



WATER LICENCE INSPECTION FORM

☒ Original
☒ Follow-Up Report

Licensee	Licensee Representative
Agnico Eagle Mines Limited	Robin Allard
Licence No. / Expiry (MM.DD.YY)	Representative's Title
2AM-MEA1525/ 07.22.25	Senior Environmental Coordinator
Land Authorization No. / Purpose	Other Authorization
66A/8-71-2/ AWPAPAR	8BC-AEA1525
Date of Inspection	Inspector
October 25-27 th , 2017	WRO Wilson
Activities Inspected	
<input type="checkbox"/> Camp <input type="checkbox"/> Drilling <input checked="" type="checkbox"/> Mining <input checked="" type="checkbox"/> Construction <input checked="" type="checkbox"/> Reclamation <input type="checkbox"/> Fuel Storage	
<input checked="" type="checkbox"/> Roads/Hauling <input type="checkbox"/> Other:	

SECTION 1	<input checked="" type="checkbox"/> Comments (s. __)	<input type="checkbox"/> Non-Compliance with Act or Licence (s. __)	<input type="checkbox"/> Action Required (s. __)
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A follow up inspection was conducted of the Meadowbank Gold Mine's, water licence no. 2AM-MEA1525. The following report was prepared using the information noted during that inspection.

Observations

Vault/Phrase Area

- Dewatering of Phaser Lake is completed.
- A road is constructed on the South West side of Phaser Pit. The road will be between Phaser and BB Phaser Pits.
- Pre-stripping has begun at Phaser Pit, with the first load of ore delivered to the mill October 2017.
- A sump has been established in Phaser. The sump monitoring station will be ST-33, which is located -at the time of the inspection- approximately N65° 04' 16.4", W96° 00' 41.3".
- All water from ST-33 is sent to Vault Attenuation Pond ('ST-10').
- AEM indicated that contact water from Phaser Pit will be managed by collection in a low point of Phaser Lake bed and pumped to ST-10.

East Dike Seepage/ East Dike Seepage Discharge Diffuser

- On September 22nd, AEM reported to the 24-hr Spill Reporting Line and the inspector, that effluent from East Dike Seepage Discharge Diffuser, monitoring station ST-8 ('ST-8'), had exceeded the acceptable limits found in part F, item 8. The spill report no. 17-357 was issued. The report detailed that samples collected on September 18th at ST-8 exceeded the licensed maximum grab criteria of 30mg/L for the parameter, total suspended solids ('TSS') with a result of 34mg/L.
- A follow up report was submitted for spill no. 17-357 to the inspector on October 21st as required by part H, item 8(c).
- The inspector notes that on May 11th, 2017, an exceedance at ST-8, for the parameter TSS, was reported to the 24-hr Spill Reporting Line under spill no. 17-157.
- AEM indicated that ST-8 is continuously pumped. When the effluent quality respects the licensed criteria it is discharged through the diffuser into Second Portage Lake. The remaining time, the water is pumped to Portage sump North ('ST-17') and eventually into the South Cell's, Tailing Reclaim Water Pond ('ST-21').
- AEM has monitored the water quality at ST-8 daily since the September 18th exceedance using an internal laboratory. AEM indicated that their policy uses the internal results to monitor effluent quality constancy before collecting samples for external analysis prior to discharge.
- The inspector reviewed the internal laboratory analysis for ST-8 and agreed with AEM that the results, though different from the accredited laboratory, follow the same trends and should be used as a field tool to predicate exceedances moving forward.
- AEM investigation into the exceedance has not been linked to any particular event (e.g.: precipitation, water levels, blasting). The inspector is concerned that the effluent from East Dike seepage is not as stable as originally predicted or is changing over time and may require alternative disposal.
- On October 26th at 7:00pm, the inspector collect a duplicate sample for the following parameters; total cyanide, total suspended solids, arsenic, copper, lead, nickel, zinc, radium 226, pH, sulphate, turbidity, total aluminum. The samples have been sent to ALS Laboratory, Winnipeg, Manitoba for analysis. The results, if of concern, will be discussed under a follow up report.

Spills/ Landfarm

- Contaminated material has been brought from Amaruq Exploration Project to the Meadowbank Landfarm for remediation.
- The Landfarm was moved in 2016 to a different location but remains within the footprint of the South Cell.
- A number of spill reports were discussed for closure. A total of 24 reportable spills occurred in the pit from 2016-2017. These spills require immediate inspection because of the rapid progression of mining in the pits. The inspector has determined that the follow up reports – pursuant to part H, item 8(c) - and Landfarm's soil intake volume provide enough information to close the files. A letter will be issued to the 24-Hr Spill Reporting line once the soil intake logs are received by the inspector.
- Improvements to the Landfarm continue. The inspector is concerned that the current design does not capture run off from the facility.

Erosion/ Mitigation Measures

- A sediment curtain was deployed at the end of the airstrip due to a concern raised by the inspector in May regarding snow laden with sediment located with 31 meters from Portage Lake. AEM monitored the location and determined, based on observations and sampling, that the curtain was providing the necessary protection to the Lake.
- AEM discussed the stabilization of water quality in the Eastern (ST-5) and Western Diversion ditches (ST-6). Since



construction AEM noted elevated levels of TSS up stream of ST-5 which discharges into NP-2 Lake and ST-6 which discharges into Portage Lake. AEM indicated that the use of the interception sump on the Western Diversion Ditch and deploying the actions described in the Freshet Action Plan ultimately contributed to effluent quality stabilization.

21. On June 6th, 2017 AEM reported another spill at the vault road culvert crossing. The spill report no. 17-198 detailed the release of effluent with a quality that exceeded the prescribed limits found in part F item 6 into a water body referred to as NP-1 Lake. AEM discussed with the inspector a stagey described in the Freshet Action Plan used in the previous years, which involves snow management, daily monitoring and sediment curtains. The inspector does not find this plan as discussed, adequate to prevent a spill from reoccurring and will require AEM to take further action, if necessary.

ST-16/ WEP 1 and WEP 2/ Portage Waste Rock Run off collection areas

22. WEP 1 (natural depression) and WEP 2 (constructed sump) continues to be utilized. The water quality has shown some elevated levels of TSS in WEP 1. Both WEP 1 and 2 are monitored monthly during months of open water, with the water pumped to the North Cell of the Tailings Storage Facility (TSF).
23. ST-16 continues to be monitored monthly during times of open water. AEM discussed the water quality as stabilizing though the water has a yellowish appearance. AEM indicated that the water level is kept low and is pumped to the North cell TSF as required.
24. On the East side of the Portage Waste Rock Storage Facility (PWRSF) the inspector was concerned that run off from the facility may not be adequately collected. AEM and the inspector discussed the possibility of this location contributing to the elevated TSS at the Vault Road crossing. AEM will investigate the contact water collection at this point and report to the inspector the findings during the term of the next inspection.
25. All three monitoring station signs (discussed in this section) are posted, pursuant to part I, item 7.

Tailing Storage Area

26. During the winter of 2016-2017 a drilling campaign took place on the North Cell. The campaign was completed with the intention of studying the TSF closure.
27. Construction is complete on Saddles 3, 4, 5 for 2017. The inspector observed some instrument installation on the surface of the structures.
28. Monitoring station ST-32 has been established at Saddle Dam 3 sump. Water from this sump is pumped into the North cell, TSF.
29. NPAG material is being pushed down into a low area between the Northern extend of the TSF North cell and the NPAG Extension’s western boundary.
30. The land on the North side of the North Cell, TSF has been re-contoured. AEM indicated it is part of progressive reclamation of the TSF.
31. A buttress has been constructed into the South Cell, TSF to provide stability to the downslope side of the Stormwater Dike. As discussed in the 2016 Annual Report, AEM recognized some signs of instability in 2016 and are implementing recommendation made by the Meadowbank Dike Review Board.

SECTION 2

☐ Comments (s.____)

☒ Non-Compliance with Act or Licence (s.2)

☐ Action Required (s.____)

Concerns related to conditions of water licence no. 2AM-MEA1525

Part F item 8: Failure to respect effluent quality limits prior to discharge.

— This failure relates to effluent quality discharged into the environment from Vault Road Crossing spill no. 17-198, and East Dike Seepage Discharge Diffuser spill no. 17-157 and 17-357.

Concerns related to compliance with *Nunavut Waters and Nunavut Surface Rights Tribunal Act*

None at this time

SECTION 3

☐ Comments (s.____)

☐ Non-Compliance with Act or Licence, (s.____)

☒ Action Required (s.3)

1. AEM will provide a compliance plan to the inspector before March 1st, 2018 that addresses the effluent quality exceedances from the spills into NP-1 Lake and Portage Lake. This plan is a document representing AEM’s due diligence and should include a more robust mitigative strategy and a thorough investigation into long term solutions if the measures deployed are not effective.
2. AEM will investigate the concerns expressed by the inspector regarding the East side of the PWRSF and present the information during the next inspection.
3. AEM will confirm with the Nunavut Water Board which plans are currently approved under this licence before implementation. AEM is encouraged to review the requirements found in part b, item 11 and 16 concerning submissions of plans and approval before the term of the next inspection.

Licensee or Representative	Inspector’s Name
	C. Wilson
Signature	Signature
	Sent by e-mail
Date	Date
	October 25 th 2017



Office Use Only:	Follow-up report to be issued by Inspector	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
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cc. Erik Allain, Manager Field Operations, INAC
Robin Allard, Senior Environmental Coordinator, AEM
Manager of Licensing, NWB