



NIRB Uuktuutinga Ihivriughikhamut #125416

CAM-3, Shepherd Bay Water Use Licence Renewal

Uuktuutinga Qanurittuq: New

Havaap Qanurittunia: Defence

Uuktuutinga Ublua: 10/29/2018 1:36:39 PM

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

Piumayaat Angirutinga: from 0001-01-01 to 0001-01-01

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QANURITTUT

Tukihiannaqtunik havaariya uyumayumik uqauhiuyun

Qablunaatitut: The North Warning System in Canada is a chain of unmanned radar sites that provides aerospace surveillance, established to detect and allow for an early response to potential threats entering North American air space. It is part of Canada's North American Aerospace Defense Command (NORAD) agreement with the United States, and an essential capability in our efforts to maintain Canada's sovereignty. Raytheon Canada Limited has the contract with the Department of National Defence to operate and maintain the North Warning System radar site CAM-3, Shepherd Bay. CAM-3 is situated in Nunavut on the Boothia Peninsula on the east side of Shepherd Bay. It is located on a gently and uniformly sloping coastal plain area that appears to be an emerging sea bottom. The closest source of support is CAM-M, Cambridge Bay to the west. Flight time from CAM-M is 2 hours and 40 minutes by helicopter under normal conditions. CAM-3 is a Long Range Radar Site (LRR) for the North Warning System. CAM-3 is an unmanned site, but it is visited by CAM-M staff on scheduled quarterly preventive and corrective maintenance trips and on an as needed basis. During the months of May to September the site may have an average of 5 to 20 personnel on-site due to seasonal project activity and occasional Third Party visitors. CAM-3 is one of 11 LRRs of the North Warning System; the LRRs are located across the Yukon, Northwest Territories, Nunavut, and down the Labrador coast. The facilities are remotely monitored and controlled from North Bay on a 24/7 basis. The information they receive is automatically sent to the Canadian Air Defence Sector located at 22 Wing, CFB North Bay over a long-haul satellite communications network.

Uiviititut: N/A

[illegible]

Inuinnaqtun: N/A

Personnel

Personnel on site: 5

Days on site: 60

Total Person days: 300

Operations Phase: from 2019-03-31 to 2029-03-31

Hulilukaarutit

Inigiya	Hulilukaarut Qanurittuq	Nunangga Qanurittaakhaanik	Initurlinga qanuritpa	Initurlinga utuqqarnitat unaluuniit Ingilraaqnitat Uyarannguqtut akhuurninnga	Qanitqiyauyuq qanitqiamut nunallaat kitulluuniit ahiruqtaliyainnit nuna
CAM-3 Site	Site Cleanup/Remediation	Crown	CAM-3 was built in the 1950s as one of the Distant Early Warning Line (DEW Line). In the 1980s, the DEW Line in Canada evolved into the North Warning System (NWS). CAM-3 was modernized as part of this transition. On 31 August 1995, the site changed from manned to unmanned status. Over the years, the Prime Mission of the radar sites remains unchanged: to detect airborne objects within the Arctic surveillance area.	No archaeological sites within boundaries of work areas (landfills), camp area (airstrip) or site roads.	The closest communities to CAM-3 are: 1. Taloyoak, 82 km north; 2. Gjoa Haven, 100 km west; and 3. Cambridge Bay, 467 km west. Flight time is 2 hours and 40 minutes by helicopter in normal conditions.

Nunaliin Ilauyun, Aviktuqhimayuniitunullu Ikayuuhiarunguyun

Nunauyuq	Atia	Timiuyuq	Upluani Uqaqatigiyaungmata
Information is not available			

Angiuttauvaktunik

Naunaiqlugu nunanga talvani havauhikhaq ittuq:

Kitikmeot

Angiuttauvaktunik

Munariniqmut Ayuittiaqtuq	Angirutinga Qanurittuq	Tadja Qanurittaakhaanik	Ublua Tuniyauyuq/Uuktuqtuq	Umikvikhaa Ublua
Nunavut Imaligiyyit Katimayit	Water Licence 3BC-SHE-0919	Active	2009-09-10	2019-08-31
Nunavut Imaligiyyit Katimayit	Water Licence number to be determined. This licence is to replace 3BC-SHE-0919. Dates are estimates only.	Not Yet Applied	2019-03-31	2029-03-31

Project transportation types

Transportation Type	Qanuq Atuqtauniarmangaa	Length of Use
Air	Transportation to the site for maintenance is by helicopter and fixed wing aircraft	
Water	Transportation of bulk materials, drygoods and fuel is by ship.	
Land	Transportation on-site is by pick-up truck. Heavy equipment is used on-site as required.	

Project accomodation types

Permanent Camp

Alaanut,

Ihuaqutivaluin Atuqtauyukhan

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

Hanalrutit Qanurittuq	Qaffiuyut	Aktikkulaanga – Qanurittullu	Qanuq Atuqtauniarmangaa
Grader	1	9.1x2.5x3 m	Road Maintenance
Dozer	1	5.8x3.4x3.6 m	Earthworks, snow clearing
Pickup truck	2	5.8x2x2.4 m	Transportation
Dump Truck	1	3x5x2.7 m	Earth works, moving water in water tank
Mini-excavator	1	3x2.2x1 m	Earth works
ATV	1	1650 lbs	Transportation

Qanurittuq Urhuqyuaq unalu Qayangnaqtut Hunavaluit Aturninnga

Qanurittuq urhuqyuaq hunavaluit aturninnga:	Urhuqyuaq Qanurittuq	Qaffiuyut qattaryut	Qattaryuk Aktikkulaanga	Atauttimut Qaffiuyut	Ilanga	Qanuq Atuqtauniarmangaa
Aviation fuel	fuel	3	246000	738000	Liters	Site power generation
Aviation fuel	fuel	3	75000	225000	Liters	Site power generation
Aviation fuel	fuel	3	50000	150000	Liters	Aviation
Aviation fuel	fuel	1	4100	4100	Liters	Vehicle refuelling
Oil	hazardous	12	205	2460	Liters	Engine maintenance
Glycol	hazardous	2	205	410	Liters	Site maintenance
Paint	hazardous	1	205	205	Liters	Site maintenance
Batteries	hazardous	1	205	205	Liters	Power generation

Imaqmik Aturninnga

Ubluq qanuraaluk (m3)	Aturumayain imavaluin utiqittagaani qanuq	Atulirumayain imavaluin utiqittagani humi
4	Water truck	Water is drawn from the water lake. See attached document Annex Q4 - CAM-3 Site Plan.pdf

Iqqakuq

Ikkakunik Munakgiyauyunik

Havauhikhaq Hulilukaarut	Qanurittuq Iqqakut	Ihumagiyauyuq Qanuraaluktut Atuqtait	Qanuq Iqqakuurniarmangaa	Halummaqtirarnirutikhan piyutin
Erosion control	Ikulalaaqtun iqqakuuvaluin	1000 kg	Municipality of Cambridge Bay Landfill	None
Erosion control	Hivuuranagtun iqqakuuvaluin	25 drums, 2 crates	Licensed Waste HAZMAT Disposal Facility (off-site)	None
Landfarm	Hivuuranagtun iqqakuuvaluin	To be determined	Hydrocarbon impacted soil may be disposed of in a landfarm, if approved.	See attached document Annex A3 - CAM-3 Landfarm Plan.pdf for additional details
Erosion control	Anaagun (inuin anaaguin)	50 m ³	Sump (including greywater)	None

Avatiliriniqmut Ayurhautingit:

Potential impact: IF hydrocarbon impacted soil is not properly handled THEN the amount of impacted soil could increase Mitigation: Impacted soil will be handled as described in the attached document Annex A3 - CAM-3 Landfarm Plan regarding construction, operation, environmental control, and closure of the landfarm.

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

The North Warning System Office (NWSO) occasionally has a requirement to remediate spills on-site. Given the effort involved, landfarming impacted soil will only be considered where it is the best option for remediating a spill (e.g. treating the soil from a large spill instead of shipping it off-site for treatment). For details see the attached document Annex A3 - CAM-3 Landfarm Plan.pdf

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

See attached document Annex Q3 - CAM-3 Site Description.pdf

Qanurittuq Ittunik Avatinga: Inuuhimayunut Avatinga

See attached document Annex Q3 - CAM-3 Site Description.pdf

Qanurittuq Ittunik Avatinga: Inungit-maniliurutingit Avatinga

CAM-3 is a remote site that the Nunavut Planning Commission has identified is outside the area of an applicable land use plan.

Miscellaneous Project Information

Naunaiyainiq ukuninnga Ayurhautingit unalu Piumayaat Ikikliyuumiutinahuarutit

The attached document Annex Q2 - Spill Contingency Plan.pdf includes a risk analysis of spills on the North Warning System (Table 8-1), including the impact, probability, and mitigations.

Tamatkiumayunik Ihuikgutivaktunik

None identified

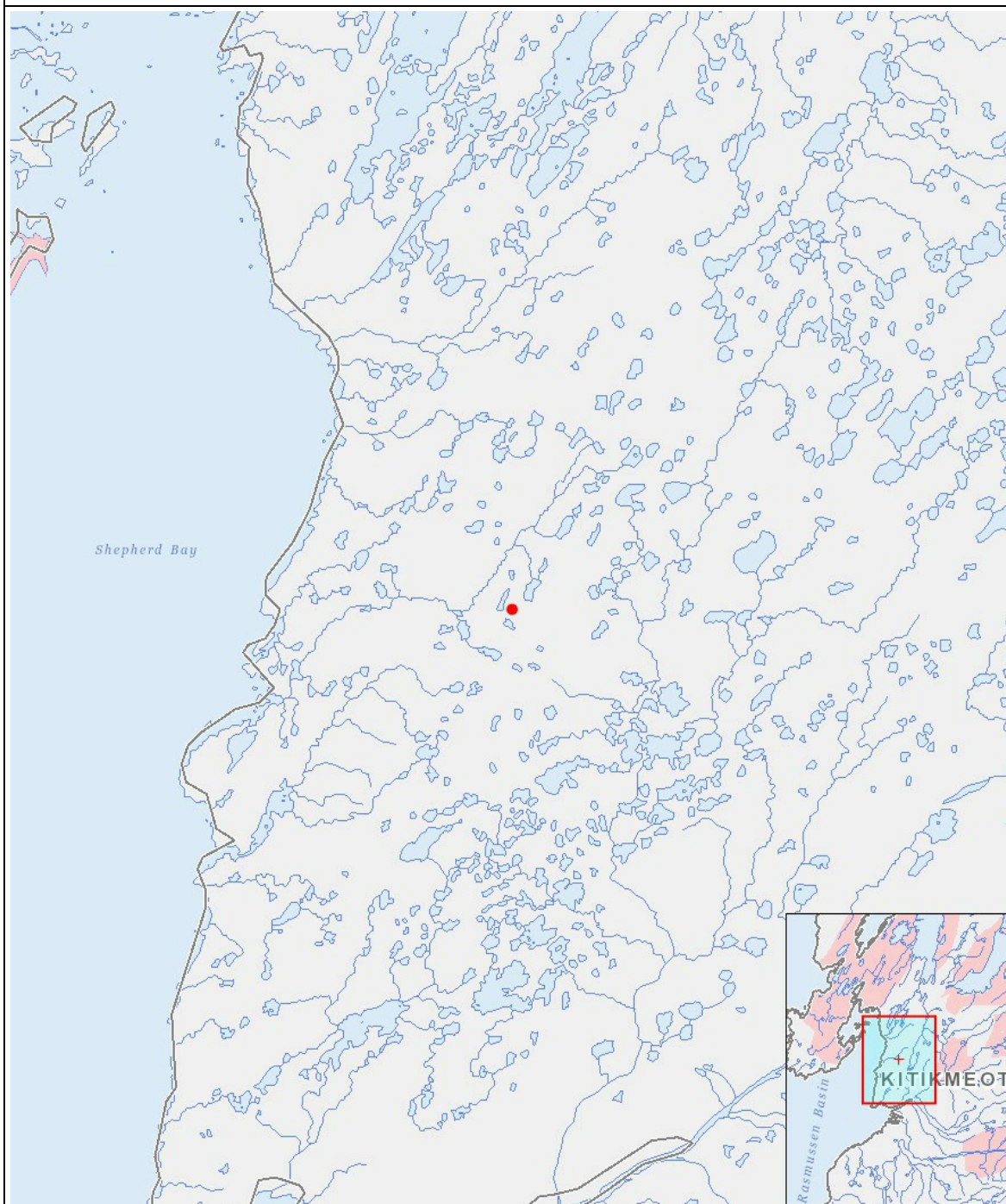
Impacts

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																									
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Aulapkaininnga																									
Site Cleanup/Remediation		-	-	-	-	-	-	-	-	-	N	-	-	-		-	-	-	-		-	-	-	-	-
Piiqtauniq																									
-		-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-		-	-	-	-	-

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

PROJECT MAP



LIST OF PROJECT GEOMETRIES:

1	point	CAM-3 Site
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