



Energy, Mines and Resources  
Box 2703, Whitehorse, Yukon Y1A 2C6

September 11, 2017

Mr. Jing You Lu  
Chief Operating Officer  
Yukon Zinc Corporation  
Suite 705, 1030 W Georgia Street  
Vancouver, BC V6E 2Y3

Dear Mr. Lu,

**Re: Updated Water Balance and 2017 Dam Safety Review**

I understand that Yukon Zinc will be providing a Revised Reclamation and Closure Plan for my review and approval later this month. In advance of this submission, we have had several informative meetings with Yukon Zinc to discuss the proposed concepts to be included in the revised plan and we have provided comments, from Yukon Government Departments and Yukon's consultants, on issues Yukon would like to see addressed in the Revised Reclamation Plan.

Recently, we have identified several other matters, which I think would also be usefully addressed in the Revised Reclamation Plan submission. The rest of this letter provides a description of these matters. We are available to discuss these points for clarity. I hope that this feedback will result in a better Revised Reclamation Plan that can be reviewed in a timely way.

YZC recently submitted the following documents:

1. Submitted August 11<sup>th</sup>, 2017 - "*Yukon Zinc Corporation Wolverine Mine – Dam Safety Review, Tailing Storage Facility and Earth Structures*" report, produced by Klohn Crippen Berger; and
2. Submitted August 17<sup>th</sup>, 2017 - "*Request for Written Water Treatment Plan*" memo, produced by Shuksan Environmental Services Ltd.

In response to the flooding of the underground workings in June 2017, these documents have become more critical to understanding the potential implications of reclamation and closure activities. After careful review of the material provided, we provide the following comments for YZC to address in the revised Reclamation and Closure Plan, to be submitted later this month:

1. Describe how the predicted annual average inflow rate for the underground workings compares to the previously predicted inflow rates (Woo Shin, April 2015).

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- a. Shuksan Environmental memo refers to historic inflow rates between 2012 and 2014. These were utilized previously and provided an inaccurate inflow rate – predicting a flooded adit volume for Spring 2018.
2. Calculate the actual underground inflow rates using the volume of the underground workings and compare to the predicted inflow rates used in the water balance.
  - a. Reconcile predicted inflow rates, and project predicted actual pond elevation through January 2020 using the reconciled water balance.
3. Provide clear recommendation from the (Engineer of Record) EOR on the maximum safe water level (figures do not currently show freeboard and spillway, just dam crest) in the TSF for the following scenarios:
  - a. Liner is repaired at the North End Slump area
  - b. Liner is not repaired
4. Provide clear recommendations from the EOR on the instrumentation and monitoring requirements for the TSF during the current state of temporary closure and if temporary closure is granted an extension.
  - a. Do higher water levels in the TSF trigger more rigorous monitoring as the water level approaches the spillway freeboard?
5. Provide an updated Operating, Maintenance and Surveillance Manual (OMS) as part of the updated Reclamation and Closure Plan for review and approval by September 30, 2017
  - a. The EOR recommendation for December 2017 does not allow adequate time for review before the current temporary closure expires in January 2018.

Please note that points number 3, 4 and 5 above address the requests made in a recent letter from Paul Christman to Mr. Jing You Lu, dated August 8<sup>th</sup>, 2017. These comments provide greater clarity to our request for a written summary from the EOR, providing review and recommendation on the intended use of the TSF.

Should you have any further questions or require clarification, do not hesitate to contact me. We look forward to receiving the Revised Reclamation and Closure Plan and to working with Yukon Zinc in finalizing these plans.

Sincerely,



Robert Holmes  
Director, Mineral Resources

cc: Paul Christman, Chief Mine Engineer  
Heather Jirousek, Director, Water Resources Branch  
Sevn Bohnet, Senior Natural Resources Officer  
Roger Lockwood, Director, Water Board Secretariat