

January 19, 2018

Kelli Gillard
a/Director, Technical Services
Nunavut Impact Review Board
P.O Box 1360
Cambridge Bay, NU X0B 0C0

Sent VIA Email: info@nirb.ca

RE: Comment Request for Dunnedin Ventures’ “Kahuna Field Camp” project proposal (NIRB File No. 15EN028)

Dear Kelli Gillard,

On behalf of the Government of Nunavut (GN), I would like to thank the Nunavut Impact Review Board (NIRB) for the opportunity to provide comments on Dunnedin Ventures' "Kahuna Field Camp" project proposal.

The GN has reviewed the proposed project and provides our comments in the following appendix.

Should you have any concerns with our comments, please contact me by phone at 867-975-7830 or by email at ezell@gov.nu.ca.

Qujannamiik,

[Original Signed By]

Erika Zell
Avatiliriniq Coordinator
Government of Nunavut

GN-01: Archaeological resources	
Department	Culture and Heritage
Organization	Government of Nunavut
Subject/Topic	Archaeological resources
References	NIRB Notice of Screening; project location maps
CONCERNS	
<p>A search of the Nunavut Archaeological Site Database indicates that there are 10 recorded archaeological sites along or in the vicinity of the proposed overland winter trail. This however does not preclude the presence of unidentified sites and/or cultural features as to this day only an aerial archaeological assessment of some of the project components (the winter trail) has been conducted.</p> <p>The project amendment proposal puts forward the use of an overland winter trail to haul equipment and supplies from Rankin Inlet to a new proposed camp location approximately 40km northeast of Rankin Inlet and 50km southwest of Chesterfield Inlet. The camp facilities will support further mineral exploration on the Kahuna Property. A drilling, prospecting, and sampling program is also planned for 2018</p> <p>The Proponent has been proactive and an aerial archaeological survey of the overland winter trail has been carried out under archaeological Permit 2016-21A. Three sites are recorded along the trail and a cluster of sites is located in the northern section of the trail along the natural transitory corridor of the Josephine river system.</p> <p>Facilities at the proposed camp location include camp tents, helipad, core storage, fuel berms, and equipment and inventory staging areas. The exploitation of gravel and sand of the esker on which the camp is located is also anticipated. The proponent states on page 13 of the Project Amendment that the area is free of any archaeological sites and removed from existing heritage sites. To establish a context for this claim a ground reconnaissance is required. At this time, the presence of archaeological and historic sites remains unknown as the proposed camp location has not been the object of a ground reconnaissance. The flat, sandy esker on which the camp is proposed to be set up constitutes ideal grounds for look outs and the establishment of encampments, thus the potential for archaeological sites is significant at this location.</p> <p>The timeline of some components of the Project is a concern. The conducting of ground disturbance activities during the snow cover season (camp set up, use of winter road and drilling) might mask recorded and unrecorded archaeological sites. Three sites have been identified along the winter trail; the GN is requesting clarification as how the Proponent plans to avoid identified and potential archaeological sites during the snow-cover season.</p>	

SUGGESTIONS AND RECOMMENDATIONS

On the basis that no ground archaeological reconnaissance has been conducted in the area proposed for the temporary camp location and that ground disturbance are planned to occur, the Department of Culture and Heritage recommends that:

- The Proponent limits its winter camp installations to a minimum (tents set up on snow) as not to disturb the site until a ground archaeological assessment of the camp site and associated facilities is carried out.
- Prior to any ground disturbance activities, a thorough and systematic ground archaeological assessment of the camp location and associated facilities is conducted under snow free conditions.
- The archaeological sites located along the winter trail be identified and clearly marked as to be avoided during winter movements.
- Archaeological assessment of any areas proposed for testing, drilling, sampling or any other ground disturbance activities associated with prospecting outside the areas examined in 2016 is carried out in snow free conditions.
- All the above-mentioned activities require a Nunavut Archaeology Permit.

ADDITIONAL COMMENTS

All archaeological and palaeontological sites in Nunavut are protected by law. The applicant must understand that it is their responsibility to ensure that no heritage resource sites are disturbed in the course of their activities. No person shall alter, or otherwise disturb an archaeological site, or remove any artifact from an archaeological site. Moreover, the building of inuksuit is not recommended.

GN-02: Caribou	
Department	Environment
Organization	Government of Nunavut
Subject/Topic	Caribou Mitigation
References	15EN028-Environmental and Wildlife Management Plan
CONCERNS	
<p>The proponent's Environmental and Wildlife Management Plan states:</p> <p>“The company will implement Caribou Protection Measures by monitoring caribou activity approaching work areas and suspending exploration activity (blasting, drilling, overflights, vehicles, surveying, etc.) in the event cows and/or calves are observed, paying particular attention to the sensitive migration and calving period the between May 15 and July 15. In addition, no operations will be allowed to block or substantially divert migrating caribou herds (concentrations of 50 or more) and Dunnedin Ventures will not resume activities until caribou have safely moved out of the area.”</p> <p>The Proponent has utilized the dates as listed in the Keewatin Regional Land Use Plan. For the Proponent's reference, the GN currently identifies the period of June 9 to 22 as the calving period for the Qamanirjuaq herd.</p> <p>Further, the proposed project lies outside of the calving and post-calving ranges for caribou, however it does overlap with the summer and late-summer ranges of the Qamanirjuaq caribou herd. This period is important for caribou grazing and the building of fat reserves. Caribou are also moving through terrain more exposed to wind such as elevated areas, ridge lines, and windward shores of lakes due to insect harassment during this period. Additional disturbance may increase stress on individuals especially cows with new calves. The summer period lays between the dates of July 4 to August 22, and the late summer period lays between the dates of August 23 to September 16.</p>	
SUGGESTIONS AND RECOMMENDATIONS	
<p>The GN recommends that:</p> <ol style="list-style-type: none"> 1. The Proponent avoid operating in areas where caribou are likely to take refuge from insect harassment between July 4 and September 16. These areas include ridge tops, elevated areas, and the downwind shores of lakes. 2. The Proponent revise their mitigation plan to include enhanced mitigation for the purposes of not causing any diversion of movements, or disruption of feeding to groups of 25 or more caribou, as opposed to the Proponent's current threshold of 50 or more caribou. Enhanced 	

mitigation protocols should include phased shutdowns up to and including the cessation of work activities until caribou have passed.
ADDITIONAL COMMENTS
N/A

GN-03: Polar bears	
Department	Environment
Organization	Government of Nunavut
Subject/Topic	Polar Bear Interaction
References	15EN028-Environmental and Wildlife Management Plan
CONCERNS	
<p>The Proponent's environmental and wildlife management plan states:</p> <p>“All denning sites are to be avoided. If a den is located, its UTM coordinates are to be recorded so that the den site can be avoided. The coordinates are forwarded to the appropriate regulatory authorities. Any exploration activities will cease immediately.</p> <p>The following buffers are provided (by the Government of the Northwest Territories) for active dens between the den and all exploration activities between May 1 and July 15.</p> <p>Wolves 800m buffer Grizzly Bear 300m buffer Wolverine 2km buffer Fox 150m buffer”</p> <p>The Proponent's plan does not specify buffer distances for denning polar bears. Polar bears are of significant economic and cultural importance to Nunavut and disturbance during the sensitive denning period September 15 to April 15 may result in decreased cub survival and population health. The project application materials state that camp mobilization activities are anticipated to begin in late February, which is within the denning period.</p>	
SUGGESTIONS AND RECOMMENDATIONS	
<p>The GN recommends that the Proponent observe a 1km radius exclusion zone around any known polar bear den from September 15 to April 15 of each year, or until it is documented and reported that the family group has left the den.</p> <p>Interactions and sightings of polar bears should be reported to:</p> <p>Mike Harte GN Wildlife Deterrent Specialist 867-934-2065 MHarte@gov.nu.ca</p>	

And/or

John Neely
Coordinator, Operations and Regulations
867-975-7782
JNeely@gov.nu.ca

ADDITIONAL COMMENTS

N/A

GN-04: Spill kits	
Department	Environment
Organization	Government of Nunavut
Subject/Topic	Storage, Recovery, and Transport of Contaminated Soil and Snow
References	15EN028-Spill Prevention and Response Plan
CONCERNS	
<p>In the Proponent's Spill Prevention and Response Plan, it is indicated that in the event of a spill on soil, snow, or ice, contaminated material will be removed and placed in empty fuel drums for transport and disposal:</p> <ul style="list-style-type: none"> • For spills on soil the plan states: "Contaminated soil and saturated material will be placed in empty drums and shipped from the site for proper disposal. Contact regulatory agencies for approval before commencing removal of any soil, gravel, or vegetation." • For spills on snow and ice the plan states: "Shovel or scrape contaminated snow and ice into plastic buckets with lids or empty 205L drums." (15EN028-Spill Prevention and Response Plan, pp.13) <p>The Proponent is assuming that empty drums will be available at the time of the spill, and that they will be in adequate supply to hold the volume of contaminated material created. Damaged drums, or spills prior to the use of adequate number drums may leave the Proponent without sufficient means of containment.</p>	
SUGGESTIONS AND RECOMMENDATIONS	
<p>The GN requests the Proponent include containment bags in its spill kits in sufficient quantities to ensure adequate containment of any material that requires removal due to a spill. The GN recommends the Proponent have a minimum of enough bags for 30m³ of reclaimed material on site at all times.</p>	
ADDITIONAL COMMENTS	
N/A	