1,316,439 ounces of gold since it began commercial operation in July 2017. It has a processing rate of 3,800 tonnes per day and an estimated 13-year mine life.[183]

As stated in previous paragraphs, Pretivm has made it a priority to establish strong relationships with its workforce, Indigenous groups, local residents, communities and others from the early stages of the project. According to the company's corporate materials, they are committed to maintaining and strengthening these relationships by investing in their local workforce and contractors, and supporting local businesses and communities in order to ensure that the long-term benefits of the Brucejack Mine extend to local communities and Indigenous groups.

Pretivm sees job creation and employment income as foundations to support economic and community development in Northwestern British Columbia. Between the company and its contractors, employment opportunities are maximized for local communities and Indigenous groups. Pretivm has an Economic and Social Effects Mitigation Plan (ESEMP),[184] which includes strategies for employment, training, procurement, community engagement, and worker transportation.

According to their 2019 Sustainability Report, Pretivm engaged 1,201 people in employment at their mine site, including both direct employees and on/off site contractors. In December 2019, there were 763 people employed directly by Pretivm, including 736 who worked on-site at the Brucejack Mine and associated sites. Their largest contractor, Procon, is responsible for underground mining and employed 313 people in 2019. The majority of the workers (80%) hold permanent contracts, while temporary and seasonal contracts support snow removal, camp services, exploration, health and safety, and other types of work.

Pretivm is fully committed to local employment in its hiring process. As stated in their corporate materials,[185] it considers an applicant's community of residence: first preference is given to the First Nations with whom they have Cooperation and Benefits Agreements, followed by residents of their local area, which includes the Nisga'a villages (Gitlaxt'aamiks, Gitwinksihlkw, Laxgalts'ap, and Gingolx); the

[183] https://www.pretivm.com/home/default.aspx
[184] https://sustainability.pretivm.com/ Pretivm 2019 Sustainability Report
[185] https://sustainability.pretivm.com/ Pretivm 2019 Sustainability Report

Tahltan communities (Telegraph Creek, Iskut, and Dease Lake); the Hazeltons; Gitwangak (Kitwanga); Stewart; Smithers, and Terrace areas. Brucejack then considers those who live in Northwestern BC. Workers from other parts of BC receive the next level of preference, followed by those from elsewhere in Canada. When selecting contractors and suppliers, Pretivm evaluates each company's local and Indigenous hiring commitments as part of their contracting process and requires that all active contractors provide regular reports on local and Indigenous employment.

Below are the employment highlights from their 2019 Sustainability Report[186]

- 763 direct employees including 608 permanent and 155 temporary employment contracts
- 91% of direct employees are residents of British Columbia
- 30% of managerial staff are from Northwest BC
- 404 new hires including 64 women and 120 people under the age of 30
- $28.9 million spent on salaries and benefits for employees from Northwest BC

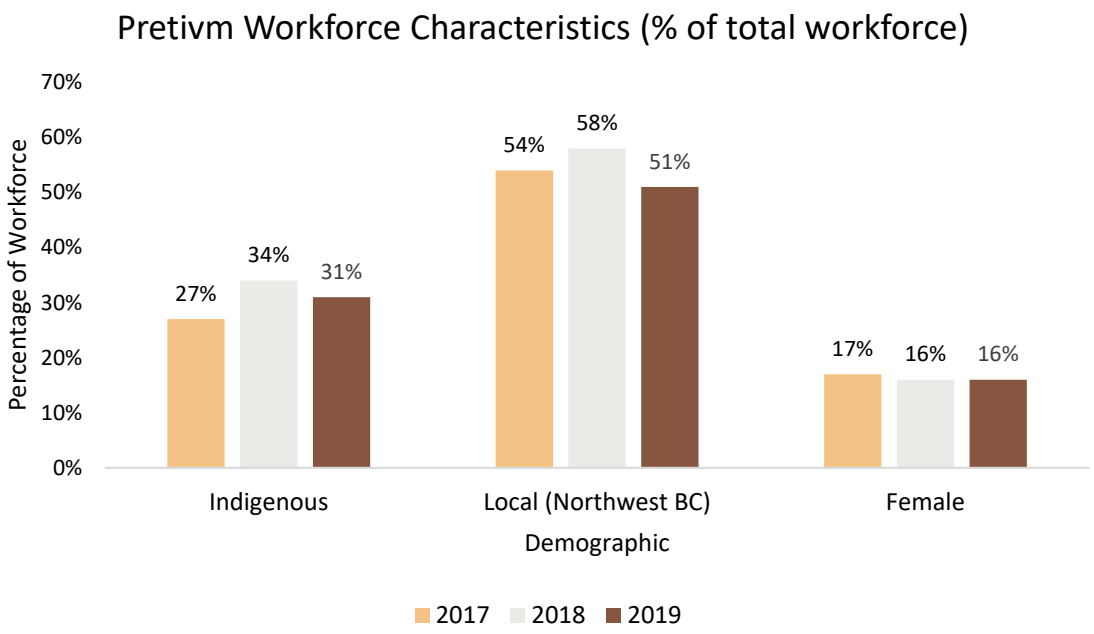

Figure 8 – Workforce Characteristics for Pretivm

[186] https://sustainability.pretivm.com/ Pretivm 2019 Sustainability Report

5 Findings and Discussions

In this section the results of the interviews will be discussed and analyzed alongside findings from the literature review. The responses from participants will be presented in correspondence with the themes and topics of importance that emerged from the literature review to form connections and identify gaps that exist between the literature and Indigenous lived experience (see Section 6).

As stated earlier (see Section 1.2), the findings of this study fulfill the following:

1. A better understanding of the well-known impacts to the social and cultural fabrics in Indigenous communities that may occur following the development of a mineral resource project.
2. How these impacts affect the social infrastructure of an Indigenous host community. Social issues that were the focus of this research included impacts on:
    a. Violence Against Indigenous Women and Girls
    b. Implications of Increased Costs of Living
    c. Disruption of Traditional Lifestyles
    d. Community Infrastructure
    e. Land Use and Land Disturbances
3. The forms of social infrastructure and service capacities that must be built or expanded to meet the anticipated needs of the host communities in advance of the development of mineral resource projects.

An inquiry exercise into why the views of Indigenous women should be incorporated into mineral resource development project planning raises questions and ideas about how mineral development companies can facilitate their participation and engagement in the development process, and why it is important for them to do so. Below are theories that emerged through the inquiry process and speak to the research objective at hand:

- A gender sensitive approach to Indigenous engagement is essential to fully understand community issues and social impacts.
- Engagement with host communities must reach beyond community leadership.
- There should be active formal and informal relationship building with the host communities as well as consistency.

- There should be a greater understanding of the rationale and drivers behind well-known social impacts using a gender lens and how these impacts affect both women, and relationship dynamics between men, women and families.

5.1 Approaches to Indigenous Engagement

Mineral resource companies tend to focus only on social impacts, risks and opportunities at the community level, overlooking the need for further assesssments. This fails to provide context to impacts that distinctively affect women and men differently. Direct benefits from mineral resource development projects disproportaionaely extend more to men, notably through employment and business opportunities, whereas the costs of social disruption falls predominantly on women, as identified by interview participants.

We found that before any recommendation can be made in the specific focus areas of our research, interview results all revealed that a modification or improvement to current engagement methods must be made with respect to Indigenous communities. Moreover, it should be noted that these are applicable to non-Indigenous communities. At the onset of working with a community, a gender analysis will help an exploration or mining company understand the different roles of women and men within the Indigenous social and cultural context, such as division of labour and community roles. In this respect, it is crucial to ensure that Indigenous women are involved and participate in community consent and engagement activities, especially regarding community development projects.

It has been our experience that engagement with local communities is often a very standard method of approaching the community as a whole. This typically includes first reaching out to community leaders, building those relationships, and then holding public meetings or other acts of engagement.

The interviews completed for this project, all indicated that a strategic and proactive approach to reaching out to women is needed in order to really understand social impacts on local communities. Women must engage in dialogue and ask direct questions about what their specific needs are. Only then, can useful and appropriate community development programs be designed and executed.

5.1.1 *Gender Relations or Gender-based Engagement*

As we have mentioned in previous sections, early engagement with host communities is a key component to understanding and minimizing the unintended negative social risks that may result in the development

of a mineral resource development project.[187] Through the literature review and interview process, we have learned that a gender sensitive approach to engagement is essential for a true understanding of gender issues. This understanding is critical for companies in their reinforcement of women as significant stakeholders. In general, we can say that women perceive social impacts differently from men. The women's perspective is typically focused on the household, family, children's needs, and familial relationships. Their perspective is oftentimes personal and considers planning for the future and for the broader community.

"

When you hire an employee, you hire their family, and you impact the community. As companies, we need to look at the whole picture.

"

Understanding the women's perspective within Indigenous communities should be considered a prerequisite for building and providing social supports for such communities. An exploration or mining company must first inquire about what exactly the women of these communities' value with respect to their livelihood, social pillars, cultural and community ties. To orchestrate any form of engagement for the purpose of building positive partnerships, the perspectives of women should be sought out and heavily considered. One participant we interviewed was clear in her opinion and perspective that only women can provide the information needed to address issues on hiring women, for example.

"

I think companies could put their heads together and say okay this might be a barrier for us to have women, what can we do to fill those gaps? That would need to come from the women in the community and the women in the mines.

"

Given the anchoring role Indigenous women take on within the family unit, along with the overarching community structure, engaging with their communities must essentially involve engagement with them, for any real effectiveness of those interactions and desired outcomes, as another interviewee points out:

[187] ICMM Indigenous Peoples and Mining

> *I think getting the feedback from those that, you know, either are currently working in those fields, and even (women) that aren't, but are interested – to identify those barriers so that we (women) can work with the company to start eliminating them.*

If a mineral resource development company approached the design of social programs using gender-based analysis, they would gather useful information about how women, men and gender diverse people experience the impacts of a mineral resource development project, thereby achieving a more complete understanding of their impacts.

The Government of Canada has been committed to using Gender-based Analysis Plus (GBA+)[188] in the development of policies, programs and legislation since 1995. It provides federal officials with the means to continually improve their work and attain better results for Canadians by being more responsive to specific needs and circumstances. In 2019 the new *Impact Assessment Act* came into force with a new requirement to consider the intersection of sex and gender with other identity factors when assessing the impacts of a project under the *Act*.[189] Although this is a new requirement for federal assessments of major resource development projects, several mineral resource companies already apply some GBA+ principles and approaches as part of their permitting process, such as Agnico Eagle, Baffinland, Barrick Gold, Dominion Diamond Mines, IAMGOLD, New Gold, Pan American Silver and Teck Resources.[190]

5.1.2 *Engage Indigenous Elders*

An inclusive, diverse stakeholder engagement approach is preferable for engaging local community stakeholders. However, one of the challenges companies may face is that, at times, traditional decision-making structures exclude women and other peoples that could be more exposed to negative impacts from mining activities, such as elders, 2SLGBTQQIA individuals, and so forth. In cases like this, the company

[188] https://women-gender-equality.canada.ca/en/gender-based-analysis-plus.html

[189] GBA+ Preparedness in the Canadian Mining Sector: A Baseline Study. A Report by Oxfam Canada, prepared for the Impact Assessment Agency of Canada March 2020

[190] GBA+ Preparedness in the Canadian Mining Sector: A Baseline Study. A Report by Oxfam Canada, prepared for the Impact Assessment Agency of Canada March 2020

will need to find ways to obtain input from those groups, through surveys, demographic specific focus groups, and informal discussions, among others. This will result in a holistic set of data and information of how mineral resource development activities may impact different groups in the community, and how to mitigate those impacts. As the following interview quote demonstrates, Indigenous elders of the community are a valuable resource to understanding the social fabric and earning the respect of the community.

> *The elders are the voice. They are more vocal and more involved. You see the changing of that generation where some individuals weren't educated at all, you see those educated women maturing and stepping into roles so that creates more connection… I think we can utilize them more, I really do. I think they're underutilized.*

An aspect to keep in mind is the cultural importance of elders within Indigenous communities, and the unique social impacts that these elders may encounter with the presence of a mineral resource development project. To offer holistic and genuine social support is to understand the unique structure of Indigenous communities, the leading role that elders take on and offer supports that would enhance the longevity of cultural traditions and ties.

> *Mining companies need to go in asking – and not telling – but asking. Let (elders) tell their stories, let them tell their concerns. I believe Pretivm did it the right way, but I think that they need to be brought in ground level but it is about the approach. You know if you're treated with respect I think that comes back, but you have to prove that respect.*

An eye-opening concern raised by a participant was the social impact that mineral resource development projects have on the elderly population; as the community experiences labour migration, elders specifically experience a loss of support through the outflow of younger community members. This social impact becomes problematic for the longevity of these communities due to the cultural, traditional and community structure that is centred on elderly leadership and support.

A potential social support for mineral resource companies to consider is generational supports for Indigenous communities that cater to the different generations of a community to maintain and supplement community structure so that it can withstand community outflow – essentially resilience building. A participant made note of what that potential support could look like below:

> *I haven't heard anything, but I think it would be ideal for companies to support a position for elders at centres because then they would get traditional care… elders need to sometimes supplement their income? So, what could we do to have that elder be able to be in their home? What can the community do, or the company do? What can Indigenous funding do?*

5.1.3 *Consistent Relationship Building*

Stakeholder engagement based on transparent, respectful and consistent communications will help establish a relationship of trust with the communities. Messaging must be consistent as well as the regularity of project updates, meetings, or engagements. The company, through consistency, demonstrates it is dependable and invested in a long-term relationship with that community. This environment, in turn, will help create the opportunity to obtain better knowledge of the area, its people and culture, in a respectful manner to further strengthening community development planning.

There is substantial value in working together with the local government and seeking local, expert advice from different groups within the community, elders and women in particular. This would ensure that any services or facilities are provided in compliance with applicable legal requirements and are culturally appropriate, and that the company may then develop mechanisms to share responsibility for the development of infrastructure and services so they remain sustainable after closure. When this is done with the participation and empowerment of all parties involved, it may contribute to build a solid and strong relationship between the mineral resource development company and the local community.

During this process women's voices from different generations should be included. They are the pillars in building and maintaining strong relationships within the community, and can bring to light cultural nuances that should be considered when designing community initiatives and programs. This is illuminated by the following two interview quotes advising companies on how to proceed:

> *Having a liaison, a Nisga'a liaison, we have highly skilled and professional, educated members in each of our communities.*

> *They definitely could do cross-cultural training, respecting who we are, even being aware of our community's strength, of our communities and culture, community dynamics, understanding our vision and priorities, especially maintaining the integrity of who we are. Of our land and our resources.*

5.2 **Social Infrastructure**

Through the literature review, and moreover after our engagement process with Indigenous women in the communities around the Brucejack mining operation, we have identified several impacts on the social infrastructure within their communities, and the triggers behind them. As we know, circumstances and contexts vary from one community to another depending on a wide variety of conditions, so situations cannot be generalized. Our findings and recommendations are intended to be used as a guidance for future mineral resource development projects that are considering exploring on traditional lands. However, impacts to social infrastructure should be considered within the individual context of each hosting community.

In this case, we sought to analyze mental health, impacts to social fabric, food security, housing/infrastructure, and education to further explore the literature review findings of these topics, and as the most relevant impacts to the social infrastructure in these communities.

5.2.1 *Mental Health*

As we learned from the literature review, mental health is a prevalent issue in Indigenous communities, especially those in remote areas. We also learned that the development of a mineral resource project in a remote area often creates a sense of community and belonging amongst its workforce, especially for those workers that are away from family and friends for extended periods of time.

During our interview process most of the participants brought to our attention how these extended periods of time away from family can create distress in family dynamics, and add an extra layer of

pressure, especially for workers and their families being exposed to long shifts away from home for the first time.

> *I see stress, just from conversations with employees, relationships are another tough one… I developed a workshop (where) participants would be potential employees and their spouse –because I believe the spouse has to be a part of that decision. So we covered things like: "How do you communicate? How does the company's culture match your culture?" It went for a day and a half and then they did a site tour. It was about having both parties on board but learning how to communicate and stay connected. Like how do you do celebrations if you're not there? And if there's certain celebrations in your culture that are important what are the things you can you do to that set up, so that you could be there and that could be a success? So applying for holidays, talking to your supervisor, that kind of thing. So we worked through all that, we found that some of the individuals who went through that course chose not to go into mining and others chose to but they had some of the basic skills that made it successful for them. So I think that there are things that we could do to educate.*

One interview participant brought attention to a hiring practice used to ease potential Indigenous recruits into the reality of mine work, with specific attention given to home dynamics and work-life balance education. This practice was meant to assist potential employees with the difficult transition and home adjustments that follow employment with a particular mining company. The underlying social impact appears to be home distress because of an absentee spouse that has entered fly-in/fly-out work schedule.

This concept of home distress was raised by another participant who offered this anecdote about the deaths of four women in their community:

> *Four people in our community working in mining that I know have passed and I attribute (it to) the work in mining as a contributor to their passing… They had three kids and a partner that she was with for a long time. Their lives were unraveling, and we saw the spiral. She was getting Medivac… We don't have a hospital, we have a clinic so sometimes there's misdiagnosis or individuals won't make it out in time. That was her case she didn't make it out in time. There was an internal issue… she was drinking really heavily at the time, her and her partner both worked at a mining company and they both lost their jobs. They were not functioning and not working. They were young, made a lot of money and were not properly guided. Plus there's a lot of drugs available and excess money.*

The participant attributed the couple's downfall and essentially the demise of the four young women to the large increase in income without any financial literacy or guidance on livelihood skills.

An interesting connection can be made between the potential for home distress that can be proactively mitigated through the implementation of resources and education, and on the life adjustment that is brought on by gainful employment and large increase in incomes, particularly in the mineral resource industry. However, the duality of the required support is that it should be given not only to the potential employee but also to their family as the social impacts of employment will directly and indirectly affect the family members, as one participant notes below.

"

One of the things that we'd like to see is a bit more support for people, or family members who stay at home doing all the childcare, while people are away working. I know that's been such a big thing. I heard quite a bit about that, from different people whose husband or boyfriend is working up there, it's mostly the women who are left at home. And they're the ones doing all of the childcare. And it gets really exhausting when you're the only parent while your spouse is away and shift rotations. And we've seen changes in family dynamics that way as well. Because they're having to schedule different celebrations and events around work schedules.

"

This participant ties mental health impacts with employment in mining and observes that mental health is not only a risk for the hired employee but is a risk that extends to the employee's family as well, particularly as the family makeup undergoes restructuring and a reallocation of familial roles and supports. This calls into question: What family strengthening tools could be provided to smooth the livelihood adjustments made to an employee's families and thereby reduce the risk of impacting family mental health? One participant was very direct in her recommendation:

"

Something that would be useful is online AA (Alcoholics Anonymous) sessions – haven't been able to implement that as of yet. We need the ability and the capacity to formalize the relationships we already have (with each other). We need to educate the people in the community on how important they are.

"

Adding to the range of tools that could potentially be offered as a form of education, financial literacy was highlighted by a participant as an area of learning that could vastly prevent and reduce instances of domestic abuse within households that have one or more partners employed by a mining company. This is well illustrated by the following quote:

> *Good things happen with mining. I am a good example. I started working as a receptionist/community liaison, then went into HR and started engaging with Indigenous Peoples to offer them work. I did good because of the support of my family and my community. Not everyone had a good story, another girl worked as an underground miner. She was very good and well appreciated. She went from almost poverty to $100K, the dynamic in her personal relationships changed and started gathering with the wrong people… She didn't have family support.*

5.2.2 *Housing/Infrastructure*

Our research showed that housing in remote Indigenous communities is often lacking, stressed and stretched to accommodate multiple families per housing structure. This was emphasized by one participant who referred to housing when asked what infrastructure supports are needed:

> *It would be good if they invest in our communities like infrastructure. Housing is one of the hugest priorities, upgrades that are needed.*

Housing issues can be exacerbated by the onset of a mineral resource development project, or a company can contribute to addressing the housing issues often experienced by remote communities. This would be a community development program that would benefit current and future generations. When mineral resource development companies bring in workers or attract jobseekers, it creates an influx of outsiders to host communities. Therefore, the responsibility for mitigating and especially improving housing rests with the company. This could be a good opportunity to create long-term value within an Indigenous host community where support is most needed.

"

We have a serious lack of housing, people with capacity to support the community with social programs may not have anywhere to move to because of this. And people are also losing the desire to live here, our communities have shrunken since 1988 (that's when I moved here). Once people work in mining they start to travel to give their family better educational or recreational opportunities with the job opportunities available to them – made possible through their mining job. So this community drainage has happened for years.

"

As we can see through the participants' experiences and observations, a severe lack of housing in her community is a major obstacle and social support – a prerequisite for community building is needed. When a mineral resource development company brings jobs to remote communities, it is assumed that those new salaries will go back into the community, increasing local economic activity. For this interviewee, that is not the case. She relates that locals who have secured mining jobs tend to leave the community for "greener pastures" or better education or recreational opportunities. As such, those higher salaries are not contributing to local economic activity such as housing. Those higher salaries are facilitating the exodus of community members, further draining the community.

Per the researchers' experience, mineral resource development companies are willing to commit resources to bring benefits to the host communities, support their economic development, and improve the lifestyle of the locals. However, the lack of infrastructure, education opportunities, and recreational options limit the fulfilment of these initiatives if people prefer to go elsewhere rather that stay in their communities. A comprehensive assessment of these issues could assist mineral resource companies in the development of programs that could benefit the community and invite people to stay on their lands.

"

Unfortunately, in some of these Indigenous communities housing has always been a problem, along with water in some. I don't believe mining has impacted that. Something that worries me is that we hired local and local Indigenous, then you get individuals that are working and then they leave their communities to go to bigger centres. So, I've always worried about that – is that going to leave just the elderly? On the flip side I've also seen young people come home. As a company we have to do due diligence on that, we can't tell people where to live but we need to ensure that the infrastructure remains.

"

5.2.3 *Education*

Options for education are often limited in remote communities, as not everyone can access other educational resources such as online courses or be able to travel to larger cities. We learned through the interview process that the lack of adequate education is one of the critical factors why Indigenous Peoples cannot take advantage of the opportunities a mineral resource development project can bring to their communities – they may access entry level jobs, but not the higher paid technical or managerial positions.

> *What we'd really like to see is our younger generation and those interested in going back to school to get the training for those long term, high paying positions because right now members of our community – a majority of them – start off with entry level positions. So general labour like snow removal, or housekeeping, you know, we have a majority of our community members starting out at those levels. As they're there for a number of years, they have offered, you know different positions. So, we're really happy to hear that.*

Another issue that was brought to our attention is the lack of good communication infrastructure in some areas. We learned that many do not have access to a reliable internet connection or computers:

> *We have to be aware [that for] some of the individuals in the small communities, literacy [is] an issue, these things that can get in the way of communication. Some people aren't comfortable with computers and some don't have access.*

In continuation with the theme that we have seen with lack of infrastructure, there is also an apparent lack of educational institutions that make it appealing for those community members that would like to receive quality education. The lack of educational institutions is concerning for remote Indigenous communities. The participant who is quoted expresses this below in their discussion on how the absence of these institutions are in fact limitations that impede community resilience building and longevity.

> *We don't have educational institutions outside of elementary and high school, other than online it is very hard to access higher education.*

5.2.4 *Digital Infrastructure*

As discussed in previous sections, digital connectivity is critical to addressing the education gaps in remote Indigenous communities. It is also an important tool for families to stay connected when one or both parents are employed on a long rotation schedule by a mineral development company. Although the exploration or mine site may be well equipped with technical infrastructure for a strong internet signal, connection with family and community cannot happen unless the internet and computers are available in the community. As the quote below shows, this is especially true for community elders:

> *With [the company], we use to actually set up computers [in the community] so that individuals had access. Most people have laptop these days, but some people don't. I think that poses a problem for some of the older generation.*

The absence of technical literacy and lack of access to digital tools negatively influence community health due to the fact that almost all aspects of daily life are now intertwined with technology, such as healthcare, education, banking and more. To not have access nor be able to understand technology becomes an expression of social regression. Companies engaging with remote Indigenous communities should aim to close the digital gap because it is a common and substantial barrier to community development that challenges socio-economic advancements and resilience building among other aspects. As well, it further challenges communities that are already disproportionately disadvantaged.

5.3 **Impacts on the Well-being of Indigenous Peoples**

Through this research we have learned that mineral resource development projects can have a variety of positive and negative impacts in their hosting communities, more so when the communities are in remote areas, as the case with projects in Northern Canada. The interviews with people from different communities within the Brucejack operation area of influence showed that environmental impacts and

disruption of traditional lifestyles are two of their main concerns. Through this exercise, we also came to realize that social impacts, particularly on peoples' well-being, can and most likely are experienced differently by women and men. It would be important that exploration and mining companies understand this difference and find ways to avoid or mitigate these impacts.

5.3.1 *Disruption of Traditional Lifestyles*

Traditional and customary activities are an essential part of an Indigenous community and lifestyle, as described in Section 3.8.5. We have found through our research and interview process that the possible disruption of traditional lifestyles as a result of the presence of a mineral resource development project is a great concern for Indigenous Peoples, as these activities are linked not only to the protection of their cultural identity, but also to their well-being as a community.

> *A lot of our livelihood revolves around the salmon, the wildlife, the berries, and we do have our own cycle of when we go and harvest. And so that was a concern as well, like, will this mine have any kind of impact on the areas where we go and harvest food and berries and traditional medicines, and the biggest one for us was because we've seen and heard stories about [things] like tailings spills, and we just really didn't want to have to deal with anything like that, because fish and salmon are such a big part of our culture and one of our staple foods.*

It is crucial for a mining company to be respectful of the traditional and customary activities, and to try and avoid any impacts that would be disruptive and cause harm.

One participant took the view that the least amount of contact a company has with an Indigenous community the better. The Brucejack site is located a considerable distance from this participant's community, and she was clear to point out her appreciation for this. Her village is close enough to benefit from the employment and contracting opportunities, but far enough away to avoid any other negative impacts. As she told us:

> *Community member safety – minimizing contact is important, if a company was within vicinity of our villages of course impact would be a lot different.*

5.3.2 *Women-Specific Issues*

As previously mentioned, taking a gendered lens of social impacts experienced by Indigenous communities through the exploration, development and operation stages of a mineral resource development project provides insight into the specific challenges and distinct dynamics experienced solely by women. Exploring women-specific issues through the literature review drew attention to the intersectional reality of Indigenous women (please see Section 3).

Childcare

One participant's comments added context to the dynamic role Indigenous women hold, particularly as caregivers to children, and provided insight into the various types of supports that are needed to address a key social impact, childcare, that effects Indigenous women as mothers, employees, grandmothers, community caretakers and spouses.

> *I know that we're working hard as a community to address the challenges we have here. But when it comes to childcare, there is a big need right now for our population, [as] daycare students have increased quite a bit. And the current building for our daycare doesn't meet the need, they're at max capacity almost every year, and they have a waitlist. So that really does put parents in a situation where they're having to secure that on their own, either through friends or family members. I think some kind of investment in infrastructure would make things easier for families. It would be really helpful.*

We heard from another participant of the challenges she experiences as a grandmother whose daughter works in a local mining operation. At over 70 years old, she is the primary caregiver for her three-year-old grandchild for two out of four weeks. She is at a stage in life where she would like to step back from family and community responsibilities. However, due to the lack of childcare in the community and the two week rotation schedule of her granddaughter's work, this participant is still working hard to help raise her great-grandchild.

> *A lot of young people, especially the young mothers, they want to be out working too, but they have children and because there's a few in our community working at the Brucejack Mine and they have a good income, that's the reason why they're there. They look for employment out at Brucejack, but, childcare is scarce. I look after my own great-granddaughter when my granddaughter is working and I*

look forward to her coming home because you got two weeks of me for a little three-year-old girl. I just love her to pieces but it's quite a bit of work for me because I'm in that age where I don't want to worry about kids.

"

Community-based Roles and Responsibilities

Another important aspect to note is that as the outflow of Indigenous men can often occur due to mining employment, there is an adjustment within homes and communities that result in an increase in roles and responsibilities for women who remain in the community. This uptake of roles and responsibilities was expressed in the following participant response:

"

Some of them [men] went to work for camp and that leaves the community vulnerable and the one lady I worked with, she went and got trained [as a firefighter] she drives the firetruck. To me that is incredible, it reminds me of back in the day how during the war when the women picked up what the men left.

"

Given the challenge with filling these gaps in community-based roles as well as cultural, traditional, and familial roles, a form of support that could be offered would be training and material resources for the transition in responsibilities. The participant below makes note of how mining companies need to remove themselves from ordinary and common program design. This point is especially relevant as one considers the unconventional and remarkable range of roles that Indigenous women take on, thereby requiring tailored and unique streams of support.

"

Women in these communities are the power houses, they do everything. Majority that I work with hold full-time jobs and then they do other stuff on the side… for companies, if there is training to support the women that remain home, we need to think outside the box and not just support the employees. Like I've said, you've hired a family. There should be training dollars to support them to maintain their community as it needs to be maintained.

"

Stereotypes about Women

Another issue that was expressed by a participant was the limiting opportunities made available to women in the mining industry due to the stereotypical notions that characterize women to be more equipped or better suited for cleaning, cooking and general caretaking roles. This participant noted the frustration with this limitation as it acts as a barrier towards career development. She speaks about this in the following comments:

> *When it comes to positions for women, though I know a lot of the requirements for general labour, you know, you have the ability to lift 50 pounds at any given time. So that really limits the opportunities for women. So, what we're finding is if they're not in specialized positions, then they end up falling in with the kitchen helper or the dish washer or housekeeper [jobs]. And so, we would like to see more variety in the positions that women can apply [to].*

5.3.3 *Impacts to Social Fabric*

The introduction of new power sources, roads, and digital infrastructure has direct and significant impact on how communities will live. Although the hosting community could benefit from employment, community development projects, and investments in its infrastructure, its social fabric could be affected by new physical infrastructure such as grid power. This example is clearly expressed in the following extract of an interview:

> *For example, the transmission line changed everything for us because it brought power, something we didn't have before (diesel generated before). The transmission line brought power and more resource development and more mining. When the highway or even freezers came that changed everything for us as well, before freezers we shared food, maybe next we'll have drones to help us.*

From this participants' experience, the ability to store food in freezers changed how they managed the food distribution amongst the community in the past.

Therefore, it is important for a company to clearly understand the lifestyles, lay of the land, and the culture of its hosting community. This can best be done by directly engaging with members of the community, especially the women who consistently demonstrate consideration for the long-term needs of their families and communities.

A community will no doubt be changed by a mineral resource development project, and contributing to the infrastructure is part of sharing benefits and mitigating risks of putting additional strain on what may already be weak infrastructure. However, companies need to also consider the intangible social infrastructures at risk and develop investment programs accordingly. The quote below demonstrates how important it is to consider supporting social programs to accompany the building of physical community infrastructure.

> *Infrastructure [like] recreation centres, some are getting them which is wonderful to see. Programs for support, programs that'll keep people interested in their community. Pretivm has supported an ice rink in one of their complexes, but then getting someone to maintain it is difficult as well, there's pieces like that to think of.*

Companies can coordinate with local governments to ensure all new infrastructure built best meets community needs, such as adequate staffing or operational hours conducive to community routines. Another participant clearly conveys the need to support and protect the intangible social infrastructure, such as family relationships, youth activities, elders, and so forth, often referred to as the "social fabric" of a community:

> *It could be social programs for youth and families it doesn't have to be just physical infrastructure building.*

5.3.4 *Employing Women*

As discussed earlier, most women employed at mine development sites work in housekeeping or kitchen services, typically lower paid jobs. A few of the participants we spoke with voiced concerns about the exhaustion these jobs cause female workers, particularly when working for long rotational shifts.

> *I know that if there are opportunities for women, and if we were able to offer the training here in the community, we have had quite a few successes with community-based programming. And so, we'd like to see something like that. Because I know it gets really tiring, it is really laborious to be housekeeping for a full shift. And you know, you're in there two, three weeks, and I can see women, I follow their posts on social media, and a lot of them get pretty tired after their first couple of weeks. So, when they were required to be in camp for three weeks, then that third week was pretty tough. Pretty tough to get through.*

The lack of career opportunities for Indigenous women is a clear impediment to the overall progression and development of Indigenous women because it marginalizes them from an essential labour market. Especially considering the remoteness of certain Indigenous communities, it can even demotivate some women from entering the workforce. This, therefore, reinforces gender stereotypes and limits generational growth for women. Expanded employment opportunities within mining could actually lead to greater positive impacts, such as curbing the rate of women entering precarious work that may include sex work due to income insecurity.

Focussed education and skills training for women, particularly Indigenous women from host communities, to take on more technical roles and jobs in management is a critical strategy that mining companies can take to address this gap, as expressed by one participant:

> *I think women are more inclusive, it's getting better as women are getting education in geology and engineering, you see more of that happening. When it comes to underground work (i.e. running the trucks) it's slow but it's happening. Women are underutilized in the mining industry. You can ask any supervisor or manager when there's a woman running equipment you know it's going to be taken care of. I've heard that many times.*

Below references a positive experience of a woman that was employed in mining with a fulfilling career, signifying the need to make this a widespread occurrence.

> *Good things happen with mining. I am a good example. I started working as a receptionist/community liaison, then went into HR and started engaging with Indigenous Peoples to offer them work. I did good because of the support of my family and my community.*

Female employment at a mine development site, regardless of the type of role or skill level, is not sustainable without family and community support. Women are the central figure in the family unit, and a rotational job is not conducive to this fact, as illustrated by several participants:

> *I think the biggest impact on women, since they're generally the caregiver, is leaving home; that two week in and two week out, and camp isn't for everyone. I think it's hard if you don't have that support at home. Women are sometimes overlooked in positions and I don't know if that is conscious. But I noticed that a few of our new supervisors are passionate about bringing in women – more so now. From what I could see that's one big barrier for women, you need to have that support at home. For most men, if they do have a partner that partner stays at home and is the support. As companies we need to look at that support they're missing or need… There could be more support for women that do go into rotational work, where there would be more support within their communities or for them to be able to do that, that is a barrier.*

> *They (women) have children in schools, and it's difficult to go two or three weeks (out to site) when we have children and ties directly to the village. [In terms of daycare]… I can't see them taking our children up there, it's hard to separate from children if two or four. The [pay] rate maybe an attraction but it's difficult when you have that tie in the community.*

> *A lot of young people, especially the young mothers, they want to be out working too, but they have children and because there's a few in our community working at the Brucejack Mine and they have a good income, that's the reason why they're there. They look for employment out at Brucejack, but as (Anonymous) said, childcare is scarce.*

Mineral resource sector jobs are often higher paying than other industries, and higher than jobs within local communities. When a household member experiences a significant jump in salary, other issues can arise hence the need for financial education, as we have learned from our interview process. Additionally there are stresses to the relationship when a spouse is away from home two weeks at a time. Each change of rotation is experienced as a disruption to the household. Again, we reiterate the need for education on changes in lifestyle as presented in the following section.

When women are employed at a higher paying job with a mineral development company – higher than her spouse – the relationship can change significantly between the couple. This sort of impact that happens within the household is not often considered by standard social impact assessments. The following participant quote captures all these issues:

> *For men in mining, if they were living off low income before, the transition to higher income is transformational and hard to adjust to. The family unit suffers with the jump in income because it changes the power dynamic between two partners. This can happen for women too, whoever gets the money spike. Parenting with the added challenge of a stressed partner… relationship is also tough, when the partner who works comes home during their rotation it can cause chaos. Also, mistrust in the relationship can be heightened. Met a lot of women who found it challenging to deal with the constant suspicion of the faithfulness of their partner.*

6 Research Conclusions and Recommendations

By the evidence uncovered through this research project, we have found that mineral resource development companies can exercise several useful and practical strategies to mitigate or manage the social impacts on host Indigenous communities, as well as to create opportunities for improving situations often found in remote, Indigenous communities.

After conducting a comprehensive literature review and carrying out a case study that included several interviews with members of the Indigenous communities surrounding the Brucejack operation, we developed the following practical recommendations. These initiatives can be used by mining companies to design and execute projects that integrate the principles of sustainability to mitigate social impacts on Indigenous host communities, and design more appropriate Indigenous partnerships and programs. In addition, the gender-based approach to this research helped to identify recommendations that are likely to be more inclusive of all community members, and holistic in their approach, and therefore likely to be more successful when applied.

6.1 Recommendations for Mineral Development Companies

Figure 9 – Recommendations for Mineral Development Companies

RECOMMENDED ACTION	BENEFITS OF IMPLEMENTING THE RECOMMENDATION
STAKEHOLDER ENGAGEMENT	
Direct outreach to women specifically, women-only focus groups and interviews.	A gender specific engagement process will help the company obtain information from a unique point of view. Listening to Indigenous women voices will help design and execute community relations and development programs that are culturally appropriate and would benefit the community as a whole. Further making community programs more successful and sustainable, thereby protecting the company's investment, and strengthening the company's reputation and place as a preferred corporate citizen.
Early and consistent engagement with elderly population, including tailored programs, supports, and resources for elders.	Elders play a significant role in Indigenous culture, tradition and communities. Elders represent a generation of individuals that are not specifically sought out for employment but uniquely experience social impacts of mineral resource projects. To support the livelihood and significant role of elders is a form of supporting the resilience and longevity of an Indigenous community. When the company views elders as a key stakeholder group with high influence in the community and engage or consult with them accordingly, they have a better chance of building credibility with the larger community.
SOCIAL IMPACT AND OPPORTUNITIES ASSESSMENTS	
Integrate gender considerations.	Modify the typical assessment practice using a gender lens to assess the impacts on women and on the relationship between the men and women of the communities, the division of labour between men and women within the community and the household.
Comprehensive assessment of the socio-economic situation.	Companies are willing to commit resources to bring benefits to the host communities, support their economic development, and improve the lifestyle of the locals. However, the lack of infrastructure, education opportunities, and recreational options limit the fruition of these initiatives if people prefer to go elsewhere rather than stay in their communities. A comprehensive assessment of these issues could help the mining company in the development of programs that could actually benefit the community and invite people to stay in their lands.

Apply a Human Rights-Based Approach	Applying a Humans Rights-Based approach to Indigenous women as part of social impact and community development initiatives will ensure that inequalities and marginalization's are being addressed for that demographic. This approach will empower Indigenous women to participate in decision-making processes as vulnerable community members while also holding company's accountable.
LOCAL EXPERTISE	
Seek out expert local Indigenous representation, with a special consideration for elders who are women.	This would ensure a gendered and generational perspective of community structural values and needs to be heard and addressed in terms of support provision. When hiring experts from the local Indigenous community, particularly women, programs will be designed with the broader community in mind, not just the local male employees. This makes any community or employment programs more effective.
HUMAN RESOURCES PRACTICES	
Implement a hiring practice that educates potential employees and their families on the work-life adjustment that comes with rotational employment.	This is a proactive support that could prevent and/or reduce the amount of distress that may follow with a family's dynamic adjustment due to a member being employed by a mining company. Equipping the potential employee with information on the work-life adjustment, and tools on how to manage the new dynamic, would smoothen the transition and mitigate home distress that would result from unfamiliarity and unpreparedness with the new work-life balance.
Provide sufficient and appropriate accommodation for employees and contractors arriving to the project.	The lack of housing is prevalent in remote Indigenous communities, and the arrival of a mineral resource development project will likely aggravate it. Provisions should be taken to have sufficient accommodation for its employees and contractors, and when this is not possible, adequate engagement should happen with the host community in order to find the necessary accommodations without disrupting the community's traditional lifestyle.
PROGRAM DESIGN	
Include families and communities of employees in the provision of learning materials, tools and resources as educational aids for the	The change in lifestyle and impact to culture that a mineral resource development project can put on a remote Indigenous community can significantly impact family and community relationships, and mental health of the population. Advocating and promoting for tools and practices that support mental health management is a form of resilience building as these mechanisms will advance the community for the long-term. Mental health supports do not need to be provided only in the event of illness or incidents.

promotion and encouragement of mental health management.	To proactively work towards community building is ensuring local employees and community members understand mental health challenges beforehand and are given the resources and tools to maintain healthy livelihoods via relationships, income, self-care, traditional care, etc.
Provide financial literacy courses to introduce community members to concepts and management tools for financial health, prior to, during and following the presence of a mineral resource development project.	This will ensure that community members are familiar with financial management concepts so that when an adjustment in income occurs they have the financial literacy to manage it. Providing this form of support will also enhance overall community health via socio-economics, and an improvement in their livelihoods.
Assess the food security situation in the host communities where the mineral resource project is planning to develop and operate.	Mining companies have a variety of resources that can help alleviate the struggles a community may have related to food security. If the company understands the prevalent situation of food security in the area, this will allow them to explore partnerships that can support the community to overcome this challenge and fulfill its duty to share value.
Education on life skills	Providing resources and education on work-life balance that is necessary for employment in the mineral resource industry could proactively mitigate the potential for home distress. This kind of support should be given not only to the potential employee but also to their family as the social impacts of employment will directly and indirectly affect the family members.
Relationship counselling	To address the challenging dynamic that partners can experience after – and for the first time – a spike in income. This apparently can feed an unhealthy power dynamic within the home causing marital and family stress.
Digital infrastructure	Connectivity to the internet is critical to maintaining family connections, education, and other aspects of daily life. Most remote Indigenous communities are lacking in digital infrastructure. This requires consideration when assessing impacts and opportunities.
Childcare	Childcare has been a persistent issue throughout this research (and in the researchers' experience as well). With childcare, those who are parents or guardians to children will be afforded the time to work on a mineral resource development project, support their community through responsible roles, or dedicate their time towards valuable traditions and cultural significant activities that sustain community resilience. Most small

	communities are lacking in childcares services, and it should be a required consideration when assessing impact and opportunities.
Target women for education and training	An issue that was expressed by a participant was the limiting opportunities made available to women in the mining industry due to the stereotypical notions that characterize women to be more equipped or better suited for cleaning, cooking, and general caretaking roles. This participant noted the frustration with this limitation as it acts as a barrier towards career development.
Health services	Mineral resource companies can be well-positioned to facilitate or provide preventive or basic health service delivery with better outcomes than current health service provision systems in remote Indigenous communities. It was noted that community member passed from illness not immediately addressed with medical care due to lack of strong health care systems and services available. This is an opportunity for mineral resource companies to support and facilitate health of remote Indigenous communities for not only current but also future community health.

6.2 Opportunities for Future Research

There are several opportunities for this research that are important to point out, as we consider this an introductory effort into subject that only scratches the surface on a much larger research opportunity. Direct engagement with Indigenous women and women's organizations during every stage of a mineral resource development project would bring forth critical and useful information about the possible impacts of the project on host communities. This information would be a valuable resource for an exploration or mining company to consider in the mitigation of their foreseeable impacts, as well as the development of stakeholder engagement plans and community initiatives and programs.

Should further research be considered, it would open the opportunity for additional case studies to consider different geographical areas of traditional territories, and Indigenous communities with different levels of experience within the extractive industry. Subsequent research should include a greater number of interviews, focus groups, and anonymous surveys to reach a wider range of stakeholders.

Below are potential opportunities that we believe are important steps towards designing solid and open engagement that facilitates the participation of women, providing greater understanding on how the development of a mineral resource project can impact their lives.

- These findings imply that gender and Indigenous culture considerations are not sufficiently integrated into standard social impact assessments, especially in projects that are not considered as major resource projects or that are in pre-exploration and exploration stages, where assessments are not as comprehensive as the ones required in the pre-feasibility and feasibility stages. Further research into this aspect would help to understand the value of gender and Indigenous-sensitive information at the earliest stages of a project that could help develop more effective and holistic tools for further phases of mineral resource development projects.

- Further research into managing the expectations of men and women from hosting communities and designing communications plans and materials that are gender sensitive and culturally appropriate.

- Research into mechanisms for identifying traditional knowledge and practices, and incorporating them into the project planning and community development programs.

- Further research can be completed regarding the direct impacts of higher-paid salaries into family and community dynamics, and the need for basic financial literacy programs that can mitigate

impacts that are not easily foreseeable. Education is a valuable tool for the sustainable development of hosting communities. An educated person has more confidence and is better equipped to cope with changes, particularly dramatic changes such as lifestyle and quality of life.

- Additional research into specific infrastructure deficiencies such as childcare facilities, which can directly impact the employment opportunities for Indigenous and non-Indigenous women in host communities. During the interviews this situation came to light as women sometimes do not pursue employment opportunities in the mining industry due to rotational shift structures.

- As noted during the literature review on Section 3.9.1, violence against Indigenous women and girls can be aggravated when a mineral development project arrives, due to the influx of foreigners to a remote community, increases in alcohol or drug abuse, and the increase of disposable income. However, during our interview process this topic did not come out in the conversations. We understand that the issue of violence against Indigenous women and girls is a very sensitive topic that is not easy to address in a one-on-one interview, particularly over Zoom. An anonymous survey to a larger audience, or broadening the scope of interview participants to ensure anonymity, may be the next step to obtain a greater understanding about this issue, supplement findings from the literature review, and design solutions accordingly.

- The evidence found through this research provides us with enough guidance to confirm that for many Indigenous communities, food security can be intricately tied to Indigenous culture. However, additional research could be done to specifically understand and address the situation from a company's perspective. Together with employment opportunities, a mineral resource development project can create a comprehensive community development plan to support traditional activities that could help relieve food insecurity without increasing dependency on mineral resource development projects.

- Other issues that did not come to light during the process are the ones related to changes in community birthrates, land use, and land disturbances. These can also be further explored in separate research projects.

6.3 Reflections on this Research Experience

This research experience has made clearer for the project team the importance of a gendered lens in understanding how the lives of Indigenous and non-Indigenous women are impacted in unique ways. Furthermore, the research highlights the critical need for mineral development companies to take a holistic approach to stakeholder engagement, employment practices, and community development planning.

The SOOP Strategies research team did not have an Indigenous team member when we began this project. It became evident early in the project that we needed to have input from the Indigenous community to review drafts, provide guidance to the research, and ask us questions that we did not think to ask. PDAC assembled the Indigenous Advisory Panel in time for this project, and each draft was reviewed and commented on by all three Panel members, helping to guide the research appropriately.

Additional learnings for this research related timing of the Spring launch of the project. The research took into account limited respondent availability due to a busier summer season for Indigenous Peoples participating in traditional activities. Additional time was required to plan, schedule and execute virtual interviews.

6.4 Application of this Research

The final product from this research will be used to build a web-based tool on the PDAC's website that will provide exploration and mining companies valuable information and practical recommendations to better understand and mitigate the potential impacts of their activities on Indigenous host communities.

Another form of application for this research is the design of a screening tool to assist the hiring process of companies when recruiting Indigenous community members. Stemming from what has been underscored in the literature review and revealed during interviews is that education and awareness for challenges related to mining employment is a need and an identified gap in company-community relations.

As mentioned in Section 5, there are many social impacts to Indigenous communities that result from the presence of a mineral resource development project. Certain impacts such as on financial, relationship, and family distress can be mitigated through proper education of employee work life. Including how these impacts intersect with an Indigenous community member's livelihood with respect to traditional practices, cultural and familial roles and responsibility adjustments. As such, mining companies have the

opportunity to enhance Indigenous labour relations, Indigenous community relations, and overall partnership and support with these communities with informative modules that educate potential Indigenous employees and support their awareness about the dynamic shift they may encounter with employment prior. Doing so would proactively mitigate stress and other undue challenges of the aforementioned social impacts that result from the unfamiliarity and lack of preparedness to mining employment and the work-life dynamic that forces adjustments to family and community structures. With this new-found awareness, potential Indigenous employees can then anticipate and prepare for potential adjustments, and provide critical insight to potential employers as to why this role would or would not work. This feedback would feed into a mining company's Indigenous support design and planning so that employment could be positively perceived by potential employees, even with the understanding and awareness of how their livelihood would be impacted as a result of how programs and supports have been implemented. This would provide invaluable insight into creating programs that support long-term success of mining operations.

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