



TUSAQTAVUT FOR PHASE 2 APPLICATION OF THE MARY RIVER PROJECT

Qikiqtani Inuit Association

June 14, 2019



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Qikiqtani Inuit Association

Qikiqtani Inuit Association's Tusaqtavut for Phase 2 Application of the Mary River Project

FINAL REPORT / June 14, 2019

Qikiqtani Inuit Association

Project Lead: Eva Aariak

Technical Lead: Rachel Olson, PhD

Thanks and acknowledgements go to Pond Inlet community members, elders, knowledge holders, land users, and to QIA staff, and leadership who contributed. This Report could not have been completed without their support and expert knowledge.

Disclaimer:

The information contained in this Report is based on research conducted by Qikiqtani Inuit Association, with support from Firelight Research Inc., as well as published works and archival research. It reflects the understandings of the authors and is not intended to be a complete depiction of the dynamic and living system of use and knowledge maintained by Inuit. It may be updated, refined, or changed as new information becomes available. All mapped information is based on interviews with Pond Inlet knowledge holders conducted within constraints of time, budget and scope. Base map data originate from the National Topographic System and Natural Resources Canada. The information contained herein should not be construed as to define, limit, or otherwise constrain the Nunavut Agreement rights of Inuit.

EXECUTIVE SUMMARY

The Qikiqtani Inuit Association (QIA) engaged Firelight Research Inc. to support a Tusaqtavut study specific to the proposed Phase 2 of the Mary River Project (the Project) operated by Baffinland on northern Baffin Island. This Report provides non-confidential information about existing and anticipated future impacts, based on knowledge and use data collected about the north Baffin region during interviews with Pond Inlet community members, with a specific focus on the vicinity of the Project, including the marine environments of Eclipse Sound and Navy Board Inlet. The Report includes analysis of 54 mapping interviews (of knowledge and use) conducted with 35 Inuit community members from Pond Inlet during the period of February 4, 2019 to February 8, 2019, and April 26, 2019 to April 30, 2019.

The site-specific data clearly demonstrate that Inuit use or have used the Study Area across multiple generations. A total of 1020 site-specific values were reported in the Study Area (the Footprint, LSA, and RSA). Additionally, the Study Area contains numerous important sites that support harvesting of wild foods including marine mammals (including ringed seal and narwhal), terrestrial mammals (including caribou), fishing and Inuit cultural continuity. These include, but are not limited to:

- High value fish habitat;
- Important water sources, such as springs, rivers, and lakes;
- Important wildlife habitat for supporting hunting and trapping activities, including important calving areas for both narwhal and caribou in the marine and terrestrial environments respectively;
- Important travel routes that are relied upon to access hunting grounds and other communities; and
- Areas relied on for the continuity of Inuit culture, such as teaching areas, campsites and gathering places.

The site-specific data show that the Project is situated in an area that is highly valued and has been used by Inuit for generations. This Report documents the historical, current, and desired future use of Inuit and their ancestors within this area, including the coastlines and interior of Baffin Island and Bylot Island, as well as the marine environment including the sea ice and floe edge.

Through discussion and interviews, study participants identified a set of Valued Components (VCs) relating to Inuit knowledge and use that have been and/or continue to be impacted by the Project. These are: Marine Hunting; Terrestrial Hunting; Fishing and Fresh Water; Travel, Trails, and Habitation; and Cultural Continuity.

Project interactions and impact pathways which impact safe travel inland and on the sea ice, reduced harvesting success, loss and disturbance of hunting areas and cabins, knowledge transmission and sense of place, and marine mammal harvesting that emerged from the Study related to the VC of Marine Hunting are as follows:

- Impacts to marine ice, water and sediment quality primarily from the Milne Port and increased marine shipping;

- Avoidance of areas by marine mammals and harvesters due to the Milne Port and the Northern Shipping Route;
- Impacts to marine species health and impacts to habitat loss and changes in habitat due to the Milne Port and the Northern Shipping Route;
- Acoustic disturbances from the Northern Shipping Route and the Milne Port;
- Risks of mortality from vessel strikes and increased vessel interactions due to the Northern Shipping Route;
- Loss of wildlife habitat, including critical narwhal calving environments due to acoustic disturbance from ship traffic;
- Loss of use or avoidance of preferred areas for hunting due to decreased abundance of preferred species (such as narwhal); and
- Loss of use or avoidance of preferred areas for hunting due to safety concerns and restrictions on access.

Project interactions and impact pathways, including impacts to safety, increasing harvesting effort, and a loss or disturbance of use of hunting areas and camps/cabins with potential impacts to household and community-level subsistence, that emerged from the Study related to the VC of Terrestrial Hunting are as follows:

- Increased dust from the Tote Road;
- Alterations to, and loss of, terrestrial habitat from all aspects of the mine operation;
- Barriers to movement for wildlife from particularly mine-related activities;
- Risk of mortality and morbidity due to truck and trains collisions;
- Impacts to caribou health, including impacts related to sensory disturbance and contamination;
- Loss of use or avoidance of preferred areas for hunting and trapping due to safety concerns and restriction of access; and
- Impacts on the abundance and distribution of wildlife, particularly caribou, due to factors including acoustic disturbance, resulting in reduced harvesting success.

Project interactions and impact pathways that impact fish harvesting and the ability to collect and drink fresh water that emerged from the Study related to the VC of Fishing and Fresh Water are as follows:

- Impacts to quality and quantity from the Tote Road and mine site;
- Impacts to the health and condition of fish (Arctic char) due to changing water quality and impacts from the Milne Port and Northern Shipping Route;
- Habitat loss and alteration in both marine and freshwater environments for Arctic char due to activities related to Milne Port, North Railway, and Tote Road, leading to a decline in fish populations; and

- Species avoidance of areas due to impacts to fish habitat and diminished water quality.

Project interactions and impact pathways which impact increased travel time and harvesting effort that emerged from the Study related to the Travel, Trails, and Habitation VC are as follows:

- Damage to travel equipment due to the Tote Road and dust from the Mine Site;
- Sensory disturbances and impacts to safety;
- Impacts to safe inland travel from mine-related activities;
- The loss of or alteration of traditional caribou trails due to the North Railway;
- Impacts to ground disturbance from the Milne Port and Phase 2 activities;
- Impacts to caribou harvesting and marine mammal harvesting due to Phase 2 activities generally;
- Changes in access to preferred hunting and trapping areas due to disruption from truck and rail traffic; and
- Potential changes to access due to interference with the primary trail to hunting areas and other communities by the North Railway.

Project interactions and impact pathways that impact knowledge transmission and sense of place that emerged from the Study related to the Cultural Continuity VC are as follows:

- Changes in access to and the availability of harvesting resources due to a loss of access, a loss of cabins and camps for hunting, and impacts to the availability of mammals (caribou and narwhal in particular) due to mine-related activities;
- Changes in access to travel corridors, cabins, and camps due to mine-related activities including the Tote Road;
- Loss of archaeological sites due to ground disturbance from the terrestrial mine-related activities; and
- Loss of other culturally important gathering sites, tent rings, and other sites due to ground disturbance from the mine, road, and proposed rail and shipping traffic.

The Study Area is important for Pond Inlet members in the north Baffin region for continued use to maintain their traditional land use and harvesting practices. The current mine activities (and related shipping and road traffic) as well as the proposal for the Phase 2 expansion of the Mary River Project are having, and would potentially have, a direct impact on the ability of Pond Inlet members to use the land for harvesting, travel and camping purposes, and by extension reduce their ability to transmit to future generations their IQ, including cultural knowledge, values and worldview.

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ACRONYMS AND ABBREVIATIONS

Firelight	Firelight Research Inc.
GN	Government of Nunavut
HTO	Hunters and Trappers Organization
IOL	Inuit Owned Lands
IQ	Inuit Qaujimajatuqangit
km	Kilometre
LSA	Local Study Area
NA	Nunavut Agreement
NTI	Nunavut Tunngavik Inc.
NU	Nunavut
NIRB	Nunavut Impact Review Board
The Project	Mary River Project
The Proponent	Baffinland Iron Mines Corporation
QIA	Qikiqtani Inuit Association
RSA	Regional Study Area
Study	QIA Tusaqtavut Study, an Inuit Knowledge and Use Study Specific to the Mary River Project, Phase 2
Study Area	The RSA, LSA, and Footprint combined
VC	Valued Component

1. INTRODUCTION

1.1 OVERVIEW

This Report documents the background, methods, and findings of a Tusaqtavut study (the ‘Study’) specific to the Mary River Project Phase 2 (the Project) proposed by Baffinland Iron Mines Inc. (the Proponent) on Baffin Island. For the purposes of this Report, the Project refers collectively to mine, road, rail, port, and shipping developments and activities proposed as part of Phase 2. The continuation of effects from the existing Mary River Project is also considered, as are reasonably foreseeable future expansions to the south already permitted for the full Project build out. However, a full cumulative effects assessment is beyond the scope of this Study.

This Report provides information on current conditions and consideration of anticipated Project interactions and impact pathways based on current and available Pond Inlet community IQ data in relation to the traditional lands of the Pond Inlet Inuit and in the vicinity of the Project.

This Report includes non-confidential site-specific (i.e., mapped) and qualitative information related to the Project.

The Report is organised into five sections:

- Section 1 presents an overview of the scope of work and Report and Study limitations;
- Section 2 presents background information regarding the Pond Inlet community and the Project;
- Section 3 presents information on the methods used for the Study;
- Section 4 presents the findings of the Study, including both the site-specific and qualitative data; and
- Section 5 summarises the findings and conclusions of the Study.

The Qikiqtani Inuit Association (QIA) engaged Firelight Research Inc. (Firelight) to support a Tusaqtavut study specific to the Project. As detailed in the January 17, 2019 work plan, this includes:

- Detailed budgeting, scoping, work planning, and project management;
- Data and document review of existing data relating to the Project and the Study Area;
- Meetings with QIA to discuss the purpose of the Study and identify key valued components (VCs) and interests related to the Project;
- Development and tailoring of interview and mapping methodologies for the Study;

- Completion of up to 30 individual mapping interviews with Pond Inlet knowledge holders at a scale of 1:50,000 or finer;
- Analysis of interview results, including transcription, post-processing GIS data, preparing maps, and writing a draft non-confidential report; and
- Final reporting to communities.

The deliverables will include a Tusaqtavut Study non-confidential report that considers likely Project-specific effects on Inuit resources, knowledge, use and values based on Inuit knowledge and land use. Report components include:

- Identification and discussion of key issues relating to traditional resource use and livelihood specifically relating to the Project;
- Identification and assessment of project-related impact pathways on key Inuit values;
- Maps that indicate Inuit key resources in the vicinity of the Project (including fish, animals, migratory birds, water resources, and others);
- A discussion of the importance of key resources related to livelihood practice, the transmission of Inuit Qaujimajatuqangit, and the current status of knowledge transmission relating to areas or resources near the Project;
- An assessment of likely interactions of the Project on resources and areas of importance to QIA and on IQ, knowledge and use, and associated impact pathways; and
- Baseline and assessment methods.

The report does **not** include:

- An assessment of residual effects of the Project on Inuit knowledge and use;
- A comprehensive assessment of the potential for cumulative effects on Inuit knowledge and use from the Project acting in combination with other developments and human-caused changes in the region;
- Recommendations for mitigation of effects;
- A significance determination regarding anticipated residual and cumulative effects of the Project; or
- Recommendations regarding culturally relevant indicators and strategies for monitoring in the vicinity of the Project.

1.2 LIMITATIONS

This Report has a number of limitations and should only be considered a first step in identifying Pond Inlet knowledge and land uses and values that may be impacted by the Project. Limitations of this Report include the following:

- The study was conducted with the community of Pond Inlet, therefore the values, uses, and Project impacts on members of other affected Inuit communities are not included in this report.
- Not all knowledge holders were able to participate in this Study. Efforts were made to include key knowledge holders active within the Study Area, but many Pond Inlet elders, hunters, and community members with important knowledge of the Study Area (i.e., Footprint, LSA, and RSA combined) may have been unable to participate due to time and budget restrictions.
- Data collected for each participant are limited by what the participant was able and willing to report at the time of the interview.
- Some interviews were conducted in Inuktitut using simultaneous translation. Due to time constraints, translated transcription has not taken place. Interview notes indicate when a quote from an interview participant was from the translator at the time of the interview.
- The area demarcated by mapped site-specific use values should be understood to be a small portion of the actual area required for the meaningful practice of a Pond Inlet Inuit way of life. Site-specific mapped values (e.g., cabins and kill-sites) reflect particular instances of use that anchor wider practices of culture, livelihood, and other Inuit rights within a particular landscape. For example, a single fishing site may be mapped with a precise point, but that point does not capture the entire spectrum of related practices and values.
- This Report does not include recommendations on mitigation, monitoring, or compensation measures. Conclusions on monitoring, mitigation, and compensation measures are outside the scope of this Report.
- This Report is based on the understandings and analyses of the authors and is not intended as a complete depiction of the dynamic way of life and living system of use and knowledge maintained by the Pond Inlet community.
- This Report should not be taken as a replacement for other studies that may be required, including but not limited to cumulative effects, socio-economics, diet, IQ studies specific to marine and terrestrial wildlife, and health and wellbeing.

Given the above limitations, this Report can be used as a representational account of only some of the Pond Inlet community's knowledge, land use, and cultural values. It is important to note that the Study does not reflect all current use by Pond Inlet community members in those areas, and **an absence of data does not signify an absence of use or value.**

This Report is non-confidential and is intended for consideration by Inuit, the Nunavut Impact Review Board, agents of the territorial and federal governments, and the Proponent within the Project environmental assessment process. However, all data included in this Report are the property of QIA and may not be used or reproduced outside the Project regulatory process without the written consent of QIA or their delegate. Re-interpretation or analysis of the following results will require input and participation from QIA and the Pond Inlet community.

Nothing in this Report should be construed as to waive, reduce, or otherwise constrain Inuit rights within, or outside of, regulatory processes. This Report should not be relied upon to inform other projects or initiatives without the written consent of the QIA.

2. BACKGROUND

2.1 POND INLET COMMUNITY PROFILE

Pond Inlet is a primarily Inuit community located on northern Baffin Island, Nunavut. The current population of Pond Inlet is 1,617 (Government of Canada 2017). Pond Inlet is situated in an area known as Mittimatalik in Inuktitut, which is translated as ‘the place where Mittima is buried’ (Hamlet of Pond Inlet 2019).

Inuit have been resident in the north Baffin region for roughly 1,000 years, when the archaeological record indicates that their ancestors, the Thule people, moved into the eastern Arctic and the Qikiqtaaluk, previously occupied by the Dorset culture (known as Tuniit in Inuktitut) (Hamlet of Pond Inlet 2019).

Hunting marine and terrestrial creatures has been central to the human occupants of northern Baffin Island since time immemorial (Bennett and Rowley 2004; Stenton 1991). Hunting terrestrial mammals including caribou, wolverine, fox, Arctic hare, lemmings, and wolves provided food and necessary materials for the construction of clothing needed to withstand the cold climate (Bennett and Rowley 2004; Hallam and Ingold 2016; Stenton 1991). Marine mammals such as small whales, walrus, and seals provided necessary materials for clothing and tools as well as essential food, rich in the fats and nutrients required to support life in an environment where vegetable sources of nutrition are limited (Lee and Wenzel 2004; Bennett and Rowley 2004). Fishing, the collection of plants and berries, camping, and soapstone collection have been part of the Inuit way of life since time immemorial (Bennett and Rowley 2004). The complex and multi-layered culture and body of knowledge comprised of the aforementioned activities and built over generations is encapsulated in the term Inuit Qaujimajtuqangit (IQ) (Tester and Irniq 2008; Wenzel 2004; Karetak et al. 2017).

The seasonal round of harvesting which was traditionally undertaken in the Pond Inlet area, in conjunction with movement between a number of seasonally located camps, began to change in 1921 with the arrival of a Hudson’s Bay Company outpost (Matthiasson 1992). While whalers had been travelling and harvesting whales in the region for some decades already, substantial social changes were precipitated by the arrival of the Hudson’s Bay Company.

The following decades saw the arrival of missionaries, the Royal Canadian Mounted Police, and agents of the Federal and Territorial governments. Each wave of arrivals and the changes they brought shifted the development of the community of Pond Inlet further towards a settled community and away from the previously seasonally mobile lifeway which the Pond Inlet Inuit had lived (Matthiasson 1992). While the Pond Inlet community was obliged to adapt to these changes in their environment, as well as the introduction of southern-style schooling and participation in the wage economy, harvesting food from the land and travelling on the land remained important and continue to be central to the identities of Pond Inlet community members (Condon et al. 1995).

The signing of the Nunavut Agreement (NA) in 1993 and its sister Act, the Nunavut Act, produced the Territory of Nunavut and resulted in the designation of Inuit Owned Lands (IOL) (Henderson 2008). The presence of the iron ore deposit which constitutes the mined material at Mary River on an IOL, alongside an obligation to safeguard the rights of Inuit under the NA, has involved QIA in the NIRB review process for the Project, and precipitated the preparation of this Study.

2.2 THE MARY RIVER PROJECT PHASE 2 PROPOSAL

This section provides background information about the existing Mary River Project and proposed Phase 2 Proposal. Baffinland provided spatial data used in this report on September 11th, 2018.

2.2.1 The Mary River Mine

The Mary River Mine is situated in the northern interior of Baffin Island, roughly halfway between Ikpikitturjuaq (Steensby Inlet) to the south, and Qinngua (Milne Inlet) to the north.

Currently, ore is excavated, crushed, and graded into coarse and fine grades at a facility on site before being trucked via the Tote Road to Milne Port. The Tote Road runs from the mine-site north to Qinngua, largely following Phillips Creek. At a port facility at Qinngua, ore is loaded onto ships that transit out of the loading area, past Bruce Head and northeast around Ragged Island into Eclipse Sound. Ships then transit east between the south shore of Bylot Island and the community of Pond Inlet, into Guys Bight, and subsequently Baffin Bay as they proceed to their final destination.

What eventually became the Mary River Mine property was initially discovered in 1962. The current operations phase began in 2014 when initial approval was received from NIRB to operate the mine, with ore first being shipped to Europe during the summer of 2015 (Baffinland Iron Mines Corporation 2019).

2.2.2 The Mary River Project Phase 2 Proposal

The Proponent has submitted an application to NIRB for a second phase of mining (the Phase 2 Proposal). The Proponent is applying to increase the amount of ore removed from the mine site via the northern Milne Port route, from the current 6.0 million tonnes per annum (mtpa) to 12 mtpa by 2020. To accommodate this increase in production and transportation, the Proponent is also applying to construct an approximate 110-kilometre-long railway (i.e., 'North Railway') which will transport the graded ore to the Milne Port facility (Baffinland Iron Mines Corporation 2018).

The proposed railway routing is largely twinned to the existing Tote Road right of way, with the exception of several sites where topography makes twinning technically difficult. The use of the Tote Road will continue while the railway is constructed. While use of the Tote Road for ore movement is proposed to end in 2021 (the North Railway is proposed to be completed and activated by 2020), it will continue to be used to move personnel, fuel, water, and materials for maintenance of the railway (Baffinland Iron Mines Corporation 2018).

Additionally, the Phase 2 application asks for approval for an increase in the number of ships loading and unloading at the Milne Port facility, and an increase in vessel size of a portion of this fleet (Baffinland Iron Mines Corporation 2018). Phase 2 would also involve the construction of further port infrastructure to facilitate proposed increases in ship traffic, and increased needs for fuel, as well as port and mine staff (Baffinland Iron Mines Corporation 2018).

In summary, the Phase 2 Project will involve the following activities:

Milne Port:

- Construction and operation of a second ore dock capable of berthing Cape-size ore carriers;
- Expansion of ore handling and stockpiling facilities;
- Railway and ore unloading infrastructure;
- A new ore crushing facility that will be indoors to reduce dust;
- An expanded camp and related facilities;
- A landfill;
- Increased shipping activities at the port; and
- Increased shipping through Qinnua.

Mine site:

- Increasing the mining rate to 12 million tonnes per year for transportation to the Milne Port facility via the North Railway;
- Additional rail loading facilities for the North Railway;
- An expanded fuel tank farm; and
- Expanded mine maintenance facilities and support administration buildings / facilities (warehouses, shops, etc.).

Mary River transportation corridor (i.e., Tote Road and North Railway):

- Construction of the railway embankment and railway;
- Construction of water crossings (four bridges and 417 culverts);
- Construction and use of multiple laydown areas (up to 14), shelters and small equipment shops at each laydown;
- Construction and operation of four temporary camp pads and two mobile camps;
- Construction of several level crossings for the Tote Road; and
- Development and closure of up to 40 quarries along the railway corridor.

Shipping:

- Shipping between early July up to November 15 each year; and
- Increased shipping frequency during the yearly open water period.

3. METHODS

3.1 OVERVIEW

Data for this Study were collected from mapping interviews specific to the Project with 35 Pond Inlet community members, conducted between February 4, 2019 and February 8, 2019, and between April 26, 2019 and April 30, 2019. This section details the data collection methodologies used and analyses conducted, including for both quantitative (i.e., mapped) and qualitative data.

3.2 VALUED COMPONENTS

This Report is organised around five valued components (VCs). A VC is defined as an important aspect of the environment that a project has the potential to impact (Hegmann et al. 1999). Valued components may include tangible or biophysical resources (e.g., particular places or species), and may also encompass less tangible social, economic, cultural, health, and knowledge-based values (e.g., place names or IQ regarding a particular area).

For the purpose of this Study, the VCs were chosen to represent the critical conditions or elements that must be present for the continued practice of Pond Inlet Inuit culture and that may be impacted by the Project. As such, VCs can range from the direct presence of traditionally hunted animals and gathered plants, to continued habitation, travel, and cultural activities on the land. Valued components are also designated to include intangible cultural resources, such as the transmission of knowledge across generations. Valued components for this Study are:

- Marine Hunting;
- Terrestrial Hunting and Trapping;
- Fishing and Fresh Water;
- Travel, Trails, and Habitation; and
- Cultural Continuity.

3.3 MAPPING INTERVIEWS

35 Inuit Pond Inlet community members were interviewed in 54 separate mapping interviews for the Study from February 4, 2019 to February 8, 2019, and from April 26, 2019 to April 30, 2019. Interviews were conducted at the Visitors Centre in Pond Inlet, Nunavut. Interview teams prioritised the documentation of values within the Local Study Area (LSA) and those in close proximity to the Project. Verification of the findings of this report was conducted through individual meetings with participants from April 26-30, 2019. A community verification meeting was held on April 30th, 2019. Values within and beyond the Regional Study Area (RSA) were documented where time permitted.

Interview participants were identified and contacted by QIA staff. Participants were chronologically assigned identifier codes in the form of P##. Informed consent was obtained for all interviews (see Consent Form in Appendix 1).

All data included in this Study were collected using the same methodology as described in Sections 3.3.1 and 3.3.2, below. Interviews followed a semi-structured format (see Interview Guide in Appendix 3). Interview and mapping protocols used were based on standard techniques (Tobias 2009; DeRoy 2012).

The Study adheres to the following established best practices for IQ/TK/TLU studies in the regulatory context of a proposed Project (Olson et al. 2016):

- **Methods development:** A semi-structured interview guide should be developed with the community to ensure that all questions are culturally appropriate. Development of TLU codes for mapping should be done with the community to ensure appropriateness.
- **Informed consent:** Each participant should read and sign a consent form that clearly indicates who is conducting the study, its purpose, who will have intellectual property rights over the information shared during the interview, and their rights in the interview process.
- **Semi-structured individual interviews:** To obtain detailed IQ/TK/TLU information, individual interviews should be conducted with a broad cross-section of traditional knowledge holders and land users.
- **Data management:** Recording of participant names, dates of interviews, who conducted the interviews, and how the data are stored is an essential part of IQ/TK/TLU research.
- **Mapping protocols:** Mapping should be conducted with a trained researcher. Mapping codes should be developed with the community before the study begins and used consistently throughout. Proper documentation of sites and attribute data should be collected in a consistent manner. Site-specific mapping should be done at a scale of 1: 50,000 or better.
- **Established spatial boundaries:** The proposed project, local study area, and regional study area should be clearly indicated on maps during all IQ/TK/TLU interviews.
- **Established temporal boundaries:** The temporal boundaries of the IQ/TK/TLU study should include current use (i.e. use in the participant's lifetime), historical use, and future use.
- **Recording of IQ/TK/TLU interviews:** All interviews should be audio recorded with proper attributions.
- **Data analysis:** Recorded interviews should be transcribed and coded according to themes, or valued components. Map data should be analysed using mapping software, such as ESRI ArcGIS, to understand the types and density of use in the proposed project footprint, local study area, and regional study area.

For the Study, 28 interviews were conducted in English and 26 were conducted primarily in Inuktitut. Participants had the option to speak in Inuktitut, either with a QIA staff member or an interpreter. All audio was recorded digitally. Where interpreted material has been used as part of the analysis conducted in the preparation of this Report, this has been indicated.

3.3.1 Site-Specific Data Collection and Analysis

For the purpose of this Report, *site-specific data* are values reported by Pond Inlet community members that are specific, spatially distinct, and that may be mapped (however, exact locations may be treated as confidential).

Site-specific data were mapped and managed using a 'direct-to-digital' process in which Google Earth imagery was projected onto a wall or screen. Points, lines, or polygons, geo-referenced at a scale of 1:50,000 or finer, were used to mark areas of reported use and value. Some lines and polygons denoting trails and hunting areas were mapped at a coarser scale (i.e., greater than 1:50,000). Data collection focused on the Footprint (250m buffer around physical works), Local Study Area (LSA; 5 km of the Footprint, and including the marine environment with a 250m buffer on the shoreline), and Regional Study Area (25km from the mine, railway and Tote Road; also the marine environment with boundaries defined in consultation with QIA staff). See Figure 1 for a map of the Project and the Study Area.

Maps of site-specific values presented in this Report are generated from data mapped during the interviews. Points are randomised within a 250 m radius and then buffered by one kilometre. A one-kilometre buffer is also generated around each line and polygon. Buffering is done to account for a margin of error and to protect information confidentiality (DeRoy 2012).

Site-specific data were mapped according to five 'Activity Class' categories that were designed to capture multiple aspects of the Study VCs:

- Habitation values (including temporary, occasional, seasonal, and permanent camps and cabins);
- Cultural and spiritual values (including burial sites, ceremonial areas, and gathering areas);
- Subsistence values (including harvest and kill sites, plant collection areas, and trapping areas);
- Environmental feature values (including specific, highly valued habitat for caribou, narwhal, ringed seal and char); and
- Transportation values (including trails, water routes, and navigation sites).

The temporal boundaries set for the baseline data collection include past, current, and planned future knowledge and use. For the purpose of this Study:

- A past value refers to an account of knowledge and use prior to living memory, passed down through intergenerational IQ-transfer;
- A current value refers to an account of knowledge and use within living memory; and
- A planned future value refers to anticipated or intended knowledge or use.

3.3.2 Qualitative Data Collection and Analysis

Qualitative data were also collected during the semi-structured interviews. The knowledge and use values of the Pond Inlet community that have been impacted by the Mary River Mine to date were explored, as well as the potential for further effects from the Project. Information relating to additional stressors (other cumulative effects causing agents) was also analysed and incorporated into this Report.

The English portions, including translation, of the audio from the interviews were transcribed. Transcripts were then reviewed, coded thematically, and analysed for issues and concerns identified by Study respondents. These data are summarised in Section 4.

All spellings of Inuktitut words used in this report were either verified during interviews, based on spellings encountered in relevant literature from the northern Qikiqtani, or based on the place names in use by the Inuit Heritage Trust (“Inuit Heritage Trust: Place Names Program” n.d.).

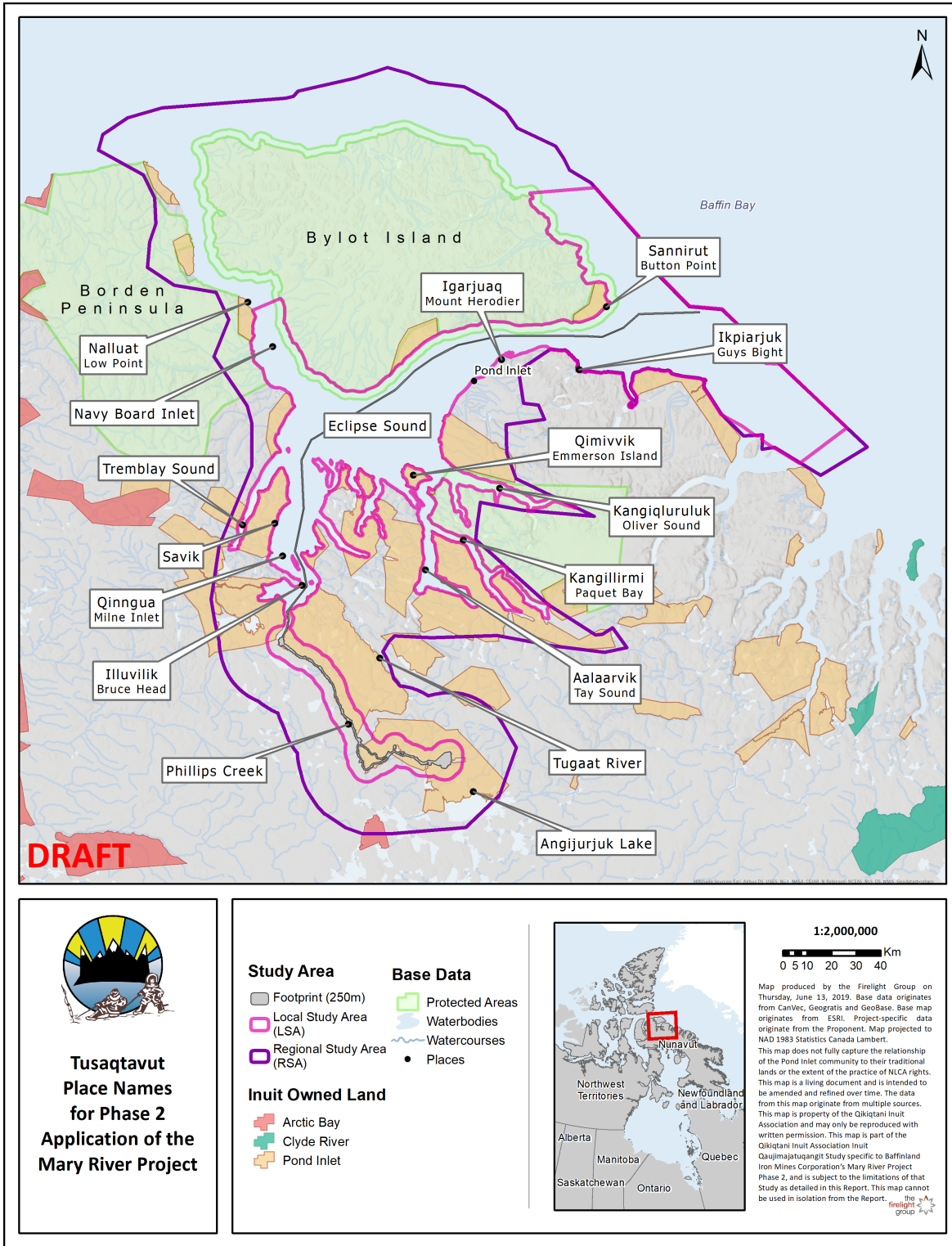


Figure 1: Mary River Project Phase 2 with the Project Footprint, LSA, and RSA and Place Names.