



Demande de la CNER faisant l'objet d'un examen préalable #125619

Paallavvik Joint research/expedition between Wild Blue Media, Red Bull, University of Glasgow

Type de demande : New

Type de projet: Scientific Research

Date de la demande : 6/11/2021 6:01:54 AM

Period of operation: from 0001-01-01 to 0001-01-01

Autorisations proposées: from 0001-01-01 to 0001-01-01

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DÉTAILS

Description non technique de la proposition de projet

Anglais: A collaborative research and filming trip to Paallavvik between Wild Blue Media , University of Glasgow and Red Bull. The proposed project is a geological research trip to obtain small rock samples from Paallavvik that can prove where the Earth's water came from. The samples are on cliffs which will require expert climbers to access. Will Gadd, a Canadian Red Bull climber and Dr Lydia Hallis, the leading expert geologist on this question, have teamed up to make this research possible. The research expedition will be filmed for international broadcast by Red Bull. The team of roughly 16 will be made up primarily of Nunavummiut and Candian crew, with lead scientist and two others from the UK. The team will camp on Paallavvik for 10 days in early August 2021- building no permanent structures and taking care not to leave any waste. Plans to travel to the island are subject to change due to Covid, but the majority of the team is currently planning to travel straight from Iqaluit to Pallavvik by aircraft in order to reduce contact with communities. All crew will comply with quarantine, testing, and vaccine requirements. The research work on Paallavvik will include taking small rock samples from the cliff faces using only manual tools. If the sample locations are high on the cliff faces, Will Gadd and 2 other climbers will help Dr Hallis access them. Paallavvik is close to the National Wildlife Area but the team will not enter this area. Qikitarjuaq is the closest community, and some of the team will be made up of Qikitarjuaq residents who will provide advice, logistical support, and boats. Why the research expedition is important The combination of professional climbers and geologists make this a unique opportunity to reveal the knowledge that the rocks on Paallavvik hold about the origins of the Earth's water. The results of this investigation could change our understanding of how likely it is that there is life on other planets. The weather window for climbing and accessing the island exists only in August, so it is very important that this work takes place at this time. The samples that Dr Hallis collects will be shared with research teams around the globe working on understanding the Earth's early history. This means the research expedition has the potential to advance understanding of other questions for generations to come. Data will be written up and shared in open access journals. The documentary of the research expedition will be broadcast internationally by Red Bull- showcasing the beauty of the region and including Nunavummiut voices as well as Nunavummiut crew.

Français: N/A from understanding of the email sent from NIRB on 8th June 2021), the descriptions are required in languages of affected communities (Qikitarjuaq- Inuktitut/English). Please advise if this is not the case.

[illegible]

Operations Phase: from 2021-08-01 to 2021-08-15

Activités

Emplacement	Type d'activité	Statut des terres	Historique du site	Site à valeur archéologique ou paléontologique	Proximité des collectivités les plus proches et de toute zone protégée
Landing on airstrip on Durban Island using Twin Otter plane. Crew will then be ferried to Paallavvik by boat.	Airstrip use or construction	Inuit Owned Sub-Surface Lands	Airstrip was built for the clean up operation on Paallavvik and Durban.	N/A	Closest protected area is National Wildlife Area 15km away. Closest community Qikitarjuaq 94km away
Research will take place on a number of cliffs on northern Paallavvik. Research will include aerial image capture, 3D modelling, climbing and small sample collection	Researching	Inuit Owned Sub-Surface Lands	Paallavvik previously had an Inuit community on the south of the island. It was a location of trading with Scottish whaling ships in the 1830s and later a part of the radar and weather stations-decommissioned 1956.	Northern end N/A	Proximity to National Wildlife Area 2km at nearest point. Distance to closest community Qikitarjuaq 80km
Proposed campsite will be on northern end of Paallavvik	Camp	Inuit Owned Sub-Surface Lands	Paallavvik previously had an Inuit community on the south of the island (not recorded near this camp) It was a location of trading with Scottish whaling ships in the 1830s and later a part of the radar and weather stations-decommissioned 1956. Has previously hosted research trips for geological research.	N/A	proximity to National Wildlife Area 5km. Distance to nearest community-Qikitarjuaq-80km.

Engagement de la collectivité et avantages pour la région

Collectivité	Nom	Organisme	Date de la prise de contact
Qikiqtarjuaq	Mayor Harry Alookie	Mayor	2021-06-11
Qikiqtarjuaq	Billy Arnaquq	Nunavut Experience Outfitting	2021-05-21

Autorisations

Indiquez les zones dans lesquelles le projet est situé:

Transboundary
South Baffin

Autorisations

Organisme de régulation	Description des autorisations	État actuel	Date de l'émission/de la demande	Date d'échéance
Qikiqtani Inuit Association	For conducting research on Inuit owned lands.	Not Yet Applied		
Institut de recherche du Nunavut	For conducting scientific research.	Not Yet Applied		

Project transportation types

Transportation Type	Utilisation proposée	Length of Use
Air	Twin otter transport from Iqaluit to Durban island. 1 person Paramotor/paraglide flight to collect imagery for 3D modelling. Non powered paraglide preferable but if conditions aren't suitable- paramotor will be used.	
Water	Boat transport for crew from Durban Island to Paallavvik	
Land	Getting around the island will be done on foot	

Project accomodation types

Temporary Camp

Utilisation de matériel

Équipement à utiliser (y compris les perceuses, les pompes, les aéronefs, les véhicules, etc.)

Type d'équipement	Quantité	Taille – Dimensions	Utilisation proposée
Paraglide/ paramotor	1	10 metre span	World expert paraglider Will Gadd will use this equipment to obtain high quality footage of the cliffs- which the geologist will use to plan sample collection.
Twin Otter plane	1	15m x 20m	To transport crew from Iqaluit to Durban Island. This is a transport option we have chosen to reduce contact with the community at Qikitarjuaq as a Covid safety protocol.
Boat	1	TBC	To transport crew from airstrip on Durban Island to Paallavvik. To be on standby in case of emergency evacuation.

Décrivez l'utilisation du carburant et des marchandises dangereuses

Décrivez l'utilisation de carburant :	Type de carburant	Nombre de conteneurs	Capacité du conteneur	Quantité totale	Unités	Utilisation proposée
Other	fuel	3	5	15	Liters	White gas for camping stoves- approx 1 litre/day
Gasoline	fuel	7	20	140	Liters	For generators to recharge cameras and equipment. Amount of fuel used will depend on power usage. Also to power any small boats we require to access sea cliffs.
Aviation fuel	fuel	1	780	780	Gallons	Aviation fuel- will not be housed on site. Aircraft will refuel either from Qikitarjuaq or Iqaluit. 2 round trips estimated fuel use

Consommation d'eau

Quantité quotidienne (m3)	Méthodes de récupération de l'eau proposées	Emplacement de récupération de l'eau proposé
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0	Water will be retrieved from clean streams, using a water jug to carry water back to camp. No alterations to bed and banks for a watercourse will be made.	Proposed water retrieval location TBD depending on final camp location but most likely a stream in the bowl on the northwest of the island.
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Déchets

Gestion des déchets

Activités du projet	Type des déchets	Quantité prévue	Méthode d'élimination	Procédures de traitement supplémentaires
Camp	Eaux grises	Minimal dishwater for 16 people for 10 days	Soaps will be used at least 70 meters from water sources. Strained dishwater will be scattered at least 70 meters from water sources.	All dish soaps and soaps will be biodegradable.
Camp	Eaux usées (matières de vidange)	14 people	A temporary pit-latrine will be constructed for human waste. The pit-latrine will be at least 70m from water. At the end of stay the deep hole will be covered with soil.	N/A

Répercussions environnementales :

We will remain outside the National Wildlife Area. In consultation with the Wildlife Service, the trip is proposed to take place in August to avoid disrupting birds as much as possible. No permanent structures will be built. All soaps used will be biodegradable. The human waste from the researchers and crew will be kept separate from contaminating water sources in a pit latrine. Fresh water will be required from streams on Paallavvik but every effort will be taken to minimise water usage.

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

Description de l'environnement existant : Environnement physique

Camp site is 5 km from protected National Wildlife Area. No crew to enter National Wildlife Area. From reports from previous geological survey- some cliff faces have occasional rockfalls. Expert geologist and climbing team will avoid potential flaking faces.

Description de l'environnement existant : Environnement biologique

Potential encounters with Polar Bears. Bear perimeter fence to be used on camp and bear watch to be maintained with experienced guides from Iqaluit and Qikitarjuaq to mitigate risk of close encounters. Guides also to advise on minimally disruptive camping (non harmful biodegradable soaps etc)

Description de l'environnement existant : Environnement socio-économique

Paallavvik uninhabited. Research site 80km from Qikitarjuaq. Area used for some hunting- local Qikitarjuaq hunters/guides to be employed to advise.

Miscellaneous Project Information

- Human health risk assessment- and Emergency Response Plan. Secret Compass to provide overarching safety advice. 3 ACMG qualified guides on site with First Aid training as well as experienced polar guides and local guides for situational hazard awareness. Evacuation procedures via either helicopter scrambled from Iqaluit, or Twin Otter plane landing on Durban Island. Projected evac time between 8-12 hours. Full risk assessment to be conducted before travel. to meet stringent production insurance checks.

Identification des répercussions et mesures d'atténuation proposées

- Minimal impact via disturbance of flora and fauna from camping. Mitigation via minimally disruptive camping methods e.g. preventing any water course contamination, only staying for 10 days, no permanent structures. Furthermore research limited to 10 days on site- all further processing of samples etc to occur off site. -Plane landing on Durban Island will use pre-existing airstrip. No extra building/disruption of habitat required for landing. -Socioeconomic impacts- positive employment for Qikitarjuaq and Iqaluit residents. COVID risk mitigated by all crew complying with stringent multiple PCR tests, quarantine, and vaccination. Travel plans deliberately created to avoid excess contact between crew and wider community (e.g. at Qikitarjuaq) by direct travel to Paallavvik. -Positive impact via international broadcast of documentary showcasing the beauty of Paallavvik and the region

Répercussions cumulatives

-Cumulative impact potential- This trip is intended to collect geological samples that can be shared with other research

teams, reducing the need for further sampling and further trips. There have been previous research trips to collect suitable samples, but the sample sharing from this trip should negate the need for trips in the near future. - Potential for the documentary to increase interest in travel to Nunavut. This may have both positive socioeconomic effects and potential negative environmental effects. Stressing the importance of flora and fauna in the documentary will hopefully mitigate negatives by prompting more sustainable tourism.

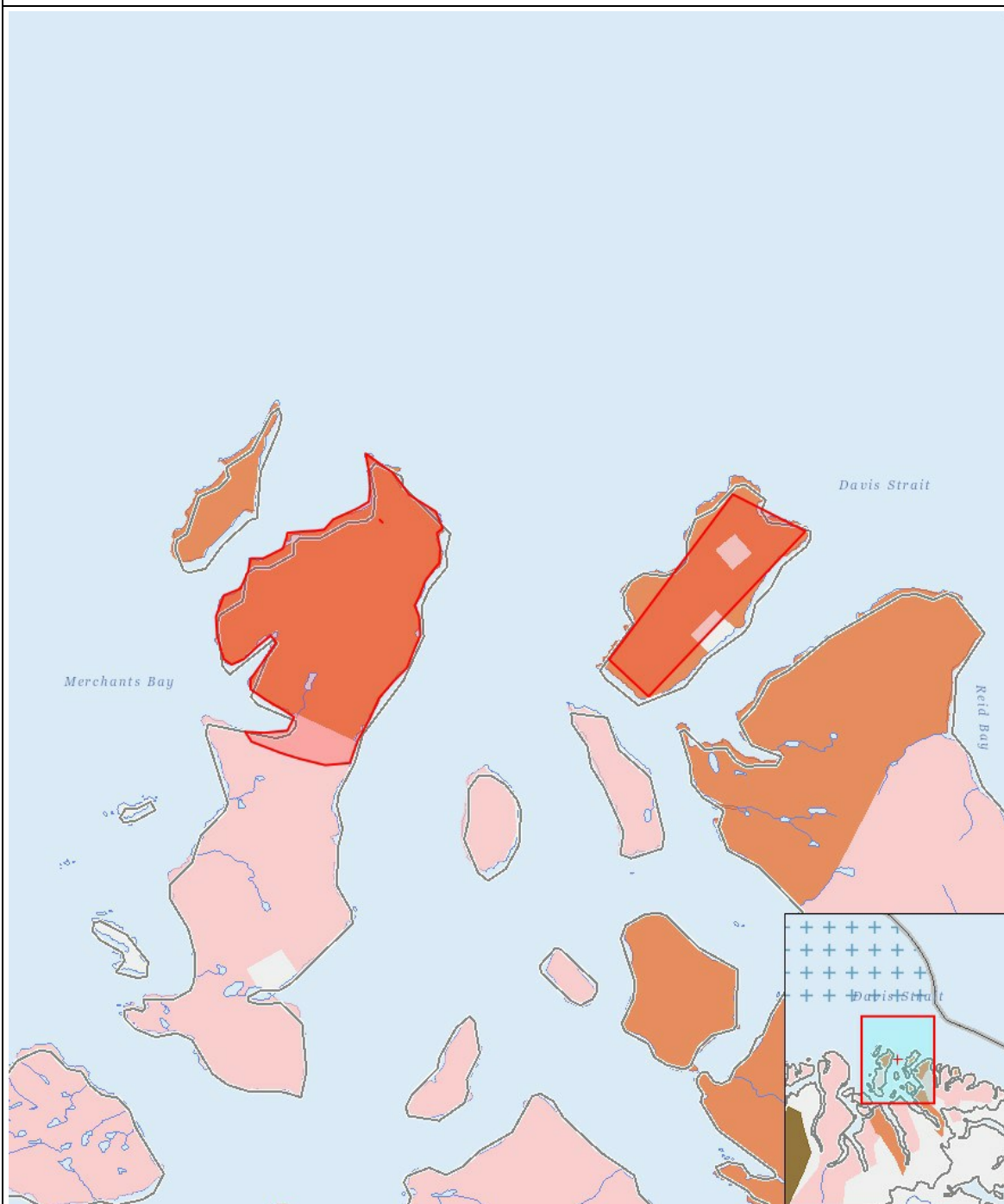
Impacts

Identification des répercussions environnementales

	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
Construction	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Exploitation																									
Researching		-	-	-	-	-	-	-	M	-	-	-	-		-	-	-	-	-		-	P	-	-	-
Désaffectation																									
-		-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-		-	-	-	-	-

(P = Positive, N = Négative et non gérable, M = Négative et gérable, U = Inconnue)

Site du projet



Liste des géométries de projet

- 1 polygon Landing on airstrip on Durban Island using Twin Otter plane. Crew will then be ferried to Paallavvik by boat.
- 2 polygon Research will take place on a number of cliffs on northern Paallavvik. Research will include aerial image capture, 3D modelling, climbing and small sample collection
- 3 polygon Proposed campsite will be on northern end of Paallavvik