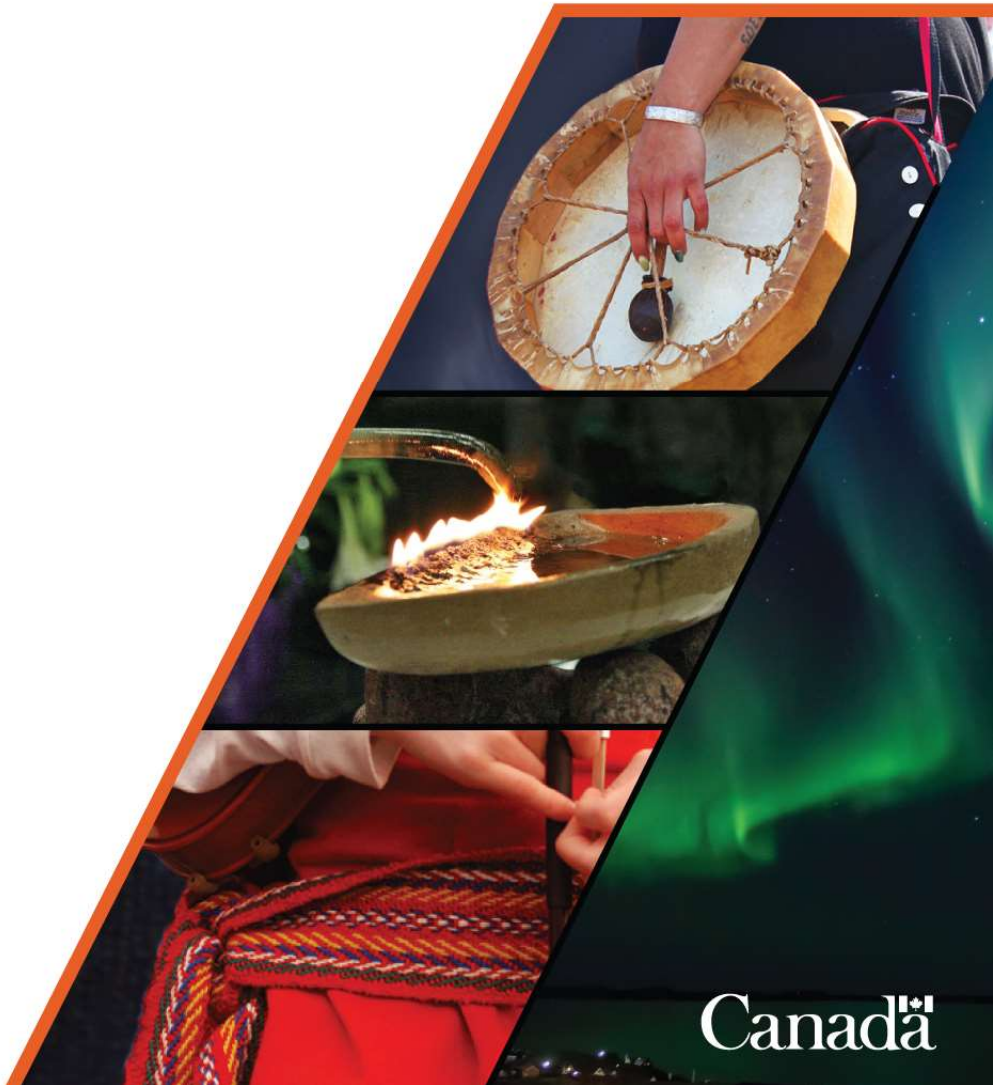




# CIRNAC Comments to NIRB Re: Agnico Eagle Mines Limited's Meliadine Gold Mine Project 2025 Annual Report



Nunavut Regional Office  
918 Sivumugiaq Street  
Iqaluit, NU, X0A 3H0

Your file - Votre référence  
11MN034  
Our file - Notre référence  
GCdocs# 147075454

June 1, 2026

Keith Morrison  
Manager, Project Monitoring  
Nunavut Impact Review Board  
P.O. Box 1360  
Cambridge Bay, NU, X0B 0C0  
Via electronic mail to: [info@nirb.ca](mailto:info@nirb.ca)

Dear Keith Morrison,

**Re: Comment Request for Agnico Eagle Mines Limited's Meliadine Gold Mine Project 2025 Annual Report**

On April 15, 2026, as per Section 12.7 of the *Agreement between the Inuit of the Nunavut Settlement Area and Her Majesty The Queen in Right of Canada* (Nunavut Agreement) and the amended Meliadine Gold Mine Project Certificate [No. 006], the Nunavut Impact Review Board (NIRB) requested parties to review Agnico Eagle Mines Limited (Agnico Eagle)'s 2025 Annual Report with respect to effects and compliance monitoring.

Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC) has conducted a review of the 2025 Annual Report and related documents in areas under its mandate and jurisdiction pertaining to effects and compliance monitoring. On this basis, CIRNAC would like to provide the comments below for NIRB's consideration.

CIRNAC appreciates the opportunity to review Agnico Eagle's Meliadine Gold Mine Project 2025 Annual Report and looks forward to working with NIRB and Agnico Eagle throughout any future reviews for this project. Should you have any questions, please do not hesitate to contact Muhammad Arslan by email at [muhammad.arslan@rcaanc-cirnac.gc.ca](mailto:muhammad.arslan@rcaanc-cirnac.gc.ca) or David Abernethy by email at [david.abernethy@rcaanc-cirnac.gc.ca](mailto:david.abernethy@rcaanc-cirnac.gc.ca).

Sincerely,



Richard Bingley  
Manager, Impact Assessment



## 1. **Effects Monitoring**

The Meliadine Gold Mine Project 2025 Annual Report has been evaluated to assess the measurable changes to the valued components under CIRNAC areas of interest, compared to the potential effects that were predicted to result from the development of the Meliadine Gold Mine Project, taking into account the Final Environmental Impact Statement (FEIS), previous years' Monitoring Reports and the requirements included in the Project Certificate (as amended). The assessment considered the following:

- a. ***Whether the conclusions reached by Agnico Eagle Mines Limited (AEM) in the Meliadine Gold Mine Project 2025 Annual Monitoring Report are valid; and,***
- b. ***Any areas of significance requiring further supporting information or any changes to the monitoring program which may be required***

Comment Number	CIRNAC #1
<b>Subject:</b>	<b>Details Regarding Waterline Operation</b>
<b>Reference:</b>	<ul style="list-style-type: none"> <li>• Meliadine Gold Mine 2025 Annual Report</li> <li>• Appendix 28-10, Water Management Plan, V17</li> <li>• Project Certificate No. 006 (Amendment No. 002), Terms and Conditions (Ts&amp;Cs) No. 25 (Modified and Varied for the Saline Effluent Discharge Proposal and Waterlines Proposal) and No. 134 (New condition for the Waterlines Proposal)</li> </ul>
<b>Issue/Rationale:</b>	<p>The 2023 Annual Report stated that saline water discharge would commence in 2025. The 2024 Annual Report included commissioning the waterline as part of planned activities for 2025. The 2025 Annual Report states that planned activities for 2026 include minor construction, hydrotesting, and commissioning of the waterline. Section 3.2.1 of the 2025 Annual Report states that maximum predicted volume of CP1 will occur in 2027 due to the combined expanded mine footprint and the priority use of the waterline for dewatering of TIRI02 (i.e., instead of reducing discharge to Meliadine Lake (insert added)).</p> <p>Section 3.2.2 of the 2025 Annual Report states that TIRI02 pit currently serves as the primary saline contact water storage pond until it is fully dewatered in 2029. A maximum predicted pit water volume of 1.29 Mm<sup>3</sup> will be reached in June 2027 prior to initiation of TIRI02 dewatering, which will transfer a total of 2.2 Mm<sup>3</sup> of saline water to WES02 over a two-year period from 2027-2029; however, there is no mention of waterline discharge at Itivia.</p> <p>Appendix 28-10, Section 4.1 Key Water Management Activities, Table 12 Major Water Management Activities and Sequence, shows "Saline Effluent Treatment Plant – Water Treatment Complex (SETP-WTC) discharge through waterline" commencing in 2027. Section 5.3.2 notes that the Water Licence Amendment Water Balance and Water Quality Model (WLA WBWQM) assumes that discharge from the waterline begins in 2027. However, Figure 9 of the 2025 Annual Report, which illustrates predicted</p>



Comment Number	CIRNAC #1
	water levels in TIRI02 and WES02 suggests that water discharge from WES02 begins in 2028.
<b>Recommendation:</b>	<p>Given the importance of saline water discharge to the marine environment and the various changes in design and delay in schedule related to the start and operation of the waterline, CIRNAC requests that AEM:</p> <ol style="list-style-type: none"> <li>1. Provide an assessment of risks associated with delayed commissioning of the saline discharge waterline, including implications for TIRI02/WES02 storage capacity, saline water quality evolution, and long-term dependence on interim onsite storage and treatment systems.</li> <li>2. Clarify the status of the waterline and provide additional details on: <ol style="list-style-type: none"> <li>a) Planned 2026 and 2027 construction and commissioning activities,</li> <li>b) Schedules for the start of saline water and contact water discharge at Itivia, and</li> <li>c) Expected operational practices (daily, monthly, annual discharge) upon start of discharge at Itivia.</li> </ol> </li> </ol>

Comment Number	CIRNAC #2
<b>Subject:</b>	<b>Dewatering of TIRI02, Saline Water and Sludge Management</b>
<b>Reference:</b>	<ul style="list-style-type: none"> <li>• Meliadine Gold Mine 2025 Annual Report</li> <li>• Appendix 28-10, Water Management Plan, V17</li> <li>• Project Certificate No. 006 (Amendment No. 002), Ts&amp;Cs No. 25 (Modified and Varied for the Saline Effluent Discharge Proposal and Waterlines Proposal) and No. 26 (Hydrogeology and Groundwater – Pit refill rates)</li> </ul>
<b>Comment:</b>	<p>The 2025 Annual Report introduces a significant change to the dewatering of TIRI02. In all prior annual reports, AEM had indicated that dewatering of TIRI02 would commence via marine discharge at Itivia upon completion of the waterline. The 2025 Annual Report however, states that saline contact water will be stored in TIRI02 to a maximum predicted pit water volume of 1.29 Mm<sup>3</sup> prior to 2027 initiation of transfer to WES02 over a two-year period to 2029. There is no mention of TIRI02 saline water discharge to Itivia. Figure 9 of the 2025 Annual Report illustrates predicted water levels in TIRI02 and WES02. The figure illustrates volume of saline water drawdown of TIRI02 that matches the increase in saline water storage in WES02, with drawdown of WES02 commencing in 2028. Based on the information provided, it is not clear as to why TIRI02 water is being transferred to WES02 over a two-year period rather than being pumped to and treated at the Saline Effluent Treatment Plant – Water Treatment Complex (SETP-WTC) and discharged after treatment at Itivia.</p>



Comment Number	CIRNAC #2
	TIRI02 has been used for sludge disposal since 2021. It is not clear what sludge disposal practices will be during or after TIRI02 saline water discharge.
<b>Conclusion/ Request:</b>	<p>CIRNAC requests that AEM:</p> <ol style="list-style-type: none"> <li>Provide a detailed discussion on the rationale and basis for TIRI02 water transfer to WES02 instead of drawdown via pumping to the SETP-WTC and discharge at Itivia.</li> <li>Provide details on when discharge of saline water from WES02 is expected to begin and the expected rate of discharge.</li> <li>Provide details on changes to sludge management and disposal practices that will occur as a result of dewatering TIRI02 and use of WES02 for saline water storage.</li> </ol>

Comment Number	CIRNAC #3
<b>Subject:</b>	<b>Tailings Storage Facility (TSF) Remaining Storage Capacity and Expansion Plans</b>
<b>Reference:</b>	<ul style="list-style-type: none"> <li>Meliadine Gold Mine 2025 Annual Report</li> <li>Appendix 28-06, Ore Storage Management</li> <li>Appendix 28-04, Mine Waste Management Plan</li> <li>Project Certificate No. 006 (Amendment No. 002), TC No. 22 Geology (including Geochemistry) – Mine Waste Management Plan</li> </ul>
<b>Comment:</b>	<p>Section 4.4.1 of the 2025 Annual Report states that by the end of 2025, tailings placement into the TSF totaled 1,272,000 m<sup>3</sup> (2,098,000 t) with facility remaining design capacity of 654,000 m<sup>3</sup> (1,079,000 t). As shown in Table 4-1 of Appendix 28-04 (Mine Waste Management Plan) at the end of 2025 AEM plans for six more years of tailings deposition to the TSF requiring additional storage of approximately 15.6 Mt.</p> <p>Table 4-1 also shows that 1,760,000 t tailings are planned for deposition in the dry stack in 2026 alone, which exceeds remaining design capacity by more than 681,000 t.</p> <p>Notwithstanding the near term need for addition storage in excess of end of 2025 remaining capacity, and the significant additional amount of tailings storage volume required beyond that already stored in the dry stack (~15.6 Mt) over the next six years, the 2025 Annual Report is silent on how AEM intends to store these tailings and the potential implications associated with the 1.6 times expansion in storage of tailings.</p> <p>[Note only an indirect reference to tailings expansion was made in Section 2.2 Mine Work Plan, 2026, page 7, last bullet “<i>Construction activities related to the Tiriganiaq deposit area: Construction of water management infrastructure (CP8, Berm CP8, Berm CP7, Channels 13 and 14) to support TSF expansion.</i>”]</p>



Comment Number	CIRNAC #3
<b>Conclusion/ Request:</b>	CIRNAC requests that AEM provide a summary discussion of its plans for expanding the approved TSF capacity to full life of mine tailings deposition capacity, contingency storage availability, and the schedule/technical basis for future tailings storage expansion given the limited remaining capacity of approximately 654,000 m <sup>3</sup> and significant additional capacity requirement.



<b>Comment Number:</b>	<b>CIRNAC #4</b>
<b>Subject:</b>	<b>Potentially Acid Generating (PAG)/Uncertain Material in Construction</b>
<b>Reference:</b>	<ul style="list-style-type: none"> <li>• Meliadine Gold Mine 2024 Annual Report</li> <li>• Meliadine Gold Mine 2025 Annual Report</li> <li>• Appendix 9, 2025 Metal Leaching and Acid Rock Drainage Monitoring Report</li> <li>• Project Certificate No. 006 (Amendment No. 002), Ts&amp;Cs No. 31 (Freshwater Aquatic Environment – Setbacks) and No. 22 (Geology (including Geochemistry) – Mine Waste Management Plan)</li> </ul>
<b>Comment:</b>	<p>Waste rock from the open pits is used for construction of infrastructure. During construction, a sampling program is conducted to ensure that only rock classified as non-Potentially Acid Generating (non-PAG) is used in the construction.</p> <p>Sampling conducted in both 2024 and 2025 on construction rock returned a small number of samples as PAG or Uncertain (2024 – one Uncertain sample from Pump Road; 2025 – two Uncertain and two PAG samples). As noted in Section 5.4 of Appendix 9 of the 2025 Annual Report, follow-up sampling completed in 2025 on the Uncertain result collected from Pump Road in 2024 returned two out of eight confirmatory samples as Uncertain or PAG and revealed that there is a section of approximately 20 m between 1+170m and 1+190m that contains PAG material. AEM has indicated that this material will be removed during closure and likely before the onset of any acid generation from the rock.</p> <p>Given that material used in construction is sampled and classified in the pits before use in construction, it is not clear how PAG/Uncertain material was used to construct infrastructure.</p>
<b>Conclusion/ Request:</b>	<p>CIRNAC requests that AEM:</p> <ol style="list-style-type: none"> <li>Provide clarification regarding the identification of PAG/Uncertain construction materials associated with Pump development infrastructure and the proposed long-term management strategy, including confirmation of whether additional similar materials may remain unidentified within operational infrastructure.</li> <li>Provide clarification on why the material was mis-characterized and what changes to the management plans have been implemented to prevent similar issues occurring in the future.</li> </ol>

<b>Comment Number</b>	<b>CIRNAC #5</b>
<b>Subject:</b>	<b>Marine Discharge - Update on Status of <i>Acartia tonsa</i></b>
<b>Reference:</b>	<ul style="list-style-type: none"> <li>• Meliadine Gold Mine 2025 Annual Report</li> <li>• Appendix 28-10, Water Management Plan, V17</li> <li>• Project Certificate No. 006 (Amendment No. 002), Ts&amp;Cs No. 133 (New condition for the Waterlines Proposal) and No. 124 (Modified for the Waterlines Proposal)</li> </ul>



Comment Number	CIRNAC #5
<b>Comment:</b>	<p>The need to discharge significant volumes of saline water at up to 20,000 m<sup>3</sup> per day to the marine environment is one of the most significant variances to the Final Environmental Impact Statement (FEIS) water management plans and predictions for the Meliadine mine.</p> <p>The inability to comply with Environment and Climate Change Canada (ECCC) requirements for <i>Acartia tonsa</i> testing has been a critical constraint since 2022 to the planned discharge of saline water to the marine environment at Itivia. Given its importance, it was expected that the 2025 Annual Report would provide an update on this issue.</p> <p>Review of the 2025 Annual Report found no discussion on the status of AEM efforts to meet ECCC's <i>Acartia tonsa</i> requirements for acute toxicity testing.</p> <p>The absence of an update on where AEM stands with regard to being able to comply with the <i>Acartia tonsa</i> toxicity testing requirements results in significant uncertainty as to AEM's plans and schedules for initiating marine discharge to remove existing stored saline water from TIRI02, or WES02 plus additional saline water inflows from ongoing and future underground mining.</p>
<b>Conclusion/ Request:</b>	<p>Given the importance of saline water discharge to the marine environment, CIRNAC requests updated information regarding the status of <i>Acartia tonsa</i> toxicity management, including contingency measures if discharge toxicity objectives cannot be consistently achieved.</p>

Comment No.	CIRNAC #6
<b>Subject:</b>	<b>Cross-cultural Training Initiatives</b>
<b>Reference:</b>	<ul style="list-style-type: none"> <li>• Meliadine Gold Mine 2025 Annual Report</li> <li>• Appendix 38, 2025 Kivalliq Projects Socio-Economic Monitoring Program Report</li> <li>• Project Certificate No. 006, Amendment 2, T&amp;C No. 110 (Individual and Community Wellness – Employee cohesion)</li> </ul>
<b>Comment:</b>	<p>Term &amp; Condition No. 110 of Project Certificate No. 006 states:</p> <p>The Proponent shall provide the NIRB with a description of wellness and cultural diversity/acceptance programming made available to employees and family or community members and shall report the following information with respect to each program to the NIRB annually:</p> <ol style="list-style-type: none"> <li>a) Language of instruction;</li> <li>b) Uptake by employees and/or family members where relevant, noting Inuit and non-Inuit participation rates;</li> <li>c) Completion rates for enrolled participants, noting Inuit and non-Inuit rates; and</li> <li>d) Issues as may relate to program content which may have been noted or present either on site or in the community and which</li> </ol>



Comment No.	CIRNAC #6
	<p>affect Project employment or employee wellness.</p> <p>Section 12.4.2 of Agnico Eagle’s 2025 Annual Report, along with the submitted 2025 Kivalliq Projects Socio-Economic Monitoring Program Report (Appendix 38), outline the in-class Cross-Cultural Training Program provided to project employees. The Annual Report states that this training is intended to “reinforce the company’s commitment to ensuring that all personnel working on Inuit lands develop a meaningful understanding of Inuit culture, values, and perspectives.” The Socio-Economic Monitoring Program Report further explains that the course is designed for employees from diverse cultural backgrounds to support understanding of cultural differences and improve workplace communication. Agnico Eagle’s efforts to deliver cultural awareness training are notable and demonstrate progress toward meeting T&amp;C 110 of its Project Certificate.</p> <p>However, the information presented in the Annual Report and its corresponding 2025 Socio-Economic Monitoring Report do not fully address all of the required reporting elements. In particular, the report does not specify the language(s) of instruction, nor does it provide disaggregated participation data by Inuit and non-Inuit employees.</p>
<b>Conclusion/ Request:</b>	<p>CIRNAC recommends that future Annual Report submissions clearly demonstrate how Agnico Eagle is addressing the information requirements outlined in Condition 110 of Project Certificate No. 006, particularly those related to the implementation of its cultural awareness and wellness initiatives.</p>

## **2. Compliance Monitoring**

### ***a. Provide a summary of any compliance monitoring and/or site inspections undertaken in association with the project, including specifically:***

#### ***i. Identify the terms and conditions from the Project Certificate which have been incorporated into any permits, certificates, licences or other approvals issued for the Project, where applicable;***

CIRNAC has a broad mandate for the co-management of water resources and the management of Crown Land in Nunavut under the following applicable acts and regulations:

- The *Department of Crown-Indigenous Relations and Northern Affairs Act*;
- The *Nunavut Land Claims Agreement Act and the Nunavut Agreement*;
- The *Arctic Waters Pollution Prevention Act and Regulations*;
- The *Nunavut Waters and Nunavut Surface Rights Tribunal Act and Regulations*; and
- The *Territorial Lands Act and Regulations*.

In terms of water management in Nunavut, CIRNAC has a number of different responsibilities. The Minister of Northern Affairs has a decision-making role with regard to the Nunavut Water



Board (NWB)'s issuance of Water Licences associated with a project. Furthermore, CIRNAC participates as an intervenor in the water licensing process, providing advice and expertise.

When a proposed project is approved to proceed, CIRNAC is responsible for inspecting and enforcing any terms and conditions (T&Cs) contained within any Water Licence associated with the project.

Although CIRNAC is not responsible for implementing water-related T&Cs, the Department has reviewed the Type A Water Licence associated with the Meliadine Gold Mine Project with respect to the amended Project Certificate [No. 006] and has included a concordance table (Appendix A) that outlines how these T&Cs have been incorporated in the Water Licence by the NWB.

In 2025, AEM's Meliadine Gold Mine Project activities and monitoring were conducted under the following Water Licences:

- Type B Water Licence 2BB-MEL1424, and
- Type A Water Licence 2AM-MEL1631

Regarding land authorizations, CIRNAC issued the surface lease (#055K16042) for the marine discharge pipe for the Meliadine Gold Mine Project in 2019. The surface lease was amended (#55K/16-42-3) on January 23, 2023.

**ii. A summary of any inspections conducted during the 2025 reporting period and the results of these inspections; and,**

CIRNAC's Water Resource Officer (WRO) conducted three inspections during the 2025 reporting period. A summary of the inspection reports is presented below for NIRB's consideration.

<b>Inspection 1</b>	<b>Water licence No. 2AM-MEL1631</b>
<b>Area:</b>	Pump Area
<b>Inspection Date:</b>	March 13, 2025
<b>Observations:</b>	Construction activities were noted to be underway for Pump 1, Channell 11, CP9 Thermal Berm, and Berm 4.  The tailings storage facility was noted to have portions reach their designed heights and have been capped. New mitigation measures for wind breaks were being implemented with marine shipping containers.  General site tour was completed and noted as unremarkable.
<b>Result:</b>	There were no items of non-compliance noted, and no immediate actions are required.

<b>Inspection 2</b>	<b>Water licence No. 2AM-MEL1631</b>
<b>Area:</b>	Pump development
<b>Inspection Date:</b>	May 21, 2025
<b>Observations:</b>	The inspector noted Pump 1/CP 9 guarding of permafrost in overburden and freshet preparation phases were not yet complete.  Channel 11 was completed, and piles of material accumulated from



	<p>removed snow for construction which had then melted.</p> <p>The Inspector noted that Berm 4 and the CP9 Thermal Berm have been completed without concern.</p> <p>A8 jetty was being constructed, with concrete blocks to anchor water intake in place.</p> <p>All-Weather Access Roads pre-freshet work was underway, and all but CP6 containment ponds had snow removed from the access ramp.</p>
<b>Result:</b>	There were no items of non-compliance noted, and no immediate actions are required.

<b>Inspection 3</b>	<b>Water licence No. 2AM-MEL1631</b>
<b>Area:</b>	Pump Area, Itivia marine discharge work and new culverts on AWAR
<b>Inspection Date:</b>	July 21, 2025
<b>Observations:</b>	<p>The inspector noted that the gravel pad for the pump ore pad, guarding of overburden layer for Pump 1/CP9 were completed.</p> <p>Lake B62 had been fished out, and dewatering of Lake A8 was underway.</p> <p>The inspector noted no sedimentation concerns at Culvert 11 and Culvert 10, and that the ends of culverts protrusions from road bases were not marked.</p> <p>No concerns were noted at the AWAR, with parked equipment having drip trays under engines.</p>
<b>Result:</b>	There were no items of non-compliance noted, and no immediate actions are required.

**iii. A summary of AEM's compliance status with regard to authorizations that have been issued for the Project.**

There were no instances of non-compliance noted in the 2025 inspections, and no immediate actions required. CIRNAC continues to work with AEM on spill response management and inspection requirements.



**Appendix A: Project Certificate Terms and Conditions (T&C) incorporated into any permits, certificates, licences or other approvals issued for the Project**

<b>NIRB Project Certificate No. 006 Term &amp; Condition</b>		<b>Implemented in NWB Water Licence NO: 2AM-MEL1631</b>
3	<p>Prior to commencing construction activities the Proponent shall update its dust management and monitoring plan to address and/or include the following additional items:</p> <ol style="list-style-type: none"> <li>Align plan requirements with commitments made in the FEIS and during the Final Hearing to monitor dust along the all-weather access road and associated roads and trails.</li> <li>Verify commitments to the utilization of dust suppressants along the all-weather access road including and associated roads and trails, including a description of the type of suppressant to be utilized, the frequency and timing of applications to be made throughout the various seasons of road use.</li> <li>Outline the specific adaptive management measures to be considered should monitoring indicate that dust deposition is higher than predicted, specifically where traffic along the all-weather access road is greater than initially predicted.</li> </ol>	<ul style="list-style-type: none"> <li>▪ Part B: Item 12f</li> <li>▪ Part E: Item 17</li> <li>▪ Part I: Item 9c</li> <li>▪ Schedule B: Item 4</li> <li>▪ Schedule D: Item 1j</li> </ul>
4	The Proponent shall develop and implement an Incineration Management Plan that takes into consideration the recommendations provided in Environment Canada's Technical Document for Batch Waste Incineration (2010).	<ul style="list-style-type: none"> <li>▪ Part B: Item 12f</li> </ul>
6	The Proponent shall employ appropriate dust suppression measures when conducting activities in the landfill such as topping or capping.	<ul style="list-style-type: none"> <li>▪ Part B: Item 12o</li> </ul>
13	The Proponent shall undertake additional geotechnical investigations as required to identify sensitive landforms, modify engineering design for Project infrastructure (i.e., dikes, tailings storage facility, waste rock pile and landfill), and develop and implement preventative and/or mitigation and monitoring measures to minimize the impacts of the Project's activities and infrastructure on sensitive landforms. Plans for the investigations, mitigative and monitoring measures are to be included within an updated Environmental Protection Plan.	<ul style="list-style-type: none"> <li>▪ Part B: Item 12c</li> <li>▪ Part I: Item 14</li> <li>▪ Part I: Item 15</li> </ul>



<b>NIRB Project Certificate No. 006 Term &amp; Condition</b>		<b>Implemented in NWB Water Licence NO: 2AM-MEL1631</b>
14	The Proponent is encouraged to conduct more detailed thermal analysis to support detailed design of the dikes and the tailings storage facility, including seepage and stability analysis, and shall incorporate the results of the analysis into Project design. Details of the thermal analyses undertaken are to be provided to the NIRB.	<ul style="list-style-type: none"> <li>▪ Part D: Items 1b and 2</li> <li>▪ Part I: Item 13</li> </ul>
15	<p>The Proponent shall assess the potential environmental effects of a post-closure failure of the geomembrane of the Tailings Storage Facility while tailings are in a thawed state. This assessment shall include, at a minimum:</p> <ol style="list-style-type: none"> <li>a. A description of the potential environmental effects of such a failure;</li> <li>b. Identification of the monitoring measures employed to detect environmental changes that could result;</li> <li>c. Identification of proposed mitigation measures to address any changes identified during monitoring; and</li> <li>d. Updated Risk Management Plan and Closure and Reclamation Plan reflecting changes which result from the post-closure failure assessment.</li> </ol> <p>A summary of the results from this assessment and implications to project infrastructure and operational plans shall be provided to the NIRB.</p>	<ul style="list-style-type: none"> <li>▪ Part B: Item 12L</li> <li>▪ Part J: Item 5</li> </ul>
16	The Proponent shall finalize and implement a comprehensive erosion management plan to prevent or minimize the effects of destabilization and erosion resulting from Project activities.	<ul style="list-style-type: none"> <li>▪ Part B: Item 12o</li> <li>▪ Part D: Items 2e, 8 and 21</li> <li>▪ Part E: Item 9</li> </ul>
17	The Proponent shall monitor the effects of the Project on permafrost conditions relative to Project infrastructure, including along the all-weather access road and associated roads, waste rock stockpile, trails and quarries. Through its monitoring the Proponent must demonstrate that permafrost integrity is maintained with implementation of appropriate preventative measures should permafrost degradation be observed.	<ul style="list-style-type: none"> <li>▪ Part J: Item 5</li> </ul>



<b>NIRB Project Certificate No. 006 Term &amp; Condition</b>		<b>Implemented in NWB Water Licence NO: 2AM-MEL1631</b>
19	<p>The Proponent shall develop and implement a monitoring program for its Tailings Storage Facility and Waste Rock Storage Facility (including dikes). The monitoring program is to include, but shall not be limited to:</p> <ol style="list-style-type: none"> <li>Plans for monitoring the thermal condition and stability of storage facilities (including deformation of the cover) and dikes, including the use of thermistor cables, temperature loggers, and core sampling technology as required to monitor dike stability and tailings freezeback efficiency, including for example, factors such as ice content and stability; and,</li> <li>Measures proposed to ensure the safe containment and structural integrity of Project infrastructure, and to prevent contamination of waterbodies.</li> </ol> <p>Details of the monitoring program shall be provided to the NIRB.</p>	<ul style="list-style-type: none"> <li>▪ Part B: Item 12j</li> <li>▪ Part F: Item 20</li> </ul>
20	<p>The Proponent shall explore the feasibility and practicality of topsoil/organic matter salvage as part of phased approach to Project development, with updates to its Closure and Reclamation Plan to reflect any changes based on this investigation. The Closure and Reclamation Plan should be updated on an on-going basis as more information becomes available from similar reclamation projects, including experience with implementing closure and reclamation plans at the Meadowbank mine site, as applicable.</p>	<ul style="list-style-type: none"> <li>▪ Part B: Item 12l</li> </ul>
21	<p>The Proponent shall update its Waste Management Plan to include details which explain how the design employed for Project landfills is expected to protect the integrity of the local environment, including permafrost integrity, and water quality for adjacent waterbodies. The Proponent shall demonstrate its consideration for the use of liners at waste management facilities, where feasible.</p>	<ul style="list-style-type: none"> <li>▪ Part B: Item 12h</li> </ul>
22	<p>The Proponent shall report annually to the NIRB on the adaptations it has had made to the Mine Waste Management Plan and practices based on results obtained through monitoring.</p>	<ul style="list-style-type: none"> <li>▪ Part B: Item 12j</li> </ul>
23	<p>Prior to the commencement of excavation at the Discovery deposit, the Proponent, in consultation with Natural Resources Canada, shall update its Mine Waste Management Plan to assess the potential for acid rock drainage and to identify any monitoring and mitigation measures that may be required in this development area.</p>	<ul style="list-style-type: none"> <li>▪ Part B: Item 12j</li> </ul>



<b>NIRB Project Certificate No. 006 Term &amp; Condition</b>		<b>Implemented in NWB Water Licence NO: 2AM-MEL1631</b>
24	The Proponent shall, reflecting any direction from the Nunavut Water Board during water licensing, collect new hydraulic data (e.g., from new monitoring wells) in key areas during the pre-development, construction and operation phases to better define vertical and horizontal ground flow in the project development area.	<ul style="list-style-type: none"> <li>▪ Part B: Item 12q</li> <li>▪ Part E: Item 14</li> </ul>
25	The Proponent shall provide to the NIRB, a saline water management plan which includes, but is not limited to, mitigation measures designed to address the potential for higher-than-predicted volumes of saline water inflows into the underground mine, treatment and disposal methods, and details of its plan to monitor saline water at site.	<ul style="list-style-type: none"> <li>▪ Part B: Item 12q</li> <li>▪ Part B: Item 13d</li> </ul>
26	The Proponent shall carry out continued analyses over time to confirm and update, accordingly, the approximate fill time for the mine pits as identified in the FEIS.	<ul style="list-style-type: none"> <li>▪ Part J: Item 1 and 5</li> </ul>
27	<p>The Proponent shall update its Aquatic Effects Monitoring Plan (AEMP) to include, at a minimum:</p> <ol style="list-style-type: none"> <li>a. Details regarding the monitoring of non-point sources of discharge, selection of appropriate reference sites, measures to ensure the collection of adequate baseline data at Meliadine Lake prior to and during construction activities, including information on chemical loading in the snowpack, and the mechanisms proposed to monitor for and treat runoff and sediment;</li> <li>b. A description of measures to be undertaken as relate to dustfall monitoring, designed in accordance with the following: <ol style="list-style-type: none"> <li>i. To establish Phase 1 all-weather access road baseline data and a description of plans for data collection during Project operations for comparison;</li> <li>ii. To facilitate comparison with existing guidelines;</li> <li>iii. To assess the seasonal deposition (rates, quantities) and chemical composition of dust entering aquatic systems along representative distance transects of the all-weather access road and Rankin Inlet by-pass road;</li> </ol> </li> <li>c. A description of water quality monitoring to be conducted at Little Meliadine Lake; and</li> <li>d. Details regarding comparisons of results to be run against predicted values and the analysis of data to be undertaken on an annual basis, or as may be required.</li> </ol>	<ul style="list-style-type: none"> <li>▪ Part B: Item 12a</li> <li>▪ Part B: Item 13</li> <li>▪ Part I: Item 3</li> </ul>



<b>NIRB Project Certificate No. 006 Term &amp; Condition</b>		<b>Implemented in NWB Water Licence NO: 2AM-MEL1631</b>
28	The Proponent shall develop and implement a sediment and erosion management plan to prevent or minimize the effects of destabilization and erosion that may occur due to Project activities. The plan should also detail sediment control plans to prevent and/or mitigate sediment loading into surface water within the Project area.	<ul style="list-style-type: none"> <li>▪ Part B: Item 12q</li> </ul>
29	The Proponent shall develop and implement adequate monitoring and maintenance procedures to ensure that the culverts and other conduits that may be prone to blockage do not significantly hinder or alter the natural flow of water from areas associated with the proposed mine. In addition, the Proponent shall monitor, document and report the withdrawal rates for water removed and utilized for all domestic and industrial purposes.	<ul style="list-style-type: none"> <li>▪ Part D: Item 1a and 24</li> <li>▪ Part E: Item 15</li> </ul>
30	The Proponent shall update its Aquatic Effects Monitoring Plan (AEMP) to include, at a minimum: <ul style="list-style-type: none"> <li>a. Provide details for additional reference lakes to be included within its sampling and monitoring programs;</li> <li>b. Updates to include sedimentation within relevant monitoring programs; and</li> <li>c. Results from additional testing for mercury in fish tissue, and include test results in updated baseline data.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Part B: Item 12a</li> <li>▪ Part B: Item 13</li> <li>▪ Part I: Item 3</li> </ul>
31	The Proponent shall maintain an appropriate setback distance between project quarries and fish-bearing or permanent water bodies as required to prevent acid rock drainage or metal leaching into such water bodies.	<ul style="list-style-type: none"> <li>▪ Part B: Item 12q</li> </ul>
32	Prior to the commencement of construction, the Proponent shall submit to the NIRB, a Site Drainage and Silt Control Plan.	<ul style="list-style-type: none"> <li>▪ Part B: Item 12q</li> </ul>
33	The Proponent shall meet or exceed the guidelines set by Fisheries and Oceans Canada for blasting thresholds and implement practical and effective measures to ensure that residue and by-products of blasting do not negatively affect fish and fish habitat.	<ul style="list-style-type: none"> <li>▪ Part B: Item 12d and 12q</li> </ul>
34	Unless otherwise approved by regulatory authorities, the Proponent shall ensure that all Project infrastructure in watercourses is designed and constructed in such a manner that it does not obstruct unduly prevent or limit the natural movement of water in fish bearing streams and rivers.	<ul style="list-style-type: none"> <li>▪ Part B: Item 12q</li> </ul>



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41	Prior to the commencement of operations, the Proponent shall develop a progressive re-vegetation program for disturbed areas that are no longer required for operations, such program to incorporate measures for the use of test plots, reseeding and replanting of native plants as necessary. It is further recommended that this program be directly associated with the management plans for erosion control established for the Project and incorporate lessons learned at Meadowbank.	<ul style="list-style-type: none"> <li>▪ Part B: Item 12l</li> <li>▪ Part J: Item 8</li> </ul>
42	The Proponent shall include re-vegetation strategies in its Closure and Reclamation Plan that support progressive reclamation and that promote natural revegetation and recovery of disturbed areas compatible with the surrounding natural environment and incorporate lessons learned at Meadowbank.	<ul style="list-style-type: none"> <li>▪ Part B: Item 12l</li> <li>▪ Part J: Item 8</li> </ul>
67	The Proponent shall submit an updated Oil Pollution Prevention Plan including measures to avoid adverse effects to species at risk and migratory birds from spills, as well as details regarding monitoring of effects of a spill on species at risk and migratory birds.	<ul style="list-style-type: none"> <li>▪ Part B: Item 12p</li> </ul>
77	The Proponent shall ensure that it maintains the necessary equipment and trained personnel to respond to all sizes of potential spills associated with the Project in a self-sufficient manner.	<ul style="list-style-type: none"> <li>▪ Part B: Item 12p</li> </ul>
78	<p>Prior to the shipping of Project supplies, the Proponent shall conduct fuel spill dispersion modeling that will, at a minimum, consider:</p> <ol style="list-style-type: none"> <li>a. Modeling of oil spills in the following areas: <ol style="list-style-type: none"> <li>i. Pinch points, including: Hudson Strait, Melvin Bay area including Itivia Harbour and Panorama Island;</li> <li>ii. Shallow water and shorelines; and,</li> <li>iii. Areas that have been identified as having high flows and/or high concentrations of marine mammals, marine fish or seabirds;</li> </ol> </li> <li>b. Open water and ice-covered conditions;</li> <li>c. Spill volumes up to and including loss of a full tanker cargo; and,</li> <li>d. Differences in the quantity and properties of each type of bulk fuel transported by vessels when they are at, or in transit to, the port of Rankin Inlet.</li> </ol>	<ul style="list-style-type: none"> <li>▪ Part B: Item 12p</li> </ul>



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117	Prior to construction Phase 2 of the all-weather access road and the Rankin Inlet bypass road, the Proponent shall consult applicable laws in Canada and Nunavut as well as meet with all regulatory agencies and the public as it finalizes its road operations plans.	▪ Part B: Item 12o
120	The Proponent shall contract only Transport Canada certified shippers to carry cargo for the Project, and will ensure shippers are aware of the requirements of the Shipping Management Plan, the Risk Management and Emergency Response Plan and the Oil Pollution Emergency Plan (OPEP).	▪ Part B: Item 12n
121	The Proponent shall monitor the ingress/egress of Project related ships at Rankin Inlet and report any accidents or spills immediately to the regulatory agencies as required by law and to NIRB's Monitoring Officer.	▪ Part B: Item 12n
122	The Proponent shall ensure that best practices are used at all times during ship to shore and other marine-based fuel transfer events, including implementing measures specifically designed to prevent leaks and spills resulting from ice forming on the hoses during fuel transfers.	▪ Part B: Item 12n
124	Prior to construction, the Proponent shall update its Spill Contingency Plan specific to a major spill event occurring on the bypass road and within proximity to (and including potential spills into) Nipissar Lake.	▪ Part B: Item 12n

