

# Ministry of Energy and Mines

Mines and Mineral Resources Division

**MEMORANDUM** 

Date: September 30, 2015

To: Bruce Donald, Mine Manager

Legacy Properties, Bullmoose Mine

Cc: Diane Howe, Deputy Chief Inspector, Reclamation and Permitting, MEM

Heather Narynski, A/ Manager, Geotechnical Engineering, MEM

### Re: Review of Letter of Assurance Submission from June 30, 2015

The Ministry of Energy and Mines (MEM) has engaged a consulting firm to evaluate the consistency and compliance of your letter of assurance in response to the Chief Inspector's orders issued on February 3, 2015. This review has determined that your submission satisfies the requirements of the order.

Below is a summary of the assessment made by your Qualified Professional Engineer (QPE), it is understood that no immediate gaps have been identified:

### Status of Foundation Condition

"The available foundation characterization data review for the Bullmoose Tailings Dams (BTD) did not indicate the presence of glaciolacustrine silt or clay deposits. The surface topography in the Bullmoose coal mine site is primarily bedrock controlled and the surface geology is dominated by glacial, glacio-fluvial and post-glacial alluvial fan deposits."

## **Status of Water Balance Adequacy**

"The BTD impoundment is closed and currently holds no surplus mine water. In the event of an extreme flood, the open channel spillway will provide additional outflow capacity to release additional inflow."

### Status of Filter Adequacy

"The design filter interfaces were adequate to prevent potential piping. No issues related to piping or indicators (e.g. turbid seepage) were noted in available record documents, which provide some indication of adequate filter performance. There are gaps in the available grains size records for BTD but no further assessment is required to evaluate the filter adequacy for BTD based on: ... there are no issues in the available construction records ... filter performance was demonstrated by clear seepage ... the current piezometric gradients are lower than those present during operation."

Please ensure that any recommendations made by your Qualified Professional Engineer have been addressed.

The orders issued on February 3, 2015 have been requested to provide assurance the conditions at the Mount Polley dam do not exist in other facilities. Please ensure that you are meeting your other ongoing requirements to ensure Tailings Storage Facility safety with respect to the following:

- Satisfying any outstanding orders from previous Ministry inspection reports.
- Satisfying any outstanding recommendations from previous Dam Safety Inspections (DSI) or Dam Safety Reviews (DSR).

It is expected that you will ensure dam safety management is continuously reviewed, improved and refined throughout the life of mine.

Thank you for your submission to the orders of February 3, 2015.

Sincerely,

Al Hoffman, P. Eng. Chief Inspector of Mines

Ministry of Energy and Mines