ASBESTOS HILL:
INUIT EXPERIENCES WITH NUNAVIK'S FIRST MINE

by © Jeanette Carney A Thesis submitted

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ABSTRACT

Over the past century, the Canadian north has experienced an economic, social, and environmental transformation due to mineral development projects. These new developments have contributed to the rapid modernization of Aboriginal and Inuit peoples. Research has shown that past mines in the North continue to play a role in northern communities, shaping community identity and leaving behind negative environmental and socio-cultural legacies. As of yet, little social science research has been undertaken on the impacts of mining in Nunavik (northern Québec) and this study is the first to be conducted on the Asbestos Hill mine (1972-1984), Nunavik's first mine. Using oral history and archival research methods, this thesis examines past Inuit mine workers' experiences at the mine, the communities of Salluit and Kangiqsujuaq's encounters with this industrial operation, and the legacies it left behind.

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Table of Contents

List of Figures

List of Appendices

CHAPTER 1

INTRODUCTION

Introduction

At twenty below (-20c), it was a cold end-of-May day in Salluit, on the Arctic Coast of Nunavik (Northern Québec). I had just recently arrived in the community after a harrowing flight with six stops between Montréal to Kangiqsujuaq, where a severe snowstorm kept me from my final destination. As I sat in the lobby of the community's Northern Village office waiting to meet with the manager, residents cycled in and out of the office, picking up their paychecks and visiting with office staff. As a tall, young *Qallunaat* (white) woman, I stood out from the crowd. An Inuk man in his late twenties asked me if I was a new nurse or teacher. I told him I was a Master's student looking to interview former Inuit Asbestos Hill mine workers about their experiences there. The man told me that he had vaguely heard about that mine from elders and that he knew a Northern Village employee who had worked there, Willie Keatainak. Willie is a former Asbestos Hill mine worker and a community leader who was one of the key negotiators and signatories of the Canada's first Impact and Benefit Agreement, the Raglan Agreement. As I was introduced to Willie, the young man asked to stay and learn more about the Asbestos Hill mine because he, as a youth, knew very little about the mine's history. It seemed that only the older generations of Inuit in Salluit knew about Asbestos Hill, as everyone talked about the region's currently operating Raglan and Nunavik Nickel mines. As the first academic research conducted on the Asbestos Hill mine, my interviews brought to light Inuit experiences with the Purtuniq (Inuit name of Asbestos Hill) mine.

Before taking on this Master's research project I knew very little about Nunavik, the Arctic region of Québec. Growing up in Whitehorse, Yukon, I thought I had a better

understanding than most of what it meant to live in Canada's north, and yet, my fieldwork in the Arctic taught me more than I could have imagined. The North is a vast heterogeneous region and each northern territory and area has its own unique history and way of life. In Nunavik, its Inuit residents have experienced changes at rapid speed, with people going from igloos to Internet in one generation. The more I learned about the modernization period in the North, the more I wondered how mining had contributed to these changes and what they added to people's lives. My interviews in Salluit and Kangiqsujuaq with past Inuit Asbestos Hill mine workers taught me more than simply the history of the Asbestos Hill mine. Speaking with these older Inuit men, and some women, showed me the attitude changes within these villages, as the participants discussed the ways younger generations experienced life. They spoke of the roles new technologies, such as internet and the telephone, played in their daily lives and those of their children and grand-children. In much similar ways, these older Inuit discussed their history with mining, how mineral development is an important part of their future, and the ways in which it affects all Inuit in Nunavik, in one way or another. However, the history of this mine lives in the memories of the former Inuit mine workers and other community members, as subsequent mines, such as the Raglan and Nunavik Nickel mines have overshadowed past mineral development. Today, younger generations of Inuit in Salluit and Kangiqsujuaq, whose financial wellbeing is largely reliant on mining, know little about their history with mineral development and the Asbestos Hill mine. As a result, a desire and need to remember the history and experiences of Inuit with this first mine has inspired this thesis.

To understand the resiliency of Inuit, with regards to the introduction of mineral development, we must have a good grasp of other modernization processes that were occurring just prior to and during the development of Nunavik's first mine, Asbestos Hill. For the purposes

of this research, resiliency is defined as the ability of Inuit to adapt and carry on in the face of adversity and to "cope with external stresses" (Adger, 2000, p. 347). Since the 1930s, in one way or another, Inuit of Nunavik have been involved in mineral exploration in the area. The advent of mineral development activities has been one of the many important revolutionary forces that combined to change the region's social and economic landscape, thus forcing Inuit to adapt and alter their lifestyles, while also maintaining their culture and way of life. In the 1960s and '70s, Inuit of Nunavik were being administered by the Government of Canada, which had recently increased its role in the North. The spread of tuberculosis and the drop in fur prices had caused difficulties for Inuit as they struggled to find food, forcing the federal government to step in. With this interventionist change in governmental northern policy, Nunavik Inuit were subject to resettlement into permanent communities, mandatory schooling, and were given social transfer payments (Rodon and Schott, 2013). It is at this time of rapid social change that the Société Asbestos Limitée's Asbestos Hill mine, as encouraged by the provincial and federal governments, began its operation in 1972 until its closure in 1984. Young unmarried Inuit men were recruited from all Nunavik's communities, with special attention placed on the two nearest villages of Salluit and Kangiqsujuaq. Many of these young men had just returned to their communities after being away at the residential school in Churchill, Manitoba, or other similar institutions. The fly-in fly-out nature of the mine meant that these young Inuit men would be away from their villages once again, leaving communities to adapt to the temporary loss of these potential hunters and future husbands and fathers.

Unlike company towns, the Asbestos Hill mine, as a fly-in fly-out, commuting mine, had no direct control of the nearby Inuit communities. That being said, small population sizes and extremely limited employment opportunities increased the mine's impacts on these two Inuit

villages (Cummins, 1983). At the time of the mine's operation, the closest village of Salluit (previously Sugluk) had a population of approximately 400 Inuit residents, while Kangiqsujuaq (previously Wakeham Bay) was home to around 250 Inuit (OPDQ, 1984). Prior to the Asbestos Hill mine, these Inuit residents relied heavily on government childcare and welfare payments. Consequently, the mine's arrival created jobs for local Inuit men, bringing money to the villages through direct employment and the selling of local art to *Qallunaat* workers. Overall, interviewees have mostly positive memories of the mine during its time of operation, remembering their time at the mine as a 'Wild West', adventurous and exciting. Since the mine's closure, former Inuit employees and community residents have become concerned about the mine's impacts on the health of their communities and local wildlife.

In 1984, the open-pit Asbestos Hill mine was shut down by the Société Asbestos Limitée (then owned by the Government of Québec) due to decreasing global commodity prices of asbestos. After a century of asbestos mining in Québec, the world was finally becoming aware of the negative health impacts of the fibrous mineral. The 1980s anti-asbestos campaigns and legislation in developed countries, such as France and the United States, the largest importers of Québec asbestos, led to a crash in the province's sales. To minimize this blow, the Société Asbestos Limitée rapidly closed the Asbestos Hill mine, strategically leaving its higher-capacity operating mines in southern Québec open. The closure process was rushed and the lax environmental regulations meant that no immediate remediation was conducted. At the time, Inuit were relatively unaffected by the company's departure. However, as time passed and Inuit learned more about the past mine, concern grew over the health impacts of exposure to asbestos. Currently, Inuit of Salluit and Kangiqsujuaq's relationship with the Asbestos Hill mine continues as they deal with the environmental, health, and social legacies the mine left behind.

Today, despite the importance of the Asbestos Hill mine to Inuit of Nunavik as the first mine in the area, as well as the mine's historical uniqueness as the first fly-in fly-out mining operation in Canada, little is known of the mine's history and the historical experiences of Inuit with early mineral development activities. Literature on the social impacts of historical mining in the Canadian north shows that the operational processes of mines have large impacts on the environment and communities, with some of the most important effects taking place after mining ceases. As I will demonstrate and as many studies have shown, mine closure in Arctic communities have devastating effects due to the resource dependence realities of these remote, northern communities. Furthermore, local Indigenous peoples are often forced to interact with these past mines for years post-closure due to the site's negative and lasting environmental legacies. Despite the significant historical presence of mine exploration and development in Nunavik, little research has been conducted in this region. As a result, this Master's research is the first to be conducted on the Asbestos Hill mine. This knowledge gap is an important one to be addressed due the significant environmental and socio-cultural role of mineral exploration in Arctic Québec, as well as the Asbestos Hill mine's key role in the history of mining in Nunavik and fly-in fly-out mining operations in Canada. As part of the larger project by the Knowledge Network on Environment Impact Assessment and Social Impact of Mining in the Canadian Eastern Arctic and Subarctic (Eeyou Istchee, Nunavik and Nunavut), this research seeks to add to the literature on the social impacts of mineral development in the Canadian Arctic and, more specifically, in Nunavik.

The main goal of this study is to investigate Inuit encounters with the Asbestos Hill mine and the ways in which Inuit of Salluit and Kangiqsujuaq continue to interact and cope with the legacies the mine left behind. More specifically, the first objective is to describe the cultural,

social, and economic experiences of Inuit in Salluit and Kangiqsujuaq with the construction, operation, and closure of the Asbestos Hill mine, between the 1960s and 2015. The second objective is to determine any social, cultural, economic and environmental changes to the traditional and non-traditional livelihoods of Inuit as a result of the mine. The third objective is to identify and describe changes to the community identities of Salluit and Kangiqsujuaq through historical mining activities. Finally, the fourth objective is to investigate how past experiences influence current perceptions of mineral development in Nunavik. This research is guided by four primary questions, *1) What were the impacts of mining on Inuit communities in Nunavik from the 1960s to 1980s? 2) What were the employment/social benefits of the Asbestos Hill mine for Inuit? 3) How did mine closure and remediation impact residents of the area? 4) How do the environmental, health, and social legacies of this mine influence contemporary perceptions of ongoing and proposed mining projects in the region?* Ultimately, this research aims to provide a record of the Inuit of Nunavik's historical experiences with the Asbestos Hill mine, create an account of the operational history of this first mine, while also assessing the impacts of this mine on local Inuit communities and sharing these results to a wider audience.

As the first mine in Nunavik, Asbestos Hill contributed to Inuit modernization processes as it further altered Inuit lifestyles and culture by introducing wage labour and southern products, beliefs, and activities to young male Inuit mine workers and, by extension, to Inuit of Salluit and Kangiqsujuaq. The mine left behind socio-environmental legacies, including drug and alcohol abuse, unremediated tailings and mine site and port areas, thus contributing to Inuit's perceptions of mining as a destructive and unrewarding activity. Since the closure of the Asbestos Hill mine, mineral exploration and development have grown in Nunavik, continuing to have significant implications on the region's Inuit. The loss of Asbestos Hill was followed by a brighter mining

future for Inuit with the nearby development of the Raglan mine in 1995. The lack of consultation and benefits of the region's first mine and the decision-making power created by the James Bay and Northern Québec Agreement of 1975 led Inuit of Salluit and Kangiqsujuaq to negotiate Canada's first Impact and Benefit Agreement between a mine company (Falconbridge Ltd.) and an Indigenous group (Inuit). Today, the Raglan Nickel and the Nunavik Nickel mines are operating in the Ungava Trough, with each mine providing many substantial benefits to the communities of Salluit and Kangiqsujuaq, and Makivik Corporation. These mines are a significant source of income to Nunavik and to the villages of Salluit and Kangiqsujuaq, providing jobs to many of the region's Inuit.

Study Area

Inuit have inhabited Nunavik, the northernmost region of Québec for almost 800 years, as their Thule ancestors arrived in the region in 13th century A.D. (NTA, 2010). The northern environment shaped Inuit culture. As such, Inuit adapted to the cold climate and limited vegetation by becoming hunter-gatherers, living nomadically, travelling based on the seasons and animal migration patterns (Barger, 1979). Their traditional activities involve freshwater fishing, berry picking, and, most importantly, hunting for marine mammals, such as ringed seals, beluga whales, and walrus (Poirier and Brooke, 2000). It is only in the last half-century that Inuit of northern Nunavik have been able to partake in caribou hunting, as caribou began to migrate further north. Inuit place much cultural importance on wildlife and nature, seeing these as intrinsically linked to humans (Poirier and Brooke, 2000). Furthermore, as hunter-gatherers, the sharing of country food and knowledge is a crucial part of Inuit culture and is an embodied practice and value (Poirier and Brooke, 2000). However, with the arrival of Europeans in the 17th century, Inuit ways of life began to transform.

In the past two hundred years, Inuit have experienced a large number of changes through interactions with outsiders, particularly Europeans. In Nunavik (Northern Québec), the region's Inuit had early contact with Europeans in the early 17th century through Henry Hudson's expedition in 1610-1611 (Benoit, 2004). In the centuries that followed, unbeknownst to local Inuit, the region of Arctic Québec transferred ownership three times. Between 1670 and 1870 the territory was claimed by the British Crown, administered Hudson's Bay Company (HBC), and transferred to the Dominion of Canada in 1870 (as Rupert's Land). Finally, this territory was ceded to the Province of Québec in 1912 (Rodon, 2014). During this period, Arctic Québec's Inuit had limited contact with whaling ships, as whalers focused on other regions of the Arctic for their whaling operations (Bonesteel, 2006; Benoit, 2004). As a result, a permanent *Qallunaat* presence was only established in 1830 with the arrival of the Hudson Bay Company (HBC), which aimed to trade European goods in exchange for Arctic fox furs (Vick-Westgate, 2002).

The development of the communities (Sugluk) of Salluit and Kangiqsujuaq (Wakeham Bay) began much later, with the construction of the Revillon Frères Company trading posts in the early 1900s, as a location for Inuit fur trading with Europeans (Croteau, 2010). In the 1910s and '20s, the Hudson Bay Company took over these trading posts. As Inuit gathered at these posts, Roman Catholic and Anglican missionaries chose to establish their missions in these locations in the 1930s and 1950s. As Inuit became involved in the fur trade, their movement patterns changed, with Inuit moving between camps along the coast, staying in areas near trading posts. Finally, as more and more Inuit settled nearby, these areas became villages. In the 1950s, 1960s, and 1970s, the federal government began actively advancing its modernization agendas for Inuit of Nunavik (Rodon, 2014). As such, the federal government provided welfare and childcare payments and constructed housing for Inuit of Nunavik, making it possible for many to

live sedentary lifestyles within these new permanent settlements. Finally, in the late 1960s, the federal government built day-schools and nursing stations, thus ensuring all federal services could be administered locally (Croteau, 2010).

In the 1940s and ’50s, part of the federal government’s modernization agenda involved the development of mining in the Arctic. The government’s encouragement led to intensive mineral exploration throughout Nunavik. Soon, exploration companies began to focus their attention in the Ungava Trough, a mineral-rich geological zone in northern Nunavik. This area is comprised of a band of volcano-sedimentary rock, which crosses the Ungava peninsula from east to west, between the villages of Kangiqsujuaq and Akulivik (Musée minéralogique, 2011; Blais, 2015).

During this exploration phase of the ’50s, when over twenty companies scoured the area for minerals, the discoveries of the following most important deposits in Nunavik were made: Asbestos Hill (asbestos), Raglan (nickel), and Katinniq (nickel) (Duhaime et al., 2005). The deposit of chrysotile asbestos at Purtuniq (Asbestos Hill) was formed in the Canadian Shield, around 1.6 to 2 million years ago due to the rising of volcanic magma, which caused a geological shuffle that altered the rock (chlorite schist) (Musée minéralogique, 2011). This process caused chrysotile asbestos to crystalize in transverse fibers in multiple narrow gaps, creating some of Canada’s best asbestos, with a usable yield of 18-20% (compared to 3-10% in southern Québec) (Musée minéralogique, 2011).

With the discovery of large mineral deposits, the Government of Québec shifted its focus to the North. Until the early 1960s, the Québec Government was content to have no part in the administering of programs and aid to Inuit of northern Québec. However, increasing economic opportunities tied to resource development led the Government of Québec to view the province’s

Inuit as “perhaps the only permanent labor force available for the much desired economic development of New Québec” (Pape, 1964). The Québec Government saw a future of mineral development in its Arctic, leading officials from the Natural Resources Department to train Inuit to work in mining. The government ultimately wanted to “integrate the Eskimos into the development of their own economy, so that they can profit from it rather than watch other people exploit it” (Pape, 1964,). Eventually, in 1964, the federal and Québec governments decided to share administrative responsibilities, with the Québec Government starting to implement its policies and services in Nunavik (Bonesteel, 2006).

In the 1960s, the Société Asbestos Limitée purchased the Asbestos Hill deposit from Murray Mining Company, and started assessing the land for large-scale mineral extraction. At the time of the construction of the Asbestos Hill mine, Salluit (population of 400 Inuit), situated thirteen kilometers south of the Hudson Strait, on the southern shore of Sugluk Bay and Kangiqsujuaq (population of 250 Inuit), 10 kilometers from the Hudson Straight, had small populations that were reliant on the fur trade and government payments (Musée minéralogique, 2011; OPDQ, 1984). In the 1960s, during the mine’s construction phase, few Nunavik Inuit were hired, as the Société Asbestos Limitée had already recruited former Inuit Rankin Nickel mine workers from Nunavut (then part of the Northwest Territories) as construction workers. Once built, the open-pit Asbestos Hill mine became Canada’s first experiment in fly-in fly-out labour, with all of its workers rotationally commuting long-distances to their place of employment.

Located on either side of the Asbestos Hill mine, the communities of Salluit and Kangiqsujuaq were chosen as study sites for this research because of their historical involvement with mining and their geographical proximity to the mine. Salluit, located roughly 120 kilometers southwest from the mine site and Kangiqsujuaq, approximately 200 kilometers to the

south-east of Asbestos Hill, are the two nearest villages to the mine. As a result, the Société Asbestos Limitée heavily recruited Inuit living in these two villages in the 1970s and ’80s to work at Nunavik’s first mine because they were the closest to the mine site and its port at Deception Bay, making it easier for Inuit to travel to work. Consequently, the Société Asbestos Limitée employed many Inuit men of Salluit and Kangiqsujuaq, which, combined with their proximity to the mine, increased the mine’s impacts to these villages.

Figure 1: *Locations of Salluit and Kangiqsujuaq, and the sites of the past Asbestos Hill mine and the current Raglan mine (Credit: Charlie Conway, 2015).*

After the mine’s closure in 1984, many Inuit residents of Salluit and Kangiqsujuaq present during the operation of the Asbestos Hill mine continued to live in the communities after the mine’s closure and continue to live there (Rodon et. al., 2013). Since the creation of Salluit and Kangiqsujuaq, community populations have grown exponentially. Currently, Salluit, the

larger community, has a population of 1,241 people, 93% of whom are Inuit, while Kangiqsujuaq has a population of 725 inhabitants (mainly Inuit) with 41% of them under the age of 20 years old (Statistics Canada, 2010). The growing Inuit villages continue to receive royalty money and other benefits from the region's two currently operating mines, the Raglan and Nunavik Nickel mines. These mines, located between Salluit and Kangiqsujuaq and near the Asbestos Hill mine site, continue to operate in the same area as the former Asbestos Hill mine and use the Deception Bay port that was built by the Société Asbestos Limitée.

As the main economic driver, mining is by far the most profitable and largest industry in the region. Between 2003 and 2012 mining activities continued to grow in Nunavik, with the region's GDP (Gross Domestic Product) tripling from $291 million in 2003 to $887 million in 2012 (Rogers, 2016). Consequently, in 2012 mining profits made up 41% of Nunavik's GDP. However, in recent years, the mining industry in Nunavik has slowed due to lower global commodity prices. Yet, two nickel mines continue to operate in Nunavik and three ongoing exploration projects searching for gold, copper, and nickel deposits are underway. If and when these exploration projects become mineral extracting operations, nearby Inuit communities will be prepared to undergo negotiations with mine companies. The experiences of Salluit and Kangiqsujuaq with the Raglan and Nunavik Nickel mines have led the Inuit-owned and operated Makivik Corporation to develop mining policies and a guidebook to aid Inuit communities and mine companies reach a beneficial agreement for both parties.

Although Inuit have incorporated mining into their future, seeing it as a necessary evil and a means of maintaining their way of life, they understand that mining is a volatile and unstable industry that will not go on forever. Unfortunately, many Inuit fear that Nunavik's mining-reliant communities are not prepared for a mine closure, as they have become used to the

benefits of Impact and Benefit Agreements. These Inuit believe that their "[children and grandchildren need to] get an education now and plan ahead" (Willie Keatainak Interview, May 2015). What started with the Asbestos Hill mine continues today as mining has taken a hold of Nunavik with promises of royalty money, employment, and new opportunities.

Methods and Methodology

The research technique used in this research has been primarily oral history, conducted semi-structured interviews with participants to gather information on Inuit encounters with the Asbestos Hill mine. This approach relies on interviewees to share their experiences, memories, and stories, and to add opinions and feelings about Asbestos Hill and the changes spurred by the advent of industrial wage labour and mining. Qualitative methods were appropriate because of the nature of the research questions, which explore the complex encounters that Inuit of Salluit and Kangiqsujuaq have had with Nunavik's first mine, and how these have shaped Inuit perceptions with subsequent mine development and exploration. As a result, it was necessary to have as clear a grasp of Inuit history prior to this first mine as possible, and to assess how participants felt that experiences with the mine affected them on a personal and community level. Additionally, a review of relevant literature and archival documents has been undertaken to understand experiences other Indigenous peoples have had with historical northern industrial mining in their region.

This thesis research used a case study as a research design to guide the formulation of research questions, the collection of data and its analysis and interpretation. This is a case of the experiences of Inuit of Salluit and Kangiqsujuaq with Nunavik's first mine, Asbestos Hill. Case studies allow the researcher to better contextualize the research subject and provides a more holistic understanding of the project and the historical realities and events that occurred (Zainal,

2007). An exploratory case study design is used to explore an event or situation in which there is no clear set of results (Yin, 2003; Baxter and Jack, 2008). This particular case study draws on information collected from archival sources, thematic literature, historical government documents, archived newspaper articles, and interviews with local Inuit and former Inuit Asbestos Hill mine workers.

The oral history method of interviewing was used because of the nature of this project, which seeks to understand the experiences of Inuit with the Asbestos Hill mine. As an Indigenous people, Inuit use storytelling as a traditional method of sharing historical and other information, and to pass down community culture and history. Leddy (2010) notes that storytelling is "an important way for Indigenous peoples to be active participants and recognized experts in academic research" (Leddy, 2010, p. 9). Furthermore, as little archival information pertaining to the Asbestos Hill mine and its relation to local Inuit was available, in this case, oral history was of crucial importance to this project. In this case, oral history was employed to gather stories and experiences from a more diverse audience, which Richie (2003) stated adds a "wider range of voices to the story" (Richie, 2003, p. 13). Conducting semi-structured interviews to gather oral histories allows "the collective voices of people to guide researchers into occasionally unexpected places", thus giving agency to interview participants and making the research better reflect the experiences and feelings of participants (Ward, 2012, p. 134).

The stories shared by interviewees "move, inspire, and evoke embodied experience" more than statistical analysis of surveys and other research methods (Cameron, 2012, p. 587). The insight gleaned from interviews is cumulative, as multiple individuals' stories come together to form a set of oral histories. Cameron (2012) notes the benefits of oral history as shared stories express personal, individual feelings and memories, while also providing larger-scale

impressions of broader social and political contexts. She goes on to state that stories are complex, as they "are both singular, 'true', and felt, and crafted, disciplined, and generic" (Cameron, 2012, p. 574). This Master's research uses stories as a way of better understanding and expressing the implications and memories of the Asbestos Hill mine on local Inuit.

Oral history is the key to researching these Indigenous encounters with historical mining, as this method captures local memories, which are largely absent from archival documents and government reports. Mines and communities must be seen as "living and evolving, as a site of contested meaning that may have been created by the past, but is imposing itself on the present" (Ward, 2012, p. 133). For Indigenous communities in northern Canada, the memories and impacts of these past mines live on, as mine sites are left unremediated and residents recall their experiences with mineral development. Documenting and capturing experiences of Indigenous peoples with industrial development allows these "hidden voices" to come forward, thus addressing gaps in archival records and allowing the exploration of untold histories and experiences (Keeling and Sandlos, 2015, p. 14). Consequently, oral histories often challenge dominant historical narratives as it "recovers" Aboriginal experiences with mining, capturing a more well-rounded account of development, while understanding the full scope of its impacts (Keeling and Sandlos, 2015).

Oral history is not objective, as stories are subject to change and memories evolve through time as circumstances change and one's memory fades. These stories must be interpreted by the researcher, as "normative, emotional, or moral effects are derived relationally, through interpretation, not directly conveyed" (Cameron, 2012, p. 574). Furthermore, the bias of memory is key to oral history because interviewees will only remember or discuss occurrences or instances that were deemed significant, while others will be forgotten. Consequently, what

participants choose to share with researchers tells its own story, in and of itself. Finally, these stories understood through ideological lenses, as researchers' personal experiences and knowledge unintentionally affect the interpretation of oral histories (Shopes, 2002).

When conducting research within and with Indigenous communities, it is crucial to the research process that the researcher locate himself or herself and understand their positionality (Absolon and Willett, 2005). Absolon and Willett (2005) further note that "those who participate in knowledge creation, [must] be accountable for their own positionality" (p.97). As a researcher and a person, I understand that my previous knowledge and experiences affect the ways in which I interpret interviews and combine these narratives into a thesis. I further acknowledge that many "truths" and varying worldviews exist, yet a colonizing aspect of research is the pursuit of one ultimate "truth", which, in the case of Aboriginal research, Indigenous "truths" are "neither written nor consistent with the patterns of the dominant language" (Korach, 2005, p. 26). Consequently, this research is not searching for "truths", but is rather exploring the stories and experiences shared during interviews as is (Korach, 2005).

As a non-Indigenous person who was raised in the Yukon Territory, part of Canada's north, I grew up learning about Aboriginal history and culture. Although I did not specifically learn about Inuit culture, my awareness of Aboriginal history and culture in the Yukon helped shape my interest in this different region and culture. Despite my experiences as a northerner, it is important to note that my status as a non-Indigenous person limits my ability to understand Indigenous experiences and perspectives. That being said, my background as a northerner influences how I engaged with participants, creating a bias that makes me empathize with Inuit, especially with matters relating to historical resource development. This bias is unavoidable, as "neutrality and objectivity do not exist in research, since all research is conducted and observed

through human epistemological lenses" (Absolon and Willett, 2005, p. 97). Therefore, I acknowledge that my experiences and opinions surrounding northern Indigenous encounters with past mining have contributed to my overall view and understanding of the research. However, my awareness of this bias has made me more cognizant of my interpretations, causing me to grapple with my initial reactions and interpretations. As such, I believe that this thesis better reflects the experiences of my interview participants. By thoroughly reflecting and questioning my assumptions and opinions, I have allowed myself to gain a broader understanding of the oral histories and research results. Consequently, although I began this research process focusing on the negative impacts of mineral development, my reflexivity throughout this research has led me to understand that Indigenous encounters with mining are complex, multi-faceted, and cannot be seen as 'black and white'.

The Research Process

The Asbestos Hill project originated as a proposal by my supervisor, Dr. Arn Keeling, to the SSHRC-funded Knowledge Network on Environment Impact Assessment and Social Impact of Mining in the Canadian Eastern Arctic and Subarctic, based at Laval University. This network includes academics and Indigenous organizations from the Canadian Eastern Arctic formed to share information and determine research priorities related to mineral development and communities. In December 2013, the Network steering committee approved funding for a student-driven research project on the historical geography of the Asbestos Hill mine in Nunavik.

Prior to contacting communities and beginning research, both Ellen Avard, the director of the Nunavik Research Centre, and Michael Barrett, the Chairperson of the Kativik Environmental Advisory Committee (KEAC), were contacted regarding research focus, interview questions, and the most of effective ways of reaching out to each community. Their

help proved very helpful, as they guided through the research process in Nunavik. Initial attempts to contact the officials at the northern village offices of Salluit and Kangiqsujuaq were made by telephone throughout April and May 2015. A community research proposal introducing the researcher and the project was e-mailed to the mayors of Salluit and Kangiqsujuaq, officials at both northern villages, and Nuvumiut Developments Inc. (See Appendix II). Contact was made with Salluit's Donald Cameron, the manager of Nuvumiut Developments Inc. and Kangiqsujuaq's Brian Urquhart, an employee at the Northern Village office of Kangiqsujuaq. These connections helped identify initial research participants with subsequent participants identified through the snowball method, as these initial interviewees suggested other potential participants at the end of their interview. The Interdisciplinary Committee on Ethics in Human Research (ICEHR) approved this research and granted its ethics clearance in May 2015 (#20160058-AR). There was no ethics clearance to be granted from the region's government, as there is no formal process of research permitting in Nunavik at this time.

I spent the 2015 summer field season conducting interviews in both communities of Salluit and Kangiqsujuaq. My fieldwork began on May 22, 2015 as I flew in to Salluit, the larger of the two villages, staying in the Centre for Northern Studies research station for one month. In between my Master's research in Salluit and Kangiqsujuaq, I briefly went to the western community of Akulivik to conduct research for a project by the University of Laval. Then, from July 1st to the 16th, I was in Kangiqsujuaq, living with Inuk woman and her daughter, renting a room in her home. In both Salluit and Kangiqsujuaq, I began my research process by meeting with village officials at the Northern Village offices to present my research proposal. In Kangiqsujuaq, I met with the community council, where my project was deemed helpful to the community and accepted. Next, meetings were held with my previously made contacts, Donald

Cameron and Yaaka Yaaka (referred to by Brian Urquhart), which began the process of identifying interview participants. I attempted to hire a student community researcher who could also act as an Inuktitut-English interpreter in both communities. However, I was ultimately unable to fill the position. Instead, Inuktitut-English interpreters were found in each village, but whale and caribou hunting season made scheduling difficult, as interpreters were out on the land most of the time. Furthermore, all interview participants declined the option of having an interpreter during interviews and, as a result, interviews were conducted in English.

Interviews took place between May and July 2015 in Salluit and Kangiqsujuaq. In total, 16 participants, 11 in Salluit and 5 in Kangiqsujuaq, were interviewed face to face and one interview involved two informants at one time (See Appendix I). With the participants' permission, interviews were audio recorded. Interview recordings were transcribed in the field and later printed and mailed to participants in September 2015. Interviewees were given the option to edit or omit any potentially sensitive information during the interview and after having reviewed the transcripts, ensuring accuracy of the testimony and allowing for revisions.

As a study of Inuit encounters with the Asbestos Hill mine, my interviewees were among the following three targeted groups: former Inuit mine workers (most sought after), the relatives of past Inuit workers, and older community residents living in Salluit or Kangiqsujuaq between 1960 and 1980. I specifically sought out past Inuit mine workers because a large part of this study is analyzing Inuit work experiences at Asbestos Hill. Family members of former Inuit miners and community residents were recruited to obtain the full range of effects in the communities and to understand the community experiences. To gather these participants, I used a 'snowball' method, ending the interview by asking interviewees to recommend other community members that I should speak with. With no records or lists of former Inuit Asbestos Hill mine

workers available to me, this approach helped find past Inuit miners, as participants identified other Inuit who worked alongside them. Also, this method allowed me to locate key interviewees, which was made clear by the number of times individuals' names were put forward by others.

The interviews were semi-structured, whereby a broad framework for questioning existed to guide interviews, while allowing for informants to share other information that they found relevant. Twenty-four interview questions were composed before fieldwork began (see Appendix IV). I asked general open-ended questions about the Asbestos Hill mine and its legacies, allowing participants to share their experiences and memories. Overall, interviews ranged between fifteen minutes to two hours in length, ending with the interviewee receiving a gift-card and a jar of *arpik* (cloudberry/partridge berry) jam as an honorarium. The interviews centred on the following broad themes:

A) The construction and operational impacts of the Asbestos Hill mine
B) Employment of Inuit at the Asbestos Hill mine
C) Mine closure and remediation
D) Contemporary perceptions of current mining projects

These general categories of questions gave interviewees the flexibility of sharing any stories or information they wanted to, while also allowing me, as a researcher, to ensure that all important themes were touched upon. Throughout this interview process, I learned a great deal as a researcher and a person, gaining a better understanding of the role culture plays in the designing of interview questions. My interview experience with Inuit participants led me to rework some of my questions, moving away from questions about time, which require specific answers with dates or people's ages. To older Inuit people, specific time periods are not important, but rather memories are tied to seasons or animal migrations.

Data collection and my field season ended once I had reached theoretical saturation, when no new data is found. The concept of theoretical saturation informs the researcher's choice to terminate fieldwork, as research is exhausted, and the same themes continue to appear. For this research, I realized that I had reached the limit of my interview stage when there were no new recruits from the target population of former Inuit mine workers and when interviewees from the remaining target groups recounted the same stories of experiences and events and no new data was produced. At this point, the next step of this research began: transcribing interviews and analyzing the data.

Archival Research and Additional Sources

To prepare for fieldwork, academic and non-academic articles pertaining to historical Indigenous experiences with mineral development were reviewed and online archival sources, such as newspapers and government and company reports were consulted, to formulate better interview questions and to shape my analysis of interviews. The Kativik Environmental Advisory Committee (KEAC), as the environmental assessment agency of Nunavik, sent their inspection reports of the Asbestos Hill mine, which helped establish the environmental remediation process that unfolded and that continues to this day. In terms of general information, the documents received from the Musée minéralogique de Thetford Mines for the museum exhibit "Le défi d'Asbestos Hill" and the exhibit itself helped establish the Asbestos Hill mine's timeline, gather data and specific mine information, and ultimately gain a better understanding of the mine's inner workings and historical events that affected its production. It is important to note that the exhibit presented a biased view of the history of the Asbestos Hill mine as it was developed by a museum that primarily aims to share the stories and perspective of Thetford

Mines residents who were involved in asbestos mining. Throughout the exhibit it is clear that the main focus is on the geology of the Asbestos Hill mine and the experiences of non-Indigenous workers who travelled from the southern Québec region of Thetford Mines. That being said, the archival material used for the basis of the exhibit was collected through reliable sources, such as academic reports and newsletters from the Société Asbestos Limitée. Furthermore, the small section of the exhibit that discussed Inuit culture and experiences was written in collaboration with the Avataq Cultural Institute which is owned and operated by and for Inuit of Nunavik.

During my field season, I visited Québec City's Archives nationales du Québec and the Avataq Cultural Institute in Montréal in search of company records of the Société Asbestos Limitée and historical community statistics. No company records or other relevant data were found at the Archives nationales du Québec. However, records found at the Avataq Cultural Institute in Montréal provided demographic data on the communities of Salluit and Kangiqsujuaq and historical photos of these villages. Similarly, archival documents later sent by Library and Archives Canada of a Tariff Board Appeal between the Société Asbestos Limitée and the Deputy Minister of National Revenue for Customs and Excise unearthed a small amount of key data. Eventually, important information was located in the online Google newspaper archives from sources, such as the *Montréal Gazette* and the *Québec Chronicle.* It is important to note that throughout my extensive archival search I was unable to locate any records of the Société Asbestos Limitée and, as such, it is probable that the records were returned to the mine company and likely destroyed. Consequently, although I was able to find important nuggets of information through online records and museum sources, the scant archival findings forced me to base this thesis largely on interview data. Furthermore, the literature surrounding the history of Arctic Canada and Inuit experiences with mining (discussed in Chapter 2) was thoroughly analyzed for

this Master's thesis, helping create a base to comprehend the events and reality that helped shape Inuit's ability to adapt to mining, its impacts, and legacies.

Analysis

To identify and understand the main results of this research, I conducted a thematic analysis of all interviews. Thematic analysis, a method of analysis that "[focuses] on identifying patterned meaning across a dataset," was used for the purposes of this qualitative research (University of Auckland, 2016; Hay, 2010). Thematically coding interview transcripts allows researchers to organize their collected data in greater detail. This method was undertaken by identifying a number of key themes that accurately reflected the data and the research topics. Each interview was analysed and content was sorted by theme, with the same content often placed in multiple thematic categories. While I transcribed interviews, I kept a list of recurrent and important themes. Once these transcriptions were finished, I reviewed the material once more and added other key themes. Because of the large number of themes, I sorted the themes into three main time-periods: pre-Asbestos Hill mine, during the mine's operation, post-Asbestos Hill mine. Within this broad periodization I put the various themes that I had previously entered into a general list. I identified general themes such as: the transition to wage labour, Inuit work experience at the Asbestos Hill mine, community experiences with the mine during its operation, the mine's closure, the health impacts of asbestos, and the environmental and social legacies of Asbestos Hill. Then, I filtered through the interview transcripts and drew out sections of transcripts, placing them in the appropriate category or categories. Due to the small number of interviews (n=17), the most effective way to analyse interviews was with Microsoft Word rather than with content analysis software.

Collectively these interviews provide a comprehensive understanding of Inuit of Salluit and Kangiqsujuaq's experiences with the introduction of mining, the operation and closure phases of Asbestos Hill, and the communities' ongoing relationship with the legacies of the past mine. Secondary sources, such as museum exhibits, newspaper articles, and government reports and Hansard transcripts about Salluit, Kangiqsujuaq, and the Asbestos Hill mine helped contextualize the study area and provide background information, mine data and community statistics, and were also important for verifying specific dates of events. This secondary data helped fill certain technical knowledge gaps, such as specific dates, production and worker statistics at the Asbestos Hill mine, and gain a more well-rounded understanding of the political context within Québec and Nunavik at the time of the mine's operation and closure.

Reporting findings back to the community is a crucial part of the community-based research process. Following up with interview participants and communities after the research has been conducted ensures research accountability and transparency, while also benefitting local residents and participants. As such, I returned to the communities of Salluit and Kangiqsujuaq in October 2015 to present my preliminary findings, a project poster, and a podcast to the mayor of Salluit and to the community council of Kangiqsujuaq. At this time, I was interviewed by Putulik Ilisituk on the regional radio station (Taqramiut Nipingat Incorporated [TNI] Radio) where I discussed my project findings. Furthermore, a 20-minute podcast presenting research results was given to the local radio stations of Salluit and Kangiqsujuaq to play. As the community radio has a wide local audience, this was found to be a more effective way of presenting my findings to the communities as a whole. While in Nunavik in October, I also presented my research results to Makivik Corporation and Kativik Environmental Advisory Committee (KEAC) officials in Kuujjuaq at the Resources and Sustainable Development in the Arctic (ReSDA) conference.

Copies of interview transcripts, audio-recordings, and a podcast discussing the research results were deposited with the communities of Salluit and Kangiqsujuaq and to the Avataq Cultural Institute (as permission was given by participants). These digital recordings and transcripts were given to help preserve and share local oral histories by providing a community record of local knowledge. Also, copies of this thesis and a lay summary of my thesis findings will be given to each community and to the Avataq Cultural Institute.

The remainder of this thesis is separated into four chapters. In Chapter 2, I will discuss the history of Inuit encounters with mineral development in the Canadian Arctic, the historical events leading up to the Asbestos Hill mine, the political situation in Québec, and the history of asbestos mining in Québec, all of which provide critical context for understanding Inuit experiences of mining at Asbestos Hill. In Chapter 3: Life and Work at the Mine, I undertake an examination of Inuit mine workers' experiences living and working alongside *Qallunaat* (Inuktitut word meaning non-Inuit people) at the Asbestos Hill mine, and their ability to adapt to the mine's rotational schedule and their introduction to wage labour. In Chapter 4: Mine Closure and Legacies, I will assess the ways in which Inuit of Salluit and Kangiqsujuaq experienced the closure of Asbestos Hill and the loss of employment, the mine's socio-economic and environmental impacts, and the communities' relationship with the mine's ongoing legacies. Finally, in the conclusion, I will discuss the good and bad experiences of Inuit with Asbestos Hill, looking into the mixed memories of the mine and how they affect Inuit's story and collective memory of the region's first mine. I will also examine the ways in which the past encounters with the Asbestos Hill mine have influenced Inuit perceptions with current and future mineral development in Nunavik.

CHAPTER 2

LITERATURE REVIEW

Introduction

This thesis focuses on the past and present experiences and memories of Inuit of Salluit and Kangiqsujuaq, Nunavik with the Asbestos Hill mine (1972-1984). In doing so, it draws on significant events in the Canadian Arctic's history and other case studies of northern Indigenous mining experiences in order to contextualize and better understand Inuit encounters with Nunavik's first mine. In this chapter, I interrogate the meanings of modernity as they were applied to and by Inuit of Nunavik. I outline gaps in the literature surrounding mining in the Arctic, and more specifically in Nunavik. At the same time, I argue that not all aspects of the case study of the Asbestos Hill mine can be directly compared to similar historical mines. Comparisons to past mines in Nunavut and the Northwest Territories are limited due to the Asbestos Hill mine's location in Québec and the Québec government, which has jurisdictional authority over these lands, as well as the differences in the history of Nunavik's Inuit. Finally, Nunavik's first mine extracted asbestos fibres in the midst of global and national inquiries and concerns about the minerals' negative health effects. As a result, I also touch upon the history of asbestos mining in Québec and include scholarship on the downturn of the asbestos industry.

Modernization

For Inuit of Nunavik, the twentieth century was a time of rapid social and economic changes in response to contact with *Qallunaat*. These changes, such as the introduction of Western technology and tools, religious teachings, and governmental policies, have all contributed to the modernization of Inuit. These developments were accellerated in the 1950s by

the federal government's modernization agenda. Rodon (2014), Vick-Westgate (2002), and Tester and Kulchyski (1994) all point to post-World War II as the most critical time for changes in traditional lifestyles and as the period with the largest acceleration of the modernization of Inuit. Throughout this section I will discuss the concept and process of modernization, the history of Nunavik since European contact and changes that the region's Inuit have experienced.

Today, the Merriam-Webster dictionary defines "modernization" as the process of making something or someone "modern and more suited to present styles or needs" (Modernize, n.d.). But what does it mean to be "modern"? What is "modernity"? The concept of "modernity" is complex and ambiguous, seen as a state of being that can be reached through processes of modernization. Harvey (1992) defines 'modernity' as "the development of rational forms of social organization and rational modes of thought" which promises a move away from irrationalities (p. 13). Similarly, Keeling and McDonald (2001) state that a "modern" society is one that "has become seized or pervaded by the idea of ceaseless development, progress, and dynamic change", in which rationality has taken control of the natural and human environment (p. 9). Through these discussions of "modernity", scholars have agreed that the state of modernity is both fleeting and contradictory, as it "pours us all into a maelstrom of perpetual disintegration and renewal" (Berman, 1982, p. 15). To be modern is to perpetually transform yourself and your environment, as modernity requires "a ruthless break with any or all preceding historical conditions (Harvey, 1992, p. 12). Keeling and McDonald (2001) add that "modernity" is a complex phenomenon that varies depending on location and time, ultimately creating "multiple modernities" instead of one single modern condition (p.10). This explanation is helpful in understanding the historical modernization processes in the Canadian Arctic, as Inuit were not

fully “modernized”, but rather a different modernity was developed as Western and Inuit views converged.

In Canada, modernization has been described as a “preordained, spread of Western capitalism and values from Euro-American countries” (Keeling and McDonald, 2001, p. 10). In the context of Nunavik, the pursuit of modernity has been defined by Dorais and Horowitz (2000) as “the more or less brutal inclusion of Inuit into contemporary mainstream society” (p. 25). These authors go on to say that this inclusion pushed Eurocentric beliefs and Western institutions (such as wage labour, money, religion, formal education, government, and mass media) onto Inuit, which did not reflect Inuit attitudes and values (Dorais and Horowitz, 2000). Ultimately, Inuit did not choose to pursue modernity, and instead, modernization processes were forced upon them by non-Inuit newcomers to Arctic Canada. Both Tester (2010) and Dorais and Horowitz (2000) note the resistance of Inuit to the civilizing mission and changes of the Canadian government throughout the era of modernization.

Prior to the arrival of fur trading and the Hudson’s Bay Company (HBC), the pace of change occurring within Nunavik was relatively slow. The arrival of the HBC brought Western technology, such as guns, needles, and metal tools, to the region’s Inuit through a fur trading system (Vick-Westgate, 2002). Rodon (2014) noted new products had little impact on the socioeconomic patterns of Inuit communities because fur trading still encouraged land based activities, thus leaving Inuit culture and social networks unaffected. Similarly, Pelletier (1992) noted that the arrival of the HBC was beneficial to Inuit, as the Company provided store credits to hunters and trappers experiencing difficulties collecting fur.

Before the end of the Second World War, both the federal and Québec governments paid little attention to northern Québec and its Inuit (Rodon, 2014; Vick-Westgate, 2002; Tester and

Kulchyski, 1994). In the 1920s and 1930s the federal government increased its role in the North when it was forced to provide relief services to Inuit affected by the Great Depression's slump of fur prices. This intervention proved costly, causing a dispute between the provincial and federal governments about who should be responsible of Inuit wellbeing (Rodon, 2014). This case was settled in the Supreme Court of Canada in 1939 in *Re: Eskimos*, which ruled that Inuit were under federal jurisdiction (Tester and Kulchyski, 1994). For Inuit of Nunavik, this verdict caused no changes, as their services would still be administered by the federal government.

During World War II, Inuit saw many transformations, as the war brought new developments and the federal government took on a modernization agenda for the North. Benoit (2004) points to the war as a catalyst for change, stating that Inuit traditional lives were turned upside-down with the introduction of wage labour at Fort Chimo's (Kuujjuaq) army base and the American army's airport, and the DEW line in Kuujjuarapik and Fort Chimo in 1955. At this same time, Inuit were also affected by outbreaks of tuberculosis, which led to medical evacuations that disrupted family life and structures as Inuit were sent south for months or years (Tester and Kulchyski, 1994; Bonesteel, 2006). While stationed in the Arctic, the American military took note of the Canadian government's *laissez faire* attitude towards its Inuit. International attention grew in the early 1950s due to the "Caribou Crisis, which led to widespread Inuit starvation, leading the federal government to relocate Inuit from the Nunavik community of Inukjuak to the High Arctic" (Tester and Kulchyski, 1994; Grant, 1991). In the end, backlash over the perceived government mistreatment and neglect of Inuit and the government's concern over Arctic sovereignty led Ottawa to increase its presence in the North through the development of programs which were meant to create permanent settlements and improve Inuit welfare (Bonesteel, 2006).

Inuit struggled to adapt to the immense social, cultural, and economic changes of the 1950s and ’60s, which proved to have “devastating and long-lasting impacts on people’s livelihoods, cultural vitality, self-esteem and both physical and mental health” (Czyzewski et al., 2014, p. 12). The federal government put in place social services in the 1940s and ’50s in response to distress caused by the tuberculosis epidemic and negative international attention. Canada entered a period of ‘welfarism’, whereby the fastest rates of modernization took place (Czyzewski et al., 2014). First, Inuit were identified with “disc” numbers to keep track of the population and for the payment of benefits (Tester and Kulchyski, 1994). This was followed by the introduction of governmental family allowances for Inuit with children and old age pensions. The federal government encouraged Inuit to adopt a sedentary lifestyle by building nursing stations, day schools, and ‘matchbox’ houses in Inuit settlements, including Salluit and Kangiqsujuaq (McMillan and Yellowhorn, 2004). To further ensure that Inuit settled into these communities, the government made access to social programs dependent on resettlement (Rodon, 2014). Starting in the 1960s, the federal government began sending young Nunavimmiut to residential school at Fort Churchill (Churchill, Manitoba) (Legacy Foundation, n.d.). During this time, dependence on welfare programs and store-bought food increased for Inuit whose sled dogs were killed by the RCMP to ensure community safety (CBC News, 2010). Condon et al. (1995) noted that this “rate of social, economic, and political change in the Canadian Arctic has had a profound influence upon the youngest cohort of Inuit adults, most of whom represent the first generation to be raised exclusively within the context of centralized communities” (p. 32).

As the costs of subsidy programmes increased, the federal government sought to lower its financial support to the Arctic through the introduction of wage labour. Yet, after the fur trade collapsed in 1950 there were few options to earn a working wage in Arctic Canada (Boulter,

2011). As a result, the Canadian government promoted the development of the North's natural resources to promote its modernization agenda while also lowering the cost of relief services (Keeling and Boulter, 2015). The first mineral exploitation projects were closely linked to this agenda through policies put forward by Louis St-Laurent's Liberal government (1948-1957) and John Diefenbaker's Progressive Conservative government (1957-1963). At the time, the federal government's goal was to develop natural resource extraction in the North and to "civilize" Inuit by providing them with the same opportunities and advantages as southern Canadians (Rodon and Lévesque, 2015). In the Northwest Territories (now Nunavut), the North Rankin Nickel mine, which operated between 1957 and 1962, was Arctic Canada's first industrial mining operation and at the time was hailed as a "grand experiment in Arctic modernization" (Boutet et al., 2015, p. 200). This first mine was promoted by the federal government as part of its interventionist policy that sought to shift Inuit away from land-based activities towards a self-sustaining settlement wage labour economy (Boutet et al., 2015). Similarly, the following is a partial list of the first few federal government supported mines in the North: Schefferville (1954-1982), Pine Point (1964-1988), Nanisivik (1976-2002), and Polaris (1982-2002).

For Inuit of northern Québec, the 1960s was a time of political change, as technological advances in travel and resource extraction turned the Québec government's eye to the North, hoping to diversify the northern economy through mineral development (Rodon, 2014). Mineral exploration companies actively explored the Canadian Arctic for large, desirable mineral deposits (Philie, 2013). This new economic opportunity led the Québec government to enter a jurisdictional tug-a-war with the Canadian government. This period was marked by a competition between both levels of government, as the provincial government began duplicating regional social programs and services by building schools, nursing stations, and houses (Benoit,

2004; Rodon, 2014). By 1965, the movement from nomadic, traditional livelihoods to permanent settlements was almost complete and Inuit struggled to maintain "hunting and trapping practices, language, artistic forms of expression, cosmologies, and collective social and economic organization" (Tester and Kulchyski, 1994, p. 44-45). The Arctic's modernization phase was in full swing, and the advent of mineral development was to be used to increase the rapidity of the government's modernization processes.

Resource Development in the Canadian Arctic

As the first mineral development operations in the Canadian north, the North's first mines were experimental in nature, operators were unsure of their long-term economic feasibility, environmental realities, and the ways in which the mines would affect local Indigenous peoples. Each new mine taught government and mine officials new lessons as they gathered pieces of information and learned through experience, without necessarily improving the future mine experiences in terms of Aboriginal mining experiences, as well as developing closure policies, and planning for environmental reclamation work after mine closure. Since the 1960s, mining has been the largest industry in the Canadian Arctic and the biggest non-governmental player in the northern economy (Taylor, 1985). Industrialization in the North, as explained by Zaslow (1971), was the product of external forces from the Canadian south which brought southern institutions to exploit northern resources. As such, mining has a long history in the North of introducing southern ideologies into the concept of "resource frontier", bringing with it cultural and political implications for Indigenous locals (Taylor, 1985 and Green, 2012).

In some ways, industrial mining in the Canadian north can be understood as a colonial force, a player in the modern development of northern Indigenous peoples that has disrupted and

displaced Indigenous subsistence economy (Keeling and Sandlos, 2009 and Boutet et al., 2015). However, Emilie Cameron (2011) has recently argued that Indigenous experiences in northern Canada should not simply be placed in binary categories of colonial versus Indigenous, mining versus communities, north versus south, or wage labour versus traditional economy, which scholars have often focused on. Keeling and Boulter (2015) also noted that Indigenous peoples' history with mining in the North is most often discussed in terms of Indigenous "dispossession, exclusion, marginalization, and experience of landscape degradation associated with (neo)colonial mineral development" (Keeling and Boulter, 2015, p. 37). That being said, recently, scholars such as Rodon and Lévesque (2015), Sandlos (2015), Cater (2013), and LeClerc and Keeling (2015) have begun to view Indigenous experiences with historical mining through a multi-faceted lens, discussing Aboriginal and Inuit mining encounters as complex relationships that evolve over time as situations change and memories are affected by social, health, and environmental legacies. This more current research moves away from the discourse of Indigenous mining experiences as a case of colonial forces acting upon northern Aboriginal and Inuit, choosing instead to analyze this history as Indigenous encounters with industrial development in the North, seeing Indigenous as actors with agency.

Many scholars have tended to analyze the early mining period in the North using a broad staples critique, emphasizing the negative socio-economic and environmental effects of historical mines and focusing on the lack of local economic benefits from mineral development (Boutet et al., 2015; Abel, 1993; Deprez, 1973; Notzke, 1994; Sandlos and Keeling, 2012). As such, the body of literature on past mines in northern Canada has largely centered on the aftermath of mining in the North, investigating and discussing the impacts of mine closure on local Indigenous peoples (Cater, 2013; Green, 2013; Rodon et al., 2013; Cater and Keeling, 2013) and

the environmental effects and legacies of these mining operations (LeClerc and Keeling, 2015; Boutet, 2015; Sandlos, 2015; Cater and Keeling, 2013). In the literature that examines past mines during their time of operation, scholars focus on the transition of Indigenous peoples from a subsistence lifestyle to wage labour, discussing the implications of industrial mining on the traditional economy of local Indigenous peoples during and after the mine's operation (Wenzel, 1983; Boutet et al., 2015; Tester et al., 2013; Rodon and Lévesque, 2015; Keeling and Sandlos, 2009). Other research that investigates the construction and operation phases of these past mines are in the form of case studies that revolve around the memories and experiences of Indigenous locals with former mineral development projects. Currently, scholars, such as Cater (2013), Green (2013) and Sandlos (2015) to name a few, have turned their attention towards this area of research, using oral history techniques to interview and record the experiences of Inuit and First Nations with these past mines, seeking to understand the ways in which local Indigenous people remember their time at and around these mines.

Much research continues to be conducted on historical mining in northern Canada, yet a few significant gaps exist in this literature that require more attention. In recent years, although researchers such as Bowes-Lyon et al., (2009), Gibson and Klinck (2005), Keeling and Sandlos (2013; 2009) and Cater and Keeling (2013) have started to tackle the implications of past northern mines on the physical health of Inuit and Aboriginal mine workers and nearby residents, this is still an area that needs to be more heavily investigated, especially considering the oftentimes toxic nature of abandoned mine sites. Similarly, Rodon and Lévesque (2015) and Rodon et al., (2014) have noted that very little research has examined the impact of mining on community well-being and family cohesion and consequently, the "social impacts are by far the least known, researched and theorised of all the impacts mineral activities have in the Canadian

North" (Rodon et al., 2014, p. 1). As a result, little is known of the social impacts, such as the effects of past mineral development on community wellbeing, family dynamics, and drug and alcohol abuse.

In terms of this specific case study into the history and experiences of Inuit with the Asbestos Hill mine (1972-1984), the largest gap in the literature, which this research aims to help fill, lies in the lack of research into historical mineral development in Nunavik (northern Québec). There is only a handful of existing social science-related academic and grey literature, most of which that is over ten years old, that directly examines the history and implications of past mineral exploration and development in Arctic Québec. This research is limited to articles by Poirier and Brooke (2000), Duhaime et al. (2005), and Carney (2015). Consequently, this master's thesis is the first social science research to be conducted on Nunavik's Asbestos Hill mine. Otherwise, there is a larger amount of literature that touches upon and briefly discusses historical mineral activity in Nunavik, such as the following: Rodon and Lévesque (2015), Rodon et al. (2013), Benoit (2004), Blais (2015), Philie (2013), and Lanari et al. (1999a,b; 2000a,b,c). That being said, the body of literature on current mineral development in the Nunavik region continues to grow as theses and academic articles, such as Blais (2015), Benoit (2004), Rodon et al. (2013), Rodon and Lévesque (2015), and Rodon and Schott (2013) are dedicated to researching the Raglan Nickel and Nunavik Nickel mines.

Exploration and Development

Mineral exploration in the Canadian north increased during the Second World War as worldwide demand for minerals soared. After the end of the war, minerals were necessary to rebuild the damaged cities of Europe, thus continuing the need for metals. At the same time,

exploration and extractive technologies improved and, combined with the surging international demand for metal, led to a surge in the exploration of minerals in the North (Coates, 2014). In the 1950s, more than twenty companies explored Nunavik for mineral deposits (Duhaime et al., 2005). Prior to 1976, the provincial and federal governments did not legally require mining companies to clean up their exploration sites. Consequently, the large majority of these exploration companies left behind their equipment, such as their heavy machinery, oil drums, and more.

Although mineral exploration projects have smaller impacts on the environment than mines, the effects of exploration are spread over vast areas and, assessed cumulatively, their impacts are significant. The northern mineral exploration boom in the 1940s left behind a trail of discarded equipment. Today, the northern regions of Canada are littered with thousands of these sites. In Nunavik alone, 584 abandoned mining exploration sites, dating between 1940 and 1975 have been discovered within the area's 500,000 km^2 (Duhaime et al., 2005). In some cases, past exploration in northern Québec continues to negatively affect nearby Inuit communities, wildlife, and hunters. Despite the large and wide-ranging spread of abandoned exploration sites, very little academic research has been conducted on their implications to the environment and local Indigenous populations. Instead, scholars have focused their efforts on the effects of abandoned mines in the North (Cater, 2013; Green, 2013; Bowes-Lyon et al., 2009; Gibson and Klinck, 2005; Keeling and Sandlos, 2013). However, a growing amount of grey literature exists on the subject, as non-profit organizations and governments begin to assess the accumulated effects of all exploratory activities. Among them is MiningWatch Canada, an organization which came out with a report in 2001 that delved into the issues with past and ongoing exploration, stating that these processes are "too often considered in isolation" (MiningWatch Canada, 2001). In

Nunavik, since the early 2000s, the Kativik Environmental Advisory Committee (KEAC) has been assessing the abandoned exploration sites in their jurisdiction and seeking to better understand the impacts of these sites and the most effective ways of remediating them. As such, the KEAC has funded, encouraged, and/or spearheaded research by Duhaime et al. (2005), Barrett and Lanari (2003), Brunelle (2003), Cameron et al. (1998), and Carney (2015).

Conversely, as noted above, many case studies have been conducted on the development of mines in the Canadian north. Each case study of an individual historical mine in the Arctic tells a unique story. Research conducted on the first mines in the Canadian north, established between 1957 to the early 1980s, reveal a variety of different Indigenous experiences and federal government involvement with these mine operations. Although no two historical mines are entirely comparable, aspects of these separate case studies come together to tell the story of the birth of northern resource development in the northernmost regions of Canada. Many of the same aspects are present in each case (to varying degrees), such as the role of the government, the impact to Indigenous peoples and to their traditional livelihoods and practices, and the effects of mine closure and legacies. Overall, these studies have shown that Indigenous work and community experiences with each past mine varies from mine to mine.

Research conducted on the North Rankin Nickel, Polaris, and Nanisivik mines in Nunavut, the Pine Point mine in the Northwest Territories, and the Schefferville mine in subarctic Québec have found that Indigenous experiences with these mines are heterogeneous in nature resulting in good and bad memories of the mine, with a variety of mining legacies. Despite the differences in mine location, Indigenous groups involved, and times of operation, these past mines share many commonalities. Each of these mining operations was encouraged by the federal government, which aided the mines either through financial contributions, tax

exemptions, or direct involvement. In the case of the first Arctic mine, the North Rankin Nickel mine, the mine company received widespread government support, as government officials actively recruited Inuit to relocate to the company-created town of Rankin Inlet (Boutet et al., 2015). Similarly, NWT's Pine Point mine company received $100 million in government subsidies and the Nanisivik mine company signed an agreement with the federal government stating that the mine would ensure that 60% of its staff was Inuit (Tester et al., 2013). In the case of the Nanisivik mine, "bringing Inuit into the labour force was *the* motive for State involvement" (Tester et al., 2013, p. 24). These mining operations were viewed by the government as a solution to the economic challenges facing local Indigenous and as a means of getting them off the "gratuitous indiscriminate relief" system (Boutet et al., 2015, p.211). At the same time, most of the mine companies encouraged the employment of local First Nations and Inuit as this "helped the company deal with the difficulty and expense of attracting and retaining southern mine worker to this remote location" (Boutet et al., 2015, p. 201). Mines hired Inuit, Innu, and Naskapi based on the fact that they were seen as a readily available and cheap labour force. Some case studies found that the federal government actively recruited First Nations and Inuit, paid for their travel costs, and even provided mine work training. Overall, these mining ventures were seen as a path to modernisation for Inuit and Aboriginals.

Operation

The advent of mining in northern Canada brought many changes to the region's Inuit and Aboriginal inhabitants, the most noted one being the mine's introduction of large scale wage labour. Research has noted that these mines altered the traditional economy of Inuit and Aboriginal peoples working at or living near the mine operation (Wenzel, 1983; Keeling and Boulter, 2015; Sandlos, 2015; LeClerc and Keeling, 2015; and Green, 2013). However, Boutet et

al. (2015) ultimately concluded that mining developments of the 1950s and ’60s in northern Canada did not entirely shift Aboriginal communities away from subsistence activities towards wage labour. Furthermore, case studies of the Pine Point, Schefferville, Rankin Inlet, and Polaris mines found that “mining and wildlife harvesting at times coexisted in a mutually supporting relationship”, giving rise to a mixed economy, whereby hunting provided “a safety net during downturns in metal prices and wage labour an alternative to subsistence when wildlife was scarce or fur prices low” (Boutet et al., 2015, p. 199; Green, 2013; Natcher, 2009). In some cases, mine companies adjusted work schedules for Indigenous employees to allow time for the pursuit of subsistence activities in the hopes of reducing the rates of Indigenous employees going AWOL (absent without leave) (Boutet et al., 2015 and Green, 2013). Nonetheless, case studies discovered a trend among Inuit and Aboriginal workers, where Indigenous miners would remain employed at the mine only long enough to save money to purchase equipment for subsistence activities, such as hunting, fishing, and trapping (Rodon and Lévesque, 2015 and Tester et al., 2013). Although government officials promoted mining as a means of modernizing northern Indigenous populations, they also recognized the cyclical nature of mineral development, which made the transition to wage labour unsustainable. Oftentimes, it was when rumours would surface of an impending closure that government officials understood the importance of subsistence activities and a mixed economy, which kept Inuit and Aboriginal workers afloat during downturns in the mining industry (Boutet et al., 2015, p. 199; 201). Ultimately, works by Boutet (2015), Green (2013), and Keeling and Sandlos (2012) criticized the government’s modernization agenda and examined the role that these past northern mines played in the modernization of Inuit and Aboriginal peoples.

Research into the experiences of former Indigenous workers at these past mines show that these employees remember their time at the mine fondly, and often discuss their disappointment in seeing the mine shut its doors for good. Oral history studies of past mines concluded that Indigenous mining experiences are complex. Interviewees often remember their time at the mine and/or in the company town nostalgically, remembering the good times working and/or living nearby, yet at the same time these memories are being shaped by current interactions with the mine site and its multitude of ongoing legacies (Sandlos, 2015; Keeling and Boulter, 2015; Boutet et al., 2015; Rodon and Lévesque, 2015 and Cater, 2013). Keeling and Boulter (2015) noted that in the case of Rankin Inlet, some of the elders' memories of the North Rankin Nickel mine "seem to have been filtered, to some extent, through the lens of personal and collective nostalgia, and the sharp edges of social struggle and economic hardship dulled somewhat by the passage of time" (Keeling and Boulter, 2015, p. 52). For example, a case study by Sandlos (2015) of the Pine Point mine found that the main theme that "came through loud and clear in the interviews, even among critics of the mine's environmental and economic legacies, [was] the fond memories for the town of Pine Point" (Sandlos, 2015, p. 150).

Closure

Eventually, all mines shut down, oftentimes causing big changes to the lives of local residents. In isolated northern communities, where local economies rely on employment and royalties from resource extractive industries, mine closure has often had devastating effects (Rodon and Lévesque, 2015; Cater and Keeling, 2013; Damas, 2002; Tester, 1994; Gagnon, 1992; MMSD, 2002b; Bridge, 2004; Keenan et al., 2007). Historically, as an economic driver in northern regions, mining has provided some wage labour opportunities to small numbers of nearby Indigenous peoples, affecting Indigenous ways of life. As a result, starting in the 1950s,

the loss of a mine would disrupt the new lifestyle of Inuit and Aboriginal workers and locals, forcing them to adapt to the region's loss. This finding is especially notable for past mines as the majority of these mine operations, such as the North Rankin Nickel, Pine Point, Schefferville, Giant, and Polaris mines, required workers to live in a community adjacent to the mine site, many of which were built by the mine companies themselves (Boutet et al., 2015; Sandlos, 2015; Green, 2013). Once these mines were closed the communities and Indigenous people were left to fend for themselves and deal with the loss of the main employer. For example, interviewees found the closure of the Nanisivik mine difficult as Inuit workers and their families because they had gotten used to a certain way of living, with a pool, movie theatre, regular activities for children and adults. The mine's closure caused much poverty, and forced many Inuit to return to their home communities, where some adult Inuit became alcoholics (Rodon et al., 2013, p. 108).

Ultimately, Abele (2009) found that mine development contributed little to improving the conditions of life in northern Indigenous communities. Instead, local Indigenous are left with profound changes to local peoples and landscapes that often continue long after industrial extraction operations end. Studies have shown that historical mineral developments leave lasting environmental and socio-cultural legacies that may cause problems to northern residents (LeClerc and Keeling, 2015; MMSD, 2002; Keeling and Sandlos, 2013 and 2012; Czyzewski et al., 2014; Cater and Keeling, 2013; Gibson and Klinck, 2005; Angell and Parkins, 2011). Overall, research has found that the benefits of past mines mostly do not persist after the mine's closure, and instead leave communities having to adapt to the loss of employment and deal with the environmental mess, toxic legacies, impacts to and/or impacts to wildlife and subsistence activities (Boutet, 2015; Sandlos, 2015; Bowes-Lyon et al., 2009; Keeling and Sandlos, 2013, 2012, 2009). A study by Bowes-Lyon et al. (2009) concluded that after the closure of mines in

northern Canada, the mines ultimately "did not contribute to the long-term sustainable development of the region" (Bowes-Lyon et al., 2009, p. 372).

On the other hand, mines that were operated as fly-in fly-out (FI/FO) operations left local Indigenous peoples minimally affected by the mine's closure, with the impacts of closure being dispersed rather than concentrated (Storey and Shrimpton, 1988). Fly-in fly-out is a form of commuting employment in which workers are flown or driven to the work site where they are fed and provided temporary accommodations and spend a fixed number of days at the work site and a fixed number of days at home (Hobart, 1979). While single industry communities, such as Pine Point, Rankin Inlet, Schefferville, often struggle or do not survive the loss of their resource base, FI/FO operations avoid establishing permanent settlements that would become ghost towns once the mine closed (Shrimpton, 2010, p. 1171-1172). However, FI/FO mining operations beginning in the 1980s, such as the Polaris mine, hired fewer local Indigenous workers than non FI/FO operations, choosing instead to fly southern workers into the mine site (Storey and Shrimpton, 1988; Green, 2013 and Bowes-Lyon et al., 2009). In the past, as most economic benefits from mining has stemmed from direct employment of local Indigenous peoples, low Indigenous employment rates of FI/FO mines severely limited the benefits incurred by local Aboriginal and Inuit (Boutet et al., 2015 and Storey and Shrimpton, 1988, p. 129). Furthermore, geographers Keith Storey and Mark Shrimpton (2010) have argued that the nature of fly-in mines make it so that the wealth accumulated by the mine goes back to the South rather than being distributed in the North, and that after the mine's closure the North's economic benefits disappear.

The environmental impacts and legacies of these mines constitute the largest impacts of mine closures. Abandoned mine sites most often require expensive and very lengthy remediation

and reclamation to be conducted, with physical signs of past mineral development remaining for decades or longer. This is especially the case in the North, as northern environments are subject to slow natural revegetation, even under ideal conditions (Marshall, 1982; Deshaies et al., 2009). The state of certain closed mine sites in the North have such significant negative environmental and toxic legacies that Sandlos and Keeling (2013) have come to think of these abandoned mines as "zombie" sites, past mine "sites that continue to exert some sort of malevolent during afterlife" and that require constant care and maintenance (Sandlos and Keeling, 2013, p.2). One example is that of the Giant Mine in Yellowknife, Northwest Territories, which left behind thousands of tons of toxic arsenic trioxide that requires continuous maintenance and work for an unlimited amount of time. In this case, the governments of Canada and the Northwest Territories have proposed a remediation plan, which would see the arsenic stored in underground chambers to be kept in layers of perpetually frozen permafrost (Sandlos and Keeling, 2013, p. 2). For Giant Mine, and many other orphaned and abandoned northern mines, remediation and reclamation work costs millions of dollars to undertake creating cases of jurisdictional "hot potatoes," whereby mine companies abandon the site, leaving the federal and provincial/territorial governments to fight over who picks up the cheque (Dance, 2015, p. 41 and Sandlos and Keeling, 2013).

Although not all abandoned mines are toxic, many of these industrial mine sites have negatively impacted the environment by altering the landscape, affecting wildlife, and leaving behind reminders of past mining activities (Ballard and Banks, 2003; Cater, 2013; LeClerc and Keeling, 2015; Cater and Keeling, 2013; Poirier and Brooke, 2000; MMSD, 2002). Research has emphasized that for Indigenous peoples, whose livelihoods and cultural practices are linked to the natural environment and wildlife, long-lasting environmental impacts are especially

problematic and potentially devastating (Angell and Parkins, 2011; Keeling and Sandlos, 2009; Kirsch, 2006; Poirier and Brooke, 2000). Much of the social science literature on post-mining legacies focused on the ways in which Indigenous locals interact and deal with abandoned mine sites (Cater, 2013; LeClerc and Keeling, 2015; Green, 2012; Poirier and Brooke, 2000). For example, case studies by Cater (2013), LeClerc and Keeling (2015), Sandlos (2015), and Boutet et al. (2015) of the North Rankin Nickel, Schefferville, and Pine Point mines discuss the complex relationship Indigenous peoples have with abandoned mine sites, arguing that these orphaned mines often act as reminders of past wrongdoings by government and industry. In the case of the Schefferville mine, the Innu and Naskapi, Boutet et al. (2015) states that "the post-mining environment acts as an incessant material reminder of three decades of intensive land and resource exploitation [that] generated minimal returns for the local population" (Boutet et al., 2015, p.181-182). Similarly, Green (2012) notes that "northern mining towns that are faced with dire environmental impacts have no choice but to remember industry" (Green, 2012, p. 90). Nevertheless, Inuit communities are also able to adapt to mining and its aftermath, sometimes incorporating their history of mining into their community identity. For example, Cater and Keeling (2013) found that the community of Rankin Inlet, which was created as a result of the North Rankin Nickel mine in the 1950s, has integrated its mining history into its identity, proudly discussing its unique old mine structures, treating them as cultural items (Cater and Keeling, 2013).

Québec and Asbestos Mining

Mineral development in Québec has many unique characteristics compared to the northern territories of Canada. Although aspects of mine operations in Nunavut (formerly part of

the Northwest Territories) share numerous similarities with the experience of Inuit in Nunavik, differences exist in the political status and governance of Nunavik because it is part of the province of Québec. In Nunavik, the federal government plays a secondary role, leaving most of the decision-making power to the provincial government (Rodon and Grey, 2009). Furthermore, the province of Québec has a long history of mining asbestos, with the government providing much support to the asbestos industry. Similarly to the Northwest Territories (including Nunavut) and to other "provincial Norths", Arctic Québec has historically been a hinterland exploited for the benefit of southern interests (Keeling, 2010; Rodon, 2014). However, large-scale mineral extraction in Nunavik began much later and fewer mines were established in this northern territory than in the Northwest Territories and Nunavut (Rodon et al., 2013; Rodon and Lévesque, 2015). This can in part be attributed to the Québec government largely ignoring Inuit living in Nunavik until the early 1960s when the provincial government became aware of the territory's potential for natural resource extraction, as well as the remoteness of the territory and fluctuating worldwide markets (Rodon, 2014; Hamelin, 2005). At the same time, the 1960s and '70s proved to be a busy time for the government of Québec, as the province was planning the construction of the James Bay hydroelectric dam and negotiating the complex James Bay and Northern Québec Agreement of 1975. These circumstances resulted in the slow development of mineral extraction projects in Arctic Québec.

After the Second World War, northern Canada experienced a heavy phase of mineral exploration resulting in the discovery of many significant deposits of minerals (Duhaime et al., 2006). The NWT (including Nunavut) was the first to welcome the development of mining due to the federal government's proactive role in encouraging and supporting mine companies to come to the North (Cater, 2013; Rodon and Lévesque, 2015). On the other hand, Inuit of

Québec, largely unaware of the presence of the Québec government, only noticed that they were part of the province in 1963 when the minister of natural resources, René Levesque, created La Direction Générale du Nouveau-Québec (New Québec Branch), a new branch tasked with developing and occupying Québec's Arctic territory (Rodon, 2014). By the time the government of Québec began inviting mine companies to extract minerals in Nunavik, the federal government had already been supporting and advocating for mining in the Northwest Territories (including Nunavut at the time) since the 1950s (Cater, 2013; Rodon, 2014). While the NWT (including Nunavut) was being mined, the government of Québec was involved in both hydroelectric and mineral development, with many important mineral deposits discovered in the Ungava Trough (later to be mined at the Asbestos Hill, Raglan and Nunavik Nickel mines). In the 1960s, as the province was unveiling its plan for hydroelectric development in the James Bay area on Cree territory (with a small section on Inuit land), the construction of the Asbestos Hill mine began (Musée minéralogique, 2011).

The James Bay and Northern Québec Agreement was born out of the Québec governments' lack of consultation with Cree and Inuit over the James Bay hydroelectric project. In April 1971, when Québec premier Robert Bourassa announced the government's plans for the James Bay project, nicknamed "the project of the century", the Cree of that region mobilized and challenged the planned project (Rodon, 2014; Desbiens, 2014). After a battle in court, the Bourassa government realized that the hydroelectric project would not move forward without the negotiation of a treaty. As a result, the James Bay and Northern Québec Agreement (JBNQA) was signed in 1975 after two short years of negotiations, and became the first modern treaty in Canada (Rodon, 2014). For Inuit and Cree, this agreement gave them limited administrative autonomy, exchanging the extinction of Aboriginal rights for financial compensation, with three

categories of land created: category I land (property rights on 1.4% of the territory); category II land (exclusive hunting, fishing, and trapping rights on 15% of the territory); category III land (preferential hunting, fishing, and trapping (Rodon, 2014, p.95-96). The signing of the JBNQA also transformed the ways in which resource development takes place in Nunavik. Prior to the Agreement (this includes the time that the Asbestos Hill mine began operating), mineral extraction projects were planned as if the northern region was "terra nullius", however, the land claims settlements brought specific environmental regimes, which set up regional governments and administrations, thus giving more decision-making power to Inuit of Nunavik and changing mineral development processes in Nunavik (Rodon and Lévesque, 2015 and Rodon, 2010).

Another aspect that is unique to mineral development in Québec is the provincial government's lengthy history of supporting the asbestos mining industry. For the purposes of this thesis on the Asbestos Hill mine, the history and literature surrounding asbestos mining, as well as the health concerns and controversy globally and within Québec are crucial to the understanding of Inuit experiences with this past mine. Although much research has been conducted on the health impacts of asbestos on humans and case studies of past asbestos mines in Québec exist, little has been written about the Québec government's direct link to the asbestos industry and knowledge of health issues. This may be due to a lack of documentation and archival sources, as well as the silence of government officials on the matter, which makes research challenging. At the same time, the very recent end, in 2011, of asbestos mining in Québec makes the subject more difficult to broach.

In Québec, where large deposits of asbestos exist, there is a long history of asbestos extraction, especially at the Jeffrey Mine and in the Thetford Mines region where development of this mineral began in the 1870s (DENR, 2013; Van Horssen, 2010). Asbestos is a mineral that

takes the shape of short or long white fibres that can be easily pulled apart. It has been most often used in building insulation, fireproof clothing, and durable vehicle parts because of its resistance to fire, rust, and decay (Van Horssen, 2016). It was highly sought-after and widely used, particularly by the construction and car manufacturing industries, until knowledge of the negative health impacts of exposure to asbestos spread internationally. From the very birth of the asbestos industry, the government of Québec taxed the industry, ensuring that the province profited from the development of this resource (DENR, 2013). At the same time, the asbestos mines provided jobs for many Quebecers, especially for those in rural areas closest to the mines. Prior to the industry's collapse, the province of Québec was home to many prosperous industrial mines and had the world's largest asbestos mine, the Jeffrey Mine, located near Thetford Mines (Figure 2) (Van Horssen, 2010; DENR, 2013). In the 1930s, the resource was so valuable and Québec produced so much asbestos that the American military made plans to enter Québec and defend the mines if Germany took control of Canada during the Second World War (DENR, 2013). The government and the people of Québec relied heavily on the asbestos industry to provide employment and to maintain a healthy regional economy.

The Québec asbestos industry was run by a few long-established and large companies, which controlled a significant share of the worldwide asbestos market. As such, they had a lot of political power within the province and actively delayed asbestos research and regulations. Among these companies was the *Société Asbestos Limitée*, a company formed in 1909 that owned many lucrative asbestos mines within Québec (CART, 2009). This company owned the Asbestos Hill mine until 1978 when the Québec Government purchased the majority of the company's shares, thus taking control of the *Société Asbestos Limitée* (Musée minéralogique, 2011; CART, 2009). This purchase shows the provincial governments' unwavering support of

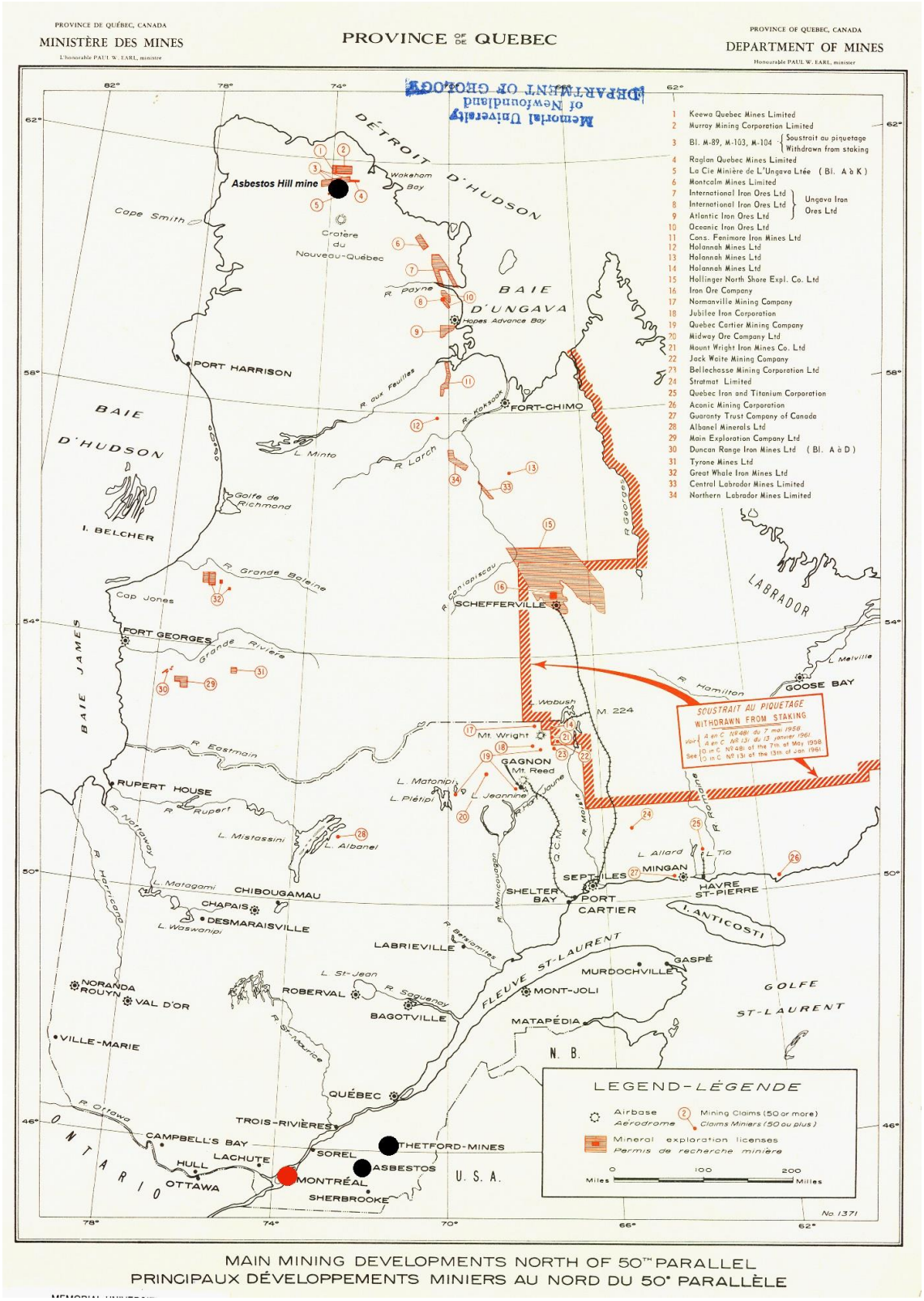

Figure 2: *Mining developments in Québec in the 1960s. Highlights in black show the locations of the largest asbestos mines in the province during the operation of the Asbestos Hill mine (Credit: Government of Québec, 1960).*

asbestos industry, an industry that helped drive the province's economy and employed thousands of Québecers (Marotte, 2012). This support was to continue despite the eventual knowledge of the negative health implications of asbestos and the backlash from the world's developed countries.

In the 1970s, after decades of research had been conducted, asbestos finally began to be recognized as a carcinogenic mineral, with France classifying asbestos as a carcinogenic in 1977 (Musée minéralogique, 2011; Van Horssen, 2010). By this time it had been proven to cause a number of negative health impacts to people working in close proximity to asbestos over a prolonged period of time and breathing in the fibres. The three main diseases of asbestos are: asbestosis, mesothelioma (cancer specifically caused by asbestos), and lung cancer. Asbestosis is caused by repeated inhalation of asbestos fibres, which build up in lungs, keeping them from expanding and contracting (Van Horssen, 2016). This particular ailment will present itself as a cough and will ultimately lead to death by suffocation.

Ultimately, the death of the Canadian asbestos industry resulted from anti-asbestos campaigning, which helped spread the knowledge of asbestos health issues to developed countries, such as France, the United Kingdom, and the United States (Van Horssen, 2010). As these countries were the largest importers of Québec asbestos, the loss of these customers proved devastating to the Canadian asbestos industry (Musée minéralogique, 2011). As the largest importer of Canadian asbestos, the United States purchased 78 percent of Canada's supply in 1950 (Virta, 2006). By 1966, Canada's asbestos satisfied 40 percent of the world's chrysotile asbestos demand (MC, 2016). Consequently, between 1979 and 1983, the world consumption of asbestos decreased by 26% (Musée minéralogique, 2011). During this time, this worldwide drop in asbestos sales especially hurt the province of Québec, as it experienced a drop of 45% in

asbestos exports because its most important trading partners were the first to stop purchasing asbestos (Musée minéralogique, 2011). Since the 1980s, worldwide asbestos sales have continued to decrease. This steady slump led to an intervention by the federal and Québec governments which have kept the Canadian asbestos industry alive by financially and politically supporting mining companies (Ruff, 2012). By the 2000s, many developed countries had put in place full or partial bans of the use of asbestos (MC, 2016). Recently, the last two Canadian asbestos mines were forced to close their doors in 2011 after the Québec Government ceased its funding. Today, the asbestos industry in Québec is dead (Ruff, 2012).

Conclusion

A deeper knowledge of past events in northern Québec contributes to our understanding of the effects of the Asbestos Hill mine, as it allows us to gain a better grasp of Inuit's ability to cope and adapt to new developments. The variation in case study results show that the diversity of Indigenous experiences with mining is dependent on certain factors, such as government involvement, time period and type of mining operation (commuting or company town), and proximity to Indigenous communities. Consequently, although other case studies of mines in Nunavut and the Northwest Territories around the same period as the Asbestos Hill mine helps us understand this mine and the experiences of Indigenous communities nearby, no two mines are entirely comparable one to the other.

CHAPTER 3

LIFE AND WORK AT THE MINE

Introduction

As Nunavik's first mine, the Asbestos Hill mine was the first large-scale wage labour experience for the region's Inuit. The development and operation of this mine came at a time when Nunavimmiut were undergoing many transformative changes, such as the movement to permanent settlements, the introduction of government programs, and formal education, to name a few. The experiences of Inuit workers at the Asbestos Hill mine are unique in many ways, as this was the first mine established in Nunavik and the second in the Canadian Arctic during a period when there were few governmental regulations or policies and no formal agreements in place to dictate mine life, benefits to local Inuit, or environmental clean-up and mine closure. This chapter discusses the operation of the Asbestos Hill mine (1972-1984), analyzing Inuit experiences with the mine, both as employees and nearby residents. The following pages examine how Inuit mine workers from Salluit and Kangiqsujuaq experienced life and work at Asbestos Hill and how they remember the mine. Individual memories of the mine come together in telling the story of the past Inuit miners. The accounts documented in this chapter illustrate the experience of Inuit working as a cultural and linguistic minority in the resource development sector for the first time. Interviews with former Inuit Asbestos Hill mine workers in Salluit and Kangiqsujuaq told similar stories of Inuit workers' time at the mine as a new, exciting, one-of-a-kind experience, with these past miners recalling many happy times at the mine, working alongside *Qallunaat* for the first time.

Mineral Exploration

Active mineral exploration of Nunavik began in the early 20th century as non-Inuit began exploring the North for minerals (primarily gold). However, it was not until after the Second World War, in the 1950s and '60s, that northern Canada experienced a surge in mineral prospecting and extraction. The increase was largely motivated by the post-war economic boom, which made it profitable to mine in the remote north and was given a further push by the Government of Canada, which strongly encouraged northern mineral development in the hopes of providing northern residents with the same opportunities and advantages as those in southern Canada (Keeling and Sandlos, 2009; Rodon et. al., 2013). Mining in the North was, and continues to be, a difficult venture due to the northern challenges of isolation and remoteness, as transportation expenses are much higher due to the large distance from the mine to the mineral processing plants and southern markets. Furthermore, cold conditions and poor weather shorten the time of mineral extraction and its shipping season.

From the very beginning of mineral exploration in Nunavik, the region's Inuit have played a role in mining activities and development of the land in northern Québec. During the exploration phase of the 1950s and 1960s, Inuit were hired by prospectors as guides and labourers, and paid to transport prospectors and equipment by dog team (Carney, 2015). Inuit involvement in the region's mining activities key for the Government of Québec, which sought to integrate Inuit into the wage labour economy and viewed Inuit as a readily available labour force (Pape, 1964).

In 1957, geologist Murray Watts discovered the asbestos deposits at Purtuniq, which would become the site of the Asbestos Hill mine (Musée minéralogique, 2011). Between 1959 and 1962, drilling was conducted at Purtuniq to confirm the richness of the deposit, which was estimated at over 16 million tonnes of asbestos fibres (Musée minéralogique, 2011). In the early

1960s, the Société Asbestos Limitée, the company that owned asbestos mines in southern Québec, and other asbestos producers anticipated the asbestos market to expand in the 1970s, with a potential shortage expected to grow worldwide demand (The Ottawa Citizen, 1966). This anticipated market growth led the Société Asbestos Limitée in 1964 to purchase the Nunavik asbestos property from Murray Watt's mineral exploration company, Murray Mining (The Ottawa Citizen, 1966). That same year, the Société Asbestos Limitée began construction on the Asbestos Hill mine site.

Between 1964 and 1972, an average of two hundred workers, forty of whom were Inuit, excavated the mine site and built access roads, bunkhouses, warehouses, an airstrip, and the port at Deception Bay (The Ottawa Citizen, 1966). Inuit hired during the mine's construction phase were mostly Inuit from the nearby community of Salluit (then known as Sugluk) and former North Rankin Nickel mine employees from Nunavut (Easton, 1963). Inuit were actively recruited during this phase because the construction of the Asbestos Hill mine was not a long-distance commuting operation, but rather workers were flown (or brought in by dog-team) to the construction site in March and would return to their homes in October (Grant, 1970). This work schedule attracted more Inuit than non-Inuit southerners, leading the Société Asbestos Limitée to "hire as many Eskimos as possible", going as far as paying to transport Inuit from Rankin Inlet (Nunavut) to work on the mine's construction (Grant, 1970; Kennedy, 1963). An estimated 10 to 20 former Inuit North Rankin Nickel Mine (NRNM) workers from Nunavut were employed during the construction of the Asbestos Hill mine (Easton, 1963; Stevenson, 1963). After the closure of NRNM in 1962, these former Inuit miners were recruited by the Société Asbestos Limitée, as encouraged by the federal government and the former manager of the NRNM, to work on the construction of the Asbestos Hill mine to provide mine employment for these

Nunavut Inuit and to use these skilled workers to train Nunavik Inuit to operate mine equipment (Easton, 1963). In 1962, the North Rankin Nickel mine had shut down leaving its Inuit mine workers, who had relocated to the company-built town of Rankin Inlet and settled into a wage-labour lifestyle, without a means of employment (Keeling and Boulter, 2015). As a result, the federal government initiated the transfer of former Inuit NRNM employees to Nunavik to mitigate the impacts of the closure of the North Rankin Nickel mine by providing other mining employment and income (Keeling and Boulter, 2015).

After a brief period of inactivity between 1967 and 1970 due to a re-evaluation of the building costs, the construction of the Asbestos Hill mine was finalized in 1972. That same year, the mine began operating. After much deliberation by the Société Asbestos Limitée's management team, it was decided that the mine would be run as a fly-in/fly-out operation, with southern workers being flown to the mine to work three-month rotations, followed by a two-week vacation (The Ottawa Citizen, 1966; Kennedy, 1963; Musée minéralogique, 2011). This long-distance commuting and rotational work schedule was chosen by the Société Asbestos Limitée as a means of attracting southern mine workers who would otherwise have found it difficult to relocate to this remote Arctic location due to its isolation and harsh climate (Musée minéralogique, 2011). As a result, Nordair, a Québec-based regional airline, flew workers and/or supplies from Montreal directly to the Asbestos Hill mine site a few times a week (Musée minéralogique, 2011; Crawford, 2009).

The Mine Site

In the end, the Société Asbestos Limitée constructed an open-pit asbestos mine that was 2 000 feet long and 15 feet wide with the potential to be up to 780 feet deep (figure 3). The

average annual production was 1 550 000 tonnes of asbestos fibre, which was partially processed on-site, then shipped to the company's finishing mill in Nordenham, Germany (Musée minéralogique, 2011). The on-site mill had a processing capacity of 6 600 tonnes of ore per day, which was then transported 68 kilometers by truck to a warehouse next to the port at Deception Bay. Measuring 760 feet long, 305 feet wide, with a height of 155 feet, this holding facility held the Guinness World Record for the largest warehouse in the world (figures 4 and 5) (Musée minéralogique, 2011). The total area of the warehouse was equivalent to five football fields and could hold up to 225 000 tonnes of asbestos fibre. This facility needed to be extremely large due to the mine's remote nature and the region's harsh climate, which dramatically shortened the shipping season. Mined and semi-processed fibre had to be stored for up to eight months before it was shipped to the mill in Germany.

Figure 3: *The open-pit Asbestos Hill mine in 1975 (Credit: Louis Mercier Fonds/Avataq Cultural Institute).*

Figure 4: *The Société Asbestos Limitée's port at Deception Bay. Pictured is the holding facility (left) and a ship being loaded with asbestos to be shipped to Nordenham, Germany (Credit: Peter Johnston, 2013).*

Figure 5: *Inside the asbestos holding facility (Credit: Peter Johnston, 2013).*

Starting at the Mine

At any one time, it is estimated that out of 400 to 500 Purtuniq mine workers, 25 to 30 were Inuit (Musée minéralogique, 2011). Both the federal government and the Société Asbestos

Limitée sought to recruit Inuit to work at the Asbestos Hill mine. Federal government workers recruited young Inuit men from all communities in Nunavik as part of the government's modernization agenda and as a means of minimizing welfare costs and increasing the Inuit's financial independence. The Société Asbestos Limitée's recruitment strategy specifically targeted single Inuit men between the ages of 17 and 25 in order to reduce the likelihood of Inuit squatters around the mine site (Musée minéralogique, 2011). The company was concerned that hiring older Inuit with families would encourage their families to relocate closer to site, affecting the mine's operations (Musée minéralogique, 2011). This strategy also helped the company retain Inuit workers for longer periods of time because unmarried men without children had fewer incentives to return home.

Most of the former Inuit Asbestos Hill mine workers I interviewed began work at the mine after just having returned from residential school in Churchill, Manitoba or vocational schools. Salluit resident and former mine worker, Noah Kumakuluk, recalled going to work at the mine around 1975:

> I think I was around twenty [years old when I started working at the mine]. When I was younger I was just going to school, like I was going to Churchill. [When I came back] there was a job available that I heard and I applied for it. [That's] when I got the job.
>
> - Noah Kumakuluk interview, June 2015

Inuit hired after spending time in residential schools had an easier time adapting to work at the mine because they were able to speak English and were thus able to communicate with management and most other mine workers. By gaining a linguistic advantage through formal education, these Inuit had a smoother transition into mining, which is another important agent of

change. An understanding of English connected both of these modernization processes, drawing Inuit further into assimilative environments.

Although most Inuit were recruited to work at Purtuniq by federal government workers, others heard about the jobs available at the mine through relatives or friends already employed by the mine. This was how Salluit's Jimmy Angutigirk came to work at Asbestos Hill: "I got interested 'cause all my friends started to go work up there and they convinced me to follow them and I did. I was young that time and I was eager to go there" (Jimmy Angutigirk interview, June 2015). Similarly, past mine worker Tommy Saviadjuk remembers his two brothers talking to him about working at the mine: "I envied the guys who went there before me, so I want to try it out as well" (Tommy Saviadjuk interview, June 2015). Many interviewees stated that jobs at the Asbestos Hill mine were desired due to the independence gained from earning money, as well as the increased ability to help financially support their families.

Inuit Work Experience

The Asbestos Hill mine was Canada's first fly-in fly-out operation, with a lengthy and difficult rotation schedule (Storey and Shrimpton, 1988). The majority of the mine's workforce was employed at the mine site and at Deception Bay between February to the end of November, with only 30 employees working in December and January (Tariff Board of Canada, 1982). All workers signed a contract with the Société Asbestos Limitée, which stated that they would work for one full term (February to the end of November). During the mine's operation, workers worked for three months straight, seven days a week, between 10 to 12 hours a day, followed by a two-week unpaid vacation when they were sent home (Tariff Board of Canada, 1982). Those who wished could work up to six to nine months at a time. For vacations, Inuit workers were sent

home by snowmobile in the winter and by Peterhead boat in the late summer and early fall, and non-Inuit workers were flown to Montreal in a Nordair plane and then commuted home from there (Noah Kumakuluk interview, June 2015 and Tariff Board of Canada, 1982). In perfect weather conditions, travel from Salluit or Kangiqsujuaq to Asbestos Hill took between four to six hours by snowmobile. No summer road connected the mine and communities, making it impossible for Inuit to commute daily from their homes. Consequently, once hired, Inuit were brought to the Asbestos Hill mine by snowmobile in the winter and spring (Figure 6) and by canoe or Peterhead boat via Deception Bay in the summer and early fall (Figure 7). The Société Asbestos Limitée contracted Inuit of Salluit and Kangiqsujuaq to shuttle Inuit workers to and from the mine every time a worker finished his term or quit work. The Société Asbestos Limitée chose this long distance commuting, fly-in fly-out, approach due to the mine's isolated northern location, which made yearly travel to and from the mine from southern Québec only possible by plane (Musée minéralogique, 2011). The long rotation schedule lowered costs, as workers could only travel home at the end of their three-month contract.

Figure 6: *Inuit mine workers travelling by snowmobile to the Asbestos Hill mine from Kangiqsujuaq in 1978 (Credit: Louis Mercier Fonds/Avataq Cultural Institute).*

Figure 7: *Inuit mine workers leaving the Asbestos Hill mine (Deception Bay port) by boat to travel to Salluit Asbestos Hill mine in 1978 (Credit: Gérard Grégoire, Centre d'archives de la Région de Thetford, Musée minéralogique et minier de Thetford mines Collection).*

The mine's schedule was difficult for its workers, all of whom spent lengthy periods away from friends and family, with limited contact with home through a radio system in the mine's later years. Most former Inuit mine workers interviewed stated that although the work schedule was long, they adjusted to it quickly as they were young and happy to be keeping busy. When asked what it was like to be working such long rotations, former Asbestos Hill mine worker, Noah Kumakuluk answered:

> [It] was a good job. [At] the time I was not used to getting up at six o'clock in the morning, but [I] got used to it, so it was okay […] 11 hours a day […] I thought that was a long work day because over here [in Salluit] we work only 8 hours a day and 11 hours a day over there, yeah, it was kind of tiring. After supper you are tired and you want to sleep, but we kind of got used to that because after 3 month you get used to it.
>
> - Noah Kumakuluk interview, June 2015

Other interviewees had similar memories of the long work hours, stating: "[We] did good, you know. We got up on time, 11 hours a day, 7 days a week, 3 months, 6 months, no problem at that time" (Putulik Papigatuk interview, June 2015). Young Inuit workers without spouses or children found the work schedule easy to handle. This was the case for Willie Keatainak, who stated: "I'm sure [the work schedule] was hard on people who were away from their families, but being young guys, being free, so it didn't really bother some of us, like myself" (Willie Keatainak interview, May 2015). Keatainak further discussed his experience working long stretches of time, explaining:

> Yeah, [it was] a lot of time. That was the consent of an employee. If he wanted to work for six months he was allowed to work for six months instead of three. But at one time, myself, being single and not worrying about too much of [anyone], I was basically a young guy who decided that I could probably work a whole year, which I did. The bottom line was, I had something to do. I had work, and I worked there one year, non-stop, one time. I was probably one of the only ones […] who had ever done that in that mining place.
>
> - Willie Keatainak interview, May 2015

For those who were young and unmarried, the mine rotations were easy to deal with. Workers at the mine were so busy working that moments of boredom were few and far between. When asked if he ever felt lonely while out at the mine, one interviewee answered: "No, never get the time to lonely 'cause you were, just you made some friends and eleven hours of work a day you had no time to get lonely up there. You get tired you fall asleep and wake up and go back to work. It was just a routine" (Noah Kumakuluk interview, June 2015). The regular schedule and the new experience of the mine lifestyle and interactions with non-Inuit people made work at the Asbestos Hill mine an interesting adventure for many. Workers were constantly occupied by work or the various forms of entertainment at the mine. That being said, interviewed former Inuit

mine workers who married during the time that they were employed by the Société Asbestos Limitée left the mine soon after their return. For Inuit and non-Inuit workers, age and marital status played a key role in determining the length of employment at the mine, with young unmarried men staying longer than others. Interview findings suggest that most Inuit workers tended to work for one or two rotations of three months before quitting work at the mine. Interviewees recalled very few local Inuit who worked for over a year at the Asbestos Hill mine. The turnover rate of Inuit employees was likely to be much higher than the mine's average, which was 10-15% per month (Musée minéralogique, 2011).

While working at the mine site or at the Deception Bay port, Inuit workers were so busy that they were unable to see their families or hunt and fish. When asked if he still hunted and fished while on their rotation at Asbestos Hill, a former Inuit mine worker answered: "No, no no no. Not a chance. No time to go out. No" (Jimmy Angutigirk interview, June 2015). While onsite, interviewees recalled being too occupied by long work hours and after-hours activities to partake in any traditional subsistence activities. Instead, Inuit workers had to wait until their two-week vacation to get out on the land and hunt, which affected their ability to connect with their family, to continue cultural practices, and to pass on traditional hunting and trapping knowledge.

When starting work at the Asbestos Hill mine, most Inuit workers began as labourers, working odd jobs and helping by providing manual labour. From there, Inuit workers were promoted to other jobs, such as electrician helpers, "dynamite boys," heavy equipment operators, and so on. Former Inuit Asbestos Hill mine worker, Mark Kadjulik recalled working his way up the ladder: "[A] youngster when he first starts working first he learns how to be labourer, right? Like anyone else have, and that's what happened to me. I first became labourer and got promoted to [be an electrician]" (Mark Kadjulik interview, June 2015). Inuit workers began their work at

Asbestos Hill in the lowest job and moved their way up after receiving mostly on-the-job training from non-Inuit co-workers. One former mine worker described his experience working as a "dynamite boy" at the mine: "It was kind of scary, not knowing, because it was the first time I saw a dynamite at the time […] They told me as long as I don't do anything to put them back, you know, not with the little wire thing there, if you don't touch that nothing's gonna happen, that's what they told me so I try to do the best job that I could do with the dynamite. After that, when there was someone to replace me I didn't want to go back any more. No, that was enough of dynamite for me [Laughter]" (Noah Kumakuluk interview, June 2015). With the exception of one interviewee, Inuit Purtuniq mine workers received informal, on-the-job training.

Inuit workers at the Asbestos Hill mine developed their job skills by watching non-Inuit workers and repeating what they did. Jimmy Angutigirk, a former mine worker and resident of Salluit, discussed how they learned to drive trucks: "[My] boss [gave] my friend and I […] a course [on how to drive] the big trucks who transfer the material all the way to Deception. [This] guy he taught us how to move the gears and all of that. We did that for about a week and then after that course we were able to do it all by ourselves" (Jimmy Angutigirk interview, June 2015). This informal training allowed even unilingual Inuit Inuktitut speakers to learn important skills, making better and higher paying non-managerial jobs available to Inuit. Given that the mine operated in Québec, many of the mine's non-Inuit workers were French Canadians, some of whom could only speak French. As a result, although the mine's official operating language was English due to the prevalence of Anglophones in managerial and administrative positions, a large portion of the workforce was speaking its second language, making communication difficult at times. When asked what it was like working with non-Inuit people, Jimmy Angutigirk, stated: "It wasn't so bad. We got along pretty well. Yeah, well even though we

couldn't understand or speak in French, we managed […] Everybody was getting along okay (Jimmy Angutigirk interview, June 2015). Inuit and French workers faced considerable language barriers but were able to overcome them: Inuit learned by watching other employees work.

Through informal training methods, Inuit were able to become mechanics and electricians. For example, Mark Kadjulik of Salluit became an electrician helper, "[working] with all the wiring, all the contraptions, outlets, the switches, all the panelling in the house for electricity, all the connecting to the power house outside, all the unwinding the wires, the outside power wires" (Mark Kadjulik interview, June 2015). Most former Inuit mine workers I interviewed worked as heavy equipment operators and enjoyed the new skills they acquired at the mine. Among them was Tommy Saviadjuk, who recalled working as a truck driver: "The fact that I learned to drive a big truck. That's my favourite [memory]" (Tommy Saviadjuk interview, June 2015). In terms of work experience, interviewed former Inuit Asbestos Hill mine workers had very few negative comments about their time at the mine.

Inuit who were promoted to jobs requiring training gained skills that would help them find future employment in the mining sector, in their communities, and elsewhere. Willie Keatainak, a former Purtuniq mine worker, discussed his brothers' experience at the mine, saying:

> Two of my brothers became heavy equipment operators or mechanics due to the fact that they got to know the people, the machinery, and so forth. They became quite known by the company and, in fact, became professional workers, and that's how it used to be. A lot of Inuit are good workers, given the chance, you know?
>
> - Willie Keatainak interview, May 2015

For Inuit men of Nunavik working at the mine, their training and work experience at the Asbestos Hill mine was their first opportunity to gain experience in mining and to learn

important work skills. Past mine worker and Salluit resident Noah Kumakuluk, recalled: "The jobs were totally different […] [What] we were not used to see in town we were seeing up there, like big machines, like, you know, that was the total different what we see here and up in the mine (Noah Kumakuluk interview, June 2015). The Inuit workers experienced wage labour and were a part of a type of large-scale natural resource extraction that they had never seen before. During interviews it became apparent that the work of former Inuit Asbestos Hill workers at the mine strengthened their sense of pride as Inuit and increased their confidence in the mining sector, as they became skilled workers, able to work successfully operate machinery or fulfill other tasks.

Through their employment at the mine, Inuit workers were able to earn and save a good amount of money. Although they were not paid large sums of money, the isolation of the mine allowed them to save all their earnings as there was little chance to spend the money onsite. For example, Jimmy Angutigirk, stated:

> Even though we were making three dollars and ten cents in an hour when we come back [home] after three, six months we were okay. We were able to buy something that we wanted to buy, like ski-doos, and all that, outboard motors, this and that. Buy something for dad, you know?
>
> - Jimmy Angutigirk interview, June 2015

Jimmy Angutigirk was one of many interviewees who remembered using their earnings to purchase hunting equipment and other important materials for themselves and their families. Having snowmobiles allowed people to "go to another community and, you know, further south for game and animals" (Jimmy Angutigirk interview, June 2015). Findings by Wenzel (1983) at Clyde River, Nunavut show similar use of earnings. Both Inuit of Clyde River working at the

Nanisivik mine and Asbestos Hill mine workers used their wage labour income to purchase equipment necessary to support the subsistence economy of their communities (Wenzel, 1983).

The work experience, training opportunities, and economic benefits of working at the mine encouraged other Inuit to work in the mining sector following the closure of the Asbestos Hill mine. Aloupa Kulula, a resident of Kangiqsujuaq and the son of a past mine worker, recalls his father encouraging him to work at the Raglan Nickel mine, the mine that opened after the Asbestos Hill mine. He stated:

> [My father] told me that he used to work in the [Asbestos Hill] mine, make money and provide. He [was able to] buy his own vehicles and have a comfortable life, so he told me that the money and the work associated with the mine was a good work […] He let me know that the kind of work experience that I would be able to get in the [Raglan] mine was worthwhile and he told me that if I get experience from there I would be able to get any job, anywhere because of the tough environment that mining work environment is, so coming from that motivation eventually I got my own job.
>
> - Aloupa Kulula interview, July 2015

The positive economic benefits from employment at the Asbestos Hill mine influenced other community members and the children of former Inuit Purtuniq mine workers to seek jobs in the mining industry. Former Inuit workers remember their employment at the mine as difficult, but gratifying and worthwhile. Overall, interviewees appreciated their work experience at the mine and remember their employment with the Société Asbestos Limitée as positive and exciting.

Life at the Mine

The Asbestos Hill mine had a lively atmosphere with activities that provided new and exciting experiences for Inuit working at the mine. The mine site was set up with a camp to

house employees, a cafeteria, a bar, and many activities to entertain workers in the evenings and between shifts (Figure 8). Everything was set up so that workers had no concerns other than their jobs. They were fed, housed, and provided with medical services, all free of charge, so long as they worked at the mine. The Hudson Bay Company even set up a post at the mine to sell pop and chips, as well as some clothing and other items, to the staff at Asbestos Hill (Donald Cameron, 2012). Workers were housed in ATCO bunkhouses near the Asbestos Hill pit. There were fourteen bunkhouses with sixteen rooms in each (Cummins, 1983). For the most part, Inuit were put in shared rooms with other workers.

Asbestos Hill, a place of great diversity of people and recreational activities, allowed Inuit workers to experience a touch of the South. In the early days of the mine, there were direct flights from Montreal to the mine site three times a week, which were later cut down to once a week (Cummins, 1983). Regular flights meant that workers received fresh food and regular mail service. Former Inuit Asbestos Hill mine workers remember food at the mine as exceptionally good; as one commented: "we had good food, especially chicken legs because they are so tasty, even today" (Kadjulik interview, December 2010). This was the first time that Inuit of Nunavik had daily access to *Qallunaat* food, such as farmed meat, candy, and other foods. Mark Kadjulik, recalled life at the mine, stating: "There were also other things besides work. There was recreation, there was a little bar in there where people could go on Fridays and have a little bit of beer" (Mark Kadjulik interview, June 2015). Other recreational activities included "a pool [table], table tennis," and a movie theatre (Kakkiniq Naluiyuk interview, June 2015). One former Inuit mine worker stated that: "[The Société Asbestos Limitée] treated us very, very good. They treated us like everybody else. Everybody was treated equally" (Jimmy Angutigirk interview, June 2015). Past Inuit mine workers remember working side-by-side *Qallunaat* workers and

being treated the same. This feeling was reinforced by a sense of camaraderie gained through time spent with *Qallunaat* after work hours while playing games and sharing a beer or two (Figure 8).

Figure 8: *Inuit worker buying beer at the bar in the cafeteria at the Asbestos Hill mine in 1978 (Credit: Claude Samson, Centre d'archives de la région de Thetford – Fonds Journal Liaison, 2016).*

For the interviewed former Inuit mine workers, working and living with non-Inuit workers was a "happy time" as "there were a lot of young guys [their] age […] from the South [and they] made a lot of friends at the time" (Tommy Saviadjuk interview, June 2015). Similar accounts of positive interactions between Inuit and *Qallunaat* workers were repeated by most other interviewees. When asked what it was like to work with southern workers, Willie Keatainak stated:

> Well, at first, you stay away from the guy that you never know about. A lot of Inuit has given names to some of the guys that they don't like, […] but once they [non-Inuit workers] got to know each other and that the Inuit are good workers […] respect [was] built in no time at all. In fact, I think experienced miners, themselves, respected the Inuit […] for the work ethic that they had.
>
> - Willie Keatainak interview, May 2015

Inuit workers recall being appreciated for their dedication to their work, their ability to learn quickly, and their skills as mechanics. Despite language barriers, former workers recall working and living in a positive environment and getting along well with non-Inuit workers. When asked if they continued to stay in touch with *Qallunaat* co-workers after the mine closure, many interviewees stated that they had kept in contact with non-Inuit for many years after the mine shut down.

During the Asbestos Hill mine's operation, workers often drank alcohol together at the mine's bar at the end of their work day. The company-run bar sold liquor, beer, and wine to workers and to travelling groups of Inuit from nearby communities. Jimmy Angutigirk recalled that "It was excitement up there for us, we were young, [laughter]. We were excited. We were able to have a beer can, so it was A-Okay, [laughter]" (Jimmy Angutigirk interview, June 2015). Life at the mine was a fun, new experience for Inuit workers whose nightly routine was to "have a few beers, play some games and then go to bed" (Noah Kumakuluk interview, June 2015). For the most part, these workers were happy to have regular access to alcohol. However, access to alcohol and drugs led some interviewees to describe the scene at the Asbestos Hill mine as the "Wild West," where rumours of mafia involvement in the mine operation ran rampant. For example, former manager of the Hudson Bay Company store at Asbestos Hill, Donald Cameron, stated: "There was incidents at the camp. People getting knifed. I heard of that a few times" (Donald Cameron interview, June 2015). Similarly, many interviewees discussed incidents linked to workers gambling after hours and prostitution at the mine. Aloupa Kulula, the son of a former Asbestos Hill mine worker and resident of Kangiqsujuaq, stated:

> I heard [that] there was all the time alcohol, gambling, and some prostitution. They used to send prostitutes to the mine [from] down South rather than Inuit.

> They were […] Caucasian, professional Janes.
>
> - Aloupa Kulula interview, July 2015

Stories about the mafia and other accounts of daily life at the Purtuniq mine shape the past Inuit Asbestos Hill mine workers' and community members' collective memory of the mine.

Today, former Inuit workers and residents remember Asbestos Hill as a mine operating in a "lawless" time, where many illegal activities took place. Southern workers brought drugs such as marijuana and cocaine in their luggage when they were flown up to the site on the company plane and sold drugs at the mines. Many interviewees suspect that the Italian mafia of Montreal was involved in the trafficking of drugs to mine workers. A long-time resident of Kangiqsujuaq, recalled memories of drugs and alcohol being purchased by Inuit and the impacts that these substances had on the population:

> It was an open secret that the mining operation was mired in corruption and the mob [was involved], 'cause, you know, [Inuit would] just go up there and ask for a particular guy and […] come back with all sorts of illicit [drugs that] contributed to the ill health of people here. [People] were legitimately selling the good stuff: weed, hashish or hard drugs.
>
> - Yaaka Yaaka interview, July 2015

The drugs and alcohol sold at the Asbestos Hill mine made its way to the nearby communities of Salluit and Kangiqsujuaq. Inuit mine workers carried these substances home with them on their vacation time and community members would travel to the mine on their snowmobiles to purchase drugs and alcohol. Direct flights from Montreal to Asbestos Hill allowed easy shipping of drugs and alcohol. The Asbestos Hill mine's construction and operation meant that the residents of Kangiqsujuaq and Salluit became some of the first Inuit in Nunavik to purchase drugs and alcohol and to witness their introduction to communities in such large quantities (Duff, 1973). A former Inuit mine worker from Salluit stated that at the mine: "[There]

was booze involved [and] there were a lot of drugs involved [at the mine]. We were probably one of the first communities in the North [to be] affected by drugs" (Willie Keatainak interview, May 2015). Many interviewees from both Salluit and Kangiqsujuaq pointed to the introduction of drugs and alcohol into their communities as one of the biggest catalysts for cultural, lifestyle, and community change. This is evident in the following statement from an interviewee in Salluit: "[The Asbestos Hill mine] changed our way of life because there was alcohol […] and drugs [up there]. That's when our lives started to change" (Jimmy Angutigirk interview, June 2015). Although many Inuit in the communities and those working at the mine were happy to have access to alcohol and drugs at the time of the mine's operation, they now reflect on the impacts of these substances, such as lifestyle changes and substance abuse problems, and are aware of the lasting negative legacies. An interviewee in Kangiqsujuaq spoke of his experience with these substances in the 1970s and '80s:

> To those of us who were into that thing it was a good thing. [We] were drinking when we wanted to, we would smoke dope when we wanted [to], but looking back now [that] should never have happened, knowing what I know now. It was an assault on our culture and well-being [in] every respect.
>
> - Yaaka Yaaka interview, July 2015

This introduction of drugs and alcohol into Salluit and Kangiqsujuaq had negative effects on families and affected traditional activities, such as hunting and fishing. Money that could have been spent on hunting equipment and necessary supplies was instead used to purchase drugs and alcohol. By keeping people off the land and leading some to substance abuse problems, this proliferation of alcohol and drugs affected the communities' stability, causing problems within households through violence and infidelity, thus negatively impacting children's home environment (Aloupa Kulula interview, July 2015; Gibson and Klinck, 2005).

Similar to other cases in the Canadian Arctic, such as Rankin Inlet, the Inuit of Nunavik's introduction to wage labour via the Asbestos Hill mine constrained Inuit workers' subsistence activities, beginning a transition from a subsistence to a wage labour economy (Gibson and Klinck, 2005; Boutet et al., 2015). The long rotational schedule and the commuting work at the Asbestos Hill mine kept Inuit workers off the land and away from their families for three to six months at a time. This distance from their loved ones proved difficult for both Inuit workers and the spouses and children they left behind. One resident of Salluit recalled: "It was not easy for those young couples. I guess they were not seeing each other for six months at a time, but the end result was they were wealthier" (Paul Okituk interview, June 2015). Furthermore, employment at the mine meant that these Inuit men could not take part in subsistence activities, as they had little time off from work. When asked if he was able to hunt while working at the Asbestos Hill mine, former mine worker and Salluit resident, Willie Keatainak replied:

> No. Well, one time I got a ptarmigan […] It was after my shift [and] about at this time of year, spring, May. The ptarmigans [and] the geese were coming in […] I [took] a hike [and] came across a flock of ptarmigans and I got one and I ate it out there on the land. I didn't really do much hunting, I didn't have time for that.
>
> - Willie Keatainak interview, May 2015

Unlike the Rankin Nickel mine (1957-1962), which allowed Inuit workers to balance mine work and traditional activities by limiting the number of days worked per week, the Asbestos Hill mine did not accommodate Inuit ways of life (Boutet et al., 2015, p. 202). Instead, the majority of past mine workers interviewed stated that they were only able to partake in subsistence activities every three months, on their two-week vacations. Although this only allowed Inuit workers a short amount of time to hunt, trap, and fish, the income saved from working at the mine provided them with the means to take advantage of the recent introduction

of snowmobiles, allowing these hunters "greater mobility and speed" thus decreasing the amount of time needed for subsistence activities and therefore enabling workers to take advantage of their short time off from work (Condon et al., 1995, p. 7). As there were few places at the mine site to spend money, workers were able to accumulate their earnings, using their savings to purchase hunting equipment, snowmobiles, and supplies for their families and friends. Community members gained access to snowmobiles and other hunting equipment or by purchasing the equipment themselves. In this way, community members were able to increase the efficiency of their time spent hunting or trapping, continuing their traditional activities.

Income earned by Inuit mine workers slowly trickled into the communities. At the same time community members also made money through the mine by selling their carvings and other art to *Qallunaat* mine workers. Interviewed former Asbestos Hill mine workers remember spending their mine work earnings to help their families and friends. For example, past mine worker, Willie Keatainak, stated: "Mining [helped us] make extra money for the families […] For those [whose] family members worked at the mine, this helped. [This was] extra income, which they wouldn't have if the mine didn't operate" (Willie Keatainak interview, May 2015). For people with family members working at Purtuniq, the mine proved helpful. Most of the former Inuit workers I interviewed remembered giving some of their income to their parents or spouses. "Mostly I give [the money] to my parents," Noah Kumakuluk recalled. "[And] I let them use the money I make to let them buy what they need" (Noah Kumakuluk interview, June 2015). Mine workers also helped their communities by purchasing hunting, trapping, and fishing equipment that they shared or gifted to friends and family. Former Inuit mine worker, Kakkiniq Naluiyuk, stated: "I bought my father ski-doo after the dog slaughter" (Kakkiniq Naluiyuk interview, June 2015). The dog slaughter was a dark period of time between 1950 and 1970

when provincial police and government officials systematically killed Inuit's sled-dogs in all Nunavik communities. Officials and police were concerned that rabid dogs within communities would threaten and harm the lives of its residents, thus ordering the killing of the dogs (Croteau, 2010). Both Salluit and Kangiqsujuaq lost most of their dog teams. The loss of these sled-dogs meant that Inuit had more difficulty conducting subsistence activities because hunters could not travel great distances by foot. Consequently, the introduction of snow machines returned the independence of hunters, providing them another means of transportation.

Quitting

By the time of the Asbestos Hill mine closure in 1984, many Inuit workers had already left their jobs at the mine and returned to their communities. Inuit workers quit their work at the mine for a variety of reasons, the most common being the desire to be closer to their spouses and young children. Many interviewees recalled leaving their work at the mine abruptly only to return to work later. In the end, only two interviewees continued worked at Purtuniq until the very end, leaving only after the mine's closure.

As Canada's first fly-in fly-out operation, the Asbestos Hill mine had a very strict and difficult work rotation schedule, with all employees working three months at the mine with a two-week vacation. This schedule proved difficult not only for Inuit, but for all workers at the mine, which was made apparent by the high employee turnover rate of 20% per month. During the mine's lifespan of twelve years, 5000 workers had worked at the mine, which required 400 workers at once to operate the mine. For Inuit workers, this schedule meant that they could only be with their families and loved ones two months out of the year, making it impossible to take part in traditional activities, such as hunting, fishing or trapping. Furthermore, management did

not allow Inuit workers to take advantage of important times for hunting or fishing, such as whale or seal hunting season.

Many former Inuit Asbestos Hill mine workers interviewed stated that they left their jobs when they got married and were starting families. For example, when asked why he quit, Jimmy Angutigirk stated: “I fell in love so I get myself a job here. I couldn't stay away […] from her for six whole months, so I decided to stay” (Jimmy Angutigirk interview, June 2015). Another former worker, Noah Kumakuluk, explained that he quit because: **“**I started to have a relationship [Laughter]. That's when I quit the job over there and start getting job in town. A kid was coming up, so I didn't want the girl to raise the baby all by herself” (Noah Kumakuluk interview, June 2015). Many Inuit workers began work at the Asbestos Hill mine at a young age, mainly ranging from 18 to 24 years old. At this age, workers had few responsibilities or familial obligations and were thus able to enjoy their time at the mine with no pressing need to return to their communities. However, after a few years of working at the mine, some began relationships with women in their home communities during their vacation-time, and thus sought to return home. Among them was Adamie Keatainak of Salluit, who stated: “[I stopped working at the mine because] I got a job here [in Salluit]. Also, […] I married to my wife” (Adamie Keatainak interview, June 2015). Unlike others, Adamie was able to find employment in his community before returning to be with his wife.

In other cases, workers were asked by their families to come back to the communities to support their spouses and help raise their children. Aloupa Kulula, an Inuk resident of Kangiqsujuaq and the son of a former Asbestos Hill mine worker, explained why his father had left his employment at the mine, saying:

> [My father] went back [for a second term at the Purtuniq mine, but] while he was at the mine site my mom went and got him by snowmobile. My mother

> went with some men from Wakeham Bay [Kangiqsujuaq] and when she was close to the mine she left the kids and went to go get my father […] [There] was a lot of fighting [and] abuse in the communities and [my mom] could not take that alone when her husband was out working in the mine.
>
> - Aloupa Kulula interview, July 2015

This testimony shows the difficulties experienced by spouses and family members of Asbestos Hill mine workers while their loved ones were away at the mine. The changes occurring in the communities, such as the formal schooling of Inuit children, the loss of dog teams, and the transition from nomadic to sedentary lifestyles, led to social problems and unhealthy cycles of addiction and abuse (Rodon and Lévesque, 2015; Gibson and Klinck, 2005). As a result, some wives, such as Aloupa Kulula's mother, encouraged and welcomed the return of their husbands.

Interviews with former Inuit Asbestos Hill mine workers also revealed that many Inuit workers would work short periods at the mine, quitting their jobs only to return later. This pattern of on-and-off work is also apparent in similar case studies of Arctic mines in Canada, such as the Pine Point, Polaris, and Rankin Inlet mines, which found high turnover rates for Inuit employees (Green, 2013; Coates, 1991; Keeling and Boulter, 2015). Heather Green's study (2013) of the Polaris mine in Nunavut found that the short tenure of Inuit workers resulted from "target labour," whereby Inuit would work until they earned a specific cash goal, leaving their jobs at the mine when they earned that amount. Green explains that for Aboriginal people in the North, this target income was often sufficient to buy hunting and trapping equipment. In the case of the Asbestos Hill mine, some former workers noted that they left the mine for short periods of time, but for other reasons. For instance, Noah Kumakuluk stated: "I quit sometimes. I quit for a while and then when there was nothing to do again I applied for a job again and they took me [back]" (Noah Kumakuluk interview, June 2015). Although this interviewee did not provide a

specific reason for leaving the mine, others explained that they would leave their jobs due to dissatisfaction with their bosses. Putulik Papigatuk, a resident of Salluit, explained:

> [Sometimes] we used to have supervisors that were not very nice. [One time] there were some of us working at the mine. [That area is] our hunting [and fishing] area […] Every once in a while people arrive by ski-doo and by canoe […] We were put in a situation where we were uncomfortable with the boss, okay? And [our] relatives arrived there to hunt by boat, by canoe and we were not very happy with our supervisor, so without telling him we got on the canoe and came home and the guy was missing three workers the next morning and we just disappeared [Laughter]. That's how it used to go sometimes.
>
> - Putulik Papigatuk interview, June 2015

Due to the remote location and limited access to the mine, Inuit workers were only able to quit work at the Asbestos Hill mine during their two-week vacation or when the opportunity arose. During the mine's operation, the only way for Inuit to travel from the mine to their communities was by ski-doo in the winter or by canoe boat in the late summer and early fall. Consequently, many interviewees described leaving the mine with a group of hunters from their community when the group was passing through the area. When Inuit workers were unhappy with their bosses they would often use these opportunities to leave their employers and spend some time at home.

Inuit workers left the mine for a variety of reasons. One Inuk worker, Adamie Kalingo, quit his job at the mine to go to school in Toronto, while another had an accident in a work vehicle (Adamie Kalingo interview, December 2010). Former mine worker Tommy Saviadjuk of Salluit recalled the impetus for his departure:

> [I quit working at the mine because] I had a little accident with one of the vehicles. [After] the accident [my supervisor] told me that I [would] have to start from the bottom again [and] work my way up just to drive again, so I

> started sort of quitting. I think I would have been there a whole year [otherwise]. The vehicle that I was driving it stalled on me when I was going downhill and it was power steering so I couldn't turn it. I turned it just enough so that I don't hit another truck head on.
>
> - Tommy Saviadjuk interview, June 2015

In 1984, all remaining workers were laid off by the Société Asbestos Limitée due to the mine's impending closure. Most of those interviewed had worked at the Asbestos Hill mine on an on-and-off basis for years, finally ending their employment for good when the mine shut down its operations. When asked what made him stop working at the mine, Putulik Papigatuk answered: "It closed" (Putulik Papigatuk interview, June 2015). When asked the same question, another past Inuit worker responded: "The Company was going down and I couldn't get rich. I had to look for something else" (Adami Alaku interview, July 2015). Kakkiniq Naluiyuk discussed the difficulties of commuting work and the closing of the mine:

> After many years, […] I get tired of travelling back and forth between here [Salluit] and Asbestos Hill […] When they [shut down] everything was stopped. Suddenly, there was no more jobs […] After Asbestos was closing, I start to work at the Raglan for Falconbridge.
>
> - Kakkiniq Naluiyuk interview, June 2015

This worker was one of many other former Inuit Asbestos Hill mine workers to use their skills acquired at this first mine to land jobs at the Raglan Nickel mine in the 1990s.

Conclusion

Employment of Inuit at the Asbestos Hill mine was one of many transformative forces experienced by Nunavikmiut in the second half of the 20th century. In the 1960s, just prior to the

establishment of the mine, Inuit of Nunavik were settling into communities, relying on the trade of fox furs and government payments to continue living a subsistence lifestyle. For the communities of Salluit and Kangiqsujuaq, and other Inuit employed at Asbestos Hill, the mine was the next step of the federal government's modernisation agenda, giving Inuit their first lasting taste of wage labour, and pushing them to become players in the cash economy. Fifteen years earlier, Nunavut had become involved in the same type of lifestyle changes with the operation of the Arctic's first mine, the North Rankin Nickel mine (NRNM). In that case, Inuit of Nunavut were heavily involved in the mine, relocating to the company-built town of Rankin Inlet and making up most of the mine's workforce. At both the NRNM and the Asbestos Hill mines, Inuit workers were actively recruited by the federal government and the mine companies. The mine companies sought Inuit workers due to their geographic proximity to the mine and because they saw Inuit as readily available workers who could be trained in unskilled and low-ranking positions in the mine (Easton, 1963). Motivated by very different goals, the federal government became involved in Inuit mine worker recruitment as a means of involving Inuit in the cash economy and creating a way for Inuit to become economically self-sufficient, thus reducing the need for government money transfers through welfare and child payments (Pape, 1964).

Unlike the North Rankin Nickel Mine company, the Société Asbestos Limitée ultimately did not hire a large number of Inuit, instead flying southern workers in on a rotational, fly-in fly-out (FI/FO) basis. Despite this difference, former Inuit mine workers from both Arctic mines have overall positive memories of their time employed at the mines. In both cases, Inuit workers shared stories of adventure and enjoyment, and encouraged future generations to work in the mining industry. Case studies of mines throughout Nunavik, Nunavut, and the Northwest Territories between 1957 and 1987 have found that former Indigenous mine workers have fond

memories of their time as mine workers. This is most likely due to mine work as a new, never-before lived experience, which these people were among the first to partake in. For Inuit who had not attended residential schools, mining opened up a new world, with new technology, that allowed Inuit and First Nations the chance to experience a whole new lifestyle, with entertainment such as movies and games. These mines brought southerners to the North, allowing for interactions between Indigenous and non-Indigenous peoples, which led to friendships and the formation of multi-cultural bonds.

Although life at the Asbestos Hill mine is often remembered by former Inuit workers as a positive and exciting experience, certain aspects of their time at the mine proved difficult. The new and exciting activities at the mine site were entertaining, yet parts were dangerous. The "Wild West" atmosphere of the mine, as seen in the selling of drugs and alcohol at the mine, as well as the accounts of prostitution and gambling, led many workers to become addicted to these illegal substances. At the same time, communities were also negatively affected, as concerns of infidelity affected family life and drugs and alcohol made their way into Salluit and Kangiqsujuaq. Furthermore, the lengthy work schedule made the pursuit of traditional subsistence activities only possible every three months, during the workers' two-week vacation. As such, Inuit were rarely able to spend time within their communities, spending little time with family members and friends. For Inuit workers with young families, the long separation was difficult for mothers left to raise their children on their own. As a result, the fly-in fly-out aspect of this mine operation put a social strain on families, leading one woman to travel from Quaqtaq to Asbestos Hill by snowmobile to get her husband who was working at the mine.

Despite the difficulties in working at the Asbestos Hill mine, employment allowed Inuit to earn cash wages, which enabled workers the means to purchase equipment and other supplies

for hunting, trapping, fishing, and living. More specifically, for former Inuit mine workers, they were young and single at the time of their employment, many of them having returned from formal schooling outside of Nunavik, and the mine allowed them to take part in industrial work and wage-labour employment. Inuit workers at the mine had agency, choosing to work at the mine not always due to a financial need, but also out of a desire to explore and learn new skills. Similarly, Inuit employees would also decide to leave their jobs when they felt mistreated by their supervisors or when they had acquired enough money to buy hunting equipment.

In the end, despite the mixture of good and bad memories of their time at the mine, each interviewed former Inuit worker stated that working at Asbestos Hill was a positive experience and nostalgically told mining stories. Inuit workers remember their time at the mine as an adventure where they worked hard and played hard. Today, they have fond memories of the Asbestos Hill mine, remembering the *Qallunaat* friends they made, the games they played, and the new skills they learned. Since their time working at the Asbestos Hill mine, there have been many developments in the remediation of the site and the mine's legacies. The following chapter discusses life after the mine, former Inuit Asbestos Hill mine workers' employment experiences after the mine's closure.

CHAPTER 4

MINE CLOSURE AND LEGACIES

Introduction

In October 1983, the Société Asbestos Limitée, at that time owned by the Government of Québec, sent its last asbestos shipment from its port at Deception Bay to its processing plant in Nordenham, Germany (Musée Minéralogique, 2011). Despite the long-term potential of the Purtuniq asbestos reserves, the Government of Québec made the decision to halt asbestos production at Asbestos Hill for an undetermined amount of time. The anti-asbestos campaigns of the 1970s and 1980s, combined with growing awareness of the negative health impacts of asbestos, led developed countries to decrease their imports of the fibre and spurred discussions of a total ban (Vallières, 1988, p. 343). This decline in the 1980s of Québec's asbestos sales lowered the profitability of the mine at Asbestos Hill. As the worldwide commodity prices of asbestos continued to decrease, the Société Asbestos Limitée was forced to make changes as a means of softening its loss of profits, leading to the closure of many mines, including Asbestos Hill. From then on, the asbestos industry of Québec continued to dwindle and lose importance as the developed world continued to cut the mineral from products, eventually leading to many partial and full bans in many of its developed countries (Van Horssen, 2010). Rather than continue operating multiple mines at reduced rates, the company put its operations at Asbestos Hill and Nordenham on indefinite hold to maximize its operations and asbestos exports at Thetford (Cinq-Mars and Ouellette, 1999, p. 67-68). In 1984, the last few workers left the Asbestos Hill, and Nunavik's first mine was permanently closed.

The mine's closure forced former Inuit workers and the communities of Salluit and Kangiqsujuaq to adapt to the loss of steady salaries. In northern Canada, the lack of economic

diversity and employment opportunities make Aboriginal peoples, and in particular Inuit, highly reliant on income from work in local mines, making adaptation to the loss of a mine very difficult. In many cases this reliance is tempered by low Inuit or Aboriginal employment rates in northern mines. Case studies of historical mine operations in the Canadian Arctic, such as the Rankin Inlet nickel mine, have shown that mine closure can be devastating, especially to communities in the North as it is often their only opportunity for economic development (Keeling and Boulter, 2015). In the case of the Asbestos Hill mine, the impacts were mostly felt at the time of the mine's operation and in the years following the closure. These impacts include the introduction of wage labour and drugs and alcohol to the communities of Salluit and Kangiqsujuaq, and the negative environmental and perceived negative health legacies left behind.

This chapter discusses the era following the closure of the Asbestos Hill mine in the nearby Inuit communities of Salluit and Kangiqsujuaq. It begins with the impacts of the mine closure on local Inuit populations and analyses the implications of the region's first mine on local inhabitants, as well as the legacies the mine left behind. Throughout this chapter, I discuss the perceptions of mineral development of Inuit of Salluit and Kangiqsujuaq, as shaped by their past experiences with the Asbestos Hill mine. Unlike many other northern mining experiences in Arctic Canada, the effects of the closure of the Asbestos Hill mine were mitigated by growing economic opportunities in Nunavik. In the years following the mine's closure, Inuit residents became increasingly concerned about the mine site's unreclamaimed state, its environmental footprint, and the health impacts of asbestos exposure. The Asbestos Hill mine became a cautionary tale, as local Inuit had not been consulted nor compensated by the Société Asbestos Limitée, eventually inspiring Inuit of Salluit and Kangiqsujuaq to demand future consultation

and benefits from subsequent mining projects; it also led to the first ever Canadian Impact and Benefit Agreement between an Aboriginal group and a mine company, the Raglan Impact and Benefit Agreement.

Mine Closure

Historically, mine closures in the Canadian Arctic have devastated Inuit people and communities due to a loss of the region's sole economic driver and their new main means of livelihood. Small, dispersed populations, remoteness, and harsh climate limit opportunities for industry development, and make any new ventures extremely expensive and complex. For the community of Rankin Inlet in Nunavut, the closure of the Rankin Nickel mine was devastating to Inuit in the mining community, as Inuit made up 70% of the workforce and the community was built solely for the purposes of housing miners (Cater and Keeling, 2013). Similarly, the closure of Nunavut's Nanisivik mine in 2002 proved troubling for Inuit workers and nearby residents in Arctic Bay, giving rise to an emotional response and leaving behind many uncertainties (Midgley, 2015). For Inuit mine workers, the closure of the Nanisivik mine meant the loss of non-Inuit friends and an unclear economic future. Inuit communities demanded an apology and compensation from the mine company for the lack of consultation prior to the mine's construction (Midgley, 2015; Tester et al., 2013). By contrast, in the case of the Asbestos Hill mine closure, Inuit miners and residents of Salluit and Kangiqsujuaq were relatively unaffected by the mine's closure because most Inuit mine workers had already quit working at the mine and other employment opportunities allowed them to adapt.

The closure of the Asbestos Hill mine in 1984 had little immediate impact on Inuit workers and nearby residents. By this time, many Inuit workers had already left their jobs at

Asbestos Hill due to other familial commitments and challenges with their work schedules at the mine. Purtuniq's fly-in fly-out schedule made long-term mining work difficult for Inuit and *Qallunaat* workers alike, as seen by the mine's high worker turnover rate of 20% per month. As discussed in chapter 3, past mine worker, Noah Kumakuluk, along with many others, stated that they had ceased working at the mine to be closer to their significant others and young children, finding it difficult to be away from their families for months at a time.

Former Inuit mine workers recalled *Qallunaat* workers being upset and unsettled by the mine's closure, while they themselves remained unconcerned and calm. Findings from the exhibit "Le défi d'Asbestos Hill" at the Musée minéralogique et minier de Thetford Mines show that non-Inuit workers found the mine closure very difficult, as they had enjoyed their time in Nunavik. They also faced daunting job prospects given the collapse of the industry.

On the other hand, Inuit workers felt that they had no control over the decisions of the Société Asbestos Limitée and the functioning of the Asbestos Hill mine, and therefore took the mine's closure in stride. When asked how community members felt about the company's decision to close the mine, Adamie Keatainak stated: "I don't think they can say too much because, uh [pauses], that was belong to the company, eh? [Not] to the people here" (Adamie Keatainak interview, June 2015). Similarly, when asked about his feelings about the closure of Purtuniq, Willie Keatainak said:

> [Prior] to the closure [any] operation […], certain people are being affected by it and they get uneasy, they get nervous. They probably are afraid that they aren't gonna have any more jobs and no more income and they get scared easy, but not with us Inuit though. We adapt to changes quite easily.
>
> - Willie Keatainak interview, May 2015

Inuit of Nunavik had already experienced profound changes and were proud of their resilience in the face of new occurrences. Many interviewees made similar remarks to Willie's, noting that the closure of the Asbestos Hill mine was just another change to which the communities and Inuit had to adapt. Willie's comment and those of others speak to older and ongoing racist Southern stereotypes of Inuit as unable to adapt to new ways and of their need to be modernised by 'civilized' southerners. Interviews with Willie and the other interviewees are consistently challenging these stereotypes, painting a different portrait of Inuit and, more specifically, of Inuit mine workers.

For Inuit workers and residents of Salluit and Kangiqsujuaq, many external factors played a role in their ability to adapt to the departure of the Société Asbestos Limitée. The closure came at a time of change and mass economic development and government restructuring in Nunavik and in the neighbouring villages of Salluit and Kangiqsujuaq. The signing of the James Bay and Northern Québec Agreement (JBNQA) in 1975 and the plans to open the Raglan Nickel mine near the Asbestos Hill mine site provided current and future long-term employment opportunities to the region's Inuit. As a result, communities were able to better absorb the loss of the mine and were less concerned over the loss of mining in the area.

In 1971, the Government of Québec announced its plan for the James Bay Hydroelectric Development Project. This announcement brought Cree and Inuit together to challenge the Government of Québec and their claims to unextinguished Aboriginal title to northern Québec lands (Notzke, 1994). In Nunavik, Inuk Charlie Watt created the Northern Québec Inuit Association (NQIA) (Makivik Corporation, 2016). In the early 1970s, this association created many jobs for Inuit of Nunavik, providing other means of employment for a few Inuit Asbestos Hill mine workers. Among them was interview participant, Mark Kadjulik, who quit working at

the mine in the early 1970s to work as a translator for the NQIA during their negotiations with the Québec Government (Mark Kadjulik interview, June 2015).

The creation of the JBNQA, the first comprehensive land claims agreement in northern Canada, brought many changes to the political structure of Nunavik and created a large number of new jobs in Salluit and Kangiqsujuaq (Carlson, 2008). Although the agreement did not provide self-government to the Inuit of Nunavik, the JBNQA led to the creation of the following regional public and Inuit agencies: the Kativik Regional Government (KRG), the Kativik School Board (KSB), and the Nunavik Regional Board of Health and Social Services (NRBHSS) (Wilson et al., 2015; Rodon and Grey, 2009). These agencies brought many new jobs to Nunavik communities, creating stable, long-term employment positions in each community. Willie Keatainak explains that: "[before the Asbestos Hill mine] closed down, well the James Bay agreement was starting to be formed and signed and people getting involved with that, so there was always something to do in any case... until the second mine [Raglan nickel mine] started to open up" (Willie Keatainak interview, May 2015).

Just prior to the mine's closure, rumours of a new mine opening near the Purtuniq site circulated in the communities. During the operation of the Asbestos Hill mine, many Inuit mine workers alternated between mining at Asbestos Hill and work for Falconbridge Ltd., which was conducting nickel exploration near the Purtuniq mine site. In this way, many Inuit workers already had a relationship with Falconbridge, and were therefore aware of the company's intention to open a nickel mine in the years following the closure of the Asbestos Hill mine. Kakkiniq Naluiyuk describes his experience during this time:

> When they [Société Asbestos Limitée] stopped, everything was stopped. Suddenly, there was no more jobs. By that time there was exploration companies working drilling at Raglan, Sakutuq Nuvulik, and [three] of us go

there to work for the exploration company. After many years, I work for the Falconbridge at the Raglan. After Asbestos was closing, I start to work at the Raglan for Falconbridge, and they was exploring for [copper] and nickel.

- Kakkiniq Naluiyuk interview, June 2015

Before the opening of the Raglan mine, Inuit residents were aware of the wealth of mineral deposits in northern Nunavik, and thus anticipated new mineral exploration and development in their area. Interviewee Putulik Papigatuk discussed the communities' thoughts on the future of Nunavik, explaining that Inuit workers and residents were not concerned about the closure of the Asbestos Hill mine because "we knew that even if it's not asbestos there's a lot more where they come from, from nickel, mineral, they're all over the place in our backyard" (Putulik Papigatuk interview, June 2015).

The James Bay and Northern Québec Agreement of 1975 and the mineral exploration by Falconbridge Ltd. between the late 1960s and early 1990s (NRCAN, 2016), and then the development of the Raglan Nickel mine in 1995 (Blais, 2015) created a large number of jobs for past Inuit Asbestos Hill mine workers, making the mine's far from devastating to locals. The number of previous Inuit Asbestos Hill mine workers to transition to work at the Raglan mine is unknown. That being said, the Raglan Mine actively recruited Inuit (as per the Raglan Impact and Benefit Agreement, which stipulates that 20% of workers must be Inuit) to work at the mine in unskilled positions during both its construction and operation phase. Inuit made up 16% of the construction workforce in May 1996 (George, 1996) and 19% (90 Inuit workers) of the workforce during mine operation in June 1999 (70 Inuit workers) (George, 1999). Consequently, it is highly likely that a large number of trained former Inuit Asbestos Hill mine workers remained in the mining industry as they were lured by the prospect of a steady income and a shorter work rotation (compared to Asbestos Hill) of two weeks on and two weeks off.

Environmental Impacts

Prior to discussing Inuit perceptions of the environmental impacts and legacies of the Asbestos Hill mine, it is crucial to have an understanding of Inuit ontology and the relationship between Inuit, the natural environment, and wildlife. Understanding this relationship helps contextualize the mine's environmental impacts and legacies and shows the gravity of its effects. Inuit see humans, animals, and the environment as intrinsically linked to one another, with each affecting and relying on the other (Poirier and Brooke, 2000; Laugrand et al., 2014; Collings et al., 1998). In Inuit ontology, each part of these interacting agents plays an equally important role in the ecosystem. As hunters and active participants in community country food sharing, Inuit of Nunavik put a great deal of importance on the well-being of the environment and of wildlife as it is directly linked to their cultural and personal identity and thus cannot be quantified solely in economic terms, as is often the case with environmental remediation projects (Poirier and Brooke, 2000; Stairs and Wenzel, 1992; Natcher, 2009). In their study of perceptions of contaminants in Salluit, Poirier and Brooke (2000) found that environmental and wildlife well-being were vital to Inuit culture and identity and that country food and hunting were extremely important to Inuit community members of Salluit. In Poirier and Brooke's (2000) study, Inuit ontology and cultural factors come together to shape the ways in which Inuit of Salluit and Kangiqsujuaq perceive the effects and legacies of the Asbestos Hill mine.

During the operation of the Asbestos Hill mine, community residents of Salluit and Kangiqsujuaq were concerned with the movement of asbestos fibres and dust between the Asbestos Hill mine site and the port at Deception Bay, roughly 50 kilometers away. This area is of great importance to the community of Salluit, as many residents have cabins around Deception Bay and the area surrounding it includes their hunting and fishing grounds (Poirier

and Brooke, 2000). Furthermore, Deception Bay is important for fishing and is also home to mussels and clams near the docking facility (Lanari et al., 1999). In an interview with Poirier and Brooke (2000), an interviewee stated that, "It is a major harvest area. It should be preserved, to some extent, for that purpose" (Poirier and Brooke, 2000). After the signing of the JBNQA, Inuit of Salluit and Kangiqsujuaq made repeated requests to government agencies to research the impacts of asbestos on fish and marine mammals in particular (Poirier and Brooke, 2000). In the early 1980s, the major of Salluit formally expressed concerns about Asbestos Hill and Deception Bay asbestos dust covering Inuit hunting, fishing, and trapping areas to the Kativik Environmental Advisory Committee (KEAC, 1984).

Former Inuit Asbestos Hill mine workers interviewed for this study witnessed mining practices that they now condemn. During the mine's operation, weak environmental standards allowed the Société Asbestos Limitée to mine and transport asbestos using the most economically convenient and affordable means. Donald Cameron, a long-time resident of Salluit and the past manager at the HBC store at the Asbestos Hill mine, discussed the asbestos transportation process: "[Asbestos Hill mine workers would] truck [asbestos] down from the mine site, which is 60 miles inland, to the port at Deception Bay. And, at first it was in open trucks and then they put canvas to stop it, but it would blow. When they loaded the ship [asbestos] would be blowing around and there was quite a lot in the air" (Donald Cameron interview, June 2015). As a result, the area between the Asbestos Hill mine site and Deception Bay, including Deception Bay itself was covered by asbestos fiber (Poirier and Brooke, 2000). The dispersal of asbestos dust and other factors spurred community concerns that were recalled during interviews with Inuit of Salluit and Kangiqsujuaq. During the mine's operation, the concern over asbestos dust was not based on the knowledge of the negative health impacts of

asbestos, as the Société Asbestos Limitée and the Government of Québec did not inform Inuit of Salluit and Kangiqsujuaq or workers at the Asbestos Hill mine of the health concerns related to asbestos inhalation. Instead, the biggest concern of local Inuit was the dust pollution and its perceived impacts on wildlife and the environment. Mark Tertiluk of Kangiqsujuaq stated:

> [I] know very much about asbestos because I used to watch to see what they doing and, you know, that Deception Bay water there, people go fishing there all the time. That time they have big truck loaded with asbestos. [They] used to have a cover only canvas because [the] truck move the [asbestos]. [The] water used to be […] sparkling from asbestos sand, you know? […] I think they was making [it] very bad for the animal, I mean on the sea. [Salluit] people they knew more about it, but I know that […] they all left a mountain of asbestos sand, still there at Purtuniq.
>
> - Mark Tertiluk interview, July 2015

In Salluit, Paul Okituk discussed the dust concerns near Deception Bay:

> Dust travelling in that system over there and people camp over there during the summer. I've seen dust hang in the air on a very mild and beautiful day, just hanging in the air. […] You don't want to go in there.
>
> - Paul Okituk interview, June 2015

Residents of both Salluit and Kangiqsujuaq showed concern over the impacts of dust from mining activities at the Asbestos Hill mine. However, interviewees from Salluit appeared to be more concerned with dust contamination, as the area surrounding Deception Bay and Purtuniq mine site is the hunting grounds for Sallumiut and residents of Kangiqsujuaq rarely travel in this area.

Some interviewees discussed more general concerns about the implications of mining processes, with one interviewee stating that: “It is more special up here [on the area around the Purtuniq site and Deception Bay], it's more special land [because] all those animals that's where

they give birth to their young, like [the] caribou. [It's] better to try to keep it clean so they can keep on multiplying in the future so that no minerals will kill them off" (Mark Kadjulik interview, June 2015). Interviewees were very concerned with the destruction or alteration of animals' natural habitat and breeding grounds.

At the time of the closure of the Asbestos Hill mine in 1984, few policies surrounding mine remediation and reclamation existed (Dance, 2015). As a result, the closure processes of the Asbestos Hill mine involved very little clean-up, with garbage, tailings, and infrastructure left behind (Rivest, 1989). No mine site remediation was conducted at the time of closure, and no environmental or wildlife monitoring was carried out by the Société Asbestos Limitée in the years following the shutting down of the mine (Lanari et al., 2009).

In the years following the mine's closure, Sallumiut concerns grew over the contamination of wildlife habitat around Deception Bay and the Asbestos Hill mine site, as Inuit reported increasing cases of deformed or diseased fish and other animals, which they associated with the contamination from asbestos dust (Poirier and Brooke, 2000). Some Sallumiut developed their own ways of dealing with these reports of wildlife contamination, by avoiding certain species and animals, particularly fish, but also caribou from the mine area and Deception Bay (Poirier and Brooke, 2000). Others sent fish samples to the Nunavik Research Centre (part of Makivik Corporation) in Kuujjuaq for testing (Mark Kadjulik interview, December 2010). The majority of Sallumiut continued to eat fish from Deception Bay, choosing only to avoid eating the liver and kidneys of caribou, which proved easier to avoid as caribou has never been a staple of Inuit from Salluit (Poirier and Brooke, 2000). During this time, Inuit residents of Salluit and Kangiqsujuaq sent letters and spoke to workers at the Makivik Corporation, and elected officials about their dissatisfaction with the state of the Asbestos Hill mine site and Deception Bay area.

Kakkiniq Naluiyuk, resident of Salluit and one of the signatories of the Raglan Impact and Benefit Agreement, recalled his numerous requests for a mine clean-up plan: "It took a lot of years [for the remediation of the Asbestos Hill mine site]. [It was] not only one meeting […] I would have to tell [them] again and again until they started to clean it" (Kakkiniq Naluiyuk interview, June 2015). Other interviewees from Salluit and Kangiqsujuaq made similar statements, discussing meetings with decision-makers regarding the remediation of the former Asbestos Hill mine area.

In August 1989, five years after the closure of the Asbestos Hill mine, the Ministère de l'environnement of the Government of Québec inspected the mine site and found all mine infrastructure left intact, an open mine pit with a depth of 800 feet, open tailings, waste rock piles, buried garbage, and an ore dump containing 10 000 to 20 000 tonnes of ore (Rivest, 1989). During this time, plans were made to remediate the site as a result of section 4, article 20, of the Government of Québec's 1972 Loi sur la qualité de l'environnement (Law on the quality of the environment), which states that "no one may emit, deposit, release or discharge or allow the emission, deposit, issuance or discharge into the environment of a contaminant in a greater quantity or concentration prescribed by the government" (Gouvernement du Québec, 2016). In 1994, to ensure the remediation of the Asbestos Hill mine site, the Québec Government (the owner of the Société Asbestos Limitée) sold infrastructure and equipment located at the mine site and Deception Bay in exchange for Falconbridge Ltd.'s remediation of the Asbestos Hill mine and Deception Bay area (Delarosbil, 1999).

In March 1994, Falconbridge Ltd. received the Government of Québec's reclamation plan for the Asbestos Hill mine site (Spiegle, 1994). This program required the following remediation measures: dismantling infrastructure; disposing of dangerous materials

(approximately 11 000 litres) through on-site treatment to be ultimately sent south; burning used oil; and filling the valleys around the waste rock piles with solid waste (approximately 22 000 m^3) (Spiegle, 1994). The remediation of the mine site and Deception Bay began in 1994; by the summer of 1996, Falconbridge Ltd. had spent approximately three million dollars on remediation efforts, and yet the work remained incomplete (Delarosbil, 1999; Gauvin, 1996). Finally, in early 2001, Falconbridge Ltd. ended its remediation of the Asbestos Hill mine without fully completing the Site Restoration Program, as outlined by the Government of Québec seven years earlier (Grégoire, 2001; Spiegle, 1994). Falconbridge Ltd. had yet to deal with the site's oil contaminated soil, and repair the landfill's cover that had collapsed over the previous year, leaving garbage, metals, and wood uncovered (Grégoire, 2001). To this day, the Government of Québec continues to send letters and emails to the Société Asbestos Limitée and to the Raglan Mine requesting an assessment of the state of the Asbestos Hill mine site and plans for future remediation measures (Vallières, 2015).

Figure 9: *Tailings of the Asbestos Hill mine in 2014, 30 years after mine closure (Credit: Peter Johnston, 2013).*

Falconbridge's partial clean-up did little to appease growing concerns of residents of Salluit and Kangiqsujuaq. Many continue to question the effectiveness of the remediation and are dissatisfied with the clean-up (Lanari et al., 1999). Many interviewees believe that Falconbridge took payment from the Government of Québec for an incomplete and poorly executed clean-up of the Asbestos Hill mine and Deception Bay (Lanari et al., 1999). Lanari et al. (1999) interviewed Inuit in Salluit who stated that: "Today pollution has lasting effects. [You] can see that there's some contaminants flowing from that site [the remediated tailings at Asbestos Hill] already," and "… they've not completed their work… they'd have to put in a new effort, because they did not do anything at Otter Lake. They did not clean the area of Otter Lake at all" (Lanari et al., 1999). A participant that I interviewed also expressed unease over un-remediated areas and discussed their continued potential impacts on local wildlife: "[Those] mountains of bad stuff, they didn't clean that, they [are] still like that. They clean the houses, all the stuff, looks like nobody was there, only you could know that held that dust of asbestos there. But I think they have to clean that. Every time wind they blow away to the land, to animal" (Mark Tertiluk interview, July 2015).

Inuit of Salluit and Kangiqsujuaq continue to fear cumulative and delayed environmental impacts and negative effects on wildlife due to the contamination of the Asbestos Hill mine site and Deception Bay area. Interviewees expressed frustration and resentment towards Nunavik's first mining project, which was constructed, operated, and closed without community consultation or consent. A participant interviewed by Poirier and Brooke (2000) discussed their fear of future negative impacts of mineral development, saying:

> From past observation in Deception Bay, which is to say from what I have seen in the summer by travelling on a Honda (ATV), I would not wish to see another area so treated. Old chemicals, oils and fuel tanks along the length of

> that road are leaking their contents into the environment. I've always been against doing harm to wildlife habitats; animals unknowingly sample many things which are potentially harmful, and I'm sure there's been some impacts on some species. I don't wish to see this happen again.
>
> - Inuk resident of Salluit

Other interviewees made similar statements, discussing the desire to learn from past mistakes and to ensure that future mining projects have fewer impacts on the environment and on wildlife.

Finally, some interviewees expressed their desire to see some sort of compensation for the negative impacts incurred during the construction and operation of the Asbestos Hill mine, as well as for the continued effects on the environment and wildlife. During an interview with Taqramiut Nipingat Incorporated (TNI) radio (2010), Qalingo Angutigirk, resident of Salluit, explained his frustrations with the Asbestos Hill mine:

> The miners had absolutely no regard for the impact of asbestos on the wildlife. The miners did not seem to think about the impact of their work on the people and the environment […] I know for sure that asbestos has greatly impacted and completely and utterly destroyed our wildlife […] There is not much we can do about it now […] I believe that the companies should pay compensation to us because they have destroyed our land and our animals. That mine up there has been closed for a long time, but when they were planning to leave, they buried all their garbage. I have talked about this to the mining companies and the environmental people, but if that lake were to overflow it would destroy everything and go all over the place because it is starting to fill up with snow and water
>
> - Qalingo Angutigirk, interview by P. Ilisituk, December 9 2010

Many interviewees made similar comments that they believed that Inuit of Salluit and Kangiqsujuaq deserved compensation from the Société Asbestos Limitée as a form of justice and as an acknowledgement of the company's wrongdoings. In terms of the mine remediation, the

last efforts by Falconbridge Ltd. were conducted in 2001, after which no more reclamation work was done. Today, the Kativik Environmental Advisory Committee (KEAC) continues to inspect the site on a yearly basis, with both the KEAC and the Government of Québec pushing the Société Asbestos Limitée to finish the remediation of both Deception Bay and the Asbestos Hill mine site. Unfortunately for Inuit of Salluit and Kangiqsujuaq, reclamation may take years to recommence, forcing local Inuit to adapt, either changing their locations of traditional subsistence activities or conducting them within an unremediated territory.

Health and Social Impacts

Mineral development in the Canadian north often leaves behind lasting health and social legacies for Indigenous peoples and communities. Environmental contamination and un-remediated past mine sites affect human and wildlife health, while the social impacts and legacies of mine operations affect community wellbeing, social cohesion, and individual health (Rodon et al., 2014). Previous mine operations in the Northwest Territories, such as the Eldorado (1932-1982) and Giant (1948-2004) mines, are examples of historical mineral development projects that have left behind lasting health impacts and legacies (Keeling and Sandlos, 2009; O'Reilly, 2015). Both mine sites continue to hold toxic contaminants, such as radioactive contaminants and arsenic trioxide, which have been linked by community members to local deaths and illnesses, and continue to affect the perceived safety of nearby residents and Aboriginal peoples. In terms of social impacts, studies have shown that the transition process from a traditional lifestyle to a modern wage economy, as often occurs when mining is introduced in Arctic Canada, leads to social and public health problems, such as violence, alcoholism, and suicide (Buell, 2006; Angell and Parkins, 2011; Gibson and Klinck, 2005). In

the case of the Asbestos Hill mine, today's two remaining health and social issues and concerns in the communities of Salluit and Kangiqsujuaq, as introduced through the operation of the Asbestos Hill mine, are concerns of negative health impacts as a result of exposure to asbestos fibres, as well as issues of substance abuse.

Occupational exposure to asbestos can lead to many illnesses, which can ultimately result in prolonged sickness and even death. Yet the Québec Government historically denied the health impacts of asbestos, due to the important contribution of asbestos mining to the province's economy and its role as a large employer (Van Horssen, 2010, p. 245-246). At the time of the Asbestos Hill mine's operation in 1972, when the asbestos industry was in decline, the construction of this mine was seen as a means of reaping profits while still possible. By 1982, sales were at an all-time low due to growing awareness of the negative health impacts of asbestos, leading to the halt of asbestos mining at Asbestos Hill. Despite these growing concerns over the effects of the mineral, workers employed at the mine were not given proper safety training or warning about its impacts to health (Poirier and Brooke, 2000). As the first remote project in the Canadian Arctic to be subject to unionization, Asbestos Hill mine workers were members of the *Confédération des syndicats nationaux* (confederation of national unions) (CSN), the same union as asbestos miners in southern Québec (Saunders, 1976). However, unlike asbestos mines in the South, which could regularly be visited and inspected by union representatives, isolation of the Arctic, which increased the costs of travel to the Asbestos Hill mine, lessened the union's presence and the spread of information, leaving mine workers less educated on the health impacts of asbestos. A newspaper article published in the *Montreal Gazette* on June 9, 1975, three years after the start of mining production, shed some light on the high asbestos dust levels at the Asbestos Hill mine, citing a study conducted by the

Confederation of National Trade Unions (CNTU) (Gordon, 1975). The study of the working conditions at Asbestos Hill was part of a Québec-wide testing of asbestos producing mines, which resulted from the global concerns over the health impacts of asbestos (Gordon, 1975; Van Horssen, 2010, p. 264).

By 1975, asbestos mine workers and unions were actively fighting for better safety regulations and compensation, conducting many month-long strikes to have their demands met (Gordon, 1975). When sampling was conducted in the summer of 1974, Asbestos Hill mine workers were found to be working in unsafe conditions, with dangerous levels of asbestos fibres in the air. Certain areas tested measured up to 726.7 fibres per cubic centimeter, which is well above the international permissible limit of 5 fibres per cubic centimeter (Gordon, 1975). In one area, there was too much asbestos dust to be measured by government instruments. In the final report, the CNTU put forward many recommendations to decrease asbestos fibre concentrations in the air, such as installing a dust collection system in ventilation shafts and regular vacuum-cleaning of surfaces in buildings (Gordon, 1975). The following year, on May 13, 1976, the Government of Québec's Standing Committee on Natural Resources and Land and Forests discussed the report's findings (Government of Québec, 1976). The committee noted that the plans authorized by the government showed the installation of air filtering systems within the mine's facilities. However, these systems were never installed and, as a result, the levels of asbestos fibres in the air were extremely high. Finally, the committee decided that it would forward the CNTU's report to the Société Asbestos Limitée as soon as possible (Government of Québec, 1976). It is possible that the mine's isolation affected the ability of the union to ensure that regulations and work safety practices were upheld. The CNTU may have been unable to re-assess the state of the dust levels at Asbestos Hill following this report.

During their time at the Asbestos Hill mine, Inuit workers were unaware of the potential negative health impacts of exposure to asbestos fibres as neither the Société Asbestos Limitée nor the Government of Québec sought to inform workers of this possibility or of precautionary work measures. Past mine worker Kakkiniq Naluiyuk recalled: "[We] were not consulted [about the Asbestos Hill mine], even though the asbestos fibre was bad for our health […] nobody was [told] that the mine was bad for your health" (Kakkiniq Naluiyuk interview, June 2015). Although Inuit were unaware of the health hazards of asbestos, some Inuit working at the mine remember *Qallunaat* workers' heightened safety measures and these non-Inuit workers' knowledge of impacts, as southern Québec and the rest of the world were learning of the increasing concerns and studies showing the deadly health effects of exposure to asbestos through radio and newspapers. During a 2010 interview on TNI radio with host Putulik Ilisituk, Mark Kadjulik discussed the safety measures taken by a *Qallunaat* co-worker:

> MK: [There] was a lot of dust [in the asbestos warehouse] and it was hard to breathe in there. I had made my own mask using an ordinary cloth as my co-worker did the same thing and I copied him.
>
> PI: Did anyone ever talk about the health hazards of the asbestos?
>
> MK: No one talked about it, but my co-worker was no fool and he already knew the problems with asbestos. He made his own mask out of cloth and I did the same thing as the company did not provide us with masks when we worked in that warehouse
>
> - Mark Kadjulik, interview by P. Ilisituk, December 16, 2010

When asked about the safety measures of working with asbestos, other former Inuit workers recalled similar experiences when *Qallunaat* workers took their own safety precautions, despite the mine company's lack of safety measures.

Even after the mine closure, governments and the Société Asbestos Limitée failed to inform community members and past Inuit workers of the potential health problems incurred by working at the asbestos mine. Residents of Salluit and Kangiqsujuaq began to understand the potential health implications of the fibre in the late 1980s and 1990s due to the spread of mass media throughout the Canadian north, as a result of the growing accessibility to television and satellite television. (CBC, 2016). As a result, some residents, such as Kakkiniq Naluiyuk of Salluit, learned of these impacts through a news source: "The only [way] we find out that the asbestos fibre [is toxic] is from the news. After, the mine they never tell us that asbestos fibre was bad for your health" (Kakkiniq Naluiyuk interview, June 2015). Others, such as Kangiqsujuaq resident Yaaka Yaaka, discussed seeing advertisements on American cable channels discussing the compensation possibilities for those with illnesses acquired from working with asbestos: "[We] see on TV, 'Anybody who's ever been exposed to asbestos who's contracted mesothelioma actually stands to get something in return'" (Yaaka Yaaka interview, July 2015). These commercials have both informed residents of Salluit and Kangiqsujuaq of the health implications of asbestos exposure, and also led them to question whether former Asbestos Hill mine workers' health problems were the result of their occupational exposure:

> I never used to have [this cough] before I started working [at the Asbestos Hill mine]. I wanted to talk about it, because on TV sometimes I see a commercial about a breathing, [about] mesothelioma. It comes from breathing asbestos and I think I may have caught it because I worked in [the asbestos storage facility] where there was a lot of […] asbestos powder and I have breathed it.
>
> - Mark Kadjulik interview, June 2015

Mark Kadjulik and a handful of other interviewees recalled seeing similar commercials and inquired with Makivik Corporation about potential compensation claims made against either the Government of Québec or the Société Asbestos Limitée.

Today, many past Asbestos Hill mine workers of Salluit and Kangiqsujuaq are deceased, mostly due to various cancers or heart problems. Many of those still living worry about their own health. The community of Kangiqsujuaq expressed much more concern about the health implications of asbestos exposure, as only two of their past Asbestos Hill mine workers are still alive today. During my meetings with the Kangiqsujuaq community council, the community's main concern involved further research on the impacts of asbestos and appropriate compensation for the loss of their community members. Yaaka Yaaka discussed the health impacts of asbestos on the community of Kangiqsujuaq:

> [For] the people who actually worked [at the Asbestos Hill mine], people who were handling the processed asbestos, […] two in town are still alive, the rest have all died [from] cancer. […] Back then we didn't have any […] proper healthcare. We only had this little nursing station [with] no proper means of diagnosing what the problem was. […] [They] were actually flown out of here to go down to Kuujjuaq or Montreal for proper diagnosis because we didn't have those equipment here. It was way too late. [They] were just sent back home to die. [That] was a very common thing for people, especially [people] who worked at the Asbestos Hill [mine].
>
> - Yaaka Yaaka inteview, July 2015

The lack of medical diagnostic equipment and doctors in the communities of both Salluit and Kangiqsujuaq made early diagnosis of health problems, including those potentially linked to asbestos exposure, very difficult.

The interviewees in Salluit and Kangiqsujuaq, as well as the councils and mayors of each community attributed most of the deaths of the past mine workers to their exposure to asbestos. Both communities discussed the possibility of compensation for the perceived asbestos-caused sickness and deaths of family members and friends, saying that: "[The former Asbestos Hill mine workers and their families] want to […] get compensation, to hire a lawyer to go after those

people who were running the company" (Putulik Ilisituk interview, June 2015). However, many interviewees recognize the factors that make compensation claims difficult, such as a lack of medical evidence, the absence of past mine workers to make the claims, and so on. Into the 1980s and 1990s, Inuit in Salluit and Kangiqsujuaq had limited access to medical professionals and advanced medical equipment for medical testing. Furthermore, medical professionals were unilingual and in most cases required an Inuit translator, making medical assessments difficult (Pernet, 2014; Haché, 2009). Yaaka Yaaka voiced these concerns during his interview, saying: "[In] one family there might be one to three people who were […] affected or died because of […] various ailments [caused] by exposure to asbestos, but […] there's scant little in the way of evidence. There's no records of these things, all we can do is […] come to our own conclusions" (Yaaka Yakka interview, July 2015). Inuit are left wondering if their family and friends who worked at the Asbestos Hill mine died earlier due to their work at the mine and the lack of awareness of these issues.

> [Our history with asbestos mining is] something that needs to be learned or made known. [There] are those of us who were left behind by our parents or uncles, [people] who worked up there who have always been left to wonder why [their family member died at such a] young age. […] For people to die in their 50s, 60s and 70s, there's a big question mark there. One of the hazards of living in the North, you get exposed to asbestos.
>
> - Yaaka Yaaka interview, July 2015

In the communities of Salluit and Kangiqsujuaq, the history of the Asbestos Hill mine is very rarely discussed, with many of the younger population left unaware of the history of the region's first mine. Many interviewees from both communities, as well as the community council of Kangiqsujuaq, specified the communities' need for information gathering and sharing to non-Inuit and Inuit alike.

Today, family members, friends of past Inuit Asbestos Hill mine workers, and the workers themselves are left feeling wronged and exploited by the Société Asbestos Limitée and the Government of Québec. Not only did both parties keep Asbestos Hill mine workers in the dark about the negative health impacts of extended exposure to asbestos--for which they had scientific proof-during the operation of the mine, but both the government and the Société Asbestos Limitée failed to acknowledge these issues and inform the community following the closure of the mine. As a result, residents of Salluit and Kangiqsujuaq have found it difficult to trust the subsequent companies that explored and mined in their region, such as Falconbridge. A few interviewees discussed the communities' desire to never again have a mining company treat them the way the Société Asbestos Limitée did. Interviewees, such as Kakkiniq Naluiyuk, described taking charge and negotiating with mine companies that came after the Asbestos Hill mine: "Asbestos Hill mine they didn't want to have nothing to do with us. They go there, they started to work without ever tell us what they gonna be doing and they go out just like that, again. They don't tell us, they don't tell the community what they were doing. For that reason we want to start negotiating with the second mine that was Raglan" (Kakkiniq Naluiyuk interview, June 2015). Many interviewees made similar comments indicating their mistrust of the Société Asbestos Limitée.

The second health and social impact discussed by interview participants was the introduction of drugs and alcohol to the communities of Salluit and Kangiqsujuaq through the Asbestos Hill mine. The introduction of drugs and alcohol in northern communities frequently created social problems and negatively impact community members' health and wellbeing. Research conducted on the impacts of mining on northern communities shows that mineral development often leads to an increase in problems with drug and alcohol consumption (Rodon

and Lévesque, 2015; Blais, 2015; Bowes-Lyon et al., 2009; Brubacher and Associates, 2002). The overuse of drugs and alcohol over a significant period of time leads to serious health issues, such as brain damage, cirrhosis of the liver, and fetal alcohol syndrome (Gibson and Klinck, 2005; Korhonen, 2004). For Inuit, doctors Bjerregaard and Young (1998) found that the most important health effects of alcohol and drug misuse on Inuit "are accidents and violence resulting in cuts, bruises, fractures, head injuries, etc. Drownings, falls, frostbite, burns and pneumonia are other results of intoxication and there is a direct association between alcohol misuse and suicides. In a longer perspective, drinking also leads to social problems in the home such as spouse and child abuse or family breakup, and to economic problems and loss of jobs due to instability at work" (Bjerregaard and Young, 1998). For a community, substance addiction leads to increased family instability, abuse, crime, and vehicle and other accidents (Rodon and Lévesque, 2015). Parents struggling with alcohol or drug addiction often neglect their parental responsibilities, providing a problematic home environment for developing children and youth (Gibson and Klinck, 2005; Korhonen, 2004). Finally, recovering from such addictions is extremely difficult and time intensive, proving to be a long process and a tough task associated with high amounts of anxiety. Recovering from drug and alcohol addictions is especially difficult in the North, where there are limited mental health and addiction services, and poor general health services (ICCC, 2011).

Prior to the Asbestos Hill mine, Inuit of Salluit and Kangiqsujuaq had little access to alcohol, mostly in the form of home-made beer or moonshine as taught by employees of the HBC, and no access to drugs. It was only through the Asbestos Hill mine that communities and Inuit mine workers were introduced to drugs and gained access to a wider variety of alcohol (Willie Keatainak interview, May 2015; Putulik Ilisituk interview, June 2015). Interviewees

pointed to the Asbestos Hill mine as the catalyst for drug and alcohol problems within the communities of Salluit and Kangiqsujuaq, with one stating that "the culture, the drug culture began with the Asbestos Corporation and it's not stopped since" (Paul Okituk interview, June 2015). Following the mine's closure, residents of Salluit and Kangiqsujuaq maintained their access to alcohol by ordering it through the mail from liquor stores in southern Québec. There was no limit to the amount that they could order, which, according to Willie Keatainak, led to "more social unrest for the community, [especially] for some of the families" (Willie Keatainak interview, May 2015).

In small northern communities, these impacts are felt more strongly because of limited social support programs and other factors that affect the community's ability to cope (Gibson and Klinck, 2005; Blais, 2015). Since the closure of the Asbestos Hill mine, drug and alcohol use and abuse in these two northern communities of Nunavik remain a problem. In recent years, this problem has been exacerbated due to resource revenues received through the Raglan Impact and Benefit Agreement (Rodon and Lévesque, 2015; Blais, 2015). In an interview between master's student, Jonathan Blais, and a resident of Salluit, the interviewee stated that the presence of mining gave the communities "access to alcohol and drugs, which lead to accidents, violence, a lot of conjugal violence, more sexual abuse" (Blais, 2015, translated from French, p. 56). Most interviewees noted that since entering their communities through the Asbestos Hill mine that drugs and alcohol have remained a pressing issue since, with no end in sight.

The introduction of drugs and alcohol from the Asbestos Hill mine proved extremely disruptive for those who suffered from substance abuse and their families; it also altered the dynamics of the communities. Many interviewees pointed out that the proliferation of these addictive substances negatively affected community health and threatened Inuit culture as many

became more interested in drinking than hunting or participating in other traditional activities. As the previous chapter discussed, the introduction of drugs and alcohol to local Inuit communities was later seen by some interviewees, such as Yaaka Yaaka, as an assault on Inuit culture, as it affected community health and individual well-being (Yaaka Yaaka interview, July 2015).

Cultural Impacts

The Asbestos Hill mine came to Nunavik at a time of great change for the region's Inuit. As the mine was being built, Inuit were beginning to attend formal schooling institutions in local federal day schools and in the residential school in Churchill, Manitoba. The federal government built houses and communities and provided child and welfare payments to Inuit who settled into these permanent settlements. Major changes were taking place, which affected the Inuit way of life and culture. In the communities of Salluit and Kangiqsujuaq, the development of mining increased the speed of modernization. This had serious implications for local Inuit culture.

Angell and Parkins (2011, p. 67) define Aboriginal culture as the "unique set of beliefs and practices which have successfully sustained aboriginal peoples physically, socially, and spiritually, since time immemorial." More specifically, Inuit culture rests on language, spirituality, traditions, country food, and traditional subsistence practices of hunting and gathering (Poirier and Brooke, 2000). Cultural traditions and practices are integral to the wellbeing of Inuit communities as participation in subsistence activities provides "social continuity with the past and a vital sense of self-worth to those struggling with a new identity in a changing northern world" (Condon et al., 1995, p. 43). A former Inuit Asbestos Hill mine worker described the importance of his culture when he stated, "Even if you try and change me, you can't change me. It's [our] culture, the way we live, it's too precious. It's in us" (Willie

Keatainak interview, May 2015). Inuit of Salluit and Kangiqsujuaq value their culture and are aware of the changes it has undergone since the arrival of mining.

The introduction of mining to Nunavik contributed to modernization efforts of both the federal and Québec governments, leading Inuit to join the wage labour economy and moving to a sedentary lifestyle. The jobs produced by the Société Asbestos Limitée reinforced this new sedentary lifestyle and provided jobs to Inuit who would have otherwise been hunting. Some research has shown that Aboriginal people with high wages and rotational employment are likely to continue subsistence activities (Keeling and Boulter, 2015; Boutet et al., 2015). That being said, the FI/FO nature of the mining operation, which kept Inuit working for three months at a time with only two weeks off, made it impossible for Inuit working at the mine to pursue traditional hunting practices. The earnings from work at the mine allowed Inuit workers to purchase hunting equipment, such as snowmobiles and rifles, which they lent to family members and friends who were then able to continue the traditional economy (Natcher, 2009; Harder and Wenzel, 2012). At the same time, the communities of Salluit and Kangiqsujuaq were missing a substantial amount of their hunters for extended periods of time. While at work, Inuit mine workers could not partake in subsistence activities nor the transfer of knowledge to their children. The following is the account of the son of a former Inuit Asbestos Hill mine worker from Quaqtaq:

> The experience that my family went through because of my father going to the [Asbestos Hill] mine was really a bad experience because of the separation [of] six months [when my father] was working there.
>
> - Aloupa Kulula interview, July 2015

By adapting to the changing realities of Nunavik, Inuit were rapidly transitioning from subsistence to semi-subsistence lifestyles. During an interview on TNI radio, a former Inuit Asbestos Hill mine worker stated the following:

> PI: Has the Inuit way of life been affected [by the Asbestos Hill mine]?
>
> QA: Yes, that was the time our way of life was adversely affected because the persons responsible had absolutely no regard for us as a people […] We did not feel the change coming as it happened very fast. I recognize that Purtuniq had caused this.
>
> - Qalingo Angutigirk, interview by P. Ilisituk, December 9, 2010

Interviewees pointed to the arrival of the Asbestos Hill mine as the accelerator of change and modernization in the Nunavik communities of Salluit and Kangiqsujuaq.

Interactions with *Qallunaat* introduced Inuit to new cultures and substances that changed their lifestyles. While working at the Asbestos Hill mine, Inuit workers interacted with and worked alongside non-Inuit workers. This was the first voluntary encounter between *Qallunaat* and Inuit, whereby both parties were in relatively equal positions, as co-workers rather than part of a power dynamic of teacher-student. Unlike recent research by Blais (2015) on the impacts of the Raglan Nickel mine on Inuit of Salluit and Kangiqsujuaq, which showed that relations between francophone and Inuit workers at Raglan are particularly difficult, former Inuit workers at the Asbestos Hill mine did not recall any racially charged interactions with *Qallunaat* workers. Instead, Inuit workers were introduced to the culture of the other francophone workers and to new religions. When asked if Inuit Asbestos Hill mine workers had changed from working at the mine, long-time resident of Salluit replied:

> Yes, I think in a way, because some of these young men who used to work for [Asbestos Hill] when they came back [they] knew something that we didn't know because they had been introduced to a culture […] from the South […]

> The way the white culture ran their life in the mines had a run off on the Inuit people too.
>
> - Putulik Ilisituk interview, June 2015

Inuit who worked at the Asbestos Hill mine met non-Inuit workers with a variety of different religious beliefs and learnt more about them from these workers. Salluit resident Putulik Ilisituk remembers Inuit miners sharing religious teachings with community members:

> [Some] of the Inuit people who worked there got to learn about [the beliefs] of the white people […], like cults. [One Inuit] came back and said that he believed in [a] cult that he learned from the white people [at the Asbestos Hill mine, called:] "Jehovah's Witness". [He] got into it [and] started talking about it in the village, which was kind of new to us.
>
> - Putulik Ilisituk interview, June 2015

Although Inuit of Nunavik had previously been introduced to Christianity (Catholicism and Anglicanism), Inuit Asbestos Hill mine workers were among the first Inuit of Nunavik to be introduced to other religions.

After the mine's closure, Inuit had grown accustomed to this new way of life and continued participating in the cash economy by seeking paid labour positions in their communities or in mineral exploration and future mines. Today, Inuit of Salluit and Kangiqsujuaq are considered modern hunter-gatherers, living semi-subsistence lifestyles as 'weekend warriors' whereby they work steady, scheduled jobs and hunt and fish on their days off work and on weekends (Poirier and Brooke, 2000). Cultural values and practices continue to guide Inuit of Kangiqsujuaq and Salluit, but they have diversified their methods of subsistence by integrating *Qallunaat* technologies and adopting a cash income economy. Inuit have added southern foods to their diet, but country food remains an extremely important part of the diet of

Inuit in Nunavik (Natcher, 2009). A long-time resident of Salluit discussed the changes to Inuit lifestyles in the following statement:

> People are more independent now. [They] can find jobs to earn some money to make a living, to put something on their table to eat, to survive. [The] jobs are here. We just need to learn in school and go to training courses […] Years and years ago there was nothing except the animal to hunt and to survive from that animal. It's the same today, [we] hunt a job and make a living and survive, earn money, [to] get by with the food that you need and the bills that you need to pay. Same as anywhere else.
>
> - Putulik Ilisituk interview, June 2015

The Asbestos Hill mine contributed to cultural transformations to the Inuit of Salluit and Kangiqsujuaq. That being said, it is the modernization agenda of the federal government that laid the groundwork for changes to the Inuit way of life by moving Inuit into villages and providing mandatory formal education. The introduction mining to the region simply increased the rapidity of modernization by providing access to wage employment and drugs and alcohol to Inuit workers.

Economic Impacts

The Asbestos Hill mine was Canada's first fly-in fly-out operation (Storey and Shrimpton, 1988). The findings of this study reinforce Storey and Shrimpton's (1988) research that shows that FI/FO operations generate few long-term economic benefits for local communities, as labour and equipment is mostly imported and profits are exported. In the case of this mine, Inuit of Nunavik, and more specifically of Salluit and Kangiqsujuaq, received few economic benefits from the operation. All monetary benefits were short-term and resulted from direct employment at the mine and the sale of local art to *Qallunaat* mine workers.

The Société Asbestos Limitée did not seek to stimulate the economy of Nunavik through the Asbestos Hill mine: the vast majority of its labour and all of its infrastructure were imported, and mined asbestos was exported. Since its labour was mainly flown in from other regions of Canada, mainly the Thetford Mines area of southern Québec, from the beginning the operation's priority was profit rather than the creation of local Inuit employment. Thus the Asbestos Hill mine failed to substantively expand or diversify the local economies of Salluit and Kangiqsujuaq or the wider region. Both skilled and unskilled workers from southern Québec and other parts of Canada[1] were flown up to the mine site from Montreal to work rotations of three months on and two weeks off. The FI/FO structure of the operation and the absence of Impact and Benefit Agreements at the time make it clear that the long-term local benefits of mining are at best minimal.

The Asbestos Hill mine was the first large-scale employment available to Inuit of Nunavik. Interviewee accounts suggest that the Asbestos Hill mine did not employ a substantial number of Inuit employees nor provide local communities with many economic benefits. The majority of Inuit employees were hired as labourers and given jobs that required little training or education. Some Inuit workers were able to eventually receive on-the-job training, with some receiving formal training, for other skilled jobs, such as heavy equipment operators, mechanics, or electricians. It is important to note that no women were employed at the Asbestos Hill mine as it was strictly a male-run operation. This decreased the ability of local Inuit residents to take advantage of economic opportunities at the mine, such as allowing women to receive direct benefit through the sale of Inuit art to *Qallunaat* workers at the mine or from relatives or friends

[1] Due to the lack of employee records, specific demographic information on the origins of non-Inuit, commuting miners was unavailable.

working at the mine. Resident of Kangiqsujuaq and past Asbestos Hill mine worker Mark Tertiluk explained the economic benefits of Asbestos Hill when he said:

> [The Asbestos Hill mine] didn't give anything, you know? They didn't give money for communities. [Now] we get every year money from Katinniq [Raglan Nickel mine]. Asbestos never did that before. Only we go to sell
>
> carving we get money [or we work there], that's it.
>
> - Mark Tertiluk interview, July 2015

Unlike current mines in Nunavik, which provide many benefits to local communities, the Asbestos Hill mine was mainly only beneficial to Inuit working at the mine.

After the mine closed, former Inuit workers had no remaining money to show for their work, as most had been spent during the mine's operation on daily living expenses, supporting unemployed family and friends in the communities, and possibly drugs and alcohol. Most recalled using their accumulated paychecks to buy a snowmobile for themselves or their family.

For residents of both Salluit and Kangiqsujuaq, the mine's closure and the end of regular salaries made it very difficult to continue with their newly adopted lifestyle, as snowmobiles purchased while working for the Société Asbestos Limitée required money for equipment and gas. Salaries were simply a short-term benefit that dried up once the mine left. However, Inuit who worked in trained positions at the mine were able to return to their communities and work as heavy equipment operators, mechanics, or electricians, helping construct the first airstrips in Salluit and Kangiqsujuaq. Furthermore, when the Raglan Nickel mine began construction, then operation, some Inuit were able to use their skills acquired at the Asbestos Hill mine to secure employment at Raglan. A former Inuit Asbestos Hill mine worker stated that:

> [For] us, for the Inuit, [the Asbestos Hill mine] affected people who were working there, but at the end they got their experiences and they had the work background to be able to land jobs in the community or in the region.
>
> - Willie Keatainak interview, May 2015

Overall, the mine only created economic benefits for a select few Inuit of Nunavik, most of whom were from Salluit and Kangiqsujuaq, the closest communities to the mine. For those who were not directly employed at the mine, the only economic benefits they received were through friends and relatives employed by the Société Asbestos Limitée or through the sale of their art to non-Inuit mine workers. The communities did not receive any direct long-term benefits from Nunavik's first mine.

The Raglan Mine

In the first few years following the closure of the Asbestos Hill mine, concerns increased over the environmental legacies of the mine. At the same time, Inuit were confident that there would be new mining ventures in the near future, bringing with them steady employment and income. Inuit anticipated the construction of the Raglan mine. However, residents of Salluit and Kangiqsujuaq feared the mine would operate similarly to the previous one, without consultation or negotiation with nearby Inuit communities. The Société Asbestos Limitée's colonial attitude and the absence of community consultation or benefits for Inuit communities, as well as the mine's negative environmental impacts, and non-existent remediation measures motivated Inuit of Salluit and Kangiqsujuaq to demand better treatment from future mining companies. As Green (2012) stated, "Northern mining towns that are faced with dire environmental impacts have no choice but to remember industry" (Green 2012, p. 90). In the case of the Asbestos Hill mine, the negative environmental and social memories of this operation led local Inuit to negotiate the first

Impact and Benefit Agreement (IBA) between an Aboriginal group and a company in Canada, the 1995 Raglan Agreement (Blais 2015). Falconbridge Ltd.'s Raglan mine began extracting nickel from its mineral deposits in December 1997 (Blais, 2015). Willie Keatainak, a former Asbestos Hill mine worker and a negotiator of the Raglan Agreement, explained:

> When this present mine [Raglan] […] wanted to open up, [Inuit of Salluit and Kangiqsujuaq] were lucky to have [signed the James Bay and Northern Québec] agreement already. [We] used that tool to mediate and try to come up with a solution that would benefit both the community and the mine, and we did.
>
> - Willie Keatainak interview, May 2015

Although the Raglan mine sits on Inuit Category III land, which is considered public land and is thus subject to the principles of free mining, the JBNQA gives power to Inuit through the environmental requirements that it imposes (Grégoire, 2013). The Kativik Environmental Quality Commission (KEQC), an administrative entity jointly controlled by Inuit and the Government of Québec, gave Inuit the ability to negotiate with Falconbridge Ltd and influence the Company's future decisions (Grégoire, 2013).

Many interviewees described the negotiation of the Raglan Impact and Benefit Agreement as a proud moment in their history, when negative experiences with the Asbestos Hill mine motivated Inuit of Salluit and Kangiqsujuaq to use the JBNQA to better the future for Inuit. For Inuit of Nunavik, the Raglan Impact and Benefit Agreement provides many benefits, including scholarships, training opportunities, job opportunities, and profit-sharing, with Inuit receiving 4.5% of the mine's profits, split between Salluit (45%), Kangiqsujuaq (30%) and the region of Nunavik (25%) (Blais, 2015, p. 10-11). A resident of Salluit discussed his thoughts on having the first IBA in Canada, stating: "We should not have been first, but we were and now it's being done all over the country" (Paul Okituk interview, June 2015). Today, Impact and Benefit

Agreement are very common and most mines in northern Canada have such agreements with local First Nations.

Community members of Salluit and Kangiqsujuaq have found that the Inuit's "relationship [with Raglan] is night and day" compared to that with the Société Asbestos Limitée and that "if you were to compare the two, there was no communication with Asbestos Corporation, but with Raglan now we use all means to talk to each other" (Paul Okituk interview, June 2015). Inuit of Salluit and Kangiqsujuaq often compare Nunavik's first mine with the Raglan mine and feel proud of their fight to be recognized by mining companies and governments and the part they played in increasing Aboriginal community rights.

Today, the Raglan mine continues to operate at high capacity under its new owner, Glencore Canada Corporation (Blais, 2015). Raglan employs over twice as many people as did the Asbestos Hill mine, with 854 employees during the 2012-2013 period, 152 of them Inuit (Blais, 2015). Since then, Inuit employment rates have slightly increased, bringing the percentage of Inuit workers up to 20% of the total workforce in 2015 (Rogers, 2015). In December 2015, on the 20th anniversary of the Raglan Impact and Benefit Agreement, Glencore announced its plans to expand the mine's lifespan from the originally planned 2020 closure. Raglan's second phase, the Sivumut project, which includes the development of two new underground mines, is set to run from 2019 to 2032 (Rogers, 2015). As such, the economic future of mining in Nunavik is bright.

Conclusion

In the end, the closure of the Asbestos Hill mine had few immediate impacts on the lives of Inuit Asbestos Hill mine workers and residents of Salluit and Kangiqsujuaq. The departure of

the Société Asbestos Limitée came at a time when there were other employment opportunities in the region and many Inuit had left work at the mine to return to their communities. As a result, former Inuit workers were able to adapt to the loss of income and many found other jobs in their communities and elsewhere in Nunavik. The only benefit to communities was through some direct employment or the infrequent sale of Inuit art to *Qallunaat* miners, so residents of Salluit and Kangiqsujuaq did not experience much economic loss from the mine's closure. That being said, the Asbestos Hill mine left behind negative environmental, socio-cultural, and health legacies, leading many residents of these Inuit communities to remember the mine as a time in their history when they were disrespected, taken advantage of, and left to deal with the remaining problems. At the same time, as previously discussed in Chapter 3, the positive memories of former Inuit mine workers' experiences at the mine left these workers with a more nuanced view of Asbestos Hill, nostalgically recalling life at the mine, while also grappling with the current negative legacies.

At closure, the Société Asbestos Limitée left the Asbestos Hill mine site and Deception Bay area without conducting any mine site remediation. In Salluit and Kangiqsujuaq, concern over the negative impacts of leftover asbestos fibres and other contaminants on the environment and on wildlife grew as the years passed. Despite the many years of delays Asbestos Hill clean-up, the majority of the remediation was conducted by 2001, as per the Government of Québec's 1994 agreement with Falconbridge Ltd. Yet, the reclamation work is far from finished and, as a result, the Government of Québec and the Kativik Environmental Advisory Committee continue to remind the Société Asbestos Limitée to complete the mine site restoration. This legacy leaves Inuit residents questioning the strength of the governmental policies, as the remediation work continues to be tossed from one company to another. Over thirty years after the close of Asbestos

Hill, more than twice the mine's lifetime, the remediation of the mine site and Deception Bay has yet to be completed.

The Asbestos Hill mine introduced drugs and alcohol, as well as wage labour to residents of Salluit and Kangiqsujuaq. The transition from subsistence to a wage labour economy signalled the end of the traditional economy of food sharing and instead led communities to live semi-subsistence lifestyles, requiring employment income to pay for traditional activities. Currently, these communities continue to experience problems with drug and alcohol addiction, which have been exacerbated by the Raglan and Nunavik Nickel mines. Drugs and alcohol negatively affect community and individuals' health. Similarly, residents of Salluit and Kangiqsujuaq continue to fear the health effects of asbestos exposure, believing that many former Asbestos Hill mine workers from their communities died as a result of working at the Asbestos mine. However, the Raglan Impact and Benefit Agreement is a source of optimism for the communities.

The Raglan Agreement was born out of the negative community experiences with the Asbestos Hill mine. During the planning stages of the Raglan mine, Inuit of Salluit and Kangiqsujuaq were able to use their political power acquired from the signing of the JBQNAto negotiate an Impact and Benefit Agreement between Falconbridge and Inuit of Kangiqsujuaq, Salluit, and Nunavik, the first agreement of its kind in Canada. The communities' negative experiences with its first mine allowed Inuit of Salluit and Kangiqsujuaq to pave the way for constructive mining negotiations and benefits for Indigenous communities throughout Canada. As a result, although the Asbestos Hill mine is often remembered as a time in Nunavik's history when Inuit were subject to colonial practices, disrespected, and exploited, the mine was a positive experience for Inuit workers and the negative memories of this mine were able to bring about positive change through an innovative agreement.

CHAPTER 5

CONCLUSION

Introduction

Originally, this thesis set out to fill a gap in the academic body of literature surrounding the historical impacts of mining in Nunavik (northern Québec). More specifically, this project aimed to explore and document the experiences of Inuit of Salluit and Kangiqsujuaq with Nunavik's first mine, Asbestos Hill (1972-1984), and to understand the mine's socio-economic and environmental legacies. As such, this thesis contributes to our understanding the region's history of mining, past issues, and controversies. This study provides insight into Inuit encounters with past mining, which helped shape local Inuit perceptions of industrial mineral development at a time when mineral exploration and development is increasing. This thesis argues that Nunavimmiut encounters with past mining are complex, as they evolve over time with the shaping, re-shaping, and loss of memories, and as local Inuit continue to deal with the environmental and health legacies left behind by the mine. As a result, Inuit experiences with Asbestos Hill cannot be simply categorized as good or bad. Instead, this thesis suggests that experiences with mining cannot be generalized or simplified, as even within one Inuit community there can be a variety of opinions and experiences that diverge one from another. Additionally, what begins as a positive mine operation, viewed by many as beneficial and un-harmful can quickly change upon closure, depending on locals' ability to cope with the loss of wages and the clean-up and remediation measures undertaken.

Although the focus of this thesis is on Arctic Québec's communities of Salluit and Kangiqsujuaq and their encounters with the Asbestos Hill mine, it also aimed to add to the growing body of literature on the socio-environmental impacts of mineral development in

northern Canada and, more specifically, in Nunavik. Research into past mining and northern Indigenous communities have tended to be one-sided, focusing on the social and environmental impacts of mining operations on Indigenous peoples, and viewing this as a relationship where Indigenous communities are acted upon. However, recent scholarship has begun to examine Indigenous experiences with mining as multi-faceted *encounters*, moving away from the typical narratives of colonial forces controlling the fate of Aboriginal and Inuit communities. Instead, contemporary case studies, along with this thesis, study the relationship between past mines and Indigenous peoples as complex encounters between mine companies, governments, and Indigenous communities with agency.

Indigenous experiences with past mining operations throughout northern Canada are varied and complex, with many aspects playing a part in the construction of memories. Results from other studies show that the impacts of mining in northern, isolated, Indigenous areas are more heavily felt due to the remoteness of these regions, the slow growth periods of these colder climates, cultural and traditional connections of Indigenous peoples to the land and wildlife, and limited economic and wage labour possibilities. Furthermore, these northern regions are home to numerous abandoned mines which have not undergone adequate land remediation due to previous lax environmental laws and regulations. Often abandoned mine sites remain in these sometimes toxic states for decades as Indigenous communities interact with them through the pursuit of traditional activities such as trapping and hunting.

Using a case study and oral history research method, this study examined the experiences of former Inuit Asbestos Hill employees and the communities of Salluit and Kangiqsujuaq during the mine's operation, as well as the implications of the mine's closure and the legacies that it left behind. This method was appropriate due to the qualitative nature of the project, as

well as the lack of archival information surrounding the Asbestos Hill mine. Semi-structured interviews with Inuit of Salluit and Kangiqsujuaq allowed for a better understanding of Inuit history with this first mine. By examining what people remember of Asbestos Hill and how they are affected by it today, I was able to investigate ongoing issues with the mine. This research engages with this complex history and, more specifically, draws out the Inuit historical perspective, which is largely missing from industry and government reports, and museum exhibits (namely, "Le défi d'Asbestos Hill", which translates to "The Challenge of Asbestos Hill"). Furthermore, the history of Asbestos Hill is not only mining history, but also Inuit history and, as such, it is beneficial to record and document oral histories related to this project to contribute to Inuit community and regional heritage.

As my substantive chapters (Chapters 3-4) demonstrate, mineral development projects operating on northern Indigenous lands produce diverse results that can affect the environment and Indigenous peoples for multiple generations. Overall opinions and stances on past mines are highly dependent on an interconnected mixture of both individual and community experiences, which are also shaped by time, nostalgia, and public discourse. As culture is passed down, so too are the lessons, warnings, and experiences of Indigenous communities with resource development. This thesis combined modernization processes and events that occurred prior to the introduction of mining to Nunavik with the experiences of Inuit with mining, mine closure, and its legacies to gain a better grasp of the communities' and the environments response and resilience in the face of industrial development. This view into Inuit pre-mining history, adaptations to mineral development, local agency, controversies, and perspectives of Inuit of Salluit and Kangiqsujuaq can add to a larger story about Indigenous resilience and adaptability in a quickly changing world.

Historical Mining Experiences and Memories

Mining produces complex experiences that vary according to location, time, government involvement, and type of operation (commuting or company town). Chapter 3, focusing on work and life experiences of former Inuit mine workers at the Asbestos Hill mine, sought to document the memories and stories of Inuit men who worked at the mine. Through interviews with former Inuit mine employees in Salluit and Kangiqsujuaq, these narratives came together to paint a picture of the mining process from an Inuit perspective. Starting with Inuit recruitment and initial beginnings as mine workers, this chapter revealed the work and life experiences of Inuit while employed at Asbestos Hill. As interviewees recounted stories of good and bad times with their first wage labour, industrial employment experience that involved working alongside *Qallunaat* in a new setting (outside of school and Church), it became clear that this case followed the trend established by other case studies of northern Indigenous communities and mining. Similarly to past research, the residents of Salluit and Kangiqsujuaq recall times of adventure and growth, and the financial benefits and skills gained from work at Asbestos Hill, while also associating the mining operation with the problematic introduction of drugs and alcohol to the communities, which affected community socio-cultural wellbeing and residents' health.

Inuit were not consulted nor involved in the government and industry's decision-making processes regarding the mine's establishment. Yet, local Inuit became participants in the mining operation, either as mine and contract workers or as small-scale artists, selling local art to *Qallunaat* miners. Stories of former Inuit workers quitting their jobs due to reasons of familial or community obligations and/or disagreements with their supervisors showed the agency Inuit possessed, challenging the idea of Indigenous communities as being solely 'acted upon'. Furthermore, despite the governments' goals of modernizing Nunavimmiut by pushing them into

the wage labour economy, Nunavik's first mine did not entirely alter Inuit ways of life. Working at the mine was not necessarily a wholly transformative experience, as community members continued their traditional activities and only a small portion of Inuit men chose to work at the mine. In some ways, the introduction of wage labour actually helped maintain traditional activities that had been stalled due to the 1960s' dog slaughter, which had hindered the ability of hunters to travel long distances out on the land. Consequently, both Indigenous agency and marginalization shape stories of the mine's operation and closure.

Mining Legacies and Perceptions

Within the communities of Salluit and Kangiqsujuaq, the history and legacies of the Asbestos Hill mine have largely been overshadowed by current mining operations. As younger generations have only known the Raglan and Nunavik Nickel mines, the history of Asbestos Hill lives on in the memories and stories of former Inuit mine workers and older community members, and in the landscape, where tailings, equipment, and structures remain. For many Inuit I spoke with, the region's first mine represents the destructive power of mineral development, but also, the crucial participation of Indigenous peoples with resource development. In particular, Inuit of Salluit and Kangiqsujuaq discussed the exciting mining life and work experience, the potentially long-term damage to the environment and to wildlife and human health, and the need for Inuit involvement throughout the entire mining process.

As Inuit encounters with the Asbestos Hill mine continued past its closure, the legacies of the mine combined with the experience during its operation to create a mostly negative overall experience. Economically, the communities of Salluit and Kangiqsujuaq had few short and long-term benefits from the operation. The mine's only economic benefits to the region and, more

specifically, to Inuit was through direct employment, which proved helpful for families of those working at the mine. The fly-in fly-out system at the mine imported most labour and exported all profits, leaving behind few economic traces of the mine in Nunavik. For communities, the mine mainly caused social problems, as it was the catalyst for the continued community drug and alcohol problems. Communities' and former Inuit workers' lived experiences of the mine were at odds for the most part, as community residents had few positive encounters with the mine. In this case, the largest impacts only came after the closure of Asbestos Hill, as the spectrum of effects started to come out of the woodwork and Inuit began to fully understand the mine's implications.

In 1984, at the time of the mine closure, Inuit of Nunavik had many employment opportunities in the horizon due to the anticipated opening of the Raglan Nickel mine and the jobs created by the signing of the James Bay and Northern Québec Agreement of 1975. Consequently, Inuit of Salluit and Kangiqsujuaq did not face high unemployment rates, dislocation, or the outmigration of community residents. However, the environmental contamination and legacies left behind by the Société Asbestos Limitée caused much worry and unpleasantness for nearby Inuit, negative implications to wildlife, a crucial part of Inuit's livelihood and culture. Inuit concerns were finally answered in 1994 when the Québec Government and Falconbridge Ltd. (past owner of the Raglan Nickel mine) came to an agreement which resulted in the remediation of the Asbestos Hill site, which was only partially completed. These negative environmental and health impacts shaped Inuit perceptions of mining in Nunavik, leaving a legacy of environmental destruction and concerns over Inuit residents' and workers' health.

The impacts and legacies of the Asbestos Hill mine were made worse with time as other factors came into play in the years following the mine's closure. At the time of operation, Inuit

mine workers were unaware of the negative health effects of asbestos fibres. After the mine's closure, information on the impacts of asbestos exposure to health spread through the media and Inuit were made aware of its dangers to human and animal health. Consequently, Inuit became aware that the Société Asbestos Limitée had endangered the long-term health of Inuit and non-Inuit workers by failing to inform its workers of the negative health impacts of extended exposure to asbestos fibres. Furthermore, the lack of immediate mine remediation, left the mine site and Deception Bay area in a state of limbo for years, with the area still requiring more work. Today, despite numerous requests from the Northern Villages of Salluit and Kangiqsujuaq and the Kativik Environmental Advisory Committee, the site remains a work in progress.

This research has shown that memory is powerful, as negative experiences of Inuit with the Asbestos Hill mine heavily influenced the negotiations of the Raglan Impact and Benefit Agreement, the first of its kind in Canada. Although the mine closed over thirty years ago, older generations of local Inuit continue to remember the region's first mine, often comparing it to current mining operations (Raglan and Nunavik Nickel). Inuit who experienced the Asbestos Hill mine state that it is crucial that remember the past, so that similar mistakes are not made in the future. Today, Inuit of Salluit and Kangiqsujuaq view the region's first mine as a cautionary tale, showing what can happen when Inuit are not involved in the mining or remediation processes.

Future Research Needs

This thesis represents the findings from my 6-week field-season in Salluit and Kangiqsujuaq in the summer of 2015 and the results from my archival research. There are many future research suggestions that have arisen from this case study. Both communities identified two critical research needs regarding human and environmental health. First, with growing

concerns over the negative health impacts of asbestos, communities are requesting a study be done to understand the current and future health effects to former Inuit Asbestos Hill mine workers' (and the community members') as a result of their exposure to asbestos fibres. Second, communities want research to be conducted on the environmental status of the Asbestos Hill mine site, Deception Bay area, and the area between these two locations. This study should also assess the health of marine and terrestrial wildlife, with respect to their contact with Asbestos Hill.

Throughout this research, I have found three other areas that would benefit from further studies. Firstly, subsequent academic research on the Asbestos Hill mine should focus on the FI/FO aspect of the mine, examining the non-Inuit, long-distance commuters' experience at the mine. Understanding the history and stories of non-Indigenous workers at the first fly-in fly-out operation in Canada would fill a gap within the story of FI/FO work and shed light on another part of the Asbestos Hill story. Secondly, it would also be of interest to the future of mining in Nunavik to assess the different perceptions of mining for older generations versus younger ones. A future study comparing the different perspectives of the "Asbestos Hill" generation to those of the "Raglan" and "Nunavik Nickel" generation may yield differing perspectives on the future of mining in the region. Finally, a significant gap exists within the literature surrounding the historical impacts of mineral activities in the Canadian north. In Nunavik and throughout northern Canada, the impacts and experiences of Indigenous peoples with past mineral exploration projects are largely unknown and unstudied. Gaining a better knowledge of these impacts could help prepare Inuit and governments with the growth of mineral exploration.

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APPENDICES

Appendix I: List of Interview Participants

DATE	NAME	INTERVIEW TYPE	LOCATION
May 27, 2015	Willie Keatainak	Individual	Salluit
June 1, 2015	Donald Cameron	Individual	Salluit
May 29, 2015	Putulik Ilisituk	Individual	Salluit
June 2, 2015	Jimmy Angutigirk	Individual	Salluit
June 9, 2015	Kakkiniq Naluiyuk	Individual	Salluit
June 9, 2015	Mark Kadjulik	Individual	Salluit
June 9, 2015	Putulik Papigatuk	Individual	Salluit
June 10, 2015	Paul Okituk	Individual	Salluit
June 10, 2015	Noah Kumakuluk	Individual	Salluit
June 11, 2015	Adamie Keatainak	Individual	Salluit
June 17, 2015	Tommy Saviadjuk	Individual	Salluit
July 3, 2015	Tomasi Komakuluk	Individual	Kangiqsujuaq
July 2, 2015	Yaaka Yaaka	Individual	Kangiqsujuaq
July 2, 2015	Mark and Annie Tertiluk	Group	Kangiqsujuaq
July 6, 2015	Adami Alaku	Individual	Kangiqsujuaq
July 7, 2015	Aloupa Kulula	Individual	Kangiqsujuaq

Appendix II: Community Research Proposal

Research proposal:
Asbestos Hill Mine: History and Legacy in Nunavik

A proposal by Masters of Geography candidate, Jeanette Carney, in partnership with the Knowledge Network on Environment Impact Assessment and the Social Impacts of Mining in the Canadian Eastern Arctic and Subarctic (Eeyou Istchee, Nunavik and Nunavut).

Project Goal: to study the history of the Asbestos Hill mine and its connections to the communities of Salluit and Kangiqsujuaq, as well as its legacy and longstanding effects.

About the researcher: My name is Jeanette Carney and I am a geography student at Memorial University in St. John's, Newfoundland. I am from Whitehorse, Yukon, where I lived my entire life until I graduated from high school and moved to study at the University of Ottawa and Mount Allison University in Sackville, New Brunswick. My interest in mining stems from my experience of growing up in the Yukon Territory, where mining is a large part of the region's history and economy. Through my experience I have learned that mining is both positive and negative to a region's well-being and that many of its effects are unknown.

Proposed Research: I am interested in learning more about the mining history of Salluit and Kangiqsujuaq. I will ask how the Asbestos Hill mine affected the lifestyles and the perceptions of mineral development for the Inuit residents of Salluit and Kangiqsujuaq.

Key Research Questions:

- What were the employment/social benefits of the Asbestos Hill mine for Inuit?
- How did mine closure and remediation impact residents of the area?
- How do the environmental and social legacies of the Asbestos Hill mine influence contemporary perceptions of ongoing and proposed mining projects in the region?
- Any other issues highlighted by Salluit and Kangiqsujuaq people and leadership.

Proposed Research Activities: My fieldwork will involve a field season of a month and a half (May-June 2015) living within the communities of Salluit and Kangiqsujuaq, and working with members of the communities and past mine employees to study the historical and on-going relationships between the communities and the Asbestos Hill mine. This research project will involve: semi-structured interviews and oral history interviews with residents who have experiences with the Asbestos Hill mine (past or present), as well as relevant community leaders interested in participating. With the help of community research assistants, I will engage local participants (mainly elders) in sharing experiences of mining work and mineral development. In recognition of their contributions, an honorarium or gift will be offered, where appropriate (such as interviews with Elders).

Possible Benefits/Outcomes: This research will provide a historical record of the Asbestos Hill mine and the experience of workers and community members of Salluit and Kangiqsujuaq. In addition to preserving

and sharing local oral histories, this community record of knowledge and experience has the potential to aid community and policy makers in accessing the potential benefits and impacts of current and future mineral development initiatives. This research will enable communities and organizations to share information about mining history and its environmental legacies, and contribute to community and regional heritage through the production and archiving of oral histories. This research will also add to a broader understanding of mining in Nunavik through its contribution to the Knowledge Network on Environment Impact Assessment and Social Impact of Mining in the Canadian Eastern Arctic and Subarctic, based at Laval University, which is partially funding and facilitating this research.

Communities and organizations will receive...

- digital recordings of all interviews (with the permission of interviewees) for permanent community storage and use (written transcriptions will be available on request).
- a comprehensive community report.
- a radio podcast to be played on local radio stations and circulated through social media (Facebook, Twitter, and other relevant websites).
- a copy of the final Masters thesis.
- all academic publications.
- a project poster.

Interview participants will also be given a digital recording of their interview.

I would be happy to discuss any aspect of this proposal, and welcome suggestions from the Northern Village authorities of Salluit and Kangiqsujuaq, regional authorities, and of course community members themselves.

Contact Information

Jeanette Carney, Masters of Geography Candidate, Memorial University
Email: jc2428@mun.ca
Phone: 1 (867) 333-0056

Dr. Arn Keeling (supervisor), associate professor
Department of Geography, Memorial University
Email: akeeling@mun.ca
Phone: 1 (709) 864-8990

Appendix III: Sample Interview Consent Form

Informed Consent Form

Research Project: Asbestos Hill mine: History and Legacy

Principal Researcher: Jeanette Carney, Master's Candidate, Department of Geography, Memorial University of Newfoundland, jc2428@mun.ca, (867) 333-0056
Supervisor: Dr. Arn Keeling, Department of Geography, Memorial University of Newfoundland, akeeling@mun.ca, (709) 864-8990

You are invited to take part in a research project entitled *"*Asbestos Hill mine: History and Legacy*"*.

This form is part of the process of informed consent. It should give you the basic idea of what the research is about and what your participation will involve. It also describes your right to withdraw from the study. In order to decide whether you wish to participate in this research study, you should understand enough about its risks and benefits to be able to make an informed decision. This is the informed consent process. Take time to read this carefully and to understand the information given to you. Please contact the researcher, Jeanette Carney, if you have any questions about the study or would like more information before you consent.

It is entirely up to you to decide whether to take part in this research. If you choose not to take part in this interview or if you decide to withdraw from the interview once it has started, there will be no negative consequences for you, now or in the future. You may withdraw from the study at any time **prior to August 1, 2015**, without having to give a reason, and doing so will not affect you now or in the future.

Introduction: I am a master's student in the Department of Geography at Memorial University of Newfoundland in St. John's, NL. This project is part of and is being partially funded by the larger *Knowledge Network on Environment Impact Assessment and Social Impact of Mining in the Canadian Eastern Arctic and Subarctic (Eeyou Istchee, Nunavik and Nunavut)* based at Laval University. As part of my Master's I am conducting research under the supervision of Dr. Arn Keeling.

Purpose of study: This project is examining the history and legacy of the Asbestos Hill mine, as well as its relationship, past and present, with Inuit of Nunavik. More specifically, this research will explore the historical interactions between the residents of Akulivik, Salluit, and Kangiqsujuaq and the mine during its construction and operation, as well as the ways in which this past relationship continues to impact local Inuit perceptions and feelings toward current mining exploration and development. This research will produce records of the communities' oral histories that will remain with the people of Akulivik, Salluit and Kangiqsujuaq.

What you will do in this study: You will be interviewed and asked general, open-ended questions about your experiences with the Asbestos Hill mine, the changes that you and your community may have undergone as a result of the mine, and the legacies and continual effects that the Asbestos Hill mine has today. Your interview will be audio-recorded using a digital recorder.

Length of time: The interview length is entirely dependent on the amount of time the participant desires to talk. Preferably, interviews will range between 20 minutes and 2 hours.

Compensation: Honorariums will be given in the form of gift certificates to local stores in the amount of $40.00.

Withdrawal from the study: Study participants reserve the right to end their participation during the interview at any time. If so desired by the interviewee, all data collected up to that point in the interview will be permanently destroyed through the erasing of audio-recorded data and the throwing away of any notes taken. After the interview, participants may withdraw from the study at any point prior to **August 1, 2015** without any consequences. Any interview data that is audio-recorded will be deleted and any notes and transcripts will be destroyed. However, after August 1, 2015, data collected **cannot** be removed as it will already have been sent to the Northern Village offices in Salluit, Kangiqsujuaq, and Akulivik, as well as to the Avataq Cultural Institute in Montréal.

Possible benefits:
a) As a participant: By participating in this study you are adding to the recorded history of your region and community and ensuring that future generations will have access to your experiences and that your stories will live on. In doing so, lessons may be learned through the sharing of your experience, which may ultimately bring more future mineral development benefits to your community and/or your region.
b) The scientific community: Your documented experience will add to the knowledge of the historical impacts of mining on Inuit communities in Nunavik and throughout the North. This study will increase the understanding of the mining legacies in northern Canada.

Possible risks: The participants' recollection and discussion of past experiences with the Asbestos Hill mine may trigger a negative emotional reaction. If the participant were to become upset, the interview would be paused and the interview may end, and the participant may be referred to a counselor.

Confidentiality: The ethical duty of confidentiality includes safeguarding participants' identities, personal information, and data from unauthorized access, use, or disclosure. The participant's privacy and confidentiality cannot be guaranteed due to small population sizes of the communities of Salluit, Kangiqsujuaq, and Akulivik in Nunavik, which may make participants identifiable through their speech patterns, as well as their shared stories and experiences.

Anonymity: Participant anonymity is optional. For participants who wish to remain anonymous, every reasonable effort will be made to ensure their anonymity, such as the withholding of their names and of descriptions of their physical appearance. Participants who wish to remain anonymous will not be identified in publications without their explicit permission. That being said, due to the qualitative nature of this project, anonymity cannot be guaranteed as stories and portions of recorded interviews with the participant may be quoted and referenced in the dissemination of results, in presentations, in articles and papers, and in the final master's thesis. Due to small population sizes of the communities of Salluit, Kangiqsujuaq, and Akulivik in Nunavik stories and experiences shared and quoted in documents may make participants identifiable.

Recording of Data: All information collected, including audio recordings, transcripts, photographic records, and so on will be used for the above research project only. These uses may include a written thesis, academic publications, conferences, and communication of results to the communities involved.

Storage of Data: The principal researcher and Dr. Arn Keeling will securely retain copies of all interviews and transcripts at Memorial University of Newfoundland for a minimum of five years, as required by Memorial University's policy on Integrity in Scholarly Research, and a maximum of ten, after which they will be destroyed. This data will be stored in both hard copy in a locked filing cabinet, and on a hard drive, with all electronic data stored on encoded, password protected Memorial University computers. Consent forms will be stored separately from the data in a locked filing cabinet.

Archiving data: If desired by the interviewee, interviews conducted with community members of Salluit, Kangiqsujuaq, and Akulivik will be shared with the Northern Village offices in Salluit, Kangiqsujuaq, and Akulivik, as well as to the Avataq Cultural Institute in Montréal to contribute community and regional information holdings. If desired by the participant, archived data will be anonymized.
Reporting of Results: Data will be published in journal articles, blog posts/articles, a master's thesis, conference presentations, and presentations to communities and to the Royal Canadian Geographical Society. The master's thesis will be publically available at the QEII library at Memorial University of Newfoundland. Data will be reported using direct quotations, as well as in aggregated and summarized form. The *Knowledge Network on Environment Impact Assessment and Social Impact of Mining in the Canadian Eastern Arctic and Subarctic (Eeyou Istchee, Nunavik and Nunavut)* will only receive the results of this project and not the raw data. The network will also receive a final copy of my Master's thesis.

Sharing of Results with Participants: All interviewees will be provided with a copy of their interview and transcript for review and their own records. Participants will receive the research results through community presentations during a follow-up visit, through a community meeting, radio broadcasts, online podcasts, and a research poster summarizing the research. This also provides opportunities for direct feedback from participants and community members. Participants can access the study results on the *Knowledge Network on Environment Impact Assessment and Social Impact of Mining in the Canadian Eastern Arctic and Subarctic* website (https://www.chairedeveloppementnord.ulaval.ca/en/knowledge-network-environment-impact-assessment-and-social-impact-mining-canadian-eastern-arctic-a-0) and the supervisor's Abandoned Mines website (www.abandonedminesnc.com).

Questions: You are welcome to ask questions at any time before, during, or after your participation in this research. If you would like more information about this study, please contact: Jeanette Carney, jc2428@mun.ca, (867) 333-0056 or Dr. Arn Keeling, akeeling@mun.ca, (709) 864-8990

The proposal for this research has been reviewed by the Interdisciplinary Committee on Ethics in Human Research and found to be in compliance with Memorial University's ethics policy. If you have ethical concerns about the research, such as the way you have been treated or your rights as a participant, you may contact the Chairperson of the ICEHR at icehr@mun.ca or by telephone at 709-864-2861.

Consent:
Your signature on this form means that:

- You have read the information about the research.
- You have been able to ask questions about this study.
- You are satisfied with the answers to all your questions.
- You understand what the study is about and what you will be doing.
- You understand that you are free to withdraw participation in the study at any time **prior to August 1, 2015** without having to give a reason, and that doing so will not affect you now or in the future.

Your signature confirms:

☐ I have read what this study is about and understood the risks and benefits. I have had adequate time to think about this and had the opportunity to ask questions and my questions have been answered.

☐ I agree to participate in the research project understanding the risks and contributions of my participation, that my participation is voluntary, and that I may end my participation.

☐ A copy of this Informed Consent Form has been given to me for my records.

Interviewee: _____
Address: _____
SIN (for honorarium): _____
Please check all that apply:

☐ I agree to be audio-recorded

☐ I agree to be photographed

☐ I allow my name to be identified in any publications resulting from this study

☐ The information I share during this interview may be used for academic publications, conferences, radio broadcasts, and online podcasts

☐ The information I share during this interview may be used for public displays and interpretation of research

☐ I would like a written and audio-recorded copy of my interview shared with the Avataq Cultural Institute and the communities of Salluit, Kangiqsujuaq, and Akulivik.

If you sign this form, you do not give up your legal rights, and do not release the researchers from their professional responsibilities.

_____ _____

Signature of Participant Date

I have explained this study to the best of my ability. I invited questions and gave answers. I believe that the participant fully understands what is involved in being in the study, any potential risks of the study and that he or she has freely chosen to be in the study.

_____ _____

Signature of the Principal Investigator Date

Appendix IV: Interview Questions

Construction and Operational Impacts of the Asbestos Hill mine

1. Can we begin by you introducing yourself, and telling me how long you have lived in (Salluit, Akulivik or Kangiqsujuaq)?

2. Are you or do you know anyone who previously worked at the Asbestos Hill mine? How many community members/Inuit were employed at the mine?

3. In what ways did the construction and operation of the mine affect you, your family and your community?

4. How was the Asbestos Hill mine discussed or viewed in Akulivik, Salluit or Kangiqsujuaq while in operation?

5. How were you associated with the Asbestos Hill mine? How did its operation impact your daily life?

6. What benefits did the mine bring to you and your community (social, economic, etc.)?

Employment of Inuit at the Asbestos Hill mine

7. What were the hiring practices of the mining company with Inuit?

8. Were Inuit encouraged to work at the Asbestos Hill mine? If so, in what ways? If not, what barriers were there?

9. What types of employment positions did Inuit occupy at the mine?

10. How were the Inuit workers treated in comparison to southern fly-in workers?

11. Was housing made available to Inuit workers? If so, where were they lodged?

12. How long did Inuit workers usually work at the mine for?

Mine Closure and Remediation

13. How did company officials inform its workers and the community of the mine closure?

14. How did the closure impact you and your community?

15. What were the community's feelings surrounding closure?

16. What remediation work, if any, was done by the company?

17. What are your thoughts on the remediation work that was done?

18. Does your community think that enough remediation was done on the site? Are there areas that residents avoid because of toxic material or fear of getting sick?

19. Are you or residents afraid of getting sick because of the mine site?

Contemporary Perceptions of Current Mining Projects

20. In general, how do you feel about the Asbestos Hill mine?

21. How do you feel about current mining projects in Nunavik?

22. Has your experience with the Asbestos Hill mine impacted how you feel about current mining in your area?

23. Are there certain types of mining that you discourage (ex: Asbestos, uranium, coal, etc.)?

24. What would you like to see done differently with mining and remediation?