



Environment Environnement
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Our file: 4703 001 015

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Via Facsimile

**RE: NIRB 04EN013 – Cumberland Resources Ltd. – Meadowbank Gold Project
Exploration**

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*.

Cumberland Resources is planning on continuing their mineral exploration at the Meadowbank Gold Project site, located near Baker Lake, NU in order to further delineate existing resources in the known deposits, as well as exploration for additional mineralized zones outside of the known deposits. The proposed program for 2004 will include 12,000 m of diamond drilling. Additional activities proposed include caching of approximately 30-50 barrels of fuel at the Vault location, the relocation and installation of two 50,000 L double-walled fuel vaults from the south camp to the north camp, and further environmental baseline studies.

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

Drilling Program

- Environment Canada requests that a map detailing the location of the drill holes be submitted when available.
- A list of any drill additives that may be used during the drilling program should be submitted once available.
- 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.
- If drilling additives are to be used in association with this project, EC would like to inform the proponent that the *Canadian Environmental Protection Act* has recently listed 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 as to ensure that the contents will not enter any water body.

- 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.
- If “on-ice” drilling is to be conducted, 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).
- Land based drilling should not occur within 30 m of the high water mark of any water body. Drilling wastes from land based drilling shall be disposed of in a sump such that the contents do not enter any water body.
- When storing barreled fuel on location, EC recommends the use of secondary containment, such as self-supporting insta-berms, rather than relying on natural depressions. All fuel caches shall be located above the high water mark of any definable water body and in such a manner as to prevent the contents from entering any water body frequented by fish.
- If an artesian flow is encountered the drill hole shall be immediately plugged and permanently sealed.
- The proponent shall not erect camps or store material on the surface ice of streams or lakes, except for immediate use.
- All sumps, including those for camp sewage, grey water and drill cuttings, 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 frequented by fish, irrespective of the actual distance from the water. Further, all sumps shall be backfilled at the end of each field season, and contoured to match the existing landscape.
- The proponent shall ensure that all hazardous and/or non-combustible materials, including waste oils, receive proper treatment and disposal at an approved facility.
- All spills are to be documented and reported to the 24 hour Spill Line at (867) 920-8130.

Fuel Vault Relocation

Further information is required in regards to the relocation of the fuel vaults from the south camp to the north camp. Are the two tanks which are slated for relocation currently in use? If so, what plans does Cumberland Resources have for the draining of the tanks and associated piping? Has the on-site spill contingency plan been updated to include spill response actions for such activities? Is there any hydrocarbon contamination at the south camp location where the fuel vaults are currently located? Environment Canada recommends that if contamination is suspected, Cumberland Resources sample the soil to determine the degree of hydrocarbon contamination and ensure proper treatment and disposal of the soil if necessary.

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,

Colette Meloche
Environmental Assessment Specialist

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