



Environment Environnement  
Canada Canada

Environmental Protection Operations  
5204 50<sup>th</sup> Ave, Suite 301  
Yellowknife, NT X1A 1E2  
Tel: (867) 669-4725  
Fax: (867) 873-8185

March 3, 2006

Our file: 4702 025  
Your File: NWB1JER0410

Phyllis Beaulieu  
Manager of Licensing  
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](mailto:licensing@nwb.nunavut.ca)

Dear Ms. Beaulieu

**RE: Tahera Diamond Corporation – Waste Rock Management Plan, Part 2, Jericho Diamond Project**

Thank-you for the opportunity to provide input to the Nunavut Water Board (NWB) regarding the Part 2 of the Waste Rock Management Plan (herein referred to as “the Plan”) developed by Tahera Diamond Corp. for the Jericho Diamond Project. This plan is required under Part H, Item 3 of the water license NWB1JER0104. This submission is being provided as requested by the NWB in their letters dated March 23, 2005 and January 31, 2006, indicating that a written hearing will be held on this plan.

### **1.0 Introduction**

The mandate of Environment Canada (EC) is defined by the *Department of the Environment Act*. This *Act* provides the Department with a general responsibility for environmental management and protection in terms of the need to foster harmony between society and the environment for the economic, social, and cultural benefit of present and future generations of Canadians. The Department shares this responsibility with the provinces and territories. Environment Canada is also responsible for providing specialist or expert information and knowledge for the preservation and enhancement of environmental quality.

The operation of the Jericho Diamond Mine is subject to the following statutes administered by Environment Canada: Section 36(3) of the *Fisheries Act*, the *Canadian Environmental Protection Act (CEPA 1999)*, the *Migratory Birds Convention Act*, and the *Species at Risk Act*.

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*. Environment Canada's review of the Plan is based primarily on its mandated responsibility for the administration and enforcement Section 36(3) of the *Fisheries Act*. The *Compliance and Enforcement Policy for the Habitat Protection and Pollution Prevention Provisions of the Fisheries Act* states that compliance with the federal *Fisheries Act* is mandatory. Subsection 36(3) of the *Fisheries Act* specifies that unless authorized by federal regulation, no person shall deposit or permit the deposit 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. Proponents should note that only a federal regulation under the *Fisheries Act* or another Act of Parliament can authorize a discharge of a deleterious substance; no federal permit, provincial, territorial or municipal regulatory permit or approval allows for exemption from these provisions of the *Fisheries Act*.



Environment Environnement  
Canada Canada

## 2.0 Specific Comments

Environment Canada provides the following comments for the NWB for consideration in the review of this document.

Section 5.3.1 of the Plan indicates that a layer of granite waste rock will be placed on the tundra to provide physical separation between organic soils and the stockpiled materials. Environment Canada recommends that the granite waste rock layer be sufficiently thick to ensure complete isolation of the coarse processed kimberlite (PK) stockpile from the underlying tundra soils.

The annual seepage surveys are proposed for July or August; EC recommends that sample collection for the coarse kimberlite stations be done when there is sufficient flow available to sample. This may need to occur earlier in the year, or following rain events. While the water license provides very general guidance on the seepage surveys, EC recommends that the proposed seepage monitoring plans be drafted and circulated for review. Environment Canada would like to flag to the NWB the potential for pH depression associated with residual iron that may be contained in coarse PK from the dense media separation,

As outlined in Section 5.3.1, Tahera may decide to amalgamate the coarse PK stockpile at Area 4 with Waste Rock Dump #2. However, prior to making this decision, Tahera needs to understand the seepage quantity and quality associated with the coarse PK stockpiles. Environment Canada recommends that this information, as well as the detailed topographic information for the area of the proposed expansion be submitted to the NWB for review prior to amalgamating this material.

Section 5.3.2 of the Plan states that provided that ongoing monitoring and testing of leachate indicate that ARD and water quality issues associated with the recovery circuit rejects are not problematic, Tahera will consider blending this material with the coarse PK. Environment Canada requires further information regarding the "ongoing monitoring and testing of leachate" from the recovery circuit rejects pile. At what frequency will the testing occur, and how long will it be carried out for? Further, no information is provided regarding which coarse PK stockpile would be used for this blending. Given that there are also potential plans to amalgamate the coarse PK stockpile at Area 4 with Waste Rock Dump #2, EC recommends that recovery circuit rejects not be blended with coarse PK destined for Area 4 until the chemistry of the recovery circuit rejects and the coarse PK stockpiles are better understood and potential interactions with Waste Rock Dump #2 are known.

## 3.0 Summary

Environment Canada would like to thank the NWB for the opportunity to participate in the review of the various documents required under the water license for the Jericho Diamond Project. If there are any significant changes in the proposed project, EC should be notified, as further review may be necessary. Please do not hesitate to contact Colette Spagnuolo with any questions or comments with regards to the foregoing at (867) 975-4639 or by email at [colette.spagnuolo@ec.gc.ca](mailto:colette.spagnuolo@ec.gc.ca).

Yours truly,

C.A (Chuck) Brumwell  
Manager, Northern Division

cc: (Stephen Harbicht, Head, Assessment and Monitoring, Environment Canada, Yellowknife)  
(Colette Spagnuolo, Environmental assessment / Contaminated Sites Specialist, Environment Canada, Iqaluit)  
(Anne Wilson, Water Quality Specialist, Environment Canada, Yellowknife)