



August 23, 2019

Richard Dwyer
Manager of Licensing
Nunavut Water Board
P.O. Box 119
Gjoa Haven, NU X0B 1J0

Dear Mr. Dwyer,

Re: 1AR-NAN1419 Amendment and Renewal Application – Responses to Technical Review Comments

We have reviewed the comments received during the Technical Review and offer the following responses:

Interested Party: Environment and Climate Change Canada		
Comment: ECCC recommends that the Proponent clarify the intent for monitoring for the period 2025 to licence expiry.		
Canzinco Response: In accordance with the information presented in the licence renewal application, the intended monitoring schedule for the 10-year licence period is as follows:		
Licence Year	Year	Proposed Monitoring Frequency
1	2020	1 monitoring event
2	2021	1 monitoring event
3	2022	1 monitoring event
4	2023	No site monitoring
5	2024	1 monitoring event
6	2025	No site monitoring
7	2026	1 monitoring event
8	2027	No site monitoring
9	2028	No site monitoring
10	2029	1 monitoring event
The proposed monitoring schedule for the period 2020-2029 assumes that collected data continue to demonstrate stable conditions consistent with those recorded during the post-closure monitoring period to date (i.e. since 2005).		
Comment: ECCC recommends that the Proponent provide proposed timing for annual sample collection, including a rationale for the selected month/timing.		
Canzinco Response: It is proposed that the annual monitoring of water quality and geotechnical conditions be completed in <u>August</u> . From a geotechnical perspective, this timing allows measurement of the maximum active layer thaw depth which is typically observed in mid to late August and which is one of the most important parameters for assessing the performance of the thermal covers. It is also beneficial to conduct the geotechnical inspections after freshet to determine if there has been any impact to physical stability. August is also the preferred month for monitoring of water quality in order to allow successful sampling and to obtain representative results. Sampling in late June or early July is often affected by the exact timing of the		

spring freshet, which can naturally introduce substantial quantities of suspended sediment into the stream water samples. Since metals can be associated with or attached to suspended sediment, this is a potentially confounding influence that should be avoided if possible. Sampling in early September has occasionally been problematic in the past because of unpredictable and rapid freezing of watercourses, depending on local weather patterns. Hence, sampling in August provides the best assurance of successful sampling and high quality results, without the introduction of natural variability associated with the freshet or the risk of early freeze-up in September.

Interested Party: Crown-Indigenous Relation and Northern Affairs Canada (CIRNAC)

Comment: Buildings/Infrastructure and equipment

There still appears to be some old buildings and equipment remaining from the past mining activities at Nanisivik, namely the garage type building, associated sea cans and the 2 trucks (one fuel tanker and one flat bed) located in the vicinity of the old mine town site, and an old building with some electrical components located at the old Short take-off and landing (STOL) airstrip. There has been some discussion that the garage type building, associated sea cans and the two trucks would become the property of either the Government of Nunavut or the Hamlet of Arctic Bay. CIRNAC requests that:

1. Canzinc provide documentation that these buildings and equipment are now the property of either the Government of Nunavut or the Hamlet of Arctic Bay.
2. If no documentation can be provided, the opinion of CIRNAC is that these structures and equipment belong to Canzinc. With this scenario, CIRNAC requests that Canzinc describes what their intention is for the buildings and/or equipment.

Canzinc Response: The buildings and infrastructure referred to in the comment are not the responsibility of Canzinc and the Nanisivik Mine has been reclaimed in accordance with the reclamation and closure plan¹ approved by the Nunavut Water Board.

- Garage – The garage is owned by the Government of Nunavut. Section 7.6 of the 2004 reclamation and closure plan states: *The government garage and central government building belong to the Government of the Nunavut Territory, along with the potable water system, utilidor and sewage systems, and 5 of the original 56 housing units. Reclamation of these structures is the responsibility of the GN.*
- Sea cans and trucks - The sea cans and two trucks parked at the Government Garage belong to Hugo Clement, the owner of Volco Northern Terminal which operated the tank farm at Nanisivik for a period of time. Canzinc has no responsibility for, or right to remove, this equipment.
- Building at STOL airstrip: The old building and electrical components at the STOL airstrip were the property of NWTel. Section 7.9.1 of the NWB-approved 2004 reclamation and closure plan states: *Telecommunications equipment is installed adjacent to the old Stolport airstrip. The equipment comprises satellite dish antennas, small electrical equipment buildings, and radio antennas, which belong to NorthwesTel. NorthwesTel will be responsible for removal of all their equipment and structures and to complete adequate reclamation of these areas.*

Additionally, it should be noted the surface lease that the garage, sea cans and trucks are located on has never been held by Canzinc.

Comment: Other activity on site

CIRNAC would like to point out that there is still quite a bit of activity on or near the former mine site; namely on the roads in and around the former mine site. This activity may lead to spills, erosion of infrastructure, accidents or other related deterioration of closed mine infrastructure. For example a fuel spill/stain was identified during the

¹ Nanisivik Mine 2004 Reclamation and Closure Plan, CanZinc Ltd. March 2004.

<p>August 6-9 site visit by CIRNAC. As this was on surface and fuel could be smelled it is likely a recent spill and not likely to be attributed to Canzinc activities.</p> <p>Another party in the area has been approved to use East twin lakes for water use if necessary. This party can travel around the mine site. As well it is unknown at this time if water use from East twin lakes will impact the subaqueous tailings that are located in the same water shed.</p> <p>CIRNAC recommends that Canzinc document as best they can either through mutual agreements or past and present photos of the activities that are occurring in and around any of the closed mine aspects.</p>
<p>Canzinc Response: We appreciate CIRNAC's concerns about the reclaimed mine components and will attempt to document potential impacts as best we can; however this comment should primarily be directed to the other operator in the area and the regulatory bodies that supervise the activities of this operator. It is not the role of Canzinc, and we do not have the capacity, to supervise the activities of other water licence holders to ensure they do not cause pollution or impacts to land and water.</p> <p>In the context of this topic, we also ask that CIRNAC and the NWB give thought to how Canzinc's responsibilities for the reclaimed mine can eventually be relinquished and the regulatory process required for this. It is noted Canzinc's application for renewal and amendment of water licence 1AR-NAN1419 does not involve the use of water or disposal of waste.</p>
<p>Comment: Water Quality/Long-term Monitoring Plan</p> <p>The plan being put forward with the water licence renewal application is reasonable.</p>
<p>Canzinc Response: N/A.</p>
<p>Comment: Security</p> <p>CIRNAC will be submitting an update closure cost estimate with its final submission for this water licence process. The site visit and the due date for the technical comments were to close together to submit a closure cost estimate at this time.</p>
<p>Canzinc Response: We look forward to receiving the updated closure cost estimate from CIRNAC. We ask that this be prepared in consideration of the estimate included in Canzinc's water licence amendment and renewal application and the clarifications regarding remaining buildings and infrastructure provided above.</p>

Public Hearing

As part of this submission, we would also like to communicate our preference for completing the public hearing in written form. Considering the small number of comments received during the Technical Review and that the activities applied for through the licence renewal are limited to post-closure monitoring, we believe this to be a reasonable request.

We trust that these responses address the comments and questions identified in the Technical Review. Any questions related to this letter and to the water licence application can be directed to the undersigned at telephone +41 44 745 8210 or by email at joan.skoglund@nyrstar.com.

Sincerely,



Johan Skoglund
Group Manager Environment