



## **NIRB Uuktuutinga Ihivriughikhamut #125895**

### **Biogeochemical characterization of saline and glacial systems on Axel Heiberg Island**

**Uuktuutinga Qanurittuq:** New

**Havaap Qanurittunia:** Scientific Research

**Uuktuutinga Ublua:** 3/15/2024 3:20:07 AM

**Period of operation:** from 2024-03-27 to 2024-06-01

**Havauhikhaq** Mark Skidmore

**Ikayuqtinga:** Montana State University

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Hivayautit Nampanga:: 406 994 7251, Kayumiktukkut Nampanga::

## Tukihiannaqtunik havaariyauyumayumik uqauhiyun

[illegible]

Operations Phase: from 2024-03-27 to 2024-06-01

Hulilukaarutit

Inigiya	Hulilukaarut Qanurittuq	Nunannga Qanurittaakhaanik	Initurlinga qanuritpa	Initurlinga utuqqarnitat unaluuniit Ingilraaqnitat Uyarannguqtut akhuurninnga	Qanitqiyauyuq qanitqiamut nunallaat kitulluuniit ahiruqtaliyainnit nuna
Fieldwork location - Whitsunday Bay	Scientific/International Polar Year Research	Crown	Previously visited for research by Wayne Pollard in 2012/2013	N/A	310 km from Grise Fiord and 525 km from Resolute Bay
Fieldwork location - Skaare Fiord	Scientific/International Polar Year Research	Crown	Previously visited for research by Wayne Pollard in 2004	N/A	310 km from Grise Fiord and 500 km from Resolute Bay

Nunaliin Ilauyun, Aviktuqhimayuniitunullu Ikayuuhiarunguyun

Nunauyuq	Atia	Timiuyuq	Upluani Uqaqatigiyaungmata
Qausuittuq	Nancy Amarualik	Resolute Bay HTA	2024-03-15
Qausuittuq	Ian Dudla	Hamlet of Resolute Bay	2024-03-15
Ausuittuq	Marty Kuluguqtuq	Hamlet of Grise Fiord	2024-03-15
Ausuittuq	Jimmie Qaapik	Arctic College	2024-03-15
Ausuittuq	Grise Fiord HTA	Grise Fiord HTA	2024-03-15

# Angiuttauvaktunik

Naunaiqlugu nunanga talvani havauhikhaq ittuq:

Angiuttauvaktunik

Munariniqmut Ayuittiaqtuq	Angirutinga Qanurittuq	Tadja Qanurittaakhaanik	Ublua Tuniyauyuq/Uuktuqtuq	Umikvikhaa Ublua
Nunavunmi Ihivriuqniqmut Timiqutigiyanga	Will be submitting an application to NRI shortly	Not Yet Applied		
Nunavut Imaligiyyit Katimayit	Will be submitting an application to NWB shortly	Not Yet Applied		

## Project transportation types

Transportation Type	Qanuq Atuqtauniarmangaa	Length of Use
Air	Twin Otter from Resolute Bay to each field site, Whitsunday Bay and Skaare Fiord	
Land	By foot or by snowmobile from the field camp to the field sampling site	

## Project accomodation types

Temporary Camp

## Ihuaqutivaluin Atuqtauyukhan

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

Hanalrutit Qanurittuq	Qaffiuyut	Aktikkulaanga – Qanurittullu	Qanuq Atuqtauniarmangaa
Snowmobile	2	300 cc	Transport at the field research site from the field camp to sampling sites
Twin Otter	1	Aircraft	Transfer from Polar Continental Shelf Program facility in Resolute Bay to fieldwork locations and return to Resolute Bay
Generator	2	2kW	To provide electrical power for the field camp

### Qanurittuq Urhuqyuaq unalu Qayangnaqtut Hunavaluit Aturninnga

Qanurittuq urhuqyuaq hunavaluit aturninnga:	Urhuqyuaq Qanurittuq	Qaffiuyut qattaryut	Qattaryuk Aktikkulaanga	Atauttimut Qaffiuyut	Ilanga	Qanuq Atuqtauniarmangaa
Propane	fuel	6	20	120	Lbs	Cooking and heating in the field camp
Gasoline	fuel	5	20	100	Liters	Fuel for the snowmobiles and generators

### Imaqmik Aturninnga

Ubluq qanuraaluk (m3)	Aturumayain imavaluin utiqittagaani qanuq	Atulirumayain imavaluin utiqittagani humi
0	Snowpack or glacier ice melt	Adjacent to the field camp locations in Whitsunday Bay and Skaare Fiord

# Iqqakuq

## Ikkakunik Munakgiyauyunik

Havauhikhaq Hulilukaarut	Qanurittuq Iqqakut	Ihumagiyauyuq Qanuraaluktut Atuqtait	Qanuq Iqqakuurniarmangaa	Halummaqtirarnirutikhan piyutin
Scientific/International Polar Year Research	Qirnarivyaktuq imaq	20 liters per day, 400 liters total	Greywater would be strained into a sump/pit and solids added to the non- combustible waste.	N/A
Scientific/International Polar Year Research	Ikulalimanngittun iqqakuuvaluin	2kg per day, 40 kg total	Non-combustible waste will be stored in (sealed) buckets and returned to PCSP in Resolute Bay for disposal.	N/A
Scientific/International Polar Year Research	Anaagun (inuin anaaguin)	3kg per day, 60kg total	Sewage will be stored in (sealed) buckets and returned to PCSP in Resolute Bay for disposal.	N/A

### Avatiliriniqmut Ayurhautingit:

The temporary field camps are small but may result in some localized minor compaction of the soil and possibly vegetation beneath tent sites. This impact would be limited due to the relatively short duration of the camps. We will have a fuel spill kit on site in case of any minor fuel spills from refueling snowmobiles or generators. All food will be stored in sealed containers to prevent access by wildlife. We will generate sewage, waste water from cooking, and a small amount of non-combustible waste. Sewage will be stored in (sealed) buckets and returned to PCSP in Resolute Bay for disposal. Cooking water will be strained, solids added to the non-combustible waste and strained water put into a sump. The non-combustible waste will be stored in sealed buckets and returned to PCSP in Resolute Bay for disposal.

# **Additional Information**

**SECTION A1: Project Info**

**SECTION A2: Allweather Road**

**SECTION A3: Winter Road**

**SECTION B1: Project Info**

**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**

Both field locations are in terrain that has been glaciated. However, there is currently no glacier at the Whitsunday Bay location.

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

There is minimal vegetation at the two field locations, and any vegetation will be under snow cover/not growing given the timeframe of the fieldwork.

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

The field locations are more than 300 km from Grise Fiord and 500 km from Resolute Bay.

## **Miscellaneous Project Information**

Not applicable

### **Naunaiyainiq ukuninnga Ayurhautingit unalu Piumayaat Ikikliyuumiutinahuarutit**

The temporary field camps are small but may result in some localized minor compaction of the soil and possibly vegetation beneath tent sites. This impact would be limited due to the relatively short duration of the camps.

### **Tamatkiumayunik Ihuikgutivaktunik**

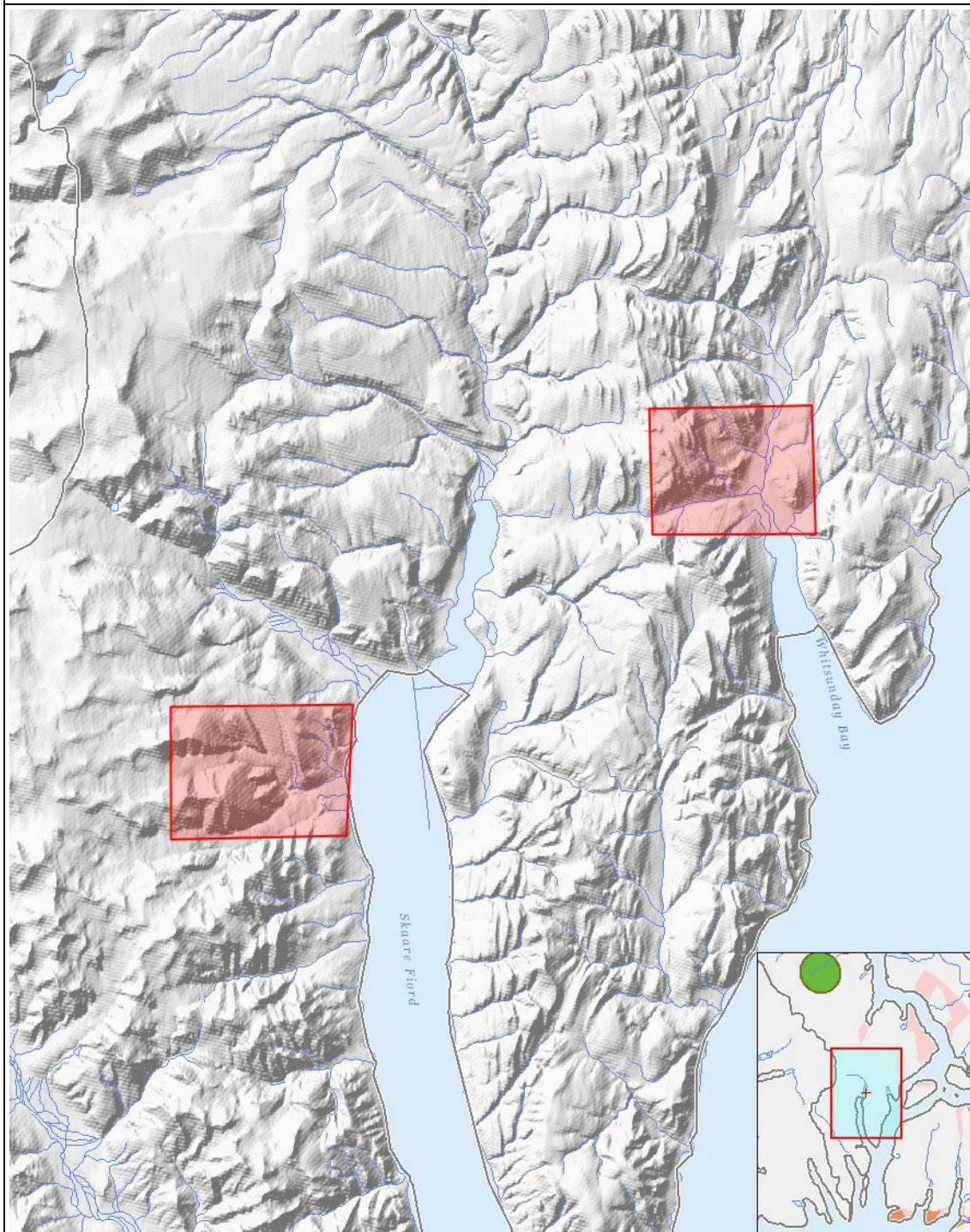
No cumulative effects are anticipated.

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																									
Scientific/International Polar Year Research		-	-	-	-	-	-	-	-	-	M	-	-	-	M	-	-	-	-	-	-	-	-	-	-
Piiqtauniq																									
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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



List of Project Geometries

- |   |         |                                     |
|---|---------|-------------------------------------|
| 1 | polygon | Fieldwork location - Whitsunday Bay |
| 2 | polygon | Fieldwork location - Skaare Fiord   |