



Water Licence 2AM-MRY1325 Monthly Report
April 2025

May 30, 2025

Manager of Licensing Nunavut Water Board P.O. Box 119 Gjoa Haven, Nunavut XOB 1JO Resource Management Officer, CIRNAC Nunavut District, Nunavut Region P.O. Box 100 Igaluit, NU XOA 0H0

## RE: Water Licence 2AM-MRY1325 Monthly Surveillance Network Program (SNP) Report April 2025

The following is the monthly report for April 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 April 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 April 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 April 2025. Due to frozen winter/spring conditions, no other water samples were collected during the month of April.

Flow and Volume Measurements

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





## Water Licence 2AM-MRY1325 Monthly Report

April 2025

Prepared by:

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**Environmental Specialist** 

Reviewed by:

**Todd Swenson** 

**Environmental Superintendent** 

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### **Attachments**

Attachments – Table 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	2025-04-08	Р	WT2507743-001
MP-01	Sewage Treatment Facility	2025-04-15	Р	WT2508492-001
MP-01B	Sewage Treatment Facility	2025-04-08	Р	WT2507743-002
MS-01B	Sewage Treatment Facility	2025-04-08	Р	WT2507750-002

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 Locaiton - MP-01

		Location Name		MP-01	
		Sample Date & Time	2025-04-08 13:30	2025-04-15 12:00	
	ALS La	boratory Work Order	WT2507743	WT2508492-001	
		Sample Type	Р	Р	
Analyte	Units	Criteria			
pH, Lab	pH units	6.0-9.5	7.46	7.39	
Total Suspended	mg/L	120	< 1	2.8	
Solids					
Total Dissolved	mg/L	-	981	886	
Solids					
Turbidity	NTU	-	0.54	1.03	
Alkalinity, Total	mg/L	-	41.9	38.1	
Ammonia, Total (as	mg/L	-	0.0912	0.103	
N)					
Total Kjeldahl	mg/L	-	1.15	1.3	
Nitrogen					
Fecal Coliforms	CFU/100mL	10000	-	17	
BOD	mg/L	100	< 2	2.6	
Oil and Grease,	mg/L	-	< 5	< 5	
Total					
Visible Sheen	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	
Phosphorus,	mg/L	-	6.61	5.91	
Nutrient					

Highlight indicate result exceeded applicable criteria.

pH criteria is a range;6.0-9.5.

Sample Type:

P-Permitted

FD-Field Duplicate

FB-Field Blank

TB-Trip Blank

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 - MP-01B

		-	
		MP-01B	
		2025-04-08 13:30	
	ALS La	WT2507743-002	
		Sample Type	Р
Analyte	Units	Criteria	
pH, Lab	pH units	6.0-9.5	7.64
Total Suspended	mg/L	120	4
Solids			
Total Dissolved	mg/L	-	602
Solids			
Turbidity	NTU	-	0.37
Alkalinity, Total	mg/L	-	48.3
Ammonia, Total (as	mg/L	-	0.0337
N)			
Total Kjeldahl	mg/L	-	0.927
Nitrogen	-		
Fecal Coliforms	CFU/100mL	10000	1
BOD	mg/L	100	< 2
Oil and Grease,	mg/L	-	< 5
Total			
Visible Sheen	-	No Visible Sheen	No Visible Sheen
Phosphorus,	mg/L	-	10.1
Nutrient			

Highlight indicate result exceeded applicable criteria.

pH criteria is a range;6.0-9.5.

Sample Type:

P-Permitted

FD-Field Duplicate

FB-Field Blank

TB-Trip Blank

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	2025-04-08 13:40				
	ALS La	boratory Work Order	WT2507750-002				
		Sample Type					
Analyte	Units	Criteria					
pH, Lab	pH units	6.0-9.5	8.44				
Total Suspended	mg/L	35	< 1				
Solids							
Total Dissolved	mg/L	-	1030				
Solids							
Turbidity	NTU	-	0.3				
Alkalinity, Total	mg/L	-	297				
Ammonia, Total (as	mg/L	4	0.0168				
N)							
Total Kjeldahl	mg/L	-	< 0.05				
Nitrogen							
Fecal Coliforms	CFU/100mL	1000	< 1				
BOD	mg/L	30	< 2				
Oil and Grease,	mg/L	-	< 5				
Total		_					
Visible Sheen	=	No Visible Sheen	No Visible Sheen				
Phosphorus,	mg/L	4	0.311				
Nutrient	-						

Highlight indicate result exceeded applicable criteria.

pH criteria is a range;6.0-9.5.

Sample Type:

P-Permitted

FD-Field Duplicate

FB-Field Blank

TB-Trip Blank

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 - April 2025

DATE	Camp Lake Freshwater for Domestic Use - Daily Water MS-MRY-1 (m³)¹	Camp Lake Freshwater for Industrial Use - Daily Water MS-MRY-1 (m <sup>3</sup> ) <sup>12</sup>	Treated Sewage Effluent from MS-01 to Discharge Location #1 (m³)	Treated Sewage Effluent from MS-01B to Discharge Location #1 (m³)	Sewage Sludge Removed from Mine Site WWTPs to Incinerator or Disposal Offsite by Backhaul (m³)	Sewage Sludge/Off- Spec Effluent Removed from Mine Site WWTPs to PWSP at Mine Site (m³)	Sewage Sludge Removed from Lift Stations to PWSP at Mine Site (m³)	Km 32 Lake Milne Port Camp Daily Water Use for Domestic Purposes MP- MRY-3 (m³)	Km 32 Lake Milne Port Camp Daily Water Use for Industrial Purposes MP- MRY-3 (m³)	Treated Sewage Effluent from MP-01 to Milne Inlet (m³)	Effluent from MP-01B to	Sewage Sludge Removed from Milne Port WWTPs to Incinerator or Disposal Offsite by Backhaul (m³)	Sewage Sludge Removed from Lift Stations to PWSP at Milne Port (m³)	Sludge Removed from Milne Port WWTPs/WTPs to PWSP at Milne Port (m³)
1-Apr-25	115.2	0.0	0.0	95.2	0.9	0.0	0.0	43.6	0.0	17.0	18.6	0.1	0.0	0.0
2-Apr-25	105.9	0.0	0.0	81.7	0.9	0.0	0.0	32.0	0.0	20.0	20.7	0.0	0.0	0.0
3-Apr-25	99.8	28.6	0.0	110.8	0.9	0.0	0.0	50.2	3.0	19.0	22.9	0.0	0.0	0.0
4-Apr-25	95.1	18.2	0.0	112.2	0.9	0.0	0.0	39.3	10.0	18.0	15.5	0.1	0.0	0.0
5-Apr-25	101.6	0.5	0.0	104.8	0.9	0.0	0.0	38.2	0.0	15.0	21.8	0.1	0.0	0.0
6-Apr-25	96.3	0.0	0.0	97.5	0.9	0.0	0.0	44.7	0.0	15.0	20.5	0.1	0.0	0.0
7-Apr-25	97.3	4.5	0.0	96.8	0.9	0.0	0.0	30.0	0.0	14.0	19.8	0.0	0.0	0.0
8-Apr-25	120.0	0.0	0.0	93.4	0.9	0.0	0.0	44.7	0.0	19.0	18.0	0.1	0.0	2.0
9-Apr-25	112.1	4.5	0.0	103.2	1.3	0.0	0.0	37.2	0.0	16.0	20.5	0.1	0.0	0.0
10-Apr-25	103.6	1.1	0.0	115.2	1.1	0.0	0.0	41.6	0.0	20.0	17.1	0.1	0.0	0.0
11-Apr-25	101.9	21.1	0.0	100.7	0.9	0.0	0.0	39.0	0.0	20.0	24.5	0.1	0.0	0.0
12-Apr-25	95.7	3.3	0.0	101.6	0.9	0.0	0.0	38.3	0.0	18.0	21.9	0.1	0.0	0.0
13-Apr-25	88.3	24.6	0.0	98.6	1.1	0.0	0.0	60.9	4.0	19.0	16.7	0.0	0.0	0.0
14-Apr-25	103.1	0.0	0.0	109.4	1.1	0.0	0.0	35.6	0.0	17.0	18.3	0.1	0.0	0.0
15-Apr-25	109.0	0.0	0.0	93.6	0.9	0.0	0.0	31.9	0.0	18.0	21.0	0.0	0.0	0.0
16-Apr-25	104.6	18.6	0.0	108.5	1.1	0.0	0.0	40.0	0.0	23.0	21.3	0.1	2.0	0.0
17-Apr-25	86.2	28.4	0.0	129.4	0.9	0.0	0.0	37.0	0.0	17.0	19.1	0.0	0.0	0.0
18-Apr-25	86.8	0.0	0.0	96.7	0.9	0.0	0.0	48.4	0.0	21.0	18.6	0.1	0.0	1.0
19-Apr-25	103.8	0.0	0.0	88.7	0.2	2.0	0.0	58.4	0.0	16.0	17.9	0.0	0.0	0.0
20-Apr-25	86.0	32.6	0.0	101.9	0.4	0.0	0.0	34.8	0.0	17.0	23.0	0.1	0.0	0.0
21-Apr-25	78.5	14.0	0.0	98.0	0.4	0.0	0.0	36.9	0.0	22.0	10.8	0.0	0.0	0.0
22-Apr-25	109.8	0.0	0.0	86.0	0.4	0.0	0.0	49.3	0.0	22.0	19.0	0.1	0.0	0.0
23-Apr-25	103.3	34.2	0.0	94.2	0.4	0.0	0.0	36.4	0.0	20.0	23.5	0.0	0.0	0.0
24-Apr-25	107.9	6.7	0.0	91.2	0.6	2.0	5.0	47.4	0.0	20.0	19.6	0.0	0.0	0.0
25-Apr-25	113.7	0.0	0.0	109.8	0.4	0.0	0.0	50.4	0.0	18.0	21.6	0.1	0.0	0.0
26-Apr-25	94.9	0.0	0.0	107.7	0.9	0.0	0.0	35.9	0.0	13.0	25.4	0.0	0.0	0.0
27-Apr-25	96.3	4.5	0.0	92.5	0.9	0.0	0.0	32.7	0.0	15.0	18.8	0.1	0.0	0.0
28-Apr-25	92.2	0.0	0.0	88.3	0.4	0.0	0.0	43.9	0.0	17.0	16.1	0.1	0.0	0.0
29-Apr-25	108.2	34.0	0.0	87.6	1.5	0.0	0.0	34.2	0.0	18.0	14.3	0.1	0.0	0.0
30-Apr-25	83.0	37.4	0.0	92.9	0.9	0.0	0.0	39.1	0.0	16.0	18.9	0.1	0.0	0.0
Total	3,000.1	316.9	0.0	2,988.1	24.0	4.0	5.0	1,232.0	17.0	540.0	585.8	1.4	2.0	3.0

WWTP - Waste Water Treatment Plant

PWSP - Polishing Waste Stabilization Pond

<sup>&</sup>lt;sup>1</sup> 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.