

June 30, 2016

Mr. Chuck Hubert Senior Environmental Assessment Officer Mackenzie Valley Environmental Impact Review Board 5102 50th Avenue, Yellowknife, NT X1A 2N7

Dear Mr. Hubert

RE: <u>Environmental Assessment EA1415-001, Prairie Creek Mine</u> <u>All Season Road, Commitments from Technical Session</u>

This letter provides the comments of Canadian Zinc Corporation (CZN) on the draft commitments from the Technical Session, and on comments provided by the Governments of the Northwest Territories (GNWT) and Canada (GOC).

We have no issues with the draft commitments from the Technical Session. The 'parking lot' items are covered in our responses to the GOC comments.

Commitment 4

The key issue is sediment production and the potential for transport to surface water. Where such potential exists, we agree to erosion and sediment control. That being the case, we propose the following wording:

"CanZinc commits to implementing erosion and sediment control where construction has the potential to mobilize sediment and result in transport to surface water, and include specific plans for rapid response in the event of an intense precipitation event."

Commitment 5

CZN is generally amenable to the intent of the revised text provided by GOC, provided some flexibility is included for locations where the set-backs are not feasible. We propose the following adjusted text:

"CanZinc commits to locating stockpiles of rock and coarse material at least 50 m from surface water, and installing sediment control measures as required to prevent sediment from entering the surface water. Where the 50 m set-back is not possible (e.g. in tight canyons or valleys), CanZinc will enhance erosion and sediment control measures to reduce the potential for impacts.

Stockpiles will be placed on non-vegetated or sparsely vegetated areas to minimize disturbance to vegetation, where possible.

CanZinc commits to locating stockpiles of soil or fine material at least 100 m from surface water, and installing sediment control measures as required to prevent sediment from entering the surface water. Where the 100 m set-back is not possible (e.g. in tight canyons or valleys), CanZinc will enhance erosion and sediment control measures to reduce the potential for impacts. These materials will be retained for reclamation and restoration purposes, as much as possible.

Sediment control measures will be installed for any disturbed soils where there is a risk of sediment migration to surface water."

Commitment 7

We see this commitment being specific to drainage patterns, specifically surface flow between creek crossings and culvert placement, not the protection of fish. We agree with the latter, but we do not feel this commitment is the place for it. For construction work proximal to fish-bearing streams (e.g. Sundog Creek), we will need to consider potential fish relocation and/or timing windows, and these details will be included in a construction execution plan and schedule to be developed during the detailed design process. We propose to leave the commitment as is, with a minor addition:

"CanZinc commits to developing a suitable inspection and monitoring plan regarding drainage patterns along the road alignment to maintain natural drainage and to inform adaptive management actions (including location of equipment required for these management actions such as backhoes, steamers and appropriate erosion and sediment control devices)."

Commitment 8

As we understand it, the draft commitment is a concern to GNWT because the timing of a potential western toad migration is unknown, and monitoring along the road may fail to detect it, hence the interest in a breeding pond survey in summer. We further understand that western toad spawn and tadpoles are very large, and would be quite easy to spot by researchers who have been provided with information, guidance and photos i.e. Nahanni Butte community members hired as environmental monitors could be provided with the necessary orientation and could undertake a pond survey. We believe there is conjecture regarding whether western toad is present this far north. In the Technical Session, the section of the access road of interest to GNWT was east of the Liard River crossing. GNWT's proposed rewording expands the section of interest. With these comments in mind, we propose some alterations to GNWT's recommended text, as follows:

"CanZinc commits to collaborating with GNWT to enable a breeding pond survey by local environmental monitors during the summer to detect the presence of Western toad in water bodies proximal to the road alignment between the Nahanni Butte access road and the Liard River. The survey will be conducted either before or after the early stage of construction (subgrade placement) to better understand the occurrence of Western toad in this area and potential need for mitigation during fall migration. If Western toad presence is confirmed in this area, the survey will be expanded progressively to other areas proximal to the road on the west side of the Liard River."

Commitment 10

The purpose of this commitment is monitoring if and when overtopping of the road occurs. Therefore, we propose the following wording:

"CanZinc commits to implementing TSS/turbidity, pH, dissolved oxygen and conductivity monitoring upstream and downstream of Casket Creek during high water events if overtopping of the road surface is occurring, and at any other areas where overtopping of the road surface occurs."

Additional Commitments

The number of draft commitments is 17. Therefore, we propose additional commitments numbered from 18 onwards. We are not including the update of the Wildlife Mitigation and Monitoring Plan during the EA as a commitment because we consider the commitments to be focussed on the post-EA period. We have already decided to update this plan during the EA period.

Commitment 18

Regarding road design standards, it is appropriate to note that referenced documents are guidelines, not regulations. Each design has to be tailored to site-specific requirements i.e. provide flexibility. Also, it must be remembered that the Prairie Creek access road would carry much less traffic and at much slower speeds than the typical forest road. Therefore, we propose a new commitment as follows:

"CanZinc commits to following the road design guidelines in the B.C. Ministry of Forests, Lands and Natural Resources Operations Engineering Manual as much as possible, and explaining and justifying where these guidelines will not be met."

Commitment 19

Because there will be little traffic on the road, trucks could essentially stop on the road to chainup or chain-off. However, a normal pullout would facilitate passing for other vehicles. A wider pullout isn't necessary. We propose a new commitment as follows:

"CanZinc commits to providing a pullout at approximately KP 29-30 for chain-up/chain-off, and turn-offs at approximately 10 km intervals to allow trucks with trailers to turn around."

Commitment 20

Regarding road width, we have stated that the preference is for a 5 m running surface, but that as low as 4 m may only be possible in places. When we issue a contract for road construction, the contract will specify road widths by section. For sections where a 5 m width is required, the contractor will be expected to provide at least a 4.9 m width. Therefore, a minimum 5 m width is impractical and unnecessary. Reference to the BC guidelines is redundant as this is covered in Commitment 18. We propose a new commitment as follows:

"CanZinc commits to a minimum 4 m wide running surface width, and a 5 m wide running surface width where possible (the width would be no less than 4.9 m in the latter areas). There will be widenings at curves."

Commitment 21

CZN is amenable to working with Parks Canada to achieve mutual reclamation goals. However, we feel it is premature at this stage to agree to remove all structures, since some may have a purpose longer term, and/or could be considered part of the landscape. This will require further consideration and engagement with all parties, including local communities. We would be comfortable with the following:

"After Mine closure, if the access road is also to be closed and reclaimed, CanZinc is committed to a reclamation goal of restoring pre-disturbance conditions, as much as possible, including the removal of structures no longer required, subject to the engagement and agreement of all parties."

If you have any questions, please contact us at 604 688 2001.

Yours truly, CANADIAN ZINC CORPORATION

David P. Harpley, P. Geo. VP, Environment and Permitting Affairs