



Environment
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April 10, 2001

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Our file: 4704-00

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April 10/01

Re: Comments on Amendments to Water License NWB2KIK0002 - De Beers Canada Exploration Corporation - Kiker Lake, Kitikmeot, NU.

On behalf of Environment Canada (EC), I have reviewed the above noted Water License NWB2KIK0002. The comments provided for the above water license have been made under Section 36 of the *Fisheries Act*, the *Canadian Environmental Protection Act* (CEPA) and the *Migratory Birds Convention Act* (MBCA).

De Beers Canada Exploration Corporation has proposed to conduct an exploratory diamond drilling operation on Knife Lake. The drilling program will consist of five core holes. Drilling will commence in April and will be completed May of 2001. No camp will be associated with the proposed drill program. The crew consisting of approximately 12 people will commute on a regular basis from Kugluktuk to the drilling site.

Comments and Recommendations

Please note that information concerning Attachment 2: Diamond Core Drill System and Appendix 4: MSDS Sheets for Drilling Muds/Additives were not received in time to be considered within the review. However, general comments have been suggested for (Attachment 2) and (Appendix 4).

The *Canadian Environmental Protection Act* is in the final stages of the assessment of CaCl as a toxic substance. It is recommended for land-based sumps associated with drilling operations, where CaCl is used as an additive, that the measures to close sumps include documenting the impacts of CaCl on vegetation. The proponent must ensure that such sumps are properly constructed and located at a sufficient distance from any waterbody.

The proponent neglected to:

- state that "all spills" are to be documented and reported to the NWT Spill line (867) 920-8130 and should be dually noted within the spill contingency plan under Sections 1.0 (3), and 1.1 (2);
- provide a list of all hazardous materials that may be used during the program (may have been addressed within Appendix 4);
- indicate if spill kits are to be used at fueling and fuel storage areas;
- indicate if drill additives are to be used during the program (may have been addressed within Attachment 2 and Appendix 4);
- provide a map outlining the locations of drill sites in relation to water;
- include the estimated volume of proposed sumps for drilling activities;
- provide a map indicating the locations of land-based sumps in relation to water;

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- include location of fuel storage in relation to water for aircraft and drilling uses.

The following conditions should be applied to the proposed land permit throughout all phases of the project.

- The proponent shall ensure that any drill cuttings, chemicals, fuel or wastes associated with the proposed project do not enter waters frequented by fish. All sumps, spill basins and fuel caches should be located in such a manner that the contents do not enter a waterbody.
- EC encourages proponents, when storing barreled fuel at a location, to use a secondary containment rather than relying on "natural depressions". Self supporting insta-berms are available from various suppliers within Canada.
- Drilling additives or muds shall not be used in connection with holes drilled through the lake ice unless they are re-circulated or contained such that they do not enter the water, or demonstrated to be non-toxic.
- For "on-ice" drilling, return water released to the lake must be non-toxic, and not result in an increase in total suspended solids in the immediate receiving waters of the lake above the Canadian Council of Ministers for the Environment Guidelines for the Protection of Freshwater Aquatic Life (ie. 10mg/L for lakes with background levels under 100 mg/L, or 10% for those above 100mg/L).
- No disturbance of the bed or banks of any definable watercourse is permitted. Special efforts must be made to avoid bed and bank disturbance during the spring.
- If artesian flow is encountered, drill holes shall be plugged and permanently sealed immediately.
- Ensure the treatment of hazardous and solid wastes at an appropriate disposal facility ie. Yellowknife or Rankin Inlet;
- The permittee shall not erect camps or store material on the surface ice of streams or lakes.
- Environment Canada should be notified of changes in the proposed or permitted activities associated with this water license.

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 lawrence.ignace@ec.gc.ca

Yours truly,



Lawrence Ignace
Environmental Assessment Specialist

cc: (Paula Pacholek, Northern Environmental Assessment Coordinator, Yellowknife)