



Land Administration  
P.O. Box 100  
IQALUIT, NU X0A 0H0  
Phone: 867-975-4283  
FAX: 867-975-4286

September 23, 2014

Defence Research and Development Canada  
9 Grove St.  
P.O. Box 1012  
Dartmouth, NS  
B2R 3Z7

Dear Bruce Grychowski,

**Re: Land Use Permit #N2014N0019**  
**Type of Operation: Research Project**  
**Location: Gascoyne Inlet, Baffin, NU, NTS 58E**

Enclosed is your copy of Land Use permit number N2014N0019, authorizing your project as described in your application dated April 8<sup>th</sup>, 2014, received by this office April 10<sup>th</sup>, 2014.

Your application has received a wide distribution to other Federal departments, Government of the Nunavut departments, communities in the area of your operation and concerned Inuit groups. In distributing your application the Nunavut Impact Review Board (NIRB) sought comments from these various agencies based on their area of expertise that will help ensure minimum negative impact on the environment. The issuance of this permit indicates that as a result of the NIRB environmental screening process it was decided that the potentially adverse environmental effects that may be caused by your proposal are mitigable with known technology and are not significant. The terms and conditions in the permit will, in our opinion, provide the necessary protection to the environment.

Please ensure that you adhere to the operating conditions, along with the Archaeological Palaeontological terms and conditions, annexed to your permit. Should you have any questions regarding any conditions of this permit, please contact Tracey McCaie at (867) 975-4283 or email [landsmining@inac.gc.ca](mailto:landsmining@inac.gc.ca).

Sincerely,

Tracey McCaie  
Manager, Land Administration

cc: Manager, Field Operations  
RMO - Baffin  
NIRB  
NPC



Aboriginal Affairs and  
Northern Development Canada

Affaires autochtones et  
Développement du Nord Canada

**LAND USE PERMIT  
NORTHERN AFFAIRS PROGRAM**

**PERMIS D'UTILISATION DES TERRES  
PROGRAMME DES AFFAIRES DU NORD**

Permit Class - Permis Catégorie

**A**

Permit No - NE de permis

**N2014N0019**

Subject to the Territorial Land Use Regulations and the terms and conditions in this permit, authority is hereby granted to:

Sous réserve du Règlement sur l'utilisation des terres territoriales et des conditions de ce permis:

**DEFENCE RESEARCH AND DEVELOPMENT CANADA**

Permittee - Détenteur de permis

To proceed with the land use operation described in the application of:

Est autorisé à entreprendre les travaux d'exploitation des terres décrits dans la demande de permis du:

Signature

**Bruce Grychoski**

Date

**April 8<sup>th</sup>, 2014**

Type of Land Use Operation - Genre de travaux d'exploitation des terres

**Research Project**

Location - Emplacement

**Gascoyne Inlet, Baffin, NU, NTS 58E**

The conditions attached to this permit are incorporated into and form an integral part of the permit.

Les conditions attachées à ce permis en font partie intégrante.

This permit may be assigned, extended, discontinued, suspended or cancelled pursuant to the Territorial Land Use Regulations.

Ce permis peut faire l'objet d'une cession, d'une prolongation d'une cessation d'une suspension ou d'une annulation, en vertu du Règlement sur l'utilisation des terres territoriales.

Dated at

Date à **Iqaluit**

Engineer

Ingénieur

This

Ce

**23rd**

Day of

jour de

**September**

**2014**

Commencement Date

Date du début des travaux **September 23rd, 2014**

Expiry Date

Date d'achèvement **September 22nd, 2016**

**NOTE**

IT IS A CONDITION OF THIS PERMIT THAT THE PERMITTEE COMPLY WITH ANY OTHER APPLICABLE ACT, REGULATION, ORDINANCE BY - LAW OR ORDER. DEFAULT HEREOF MAY RESULT IN SUSPENSION OR CANCELLATION OF THIS PERMIT.

**REMARQUE**

LE DÉTENTEUR DU PRÉSENT PERMIS DOIT SE CONFORMER À TOUT AUTRE RÈGLEMENT, LOI, DÉCRET RÈGLEMENT MUNICIPAL OU ARRÊTÉ APPLICABLE. LE MANQUEMENT À CETTE OBLIGATION POURRAIT DONNER LIEU À LA SUSPENSION OU À L'ANNULATION DU PERMIS.

**Canada**

**CONDITIONS ANNEXED TO AND FORMING PART  
OF LAND USE PERMIT NUMBER N2014N0019**

**31 (1) (a) - Location and Area**

1.	The Permittee shall not conduct this land use operation on any lands not designated in the accepted application, unless otherwise authorized in writing by the Engineer.	PLANS
2.	The Permittee shall remove from Territorial Lands, all scrap metal, discarded machinery and parts, barrels and kegs, buildings and building material.	REMOVE WASTE MATERIAL
3.	<p>(a) The Permittee shall offset vehicle travel in areas without a snow covered surface.</p> <p>(b) The Permittee shall confine the line to a maximum width of 10 metres unless otherwise authorized in writing by a Land Use Inspector.</p>	OFFSET VEHICLE TRAVEL
4.	The Permittee shall not construct parallel lines or roads unless authorized by the Engineer.	PARALLEL ROADS
5.	The Permittee shall remove from Territorial Lands, all scrap metal, discarded machinery and parts, barrels and kegs, buildings and building material.	REMOVE WASTE MATERIAL
6.	The Permittee shall locate all camps on gravel, sand or other durable land.	CAMP LOCATION

**31 (1) (b) - Time**

7.	<p>The Permittee shall advise a Land Use Inspector at least 10 days prior to the completion of the land use operation of:</p> <p>(a) the plan for removal or storage of equipment and materials, and</p> <p>(b) when final clean-up and restoration of the lands used will be completed.</p>	REPORTS BEFORE REMOVAL
8.	The Permittee's Field Supervisor shall contact or meet with a Land Use Inspector at the Iqaluit office of the Aboriginal Affairs and Northern Development Canada, phone number (867) 975-4296, at least 48 hours prior to the commencement of this land use operation.	CONTACT INSPECTOR
9.	The Permittee's Field Supervisor shall provide notification of commencement of the land use operation to the Engineer at the Iqaluit office of the Department of Aboriginal Affairs and Northern Development Canada either by emailing <a href="mailto:landsmining@aandc.gc.ca">landsmining@aandc.gc.ca</a> or by telephone at (867) 975-4283.	NOTICE TO ENGINEER



10.	<p>The Permittee shall submit an annual report to the Engineer by March 30<sup>th</sup> of each year of permitted activities. The annual report must contain, but not limited to, the following information:</p> <p>(a) A summary of activities undertaken for the year including</p> <p>(b) A map showing the following items with exact coordinates (degrees/min/sec, in NAD 83):</p> <ul style="list-style-type: none"> <li>(i) All camp locations</li> <li>(ii) Air strip and landing location</li> <li>(iii) All drilling locations</li> <li>(iv) All fuel caches</li> <li>(v) Any other location where activities were conducted</li> </ul> <p>(c) A work plan for the following year, including any progressive reclamation work undertaken.</p>	ANNUAL REPORT
11.	The Permittee shall provide updated locations of fuel caches related to this project in Latitude and Longitude (NAD 83) from a GPS within thirty (30) days of the establishment to the inspector and Engineer.	UPDATE LOCATIONS
12.	The Permittee shall notify a Land Use Inspector at least 10 days prior to backfilling any sump.	BACKFILLING NOTIFICATION
13.	The Permittee shall commence and foster re-vegetation on all parts of the land used, as may be directed by a Land Use Inspector, within one year of the completion of the land use operation.	RE-ESTABLISH VEGETATION
14.	The Permittee shall complete all clean-up and restoration of the lands used prior to the expiry date of this permit.	CLEAN-UP
15.	The Engineer reserves the right to impose closure to any area to the Permittee in periods when dangers to natural resources are severe.	CLOSURE

### **31 (1) (c) - Equipment**

16.	The Permittee shall not use any equipment except of the type, size and number that is listed in the accepted application, unless otherwise authorized in writing by the Land Use Inspector.	ONLY APPROVED EQUIPMENT
17.	The Permittee shall keep all garbage and debris in a covered metal container until disposed of. Garbage should be stored in such a manner as to prevent access by wildlife.	GARBAGE CONTAINERS
18.	The Permittee shall use portable ramps during loading or unloading ships or barges.	PORTABLE RAMPS
19.	The Permittee shall use a forced-air fuel-fired incinerator to incinerate all combustible garbage and debris.	INCINERATORS

20.	The Permittee shall not place dirt or debris into streams to serve as ramps for loading or unloading ships or barges, unless authorized in writing by a Land Use Inspector.	DIRT RAMPS
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**31 (1) (e) - Type, Location, Capacity and Operation of Facilities**

21.	The Permittee shall not locate any sump within thirty one (31) metres of the normal high water mark of any stream.	SUMPS FROM WATER
22.	The Permittee shall backfill and restore all sumps prior to the expiry date of this permit.	BACKFILL SUMPS
23.	The Permittee shall ensure that the land use area is kept clean and tidy at all times.	CLEAN WORK AREA

**31 (1) (f) - Control or Prevention of Flooding, Erosion and Subsidence of Land**

24.	The Permittee shall remove any obstruction to natural drainage caused by any part of this land use operation.	NATURAL DRAINAGE
25.	The Permittee shall install erosion control structures as the land use operation progresses unless otherwise authorized by a Land Use Inspector.	EROSION CONTROL WHEN
26.	The Permittee shall not move any equipment or vehicles unless the ground surface is in a state capable of fully supporting the equipment or vehicles without rutting or gouging.	VEHICLE MOVEMENT FREEZE-UP
27.	The Permittee shall implement suitable erosion and sediment suppression measures on disturbed areas before, during and after construction in order to prevent sediment from entering any water body.	EROSION SUPPRESSION
28.	The Permittee shall prepare the site in such a manner as to prevent rutting of the ground surface.	PREVENTION OF RUTTING
29.	The Permittee shall suspend overland travel of equipment or vehicles if rutting occurs.	SUSPEND OVERLAND TRAVEL
30.	The Permittee shall not use the bed of streams for access routes except for the purpose of crossing the streams unless otherwise authorized by a Land Use Inspector.	STREAM BEDS ACCESS
31.	The Permittee shall not cut any stream bank unless authorized in writing by a Land Use Inspector.	STREAM BANKS



**31 (1) (g) - Use, Storage, Handling and Disposal of Chemical or Toxic Material**

32.	The Permittee shall not use chemicals in connection with the land use operation without the prior approval of the Engineer.	APPROVAL OF CHEMICALS
33.	The Permittee shall deposit all sewage into a sump.	SEWAGE DISPOSAL
34.	The Permittee shall remove all garbage and debris from the land use area to a disposal site approved in writing by a Land Use Inspector.	REMOVE GARBAGE
35.	The Permittee shall burn all garbage and debris at least daily.	GARBAGE DISPOSAL
36.	The Permittee shall dispose of all waste petroleum products by removal.	WASTE PETROLEUM DISPOSAL
37.	The Permittee shall ensure that appropriate spill response equipment and clean-up materials (e.g. shovels, pumps, barrels, drip pans, and absorbents) must be readily available during any transfer of fuel or hazardous substances, as well as at fuel caches and drill sites.	SPILL RESPONSE KIT
38.	The Permittee shall remove and treat hydrocarbon contaminated soils on site or transport them to an approved disposal site for treatment.	CONTAMINATED SOIL
39.	The Permittee shall report all spills immediately in accordance with instructions contained in "Spill Report" form NWT 1752(05/93). Twenty-four (24) hour spill report line (867) 920-8130.	REPORT CHEMICAL AND PETROLEUM SPILLS

**31 (1) (h) - Wildlife and Fisheries Habitat**

40.	The Permittee shall not unnecessarily damage wildlife habitat in conducting this land use operation.	HABITAT DAMAGE
41.	The Permittee shall not obstruct the movement of fish while conducting this land use operation.	FREE FISH MOVEMENT
42.	The Permittee shall not harass wildlife. This includes persistently worrying, chasing, or disturbing large groups of animals.	HARASSMENT OF WILDLIFE
43.	The Permittee shall not disturb or destroy the nests or eggs of any birds. If nests are encountered and/or identified, the Permittee shall take precaution to avoid further interaction and/or disturbance (e.g. a 100 meter buffer around the nests). If active nests are discovered (i.e. with eggs or young) the Permittee shall avoid these areas until nesting is complete and the young have left the nest.	AVOIDANCE OF NESTS

44.	The Permittee shall cease activities that may interfere with migration or calving of caribou, until the caribou have passed or left the area.	WILDLIFE SENSITIVITIES
45.	The Permittee shall ensure that all project personnel are made aware of the measures to protect wildlife and are provided training and/or advice on how to implement these measures.	WILDLIFE PROTECTION MEASURES
46.	Your operation is in an area where bears may be encountered. Proper food handling and garbage disposal procedures will lessen the likelihood of bears being attracted to your operation. Information about the latest bear detection and deterrent techniques can be obtained from the Department of Environment.	BEAR/MAN CONFLICT
47.	The Permittee shall not touch, feed or entice wildlife to approach by holding out or setting out decoys or any such devices, foodstuffs or bait of any kind.	NO FEEDING WILDLIFE

**31 (1) (k) - Petroleum Fuel Storage**

48.	The Permittee shall report in writing to a Land Use Inspector the location (using GPS Lat & Long) and quantity of all petroleum fuel caches within ten (10) days after the establishment.	REPORT FUEL LOCATION
49.	The Permittee shall not place any petroleum fuel storage containers within thirty-one (31) metres of the normal high water mark of any stream.	FUEL BY STREAM
50.	The Permittee shall locate mobile fuel facilities on land when stationary for any period of time exceeding twelve (12) hours.	FUEL ON LAND
51.	The Permittee shall not allow petroleum products to spread to surrounding lands or into water bodies.	FUEL CONTAINMENT
52.	The Permittee shall have one extra fuel storage container on site equal to, or greater than, the size of the largest fuel container.	FUEL EXTRA CONTAINER
53.	The Permittee shall store all fuel in secondary containment and covered containment is required if fuel is to be not monitored for any length of time.	FUEL STORAGE
54.	The Permittee shall use adequate secondary containment or a surface liner (e.g. Self supporting insta-berms and fold-a-tanks) when storing barrelled fuel and chemicals at all locations as well as re-fueling stations. Appropriate spill response equipment and clean-up materials (e.g. shovels, pumps, barrels, drip pans and absorbents) must be readily available during any transfer of fuel or hazardous substances, as well as at fuel caches and vehicle maintenance areas.	SECONDARY CONTAINMENT



55.	The Permittee shall:  (a) examine all fuel storage containers for leaks immediately upon delivery;  (b) examine all fuel storage containers for leaks a minimum of once every seven (7) days;  (c) repair all leaks immediately.	CHECK FOR LEAKS
56.	The Permittee shall mark all stationary petroleum products storage facilities with flags, posts or similar devices so that they are at all times plainly visible to local vehicle travel.	MARK FUEL LOCATION
57.	The Permittee shall seal all container outlets except the outlet currently in use.	SEAL OUTLET
58.	The Permittee shall mark all fuel containers with the Permittee's name.	MARK CONTAINERS

**31 (1) (m) - Matters Not Inconsistent with the Regulations**

59.	The Permittee shall not remove any material from below the ordinary high water mark of any stream without first obtaining written permission from a Land Use Inspector.	APPROVAL NEEDED
60.	The Permittee shall display a copy of this permit in a conspicuous place in each campsite established to carry out this land use operation.	DISPLAY PERMIT
61.	The Permittee shall conspicuously display the land use permit number on all vehicles and equipment.	DISPLAY PERMIT NUMBER
62.	The Permittee shall abide by and comply with all applicable lawful rules, acts, regulations, and by-laws of Canada, Nunavut, any Municipal or regulatory body or authority having jurisdiction, the Nunavut Land Claim Agreement, and all other agreements, permits, licenses, and other instruments whatsoever related to the project.	ADHERENCE TO LAWFUL RULES, ACTS, REGS & BYLAWS
63.	The Permittee shall provide in writing to the Engineer, at least forty-eight (48) hours prior to commencement of this land use operation, the following information:  a) person, or persons, in charge of the field operation to whom notices, orders, and reports may be served;  b) alternates;  c) all the indirect methods for contacting the above person(s).	IDENTIFY AGENT



64.	<p>(a) During migration of caribou, the Permittee shall not locate any operation so as to block or cause substantial diversion of migration.</p> <p>(b) The Permittee shall cease activities that may interfere with migration, such as airborne geophysics surveys or movement of equipment, until the migrating caribou have passed</p>	CARIBOU PROTECTION MIGRATION
65.	The Permittee shall abide by and comply with all applicable lawful rules, acts, regulations, and by-laws of Canada, Nunavut, any Municipal or regulatory body or authority having jurisdiction, the Nunavut Land Claims Agreement, and all other agreements, permits, licenses, and other instruments whatsoever related to the project.	ADHERENCE TO LAWFUL RULES, ACTS, REGS & BYLAWS
<b>ARCHAEOLOGICAL &amp; PALEONTOLOGICAL TERMS AND CONDITIONS</b>		
66.	<p>“archaeological site” means a place where an archaeological artifact is found.</p> <p>“archaeological artifact” means any tangible evidence of human activity that is more than 50 years old and in respect of which an unbroken chain of possession or regular pattern of usage cannot be demonstrated, and includes a Denesuline archaeological specimen referred to in section 40.4.9 of the Nunavut Land Claims Agreement.</p> <p>“paleontological site” means a site where a fossil is found.</p> <p>“fossil” includes:</p> <ul style="list-style-type: none"> <li>(a) natural casts</li> <li>(b) preserved tracks, coprolites and plant remains; and</li> <li>(c) the preserved shells and exoskeletons of invertebrates and the eggs, teeth and bones of vertebrates.</li> </ul>	DEFINITIONS
67.	The Permittee shall avoid any known or suspected archaeological and/or paleontological sites.	AVOIDANCE OF ARCHAEOLOGICAL AND/OR PALEONTOLOGICAL SITES
68.	The Permittee shall not remove, disturb, or displace any archaeological artifact or site, or any paleontological site or fossil.	DISTURBANCE
69.	<p>The Permittee shall immediately cease any activity should a suspected archaeological, paleontological, or burial site be discovered during the course of a land use operation.</p> <p>The Permittee is required to immediately contact the Land Administration division at Aboriginal Affairs and Northern Canada at (867) 975-4283 as well as the Department of Culture and Heritage at (867) 975-5500 or 1(866) 934-2035.</p>	CEASE OPERATION OF LAND USE ACTIVITY

	<p>Permission to resume land use operations must be obtained from the Engineer. At such time the Engineer may, at his/her discretion, require that you have an archaeologist or palaeontologist perform the following functions:</p> <ul style="list-style-type: none"> <li>(a) Survey</li> <li>(b) Inventory and documentation of the archaeological or paleontological resources of the land use area</li> <li>(c) Assessment of potential for damage to archaeological or paleontological sites</li> <li>(d) Mitigation</li> <li>(e) Marking boundaries of archaeological or paleontological sites</li> <li>(f) Site restoration</li> </ul>	
70.	The Permittee shall ensure that all persons working under the authority of the permit are aware of these conditions pertaining to archaeological sites and artifacts as well as paleontological sites and fossils.	KNOWLEDGE



## Species At Risk in Nunavut

This list includes species listed on one of the Schedules of SARA (*Species at Risk Act*) and under consideration for listing on Schedule 1 of SARA. These species have been designated as at risk by COSEWIC (Committee on the Status of Endangered Wildlife in Canada). This list may not include all species identified as at risk by the Territorial Government.

- a) Schedule 1 is the official legal list of Species at Risk for SARA. SARA applies to all species on Schedule 1. The term "listed" species refers to species on Schedule 1.
- (b) Schedule 2 and 3 of SARA identify species that were designated at risk by the COSEWIC prior to October 1999 and must be reassessed using revised criteria before they can be considered for addition to Schedule 1.
- (c) Some species identified at risk by COSEWIC are "pending" addition to Schedule 1 of SARA. These species are under consideration for addition to Schedule 1, subject to further consultation or assessment.

Schedules of SARA are amended on a regular basis so it is important to periodically check the SARA registry ([www.sararegistry.gc.ca](http://www.sararegistry.gc.ca)) to get the current status of a species.

Terrestrial Species at Risk	COSEWIC Designation	Schedule of SARA	Government Organization with Lead Management Responsibility
Eskimo Curlew	Endangered	Schedule 1	EC
Ivory Gull	Endangered	Schedule 1	EC
Ross's Gull	Threatened	Schedule 1	EC
Harlequin Duck (Eastern population)	Special Concern	Schedule 1	EC
Rusty Blackbird	Special Concern	Schedule 1	Government of Nunavut
Felt-leaf Willow	Special Concern	Schedule 1	Government of Nunavut
Peregrine Falcon	Special Concern ( <i>anatum-tundrius</i> complex)	Schedule 1 ( <i>anatum</i> ) Schedule 3 ( <i>tundrius</i> )	Government of Nunavut
Short-eared Owl	Special Concern	Schedule 3	Government of Nunavut
Peary Caribou	Endangered	Schedule 1	Government of Nunavut
Barren-ground Caribou (Dolphin and Union population)	Special Concern	Schedule 1	Government of Nunavut
Polar Bear	Special Concern	Schedule 1	Government of Nunavut
Red Knot ( <i>rufa</i> subspecies)	Endangered	Pending	EC
Red Knot ( <i>islandica</i> subspecies)	Special Concern	Pending	EC
Porsild's Bryum	Threatened	Pending	GN
Horned Grebe (Western Population)	Special Concern	Pending	EC
Grizzly Bear	Special Concern	Pending	Government of Nunavut
Wolverine (Western Population)	Special Concern	Pending	Government of Nunavut
Atlantic Cod, Arctic Lakes	Special Concern	No Schedule	DFO
Atlantic Walrus	Special Concern	Pending	DFO
Beluga Whale (Cumberland Sound population)	Threatened	Pending	DFO
Beluga Whale (Eastern Hudson Bay population)	Endangered	Pending	DFO

Beluga Whale (Western Hudson Bay population)	Special Concern	Pending	DFO
Beluga Whale (Eastern High Arctic – Baffin Bay population)	Special Concern	Pending	DFO
Bowhead Whale (Eastern Canada – West Greenland population)	Special Concern	Pending	DFO
Killer Whale (Northwest Atlantic / Eastern Arctic populations)	Special Concern	Pending	DFO
Narwhal	Special Concern	Pending	DFO

Updated: January 2012