



Snap Lake Environmental Monitoring Agency
Main Floor, Lahm Ridge Tower
4501 Franklin Avenue
P.O. Box 95, Yellowknife, NT X1A 2N1
Phone: 867-765-0961 FAX: 867-765-0963
Website: www.slema.ca

Kierney Leach
Regulatory Officer
Mackenzie Valley Land and Water Board
7th Floor – 4910 50th Avenue
P.O.Box 2130
Yellowknife, NT X1A 2P6

File: Water Licence MV2011L2-0004

June 14, 2016

Re: Follow-Up Report on Spill Report #16-147

Dear Ms. Leach,

Snap Lake Environmental Monitoring Agency (SLEMA) has reviewed De Beers' Follow-Up Report on Spill Report #16-147, and would like to provide the following comments.

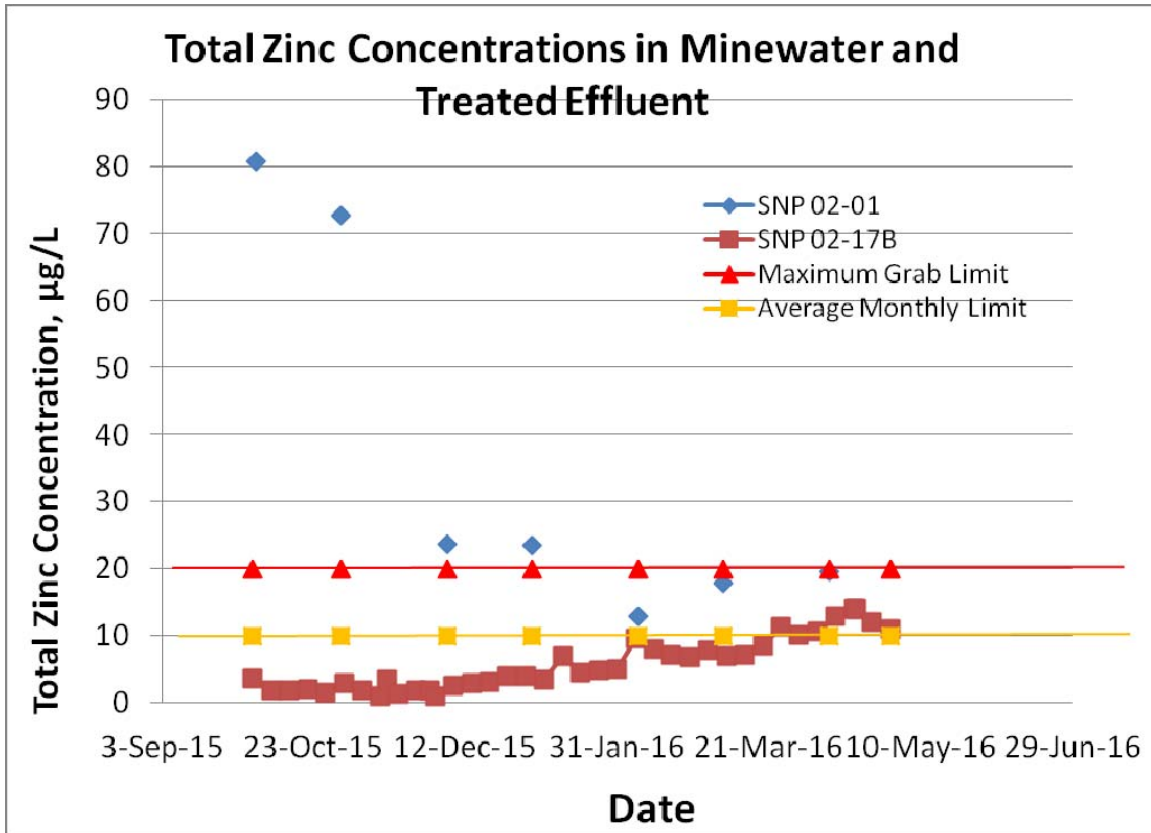
SLEMA understands that the average monthly concentration of zinc in effluent (SNP 02-17B) exceeded the limit of 10 µg/L in April, and the exceedance was reported on May 4, 2016; De Beers investigated the spill and reported additional information to the Inspector on May 11, 2016; De Beers continued to take actions to bring the Mine back into compliance with the water licence.

The Site-Specific Water Quality Objective (SSWQO) for Zinc is 30 µg/L, which is equal to CCME water quality guideline value for Zinc for the protection of aquatic life. Current Zinc concentrations in Snap Lake are lower than 3 µg/L, as indicated in SNP April 2016 Monthly Report. The exceedance event (spill) is not predicted to cause immediate impacts to aquatic life. However, it is recommended that De Beers provide follow-up reports on a monthly basis until the compliance with the water licence is confirmed by the Inspector.

SLEMA conducted data analysis for the Total Zinc concentrations in minewater (SNP 02-01) and treated effluent (SNP 02-17B). The following figure shows that the Total Zinc concentrations in treated effluent have been going up since January 2016, and frequently above Average Monthly Limit (AML, 10 µg/L) in March and April 2016.



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De Beers presents the concentration trend for all parameters, which are regulated in the water license, in the SNP Monthly Reports. The Maximum Grab Limits (MGL) are shown in those figures for comparison with the measured data for management purpose. That may not be good enough.

If De Beers had added the AML into the figure for Total Zinc, De Beers would have had an early warning signal, and possibly have identified and prevented from the exceedance event.

It is recommended that De Beers add the AML into the figures of SNP Monthly Reports to improve data reporting and water management.

- Orange line for AML as early signal, and
- Red line for MGL as immediate action level.

If you have any questions whatsoever please feel free to contact Philippe di Pizzo at 867-765-0961 / exec@slema.ca.



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Sincerely,

Original signed by

Philippe di Pizzo
Executive Director