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Department of Environment

Ministère de l'Environnement

June 5, 07

Richard Dwyer
Licensing Trainee
Nunavut Water Board

via Email to: licensingtrainee@nunavutwaterboard.org

RE: NWB FILE # 2BE-MZE – TERRANE METALS CORP. – MAZE LAKE PROJECT

Dear Mr. Dwyer:

The Government of Nunavut, the Department of Environment (DOE) has reviewed the water license application from the Terrane Metals Corp. for the Maze project for conducting gold exploration approximately 45 km west of Whale Cove. The DOE believes the project will not result in significant adverse effects although the potential for negative environmental effects exists. Based on our legislative mandate under the *Environmental Protection Act*, the DOE has the following comments to make regarding waste management and abandonment & restoration.

1. WASTE MANAGEMENT:

Spill Contingency Plan

Based on the DOE *Spill Contingency Planning and Reporting Regulations, Contingency Planning and Spill Reporting in Nunavut: a Guide to the New Regulations, Guideline for the General Management of Hazardous Waste in Nunavut*, we have the following comments and recommendations to make:

- Page 10 of the *Maze Lake Project Spill Contingency Plan* stated that the proponent would “Contact Federal and Territorial regulatory agencies to identify appropriate disposal methods before disposing of contaminated material.” Regulators such as the DOE 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. The regulators 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.

- Page 2 of the spill plan stated that “fuel has been transported to the project area by winter ground transportation.” The proponent should provide information regarding the route of transport and the distance of the route. Additionally, the following spill mitigation measures should be implemented during 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.
- A camp map should be provided to illustrate the facilities relationship to other areas that may be affected by the spill once a camp location is determined. The map should be to scale and be large enough to include the location of your facility, nearby buildings or facilities, roads, culverts, drainage patterns, and any nearby bodies of water.
- The DOE monitors the movement of hazardous wastes from generators, carriers to receivers, through a tracking document (Waste Manifest). A Waste Manifest must accompany all movements, and all parties must register at the DOE with Robert Eno at reno@gov.nu.ca or at (867)975-7748.

Camp Incinerator

The Government of Nunavut is signatory to *Canada-Wide Standards (CWS) for Dioxins and Furans*, and *Canada-Wide Standards for Mercury Emissions*. The DOE therefore requests 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.

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. Furthermore, hazardous wastes should not be managed through burning or incineration.

2. ABANDONMENT & RESTORATION

Based on the DOE *Guideline for Contaminated Site Remediation*, we recommend the following:

- It is important that drill additives used be non-toxic and biodegradable, sumps for drill cuttings be located more than 30 meters from the high water mark of water bodies, and be used for disposal of only inert drilling cuttings, not any other substances. Drill cuttings contaminated with hydrocarbon based drill additives, should be transported to a facility that is approved for the treatment and disposal of industrial wastes.
- Soil contaminated by fuel (e.g., soils under an old storage tank) should be treated on site or removed to an approved disposal site, and replaced with new soil. Soils in the vicinity of fuel and/or chemical storage should be tested and disposed off if necessary.
- Final inspections of the entire site should be conducted by the proponent and lead agency to make sure that all areas of the site have been reclaimed as much as possible to its previous condition. In addition to site pictures as proposed in the license application, soil samples before and after the project would make this process easy on the proponent and leading agencies involved in determining areas of concern.

The DOE thanks the NWB for giving us the opportunity to review and provide comments on the Maze Lake project water license application. Please contact us if you have any further questions or comments.

Yours sincerely,

Original signed by

Helen Yeh
Environmental Assessment Coordinator
Department of Environment
Government of Nunavut



P.O. Box 1000, Stn. 1360
Iqaluit, Nu X0A 0H0
PH: (867) 975-7733
FX: (867) 975-7747
EM: hyeh@gov.nu.ca

