July 16th, 2024

Richard Dwyer
Manager of Licensing
Nunavut Water Board
P.O. Box 119 Gjoa Haven
Nunavut NU X0B 1J0

RE: *Meliadine Mine 2023 Annual Report for Water Licence 2AM-MEL1631*

Dear Mr. Dwyer,

Agnico Eagle Mines Limited (Agnico Eagle) thanks the Nunavut Water Board (NWB) for the opportunity to address comments received for Agnico Eagle's Meliadine Gold Mine 2023 Annual Report.

The following information and comments are intended to address comments outlined in the below referenced letters.

240603 2AM-MEL1631 AEM 2023 Annual Report Review ECCC Comments-IMLE
240624 2AM-MEL1631 2023 Annual Report KivIA Comments-ILAE
240515 2AM-MEL1631 AEM 2023 Annual Report Review CIRNAC Comments-IMLE
240624 2AM-MEL1631 AEM 2023 Annual Report Review DFO Comments-IMLE

Should you have any questions or require further information, please do not hesitate to contact us.

With my best regards,

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MELIADINE

Table of Contents

Environment and Climate Change Canada (ECCC)

ECCC-1: Arsenic In Peninsula Lakes

Comment

Section 4.2 of the Annual Report states “Arsenic exceeded the AEMP Action Level in Lake B7 in August 2023. Follow-up monitoring was competed in October, and concentrations had decreased from roughly 20 µg/L to 10 µg/L.” Section 4.5 of the Annual Report concludes: “Based on the annual mean, there were no exceedances of the AEMP Action Levels in any of the lakes in 2023.”

Action Levels are defined in the Aquatic Effect Monitoring Program Design Plan (AEMP). For arsenic, a site-specific water quality objective of 25 µg/L was developed and is used as a benchmark, along with an Action Level at 75% of the value or 18.8 µg/L.

The 2023 measurements bring to light the different possible interpretations. As reported, more samples were collected in Lake B7 at a later date, so the annual mean concentration of arsenic was below 18.8 µg/L. A conclusion of no Action Level exceedances based on annual mean concentrations was determined as a result.

Section 4.4.2 of the Annual Report proposes “The substantial decrease in arsenic observed in Lake B7 between August and October was likely due to co-precipitation with iron oxy-hydroxides.” The Design Plan does not specify if the Action Level concentrations are for individual samples, monthly averages or annual averages. Specifying what concentrations will be compared against Action Levels and Benchmarks will help bring clarity to all parties.

Continuing more frequent monitoring of Lake B7 would help further understanding of elevated arsenic concentrations, including of the co-precipitation hypothesis and if sediments in downwind ponds will need to be considered as a potential source of arsenic. Increased monitoring is an example response for Low Action Level and would be appropriate given that arsenic concentrations measured in August 2023 were above the Action Level.

Recommendations

ECCC recommends the Proponent:

- clarify in the AEMP design plan what concentrations (individual measurements, averages (monthly or annual), annual median) will be compared to Action Levels for each parameter and justify choice; and
- begin more frequent monitoring in Lake B7.

Agnico Eagle Answer

As per 2023 Annual Report Answers provided to the NIRB on July 8th, 2024 (ECCC-1), regarding the first recommendation, the following approach is used when comparing the annual water quality (WQ) data to AEMP Action Levels and Benchmarks:

- Step 1: Individual samples are screened against Action Levels and Benchmarks. If individual samples exceed the AEMP Action Level for a given parameter, step 2 is completed.
- Step 2: The annual mean concentration is compared to the AEMP Action Level and Benchmark (see Table 5-2 in the AEMP Design Plan). The annual median concentration is also compared to the AEMP Action Level as both measures of central tendency provide information about the distribution of the data. One or two samples with high concentrations can skew the mean concentration to the right (positive skew) and bias the results. The same is true for low concentrations or non-detects (negative skew).

Regarding the second recommendation, pending the 2024 Water Licence Amendment application is approved, Lake B7 would be dewatered in 2025 to convert this lake to a saline pond. During the Water Licence Amendment process, Agnico Eagle committed to monitoring in Lake B7 during operations (commitment number WLA-03 in response to KivIA-TC-04):

> *Agnico Eagle commits to monitor Lake B7 during operations to assess the potential requirement to remediate Lake B7 at closure. Based on monitoring during operations of Lake B7 and in review of predictions, this data will support the development of an appropriate path forward with respect to the closure of Lake B7. This will enable the development of a comprehensive Final Closure and Reclamation Plan, with assumptions that have been validated by the site data.*

For 2024, water quality monitoring in Lake B7 will be conducted in July and August as in previous years. A third sampling event in late September/early October may be completed if arsenic concentrations in July and August exceed the AEMP Action Level.

ECCC-2: CP1 NUTRIENTS PREDICTIONS

Comment

Appendix 5 discusses causes for the discrepancy between measured and modelled concentrations of phosphorous and ammonia in the principal containment pond, CP1. The report concludes "*The investigation into the nutrient dynamics in CP1 highlights the intricate relationship between nutrients and algae in aquatic ecosystems, and while the ammonia removal mechanism is still unclear in CP1, data shows that natural attenuation by algal growth plays a dominant role in this process.*" No follow-up actions are discussed so it is not clear if this information can be used to improve modelled concentrations of nutrients in CP1.

Recommendations

ECCC recommends the Proponent discuss if and how findings of the CP1 Nutrient Predictions Report can be used to improve predicted concentrations of phosphorous and ammonia in CP1.

Agnico Eagle Answer

As per 2023 Annual Report Answers provided to the NIRB on July 8th, 2024 (ECCC-2), natural attenuation of ammonia and phosphorous by algal growth plays a dominant role in the discrepancy observed between predicted and measured nutriment concentrations in CP1. Agnico Eagle would like to note that the current model is conservative and relies on a calibration of source terms water quality values and flow volumes generated by specific components of the mine site. Keeping these predictions is important in case the actual algae assimilation process is not happening for any reason.

However, Agnico Eagle will investigate the possibility implementing a second prediction for ammonia and phosphorous within the Water Quality Model (WQM) that will include a limited calibration that will better reflect the actual concentrations observed during the past three years.

ECCC-3: ALTERNATIVE SLUDGE MANAGEMENT STRATEGIES SCENARIO ANALYSIS

Comment

Section 7.3.3. of the Annual Report reports a Scenario Analysis on alternative sludge management strategies was completed in Q1 of 2024. Some possibilities and results are briefly discussed and an alternate disposal location is suggested. The revisions of the Water Management Plan described in Table 28 do not mention changes to sludge management. It is not clear why this information was presented because the Scenario Analysis was not shared, changes due to the analysis are not evident and there is no mention of including this information in a future annual report.

Recommendations

ECCC recommends the Proponent clarify:

- if and when they will share the Scenario Analysis on alternative sludge management strategies; and
- if and how they will implement findings of their Scenario Analysis.

Agnico Eagle Answer

As per 2023 Annual Report Answers provided to the NIRB on July 8th, 2024 (ECCC-3), Agnico Eagle is operating as per the most recent reviewed and approved Water Management Plan (WMP) and as per Design and As-Built reports submitted for the EWTP-WTC Modifications, and sludge produced as part of the TSS removal processes at the EWTP-WTC is currently discharged to saline water storage.

As requested in CIRNAC-4 comment on the 2022 Annual Report received through the NWB, sludge quality monitoring and potential impacts were presented and discussed in the 2023 Annual Report (section 7.3.3), as well as the preliminary conclusions of a Scenario Analysis investigating

alternatives for sludge management. The Scenario Analysis conducted was mainly oriented on economic feasibility investigations.

Operational feasibility and efficiency of each method will be further discussed in the 2024 Annual Report.

Agnico Eagle will continue its efforts of investigating in-pit sludge disposal potential impacts, interpretation of monthly sludge sampling results and potential alternative sludge management options and results of this investigation will be presented in the 2024 Annual Report.

ECCC-4: TABLES MISSING INFORMATION

Comment

Several tables are missing precisions that could help confirm context when reviewing the results.

- The tables for WBWQM forecasted mean annual concentrations and observed mean annual concentration changes between 2020 to 2023 do not specify the forecast location. It is presumably CP1, but it would be good to confirm.
- Calibration data tables on pages 6 and 11 are illegible and on page 10, the values are difficult to read.

Recommendations

ECCC recommends that in future annual reports the Proponent ensure table titles or footnotes are sufficiently descriptive and all data are legible.

Agnico Eagle Answer

As per 2023 Annual Report Answers provided to the NIRB on July 8th, 2024 (ECCC-4), Agnico Eagle thanks ECCC for their comment and wishes to provide the below clarifications:

- The table at pages 427-431 of Appendix 4 should have been titled: *Table 3. WBWQM forecasted mean annual concentrations and observed mean annual concentration changes between 2020 to 2023, at the end-of-pipe treatment location MEL-14 (treated CP1 water).* This will be corrected in future Annual Reports.

- Agnico Eagle will ensure all Tables are readable in future Annual Reports. Appendix 20 – Calibration Tables was revised and resubmitted to the NIRB and the NWB on April 19, 2024 to address this formatting issue (*Appendix 20 – 2023 Calibration Data_Rev.pdf*).

ECCC-5: INCINERATOR STACK TESTING RESULTS

Comment

Section 5.2 of the Annual Report discusses the results of incinerator stack testing that was performed between September 29 and October 2, 2023. ECCC appreciates the efforts involved in the testing and initial analysis. ECCC notes that there is a considerable range in the results reported for dioxins/furans. The concentrations for Test 3 are well below the applicable standard, whereas the results of other two tests, and the average, exceed the maximum allowed concentration to achieve the standard.

This discrepancy in the test results may offer important clues in the investigation, including differences in materials consumed and weather conditions (large drop in temperatures during the testing series and increasing wind speeds, as noted in Appendix 23, Appendix A), and may assist in expediting an explanation for the range in test results.

Recommendations

ECCC recommends that temporal changes in consumed materials and weather conditions be included in the analysis of the stack testing results, and an anticipated time frame be provided for the completion of the analysis.

Agnico Eagle Answer

As per 2023 Annual Report Answers provided to the NIRB on July 8th, 2024 (ECCC-5), Agnico Eagle thanks ECCC for their comment and will assess including these additional components for the 2024 stack testing and reporting.

Agnico Eagle is investigating the exceedance observed during the 2023 stack testing and is currently evaluating options for additional monitoring/analysis, such as performing an audit of the incineration practices at site. Results of the investigation will be reported in the 2024 Annual Report.

ECCC-6: LARGE NUMBER OF DAYS WITH THE SAME ANNUAL MINIMUM TEMPERATURE

Comment

Section 7.8.3 of the Annual Report mentions that the annual minimum temperature of -39.8°C was recorded on 16 separate days. This is an unusually large number of days to share the record for coldest minimum temperature. The recorded minimum temperature is similar to that of the freezing point of mercury; and thus, may be due to the use of a mercury thermometer rather than an alcohol-based thermometer. This may also explain the discrepancy with the lowest annual temperature of -44.5°C recorded at Rankin Inlet. Alternately, there may be an error in the data logger or associated software processing of the data. Coldest temperatures are generally associated with strong radiative cooling, and thus a high bias in temperature may downplay the strength of the associated surface-based temperature inversions which vertically trap air emissions.

Recommendations

ECCC requests an investigation be performed to explain the large number of days with identical annual lowest minimum temperatures.

Agnico Eagle Answer

As per 2023 Annual Report Answers provided to the NIRB on July 8th, 2024 (ECCC-6), the air temperature/relative humidity sensor that is installed at the Meliadine mine weather station is a Rotronic HC2-S3. The temperature range of the sensor is by default -40° to +60°C, but can be set to -50° to +100°C. Agnico Eagle experienced issues with the Meliadine mine weather station in 2023 and recalibration and general maintenance of the sensors was performed by a Campbell Scientific technician in October 2023. Due to the recurrence in the minimum temperatures recorded coinciding with the minimum temperature rating of the instrument, Agnico Eagle is suspecting that the Rotronic HC2-S3 was probably set to the default mode in 2023. Further maintenance of the Meliadine site weather station by a Campbell Scientific technician is planned for 2024.

ECCC-7: ISSUES WITH THE TABLE OF DAILY AVERAGE WEATHER DATA

Comment

In Table 1 of Appendix A, there is ambiguity with the average wind direction, as it may be a scalar or vector average. Scalar averages of northerly winds may be listed as southerly winds. The precipitation value for 2023-06-08 is suspiciously high at 50.7 mm, as hourly reports at Rankin Inlet only indicate rain at 22:00 and 23:00 (and 00:00 the next day). Wind speeds at Rankin Inlet increase to 50 km/h during the rain, so it is possible that rain splash may have contributed to the high precipitation value recorded at Meliadine.

Recommendations

ECCC recommends the Proponent provide:

- clarification on whether average wind directions are scalar or vector; and
- a diagnosis of the suspiciously high precipitation value recorded at Meliadine for the “2023-06-08” (June 8, 2023) entry.

Agnico Eagle Answer

As per 2023 Annual Report Answers provided to the NIRB on July 8th, 2024 (ECCC-7), the sequence of measurements and computation of the wind average at the Meliadine Mine weather station is the following:

- Every 5 seconds, an absolute measurement of the wind speed (km/h) and wind direction (degrees to north) is collected.

- The hourly and daily wind speed (km/h) and wind (degrees to north) averaged values are the result of a vector averaging considering both wind speed and absolute measurements of wind direction. The vector mean is obtained using the CR-basic function WindVector().

Agnico Eagle does think that the 50.7 mm rainfall event recorded at the Meliadine Mine weather station is not the result of a rain splash effect. No validation of the rainfall amount from the Rankin Inlet weather station was possible since the available hourly and daily data that can be downloaded from the ECCC historical database for the 7th and 8th of August 2023 show no or missing rainfall amount.

However, the daily averages presented in the Appendix A Table 1 of the 2023 Air Quality Monitoring Report (Appendix 23 of the 2023 Annual Report), are actually the averages of the last 24h, and the values presented for August 8th should actually be presented for August 7th as they are representative of the values recorded over that day. Agnico Eagle will correct this oversight in future Annual Reports.

Over the night of the August 7th to August 8th, a significant rainfall shower event occurred in Rankin Inlet and at the Meliadine Mine, as reported in the spill report #2023 - MEL-SR1 Runoff at the Meliadine Gold Project. As shown in Table 1 below, the hourly data recorded at the Meliadine Mine weather station during that event shows high amplitude of rainfall but relatively well spread over time and relatively low wind, which suggest reliable recorded values.

Table 1. Hourly precipitation and wind speed values recorded during the important rainfall event of August 7th, 2023.

Date	Time	Precipitation (mm)	Wind Speed (km/h)
6/7/2023	12:00:00 AM	0.0	19.1
6/7/2023	1:00:00 AM	0.8	18.6
6/7/2023	2:00:00 AM	6.7	19.4
6/7/2023	3:00:00 AM	5.3	16.6
6/7/2023	4:00:00 AM	1.8	15.2
6/7/2023	5:00:00 AM	5.2	15.6
6/7/2023	6:00:00 AM	6.9	14.1
6/7/2023	7:00:00 AM	7.9	13.7
6/7/2023	8:00:00 AM	9.6	15.0
6/7/2023	9:00:00 AM	3.1	13.0
6/7/2023	10:00:00 AM	1.8	13.2
6/7/2023	11:00:00 AM	1.7	8.9
6/7/2023	12:00:00 PM	0.1	6.1
6/7/2023	1:00:00 PM	0.0	7.3

Kivalliq Inuit Association (KivIA)

KivIA-1: Reference Sites for the AEMP

Comment

There is evidence of impacts to the Far Field areas in Meliadine Lake due to mining activity. Additional control areas in the local area should be incorporated into the AEMP to better distinguish between mine related impacts and local variability in the watershed.

Recommendations

As committed to by Agnico Eagle during the NWB licence amendment Technical Meeting, June 6, 2024, additional reference areas at Peter Lake and other lakes should be monitored, with results reported as an annex to the AEMP.

Agnico Eagle Answer

As per 2023 Annual Report Answers provided to the NIRB on July 8th, 2024 (KivIA-9), Agnico Eagle would like to note this recommendation was addressed through the 2024 NWB Water Licence Amendment Technical Meeting Process.

Agnico Eagle submitted a response to comments from the KivIA and ECCC regarding impacts to water quality at the far-field areas in Meliadine Lake. Please refer to Agnico Eagle's response to ECCC-TC-15 where temporal trends in Meliadine Lake compared to Peter Lake and Atulik Lake were discussed.

Agnico Eagle agreed to monitoring additional reference lakes during the technical meeting for the Water Licence Amendment (see commitment number WLA-05). A limited sampling campaign in Peter Lake and Atulik Lake is also planned for August 2024 as part of the AEMP/EEM.

Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC)

CIRNAC-1: Saline Water Volumes Pumped to Tiriganiaq Open Pit #2 (TIRI02)

Comment

Section 3.1.3 of the 2023 Annual Report states that the volume of underground saline water pumped to the surface was 71,971 m^3 in 2023, and Table 4 provides the pumping distribution by month over the year.

A review of prior annual reports found similar information provided for each of the previous years starting in 2018. The pumped volumes are summarized in the Table below. As seen in the table, the reported total volume of underground saline water pumped into the pit was 373,906 m^3 by the end of 2023.

2018	2019	2020	2021	2022	2023	total to date
37,766	37,031	103,486	54,805	68,845	71,973	373,906

Section 3.2.1.4 Figure 14 shows the results of modelled and observed volumes of saline water in TIRI02, noting that saline water pumped from Tiriganiaq underground will be stored in TIRI02 until 2025, after which the water will be discharged through the waterline to Itivia Harbour. Predicted groundwater inflow rates to the underground mine were updated in 2024 to reflect an updated mine plan scenario and included a limited calibration based on groundwater inflow monitoring over previous years. The updated results are discussed in the Groundwater Management Plan (GWMP).

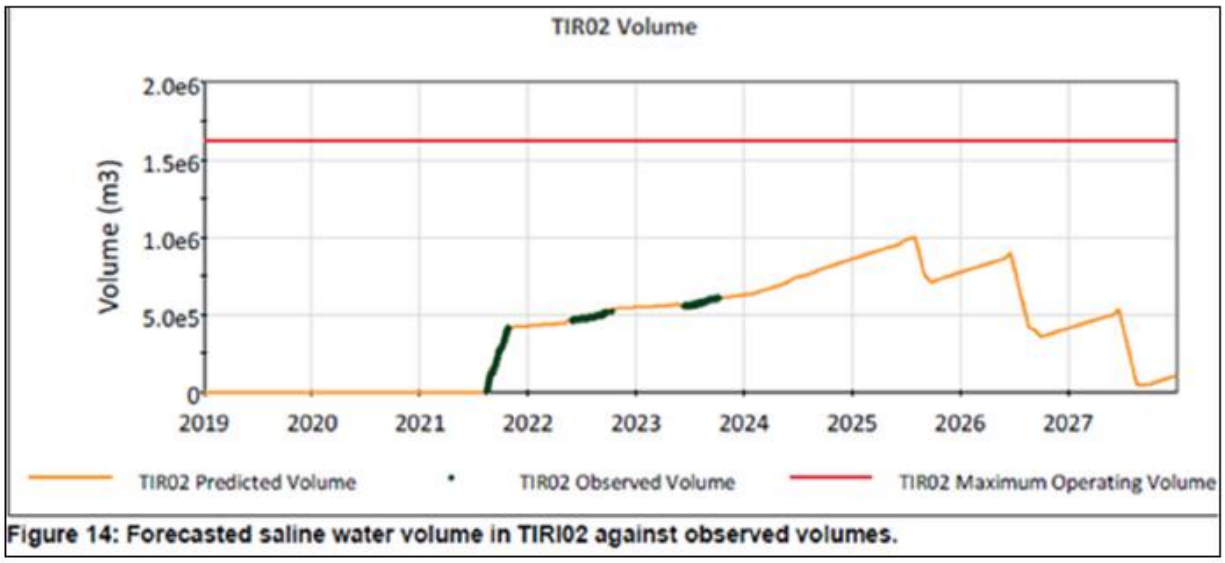


Figure 14: Forecasted saline water volume in TIRI02 against observed volumes.

As seen in Figure 14, the saline water stored in the pit was approximately 500,000 m^3 in 2023. This varies significantly from the 373,906 m^3 total reported in the annual reports for the years 2018 to 2023. Note that these volumes do not include the reduction of pit volumes for any discharge of saline water that occurred from 2019 to 2021.

Table 1 in Section 2.1 Predicted Groundwater Volumes of the Groundwater Management Plan, Appendix A to the Water Management Plan, provides Predicted Groundwater Inflow for the years 2023 to 2031, as seen below.

Table 1: Predicted Groundwater Inflow and TDS to the Underground Mine (2017 to 2033)

Year	Predicted Groundwater Inflow (m^3/day)	Predicted TDS (mg/L)
2023	300	57,500
2024	450	57,000
2025	450	57,000
2026	475	56,500
2027	475	56,500
2028	450	56,500
2029	475	54,000
2030	475	53,500
2031	475	53,500
2032	450	53,500
2033	450	53,500

Based on this table, additional groundwater inflow to the pit would be 328,500 m^3 from 2024 to 2025, for a total of 702,406 m^3. This varies substantially from the 1,000,000 shown in Figure 14.

CIRNAC notes that the inflow predictions in Table 1 above vary from the inflow predictions provided by Agnico Eagle in support of the Amendment Application of January 2024, which included Table 16 of the Water Management Plan and Table 6 of the Updated Hydrogeology Modelling Report. These two tables also varied from each other.

In light of the variances between actual volumes reported to date and predictions to date and the provision of three different predicted rate tables for inflow for future years, it is difficult to have confidence in the projections of saline water inflows going forward.

<u>Recommendation</u>

(R-01) CIRNAC recommends that Agnico Eagle:

a) Explain the difference between the total volume of underground saline water pumped to surface as reported in Section 3.1.3 from 2018 to 2023 to the volumes shown in Figure 14 to 2023, and

b) Reconcile the differences in the predicted groundwater inflow rate going forward from 2024.

Agnico Eagle Answer

a) Volumes presented in Table 4 of Section 3.1.3 of the Annual Report are the volumes of water pumped to surface from the underground mine and are consistent with the yearly totals presented in the table provided in CIRNAC-01 comment. Figure 14 of section 3.2.1.4 shows the results of the modelled and observed volumes of saline water stored in Tiri 02. They include saline water pumped from the underground mine but also include other inflows of water to Tiri 02. The following natural inflows also contribute to the volume of water stored in Tiri 02:
   - Tiri 02 water surface snowmelt and rain
   - Tiri 02 snowmelt and rain from the pit walls
   - Natural runoff from the pit drainage area

   Other sources of water, as specified in the Water Management Plan, are also occasionally pumped to Tiri 02. The following is a list of the other sources that contribute to the volume of water stored in Tiri 02:

   - EWTP sludge water
   - Water from Tiri 01 main and residual SP4 sumps
   - Brine from reverse osmosis plant

b) On January 26th, 2024, Agnico Eagle submitted an application to amend the NWB Water Licence to support the mining of deposits that were included in the 2014 Final Environmental Impact Statement and approved in Project Certificate No.006 issued by the NIRB in 2015. The amendment application included an updated version of the GWMP which takes into consideration the mining of additional deposits. The greater projected inflows in the Water Licence Amendment application when compared to values presented in the 2023 Annual Report is due to the inclusion of the additional deposits which are not reflected in the groundwater modelling of the currently approved mine plan.

   While some of the supporting information used as part of the amendment application is present in the current GWMP, the updated version submitted with the 2023 Annual Report presents the collection, treatment, storage and discharge of saline groundwater as it pertains to the currently approved Meliadine project (submitted in accordance with Part B, Item 12 of the Licence).

CIRNAC-2: GENERAL COMMENTS ON THE ANNUAL GEOTECHNICAL REPORT

Comment

In general, CIRNAC has no concerns with the proposed action plans stated in Agnico Eagle's Responses and Action Tables nor with the observations provided by Tetra Tech as part of their Annual Geotechnical Inspection Report for 2023. There has been a marked improvement with the

implementation of recommendations from prior and this year's inspection report, particularly as it relates to the construction of permafrost/thermal barrier upgrades and site rehabilitation to address thermal degradation concerns with surface water flow channels and areas previously identified between key infrastructure and these channels.

Some relatively minor concerns have been noted with respect to how information is presented in the inspection report, and some clarity is required on certain items where recommendations note continued monitoring of minor concerns. However, there are no trigger levels identified which would prompt Agnico Eagle to take action to address these ongoing concerns. It would be helpful to the project team and stakeholders to have a clear understanding of when actions will be undertaken by Agnico Eagle. In other words, what are the thresholds for taking action on issues versus simply continuing to monitor?

In addition, CIRNAC recommends that a geotechnical review/inspection of the discharge pipeline, currently under construction, be explicitly included in the Inspection Report. From some of the language in the 2023 report, it was not clear if the earthworks associated with the pipeline placement were impacting existing road culverts along the All-Weather Access Road (AWAR) or if the construction of the pipeline was changing the ponding conditions of surface water in low areas along the AWAR. Note that the Tetra Tech inspection report did not go into any detail on the proposed improvements to surface water drainage in these areas of concern but referenced a design document provided to Agnico Eagle, which CIRNAC understands will form the specification for future construction in these low-lying areas along the AWAR.

The observation of ponded water in the Itivia tank farm containment structure has been an ongoing concern identified in nearly every annual report. Agnico Eagle should provide a more detailed response as to when the water in the containment structure is pumped out. The process for how to go about confirming the water quality is well understood and likely documented in a number of site management plans, however, no record has ever been seen by the reviewer confirming when ponded water has been removed from this structure. This information should be provided to Tetra Tech so they can comment on how this concern has been addressed.

Given the importance of monitoring and reporting on the potential impacts of surface water flow during the freshet on the AWAR and Bypass Road, the freshet period monitoring report, as completed by Agnico Eagle, should be provided to the geotechnical inspection engineer. This is so the engineer can be made aware of the site conditions and provide further recommendations regarding rehabilitation or improvements required to mitigate concerns with surface water flow in known low spots and water collection points along the respective roadways. This is particularly important given the observation noted above regarding the geotechnical review/inspection of the discharge pipeline.

<u>Recommendation</u>

(R-02) CIRNAC recommends that:

a) The Annual Geotechnical Review include observations along the construction alignment of the waterline to Itivia Harbour, and that the inspection should specifically address any concerns regarding construction methods and implementation which may impede the flow of water. Tetra

Tech identified some areas of concern that appear to be related to the construction of the discharge pipeline; however, the text was not clear in this regard.

b) In future geotechnical reports, a more appropriate base map should be used for the Tailings Storage Facility (TSF). The current base image is dated and does not represent current site conditions in the area around the TSF.

c) Future inspection reports should provide the cross-section profiles for the TSF with both the major and minor axes. The TSF's cross-section profiles only included one orientation, the minor axis cross-sections, which is not consistent with normal industry standards.

d) Agnico Eagle provides some clarification on when monitoring concerns become either actionable rehabilitation or repair items. In addition, Tetra Tech should advise Agnico Eagle on what work is required to address low-priority items that have become higher priorities.

e) Agnico Eagle should provide a more detailed response regarding when the water in the Itivia tank farm containment structure is pumped out.

f) Agnico Eagle provide the freshet period monitoring report on the AWAR and Bypass Road to the geotechnical inspection engineer to raise awareness of the site conditions and any potential further recommendations regarding rehabilitation and/or improvements.

Agnico Eagle Answer

Agnico Eagle thanks CIRNAC for their comment and for acknowledging improvement with the implementation of recommendations from prior and 2023 Geotechnical Inspection report.

a) Agnico Eagle confirms the 2024 Annual Geotechnical Report will include observations on the ongoing construction of the waterline. As per the information presented in Appendix 8 (2023 Annual Geotechnical Report Agnico Eagle Responses and Action Table) of the 2023 Annual Report, Agnico Eagle will address Tetra Tech's recommendation and construct the required culvert; construction timeline is subject to receiving authorization and permits. Agnico Eagle continues to monitor the AWAR as per the Freshet Management Plan.
   Agnico Eagle also refers CIRNAC to Section 7.5 of the 2023 Annual Report, which includes information on the AWAR water quality and surface runoff monitoring. Qualified Environment Professionals (QEPs) from Kilgour and Associates (Kilgour) conducted daily environmental monitoring for the waterline construction work from July 10th to October 2nd, 2023. Monitoring included identifying any surface water runoff issues so they could be addressed in a timely manner. Kilgour will also be conducting environmental monitoring for the waterline construction in 2024.
b) Agnico Eagle believes Figures 1, 5, 11, 14, 15 and 17 of the 2023 Annual Geotechnical report were representative of the TSF conditions in 2023 and takes note of CIRNAC's concern to ensure the aerial images used in future Annual Reports represent current site conditions.

c) As per Agnico Eagle's responses to the 2022 Annual Report comments received through the NWB (CIRNAC-2), Agnico Eagle believes the cross sections provided comply with the requirements from the Water Licence and that they are sufficient to understand the development of the TSF. However, a north-south cross-section will be provided in the 2024 Annual Report to address CIRNAC's request.
d) Agnico Eagle and Tetra Tech will work together to establish action criteria for recommendations.
e) As per the Itivia Bulk Fuel Storage Facility Environmental Performance Monitoring Plan, and as mentioned in Appendix 8 (2023 Annual Geotechnical Report Agnico Eagle Responses and Action Table) of the 2023 Annual Report in response to Tetra Tech's recommendation, water accumulated in the Itivia secondary containment is emptied regularly and discharged onto land following receipt of acceptable test results in accordance with the Water Licence. As per Part F, Item 11 of the NWB Water Licence 2AM-MEL1631, Agnico Eagle provides notice to CIRNAC inspector 10 days prior to discharging water from the Itivia Fuel Storage facility. Information on the dates and volume of water discharged from the facility is provided in the Monthly Monitoring reports to the NWB which are also sent to CIRNAC inspector. This information is also available 7.3.1.23 of the 2023 Annual Report.
f) As per usual practice, prior to conducting the Annual Geotechnical Inspection, Agnico Eagle operations personnel meet with the Inspection Engineer to provide an update on how the AWAR and Bypass have performed during freshet. Whenever possible, Agnico Eagle personnel accompany the Inspection Engineer during the inspection of the roads.

CIRNAC-3: SALINE WATER DISCHARGE TO MELIADINE LAKE

Comment

Section 3.1.7 of the 2023 Annual Report states that operation of the waterline for discharge to Melvin Bay is anticipated to significantly minimize or eliminate discharges to Meliadine Lake.

CIRNAC notes as part of the 2022 Annual Report review process, Agnico Eagle provided responses to CIRNAC's recommendation R-05 with respect to a) confirming duration of use of TIRI02 pit for storage of saline groundwater and b) providing evidence that the use of TIRI02 pit, or any other open pits, for more than emergency temporary storage has been reviewed and approved by regulatory authorities.

According to AEM's responses to these questions, CIRNAC replied, "CIRNAC understands that Agnico Eagle intends to discharge Tiriganiaq Pit 2 water to Itivia Harbour via the waterline in 2025. Agnico Eagle should seek NWB's approval if saline water is stored in Tiriganiaq Pit 2 or any other pit/pond beyond 2025. Also, Agnico Eagle should commit to ensuring that saline water from Tiriganiaq Pit 2 or any other saline/contact water storage will never be mixed with surface water and/or discharged into Meliadine Lake."

The review of the 2023 Annual Report noted no reference to this commitment in the main report. However; revisions to Appendix 28-9 Water Management Plan included the following statement: "Added statement regarding no water in saline ponds discharging to Meliadine Lake in Section

3.6". The Section 3.6 revision follows: "Water stored in the saline ponds is isolated from the surface runoff collection system (i.e., CP1 to CP6) and will thus not be discharged to Meliadine Lake". This sentence follows this: "However, permeate water produced by the treatment of marginally saline water at the RO Plant is discharged to CP1 (Section 3.9.6)".

Recommendation

(R-03) CIRNAC recommends that in the appropriate sections of the main Annual Report, Agnico Eagle include the commitment that under no circumstances will saline water from Tiriganiaq Pit 2 or any other saline water storage be mixed with surface contact water and/or discharged into Meliadine Lake.

Agnico Eagle Answer

Confirmation that saline water is not discharged to Meliadine Lake was addressed by the following statement in Section 3.6 of the Water Management Plan (WMP): "Water stored in the saline ponds is isolated from the surface runoff collection system (i.e., CP1 to CP6) and will thus not be discharged to Meliadine Lake". As mentioned in section 3.9.6 of the WMP, permeate water produced is the treated effluent of water passing through a semi-permeable membrane and is not saline water. In 2023, TDS of the RO permeate ranged between 170 and 1500 mg/L in verification monitoring samples.

Agnico Eagle believes CIRNAC's recommendation was addressed. Information as it pertains to management of water on site is presented in. the Water Management Plan, while the main Annual Report text is meant to address the annual reporting requirements, including monitoring results from the previous year.

CIRNAC-4: IMPACTS OF EFFLUENT DISCHARGE ON PHYTOPLANKTON IN MELIADINE LAKE

Comment

Data from the Aquatic Effects Monitoring Program (AEMP) note the increasing concentration of some chemicals in the surface waters of Meliadine Lake after the release of treated effluent. These elements and chemicals may contribute to increasing primary productivity by separate pathways. CIRNAC believes the present monitoring frequency (i.e., collecting water samples three times a year) is insufficient. The uncertainty in this assessment is too high to assess the cumulative impact and make definitive statements on whether or not treated and untreated effluent results in "algal blooms."

Recommendation

(R-04) CIRNAC recommends that Agnico Eagle study the water quality issues in Lake Meliadine in more detail to expand data collection and assessment. Examples include, but are not limited to:

a) Extending the current AEMP monitoring period (i.e., June to October instead of July to September) and increasing the frequency of water chemistry monitoring (i.e., once a week instead of once a month) to help define the factors influencing the system's productivity,

b) Collecting oxygen profiles, turbidity data and water chemistry measurements (including dissolved organic and inorganic carbon) at depth to determine if the elevation of organic material in surface water and at depth indicates the early stages of eutrophication and the accumulation of organic material,

c) Collecting and analyzing lake bottom sediment samples annually for trend analysis.

Agnico Eagle Answer

As per 2023 Annual Report Answers provided to the NIRB on July 8th, 2024 (CIRNAC-3), Agnico Eagle would like to point out that the scope of the 2024 program will include the following components in addition to the annual surface water quality program and phytoplankton study in Meliadine Lake:

- sediment chemistry and benthic invertebrate community (exposure areas MEL-01 & MEL-02; reference areas MEL-03 and MEL-05);
- small-bodied fish (Threespine Stickleback) population assessment and tissue chemistry (exposure area MEL-01; reference areas MEL-03 and MEL-04), and
- Lake Trout health assessment and tissue chemistry (exposure area MEL-01; external reference lakes Peter and Atulik).

The benthic invertebrate and fisheries studies follow the Metal and Diamond Mining Effluent Regulations (MDMER) Environmental Effects Monitoring (EEM) guidance for assessing the potential effect of effluent exposure on fish and fish habitat.

CIRNAC listed some possible examples of how the Meliadine Lake water quality program could be expanded. Below is a response to each of those recommendations.

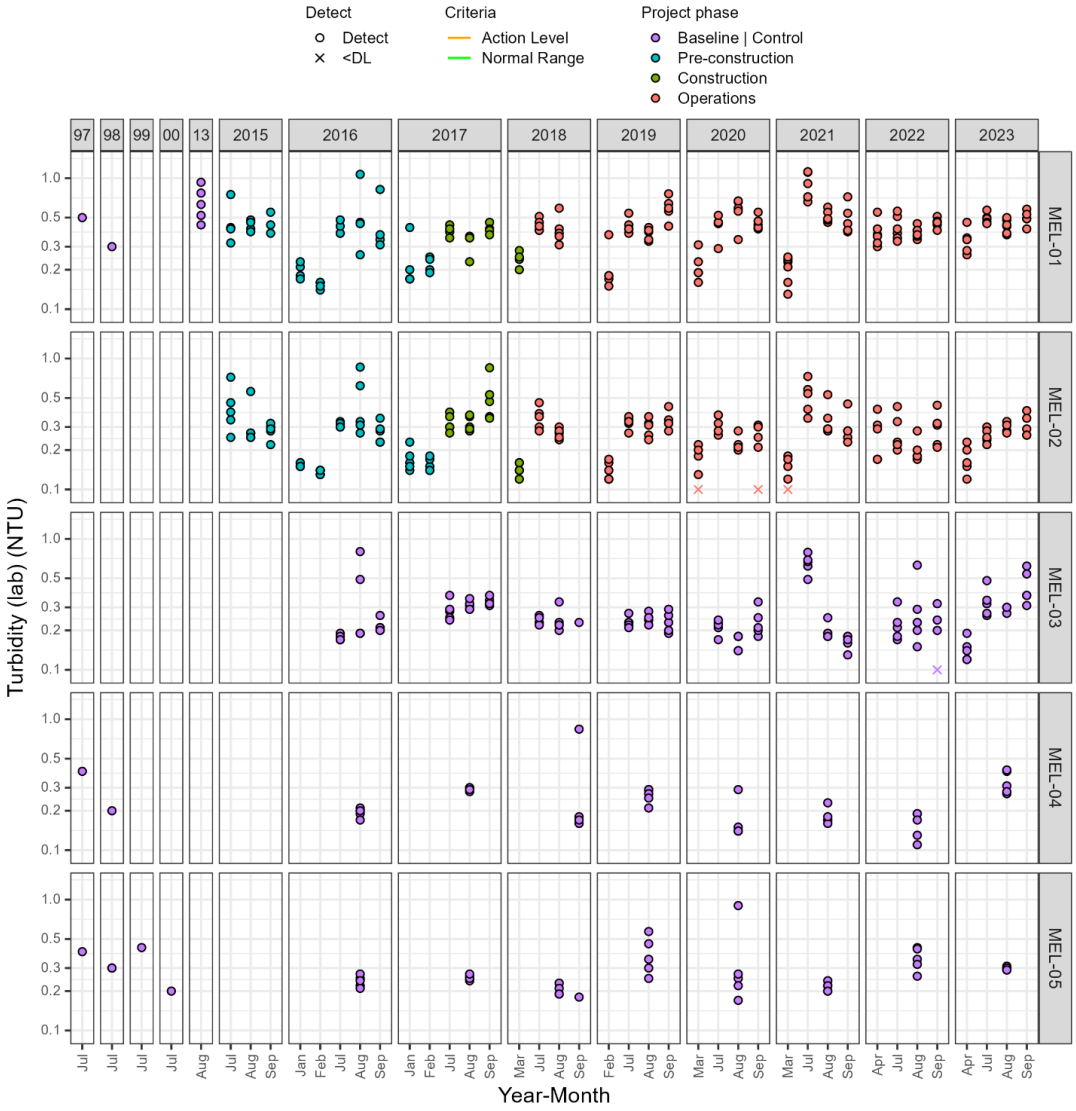
a) June and October are not viable options for water sampling on Meliadine Lake. Ice typically starts receding from the shoreline in mid-June, and boat access to the various study areas is not possible until the lake is free of ice. Lakes in the region typically begin to freeze over in October, which presents health and safety risks to the field team. For these reasons, the AEMP is limited to 3 water sampling events in July, August, and September with roughly 3-4 weeks between events.
b) Limnology profiles are completed in April, July, August, and September as per the AEMP Design Plan. Dissolved oxygen, pH, temperature, and specific conductivity readings are taken near the surface and at 1 m intervals to within 1 m of the sediment. Long-term monitoring at MEL-01 has consistently shown that surface water is well mixed based on the in-situ DO, temperature, and pH measurements. Turbidity is measured at the laboratory (ALS Environmental) from the water samples collected at mid-depth in the water column. There is no evidence of increasing turbidity in the East Basin of Meliadine

(MEL-01) compared to the range of values observed during the baseline period and at the reference areas (see in figure below).

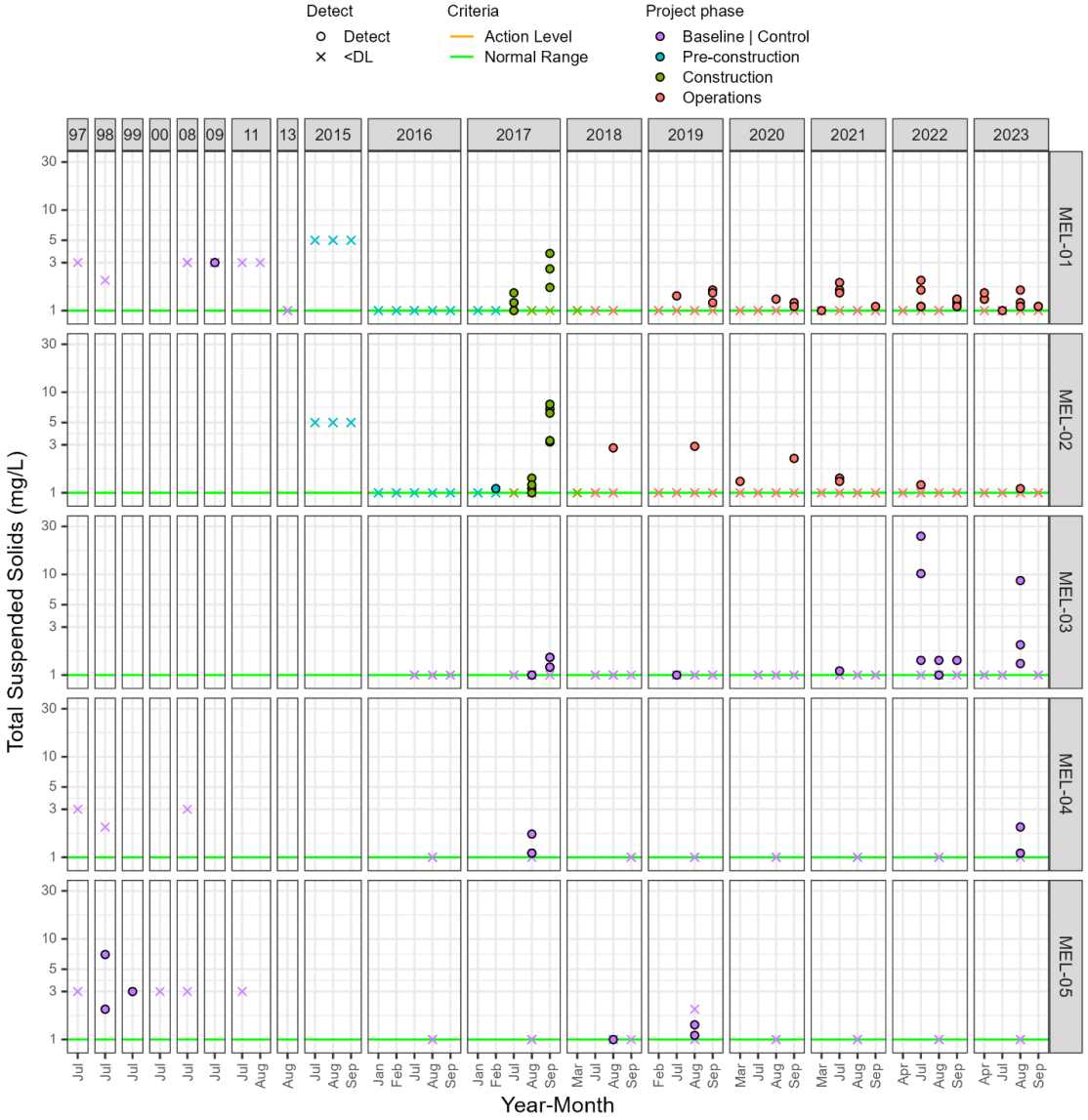
c) Erosion and sedimentation rates in arctic lakes are low as indicated by low concentrations of TSS and low turbidity (see plots in Appendix C2 of the 2023 AEMP Report). Without a source of particulate material, sediment chemistry has remained relatively consistent from baseline through early operations. Sediment sampling is scheduled for August 2024. If there is evidence of increasing temporal trends for metals of interest linked to activities at the Mine, more frequent (annual) sediment sampling may be conducted.

Agnico Eagle has also committed to water sampling at additional reference lakes over 3 years starting in 2025 through the 2024 Water Licence Amendment process (commitment WLA-05 in response to KivIA-TC-03 and ECCC-TC-15).

Laboratory-measured turbidity (NTU) in Meliadine Lake (1997-2023):



Total suspended solids (TSS, mg/L) in Meliadine Lake (1997-2023):



CIRNAC-5: WATER QUALITY PREDICTIONS

Comment

As shown in the figures below, the total dissolved solids (TDS) predicted concentrations in CP1 presented in Appendix 4 of the 2023 Annual Report are much higher than the TDS predictions presented during the Meliadine Amendment process (Lorax Memo, 23 February 2024). It is not clear to CIRNAC why there would be a discrepancy in the CP1 TDS predictions between documents.

From the 2023 Annual report (Appendix 4, page 492):

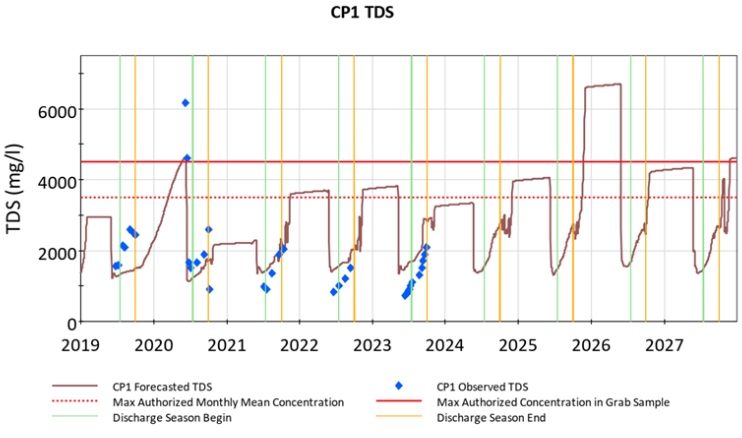


Figure 9 CP1 Observed and forecasted TDS concentrations

From the 2024 Nunavut Water Board Amendment Application (Appendix B_WBWQM Figures, Lorax-memo: February 23, 2024):

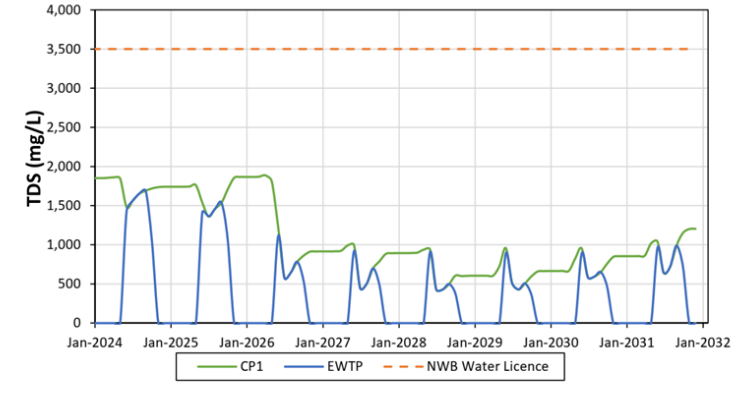


Figure E-1: Projected concentrations of total dissolved solids (TDS) at CP1 and EWTP during Operations (2024-2031) as compared to the NWB Water Licence limit.

Recommendation

(R-05) CIRNAC recommends that Agnico Eagle provide the following:

a) The Water Balance and Water Quality Modelling (WBWQM) figures showing concentrations during operations, closure and post-closure,

b) Clarification on the differences in predicted CP1 TDS concentrations between the 2024 Amendment Application and the 2023 Annual Report from 2024 to 2028.

Agnico Eagle Answer

a) Agnico Eagle provided updates of the Water Balance and Water Quality forecast as per the requirements of the NWB Water Licence.

   On January 26th, 2024, Agnico Eagle submitted an application to amend the NWB Water Licence to support the mining of deposits that were included in the 2014 Final Environmental Impact Statement and approved in Project Certificate No.006 issued by the NIRB in 2015. The amendment application included an updated version of the WBWQM which accounts for the mining of additional deposits.

   The water balance and water quality model developed for the Water Licence Amendment also includes a simulation of the water balance and quality during mine closure and post closure. Pending the Meliadine Water License No. 2AM-MEL1631 Amendment Application is approved, Agnico Eagle will transition to the WQWQM developed for the Water Licence Amendment. The subsequent annual reports will then include longer term water quality prediction for operation, mine closure and post closure.

b) Regarding the differences in predicted TDS concentrations between Appendix 4 of the Meliadine 2023 Annual Report and those presented Meliadine Water License No. 2AM-MEL1631, Amendment Application, 23 February 2024), it is important to note that the water balance and water quality model for the Water Licence Amendment are considering new mine components, such as the F Zone, Wesmeg, Pump, and Discovery deposits for which the mining suggests reduced TDS generation.

   Further, Agnico Eagle wishes to emphasize that the increase of predicted TDS concentrations during the winter months are associated to cryo-concentration and should not be compared to observed TDS values over the open water period. During the open water period, the 2023 Annual Report predictions of TDS concentration are conservative and in an acceptable range of error when compared to observed concentrations.

CIRNAC-6: SLUDGE DISPOSAL

Comment

A new Section 7.3.3 was added to the 2023 Annual Report, discussing the monitoring of sludge produced as part of the total suspended solids (TSS) removal processes at the EWTP-WTC. The sludge is sampled monthly to assess its potential impact on receiving saline ponds (Tiriganiaq Open Pit #2, TIRI02). Table 19 presents the monthly analysis of solids content for the period 2022-2023, while Table 20 presents summary statistics of water quality results for the period 2021-2023.

With respect to Table 20, Agnico Eagle notes that the data suggest that the sludge is unlikely to negatively impact the pH, conductivity, total ammonia, total copper, total lead, total nickel and total zinc in saline contact water based on existing water quality data collected in TIRI02. In reviewing the 2023 Annual Report, TIRI02 water quality data were only provided for total dissolved solids (TDS), total ammonia and radium-226 in Figures 15, 16 and 17 of the main report and in Appendix 4. Without access to additional water quality data for TIRI02, CIRNAC was not able to confirm Agnico Eagle's conclusions that sludge placed in the pit is unlikely to negatively impact the water quality in TIRI02.

In Section 7.3.3, Agnico Eagle also provided information on a Scenario Analysis that was completed in Q1 of 2024 on alternative sludge management strategies for the Water Treatment Complex, but the report was not included with the 2023 Annual Report submission.

Recommendation

(R-06) CIRNAC recommends that Agnico Eagle:

a) Provide data collected on TIRI02 water quality for comparison to the sludge water quality data,

b) Provide the Scenario Analysis report on alternative sludge management studies for review.

Agnico Eagle Answer

As per 2023 Annual Report Answers provided to the NIRB on July 8th, 2024 (ECCC-3), Agnico Eagle will continue its efforts of investigating in-pit sludge disposal potential impacts, interpretation of monthly sludge sampling results and potential alternative sludge management options and results of this investigation will be presented in the 2024 Annual Report.

CIRNAC-7: IMPROVEMENTS TO ANNUAL REPORT

Comment

Tailings Storage Facility

As noted in the 2022 Annual Report review comment (R-02) Tailings Storage Facility (TSF) Plans and Sections at the end of 2022 (Appendix 13), CIRNAC requested that in addition to the cross-section A-A (east-west), a cross-section B-B (north-south) along the length of the tailings facility

should be added to the TSF Plans and Sections. Agnico Eagle responded that “cross sections that have been provided are sufficient to understand the development of the TSF” and has not provided the requested cross-section in 2023 Appendix 12. CIRNAC disagrees with Agnico Eagle on this matter as the TSF consists of two cells at varying heights, and no cross-section has been provided showing this and the slope between the two cells.

Water Consumption by Major Categories

The 2023 Annual Report provides the total water consumption from Meliadine Lake. However, it does not provide information on the distribution of water use by major categories (e.g., camp, paste plant, Mill, etc.). Such information would be useful for understanding actual consumption requirements for these use categories and comparing use trends over time.

Management Plans

A review of the 2023 environmental management and protection plans found that the document control section tracking revision changes has improved over time, allowing for a more efficient review of updates with two exceptions:

a) Three Management Plans are embedded as appendices to the Water Management Plan (WMP):

• Appendix A - Groundwater Management Plan

• Appendix B – Freshet Management Plan

• Appendix C – Sediment and Erosion Management Plan

These plans are essentially buried within the WMP, and the WMP's document control does not say anything about changes to one or more of its appendices.

b) Prior to the 2024 revision, the Road Management Plan was last updated in March of 2022. As a result, it has not been updated for 2 years. From a review of CIRNAC’s records, CIRNAC saw no evidence of the Road Management Plan being submitted with Agnico Eagle’s 2021 or 2022 Annual Reports. A review of the current 2024 Document Control found only one reference to the waterline (i.e., S8-1 Addition of non-reflective delineators for identification of the waterline in road signage). A review of the body of the plan found numerous places where the waterline is mentioned, including Section 6.5 Construction of the Waterline, and Section 7.2 Watercourse Crossings Inspections and Maintenance, Section 8.1 Road Signage, and Section 9.1 Accidents and Malfunctions.

Appendix 04 - Water Balance and Water Quality Modeling Tabular Data

This file contains approximately 500 pages. It is stated to contain tabular data. However, despite no reference to figures in the Appendix 4 filename, cover page, or elsewhere, starting on page 488, water balance figures are provided to 2027 for water volumes (CP1 to CP6, SP4, TIRI02), and water quality CP1 (TDS, Ammonia, Phosphorous, Arsenic, Aluminum, Cyanide, Copper, Lead, Nickel, Zinc) TIRI02 (TDS, Ammonia, Radium-226). This appendix needs to be renamed

or otherwise indicate that these figures are included to ensure that reviewers can find these important figures more easily.

Recommendation

(R-07) CIRNAC recommends that:

a) Agnico Eagle's annual reports include a longitudinal cross-section through the TSF that shows the status of both cells of the TSF at year-end,

b) Agnico Eagle's annual reports include information on water consumption by major category (e.g. camp, paste plant, Mill, etc.),

c) The document control record of the Water Management Plan identifies any revisions made to any of the three plans included as appendices,

d) Agnico Eagle explains why the Roads Management Plan was not updated in 2023 to include waterline-related activities and infrastructure along the All-Weather Access Road (AWAR) in 2023 and

e) Appendix 4 should be renamed to include references to Figures.

Agnico Eagle Answer

a) Agnico Eagle refers CIRNAC to answer provided to CIRNAC-2 c) above.

b) As per Agnico Eagle's response to CIRNAC comment on the 2022 Annual Report (refer to Appendix 38 of the 2023 Annual Report), Agnico Eagle reiterates that the information required by the Water Licence is provided in the Annual Report. Agnico Eagle remains available to discuss with CIRNAC about the additional information they require.

c) Agnico Eagle thanks CIRNAC for acknowledging improvements made to Document Control sections of Management Plans. The Plans included in Appendix of the WMP each have their own Document Control section identifying changes made to the documents. However, to address CIRNAC's concern, Agnico Eagle will indicate in the WMP Document Control Section if the appended plans were revised in future updates of the WMP.

d) The Roads Management Plan was updated and submitted in March 2022 (Version 9) to NIRB in compliance with the revised Term and Condition 125, per Project Certificate No. 006 Amendment 002 and as indicated in the Document Control section of the Plan. Version 9 of the Roads Management Plan included revisions to numerous Sections of the Plan, as mentioned by CIRNAC, to reflect operational changes related to the construction and operation of the waterlines. While the Plan was not submitted with the 2022 Annual Report, it was made available to Parties through its submission to NIRB. The Plan was not updated in 2023, and the subsequent 2024 update (Version 10) was submitted with the 2024 Annual Report. Details of this update are provided in the Document Control section of the Plan. Updates to the Plan are not required on an annual basis, but as

necessary. Agnico Eagle will ensure plans updated throughout the year are submitted with the Annual report.

e) Agnico Eagle agrees with CIRNAC's recommendation, and this will be addressed in the 2024 Annual Report.

Fisheries and Oceans Canada (DFO)

DFO-1: Culverts

Comment

Some culverts on the AWAR and Rankin Inlet Bypass Road are undersized for flow and more than half of the culverts inspected show signs of erosion. The roads (AWAR and Rankin Inlet Bypass Road) are blocking flow causing ponding of water at identified locations.

The Annual report identifies for work in 2024, Culverts 7 and 10 along the AWAR and Culvert 11 along the Rankin Inlet Bypass Road as requiring replacement to ensure fish passage and one additional location along the AWAR (near KM 15) requiring further fish habitat assessment. As work is ongoing and planned for 2024, DFO notes the importance of maintaining fish passage through these watercourses and looks forward to reviewing this work when it is completed.

Agnico Eagle Answer

Agnico Eagle thanks DFO for their comment and confirms the work for replacement of Culverts 7 and 10 along the AWAR, and Culvert 11 along the Bypass Road is planned for 2024. The as-built report for this work will be submitted to the NWB as per the Water Licence.

As for the fish habitat assessment near KM15, it will also be conducted in 2024 and reported on in the 2024 Annual Report. Agnico Eagle will continue to keep DFO apprised of work progress at this location.

DFO-2: Location Data of Shipping Vessels

Comment

This item was identified in the review of the 2022 Annual Report and remains a concern for DFO.

Project Certificates 004, 006, and 008 require vessels supplying the Meadowbank Complex and Meliadine mines to avoid sensitive marine mammal and seabird habitats such as haul-outs and breeding colonies.

Ongoing outages for location data of ships has been an issue - AEM has previously stated that “Additional effort will be made to ensure Groupe Desgagnés provides accurate track data to Agnico Eagle”. However, vessels have had AIS issues lasting 12 hours to several days.

The 2023 Annual Report did not contain the vessel tracking data so it is uncertain if this issue persists.

Conclusion/Request

Proponent to provide additional details on the “Additional effort” being implemented to ensure accurate vessel tracks, and compliance with setbacks from sensitive habitats.

Proponent to provide a summary of satellite outages and missing location data for 2023 shipping.

Agnico Eagle Answer

As per Agnico Eagle's response to the 2022 Annual Report Comments (DFO-3) and as reported in the 2023 Marine Mammal and Seabird Annual Report, Agnico Eagle acquires archived AIS data from Vesseltracker, a commercial AIS supplier that aggregates AIS data from satellite and shore-based stations. These data vary in frequency based on distance from shore, location of shore-based stations, and position of satellites. In some cases, AIS position data is available on an hourly or sub-hourly basis, but in other cases, position data can be 12 hours or more between fixes, due to the scarcity of satellites over remote areas such as the Arctic. As the position data is one fixed point in time using satellite AIS data, it is not possible to summarize "outages", but can provide a summary on the frequency of location fixes. Agnico Eagle has reviewed the location data for the 11 vessels (23 inbound trips) from 2023 to provide a summary of these gaps in location data, provided below:

- In total, the 2023 data contained 1,961 location fixes over the 23 trips.
- There was an average of 85 location fixes per journey, with a range of 26 to 255.
- Excluding location fixes when the vessels were anchored, and only considering the vessel tracks while underway, there was an average of 22 fixes per journey, ranging from 5 to 82.
- The total time vessels spent in the study area averaged 21 days (often times anchored for long periods of time), ranging from 8 to 80 days, with the average number of locations fixes per day ranging among vessels from 1.8 to 5.9 (minimum of 1 and maximum of 13).

The frequency of fixes is beyond the control of Agnico Eagle, as it is often due to a "gap" in satellite availability over the location of the vessel in the Arctic at the time. As reported in the 2023 Marine Mammal and Seabird Annual Report, where AIS data was recorded frequently (every hour), vessel tracks avoided the setback areas. However, in some cases, the AIS data was recorded less frequently (every 6 to 12 hours). For example, during a vessel trip by the Marlin Hestia in September, no positions were recorded over two days between September 16 and September 18; therefore, the vessel track appears as a straight line going directly across Coats Island, while in fact the vessel traveled south of Coats Island, after confirming this information with the vessel captain. In October, the Kivalliq W. appears to cross over Southampton Island, as no positions were recorded over 24 hours, and the vessel made a stop in the community of Coral Harbour. Due to the poor resolution of these data, information (e.g., route, setbacks) regarding these trips cannot be extrapolated with confidence.

In all cases where it appears that vessels may have intersected setbacks, Agnico Eagle investigates the point locations further, as per Section 3.1.1 of the Marine Mammal and Seabird Annual Report. In 2023, it was noted that the same vessel entered the 2 km Marble Island buffer on two occasions (once in August, and once in October). Prior to the 2024 shipping season, vessel captains were reminded of the importance of maintaining a 2 km buffer around Marble Island.

Agnico Eagle continues to investigate alternative commercial AIS suppliers regularly; however, Vesseltracker remains the most reliable in the Arctic at this time. Agnico Eagle continues to train contracted shipping companies regularly and to remind them of the importance of maintaining

sensitive habitat buffers. Indeed, meetings take place prior to the start of the shipping season and throughout the season each year, during which the mitigation measures and shipping requirements are discussed. A post-mortem meeting is also conducted after the shipping season is completed.

DFO-3: MARINE MAMMAL MONITORING PROGRAM

Comment

This item was identified in the review of the 2022 Annual Report and remains a concern for DFO.

Current Marine Mammal Monitoring survey efforts (1 survey per day, lasting 1.5-2 hours) are not sufficient for effective marine mammal monitoring.

Conclusion/Request

DFO to work with the proponent to update their marine mammal monitoring protocol and include increased monitoring efforts.

Agnico Eagle Answer

Agnico Eagle thanks DFO for their comment and wishes to reiterate that Agnico Eagle is operating as per its approved Shipping Management Plan and Marine Mammal Monitoring Protocol.

As per Agnico Eagle's responses to the 2022 Annual Report Comments and as mentioned in the 2023 Annual Report, the protocol is for a dedicated MMSO to complete a minimum of one survey per day, however two or three surveys daily is preferred when timing allows, with each marine mammal survey lasting for a minimum of 1.5 hours to not more than two hours to mitigate observer fatigue and eyestrain. The marine mammal monitoring program is well implemented, with more than one dedicated marine mammal survey per day being frequently conducted during shipping.

In addition, crew members are always scanning for marine mammals. If a marine mammal is observed during the voyage outside of the dedicated marine mammal observation period (i.e., off-effort), this is recorded as an incidental sighting, and any mitigation required to avoid marine mammals during shipping is recorded and reported in the annual report.

Further and as reported in previous Marine Mammal and Seabird Annual Report reports, no interactions (e.g., strikes) between vessels and marine mammals or seabirds were recorded by the shipping compagnies in 2023 or in previous years, demonstrating the current monitoring program is adequate to prevent interactions with wildlife.

Agnico Eagle is available to discuss with DFO at their convenience.

DFO-4: AQUATIC INVASIVE SPECIES

Comment

This item was identified in the review of the 2022 Annual Report and remains a concern for DFO.

Current monitoring plans do not include a monitoring program for aquatic invasive species.

There is a risk of introducing aquatic invasive species through haul contamination from ships coming from Quebec. The Shipping Management Plan requires the shipping companies contracted to supply the Meliadine Mine though the annual sea-lift operations to comply with the Ballast Water Regulations, which reduces the risk of invasive species being introduced as a result of shipping activities, but does not eliminate this risk so that monitoring for the occurrence of aquatic invasive species is would be required to confirm this.

Conclusion/Request

Proponent to consider a non-Indigenous Species/Aquatic Invasive Species Monitoring Program around zones of higher risk.

Proponent to provide specific monitoring and mitigation measures that are being conducted, including but not limited to any ballast water treatment, monitoring for aquatic invasive species, any haul clean-up and maintenance protocols, etc.

Agnico Eagle Answer

As per Agnico Eagle's response to DFO-5 comment on the 2022 Annual Report, Agnico Eagle contracts shipping compagnies that comply with all applicable regulations, including the Ballast Water Regulations, which reduces the risk of invasive species being introduced as a result of mine related shipping activities.

Under the Ballast Water Regulations, all vessels are required to have a Ballast Water Management Plan. The Ballast Water Management Plan is written in accordance with the requirements of Regulation B-1 of the International Convention for the Control and Management of Vessels' Ballast Water and Sediments and aims to prevent, minimize, and ultimately eliminate the risk of introducing harmful aquatic organisms and pathogens from vessels' ballast water and associated sediments, while protecting vessel's safety.

Agnico Eagle contracts Transport Canada certified shipping companies that are using standard and acceptable practices common for all vessels in the Canadian Arctic, complying with the requirements and shipping regulations related to the concerns DFO has expressed, including Project Certificate Terms and Conditions, the Shipping Act, the and the Ballast Water Regulations. Agnico Eagle feels this issue is resolved.

DFO-5: UNDERWATER NOISE

Comment

This item was identified in the review of the 2022 Annual Report and remains a concern for DFO.

Underwater noise from shipping vessels has the potential to elicit disturbance effects on marine mammals by reducing their ability to travel, communicate, and find food.

During the 2023 shipping season, 23 vessel trips served the project. We currently do not know what noise level and characteristic is produced by those shipping vessels and the potential impact on marine mammals.

The FEIS predicted the residual environmental effect of a change in marine mammal behaviour as a result of Project vessel noise was considered to be low in magnitude, however the likelihood of behavioural disturbance from Project-related vessel noise was considered likely. However there is no monitoring of noise levels to help understand and mitigate these effects.

Conclusion/Request

DFO to work with the Proponent to monitor and model their noise footprint using expert support. This model should aim at evaluating the impact of shipping noise on marine mammals present on the shipping route. A Shipping Management Plan should be updated according to the model.

Agnico Eagle Answer

Agnico Eagle would like to note that discussion was already initiated between Agnico Eagle and DFO on the topic of underwater noise monitoring.

As previously communicated to DFO, Agnico Eagle is willing to participate in a committee led by DFO and including all relevant stakeholders involved with shipping activities in Nunavut.

DFO-6: APPENDIX ON FISH AND FISH HABITAT

Comment

The annual reporting would benefit from the inclusion of an appendix specific to fish and fish habitat, similar to that provided by AEM for the Meadowbank complex. This would allow Fisheries and Oceans Canada to more efficiently review relevant information in the annual report, including compliance with the Fisheries Act.

Conclusion/Request

DFO to work with proponent to develop an appendix to the annual report that will include the following:
- Report on death of fish;
- Report on Harmful Alteration, Disruption and Destruction of fish habitat;
- Report on fish passage issues;
- Fish-out activities;
- Measures implemented to avoid and mitigate impacts to fish or fish habitat; and
- Offsetting activities.

Agnico Eagle Answer

Agnico Eagle would like to note the referred Appendix for the Meadowbank Complex Annual Report is provided in accordance with the Fisheries Act Authorizations (FAAs) for the Meadowbank Complex. When an FAA is issued for the Meliadine Mine, Agnico Eagle will include an Appendix specific to fish and fish habitat in future Annual Reports.

For 2023, Agnico Eagle would like to refer DFO to information provided in Section 7.5 of the 2023 Annual Report for the work conducted under Letter of Advice 23-HCAA-00223.