



UNIVERSITY OF BRITISH COLUMBIA

NORMAN B. KEEVIL Institute of Mining Engineering

tel: 604 822 2540 fax: 604 822 5599 517, 6350 Stores Road, Vancouver, BC V6T 1Z4 www.mining.ubc.ca

Honourable Bill Bennett
Minister of Energy and Mines
PO BOX 9060, STN PROV GOVT
Victoria, BC V8W9E2

August 18, 2015

Dear Minister Bennett,

I have observed with interest the public dialogue around tailings management options following the Mount Polley tailings storage facility failure and would like to take this opportunity to provide you with some of my thoughts with respect to tailings management facility (TMF) design related to best available technology (BAT).

The Independent Expert Engineering Investigation and Review Panel identified three components to accomplish BAT and listed filtered tailings ("dry stack"), underground backfill and mined out pits as examples of potential management options.

The geology, topography and climate of British Columbia are diverse and varied. Considerations for selecting a tailings management option requires site specific measures to result in a stable and resilient tailings deposit; one size does not fit all. Structural integrity must be the number one priority of the design and management of every TMF.

Following the release of the Panel report, the Panel met in Prince George on March 20, 2015, as part of a discussion on tailings management involving government, First Nations and industry. There was further discussion about this topic, specifically risk management practices, including redundancies in design. It was emphasized that, like most technologies, there are variations for site specific tailings management that could satisfy BAT and there are opportunities for industry to explore new innovations with respect to tailings management.

In my opinion, BAT is not a single technology; its selection is based on a site-specific risk management process with the outcome of a stable and resilient tailings deposit. Thank you for the opportunity to provide you with my thoughts. Should you be interested, I would be pleased to discuss these ideas with you further.

Sincerely,

A handwritten signature in black ink that reads "Dirk van Zyl". The signature is written in a cursive style with a horizontal line under the name.

Dirk van Zyl, Ph.D., P.Eng.
Professor, Chair of Mining and the Environment