



April 30, 2018

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 – March 2018

The following is the monthly report for March 2018 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 March 2018, 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/laboratory 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 March 2018.

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 March 2018.

We trust that the information provided in this monthly report is acceptable and should you have any questions regarding this report please contact myself, Connor Devereaux (x6010) or Timothy Ray Sewell at 416 364 8820 x6054.

Regards,

A handwritten signature in cursive script, appearing to read "Bill Bowden".

William Bowden
Environmental Superintendent

Reviewed by:

Timothy Ray Sewell
Head of Health, Safety and Environment

Attach: Tables 1, 2 and 3

Cc: Erik Allain, Jonathon Mesher, Ian Parsons (INAC); William Napier, Megan Lord-Hoyle, Timothy Ray Sewell, Sylvain Proulx, Gerald Rogers, Francois Gaudrau, Connor Devereaux (Baffinland); Stephen Bathory (QIA);

Table 1: Monitoring Program Water Sampling Summary for March 2018

Monitoring Program Station	Sampling Date	Lab ID#	Comment
Milne Port			
MP-01 (Sewage Treatment Facility)	March 13, 2018	L2068010-1	Discharge volume reported daily
MP-0103 (Travel Blank of MP-01)	March 13, 2018	L2068010-3	
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 month of March
MP-C-B01 (Downstream of Construction Area)	N/A	N/A	No flow during month of March
MP-C-D (Downstream of Construction Area)	N/A	N/A	No flow, location is being retired due to lack of flow.
MP-C-E (Downstream of Construction Area)	N/A	N/A	No flow, location is being retired due to lack of flow.
MP-C-F (Downstream of Construction Area)	N/A	N/A	No flow during month of March
MP-C-H (Downstream of Construction Area)	N/A	N/A	No flow during month of March
MP-Q1-01 (Downstream of Q1 Quarry)	N/A	N/A	No flow during month of March
MP-Q1-02 (Downstream of Q1 Quarry)	N/A	N/A	No flow during month of March

Mary River Mine Site			
MS-01 (Sewage Treatment Facility)	March 20, 2018	L2070900-1	Discharge volume reported daily
MS-01b (Sewage Treatment Facility)	N/A	N/A	Discharge volume reported daily
MS-MRY-1 (Freshwater Intake Camp Lake)	N/A	N/A	Withdrawal volume reported daily
MS-MRY-04a	N/A	N/A	
MS-MRY-04b	N/A	N/A	
MS-MRY-04c	N/A	N/A	
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 month of March
MS-MRY-10 (Weathered Ore Bulk Sample Stockpile)	N/A	N/A	No flow during month of March
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 month of March
MS-MRY-13B (Downstream Non-Hazardous Landfill)	N/A	N/A	No flow during month of March
MS-C-A (Downstream of Construction and Borrow Areas)	N/A	N/A	No flow during month of March
MS-C-B (Downstream of Construction and Borrow Areas)	N/A	N/A	No flow during month of March
MS-C-C (Downstream of Construction and Borrow Areas)	N/A	N/A	No flow during month of March
MS-C-D (Downstream of Construction and Borrow Areas)	N/A	N/A	No flow during month of March
MS-C-E (Downstream of Construction and Borrow Areas)	N/A	N/A	No flow during month of March
MS-C-F (Downstream of Construction and Borrow Areas)	N/A	N/A	No flow during month of March

MS-C-G (Downstream of Construction and Borrow Areas)	N/A	N/A	No flow during month of March
MS-C-H (Downstream of Construction and Borrow Areas)	N/A	N/A	No flow during month of March
MQ-C-A (Downstream of QMR2 Quarry)	N/A	N/A	No flow during month of March
MQ-C-B (Downstream of QMR2 Quarry)	N/A	N/A	No flow during month of March
MQ-C-D (Downstream of QMR2 Quarry)	N/A	N/A	No flow during month of March
Steensby Port			
Steensby Exploration Camp is presently not active.	N/A	N/A	

TABLE 2 - WATER QUALITY RESULTS FOR WATER LICENCE MONITORING LOCATION - MP-01

Analyte	Sample ID			MP-01	MP-0103
	ALS Laboratory Sample ID			L2068010-1	L2068010-3
	Sample Date & Time			3/13/2018 1:45:00 PM	3/13/2018 1:45:00 PM
	QA/QC Sample Type			N/A	Travel Blank
	Units	LOR	Water Licence Criteria ¹		
pH	pH units	0.1	6.0 - 9.5	7.49	6.15
Total Suspended Solids	mg/L	2	<120	3.1	<2.0
Alkalinity, Total (as CaCO3)	mg/L	10	-	73	<10
Ammonia, Total (as N)	mg/L	0.02	-	0.115	<0.020
Total Kjeldahl Nitrogen	mg/L	0.15	-	2.29	<0.15
Phosphorus, Total	mg/L	0.003	-	9.99	0.0062
Fecal Coliforms	CFU/100mL	0	10,000	6	0
BOD	mg/L	2	100	<2.0	<2.0
COD	mg/L	10	-	40	<10
Oil and Grease, Total	mg/L	2	No Visible Sheen	<2.0	<2.0

Notes:

Grey and bold highlight indicate results that exceeded the applicable water quality criteria.

¹Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 5: Effluent Quality Discharge Limits for Sewage Treatment Facilities to the Ocean

TABLE 2 - WATER QUALITY RESULTS FOR WATER LICENCE MONITORING LOCATION - MS-01

Analyte	Sample ID			MS-01
	ALS Laboratory Sample ID			L2070900-1
	Sample Date & Time			3/20/2018 15:00
	QA/QC Sample Type			N/A
	Units	LOR	Water Licence Criteria ¹	
pH	pH units	0.1	6.0 - 9.5	7.75
Total Suspended Solids	mg/L	2	35	<2.0
Alkalinity, Total (as CaCO ₃)	mg/L	10	-	84
Ammonia, Total (as N)	mg/L	0.02	4	0.397
Total Kjeldahl Nitrogen	mg/L	0.15	-	1.9
Phosphorus, Total	mg/L	0.003	4	1.3
Fecal Coliforms	CFU/100mL	0	1,000	6
BOD	mg/L	2	30	<2.0
COD	mg/L	10	-	22
Oil and Grease, Total	mg/L	2	No Visible Sheen	<2.0

Notes:

Grey and bold highlight indicate results that exceeded the applicable water quality criteria.

¹Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 4: Effluent Quality Discharge Limits for Sewage Treatment Facilities

Table 3: Flow and Volume Measurements-Part I Item 11 - March 2018

DATE	Camp Lake Freshwater Use (Mine Site Camp) - Daily Potable Water (m³) MS-MRY-1	Treated Sewage Effluent (m³) from MS-01 to Discharge Location #1	Treated Sewage Effluent (m³) from MS-01b to PWSP at Mine Site MS-MRY-4b	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	Sewage Sludge Removed (m³) from Lift Stations to PWSP at Mine Site - MS- MRY-4a	Km 32 Lake Milne Port Camp Daily Potable Water (m³) MP-MRY-3	Treated Sewage Effluent (m³) from MP-01 to Milne Port	Sewage Sludge Removed (m³) from Milne Port WWTP to Incinerator	Sewage Sludge Removed (m³) from Milne Port WWTP to PWSP at Milne Port - MP-01a
1-Mar-18	57.1	57.1	0.0	0.0	5.0	12.4	41.4	41.4	0.3	0.0
2-Mar-18	72.3	72.3	0.0	0.0	0.0	48.2	29.3	29.3	0.3	0.0
3-Mar-18	144.2	144.2	0.0	0.0	0.0	65.3	40.0	40.0	0.3	0.0
4-Mar-18	84.1	84.1	0.0	0.2	0.0	7.8	41.1	41.1	0.3	0.0
5-Mar-18	94.5	94.5	0.0	0.4	0.0	17.1	34.5	34.5	0.2	0.0
6-Mar-18	89.6	89.6	0.0	0.3	0.0	7.8	33.0	33.0	0.2	0.0
7-Mar-18	70.2	70.2	0.0	0.0	0.0	6.2	41.9	41.9	0.3	0.0
8-Mar-18	73.0	73.0	0.0	0.0	0.0	24.9	42.8	42.8	0.3	0.0
9-Mar-18	69.6	69.6	0.0	0.0	0.0	24.9	22.5	22.5	0.3	0.0
10-Mar-18	89.4	89.4	0.0	0.2	0.0	12.4	41.2	41.2	0.2	0.0
11-Mar-18	103.8	103.8	0.0	0.0	0.0	0.0	37.1	37.1	0.2	0.0
12-Mar-18	76.3	76.3	0.0	0.3	0.0	21.8	33.0	33.0	0.3	0.0
13-Mar-18	116.8	116.8	0.0	0.5	0.0	37.3	36.9	36.9	0.2	0.0
14-Mar-18	87.4	87.4	0.0	0.6	0.0	0.0	43.2	43.2	0.0	0.0
15-Mar-18	119.6	119.6	0.0	0.6	0.0	0.0	34.4	34.4	0.0	2.5
16-Mar-18	72.2	72.2	0.0	0.6	0.0	0.0	35.4	35.4	0.3	0.0
17-Mar-18	115.0	115.0	0.0	0.6	0.0	0.0	38.5	38.5	0.3	0.0
18-Mar-18	84.4	84.4	0.0	0.6	0.0	0.0	34.6	34.6	0.3	0.0
19-Mar-18	116.4	116.4	0.0	0.6	0.0	0.0	48.1	48.1	0.3	0.0
20-Mar-18	131.8	131.8	0.0	0.6	0.0	0.0	46.6	46.6	0.3	0.0
21-Mar-18	122.9	122.9	0.0	0.6	0.0	0.0	41.6	41.6	0.3	0.0
22-Mar-18	64.1	64.1	0.0	0.5	0.0	0.0	39.0	39.0	0.2	0.0
23-Mar-18	97.8	97.8	0.0	0.5	0.0	0.0	32.7	32.7	0.3	0.0
24-Mar-18	98.0	98.0	0.0	0.5	0.0	0.0	33.0	33.0	0.3	0.0
25-Mar-18	119.1	119.1	0.0	0.5	0.0	0.0	39.6	39.6	0.2	0.0
26-Mar-18	26.6	26.6	0.0	0.5	0.0	0.0	41.6	41.6	0.3	0.0
27-Mar-18	97.0	97.0	0.0	0.5	0.0	0.0	34.0	34.0	0.2	0.0
28-Mar-18	84.1	84.1	0.0	0.2	0.0	0.0	46.1	46.1	0.0	0.0
29-Mar-18	101.5	101.5	0.0	0.3	0.0	0.0	44.0	44.0	0.3	0.0
30-Mar-18	85.7	85.7	0.0	0.0	0.0	0.0	36.7	36.7	0.3	0.0
31-Mar-18	77.8	77.8	15.0	0.0	0.0	0.0	37.1	37.1	0.3	0.0
Total	2842.3	2842.3	15.0	10.1	5.0	286.2	1180.9	1180.9	8.1	2.5

Notes:

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