



AKULIVIK REPORT

TOXIC LEGACIES OF MINING EXPLORATIONS

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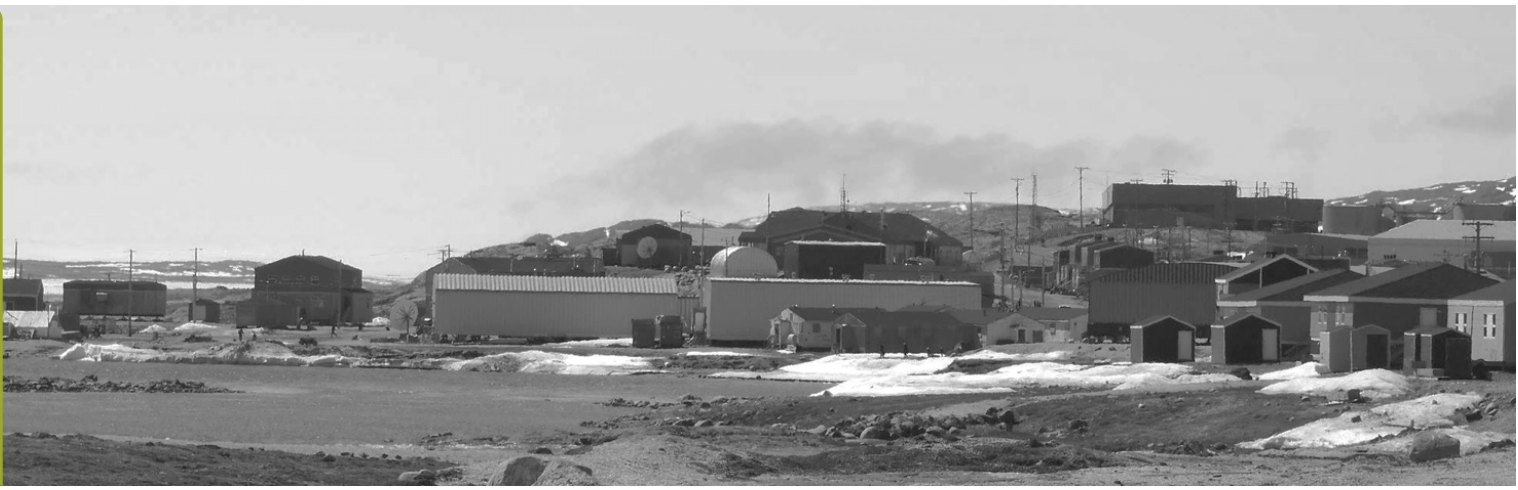


Introduction

In the late 1930s, worldwide demand for minerals increased to support war efforts during the Second World War. This demand for metal propelled Katinniq in the 1940s propelled mining exploration in the area (Duhaime et. al., 2004, p. 161). Intensive exploration in northern Quebec, in the territory north of the 55th parallel, gained speed in the 1950s, as more than twenty companies searched for mineral deposits (Duhaime et. al., 2005, p. 261).

Prior to 1976, governments hadn't set up any legal requirements for mining companies to clean up their exploration sites. Consequently, many companies failed to clean up abandoned sites, leaving behind buildings, equipment, and tailings. By the time the mineral exploration began to slow down in the 1980s, abandoned exploration sites littered the coast of Nunavik, with a large concentration of sites near present-day Raglan mine in the Ungava trough (Duhaime et. al., 2005, p. 269). It was only in the 1990s that pressure from Inuit of Nunavik and the informing of deteriorating contaminated sites influenced governments to act. In 1997, a clean-up program was put in place mining exploration in Nunavik and other regions of the Canadian North. The discovery of the large deposits of asbestos at Asbestos Hill and of nickel at Raglan and in Nunavik and an extensive search and assessment of contaminated sites was undertaken (Duhaime et. al., 2005, p. 261). Today, despite efforts from the Federal government, hundreds of sites remain to be cleaned.

The area surrounding the community of Akulivik in northwestern Nunavik is home to many contaminated sites, one of which is Lake Isiurqutuuq, a lake that underwent acidification most likely as a result of discarded explosives in the 1950s (Cameron et. al., 1998). Inuit living near Isiurqutuuq Lake and other contaminated sites are forced to live with negative experiences and the environmental effects and legacies of past mineral activities. The people of Akulivik and Puvirnituq have been, and continue to be, negatively affected by exploration work undertaken in the 1950s. Upon the request of the Adamie Alayco, Mayor of Akulivik, Memorial University Master's student, Jeanette Carney, interviewed residents of Akulivik about their experiences with mining exploration in the '50s and the effects of nearby contaminated sites. This report discusses the findings of these interviews and aims to bring attention to the impacts of past mining exploration on Inuit of Akulivik and Puvirnituq, as well as to create a call to action and ultimately bring the remediation of local abandoned exploration sites. Furthermore, it intends to formally describe and explain the views and desires of the community of Akulivik with regards to future mineral development in its region.



Methodology

The following report is based on both oral histories of Akulivik interview participants and limited archival and other written documentation. Memorial University of Newfoundland Master's student, Jeanette Carney, conducted interviews in Akulivik, Nunavik between June 21 and 28, 2015. Interviews were held in the Akulivik Northern Village office, lasting on average thirty to forty-five minutes. The following five participants were interviewed: Johnny Qaqutuk, Alusuak Alayco, Adamie Alayco, Markusie Anautak, and Qaqutuk Jusipi. The interviewees' ages ranged between 50 and 82, and they therefore have varying perspectives on the mineral exploration that took place in the 1950s. Three interviews required in-place translation provided by Mayor Adamie Alayco. Interviews were semi-structured and questions revolved around interviewees' experiences and stories of mineral exploration in the 1950s, the environmental effects and legacies of past mining activities, and the future of mining in the community of Akulivik.

Archival information was retrieved from the Avataq Cultural Institute in early July 2015, following the June interviews conducted in Akulivik. Reports from doctoral student Nobuhiro Kishigami's 1986 research on the traditional land use patterns of Inuit in Akulivik were collected. Web-based searches turned up little information and few research reports on early mineral exploration and its effects in Akulivik, Nunavik. Consequently, this report is almost solely based on the five interviews conducted in June 2015.

Findings

Oral histories collected in Akulivik, Nunavik during June 2015 were transcribed, thematically coded, and then analyzed. The following pages discuss the varying themes that came out of the sorted dataset, such as the experiences of Akulivik Inuit with exploration work of the '50s, the acidification of Isiurqutuq Lake, the environmental effects and legacies of past mining exploration, and the future of the contaminated sites and of mining near Akulivik.

Inuit Experiences with Mineral Exploration

All interview participants discussed early-childhood and adolescent memories of non-Inuit mineral exploration workers prospecting the area around the present-day community of Akulivik in Nunavik in the early 1950s. Teams of exploration workers would travel around by dog-team in the winter and on foot in the summer in search of large deposits of minerals. They would receive necessary materials in the summer and early fall by ship at the Hudson's Bay post on Smith Island, taking the supplies with them on the river by boat. At this time, exploration heavily involved the use of dynamite to explode large rocks in order to uncover minerals beneath the surface.

[My mother], she have witness the miners, the explorers, and she mention that the miners were really concentrating on this, on the hills that we have and my mother used to remember them using dynamites to look for materials (Adamie Alayco, 2015).

Local Inuit were often hired by mining companies to work with teams of mineral exploration workers as labourers, helping the explorers carry supplies, and also as guides, showing the explorers around and aiding in their travels. Adamie Alayco's late uncle, Josie Alauluk, was one of the locals hired to perform manual labour. The work was difficult, as Josie Alautak "had [to carry] a forty-five gallon drum on his back full of fuel. He had to put it from the shoreline to up the hill to the basecamp, and then there was no vehicles, so he had to put it on his back" (Adamie Alayco, 2015). In the 1950s Alusuak Alayco was employed by mineral explorers to guide them in their dog-team expedition to Sanikiluaq (Belcher Islands). My informants reported that some Inuit were fearful of the white exploration workers and felt uncomfortable demanding certain amounts of compensation for their work. "Even though they know that they had money, [they] were, like, afraid to ask. What they get is what they get" (Alusuak Alayco, 2015). As a result, Inuit workers accepted any form of payment, which usually consisted of "sugar, tea, bannock, hardly any dollars, 'cuz there was no value of gold that time when Inuit were only trying to survive" (Adamie Alayco, 2015). Such payments were given at the end of the work term, which meant that Inuit workers were expected to feed themselves while working every day. Meanwhile, exploration workers carried food to feed themselves and provided food for the dog-teams.

[That] time, my mother used to say that they used to work there for sugar, for tea, bannock, flours, and no cash, and they used to get them food to survive. So while they're working—and my mother remembered buckets that looks like gold and when they finished they just left their things in that area not too far from Akulivik (Adamie Alayco, 2015).

Inuit who worked alongside the explorers recall communication difficulties between the French, English, and Inuktitut speakers. While working together, non-Inuit and Inuit mostly relied on hand signals and drawings to communicate to one another, as interpreters were rarely available in such remote and highly varying locations. Despite the language barriers, some Inuit workers felt an uneasy air of secrecy that surrounded the process of mineral exploration. The exploration workers seemed to hide their findings and act as individuals fending for themselves in the search for expensive minerals and the next large mineral deposit.

I think they had regulations to follow not to talk and also communication was not—that was the problem too. The miners that time, I think they were following order, so that's the reason why they were not too involved, and also he said the value materials were not value to them. It's just rock that time, but now they realize they cost



Alusuak Alayco

money. They thought they were just rock that time, so explorers were very secretive that time (Alusuak Alayco, 2015).

In the 1950s, mineral exploration work was a cut-throat business with high risk and high rewards.

Before that the explorers that were looking for mine material. One of the—not the miner, just the [non-Inuit] labourer, casual labourer worker and also a cook, he was taking a walk while those miners were exploring that area. He found gold and this person who found this gold spot [told] the miners, the explorers to really concentrate more in this area and the whole winter that poor guy that found that gold didn't sleep too much because he thought he was going to be murdered (Johnny Qaqtuk, 2015).

Although many interactions between mineral workers and Inuit were negative, Markusie Anautak's friend Peterousie recalled trading with miners and being happy with the trade. As a result, he said: "they were not always bad. There was some good that come out of it too" (Markusie Anautak, 2015).

Environmental Changes and their Consequences

All five interview participants brought up the same top three environmental effects of the mineral exploration of the 1950s in Akulivik. The environmental change with the most minimal effect to the community and local Inuit was the blasting and relocation of land and rock, followed by the disposal of garbage and structures at the base camp used by exploration workers at the time. The most important issue lies in the explorers' disposal of unused dynamite into Isurquutuq Lake, which led to its acidification and ultimately to the death of the lakes' aquatic life.

With regards to the blasting and relocation of land and rock, the main methods of mineral exploration were very invasive in the early 1950s, and thus they greatly altered the natural landscape. Explosives, such as dynamite, as well as short-ended drills, were used as tools to access and then assess the interior of rocks, as well as the rock that lay beneath the surface. As a result of these methods, the mineral exploration work that was conducted around Akulivik left many parts of the land drastically changed.

When the explorers that time they use dynamites ... you can see evidence of boulders that are being dynamited to look for any kind of materials they can find and that time when the—after the dog teams put their supplies over there, they actually started moving upward and they actually started concentrating more inland as that is where the deposit of nickel where the first miners actually are right now—the nickel—TrueNickel North (Johnny Qaqtuk, 2015).

The boom of mineral exploration in Ungava that occurred throughout the early 20th century finished in the 1950s in the area surrounding present-day Akulivik. In the 1930s, the mining companies had begun their exploration work on the eastern side of Nunavik, on the border between Labrador and Quebec, moving their way up to the most northerly point of Quebec and over the West side of Nunavik to finally end in Akulivik. As the mineral exploration teams moved from one location to another they carried their necessary and useful supplies along with them, leaving any garbage, structures and tailings from their exploration work behind. Consequently, there are hundreds of abandoned mining exploration sites containing oil drums, large structures, tailings, and other such materials throughout Nunavik (See Figure 1 below) (Duhaime and Comtois, 2005).

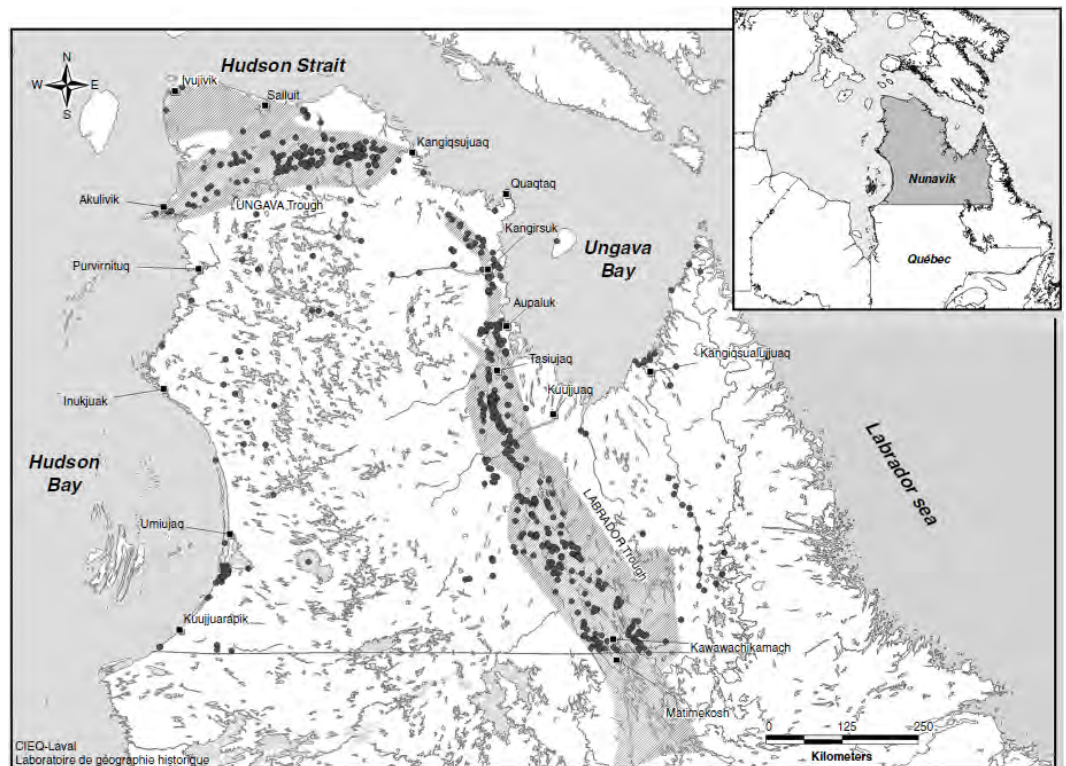


Figure 1 : Locations of potential abandoned mining exploration sites in Nunavik

Source: Duhaime and Comtois, 2005

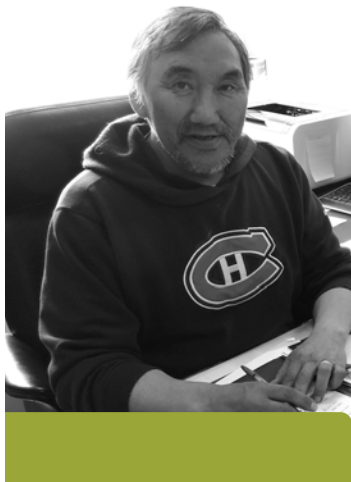
Unfortunately, as the large wave of mining exploration of the '50s ended near Akulivik, this area was left with many tailings, large wooden structures, oil drums, and unused explosives. These abandoned mining exploration sites are well known to local residents who practice subsistence hunting and fishing in the area surrounding Akulivik, often camping for many days or weeks in and around these contaminated sites. Alasuak Alayco recalls when exploration teams left behind their equipment after ending their exploration activities near Akulivik:

The explorers that time, they were coming from there and coming towards. They had to carry all their equipments with them and everytime they move they have to make sure that they don't leave anything behind, but when they ended the exploration that's when they left the tailings in that area. So [I'm] quite sure that there's some materials that are not too far from the ground. If you dig a little bit you can see them right away, so the explorers when they were coming they have their, all their tools and things, but when they ended that's when they left their things (Alasuak Alayco, 2015, trans. Adamie Alayco).

As Markusie Anautak mentioned, some materials left behind were taken and re-used by nearby Inuit:

[The] base camp, they have actually buildings there, but the people were taking wood for their use, so they left some buildings there, but they're all gone now 'cuz people were using the woods. Unfortunately there's no buildings, but only garbage (Markusie Anautak, 2015, trans. Adamie Alayco).

Today, the largest effect of the abandoned mining exploration equipment was caused by the disposal of dynamite in Isiurqutuq Lake, roughly 5 to 7 kilometres east of Akulivik. Although interview participants' stories differed in terms of the method of dynamite disposal within Isiurqutuq Lake, with some saying that the explosives were exploded in the lake and others stating that unused dynamite was discarded into the lake, all interviewees agree that the disposal of explosives within the lake led to its acidification, which killed all aquatic life. All interviewees pointed to the death of aquatic life in Isiurqutuq Lake as the single most important effect of mining exploration activities in their region. Prior to mineral exploration, Isiurqutuq Lake was known for its abundance of fish, such as arctic char, white fish, lake trout, and so on.



Adamie Alayco

The lake was heavily used by Inuit at all times of the year, and often many families relied on the lake for survival in the winter time. As Alusuak Alayco and Markusie Anautak discuss the abundance of fish in Isiurqutuq Lake, as interpreted by Adamie Alayco:

Back then [I] know that the Lake Isiurqutuq had lot of fish and for sure that the—it's always different every year. That time—there was lots, there was few, but [I] know that there were fish to survive at that time (Alusuak Alayco, 2015, trans. Adamie Alayco).

[I] wasn't actually there at that time when the Isiurqutuq Lake was dynamited, but [I] was young that time, so [I] can only talk what he recall that time. And [I] was told that the—before dynamites were exploded that lake had the most fish in this whole area, the most fish and when the dynamites were put in the lake the fish just vanished (Markusie Anautak, 2015, trans. Adamie Alayco).

Some interview participants, such as Johnny Qaqutuk, discussed the discarding of unused explosives within Isiurqutuq Lake. Johnny Qaqutuk recalled Moses Humok sharing the experience he and his father, Markusie Hakutuk had with mineral explorers near Isiurqutuq Lake in the early 1950s. The father and son, living nomadically in the area, found supplies, such as unused dynamite that explorers had left behind at the lake. Upon further inspection, Markusie Anautak noticed the fish floating in the water where the dynamite had been placed. Similarly, Markusie Anautak spoke of his attempt at finding the dynamite left behind near Isiurqutuq Lake. When he was unable to find any of the explosives he assumed that the stories he had heard were true and that the dynamite had been deposited into the water.

Other interviewees, such as Qaqutuk Jusipi and Adamie Alayco, shared stories they had heard about the dynamite being set off and thrown in and around Isiurqutuq Lake by the mining exploration workers:

that lake [Isiurqutuq Lake], and there were bumps through the water, when they throw there was a bump and explode. When it explodes and the fish died, a lot of fish died. Also, I've been told by my father they put the pump here, and over here, maybe right here, maybe over here. That's what my father told me. (Qatutuq Jusipi, 2015, trans. Adamie Alayco).

Before that, before they left, they [the mineral exploration workers] noticed that they have a lot of dynamites left over. My mother [wasn't] there that time when they started dynamiting at [Isiurqutuq Lake] ... [That] used to have a lot of fish, chars especially, salmons, lake trouts, white fish, speckled trouts, this kind of fish were—that time in 1950s, '40s—were livelihood of the families that was in that area for the winter. And my mother remembered always that the fish in that area—'cuz they were mostly concentrating in survival that time and the lake that the—Isiurqutuq Lake that we're talking about is—was later full of fish, but the explorers, when they finished exploring what they want, they were following the Labrador chart and it ended in Akulivik so they had a lot of dynamites left over and they didn't know what to do with it, so they cannot bring back 'cuz there's no way, there's no planes, there's no ships going around our area at that time, so they just don't want to leave it, so they start dynamiting this area, the lake, and ever since that time the lake has no more fish (Adamie Alayco, 2015).

In the end, the explosives left behind by the mining exploration workers in the '50s increased the acidity in Isiurqutuq Lake, thus killing all of its fish, and affecting an important food source for Inuit of the area, as the lake was widely known for its abundance in fish. The winter after the explorers left, the loss of fish in this lake caused an Inuit family to starve to death, as they had specifically migrated to Isiurqutuq Lake in the winter in order to eat the lake's fish. Johnny Qaqutuk recalled hearing stories about the family as a result of the lack of fish:

That was in the winter 'cuz the supplies were brought down by sled team, dog team, and the miners didn't have license to transport, so they actually left [the dynamite] at that lake. That's when those stories of the starvation of those people and the fish dying because of the dynamites that was left. And [Moses's] father, Markusie [Hakutuk], he walked after the explorers moved to that other site. He was walking in the area and he start noticing that the fish were starting to float at that lake and that's when the fish died at that year when the



Qaqtuk Jusipi

dynamites were left there in the winter time. And the next winter later the family that tried to survive actually starved (Johnny Qaqtuk, 2015, trans. Adamie Alayco).

When asked about the effects of the acidification of Isiurqutuq, Markusie Anautak, as translated by Adamie Alayco, stated:

That time the people were depending on that lake to survive the winter, but unfortunately the fish were gone because of that purpose [the mining exploration], so they starve. Some of them starve to death. So he [Markusie Anautak] knows about this. Ever since that time there's no fish (Markusie Anautak, 2015, trans. Adamie Alayco).

[The family] just lived there 'cuz the father was blind, he cannot work, so they actually were just trying to survive. They starved when the miners were gone, 'cuz of the dynamites that they left behind. No more fish, and that year people start starving (Markusie Anautak, 2015, trans. Adamie Alayco).

Today, many of the relatives of the family that starved at Isiurqutuq Lake in the 1950s currently live in Puvimtuq, a Nunavik community approximately 125 kilometres from the lake. Relatives were profoundly affected by the loss of the family at Isiurqutuq Lake and are left with unhappy memories of that area, as well as of the exploration work that was undertaken during that time. Adamie and Alusuak Alayco are second cousins to the deceased family, and all participants interviewed in Akulivik know a few of the deceased family's relatives personally. All interviewees attested to the impact of the family's death in the '50s.

Half the family dead in the winter time here, but the—my cousin's sister, my cousin, oldest cousin is still alive, but she is not a normal ... She is very old, and she don't want to heard about the name of that lake [Isiurqutuq Lake]. They don't want to see it and she don't want to heard about the name of that lake, because that's a really sad—she have been really—that's hard, when her brother died there ... after the guys have been explode that lake (Qaqtuk Jusipi, 2015, trans. Adamie Alayco).

When Adamie Alayco's uncle informed his family that Isiurqutuq Lake had died, his uncle told them that:

[A] few people died and that was my mother's cousins who died 'cuz of the starvation, and that actually really touched my mother's heart (Adamie Alayco, 2015).

Even without taking into account the death of this family, those interviewed remained upset and affected by the death of the fish, as their families and ancestors had relied on the lake's abundant fish supply for generations as a means of survival in all seasons. Furthermore, the lack of fish in this lake has increased the distance that local residents, such as Qaqtuk Jusipi, must travel for freshwater fishing:

JC: *How did people change how they hunt and how they fish?*

QJ: *Yeah, that's right. There's more arctic char here. They might go very close at that lake and [we] have to go hunt for arctic char right over here. Very far.*

JC: *So, like 40 kilometres further?*

QJ: *Yeah. Arctic char there, this one [points to a lake much farther]*

(Qaqtuk Jusipi, 2015, trans. Adamie Alayco).

Additionally, the lack of fish in Isiurqutuq Lake has also made residents wary of the lake's water quality, which has resulted in the need for people camping or hunting out on the land to travel to further locations to find suitable drinking water. Markusie Anautak, as interpreted by Adamie Alayco, discussed the changes he's had to make in his life as a result of the lake's changes:



Johnny Qaqtuk

He goes there for camping, for late berry picking, not fishing, but they never try to drink in that water, on that lake [Isiurqutuq Lake], 'cuz they know that there's no fish, and if there's no fish he think that the lake is contaminated, so he doesn't get water from that lake. He have to go to another lake to fetch some water when he camps there. ... He wants something done to check ... how much contamination it has in that lake, so in the future he wants to know 'cuz he wants to make tea, instead of going to another lake. He's afraid to make tea because he may get sick from that lake. He needs research being done (Markusie Anautak, 2015, trans. Adamie Alayco).

Finally, Adamie Alayco spoke of his father's reaction to the lake's acidification and the loss of all of its fish:

Back in 1970s, just before we went back to Akulivik, my father mentioned that this lake—even though we were thousands of kilometres away, when he heard that there's no more fish I could see a small tears coming out of his eyes, especially my mother because they know that they survived in that lake years back, knowing that there's no more fish 'cuz of the dynamites blowing, blown that time. It was hard for my parents knowing that the lake was full of fish and now it's dead. They had good memories of the time that they have, because the lake is not too far from the shore, it's just a few minutes' walk (Adamie Alayco, 2015).

Moving Forward

In the 1990s, researchers and government bodies began to take notice of the environmental effects of past mining exploration throughout Nunavik. This interest resulted in the 1998 study of the death of fish in Isiurqutuq Lake by Eion Cameron et. al. entitled "Recent (1930s) natural acidification and fish-kill in a lake that was an important food source for an Inuit community in northern Québec, Canada". This research provided many recommendations and a plan that would potentially remediate the lake and decrease its pH levels. Unfortunately, follow-up remediation or research has yet to occur. Another product of increased interest in Nunavik mining activities was the introduction of a Nunavik-wide assessment and classification of abandoned mining exploration sites that began in 1999. This project resulted in many reports and articles, one of which is Duhaime et. al.'s 2005 article, "An inventory of abandoned mining exploration sites in Nunavik, Canada", that discusses the history of mineral exploration, as well as the locations and types of contaminated sites. For residents of Akulivik, this research is not enough and they are pushing for the remediation of contaminated sites nearby, with priority being put on Isiurqutuq Lake:

For the research for that lake we done that a couple of times one summer and one in winter, but it was nothing really done after the research. But we want something done (Adamie Alayco, 2015).

He doesn't have much to say right now, but I hope something comes out of what we have done. He knows that the government, even though they heard of what's going on, they don't respond right away and sometimes they don't even respond, so he wants to make sure that something will actually happen after this (Johnny Qaqtuk, 2015, trans. Adamie Alayco).

Interviewed residents of Akulivik discussed their fear of discarded explosives near Isiurqutuq Lake, as well as the desire for the relatives of the deceased family to receive a formal apology and/or compensation from the mining company:

[Right] now, as we talk, the tailings that they left behind are still there and ... one of my brothers, second oldest brother, told me that they may still have dynamites left in that area and that he would like to see ... to see if there's really dynamites. So they have to get rid of it, because we know it's dangerous and if we end up doing something wrong or in the future if someone accidentally blows up dynamites it's not going to be good. ... [We] like to see if we can get a person to deal with this, especially for those families who were actually at that lake that time (Adamie Alayco, 2015).

[Hopefully] this project will go to the place where there is the people who can say "I am sorry about this". Just wanting to see someone who can say this, a company at least, if they still exist, 'cuz I know there's a lot of mining explorers that were working that time, but they don't exist anymore (Adamie Alayco, 2015).

[For] this research he [Johnny Qaqutuk] wants make sure that something will actually come out of it ... how we can deal with it, and he knows that the families that have actually been victimized because of this need to do a settlement or something out of it and see who were the last miners that were here. He wants to make sure that it's not just gonna sit there. We need to do something and push (Johnny Qaqutuk, 2015, trans. Adamie Alayco)

He [Markusie Anautak] was told that if we collect a lot of seashells that we can transport it to that lake in winter time and the mussels that we have, the ones that can quickly get the lake alive again. So that's one of the project that have to also be looked into to get the lake back to its normal self as soon as possible (Markusie Anautak, 2015, trans. Adamie Alayco).

Future Mining Projects

Residents of Akulivik, along with interview participants, are looking to the future of their village as the community undergoes consultations with the mining company True Nickel North. Over the past few years, True Nickel North has begun looking to mine West Raglan, the nickel deposit located in Nunavik's nickel belt roughly 90 kilometres southwest of Salluit and 90 kilometres east of Akulivik (See Figure 2 on Page 13) (Nunatsiaq News, 2014). Such a project would create employment opportunities for residents of Akulivik and increase community revenue.

In the past, Inuit living in the region of Akulivik took a strong stance against mineral development on their lands, fearing the destruction of their environment for little tangible gain. Following the development of Raglan mine near Kangiqsuaq and Salluit, which proved to be a ground-breaking achievement in terms of Inuit benefits through the Impact Benefit Agreement (IBA), many other communities in Nunavik have altered their stance on mineral development. Interviewed participants were enthusiastic, yet prudent, at the idea of a future mineral development project in their region due to the financial benefits that it would bring to Akulivik and its residents. At the same time, interviewees agreed that it was important that most of the mining profits go to the community and its infrastructure rather than to individuals:

He [Johnny Qaqutuk] wants the future mining to proceed 'cuz for employment, infrastructure development that could happen within the mining agreements if there's one and I'm quite sure that we would be more careful than years back. We would be more controlled. Also we could control them too. Like, I would say, we have what you want, you have what we want, so there's something that we can work with (Johnny Qaqutuk, 2015, trans. Adamie Alayco).

If there's mining in the future and there's some profits, [I want] Akulivik to be benefit, but [I don't] want just to give the profit to the public, to our pockets. [I want] them more into development, economic development purpose to make infrastructures, our town small, there's no swimming pools, there's no recreation facilities that's good for community (Johnny Qaqutuk, 2015, trans. Adamie Alayco).

What we think if we do have a mining company working in our area with us ... the priority would be the community's development, not directly to our pockets, more into our community ... [We] need to have an employment, so that's the reason why the people from Akulivik are starting to think of joining the mining (Adamie Alayco, 2015).

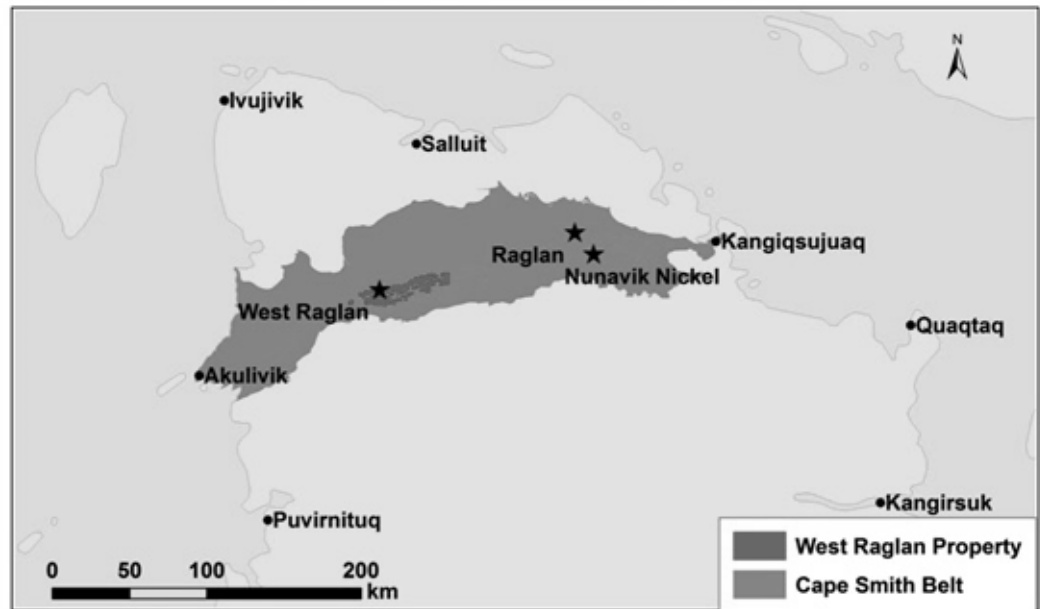


Figure 2 : Map showing True Nickel North's West Raglan property in Nunavik
Source: Royal Nickel Corporation (RNC), 2010.

Although interviewees looked forward to the prospect of economic growth in their community, they also indicated that residents are wary of the introduction of a mining project in their region due to past experiences with mineral exploration. Furthermore, each participant discussed a sense of inevitability when it came to local mining projects, saying that mining was going to happen whether they approved of the project or not. Consequently, to have some control over their territory and its development, the village of Akulivik has entered into consultations with True North Nickel under the assumption that the project will move forward regardless of their approval. Many interviewed participants spoke of the necessity of community involvement in mining and open communication between mining companies, governments, and Inuit:

[Mining is] like a cloud, it will come and it will go. It's just a matter of time, like Raglan ... [We're] not just gonna sit there and watch. We already did that in 1950s, so we're not gonna just sit there and let it be there. We wanna make sure that we are involved (Adamie Alayco, 2015).

[Now] we have to have to really be careful and make sure that we are involved with all the mining activities. If we are not involved ... the mining will just go ahead. It's a thing that's coming and it's gonna stay. Also, [the] miners don't tell 100%. They have secrets, so we have to make sure that we are well aware of what's going on, make sure that the miners that are coming are respecting the people from North (Alusuak Alayco, 2015).

Future mining, [I want] us to go ahead even though his father and his uncles were against it, 'cuz [I know] if we try to avoid it we just not—we are not going to be respected and they just going to go ahead without our consultants, so [I want] to be involved with all the minings as much as possible, 'cuz [I know] in the future they're going to mine anyways and [I want] to make sure that the people in the area are involved. That's the

main thing that [I] have concern right now, to make sure that people get benefit out of it instead of being left aside (Johnny Qaqtuk, 2015, trans. Adamie Alayco).

In their interviews, participants stipulated that in order to proceed with the West Raglan project, True Nickel North would be required to clean up past mineral exploration sites, remediate Isiurqutuq Lake, and provide extensive environmental protection and post-mining remediation plans. The protection of the environment is of utmost importance to Inuit interviewed because subsistence activities are a key part of Inuit culture and Nunavik communities continue to rely heavily on country food. When asked about future mining near Akulivik Adamie and Alusuak Alayco stated that:

[Country] food is the most main food that we have up north, so that's a thing that we have to make sure that the mining company knows that we depend on the food that we have in the lands, and we try to make sure that the mining companies take this on their head ... make sure that they respect our environment, our culture, ways of living (Adamie Alayco, 2015).

Future mines[I'm] not worried, it's just that we have to make sure that the environment is well respected and [I] know that the mining is not gonna stop. It's gonna come, so make sure that we are involved [and] that the country food that we have are well respected. Make sure that the regulations are followed as for environmental sake (Alusuak Alayco, 2015, trans. Adamie Alayco).

More specifically, interviewed residents are concerned that mining activities will once again affect their water sources and kill the fish in their main fishing river. Inuit in the area rely on the river as a drinking water source and also for fishing in both winter and summer. They believe the river may be threatened by the West Raglan project because some of the tributaries that flow into the river are in the proposed mining area. Adamie Alayco explained the importance of the river:

For sure, in the future any mining companies that we deal with, [they would have] to give us a good environmental impact to make sure that they don't destroy our river. The river that we have they are concentrating on. It's a place that you go up for winter and go back in summertime. That's the river that we are using right now in fishing. You put nets there and that mining is actually near that lake and the river, so we have to make sure that they respect the [environment] [because] we go hunting [there] a lot ... and the camp is not too far (Adamie Alayco, 2015).

Some interviewees, such as Johnny Qaqtuk, suggested that the Quebec government create specific protected areas to ensure the health and maintenance of this region's key river:

There's a lot of places that he wants to make sure that there is some protected area, especially we have a river up north that's a hundred kilometres. ... There's lots of rivers going to that same river and there's lot of mining activities and they could destroy that. There's people from Inukjuaq, Puviumutiq, Akulivik, Ivujivik, Salluit. Umuiq people going there in winter time to fish. [That's] the most concentrated area for survival for the whole community from almost all the Hudson's coast, so this river is what we really need to protect. We need to do something, something have to be done to protect it, but already the Quebec Government have already submit a protected area for that river, so I'm quite sure that it's already been looked into, but what he is worried about is the small rivers that are going to that river, that's where the minings are and that's the thing that he's worried about (Johnny Qaqtuk, 2015, trans. Adamie Alayco).

Conclusion

In northwestern Nunavik, the mining exploration work that occurred throughout the 1950s continues to affect Inuit in the communities of Akulivik and Puvirnituk. Interviews conducted in June 2015 with Inuit residents of Akulivik delved into the pressing environmental issues caused by this past mineral exploration. The most important problem lies in the disposal of dynamite at Isiurqutuq Lake by exploration workers in the '50s, which ultimately led to the acidification of the lake and the death of all of its fish. That winter, the loss of aquatic life at Isiurqutuq Lake caused a nomadic Inuit family to starve to death as they had migrated to that specific lake for survival, as it was known as an excellent winter fishing spot. Today, relatives of the deceased family living in Akulivik and Puvirnituk have negative memories of Isiurqutuq Lake and of this past mining exploration work. Negative experiences such as these still influence perceptions of mineral development activities in northwestern Nunavik, and affect negotiations between the community of Akulivik and mining companies.

In the 1990s and early 2000s, research was conducted on the state of Isiurqutuq Lake and on abandoned mining exploration sites in Nunavik. The report on Isiurqutuq Lake, "Recent (1930s) natural acidification and fish-kill in a lake that was an important food source for an Inuit community in northern Québec, Canada", recommended that the lake be remediated through the process of dumping local shell sand on the lake so that the equivalent of 2mm of CaCO_3 lay on the lake bottom "to neutralise acid inflows for 2000 years" (Cameron et. al., 1998, p. 211). However, no steps have been made by governments or other organizations to remediate Isiurqutuq Lake. It is clear to the community of Akulivik that the remediation of Isiurqutuq Lake needs to be addressed before any new mineral development can proceed.



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