



January 30, 2016

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

Water Resources Officer, INAC
Nunavut District, Nunavut Region
P.O. Box 100
Iqaluit, NU X0A 0H0

RE: Water Licence 2AM-MRY1325 Monthly SNP Report – December 2016

The following is the monthly report for December 2016 as required under Part I, Item 21 Water Licence 2AM-MRY1325. Part I, Item 21 of the above referenced Water Licence states:

"The Licensee shall submit to the Board, within thirty (30) days following the month being reported, a Monthly Monitoring Report. The Report shall include:

- a. All data and information required by this Part and generated by the Monitoring Program in the tables of Schedule I;*
- b. An assessment of data to identified area of non-compliance with regulated discharge parameters referred to in Part F"*

Monitoring Program

During the month of December 2016, water samples were collected as part of the Water Licence Monitoring Program.

Table 1 presents a list of samples/monitoring required under the Water Licences and the details concerning which water quality samples were collected along with sample date/lab identification number as appropriate. Analytical water quality testing results received are presented in Table 2. Volumes consumed for domestic and industrial water purposes and the volumes of effluent discharged at the Mary River Mine Site and Milne Port Camp are presented in the attached Table 3.

Monitoring Program Results

A) Water Sampling and Analysis Results

Table 2 provides the analytical results related to the Monitoring Program sampling requirements for December 2016.

B) Flow and Volume Measurements

Table 3 provides a breakdown of volume measurements as requested in Part I, Item 9 of the Water Licence for December 2016. Daily flow data for runoff and seepage sites are being collected and will be provided in the annual report.

We hope that the information provided in this monthly report is acceptable and should you have any questions regarding this report please contact Allan Knight or William Bowden at 416-364-8820 ext 6016.

Regards,

Reviewed by:

Allan Knight,
Environmental Superintendent

William Bowden,
Environmental Superintendent

Attach: Tables 1, 2 and 3

Cc: Erik Allain, Jonathon Mesher, Sarah Forte (INAC); Todd Burlingame, Wayne McPhee, Sylvain Proulx, Robert Gagne (Baffinland); Stephen Bathory (QIA)

Table 1: Monitoring Program Water Sampling Summary for December 2016

Monitoring Program Station	Sampling Date	Lab ID#	Comment
Milne Port			
MP-01 (Sewage Treatment Facility)	6-Dec-16	L1867510-1	Discharge volume reported daily
MP-01A (Milne Port PWSP)	N/A	N/A	Volume reported daily during discharge
MP-MRY-3 (Freshwater Intake from Km 32 Lake - Winter)	N/A	N/A	Volume reported daily during discharge
MP-MRY-04 (RBC at Exploration Camp)	N/A	N/A	Facility Inactive
MP-03 (Bulk Fuel Storage Facility Stormwater)	N/A	N/A	Volume reported daily during discharge
MP-04 (Landfarm Facility & Snow Containment Facility)	N/A	N/A	Volume reported daily during discharge
MP-05 (Ore Stockpile Sedimentation Pond (East))	N/A	N/A	Volume reported daily during discharge
MP-06 (Ore Stockpile Sedimentation Pond (West))	N/A	N/A	Volume reported daily during discharge
MP-MRY-12 (Bulk Sample Stockpile Area Seepage)	N/A	N/A	No flow, location is being retired due to lack of flow.
MP-C-A (Downstream of Construction Area)	N/A	N/A	No flow, location is being retired due to lack of flow.
MP-C-B (Downstream of Construction Area)	N/A	N/A	No flow during the month of December
MP-C-B01 (Downstream of Construction Area)	N/A	N/A	No flow during the month of December
MP-C-D (Downstream of Construction Area)	N/A	N/A	No flow during the month of December
MP-C-E (Downstream of Construction Area)	N/A	N/A	No flow during the month of December
MP-C-F (Downstream of Construction Area)	N/A	N/A	No flow during the month of December
MP-C-H (Downstream of Construction Area)	N/A	N/A	No flow during the month of December
MP-Q1-01 (Downstream of Q1 Quarry)	N/A	N/A	No flow during the month of December
MP-Q1-02 (Downstream of Q1 Quarry)	N/A	N/A	No flow during the month of December
Mary River Mine Site			

Monitoring Program Station	Sampling Date	Lab ID#	Comment
MS-01 (Sewage Treatment Facility)	6-Dec-16	L1867513-1	Discharge volume reported daily
MS-MRY-1 (Freshwater Intake from Camp Lake)	N/A	N/A	Withdrawal volume reported daily
MS-MRY-04 (Exploration Camp RBC)	N/A	N/A	Facility Inactive
MS-03 (Milne Site Bulk Fuel Storage Facility Stormwater)	N/A	N/A	Volume reported daily during discharge
MS-06 (Ore Stockpile Pond Stormwater)	N/A	N/A	Volume reported daily during discharge
MS-08 (Mine Waste Rock Stockpile pond)	N/A	N/A	Volume reported daily during discharge
MS-MRY-6 (Exploration Camp Bladder Farm Stormwater)	N/A	N/A	Volume reported daily during discharge
MS-MRY-09 (Bulk Sample Pit)	N/A	N/A	No flow during the month of December
MS-MRY-10 (Weathered Ore Bulk Sample Stockpile)	N/A	N/A	No flow during the month of December
MS-MRY-11 (Processing Bulk Sample Stockpile)	N/A	N/A	Area is being retired due to lack of flows
MS-MRY-13A (Downstream Non-Hazardous Landfill)	N/A	N/A	No flow during the month of December
MS-MRY-13B (Downstream Non-Hazardous Landfill)	N/A	N/A	No flow during the month of December
MS-C-A (Downstream of Construction and Borrow Areas)	N/A	N/A	No flow during the month of December
MS-C-B (Downstream of Construction and Borrow Areas)	N/A	N/A	No flow during the month of December
MS-C-C (Downstream of Construction and Borrow Areas)	N/A	N/A	No flow during the month of December
MS-C-D (Downstream of Construction and Borrow Areas)	N/A	N/A	No flow during the month of December
MS-C-E (Downstream of Construction and Borrow Areas)	N/A	N/A	No flow during the month of December
MS-C-F (Downstream of Construction and Borrow Areas)	N/A	N/A	No flow during the month of December
MS-C-G (Downstream of Construction and Borrow Areas)	N/A	N/A	No flow during the month of December

Monitoring Program Station	Sampling Date	Lab ID#	Comment
MS-C-H (Downstream of Construction and Borrow Areas)	N/A	N/A	No flow during the month of December
MQ-C-A (Downstream of QMR2 Quarry)	N/A	N/A	No flow during the month of December
MQ-C-B (Downstream of QMR2 Quarry)	N/A	N/A	No flow during the month of December
MQ-C-D (Downstream of QMR2 Quarry)	N/A	N/A	No flow during the month of December
MQ-C-E (Downstream of D1Q2 Quarry)	N/A	N/A	No flow during the month of December
Steensby Port			
Steensby Exploration Camp is presently not active.			

Table 2. Water Chemistry Results - December 2016						
Sample Number	Sample ID	Date Sampled	Parameter Name	Result	Units	Lab
MILNE PORT SITE						
L1867510-1	MP-01	6-Dec-17	pH	7.78	pH units	ALS
L1867510-1	MP-01	6-Dec-17	Total Suspended Solids	6	mg/L	ALS
L1867510-1	MP-01	6-Dec-17	Ammonia, Total (as N)	0.055	mg/L	ALS
L1867510-1	MP-01	6-Dec-17	Total Phosphorus	13.9	mg/L	ALS
L1867510-1	MP-01	6-Dec-17	Fecal Coliforms	0	CFU/100mL	ALS
L1867510-1	MP-01	6-Dec-17	Biochemical Oxygen Demand	2	mg/L	ALS
L1867510-1	MP-01	6-Dec-17	Oil & Grease - Total	<2.0	mg/L	ALS
MARY RIVER MINE SITE						
L1867513-1	MS-01	6-Dec-17	pH	7.71	pH units	ALS
L1867513-1	MS-01	6-Dec-17	Total Suspended Solids	2	mg/L	ALS
L1867513-1	MS-01	6-Dec-17	Ammonia, Total (as N)	0.101	mg/L	ALS
L1867513-1	MS-01	6-Dec-17	Total Phosphorus	1.21	mg/L	ALS
L1867513-1	MS-01	6-Dec-17	Fecal Coliforms	0	CFU/100mL	ALS
L1867513-1	MS-01	6-Dec-17	Biochemical Oxygen Demand	<2.0	mg/L	ALS
L1867513-1	MS-01	6-Dec-17	Oil & Grease - Total	<2.0	mg/L	ALS
Notes:						

Table 3: Flow and Volume Measurements-Part I Item 11 - December 2016

DATE	Camp Lake Freshwater Use (Mine Site Camp) - Daily Potable Water (m³) MS-MRY-1	Km 32 Lake Milne Port Camp Daily Potable Water (m³) MP-MRY-3	Treated Sewage Effluent (m³) from MS-01 to Discharge Location #1	Sewage Sludge Removed (m³) from Mine Site WWTP to Incinerator	Sewage Sludge Removed (m³) from Lift Stations to PWSP at Mine Site - MS- MRY-4a	Treated Sewage Effluent (m³) from MP-01 to Milne Port	Sewage Sludge Removed (m³) from Milne Port WWTP to Incinerator	Sewage Removed (m³) from Lift Stations to PWSP at Milne Port - MP-01a
1-Dec	76.7	33.7	76.7	0.5	0.0	33.7	0.2	0.0
2-Dec	55.5	29.1	55.5	0.5	0.0	29.1	0.0	0.0
3-Dec	33.0	26.0	33.0	0.5	0.0	26.0	0.1	0.0
4-Dec	34.2	29.4	34.2	0.4	0.0	29.4	0.0	0.0
5-Dec	64.7	30.0	64.7	0.4	7.1	30.0	0.1	0.0
6-Dec	69.4	34.6	69.4	0.5	0.0	34.6	0.2	0.0
7-Dec	48.2	31.1	48.2	0.4	0.0	31.1	0.2	0.0
8-Dec	63.4	27.4	63.4	0.4	2.5	27.4	0.2	0.0
9-Dec	67.0	31.4	67.0	0.2	0.0	31.4	0.2	0.0
10-Dec	48.0	36.7	48.0	0.3	0.0	36.7	0.2	0.0
11-Dec	48.3	25.4	48.3	0.4	22.7	25.4	0.2	0.0
12-Dec	62.9	30.3	62.9	0.3	2.5	30.3	0.2	0.0
13-Dec	63.1	31.9	63.1	0.4	0.0	31.9	0.0	0.0
14-Dec	49.2	32.8	49.2	0.4	1.4	32.8	0.2	0.0
15-Dec	67.7	26.2	67.7	0.4	0.0	26.2	0.2	8.5
16-Dec	56.1	29.1	56.1	0.4	0.0	29.1	0.2	0.0
17-Dec	61.4	34.2	61.4	0.4	0.0	34.2	0.2	0.0
18-Dec	52.1	36.3	52.1	0.4	0.0	36.3	0.2	0.0
19-Dec	69.1	30.6	69.1	0.4	0.0	30.6	0.2	0.0
20-Dec	64.7	27.7	64.7	0.4	0.0	27.7	0.2	5.7
21-Dec	55.3	34.4	55.3	0.5	0.0	34.4	0.2	0.0
22-Dec	43.0	32.4	43.0	0.5	0.0	32.4	0.2	0.0
23-Dec	61.8	34.2	61.8	0.5	0.0	34.2	0.0	0.0
24-Dec	57.7	27.1	57.7	0.5	0.0	27.1	0.3	0.0
25-Dec	59.1	26.9	59.1	0.5	0.0	26.9	0.2	0.0
26-Dec	68.7	27.1	68.7	0.5	0.0	27.1	0.2	0.0
27-Dec	32.0	31.4	32.0	0.4	0.0	31.4	0.2	0.0
28-Dec	57.9	28.1	57.9	0.5	0.0	28.1	0.2	0.0
29-Dec	43.3	35.4	43.3	0.5	0.0	35.4	0.2	0.0
30-Dec	59.4	30.8	59.4	0.5	0.0	30.8	0.2	0.0
31-Dec	74.1	30.8	74.1	0.5	0.0	30.8	0.2	0.0
Total	1766.8	952.3	1766.8	13.3	36.2	952.3	5.5	14.2

Notes:

WWTP - Waste Water Treatment Plant

PWSP - Polishing Waste Stabilization Pond

Volumes estimated by senior WWTP operator through vacuum truck schedule for which lift stations were taken to PWSP