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Your file - Votre référence
2AM-LUP
Our file - Notre référence
CIDMS 116495 / 9545-1

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Sent via email

Re: 2AM-LUP - Kinross Gold Corporation - Lupin Mine - 2006 Geotechnical Report

Indian and Northern Affairs Canada (INAC) has reviewed the 2006 Geotechnical Report for the Lupin mine submitted by Kinross Gold Corporation. The following advice has been provided pursuant to INAC's mandated responsibilities under the *Nunavut Waters and Nunavut Surface Rights Tribunal Act* (NW&NSRT), *Arctic Waters Pollution Prevention Act* (AWPPA), and the *Department of Indian Affairs and Northern Development Act* (DIAND Act).

Kinross Gold Corporation's (Kinross) 2006 geotechnical report of the Lupin Mine's Tailings Containment Area is to satisfy its water licence requirements (Part D, Item 6G). This report outlines the findings of a BGC Engineering Inc. inspection conducted on August 17th and 18th, 2006

Indian and Northern Affairs Canada makes the following recommendations to the Nunavut Water Board on the submitted 2006 Geotechnical Report:

- Kinross should submit a formal letter which outlines an implementation plan to respond to the recommendations provided by BGC Engineering Inc. as required in the Lupin Mine water licence.
- the proponent should continue to monitor temperatures of Dam 1A's active layer using all of its thermistors. According to the submitted report, thermistor D1A-00-02 is not collecting data near Dam 1A's surface.
- the proponent should continue to monitoring cover temperatures in the mid-point of Dam 2. According to the submitted report, thermistor D2-00-03 ceased collecting temperature readings in March 2006.

- the proponent should inform the Nunavut Water Board of its intentions for maintaining effective rip rap cover at Dam 1A. The disturbed area should be either re-graded or the proponent should provide justification for its decision to leaving the rip rap cover in its present state.
- the proponent should provide the Nunavut Water Board with a detailed description of seepage observed at the Dam 2 northeast abutment toe and possible reasons for its occurrence, specifically, the approximate surface area, depth, volume of seepage, and the amount and severity of observed erosion.
- the proponent should provide a detailed description of toe cracks observed at Dam 3 including the length, frequency, and changing properties of these cracks and a comparison to previous inspections.
- the proponent should submit a detailed description of seepage within the Dam 4 cofferdam area which originates from a downstream lake (i.e., surface area, depth, change in area from previous observations). Furthermore, the proponent should inform the Nunavut Water Board on their plans to mitigate this seepage area and an analysis of its impact to the Lupin Mine's reclamation status. INAC is satisfied with BGC Engineering Inc. recommendation that the Dam 4 west abutment be graded and that erosional gullies on the downstream slope be backfilled.
- the proponent should submit a detailed description of the significant erosional gully located in the midpoint of the Dam 5 downstream face (i.e., dimensions). INAC is satisfied with the BGC Engineering Inc. recommendation that the dam crest be graded to prevent further surface water channelization and that the erosional gulley be repaired.
- the proponent submit a detailed description of the longitudinal cracks and erosional gullies observed in the Dam 6 toe (i.e., dimensions and frequency). Furthermore, the Nunavut Water Board should request the proponent to explain the mitigation works planned for these observed surface faults.
- the proponent should submit a detailed description of the pond which has formed on the upstream side of Dam 6 (i.e., surface area and depth) and describe, if determined to be detrimental to the reclamation of the Lupin Mine, how they will mitigate or modify the seepage pond.
- The Nunavut Water Board and the INAC Inspector should remind the proponent that Part D, Item 6 b and c of the Lupin Mine license state that seepage for the Tailings Containment Area must be minimized and that any seepage that occurs must be collected and returned immediately to the Tailings Containment Area. These licence requirements should be addressed in an implementation plan to address present and future geotechnical inspection findings.

Indian and Northern Affairs Canada requests notification of any changes in the proposed project, as further review may be necessary. Please do not hesitate to contact me if you have any questions or comments with regards to the foregoing.

Sincerely,

Original signed

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