



## **NIRB Uuktuutinga Ihivriughikhamut #126014**

### **The Ferguson Lake, Nunavut, Baseline Studies at Site and to Evaluate Winter Road Route, All Weather Road Route, and SeaLink Facility Options**

<b>Uuktuutinga Qanurittuq:</b>	New
<b>Havaap Qanurittunia:</b>	Scientific Research
<b>Uuktuutinga Ublua:</b>	12/2/2024 2:19:51 PM
<b>Period of operation:</b>	from 2025-06-01 to 2027-10-31
<b>Havauhikhaq Ikayuqtinga:</b>	Ryan VanEngen Canadian North Resources Inc. 299 Courtneypark Drive East Mississauga, Canada ON L5T2T6 Canada Hivayautit Nampanga:: 5197108516, Kayumiktukkut Nampanga::

# QANURITTUT

## Tukihiannaqtunik havaariyaumayumik uqauhiuyun

Qablunaatitut: The Ferguson Lake, Nunavut, Baseline Studies at site and to Evaluate the Winter road route, All Weather Road route and SeaLink Facility Project Development (the Project) is located in the Kivalliq region. Canadian North Resources Inc. (CNRI) is beginning to assess the feasibility of transportation and logistics infrastructure to connect the Ferguson Lake Project to a transportation hub, potentially either in Baker Lake, NU, or Arviat, NU. This includes consultation, engagement and environmental studies when considering winter road routes, All-Weather Road (AWR) routes, and potential SeaLink facility locations. This application is for NIRB to screen and permit CNRI to conduct basic baseline environmental field studies, which includes scientific data collection along potential routes from Ferguson Lake Camp to Baker Lake and Arviat. Winter routes to support the Ferguson Lake project have been previously screened and approved by NIRB from the camp to Baker Lake, Churchill and Rankin Inlet. On January 20, 2006, Starfield received a positive conformity decision with the Keewatin Regional Land Use Plan from the Nunavut Planning Commission (NPC) to construct the Ferguson Lake Camp, operate the exploration camp, complete advanced exploration activities and haul materials along a winter road from Churchill, MB. On March 26, 2007, the Ferguson Lake Project received a screening decision by NIRB (NIRB File 06EN008 & 07EN001) a winter trail right of way from Churchill, MB. and Rankin Inlet, NU., to Ferguson Lake. Various authorizations, extensions and requests between 2008 and 2020 were screened by NPC and NIRB, to include various advanced exploration activities and use of a winter road from Baker Lake to Ferguson Lake (NIRB File 07EN001 and Screening Decision Report No: 19RA046). The Ferguson Lake project operates its camp and advanced exploration activities under Nunavut Water Board Type B Licence 2BE-FER227 and various KIA leases. Currently, CNRI are using the route to Baker Lake to support the camp. The entire baseline study and evaluation of routings and logistics for an AWR or Winter Road will be guided by a multi-year engagement and consultation process with Inuit to ensure the integration of Inuit Qaujimajatuqangit (IQ), as well as by scientific data and engineering assessments. The field programs will require several licenses: a Wildlife Research Permit from the Government of Nunavut Department of Environment, scientific licenses from the Department of Fisheries and Oceans Canada, and approval of workplan from the Kivalliq Inuit Association. These licenses will allow access to the land and enable limited field-based data collection studies. Generally, the baseline studies program involves scientists, technicians and workers accessing land and waters within the study area during the summer months to collect biological and biophysical environmental data and install new scientific instruments needed for data collection. Workers will travel to the study locations by helicopter and carry out their work on foot or by boat. The instrumentation may remain in place until at least the end of the summer in 2025. During the field program, workers will reside in existing authorized facilities and use drummed fuel stored in these facilities. No water use or waste deposit is planned; any domestic water required or waste generated will be managed under Type B licenses at the Ferguson Lake Camp or at approved facilities in Baker Lake or Arviat. While the primary work is expected to occur seasonally over approximately 60 days in June, July and September 2025, the program is planned to extend from 2025 to 2027 to allow for flexibility and accommodate any unplanned delays due to weather and logistical constraints. The 2025 to 2027 planned program involves basic field environmental monitoring, including: •Archaeological Surveys and Traditional Land Use Studies •Placement of wildlife observation cameras, automated recording units, and related support structures for wildlife and bird observations along the potential routes and near the Ferguson Lake Camp. •Assessment of freshwater and possibly marine fish habitat, fish species, and bathymetric data collection at watercourses and lakes along the potential routes, SeaLink Facilities and near the Ferguson Lake Camp. •Biophysical data collection including terrestrial, soil, dust and water quality samples along the potential routes and near the Ferguson Lake Camp. Consultation, engagement and land use studies will be conducted for the duration of this work to ensure an integration of Inuit Qaujimajatuqangit (IQ) into the planning and environmental monitoring.

Uiviitutut: Le projet de \*Ferguson Lake\*, situé au Nunavut, comprend des études de base sur le site et l'évaluation des itinéraires de route hivernale, de route toutes saisons et des installations potentielles de la SeaLink. Ce projet, localisé dans la région de Kivalliq, est mené par \*\*Canadian North Resources Inc. (CNRI)\*\*\*, qui commence à évaluer la faisabilité des infrastructures de transport et de logistique pour connecter le projet Ferguson Lake à un

centre de transport, potentiellement à Baker Lake, NU, ou Arviat, NU. Cela inclut des consultations, des engagements et des études environnementales pour envisager des itinéraires de route hivernale, des routes toutes saisons (\*All-Weather Road, AWR\*) et des emplacements potentiels pour les installations SeaLink. Cette demande vise à obtenir l'autorisation de la Commission d'examen des répercussions du Nunavut (\*NIRB\*) pour que CNRI puisse mener des études de base environnementales sur le terrain, incluant la collecte de données scientifiques le long des itinéraires potentiels depuis le camp de Ferguson Lake jusqu'à Baker Lake et Arviat. Les itinéraires hivernaux soutenant le projet Ferguson Lake ont déjà été examinés et approuvés par le \*NIRB\*, notamment ceux reliant le camp à Baker Lake, Churchill et Rankin Inlet. Le 20 janvier 2006, \*\*Starfield\*\* a reçu une décision favorable de conformité avec le Plan d'utilisation des terres régionales de Keewatin de la part de la Commission d'aménagement du Nunavut (\*NPC\*) pour construire le camp de Ferguson Lake, exploiter le camp d'exploration, effectuer des activités d'exploration avancées et transporter des matériaux via une route hivernale depuis Churchill, MB. Le 26 mars 2007, le projet Ferguson Lake a obtenu une décision d'examen du NIRB (\*dossiers NIRB 06EN008 & 07EN001\*) pour un droit de passage sur un sentier hivernal depuis Churchill, MB, et Rankin Inlet, NU, jusqu'à Ferguson Lake. Diverses autorisations, prolongations et demandes entre 2008 et 2020 ont été examinées par le \*NPC\* et le \*NIRB\*, incluant des activités avancées d'exploration et l'utilisation d'une route hivernale de Baker Lake à Ferguson Lake (\*dossier NIRB 07EN001 et rapport de décision 19RA046\*). Le projet Ferguson Lake exploite actuellement son camp et mène des activités d'exploration avancées sous le permis de type B de l'Office des eaux du Nunavut (\*Licence 2BE-FER227\*) et divers baux de la Kivalliq Inuit Association (\*KIA\*). Actuellement, CNRI utilise l'itinéraire vers Baker Lake pour soutenir le camp. L'ensemble des études de base et de l'évaluation des itinéraires pour une AWR ou une route hivernale sera guidé par un processus pluriannuel de consultation et d'engagement avec les Inuits afin d'intégrer l'\*Inuit Qaujimajatuqangit (IQ)\*, ainsi que par des évaluations scientifiques et techniques. Les programmes sur le terrain nécessiteront plusieurs licences : un permis de recherche sur la faune délivré par le ministère de l'Environnement du Nunavut, des licences scientifiques du ministère des Pêches et Océans Canada, ainsi qu'une approbation du plan de travail par la \*Kivalliq Inuit Association\*. Ces licences permettront d'accéder aux terres et de collecter des données environnementales sur le terrain de manière limitée. Généralement, le programme d'études de base implique des scientifiques, techniciens et travailleurs qui accèdent aux terres et aux eaux dans la zone d'étude durant les mois d'été pour collecter des données biologiques et biophysiques et installer de nouveaux instruments scientifiques nécessaires à la collecte de données. Ces instruments pourraient rester en place au moins jusqu'à la fin de l'été 2025. Pendant le programme sur le terrain, les travailleurs résideront dans des installations autorisées existantes et utiliseront du carburant en barils stocké dans ces installations. Aucun usage d'eau ni dépôt de déchets n'est prévu ; toute eau domestique requise ou tout déchet généré sera géré sous les licences de type B au camp de Ferguson Lake ou dans des installations approuvées à Baker Lake ou Arviat. Bien que les travaux principaux soient prévus saisonnièrement sur environ 60 jours en juin, juillet et septembre 2025, le programme est planifié pour s'étendre de 2025 à 2027 afin de permettre une flexibilité et de répondre à tout retard imprévu dû aux conditions météorologiques ou aux contraintes logistiques. Le programme prévu de 2025 à 2027 inclut les activités suivantes : - Études archéologiques et études d'utilisation traditionnelle des terres ; - Installation de caméras d'observation de la faune, d'unités d'enregistrement automatisées et de structures de soutien liées à l'observation de la faune et des oiseaux le long des itinéraires potentiels et près du camp de Ferguson Lake ; - Évaluation de l'habitat des poissons en eau douce et potentiellement en milieu marin, identification des espèces de poissons et collecte de données bathymétriques aux cours d'eau et lacs le long des itinéraires potentiels, des installations SeaLink et près du camp Ferguson Lake ; - Collecte de données biophysiques incluant des échantillons terrestres, de sol, de poussière et de qualité de l'eau le long des itinéraires potentiels et près du camp Ferguson Lake. Des consultations, engagements et études sur l'utilisation des terres seront menés pendant toute la durée de ces travaux pour garantir l'intégration de l'\*Inuit Qaujimajatuqangit (IQ)\* dans la planification et le suivi environnemental.

Inuktitut: See translated ppt presentation with project details.

## Personnel

Personnel on site: 10

Days on site: 40

Total Person days: 400

Operations Phase: from 2025-06-01 to 2027-10-31

## Hulilukaarutit

Inigiya	Hulilukaarut Qanurittuq	Nunannga Qanurittaakhaanik	Initurlinga qanuritpa	Initurlinga utuqqarnitat unaluuniit Ingilraaqnitat Uyarannguqtut akhuurninnga	Qanitqiyauyuq qanitqiamut nunallaat kitulluuniit ahiruqtailiyainnit nuna
Ferguson Lake Project	Baseline data	Inuit Owned Surface Lands	Initial exploration in the area was undertaken in the 1950s by Inco. Starfield Resources continued exploration and expanded camp infrastructure in the 1990s and 2000s. CNRI acquired the interests from Starfield in 2013 and has continued advanced exploration. Now is planning more extensive baseline studies to support pre-economic assessments, technical studies and future environmental assessments.	Archaeological work was completed from 2005- 2008 by Starfield. Archaeological cultures present in or near the Ferguson Lake project area can be broadly classified as having originated either in the south (related to modern First Nations), or from the north. Southern cultures in/near the project area include Northern Plano, Shield Archaic, Taltheilei Shale, and Denesuline, and northern cultures include Pre-Dorset and Inuit. A range in site and paleontological value is found in this area.	165 km south of Baker Lake
Ferguson Lake Project	Sampling sites	Inuit Owned Surface Lands	Initial exploration in the area was undertaken in the 1950s by Inco. Starfield Resources continued exploration and expanded camp infrastructure in the 1990s and 2000s. CNRI acquired the interests from Starfield in 2013 and has continued	Avoidance of known archaeological sites during vegetation, soil, water and air sampling sites	165 km south of Baker Lake

			advanced exploration. Now is planning more extensive baseline studies to support pre-economic assessments, technical studies and future environmental assessments.		
Ferguson Lake Project	Aerial surveys	Inuit Owned Surface Lands	Initial exploration in the area was undertaken in the 1950s by Inco. Starfield Resources continued exploration and expanded camp infrastructure in the 1990s and 2000s. CNRI acquired the interests from Starfield in 2013 and has continued advanced exploration. Now is planning more extensive baseline studies to support pre-economic assessments, technical studies and future environmental assessments.	Avoidance of known archaeological sites during vegetation, soil, water and air sampling sites. Work with local community members, hunters and KIA to ensure protection of wildlife during surveys	165 km south of Baker Lake
Ferguson Lake Project	Baseline data	Inuit Owned Surface Lands	Initial exploration in the area was undertaken in the 1950s by Inco. Starfield Resources continued exploration and expanded camp infrastructure in the 1990s and 2000s. CNRI	Avoidance of known archaeological sites during wildlife surveys and vegetation, soil, water and air sampling sites. Use of non-invasive techniques for sampling as much as possible, including remote	165 km south of Baker Lake

			acquired the interests from Starfield in 2013 and has continued advanced exploration. Now is planning more extensive baseline studies to support pre-economic assessments, technical studies and future environmental assessments.	cameras.	
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**Nunaliin Ilauyun, Aviktuqhimayuniitunullu Ikayuuhiarunguyun**

<b>Nunauyuq</b>	<b>Atia</b>	<b>Timiuyuq</b>	<b>Upluani Uqaqatigiyaungmata</b>
Qamaniittuaq	Jamie Kataluk	Kivalliq Inuit Association - Lands	2024-09-06
Qamaniittuaq	Hugh Ikoe	From Ferguson Lake	2024-09-06
Qamaniittuaq	Hugh Ikoe	Originally from Ferguson Lake	2024-06-10
Qamaniittuaq	Russell Toolooktook	Families from Ferguson Lake	2024-06-10
Qamaniittuaq	Hugh Ikoe and Family	Originally from Ferguson Lake	2024-09-08
Qamaniittuaq	Kevin Iksitaaryuk	Baker Lake Hamlet	2024-09-05
Qamaniittuaq	Siabhon Iksiktaaryuk	Baker Lake Council	2024-09-07
Qamaniittuaq	Michael Haqpi	Hunter	2024-09-08
Qamaniittuaq	Uliut Iksitkaaryuk	Elder and Teacher	2024-09-07
Qamaniittuaq	Bryan Ikoe	Community member	2024-09-08
Qamaniittuaq	Jamie Iksiraq	Community Member	2024-09-08

# Angiuttauvaktunik

Naunaiqlugu nunanga talvani havauhikhaq ittuq:

Angiuttauvaktunik

Munariniqmut Ayuittiaqtuq	Angirutinga Qanurittuq	Tadja Qanurittaakhaanik	Ublua Tuniyauyuq/Uuktuqtuq	Umikvikhaa Ublua
Nunavut Imaligiyyit Katimayit	Type 2BE-FER227	Active	2022-03-02	2027-03-01
Kivalliq Inuit Katimayit	Commercial Lease I - KVCL305H27	Active	2022-03-02	2027-09-23
Kivalliq Inuit Katimayit	Land Use License- KVCL305H27	Active	2022-05-27	2027-05-27
Kivalliq Inuit Katimayit	Land Use License- KVRW06F09	Active	2023-10-17	2025-10-17

## Project transportation types

Transportation Type	Qanuq Atuqtauniarmangaa	Length of Use
Air	By helicopter to sample sites and baseline studies	
Water	Small 16 ft outboard motor boats on Ferguson Lake	
Land	On foot; near camp on ATV to sites	

## Project accomodation types

Temporary Camp

Permanent Camp

Nunauyuq



# Ihuaqutivaluin Atuqtauyukhan

Hanalrutit atuqtaunahuat (ukuallu ikuutat, pampiutainnik, tingmitinik, akhaluutinik, hunaluuniit)

Hanalrutit Qanurittuq	Qaffiuyut	Aktikkulaanga – Qanurittullu	Qanuq Atuqtauniarmangaa
Bell 206 Long Range Helicopter	1	34x10x10	Transportation of personnel from camp to field sites
Boat	2	11 x 5 ft	For fisheries assessments in lakes or rivers
ATV	2	5 ft x 4 ft	Transportation to sites near camp

## Qanurittuq Urhuqyuaq unalu Qayangnaqtut Hunavaluit Aturninnga

Qanurittuq urhuqyuaq hunavaluit aturninnga:	Urhuqyuaq Qanurittuq	Qaffiuyut qattaryut	Qattaryuk Aktikkulaanga	Atauttimut Qaffiuyut	Ilanga	Qanuq Atuqtauniarmangaa
Aviation fuel	fuel	200	218	43600	Liters	Fuel for Helicopter
Gasoline	fuel	2	218	436	Liters	For boat and ATV use
N/A	hazardous	0	0	0	Kg	No hazardous materials are expected

## Imaqmik Aturninnga

Ubluq qanuraaluk (m3)	Aturumayain imavaluin utiqittagaani qanuq	Atulirumayain imavaluin utiqittagani humi
0	No additional water use is required at this time as we will be using Ferguson Lake camp as a base, or communities.	

# Iqqakuq

## Ikkakunik Munakgiyaunyuk

Havauhikhaq Hulilukaarut	Qanurittuq Iqqakut	Ihumagiyauyuq Qanuraaluktut Atuqtait	Qanuq Iqqakuurniarmangaa	Halummaqtirarnirutikhan piyutin
Waste disposal	Ikulalaaqtun iqqakuuvaluin	150L/day	Incinerated or disposed of in community landfill	N/A
Waste disposal	Qirnarivyaktuq imaq	150L per day	Discharged through the existing grey water discharge at Ferguson Lake camp	Incinerated if needed
Waste disposal	Anaagun (inuin anaaguin)	50L / day	Incinerated	N/A

### Avatiliriniqmut Ayurhautingit:

Scientists, Engineers, Technicians and Researchers will be accommodated at existing authorized facilities. Waste generation will be limited to domestic solid waste, which will be backhauled and managed according to applicable facility authorizations (including incineration). The impacts of the baseline studies and research are considered negligible and mitigable. Potential acoustic impacts to fish are expected to be minimal and will occur only for short durations during the survey on lakes. Fish and fish habitat assessments will adhere to Animal Use Protocol and license requirements. To reduce potential wildlife disturbance during ground surveys and helicopter overflights, field activities will be scheduled outside the breeding bird season and the migratory period for barren-ground caribou. Researchers will travel with a local Inuk who will be responsible for spotting wildlife and taking actions to avoid crew interactions with wildlife. Helicopter overflights will be conducted at high altitudes, except in areas of takeoff and landing, where low-level flights are necessary for baseline work or safety reasons. Helicopter flights will follow guidelines designed to minimize effects on wildlife.

# **Additional Information**

## **SECTION A1: Project Info**

## **SECTION A2: Allweather Road**

## **SECTION A3: Winter Road**

## **SECTION B1: Project Info**

Canadian North Resources Inc. (CNRI) is a Canadian mining company at late-stage exploration and development of a mining property, the Ferguson Lake Project, in the Kivalliq Region of Nunavut, Canada. The company owns 100% of the Ferguson Lake Project that has abundant base metals (nickel-copper-cobalt) and platinum-group metals (palladium, platinum, and rhodium) mineral resources. Our vision is to create shareholder value through the resource expansion and development of the critical minerals at Ferguson Lake, including large base metals ("BM") and platinum-group ("PGM") mineral resources, those critical minerals that will enhance the value chain for electric vehicles, green energy technology and high-tech sectors. Specifically, the company plans to increase the high-grade resources by: •Diamond-drilling prospective high-grade BM massive sulfides and high-grade PGM targets •Expanding metallurgical testing •Updating technical reporting •Advancing Prefeasibility Studies ("PFS"), environmental, social and feasibility studies

## **SECTION B2: Exploration Activity**

## **SECTION B3: Geosciences**

## **SECTION B4: Drilling**

## **SECTION B5: Stripping**

## **SECTION B6: Underground Activity**

## **SECTION B7: Waste Rock**

## **SECTION B8: Stockpiles**

## **SECTION B9: Mine Development**

## **SECTION B10: Geology**

## **SECTION B11: Mine**

## **SECTION B12: Mill**

## **SECTION C1: Pits**

## **SECTION D1: Facility**

## **SECTION D2: Facility Construction**

## **SECTION D3: Facility Operation**

## **SECTION D4: Vessel Use**

## **SECTION E1: Offshore Survey**

## **SECTION E2: Nearshore Survey**

## **SECTION E3: Vessel Use**

## **SECTION F1: Site Cleanup**

## **SECTION G1: Well Authorization**

## **SECTION G2: Onland Exploration**

## **SECTION G3: Offshore Exploration**

## **SECTION G4: Rig**

## **SECTION H1: Vessel Use**

## **SECTION H2: Disposal At Sea**

## **SECTION I1: Municipal Development**

### **Qanurittuq Ittunik Avatinga: Avatingalluanga**

The Ferguson Lake Project is in Nunavut's eastern Kivalliq region, largely unaffected by local activities. The region experiences long cold winters and short cool summers, with predominantly northwest winds. Annual precipitation is low, occurring as late summer and fall rain. Limited air quality data exists, and baseline information will use data from air quality monitoring stations, Environment Canada and regional developments. The Ferguson Lake project area is situated within continuous permafrost, features groundwater flow systems associated with taliks connecting surface waterbodies. Expected systems include the active layer, taliks, and sub-permafrost, with a maximum active layer thickness of 4-6 m and permafrost exceeding 400 m thickness. Permafrost lateral extent may limit hydraulic communication between groundwater systems. The Project's freshwater aquatic environment is characterized by low ionic strength, very soft hardness, poor acid buffering capacity, neutral pH, and low nutrient concentrations. Sediment in the region may contain naturally high arsenic, chromium, and copper concentrations exceeding Canadian Sediment Quality Guidelines.

### **Qanurittuq Ittunik Avatinga: Inuuhimayunut Avatinga**

The proposed baseline studies and associated field investigations of fish and fish habitat will be completed as part of the this project application, the results from which will be submitted as part of baseline reports and used to inform future studies and environmental baseline studies. Based on similar projects conducted within the region, fish habitat availability for most streams along the Project corridor will likely be rated as none (i.e., no fisheries value) to poor as most streams are likely to be ephemeral or intermittent as a result of complete winter freezing and/or local drainage. However, permanent streams containing adequate overwintering habitat for fish are likely to provide some spring spawning, migration, and seasonal rearing habitat. Fish species likely to inhabit waterbodies of the region include lake trout / ihuugit (*Salvelinus namaycush*), arctic char/iqalukpiit (*Salvelinus alpinus*), arctic grayling/ihulukpuakkait (*Thymallus arcticus*), burbot/tiktaalit (*Lota lota*), round whitefish (*Prosopium cylindraceum*), slimy sculpin (*Cottus cognatus*), and

ninespine stickleback (*Pungitius pungitius*). Based on similar projects in the area, vegetation in the Ferguson Lake Project area is influenced by climate, substrate, terrain, and water patterns, with characteristic groupings at landscape and smaller scales. It's situated in the Southern Arctic Ecozone and the Arctic Tundra Zone, featuring low shrub subzone vegetation. Common communities include heath bedrock/boulder, heath tundra, and crypturbated heath tundra. Wildlife and habitat field investigations, integral to the proposed baseline studies and options analysis, will contribute to baseline reports. Expectations from similar regional projects suggest the presence of large mammals, predators, furbearers, small mammals, and various birds important to Inuit, with species like caribou, muskoxen, grizzly bear, wolf, wolverine, and various birds likely residing in the Project area. The Lorillard and/or Qamanirjuaq herds of caribou historically inhabit the region.

### **Qanurittuq Ittunik Avatinga: Inungit-maniliurutingit Avatinga**

Seven communities are located within the Kivalliq – Arviat, Baker Lake, Chesterfield Inlet, Coral Harbour, Rankin Inlet, Nauyasat, and Whale Cove. Six are coastal, and all are accessible only by water or air. Each community is governed by a Hamlet Council, which is the primary point of contact for municipal interests. The focus of CNRI consultation in September 2024 and in 2025 to 2027 will be in Rankin Inlet, Arviat and Baker Lake. Rankin Inlet is the largest community in the Kivalliq and second largest in Nunavut, after Iqaluit, with a population of nearly 3000 people. It is located on the west coast of Hudson Bay, approximately 300 km north of Churchill, Manitoba. This community is the central hub for government, transportation, health care, and business services in the Kivalliq. The Meliadine Gold Project is approximately 30 km north of Rankin Inlet and is connected to the community by an all-weather road. A marine harbour and airport are located at Rankin Inlet, along with schools, government offices, hotels, restaurants, shopping, health centre, and sports and recreation facilities. Arviat is the southernmost mainland community in Nunavut, located 100 km south of Rankin Inlet. It is the second largest community in the Kivalliq, with a population of approximately 2800. The name Arviat comes from the Inuktitut word for Bowhead whale (*arviq*), because of the resemblance of the nearby coast to this animal's shape. Wildlife seen in the Arviat area include caribou, seals, beluga whales, and polar bear. Arviat is known for its musicians, and the hamlet regularly organizes the Inuumariit Music Festival. Baker Lake (*Qamani'tuaq* – "Where the river widens") is the only inland community in Nunavut, with a population of about 2000 people. The community is situated between the mouths of the Thelon and Prince Rivers, on the northern shore of Baker Lake. Many Baker Lake residents are employed by the nearby Meadowbank Gold Complex, which is located approximately 100 km north from the hamlet via an all-weather road. The hamlet is known for arts and crafts, and other facilities include schools, hotels, coop and Northern stores, radio station, health centre, and recreational facilities. More can be learned about the Kivalliq communities on their individual websites, and through Travel Nunavut. As part of the scientific data collection that will provide information for technical studies and comprehensive environmental assessment, input from ongoing engagement, Inuit Quajimajatuqangit, and public consultation will heavily contribute to this options assessment. Furthermore, the future project related socio-economic assessment will focus on Kivalliq communities for economic, infrastructure, services, and wellbeing effects, with broader consideration of socio-economic impacts on Nunavut.

### **Miscellaneous Project Information**

N/A

### **Naunaiyainiq ukuninnga Ayurhauingit unalu Piumayaat Ikikliyuumiutinahuarutit**

Scientists, Engineers, Technicians and Researchers will be accommodated at existing authorized facilities. Waste generation will be limited to domestic solid waste, which will be backhauled and managed according to applicable facility authorizations (including incineration). The impacts of the baseline studies and research are considered negligible and mitigable. Potential acoustic impacts to fish are expected to be minimal and will occur only for short durations during the survey on lakes. Fish and fish habitat assessments will adhere to Animal Use Protocol and license requirements. To reduce potential wildlife disturbance during ground surveys and helicopter overflights, field activities will be scheduled outside the breeding bird season and the migratory period for barren-ground caribou. Researchers will travel with a local Inuk who will be responsible for spotting wildlife and taking actions to avoid crew interactions with wildlife. Helicopter overflights will be conducted at high altitudes, except in areas of takeoff and landing, where low-level flights are necessary for baseline work or safety reasons. Helicopter flights will follow guidelines designed to minimize effects on wildlife.

## **Tamatkiumayunik Ihuikgutivaktunik**

We are proposing standard and non-invasive, baseline study approaches, protocols and techniques. There are no expected cumulative effects.

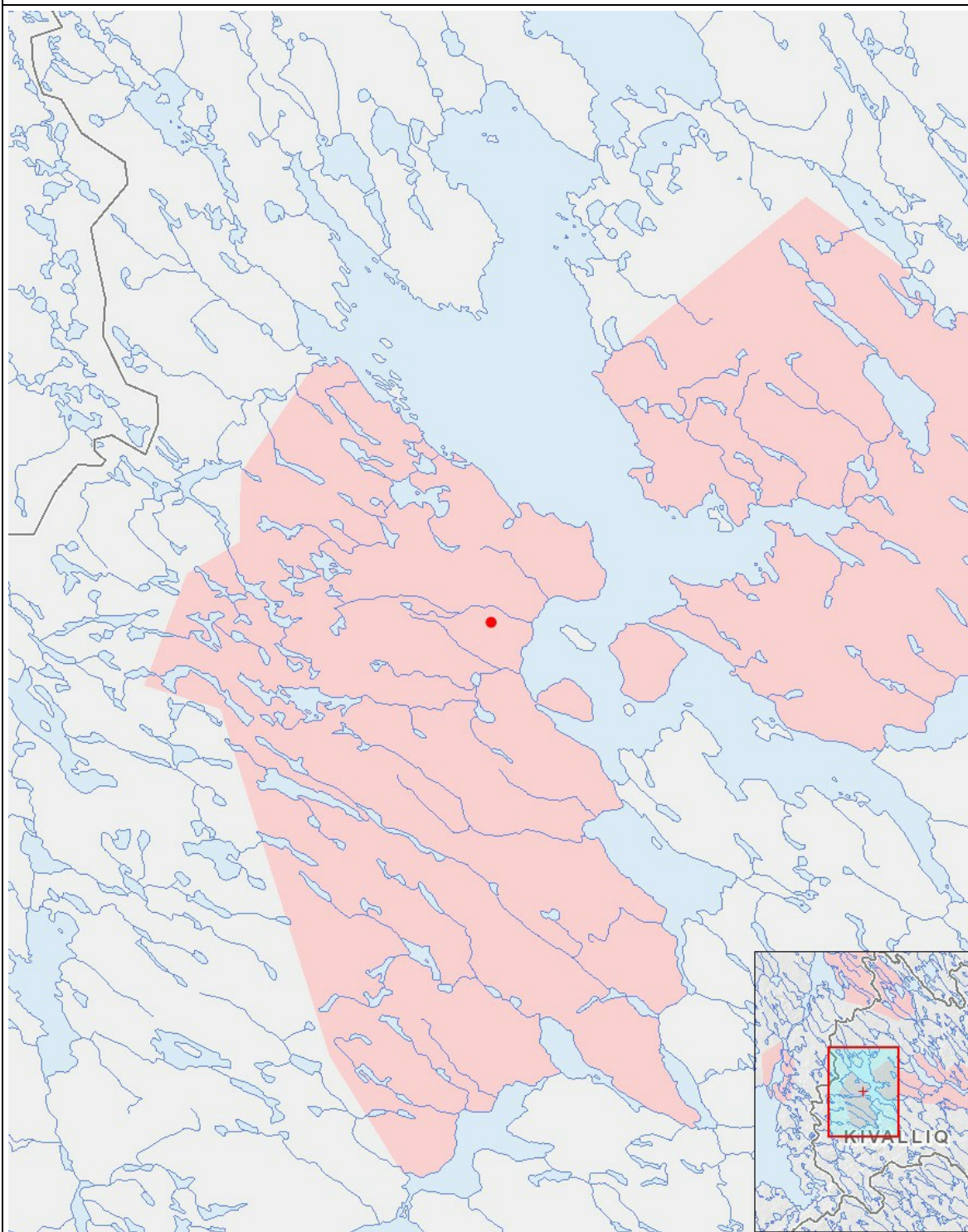
## Impacts

### Ilitariyauniq Avatiliriniqmut Ayurhautingit

		PHYSICAL	Designated environmental areas	Ground stability	Permafrost	Hydrology / Limnology	Water quality	Climate conditions	Eskers and other unique or fragile landscapes	Surface and bedrock geology	Sediment and soil quality	Tidal processes and bathymetry	Air quality	Noise levels	BIOLOGICAL	Vegetation	Wildlife, including habitat and migration patterns	Birds, including habitat and migration patterns	Aquatic species, incl. habitat and migration/spawning	Wildlife protected areas	SOCIO-ECONOMIC	Archaeological and cultural historic sites	Employment	Community wellness	Community infrastructure	Human health
Havakvinga	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aulapkaininnga																										
Aerial surveys		P	P	P	-	P	P	P	P	P	P	P	P	P		P	P	P	P	P		P	P	P	P	P
Baseline data		P	P	P	-	P	P	P	P	P	P	P	P	P		P	M	M	M	P		P	P	P	P	P
Sampling sites		P	P	P	-	P	P	P	P	P	P	P	P	P		M	M	M	M	M		M	P	P	P	P
Piiqtauniq	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

(P = Nakuuyuq, N = Nakuungittut unalu mikhilimaittuq, M = Nakuungittut unalu mikhittaaqtuq, U = Naluyauyuq)

# Havaariyauyukhamut Nayugaa



## List of Project Geometries

1	point	Ferguson Lake Project
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