

NIRB ASSESSMENT AND DECISION

After a thorough assessment of all material provided to the Board (please see *Procedural History* and *Project Activities* in **Appendix A**), in accordance with the principles identified within Section 12.4.2 of the NLCA, the decision of the Board as per Section 12.4.4 of the NLCA is:

12.4.4 (a): the proposal may be processed without a review under Part 5 or 6; NIRB may recommend specific terms and conditions to be attached to any approval, reflecting the primary objectives set out in Section 12.2.5.

RECOMMENDED PROJECT-SPECIFIC TERMS AND CONDITIONS (pursuant to Section 12.4.4(a) of the NLCA)

The Board is recommending the following or similar project-specific terms and conditions be imposed upon the Proponent through all relevant legislation:

General

1. OZ Minerals (the Proponent) shall maintain a copy of the Project Terms and Conditions at the site of operation at all times.
2. The Proponent shall forward copies of all permits obtained and required for this project to the Nunavut Impact Review Board (NIRB) prior to the commencement of the project.
3. The Proponent shall operate in accordance with all commitments stated in correspondence provided to the Kitikmeot Inuit Association and the NIRB, including, but not limited, to the following:
 - a. Land Use Licence Application (June 2, 2008)
 - b. NIRB Part 1 form (July 18, 2008)
 - c. NIRB Part 2 form (August 14, 2008)
 - d. Emergency Response and Spill Contingency Plan (August 14, 2008)
4. The Proponent shall operate the site in accordance with all applicable Acts, Regulations and Guidelines.

Water

5. The Proponent shall not extract water from any fish-bearing waterbody unless the water intake hose is equipped with a screen of appropriate mesh size to ensure that there is no entrapment of fish. Small lakes or streams should not be used for water withdrawal.
6. The Proponent shall not use water, including constructing or disturbing any stream, lakebed or the banks of any definable water course unless approved by the Nunavut Water Board.

Waste

7. The Proponent shall keep all garbage and debris in bags placed in a covered metal container or equivalent until disposed of. All wastes must be kept inaccessible to wildlife at all times.
8. The Proponent shall ensure that no waste oil will be incinerated on site. All waste oil must be transported off site and disposed of at an approved facility.

Fuel and Chemical Storage

9. The Proponent 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.
10. The Proponent shall store all fuel and chemicals in such a manner that they are inaccessible to wildlife.
11. The Proponent shall report all spills of fuel, or other deleterious materials immediately to the 24 hour Spill Line at (867) 920-8130.
12. The Proponent shall use secondary containment or a surface liner (drip pans, fold-a-tanks, etc) at all refuelling stations.
13. The Proponent shall ensure that appropriate spill kits are located at every fuel cache and drill site and that drilling staff are trained to respond in the event of a spill.
14. The Proponent shall remove and treat hydrocarbon contaminated soils on site or transport them to an approved disposal site.
15. The Proponent shall ensure that all hazardous wastes, including waste oil, receive proper treatment and disposal at an approved facility.

Wildlife

16. The Proponent shall ensure that there is no damage to wildlife habitat in conducting this operation.
17. The Proponent shall not harass wildlife. This includes persistently worrying or chasing animals, or disturbing large groups of animals. The Proponent shall not hunt or fish, unless proper Nunavut authorizations have been acquired.
18. The Proponent shall restrict aircraft/helicopter activity related to the project to a minimum altitude of 610 metres above ground level unless there is a specific requirement for low-level flying, which does not disturb wildlife and migratory birds.
19. The Proponent shall ensure that aircraft maintain a vertical distance of 1000 metres and a horizontal distance of 1500 metres from any observed groups (colonies) of migratory birds.
20. The Proponent shall ensure that aircraft/helicopter do not, unless for emergency, touch-down in areas where wildlife are present.
21. The Proponent shall not disturb or destroy the nests or eggs of any birds. If nests are encountered and/or identified, the Proponent shall take precaution to avoid further interaction and or disturbance.
22. The Proponent shall cease activities that may interfere with calving of caribou or muskox, until the caribou or muskox have passed or left the area.
23. The Proponent shall not block or cause any diversion to caribou migration, and shall cease activities likely to interfere with migration such as airborne geophysics surveys, drilling or movement of equipment or personnel until such time as the caribou have passed.
24. The Proponent shall take all possible measures to avoid wildlife encounters. Any problem wildlife should be reported immediately to the Government of Nunavut, Department of Environment (Wildlife Officer, Allen Niptanatiak, kugwildlife2@qiniq.com).
25. The Proponent shall follow procedures outlined in the "Safety in Bear Country Manual". Information about the latest bear detection and deterrent techniques can be obtained from the

Department of Environment (Allen Niptanatiak, kugwildlife2@qiniq.com) or the Regional Biologist (Mathieu Dumond, mdumond@gov.nu.ca).

Physical Environment

26. The Proponent 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. The Proponent shall suspend overland travel of equipment or vehicles if rutting occurs.
27. The Proponent shall ensure that the land use area is kept clean and tidy at all times.

Drilling on Land

28. The Proponent shall not conduct any land based drilling or mechanized clearing within thirty-one (31) metres of the normal high water mark of a water body.
29. The Proponent shall not allow any drilling wastes to spread to the surrounding lands or water bodies.
30. The Proponent shall ensure all drill holes are backfilled or capped, and sumps properly closed out at the end of project.
31. If an artesian flow is encountered, the Proponent shall ensure the drill hole is immediately plugged and permanently sealed.
32. The Proponent shall ensure that all drill areas are constructed to facilitate minimizing the environmental footprint of the project area. Drill areas should be kept orderly with garbage removed daily to an approved disposal site.
33. The Proponent shall ensure that all sump/depression capacities are sufficient to accommodate the volume of waste water and any fines that are produced. The sumps must only be used for inert drilling fluids, and not any other materials or substances.
34. The Proponent shall not locate any sump within thirty-one (31) metres of the normal high water mark of any water body. Sumps and areas designated for waste disposal shall be sufficiently bermed or otherwise contained to ensure that substances do not enter a waterway unless otherwise authorized.

Drilling on Ice

35. If drilling on lake ice, the Proponent shall ensure that any return water is non-toxic, and will not result in an increase in total suspended solids in the immediate receiving waters.
36. The Proponent shall ensure that drill muds and additives are not used in connection with holes drilled through lake ice unless they are re-circulated or contained such that they do not enter the water, or are demonstrated to be non-toxic.
37. The Proponent shall ensure that all drill cuttings are removed from ice surfaces by the close of each day.

Camp

38. The Proponent shall not erect any buildings or store material on the surface ice of lakes or streams.

Restoration

39. The Proponent shall remove all garbage, fuel and equipment upon abandonment.
40. The Proponent shall complete all clean-up and restoration of the lands used prior to the end of each field season.

Other

41. The Proponent should, to the extent possible, hire local people and to consult with local residents regarding their activities in the region.

Monitoring and Reporting Requirements

In addition, the Board is recommending the following:

1. The Proponent shall update its Spill Contingency Plan to include the following:
 - a. Up to date emergency contact numbers as follows:
 - i. Government of Nunavut-Department of Environment, 867-975-7700
 - ii. Manager of Pollution Control and Air Quality, 867-975-7748
 - iii. Spill Report Line (24 hour), 867-920-8130
 - iv. Environment Canada 24 hour emergency duty officer, 867-766-3737
 - b. Outline disposal/treatment techniques for contaminant materials such as soils and include location of disposal sites approved to accept wastes, means of storage prior to disposal and other approvals required.
 - c. Include NWT-Nunavut spill report form.
2. The Proponent shall maintain a record of wildlife observations while operating within the project area. The reports should include locations (i.e., latitude and longitude), species, number of animals, a description of the animal activity, and a description of the gender and age of animals if possible. Prior to conducting project activities, the Proponent should map the location of any sensitive wildlife sites such as denning sites, calving areas, caribou crossing sites, and raptor nests in the project area, and identify the timing of critical life history events (i.e., calving, mating, denning and nesting). Additionally, the Proponent should indicate potential impacts from the project, and ensure that operational activities are managed and modified to avoid impacts on wildlife and sensitive sites.

A copy of this wildlife record or report must be submitted annually at the end of the operational season to the following Government of Nunavut contacts:

- a. Wildlife Manager – Dustin Fredlund, 867-982-7441 (dfredlund@gov.nu.ca)
- b. Conservation Officer, Kitikmeot Region – Allen Niptanatiak, 867-982-7451 (kugwildlife2@qiniq.com)
- c. Regional Biologist – Mathieu Dumond, 867-982-7444 (mdumond@gov.nu.ca)

Other NIRB Concerns and Recommendations

In addition to the project-specific terms and conditions, the Board is recommending the following:

The Proponent (OZ Minerals) has indicated in their project application that the High Lake Camp would be used as a base for the drilling exploration project. The Proponent is reminded that the activities at the High Lake Camp was previously screened as part of the High Lake Re-Licensing application (NIRB File No. 06EN048) and the terms and conditions from the Screening Decision Report (August 11, 2006) would still apply for the High Lake Camp. In addition, the following is recommended:

1. Cease incineration of sewage waste and use more appropriate disposal methods.
2. Consider use of alternatives to waste disposal instead of incineration, however, if incineration is the only alternative available, the following is suggested:
 - a. Implement a comprehensive waste management strategy

- b. Compliance with the *Canadian Wide Standards for Dioxins and Furans*, and the *Canadian Wide Standards for Mercury*

It is also recommended to the Proponent that all field operation staff be made aware of the Proponent's commitments and provided with appropriate advice/training on how to implement the mitigation measures.

In addition it is recommended that:

1. All Authorizing Agencies shall notify the NIRB of any changes in operating plans or conditions associated with this project prior to any such change.
2. The Kitikmeot Inuit Association impose strict mitigation measures and/or conditions upon the Proponent pursuant to the Inuit Owned Lands License in regard to fuel and chemical storage, drilling, water conditions, ground disturbance and wildlife on Inuit owned land.

Regulatory Requirements

The Proponent is also advised that the following legislation may apply to the project:

1. The Proponent is advised that the *Canadian Environmental Protection Act* (<http://laws.justice.gc.ca/en/C-15.31/>) lists calcium chloride (CaCl) as a toxic substance. The Proponent should assess alternatives (including biodegradable and non-toxic) to drill additives prior to the use of CaCl and try to avoid the use of CaCl.
2. The *Fisheries Act* (<http://laws.justice.gc.ca/en/showtdm/cs/F-14///en>).
3. The *Nunavut Waters and Nunavut Surface Rights Tribunal Act* (<http://www.canlii.org/ca/sta/n-28.8/whole.html>).
4. The *Migratory Birds Convention Act* and *Migratory Birds Regulations* (<http://laws.justice.gc.ca/en/showtdm/cs/M-7.01>).
5. The *Species at Risk Act* (<http://laws.justice.gc.ca/en/showtdm/cs/S-15.3>). Attached in **Appendix B** is a list of Species at Risk in Nunavut.
6. The *Nunavut Wildlife Act* which contains provisions to protect and conserve wildlife and wildlife habitat, including specific protection measures for wildlife habitat and species at risk.
7. The *Nunavut Act* (<http://laws.justice.gc.ca/en/showtdm/cs/N-28.6>). The Proponent must comply with the proposed terms and conditions listed in the attached **Appendix C**.
8. The *Transportation of Dangerous Goods Regulations*, *Transportation of Dangerous Goods Act* (<http://www.tc.gc.ca/tdg/menu.htm>), and the *Environmental Protection Act* (<http://laws.justice.gc.ca/en/C-15.31/text.html>) The Proponent must ensure that proper shipping documents accompany all movements of dangerous goods. The Proponent must register with the GN-DOE Manager of Pollution Control and Air Quality at 867-975-7748.
9. The *Aeronautics Act* (<http://laws.justice.gc.ca/en/A-2/>).

Validity of Land Claims Agreement

Section 2.12.2

Where there is any inconsistency or conflict between any federal, territorial and local government laws, and the Agreement, the Agreement shall prevail to the extent of the inconsistency or conflict.

Dated September 9, 2008 at Sanikiluaq, NU.



Lucassie Arragutainaq, A/Chair



Appendix A

Procedural History and Project Activities

Procedural History

On June 11, 2008 the Nunavut Impact Review Board (NIRB or Board) received a land license amendment application from the Kitikmeot Inuit Association (KIA) for OZ Minerals' (previously known as Zinifex Canada Inc.) "Canoe Lake Exploration" project proposal. The amendment to Land Use License KTL108C002 would allow for diamond drilling on Inuit Owned Lands (parcels CO-26 and CO-23). The NIRB has assigned this project proposal file number 08EN067. No conformity determination was required from the Nunavut Planning Commission for this file because the proposed project is located within the Kitikmeot Region, for which there is currently no approved land use plan.

On June 16 and July 3, 2008 the NIRB requested additional information which was required to conduct the environmental screening of OZ Minerals' "Canoe Lake Exploration" project proposal. The NIRB requested this information be provided by June 30, 2008. The proponent requested additional time on July 10, 2008 to submit the information, and a partial submission was received on July 18, 2008. The NIRB again requested the remaining outstanding information from the proponent on July 18, 2008.

On July 21, 2008 an extension was requested to the Minister of Indian and Northern Affairs Canada (INAC) to complete the screening of the project proposal. On August 7, 2008 the application, without the additionally-requested information, was distributed to the communities of Bathurst Inlet, Kugluktuk and Cambridge Bay, and to interested Federal and Territorial Agencies, and Inuit Organizations. The NIRB requested that interested Parties review the application and provide the NIRB with comments by August 28, 2008 regarding:

- Whether the project proposal contains sufficient information to provide adequate comments;
- Whether the project proposal is likely to arouse significant public concern; and if so, why;
- Whether the project proposal is likely to cause significant adverse eco-systemic and socio-economic effects; and if so, why;
- Whether the project is of a type where the potential adverse effects are highly predictable and mitigable with known technology, (please provide any recommended mitigation measures); and
- Any matter of importance to the Party related to the project proposal.

On August 14, 2008 the NIRB received the remainder of the requested information from OZ Minerals and notified the distribution list accordingly.

On or before August 28, 2008 the NIRB received comments from the following interested Parties (see Comments and Concerns):

- Environment Canada
- Government of Nunavut, Department of Environment
- Transport Canada
- Kitikmeot Inuit Association

All comments provided to NIRB regarding this project proposal can be viewed on NIRB's ftp-site, at the following location: <http://ftp.nirb.ca/SCREENINGS/COMPLETED%20SCREENINGS/>

Project Activities

The Proponent intends to conduct further exploratory drilling for base metals in the Canoe Lake and surrounding areas. The project is located in the Kitikmeot region, approximately 100 km east of Bathurst Inlet and 180 km northeast of Kugluktuk. The proposed project activities would occur from August 2008 to October 2008. Drilling would resume in the spring of 2009 and continue through the summer.

The proposed project activities include:

- Diamond drilling of potential base metal showings in Canoe Lake and surrounding areas
- Drilling on land and potentially on lake ice
- Helicopter use to transport crew and equipment
- Potential movement of equipment and crew by snowmachine during the spring months
- Installation of temporary survival and equipment shacks
- Staking and prospecting
- Geophysical surveys
- Water use for drilling activities
- Temporary fuel storage at drill sites (1or 2 diesel fuel drums,1or 2 20 pound propane bottles at each drill site)
- Use of High Lake Camp site

Appendix B 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.

- 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.
- 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.
- 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) to get the current status of a species.

Updated: January 3, 2007

Species at Risk	COSEWIC Designation	Schedule of SARA	Government Organization with Lead Management Responsibility ¹
Eskimo Curlew	Endangered	Schedule 1	EC
Ivory Gull	Endangered ²	Schedule 1	EC
Peregrine Falcon (subspecies anatum)	Threatened	Schedule 1	Government of Nunavut
Ross's Gull	Threatened	Schedule 1	EC
Harlequin Duck (Eastern population)	Special Concern	Schedule 1	EC
Felt-leaf Willow	Special Concern	Schedule 1	Government of Nunavut
Peregrine Falcon (subspecies tundrius)	Special Concern	Schedule 3	Government of Nunavut
Short-eared Owl	Special Concern	Schedule 3	Government of Nunavut
Fourhorn Sculpin	Special Concern	Schedule 3	DFO
Peary Caribou	Endangered ³	Pending	Government of Nunavut
Beluga Whale (Eastern Hudson Bay population)	Endangered	Pending	DFO
Beluga Whale (Cumberland Sound population)	Threatened	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 (Hudson Bay-Foxe Basin population)	Threatened ⁴	Pending	DFO
Bowhead Whale (Davis Strait-Baffin Bay population)	Threatened ⁴	Pending	DFO
Porsild's Bryum	Threatened	Pending	Government of Nunavut
Atlantic Walrus	Special Concern	Pending	DFO
Narwhal	Special Concern	Pending	DFO
Rusty Blackbird	Special Concern	Pending	Government of Nunavut
Barren-ground Caribou (Dolphin and Union population)	Special Concern ³	Pending	Government of Nunavut
Grizzly Bear	Special Concern	Pending	Government of Nunavut
Polar Bear	Special Concern	Pending	Government of Nunavut
Wolverine (Western Population)	Special Concern	Pending	Government of Nunavut

¹ Environment Canada has a national role to play in the conservation and recovery of Species at Risk in Canada, as well as responsibility for management of birds described in the Migratory Birds Convention Act (MBCA). Day-to-day management of terrestrial species not covered in the MBCA is the responsibility of the Territorial Government. Populations that exist in National Parks are also managed under the authority of the Parks Canada Agency. EC = Environment Canada, DFO = Department of Fisheries and Oceans

² Designated as Endangered by COSEWIC in April 2006 and it is expected that the category of concern in SARA will also be changed from Special Concern to Endangered.

³ Peary Caribou was split into three separate populations in 1991: Banks Island (Endangered), High Arctic (Endangered) and Low Arctic (Threatened) populations. The Low Arctic population also included the Barren-ground Caribou - Dolphin and Union population. In May 2004 all three population designations were de-activated, and the Peary Caribou, Rangifer tarandus pearyi, was assessed separately from the Barren-ground Caribou (Dolphin and Union population), Rangifer tarandus groenlandicus. The subspecies pearyi is composed of a portion of the former "Low Arctic population" and all of the former "High Arctic" and "Banks Island" populations, and it was designated Endangered in May 2004. Although SARA lists Peary Caribou on Schedule 2 as three separate populations, the most current designation is the COSEWIC designation of the subspecies pearyi as Endangered.

⁴ The "Eastern and Western Arctic populations" of Bowhead Whale were given a single designation of Endangered in April 1980 by COSEWIC. These were split into two populations to allow separate designations in April 1986. The Eastern population was not re-evaluated in April 1986, but retained the Endangered status of the original "Eastern and Western Arctic populations". The Eastern Arctic population was further split into two populations (Hudson Bay-Foxe Basin population and Davis Strait-Baffin Bay population) in May 2005, and both these populations were designated as Threatened. Both these populations are under consideration for addition to Schedule 1. Although SARA lists the Eastern Arctic population as Endangered (Schedule 2), the most current designation is the COSEWIC designations of the Hudson Bay-Foxe Basin and Davis Strait-Baffin Bay populations as Threatened.

Appendix C
Archaeological and Palaeontological Resources Terms and Conditions for Land Use Permit Holders



BACKGROUND: Archaeology

As stated in Article 33 of the Nunavut Land Claims Agreement:

The archaeological record of the Inuit of Nunavut is a record of Inuit use and occupancy of lands and resources through time. The evidence associated with their use and occupancy represents a cultural, historical and ethnographic heritage of Inuit society and, as such, Government recognizes that Inuit have a special relationship with such evidence, which shall be expressed in terms of special rights and responsibilities. [33.2.1]

The archaeological record of Nunavut is of spiritual, cultural, religious and educational importance to Inuit. Accordingly, the identification, protection and conservation of archaeological sites and specimens and the interpretation of the archaeological record is of primary importance to Inuit and their involvement is both desirable and necessary. [33.2.2]

In recognition of the cultural, spiritual and religious importance of certain areas in Nunavut to Inuit, Inuit have special rights and interests in these areas as defined by Article 33 of the Nunavut Land Claims Agreement. [33.2.5]

BACKGROUND: Palaeontology

Under the Nunavut Act¹, the federal Government can make regulations for the protection, care and preservation of palaeontological sites and specimens in Nunavut. Under the *Nunavut Archaeological and Palaeontological Sites Regulations*², it is illegal to alter or disturb any palaeontological site in Nunavut unless permission is first granted through the permitting process.

¹ s. 51(1)

² P.C. 2001-1111 14 June, 2001

Definitions

As defined in the *Nunavut Archaeological and Palaeontological Sites Regulations*, the following definitions apply:

“archaeological site” means a place where an archaeological artifact is found.

“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.

“palaeontological site” means a site where a fossil is found.

“fossil” includes:

- (a) natural casts
- (b) preserved tracks, coprolites and plant remains; and
- (c) the preserved shells and exoskeletons of invertebrates and the eggs, teeth and bones of vertebrates.

Terms and Conditions

- 1) The permittee shall not operate any vehicle over a known or suspected archaeological or palaeontological site.
- 2) The permittee shall not remove, disturb, or displace any archaeological artifact or site, or any fossil or palaeontological site.
- 3) The permittee shall immediately contact the Department of Culture, Language, Elders and Youth (867) 934-2046 or (867) 975-5500 or 1 (866) 934-2035 should an archaeological site or specimen, or a palaeontological site or fossil be encountered or disturbed by any land use activity.
- 4) The permittee shall immediately cease any activity that disturbs an archaeological or palaeontological site encountered during the course of a land use operation, until permitted to proceed with the authorization of the Department of Culture, Language, Elders and Youth, Government of Nunavut.
- 5) The permittee shall follow the direction of the Department of Culture, Language, Elders and Youth and DIAND in restoring disturbed archaeological or palaeontological sites to an acceptable condition.
- 6) The permittee shall provide all information requested by the Department of Culture, Language, Elders and Youth concerning all archaeological sites or artifacts and all palaeontological sites and fossils encountered in the course of any land use activity.
- 7) The permittee shall make best efforts to ensure that all persons working under authority of the permit are aware of these conditions concerning archaeological sites and artifacts, and palaeontological sites and fossils.

- 8) The permittee shall avoid the known archaeological and/or palaeontological sites listed in Attachment 1.
- 9) The permittee shall have an archaeologist or palaeontologist perform the following functions, as required by the Department of Culture, Language, Elders and Youth:
- a. survey
 - b. inventory and documentation of the archaeological or palaeontological resources of the land use area
 - c. assessment of potential for damage to archaeological or palaeontological sites
 - d. mitigation
 - e. marking boundaries of archaeological or palaeontological sites
 - f. site restoration

The Department of Culture, Language, Elders and Youth shall authorize by way of a Nunavut Archaeologist Permit or a Nunavut Palaeontologist Permit, all procedures subsumed under the above operations.