



ᓄᓇᓂᓪ ᐃᓕᓕᓂᓪ ᑲᓂᓕᓂᓪ
NUNAVUT WATER BOARD
NUNAVUT IMALIRIYIN KATIMAYINGI
OFFICE DES EAUX DU NUNAVUT

**Files: 2AM-MEA1530
2AM-WTP1830**

October 31, 2023

Alexandra Ozaruk
Compliance Counselor
Agnico Eagle Mines Limited - Meadowbank Division
Suite 540
Baker Lake, NU X0C 0A0

E-mail: alexandra.ozaruk@agnicoeagle.com

**RE: Licences No: 2AM-MEA1530, Meadowbank Gold Mine Project;
2AM-WTP1830, Whale Tail Pit Project;
Agnico Eagle Mines Limited;
2022 Annual Report Review**

Dear Alexandra Ozaruk:

The Nunavut Water Board (NWB or Board) has completed the technical review of the 2022 Annual Report (the Report) for Type “A” Water Licences 2AM-MEA1530 and 2AM-WTP1830 (Meadowbank Licence, Whale Tail Pit Licence, or Licences). The Report was received on March 31 and April 6, 2023 from Agnico Eagle Mines Limited (Agnico Eagle or Licensee), submitted as a requirement under Part B of the Licences.

Copies of all documents received during Report review can be accessed through the NWB’s Public Registry and FTP site using the following links:

[ftp://ftp.nwb-oen.ca/registry/2%20MINING%20MILLING/2A/2AM%20-%20Mining/2AM-MEA1530%20Agnico/3%20TECH/1%20GENERAL%20\(B\)/2%20ANNUAL%20RPT/2022/](ftp://ftp.nwb-oen.ca/registry/2%20MINING%20MILLING/2A/2AM%20-%20Mining/2AM-MEA1530%20Agnico/3%20TECH/1%20GENERAL%20(B)/2%20ANNUAL%20RPT/2022/)

and

<ftp://ftp.nwb-oen.ca/registry/2%20MINING%20MILLING/2A/2AM%20-%20Mining/2AM-WTP1830%20Agnico/3%20TECH/B%20GENERAL/2%20ANNUAL%20RPT/>

On April 5 and 6, 2023, the NWB distributed the Report for public review. Submissions were received from Kivalliq Inuit Association (KivIA), Crown-Indigenous Relations and Northern Affairs (CIRNA), and Environment and Climate Change Canada (ECCC) on or before July 5, 2023.

The table below provides a brief summary of issues that were found outstanding during the Report review, pertaining to the NWB’s mandate. The table provides deadlines for the Licensee to respond

to respective recommendations and concerns. For the intervenors' discussion of these items, please refer to the comment submissions referenced above.

Table 1. Intervener Recommendations and Concerns

No.	Licence No:	Intervener Recommendation / Concern	Deadline to Respond by and Notes
Kivalliq Inuit Association (KivIA)			
1	2AM-MEA1530	Commit to measuring depth profiles of conductivity in the reflooded pits.	Subsequent annual reports
2	2AM-MEA1530, 2AM-WTP1830	Ensure the pages and sections modified in subsequent document versions is reflected in the document control table.	Subsequent annual reports
3	2AM-MEA1530	Did the investigation into November 28, 2022 29,000 litre fuel include a review of the training records and maintenance records of mobile equipment for the Inuit Contractors used for hauling fuel?	March 31, 2024 (2023 Annual Report)
Crown-Indigenous Relations and Northern Affairs (CIRNA)			
1	2AM-WTP1830	<ul style="list-style-type: none"> a) Indicate whether the 2022 [potentially acid generating] PAG ratio for the IVR pit (i.e., 82%) is consistent with design expectations at the time the Whale Tail Mine Expansion was approved. b) Indicate how the higher (i.e., if higher than the original prediction) PAG ratio for IVR will influence environmental performance and waste rock management practices during operations and [Waste Rock Storage Facility] WRSF closure strategies. c) Indicate how the higher (i.e., if higher than the original prediction) PAG ratio for IVR has been incorporated into post-closure water quality predictions for the site. 	March 31, 2024 (2023 Annual Report)
2	2AM-WTP1830	<ul style="list-style-type: none"> a) Confirm if arsenic loadings to the Whale Tail and IVR pits, as indicated by sump monitoring, are greater than the conservative predictions presented in the [Final Environmental Impact Statement] FEIS documents for the project. b) Describe the factors contributing to the pit sumps having arsenic loadings higher than predicted in the FEIS (e.g., pit wall seepage). c) Indicate any modifications that will need to be made to the Whale Tail and IVR Pit closure strategy to ensure that water quality in the pit lakes will serve as viable aquatic habitats 	March 31, 2024 (2023 Annual Report)

3	2AM-WTP1830	<ul style="list-style-type: none"> a) Clarify if the elevated arsenic concentrations in attenuation ponds were a factor in non-compliant discharges to Whale Tail South Lake in April 2022. b) Explain the substantive temporal variability in the water quality of Whale Tail pit sumps and attenuation pond. c) Discuss any potential implications of the temporal variability on the site's environmental performance during operations and the post-closure phase. d) Provide an assessment correlating any instances of in-pit filling of contact/saline water and the dates of the sampling conducted in the pit. 	March 31, 2024 (2023 Annual Report)
4	2AM-MEA1530	Provide a detailed description of the causes, environmental impacts and mitigations associated with the burning of the Meadowbank landfill.	March 31, 2024 (2023 Annual Report)
5	2AM-MEA1530, 2AM-WTP1830	Provide the details, findings and recommendations of all new spill management initiatives in future Annual Reports. This should include, but not be limited to: the new spill action plan, the spill [failure mode & effect analysis] FMEA and any new corrective measures.	Subsequent annual reports
6	2AM-MEA1530, 2AM-WTP1830	Convene an annual workshop with regulators and interested parties to discuss the closure planning status for the Meadowbank and Whale Tail Mines.	Provide a discussion of CIRNA's proposal within the 2023 Annual Report
7	2AM-WTP1830	<ul style="list-style-type: none"> a) Provide a detailed table describing the factors that contributed to 2022 water quality predictions being higher than one or more of the following: i) FEIS predictions, ii) predictions from 2021, and iii) predictions that exceed environmental quality criteria. b) Describe why there is a high degree of variability between the 2021 and 2022 predictions. c) Describe the approaches that will be taken to ensure significant adverse impacts do not occur for any parameters that are predicted to exceed 75% of the environmental quality criteria during post-closure. d) Describe the studies that the Licensee will undertake between now and the finalization of the closure plan to verify the accuracy of water quality predictions. e) Describe if and how the higher than originally anticipated water quality predictions will affect closure strategies 	March 31, 2024 (2023 Annual Report)

		for the site.	
8	2AM-MEA1530, 2AM-WTP1830	Revisit the water quality modelling assumptions and approaches used for both Meadowbank and Whale Tail to ensure all future project decisions (particularly closure) are informed by sufficiently accurate predictions.	
9	2AM-MEA1530, 2AM-WTP1830	a) Revise the Section 5 of the 2022 Annual Report title to reflect that the section contains information on more than waste rock. b) Provide a timeline for the future studies that the Licensee has committed to be carried out, ensuring that they will be done ahead of closure, not at closure. c) Clarify whether the Licensee intends to carry out the studies identified above that have been discussed as “could be carried out.”	March 31, 2024 (2023 Annual Report)
10	2AM-MEA1530	Update Table 4-3 and Figure 7 to include both the Vault Attenuation Pond and Turn Lake water level.	March 31, 2024 (2023 Annual Report)
Environment and Climate Change Canada (ECCC)			
1	2AM-MEA1530, 2AM-WTP1830	Perform a first order quality control of the weather data from the climate station, with an emphasis on wind speed and direction; the primary comparison of wind data would be with the sensor at DF-7 with the Baker Lake NAVCAN Station as a secondary station.	March 31, 2024 (2023 Annual Report)
Fisheries and Oceans Canada (DFO)			
DFO-1	2AM-MEA1530, 2AM-WTP1830	Provide a plan for repair and/or replacement of damaged and obstructed culverts prioritizing repairs to culverts with potential to affect fish passage and those affecting fish and fish habitat along the Whale Tail Haul Road (WTHR) and All-Weather Access Road (AWAR)	March 31, 2024 (2023 Annual Report)
Nunavut Water Board (NWB)			
1	2AM-MEA1530, 2AM-WTP1830	The Licensee provides a redundant information pertaining to requirements of other government bodies (wildlife, socio-economic, etc.). Please limit the documentation package to the required.	March 31, 2024 (2023 Annual Report)
2	2AM-MEA1530, 2AM-WTP1830	The geotechnical inspection resulted in a number of recommendations pertaining to: <ul style="list-style-type: none"> • East Dike • Bay-Goose Dike • Stormwater Dike • Central Dike • AWAR • Whale Tail Mine Road • Quarries • Issues with geomembranes and 	March 31, 2024 (2023 Annual Report)

		recommendations for inspections for Baker Lake Tank Farm <ul style="list-style-type: none"> • Whale Tail Mine Tank Farm • Contaminated Soil Storage and Bioremedial Landfarm Facility Please address the recommendations.	
3	2AM-MEA1530	The open pit geomechanical inspection resulted in recommendations pertaining to: <ul style="list-style-type: none"> • Goose Open Pit North Wall • Pit A B Dump - Lower Dump Platform • Pit A B dump Upper Dump Platform Please address the recommendations.	March 31, 2024 (2023 Annual Report)

The NWB notes that Agnico Eagle submitted the following updated management plans with the 2022 Annual Report.

Table 2. Submitted Management Plans

Licence No.	Management Plan
2AM-MEA1530	<ul style="list-style-type: none"> • <i>Meadowbank Mine Waste Rock and Tailings Management Plan</i>, Version 13 dated March 2023; • <i>2022 Water Management Plan</i>, Version 11 dated March 2023; • <i>Meadowbank Complex Incinerator Waste Management Plan</i> Version 10 dated June 2022; • <i>Dewatering Dikes Operation, Maintenance and Surveillance Manual</i> Version 10 dated December 2022; • <i>Meadowbank Complex Tailings Management Operation, Maintenance and Surveillance Manual</i> Version 11 dated December 2022.
2AM-WTP1830	<ul style="list-style-type: none"> • <i>Whale Tail Project – Waste Rock Management Plan</i>, Version 10 dated March 2023; • <i>Water Management Plan</i>, Version 10 dated March 2023; • <i>Whale Tail Project Water Management Infrastructure Operation, Maintenance and Surveillance Manual</i> Version 3 dated December 2022; • <i>Operational ARD-ML Sampling and Testing Plan – Whale Tail Mine</i> Version 7.1 dated February 2023; • <i>Whale Tail Haul Road Management Plan</i> Version 4 dated March 2023; • <i>Mercury Monitoring Plan</i> Version 4 dated March 27, 2023.
2AM-MEA1530 and 2AM-WTP1830	<ul style="list-style-type: none"> • <i>Meadowbank and Whale Tail Bulk Fuel Storage Facility: Environmental Performance Monitoring Plan</i>, Version 7 dated June 2022; • <i>Spill Contingency Plan</i>, Version 19 dated March 2023; • <i>Oil Handling Facility: Oil Pollution Emergency Plan and Oil Pollution Prevention Plan</i>, Version 16 dated March 2023; • <i>Quality Assurance / Quality Control (QA/QC) Plan</i>, Version 8 dated March 2023.

The Board advises that the provided management plans address the requirements of the Licences, considering that the recommendations in Table 1 are to be addressed in the 2023 Annual Report.

If you have any questions, please contact the undersigned at assol.kubeisinova@nwb-oen.ca or (867) 360 6338.

Best regards,

Assol Kubeisinova
Nunavut Water Board
Technical Advisor

CC: Distribution list – Meadowbank

Attachments: KivIA, CIRNA, ECCC, DFO