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Prairie and Northern Region  
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Yellowknife, NT X1A 1E2

July 18<sup>th</sup>, 2007

Our file: 4780005110020

Wek'eezhii Land and Water Board  
P.O. Box 32  
Wekweeti, NT X0E 1W0

*Via email: sbaines@wlwb.ca*

Attention: Sarah Baines

**Re: Ekati Mine – Review of Interim Closure and Reclamation Plan: Parts 6.1-6.3 and Appendix D (related portions)**

On behalf of Environment Canada (EC) I have reviewed the above sections of this document. Parts 6.1 to 6.3 include the summary of closure requirements for the open pits, underground mines and waste rock storage areas (WRSA). Appendix D includes the Engineering Summary.

EC's main concerns focus on water quality with respect to the WRSA, function of the WRSA and the function of the pits post closure. Comments regarding water quality criteria for open pits will be brought forward under review of section 8.

**Open Pits**

- The current plan for the open pits structure includes a combination of steep walls, sloped wildlife access/egress, and beach areas if feasible. The current plan does not have any benching in place and there is little detail on what the final structures would look like ie. How much area will be steep sloped, beached or wildlife egress areas. We anticipate further discussions surrounding the final landscape at closure and the feasibility of a safe area combined with suitable wildlife habitat areas.

**Waste Rock Storage Areas**

- In section 6.1 water quality parameters and numbers are cited in Table 15 with respect to closure discharge criteria for the WRSA. These limits will need to be evaluated in terms of the receiving environment water quality, and in terms of loading which will occur over time, as previously mentioned in our March 19<sup>th</sup> letter.
- With respect to the function of the WRSA and permafrost development, the present model states that the precipitation and infiltration of rainwater and snowmelt will reach the dry permafrost waste rock and freeze in the ice saturated rock. However at some point the dry permafrost will become fully saturated with

ice and any run off may remain in the active layer releasing potentially harmful toxins.

Thank you for the opportunity to comment on the above mentioned sections of the ICRP. If you have any further questions please contact me at (867)-669-4772 or Anne Wilson at (867)-669-4735.

Yours Truly,

Savanna Levenson  
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