Indian and Northern Affairs Canada

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May 1, 2006

Philippe di Pizzo Executive Director Nunavut Water Board P.O. Box 119 Gjoa Haven, NU X0B 1J0

Dear Mr. di Pizzo:

RE: Abandonment and Restoration - Lupin Mine Tailings Containment Area

On behalf of Indian and Northern Affairs Canada (INAC), I would like to thank the Nunavut Water Board (NWB) for the opportunity to review and provide comment on the supplemental information provided by Kinross Gold Corporation (KGC) submitted before and during the Technical meeting in Yellowknife, NT on April 11, 2006.

INAC has had the opportunity to review the supporting documents and have the following comments:

- 1. KGC is maintaining that a 5 year monitoring program of the thermistors and surface water sampling is sufficient, given their past history of the performance of the Tailings Containment Area. The entire A&R Plan, however, is based on the assumption that climate change will degrade the permafrost within a 30 to 110 year timeframe. On this basis, using historical performance of the Tailings Containment Area as an indicator of future performance may not be valid with the loss of the permafrost. In addition, changing climate may lead to increased precipitation that would change the magnitude of water flows and erosion, as compared to what is currently seen at the site. INAC suggests that a longer term for monitoring be considered.
- 2. KGC is proposing that the current dams will be breached to establish a surface water flow pattern in the Tailings Containment Area, as shown on Figure 2 in the Water Management after Closure, Volume II of Seepage and Water Quality for Reclaimed Tailings Containment Area document. Metal concentrations in the water at the discharge point into Seep Creek are expected to be low based on the historical data and the low contribution the seepage water from the tailings provides to Pond 1 and 2. The low concentrations currently seen in the ponds are due to dispersion within the ponds lowering the ultimate concentration. When the



ponds have been breached, a preferential flow path may be developed within the ponds that would transport the dissolved metals, as well as any suspended metals. This may increase the metal loading in Seep Creek and ultimately Contwoyto Lake. This may not happen for many years after the initial breach and may be enhanced by climate change. INAC suggests that the KGC investigate this possibility.

- 3. The hydraulic conductivities used in the seepage analyses (Geotechnical, Seepage and Water Balance, Volume I of Seepage and Water Quality for Reclaimed Tailings Containment Area document) are all estimates. INAC suggests that KGC obtain actual hydraulic conductivity values for the Lupin tailings to provide a greater validity to the modeling. In addition, the groundwater flow in the bedrock will be entirely through fracture flow. Depending upon the size and interconnectivity of the fractures, the hydraulic conductivity of the bedrock in localized areas (fault or highly fractured zones) can be two orders of magnitude higher than values used in the modeling. INAC suggests KGC run a scenario with a high conductivity zone within the bedrock to cover a worst case scenario.
- 4. In the document, Geochemistry and Water Quality, Volume III of Seepage and Water Quality for Reclaimed Tailings Containment Area, Lupin Operation, a summary of the water quality trends in the ponds is presented. It is noted in the summary that "... lime was spread over the ice in Pond 2 during the winter months of 1992. Approximately 2530 tonnes of lime have been added on a yearly basis in April. However, in 2005, only 4 tonnes of lime were added, and the pH dropped as a result as can be seen in Figure 2.4." This implies that the improvement in surface water quality seen in the Pond 2 was due to the lime addition and not to decreased metal loading from the covering of the tailings. INAC would like KGC to clarify this.

If you have any questions or concerns please contact Jim Rogers, Manager – Water Resources at (867) 975-4550 or myself at (867) 975-4280.

Sincerely,

Alfa Spencer Dewar

Manager, Land Administration