



Environment Environnement
Canada Canada

Environmental Protection Branch
Qimugjuk Building 969 P.O. Box 1870
Iqaluit, NU X0A 0H0
Tel: (867) 975-4639
Fax: (867) 975-4645

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Our file: 4703 001 035

Phyllis Beaulieu
Licensing Administrator
Nunavut Water Board
P.O. Box 119
Gjoa Haven, NU X0B 1J0
Tel: (867) 360-6338
Fax: (867) 360-6369

Via email at licensing@nwb.nunavut.ca

RE: NWB2BRO0203 – Kennecott Canada Exploration Inc. – Brodeur Project - Renewal

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*.

Kennecott Canada Exploration Inc. is applying for a renewal of their water license to continue exploration work in the Brodeur Peninsula. This work, which builds upon previous years findings, will include prospecting, geological mapping, geophysical survey, and diamond drilling, and reverse circulation drilling. Till sample collection, followed by subsequent drilling of anomalies will also be conducted. The camp is location 25 km upstream on the Jackson River on the northwestern side of the Brodeur Peninsula on Baffin Island, NU.

Environment Canada recommends that the following conditions be applied throughout all stages of the project:

- The proponent shall not deposit, nor permit the deposit of any fuel, drill cuttings, chemicals, wastes or sediment into any water body. According to the Fisheries Act, Section 36(3), the deposition of deleterious substances of any type in water frequented by fish, or in any place under any conditions where the deleterious substance, or any other deleterious substance that results from the deposit of the deleterious substance, may enter any such water, is prohibited.
- All sumps and fuel caches 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 bodies frequented by fish.
- The proponent shall ensure that all sumps are backfilled at the end of each season and the area contoured to match the surrounding landscape.
- If on-ice drilling is to occur, 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). Further, drilling additives or muds 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.

- Environment Canada would like to inform the proponent that the *Canadian Environmental Protection Act* has recently listed CaCl as a toxic substance. If CaCl is to be used as a drill additive during land based drilling, the proponent shall ensure that sumps containing CaCl are properly constructed and located in such a manner as to ensure that the contents will not enter any water body.
- Drip pans, or other similar preventative measures, should be used when refuelling equipment on site.
- The permittee shall not erect camps or store material on the surface ice of streams or lakes, except that which is for immediate use.
- If artesian flow is encountered, drill holes shall be immediately plugged and permanently sealed.
- EC encourages proponents, when storing barrelled fuel at a location, to use secondary containment, such as self-supporting insta-berms.
- The proponent shall ensure that all hazardous and non-combustible wastes receive proper treatment and disposal at an approved disposal facility.
- Environment Canada recommends the use of an approved incinerator for the disposal of combustible camp wastes.

If there are any changes in the proposed project, EC should be notified, as further review may be necessary. Please do not hesitate to contact me with any questions or comments with regards to the foregoing at (867) 975-4639 or by email at colette.meloche@ec.gc.ca.

Yours truly,

Original signed by

Colette Meloche
Environmental Assessment Specialist

cc: (Mike Fournier, Northern Environmental Assessment Coordinator, Environment Canada, Yellowknife)