

December 1, 2014

Al Hoffman, Chief Inspector c/o Heather Narynski and/or George Warnock Ministry of Energy and Mines 6th Floor, 1810 Blanshard St Victoria, BC V8W 9N3

Dear Mr. Hoffman:

## Re: 2014 Dam Safety Inspection report for KGHM Ajax Mining Inc. Historic Afton Tailings Storage Facility

Under cover of this letter, please find the 2014 Dam Safety Inspection (DSI) report for the tailings facility at the site of the Historic Afton Mine, referred to as the Afton Tailings Storage Facility (TSF), and the results of the third-party review. The DSI report was prepared by the Engineer of Record (EOR), Knight-Piésold Ltd who assumed this role in 2013. The DSI was initially submitted to MEM on October 1, 2014 to satisfy an order received earlier this year for the Afton TSF. KGHM is resubmitting this same document to comply with the Chief Inspectors order dated August 18, 2014. The independent review of the DSI was subsequently provided by Tetra Tech EBA.

KGHM Ajax Mining Inc. (KGHM) is committed to the safe operation of all tailings facilities and dam structures under our control. KGHM has no active tailings facilities in British Columbia. The Afton TSF is under care and maintenance, and the facility is inspected weekly by on site personnel. DSI's are conducted on an annual basis and detailed Dam Safety Reviews are conducted by a third-party engineer every 5 years. All monitoring and surveillance practices meet or exceed industry standards.

As outlined in the DSI and confirmed by the third-party engineer review, no immediate safety or stability concerns were noted for the Afton TSF or related structures. The independent review has also confirmed the currently assigned Consequence Classifications for dams associated with the facility.

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 Knight-Piésold Ltd. We have an Emergency Preparedness and Response Plan (EPRP), in place that was tested on November 19, 2014. The test involved a record rainfall scenario that caused an imminent breach of the TSF West Dam. The test ran smoothly with only a few minor EPRP gaps that included current Engineering and Mine Manager contact information. These deficiencies were immediately addressed through the revision of the EPRP.

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The DSI report made several recommendations pertaining to maintenance and/or opportunities to further develop industry- leading practices. Recommendations and planned actions provided by our EOR are listed in Table 2 in order of priority based on descriptors used by Mining Association of British Columbia (MABC) members during this process. KGHM Ajax Mining Inc. is taking steps to address each recommendation as outlined in the below table. Items marked low priority were identified by the EOR as non-urgent and not expected to result in dam safety issues. Recommendations marked as best practices were identified by the EOR as opportunities to further meet industry best practices, but the timeline for completion exceeds one year.

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

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

Sincerely,

Christopher J. Wild, P.Eng. Mine Manager, KGHM Ajax Mining Inc.

Encl:

- 1) 2014 Afton TSF Annual Inspection Report, Knight Peisold
- 2) Dam Breach Inundation Study Report, Knight Peisold
- 3) Review of the Afton TSF Annual Inspection Report, Tetra Tech
- 4) Afton TSF Emergency Response Procedure and OMS, KGHM
- 5) Minutes from Emergency Response Plan test, KGHM

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## **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 Historic Afton Tailings Facilities

Recommendation from DSI Report	Priority Ranking	Status	Target Completion
Upgrade the Alkali Creek Diversion Channel to meet the designated 1 in 200 year peak flow estimate (recommendation arising from 2013 DSR)	3	March – June, 2014	Complete
Remove the plywood gate, vegetation, and debris blocking the outlet culvert at the Northwest Seepage Pond	3	September 2014	Complete

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Develop an action plan with New Gold demonstrating that the interaction between New Gold's block-cave mine and the Afton TSF is being fully assessed in terms of dam safety and underground mining safety, considering current and predicted future subsidence conditions as the mine advances.	2	In Progress	March 2015
Establish formal procedures for data sharing and communication protocols with New Gold so both parties are aware of, and regularly updated on, the information on hand and the potential risks associated with the interaction between the block- cave mine and the Afton TSF.	4	In Progress	January 2015
Dewater (pump out) or otherwise displace the tailings pond away from the East Dam to reduce the risk of water and tailings ingress to the underground mine should a subsidence crack extend into the TSF in the future.	3	In Progress	June 2015
Install Vibrating Wire Piezometers in the East and West Dams to monitor pore water pressures in the dams and foundations and to improve the emergency response procedures for the facility	3	October 2014	Complete
Update the EPRP to include the results of the dam breach inundation mapping and to include an instrumentation monitoring schedule and trigger levels for all instrumentation in the tailings dam that is relevant to dam safety (piezometers, prisms, slope inclinometers, etc.).	3	Completed	Complete

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Recommendation from 3rd Party Review Report	Priority Ranking	Status	Target Completion
Inspect the East Diversion Dam at Alkali Creek	3	To be completed in spring 2015	May 2015
The recommended spillway design review scope should include visual inspection of as much of the spillway as safely possible.	4	To be completed in spring 2015	May 2015
The proposed update to the OMS should include additional explanation of how and when inspections are carried out, a checklist for the inspections, how maintenance is triggered, etc. The updated OMS should reflect the recommendations for dam surveillance presented in the CDA guidelines.	3	Completed	Complete
The proposed stability assessment of the East Dam (2013 Dam Safety Review recommendation) should include a review of block cave subsidence impact and consideration of potential piping failure.	3	In Progress	March 2015
Consideration of the need for measurement and communication protocols associated with potential discharges from the spillway that would be conveyed to the New Gold site should be included in the updated EPRP.	3	Complete	Complete

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