



**Environment Environnement
Canada Canada**

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Our file: 4703 001

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Via Email at licensing@nwb.nunavut.ca

RE: NWB2SNN – Stornoway Diamond Corp. – Melville Peninsula Project Renewal, Aviat 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*.

Stornoway Diamond Corp. is proposing to conduct a mineral exploration program at the Aviat Property, located approximately 50 km from Igoolik, NU. The proposed project consists of geological mapping, rock and soil sampling, ground and airborne geophysical surveys, prospecting, and diamond drilling. Operations would also consist of the creation of a 40 person camp at the same location of previous camps.

The application indicates that work is to be commenced in March 2005. Environment Canada would like to remind the proponent that all necessary permits and approvals must be in place prior to the start of any work associated with the project.

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.
- 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. 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.
- While the main application does not make reference to plans for on-ice drilling, the



abandonment and restoration plan submitted with the application provides information for the clean up of drill cuttings on ice. Therefore, if on-ice drilling is to be undertaken, 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.
- If an artesian flow is encountered, the drill hole shall be immediately plugged and permanently sealed.
- The proponent shall not store materials on the surface ice of lakes or streams, except that which is for immediate use.
- Environment Canada recommends the use of an approved incinerator for the disposal of combustible camp wastes.
- All fuel caches shall be located above the high water mark of any water body. Further, EC recommends the use of secondary containment, such as self-supporting insta-berms, when storing barreled fuel on location rather than relying on natural depressions.
- The proponent shall ensure that any non-combustible waste is disposed of appropriately at an approved facility.
- The proponent shall ensure that any hazardous materials, including waste oil, receive proper treatment and disposal at an approved facility.
- Any sumps, including those created for the disposal of 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 body frequented by fish. Further, all sumps shall be backfilled upon completion of the field season and contoured to match the surrounding landscape.
- Drip pans, or other similar preventative measures, should be employed when refueling equipment on site.
- The Environment Canada contact number provided in the Spill Contingency Plan submitted with the application is incorrect. The contact number should be changed to (867) 975-4644 or (867) 669-4700.
- The Spill Contingency Plan should include a detailed map of the camp layout indicating the location of all fuel caches, spill kits, and waterbodies.
- **All spills** are to be documented and reported to the 24 hour Spill Line at (867) 920-8130.
- Environment Canada recommends that all activities be conducted outside the migratory bird breeding season, which extends from approximately June 1-July 15. These dates are approximate, and if active nests (i.e., nests containing eggs or young) are encountered outside of these dates, the proponent should avoid the area until nesting is complete (i.e., the young have left the nest). Paragraph 6(a) of the *Migratory Birds Regulations* state that no one shall disturb or destroy the nests or eggs of migratory birds.

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.spagnuolo@ec.gc.ca.

Yours truly,

Original signed by

Colette Spagnuolo
Environmental Assessment / Contaminated Sites Specialist

cc: (Stephen Harbicht, Head, Assessment and Monitoring, Environment Canada, Yellowknife)