



WATER LICENCE INSPECTION FORM

☒ Original  
☐ Follow-Up Report

Licensee		Licensee Representative	
Agnico Eagle Gold Mines Limited		Erika Voyer	
Licence No. / Expiry		Representative Title	
2AM-MEA0815/ November 27 <sup>th</sup> , 2015		Environmental Coordinator	
Land Authorization No.		Land Authorization Expiry	
66A/8-71-2, AWPAP		66A/8-72-2 Quarrying lease	
Date of Inspection		Inspector	
July 24 <sup>th</sup> , 2015		WRO Wilson	
Activities Inspected			
<input checked="" type="checkbox"/> Camp	<input checked="" type="checkbox"/> Water Management	<input checked="" type="checkbox"/> Mining	<input checked="" type="checkbox"/> Construction
<input checked="" type="checkbox"/> Roads/Hauling	<input checked="" type="checkbox"/> Other: Water Discharge	<input checked="" type="checkbox"/> Other: Spills	<input checked="" type="checkbox"/> Reclamation
<input type="checkbox"/> Fuel Storage			

Conditions:	A - Acceptable	C - Concern	U - Unacceptable	NA – Not Applicable	NI – Not Inspected			
Water Use	Condition	Comment	Site Conditions	Condition	Comment	Haz/Mat Management	Condition	Comment
Intake/Screen	A	--	Water Management Structures	NI	11,12	Spill Reports	A	--
Flow Measure. Device	A	1	Culverts / Bridges	NI	--	Spills	A	--
Source: 3 <sup>rd</sup> Portage	A	--	Drainage	A	2	Spill Plan	NI	--
Recirculation ( y /n)	--		Mitigation Measures	A	--	Administrative		
Waste Disposal			Signage	A	--	Plans	A	4,3
Waste Water Management	A	2,5,7	Monitoring			Other		
Waste Water Management	C	10	Sample Collection / Analysis	A	6, 8	Progressive Reclamation	A	13, 14
*The number in the comments field will correspond with specific comments provided below.								
Samples taken by Inspector:			Location(s): ST-16 Area (west pond) N 65° 2 25, W96° 3’ 14”, St-25 Vault , ST-10 Vault discharge					
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No								

SECTION 1	<input checked="" type="checkbox"/> Comments (s.____)	<input type="checkbox"/> Non-Compliance with Act or Licence (s.____)	<input type="checkbox"/> Action Required (s.____)
<p>Agnico Eagle Mines Limited (AEML), Meadowbank Gold Mine’s water licence 2AM-MEA0815 was issued on June 9<sup>th</sup>, 2008 for a term of five (5) years, with the expiry of May 31<sup>st</sup>, 2015. On January 23<sup>rd</sup>, 2015 AEML applied to the Nunavut Water Board for a short term renewal of 180 days. The short term renewal was granted April 20<sup>th</sup>, 2015 for a term of 180 days from the original licence expiry.</p> <p>On July 24<sup>th</sup>, 2015 a regularly scheduled compliance inspection was completed by Aboriginal Affairs and Northern Development Canada’s Water Resource Officer (WRO), Christine Wilson. This was the second inspection for 2015 with the first one occurring in March. The inspection was completed with the assistance of AEML’s Environmental Coordinator, Erika Voyer and Sr. Environmental Technician, Martin Theriault.</p> <p>The following report was produced with the findings from the July 24<sup>th</sup>-25<sup>th</sup> inspection.</p> <p><i>Pre Inspection Meeting</i></p> <ul style="list-style-type: none"><li>— AEML finished the removal of the turbidity curtain that was accidentally released in Third Portage Lake during the construction of Bay Goose dyke. The curtain was removed over a period of 1 week, from July 16<sup>th</sup> to the 22<sup>nd</sup>, with the help of a diving team who cut the curtain into smaller more manageable pieces to be removed by heavy equipment located on shore. The Environment Department noted two events of suspected elevated levels of total suspended solids, (TSS) both of which were sampled. It was confirmed that the samples were below the parameter set out in the part D item 15 of the current licence.</li><li>— Update on elevated TSS in NP-1: the road material is believed to be the cause of the elevated TSS in a non fish bearing lake referred to as NP-1 (photo 6). Improvements have been made to the road with a material which is believed to be more competent. Procedures are in place for daily inspection of the Vault road culvert in the Freshet Action Plan (March 2015). The Environment Department deployed immediate measures to protect the fish bearing lake downstream of Np-1 referred to as Dogleg Lake. The Environment Department is providing the daily inspection log from the day the situation was discovered to the inspector.</li><li>— Vault is currently discharging at a rate of 17 000m<sup>3</sup> per day, with an approximate total discharge of 243 000m<sup>3</sup>.</li><li>— The Freshet Action Plan was updated and submitted with the 2014 annual report. The document now contains a table that details inspection locations, a summary of the inspection components and beginning date of each obligation.</li><li>— Freshwater consumption is predicted to be below the allotted amount for 2015. AEML now has the ability to complete in-house water balance and tailing deposition plans with real time information that reflects the current condition of the project verses relying on modelling. Water Balance and Tailing Deposition directly affect the annual water usage totals.</li></ul> <p><i>Observations</i></p> <p><i>Water Use</i></p> <ol style="list-style-type: none"><li>1. The total of fresh water consumed for 2015 at the Meadowbank Gold Mine was 589 377m<sup>3</sup> on July 24<sup>th</sup>, 2015. The annual allotment for 2015 is 1 150 000m<sup>3</sup>.</li></ol> <p><i>Waste/ Waste Water Disposal and Management</i></p> <ol style="list-style-type: none"><li>2. Non-contact water collected in and around the western diversion ditch (WDD) is being pumped into the north cell of the tailing storage facility (TSF). Elevated levels of TSS were noticed, presumable from the construction of the WDD, which required the water to be contained and pumped as needed into the north cell of the TSF.</li></ol>			



- 3. The beaching in the TSF specifically along the Rock fill 1 (RF1) and Rock Fill 2 (RF2) has allowed the water to collect in the center of the TSF (photo 2) pursuant to the plans submitted to the inspector following the November 8<sup>th</sup> 2013 Inspector’s Direction.
- 4. Garbage is noted in the contaminated soil at the Landfarm. As the soil thaws AEML plans to use a piece of equipment similar to a screening plant to sort the rocky materials by size to allow for better treatment and aeration of the soils. The inspector looks forward to the progress described by Landfarm Design and Management Plan (rev Feb 2013).
- 5. The ST-16 sump permanent pump station is in place (photo 3). Water in the sump is pumped down when the water levels meets a gauged height.
- 6. The ST-16 area appears to still be split into two ponds separated by land (photo 3). The ST-16 monitoring location is in the Eastern pond. Two samples were collected one at ST-16 area (western pond) and one on the south shore of NP-2 Lake.
- 7. As part of the Freshet Action Plan, snow is removed from the ST-16 area during the winter to minimize the surface run-off collected at freshet.
- 8. The Vault attenuation pond (VAP) is separated into four sections as the natural topography of the lake bottom allows. The sections are labelled by AEML as ponds “A” through “D” (photo 4). Pond D is non-connective with the other ponds, thus water is pumped from D to B-C ponds through conveyance lines. Monitoring station ST-25 is located in Pond D. A sample was collected at ST-25 by the Inspector.
- 9. The VAP is being discharged through the Wally Lake diffuser. The water is currently of a quality that does not require treatment through the water treatment plant, so the plant is bypassed with the monitoring station ST-10 samples taken at the pump station in Pond B-C. A sample was collected at ST-10 by the inspector.
- 10. A section of rock barrier has been removed near door A/ cyanide destruction area of the Mill to allow for drainage of the road. The inspector is concerned with possibility of contaminated water and the location of this drainage way as it is very near to Third Portage Lake.

Construction

- 11. The construction of Saddle Dams 3 (photo 1), 4, and 5 have begun. Saddle Dam 3 will be brought up to an elevation of 140m this year, while the first stages of excavation are taking place for the footing of Saddle Dam 4 and 5.
- 12. Central Dyke is being raised to 137m for 2015.

Abandonment and Reclamation

- 13. Reclamation has begun on the North cell of the TSF. The northern limit of the cell has been covered this past winter with two (2) meters of non-potential acid generating (NPAG) material. A thermal monitoring program is taking place in this location. This study is to evaluate possible cover size and depths for final capping of the TSF during closure. The information from this study will be presented in the 2015 annual report.
- 14. Progressive reclamation continues at Bay Goose Pit (photo 5). The pit was noted, during the July 22<sup>nd</sup>, 2015 fly over, to contain a large amount of water. AEML advised this water is surface run-off.
- 15. Water continues to be pumped from ST-S-2 into the north cell of the TSF. The water is accumulating at the foot of Saddle 1 due to the natural topography of the location. AEML is investigating possible solutions to resolve this issue as the current solution will not be available during closure.

SECTION 2      ☐ Comments (s.\_\_\_\_)      ☒ Non-Compliance with Act or Licence (s.2)      ☐ Action Required (s.\_\_\_\_)

No non-compliance with the Act of the Licence.

SECTION 3      ☐ Comments (s.\_\_\_\_)      ☐ Non-Compliance with Act or Licence, (s.\_\_\_\_)      ☒ Action Required (s.3)

- The Licensee shall submit a copy of the revised 2015 version of the Landfarm Design and Management Plan to the inspector upon completion.
- As per Part E item 9, the inspector requests to review a copy of the weekly inspection records for the Eastern diversion ditch/Vault road culverts on the date of discovery of the incident (approximately June 7<sup>th</sup>, 2015).
- The Inspector request further correspondence on monitoring station ST-6’s location and the reported results.
- The Licensee shall include the ST-16 Til Plug in the annual Geotechnical Inspection as discussed in Part I item 12.

Closing Remarks

AEML Environment Department prepared in advance information and document for the Inspector (etc.: NT-NU Spill database closure inspection supporting documents, daily inspection plan, and current site map). This was extremely helpful in completing the inspection, sampling and spill closure in a timely 1. 5 days, which allowed the Inspector time to produce an onsite Record of Inspection. AEML is encouraged to continue in this format for inspection in the future.

AEML Environment Department is working in cooperation with the inspector to close a number of older spills that were posted on the NT-NU 24 hr Spill Line database. A great effort was taken by AEML to compile spill information dating as far back to 2009. A total of 21 spills are to be closed with the possibility of another 8 upon further review of the supporting documents provided by AEML Sr. Technician.

Licensee or Representative	Inspector’s Name
	C. Wilson
Signature	Signature
Date	Date
	July 25th, 2015



Office Use Only: Follow-up report to be issued by Inspector

☒ Yes ☐ No

**Attached:** 2AM0MEA0815 Photo Log- July 22, 2015  
cc. Erik Allain, Manager Field Operations, AANDC  
Erika Voyer, Environmental Coordinator, EML

PHOTO LOG

Date:	Authorization Number:	Camera/Model:	Inspector
July 22nd, 2015	2AM-MEA0815	Sony DSC-HX50V Cyber shot	WRO Wilson
Photo No.	Lat/Long (DD.MM.SS.SS, NAD83)		
Photo 1	NA		



**Description:**  
Saddle Dam 3





Photo No.		Lat/Long (DD.MM.SS.SS, NAD83)	
Photo 2		NA	
			
<b>Description:</b> Beaching in the North cell of the TSF, Cover on the north section of north cell. This picture is looking to the south.			
Photo No.		Lat/Long (DD.MM.SS.SS, NAD83)	
Photo 3		NA	





**Description:**

St-16 sump permant pumping station and the eastern and western ponds (western pond is the smaller pond)

Photo No.  
Photo 4

Lat/Long (DD.MM.SS.SS, NAD83)  
NA



**Description:**

Vault Waste Rock Pile, Vault Pit, Vault Attenuation Pond (Pond A,B-C and D labelled)





Photo No.	Lat/Long (DD.MM.SS.SS, NAD83)
Photo 5	NA



<b>Description:</b> Bay goose pit looking North
--

Photo No.	Lat/Long (DD.MM.SS.SS, NAD83)
Photo 6	NA



<b>Description:</b> Silt curtains in Np-1 with Vault road in the mid ground and NP-2 Lake in the background.
---

