



**SCREENING DECISION REPORT**  
**NIRB FILE NO.: 08EA041**

AANDC File No.: N2012C0013  
QIA File No.: Q08L3C03  
NWB File No.: 2BE-RBP0811

May 23, 2012

The Honourable John Duncan  
Minister of Aboriginal Affairs and Northern Development  
Aboriginal Affairs and Northern Development Canada  
Executive Offices  
10 Wellington ST.  
Gatineau, QC K1A 0H4

Via email: [Duncan.j@parl.gc.ca](mailto:Duncan.j@parl.gc.ca) and [minister@aandc.gc.ca](mailto:minister@aandc.gc.ca)

**Re: Screening Decision for Advanced Explorations Inc.'s New AANDC Land Use Permit for its "Roche Bay Magnetite" project, South Baffin Region, Additional Application Terms and Conditions, 08EA041**

Dear Mr. John Duncan:

The primary objectives of the Nunavut Impact Review Board (NIRB) are set out in section 12.2.5 of the Nunavut Land Claims Agreement (NLCA) as follows:

*"In carrying out its functions, the primary objectives of NIRB shall be at all times to protect and promote the existing and future well-being of the residents and communities of the Nunavut Settlement Area, and to protect the ecosystemic integrity of the Nunavut Settlement Area. NIRB shall take into account the well-being of the residents of Canada outside the Nunavut Settlement Area."*

Section 12.4.3 of the NLCA states that:

*"Any application for a component or activity of a project proposal that has been permitted to proceed in accordance with these provisions shall be exempt from the requirement for screening by NIRB unless:*

- (a) such component or activity was not part of the original project proposal; or*
- (b) its inclusion would significantly modify the project."*

## NIRB ASSESSMENT AND DECISION

The NIRB has completed a review of Advanced Explorations Inc.'s (AEI) request to Aboriginal Affairs and Northern Development Canada (AANDC) for a new Land Use Permit (N2012C0013) for their "Roche Bay Magnetite" project.

After a thorough assessment of the project proposal, the new Land Use Permit application information and the comments received (please see *Procedural History* and *Project Activities* in **Appendix A**), in accordance with Section 12.4.3 of the NLCA, the Board has determined that this request will result in a change to the original scope of the project. Therefore, the NIRB is re-issuing the recommended project-specific terms and conditions contained in the May 16, 2008 Screening Decision, NIRB file No.: 08EA041 in addition to new terms and conditions which are designed to mitigate any potential impacts to the environment as per Section 12.4.4(a) of the NLCA.

### ***PREVIOUSLY APPROVED*** PROJECT-SPECIFIC TERMS AND CONDITIONS

The following terms and conditions were previously approved by the NIRB for file **08EA041** in a Screening Decision Report dated May 16, 2008 and is available from NIRB's ftp site using the following link

<http://ftp.nirb.ca/01-SCREENINGS/COMPLETED%20SCREENINGS/> :

#### **General**

1. Advanced Explorations Inc. (the Proponent) shall maintain a copy of the Screening Decision Report issued by the NIRB at the site of operation at all times and shall ensure that all employees/contractors associated with the project are aware of the terms and conditions therein.
2. The Proponent shall forward copies of all authorizations obtained and required for this project to the Nunavut Impact Review Board (NIRB) prior to the commencement of the project. This is to include the most recently amended versions of the following:
  - a. Qikiqtani Inuit Association Land Use License No.'s Q07L3C04, Q06L3C07 and any newly issued permit for fuel transport from Hall Beach;
  - b. Indian and Northern Affairs Canada Land Use Permit No.'s N2007C0033, N2006J0018;
  - c. Nunavut Water Board Water License No. 2BE-RBP0608.
3. The Proponent shall notify the NIRB of any changes in operating plans or conditions associated with this project prior to any such change.
4. The Proponent shall operate in accordance with all commitments stated in correspondence provided to NIRB including but not limited to the following:
  - a. QIA land use permit amendment application, dated February 25, 2008;
  - b. Letter to Mr. Jeff Holwell re: Amendment to Land Use Permit N2007C0033, dated February 25, 2008;

- c. Wildlife Monitoring and Mitigation Plan, dated March 2008;
  - d. Abandonment and Restoration Plan, revised April 2007.
  - e. Oil and Hazardous Material Spill Contingency Plan, revised January 21, 2008
5. The Proponent shall operate the site in accordance with all applicable Acts, Regulations and Guidelines.

## **Water**

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.
7. The Proponent shall not deposit or permit the deposit of sediment into any water body.
8. It is recommended the Proponent seek a letter of advice from Fisheries and Oceans Canada (DFO) regarding its proposed operational procedures for drilling on sea ice. Contact Amy Liu at (867) 979-8007 or [liua@dfo-mpo.gc.ca](mailto:liua@dfo-mpo.gc.ca).
9. The Proponent shall not move any equipment or vehicles over lake ice or sea ice without first testing the thickness of the ice to ensure it is capable of fully supporting the equipment or vehicles.
10. Drilling additives or mud shall not be used in connection with holes drilled through lake ice or sea ice unless they are re-circulated or contained such that they do not enter the water, or are demonstrated to be non-toxic.
11. The *Canadian Environmental Protection Act* lists calcium chloride (CaCl) as a toxic substance. The Proponent shall therefore ensure that if CaCl is used as a drill additive, all sumps containing CaCl are properly constructed and located in such a manner to ensure that the contents will not enter any water body.

## **Waste**

12. The Proponent shall apply appropriate technologies to ensure the complete combustion of wastes. The use of a dual chamber, forced-air incinerator is recommended. In addition, the Proponent is encouraged to implement a comprehensive waste management strategy (especially waste segregation) to reduce and control the volumes of waste produced, transported and disposed of.
13. The Proponent shall incinerate all combustible wastes daily, and remove the ash from incineration activities and non-combustible wastes from the project site to an approved facility for disposal.
14. The Proponent shall not burn or incinerate hazardous wastes and shall ensure that all hazardous material is managed, removed from site and disposed in accordance with the *Environmental Protection Act (EPA)* and the Nunavut Hazardous Waste Disposal Manual.
15. The Proponent shall ensure that no waste oil will be incinerated on site. All waste oil will be transported off site and disposed of at an approved facility. A waste manifest must accompany the shipment of all waste oil and the proponent must register with the GN-DoE. Contact Robert Eno at [reno@gov.nu.ca](mailto:reno@gov.nu.ca) or (867) 975-7748 to obtain a manifest if hazardous waste is generated during project activities.

16. The Proponent shall keep all garbage and debris in bags placed in a covered metal container or equivalent until disposed of. All wastes should be kept inaccessible to wildlife at all times.
17. The Proponent is advised that if artesian flow is encountered, the drill holes must be immediately plugged and permanently sealed.

### **Fuel and Chemical Storage**

18. The Proponent shall revise its Oil and Hazardous Material Spill Contingency Plan to reflect procedures and protocols for recently amended activities, including bulk fuel transport via skid from Hall beach and geotechnical drilling activities on sea ice. A copy of the revised plan must be submitted to the Qikiqtani Inuit Association (QIA), Indian and Northern Affairs Canada (INAC) and the NIRB prior to commencement of these activities in 2008.
19. The Proponent shall consult and implement the recommendations found in the 2003 CCME Guidance Document PN 1326 entitled "Environmental Code of Practice for Above Ground and Underground Storage Tank Systems containing Petroleum Product and Allied Petroleum Products".
20. The Proponent shall locate all fuel and other hazardous materials a minimum of thirty-one (31) metres above the high water mark of any water body and in such a manner as to prevent their release into the environment.
21. The Proponent shall implement secondary containment systems of adequate size and volume (110% of storage volume) for all fuel and hazardous chemical storage, including storage of CaCl.
22. The Proponent shall ensure appropriate spill response equipment and clean up materials are on hand during any transfer of fuel or hazardous materials. The Proponent shall ensure that all staff on site are trained in the proper use of these materials and equipment.
23. The Proponent shall ensure that all drum cache locations are clearly defined and marked so that they remain visible during the winter months.
24. The Proponent shall store all chemicals in such a manner that they are inaccessible to wildlife.
25. The Proponent shall report all spills of fuel, or other deleterious materials immediately to the 24 hour Spill Line at (867) 920-8130.

### **Wildlife**

26. The Proponent shall ensure that there is no damage to wildlife habitat in conducting this operation. Deliberate feeding and harassment of any wildlife is absolutely prohibited. The Proponent shall ensure that there is no hunting or fishing by employees or contractors of the company, unless proper Nunavut authorizations have been acquired.
27. The Proponent shall ensure that the route used for fuel transport from Hall Beach avoids known environmentally sensitive areas (e.g. denning, nesting, etc.) by a minimum of 250 metres.

28. The Proponent shall restrict aircraft/helicopter activity related to the project to a minimum altitude of 610 m above ground level in places where there are occurrences of wildlife, unless there is a specific requirement for low-level flying.
29. The Proponent shall ensure that aircraft maintain a vertical distance of 1000 meters and a horizontal distance of 1500 meters from any observed groups (colonies) of migratory birds.
30. The Proponent shall ensure that aircraft/helicopter do not, unless for emergency, touch-down in areas where wildlife are present.
31. The Proponent shall avoid raptor nesting sites and concentrations of nesting or molting waterfowl by aircraft/helicopter at all times and ensure that there is minimal disturbance to any nesting birds, migratory birds and wildlife in the area.
32. If nests containing eggs or young are encountered, the Proponent should avoid these areas until nesting is complete and the young have left the nest.
33. The Proponent shall immediately cease activities that may interfere with migration or calving of caribou or muskox, until the caribou or muskox have passed or left the area.
34. The Proponent shall follow procedures outlined in the "Safety in Bear Country Manual", and should contact the Regional Biologist or the Wildlife manager for information and advice on measures which should be taken to minimize the possibility of conflicts/interactions with bears. Consideration should be given to setting up an electric fence around the camp.
35. The Proponent is encouraged to document wildlife observations (i.e. bear, caribou, fox, wolf and raptor) within the project area and report these observations annually to the following Department of Environment contacts:
  - a. Seeglook Akeeagok, Regional Manager, Wildlife (867) 975-7800, [sakeeagok@gov.nu.ca](mailto:sakeeagok@gov.nu.ca)
  - b. Debbie Jenkins, (867) 899-8876, [pondbiologist@qiniq.com](mailto:pondbiologist@qiniq.com)

### **Physical Environment**

36. 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 if rutting or gouging occurs.
37. The Proponent shall ensure that all stream crossings are located to minimize approach grades and avoid bank disturbance.
38. When necessary, the Proponent shall use water for dust suppression in order to maintain ambient air quality without causing water to pool or runoff.
39. The Proponent shall not remove any material from below the ordinary high water mark of any lake or stream.
40. It is recommended the Proponent ensure incineration emissions comply with the standards outlined in the *Canada-Wide Standards for Dioxins and Furans* and the *Canada-Wide Standards for Mercury Emissions*.

## Other

41. It is recommended that the Proponent, to the extent possible, hire local people and consult with local residents regarding their activities in the region, particularly the chosen route for fuel transport.
42. It is recommended that the Proponent takes steps to prevent use of the winter road from Hall Beach to the project site by any unauthorized persons.

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

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

## Road/Trail

43. The Proponent shall ensure that bank disturbances are avoided, and no mechanized clearing carried out immediately adjacent to any watercourse and all disturbances on slopes prone to natural erosion shall be avoided and alternative locations utilized.
44. The Proponent shall implement sediment and erosion control measures prior to, and during operations to prevent sediment entry into the water.
45. The Proponent shall suspend overland travel of equipment or vehicles if rutting occurs.
46. The Proponent shall ensure that stream crossings are approved of prior to construction and are maintained during operations.
47. All construction, maintenance, and other road vehicles must be fitted with standard and well-maintained noise suppression devices and engine idling is to be minimized.
48. The Proponent shall use water or other non-toxic and biodegradable additives for dust suppression as necessary to maintain ambient air quality without causing water to pool or runoff.
49. The Proponent shall implement a clean-up and reclamation stabilization plan which should include, but is not limited to, re-vegetation and/or stabilization of exposed soil in road bed.

### MONITORING AND REPORTING REQUIREMENTS

In addition, the Board is recommending the following:

## Annual Report

1. The Proponent shall submit a comprehensive annual report with copies provided to the NIRB by March 31 of each year of permitted activities. The annual report must contain, but is not limited to, the following information:
  - a. A summary of activities undertaken for the year, including a detailed description of All-Terrain Vehicle (ATV) trail upgrades/maintenance and ongoing need for and availability of, granular materials needed for trail and airstrip maintenance;

- b. A work plan for the following year;
- c. An updated map showing ATV trails that have been upgraded, maintained, and were in use during field season;
- d. A summary of monitoring results based on the Mitigation and Monitoring Plan;
- e. A summary of the Annual wildlife observations record or report;
- f. Details regarding steps taken to ensure all staff are properly trained and aware of the proponent's obligations and commitments;
- g. A summary of local hires and initiatives; and
- h. Site photos.

### **Fuel and Chemical Storage**

- 2. The Proponent shall update its Spill Contingency Plan to include the up to date emergency contact numbers for the Government of Nunavut-Department of Environment (867-975-4644) and the Manager of Pollution Control and Air Quality (867-975-7748).
- 3. The Proponent shall implement the recommendations found in the 2003 CCME Guidance Document PN 1326 entitled "Environmental Code of Practice for Above Ground and Underground Storage Tank Systems containing Petroleum Product and Allied Petroleum Products".

### **Transport of Waste/Dangerous Goods**

- 4. The Proponent shall ensure that a waste manifest accompanies the shipment of all waste oil/grease and is registered with the Government of Nunavut Department of Environment (GN-DoE). Contact the Manager of Pollution Control and Air Quality at (867) 975-7748 to obtain a manifest if hazardous waste will be generated during project activities.
- 5. The Proponent shall ensure that an export manifest or the appropriate transportation of dangerous goods (TDG) documentation accompany all potential hazardous samples and/or materials that are transported off site.

## **OTHER NIRB CONCERNS AND RECOMMENDATIONS**

In addition to the project-specific terms and conditions, the Board has previously recommended the following:

### **Indian and Northern Affairs Canada**

Indian and Northern Affairs Canada (INAC) impose mitigation measures, conditions and monitoring requirements pursuant to the Federal Land Use Permit, which require the Proponent to respect the sensitivities and importance of the area. These mitigation measures, conditions and monitoring requirements should be in regard to the location and area; type, location, capacity and operation of facilities; use, storage, handling and disposal of chemical or toxic material; wildlife and fisheries habitat; and petroleum fuel storage.

INAC should also consider the importance of conducting regular Land Use Inspections, pursuant to the authority of the Federal Land Use Permit, while the project is in operation. The Land Use Inspections should be focused on ensuring the Proponent is in compliance with the conditions imposed through the Federal Land Use Permit.

### *Oikiqtani Inuit Association (QIA)*

The QIA 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.

The Board is currently also recommending the following:

#### **Bear and Carnivore Safety**

1. The Proponent review the bear/carnivore detection and deterrent techniques outlined in “Safety in Grizzly and Black Bear Country” which can be down-loaded from this link: [http://www.enr.gov.nt.ca/live/documents/content/Bear\\_Safety.pdf](http://www.enr.gov.nt.ca/live/documents/content/Bear_Safety.pdf). Note that some recommendations in this manual are also relevant to polar bears. There is a DVD about polar bears and safety available from Nunavut Parks at the following link <http://www.nunavutparks.com/english/visitor-information/suggested-resources.html> and a “Safety in Polar Bear Country” pamphlet from Parks Canada at the following link <http://www.pc.gc.ca/eng/pn-np/nu/auyuittuq/visit/visit6/d/i.aspx>.
2. Any problem wildlife or any interaction with carnivores should be reported immediately to the local Government of Nunavut, Department of Environment Conservation Office (Conservation Officer, Andrew Qaunaq, phone: (867) 928-8507, email: [aqaunaq@gov.nu.ca](mailto:aqaunaq@gov.nu.ca)).

#### **Roads/Trails**

3. If culverts are constructed, the Proponent follow the mitigation measures outlined in Fisheries and Oceans Canada’s (DFO) Operational Statement for Culvert Maintenance, available at the following internet address: <http://www.dfo-mpo.gc.ca/regions/central/habitat/os-eo/provinces-territoires-territoires/nu/index-eng.htm>.
4. Cutting or filling of crossing approaches below the high water mark will require prior review and approval by Fisheries and Oceans Canada - Fish Habitat Management Branch (DFO-FHM).

#### **Change in Project Scope**

5. All Authorizing Agencies shall notify the NIRB of any changes in operating plans or conditions associated with this project prior to any such change.

### REGULATORY REQUIREMENTS

The Proponent has been previously advised that the following legislation may apply to the project:

1. The Proponent shall ensure compliance with the *Fisheries Act* (<http://laws.justice.gc.ca/en/showtdm/cs/F-14//en>). Section 35(1) of the *Fisheries Act* specifies that unless authorized by federal regulation, no person shall carry on any work or undertaking that results in the harmful alteration, disruption or destruction of fish habitat.



Section 36(3) of the *Fisheries Act* specifies that unless authorized by federal regulation, no person shall deposit or permit the deposit of a deleterious substance in any type in water frequented by fish or in any place under any conditions where the deleterious substance may enter such a water body.

2. The Proponent shall ensure compliance with the *Nunavut Waters and Nunavut Surface Rights Tribunal Act* which states that “no person shall use, or permit the use of, waters in Nunavut except in accordance with the conditions of a licence,” and “no person shall deposit or permit the deposit of waste (a) in waters in Nunavut; or (b) in any other place in Nunavut under conditions in which the waste, or any other waste that results from the deposit of that waste, may enter waters in Nunavut” (<http://www.canlii.org/ca/sta/n-28.8/whole.html>).
3. The *Migratory Birds Convention Act* and *Migratory Birds Regulations* which state that no person disturb or destroy the nests or eggs of migratory birds, and that no person shall deposit or permit to be deposited oil, oil wastes or any other substance harmful to migratory birds in any waters or any area frequented by migratory birds (<http://laws.justice.gc.ca/en/showtdm/cs/M-7.01>)
4. 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. The Proponent should consult the Species at Risk Public Registry (<http://www.sararegistry.gc.ca/>) to identify any Species at Risk within the project location. Further, the Proponent shall develop monitoring plans for each relevant Species at Risk in accordance with any applicable status reports, recovery strategies, action plans, and management plans posted on the Species at Risk Public Registry and in consultation with the Government Organization with Primary Management Responsibility. Monitoring plans should record the locations and frequency of observing species of special concern and note any actions taken to avoid contact or cause disturbance to the species, its residence, or its critical habitat.
5. The *Nunavut Act* (<http://laws.justice.gc.ca/en/showtdm/cs/N-28.6>) which requires that no person alter or disturb any archaeological or palaeontological sites in Nunavut unless permission is first granted through the permitting process. If any archaeological or palaeontological sites are found they should remain undisturbed and their location should be reported to the Government of Nunavut Department of Culture, Language, Elders and Youth. The Proponent must comply with the proposed terms and conditions listed in the attached **Appendix C**.
6. 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>) which present the requirements for the handling, storing, managing and transportation of dangerous goods, including hazardous wastes, fuel and contaminated material. The Proponent must ensure that proper shipping documents accompany all movements of dangerous goods. The Proponent must register with GN-DOE by contacting Robert Eno at 867-975-7748 or [reno@gov.nu.ca](mailto:reno@gov.nu.ca).

7. The *Nunavut Wildlife Act* contains provisions to protect and conserve wildlife and wildlife habitat, including specific protection measures for wildlife habitat and species at risk.
8. The *Navigable Waters Protection Act* (NWPA)  
<http://www.tc.gc.ca/marinesafety/oep/nwpp/menu.htm>  
All proponents must deal with the Navigable Waters Protection Program under Transport Canada for any work(s) to be built or placed in, on, over, under, through, or across any navigable water. The proponent will need to submit formal applications to the NWPP in order to obtain NWPP's approval, promulgation, or exemption for each specific work. The proponent shall also inform the NWPP of any design, construction, or operational changes accordingly. If the proponent is uncertain of the NWPP's requirements as they pertain to an application for specific work, please refer to the NWPP Internet site or contact the NWPP office.
9. The Proponent will also be advised that all releases of harmful substances are immediately reportable where the release (See Monitoring and Reporting Requirements for contact information):
  - a. is near or into a water body;
  - b. is near or into a designated sensitive environment or sensitive wildlife habitat;
  - c. poses an imminent threat to human health or safety; or
  - d. poses an imminent threat to a listed species at risk or its critical habitat

## **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 May 23, 2012 at Arviat, NU.



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Elizabeth Copland, Acting Chairperson

Attachments: Appendix A: Procedural History and Project Activities  
Appendix B: Species at Risk in Nunavut  
Appendix C: Archaeological and Palaeontological Resources Terms and Conditions for Land Use Permit Holders.

## Appendix A

### Procedural History and Project Activities

#### *Past File History*

Please be advised that on July 30, 2007 the NIRB received the original project proposal (NIRB File No. 07EN058) from Indian and Northern Affairs Canada (INAC; now Aboriginal Affairs and Northern Development Canada, AANDC). The NIRB proceeded to screen the proposal in accordance with Part 4, Article 12 of the Nunavut Land Claims Agreement (NLCA) and on September 6, 2007 the NIRB issued a 12.4.4 (a) screening decision to the Minister of INAC indicating the proposed project could proceed subject to the NIRB's recommended project-specific terms and conditions.

On February 15, 2008 the NIRB received an application for an amendment from INAC to the Land Use Permit (No. N2007C0033) for the above mentioned project. After a thorough assessment of the amendment request, the NIRB determined that the application was exempt from the requirement for further screening pursuant to Section 12.4.3 of the NLCA, and reissued the enclosed screening decision report on March 3, 2008.

On April 2, 2008 the NIRB received an additional application to amend the Land Use Permit (No. 2007C0033) associated with AEI's "Roche Bay Magnetite" project to include additional components and activities. On April 7, 2008 the NIRB received an application for access to Inuit Owned Lands from the Qikiqtani Inuit Association (QIA). As the activities were significantly beyond the scope of what had originally been assessed, the NIRB consolidated these new applications under NIRB file **08EA041** and on May 16, 2008 the NIRB issued a 12.4.4(a) screening decision to INAC, allowing the proposed project to proceed subject to additional recommended project-specific terms and conditions.

Additional extension requests for the Land Use Permit (No. N2007C0033) associated with this project have also been reviewed by the NIRB. In each instance the NIRB confirmed that the applications were exempt from the requirement for further screening pursuant to Section 12.4.3 of the NLCA and the activities therein remained subject to the terms and conditions recommended in the original May 16, 2008 Screening Decision Report.

Authorization	Application			Correspondence Issued by NIRB
	Date Received by NIRB	Type	Reason for Application	
Land Use Permit	June 30, 2008	Amendment	Geotechnical drilling	May 16, 2008
QIA Land Use Licence	April 28, 2009	QIA permit to access IOL	Work on IOL land	May 14, 2009
Land Use Permit	June 23, 2009	Extension	Work for an additional year	June 24, 2009

Authorization cont.	Application cont.			Correspondence Issued by NIRB cont.
	Date Received by NIRB	Type	Reason for Application	
Land Use Permit	March 17, 2010	Extension and Amendment	Work for an additional year	April 9, 2010
Land Use Permit	July 13, 2011	Extension	Work for an additional year	July 20, 2011

The NIRB's original and subsequent screenings of this project have considered mineral exploration activities as listed in the Project Activities section below. As these activities have been previously screened by the NIRB, they are **not** being considered by the NIRB as part of its assessment of the current application.

### ***Current File History***

AEI is applying for a *new* Land Use Permit (No. N2012C0013) for its "Roche Bay Magnetite" project, and has included a request for additional components and activities with the current application.

The NIRB determined that this request may result in a change to the original scope of the project and distributed the project proposal was distributed to community organizations in Hall Beach, as well as to relevant federal and territorial government agencies, and Inuit organizations. The NIRB requested that interested parties review the proposal and the NIRB's previously recommended terms and conditions and provide the Board with any comments or concerns by **May 14, 2012** regarding:

- 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, (providing any additional recommended mitigation measures); and
- Any matter of importance to the Party related to the project proposal.

On or before May 14, 2012 the NIRB received comments from the following interested parties:

- **Environment Canada (EC)**

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/01-SCREENINGS/COMPLETED%20SCREENINGS/>

## ***Project Activities***

The proposed project is located within the South Baffin Region, approximately 65 kilometres (km) northeast of Hall Beach. The Proponent intends to conduct exploration, as well as baseline and feasibility studies in support of developing a mine at a later date.

The following activities have been previously screened and were allowed to proceed subject to the terms and conditions recommended by the NIRB within its September 6, 2007 Screening Decision Report, issued pursuant to Article 12 of the Nunavut Land Claims Agreement (NIRB File No. 07EN058).

The activities and components associated with the September 6, 2007 project proposal included:

- Fuel storage (to a maximum of 700,000 Litres);
- Calcium chloride storage (200 tonnes);
- Landing sites for two sealifts;
- Increase in the amount of fuel storage (additional 300,000 Litres);
- Increase in the amount of calcium chloride storage (additional 300 tonnes);
- New location for fuel and calcium chloride storage;
- Inclusion of a location for on-ice airplane landing (30 flights, mid-March to mid-April); and,
- Addition of the storage facility and ore storage (previously permitted per AANDC Land Use Permit No. N2006J0018).

The following activities have also been previously screened and were allowed to proceed subject to the terms and conditions recommended by the NIRB within its May 16, 2008 Screening Decision Report, issued pursuant to Article 12 of the Nunavut Land Claims Agreement (NIRB File No. 08EA041).

These activities and components associated with the May 16, 2008 project proposal included:

- Drilling of approximately 20 holes of up to 30 metres each in depth, on sea ice;
- Bathymetry surveys during the summer of 2008;
- Camp facilities for 60 people;
- Drilling of 25,000 – 30,000 metres of core and chip samples;
  - 5 Boart Longyear LF-70 Drills
  - Approximately 120 holes
- Use of 2 Polaris Ranger utility vehicles, 5 Honda All-Terrain Vehicles, 3 Argos, and 8 snowmobiles;
- Use of 2 Helicopters and 2 fixed wing aircraft;
- Transport of fuel from Hall Beach to camp site via skid and bulldozer;
- Storage of fuel to include: 550,000 Litres diesel; 50,000 Litres gasoline; 240,000 Litres aviation fuel; and 10,000 pounds of propane;
- Storage of 500 tonnes calcium chloride; and,
- Geotechnical on-land drilling within the project area of roughly 20 holes up to 30 metres in depth.

The Proponent is **currently** applying for a new AANDC Land Use Permit (No. N2012C0013) to replace the previously issued permit No. N2007C0033. The Proponent's application for the new AANDC Land Use Permit (No. N2012C0013) also includes the following additional components or activities:

- Use of granular materials occurring at the surface of areas that were previously disturbed;
- Gravel airstrip maintenance;
- Create an additional temporary barge offloading and laydown area; and
- Grading of terrain/cobbles for select ATV trails to allow light trucks to travel along the existing trails throughout the project area.

## 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 ([http://www.sararegistry.gc.ca/default\\_e.cfm](http://www.sararegistry.gc.ca/default_e.cfm)) to get the current status of a species.

Updated: January 2012

<b>Terrestrial Species at Risk <sup>1</sup></b>	<b>COSEWIC Designation</b>	<b>Schedule of SARA</b>	<b>Government Organization with Primary Management Responsibility <sup>2</sup></b>
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	GN
Felt-leaf Willow	Special Concern	Schedule 1	GN
Peregrine Falcon	Special Concern ( <i>anatum-tundrius</i> complex <sup>3</sup> )	Schedule 1 - Threatened ( <i>anatum</i> ) Schedule 3 – Special Concern ( <i>tundrius</i> )	GN
Short-eared Owl	Special Concern	Schedule 3	GN
Peary Caribou	Endangered	Schedule 1	GN



<b>Terrestrial Species at Risk <sup>1</sup></b>	<b>COSEWIC Designation</b>	<b>Schedule of SARA</b>	<b>Government Organization with Primary Management Responsibility <sup>2</sup></b>
Barren-ground Caribou (Dolphin and Union population)	Special Concern	Schedule 1	GN
Polar Bear	Special Concern	Schedule 1	GN
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	GN
Wolverine (Western population)	Special Concern	Pending	GN
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

<sup>1</sup> The Department of Fisheries and Oceans has responsibility for aquatic species.

<sup>2</sup> Environment Canada (EC) 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.

<sup>3</sup> The *anatum* subspecies of Peregrine Falcon is listed on Schedule 1 of SARA as threatened. The *anatum* and *tundrius* subspecies of Peregrine Falcon were reassessed by COSEWIC in 2007 and combined into one subpopulation complex. This subpopulation complex was assessed by COSEWIC as Special Concern.

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



INTRODUCTION

The Department of Culture, Language, Elders and Youth (CLEY) routinely reviews land use applications sent to the Nunavut Water Board, Nunavut Impact Review Board and the Department of Indian and Northern Affairs Canada. These terms and conditions provide general direction to the permittee/proponent regarding the appropriate actions to be taken to ensure the permittee/proponent carries out its role in the protection of Nunavut's archaeological and palaeontological resources.

TERMS AND CONDITIONS

- 1) The permittee/proponent shall have a professional archaeologist and/or palaeontologist perform the following **Functions** associated with the **Types of Development** listed below or similar development activities:

	<b>Types of Development</b> (See Guidelines below)	<b>Function</b> (See Guidelines below)
a)	Large scale prospecting	Archaeological/Palaeontological Overview Assessment
b)	Diamond drilling for exploration or geotechnical purpose or planning of linear disturbances	Archaeological/ Palaeontological Inventory
c)	Construction of linear disturbances, Extractive disturbances, Impounding disturbances and other land disturbance activities	Archaeological/ Palaeontological Inventory or Assessment or Mitigation

Note that the above-mentioned functions require either a Nunavut Archaeologist Permit or a Nunavut Palaeontologist Permit. CLEY is authorized by way of the *Nunavut and Archaeological and Palaeontological Site Regulations*<sup>1</sup> to issue such permits.

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<sup>1</sup> P.C. 2001-1111 14 June, 2001

- 2) The permittee/proponent shall not operate any vehicle over a known or suspected archaeological or palaeontological site.
- 3) The permittee/proponent shall not remove, disturb, or displace any archaeological artifact or site, or any fossil or palaeontological site.
- 4) The permittee/proponent shall immediately contact CLEY at (867) 934-2046 or (867) 975-5500 should an archaeological site or specimen, or a palaeontological site or fossil, be encountered or disturbed by any land use activity.
- 5) The permittee/proponent 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 CLEY.
- 6) The permittee/proponent shall follow the direction of CLEY in restoring disturbed archaeological or palaeontological sites to an acceptable condition. If these conditions are attached to either a Class A or B Permit under the Territorial Lands Act INAC's directions will also be followed.
- 7) The permittee/proponent shall provide all information requested by CLEY concerning all archaeological sites or artifacts and all palaeontological sites and fossils encountered in the course of any land use activity.
- 8) The permittee/proponent shall make best efforts to ensure that all persons working under its authority are aware of these conditions concerning archaeological sites and artifacts and palaeontological sites and fossils.
- 9) If a list of recorded archaeological and/or palaeontological sites is provided to the permittee/proponent by CLEY as part of the review of the land use application the permittee/proponent shall avoid the archaeological and/or palaeontological sites listed.
- 10) Should a list of recorded sites be provided to the permittee/proponent, the information is provided solely for the purpose of the proponent's land use activities as described in the land use application, and must otherwise be treated confidentially by the proponent.

#### LEGAL FRAMEWORK

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

*Where an application is made for a land use permit in the Nunavut Settlement Area, and there are reasonable grounds to believe that there could be sites of archaeological importance on the lands affected, no land use permit shall be issued without written consent of the Designated Agency. Such consent shall not be unreasonably withheld. [33.5.12]*

*Each land use permit referred to in Section 33.5.12 shall specify the plans and methods of archeological site protection and restoration to be followed by the permit holder, and any other conditions the Designated Agency may deem fit. [ 33.5.13]*

## Palaeontology and Archaeology

Under the *Nunavut Act*<sup>2</sup>, the federal government can make regulations for the protection, care and preservation of palaeontological and archaeological sites and specimens in Nunavut. Under the *Nunavut Archaeological and Palaeontological Sites Regulations*<sup>3</sup>, it is illegal to alter or disturb any palaeontological or archaeological site in Nunavut unless permission is first granted through the permitting process.

### 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:*

*Fossil means the hardened or preserved remains or impression of previously living organisms or vegetation and includes:*

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

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<sup>2</sup> s. 51(1)

<sup>3</sup> P.C. 2001-1111 14 June, 2001

## **GUIDELINES FOR DEVELOPERS FOR THE PROTECTION OF ARCHAEOLOGICAL RESOURCES IN THE NUNAVUT TERRITORY**

(NOTE: Partial document only, complete document at: <http://gov.nu.ca/cley/english/arch.html>)

### **Introduction**

The following guidelines have been formulated to ensure that the impacts of proposed developments upon heritage resources are assessed and mitigated before ground surface altering activities occur. Heritage resources are defined as, but not limited to, archaeological and historical sites, burial grounds, palaeontological sites, historic buildings and cairns. Effective collaboration between the developer, the Department of Culture, Language, Elders and Youth (CLEY), and the contract archaeologist(s) will ensure proper preservation of heritage resources in the Nunavut Territory. The roles of each are briefly described.

CLEY is the Nunavut Government agency which oversees the protection and management of heritage resources in Nunavut, in partnership with land claim authorities, regulatory agencies, and the federal government. Its role in mitigating impacts of developments on heritage resources is as follows: to identify the need for an impact assessment and make recommendations to the appropriate regulatory agency; set the terms of reference for the study depending upon the scope of the development; suggest the names of qualified individuals prepared to undertake the study to the developer; issue an archaeologist or palaeontologist permit authorizing field work; assess the completeness of the study and its recommendations; and ensure that the developer complies with the recommendations.

The primary regulatory agencies that CLEY provides information and assistance to are the Nunavut Impact Review Board, for development activities proposed for Inuit Owned Lands (as defined in Section 1.1.1 of the Nunavut Land Claims Agreement), and the Department of Indian and Northern Affairs, for development activities proposed for federal Crown Lands.

A developer is the initiator of a land use activity. It is the obligation of the developer to ensure that a qualified archaeologist or palaeontologist is hired to perform the required study and that provisions of the contract with the archaeologist or palaeontologist allow permit requirements to be met; i.e. fieldwork, collections management, artifact and specimen conservation, and report preparation. On the recommendation of the contract archaeologist or palaeontologist in the field and the Government of Nunavut, the developer shall implement avoidance or mitigative measures to protect heritage resources or to salvage the information they contain through excavation, analysis, and report writing. The developer assumes all costs associated with the study in its entirety.

Through his or her active participation and supervision of the study, the contract archaeologist or palaeontologist is accountable for the quality of work undertaken and the quality of the report produced. Facilities to conduct fieldwork, analysis, and report preparation should be available to this individual through institutional, agency, or company affiliations. Responsibility for the curation of objects recovered during field work while under study and for documents generated in the course of the study as well as remittance of artifacts, specimens and documents to the

repository specified on the permit accrue to the contract archaeologist or palaeontologist. This individual is also bound by the legal requirements of the *Nunavut Archaeological and Palaeontological Sites Regulations*.

## **Types of Development**

In general, those developments that cause concern for the safety of heritage resources will include one or more of the following kinds of surface disturbances. These categories, in combination, are comprehensive of the major kinds of developments commonly proposed in Nunavut. For any single development proposal, several kinds of these disturbances may be involved

- *Linear disturbances: including the construction of highways, roads, winter roads, transmission lines, and pipelines;*
- *Extractive disturbances: including mining, gravel removal, quarrying, and land filling;*
- *Impoundment disturbances: including dams, reservoirs, and tailings ponds;*
- *Intensive land use disturbances: including industrial, residential, commercial, recreational, and land reclamation work, and use of heritage resources as tourist developments.*
- *Mineral, oil and gas exploration: establishment of camps, temporary airstrips, access routes, well sites, or quarries all have potential for impacting heritage resources.*

## **Types of Studies Undertaken to Preserve Heritage Resources**

**Overview:** An overview study of heritage resources should be conducted at the same time as the development project is being designed or its feasibility addressed. They usually lack specificity with regard to the exact location(s) and form(s) of impact and involve limited, if any, field surveys. Their main aim is to accumulate, evaluate, and synthesize the existing knowledge of the heritage of the known area of impact. The overview study provides managers with baseline data from which recommendations for future research and forecasts of potential impacts can be made. A Class I Permit is required for this type of study if field surveys are undertaken.

**Reconnaissance:** This is done to provide a judgmental appraisal of a region sufficient to provide the developer, the consultant, and government managers with recommendations for further development planning. This study may be implemented as a preliminary step to inventory and assessment investigations except in cases where a reconnaissance may indicate a very low or negligible heritage resource potential. Alternately, in the case of small-scale or linear developments, an inventory study may be recommended and obviate the need for a reconnaissance.

The main goal of a reconnaissance study is to provide baseline data for the verification of the presence of potential heritage resources, the determination of impacts to these resources, the generation of terms of reference for further studies and, if required, the advancement of

preliminary mitigative and compensatory plans. The results of reconnaissance studies are primarily useful for the selection of alternatives and secondarily as a means of identifying impacts that must be mitigated after the final siting and design of the development project. Depending on the scope of the study, a Class 1 or Class 2 Permit is required for this type of investigation.

**Inventory:** A resource inventory is generally conducted at that stage in a project's development at which the geographical area(s) likely to sustain direct, indirect, and perceived impacts can be well defined. This requires systematic and intensive fieldwork to ascertain the effects of all possible and alternate construction components on heritage resources. All heritage sites must be recorded on Government of Nunavut Site Survey forms. Sufficient information must be amassed from field, library and archival components of the study to generate a predictive model of the heritage resource base that will:

- allow the identification of research and conservation opportunities;
- enable the developer to make planning decisions and recognize their likely effects on the known or predicted resources; and
- make the developer aware of the expenditures, which may be required for subsequent studies and mitigation. A Class 1 or 2 permit is required

**Assessment:** At this stage, sufficient information concerning the numbers and locations of heritage resources will be available, as well as data to predict the forms and magnitude of impacts. Assessments provide information on the size, volume, complexity and content of a heritage resource, which is used to rank the values of different sites or site types given current archaeological knowledge. As this information will shape subsequent mitigation program(s), great care is necessary during this phase.

**Mitigation:** This refers to the amelioration of adverse impacts to heritage resources and involves the avoidance of impact through the redesign or relocation of a development or its components; the protection of the resource by constructing physical facilities; or, the scientific investigation and recovery of information from the resource by excavation or other method. The type(s) of appropriate mitigative measures are dictated by their viability in the context of the development project. Mitigation strategies must be developed in consultation with, and approved by, the Department of Culture, Language, Elders and Youth. It is important to note that mitigation activities should be initiated as far in advance of the construction of the development as possible.

**Surveillance and monitoring:** These may be required as part of the mitigation program.

*Surveillance* may be conducted during the construction phase of a project to ensure that the developer has complied with the recommendations.

*Monitoring* involves identification and inspection of residual and long-term impacts of a development (i.e. shoreline stability of a reservoir); or the use of impacts to disclose the presence of heritage resources, for example, the uncovering of buried sites during the construction of a pipeline.