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NUNAVUT WATER BOARD
NUNAVUT IMALIRIYIN KATIMAYINGI
OFFICE DES EAUX DU NUNAVUT

File No.: **1AR-NAN2030**

August 18, 2020

Todd Milne, Global Head of Environment
Canzinc Mines Ltd.,
2900 – 550 Burrard Street,
Vancouver, B.C. V6C 0A3

Email: todd.milne@nyrstar.com

RE: NWB Technical Review of 2019 Annual Report for the Closure, Reclamation and Post-Closure Monitoring of the Nanisivik Mine; Water Licence No. 1AR-NAN2030

Dear Mr. Todd Milne,

The Nunavut Water Board (NWB) has completed a technical review of the 2019 Annual Report.

On March 31, 2020, the NWB acknowledged receipt of the Annual Report, provided it to the Nanisivik distribution list for information, and invited parties to comment until May 31, 2020. The NWB received comments from Crown-Indigenous Relations and Northern Affairs (CIRNA) and Environment and Climate Change Canada (ECCC) on May 29, 2020.

Copies of all documents received during the review can be accessed through the NWB's Public Registry and FTP site using the following link:

<ftp://ftp.nwb-oen.ca/registry/1%20INDUSTRIAL/1A/1AR%20-%20Remediation/1AR-NAN2030/3%20TECH/B%20GENERAL/2%20ANNUAL%20RPT/2019/>

Following is a summary of the comments received:

1. CIRNA comments

i. Exceedance of Water Quality “Action Level” at Station NML-29:

It is not clear how conductivity measurements will be applied to determine the cause(s) or source(s) of the observed exceedances of total zinc and sulphate concentrations at Station NML-29 on two consecutive occasions.

CIRNAC recommends that the proponent clarify how this method works and presents

their result in its next annual report for review.

ii. Seepages and Formation of Head Pond or Surface Water Pooling on Tailings Cover:

The 2019 Geotechnical Inspection Report (Appendix D) identified issues that warrant further monitoring; the seepages at the West Twin Outlet Wall and at the toe of the left bank of the East Twin Creek Diversion Dyke, as well as the formation of head pond at the entrance to the spillway at the south end of the surface cell tailings cover. These issues are not included in the 2020 Update to Post Closure Geotechnical Monitoring Contingency Plan (Appendix H).

CIRNAC recommends that the seepage and head pond issues be monitored and reported by the proponent in future annual reports.

iii. Acid Rock Drainage Staining at Oceanview East Raise:

The 2019 Geotechnical Inspection Report (Appendix D) noted the acid rock drainage (ARD) staining of the ground surface at Oceanview East Raise. The source of the ARD is unknown.

CIRNAC recommends that the extent of the ARD staining be monitored and reported by the proponent in future annual reports.

2. ECCC comments

i. Zinc Action Levels – Station 159-6

ECCC recommends that the Proponent revisit the Action Level for zinc at Station 159-6 (including 159-6 Temp), in order to reflect recent observed values for zinc concentrations.

ii. Oceanview Open Pit Waste Rock Cover

Under the heading Inspection Conditions, the proponent observed that there was some seepage at the toe of the cover, and observed some acid rock drainage staining on the east edge of the cover. The proponent made similar observations during previous inspections.

ECCC recommends that the proponent propose mitigation measures that would reduce or stop the seepage. ECCC also recommends that the proponent determine the sources of the observed acid rock drainage staining on the east edge of the cover, and then propose suitable mitigation measures.

iii. Upper Dump Pond Tailings Cover

Photo 62 Appendix I, Upper Dump Pond, appears to indicate a breach in the road to the mill

site. It is not clear whether the photo was mislabeled.

ECCC recommends that the proponent clarify if the photo refers to the correct site. If the photos does refer to the correct site, then ECCC recommends that the proponent provide a remediation plan for the breach on the road.

iv. Oceanview East Raise

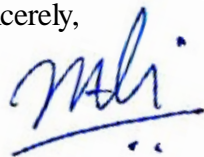
In the Inspection Conditions section, the proponent provided a photo from the inspection (Photo 72), and stated that *“It was noted that periodic flows of groundwater seepage from upslope of the raise has caused acid rock drainage (ARD) staining of the ground surface around the raise. The source of the ARD is not known, but is likely related to near surface exposure of sulphidic soils and/or bedrock.”*

ECCC recommends that the proponent determine the source of the ARD seepage, and then propose appropriate mitigation.

The technical review of the Annual Report, found that the information submitted by the Licensee addresses the requirements of the Licence. The Licensee is advised to respond to the comments provided by the Interveners.

Should you have any questions, please feel free to contact the undersigned at (867) 360-6338 (extension 33) or ali.shaikh@nwb-oen.ca, at your earliest convenience.

Sincerely,



Mohammad Ali Shaikh
Nunavut Water Board,
Technical Advisor

Cc: Distribution List – Nanisivik
Attachments: CIRNA, ECCC