



Water Resources Division
Nunavut Regional Office
Indian and Northern Affairs Canada
Iqaluit, NU X0A 0H0

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Reference: 2BE-RBP

April 4, 2008

Richard Dwyer
Licence Administrator
Nunavut Water Board
Gjoa Haven, NU X0B 1J0

Re: 2BE-RBP0608 / Advanced Explorations Inc. / Roche Bay Project / Qikiqtani Region / Licence Amendment Application

Indian and Northern Affairs Canada (INAC) has reviewed the water licence amendment application submitted by Advanced Explorations Inc. for Roche Bay Project 2BE-RBP0608. The Proponent requests that the licensed daily water consumption limit be increased from 200 cubic metres (m^3) to $510 m^3$. The predicted water usage is $10 m^3$ for domestic purposes and $100 m^3$ per drilling unit.

The Roche Bay Project Area is within Nunavut's Qikiqtani Region and is situated on Crown and Inuit Owned Lands. The general coordinates are within the $68^{\circ}15'$ and $68^{\circ}30'$ north latitudes and $82^{\circ}00'$ and $84^{\circ}00'$ west longitudes. The project licence was previously amended on two (2) separate occasions to address conditions applying to waste disposal, drilling operations, spill contingency planning, and water use. A sixty (60) person capacity work camp is located within the project area.

According to the submitted January 2008 Oil and Hazardous Material Spill Contingency Plan, 5 Boart Longyear LF-70 drills will be used to support mineral exploration operations. The Proponent intends to drill approximately 120 holes to an average depth of 250-300 meters and extract 25,000 – 30,000 metres of drill core and chip samples for geological modeling and resource definition purposes. The use is within a Type B Licence category under Schedule V of the Water Regulations.

The following advice has been provided pursuant to INAC's mandated responsibilities for the enforcement of the *Nunavut Waters and Nunavut Surface Rights Tribunal Act* and the *Department of Indian Affairs and Northern Development Act*. Indian and Northern Affairs Canada recommends that these comments be considered when reviewing this licence renewal application.

General

1. INAC is supportive of the Proponent's request to increase its daily water consumption limit, provided that the licence terms and conditions applicable to water use specified in the 2BE-RBP0608 licence continued to be satisfied.

2. The 2BE-RBP0608 licence is set to expire on August 31, 2008. Rather than reviewing a separate licence amendment or renewal application to address this matter, the proponent should request an extension of the project licence expiry date as part of this amendment application. INAC recommends that the licence term be extended for a minimum of five (5) years because the Proponent's mineral exploration operations in the Roche Bay Project Area will likely continue for the foreseeable future.
3. The Proponent should review all inspection reports provided by the INAC Water Resource Officer which pertain to the Roche Bay Project. Furthermore, responses to each inspection report should be provided to the Water Resource Officer, Nunavut Water Board, and Land Owners for review.

Drilling Operations

4. Drill holes should have all rods and casings removed prior to their abandonment.
5. Upon completion of land-based drilling activities, drill holes should be sealed and capped to prevent possible vertical movement of water which may induce thermal erosion. All drill holes should be sealed at their lower and upper permafrost levels. Drill holes should be capped or sealed through the thermal active layer if artesian flows due to impervious layers and/or naturally occurring, confined salt water are encountered.
6. The GPS coordinates of the project's 60-person camp should be clearly identified in the Spill Contingency Plan, Abandonment and Reclamation Plan, and Water Licence.
7. The project's licence monitoring program requirements should be expanded to include the collection of basic water quality data at the water sources downstream of each drill site. A total of three (3) parameters, pH, temperature, and conductivity, should be collected/analysed on three (3) separate occasions at the water source downstream of each drill site. These parameters should be collected prior to the commencement of drilling, upon completion of site drilling activities (i.e., abandonment), and one (1) week following the completion of site drilling activities using a calibrated field meter or other approved method. The information should be provided to the Board in the annual report and, if pH or conductivity changed greatly, the proponent should also inform the Board of mitigation actions taken.

Spill Contingency Planning

8. The project's Spill Contingency Plan should include a detailed diagram of its main fuel cache and temporary barge lay-down fuel cache. These diagrams should be set

to appropriate scales and reference their respective global positioning system coordinates, proximity to adjacent freshwater sources, base contour lines, spill response equipment, and fuel transfer areas.

9. The submitted Spill Contingency Plan makes reference to regular fuel cache inspections. The Proponent should provide a detailed description of how a fuel cache inspection is carried out and their frequency (i.e., Are inspections being carried out daily or weekly?).
10. The project's Spill Contingency Plan should be revised to include contact information for Peter Kusugak, Manager of Field Operations, INAC Nunavut Regional Office (NRO); Andrew Keim, Water Resource Officer, INAC NRO; and Kevin Robertson, Resource Management Officer, INAC NRO.

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11. The Spill Contingency Plan states that all fuel barrels will be stored within a secondary containment berm which is purpose-designed for the application. The proponent should revise this Plan to include a detailed summary of how fuel will be managed on site. This summary should include the types of secondary containment berms on-site, the number of barrels that will be stored within each secondary containment berm, fuel cache protection measures (e.g., barriers), signage, winter storage methods, inspection measures, and any other applicable fuel management practices.

Abandonment and Reclamation

12. The project's Abandonment and Reclamation Plan should be revised to include the site reclamation procedures specified above.

Indian and Northern Affairs Canada

Indian and Northern Affairs Canada requests notification of any changes in the proposed project, as further review may be necessary. Please contact me should you have any questions or comments with regards to the foregoing. I can be reached by telephone at (867) 975-4555 or email at AbernethyD@inac-ainc.gc.ca.

Regards,

Original signed by

David W. Abernethy
Regional Coordinator

Cc. Jim Rogers, Manager of Water Resources – INAC, NRO
Peter Kusugak, Manager of Field Operations – INAC, NRO
Andrew Keim, Qikiqtani Water Resources Officer – INAC, NRO
Kevin Robertson, Qikiqtani Resource Management Officer – INAC, NRO
Phyllis Beaulieu, Manager of Licensing – Nunavut Water Board