



May 27th, 2015

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

Dear Ms. Beaulieu,

Re: Water Licence 1AR-NAN1419: Response to Comments from Public Review of 2014 Annual Report

This letter is submitted in response to the Department of National Defence's (DND) review comments on certain documents¹ provided as part of the 2014 Annual Report for the former Nanisivik mine. CanZinco Mines Ltd. (CanZinco) wishes to thank the DND for their thorough review and input.

Further to the responses detailed below, it is worth noting that CanZinco has an agreement with the landlord of the dock site at which the soil remediation activities are being carried out to provide bi-weekly progress reports during the field season. Many of the DND's comments have previously been addressed within the bi-weekly progress reports submitted to the landlord. On April 15, 2015, CanZinco was advised that the federal custodianship for the land at the dock site had been transferred from the Department of Fisheries and Oceans to the Department of National Defence. As a result, CanZinco will now be providing bi-weekly reports directly to the DND and we look forward to receiving comments about soil remediation activities from the technical specialist DND has assigned to the file. With this exchange of information, CanZinco is optimistic that detailed technical comments and questions about the soil remediation activities can be dealt with directly between the company and the DND.

DND Review Comment	CanZinco Response
1 - Lab certificates are not incorporated within the report.	<p>CanZinco maintains a record of all laboratory certificates confirming contaminated soil remediation and facility monitoring results. These records are made available to an Inspector upon request.</p> <p>In addition to water licence reporting requirements, CanZinco has an agreement with the landlord of the land on which the soil remediation activities are being carried out to provide bi-weekly progress reports during the field season. Laboratory certificates are included with the bi-weekly reports. It is CanZinco's understanding that the bi-weekly reports have been forwarded to the DND by the former landlord (DFO). DND has recently assumed the role as the landlord of CanZinco's surface lease and the bi-weekly reports will now be issued directly to DND.</p>
2 - Recommended SSRO undergoing review by NWB. DND asked PWGSC to review this document. Comments are provided in the attached document.	<p>PWGSC concludes that the SSRO developed for the site is appropriate. Comments noted, no further response required.</p>

¹ Contaminated Soil Remediation 2014 Progress Report. SRK Consulting. March 2015.

DND Review Comment	CanZinco Response
<p>3 - Section 4.4 mentions water sampling of station 159-6, for which results can be found within the water quality monitoring report. It also mentions sampling of water that had ponded in Area 4 and within the lined sump on the pad for which location of results can't be found in either the 2 reports (Soil remediation and Water Quality monitoring). Results are to be provided along with the laboratory certificates of analysis. Would be great to also include the result from station 159-6 within the Contaminated Soil Remediation Report so that it is a stand-alone document.</p>	<p>The water quality monitoring results from station 159-6 are provided in Appendix D, Table D2-1, of the annual Water Quality Monitoring report prepared by Stantec. The Water Quality Monitoring Report is included as Appendix C to the 2014 Annual Report submitted under Water Licence 1AR-NAN0914.</p> <p>The location of Area 4 is illustrated on Figures 1, 2 and 5 in the soil remediation progress report. Ponded water existed across the whole of the footprint of the excavation at the time of the sample collection.</p> <p>The location of the lined sump on the concrete pad is illustrated on Figures 3 and 4 of the soil remediation progress report. It is shown on Figure 5 but not labelled. There is only one lined sump on the pad.</p> <p>The water sample collected from the lined sump on the concrete pad was obtained from the lined sump illustrated on Figure 4.</p> <p>In accordance with the agreement between CanZinco and the landlord, laboratory certificates and a summary of the results obtained to monitor the condition of the pad and potentially affected surrounding areas are provided directly to the landlord during the field season. All results from samples acquired in 2014 are below the method detection limits as noted in the remediation progress report.</p>
<p>4 - Figure 5-2 on page 11 is very confusing. On the bottom axis, what week does the number correspond to? Are these weeks only for one summer or over multiple summers?</p>	<p>The bottom axis of Figure 5-2 is labeled "Active weeks with nutrients". Active weeks commence once nutrients are added to a pile and are weeks in which the average daily temperature is above zero (i.e. biopile UTA-3-2 was initially constructed 27 July 2013 and nutrients were added on 31 July 2013. Biopile UTA-3-2 remained active throughout 2014. Biopile UTA-3-2 had therefore been active for 25 weeks by the end of the 2014 field season).</p>
<p>5 - Section 5.4.1, By reading this, it is our understanding that only 2 areas are requiring additional excavation. Does these 2 areas cover all the areas where exceedances have been observed? It does not seem like it. There is reference to the east wall of Area 1 which I assumed correspond to 2 samples 15423-W and 15426-W and there is also reference to an area at the junction of area 2 and area 3, samples 15382-F and 15388-W. When looking at figure 5, there is also an exceedance at sample 15429-W, wall of the excavation, berm area. This would be a third area that is requiring additional excavation.</p>	<p>Two areas require excavation in 2015 and a third area is to be sampled further to confirm the remediation objectives have been met.</p> <p>The area of the excavation represented by composite sample 15427-W failed to meet the remediation confirmation procedure described in the NWB approved Nanisivik Mine Reclamation and Closure Monitoring Plan (Gartner Lee Limited 2004) because discrete sample 15423-W exceeds the remediation objective for a parameter of concern by more than two times.</p> <p>The contiguous location of samples 15388-W and 15382-F mean that less than 95% of the footprint of the former bulk fuel storage facility meets the remediation objectives, thus failing to meet the remediation confirmation procedure specified in the 2004 closure monitoring plan.</p> <p>The result reported with sample 15429-W will be investigated further while sampling the remaining north berm of the former fuel tank farm between the line of samples represented by 15429-W, 15434-W, 15431-W and sample 11016-W as shown on Figure 5.</p> <p>Additional excavation and treatment of soil will proceed until the soil quality remediation objectives have been met utilizing the Remediation Confirmatory Soil Sampling Methodology (SRK 2014) approved by the NWB.</p>
<p>6 - Section 7, A large volume of soil will be off-loaded to the secondary containment area. What will Nyrstar/SRK do with these soils after it is placed there? The area is needed by DND for the construction project. Nyrstar/SRK needs to make sure to stay outside the area that has been identified by DND for the construction project.</p>	<p>Please refer to CanZinco's Responses to Intervener Comments on Technical Meeting/ Pre-Hearing Conference Commitment Submissions dated September 24, 2014, Comment #1, Intervener AANDC which states:</p> <p>"The end land use for the treated soil is commercial land use.</p> <p>In the short term, the treated soil will be placed in the southern portion of the former bulk fuel storage facility which is in the vicinity of Area 4 and outside of the DND construction zone. Alternatively in the short term, at the discretion of DND, it will be reused during the redevelopment of the site. In the long-</p>

DND Review Comment	CanZinco Response
	term, the soil will be made available for road repairs and other commercial or industrial uses."
7 - Section 7, "Biopiles are not to be off loaded without confirmation that soil meets the SQROs unless the soil is destined for further management on the concrete pad." That being said in the report, it is very important to keep in mind that access to the concrete pad is only until August 1, 2015. All soil need to be remove and the concrete pad returned to its original conditional by August 1, 2015.	Comment noted, no further response required.
8 - There is no mention on where the soil store on the concrete pad will end up.	See response to item 6 above.
9 - There is no mention of the excavation depth.	With the exception of Area 4 all excavations remain open. The depth of the floor samples collected in Area 4 is listed on Table 4. In those areas that are to remain open the samples were collected between 10 and 15 cm below surface across the base of the excavation. In accordance with the Remediation Confirmatory Soil Sampling Methodology, wall samples were collected within 25 cm of the base of the horizon determined to be contaminated.
10 - Comments on tables and figures: a. Some samples listed within the tables do not show up on the figure. (example Table 6 p. 3, sample names 14816, 14818, 14821, 14836) b. Table 6, p.5, same sample name 15387 is repeated 3 times with different chemical results. I suspect a transcription error. c. Table 4 says that sample 15428-W-Q is duplicate of 15426-W-D but figure 5 shows 15428 is duplicate of 15427. Also, based on the legend, it should be blue as the concentration is 410ppm for F2. d. On figure 5, we can see 4 sample points 11013-W, 11014-W, 11015-W and 11016-W but there is no information within the report in regards with those samples (depth of samples, chemical results, lab certificates).	The QA/QC sample set referenced by DND does not meet the remediation objectives. Additional excavation of the area was required. The results are therefore not remediation confirmation results nor are they representative of final excavation limits at the end of the 2014 field season. Yes this is a typo. The Duplicate ID numbers are (in order from left to right) 15387-D, 15388-D and 15390-D as illustrated on Figure 5. The information shown on the table is correct. There is an error on Figure 5. Figure 5 should show sample 15428-Q as a duplicate of 15426-W. Results that are greater than or equal to the recommended remediation objectives should be shown as red on Figure 5. The depth of samples, chemical results and laboratory certificates for the four sample points listed were provided directly to the landlord on December 15, 2011. The samples were collected from test pits excavated 2 m below the crest of the berm. The samples were tested for F1-F4 and BETX. All sample results were below the method detection limit.

I trust that the information provided in this letter meets your expectations and adequately responds to the comments of the intervener. Please do not hesitate to contact me should any further clarifications be needed.

Sincerely,



Johan Skoglund
Group Manager Environment