



DETON'CHO / NUNA JOINT VENTURE

Giant Minesite
P.O. Box 2951
Yellowknife, NT
X1A 2R2

Tel (867) 669-3725

Fax (867) 669-3701

E-mail carolinam@nunalogistics.com

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Public Works and Government Services Canada

4th Floor Greenstone Building, 5101 – 50th Avenue

P.O. Box 518

Yellowknife, NT X1A 2N4

Attention: Rob Girvan, Project Manager, Northern Contaminated Sites, Western Region

Re: 2013 Annual Geotechnical Inspection - Action Plan for Giant Mine

Dear Mr. Girvan:

As per the terms and conditions of the Care and Maintenance contract for Giant Mine, the former Water License (N1L2-0043) stipulates that an Annual Geotechnical Inspection will be performed by an NWT Certified Geotechnical Engineer. A copy of this report and subsequent action plan arising from any recommendations in the report is to be submitted to Public Works and Government Services. The 2013 inspection of Giant Mine was carried out by John Hull and Chad Mundle, both Geotechnical Engineers from Golder Associates, between June 5th and June 7th. The inspectors were accompanied by Carolina Mora, Environmental Coordinator for Giant Mine. DCNJV is pleased to provide the following action plan to address issues noted in the above captioned report. An electronic copy of the report accompanies this submission. Hard copies of the report will be submitted upon receipt.

ISSUES AND RECOMMENDATIONS

All recommendations made in previous inspections have been addressed.

The following recommendations arise from the 2013 inspection:

- As a result of settlement, the maximum water level of Dam 1 should be 174.37 m, which provides 1 m of freeboard.

Action Plan: *The minimum crest elevation on the Dam #1 spreadsheet will be adjusted to reflect the new lower elevation and the bathymetry calculations will be adjusted accordingly.*

- Continue to monitor the settlement plates and crest elevation at Dam 1.

Action Plan: *As in the past, the settlement plates and crest elevation of Dam #1 will continue to be monitored.*

- Continue to monitor the seepage at the eastern abutment of Dam 1.

Action Plan: *As in the past, the seepage at the eastern abutment of Dam #1 will continue to be monitored for changes in volume and sediment loading.*

- The water levels in the North Pond and the Settling Pond should continue to be monitored in order to maintain the desired water level differential of less than approximately 1.7 m.

Action Plan: *As in the past, the water levels in the North Pond and the Settling Pond will continue to be monitored to maintain the recommended water level head differential of less than 1.68 m.*

- Continue to regularly monitor the crest and slopes of the Solids Retention Dyke, particularly during the operations of the Effluent Treatment Plant.

Action Plan: *As in the past, the crest and slopes of the Solids Retention Dyke will continue to be monitored for cracks and settlement, with particular attention to periods when the Effluent Treatment Plant is being operated.*

- Should erosion of tailing continue to occur from natural runoff at Dyke 6, a proper spillway should be constructed to direct runoff over the crest and downstream face of Dyke 6.

Action Plan: *Consideration will be given to construction of a proper spillway to control runoff at the downstream face of Dyke #6 in the event of continued erosion.*

- The water level in the Northwest Pond should continue to be monitored in order to maintain 1 m of freeboard.

Action Plan: *As in the past, the water level in the Northwest Pond will continue to be surveyed and recorded during all year round to ensure that the recommended water level is not exceeded.*

- Continue to use the maximum water level of 193.25 m (1 m freeboard) for the Northwest Pond.

Action Plan: *For 2013, the recommended maximum water level in the Northwest Pond will continue to be 193.25 m (1 m freeboard).*

- The area in the vicinity of Dam 21A should continue to be monitored for the occurrence of sinkholes.

Action Plan: *As in the past, the area in the vicinity of Dam 21A will continue to be monitored for the occurrence of sinkholes. Any sinkholes that are encountered will be recorded as to size and location, and backfilled with suitable material.*

- Inspect the area downstream of Dam 21D for beaver dams which may be increasing the water level of the downstream marsh land; and

Action Plan: *As in the past, the marshland area downstream of Dam 21D will continue to be monitored for the presence of beaver dams, which will be removed in the event the physical stability and/or safety of the area is threatened.*

- Place rockfill on the crest of B2 Dam to cover exposed clay core resulting from settlement of the upstream slope or provide inspection report / survey to confirm work was completed.

Action Plan: *Rockfill will be placed on the crest of B2 Dam to cover the exposed clay core. A technical inspection report will be issued to confirm that this work has been completed.*

This concludes the 2013 Action Plan to deal with issues arising from the Annual Geotechnical Inspection of Giant Mine. Should you require additional information, please contact the writer by telephone at (867) 669-3725, or by e-mail at carolinam@nunalogistics.com

Sincerely,



Carolina Mora
Environmental Coordinator, DCNJV

Distribution:

Adrian Paradis, Regulatory Manager - AANDC
Jane Amphlett, Operations Manager - AANDC
Tara Kramers - AANDC
Mike Borden, Mine Manager – DCNJV
Ron Connell, Environmental Superintendent - DCNJV