



NIRB Application for Screening #125498 OP NANOOK-NUNALIVUT 2020

Application Type: New

Project Type: Defence

Application Date: 12/23/2019 2:58:05 PM

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

Proposed Authorization: from 0001-01-01 to 0001-01-01

Project Proponent: Sarah Rahmer
Defence Construction Canada
180 Kent St
Ottawa ON K1P 0B6
Canada
Phone Number:: 343-550-8984, Fax Number::

Days on site: 30

Total Person days: 6000

Operations Phase: from 2020-02-20 to 2020-03-31

Activities

Location	Activity Type	Land Status	Site history	Site archaeological or paleontological value	Proximity to the nearest communities and any protected areas
OP NUNALIVUT 2020	Other	Crown	N/A	N/A	N/A

Community Involvement & Regional Benefits

Community	Name	Organization	Date Contacted
Information is not available			

Authorizations

Indicate the areas in which the project is located:

Kivalliq
North Baffin

Authorizations

Regulatory Authority	Authorization Description	Current Status	Date Issued / Applied	Expiry Date
Hunters and Trappers Associations/Organizations	Have not yet applied, notification being prepared	Not Yet Applied		
Kivalliq Inuit Association	Have not yet applied, notification being prepared	Not Yet Applied		
Hamlets and Municipalities	Met with officials from the municipal office (Mayor and Town Manager) to discuss considerations for Op Nanu 2020. They indicated that if the NIRB were to grant approval for the explosives range they would be satisfied with the vetting process and foresee no issues from purely a municipal standpoint. Agreed to strive to keep the municipal office informed of any progress.	Active		
Fisheries and Oceans Canada	Pending on NIRB's assessment, further notifications may need to be sent out for the ice breaching portion of the operation. No other permits required for other portions of the operation	Not Yet Applied		

Project transportation types

Transportation Type	Proposed Use	Length of Use
Air	CC-177 (Globemaster), CC-138 (Twin Otter), and CC-130 (Hercules)	
Land	by foot	

Project accommodation types

Other,

Material Use

Equipment to be used (including drills, pumps, aircraft, vehicles, etc)

Equipment Type	Quantity	Size - Dimensions	Proposed Use
BV206	2	L5.72m/W2.01m/H2.72m/Wt:8,500kg	transportation of troops and equipment
Light Over Snow vehicles with Qamutiik	200	L3.00m/W1.30m/H1.20m/Wt140kg	Transportation of troops and equipment
Heaters	10	L1.24m/W2.55m/H1.20m	Heating tents
5kw Generator	2	L2.0m/W1.1m/H0.2m	Temporary power
Tent group including Colman stove and lantern	15	L3m/W3m/H2.5m	shelter
CC-138 Twin Otter Aircraft	2	L15.1m/W9.81m/H5.66m/Wt5,600kg	Transportation of troops and equipment
CC-130 Hercules	1	L30m/W40m/H11m/Wt34,400kg	Transportation of troops and equipment
CC-177 Globemaster	1	L53m/W52m/H17m/Wt128,100kg	Transportation of troops and equipment
CH-146 Griffon	1	L17.1m/W14m/H4.6m/Wt5355kg	Transportation of troops and equipment
Snowmobile	20	3X1.3	transportation

Detail Fuel and Hazardous Material Use

Detail fuel material use:	Fuel Type	Number of containers	Container Capacity	Total Amount	Units	Proposed Use
this is for other portions of OP. No fuel req for the portion of OP that NIRB assessment is required for ie. ice breaching	fuel	81	4	324	Liters	Oil for LOSV
Diesel	fuel	7	205	1435	Liters	BV206, generators, heaters
Gasoline	fuel	78	205	15990	Liters	LOSV

Water Consumption

Daily amount (m3)	Proposed water retrieval methods	Proposed water retrieval location
0		

Waste

Waste Management

Project Activity	Type of Waste	Projected Amount Generated	Method of Disposal	Additional treatment procedures
Information is not available				

Environmental Impacts:

Two personnel visited Rankin Inlet to discuss the potential of conducting an explosives range during OP NANU with an official from the local Municipal Office. Our intent is to gain local knowledge on preferred location, impact to the environment and local species, impact to food sources, and to ascertain the general thoughts from the community on the prospect of an explosives range. Detailed EOD/UXO plan: No actual military ordnance, only bulk explosives and explosive accessories, will be used during the explosives range. As such, the possibility of a resulting UXO and a subsequent EOD plan does not exist. However, the possibility of a misfire does exist. In the event of a misfire, we will follow appropriate CAF procedures. Standard misfire wait times will apply (30mins for non-electric misfires, 10mins for electric misfires). On completion of misfire wait times, the RSO only will investigate the misfire and determine the most suitable course of action. The misfired initiation set will be replaced with a new initiation set. Detonation will be attempted with the new initiation set. The intent is to trial two separate techniques to explosively open a hole. The first employs a directional shape charge while the second employs a bore hole in the ice and the explosives are placed under water. The storage of the explosives will be in a sea container located at the FOL. Standard mitigation measures (bubble curtain) will not be employed to reduce the effect on the marine environment. However, there are natural environmental mitigation measures based on the chosen location. Due to the increased depth (~33m) of the chosen site, disturbance to the seabed will be less than in shallower depths. The chosen location is surrounded by islands with steep terrain. The location of the islands in relation to the detonation site will help to both provide frontal protection to personnel and to minimize propagation of the blast-wave toward the community.

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 of Existing Environment: Physical Environment

sea ice, frozen/ice covered shoreline

Description of Existing Environment: Biological Environment

unknown

Description of Existing Environment: Socio-economic Environment

N/A

Miscellaneous Project Information

A contractor will empty the PAB garbage container on an establish schedule and all activity conducted on land will bring their garbage back to the FOL to dispose of them in the containers. The contingency plan for spill is to clean as much as possible with spill kits and report the spill to their chain of command. (JTFN)

Identification of Impacts and Proposed Mitigation Measures

The impact on the environment of all activities will be minimal. The worst thing that could possibly happen is a spill of gas while refuelling a snowmobile. In that eventuality they will react as quick as possible and make use of their first response spill kit to mitigate the impact on the environment and will send a spill report to JTFN. For the explosive portion, the impact on the environment could result in some fishes or marine wild life being disturbed in very close proximity of the explosive site. Standard measures (bubble curtain) will not be employed, in order to reduce the effect on the marine environment. The town will hear the detonation but considering the distance from the site, the sound of the blast should be moderate. The shock wave created by the blast will be stopped by the land on one side and an island on another. This being said considering the amount of explosive plan to be used, the shock wave would be very minimal. First response spill kit and cleaning of the spills followed by the submission of a spill report; (Fuel caches, snowmobile refuelling) For the explosive activity - the site was chosen in consideration with the mitigation of the shock wave travelling distance as well as due to its distance from the town. Standard mitigation measures (bubble curtain) will not be employed to reduce the effect on the marine environment. However, there are natural environmental mitigation measures based on the chosen location. Due to the increased depth (~33m) of the chosen site, disturbance to the seabed will be less than in shallower depths. The chosen location is surrounded by islands with steep terrain. The location of the islands in relation to the detonation site will help to both provide frontal protection to personnel and to minimize propagation of the blast-wave toward the community

Cumulative Effects

unkown

Impacts

Identification of Environmental Impacts

		PHYSICAL																BIOLOGICAL										SOCIO - ECONOMIC					
		Designated environmental areas																Vegetation										Archaeological and cultural historic sites					
		Ground stability																Wildlife, including habitat and migration patterns										Employment					
		Permafrost																Birds, including habitat and migration patterns										Community wellness					
		Hydrology / Limnology																Aquatic species, incl. habitat and migration/spawning										Community infrastructure					
		Water quality																Wildlife protected areas										Human health					
		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																															

(P = Positive, N = Negative and non-mitigatable, M = Negative and mitigatable, U = Unknown)

Project Location



List of Project Geometries

1	point	OP NUNALIVUT 2020
2	point	OP NUNALIVUT 2020
3	point	OP NUNALIVUT 2020
4	point	OP NUNALIVUT 2020
5	point	OP NUNALIVUT 2020
6	point	OP NUNALIVUT 2020
7	point	OP NUNALIVUT 2020
8	point	OP NUNALIVUT 2020
9	point	OP NUNALIVUT 2020
10	point	OP NUNALIVUT 2020
11	point	OP NUNALIVUT 2020
12	point	OP NUNALIVUT 2020

13	point	OP NUNALIVUT 2020
14	point	OP NUNALIVUT 2020
15	point	OP NUNALIVUT 2020
16	point	OP NUNALIVUT 2020
17	point	OP NUNALIVUT 2020
18	point	OP NUNALIVUT 2020
19	point	OP NUNALIVUT 2020