Affaires indiennes et du Nord Canada www.ainc.gc.ca

Nunavut Regional Office P.O. Box 100 Iqaluit, NU, X0A 0H0

Your file - Votre référence

NWB1NAN0208

Our file - Notre référence

IQA-N 9545-0159(N5L3)-4 UNC

June 2nd, 2006

Phyllis Beaulieu Licensing Administrator Nunavut Water Board P.O. Box 119 Gjoa Haven, NU, X0A 1J0

Re: NWB1NAN0208 - CanZinco Ltd. - Nanisivik Mine - 2005 Annual Report Review

On behalf of the Department of Indian Affairs and Northern Development (DIAND), I have reviewed the 2005 Annual Report, submitted by CanZinco Ltd. with respect to the Nanisivik Mine. The Annual report has been assessed with reference to Nunavut Water Board License NWB1NAN0208 (*License*).

# **Required Reporting**

Item 6i

Part G, Item 7 of the *License* states that the proponent shall submit to the board for approval a report on the proposed Spillway. Within Item 6i of the Annual Report the proponent mentions a Spillway, between the Surface Cell and the West Twin Reservoir, designed by BGC. Based on information provided on the Nunavut Water Board ftp site it appears this information may not be available under the suggested author. There is, however, a document pertaining to the Spillway prepared by Golder. The Golder document has been reviewed and it appears to containing the information mentioned in the 2005 Annual Report. Thus, INAC requests clarification on who authored this report and where this information is located.

It is stated that sediments from the polishing pond were excavated based on soil sample results taken along the shoreline after the water level was lowered. However, there is not any data detailing the contamination found at this site. Also, were the thermal covers contoured so as to encourage surface run off, opposed to water pooling, possibly leading to the development of ice lenses.

#### Item 6iii

The 2005 Annual report discussed the development of ice lenses in the East end of the mine. INAC requests that a description of how the ice lenses formed and what modifications to the waste disposal plan were incurred. Furthermore, was the waste rock and thermal covering contoured so as to encourage surface run off, opposed to



water pooling, possibly leading to the development of ice lenses.

#### Item 6v

### **East Open Pit Area**

INAC requests further information with respect to the instrumentation installed to measure freeze-back of the areas where Hydrocarbon-contaminated soil was placed. For instance what types of instrumentation are being used; are both freeze-back and hydrocarbon mobility being monitored.

#### K-Baseline Area

The information provided is congruent with plans outlined in the 2004 Reclamation and Closure Plan. In the proponent requested and received authorization for a modification to the reclamation of the K-Baseline Area. The letter of approval from the NUnavut Water Board states that contaminated soils are to be covered with at least a single layer of waste rock prior to the placement of the approved thermal cover consisting of 1.95m of shale and 0.25m of Twin Lake sand and gravel. However the 2005 Annual Report does not mention the depth to which the thermal cover was created. Therefore, INAC requests information pertaining to the depth of the thermal cover.

#### Land Fill

INAC requests further information with respect to the instrumentation installed to measure freeze-back of the areas where domestic waste was placed. For instance what types of instrumentation are being used; are both freeze-back and contaminant mobility being monitored.

#### Arena

There is not any mention of an arena in the 2004 Reclamation and Closure Plan. Could this section actually be referring to the recreation facility?

### **Upper Dump Pond**

As the area was too moist to excavate it was covered with shale. INAC requests information as to whether or not drainage is an issue at this site. Also, is there data to suggest that the permafrost layer is moving upward to encapsulate this area. Furthermore, was the area contoured so as to encourage surface run off, opposed to water pooling, possibly leading to the development of ice lenses.

# Appendix C

In reviewing the data provided in Appendix C, Effluent Characterization and Water Quality Monitoring, it was noted that the concentration of several parameters was above the Canadian Council of Ministers of the Environment (CCME) guidelines for the Protection of Aquatic Health. Iron concentrations were above the CCME guidelines on August 27<sup>th</sup> at site 159-4A. Zinc concentrations were above the CCME guidelines on June 25<sup>th</sup> at site 159-4A, July 30<sup>th</sup> at sites 159-4 and 159-4A and August 27<sup>th</sup> at site 159-4.

## Appendix C-2

In reviewing the data provided in Appendix C-2, the concentration of Zinc and the pH range was above the CCME guidelines for the Protection of Aquatic Health. The concentration of Zinc was above the guidelines during June, July and August. For pH, the upper range was above the CCME during June and July.

The proponent should update their Spill Contingency Plan to included Mr. Peter Kusugak, (867) 975-4295 as their INAC contact.

Should you have any questions or comments, please do not hesitate to contact me at (867) 975-4548 or by email at <a href="mailto:BathoryS@ainc-ianc.gc.ca">BathoryS@ainc-ianc.gc.ca</a>.

Sincerely,

Original Signed By

Stephen Bathory Regional Coordinator

cc- P.Kusugak cc- S. Dewar