



MELIADINE GOLD PROJECT  
**2015 Annual Report**  
**Licence 8BC-MEL1516**

**Prepared for:**  
Nunavut Water Board

**Prepared by:**  
Agnico Eagle Mines Limited – Meliadine Division

March 31<sup>st</sup> 2016

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## DOCUMENT CONTROL

Version	Date (YMD)	Section	Page	Comment
1	2016/03/31	All	All	This has been reviewed by Environmental Staff and will be incorporated into training for all mine staff on behalf of the Mine Manager and Senior Management

Prepared By: Meliadine Environment Department

Approved By:   
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*Jamie Quesnel*  
*Environmental Superintendent*  
*Nunavut Service Group*

The information in this document has been presented to mine managers and is endorsed and approved by senior management at AEM.

## **SECTION 1. INTRODUCTION**

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The Meliadine Gold Project operated by Agnico Eagle Mines Limited - Meliadine Division (AEM) is located approximately 25 kilometres (km) north from Rankin Inlet, and 80 km southwest from Chesterfield Inlet in the Kivalliq Region of Nunavut. Situated on the western shore of Hudson's Bay, the Project site is located on a peninsula between the east, south, and west basins of Meliadine Lake (63°1'23.8"N, 92°13'6.42"W), on Inuit owned land. The project components include the 28 km All Weather Access Road (AWAR) between Rankin Inlet and Meliadine, the Itivia tank farm and laydown area and the mine site.

These various components and activities associated with the project require a number of different authorizations, leases and permits from regulatory agencies including the Nunavut Water Board (NWB), Environment Canada (EC), Indigenous and Northern Affairs Canada (INAC), the Kivalliq Inuit Association (KIA) and the Nunavut Impact Review Board (NIRB).

This report is written to address the annual reporting requirements of the project under Licence 8BC-MEL1516 Part B Item 4. The report also describes the Meliadine site in accordance with the state of progress of the works.

## **SECTION 2. WATER USE AND WATER MANAGEMENT**

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### **Part B, Item 4a.**

#### **Daily water flow volumes of any watercourse diverted during construction activities**

No watercourses were diverted during pre-development activities in 2015.

### **Part B, Item 4b.**

#### **Summary report of water use for 2015**

AEM requested no direct water use under this Licence. Water for domestic purposes is used from the water allotment of Water Licence 2BB-MEL1424. Water that may be required for dust suppression is used from the water amount authorized under Water Licence 2BW-MEL1525. For 2015 summary of water use please see annual reports of the two above mentioned licences.

### **Part B, Item 4f.**

#### **Summary of all data generated under the monitoring program (part J of licence)**

Monitoring stations MEL-1, MEL-2 and MEL-3 as described in Part J, Item 1 of Licence have not been put in place. Location of MEL-2 and 3 have not been determined yet. There has been no construction activity at Itivia in 2015.

### **Part B, Item 4d.**

#### **List of unauthorized discharges and summary of follow-up actions**

There has been no unauthorized discharge on site in 2015.

### **Part B, Item 4e.**

#### **List of seeps from borrow pit and quarry, water quality monitoring results and measures taken to prevent the flow of seep water into nearby water bodies**

No seeps have been observed from any borrow pit or quarry.

**Part B, Item 4j.**

**Any other details on water use requested by the Board by November 1<sup>st</sup> of the year being reported**

No specific information or details was requested by the Board.

### **SECTION 3. WASTE DISPOSAL ACTIVITIES**

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**Part B, Item 4b.**

**Summary report of waste disposal activities**

No waste disposal activities are occurring under this Licence. Domestic waste, Sewage and solid waste disposal are all authorized under Licence 2BB-MEL1424.

**Part B, Item 4j.**

**Any other details on waste management on water use requested by the Board by November 1<sup>st</sup> of the year being reported**

No specific information or details was requested by the Board.

## SECTION 4. CONSTRUCTION ACTIVITIES AND OPERATION

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### Part B, Item 4c.

#### **Summary report of construction activities including photographic records before, during and after construction**

Licence 8BC-MEL1516 has been issued October 5<sup>th</sup> 2015. Pre-development activities that have been undertaken between issuance of licence and December 2015 are described below:

**Table 4.1 Activities and Status**

Activity	Status
Access road to industrial pad	Completed
Industrial pad	Completed
Piling for permanent camp	5%
Quarry-Borrow pits material preparation	Completed

Most of the pre-development activities completed in 2015 are related to the site preparation. In order to have the required material for the construction of the access road and the industrial pad, materials from borrow pits, quarry and underground was prepared and stored before any works commenced. There were no pre-development activities at Itivia in 2015. Pictures of the activities on site can be found in Appendix 1. Figure 1 shows the actual state of the Meliadine site.

### Part E, Item 5

#### **Use aggregate for construction of infrastructure or facilities under this Licence that is demonstrated to be potentially non-acid generating, non-metal leaching and free of contaminants**

Sampling was done for B5, B5A, B6A, B13, B15 and Underground material since material from those borrow pits was used for access road and industrial pad construction. See appendix 2 for results.



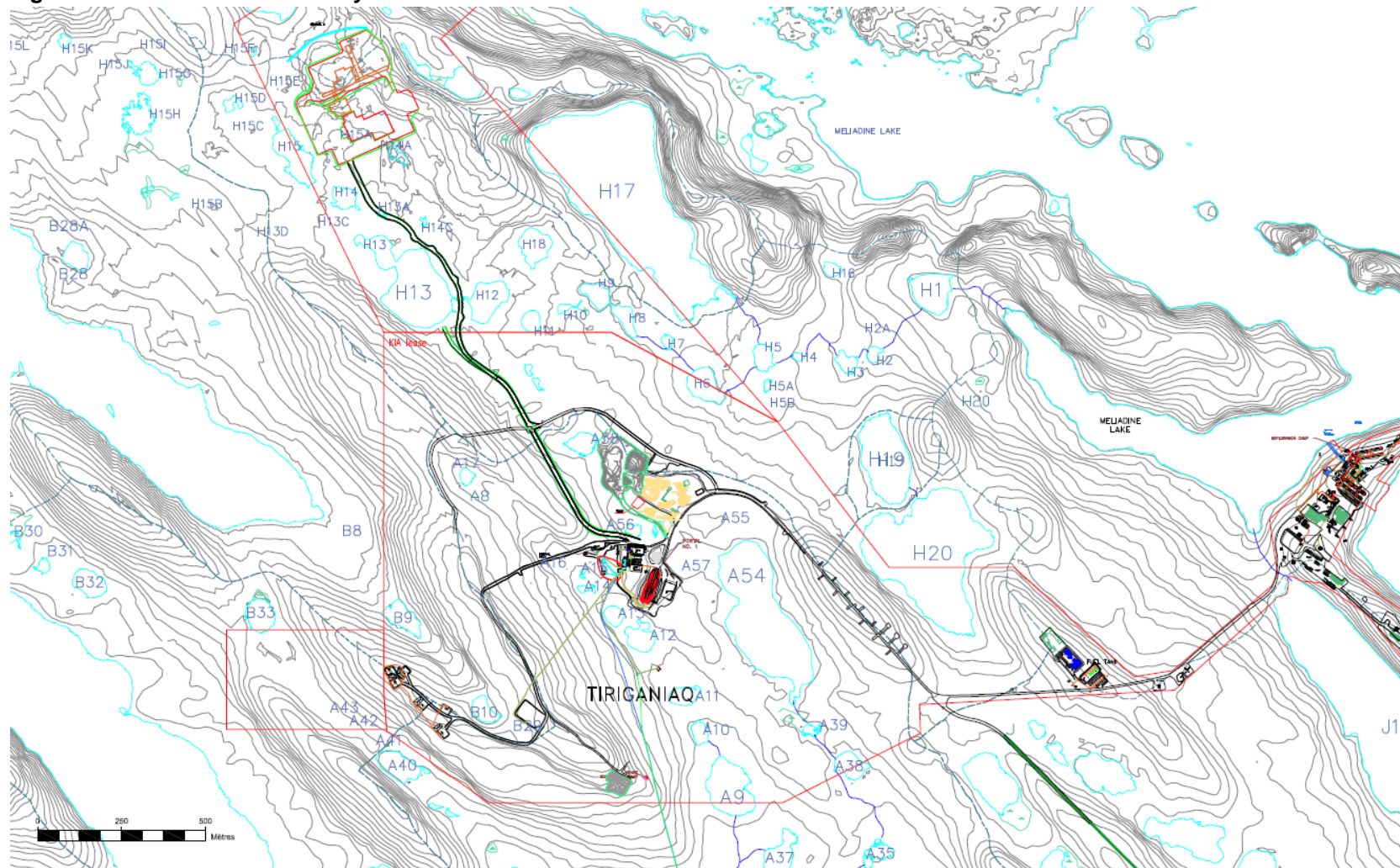
**Part E, Item 3**

**For-Construction plans and design drawings to submit 60 days prior to construction**

Only one plan was submitted to NWB on October 30<sup>th</sup> 2015: culvert on road to portal.

No water or waste management structures were constructed in 2015.

**Figure 1: Meliadine Site Layout – December 2015**



## SECTION 5. MANAGEMENT PLAN UPDATES

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### Part B, Item g.

#### **Any updates or revisions to plans as required by changes in operation and/or technology**

AEM submitted the Spill Contingency Plan update to NWB on December 21<sup>st</sup> 2015 in accordance to Part H, Item 1 and 2 of this Licence. This plan was effective and implemented on same date of submittal.

No other monitoring plans were updated under the scope of this licence.

In 2015, under the NIRB Project Certificate No.:006, two monitoring plans were updated and submitted to NIRB:

- Air Quality Monitoring Plan, November 6<sup>th</sup> 2015
- Terrestrial Environment Monitoring and Management Plan, November 20<sup>th</sup> 2015

## SECTION 6. RECLAMATION AND CLOSURE

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### Part B, Item 4

#### **A description of all progressive and or final reclamation work undertaken, including photographic records of site conditions before, during and after completion of operations**

No reclamation work was done on site.

### Part B, Item 1

#### **Furnish and maintain security of 1,053,000\$**

Done and confirmed by INAC on January 8<sup>th</sup> 2016.

## SECTION 7. PUBLIC CONSULTATION AND PARTICIPATION

Even though the Licence has been issued in October 2015, many meetings and consultations concerning the project were held in 2015. Those meetings are essential to keep the different stakeholders, including KIA and NTI, informed of the status and progress of the project. In 2015, the majority of consultations were to inform the regulators of the decision of AEM to approach the Meliadine project in phases and to explain Phase 1. When achieved regularly with all the involved stakeholders, it allows the company to gain the trust of the regulators and the public.

Also, in October 2015, were held the technical hearings, community sessions and pre-hearing conference for the issuing of Water Licence A.

**Table 7.1: Meetings, Public and Community Consultations**

DATE	PLACE	Parties present and Subjects of meeting
January 25	Ottawa	Meeting with KIA to discuss water compensation and closure costs
Feb 2	Rankin Inlet	Meeting with HTO to discuss Hunters Harvest Study and wildlife survey along AWAR
Feb 23-24	Conf Call	Project certificate workshop with NIRB, KIA, EC, DFO, GN, INAC
March 24	Iqaluit	Workshop to discuss the Licence A phase approach with EC, GN, INAC, NRC, TC, CANNOR, KIA and DFO
March 27	Ottawa	Meeting with KIA and INAC to discuss security agreement to avoid double bonding
April 2	Conf Call	Meeting with NIRB to discuss Licence A phase approach
April 17	Iqaluit	Meeting with NWB to discuss Licence A phase approach
Aug 10-11	Montreal	Meeting with KIA and their consultant to present phase 1 of Meliadine project
Sept 2	Rankin Inlet	Site visit by NIRB monitoring officer
Sept 2	Rankin Inlet	Community session organize by NIRB to explain monitoring activities
Sept 18-19	Rankin Inlet	Meeting with INAC in preparation of Licence A
Sept 21	Rankin Inlet	Presentation to the CLARC committee (KIA) of the Licence A application
Sept 21	Rankin Inlet	Meeting with GN to discuss the by-pass road design
Oct 14-15	Rankin Inlet	Technical meeting, community session and pre-hearing conference hosted by NWB for Licence A
Oct 29	Rankin Inlet	Presentation to the Kivalliq Wildlife Board on caribou protection

Nov 10	Winnipeg	Meeting with DFO concerning authorization needed for phase 1 of Meliadine project
Nov 12	Edmonton	Meeting with EC to discuss commitments made during the technical meeting for Licence A
Nov 17	Iqaluit	Meeting with GN to present Meliadine Licence A project
Nov 17	Iqaluit	Meeting with INAC to discuss commitments made during technical meeting of Licence A
Nov 25-26	Iqaluit	Meetings with different departments of GN
Dec 7	Edmonton	Meeting with NTI

## SECTION 8. SITE INSPECTIONS

In 2015, 342 inspections were performed on site. Most of them were done internally and allowed for a close follow-up of all activities happening on site. The main goal of those internal inspections is to apply corrective measures where necessary and thus avoid degradation of problematic situations. Table 8.1 list all internal inspections. Many of them are done simultaneously. For example, wildlife observations, waste management, spill management and general housekeeping can be done during one visit.

Also, 10 official site inspections were undertaken by regulators in 2015. No non-compliance was observed. Table 8.2 list inspections done by regulators and table 8.3 recommendations and action taken by AEM to respond to the regulator's recommendations.

**Table 8.1 Internal Inspections**

Number of Inspections	Performed by	Inspection topic
13	Logistic	AWAR
104	Logistic + Environment	Fuel tanks, fuel truck, hose line
6	Site Services + Environment	Clean wood open fire
68	Environment	Waste and Hazmat
47	Environment	Spill management
47	Environment	Wildlife
44	Environment	General housekeeping
3	Environment	Licence 8BC-MEL1516

**Table 8.2 External Inspections**

Date of Inspection	Performed by	Inspection topic	Non-compliance/ recommendations
2015-01-16	GN-Wildlife officers	2BB-MEL1424	2 recommendations
2015-03-12	GN-Health Department	Drinking water + waste management	2 recommendations
2015-03-20	INAC	2BB-MEL1424	none
2015-04-07	KIA	Lease	2 recommendations
2015-06-09	INAC	2BW-MEL1525	none
2015-06-09	INAC	2BB-MEL1424	none
2015-08-13	EC	Visit and AEMP sampling	none
2015-10-08	INAC	2BB-MEL1424	none
2015-10-30	GN-Wildlife officers	2BB-MEL1424	2 recommendations
2015-11-10	KIA	Caribou migration	none
2015-12-17	GN-Wildlife officers	2BB-MEL1424	2 recommendations

**Table 8.3 List of Regulator Recommendations and Action Taken**

Recommendations	Actions Taken
Change and dismantle the old grease trap and building (GN-Wildlife)	New grease trap was installed and running 2016-01-20. Old building will be demolished summer 2016
Change the flags along the AWAR (GN-Wildlife)	Testing is presently done to see the durability of the new flags (different material)
Need a hand wash basin in the lower part of the kitchen (GN-Health)	basin was put in place 2016-02-24
Food box and crate put on the floor under the shelves in the freezer (GN-Health)	New shelves were put in place (6" from the floor) 2015-03-12

Overfill of the camp Gen Set tank (KIA)	Clean-up was completed during the same week
Mention that all mobile equipment should have a spill response kit (KIA)	Portable spill kits distributed for light vehicles during the following 2 weeks
Need to receive a monthly wildlife report (GN-Wildlife)	Wildlife report was upgraded and submitted monthly since October 2015
Spill at the generator 3 (GN-Wildlife)	Notice and update was forwarded to GN and INAC inspector on 2016-01-16 Planning is ongoing to clean the contaminated area in Summer 2016

## SECTION 9. WORK PLANS FOR 2016

The NIRB Project Certificate and the NWB pre-development license (2BW-MEL1516) were obtained during 2015 so very little work was actually done on site. It has been a year of pre-development and preparation for the project. See section 4 for 2015 work description.

For 2016, pre-development work under this Licence will continue until Licence A is issued.

- Construction of new road to Portal 2: March
- Excavation for raise intake #1 East: April to end of November
- Work on the south portion of the Industrial pad: July
- Piling tests : August
- Material preparation (borrow pits & quarries) : June to September

As for monitoring activities, in 2016, AEM will continue baseline data acquisition.

- Air quality monitoring: Continue dustfall monitoring and installation of active monitoring station for particulates (PM<sub>2.5</sub>, PM<sub>10</sub>, TPM) and passive monitoring for SO<sub>2</sub> and NO<sub>2</sub>
- Noise monitoring: implement Noise monitoring Plan
- AEMP: sampling was completed in January and February in accordance with the AEMP prepared by Golder. Sampling will continue in July, August and September.
- Geotechnical campaign: starting end of March and ending mid-April.

## APPENDIX 1: PHOTOS



## APPENDIX 2: ACID GENERATION POTENTIAL AND METAL LEACHING ANALYSIS LABORATORY CERTIFICATES