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Department of Environment

Ministère de l'Environnement

July 18, 2008

Richard Dwyer
Manager of Licensing
Nunavut Water Board

via Email to licensingadmin@nunavutwaterboard.org

RE: NWB FILE # 2BE-CHU 0508 – Shear Minerals Ltd. – Churchill Diamond Project

Dear Mr. Dwyer:

The Government of Nunavut, Department of Environment (DOE) has reviewed the Churchill project water license renewal application from Shear Minerals Ltd. for conducting diamond exploration and bulk sampling approximately 35 km southwest of Chesterfield Inlet. Based on the *Environmental Protection Act*, DOE has the following comments and recommendations to make regarding spill contingency, overland transportation, abandonment & restoration, and incineration.

1. SPILL CONTINGENCY PLAN

Based on DOE's *Spill Contingency Planning and Reporting Regulations, and Spill Reporting in Nunavut: a Guide to the New Regulations*, we have the following comments and recommendations to make:

- Page 5 of the *Churchill Diamond Project Spill Contingency Plan* states the proponent will "contact the 24-Hour Spill Line, Receive instructions from the appropriate contact agencies." The Spill Line and regulators do not provide disposal instructions for spilled and/or contaminated materials. It is the proponent's responsibility to develop a complete plan which addresses the steps to be taken from the start of the spill, up to and including the final clean up and disposal. Regulatory agencies such as DOE, INAC and Environment Canada can review the final plan to assess its adequacy and provide advice at that time. Regulatory bodies can, and have, provided information and advice in emergency situations; however, these agencies should not be included in a spill plan as routine advisors.

- To prevent spreading in the event of a spill, fuel stored in drums and chemicals should be located, whenever practical, in a natural depression a minimum distance of 90 feet from all streams, preferably in an area of low

permeability. Furthermore, all fuel and chemical storage containers should be situated in a manner that allows easy access and removal of containers in the event of leaks or spills. Large fuel caches in excess of 20 drums should be inspected daily.

- A contact number is provided in the spill plan, but it is not clear if the number is a 24 hour emergency contact number. The 24 hour number for the persons responsible for activating the contingency plan is required as this ensures the employee discovering the spill can activate a response and provides a 24 hour point of contact for the authority investigating the spill.

2. OVERLAND TRANSPORTATION

- Speed on winter roads should not exceed: 30 km/hr for fully loaded vehicles; 50 km/hour for empty vehicles.

- Trucks should carry at least 10 square metres of polyethylene material (for lining a trench or depression), a spark-proof shovel & oil absorbent blankets or squares.

- Trucks should carry reliable radio and/or satellite phone communications.

- Trucks should carry sufficient response equipment for the safe removal of fuel from an overturned tanker (such as hatch cone covers, hoses etc).

- In general, proponents should be fully prepared to deal with spills resulting from vehicle accidents along the road, in a timely and efficient manner.

3. ABANDONMENT & RESTORATION

Drill Hole Restoration

Drill holes should be backfilled or capped at the end of a project. The sumps should be located at least 30 meters from any water bodies, and only be used for inert drilling fluids, not any other materials or substances. The sumps should be properly closed out at the end of a project.

Incineartion

The Government of Nunavut is signatory to *Canada-Wide Standards (CWS) for Dioxins and Furans*, and Canada-*Wide Standards for Mercury Emissions*. We therefore request the proponent ensures incineration emissions comply with the CWS by implementing the following recommendations.

For a camp of 10 to 50 people, the proponent shall apply appropriate technologies to ensure complete combustion of wastes, and the use of a dual

chamber, forced-air incinerator is recommended. The proponent shall make determined efforts to achieve compliance with the CWS. Efforts should include the implementation of a comprehensive waste management strategy (especially waste segregation) that is designed to reduce and control the volumes of wastes produced, transported, and disposed of. The Waste Management Strategy should consider and include:

- Purchasing policies that focus on reduced packaging,
- On-site diversion and segregation programs (i.e. the separation of non-food waste items suitable for storage and subsequent transport and disposal or recycling).
- If incineration is required, ensure diligent operation and maintenance of the incineration device and provide appropriate training to the personnel operating and maintaining the incinerator.

Waste wood treated with preservatives such as creosote, pentachlorophenol or heavy metal solutions should not be burned. Additionally, plastics, electrical wire, asbestos and building demolition wastes (except clean wood) are wastes likely to produce dioxins and furans when burned and should be excluded from incineration. The efforts made to achieve compliance shall be reported to the Nunavut Impact Review Board as part of the annual report.

The DOE thanks NWB for the opportunity to provide comments on the project proposal from Shear Minerals Ltd. Please contact us if you have further questions.

Yours sincerely,

Original signed by

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