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## August 12, 2020

Mr. Richard Dwyer, Manager of Licensing Nunavut Water Board Gjoa Haven, NU

Via Email: <a href="mailto:licensing@nwb-oen.ca">licensing@nwb-oen.ca</a>

Re: Kitikmeot Inuit Association Response to Lupin Mines Incorporated Comments Water License 2AM-LUP2032

Dear Sir:

This is the submission of the Kitikmeot Inuit Association ("KIA") in response to the Lupin water license comments for water license 2AM-LUP2032 made by Lupin Mines Inc. (LMI) on August 5, 2020.

#### I. BACKGROUND:

The KIA is the Regional Inuit Association for the Kitikmeot Region of Nunavut and the Designated Inuit Organization for Article 20 of the Nunavut Agreement for the Kitikmeot Region. The KIA is not a regulating agency with respect to this project, however we are representing Inuit interest due to the historic importance of Tahikyoak (Contwoyto Lake).

KIA has reviewed the comments filed in support of the water license commitments by LMI. We have been assisted in this review by Mr. Steve Januszewski, P.Eng., of SteveJan Consultants Inc. (SJCI).

KIA staff and advisors have reviewed the response by LMI during the preparation of this response to the Board.

### II. KIA SUBMISSIONS:

KIA's resources are limited and our work reviewing LMI's submitted materials benefitted from retaining SJCI to assist in the review. SJCI has been asked by the KIA to review the LMI response and provide a high-level response.

### Response to LMI Comments on KIA Summary Comments

The first KIA Comment raised items of whether all items have been addressed in previous responses by LMI to CIRNAC issues.



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The LMI Response is considered acceptable.

The second KIA Comment expressed uncertainty of whether the 2018 FCRP addressed the TCA as it did in the 2005 TCA Closure Plan.

The LMI Response is considered acceptable in that both closure plans have been approved and the earlier TCA closure plan has not changed.

The third KIA Comment addressed the significance of careful monitoring during reclamation activities as well as with the subsequent Post-Closure Monitoring Program (PCMP).

The LMI Response agrees with the importance of these programs and looks forward working with the KIA on the FCRP update and in development of the PCMP.

The fourth KIA Comment addressed 3 previous supporting SJCI Technical Memoranda (dated June 22, 23, & 23, 2020) in which a number of questions were raised and answers or clarifications were requested of LMI. No responses were received from LMI.

The LMI Response is considered acceptable as the closure plan has been approved and reclamation work on the site has already commenced.

### Part E, Item 25 Design for Waste Rock Dome – Specific Comments

The first KIA Comment raised the concern of the PAG potential of the development waste rock scattered across the mine site to be impounded within the various permanent impoundments, and the suggestion that the material with higher PAG potential should be buried deepest with less problematic material being placed closer to the surface, all under an esker material cover.

The LMI Response is considered acceptable as it states that although this approach would be advantageous it is not practical as the base material in the "waste rock dome" will remain as a base which is fine and that "...The PAG samples were not concentrated in one or more specific area; rather the PAG samples were distributed throughout the site." It is suspected that the comprehensive programs of sampling and determination of PAG potential of the various areas of PAG material already undertaken should lend itself to enabling a selective approach to where these materials will be placed.

The second KIA Comment asked for clarification that the CIRNAC requested studies for additional geo-chemical modelling of facilities built of PAG waste rock as well as estimates of contaminant loading to the environment from these sources (Section 4.3.2.7 Waste Rock) were undertaken.



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The LMI Response and the linked reference documents answer those requests. Ultimately it will involve water quality monitoring of Boot and East Lakes to confirm the reports' conclusion of negligible/low risks to aquatic life from the metals in the water emanating from the site.

# Part E, Item 26 Technical Memorandum on Additional Geotechnical Details on TCA Dam K and Dam M Cross Sections – Specific Comments

The first KIA Comment questioned why the provided engineering drawings were not stamped and signed by a Professional Engineer.

The LMI Response is considered acceptable.

The second KIA comment queried the use of the phrase "...tailings requiring removal..." would have been better stated as being "...tailings being locally relocated to deeper areas within those cells..."

The LMI Response is considered acceptable.

The third KIA comment requested clarification of the design storm and dry return periods being used for designing the civil structures in the TCA and the request to show those higher water levels at the outflow channels and the flow volumes on the respective drawings.

The LMI Response and revised drawing for the Cell 5 outflow channel answer that request.

## <u>SCJI Technical Memorandum - Part E, Item 27 Technical Memorandum on Exposed Tailings</u> Preliminary Cover Design – Specific Comments

The KIA Comment raised a concern about the significant list of engineering decisions on methodologies and detailed construction elements that will have to be resolved by the field engineer (or contractor) overseeing the civil works and that a significant number of these could have been dealt with in advance had more extensive field investigations been undertaken earlier. The current situation leaves outside stakeholder reviewers no opportunity to review those methodologies as decisions will be made in the field without stakeholder review in advance of the work being undertaken.

The LMI Response is considered acceptable as reclamation work on the site has already begun.



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### Uncertainties

The first KIA Comment asked for clarification of the 1M m3 figure for the estimated quantity of waste rock on the surface at the Lupin Mine.

The LMI Response is considered acceptable.

The second KIA Comment dealt with asking about grading the PAG results of the geochemical sampling of the waste rock to assist in more diligent locations for placement of these materials.

The LMI Response is considered acceptable.

The third KIA Comment requested an estimate of the total volume of esker material required for the various reclamation tasks.

The LMI Response is considered acceptable.

The fourth KIA Comments asks for confirmation that sufficient esker materials will be available when required to meet the reclamation schedule as the esker material may be frozen due to its permafrost state and may thus need to be removed in thin layers over a longer period of time as the successive layers melt and become workable.

The LMI Response does not answer that question. However, it will be up to LMI and the civil contractor to deal with this possible issue.

The fifth KIA Comment asked why all the costs used in the RECLAIM costing were attributed to Water and none to the Land.

The LMI Response is considered acceptable in stating that the site is all on Crown land and thus administered and security is held by CIRNAC.

The sixth KIA Comment asked for confirmation of how much of the tailings was covered in 2019, and how much additional tailings will require covering.

The LMI Response is considered acceptable. It included an estimated area of the TCA covered in 2018, that none was covered in 2019 and that work is underway in 2020 to complete what can be outside of Cell 4. It and several additional areas exposed along with possibly some other areas will require covering when the water levels are lowered across the facility.



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The seventh KIA Comment requested clarification of whether water levels had already been lowered across the facility and if not whether this break in site activity affords the opportunity to undertake additional detailed studies to firm up the civil works to be undertaken.

The LMI Response is considered acceptable as work by the civil contractor has already begun.

#### **Final Comments**

The KIA looks forward to participating as a stakeholder in the ongoing process of completing the final closure, reclamation, and post-closure phases at the Lupin Mine site. This will include the reviews of upcoming documents such as the FCRP update and in the development of a comprehensive Post Closure Monitoring Program.

Finally, the KIA appreciate the LMI's efforts in providing responses to their ongoing questions and requests for clarification and hope this can continue.

The KIA thanks the Board for the opportunity to address our concerns regarding this file. Should you have any questions or would like any clarification, I can be contacted at <a href="mailto:srlands@kitia.ca">srlands@kitia.ca</a> or by phone at (867) 982-3310.

# ALL OF WHICH IS RESPECTFULLY SUBMITTED: ON BEHALF OF THE KITIKMEOT INUIT ASSOCIATION

Wynter Kuliktana

Senior Lands Officer

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Department of Lands, Environment & Resources

Kitikmeot Inuit Association

Cc: Geoff Clark, Kitikmeot Inuit Association Director of Lands, Environment and Resources