APPENDIX 7-A

Inuit Qaujimajatuqangit Baseline Report

June 2016
Report No. 1541520

AGNICO EAGLE

Golder Associates

June 2016

AGNICO EAGLE MINES: MEADOWBANK DIVISION - WHALE TAIL PIT PROJECT

Inuit Qaujimajatuqangit Baseline Report

Submitted to:
Agnico Eagle Mines Limited
Ryan Vanengen
Environment Superintendent

REPORT

Report Number: Doc 036-1524321.1700 Ver 0

Distribution:

1 Copy: Agnico Eagle Mines Limited
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Golder Associates

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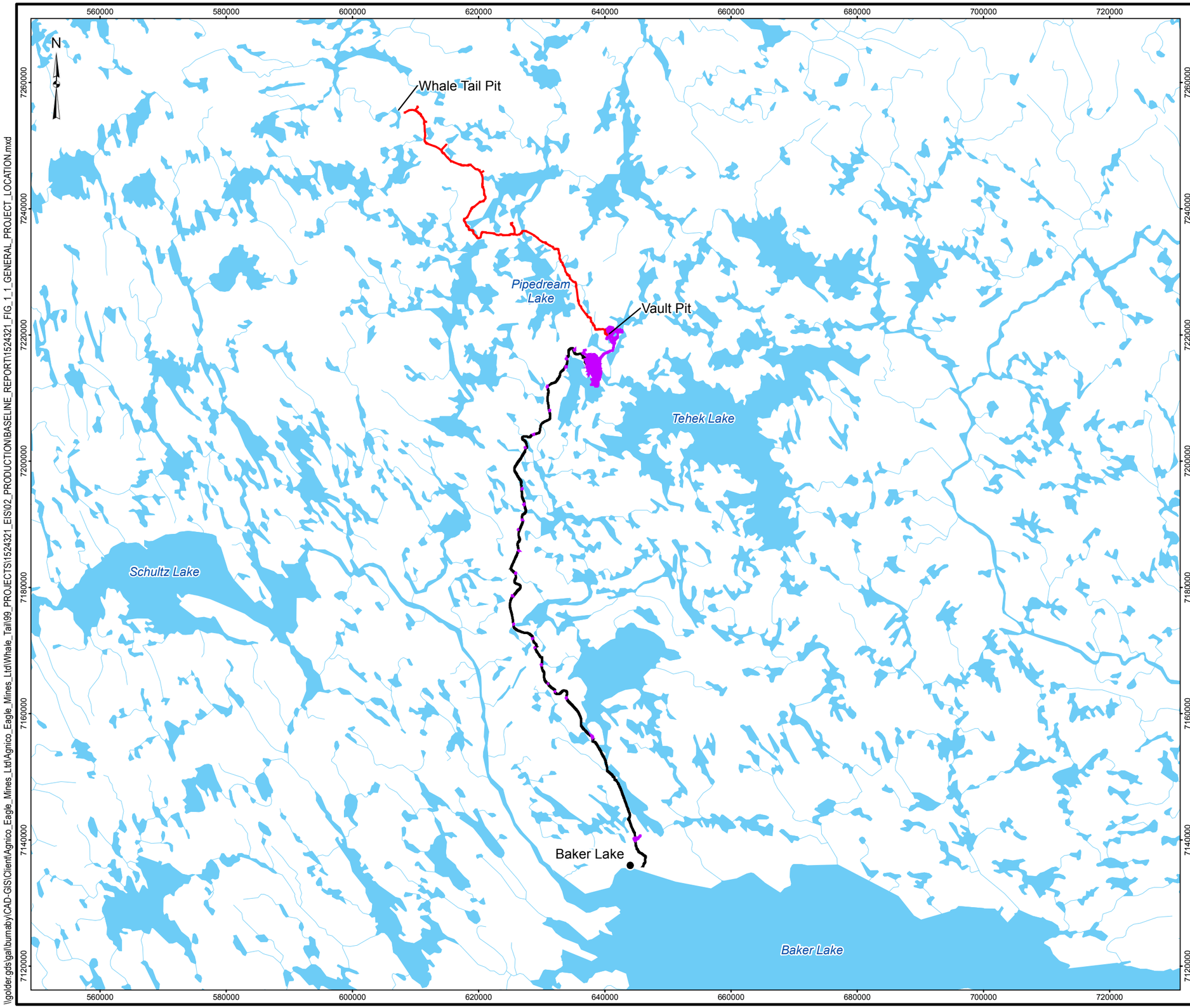
1.0 INTRODUCTION

Agnico Eagle Mines Limited – Meadowbank Division (Agnico Eagle) is proposing to develop Whale Tail Pit, a satellite deposit located on the Amaruq property, in continuation of mine operations and milling of the Meadowbank Mine. The Amaruq Exploration property is a 408 square kilometre (km^2) site located on Inuit Owned Land approximately 150 kilometres (km) north of the hamlet of Baker Lake and approximately 50 km northwest of the Meadowbank Mine in the Kivalliq region of Nunavut (Figure 1-1). The property was acquired by Agnico Eagle in April 2013 subject to a mineral exploration agreement with Nunavut Tunngavik Incorporated.

The Meadowbank Mine is an approved mining operation and Agnico Eagle is looking to extend the life of the mine by constructing and operating Whale Tail Pit (referred to in this document as the Project), which is located on the Amaruq Exploration property. As an amendment to the existing operations at the Meadowbank Mine, it is subject to an environmental review established by Article 12, Part 5 of the *Nunavut Land Claims Agreement* (NLCA). Baseline data have been collected in support of the Environmental Review to document existing conditions and to provide the foundation for a qualitative and quantitative assessment of project operations and the extension of the mine development, to be evaluated in the Environmental Impact Statement (EIS) for the Project.

Agnico Eagle retained Golder Associates Ltd. (Golder) to complete the Inuit Qaujimajatuqangit (IQ) baseline study associated with the Project.



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LEGEND

- COMMUNITY
- PROPOSED HAUL ROAD
- ALL WEATHER ROAD
- MEADOWBANK INFRASTRUCTURE
- WATERCOURSE
- WATERBODY

REFERENCE

1. HAUL ROAD OBTAINED FROM AGNICO EAGLE MINES LIMITED. 2015-10-14 FROM 6103-117-230-200_R0.dwg
2. WATERCOURSE AND WATERBODY DATA OBTAINED FROM CANVEC © DEPARTMENT OF NATURAL RESOURCES CANADA. ALL RIGHTS RESERVED.
3. INSET MAP DATA OBTAINED FROM ESRI

DATUM: NAD 83 CSRS PROJECTION: UTM ZONE 14

12 0 12
KILOMETRES

PROJECT
AGNICO EAGLE

AGNICO EAGLE MINES LIMITED:
MEADOWBANK DIVISION
WHALE TAIL PIT PROJECT

TITLE

PROJECT LOCATION

Golder Associates

PROJECT		1524321	FILE No.	
DESIGN	JR	24 Sept. 2015	SCALE AS SHOWN	REV. A
GIS	CD	13 Nov. 2015		
CHECK	JR	16 Dec. 2015		
REVIEW	DRW	16 Dec. 2015		

FIGURE 1-1

1.1 Background

The Environmental Assessment Guidelines of the Nunavut Impact Review Board (NIRB), as they relate to proposed mine developments, stipulate that traditional knowledge (TK) be documented, considered, and integrated into all aspects of the project. In accordance with these requirements, Agnico Eagle has conducted a series of engagement activities to date, to gather IQ related to the Meadowbank Mine and associated exploration activities in the region, so that it can be considered and incorporated in all phases of the Project. Specifically, Agnico Eagle has completed TK/IQ workshops in support of the Meadowbank Mine project (Cumberland 2005), the all-weather exploration road (Agnico Eagle 2014) and the Project (Agnico Eagle 2016a). Additionally, Agnico Eagle has met with community stakeholders during construction activities between 2008 and 2015 to meet the Socio-Economic Monitoring Committee (SEMC) obligations, during community wellness engagement activities and reporting, and during many site visits with Elders, members of the Hunters and Trappers Organisation (HTO) and other stakeholders. Traditional Knowledge or IQ already gathered for the Mine site and all-weather exploration road is applicable to the addition of Whale Tail Pit and Haul Road. Supplemental IQ information specific to the Project was gathered during consultation and engagement activities conducted in 2015 (NIRB 2015a, b) and 2016 (Agnico Eagle 2016b,c,d,e) which are described in Section 2.0.

Agnico Eagle has taken an integrated approach to the collection and incorporation of TK/IQ for the Project that includes the following steps:

- reviewing the preceding TK/IQ information relevant to the Project area prior to beginning baseline studies in 2014;
- conducting a TK/IQ workshop with Baker Lake Elders in December 2014;
- conducting detailed baseline data collection around the proposed Whale Tail Pit and Haul Road, using western science methods that were informed and partially designed by TK/IQ workshop results, endorsed by local hunters and supported in the field by local Inuit; and
- facilitating the review and verification of TK/IQ information by Elders and HTO members during a site visit (Agnico Eagle 2015a) and during a follow-up TK/IQ workshop, group discussions and consultation meetings held in February 2016 (Agnico Eagle2016a,b,c,d,e)

Figure 1-2 depicts the approach used for integrating TK/IQ into the baseline studies conducted for the Project; this approach has been endorsed by the Kivalliq Inuit Association (KIA) representatives (R. Vanengen, Agnico Eagle, 2015, pers. comm.). The following report summarizes the TK/IQ findings based on literature, available reports and recent consultation meetings, group discussions and follow-up TK workshop. The TK/IQ reported herein, has been integrated into the Environmental Review of the Whale Tail Pit and Haul Road Project.

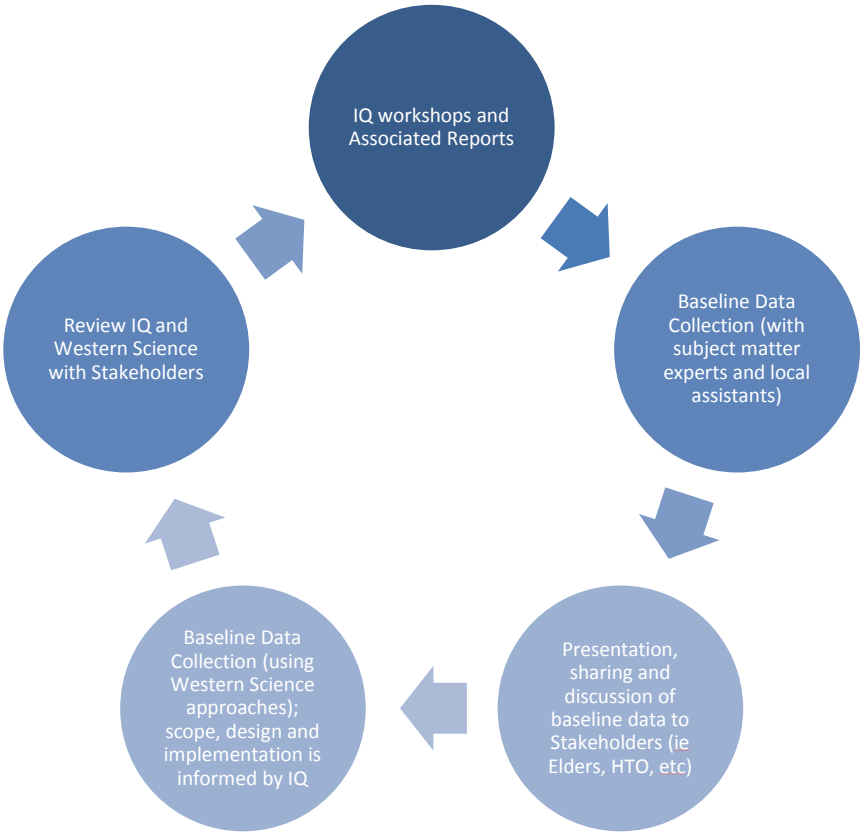


Figure 1.2: Model Used for Integrating IQ into the Baseline Studies

1.2 Definition of Traditional Knowledge

Traditional knowledge is defined by the NIRB as a "*cumulative body of knowledge, practice and belief, evolving by adaptive processes and handed down through generations by cultural transmission*." (NIRB 2007). Traditional ecological knowledge (TEK) is considered a branch of TK, and focuses on the body of knowledge and beliefs about "*the relationship of living beings (including humans) with one another and with their environment*" (Berkes 1993). Traditional knowledge systems have been described as being both cumulative and dynamic, building upon the experience of earlier generations and adapting to social, economic, environmental, spiritual, and political change (CEAA 2015; Usher 2000). The unified system of beliefs and knowledge characteristic of the Inuit is referred to as Inuit Qaujimajatuqangit, or IQ, which translates directly as "*that which Inuit have always known to be true*." (Tagalik 2012).

The NIRB and others emphasize that IQ does not only include Inuit TK, but also the contemporary knowledge and values of Nunavut's communities, which is rooted in the daily life of Inuit people (Arnakak 2002; NIRB 2013). Rather than being exclusively "traditional" knowledge, IQ is more accurately defined as "the Inuit ways past, present and future", and encompassing "the entire realm of Inuit experience in the world and the values, principles, beliefs, and skills which have evolved as a result of that experience (Arnakak 2002; Tagalik 2012). This continuum of IQ, of past informing present and future is a critical underpinning of the Inuit worldview (Pauktuutit 2006, as quoted in Tagalik 2012). Rather than being fixed in time, it is considered a dynamic system

that is continuously updated and enhanced by contemporary observations before being passed from one generation to the next (Thorpe 2000).

Inuit Qaujimajatuqangit is more than simply a knowledge system tied to the natural environment; it provides cultural grounding, a sense of purpose and wellbeing, and is considered to be a significant contributing factor to the sustainability of Inuit in the Arctic (Tagalik 2012). In addition to being viewed within the contexts of knowledge and time continuums, the Inuit worldview must also be considered in the context of relationship continuums (Tagalik 2012). Relationship building is described as being central to IQ, and "*relies on respect for the value and place of every other living thing and our mutual interdependence with our past, present and future environments*" (Tagalik 2012).

This demonstrates the holistic nature of IQ, which is also evident in the following definition provided by NIRB:

> "[Inuit Qaujimajatuqangit represents the] *guiding principles of Inuit social values including: respecting others, relationships, and caring for people; development of skills through practice, effort and action; working together for a common cause; fostering good spirit by being open, welcoming, and inclusive; serving and providing for family and/or community; decision making through discussion and consensus; being innovative and resourceful; and respect and care for the land, animals and the environment"* (NIRB 2007).

Inuit Qaujimajatuqangit remains an integral component to the Inuit worldview today because of the continued importance of traditional land use activities to Inuit identity and culture, and the reliance on the traditional economy for cultural and community wellbeing (Maksimowski 2014). The principles of IQ play an important role in the decision making and policies of the NIRB, and have an important contribution to make in environmental assessments, especially in identifying the potential effects of a particular development on traditional land use and resources (Flynn 2013, Byam 2013). Inuit Qaujimajatuqangit is an important complement to scientific studies, and TEK is of particular relevance, since it provides "*a broader and deeper understanding of local environmental processes, at a finer and more detailed geographical scale, than conventional scientific knowledge can offer*" (Usher 2000).

Due to the holistic nature of IQ, it encompasses all aspects of Inuit culture. The IQ documented in this baseline report relates to both contemporary and traditional knowledge, activities and land use, community wellbeing, and local understanding of wildlife, fish, vegetation, climate and weather, and cultural sites. Hereinafter, TK will be referred to as IQ in this baseline report.

2.0 METHODS

Information for the IQ baseline came from a variety of sources, including a literature review of publicly available sources and information provided directly by Elders, land users, and other Baker Lake community members through participation in the 2015 field programs for the Project, a consultation meeting and site visit held on September 8, 2015, a TK workshop held in 2014 and follow-up workshop in 2016, and group discussions and consultation meetings held in 2016. The literature review included the following publicly available sources that are relevant to the Project area and primarily from Baker Lake Elders and land users:

- **The Inuit Land Use and Occupancy Project (Freeman 1976)** described TK for northern Canada during three distinct chronological periods, based on interviews with hunters and trappers, and includes an illustration of the extent of land use by Baker Lake hunters and trappers.
- **The Nunavut Atlas (Riewe 1992)** describes and maps TK collected through interviews in the late 1980s and early 1990s, and includes a description of the geographical extent of traditional land use for the community of Baker Lake, as well as TEK of wildlife and fish.
- **The Effects of Exploration & Development in the Baker Lake Area, Volumes 1 & 2 (IDS 1978)** was a research project based on interviews with Baker Lake community members and examined the extent of land use by Baker Lake hunters, trappers, and domestic fishermen and the relative importance of particular areas for different harvesting activities. The study also documented TK related to important wildlife and fish habitats, including migration routes.
- **Inuit Nunamiut: Inland Inuit (Mannik 1998)** is a book consisting of a collection of 26 interviews conducted with Elders from Baker Lake in 1989 and 1990. It describes the life experiences of the Elders growing up in the Kivalliq region and Baker Lake area, including their traditional way of life and land use.
- **Kiggavik Project EIS, Tier 3 Technical Appendix 3B- Inuit Quajimajatuqangit Documentation (AREVA 2011)** provides information on Inuit knowledge and land use based on interviews, focus groups, and community review meetings with Baker Lake community members regarding their knowledge of the Kiggavik region.
- **Meadowbank Gold Project, Baseline Traditional Knowledge Report (Cumberland 2005)** provides a comprehensive TK baseline with information based on a literature review and three rounds of interviews with Baker Lake community members, including Elders, youth, and women. The results include information on TK and land use in the Meadowbank Mine area.
- **Proposed All-weather Exploration Road from the Meadowbank Mine to the Project site-Baseline Traditional Knowledge Report (Agnico Eagle 2014**) was prepared based on the results of a two day consultation workshop with Baker Lake Elders, and provides TK of the area located between the Back River and the Meadowbank Mine.
- **Resource Management and Inuit Knowledge of Barren-Ground Caribou (Kendrick and Manseau 2008)** examines how hunters' and Elders' observations and knowledge of barren-ground caribou in the communities of Arviat and Baker Lake can increase our understanding of caribou populations and contribute to complex management decisions.

- **Uqalurait: An Oral History of Nunavut (Bennett and Rowley 2004)** is a compilation of Inuit Traditional Knowledge of Nunavut, before moving into settlements.
- **Inuit Qaujimajatuqangit of Climate Change in Nunavut (Government of Nunavut 2005)** is based on a study conducted in 2001 by the Government of Nunavut to document IQ related to climate change and its impacts in the communities of Baker Lake and Arviat, to inform the planning, development, and implementation of the *Nunavut Climate Change Strategy*.
- **Inuit Knowledge of Caribou Habitat Background Report (Bernauer 2015a)** summarizes Kivalliq IQ of caribou water crossings and caribou calving grounds provided by Baker Lake Inuit.
- I**nuit Qaujimajatuqangit of Caribou Habitat Workshop Report (Bernauer 2015b)** is a report that was prepared based on the results of a workshop with the Baker Lake Hunters and Trappers Organization in September 2015, to discuss protection of caribou habitat.
- **Changes in Weather Persistence: Insight from Inuit knowledge (Weatherhead 2010)** is a study that examines how indigenous knowledge can be linked with scientific knowledge to provide insight into climate change, using an example of IQ from the community members of Clyde River and Baker Lake, Nunavut, related to changing weather patterns.
- **Uranium Mining, Primitive Accumulation and Resistance in Baker Lake, Nunavut: Recent Changes in Community Perspectives (Bernauer 2011)** is a Masters of Arts (M.A.) thesis that examines the changing perspectives and attitudes among members of Baker Lake regarding mining in their territory.
- **Well-being and Mining in Baker Lake, Nunavut: Inuit Values, Practices and Strategies in the Transition to an Industrial Economy (Maksimowski 2014)** describes research conducted in support of a M.A. thesis, and explores the values, practices, and conditions that shape individual, family, and community well-being in the context of the Meadowbank Mine and mining in Baker Lake, including the maintenance of traditional land use values and activities.
- **Community Experiences of Mining in Baker Lake, Nunavut (Peterson 2012)** is a M.A. thesis that describes how the Baker Lake community members have had mixed experiences with the development of the Meadowbank Mine.
- **Contributions of Inuit Ecological Knowledge to Understanding the Impacts of Climate Change on the Bathurst Caribou Herd in the Kitikmeot Region, Nunavut (Thorpe 2000)** focuses on how Inuit ecological knowledge of climate change can contribute to our understanding of climate change impacts on the Bathurst caribou herd in Nunavut. The information provided by Elders on the movements, behaviour, and habitats of the Bathurst caribou herd is of a general nature and is therefore relevant to this baseline report.

Inuit Qaujimajatuqangit was collected by discipline field crews from local assistants during their participation in the 2015 field programs, as it was provided. Inuit Qaujimajatuqangit information was only recorded by field crews if permission was granted. A consultation meeting was held on September 8, 2015 (referred to as the 'fall 2015 consultation meeting' throughout report) with thirteen Elders and land users from the Hunters and Trappers Organization, the Community Lands and Resources Committee (CLARC), and the KIA, as well as representatives from Agnico Eagle (see Appendix A).

The purpose of the fall 2015 consultation meeting was to consult with Baker Lake community members and stakeholders on the Project and seek their feedback, concerns, and requests for mitigation. During the meeting, an overview of the results of the biophysical and archaeological 2015 field programs was presented, followed by a site visit to three archaeological sites located on or near the Project footprint. Participants also had the opportunity to review some of the IQ gathered during the 2005 and 2014 TK studies as illustrated on maps, and to provide additional IQ information relevant to the study area, which was subsequently marked on the maps and recorded.

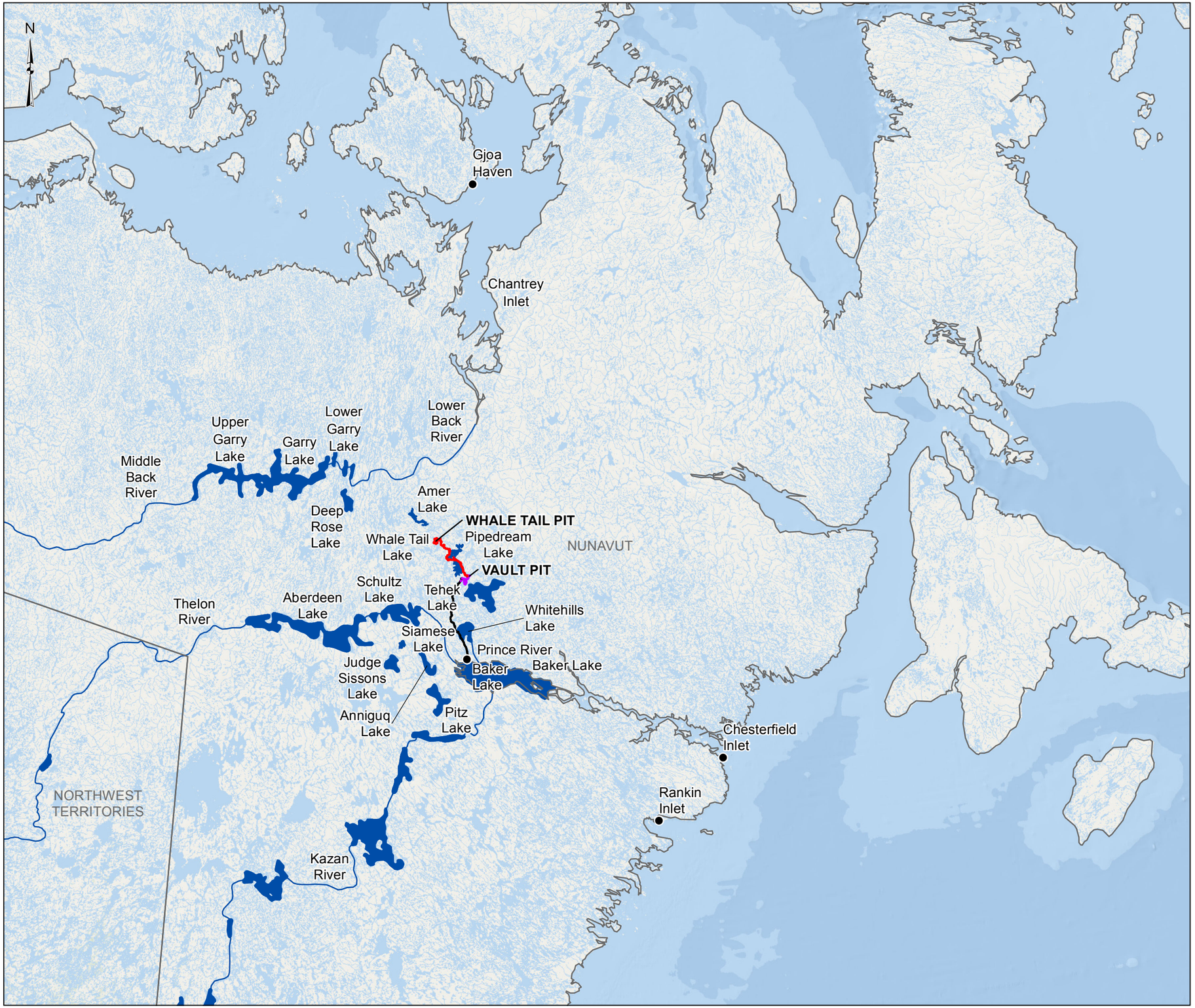
Follow-up community consultation meetings and group discussions were held from February 3-5, 2016 in Baker Lake. The overall goal of these meetings was to inform the community about the Project, and to collect traditional knowledge, socio-economic information, and Project related concerns. An effort was made to gather IQ information and hear the concerns from a diversity of community members and representatives.

A group discussion was held during the day on February 3, 2016 with seventeen students from Jonah Amitnaqq, the local high school (grades 9-12) in Baker Lake. A letter was sent to the principal of the high school in advance outlining the goal of the meeting and requesting the selection of a diversity of students of both genders and all academic levels who would be interested and willing to participate. The focus of this meeting was to determine what the students know about the mining industry, jobs in the industry, and how to communicate with this age group. Another group discussion was held during the evening on February 3, 2016 with eight women from Baker Lake who were selected based on their availability and willingness to participate. The focus of this meeting was to discuss the women's perceptions of the positive and negative effects of the mine.

A consultation meeting was held on February 4, 2016 during the day with six members of the CLARC and one staff member, and the participants were selected by the committee. Another consultation meeting was held on February 4, 2016 during the evening with six members of the HTO, who were selected by the organization. A follow-up TK workshop and consultation meeting was held on February 5, 2016 with thirteen Elders. The same Elders who participated in the December 2014 TK workshop were invited to attend the workshop, and several additional Elders participated, all of whom had living experience in the area between the Back River and the Meadowbank Mine. A youth representative also participated. The goal of the follow-up TK workshop was to provide an opportunity for the Elders to review the TK information gathered for the Project area to date as provided on maps, to ensure that their information had been accurately reported and to capture any gaps in information. Additional IQ information was gathered and any issues and concerns raised were addressed and recorded.

All of the meetings held in February 2016 were facilitated by a third-party consultant from Outcrop Nunavut and Nanuk Enterprises of Rankin Inlet. A representative from Agnico Eagle assisted with providing Project information, responding to Project specific questions, and recording information for the meetings with the Elders, CLARC and HTO. An Agnico Eagle representative and community representative assisted with facilitating and recording information for the youth group discussion, and two community representatives assisted with recording information for the women's group discussion. One or two interpreters assisted with all of the meetings, facilitated by the use of headsets and translation equipment. Following the meetings, the notes were compiled and summarized; each meeting is cited individually throughout this document. The baseline results focus on IQ gathered from Baker Lake community members, which is the nearest community to the Project area, and includes information gathered from Elders and other land users, and is generally representative of the 1950s to the present day. Two figures were produced that illustrate all the IQ information relevant to the Project area

(Figures 3-1 and 3-2) that was collected during engagement activities for the Meadowbank Mine (Cumberland 2005), exploration access road (Agnico Eagle 2014), and the Project (Agnico Eagle 2015a, 2016a,b,c,d,e). Rivers and lakes referenced in this baseline report are illustrated in Figure 2-1.



LEGEND

- COMMUNITY
- PROPOSED HAUL ROAD
- ALL WEATHER ROAD
- WHALE TAIL PIT INFRASTRUCTURE
- MEADOWBANK INFRASTRUCTURE

REFERENCE

1. HAUL ROAD OBTAINED FROM AGNICO EAGLE MINES LIMITED. 2015-10-14 FROM 6103-117-230-200_R0.DWG
2. BASE DATA ESRI, DELORME, GEBCO, NOAA NGDC, AND OTHER CONTRIBUTORS
3. INSET MAP DATA OBTAINED FROM ESRI

DATUM: NAD 83 PROJECTION: CANADA ALBERS EQUAL AREA CONIC

80 0 80
KILOMETRES

PROJECT
AGNICO EAGLE

AGNICO EAGLE MINES LIMITED:
MEADOWBANK DIVISION
WHALE TAIL PIT PROJECT

TITLE

PROJECT RIVERS AND LAKES

Golder Associates

PROJECT		1524321	FILE No.	
DESIGN	CM	28 Oct. 2015	SCALE AS SHOWN	REV. 0
GIS	CDB	28 Oct. 2015		
CHECK	CM	10 Jun. 2016		
REVIEW	LH	10 Jun. 2016		

FIGURE 2-1

3.0 RESULTS

3.1 Regional Land Use

For centuries the Inuit lived a nomadic lifestyle, growing up in various camps on the lands in the Kivalliq region, and depending heavily on caribou for food, tools, and raw materials for clothing and shelter (Dana and Anderson 2014; Freeman 1976). In 1914, the Hudson's Bay Company established an inland trading post at the east end of Baker Lake to promote white fox trapping, which became an important part of Inuit subsistence activities (Freeman 1976). Inuit living in the Back River area spent their winters at isolated small camps all along the Back River and throughout the area south of Garry Lake to Deep Rose Lake, and traded at posts in Baker Lake and Gjoa Haven throughout the winter. Other Inuit lived in the lower Back River down to Chantrey Inlet, and also traded at the Baker Lake post (Freeman 1976). The Inuit from several different groups gradually started to move into the Baker Lake settlement during the famine years in the 1950s to be closer to government supply sources, or during the 1960s when the government was attempting to get all the children into schools (Agnico Eagle 2014; Freeman 1976).

The Elders of Baker Lake indicated that the Project area was used by local people in the past, including many of their own families, primarily as a travel corridor between Baker Lake and the Back River to access traditional land use sites, including for fishing, caribou and wolf hunting, and white fox trapping during the trade era (1915-1956) (Agnico Eagle 2014; 2016a,b,c). During these trips, the Inuit relied on a variety of traditional plants for multiple purposes, including for fuel used for fires, bedding, food, and medicine (Mannik 1998; Cumberland 2005; Bennet and Rowley 2004). To access the Back River, and further north to Gjoa Haven and Chantrey Inlet, two main travel routes were identified that overlap with the Project area. Travelling typically occurred during the winter as the frozen lakes facilitated easier access than the rocky uplands.

Travelling and camping activities primarily centered on accessibility to caribou, and when caribou were scarce, fish and then muskox provided important alternative food sources (Agnico Eagle 2014; Mannik 1998, NIRB 2015a). The Elders indicated that the caching of meat and fish was also important to the people living inland in the past, with the main caching areas located along the Back River. Caching sites were located in the Project area (i.e., the area between the Meadowbank Mine and the Back River; Agnico Eagle 2016a), although they were more likely to be found along the Back River (Agnico Eagle 2014). Camping also occurred at various lake sites near the Meadowbank Mine and in the Project area while travelling to harvesting sites, and permanent camp sites were used farther north of the mine site (Cumberland 2005; Agnico Eagle 2016a). Additionally, the Meadowbank Mine area and further north was noted to be spiritual and had gravesites located randomly throughout the region (Cumberland 2005).

Today, hunting and fishing activities continue to be practiced near the Project area, primarily occurring opportunistically while people are enroute to other important traditional land use sites (Cumberland 2005; Agnico Eagle 2014). The Elders indicated that they continue to travel to the Back River area, which remains an important area for teaching children and grandchildren critical harvesting skills (Agnico Eagle 2016a). Use of the area between Baker Lake and the Meadowbank Mine for caribou hunting has increased in recent years due to the development of the all-weather access road (AWAR) (Agnico Eagle 2015c, 2016f, Peterson 2012). Baker Lake community members continue to maintain close ties with the land and hunting remains an important cultural activity; the subsistence wildlife harvesting of caribou, fox, wolf, and lake trout plays an important role in the contemporary well-being of the Inuit of Baker Lake (Makimowski 2014; Bernauer 2011). Additionally, the

Project area remains important spiritually, since the region continues to connect Baker Lake community members to the past and the lands of their grandparents and ancestors (Peterson 2012; Agnico Eagle 2016a).

3.2 Wildlife

3.2.1 Caribou

The Elders and land users of Baker Lake have consistently identified caribou as the most important traditional resource to the community. Caribou provided a major source of food, clothing, and tools for generations, and continues to play an important role in Inuit culture and community wellbeing (Cumberland 2005; Agnico Eagle 2014, 2016a; Mannik 1998; Bernauer 2011, NIRB 2015a). Historically known as the Caribou Inuit, the people who resided inland in the area between the Back River and Baker Lake depended on caribou for subsistence since they didn't have access to alternate sources of country foods, including seals, walruses, whales, and some species of waterfowl (Cumberland 2005; Agnico Eagle 2014, NIRB 2015a). Several studies have highlighted the importance of caribou to the subsistence economy of Baker Lake over the years (Freeman 1976; IDS 1978; Mannik 1998; Peterson 2012; Maksimowski 2014). In Freeman (1976), 99% of Baker Lake hunters interviewed indicated that they had hunted caribou during the period between 1956 and 1974, while in IDS (1978), 91% of interviewees noted that they had hunted caribou during the past several years. Baker Lake Elders interviewed for the Meadowbank Mine and Kiggavik Projects re-iterated the importance of caribou as the primary food source that sustains their community, reporting that some hunters depend on harvesting caribou every week to feed their families (Cumberland 2005; Areva 2011; NIRB 2015a).

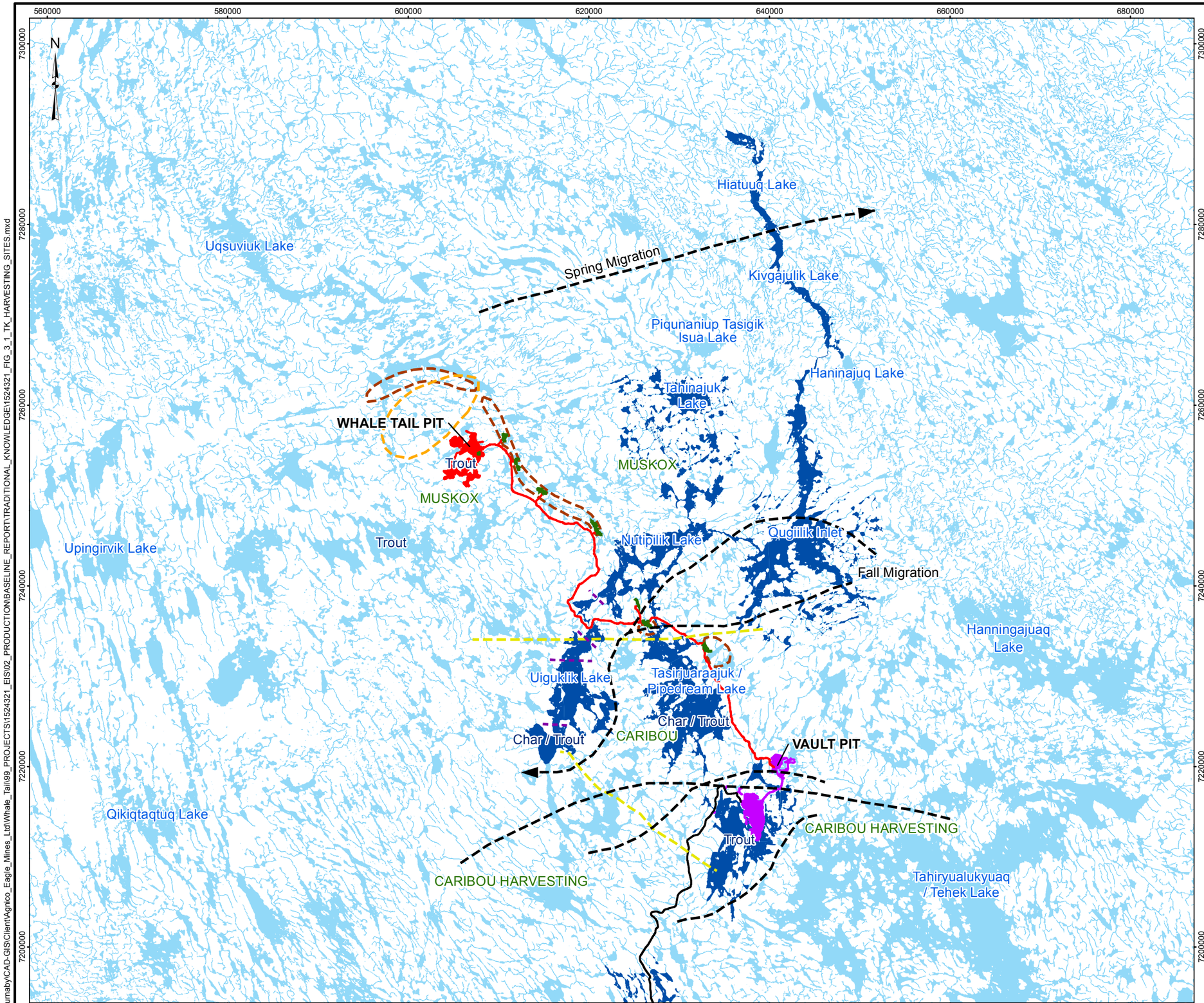
Caribou harvesting remains the most wide-ranging harvesting activity practiced in the area and is conducted year-round (Areva 2011; Cumberland 2005; Agnico Eagle 2014; Bernauer 2015a). In the past, caribou were hunted anywhere they were encountered in the region, and the meat was stored in stone caches during the fall and spring, which were especially relied upon during the winter when caribou were scarce (Agnico Eagle 2014). The Elders described how families cached dried meat or caribou skins and then marked the location with rocks so they could be found again during the winter months (Agnico Eagle 2015a, 2016a). Fresh caribou meat continues to be cached today during the fall when the temperature is below zero, and the caches are marked with caribou antlers for later retrieval. However, caching has become less successful over the last 10 years due to the increased frequency with which grizzly bears and wolverines are locating and destroying them; therefore, people do not rely on them as frequently (Agnico Eagle 2014, 2016c).

Caribou were hunted at prime harvesting sites known as crossing places, where large numbers of caribou encounter rivers and lakes during their migration (Cumberland 2005; Bernauer 2015a, 2015b; Stewart et al. 2004). One Elder described the importance of crossing places in the past when hunters would target caribou using spears from their qajaqs (kayaks) "...*we wouldn't have to wait that long because when they come to the water they start crossing right away. After the caribou start swimming, when they can't get on land, and we know that they're in the middle of the lake or river, then we'd start chasing them. As the caribou would swim away, we'd chase them, keeping the front of the qajaq right close to the caribou, and then spear* [*them*]" (Mannik 1998).

Crossing places remain important caribou harvesting areas today, and game drive systems of small inuksuit (stone "men") are used to funnel the caribou into an area where they can be killed (Agnico Eagle 2014). Inuit Qaujimajatuqangit indicates that caribou are sensitive to disturbance at water crossings, and as a result these sites are greatly respected and certain traditional rules are followed. For example, the Elders stressed the

importance of not killing the first caribou herd that passed or the leaders of a herd, so that their scent would encourage other caribou to continue using the same route (Agnico Eagle 2014; Areva 2011; Bernauer 2015a, 2015b). Other rules include no hunting, caching of meat, camping, or disturbing the land on the side of the river where caribou enter the water (Bernauer 2015a, 2015b). Several caribou crossings were identified during the 2014 TK workshop along Uiguklik Lake and Nutipilik Lake (Figure 3-1). Another crossing was identified at Hiatuuq Lake, also along another caribou migration route that the Elders identified. The Elders added that the word "*Hiatuuq*" means "hair" in Inuktitut, reflecting the importance of this site as a caribou crossing location where an abundance of caribou hair can be found during their migration (Agnico Eagle 2015a; Stewart et al. 2004). Another crossing place was identified along a large, long lake just south of the Project where caribou pass and then continue past the Meadowbank Mine site, as evidenced by the large amount of hair washed up on the shore; however, the specific location was not identified (Agnico Eagle 2016a).

Traditional land use mapped in IDS (1978) indicated that the area most frequently used to hunt caribou was within 10 km of Baker Lake and decreasing further north, with the Meadowbank Mine area considered low usage (between 1 to 32% of hunters reported use of the area). Harvesting sites mapped in Riewe (1992) showed that extensive caribou hunting from fall through spring occurred southwest of the Meadowbank Mine during the early 1990s, where caribou wintered in the Whitehills Lake and Tehek Lake areas (Figure 3-1). In an IQ study of caribou in 2001 to 2003, Baker Lake hunters indicated that spring and early fall harvesting activities occurred approximately 10 km north of town, while late fall and winter harvesting activities mainly occurred between 30 to 40 km southeast and north of town (Kendrick and Manseau 2008). Similarly, in 2008 Baker Lake hunters reported that they no longer travel as far as they used to hunt caribou, preferring to stay within approximately 40 miles (approx. 64 km) of the community because of caribou availability there (Areva 2011). However, hunters have been known to travel up to 300 km northwest of town to hunt (Kendrick and Manseau 2008).



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LEGEND

- PROPOSED HAUL ROAD
- ALL WEATHER ROAD
- WHALE TAIL PIT INFRASTRUCTURE
- MEADOWBANK INFRASTRUCTURE
- CARIBOU CROSSING
- WOLF TRAVEL ROUTE
- CARIBOU MIGRATION ROUTE
- WATERCOURSE
- BORROW PIT
- POTENTIAL FOX DENS
- POTENTIAL WOLF DENS
- FISHING AREA
- WATERBODY

REFERENCE

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3. INSET MAP DATA OBTAINED FROM ESRI

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KILOMETRES

PROJECT
AGNICO EAGLE

AGNICO EAGLE MINES LIMITED:
MEADOWBANK DIVISION
WHALE TAIL PIT PROJECT

TITLE

INUIT QAUJIMAJATUQANGIT FOR THE WHALE TAIL PROJECT AREA HARVESTING SITES AND WILDLIFE & FISH TEK

Golder Associates

PROJECT		1524321	FILE No.	
DESIGN	CM	5 Oct. 2015	SCALE AS SHOWN	REV. 0
GIS	CD	7 Oct. 2015		
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FIGURE 3-1

The development of the mine has had an impact on harvesting patterns (Agnico Eagle 2015b, Peterson 2012). While some community members indicated that harvesting activities have increased due to increased ability to purchase harvesting supplies and due to the increased accessibility to preferred harvesting areas from the AWAR (Peterson 2012, Agnico Eagle 2016d) other community members have reported decreased harvesting activities due to a lack of time and resources, and decreased caribou availability and accessibility (Maksimowski 2014).

Data from hunter harvest surveys indicate that use of the area between the Meadowbank mine and Baker Lake has increased in recent years due to the development of the AWAR (Agnico Eagle 2015c, 2016f). According to hunter harvest surveys, during the period between 1996 and 2001 before the AWAR was built, 18% of caribou harvests recorded by participants were estimated to be within 5 km of the AWAR, and 67% of harvests occurred within 50 km of the AWAR (Agnico Eagle 2015c, 2016f). Subsequent hunter harvest surveys conducted after the AWAR was constructed between 2007 and 2014, showed that use fluctuated between 34 and 43% within 5 km of the AWAR, and between 73 and 85% within 50 km of the AWAR (Agnico Eagle 2015c, 2016f). The average number of caribou harvested per month per hunter has ranged between 3 and 3.5 between 2007 and 2015, according to survey participants (Agnico Eagle 2015c, 2016f). There is variation in caribou harvest locations and intensity among participants, depending on individual preferences. Some hunters indicated they have “favourite” hunting areas, others prefer hunting in convenient locations, while others prefer remote locations, far away from frequented areas. A percentage of hunters stated they enjoy long distance hunting trips over multiple days (Agnico Eagle 2015c, 2016f).

An area approximately 25 km southwest of the Meadowbank Mine was identified as a caribou harvesting site (Agnico Eagle 2015a), which also overlapped with previously identified migration routes (Agnico Eagle 2014). Some Elders indicated that they do continue to use the area north of the Project when they are able to, however it is more difficult to travel now (Agnico Eagle 2016a). Elders reported that areas targeted for hunting are dependent on caribou movements, and Baker Lake land users repeatedly noted that caribou change their migration patterns in different areas and in different years (Cumberland 2005; Areva 2011; Agnico Eagle 2014, 2015a, 2016a). Therefore areas used by Baker Lake harvesters in the past compared to areas currently used will differ based on variations in caribou travel routes over the years (Areva 2011).

Specific caribou travel routes in the study area could not be identified by Elders during the 2014 TK workshop for the exploration road, as community members use the area less frequently today than in the past (Agnico Eagle 2014). However, caribou migration routes based on TK and mapped for the Meadowbank Mine indicated that a few migration routes overlap with the Project area, and movements through the area generally occur to the southwest in the spring, and northeast in the fall, with the greatest numbers observed during the fall (Cumberland 2005, Figure 1; Agnico Eagle 2015b). Conversely, during interviews for the Kiggavik Project in 2011, participants reported that caribou travel to the Baker Lake area from the south-east and south-west during the fall (Areva 2011). One Elder explained that herds used to start migrating towards the southeast and across Annigguq Lake and the mouth of the Kazan River (Figure 3-1); however, they now start migrating from the southeast towards the northwest (Areva 2011). Another Elder described a spring migration of caribou crossing the Thelon River (Areva 2011). Two additional caribou migration routes that overlap the Project area were identified by an Elder during the fall 2015 consultation meeting. One migration route heads northeast during the spring migration, through Hiatuuq Lake, and another route was identified heading southwest during fall migration through the Qugiilik Inlet and Tasirjuaraajuk Lake (Figure 3-1; Agnico Eagle 2015a). In 2016, the Elders agreed that caribou are now migrating a lot further north of town than they were 5 years ago, and one Elder reported

that caribou appear to be coming from the Quoich river area (east of Baker Lake) and migrating north of the Meadowbank mine site (Agnico Eagle 2016a). Some community members described how caribou migration routes are changing as a result of development, while others noted that it is not unusual for caribou to change their migration routes about every 50 years (Maksimowski 2014). Hunters suggested that weather and snow conditions play a greater role in defining caribou distribution than other factors, and that a range of conditions characterize prime wintering areas (Kendrick and Manseau 2008).

Caribou calving grounds are greatly respected among the Inuit and this period is considered a critical and sacred time when the species should be left alone (Thorpe et al. 2001 as cited in Bernauer 2015a). As a result, the Inuit traditionally did not live at or near the calving grounds but rather chose to remain at a distance, and set up camps along the migration routes (Thorpe et al. 2001, as cited in Bernauer 2015a). There were no caribou calving grounds identified by Baker Lake Elders or land users near the Project area.

Elders indicated that both cows and calves are frequently seen in the area, and that caribou in general are more abundant now than during the famine times of the 1950s; however, they are less abundant than they were 20 years ago (Agnico Eagle 2014). Baker Lake hunters also noted that they did not observe as many caribou around Baker Lake in 2011 than in previous years, which they attributed to the effects of exploration activities, aircrafts and transport trucks on their migration patterns (Areva 2011). Similarly, youth of Baker Lake noted that there are fewer caribou today as a result of the mine site (Agnico Eagle 2016e). Baker Lake community members in Maksimowski (2014) also reported less caribou availability in recent years, and this observation was reiterated by several Elders in 2016, noting that in the past 5 years there appears to be fewer caribou closer to town and east of the community, with greater numbers north of the Meadowbank mine area (Agnico Eagle 2016a). The Elders added that they do travel past the Amaruq site to hunt when they are able to, since "*there are very good caribou in that area; they are very fat*"; however, "*it is harder to travel now*". They used to observe and harvest larger caribou in all age classes closer to town, but they are smaller in stature now; "*even though we can get caribou closer to town, we long for "our" kind of caribou, the ones that are larger and fatter are more tender. We can tell when we look at them…I think it is a different herd. The closer ones are probably disturbed more, and don't grow as well*".

Elders stated that they were observing a lot more diseases now than in the past, with some indicating concern about caribou eating garbage and other contaminants, and reports of tumors being found in harvested caribou meat (Agnico Eagle 2014; Maksimowski 2014). It was also noted that caribou are not as afraid of both human activity and development as they previously were (Agnico Eagle 2014, Kendrick and Manseau 2008), are they are becoming increasingly habituated to people and noise, and appear to be attracted to certain areas for feeding following blasting activities (Agnico Eagle 2016c). During the fall 2015 consultation meeting, the Elders concerns were also expressed about potential effects on caribou due to spills and accidents along the road, potential effects of the mine on the taste of caribou meat, potential changes in caribou migration and distribution, and the community's ability to continue to hunt caribou and rely on them as they are the main diet of many people (NIRB 2015a).

Concerns were expressed about potential effects of the road on caribou movement patterns, and injuries resulting from sharp rocks and the Elders noted they had observed a large caribou herd attempting to cross the existing Meadowbank road for many days (Agnico Eagle 2014, 2016b; NIRB 2015a). One Elder noted that not all caribou will respond in the same way at road crossings, with some stopping, and others crossing without hesitation (Agnico Eagle 2016b). HTO members indicated concerns about potential effects of construction

activities on caribou and inquired if construction activities would halt if caribou were in the vicinity (Agnico Eagle 2016c). Community members were especially concerned about the potential effects of dust on wildlife and wildlife habitat, caribou and caribou habitat, plants and caribou feeding behavior, caching activities, and the accumulation of dust over time, including cumulative effects (NIRB 2015a; Agnico Eagle 2016b, 2016c, 2016d). It was noted that wildlife are no longer observed feeding in certain areas due to dust generated from the AWAR. Additionally, due to a film of dust on the rocks, hunters are no longer able to cache meat, and when caribou meat is cut up near the road, it picks up dust from the ground (Agnico Eagle 2016b, 2016c).

In other regions of Nunavut, participants in Thorpe's study (2000) have observed several effects on caribou which they attribute to climate change. These observations are of a general nature and relate to caribou movements, behaviour and important habitats, and are therefore relevant to the general body of IQ and to this baseline report. The earlier melting of ice has led to open patches of water, some of which are too wide for caribou to swim across, causing them to shift their migration routes from their traditional ice crossings enroute to their calving grounds. Caribou have been observed walking alongside a waterbody for several kilometres to alter their migration routes, which is believed to waste valuable energy, and caribou attempting to cross over thin ice during the spring and fall have led to incidences of massive caribou drownings. Conversely, lower water levels in lakes, rivers and the ocean means caribou have been able to conserve energy by swimming shorter distances during their migration (Thorpe 2000).

The earlier spring-melt and later freeze-up has altered the vegetation upon which caribou foraged in the past, thereby influencing caribou migration and foraging behaviour (Thorpe 2000). The observed increase in abundance and diversity of vegetation in certain areas due to warmer temperatures has led to the selection of these habitats by caribou as migration routes and for calving. Elders indicated that shoreline habitat is particularly important for providing good quality foraging, a cool and shady refuge from the sun and mosquitoes, and easy access to water to escape predators. Caribou prefer certain types of plants, such as willows, dwarf birch, cotton-grass, and the tops of "mushrooms" (Thorpe 2000).

The unpredictable freeze-thaw cycle results in the vegetation becoming covered in a hard layer of snow and ice, and consequently becomes unavailable as a food source, and can lead to caribou starving to death. Participants also described how extreme heat due to extreme temperature fluctuations, has led to an increase in overheating and mosquito harassment of caribou (Thorpe 2000).

3.2.2 Other Ungulates

Muskox is distributed throughout the region between the Back River and Meadowbank Mine, and prefer areas where eskers exist (Agnico Eagle 2014). The Elders indicated that muskox distribution has extended over the past few decades, from the northwest towards Baker Lake, and east towards Wager Bay and Repulse Bay, and therefore may overlap with the Project area. They attributed this expansion to increased vegetation growth in the area (Agnico Eagle 2014). In the past, muskox were hunted only when caribou meat was not available, especially during the winter, and today a quota system is in place for muskox and therefore people limit their harvest according to the number of tags available (Agnico Eagle 2014). Elders did not identify muskox as an important source of food during the Kiggavik study (Areva 2011).

The Elders noted that moose populations appear to be expanding their range into the tundra areas, with increased numbers observed around Baker Lake during the last 20 years (Agnico Eagle 2014). However, moose have not been observed in the Project area, and only near the Back River, on the Thelon River and south of

Baker Lake. Their increased distribution was potentially attributed to an increase in shrubs, including willows. The Elders also noted that moose provide a good source of meat, and are hunted when they are observed and if they thought they could manage to kill and skin one, as they are considerably larger than caribou (Agnico Eagle 2014).

3.2.3 Furbearers/Carnivores

Several fur-bearing species were traditionally harvested by the Inuit and provided an important source of fur for clothing and for use in trades (Dana and Anderson 2014). Although trapping activity in the Baker Lake area has decreased in intensity over the years, furbearing animals continue to play an important role in Inuit culture and way of life (Cumberland 2005). Trapping activity was practiced throughout the year; however, less frequently during spring break-up and fall freeze-up, and during periods of extreme cold and darkness when travel is restricted (IDS 1978).

Stone traps that were used to trap foxes in the past can still be found in the Project area (Agnico Eagle 2014). Fox trapping activity mapped in IDS (1978) shows that the area north of Baker Lake to Tehek Lake was of low use, and was limited in the vicinity of the Meadowbank Mine due to its distance from Baker Lake, although some traplines and trapping areas did still occur in that area. The majority of adult males in Baker Lake were considered casual trappers and were involved in fox trapping to some extent during the late 1970s, mainly trapping close to the community. Foxes were primarily harvested in December and late winter (March to April) from outlying areas, when pelts were in prime condition and prices were higher (IDS 1978). Trapping for Arctic fox also occurred in the Whitehills-Tehek lake area during most winters, and in the Amer Lake (Figure 3-1) area during some years (Riewe 1992).

During interviews in 1998 and 2014, some Baker Lake community members indicated that fox hunting still occurs (Cumberland 2005; Agnico Eagle 2014). In 2006, 44% of Inuit adults in Baker Lake reported trapping in the 12 months prior to the administration of the survey (Statistics Canada 2011). Elders noted that Arctic foxes are common in the Project area and their numbers fluctuate according to the population cycles of lemming and voles. They also indicated that red foxes are occasionally observed but are not as common in the Baker Lake area as the Arctic fox; however, their population is believed to be increasing (Agnico Eagle 2014; Agnico Eagle 2015a).

Baker Lake land users have repeatedly identified the Project area as an important denning area for Arctic fox, wolves and potentially wolverines (Cumberland 2005; Riewe 1992; Agnico Eagle 2014, 2015a, 2016a). The Elders identified an area just north of the Project area that had potential Arctic fox dens (Figure 3-1). Several areas adjacent to the Project area were identified as providing important habitat for wolves, including “the long esker” located to the northeast and adjacent to the proposed Haul Road which was described as a traditional denning area for wolves and where young are commonly observed, the esker further north adjacent to the Project, and along Esker 1 and 2where the borrow pits are located (Agnico Eagle 2014, 2015a; Figure 3-1).

The Elders expressed concern for these dens more than once due to the road route (Agnico Eagle 2014, 2015a, 2016a, 2016c). Another concern was expressed regarding the potential disturbance to wolves due to construction activities causing them to leave the area (Agnico Eagle 2015a).

Two main travel routes used by wolves were identified by Elders in 2014, including one running east-west and overlapping the northern parts of Uiguklik Lake and Tasirjuaraajuk Lake, as well as the Project area, and another running southeast-northwest just south of the Meadowbank Mine (Agnico Eagle 2014; Figure 3-1). The Elders

confirmed the east-west wolf travel route during the fall 2015 consultation meeting, adding that it is used during the months of March and April (Agnico Eagle 2015a).

During the 1998 interviews, Baker Lake community members indicated that wolves are not specifically targeted and are hunted irregularly, often taken incidentally during caribou hunting or fox trapping excursions (Cumberland 2005). However, wolves remain an important resource to the local people because of the quality of their fur used in clothing, and Baker Lake residents have reported that their harvest in the Meadowbank Mine area has increased in recent years (Agnico Eagle 2014; Cumberland 2005). Residents also reported hunting wolves in the Aberdeen Lake and Schultz Lake areas (Figure 3-1) during the winter (Areva 2011). The Elders also expressed the importance and significance of wolves in the food chain, as they help to maintain healthy caribou populations by targeting weaker animals (Agnico Eagle 2014).

Wolverines were also noted as a species that was not specifically targeted for harvesting and only taken incidentally while hunting other species (Cumberland 2005). Baker Lake Elders interviewed in 2008 noted that some people do hunt wolverines, and the best time is during the summer because they are more conspicuous than during the winter when they can disappear in the snow (Areva 2011). The Elders also indicated that their population appears to be increasing, and they are viewed both as a nuisance animal due to their ability to access and destroy food caches, and as a greatly respected animal due to their intelligence and strength (Agnico Eagle 2014). An Elder described observing several female wolverines and their young among the rocks and boulders north of the Project when he was young (Agnico Eagle 2016a). Youth of Baker Lake noted that both wolverines and foxes were increasingly coming into town due to mine activity (Agnico Eagle 2016e).

Ermines are also considered an important furbearer to local trappers, and the species, including other mustelids have been observed in the area (Cumberland 2005; Agnico Eagle 2014). The distribution of marten is also believed to have expanded in recent years, and the species is now observed north of the waterway to Chesterfield Inlet (Agnico Eagle 2014).

Bears were also killed in the past if it could be managed, and the meat and skin were used for different purposes (Agnico Eagle 2014; Mannik 1998). Grizzly bears have been observed more frequently in the region between the Back River and Baker Lake during the last 12 years (Agnico Eagle 2014; Cumberland 2005; Areva 2011). Baker Lake Elders indicated that they will hunt grizzly bears for food and their skin (Areva 2011), or are taken incidentally while caribou hunting (Cumberland 2005). Although polar bears have not been observed in the study area, they are occasionally observed inland and it is believed they follow Chesterfield Inlet inland away from the sea, and then wander northward. When polar bears are observed they are killed and consumed (Agnico Eagle 2014).

3.2.4 Other Mammals

The Elders noted that Arctic hares and Arctic ground squirrels are sometimes consumed today; however, not as frequently as they were in the past (Agnico Eagle 2014; Mannik 1998). Both species have been frequently observed in the Meadowbank Mine area, and collared lemmings most likely occur in the area as well (Cumberland 2005).

Hunters from Baker Lake rarely hunt marine mammals, although they will occasionally travel down to Chesterfield Inlet to harvest them, including walrus and seals (Areva 2011). Beluga whales have also been harvested recently when they appeared in Baker Lake during the summer of 2014 (Agnico Eagle 2014).

3.2.5 Birds

Birds are recognized by the Inuit for the important role they play in the ecosystem, and as critical indicators of environmental health (Agnico Eagle 2014). Waterfowl provided, and still provide, an important alternate food source for the local people, especially during spring break-up when large numbers of birds are migrating northward through the area and caribou have moved north to their calving grounds (Agnico Eagle 2014; Cumberland 2005; Mannik 1998). Snow goose, Canada goose, and greater-white fronted goose are the most commonly harvested species. Northern pintails, long-tailed ducks, and tundra swans are hunted as well (Agnico Eagle 2014). Waterfowl eggs were also collected and consumed in the past (Riewe 1992; Mannik 1998).

Earlier studies indicated that goose harvesting was not a preferred activity by Baker Lake harvesters, due to their low populations in the region (Freeman 1976; IDS 1978). Goose hunting occurred in June and July during the nesting period, and three main areas were identified, including the western shores of Baker Lake, and extending inland to eastern Pitz Lake, and near the mouth of Kazan River and of Prince River (Figure 3-1), suggesting that it coincided with fishing activities (IDS 1978; Riewe 1992; Areva 2011). Egg collection and other waterfowl hunting also occurred in these areas (IDS 1978). During earlier times, goose harvesting was practiced more frequently than today, and occurred primarily when the birds were molting and couldn't fly (Mannik 1998). One Elder described how families would go inland to harvest geese and other waterfowl when they got tired of consuming fish; waterfowl hunted included brant goose, snow goose, common eider, king eider, old squaw, sandhill crane, and tundra swan (Mannik 1998).

Migrating ptarmigan were identified as an important traditional resource, and are hunted at any time, wherever they are found (Agnico Eagle 2014; Cumberland 2005; Areva 2011). In the past, ptarmigan provided an important alternate food source when caribou were scarce (Cumberland 2005; Mannik 1998). Women and children often participate in ptarmigan harvesting (IDS 1978). One Elder reported that ptarmigan are not very abundant in the Project area, and they appear to be harvested closer to Baker Lake (Agnico Eagle 2014; IDS 1978). Other ptarmigan harvesting areas that were identified include Blueberry Hill, Fish camp, and near the mouths of the Thelon and Kazan rivers (IDS 1978). However, due to the wide distribution of ptarmigan, hunters will often harvest them in outlying areas incidentally while out hunting for caribou or fishing (IDS 1978).

Raptors appear to play an important role in Inuit culture, and are closely observed (Agnico Eagle 2014). The Elders indicated that raptors are more abundant today than they were 20 years ago; however, there were fewer owls. In the past bald eagles were rarely observed and are now seen every year. It was noted that peregrine falcons, gyrfalcons, and rough-legged hawks nested on cliffs in the Project area (Agnico Eagle 2014). One Elder mentioned that ravens have increased in abundance, particularly near Baker Lake where they feed on garbage near the dumps throughout the year (Agnico Eagle 2014).

Elders indicated concern regarding the destruction or disturbance of nesting and moulting waterfowl and geese habitat due to human or industrial activities including fuel and chemical spills, and the effects of noise, repeated disturbance and oil contamination on nesting, moulting and staging habitats of the highly sensitive snow goose (Cumberland 2005). A concern for the potential effects of the Project on migratory birds was also raised (NIRB 2015a). It was generally believed that the populations of smaller birds and owls had decreased over the past 10 years, which was potentially attributed to climate change. The Elders indicated that birds are good indicators of ecosystem health and expressed concern regarding the stability of bird populations (Agnico Eagle 2014).

3.3 Fish and Water

Fish provide an important secondary source of food after caribou to Baker Lake community members, and fishing is a year round activity that occurs throughout the area (Agnico Eagle 2014, 2016e; IDS 1978; NIRB 2015a). During the famine times when caribou were scarcely available, some families were completely dependent on fish for sustenance (Mannik 1998). In the IDS study (1978), almost all of the participants indicated that their families fished for food, including women and children. In 2006, 77% of Inuit adults in Baker Lake reported fishing in the 12 months prior to the administration of the survey (Statistics Canada 2011), and in 2016, 88% of youth participating in a group discussion for the Project indicated that they fish (n= 21, Agnico Eagle 2016e).

The review of the literature indicated that most fishing occurs relatively close to Baker Lake, but outlying areas were used by hunters and trappers who fished for food and bait (IDS 1978). Important fishing sites included Whitehills Lake, Tehek Lake, Baker Lake, and the mouth of the Thelon River and Kazan River (IDS 1978; Riewe 1992). Fishing at the southeast end of Tehek Lake and Whitehills Lake often provided food during hunting and trapping trips, and it was common for Baker Lake community members to travel to fishing camps near Whitehills Lake during the spring and summer (Riewe 1992, Agnico Eagle 2015b). Other fishing sites identified during the Kiggavik study include Judge Sissons Lake, Siamese Lake, and the east shore of Aberdeen Lake; however, the Elders noted that all of the little lakes in the region (near the Kiggavik project) were considered fishing lakes (Areva 2011).

During the 2014 TK workshop, Baker Lake Elders indicated that fishing occurs in both lakes and rivers, depending on the season and the availability of fish (Agnico Eagle 2014). Good fishing sites identified near the Project area that were used in the past are located to the east of the footprint, including at Nutipilik Lake, Qugiilik Lake and Tahinajuk Lake (Agnico Eagle 2014; Figure 3-1). One Elder noted that although trout are found throughout the region, the lakes near Whale Tail Pit are not commonly fished as there are other preferred lakes (Agnico Eagle 2014). Several additional lakes were also identified as areas used in the past for fishing during the fall 2015 consultation meeting, including Hiatuuq Lake, Kivgajulik Lake, Haninajuq Lake, Uiguklik Lake, and Tasirjuaraajuk Lake (Figure 3-1; Agnico Eagle 2015a). Several Elders noted that they or other community members used the area along the proposed haul road for fishing with their families when they were younger (Agnico Eagle 2015a; Local Inuit Field Assistant, 2015b, pers. comm. July 2015; Local Inuit Field Assistant, 2015c, pers. comm. July 18, 2015) and one Elder noted the area is still used today.

In the past, fish weirs were used in the Back River area; however, none were identified in the region between the Project area and Meadowbank Mine site (Agnico Eagle 2014). Fish was cached in a dried or frozen state; however caching does not occur as frequently today due to the convenience of all-terrain vehicles and snowmobiles and because of the increase in frequency with which caches are being destroyed by grizzly bears and wolverines (Agnico Eagle 2014). Youth stated that fishing occurs throughout the year, in open water and in ice, and sometimes using nets (Agnico Eagle 2016e).

Lake trout and Arctic char were identified as preferred fish species harvested for food and Elders commented that these species can be found in several of the lakes located in the Project area (Agnico Eagle 2014, 2015a, 2016e; Figure 3-1). The Elders noted that Arctic char run from the middle to the end of August, and spawn later in October after the ice forms (Areva 2011). Arctic grayling, broad and round whitefish, and a smaller fish (potentially cisco) are also harvested (Agnico Eagle 2014; Areva 2011). An Elder, while assisting on the 2015 fisheries field program, observed Arctic grayling in one of the tributaries to Whale Tail Lake and added that they

cannot use streams of greater size, and they are more abundant when the insects are out (Local Inuit Field Assistant, 2015b, pers. comm. June 28-29, 2015). He also reported that a juvenile salmonid captured was Arctic char because it was lighter in colour than lake trout. The Elders noted that there were many fish in the area between the Back River and the Meadowbank mine (Agnico Eagle 2016a), knowledge reinforced by the following story a land user heard when he was younger about a lake in the Project area: "*even a blind man could catch fish by scooping them out of the lake, because there were so many fish*" (Local Inuit Field Assistant, 2015c, pers. comm. July 18, 2015).

One Elder explained how whitefish were observed to migrate up the river after trout had finished migrating, and the presence of small birds around camp was an indication that the whitefish would be coming soon (Mannik 1998). Grayling were fished by jigging, or caught with the hands and consumed by both people and dogs in the past. Burbot and northern pike were also observed near the community, and lamprey was potentially found in Baker Lake (Agnico Eagle 2014).

Elders expressed that fish were "skinnier" today and not very good, and that drilling activity occurring in the region had affected trout (Areva 2011). Concerns regarding fish populations and their habitat were also expressed during consultation for the Meadowbank Mine (Cumberland 2005), including the effects of siltation, spills, the accumulation of toxic substances, habitat loss, restricted water flow and dewatering of waterbodies, and the potential overharvesting of fish species near construction sites or camps (Cumberland 2005). Concerns were also expressed related to watercourse crossings, and the potential effects of the mine, and of dust generated from the road on fish, and the need for additional studies was suggested (Agnico Eagle 2015a, NIRB 2015a). Youth of Baker Lake stated that fish abundance had decreased in all of the lakes due to the mine (Agnico Eagle 2016e).

One Elder re-iterated the importance of watercourses while participating in the 2015 fisheries field program: "*to the Inuit people, rivers were not just rivers, they were survival*" (Local Inuit Field Assistant, 2015b, pers. comm. July 5, 2015). A concern was raised about the protection of lakes from disturbance due to construction activities, the protection of water from spills and accidents along the road, and the potential impact to rivers, streams and lakes that caribou rely on for migrating (NIRB 2015a). During the 2016 Elders meeting, one Elder noted that his ancestors were able to determine whether the water was suitable to drink based on the temperature, clarity and other factors. Youth of Baker Lake indicated concerns with water quality due to the mine, including changing color and dust, and were hesitant to drink it as a result (Agnico Eagle 2016e). The Elders also commented on the changes observed in Baker Lake during their lifetime, including lower water levels, increased salinity due to higher tides coming in from the coast, and a yellowish color in some parts; however, they continue to retrieve water from Baker Lake for personal use, as well as from the Thelon River (Agnico Eagle 2016a).

3.4 Vegetation

Traditional plant use by the Inuit in the past was extensive and plants were valued for the different purposes they served, including food, medicine, shelter, and tools. Baker Lake Elders described using moss and lichen for making fires, Arctic cotton for making wicks, and moss, willow, and heather for bedding (Mannik 1998; Cumberland 2005; Bennet and Rowley 2004). Different types of mosses were used for different purposes, including for lanterns, for creating smoke to ward off mosquitoes, for fuel and keeping food moist while cooking, and when combined with wood, as a shield/blind while hunting caribou (Mannik 1998; Bennet and Rowley 2004). The roots of liquorice root (mahok), louseworts, leaves of the mountain sorrel (hiirnat) and the flowers of the purple mountain saxifrage (apiluktunguat) were also consumed (Agnico Eagle 2014). A Baker Lake hunter

described how when he was growing up, his dad used to put humic, or decomposed organic material on the bottom of the dog sled to allow it to slide more easily over the snow (Local Inuit Field Assistant, 2015a, pers. comm. August 15, 2015).

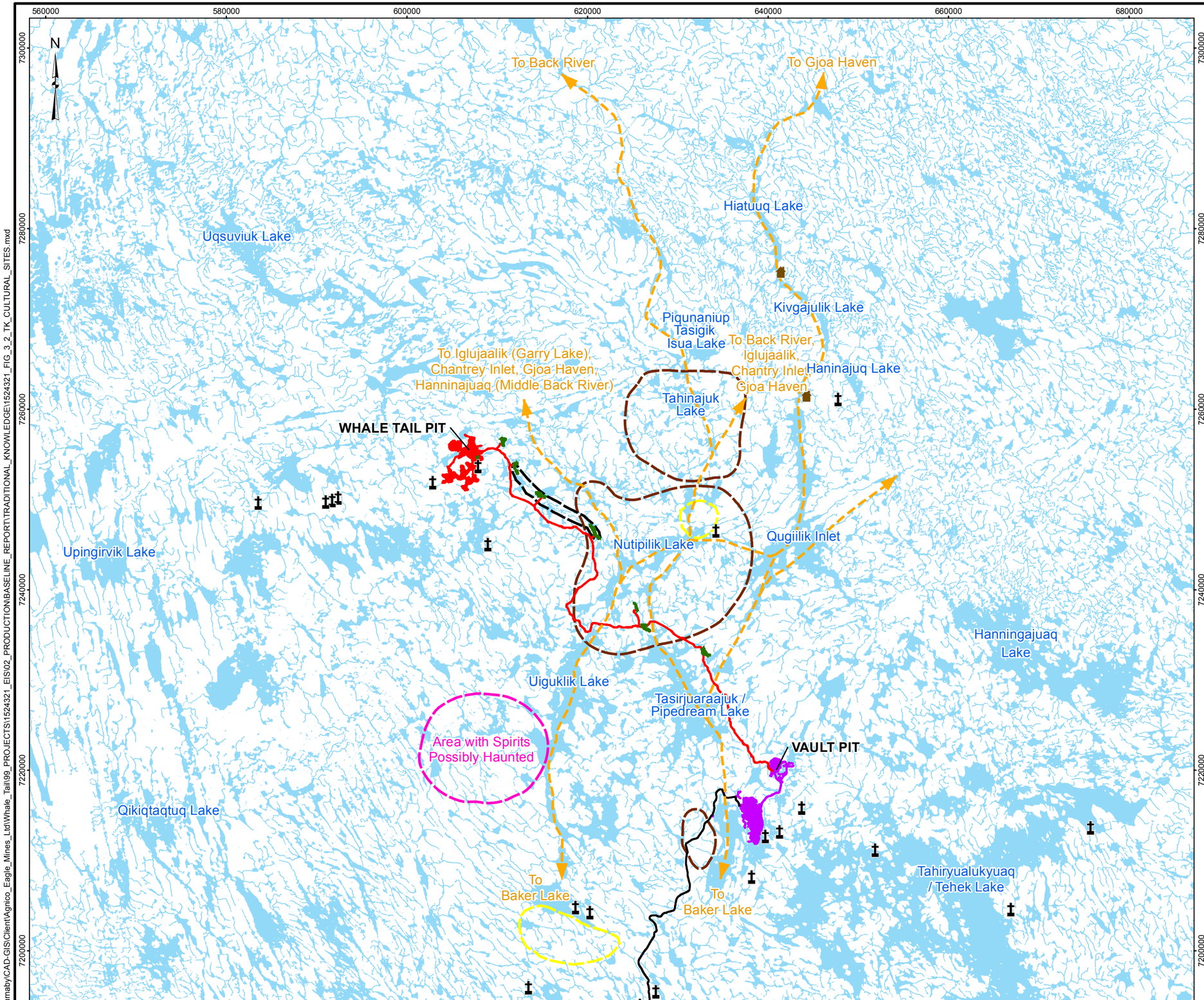
The results of a survey administered in 2006 showed that 87% of Inuit adults in Baker Lake reported gathering wild plants in the previous 12 months (Statistics Canada 2011). While the Elders indicated that plants were no longer used for traditional medicines during interviews in 2009, they did report that berries continued to be harvested for food or to make jam, including crowberry, blueberry, blackberry, and red berry (Areva 2011, Agnico Eagle 2014). Cloudberries were also used for making tea.

The Elders discussed the importance of certain plants used by wildlife, particularly lichen, which is an important part of the caribou's diet (Cumberland 2005). Concerns were expressed regarding the capacity of vegetation to regenerate following project activities (Cumberland 2005), and the effect of dust generated from the road on wildlife habitat and vegetation in general, and on plants that caribou rely on for food (Agnico Eagle 2016b, 2016e). Concerns were also noted regarding protection of the land from potential spills and accidents along the road due to the Project (NIRB 2015a).

3.5 Cultural Sites and Trails

The region between Baker Lake and the Meadowbank Mine has been described by Baker Lake Elders as an important transportation corridor leading towards the Back River, and most commonly used to access traditional winter hunting and fishing areas in the past (Cumberland 2005, Agnico Eagle 2014, 2016a). Many traditional land use areas were identified in the region that overlap with the Project area, including trails, camps, cabins, caching sites, gravesites and other culturally important sites (Figure 3-2). The Elders also explained how sites in the region between Baker Lake and the Back River are very spiritual, with several gravesites scattered throughout the region (Cumberland 2005).

The Elders described two main travel routes passing through the Project area between Baker Lake and the Back River that were used in the past (Agnico Eagle 2014; Figure 3-2). The most important route headed north to the Back River, through Uiguklik Lake, Nutipilik Lake, and then either followed the esker to the northeast of the proposed exploration access road, or went through Tahinajuk Lake, Piqunaniup Tasigik Isua Lake, and followed several more lakes and creeks northward towards the Back River. The other route was situated further east and headed towards Chantrey Inlet and Gjoa Haven, and passed through Tasirjuaraajuk Lake, Qugiilik Lake, Haninajuq Lake, Kivgajulik Lake, and Hiatuuq Lake (Agnico Eagle 2014, 2015a). Travelling generally occurred during the winter as the frozen lakes facilitated easier access than the rocky uplands did, and the Elders added that different routes were used depending on snow and weather conditions (Agnico Eagle 2015a). One Elder described the cultural importance of these routes: "*My father knew the routes. He traveled for many years, harvesting caribou in the early mornings for winter use. He was very sleepy, but walked anyway. We depended on those caribou*" (Agnico Eagle 2016a).



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LEGEND

- GRAVE SITE
- PROPOSED HAUL ROAD
- ALL WEATHER ROAD
- WHALE TAIL PIT INFRASTRUCTURE
- MEADOWBANK INFRASTRUCTURE
- WINTER TRAVEL ROUTE
- WATERCOURSE
- BORROW PIT
- POTENTIAL ARCHAEOLOGICAL SITES
- CACHING AREA
- CAMPING AREA
- SPIRITS AND HAUNTED AREA
- WATERBODY

REFERENCE

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DATUM: NAD 83 CSRS PROJECTION: UTM ZONE 14

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KILOMETRES

PROJECT
AGNICO EAGLE

AGNICO EAGLE MINES LIMITED:
MEADOWBANK DIVISION
WHALE TAIL PIT PROJECT

TITLE

INUIT QAUJIMAJATUQANGIT FOR THE WHALE TAIL PROJECT AREA CULTURAL SITES AND TRAILS

Golder Associates

PROJECT		1524321	FILE No.	
DESIGN	CM	5 Oct. 2015	SCALE AS SHOWN	REV. 0
GIS	CD	7 Oct. 2015		
CHECK	CM	10 Jun. 2016		
REVIEW	LH	10 Jun. 2016		

FIGURE 3-2

During 2011 interviews, the Elders emphasized that all the lakes and rivers in the region were used to access caribou harvesting areas. The Thelon River and Kazan River were noted as especially important for navigating, accessed by snowmobiles in the winter and boats in the summer (Areva 2011). Some of the participants also reported using the Meadowbank road to access preferred harvesting areas (Areva 2011; Peterson 2012; Maksimowski 2014). The importance of maintaining traditional travel routes was emphasized by the Elders so that this land-based knowledge could be passed down to the youth, and they inquired if they would have access to the new exploration road to facilitate access to these travel routes (Agnico Eagle 2016a).

The Elders also indicated that the caching of meat and fish was important to the people living inland in the past, and the main caching areas were located along the Back River, with secondary ones located in the area between the Meadowbank Mine and the Back River (Agnico Eagle 2014, 2016a; Mannik 1998). Areas adjacent to lakes in the region were identified as preferred locations where potential caches or tent rings could be found, including near Tahinajuk and Nutipilik Lakes (Agnico Eagle 2014; Figure 3-2). During the 2014 and 2015 archaeological field program, three different cache sites were identified in the Project area (Stantec 2016). Local field assistants were able to confirm that these sites were caribou caches, and potentially used for fish also (Local Inuit Field Assistant, 2015b, pers. comm. July 2015; Local Inuit Field Assistant, 2015a, pers. comm. July 2015).

In the past, travelling and camping activities primarily were centered on accessibility to caribou (Agnico Eagle 2014). Camp locations were described west of Baker Lake, including near Shultz Lake, Judge Sissons Lake, and Anniguuqq Lake, and between the Kiggavik site and Baker Lake, and at the Kazan River (Figure 3-1) (Areva 2011). Some of the most important traditional camping sites were situated along the major rivers in the Northern Kiavalliq region, near water caribou crossings (Bernauer 2015a; Mannik 1998; Areva 2011; Stewart et al. 2004). As one Elder described, "*we used to camp around the shores of the river, especially when the caribou started crossing. They'd start crossing near the falls. People camped where the crossing is, on the river banks*." (Mannik 1998). The Inuit camped at these crossings during the spring, late summer, fall, and sometimes throughout the winter (Mannik 1998; Bernauer 2015a). Furthermore, archaeological artifacts in the Kivalliq region are most often found near major caribou water crossings, and many of the place names in the region refer to either the actions and strategies of caribou hunters, or the behaviours of caribou at the water crossings, attesting to the enduring importance of these sites in Inuit culture (Bernauer 2015a; Stewart et al. 2004).

Water crossing sites continued to be important camping and hunting locations to Baker Lake community members after they had settled in the community. Important crossing sites were identified along the Thelon and Kazan Rivers, at the Eastern end of Baker Lake, and west of Baker Lake, near Aberdeen Lake, Shultz Lake, and Anniguuqq Lake (Riewe 1992; Areva 2011; Bernauer 2015a). The Garry Lakes (Figure 3-1) area was reported to be used less frequently (Riewe 1992).

The Elders also reported camping at various lakes near the Meadowbank Mine site while travelling to harvesting sites, and permanent camp sites were and continue to be used further north of the mine site, which may potentially overlap with the Project area (Cumberland 2005). Two camping areas were identified in the Project area by Elders, including North of Nutipilik Lake and south of Uiguklik Lake, which are both situated along travel routes and near caribou migration routes (Agnico Eagle 2014; Agnico Eagle 2015a; Figure 3-2). The esker to the northeast of the exploration road was also identified by Elders as a potential area where old campsites might be located (Agnico Eagle 2014; Agnico Eagle 2015a). Evidence of eleven campsites were identified during the 2014 and 2015 archaeological field program, in the form of tent rings and other stone features, wooden artifacts and

hearths (Stantec 2016). The Elders noted that the wooden pegs were most likely used in the past for stretching out and drying caribou skin, as many cultural sites were places where people prepared skins or got ready for the winter (Agnico Eagle 2015a, 2016b).

The Elders identified the location of one cabin in the region between the Back River and Meadowbank Mine, situated to the northeast of the proposed Project area near Hiatuuq Lake (Agnico Eagle 2014), and another potential cabin near Haninajuq Lake (Agnico Eagle 2015a; Figure 3-2).

Several gravesites, spiritually significant sites and other archaeological sites were reported to be located in the region during the Kiggavik study (Areva 2011). Elders described how inukshuk were used to show where different families may have moved, and that certain rock placements were used as fish pointers. Other important cultural features described by Elders as potentially located in the region include sod houses, bones, and spiritual sites (Areva 2011). Several gravesites were identified by Elders to the west of the exploration access road and Whale tail Pit area, and one was identified to be located in the Whale Tail Pit area (Cumberland 2005, Agnico Eagle 2014, Agnico Eagle 2015a; Stantec 2016; Figure 3-2). A few Elders noted that they had family members that passed away in the Project area and are likely buried there (Agnico Eagle 2016a, 2016c).

A total of 18 cultural sites were identified during the 2014 and 2015 archaeological field program including, marker rocks (1), cache sites (3), hunting blinds (3), campsites (10) and one campsite/grave (Stantec 2016). The Elders noted that the marker rocks that were identified may have been used for drying fish, and emphasized the importance of the hunting blind locations, or hiding places, due to their proximity to caribou crossings (Agnico Eagle 2015a). Elders and members of the Hunters and Trappers Organization had the opportunity to visit three of the cultural sites during the fall 2015 consultation meeting, including two of the campsites and the campsite/grave. Several of the Elders noted that their families may have occupied the campsites since they had used the area in the past. (Agnico Eagle 2015a). The camp sites were located within the Haul Road right-of-way, and adjacent to Esker #3, and the gravesite was located within the Whale Tail area, but outside of the proposed area of impact (Stantec 2016)The gravesite was noted to have potentially belonged to one of the Elders' families(Agnico Eagle 2015a).

The Elders expressed concerns for the protection of graves and other archaeological sites, including caches and tent rings, requesting that they not be disturbed (Agnico Eagle 2014, 2015a, 2016a, 2016d). A concern was also expressed regarding the potential effect of dust on caches located near the road (Agnico Eagle 2016c). The potential destruction of all cultural sites due to the road route and borrow pits was expressed as a concern for members of the CLARC and the HTO (Agnico Eagle 2016b, 2016c; NIRB 2015a). The HTO also raised concerns regarding the proposed mitigation at a specific site involving the removal or reconstruction of structures located at Borrow Pit Esker #2, and indicated that all historical and archaeological sites needed to be respected, preserved and if possible avoided (Agnico Eagle 2016c).

One Elder stated that the Haul Road follows some of the trails that were travelled by their ancestors, therefore it was very important to respect the historic sites located in the Project area by not disturbing them (Agnico Eagle 2016a). The Elders added that the protection of historic sites was important for transferring knowledge to their grandchildren and to educate youth. It was also noted that some of the older structures had higher value than more recent structures (i.e. tent rings with bones pegs vs. wooden pegs).

3.6 Weather and Climate

Traditionally, Inuit land users have relied on the weather for generations to help them determine their daily activities. Due to their strong dependence on the land and ice for their livelihoods, understanding how weather conditions interact with other aspects of the environment is critical for safe travelling and successful hunting (Weatherhead et al. 2010). To determine weather conditions, the Inuit observe a variety of environmental factors and assess their interactions together, changes in wind direction and strength, ocean currents, animal behavior, snow and ice movements, cloud formations, movements, and patterns (Weatherhead et al. 2010; Thorpe 2000).

This detailed understanding of the weather is based on cumulative knowledge of local trends, patterns, and processes, which has been passed down through the generations (Riedlinger and Berkes 2001). When combined with a lifetime of experience on the land, experienced Inuit hunters have a great depth of knowledge of the environment and weather patterns (Weatherhead et al. 2010). There has been a growing interest in gathering Inuit knowledge about the changing environment in the Arctic, and understanding how climate change is affecting northern communities. Climate change has been described as one of the most significant environmental issues facing Canada's northern communities, due to their close ties with the land and resources (Government of Nunavut 2005). As increases in regional variability associated with climate change are expected, local observation and expertise are importance components of understanding change (Berkes and Riedlinger 2001).

Studies have shown that there is general consensus among Baker Lake Elders and land users that weather patterns have changed over the past ten to twenty years, including changes in the length and timing of traditional Inuktitut seasons, unpredictable weather and winds, changes in the direction of the prevailing wind, stronger winds, and storm behavior (Agnico Eagle 2014, 2016a; Cumberland 2005; Government of Nunavut 2005; Thorpe 2000). Baker Lake community members described how the wind shifts are no longer gradual and predictable; the wind used to come regularly from the north and now it varies, sometimes coming from the east or west and bringing with it drifting snow (Agnico Eagle 2014; Government of Nunavut 2005). The frequency of stronger and rapidly shifting winds has created more stormy conditions, resulting in increased risk to health and safety during traditional activities (Government of Nunavut 2005).

Many Elders and hunters have expressed that they can no longer rely on their traditional knowledge and skills to predict weather patterns and their forecasts are not as accurate as they were in the past (Weatherhead et al. 2010; Government of Nunavut 2005; Berkes and Riedlinger 2001; Thorpe 2000). Experienced weather forecasters from the communities of Clyde River and Baker Lake, Nunavut, noted that their traditional forecasting skills began to fail in the 1990s due to weather unpredictability, which was consistent with study results showing that the persistence of temperature had changed dramatically during the spring in the last few decades in Baker Lake (Fox 2004, cited in Weatherhead et al. 2010). The unpredictability of weather conditions has resulted in a lack of confidence in using traditional knowledge to predict weather, which has implications for the safety of land users during harvesting and other activities (Government of Nunavut 2005; Thorpe 2000). As one Elder expressed:

> *"Today we don't seem to be prepared for the changes that affect everyday life. People are dying of exposure and they are not prepared for the unpredictable weather* (John Nukik, Baker Lake Workshop)" (Government of Nunavut 2005).

Study participants agreed that in general, the temperature has become warmer throughout the year, including the occurrence of warm spells during winters, and a longer summer/later fall season (Government of Nunavut 2005; Cumberland 2005; Agnico Eagle 2016a). Warmer temperatures during the late summer have resulted in land users delaying the caching period by a month due to meat rotting, and a shorter caching period for hunters (Government of Nunavut 2005). Traditional clothing, such as caribou skin, is no longer viewed as essential for survival during the winter.

Another well documented effect of climate change is changing snow and ice conditions, including the delayed and slower freezing of lakes, rivers, and oceans, and earlier and more rapid melting of ice and snow (Government of Nunavut 2005; Cumberland 2005; Thorpe 2000). Short-term temperature fluctuations cause a repetitive and sporadic freeze-thaw cycle, which can occur in the spring and fall, during times of break-up and freeze-up (Thorpe 2000). These observations echo a comment made by one Baker Lake Elder who described the occurrence of many spots on the land with thin ice and open water, even in the winter (Agnico Eagle 2014). These unpredictable weather conditions have resulted in the inability to access resources, dangerous travel conditions, and loss of traditional travel routes (Agnico Eagle 2014; Government of Nunavut 2005). Water levels in rivers and lakes are also lower, with some having dried up completely, also making them more difficult to navigate over the last five years (Government of Nunavut 2005; Thorpe 2000; Agnico Eagle 2016a). However participants in Thorpe (2000) described some of the benefits of warmer temperatures and earlier spring-melt, including the opportunity to go travelling, hunting, fishing and camping out on the land sooner. Birds arrived north sooner earlier than usual, which made goose hunting and egg gathering more successful (Thorpe 2000).

Several Elders commented on both the lower quantity and poorer quality of snow making it more difficult to build good snow shelters now compared to the past (Government of Nunavut 2005; Agnico Eagle 2014; Cumberland 2005). Describing the conditions while travelling to Gjoa Haven in the 1970s, one Elder spoke about how they were able to make good *igluit* along the way, filling the cracks with soft snow; however, this is no longer possible due to hard snow conditions (Agnico Eagle 2014). Another Elder added that there is less snow on the south sides of the hills, and a change in wind direction that brings snow. As a result, the change in snow drift orientation has made it more challenging to navigate (Agnico Eagle 2014; Government of Nunavut 2005).

In the past, a lot of rain was expected during the spring, which supplemented the moisture from snow and provided vegetation growth for caribou; however, today there is less rain and vegetation growth as a result (Government of Nunavut 2005). Higher temperatures combined with a decline in snow and rain has created drier conditions, and birches, willow, and grasses that favor these conditions are growing more rapidly and larger (Agnico Eagle 2014; Government of Nunavut 2005; Cumberland 2005; Thorpe 2000). However, berry producing shrubs have been negatively impacted, experiencing stunted growth, decreased berry production and a change in the timing of berry ripening. This has resulted in a reduction in feeding areas for wildlife and traditional plant harvesting areas (Government of Nunavut 2005).

Baker Lake community members also expressed their concerns over the decline in health of caribou, due to the impacts of climate change, including warmer temperatures, less food availability, and increased insects, which disturb the animals while they are feeding (Government of Nunavut 2005). The quality of both the meat and their skins was noted to have declined, and more diseased animals were being observed. Local people have also commented on changes in the habitat and range of caribou, and shifts in their migration patterns, and some caribou starving or drowning due to the impacts of climate change (Cumberland 2005; Thorpe 2000). Community members have also observed an increased occurrence of grizzly and polar bears in certain areas, and a reduced

fear of humans, causing safety concerns to land users (Government of Nunavut 2005; Cumberland 2005; Thorpe 2000). The migration and nesting habits of birds have changed, and while some populations have decreased, others have become more abundant, and there are observations of new species in the region indicating that their range has increased (Government of Nunavut 2005; Cumberland 2005; Thorpe 2000). Climate change and lower water levels was also believed to be responsible for decreased fish populations and fish health, and changes to spawning runs (Government of Nunavut 2005). Warmer temperatures were also thought to have been responsible for the introduction of new insect species in the region. Overall, participants remarked that there is a reduction in the species available for hunting, fishing, and gathering activities due to the impacts of climate change (Government of Nunavut 2005).

3.7 Importance of the Traditional Economy to Wellbeing

Many of today's Elders in Baker Lake spent their youth and early adulthood in camps on the land, and since relocating into a settlement, they have witnessed the changes from a nomadic subsistence economy to a sedentary mixed economy (Maksimowski 2014; Peterson 2012). Baker Lake community members today maintain a balance between waged employment to pay for commercial goods and services, and practicing traditional harvesting activities to feed their families and maintain cultural ties (Peterson 2012).

Historically known as the Caribou Inuit, Baker Lake community members were the largest group of Canadian Inuit to have maintained a traditional way of life during the mid-20th century (Dana and Anderson 2014), and had the highest per person intake of caribou among Inuit of five Arctic communities during the late 20th century. Today, Inuit of Baker Lake continue to maintain close ties with their land and subsistence wildlife harvesting plays a substantial role in the well-being of the community (Dana and Anderson 2014; Freeman 2011; Peterson 2012). In Peterson (2012), respondents of all ages explained that harvesting is the most critical aspect of their Inuit heritage and their traditional activities, which continues to connect them to the lands of their grandparents and ancestors. Acquiring and sharing knowledge through experience, and having an emotional and spiritual connection to the land were also described as contributing to individual well-being (Maksimowski 2014).

In 2006, 68% of Inuit adults in Baker Lake reported hunting, 77% reported fishing, 87% reported gathering wild plants, and 44% reported trapping in the 12 months prior to the administration of the survey (Statistics Canada 2011). The most commonly harvested species are caribou and lake trout, with wolf, fox, ptarmigan, geese, Arctic char, whitefish, and grayling also contributing substantially to harvesting activities (Priest and Usher 2004, cited in Bernauer 2011). In a 2012 study, it was estimated that approximately 90% of the community harvests regularly, from every few weeks to almost every day; these activities remain very important to the community for cultural, economic, and health reasons (Peterson 2012).

All of the youth participating in the group discussion in 2016 indicated they eat traditional foods often at home, including caribou, maktaaq (muktuk), and Arctic char. Approximately 65% of the 21 participants indicated that they hunt caribou, and 88% indicated that they fish. Youth of Baker Lake indicated they continue to see value in the harvesting economy and Inuit culture, and view it as integral to their quality of life. However, many Elders reported having observed changes in values, decreased interest in harvesting, and a loss of land-based skills among the younger generation (Bernauer 2011; Maksimowski 2014). Elders described the importance of passing down traditional knowledge to youth who are eager to learn and to be out on the land, and many view it as their responsibility: "*as a grandfather, I am supposed to be responsible to teach my grandchildren about how to catch char in rivers*" (Agnico Eagle 2016a). The Elders also described how older and more experienced hunters are able to assess individual caribou and choose the healthy ones, which is what IQ teaches, whereas

younger hunters may be harvesting sick caribou (Agnico Eagle 2016a). Youth participating in a group discussion for the Project also commented that they would like to see more traditional or cultural opportunities in Baker Lake, when asked what changes they would like to see in the community (Agnico Eagle 2016e).

Despite the high price of fuel and snowmobiles, Baker Lake community members maintain their preference for caribou meat over store bought meat for economic and health reasons, and also because of a developed taste preference for different parts of the caribou (Maksimowski 2014; Peterson 2012). The benefits derived from the consumption of caribou meat are widely known and so valuable that community hunts are promoted as effective tools to combat food insecurity in the community, and are especially beneficial for Elders who can no longer hunt or for families who cannot afford it (Peterson 2012). The sharing of country food was, and continues to be an important cultural tradition that serves to reinforce social relations (Peterson 2012; Bernauer 2011; Maksimowski 2014). Elders indicated that food was generally shared with all other Inuit in times of need, including during starvation times, which ensured the survival of families (Bennett and Rowley 2004). Today, many hunters continue to share their meat with family members and friends who have been less successful at harvesting, with preference often given to Elders (Ford and Berrang-Ford 2009, as cited in Peterson 2012).

Other studies have found a correlation between food security and access to country foods in Nunavut, and the importance of these foods and harvesting activities to community wellbeing and health (Ford and Berrang-Ford 2009, as cited in Peterson 2012). Having access and availability to country foods are viewed as critical in combating food insecurity in Nunavut's communities, that the Nunavut Food Security Coalition has highlighted its promotion as a strategic area for action, including supporting harvesters so they can pursue traditional livelihoods and promoting the continuation of informal country food sharing networks (NFSC 2014).

The development of the Meadowbank Mine has had some effect on harvesting patterns and land use. According to some Baker Lake community members s, increased income has bolstered community members' ability to purchase harvesting supplies (e.g., vehicles, weapons, ammunition, etc.) and has increased participation in harvesting since more families can afford it (Peterson 2012; Agnico Eagle 2016d). More young people have been enabled to participate, thereby increasing the potential for skills transfer. A key factor affecting harvesting patterns was the development of the all-weather access road, which has facilitated quicker access for hunters into preferred caribou harvesting areas (Peterson 2012; Agnico Eagle 2016d). Community members had mixed responses in regards to maintaining their ties to the land. While some reported enjoying time off for camping and harvesting and using the mine road to access caribou grounds, others described that since working at the mine they do not have the time to harvest, or to harvest as much as they would prefer, and that caribou have been less abundant and less accessible in the past several years (Maksimowski 2014).

Many community members expressed concern about the impact of the Meadowbank Mine on caribou availability and accessibility, resulting in greater time, energy and money spent on harvesting. Concerns were also expressed regarding food security and the potential decrease in caribou due to the Project (NIRB 2015a). It was added that caribou is the main diet of many community members and they rely on caribou and the ability to hunt them. Concerns were also raised regarding the maintenance of Inuit wellbeing and identity if caribou were no longer accessible, including the loss of community feasts, and the weakening of community-based networks of sharing, and of food security (Maksimowski 2014). Some studies have shown that sharing networks are coming under increased stress due to an evolving Inuit society, and compounded by climate change, rising costs of hunting and regulations, with some community members questioning the sustainability of food sharing (Ford et al. 2012).

Despite the challenges faced by the Inuit in a changing landscape, due to their preference for country foods, especially caribou, and the cultural, economic, and health benefits that traditional harvesting and land use provides to community wellbeing, traditional activities continue to be important to the Baker Lake community.

Report Signature Page

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APPENDIX A

Fall 2015 Consultation Meeting Documentation

ᐊᒋᒋᓯ 28, 2015

ᓇᑦᓯᓂ ᐊᐅᓴᖅᓂᖅ – ᐃᐅᓯᕿᐅᑕᖅ ᐅᒪᔨᓕᓇᔭᐊᓪᓚᐅᑦᓂᓪᓕᑦ
ᖃᐱᓕᑦᑐᐊᖏᑦ ᐅᒪᔨᓕᓇᔭᐊᓪᓚᐅᑦᓂ
ᑎᑎᖅᑲᐅᓯᖏᕐᐱᐅᑦ 255
ᖃᐱᓕᑦᑐᐊᖅ, ᓄᓇᕗᑦ

ᑕᒥᑊ ᐃᓕᐃᑐᖅ - CLARC
ᐊᒪᓗ ᔭᐊᕐ ᕿᐊᑦ – ᑭᕿᓕᖏᑦ ᐃᒪᓕᓇᔭ ᐊᒪᓗ ᑕᓇᐅᓕᓇᔭ
ᖃᐱᓕᑦᑐᐊᖅ, ᓄᓇᕗᑦ

ᐱᓵᔪᑎᓕᒃ: ᐊᒪᒍᖅ ᖃᓄᖅᓴᐃᓂᖏᑦ ᐊᑦᕿᔪᑎ: ᐅᒪᔨᓕᓇᔭᐊᓪᓚᐅᑦᓂᓪᓕᑦ ᐊᒪᓗ CLARC-ᔪᑦ ᐃᑦᑕᕿᓂᑕᖃᖅᓴᖓᒧᑐᓚᐊᓂᖓᓱᓂᒃ

ᓇᑦᓯᓂ ᐊᐅᓴᖅᓂᕿᒧᑦ, ᔭᐊᕐ ᕿᐊᑦ-ᒧᑦ ᐊᒪᓗ ᑕᒥᑊ ᐃᓕᐃᑐᖅ-ᒧᑦ,

ᐊᖏᓂᔪᓂᔪᑦ ᖃᐃᖅᔪᔨᔪᑦ ᓴᕐᑕᒫᕐᓕ 8, 2015-ᖓᓗᓂᖅᓕᑦ CLARC-ᔪᓂᓂᑦ ᐊᒪᓗ ᐅᒪᔨᓕᓇᔭᐊᓪᓚᐅᑦᓂᔪᑦ ᑲᑐᒪᔨᖅᑐᓂᓂᑦ ᐃᓕᐅᓗᑎᒃ ᐊᖏᓂᔪᓂᔪᑦ ᑭᖏᖅᑐᐃᐃᔨᖅᑐᓂᓂᒃ ᐊᒪᓗ ᐊᒪᒍᖅ ᐃᓂᖓᓚᐅᖏᓗᑎᒃ, ᑕᔪᑎᑕᐅᓗᑎᒃᓗᓗ ᐊᒥᓱᓂᒃ ᐃᑦᑕᕿᓂᑕᖃᖅᓴᖅᓂᒃ. ᑕᐅᑐᒃᑎᑕᐅᑎᓕᓗᑦ, ᑲᑎᓂᓂᐊᖅᑕᕿᑦᑎᑦ, ᖃᐃᖅᓯᒪᔨᓂᑦ ᑕᔪᑎᓕᓗᑦ ᓇᐃᓇᖅᓯᒪᔨᓂᒃ 2014 2015 ᑭᓚᕐᔪᐅᔨᔪᓂᑦ ᓇᓴᐅᑎᓂᒃ/ᑎᑎᖅᑲᓂᒃ ᐱᓕᐅᖅᑕᕐᓂᓂᒃ, ᐅᖅᖃᖅᑎᑕᓗᓱ ᑕᐅᑐᒃᑎᑕᐅᑎᓕᓗᓱ, ᑕᔪᐃᔪᑐᑐᓗᓱ ᐱᖓᓱᓂ ᓱᑕᓕᓕᒍᓂᑦ ᐃᑦᑕᕿᓂᖃᖅᓴᐃᑦ ᖃᓄᖅᓴᐃᓂᕿᒧᑦ ᐊᑦᕿᔪᑎᐅᐸ ᖃᓂᕐᓴᖓᒍᓂᑦ, ᐊᒪᓗ ᖃᐅᔨᓴᕿᓗᑦᓗᓂᑦ ᐱᖅᔪᓂᐊᕿᓗᑦᓗᓂᑦ ᐃᓄᖅ ᐊᑐᕿᓗᑦᓗᓂᑦ ᐅᓇᓱᒃᑐᖅᓴᓂᑦ/ ᐃᓄᐃᑦ ᖃᐅᔨᓴᕿᓗᑦᓗᓂᑦ ᒪᐃᓗᓂ ᑲᑎᒪᓂᖅᓴᑦ (ᖃᐱᓕᑦᑐᐊᖏᑦᑕᕐᓂᖅ ᐃᖅᓓᕿᓂᖅ ᑲᑎᒪᓂᖃᖅᓴᖅᓂᖅ ᑎᓯᐱᓇ 2014-ᒥᑦ).

ᑐᐃᔨᑕᖃᖅᓴᐅᓂᖅᑐᑦ ᑕᐅᑐᒃᑎᑕᐅᑎᓕᓗᑦ. ᐊᑕᓂᑐᑦ ᑲᑎᒪᔨᔪᑎᐃᓕᖅ ᐊᒪᓗ ᖃᖏᑲᓂᔪᓂᓂᑦ ᐅᑦᓗᒥᑦ.

ᐃᓕᐅᓂᐊᖅᑐᑦ ᐊᑎᖏᑦᓂᖅ ᖃᐃᑦᑎᓂᐊᖅᓱᓯ ᑭᐊᓴᓂ ᓂᓂᖏᓐᓄᓪᓕᑦ ᖃᓇᑕᐅᑦᔨᓂᑦ ᑎᑎᕐᕿᐃᓗᓕᑦ ᐅᐅᖏᓐ (ryan.vanengen@agnicoeagle.com) ᐊᒪᓗ ᓄᓕᓂ ᕿᓂᖅᑐᓪᓕᑦ ᐅᐅᖏᓐ (leilan.baxter@agnicoeagle.com)-ᓪᓕᑦ.

ᐱᑕᐅᑦ ᐅᓯᖃᑦᑕᖅᑐᓕᓇᔭᖏᑦ ᖃᐱᓕᑦᑐᐊᖏᑦᑐᑦ ᐊᐅᓕᖅᓂᐊᖅᑐᑦ 9-ᒥᑦ ᐅᑦᓯᓇᖅᑐᓂᑦ ᑎᑭᓕᓯᓯᓗ ᐊᑐᖅᑲᖅᑐᑎᓪᓗᑦ 11:30-ᒥᑦ. ᐊᑐᖅᑲᓂᔪᓂᑦᑐᑦ ᑲᑎᓂᓂᐊᖅᑕᕿᑦᑎᑦ; ᐅᑦᓗᑭᒥᑦᖅᑎᑕᐅᓗᓯ 11:45-ᒥᑦ 12:30-ᓪᓕᑦ ᐊᑐᖅᑲᓂᔪᓂᑐᑦ ᓂᓇᕐᓴᖓᓂᑦ.

12:30-ᒥᑦ 15:00-ᓪᓕᑦ – ᐅᖅᑭᓯᓐᓂᖅ ᐊᒪᓗ ᑕᔪᐸᓴᐃᑦ ᓴᓯᐅᔨᓴᖏᑦᑐᑦ (ᐊᐅᖅᑲᓂᔪᓂᔪᑐᑐᑦ ᓂᓇᕐᓴᖓᓂᑦ).

- ᑐᑭᔨᑎᑕᐅᓗᓯ ᐊᒪᓗᒍᖅ ᖃᓄᖅᓴᐃᓂᕿᒧᑦ ᖃᓄᐃᓕᓂᐅᓂᐅᔨᓂᑦ ᐊᒪᓗ ᐊᑦᕿᔪᑎ ᓴᓇᔨᐅᓂᖓᓄᓪᓕᑦ ᓴᕐᓇᐅᑎᑎᑦ; ᖃᐅᑦᕿᓂᖅ 2014 2015 ᑭᓚᕐᔪᐅᔨᔪᓂᑦ ᓇᓴᐅᑎᓂᒃ/ᑎᑎᖅᑲᓂᒃ (30 ᒥᓂᒥᑦ)
- ᖃᐅᑦᕿᑕᔪ ᐃᓄᐃᑦ ᖃᐅᔨᓴᖅᓯᒪᔨᓂᓄᑦ ᐊᒪᓗ ᐱᖓᓱᓂ ᒪᓕᓇᖅ ᖃᐅᔨᔨᐅᔨᔪᓂᒃ 2005-ᒥᑦ ᐊᒪᓗ ᖃᐅᑦᕿᑕᓂᑦ ᑎᑎᕐᕿᐃᓗᓕᑦ 2014-ᒥᑦ ᑲᑎᖅᑎᑎᓂᓕᕐᖓᓂᑦ ᐃᓕᓇᓴᐅᔨᔪᓂᒃ (ᐊᑕᐅᓯᖅ ᐃᑲᕐᖅ)
- ᖃᐅᑦᕿᑕᓂᑦ ᐃᑦᑕᕿᓂᖃᖅᓴᐃᑦ (ᐊᑕᐅᓯᖅ ᐃᑲᕐᖅ)
- ᐅᖅᑲᐅᓯᖃᕐᓂᖅ

15:00 – 18:00 – ᖃᓄᐸᒍᓐᓇᖅ ᑕᓄᑎᑕᐅᓂᖅ (ᐱᖓᓱᓪ ᐃᑲᖏᖅ)

- ᐃᒡᑕᖏᓂᑕᖏᖏᖅᓯᓐᓄᓪ ᑕᓄᕐᕕᖅᑐᐃᓂᖅ – ᐊᐅᓪᓚᖏᓐᓂᑦ ᒪᖏᑭᐃᓕᓖᓐᓂᑦ ᖃᓄᐸᒍᓐᓇᕐᓂᖅ ᐊᒪᓗ ᓴᑕᒪᓄᒡᓪ ᐃᒡᑕᖏᓂᑕᖏᖏᖅᓯᓐᓄᓪᓕᐅᓚᓂᑦ.

18:00-ᒥᑦ 18:45-ᒍᑦ – ᐅᑎᖏᓚᓂᑦ ᐊᐳᖅᑎᓵᓴᖅᑐᒍᑦ ᐅᓪᓄᒍᒥᑕᓕᐊᖅᑐᖏᓚᓂᑦ.
18:45-ᒥᑦ – ᐊᐳᖅᑎᓵᓴᖅᑐᑎᒥᑦ ᐊᐅᓪᓚᖏᓂᑦ ᖃᒪᓂᑦᑐᐊᖏᒍᑦ.

ᖃᐄᐊᓕᓴᐃᒍᑦᐃ ᓪᐅᖃᑕᐅᓕᕆᓚᓪᓕᐅᕆᕐᕋᓕ, ᐅᖃᐅᓕᓴᕐᓴᓂᑦ ᐊᒪᓗ ᑲᑎᖃᑎᒌᑲᓂᓂᕐᒥᒪᓲᓴᕐᑎᑦ ᓴᑎᐱᓗᒃ 8, 2015.

ᑭᐊᐃᕆᓵ ᓴᓂᓐᓚᓵ
ᐃᓴᒪᑕᖅ – ᐳᒥᑦᓂᐅᓗᓂᖏᒍᑦ ᐊᒪᓗ ᒪᓂᑎᕐᓭᓂᓗᓂᖏᒍᑦ
M: 819.651.2974

AGNICO EAGLE

August 28, 2015

Thomas Elytook – CLARC
& Jeff Hart – KIA Water & Marine Environment Specialist
Baker Lake, NU

Richard Aksawnee - HTO Chairperson
Baker Lake HTO
P.O. Box 255
Baker Lake, NU

RE: Amaruq Exploration Access Road: HTO and CLARC Archaelogical site visit

Dear Richard Aksawnee, Jeff Hart and Thomas Elytook,

AEM would like to formally invite the CLARC members and HTO board members to join AEM representatives on an Amaruq Exploration Access Road and Amaruq site visit, and tour various archaeological sites on September 8th, 2015. During this tour, we will meet with you at the Meadowbank site, share with the members of the CLARC and HTO a summary of our 2014 2015 baseline data findings, consult with you throughout the presentation, visit representative features at 3 or 4 archaeological sites near the proposed Exploration Access Road, and lastly we will follow-up on our traditional land use/ IQ workshop consultation (which was held in Baker Lake with elders in December 2014).

A translator will be available throughout the tour. Below is a proposed agenda and schedule for the day.

Please send a list of participants to Ryan Vanengen (ryan.vanengen@agnicoeagle.com) and Leilan Baxter (leilan.baxter@agnicoeagle.com).

Peter's Expediting will leave Baker Lake at 9am with the groups and you will arrive at Meadowbank at ~11:30. I will be at the Meadowbank lobby to meet you; lunch will be served from 11:45 to 12:30 at the Meadowbank cafeteria.

12:30 – 1500 – Discussion and Presentations in the Lounge (above the Meadowbank cafeteria).

- Introduction to Amaruq exploration activity and access road construction plans; a review of the 2014 and 2015 baseline data (30 min)
- Review of the IQ and TK findings in 2005 and review of December 2014 elders workshop (1 hour)
- Review of the archaeological sites (1 hour)
- Discussion

15:00 – 18:00 – Helicopter tour (3 hours)

- Archaelogical site visit – depart in 2 groups by helicopter and visit 4 sites.

18:00 – 18:45 – Arrive back at Meadowbank for Dinner.
18:45 – Depart Meadowbank back to Baker Lake.

We appreciate your participation, input and look forward to meeting with you on September 8th, 2015.

Ryan Vanengen
Superintendent - Permitting and Regulatory Affairs
M: 819.651.2974

AGNICO EAGLE

Meeting Date: Sept 8/2015 Location: MBK Site / Amaruq Road.

List of Attendees: 11:30 – 19:20 – AMARUQ EXPLORATION ACCESS ROAD

Name	Organization	Signature
1. Thomas Anirniq	CLARC?	
2. PHILIPPA [illegible] IKSIRAQ	HTO	
3. JAMES KUKIUK	HTO	
4. Warren Bernauer – Kivalliq Wildlife Board		W. B.
5. DAVID TOOLOOKTOOK Sr. – HTO –		[signature]
6. Michael Akilak	H.T.O.	[signature]
7. Joan Scottie	HTO / CLARC	
8. BASIL QUINANGNAQ	HTO	Vice-chair
9. JEFF HART	KIA	STAFF
10. Thomas ELYTOOK	clarck comm. HMT	
11. THOMAS. OOVAYUK	CLARC.	
12. [syllabics] Thomas Qaqqimat	CLARC.	
13. DAVID OWINGAYAK	CLARC	
14. [syllabics] Paul Attutuvaa	CLARC.	
15. Camila Morcos.	Golder Assoc.	
16. Jennifer Tischer	Stantec.	
17. Ryan VANENGEN	AEM	
18.		
19.		
20.		
21.		
22.		

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