



November 27, 2015

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 – October 2015

The following is the monthly report for October 2015 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 October 2015, 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 October 2015.

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 2015. 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 or Trevor Myers at 647-253-0596 ext: 6010 or Jim Millard at ext: 6016.

Regards,

Reviewed by:

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

Allan Knight, B.Sc.
Environmental Superintendent

James Millard, M.Sc., P.Geo
Environmental Manager

Attach: Tables 1, 2 and 3

Cc: Justin Hack, Erik Allain (AANDC)

Table 1: Monitoring Program Water Sampling Summary for October 2015

| Monitoring Program Station | Sampling Date | Lab ID# | Comment |
|---|----------------------|----------------|---|
| Milne Port | | | |
| MP-01 (Sewage Treatment Facility) | October 7, 2015 | L1684211-1 | 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) | October 7, 2015 | L1684193-1 | 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 - October 2015

| Sample Number | Sample ID | Date Sampled | Parameter Name | Result | Units | Lab |
|-----------------------------|-----------|--------------|---------------------------|--------|------------|-----|
| MILNE PORT SITE | | | | | | |
| L1684211-1 | MP-01 | 7-Oct-15 | pH | 7.42 | pH units | ALS |
| L1684211-1 | MP-01 | 7-Oct-15 | Total Suspended Solids | <2.0 | mg/L | ALS |
| L1684211-1 | MP-01 | 7-Oct-15 | N-NH3 (Ammonia) | 0.068 | mg/L | ALS |
| L1684211-1 | MP-01 | 7-Oct-15 | Total Kjeldahl Nitrogen | 0.83 | mg/L | ALS |
| L1684211-1 | MP-01 | 7-Oct-15 | Total Phosphorus | 15.4 | mg/L | ALS |
| L1684211-1 | MP-01 | 7-Oct-15 | Faecal Coliforms | 0 | CFU/100 mL | ALS |
| L1684211-1 | MP-01 | 7-Oct-15 | Biochemical Oxygen Demand | <2.0 | mg/L | ALS |
| L1684211-1 | MP-01 | 7-Oct-15 | Oil & Grease - Total | <6.0 | mg/L | ALS |
| MARY RIVER MINE SITE | | | | | | |
| L1684193-1 | MS-01 | 7-Oct-15 | pH | 7.37 | pH units | ALS |
| L1684193-1 | MS-01 | 7-Oct-15 | Total Suspended Solids | <2.0 | mg/L | ALS |
| L1684193-1 | MS-01 | 7-Oct-15 | N-NH3 (Ammonia) | 0.256 | mg/L | ALS |
| L1684193-1 | MS-01 | 7-Oct-15 | Total Kjeldahl Nitrogen | 0.47 | mg/L | ALS |
| L1684193-1 | MS-01 | 7-Oct-15 | Total Phosphorus | 0.383 | mg/L | ALS |
| L1684193-1 | MS-01 | 7-Oct-15 | Faecal Coliforms | 0 | CFU/100 mL | ALS |
| L1684193-1 | MS-01 | 7-Oct-15 | Biochemical Oxygen Demand | <2.0 | mg/L | ALS |
| L1684193-1 | MS-01 | 7-Oct-15 | Oil & Grease - Total | <2.0 | mg/L | ALS |

Note:

Table 3: Flow and Volume Measurements-Part I Item 11 - October 2015

| DATE | Camp Lake Freshwater Use (Mine Site Camp) - Daily Potable Water (m ³) MS-MRY-1 | Camp Lake Daily Freshwater Use for Other Purposes - (m ³) MS-MRY-1 | Km 32 Lake Milne Port Camp Daily Potable Water (m ³) MP-MRY-3 | Treated Sewage Effluent (m ³) from MS-01 to Discharge Location #1 | Sewage Sludge Removed (m ³) from Mine Site WWTP | Treated Sewage Effluent (m ³) from MP-01 to Milne Port | Sewage Sludge Removed (m ³) from Milne Port WWTP | Sewage Removed (m ³) from Lift Stations to PWSP at Milne Port - MP-01a |
|--------------|---|--|--|---|--|---|---|---|
| 1-Oct | 56.7 | 20.0 | 45.4 | 56.7 | 0.4 | 45.4 | 0.2 | 0.0 |
| 2-Oct | 52.0 | 0.0 | 30.3 | 52.0 | 0.3 | 30.3 | 0.2 | 0.0 |
| 3-Oct | 41.8 | 0.0 | 45.4 | 41.8 | 0.4 | 45.4 | 0.5 | 0.0 |
| 4-Oct | 46.8 | 15.7 | 15.1 | 46.8 | 0.4 | 15.1 | 0.3 | 0.0 |
| 5-Oct | 41.9 | 0.0 | 60.6 | 41.9 | 0.3 | 60.6 | 0.2 | 0.0 |
| 6-Oct | 57.1 | 67.0 | 45.4 | 57.1 | 0.3 | 45.4 | 0.3 | 0.0 |
| 7-Oct | 54.6 | 0.0 | 30.3 | 54.6 | 0.3 | 30.3 | 0.2 | 0.0 |
| 8-Oct | 45.3 | 10.2 | 45.4 | 45.3 | 0.3 | 45.4 | 0.1 | 0.0 |
| 9-Oct | 50.0 | 0.0 | 30.3 | 50.0 | 0.3 | 30.3 | 0.1 | 0.0 |
| 10-Oct | 46.8 | 0.0 | 45.4 | 46.8 | 0.3 | 45.4 | 0.2 | 0.0 |
| 11-Oct | 36.3 | 0.0 | 30.3 | 36.3 | 0.3 | 30.3 | 0.2 | 0.0 |
| 12-Oct | 53.3 | 17.8 | 30.3 | 53.3 | 0.3 | 30.3 | 0.3 | 1.4 |
| 13-Oct | 39.6 | 0.0 | 45.4 | 39.6 | 0.2 | 45.4 | 0.0 | 0.0 |
| 14-Oct | 49.9 | 0.0 | 45.4 | 49.9 | 0.2 | 45.4 | 0.3 | 0.0 |
| 15-Oct | 44.1 | 0.0 | 30.3 | 44.1 | 0.2 | 30.3 | 0.0 | 0.0 |
| 16-Oct | 69.1 | 10.6 | 30.3 | 69.1 | 0.2 | 30.3 | 0.1 | 0.0 |
| 17-Oct | 62.5 | 9.0 | 30.3 | 62.5 | 0.3 | 30.3 | 0.2 | 0.0 |
| 18-Oct | 39.1 | 0.0 | 30.3 | 39.1 | 0.3 | 30.3 | 0.1 | 0.0 |
| 19-Oct | 50.5 | 13.7 | 30.3 | 50.5 | 0.3 | 30.3 | 0.0 | 0.0 |
| 20-Oct | 41.8 | 0.0 | 30.3 | 41.8 | 0.2 | 30.3 | 0.1 | 0.0 |
| 21-Oct | 62.5 | 0.0 | 30.3 | 62.5 | 0.3 | 30.3 | 0.1 | 0.0 |
| 22-Oct | 55.1 | 0.0 | 30.3 | 55.1 | 0.2 | 30.3 | 0.1 | 1.4 |
| 23-Oct | 42.4 | 0.0 | 30.3 | 42.4 | 0.3 | 30.3 | 0.3 | 0.0 |
| 24-Oct | 42.8 | 15.3 | 30.3 | 42.8 | 0.3 | 30.3 | 0.0 | 0.0 |
| 25-Oct | 54.6 | 0.0 | 30.3 | 54.6 | 0.3 | 30.3 | 0.3 | 0.0 |
| 26-Oct | 43.4 | 0.0 | 30.3 | 43.4 | 0.2 | 30.3 | 0.0 | 0.0 |
| 27-Oct | 43.5 | 0.0 | 30.3 | 43.5 | 0.3 | 30.3 | 0.0 | 0.0 |
| 28-Oct | 58.9 | 18.4 | 15.1 | 58.9 | 0.2 | 15.1 | 0.1 | 0.0 |
| 29-Oct | 39.8 | 0.0 | 30.3 | 39.8 | 0.3 | 30.3 | 0.2 | 0.0 |
| 30-Oct | 67.9 | 0.0 | 15.1 | 67.9 | 0.3 | 15.1 | 0.3 | 0.0 |
| 31-Oct | 38.8 | 0.0 | 0.0 | 38.8 | 0.3 | 0.0 | 0.2 | 0.0 |
| Total | 1528.7 | 197.7 | 999.3 | 1528.7 | 8.7 | 999.3 | 5.3 | 2.8 |

Notes:

WWTP - Waste Water Treatment Plant

PWSP - Polishing Waste Stabilization Pond