



Land Administration  
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April 9, 2015

Environment Canada  
Science & Technology Branch  
115 Perimeter Road  
Saskatoon, Saskatchewan  
S7N 0X4

Dear Ray Alisaukas,

**Re: Land Use Permit #N2014N0021**  
**Type of Operation: Research Project**  
**Location: Karrak Lake, Kitikmeot, NU, NTS 66N01**

Further to our letter dated February 9<sup>th</sup>, 2015, this will confirm that Nunavut Impact Review Board has completed its screening on your amendment. The above mentioned land use permit is hereby amended to include the work outlined in your request.

All conditions annexed to land use permit N2014N0021 will apply to this amendment. As well as the following:

1. Amended Terms & Conditions dated April 9<sup>th</sup>, 2015.

This amendment is only valid for those activities located on Crown land.

Sincerely,

Nicholas Kavanagh  
Land Administrator Specialist

cc: Manager, Field Operations  
RMO - Kitikmeot  
NIRB

**CONDITIONS ANNEXED TO AND FORMING PART  
OF LAND USE PERMIT NUMBER N2014N0021 – AMENDED April 9<sup>th</sup>, 2015**

Failure to comply with any term and condition issued as part of this permit is an offence under the Territorial Lands Act. Every person who commits an offence is liable, on summary conviction, for a first offence, to a fine not exceeding \$100 000, and for a second or subsequent offence, to a fine not exceeding \$200 000. Please note that an offence that is committed on more than one day constitutes a separate offence for each day on which it is committed or continued.

**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.	The Permittee shall locate all camps on gravel, sand or other durable land.	CAMP LOCATION
4.	The Permittee shall provide exact GPS coordinates of the camp location within ten (10) days of the establishment to the Inspector and Engineer.	UPDATE LOCATION
5.	The Permittee shall notify the Lands Inspector of ALL CAMPSITES using GPS format Lat/Lon hddd mm' ss.s" under Datum NAD83 within Ten (10) Days of Establishment for this or any previous season.	ALL CAMP LOCATIONS

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

6.	The Permittee's Field Supervisor shall contact or meet with a Land Use Inspector at the Kugluktuk office of the Department of Aboriginal Affairs and Northern Development, phone number (867)982-4306, at least 48 hours prior to the commencement of this land use operation.	CONTACT INSPECTOR
7.	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:  (a) A summary of activities undertaken for the year including  (b) A map showing the following items with exact coordinates (degrees/min/sec, in NAD 83):  i. All drilling locations; ii. All fuel caches; iii. Any other location where activities were conducted.  (c) A work plan for the following year, including any progressive reclamation work undertaken.	ANNUAL REPORT

8.	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
9.	The Permittee shall advise a Land Use Inspector at least 10 days prior to the completion of the land use operation of ;  (a) the plan for removal or storage of equipment and materials, and  (b) when final clean-up and restoration of the lands used will be completed.	REPORTS BEFORE REMOVAL
10.	The Permittee shall not access any of the locations associated with this LUP unless this LUP is in good standing unless previously authorized by the Inspector.	ACCESS TO LUP LOCATIONS
11.	The Permittee shall complete all clean-up and restoration of the lands used prior to the expiry date of this permit.	CLEAN-UP
12.	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**

13.	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
14.	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
15.	The Permittee shall burn all combustible garbage and debris in a container acceptable to a Land Use Inspector.	INCINERATION

**31 (1) (d) - Methods and Techniques**

16.	The Permittee shall not erect camps or store material on the surface ice of streams.	STORAGE ON ICE
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**31 (1) (e) - Type, Location, Capacity and Operation of Facilities**

17.	The Permittee shall not erect camps or store materials on the surface ice of lakes or streams, except that which is for immediate use.	CAMPS
18.	The Permittee shall ensure that all camps are located on gravel, sand or other durable land.	TEMPORARY CAMPS

19.	The Permittee shall protect the ground surface beneath all structures to prevent any vegetation present from being removed, the melting of permafrost, and ground settling and/or eroding.	PROTECT GROUND SURFACE
20.	The Permittee shall not locate any sump within thirty-one (31) metres of the normal high water mark of any water body.	SUMPS FROM WATER
21.	The Permittee shall backfill and restore all sumps prior to the expiry date of this permit.	BACKFILL SUMPS
22.	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**

23.	The Permittee shall remove any obstruction to natural drainage caused by any part of this land use operation.	NATURAL DRAINAGE
24.	The Permittee shall not cut any stream bank unless authorized in writing by a Land Use Inspector.	STREAM BANKS
25.	The Permittee shall not construct interceptor or off-shoot drainage ditches unless approved in writing by the Land Use Inspector.	DITCHES
26.	The Permittee shall prepare the site in such a manner as to prevent rutting of the ground surface.	PREVENTION OF RUTTING

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

27.	The Permittee shall not use chemicals in connection with the land use operation without the prior approval of the Engineer.	APPROVAL OF CHEMICALS
28.	No open burning of any kind is allowed under this Land Use Permit.	NO OPEN BURNING
29.	Any burning of Waste and Garbage must be done in an enclosed Incinerator to allow complete burning of the product and not allow any ash to be exposed to the surrounding Land or Water.	INCINERATOR USE ONLY
30.	All Incinerator Ash awaiting removal must be stored in a Secure Weatherproof Container.	STORAGE OF INCINERATOR ASH
31.	The Permittee shall store all fuel and chemicals in such a manner that they are inaccessible to wildlife.	FUEL AND CHEMICAL STORAGE
32.	The Permittee shall locate all fuel and other hazardous materials a minimum of thirty-one (31) metres away from the high water mark of any water body and in such a manner as to prevent their release into the environment.	FUEL AND CHEMICALS BY WATER

33.	The Permittee shall deposit all sewage into a sump.	SEWAGE DISPOSAL
34.	The Permittee shall remove all garbage, debris and ash from the land use area to a disposal site on a regular basis AND prior to the close of each season.	REMOVE GARBAGE, DEBRIS AND ASH
35.	The Permittee shall dispose of all combustible waste petroleum products by removal.	WASTE PETROLEUM DISPOSAL
36.	The Permittee shall dispose of all toxic or persistent substances in a manner as approved in writing by the Engineer.	WASTE CHEMICAL DISPOSAL
37.	The Permittee shall use drip pans or other equivalent device when refueling equipment on-site. 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.	SPILL RESPONSE
38.	The Permittee shall ensure that all personnel are properly trained in fuel and hazardous waste handling procedures as well as spill response procedures.	TRAINING
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
40.	The Permittee shall remove and treat hydrocarbon contaminated soils on site or transport them to an approved disposal site for treatment.	CONTAMINATED SOIL
41.	The Permittee shall dispose of non-hazardous materials only at the landfill and shall limit this disposal to those materials listed as acceptable for disposal. Hazardous materials, materials listed as unacceptable for disposal at the landfill, or materials that contain asbestos, fluorescent tubes or ozone depleting substances are not to be disposed of in the landfill and must be disposed of at an authorized facility.	DISPOSAL OF HAZARDOUS MATERIALS

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

42.	The Permittee shall not unnecessarily damage wildlife habitat in conducting this land use operation.	HABITAT DAMAGE
43.	The Permittee shall not harass wildlife. This includes persistently worrying or chasing animals, or disturbing large groups of animals.	WILDLIFE HARASSMENT
44.	The Permittee shall cease activities that may interfere with the migration or calving of caribou or muskox, until the caribou or muskox have passed or left the area.	WILDLIFE SENSITIVITIES

45.	During the period of May 15 to July 15, when caribou are observed within 1 km of project operations, the Permittee shall suspend all operations, including low-level over flights, blasting, and use of snowmobiles and all-terrain vehicles outside the immediate vicinity of the camps. Following July 15, if caribou cows or calves are observed within 1 km of project operations, the Permittee shall also suspend all operations in the vicinity, including low-level over flights, blasting, and use of snowmobiles and all-terrain vehicles, until caribou are no longer in the immediate area.	WILDLIFE SENSITIVITY
46.	The Permittee shall not block or cause any diversion to caribou migration, and shall cease activities likely to interfere with migration the moving of equipment or personnel until such a time that the caribou have passed.	CARIBOU MIGRATION
47.	The Permittee shall not construct or operate any camp, cache any fuel, or conduct blasting within 10 km of any paths or crossings known to be frequented by caribou (e.g. designated caribou crossings).	AVOIDANCE OF CARIBOU CROSSINGS
48.	The Permittee shall not extract water from any fish-bearing water body unless the water intake hose is equipped with a screen of appropriate mesh size to ensure that there is no entrapment of fish.	MESH SCREEN REQUIRED
49.	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.	WILDLIFE SENSITIVITY
50.	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 at (867)982-7450.	BEAR/MAN CONFLICT
51.	The Permittee shall not feed wildlife.	NO FEEDING WILDLIFE

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

52.	The Permittee shall report in writing to a Land Use Inspector the exact GPS location and quantity of all petroleum fuel caches within ten (10) days after the establishment.	REPORT FUEL LOCATION
53.	The Permittee shall not place any petroleum fuel storage containers within thirty-one (31) metres of the normal high water mark of any water body.	FUEL BY WATER
54.	The Permittee shall provide approved secondary containment for all fuels stored associated with this land use permit.	SECONDARY CONTAINMENT

55.	The Permittee shall not allow petroleum products to spread to surrounding lands or into water bodies.	FUEL CONTAINMENT
56.	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
57.	If any fuel cache in secondary containment, as per 11.3 above, is not checked on a daily basis, then the secondary containment shall be covered as to not allow snow and/or rain to accumulate within the secondary containment.	COVERED SECONDARY CONTAINMENT
58.	The Permittee shall store all fuel and chemicals in such a manner that they are inaccessible to wildlife.	FUEL INACCESSIBLE TO WILDLIFE
59.	The Permittee shall: <ul style="list-style-type: none"> <li>(a) examine all fuel storage containers for leaks immediately upon delivery;</li> <li>(b) examine all fuel storage containers for leaks a minimum of once every day; and</li> <li>(c) repair all leaks immediately.</li> </ul>	CHECK FOR LEAKS
60.	The Permittee shall ensure that re-fuelling of all equipment occurs at a minimum of thirty-one (31) metres away from the high water mark of any water body.	RE-FUELLING
61.	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
62.	The Permittee shall seal all container outlets except the outlet currently in use.	SEAL OUTLET
63.	The Permittee shall mark all fuel containers with the Permittee's name.	MARK CONTAINERS

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

64.	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
65.	The Permittee shall keep on hand, at all times during this land use operation, a copy of the Land Use Permit.	COPY OF PERMIT
66.	The Permittee shall conspicuously display the land use permit number on all vehicles and equipment.	DISPLAY PERMIT NUMBER

67.	<p>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:</p> <ul style="list-style-type: none"> <li>(a) person, or persons, in charge of the field operation to whom notices, orders, and reports may be served;</li> <li>(b) alternates;</li> <li>(c) all the indirect methods for contacting the above person(s).</li> </ul>	IDENTIFY AGENT
68.	<p><u>Part 1</u> – In this Permit:</p> <p>“sump” means a man-made pit, trench hollow or cavity in the earth’s surface used for the purpose of depositing waste material therein.</p>	DEFINITIONS
69.	<p>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.</p>	ADHERENCE TO LAWFUL RULES, ACTS, REGS & BYLAWS

## CARIBOU PROTECTION MEASURES

70.	<p>(a) The Permittee shall not, without approval, conduct any activity between May 15 and July 15 within the Caribou Protection Areas depicted on the map certified by the Engineer as the "Caribou Protection Map" and annexed to this Land Use Permit.</p> <p>(b) A Permittee may, upon approval by the Land Use Inspector, operate within the said Caribou Protection Areas beyond the May 15 deadline set out in 1 (a), provided that, when monitoring information indicates that caribou cows are approaching the area of operation, the Permittee will implement 1 (c).</p> <p>(c) On cessation of activities pursuant to 1 (a) or 1 (b), the Permittee will remove from the zone all personnel who are not required for the maintenance and protection of the camp facilities and equipment, unless otherwise directed by the Land Use Inspector.</p> <p>(d) The Permittee may commence or resume activities prior to July 15 within those parts of the Caribou Protection Areas released by the Land Use Inspector for the reason that caribou cows are not expected to use those parts for calving or post-calving.</p>	RESTRICTION OF ACTIVITY
71.	<p>(a) In the event that caribou cows calve outside of the Caribou Protection Areas, the Permittee shall suspend operations within the area(s) occupied by cows and/or calves between May 15 and July 15.</p> <p>(b) In the event that caribou cows and calves are present, the Permittee shall suspend:</p> <ul style="list-style-type: none"> <li>(i) blasting;</li> <li>(ii) overflights by aircraft at any altitude of less than 300 meters above ground level; and</li> <li>(iii) the use of snowmobiles and ATVs (all-terrain vehicles) outside the immediate vicinity of the camp.</li> </ul>	SUSPENSION OF OPERATIONS
72.	<p>(a) During migration of caribou, the Permittee shall not locate any operation so as to block or cause substantial diversion to 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

73.	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 RULSS, ACTS, REGS & BYLAWS
74.	<p>(a) The Permittee shall not, between May 15 and September 1, construct any camp, cache any fuel, or conduct any blasting within 10 kilometres of any "Designated Crossing" as outlined on the map certified by the Engineer as the "Caribou Protection Map" and annexed to this Land Use Permit.</p> <p>(b) The Permittee shall not, between May 15 and September 1, conduct any diamond drilling operation within 5 kilometres of any "Designated Crossing" as outlined on the map certified by the Engineer as the "Caribou Protection Map" and annexed to this Land Use Permit.</p>	DESIGNATED CARIBOU CROSSINGS
<b>ARCHAEOLOGICAL &amp; PALEONTOLOGICAL TERMS AND CONDITIONS</b>		
75.	<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
76.	The Permittee shall avoid any known or suspected archaeological and/or paleontological sites.	AVOIDANCE OF ARCHAEOLOGICAL AND/OR PALEONTOLOGICAL SITES
77.	The Permittee shall not remove, disturb, or displace any archaeological artifact or site, or any paleontological site or fossil.	DISTURBANCE OF ARCHAEOLOGICAL AND/OR PALEONTOLOGICAL SITE

<p>78.</p>	<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. The Permittee is required to immediately contact the Land Administration division at Aboriginal Affairs and Northern Development Canada at (867)975-4283 or (867)975-4285 or (867)975-4280 as well as the Department of Culture and Heritage at (867)934-2046 or (867)975-5500 or 1(866)934-2035.</p> <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; and</li> <li>(f) Site restoration.</li> </ul>	<p>CEASE OPERATION OF LAND USE ACTIVITY</p>
<p>79.</p>	<p>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.</p>	<p>KNOWLEDGE OF ARCHAEOLOGICAL AND PALEONTOLOGICAL TERMS AND CONDITIONS</p>