



December 30, 2014

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 License 2AM-MRY1325 Monthly Monitoring Report – November 2014

The following is the monthly report for November 2014 as required under Part I, Item 21 Water License 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 November 2014, 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 areas and quarry 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 in November 2014.

Table 1 presents a list of samples/monitoring required under the Water Licenses and the details concerning which water quality samples have been 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 November 2014.

B) Flow and Volume Measurements

Table 3 provides a breakdown of volume measurements as requested in Part I, Item 9 of the water license for November 2014.

We hope that the information provided in this monthly report is acceptable and should you have any questions regarding this report please contact Jim Millard at 902-403-1337(cell) / 647-253-0596 ext:6016 (site) or by e-mail at jim.millard@baffinland.com.

Regards,

A handwritten signature in black ink, appearing to read "J. Millard".

James Millard, M.Sc., P.Geo.
Senior Environmental Superintendent

Attach: Tables 1, 2 and 3

Cc: Robert Savard, Justin Hack, Erik Allain (AANDC), Stephen Bathory QIA

Table 1: Monitoring Program Water Sampling Summary for November 2014

Monitoring Program Station	Sampling Date	Lab ID#	Comment
Milne Port			
MP-01 (Sewage Treatment Facility)	November 5, 2014 November 12, 2014 November 19, 2014 November 26, 2014	L1542580-3 L1545257-1 L1548269-1 L1550941-1	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-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-B0101 (Duplicate of MP-C-B01)	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)	November 5, 2014 November 12, 2014 November 19, 2014 November 26, 2014	L1542536-1 L1545200-1 L1548249-1 L1550927-1	Discharge volume reported daily
MS-0101 (Duplicate of MS-01)	November 5, 2014 November 12, 2014	L1542536-3 L1545200-3	Duplicate of MS-01
MS-0102 (Field Blank of MS-01)	November 5, 2014 November 12, 2014	L1542536-4 L1545200-4	Field Blank of MS-01
MS-0101 (Travel Blank of MS-01)	November 5, 2014 November 12, 2014	L1542536-5 L1545200-5	Travel Blank of MS-01
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

Monitoring Program Station	Sampling Date	Lab ID#	Comment
MS-MRY-04A (Exploration Camp PWSP #1)	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-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, frozen conditions
MS-MRY-10 (Weathered Ore Bulk Sample Stockpile)	N/A	N/A	No flow, frozen conditions
MS-MRY-11 (Processing Bulk Sample Stockpile)	N/A	N/A	No flow, frozen conditions
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
Steensby Port			
Steensby Exploration Camp closed for the season			

Table 2. Water Chemistry Results - November 2014

Sample Number	Sample ID	Date Sampled	Parameter Name	Result	Units	Lab
MILNE PORT						
L1542580-3	MP-01	5-Nov-14	pH	6.76	ct/100mL	Exova
L1542580-3	MP-01	5-Nov-14	Total Suspended Solids	<2.0	pH units	Exova
L1542580-3	MP-01	5-Nov-14	N-NH3 (Ammonia)	0.455	mg/L	Exova
L1542580-3	MP-01	5-Nov-14	Total Kjeldahl Nitrogen	1.73	mg/L	Exova
L1542580-3	MP-01	5-Nov-14	Total Phosphorus	12.2	mg/L	Exova
L1542580-3	MP-01	5-Nov-14	Faecal Coliforms	0	mg/L	Exova
L1542580-3	MP-01	5-Nov-14	Biochemical Oxygen Demand	<2.0	mg/L	Exova
L1542580-3	MP-01	5-Nov-14	Oil & Grease - Total	<2.0	mg/L	Exova
L1545257-1	MP-01	12-Nov-14	pH	7.25	ct/100mL	Exova
L1545257-1	MP-01	12-Nov-14	Total Suspended Solids	<2.0	pH units	Exova
L1545257-1	MP-01	12-Nov-14	N-NH3 (Ammonia)	1.22	mg/L	Exova
L1545257-1	MP-01	12-Nov-14	Total Kjeldahl Nitrogen	2.75	mg/L	Exova
L1545257-1	MP-01	12-Nov-14	Total Phosphorus	13.4	mg/L	Exova
L1545257-1	MP-01	12-Nov-14	Faecal Coliforms	1	mg/L	Exova
L1545257-1	MP-01	12-Nov-14	Biochemical Oxygen Demand	<2.0	mg/L	Exova
L1545257-1	MP-01	12-Nov-14	Oil & Grease - Total	<2.0	mg/L	Exova
L1548269-1	MP-01	19-Nov-14	pH	7.26	pH units	ALS
L1548269-1	MP-01	19-Nov-14	Total Suspended Solids	<2.0	mg/L	ALS
L1548269-1	MP-01	19-Nov-14	N-NH3 (Ammonia)	0.069	mg/L	ALS
L1548269-1	MP-01	19-Nov-14	Total Kjeldahl Nitrogen	0.26	mg/L	ALS
L1548269-1	MP-01	19-Nov-14	Total Phosphorus	16	mg/L	ALS
L1548269-1	MP-01	19-Nov-14	Faecal Coliforms	2	ct/100mL	ALS
L1548269-1	MP-01	19-Nov-14	Biochemical Oxygen Demand	<2.0	mg/L	ALS
L1548269-1	MP-01	19-Nov-14	Oil & Grease - Total	4.6	mg/L	ALS
L1550941-1	MP-01	26-Nov-14	pH	7.25	pH units	ALS
L1550941-1	MP-01	26-Nov-14	Total Suspended Solids	2.40	mg/L	ALS
L1550941-1	MP-01	26-Nov-14	N-NH3 (Ammonia)	0.061	mg/L	ALS
L1550941-1	MP-01	26-Nov-14	Total Kjeldahl Nitrogen	<0.15	mg/L	ALS
L1550941-1	MP-01	26-Nov-14	Total Phosphorus	12.2	mg/L	ALS
L1550941-1	MP-01	26-Nov-14	Faecal Coliforms	2	ct/100mL	ALS
L1550941-1	MP-01	26-Nov-14	Biochemical Oxygen Demand	<2.0	mg/L	ALS
L1550941-1	MP-01	26-Nov-14	Oil & Grease - Total	<2.0	mg/L	ALS
MARY RIVER MINE SITE						
L1542536-1	MS-01	5-Nov-14	pH	7.48	ct/100mL	Exova
L1542536-1	MS-01	5-Nov-14	Total Suspended Solids	2.8	pH units	Exova
L1542536-1	MS-01	5-Nov-14	N-NH3 (Ammonia)	0.38	mg/L	Exova
L1542536-1	MS-01	5-Nov-14	Total Kjeldahl Nitrogen	0.73	mg/L	Exova
L1542536-1	MS-01	5-Nov-14	Total Phosphorus	0.83	mg/L	Exova
L1542536-1	MS-01	5-Nov-14	Faecal Coliforms	0	mg/L	Exova
L1542536-1	MS-01	5-Nov-14	Biochemical Oxygen Demand	<2.0	mg/L	Exova
L1542536-1	MS-01	5-Nov-14	Oil & Grease - Total	2.80	mg/L	Exova
L1542536-3	MS-0101	5-Nov-14	pH	7.23	ct/100mL	Exova
L1542536-3	MS-0101	5-Nov-14	Total Suspended Solids	<2.0	pH units	Exova
L1542536-3	MS-0101	5-Nov-14	N-NH3 (Ammonia)	0.37	mg/L	Exova
L1542536-3	MS-0101	5-Nov-14	Total Kjeldahl Nitrogen	0.82	mg/L	Exova
L1542536-3	MS-0101	5-Nov-14	Total Phosphorus	0.839	mg/L	Exova
L1542536-3	MS-0101	5-Nov-14	Faecal Coliforms	0	mg/L	Exova
L1542536-3	MS-0101	5-Nov-14	Biochemical Oxygen Demand	<2.0	mg/L	Exova
L1542536-3	MS-0101	5-Nov-14	Oil & Grease - Total	<2.0	mg/L	Exova
L1542536-4	MS-0102	5-Nov-14	pH	5.98	pH units	ALS
L1542536-4	MS-0102	5-Nov-14	Total Suspended Solids	<2.0	mg/L	ALS
L1542536-4	MS-0102	5-Nov-14	N-NH3 (Ammonia)	0.06	mg/L	ALS
L1542536-4	MS-0102	5-Nov-14	Total Kjeldahl Nitrogen	<0.15	mg/L	ALS
L1542536-4	MS-0102	5-Nov-14	Total Phosphorus	0.0038	mg/L	ALS
L1542536-4	MS-0102	5-Nov-14	Faecal Coliforms	0	ct/100mL	ALS
L1542536-4	MS-0102	5-Nov-14	Biochemical Oxygen Demand	<2.0	mg/L	ALS
L1542536-4	MS-0102	5-Nov-14	Oil & Grease - Total	<2.0	mg/L	ALS
L1542536-5	MS-0103	5-Nov-14	pH	5.62	pH units	ALS
L1542536-5	MS-0103	5-Nov-14	Total Suspended Solids	<2.0	mg/L	ALS
L1542536-5	MS-0103	5-Nov-14	N-NH3 (Ammonia)	<0.050	mg/L	ALS
L1542536-5	MS-0103	5-Nov-14	Total Kjeldahl Nitrogen	<0.15	mg/L	ALS
L1542536-5	MS-0103	5-Nov-14	Total Phosphorus	<0.0030	mg/L	ALS
L1542536-5	MS-0103	5-Nov-14	Faecal Coliforms	0	ct/100mL	ALS
L1542536-5	MS-0103	5-Nov-14	Biochemical Oxygen Demand	<2.0	mg/L	ALS
L1542536-5	MS-0103	5-Nov-14	Oil & Grease - Total	<2.0	mg/L	ALS
L1545200-1	MS-01	12-Nov-14	pH	7.2	ct/100mL	Exova
L1545200-1	MS-01	12-Nov-14	Total Suspended Solids	2.4	pH units	Exova
L1545200-1	MS-01	12-Nov-14	N-NH3 (Ammonia)	0.57	mg/L	Exova
L1545200-1	MS-01	12-Nov-14	Total Kjeldahl Nitrogen	1.12	mg/L	Exova
L1545200-1	MS-01	12-Nov-14	Total Phosphorus	0.485	mg/L	Exova
L1545200-1	MS-01	12-Nov-14	Faecal Coliforms	0	mg/L	Exova
L1545200-1	MS-01	12-Nov-14	Biochemical Oxygen Demand	<2.0	mg/L	Exova
L1545200-1	MS-01	12-Nov-14	Oil & Grease - Total	<2.0	mg/L	Exova
L1545200-3	MS-0101	12-Nov-14	pH	7.22	ct/100mL	Exova

L1545200-3	MS-0101	12-Nov-14	Total Suspended Solids	2	pH units	Exova
L1545200-3	MS-0101	12-Nov-14	N-NH3 (Ammonia)	0.43	mg/L	Exova
L1545200-3	MS-0101	12-Nov-14	Total Kjeldahl Nitrogen	1.22	mg/L	Exova
L1545200-3	MS-0101	12-Nov-14	Total Phosphorus	0.573	mg/L	Exova
L1545200-3	MS-0101	12-Nov-14	Faecal Coliforms	0	mg/L	Exova
L1545200-3	MS-0101	12-Nov-14	Biochemical Oxygen Demand	<2.0	mg/L	Exova
L1545200-3	MS-0101	12-Nov-14	Oil & Grease - Total	<2.0	mg/L	Exova
L1545200-4	MS-0102	12-Nov-14	pH	5.72	ct/100mL	Exova
L1545200-4	MS-0102	12-Nov-14	Total Suspended Solids	<2.0	pH units	Exova
L1545200-4	MS-0102	12-Nov-14	N-NH3 (Ammonia)	<0.050	mg/L	Exova
L1545200-4	MS-0102	12-Nov-14	Total Kjeldahl Nitrogen	<0.15	mg/L	Exova
L1545200-4	MS-0102	12-Nov-14	Total Phosphorus	<0.0030	mg/L	Exova
L1545200-4	MS-0102	12-Nov-14	Faecal Coliforms	0	mg/L	Exova
L1545200-4	MS-0102	12-Nov-14	Biochemical Oxygen Demand	<2.0	mg/L	Exova
L1545200-4	MS-0102	12-Nov-14	Oil & Grease - Total	<2.0	mg/L	Exova
L1545200-5	MS-0103	12-Nov-14	pH	5.63	ct/100mL	Exova
L1545200-5	MS-0103	12-Nov-14	Total Suspended Solids	<2.0	pH units	Exova
L1545200-5	MS-0103	12-Nov-14	N-NH3 (Ammonia)	<0.050	mg/L	Exova
L1545200-5	MS-0103	12-Nov-14	Total Kjeldahl Nitrogen	<0.15	mg/L	Exova
L1545200-5	MS-0103	12-Nov-14	Total Phosphorus	<0.0030	mg/L	Exova
L1545200-5	MS-0103	12-Nov-14	Faecal Coliforms	0	mg/L	Exova
L1545200-5	MS-0103	12-Nov-14	Biochemical Oxygen Demand	<2.0	mg/L	Exova
L1545200-5	MS-0103	12-Nov-14	Oil & Grease - Total	<2.0	mg/L	Exova
L1548249-1	MS-01	19-Nov-14	pH	7.10	ct/100mL	Exova
L1548249-1	MS-01	19-Nov-14	Total Suspended Solids	4.40	pH units	Exova
L1548249-1	MS-01	19-Nov-14	N-NH3 (Ammonia)	0.38	mg/L	Exova
L1548249-1	MS-01	19-Nov-14	Total Kjeldahl Nitrogen	1.09	mg/L	Exova
L1548249-1	MS-01	19-Nov-14	Total Phosphorus	0.775	mg/L	Exova
L1548249-1	MS-01	19-Nov-14	Faecal Coliforms	0	mg/L	Exova
L1548249-1	MS-01	19-Nov-14	Biochemical Oxygen Demand	<2.0	mg/L	Exova
L1548249-1	MS-01	19-Nov-14	Oil & Grease - Total	<2.0	mg/L	Exova
L1550927-1	MS-01	26-Nov-14	pH	7.25	ct/100mL	Exova
L1550927-1	MS-01	26-Nov-14	Total Suspended Solids	3.6	pH units	Exova
L1550927-1	MS-01	26-Nov-14	N-NH3 (Ammonia)	0.47	mg/L	Exova
L1550927-1	MS-01	26-Nov-14	Total Kjeldahl Nitrogen	1.1	mg/L	Exova
L1550927-1	MS-01	26-Nov-14	Total Phosphorus	0.356	mg/L	Exova
L1550927-1	MS-01	26-Nov-14	Faecal Coliforms	0	mg/L	Exova
L1550927-1	MS-01	26-Nov-14	Biochemical Oxygen Demand	<2.0	mg/L	Exova
L1550927-1	MS-01	26-Nov-14	Oil & Grease - Total	<2.0	mg/L	Exova

Table 3: Flow and Volume Measurements-Part I Item 11 - November 2014

DATE	Camp Lake Freshwater Use (Mine Site Camp) - Daily Potable Water (m3) - MRY-1	Camp Lake Daily Freshwater Use for Other Purposes - (m³) - MRY-1	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	Milne Pond Fresh Water Use for Construction Purposes (m3) MP-MRY-3	Treated Sewage Effluent (m³) from MS-01 to Discharge Location #1	Sewage Sludge Removed (m3) from Mine Site WWTP	Treated Sewage Effluent (m3) from MP-01 to Milne Inlet	Sewage Sludge Removed (m3) from Milne Port WWTP
1-Nov	53.4	18.8	45.4	7.6	0.0	53.4	0.0	45.4	0.5
2-Nov	71.4	57.1	45.4	7.6	0.0	71.4	0.0	45.4	0.5
3-Nov	44.5	56.3	45.4	7.6	0.0	44.5	1.0	45.4	0.4
4-Nov	47.8	0.0	60.6	0.0	0.0	47.8	0.0	60.6	0.5
5-Nov	49.5	0.0	15.1	0.0	0.0	49.5	0.0	15.1	0.3
6-Nov	47.3	0.0	60.6	0.0	0.0	47.3	1.5	60.6	0.3
7-Nov	44.7	38.2	60.6	0.0	0.0	44.7	0.0	60.6	0.5
8-Nov	37.7	40.9	45.4	0.0	0.0	37.7	1.0	45.4	0.5
9-Nov	50.8	0.0	60.6	0.0	0.0	50.8	0.5	60.6	0.4
10-Nov	40.9	0.0	60.6	0.0	0.0	40.9	0.0	60.6	0.4
11-Nov	48.6	0.0	60.6	0.0	0.0	48.6	1.0	60.6	0.4
12-Nov	49.3	15.9	60.6	0.0	0.0	49.3	0.5	60.6	0.0
13-Nov	14.6	0.0	60.6	0.0	0.0	14.6	0.5	60.6	0.3
14-Nov	45.5	0.0	45.4	0.0	0.0	45.5	0.5	45.4	0.0
15-Nov	49.7	0.0	45.4	0.0	0.0	49.7	0.5	45.4	0.0
16-Nov	41.9	0.0	45.4	0.0	0.0	41.9	0.5	45.4	0.2
17-Nov	46.4	0.0	45.4	0.0	0.0	46.4	0.5	45.4	0.1
18-Nov	63.9	0.0	60.6	0.0	0.0	63.9	0.5	60.6	0.1
19-Nov	37.5	0.0	45.4	0.0	0.0	37.5	0.5	45.4	0.1
20-Nov	38.5	0.0	60.6	0.0	0.0	38.5	0.0	60.6	0.1
21-Nov	25.5	0.0	45.4	0.0	0.0	25.5	0.5	45.4	0.1
22-Nov	52.1	0.0	45.4	0.0	0.0	52.1	0.5	45.4	0.1
23-Nov	52.4	0.0	45.4	0.0	0.0	52.4	0.5	45.4	0.1
24-Nov	37.8	0.0	45.4	0.0	0.0	37.8	0.5	45.4	0.1
25-Nov	45.5	0.0	60.6	0.0	0.0	45.5	0.5	60.6	0.2
26-Nov	55.0	0.0	45.4	0.0	0.0	55.0	0.5	45.4	0.1
27-Nov	30.4	0.0	45.4	0.0	0.0	30.4	0.5	45.4	0.2
28-Nov	34.2	0.0	45.4	0.0	0.0	34.2	0.0	45.4	0.0
29-Nov	28.0	0.0	45.4	0.0	0.0	28.0	0.0	45.4	0.2
30-Nov	82.8	0.0	30.3	0.0	0.0	82.8	0.0	30.3	0.2
Total	1367.3	227.1	1483.9	22.7	0.0	1367.3	12.5	1483.9	7.1

Notes:

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