



Bralorne Gold Mines Ltd.  
General Delivery  
Gold Bridge, BC  
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Mr. Al Hoffman,  
Chief Inspector of Mines  
Ministry of Energy, Mines and Natural Gas  
Health and Safety and Permitting Branch  
PO Box 9320 STN Prov Govt  
Victoria BC V8W 9E2

December 1, 2014

**Re: 2014 Dam Safety Inspection report for Bralorne Gold Mines Ltd.**

Under cover of this letter, please find the 2014 Dam Safety Inspection (DSI) report for the tailings facility at the Bralorne mine and the results of the third-party review. The DSI report was prepared by Tetra Tech EBA Inc., and the third party review of the DSI report was subsequently provided by Peter Lighthall, P.Eng., Consulting Geotechnical Engineer.

Bralorne Gold Mines Ltd is committed to ensuring the safe operation of the tailings facility and dam structure under our control. The tailings facility is inspected daily by on-site personnel. DSIs are conducted on an annual basis and detailed Dam Safety Reviews will be conducted in accordance with CDA and BC Dam Safety guidelines. Piezometer readings, seepage quantities, and freeboard and settlement pins are monitored routinely. All monitoring and surveillance practices meet industry standards.

As outlined in the DSI and confirmed by the third-party engineer review, no immediate stability concerns were noted for the Bralorne tailings storage facility or dam structure. The Bralorne TSF 2014 Annual Dam Safety Inspection has confirmed that no visual or monitoring instrumentation evidence of embankment cracking or distress was observed and the stability analysis for the embankment reflects current guideline requirements. The DSI concludes that the tailings storage capacity is of concern and recommends efforts to address this. The independent review has also confirmed the current assigned Consequence Classifications for the dam.

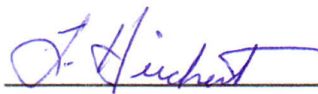
All tailings dams with a failure consequence classification of high, very high or extreme require a dam break and inundation study. This has been conducted by Tetra Tech EBA Inc. We have an emergency preparedness and response plan (EPRP) in place and it has been tested. A review of the emergency procedures was conducted, contact information was reviewed and verified, and emergency pumping equipment was assessed for readiness.

Several recommendations pertaining to maintenance and/or opportunities to further develop industry leading practices were identified in the DSI report. Tables 1 and 2 have been provided in order to rank the priority of the recommendations from the report against priority descriptors that are being used by MABC membership during this process. Bralorne is taking steps to address each recommendation as detailed in table 2.

Bralorne is focused on meeting the highest standards of safety for our tailings facility. Annual inspection reports are one component of the comprehensive system in place for the safe operation and monitoring of our tailing facility. These systems follow industry best practices, including all of the applicable guidance provided by the Canadian Dam Association and the Mining Association of Canada.

Please do not hesitate to contact me if you have any further questions regarding the operation, maintenance and monitoring of our tailings facility.

Sincerely,



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Lee Heichert  
Mine Manager  
Bralorne Gold Mines Ltd.

## Recommendations and Action Items

Table 1: Description of Priority Rankings

Priority	Description
1	A high probability or actual dam safety issue considered immediately dangerous to life, health or the environment, or a significant regulatory concern.
2	If not corrected, could likely result in dam safety issues leading to injury, environmental impact or significant regulatory action; or, a repetitive deficiency that demonstrates a systematic breakdown of procedures.
3	Single occurrences of deficiencies or non-conformances that alone would not be expected to result in dam safety issues.
4	Best Management Practice as a suggestion for continuous improvement towards industry best practices that could further reduce potential risks. This typically includes ongoing construction items within the appropriate construction cycle.

Table 2: Recommendations and Planned Action for Bralorne Tailings Facility

Structure	Recommendation	Priority	Planned Action	Timeline for action
Bralorne Tailings Dam	Embankment raise be constructed at earliest opportunity to create adequate capacity for tailings, process water, and design storm event storage.	2	Embankment raise design submitted to the Ministry of Energy and Mines. Waiting permit amendment before construction can proceed.	Commence construction at earliest opportunity in spring 2015 as soon as weather conditions allow.
	Pond water elevations should continue to be collected and reviewed as per the plan outlined	2	Pond water elevations to be collected and reviewed as follows: a. >1 m of freeboard = as per OMS. b. 1.0 to 0.5 m of freeboard = daily monitoring (see recommendation #5). c. 0.5 m to 0.3 m of freeboard = twice daily monitoring. d. <0.3 m = hourly monitoring.	Currently in Practice
	Water from in the supernatant pond should be managed to ensure that the minimum freeboard is maintained.	2	If the recommended minimum freeboard of 1.0 m is impinged upon, Bralorne should notify the Ministry of Environment and, should freeboard reach 0.5 m, Bralorne will seek approval for an emergency bypass. If an emergency bypass is required, Bralorne will install a pump and water would be pumped to an unlined settling pond on site where it would seep into the substrate.	Currently in Practice  Bralorne has applied to the Ministry of Environment and is awaiting an amendment to its discharge permit to allow treatment and discharge of supernatant.

Table 2 (Continued)

Bralorne Tailings Dam	During the routine inspections, the mine should monitor for evidence of 'run-on' surface water flow and consider further improvements to surface water diversion around the dam if this is observed. In addition, the slurry and water pipe lines should be visually assessed during these inspections.	3	<p>Monitor for evidence of 'run-on' surface water flow.</p> <p>Make further improvements to surface water diversion around the dam if surface "run-on" observed.</p> <p>Visually assess the slurry and water pipelines during routine inspections.</p>	Current; Practice: Improvements in 2015
	Monitoring and review of the survey hubs should continue as per the OMS Manual.	4	Monitoring and review of the survey hubs	Current Practice
	Tailings deposition should be managed to maintain a tailings beach against the upstream face of the embankment and maintain the pond away from the embankment, thereby reducing the potential for erosion and seepage through the dam.	4	Continue to manage tailings deposition to maintain a tailings beach against the upstream face of the embankment and maintain the pond away from the embankment, thereby reducing the potential for erosion and seepage through the dam.	Current Practice
	Seepage quality and quantity measurements should continue to be collected and reviewed.	4	Continue to collect and review seepage quality and quantity measurements.	Current Practice
	Measurements using the 5 gallon pail at the outlet pipe further downstream at SP3 should be continued to provide reference with historical measurements.	4	It is noted that Bralorne now use a flume at Seepage 3 to monitor flow rate as approved by the Ministry of Environment. Measurements using the 5 gallon pail at the outlet pipe further downstream at SP3 should be continued to provide reference with historical measurements.	December 1, 2014