

April 30, 2025

Manager of Licensing
Nunavut Water Board
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Resource Management Officer, CIRNAC
Nunavut District, Nunavut Region
P.O. Box 100
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**RE: Water Licence 2AM-MRY1325 Monthly Surveillance Network Program (SNP) Report
March 2025**

The following is the monthly report for March 2025 as required under Part I, Item 21 of the Type 'A' Water Licence 2AM-MRY1325 (the Licence), which 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 identify areas of non-compliance with regulated discharge parameters referred to in Part F"*

Monitoring Program

Table 1.1 presents a list of samples/monitoring conducted in March under the Licence at sites with discharge/flowing water conditions and the details concerning the collected water quality samples, including sample dates and laboratory identification numbers. Analytical water quality testing results are presented in Table 2. Table 3.1 presents water volumes consumed for domestic and industrial water purposes as well as select volumes of effluent and waste discharged and/or disposed at the Mary River Mine Site and Milne Port during March 2025.

Monitoring Program Results

Water Sampling and Analysis Results

Table 2 provides the analytical results related to the Sewage Treatment Plant (STP) facilities. There were no exceedances of applicable water quality criteria observed at STP monitoring stations in March 2025. Due to frozen winter conditions, no other water samples were collected during the month of March.

Flow and Volume Measurements

Table 3.1 provides a breakdown of volume measurements for March 2025, as required by Part I, Item 9 of the Licence. There were no exceedances of the source-specific daily volume withdrawal limits in March 2025.

We trust that the information provided in this monthly report is acceptable. If you have any questions regarding this report, please contact the undersigned.

Prepared by:

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

Shannon Mulhall
Environmental Specialist

Reviewed by:

A handwritten signature in black ink, appearing to read "T Swenson".

Todd Swenson
Environmental Superintendent

cc: Jeremy Fraser, Omer Pasalic, Sean Naullaq (CIRNAC)
Conor Goddard, Chris Spencer, Amoudla Kootoo (QIA)
Megan Lord-Hoyle, Lou Kamermans, Elisabeth Luther, Francois Gaudreau, William Bowden, Todd Sewnson,
Katie Babin, Allison Parker, Shannon Mulhall, Irniq Lecompte (Baffinland)

Attachments

Attachments – Table 1.1, Table 2, Table 3.1

Table 1.1 Monitoring Program Water Sampling Summary

Location	Location Description	Sample Date	Sample Type	Lab Sample ID
MP-01	Sewage Treatment Facility	2025-03-04	P	WT2504216-002
MP-01B	Sewage Treatment Facility	2025-03-04	P	WT2504216-001
MS-01B	Sewage Treatment Facility	2025-03-04	P	WT2504213-001

Notes:

Sample Types:

P - Permitted Sample

FB - Field Blank

FD - Field Duplicate

TB - Trip Blank

NST - No Sample Taken



Table 2: Water Quality Results for Water Licence Monitoring Location - MP-01

Location Name			MP-01
Sample Date & Time			2025-03-04 13:30
ALS Laboratory Work Order			WT2504216-002
Sample Type			P
Analyte	Units	Criteria	
pH, Lab	pH units	6.0-9.5	7.6
Total Suspended Solids	mg/L	120	1.2
Total Dissolved Solids	mg/L	-	820
Turbidity	NTU	-	0.59
Alkalinity, Total	mg/L	-	50.3
Ammonia, Total (as N)	mg/L	-	0.0338
Total Kjeldahl Nitrogen	mg/L	-	9.48
Fecal Coliforms	CFU/100mL	10000	61
BOD	mg/L	100	< 2
Oil and Grease, Total	mg/L	-	< 5
Visible Sheen	-	No Visible Sheen	No Visible Sheen
Phosphorus, Nutrient	mg/L	-	6.18
Mean Mortality - Daphnia magna	-	Not Acutely Toxic	Not Acutely Toxic
Mean Mortality - Rainbow Trout	-	Not Acutely Toxic	Not Acutely Toxic

Notes:

Highlight indicate result exceeded applicable criteria.

Half value used in monthly average when value is less than detection limit.

pH criteria is a range;6.0-9.5.

Sample Type:

P-Permitted

FD-Field Duplicate

FB-Field Blank

TB-Trip Blank



Table 2: Water Quality Results for Water Licence Monitoring Location - MP-01B

Location Name			MP-01B
Sample Date & Time			2025-03-04 13:20
ALS Laboratory Work Order			WT2504216-001
Sample Type			P
Analyte	Units	Criteria	
pH, Lab	pH units	6.0-9.5	7.15
Total Suspended Solids	mg/L	120	< 1
Total Dissolved Solids	mg/L	-	730
Turbidity	NTU	-	0.11
Alkalinity, Total	mg/L	-	35.5
Ammonia, Total (as N)	mg/L	-	0.0216
Total Kjeldahl Nitrogen	mg/L	-	16.8
Fecal Coliforms	CFU/100mL	10000	196
BOD	mg/L	100	< 2
Oil and Grease, Total	mg/L	-	< 5
Visible Sheen	-	No Visible Sheen	No Visible Sheen
Phosphorus, Nutrient	mg/L	-	12.2
Mean Mortality - Daphnia magna	-	Not Acutely Toxic	Not Acutely Toxic
Mean Mortality - Rainbow Trout	-	Not Acutely Toxic	Not Acutely Toxic

Notes:

Highlight indicate result exceeded applicable criteria.

Half value used in monthly average when value is less than detection limit.

pH criteria is a range;6.0-9.5.

Sample Type:

P-Permitted

FD-Field Duplicate

FB-Field Blank

TB-Trip Blank



Table 2: Water Quality Results for Water Licence Monitoring Locaiton - MS-01B

Location Name			MS-01B
Sample Date & Time			2025-03-04 14:30
ALS Laboratory Work Order			WT2504213-001
Sample Type			P
Analyte	Units	Criteria	
pH, Lab	pH units	6.0-9.5	8.17
Total Suspended Solids	mg/L	35	< 1
Total Dissolved Solids	mg/L	-	802
Turbidity	NTU	-	0.17
Alkalinity, Total	mg/L	-	131
Ammonia, Total (as N)	mg/L	4	0.0153
Total Kjeldahl Nitrogen	mg/L	-	8.98
Fecal Coliforms	CFU/100mL	1000	< 1
BOD	mg/L	30	< 2
Oil and Grease, Total	mg/L	-	< 5
Visible Sheen	-	No Visible Sheen	No Visible Sheen
Phosphorus, Nutrient	mg/L	4	0.152
Mean Mortality - Daphnia magna	-	Not Acutely Toxic	Not Acutely Toxic
Mean Mortality - Rainbow Trout	-	Not Acutely Toxic	Not Acutely Toxic

Notes:

Highlight indicate result exceeded applicable criteria.

Half value used in monthly average when value is less than detection limit.

pH criteria is a range;6.0-9.5.

Sample Type:

P-Permitted

FD-Field Duplicate

FB-Field Blank

TB-Trip Blank

Table 3.1: Flow and Volume Measurements - Part I Item 11 - March 2025

DATE	Camp Lake Freshwater for Domestic Use - Daily Water MS-MRY-1 (m ³) ¹	Camp Lake Freshwater for Industrial Use - Daily Water MS-MRY-1 (m ³) ^{1 2}	Treated Sewage Effluent from MS-01 to Discharge Location #1 (m ³)	Treated Sewage Effluent from MS-01B to Discharge Location #1 (m ³)	Sewage Sludge Removed from Mine Site WWTPs to Incinerator or Disposal Offsite by Backhaul (m ³)	Sewage Sludge/Off- Spec Effluent Removed from Mine Site WWTPs to PWSP at Mine Site (m ³)	Sewage Sludge Removed from Lift Stations to PWSP at Mine Site (m ³)	Km 32 Lake Milne Port Camp Daily Water Use for Domestic Purposes MP- MRY-3 (m ³)	Km 32 Lake Milne Port Camp Daily Water Use for Industrial Purposes MP- MRY-3 (m ³)	Treated Sewage Effluent from MP-01 to Milne Inlet (m ³)	Treated Sewage Effluent from MP-01B to Milne Inlet (m ³)	Sewage Sludge Removed from Milne Port WWTPs to Incinerator or Disposal Offsite by Backhaul (m ³)	Sewage Sludge Removed from Lift Stations to PWSP at Milne Port (m ³)	Sludge Removed from Milne Port WWTPs/WTPs to PWSP at Milne Port (m ³)
1-Mar-25	102.2	1.3	0.0	115.3	0.9	0.0	0.0	41.4	0.0	17.0	18.4	0.0	0.0	0.0
2-Mar-25	87.9	15.1	0.0	71.6	0.9	0.0	0.0	28.1	0.0	16.0	15.0	0.1	0.0	0.0
3-Mar-25	97.2	0.0	0.0	96.1	0.6	0.0	0.0	42.0	0.0	15.0	19.4	0.1	2.0	1.0
4-Mar-25	113.3	2.6	0.0	98.3	1.1	0.0	0.0	65.9	0.0	18.0	17.0	0.1	0.0	0.0
5-Mar-25	120.1	9.0	0.0	114.6	1.3	0.0	0.0	34.5	0.0	21.0	16.7	0.1	0.0	2.0
6-Mar-25	106.8	11.5	0.0	129.4	1.7	0.0	0.0	45.1	0.0	19.0	18.4	0.1	0.0	0.0
7-Mar-25	94.7	0.0	0.0	102.7	1.7	0.0	0.0	35.4	2.0	19.0	17.0	0.0	0.0	0.0
8-Mar-25	96.7	0.0	0.0	103.6	1.3	0.0	10.0	46.6	0.0	17.0	13.4	0.0	0.0	0.0
9-Mar-25	86.1	43.0	0.0	90.6	0.9	0.0	0.0	30.9	0.0	15.0	13.5	0.1	0.0	2.0
10-Mar-25	109.3	11.6	0.0	110.0	1.1	0.0	0.0	44.6	0.0	17.0	19.2	0.1	0.0	0.0
11-Mar-25	124.7	0.0	0.0	103.3	1.1	0.0	0.0	36.7	0.0	18.0	15.7	0.0	0.0	0.0
12-Mar-25	108.0	35.0	0.0	121.6	0.9	0.0	0.0	38.5	0.0	20.0	17.2	0.1	0.0	0.0
13-Mar-25	120.0	3.4	0.0	118.2	0.9	0.0	0.0	41.2	0.0	18.0	15.7	0.1	0.0	0.0
14-Mar-25	108.9	5.6	0.0	116.7	0.9	0.0	0.0	40.9	0.0	18.0	29.7	0.1	0.0	0.0
15-Mar-25	92.8	2.3	0.0	106.2	0.9	0.0	0.0	35.3	0.0	15.0	7.1	0.1	0.0	0.0
16-Mar-25	97.3	9.0	0.0	93.5	0.9	0.0	0.0	35.5	0.0	15.0	21.5	0.1	0.0	0.0
17-Mar-25	109.8	0.0	0.0	101.3	0.9	0.0	0.0	34.5	2.0	15.0	10.6	0.1	0.0	0.0
18-Mar-25	121.5	3.4	0.0	107.1	0.9	0.0	0.0	36.4	0.0	17.0	20.6	0.0	0.0	0.0
19-Mar-25	106.1	2.3	0.0	119.4	1.0	0.0	10.0	34.0	0.0	18.0	12.3	0.0	0.0	0.0
20-Mar-25	103.1	16.9	0.0	108.3	1.2	0.0	0.0	39.5	0.0	16.0	15.9	0.1	2.0	2.0
21-Mar-25	94.9	9.7	0.0	90.2	1.1	0.0	0.0	40.8	2.0	16.0	16.2	0.1	0.0	0.0
22-Mar-25	101.3	10.1	0.0	98.3	1.1	0.0	0.0	26.8	0.0	14.0	18.4	0.1	0.0	0.0
23-Mar-25	105.5	3.4	0.0	98.8	1.2	0.0	0.0	40.1	0.0	17.0	19.4	0.1	0.0	0.0
24-Mar-25	111.1	18.1	0.0	99.6	1.1	0.0	0.0	31.2	0.0	16.0	11.5	0.1	0.0	0.0
25-Mar-25	119.4	3.4	0.0	113.6	1.1	0.0	0.0	42.4	0.0	16.0	18.3	0.1	0.0	0.0
26-Mar-25	116.9	1.4	0.0	125.9	1.1	0.0	0.0	46.8	0.0	18.0	17.9	0.1	0.0	0.0
27-Mar-25	113.6	7.9	0.0	113.2	1.1	0.0	0.0	29.3	0.0	19.0	18.7	0.1	0.0	0.0
28-Mar-25	107.4	2.7	0.0	98.6	1.1	0.0	0.0	59.5	0.0	14.0	30.5	0.1	0.0	0.0
29-Mar-25	104.8	0.0	0.0	100.0	1.3	5.0	0.0	37.6	0.0	17.0	22.3	0.1	1.0	2.0
30-Mar-25	79.8	40.8	0.0	102.8	0.0	0.0	0.0	36.0	0.0	13.0	10.2	0.0	0.0	0.0
31-Mar-25	99.1	10.1	0.0	91.3	0.9	0.0	0.0	29.3	0.0	19.0	12.1	0.1	0.0	0.0
Total	3,260.1	279.6	0.0	3,260.1	31.1	5.0	20.0	1,206.8	6.0	523.0	529.9	1.7	5.0	9.0

Notes:

WWTP - Waste Water Treatment Plant

PWSP - Polishing Waste Stabilization Pond

¹ Tracking may be influenced by reported data to the Pi data system; variances between reported domestic and industrial values have potential to occur. However, total daily withdrawal is not influenced by the tracking methodology.