INTERNAL

Environment Canada Environnement Canada

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October 10, 2003

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Nunavut Water Board 001 10 2003 Public Registry

PC DP MA FO LA BS ST Our file: 4705 037 POLA TAI TA2 RC ED CH BRD Via Facsimile EXT.

Dear Dionne:

RE: NWB1POL0311 – Request for Additional Underground Storage for Hydrocarbon Contaminated Soils, Polaris Mine

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.

TeckCominco Ltd. is applying for approval to allow additional underground areas to be used for the storage of hydrocarbon contaminated materials. The new areas will not contain free phase hydrocarbons, the floors of the storage areas will be wetted with water to seal any potential fractures in the bedrock, and access to these drifts will be plugged with muck to isolate these areas from other areas of the mine workings. The areas requested for use include the 820 level, the 790 level and the 760 level, which will provide an additional 27,700 m³ of underground storage space.

Environment Canada appreciates the chance to review this document, offers the following recommendations for your consideration:

- Environment Canada found the presentation of the data in the document difficult to
 follow. It is recommended that the next quarterly report which is to be submitted indicate
 clearly, in tabular format, an up-to-date comparison of the volume of remaining void
 spaces with the current known amount of hydrocarbon and metal contaminated solls
 which are to be deposited underground.
- Environment Canada's understanding of the data presented is that while there is currently sufficient void space underground for storage of known amounts of hydrocarbon and metal contaminated soil (67,700 m³ for hydrocarbon contaminated soils, 126,500 m³ for metal contaminated soils), it is uncertain from the information presented whether this amount will be sufficient in the future. For instance, TeckCominco has already identified an unknown amount of additional hydrocarbon contamination at Cell 3 of the Dock area. Further, while the values presented in Appendix 1 include a 20% swell factor, it is unclear whether the swell factor has been taken into account in the estimations of the amount of contaminated soils remaining to be stored underground. Given that it is reasonable to expect (as has been the current trend) that the amount of soil requiring storage





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underground will increase as the reclamation activities progress, EC recommends that TeckCominco work with the regulators to develop a contingency plan in the event that there is insufficient space for underground storage.

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.meloche@ec.gc.ca.

Yours truly,

Colette Meloche

Environmental Assessment Specialist

cc: (Mike Fournier, Northern Environmental Assessment Coordinator, Environment Canada, Yellowknife)