



New

$$\gamma^L L^{\gamma_b} \gamma \Delta \sigma^{\gamma_b}$$

**Aᑭᓇ ᐱᕐᖅᐸᓂᓄᓗ:**

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כֵּן לִפְנֵי ה' בְּיָמָיו

$$\mathfrak{b}_b \Delta^c \mathfrak{J} \cap \sigma^b \quad \wedge \text{---} \mathfrak{c} \mathfrak{d}^{\mathfrak{c}} \mathfrak{b}^{\mathfrak{c}} \sigma \mathfrak{d} \mathfrak{c} \mathfrak{d}^{\mathfrak{a}} \mathfrak{b}^{\mathfrak{a}} \sigma^b$$

<sup>c</sup>b ١٥٨٧: see attached document

▷ΔΑΠΝΩ: NA

$\Delta_{\mathcal{D}^b} \cap \mathcal{D}^c$ : see attached document.

Inuinnaqtun: NA

## Personnel

Personnel on site: 4

Days on site: 50

Total Person days: 200

Operations Phase: from 2021-06-01 to 2022-08-10

Operations Phase: from 2021-06-01 to 2022-08-10

Closure Phase: from 2022-07-10 to 2022-08-10

Post-Closure Phase: from to

$$\Lambda \subset \mathbb{N} \triangleleft \mathbb{N} \xrightarrow{\gamma} \Sigma \triangleleft \mathbb{N}^{\mathbb{N}} \supset \mathbb{C}$$

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Lake Hazen Camp - Quttinirpaaq National Park	Site Cleanup/Remediation	Crown	The Barrel shed and the replacement shed are within a Zone 3 area within the existing footprint of the camp. Lake Hazen Camp was constructed by the Defence Research Board in the 50's. The Site was sampled in the late 90's and remediation of contaminated soils was completed on site in the early 2000's. The existing landfarm was constructed for this purpose and will be used to remediate the naphtha contaminated soils from the barrel shed.	The barrel shed has been designated as a cultural resource, by Parks Canada. A Cultural Resource Impact Assessment will determine how best to document the resource prior to its removal. It is located beside another cultural resource building: an Attwell Shelter installed by the Defence Research Board. Removal of the barrel shed will not effect the Attwell Shelter. There are a number of archeological sites in the surrounding area several kilometers away, but none in the zone 3 area of camp.	Lake Hazen Camp is in Quttinirpaaq national Park. The closest community of Grise Fiord is over 600km away.
Lake Hazen Camp - Quttinirpaaq National Park	Landfarm	Crown	The Barrel Shed was constructed by the Defense Research Board out of old fuel drums. Soil samples have been taken and shown a small and localized level of naphtha contamination. The contaminated soils will be taken to the on site landfarm for remediation. We will work with the Royal Military College to determine the appropriate buffer outside of the identified contaminated area to ensure the contaminated soils are captured and placed in	There are a number of archeological sites in the surrounding area several kilometers away, but none in the zone 3 area of camp.	Lake Hazen Camp is in Quttinirpaaq national Park. The closest community of Grise Fiord is over 600km away.

			the landfarm as well as appropriate remediation measures		
Lake Hazen Camp - Quttinirpaaq National Park	Camp	Crown	Lake Hazen Camp was constructed by the Defence Research Board in the 50's. Parks Canada has used this area to support park operations and research since the 80's. It consists of a kitchen, sleeping quarters, office, toilets, outbuildings and a laboratory. These facilities will be used by the staff staying on site.	There are a number of archeological sites in the surrounding area several kilometers away, but none in the zone 3 area of camp.	Lake Hazen Camp is in Quttinirpaaq National Park. The closest community of Grise Fiord is over 600km away.
Lake Hazen Camp - Quttinirpaaq National Park	Other	Crown	The Barrel shed has been used to store equipment to support camp and park operations. Constructing a new shed of approximate 4.5x4m in size will replace the old barrel shed and used for the same purpose.	There are a number of archeological sites in the surrounding area several kilometers away, but none in the zone 3 area of camp.	Lake Hazen Camp is in Quttinirpaaq National Park. The closest community of Grise Fiord is over 600km away.

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ᓇᓕᓯᓪᓐ	Liza Ningiuk	Quttinirpaaq Joint Parks Management Committee	2017-02-14
ᓄᓇᓕᓯᓪᓐ ᓇᓕᓯᓪᓐ	Tabitha Mullin	Quttinirpaaq Joint Parks Management Committee	2017-02-14
ᓄᓇᓕᓯᓪᓐ	David Kooneeliusie	Quttinirpaaq Joint Parks Management Committee	2017-02-14

[illegible]

$a^b r^c \Delta_{\sigma} \Delta_{\tau} \Delta_{\rho} \Delta_{\delta} \Delta_{\gamma} \Delta_{\alpha}$

North Baffin

[illegible][illegible]

## Project transportation types

<b>Transportation Type</b>	<b>ᐱᕈᑦ ᐸᓂᓂᓄᓇᐅᓂᐳᑦ</b>	<b>Length of Use</b>
Air	All access to Quttinirpaq is by air. Staff, materials, equipment and waste are transported by Twin Otter, DC3 or Helicopter	
Land	Materials and equipment flying in and out of the park will be shuttled from the site to the airstrip by snowmobile and qamutik, UTV or ATV and trailer.	

### Project accomodation types

## Permanent Camp

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Λ<sup>9</sup>d<sup>c</sup> d<sup>a</sup>bΓ<sup>2</sup>Δ<sup>b</sup>CΔσD<sup>4</sup>Δ<sup>5</sup> Δ<sup>c</sup>Δ<sup>b</sup>ΓDΠ<sup>3</sup>Γ<sup>c</sup> ΔjCΔ<sup>c</sup>, Γ<sup>c</sup><sup>3</sup>DΠ<sup>3</sup>Γ<sup>c</sup>, Δ<sup>b</sup>ΔCΓ<sup>2</sup>Δ<sup>b</sup>, Δ<sup>c</sup>ΓD<sup>c</sup> ΔΓ<sup>a</sup>Γ<sup>c</sup>

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grinder	1	12	cut up large peices of equipment for removal
UTV	1	8ftx4ft	move materials between airstrip and camp
ATV and Trailer	1	8ftx4ft	Move materials between airstrip and camp
Snowmobile and qamutik	1	2ftx16ft	move materials around camp
chain hoist	1	2x2ft	lift barrels from the shed
gantry crane	1	10x10ft	unstack barrels from the shed
hand and power tools	20	12	construct new shed

[illegible]

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Propane	fuel	8	100	800	Lbs	camp kitchen appliances
Diesel	fuel	6	205	1230	Liters	tent heaters and camp incinerator
Gasoline	fuel	4	205	820	Liters	fuel for atv, utv, snowmobile

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0	Potable water will be supplied by the existing system in camp. Usage is approx.20L per person per day. 50 person days in camp per year is 1000L. This is well within the capacity of the system.	The source is Lake Hazen.

$\triangleleft^b C d^c$ 
$$\Delta^b C d_{\sigma} \Delta^a \sigma^a$$

Aᑭᓕᓂᐱᓚᔨᐅᒃᓴᓴᑐᑦ Aᑭᓕᓂᐱᓚᔨᐅᓄᐱᖃᑐᖃ	ᖃᓄᐃᑦᑐᖃ ᐱᖃᑳᑦ ᖃᓄᓂᓯ ᐱᖃᑳᑦ ᙰᖃᓯᐱᓄᐱᖃᑐᓂᔨᐅᓶᑦ		ᖃᓄᖃ ᐱᖃᑳᑦᑳᐅᓄᐱᖃᑦ	ᙰᓴᓴᖃᙰᐅᓂᖃᙰᖃᓄᓄᐱᖃᑐᑦ
Camp	ᐱᖃᑳᑦ ᐃᐱᐱᓚᑳᐅᒃᓴᖃᓯᑦᑐᑦ	150L/yr	Packaged for air transport out of the park and disposed of in Resolute Landfill.	Remove from Park
Site Cleanup/Remediation	ᐱᖃᑳᑦ ᐃᐱᐱᓚᑳᐅᒃᓴᖃᓯᑦᑐᑦ	100 empty metal drums, 2500lbs of metal waste	empty barrels and pieces of the push arm and bulldozer blade will be flown out for cleaning, crushing and shipped south for recycling.	drums will be cleaned and crushed in Resolute
Landfarm	ᐅᔨᙲᐃᔨᐃᓄᖃ ᓄᓇᓯᑦ ᓄᓂᓂᖃ ᐱᑐᑦᐅᒃᓴᖃᓯᑦᑐᓄᖃ, ᓇᓴᓴᓗᓄᖃ	1000L	contaminated soils will be removed by hand and placed in the existing landfarm.	biological agents and rototilling are used to assist in the breakdown of hydrocarbons
Camp	ᙵᖃᑳᑳᓕᓂᖃ	80L / yr	on-site diesel fired incineration.	Incineration

$\Delta \epsilon_{\text{NFC}}^{\text{c}} \approx \Delta \epsilon_{\text{CPL}}^{\text{c}}$

See The attached Project Description

# **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

Approximately 100 old fuel barrels will be removed from the park. Contaminated soils from the structure will be remediated in the existing landfarm on site. Several large old pieces of equipment ie) push bar, engine and bulldozer blade will be removed from the park.

## 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

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Lake Hazen Camp consists of the barrel shed, laboratory, fuel shed, 2 sleepers, office and toilets. The Barrel shed and the replacement shed are within a Zone 3 area within the existing footprint of the camp. Lake Hazen Camp was constructed by the Defense Research Board in the 50's and has been used by Parks Canada and researchers since the 80's.

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The Barrel Shed is approximately 80m from the shore of Lake Hazen. A small seasonal stream also runs behind it <50m away. Lake Hazen is an important habitat for Arctic char. Peary Caribou and Polar Bear are present in Quttinirpaaq National Park. No Known denning or calving grounds are in the immediate area of the camp. The Lake Hazen thermal oasis is used by many bird and waterfowl species to nest and raise young. Many bird species use the immediate surrounding area however none are known to nest in camp. On occasion some adults with chicks wonder thru camp. Muskox are common in the area.

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There are a number of archeological sites and areas of importance to Inuit along the shores of Lake Hazen but none in the zone 3 area of camp.

## Miscellaneous Project Information

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The removal of the barrel shed is an impact because it is a cultural resource. Mitigations will be determined thru a Cultural Resource Impact Assessment by Parks Canada to identify how best to document the heritage value prior to its removal. The Lake Hazen Camp was established in the 50's and has been used ever since. The camp area is primarily sand and has some compaction around buildings and walkways. One trail from the airstrip to the camp and one trail from camp to the fuel cache, landfarm and incinerator area on the other end of the airstrip are used to minimize disturbance and compaction in additional areas. Aircraft must fly at a minimum height of 2000ft when in the park to avoid wildlife disturbance. Dust and noise from the use of equipment to shuttle materials will be kept to

a minimum by taking the fewest trips possible and staying on the existing trails and airstrip. Low impact / Leave no Trace principles are used in camp and all staff contactors and visitors are provided with a park orientation that reviews low impact camping practices, correct behaviors to avoid and manage wildlife encounters and how to respect archeological sites.

### **Cumulative Effects**

## Impacts

$\mathcal{L}(\mathcal{A}) \subseteq \mathcal{L}(\mathcal{B})$

[illegible]
$$(P = \langle \langle b \rangle \langle a \rangle \langle \langle a \rangle \langle a \rangle \rangle^c, N = \langle \langle b \rangle \langle \langle \langle a \rangle \langle a \rangle \rangle^c \langle \langle \langle a \rangle \langle a \rangle \rangle^c \langle \langle \langle a \rangle \langle a \rangle \rangle^c \rangle^c, M = \langle \langle b \rangle \langle \langle \langle a \rangle \langle a \rangle \rangle^c \langle \langle \langle a \rangle \langle a \rangle \rangle^c \rangle^c, U = \langle \langle \langle \langle a \rangle \langle a \rangle \rangle^c \rangle^c \rangle^c)$$

1 point	Lake Hazen Camp - Quttinirpaaq National Park
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