



Water Resources Division  
Resource Management Directorate  
Nunavut Regional Office  
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Your file - Votre référence  
2AM-MRY1325  
Our file - Notre référence  
CIDM#1239045

January 28, 2019

Licence Administrator  
Nunavut Water Board  
P.O. Box 119  
Gjoa Haven, NU, X0B 1J0  
E-mail: [licensing@nwb-oen.ca](mailto:licensing@nwb-oen.ca)

**Re: Crown-Indigenous Relations and Northern Affairs Canada's (CIRNAC's) reply to Baffinland Iron Mines Corporation's response to CIRNAC comments on the Interim Closure and Reclamation Plan – Revision 5 for the Mary River Project, Water Licence 2AM-MRY1325 – Amendment No. 1**

Dear Ms. Porter,

Thank you for your January 14 invitation to reply to confirm whether or not Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC) is satisfied with the response provided by Baffinland Iron Mines Corporation (Baffinland) concerning CIRNAC comments on the Interim Closure and Reclamation Plan – Revision 5.

CIRNAC examined the above referenced response. Comments have been provided pursuant to CIRNAC's mandated responsibilities under the *Nunavut Waters and Nunavut Surface Rights Tribunal Act* and the *Department of Indian Affairs and Northern Development Act*. A review of the response is provided in the attached memorandum.

If there are any questions or concerns, please contact me at (867) 975-4282 or [bridget.campbell@canada.ca](mailto:bridget.campbell@canada.ca).

Sincerely,

Bridget Campbell,  
Water Resource Coordinator

## **Technical Review Memorandum**

To: Ida Porter, Licence Administrator, Nunavut Water Board

From: Bridget Campbell, Water Resource Coordinator, Water Resources Division,  
CIRNAC

Date: January 28, 2019

**Re: Crown-Indigenous Relations and Northern Affairs Canada's (CIRNAC's) reply to Baffinland Iron Mines Corporation's response to CIRNAC comments on the Interim Closure and Reclamation Plan – Revision 5 for the Mary River Project, Water Licence 2AM-MRY1325 – Amendment No. 1**

Applicant: Baffinland Iron Mines Corporation  
Project: Mary River Iron Mine Project  
Region: Qikiqtani

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### **A. BACKGROUND**

On November 2, 2018 Baffinland Iron Mines Corporation (Baffinland) submitted the Interim Closure and Reclamation Plan – Revision 5 to the Nunavut Water Board (Board) for review. This plan pertains to Water Licence 2AM-MRY1325 – Amendment No.1. Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC) submitted comments on January 7, 2019 and Baffinland responded to these comments on January 10, 2019. CIRNAC has reviewed Baffinland's responses and provides the following details.

### **B. RESULTS OF REVIEW**

#### **Comment # 1:**

CIRNAC reiterates that the predictions from studies in the Final Environmental Impact Statement (FEIS, 2012), the FEIS Addendum (FEIS, 2013), and from the Interim Report on ML/ARD Characterization Mary River Project, Deposit No. 1 (AMEC, 2010) concerning water quality at the mine site were disproven in the field. In these predictions, acid rock drainage/metal leaching (ARD/ML) was not expected in the first two years of operation; however ARD/ML is currently present on site at the waste rock facility (WRF), which disproves the assumptions used to make the predictions. BIMC asserts that predictions were only disproven at the WRF, not the open pit, however the FEIS Addendum (Volume 7, pg. 116) states, "Preliminary estimates of pit water quality were made using a similar mass loading approach to that for the waste rock drainage quality (AMEC, 2012b; see attachment 5 of Appendix 3B)". According to the Executive Summary of the Interim Mine

Rock ML/ARD Report (AMEC, 2012, pg. i), “The ML/ARD assessment results will provide input for the management of the mine rock and also the management of the seepage and runoff from the mine rock stockpiles and open pit.” It is CIRNAC’s understanding that the same method was used to formulate both the WRF and pit water quality predictions.

CIRNAC supports Baffinland’s continued use of preliminary assumptions as the basis for future site conditions, only until water quality predictions are updated using field data and residual impact evaluations for pit water quality. However, making references to these outdated predictions is misleading unless the reader is informed that the preliminary assumptions do not hold true in the field.

CIRNAC recommends that until new assumptions and predictions are incorporated into forthcoming revisions, CIRNAC requests that the Interim Closure and Reclamation Plan – Revision 5 include a caveat with each of the pre 2013 predictions which informs the reader that the assumptions did not hold true in the field.

## References

Addendum to the Final Environmental Impact Statement for the Mary River Project. Early Revenue Phase. Baffinland Iron Mines Corporation. June 2013.

Final Environmental Impact Statement for the Mary River Project. Baffinland Iron Mines Corporation. February 2012.

Interim Closure and Reclamation Plan, BAF-PH1-830-P16-0012 Rev 5, Baffinland Iron Mines Corporation, October, 2018.

Interim Report on ML/ARD Characterization Mary River Project, Deposit No. 1. AMEC Earth & Environmental. December 2010. Contained within FEIS Addendum, Vol 6.

Interim Mine Rock ML/ARD Report. Mary River Project. AMEC Earth & Environmental. January 2012.

## Comment # 6

CIRNAC understands that data collected during mine dewatering will provide field evidence for predictions for natural filling of the pit lake, and that the data collection is to be ongoing during normal pit operations. CIRNAC also understands and agrees that the pit needs to be constructed and operational before this data can be collected. CIRNAC

also agrees that the proposed timeline of 5 years is appropriate. These dewatering activities are outlined in Task 1.

Task 2, on the other hand, consists of an assessment of potential water sources for enhanced flooding of the pit. The collection of field data outlined in Task 2 does not depend on pit development; rather it depends on hydrometric assessments of the potential water sources. Although the timing of this research should not prevent the approval of this plan, CIRNAC asserts that Baffinland is to determine the water source which will be used to fill the pit in the event of mine closure before the mine is developed. In addition, this assessment should consist of data collected over a timeline of more than one year to account for seasonal and annual variability, as no other data has been previously collected close to the mine site from which supplementary information could be drawn.

CIRNAC recommends that for those reasons Task 2 should be completed as soon as possible.

#### Comments # 2, 3, 4, 5, & 7

CIRNAC is satisfied with these responses.