



▷ΔΛΠ◁: Le réchauffement du climat de l'Arctique cause une réduction annuelle de la banquise. Avec la diminution de la couverture de glace du Passage du Nord-Ouest, le trafic maritime est en augmentation. Malheureusement, l'accroissement du nombre de navires augmente le risque que de l'essence soit accidentellement libéré dans les environnements vulnérables de l'Arctique. Aux latitudes méridionales, des bactéries indigènes des milieux naturels sont capables de consommer l'essence de navire comme source de nourriture. Toutefois, le fait que les bactéries indigènes des plages de l'Arctique peuvent en faire de même en conditions froides reste inconnu. L'objectif de ce projet de recherche est de déterminer si les bactéries indigènes à l'Arctique ont la capacité de dégrader l'essence de navire sous les conditions naturelles de l'Arctique. Il est important de savoir cela afin de répondre de la meilleure façon possible pour réduire les impacts négatifs sur l'environnement, dans le cas où un déversement accidentel d'essence surviendrait dans l'Arctique. Le projet de recherche sera effectué à Resolute Bay et impliquera la collecte d'échantillon de sédiments de plage pour des analyses microbiennes et chimiques dans nos laboratoires de l'Université McGill, ainsi qu'une portion de travail de terrain de deux mois à l'été 2019. Après une consultation avec l'association locale des Chasseurs et Trappeurs, le travail de terrain a été planifié afin de

[illegible]

Post-Closure Phase: from to

$$\Lambda \subset \mathbb{N} \triangleleft \mathbb{N} \xrightarrow{\sigma} \sigma \triangleleft \mathbb{N}^b \supset \mathbb{C}$$

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Possible beach sites for microcosm deployment	Sampling sites	Municipal	n/a	n/a	All proposed sampling sites are within the community of Resolute Bay
PCSP Research facilities	Researching	Municipal	n/a	n/a	Located within Resolute Bay

መረጥፊ ለረዕሰ ምክር ቤቱ ማረጋገጫ ለሰጠው ለጥያቄው ምክር ቤቱ ማረጋገጫ

ᓄᓇᓕᓯᓴᖅ	ᐱᓂᑦ	ᑲᐅᖅᐱᐱᓂᓂᓯᓴᖅ	ᖅᑲᖅᓴᓂᐅ ᐅᓴᖅᓂᑕᐅᓇᐅᓴᐱᐱᐱᓂᓂᓯᓴᖅ
ᖅᑲᐅᓯᐱᑦᐅᖅᓂᖅ ᐱᓂᓴᓂᑦ	Phillip Manik	Hunter and Trappers Association	2019-02-01
ᖅᑲᐅᓯᐱᑦᐅᖅᓂᖅ ᐱᓂᓴᓂᑦ	Uluriak Amarualik	Hunter and Trapper Association	2019-09-22
ᐱᓂᓴᓂᑦ	Jason Carpenter	Nunavut Arctic College	2019-03-28

[illegible]

$a^b r^c \sigma^d$   $\Lambda_{\text{CDM}}^e \Omega_m^f h^g$   $\rho_0^h$

## North Baffin

$\Delta^{\alpha} \Gamma^{\beta} \Lambda^{\gamma} \Sigma^{\delta}$

[illegible]

## Project transportation types

Transportation Type	How to get to the site	Length of Use
Air	arriving in Resolute Bay with First Air	
Land	Transport around Resolute will be by truck or ATV	

## Project accomodation types

96



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Information is not available				

## ᐃᑲᑕᑦ ᐃᑲᑕᑦ ᐃᑲᑕᑦ

The sampling chambers (“microcosms”) deployed in the beaches will be removed after 6 weeks of incubation. The microcosms are self contained and do not release any hazardous substances or chemicals to the environment. Their presence on the beach will not impact migratory birds or marine mammals in any way. All chemicals for analysis will be used solely within the laboratories of the PCSP research facilities. We will be staying at the PCSP research facilities in Resolute Bay, and will not be camping on the land. We will travel only as far as is easily accessible from the Research facilities by truck or ATV, so our environmental impact in terms of transport will be minimal. Absolutely no waste will be left behind by the research team. Everything we transport to the site can easily to transported away again. There is no possibility of creating a hazardous spill, because no liquid chemicals will be brought to the sampling sites. All chemicals will be used only in the laboratory or the PCSP facilities. Microcosms will be prepared in the lab before transport to the incubation sites. No noise-making equipment will be used, and care will be taken to not interrupt any community activities.



# **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 11: Municipal Development

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**ᐱᓪᑦ ᐃᑲᐅᑦ ᖃᓄᐃᑦᑐᓚᕆᐅᓂᖅ; ᐅᐤᔭᖃᑕᖃᖃᓂᖅ**

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### Miscellaneous Project Information

$\alpha \rightarrow \Delta^{\pm} C D \sigma^{\pm} \Gamma^C$     $\Delta^{\pm} \rightarrow \Delta^{\pm} C D \Gamma^C L \Gamma^C$     $\bar{\nu}_b \rightarrow \Delta^{\pm} C \sigma^{\pm} \Gamma^C$     $\bar{\nu}_c \rightarrow \Delta^{\pm} C D \sigma^{\pm} \Gamma^C$

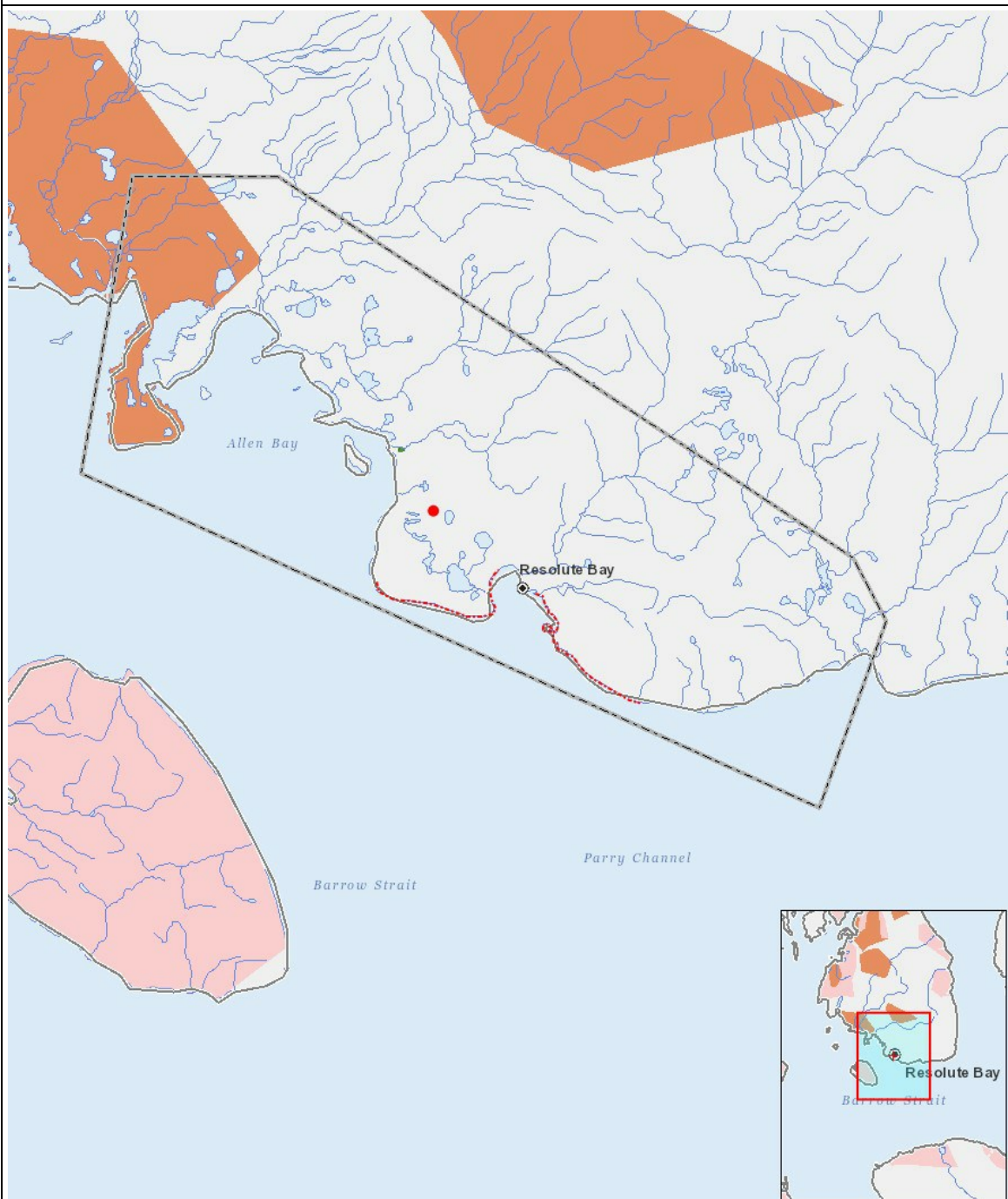
## Cumulative Effects

## Impacts

$\mathcal{L}(\mathcal{A}) \cap \mathcal{L}(\mathcal{B}) = \mathcal{L}(\mathcal{A} \cap \mathcal{B})$

	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																

$$(P = \langle b \rangle \Delta \cdot \nabla \cap \langle \cdot \rangle \Delta \cdot \nabla \rangle^C, N = \langle b \rangle \Delta \cdot \nabla \cdot \langle \Delta \rangle \langle \cdot \rangle \Delta \cdot \nabla \rangle^C \langle \Delta \rangle \Gamma \cdot \nabla \cdot \langle \Delta \rangle \langle \cdot \rangle \Delta \cdot \nabla \rangle^C, M = \langle b \rangle \Delta \cdot \nabla \cdot \langle \Delta \rangle \langle \cdot \rangle \Delta \cdot \nabla \rangle^C \langle \Delta \rangle \Gamma \cdot \nabla \cdot \langle \Delta \rangle \langle \cdot \rangle \Delta \cdot \nabla \rangle^C, U = \langle b \rangle \Delta \cdot \nabla \cdot \langle \Delta \rangle \langle \cdot \rangle \Delta \cdot \nabla \rangle^C)$$



## List of Project Geometries

- |   |          |   |
|---|----------|---|
| 1 | polyline | Possible beach sites for microcosm deployment |
| 2 | polyline | Possible beach sites for microcosm deployment |
| 3 | point    | PCSP Research facilities                      |