



March 30, 2016

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

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

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

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

“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 February 2016, water samples were collected at MP-01 and MS-01 as part of the Water Licence Monitoring Program.

Due to frozen conditions, samples were not collected downstream of construction, quarry, and waste storage/discharge monitoring locations at the Mine Site (MS-C and MQ-C sites) and Milne Port (MP-C and MP-Q1 sites) as part of the Aquatics Effects and Monitoring Program under Schedule I of Water Licence 2AM-MRY1325.

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 water purposes and the volumes of treated sewage effluent and sewage sludge discharged at Mary River Mine Site and Milne Port Camp are presented in 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 February 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 February 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, Allan Knight or Jim Millard at 416-364-8820 ext 6016.

Regards,

A handwritten signature in black ink, appearing to read 'Allan Knight'.

Allan Knight, B.Sc.
Environmental Superintendent

Attach: Tables 1, 2 and 3

Cc: Justin Hack, Erik Allain (AANDC)

Table 1: Monitoring Program Water Sampling Summary for February 2016

Monitoring Program Station	Sampling Date	Lab ID#	Comment
Milne Port			
MP-01 (Sewage Treatment Facility)	February 23, 2016	L1737433-1	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	Withdrawal volume Reported Daily
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 Facility)	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 Quarry Area)	N/A	N/A	No flow, frozen conditions
MP-C-B01 (Downstream of Quarry Area)	N/A	N/A	No flow, frozen conditions
MP-C-F (Downstream of Construction Area)	N/A	N/A	No flow, frozen conditions
MP-C-H (Downstream of Construction Area)	N/A	N/A	No flow, frozen conditions
MP-Q1-01 (Downstream of Q1 Quarry)	N/A	N/A	No flow, frozen conditions
MP-Q1-02 (Downstream of Q1 Quarry)	N/A	N/A	No flow, frozen conditions
Mary River Mine Site			
MS-01 (Sewage Treatment Facility)	February 23, 2016	L1737431-1	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-MRY-04B (Exploration Camp PWSP #2)	N/A	N/A	Volume Reported Daily during discharge
MS-03 (Milne Site Bulk Fuel Storage Facility Stormwater)	N/A	N/A	Volume Reported Daily during discharge
MS-08 (Temporary Mine Waste Rock Stockpile pond)	N/A	N/A	Volume Reported Daily during discharge

Monitoring Program Station	Sampling Date	Lab ID#	Comment
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 discharge observed
MS-MRY-10 (Weathered Ore Bulk Sample Stockpile)	N/A	N/A	No discharge observed
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, frozen conditions
MS-MRY-13B (Downstream Non-Hazardous Landfill)	N/A	N/A	No flow, frozen conditions
MS-C-A (Downstream of Construction and Borrow Areas)	N/A	N/A	No flow, frozen conditions
MS-C-B (Downstream of Construction and Borrow Areas)	N/A	N/A	No flow, frozen conditions
MS-C-C (Downstream of Construction and Borrow Areas)	N/A	N/A	No flow, frozen conditions
MS-C-D (Downstream of Construction and Borrow Areas)	N/A	N/A	No flow, frozen conditions
MS-C-E (Downstream of Construction and Borrow Areas)	N/A	N/A	No flow, frozen conditions
MS-C-F (Downstream of Construction and Borrow Areas)	N/A	N/A	No flow, frozen conditions
MS-C-G (Downstream of Construction and Borrow Areas)	N/A	N/A	No flow, frozen conditions
MS-C-H (Downstream of Construction and Borrow Areas)	N/A	N/A	No flow, frozen conditions
MQ-C-A (Downstream of QMR2 Quarry)	N/A	N/A	No flow, frozen conditions
MQ-C-B (Downstream of QMR2 Quarry)	N/A	N/A	No flow, frozen conditions
MQ-C-D (Downstream of QMR2 Quarry)	N/A	N/A	No flow, frozen conditions
MQ-C-E (Downstream of D1Q2 Quarry)	N/A	N/A	No flow, frozen conditions
Steensby Port			
Steensby Exploration Camp is presently not active.			

Table 2. Water Chemistry Results - February 2016

Sample Number	Sample ID	Date Sampled	Parameter Name	Result	Units	Lab
MILNE PORT SITE						
L1737433-1	MP-01	23-Feb-16	pH	7.53	pH units	ALS
L1737433-1	MP-01	23-Feb-16	Total Suspended Solids	3	mg/L	ALS
L1737433-1	MP-01	23-Feb-16	N-NH3 (Ammonia)	<0.020	mg/L	ALS
L1737433-1	MP-01	23-Feb-16	Total Kjeldahl Nitrogen	<0.15	mg/L	ALS
L1737433-1	MP-01	23-Feb-16	Total Phosphorus	13.1	mg/L	ALS
L1737433-1	MP-01	23-Feb-16	Faecal Coliforms	0	CFU/100 mL	ALS
L1737433-1	MP-01	23-Feb-16	Biochemical Oxygen Demand	<2.0	mg/L	ALS
L1737433-1	MP-01	23-Feb-16	Oil & Grease - Total	<2.0	mg/L	ALS
MARY RIVER MINE SITE						
L1737431-1	MS-01	23-Feb-16	pH	7.87	pH units	ALS
L1737431-1	MS-01	23-Feb-16	Total Suspended Solids	<2.0	mg/L	ALS
L1737431-1	MS-01	23-Feb-16	N-NH3 (Ammonia)	0.148	mg/L	ALS
L1737431-1	MS-01	23-Feb-16	Total Kjeldahl Nitrogen	<0.15	mg/L	ALS
L1737431-1	MS-01	23-Feb-16	Total Phosphorus	0.303	mg/L	ALS
L1737431-1	MS-01	23-Feb-16	Faecal Coliforms	1050	CFU/100 mL	ALS
L1737431-1	MS-01	23-Feb-16	Biochemical Oxygen Demand	<2.0	mg/L	ALS
L1737431-1	MS-01	23-Feb-16	Oil & Grease - Total	<2.0	mg/L	ALS

Bold and yellow highlight indicate exceedance of the Water Licence water quality criteria.

* Exceedance of Water Licence;

On February 23, the Faecal Coliforms for a sample of MS-01 was 1050 CFU/100 mL. The off spec condition was due to a very temporary upset condition and/or possibly a problem during sampling resulting in a sample bias. The result from a subsequent sample taken on March 8 was 1 CFU/100 mL.

Table 3: Flow and Volume Measurements-Part I Item 11 - February 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 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
1-Feb	56.8	34.8	56.8	0.3	0.0	34.8	0.0	0.0
2-Feb	45.4	34.8	45.4	0.3	0.0	34.8	0.0	0.0
3-Feb	46.0	34.8	46.0	0.3	0.0	34.8	0.0	0.0
4-Feb	49.1	17.4	49.1	0.3	0.0	17.4	0.0	5.7
5-Feb	58.7	17.4	58.7	0.4	0.0	17.4	0.2	0.0
6-Feb	33.2	17.4	33.2	0.4	0.0	17.4	0.1	0.0
7-Feb	52.4	52.2	52.4	0.3	0.0	52.2	0.1	0.0
8-Feb	68.1	17.4	68.1	0.2	1.0	17.4	0.0	0.0
9-Feb	62.5	17.4	62.5	0.3	0.0	17.4	0.0	0.0
10-Feb	69.3	34.8	69.3	0.3	0.0	34.8	0.0	0.0
11-Feb	47.7	34.8	47.7	0.3	0.0	34.8	0.0	0.0
12-Feb	58.0	34.8	58.0	0.4	0.0	34.8	0.5	0.0
13-Feb	55.5	34.8	55.5	0.4	0.0	34.8	0.0	0.0
14-Feb	51.5	34.8	51.5	0.1	1.4	34.8	0.5	0.0
15-Feb	68.8	17.4	68.8	0.4	1.8	17.4	0.0	0.0
16-Feb	40.9	34.8	40.9	0.1	0.0	34.8	0.0	0.0
17-Feb	67.8	17.4	67.8	0.1	0.0	17.4	0.1	0.0
18-Feb	58.2	34.8	58.2	0.3	0.0	34.8	0.1	0.0
19-Feb	62.4	17.4	62.4	0.0	3.0	17.4	0.2	0.0
20-Feb	34.9	0.0	34.9	0.3	0.0	0.0	0.2	0.0
21-Feb	50.6	0.0	50.6	0.0	2.0	0.0	0.2	0.0
22-Feb	70.1	34.8	70.1	0.3	0.0	34.8	0.2	0.0
23-Feb	38.9	17.4	38.9	0.3	0.0	17.4	0.2	0.0
24-Feb	70.8	17.4	70.8	0.4	0.0	17.4	0.1	0.0
25-Feb	62.9	17.4	62.9	0.4	0.0	17.4	0.2	0.0
26-Feb	51.0	17.4	51.0	0.4	0.0	17.4	0.2	0.0
27-Feb	50.7	34.8	50.7	0.3	0.0	34.8	0.2	0.0
28-Feb	74.5	52.2	74.5	0.3	0.0	52.2	0.2	0.0
29-Feb	46.2	0.0	46.2	0.3	0.0	0.0	0.2	0.0
Total	1602.8	731.3	1602.8	8.3	9.2	731.3	3.5	5.7

Notes:

WWTP - Waste Water Treatment Plant

PWSP - Polishing Waste Stabilization Pond