



November 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 – October 2016

The following is the monthly report for October 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 October 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 October 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 October 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 the undersigned, William Bowden or Jim Millard at 416-364-8820 ext 6016.

Regards,

Reviewed by:

William Bowden
Environmental Superintendent

Jim Millard
Environmental Manager

Attach: Tables 1, 2 and 3

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

Table 1: Monitoring Program Water Sampling Summary for October 2016

Monitoring Program Station	Sampling Date	Lab ID#	Comment
Milne Port			
MP-01 (Sewage Treatment Facility)	4-Oct-16	L1839619-1	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))	4-Oct-16	L1839623-1	Internal evaluation sample of contained water. No treatment or discharge occurred
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 October
MP-C-B01 (Downstream of Construction Area)	N/A	N/A	No flow during the month of October
MP-C-D (Downstream of Construction Area)	N/A	N/A	No flow during the month of October
MP-C-E (Downstream of Construction Area)	N/A	N/A	No flow during the month of October
MP-C-F (Downstream of Construction Area)	N/A	N/A	No flow during the month of October
MP-C-H (Downstream of Construction Area)	N/A	N/A	No flow during the month of October
MP-Q1-01 (Downstream of Q1 Quarry)	N/A	N/A	No flow during the month of October
MP-Q1-02 (Downstream of Q1 Quarry)	N/A	N/A	No flow during the month of October

Monitoring Program Station	Sampling Date	Lab ID#	Comment
Mary River Mine Site			
MS-01 (Sewage Treatment Facility)	4-Oct-16	L1839627-1	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 October
MS-MRY-10 (Weathered Ore Bulk Sample Stockpile)	N/A	N/A	No flow during the month of October
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 October
MS-MRY-13B (Downstream Non-Hazardous Landfill)	N/A	N/A	No flow during the month of October
MS-C-A (Downstream of Construction and Borrow Areas)	N/A	N/A	No flow during the month of October
MS-C-B (Downstream of Construction and Borrow Areas)	N/A	N/A	No flow during the month of October
MS-C-C (Downstream of Construction and Borrow Areas)	N/A	N/A	No flow during the month of October
MS-C-D (Downstream of Construction and Borrow Areas)	N/A	N/A	No flow during the month of October
MS-C-E (Downstream of Construction and Borrow Areas)	N/A	N/A	No flow during the month of October
MS-C-F (Downstream of Construction and Borrow Areas)	N/A	N/A	No flow during the month of October
MS-C-G (Downstream of Construction and Borrow Areas)	N/A	N/A	No flow during the month of October

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 October
MQ-C-A (Downstream of QMR2 Quarry)	N/A	N/A	No flow during the month of October
MQ-C-B (Downstream of QMR2 Quarry)	N/A	N/A	No flow during the month of October
MQ-C-D (Downstream of QMR2 Quarry)	N/A	N/A	No flow during the month of October
MQ-C-E (Downstream of D1Q2 Quarry)	N/A	N/A	No flow during the month of October
Steensby Port			
Steensby Exploration Camp is presently not active.			

Table 2. Water Chemistry Results - October 2016						
Sample Number	Sample ID	Date Sampled	Parameter Name	Result	Units	Lab
MILNE PORT SITE						
L1839619-1	MP-01	4-Oct-16	pH	7.45	pH units	ALS
L1839619-1	MP-01	4-Oct-16	Total Suspended Solids	<2.0	mg/L	ALS
L1839619-1	MP-01	4-Oct-16	Ammonia, Total (as N)	0.069	mg/L	ALS
L1839619-1	MP-01	4-Oct-16	Total Phosphorus	11.4	mg/L	ALS
L1839619-1	MP-01	4-Oct-16	Fecal Coliforms	0	CFU/100mL	ALS
L1839619-1	MP-01	4-Oct-16	Biochemical Oxygen Demand	<2.0	mg/L	ALS
L1839619-1	MP-01	4-Oct-16	Oil & Grease - Total	<2.0	mg/L	ALS
L1839623-1	MP-05 (See Note 1)	4-Oct-16	Hardness (as CaCO3)	308	mg/L	ALS
L1839623-1	MP-05	4-Oct-16	pH	8.15	pH units	ALS
L1839623-1	MP-05	4-Oct-16	Total Suspended Solids	3.4	mg/L	ALS
L1839623-1	MP-05	4-Oct-16	Total Dissolved Solids	642	mg/L	ALS
L1839623-1	MP-05	4-Oct-16	Turbidity	8.03	NTU	ALS
L1839623-1	MP-05	4-Oct-16	Alkalinity, Total (as CaCO3)	207	mg/L	ALS
L1839623-1	MP-05	4-Oct-16	Ammonia, Total (as N)	0.074	mg/L	ALS
L1839623-1	MP-05	4-Oct-16	Chloride (Cl)	203	mg/L	ALS
L1839623-1	MP-05	4-Oct-16	Fluoride (F)	0.265	mg/L	ALS
L1839623-1	MP-05	4-Oct-16	Nitrate (as N)	6.48	mg/L	ALS
L1839623-1	MP-05	4-Oct-16	Total Kjeldahl Nitrogen	1	mg/L	ALS
L1839623-1	MP-05	4-Oct-16	Phosphorus, Total	0.011	mg/L	ALS
L1839623-1	MP-05	4-Oct-16	Sulfate (SO4)	56	mg/L	ALS
L1839623-1	MP-05	4-Oct-16	Dissolved Organic Carbon	5.6	mg/L	ALS
L1839623-1	MP-05	4-Oct-16	Total Organic Carbon	5.7	mg/L	ALS
L1839623-1	MP-05	4-Oct-16	Aluminum (Al)-Total	0.141	mg/L	ALS
L1839623-1	MP-05	4-Oct-16	Arsenic (As)-Total	0.00032	mg/L	ALS
L1839623-1	MP-05	4-Oct-16	Cadmium (Cd)-Total	<0.000010	mg/L	ALS
L1839623-1	MP-05	4-Oct-16	Calcium (Ca)-Total	64.1	mg/L	ALS
L1839623-1	MP-05	4-Oct-16	Copper (Cu)-Total	0.0021	mg/L	ALS
L1839623-1	MP-05	4-Oct-16	Iron (Fe)-Total	0.224	mg/L	ALS
L1839623-1	MP-05	4-Oct-16	Lead (Pb)-Total	0.0002	mg/L	ALS
L1839623-1	MP-05	4-Oct-16	Magnesium (Mg)-Total	38.1	mg/L	ALS
L1839623-1	MP-05	4-Oct-16	Manganese (Mn)-Total	0.0375	mg/L	ALS
L1839623-1	MP-05	4-Oct-16	Mercury (Hg)-Total	<0.000010	mg/L	ALS
L1839623-1	MP-05	4-Oct-16	Molybdenum (Mo)-Total	0.00366	mg/L	ALS
L1839623-1	MP-05	4-Oct-16	Nickel (Ni)-Total	0.00111	mg/L	ALS
L1839623-1	MP-05	4-Oct-16	Potassium (K)-Total	9.8	mg/L	ALS
L1839623-1	MP-05	4-Oct-16	Selenium (Se)-Total	0.000172	mg/L	ALS
L1839623-1	MP-05	4-Oct-16	Sodium (Na)-Total	122	mg/L	ALS
L1839623-1	MP-05	4-Oct-16	Thallium (Tl)-Total	0.00001	mg/L	ALS
L1839623-1	MP-05	4-Oct-16	Uranium (U)-Total	0.0167	mg/L	ALS
L1839623-1	MP-05	4-Oct-16	Zinc (Zn)-Total	0.019	mg/L	ALS
L1839623-1	MP-05	4-Oct-16	Aluminum (Al)-Dissolved	0.0132	mg/L	ALS
L1839623-1	MP-05	4-Oct-16	Arsenic (As)-Dissolved	0.00026	mg/L	ALS
L1839623-1	MP-05	4-Oct-16	Cadmium (Cd)-Dissolved	<0.000010	mg/L	ALS
L1839623-1	MP-05	4-Oct-16	Calcium (Ca)-Dissolved	64.5	mg/L	ALS
L1839623-1	MP-05	4-Oct-16	Copper (Cu)-Dissolved	0.00165	mg/L	ALS
L1839623-1	MP-05	4-Oct-16	Iron (Fe)-Dissolved	<0.010	mg/L	ALS
L1839623-1	MP-05	4-Oct-16	Lead (Pb)-Dissolved	<0.000050	mg/L	ALS
L1839623-1	MP-05	4-Oct-16	Magnesium (Mg)-Dissolved	35.5	mg/L	ALS
L1839623-1	MP-05	4-Oct-16	Manganese (Mn)-Dissolved	0.0337	mg/L	ALS
L1839623-1	MP-05	4-Oct-16	Mercury (Hg)-Dissolved	<0.000010	mg/L	ALS
L1839623-1	MP-05	4-Oct-16	Molybdenum (Mo)-Dissolved	0.00313	mg/L	ALS
L1839623-1	MP-05	4-Oct-16	Nickel (Ni)-Dissolved	0.00084	mg/L	ALS
L1839623-1	MP-05	4-Oct-16	Potassium (K)-Dissolved	9.77	mg/L	ALS
L1839623-1	MP-05	4-Oct-16	Selenium (Se)-Dissolved	0.000153	mg/L	ALS
L1839623-1	MP-05	4-Oct-16	Sodium (Na)-Dissolved	114	mg/L	ALS
L1839623-1	MP-05	4-Oct-16	Thallium (Tl)-Dissolved	<0.000010	mg/L	ALS
L1839623-1	MP-05	4-Oct-16	Uranium (U)-Dissolved	0.0152	mg/L	ALS
L1839623-1	MP-05	4-Oct-16	Zinc (Zn)-Dissolved	0.0149	mg/L	ALS
MARY RIVER MINE SITE						
L1839627-1	MS-01	4-Oct-16	pH	7.73	pH units	ALS
L1839627-1	MS-01	4-Oct-16	Total Suspended Solids	2.5	mg/L	ALS
L1839627-1	MS-01	4-Oct-16	Ammonia, Total (as N)	0.634	mg/L	ALS
L1839627-1	MS-01	4-Oct-16	Total Phosphorus	1.2	mg/L	ALS
L1839627-1	MS-01	4-Oct-16	Fecal Coliforms	0	mg/L	ALS
L1839627-1	MS-01	4-Oct-16	Biochemical Oxygen Demand	2	mg/L	ALS
L1839627-1	MS-01	4-Oct-16	Oil & Grease - Total	<2.0	mg/L	ALS
Notes:						
Note 1: Internal evaluation sample of MP-05. No treatment or discharge occurred.						

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

DATE	Camp Lake Freshwater Use (Mine Site Camp) - Daily Potable Water (m³) MS-MRY-1	Camp Lake Daily Freshwater Use for Other Purposes - (m³) MS-MRY-1	Water Use for Dust Suppression from Authorized Sources	Km 32 Lake Milne Port Camp Daily Potable Water (m³) MP-MRY-3	Km 32 Lake Milne Port Camp Fresh Water Use for Other Purposes (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 Mine Site WWTP 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	Treated Oily Water (m³) from Exploration Camp Bulk Fuel Storage Facility to Tundra (MS-MRY-6)	Treated Oily Water (m³) from Milne Port Landfarm Facility to Tundra (MP-04)	Effluent Discharge (m³) from Mine Site Waste Rock Stockpile Pond (MS-08)	Effluent Discharge (m³) from Mine Site Ore Stockpile Pond (MS-06)	Effluent Discharge from Milne Port East Sedimentation Pond (MP-05)	Effluent Discharge from Milne Port West Sedimentation Pond (MP-06)
1/Oct	54.1	0.0	0.0	87.1	0.0	54.1	0.21	0.0	87.1	0.17	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2/Oct	53.8	0.0	0.0	69.7	0.0	53.8	0.25	0.0	69.7	0.17	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3/Oct	54.9	0.0	0.0	69.7	3.0	54.9	0.32	0.0	69.7	0.17	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4/Oct	48.6	0.0	0.0	52.2	2.5	48.6	0.32	0.0	52.2	0.17	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5/Oct	57.5	0.0	0.0	69.7	2.0	57.5	0.28	0.0	69.7	0.17	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6/Oct	55.3	0.0	0.0	52.2	0.0	55.3	0.31	0.0	52.2	0.17	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7/Oct	49.2	0.0	0.0	52.2	0.0	49.2	0.29	0.0	52.2	0.34	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8/Oct	43.3	0.0	0.0	17.4	0.0	43.3	0.34	0.0	17.4	0.34	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9/Oct	50.1	0.0	0.0	34.8	0.0	50.1	0.37	0.0	34.8	0.34	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10/Oct	48.1	0.0	0.0	34.8	0.0	48.1	0.37	0.0	34.8	0.38	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11/Oct	44.3	0.0	0.0	52.2	0.0	44.3	0.35	0.0	52.2	0.34	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12/Oct	52.7	0.0	0.0	17.4	0.0	52.7	0.21	2.0	17.4	0.32	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13/Oct	50.2	0.0	0.0	34.8	0.0	50.2	0.38	0.0	34.8	0.32	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14/Oct	68.1	0.0	0.0	34.8	0.0	68.1	0.21	3.0	34.8	0.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15/Oct	51.2	0.0	0.0	17.4	0.0	51.2	0.21	0.0	17.4	0.26	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16/Oct	67.1	0.0	0.0	17.4	0.0	67.1	0.00	3.0	17.4	0.32	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17/Oct	49.7	0.0	0.0	34.8	0.0	49.7	0.00	3.0	34.8	0.17	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18/Oct	67.7	0.0	0.0	69.7	0.0	67.7	0.21	0.0	69.7	0.17	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19/Oct	48.9	0.0	0.0	34.8	0.0	48.9	0.00	2.0	34.8	0.32	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20/Oct	58.1	0.0	0.0	34.8	0.0	58.1	0.00	1.6	34.8	0.21	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21/Oct	46.0	0.0	0.0	34.8	0.0	46.0	0.00	1.5	34.8	0.21	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22/Oct	76.3	0.0	0.0	69.7	0.0	76.3	0.00	3.0	69.7	0.32	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23/Oct	49.8	0.0	0.0	17.4	0.0	49.8	0.00	3.0	17.4	0.32	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24/Oct	63.0	0.0	0.0	34.8	0.0	63.0	0.00	3.0	34.8	0.43	5.7	0.0	0.0	0.0	0.0	0.0	0.0
25/Oct	65.0	0.0	0.0	0.0	0.0	65.0	0.00	4.0	0.0	0.43	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26/Oct	55.4	0.0	0.0	17.4	0.0	55.4	0.00	3.0	17.4	0.36	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27/Oct	68.4	0.0	0.0	34.8	0.0	68.4	0.00	1.5	34.8	0.34	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28/Oct	85.0	0.0	0.0	52.2	0.0	85.0	0.00	2.0	52.2	0.34	0.0	0.0	0.0	0.0	0.0	0.0	0.0
29/Oct	46.0	0.0	0.0	17.4	0.0	46.0	0.42	0.0	17.4	0.17	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30/Oct	60.8	0.0	0.0	52.2	0.0	60.8	0.46	2.7	52.2	0.17	1.4	0.0	0.0	0.0	0.0	0.0	0.0
31/Oct	62.2	0.0	0.0	17.4	0.0	62.2	0.46	2.0	17.4	0.34	1.4	0.0	0.0	0.0	0.0	0.0	0.0
Total	1751	0	0	1236	7	1751	5.95	40	1236	9	9	0	0	0	0	0	0

Notes:
WWTP - Waste Water Treatment Plant
PWSP - Polishing Waste Stabilization Pond