February 3, 2015

To: Michelle Unger, Mine Manager - Pinchi Lake – Teck

As you know, the Expert Panel that was convened to examine the Mount Polley tailings dam breach has issued a report on their findings. This report has been made public and you may already be familiar with the conclusions of this report. Chief among these was the determination that the failure at Mount Polley was related to the presence of weak glacio-lacustrine soils in the dam foundation. The Panel also indicated that the severity of the consequence of failure was in large part owing to the quantity of stored water and the proximity of this water to the dam embankment (i.e. lack of beach). The Ministry of Energy and Mines (MEM) requires confirmation that the conditions that lead to the incident at Mount Polley are not present at other mines in B.C.

More specifically, you are required to undertake an assessment to determine if the dam(s) associated with your tailings storage facility/facilities may be at risk due to:

1. Undrained shear failure of silt and clay foundations;
    a. Including a determination with respect to whether or not similar foundation conditions exist below the dams on your site,
    b. Whether or not sufficient site investigation (drill holes, etc.) has been completed to have confidence in this determination,
    c. If present, whether or not the dam design properly accounts for these materials, and
    d. If any gaps have been identified, a plan and schedule for additional sub-surface investigation.

2. Water balance adequacy;
    a. Including the total volume of surplus mine site water (if any) stored in the tailings storage facility,
    b. The volume of surplus mine water that has been added to the facility over each of the past five years,
    c. Any plans that are in place or that are under development to release surplus mine water to the environment,
    d. Recommended beach width(s), and the ability of the mine to maintain these widths,
    e. The ability of the TSF embankments to undergo deformation without the release of water (i.e. the adequacy of the recommended beach width),
    f. Provisions and contingencies that are in place to account for wet years, and
    g. If any gaps have been identified, a plan and schedule for addressing these issues.

3. Filter adequacy;
    a. Including the beach width and filter specifications necessary to prevent potential piping,
    b. Whether or not the filter has been constructed in accordance with the design, and
    c. If any gaps have been identified, a plan and schedule for addressing these issues.

The Ministry is cognizant of the demands that were placed on your company by the Chief Inspector's Orders of August 18, 2014, and does not wish to place any additional undue burdens on your company. However, the previous Orders were issued before the mechanism of failure was known. Consequently, you are asked to provide a letter of assurance to respond to the items listed above. The letter is to be prepared and sealed by a qualified professional engineer, and is to be submitted to the Chief Inspector of Mines by June 30, 2015. To facilitate MEM's review, you are asked to maintain the above numbering system in your response to each item.

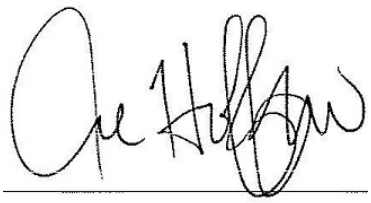
It is envisioned that the above items would best be addressed through a fulsome review of existing information. Where this information has not been compiled, it will be necessary to conduct a review of historical information to determine if any gaps remain in the understanding of the relevant conditions for the tailings storage facility dams on your site. Where appropriate, follow-up actions shall be identified that will be taken to address any opportunities for improvement.

Documents supporting the letter of assurance shall be maintained on-site and shall be made available to any Inspector of Mines upon request.

It should be noted that the Panel made a number of additional recommendations in Chapters 9 and 11 of their January 30, 2015 *Report on Mount Polley Tailings Storage Facility Breach.* MEM is in general agreement with all of the recommendations, and will be examining each of them to determine how they can be implemented over the coming weeks and months. You are asked to do the same.

Thank you for your prompt attention to these matters,

Regards,



Al Hoffman, P. Eng.
Chief Inspector of Mines
Ministry of Energy and Mines

Cc: Diane Howe, Deputy Chief Inspector, Reclamation and Permitting, MEM
George Warnock, Manager, Geotechnical Engineering, MEM
Heather Narynski, Sr. Geotechnical Inspector, MEM