



**Environment Environnement
Canada Canada**

Environmental Protection Operations
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Our file: 4704 004 006

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Re: NWB 2BE-RBP06908 - Advanced Explorations Inc. - Roche Bay Project

On behalf of Environment Canada (EC), I have reviewed the information submitted with the above-mentioned application. The following specialist advice has been provided pursuant to Environment Canada's mandated responsibilities for the enforcement of the *Canadian Environmental Protection Act*, Section 36(3) of the *Fisheries Act*, the *Migratory Birds Convention Act*, and the *Species at Risk Act*.

Comments and recommendations previously submitted by Environment Canada for, NWB 2BE-RBP, Advanced Explorations Inc.'s Roche Bay Project would apply to this amendment. EC also recommends that the following conditions be applied throughout all phases of the project:

General

1. The proponent shall ensure that any chemicals, fuel or wastes associated with the proposed land use permit application do not enter waters frequented by fish. It is a requirement of Section 36(3) of the *Fisheries Act* that all effluent discharged into water frequented by fish, be non-deleterious
2. No disturbance of the bed or banks of any definable watercourse is permitted; winter lake/stream crossings shall be located to minimize approach grades and shall be constructed entirely of ice and snow materials; mechanized clearing should not be done immediately adjacent to any watercourse; stream crossing shall be removed or notched prior to spring break-up; suitable erosion control measures shall be implemented at all stream/lake crossing.

Fuel Storage and Use

3. A copy of the spill contingency plan should be posted where crew members have access to it, and at each fuel cache and refuelling station.
4. EC recommends that all fuel caches be located a sufficient distance from any water body to prevent any fuel from entering a water body and that all caches are inspected daily
5. Fuel or hazardous substance transfers – Secondary containment or surface liner (drip pans, fold a tanks, etc.) should be placed under all containers or vehicle fuel tank inlet and outlet points, hose connections and hose ends during fuel or hazardous substance transfers. Secondary containment should be of adequate size and volume to contain and hold fluids for the purpose of preventing spills (the worst-case scenario).
6. Transfer operations should be attended by trained personnel at all times.
7. Please note that any spill of fuel or hazards materials, adjacent to or into a water body,

regardless of quantity, shall be reported immediately to the NWT 24-hour Spill Line, **(867) 920-8130**.

8. Environment Canada operates a 24 hour emergency spill line that is monitored by Emergency and Enforcement Officers. The number to be called to contact the Duty Officer is **(867) 766-3737**.

Drilling

9. Chemical additives or drilling mud used in connection with this drilling program shall be disposed of such that they do not enter any water body either by surface or ground water flows.
10. Environment Canada would like to remind the proponent that CaCl has been determined to be a toxic substance under the *Canadian Environmental Protection Act*. The proponent shall therefore ensure that if CaCl is used as a drill additive it is disposed of at an approved facility and located in such a manner as to ensure that the contents will not enter any water body.
11. Drilling additives or mud shall not be 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 demonstrated to be non-toxic.
12. For “on-ice” drilling, return water released must be non-toxic, and not result in an increase in total suspended solids in the immediate receiving waters above the Canadian Council of Ministers for the Environment Guidelines for the Protection of Freshwater Aquatic Life (i.e. 10mg/L for lakes with background levels under 100 mg/L, or 10% for those above 100mg/L).
13. Land based drilling should occur a sufficient distance away from the high water mark of any water body, to ensure that no deleterious substances enter any water bodies.
14. Any sumps, including those necessary for the disposal of all drill cuttings and drill water, shall be located above the high water mark of any water body and in such a manner as to prevent the contents from entering any water body frequented by fish. Further, all sumps shall be backfilled upon completion of the field season and contoured to match the surrounding landscape. Sumps should be inspected regularly to ensure there is no erosion or leaching.
15. If an artesian flow is encountered, the drill hole shall be immediately plugged and permanently sealed.

Waste Disposal

16. Environment Canada recommends that camp grey water be disposed of into a properly constructed sump located a sufficient distance away from the high water mark of any water body, to ensure that no deleterious substances enter any water bodies.
17. The proponent should follow and comply with Canada Wide Standards for Dioxins and Furans, and the Canada Wide Standards for Mercury emissions with respect to burning or incineration. In order for these guidelines to be met, at a minimum, an incinerator with dual chamber and forced air to allow for sufficient residence time and temperature to maximize combustion should be used.
18. Waste tracking, or “manifesting”, should be implemented to ensure proper use, storage, and management of materials. Manifests provide detailed information to first responders in the event of an accident and serve as a tool for confirming that shipments of dangerous or hazardous waste are properly handled, transported, and disposed of.

Environmental Protection Operations (EPO) should be notified of changes in the proposed or permitted activities associated with this application.

Please do not hesitate to contact me at (867) 669-4744 or ron.bujold@ec.gc.ca with any questions or comments.

Yours truly,

Ron Bujold
Environmental Assessment Technician

cc: Carey Ogilvie (Head, Assessment & Monitoring, EPO)
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