



Water Licence 2AM-MRY1325 Monthly Report May 2023

June 30, 2023

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 Iqaluit, NU XOA 0H0

RE: Water Licence 2AM-MRY1325 Monthly Surveillance Network Program (SNP) Report May 2023

The following is the monthly report for May 2023 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 required under the Licence and the details concerning which water quality samples were collected along with sample dates and laboratory identification numbers, as appropriate. Analytical water quality testing results are presented in Tables 2.1 through 2.6. 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 May 2023.

Monitoring Program Results

Water Sampling and Analysis Results

Tables 2.1 through 2.3 provide 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 May 2023. Tables 2.4 through 2.6 provide the analytical results related to the SNP sampling requirements. In May 2023, there were two (2) exceedances of the site-specific grab sample limit of 30 mg/L for Total Suspended Solids (TSS) at Mine Site surface water monitoring stations, as follows:

- MS-C-C: TSS concentration of 502 mg/L on May 22, 2023
- MS-C-D: , TSS concentration of 282 mg/L on May 22, 2023

The stipulated maximum average TSS concentration of 15 mg/L for TSS was also exceeded at MS-C-C and MS-C-D in May because only one (1) sample could be collected at each of the MS-C-C and MS-C-D surface water monitoring stations due to frozen conditions during the other scheduled sampling events in May, including the week following the reported samples due to re-freezing temperatures.





May 2023

The exceedances at MS-C-C and MS-C-D were the result of warming temperatures resulting in snowmelt runoff containing sediment-laden water entering the receiving watercourses as a result of conditions associated with annual freshet conditions which typically occur from mid-May to June 30. In preparation for freshet and in response to sediment concerns and/or exceedances, corrective and mitigative actions were implemented across the Project as necessary in accordance with Baffinland's Surface Water and Aquatic Ecosystem Management Plan. Baffinland continues to employ mitigative and corrective actions as necessary to prevent and address sediment concerns at the Project.

On May 20, an uncontrolled release from the KM105 Surface Water Management Pond (KM105 Pond) occurred due to seepage from the pond floor at the north embankment of the pond. The event resulted in elevated TSS above the water licence criteria of 30 mg/L for TSS concentrations in a grab sample in water quality samples collected from a newly established water quality monitoring station; KM105-SWMP-SEEP-02, at the seepage location. The seepage event was reported to the NT-NU Spill Reporting Line on May 21 (NT-NU Spill Report #2023-208). Monthly water licence samples will continue to be collected at water quality monitoring station KM105-SWMP-SEEP-02 when there is flowing water present and a representative sample can be collected. The discharge quantity at MS-11 is unknown for the month of May due to fluctuating inflow conditions resulting from drastically changing daily temperatures. In addition, water levels were consistently below the pressure transducer elevation and therefore it could not be installed. Following the onset of consistent warmer temperatures, pressure transducers were installed in June and MS-11 discharge data will be reported in subsequent monthly report submissions.

Flow and Volume Measurements

alleson Parker

Table 3.1 provides a breakdown of volume measurements for May 2023 as required by Part I, Item 9 of the Licence. There were no exceedances of the source-specifically volume withdrawal limits in May 2023.

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

Prepared by: Reviewed by:

Allison Parker **Todd Swenson**

Environmental Specialist Environmental Superintendent

Jeremy Fraser, Omer Pasalic (CIRNAC) cc:

Conor Goddard, Chris Spencer (QIA)

Tim Sewell, Megan Lord-Hoyle, Lou Kamermans, Francois Gaudreau, Martin Beausejour, Connor Devereaux, Katie Babin, Allison Parker (Baffinland)

Attachments



May 2023



Attachments

Monthly Water Sampling Results



Table 1.1: Monitoring Program Water Sampling Summary for May 2023

MP-01 (Sewage Treatment Facility) MP-01A (Polishing Waste Stabilization Pond) MP-01B (Sewage Treatment Facility) MP-01B (Sewage Treatment Facility) MP-MRY-2 (Freshwater Intake at Phillips Creek) MP-MRY-3 (Freshwater Intake from Km 32 Lake) MP-02 (Milne Port Maintenance Shop) MP-03 (Bulk Fuel Storage Facility MP-04 (Treated Oily Water from Milne Port Landfarm Facility to Tundra) MP-05 Ore Stockpile Sedimentation Pond (Mest) MP-06 Ore Stockpile Sedimentation Pond (Mest) MP-07 (Mest) MP-08 (Mest) MP-09 (Mest) Mest Mest Mest Mest Mest Mest Mest Mest	Monitoring Program Station	Sampling Date	Lab ID Number	Comment		
(Sewage Treatment Facility) MP-01A (Polishing Waste Stabilization Pond) NA NA NA NA No discharge. Discharge volume recorded daily. MP-01B (Sewage Treatment Facility) MP-MRY-2 (Freshwater Intake at Phillips Creek) MP-MRY-3 (Freshwater Intake from Km 32 Lake) MP-MRY-3 (Milne Port Maintenance Shop) MP-03 (Bulk Fuel Storage Facility MP-04 (Treated Oily Water from Milne Port Landfarm Facility to Tundra) MP-05 Ore Stockpile Sedimentation Pond (East) MP-06 Ore Stockpile Sedimentation Pond (West) MP-C-A (Downstream of Construction Area) MP-C-B (Downstream of Construction Area) MP-C-F NA NA NA No discharge. WT2311644 Discharge volume recorded daily. WT2311644 Discharge volume recorded daily. MY2311644 Discharge volume recorded daily. MV2311644 NA NA NA NA NA NA NA NA No water withdrawal. Withdrawal volume recorded daily. Withdrawal volume recorded daily. MV Withdrawal volume recorded daily. MV Withdrawal volume recorded daily. NA NA NA NA NA No discharge. NA NA NA No discharge. NA NA No discharge. NA No discharge. NA No discharge. NA No discharge. NA No flow. No flow.		Milne Po	ort			
(Sewage Treatment Facility) MP-01A (Polishing Waste Stabilization Pond) MP-01B (Sewage Treatment Facility) MP-MRY-2 (Freshwater Intake at Phillips Creek) (Freshwater Intake at Phillips Creek) MP-MRY-3 (Freshwater Intake from Km 32 Lake) MP-02 (Milne Port Maintenance Shop) MP-03 (Bulk Fuel Storage Facility NA NA NA NA No discharge. MP-04 (Treated Oily Water from Milne Port Landfarm Facility to Tundra) MP-05 Ore Stockpile Sedimentation Pond (Kest) MP-06 Ore Stockpile Sedimentation Pond (Mest) MP-07 (Mest) MP-08 NA NA NA NA No discharge. MP-09 NA NA NA No discharge.	MP-01	2022 05 02	W/T22116/11	Discharge volume recorded		
Polishing Waste Stabilization Pond NA	(Sewage Treatment Facility)	2023-03-02	VV12311041	daily.		
(Polishing Waste Stabilization Pond) MP-01B (Sewage Treatment Facility) MP-MRY-2 (Freshwater Intake at Phillips Creek) MP-MRY-3 (Freshwater Intake from Km 32 Lake) MP-02 (Milne Port Maintenance Shop) MP-03 (Bulk Fuel Storage Facility MP-04 (Treated Oily Water from Milne Port Landfarm Facility to Tundra) MP-04 (Treated Oily Water from Milne Port Snow dump Facility to Tundra) MP-05 Ore Stockpile Sedimentation Pond (East) MP-06 Ore Stockpile Sedimentation Pond (MWest) MP-C-A (Downstream of Construction Area) MP-C-B (Downstream of Construction Area) MP-C-F NA NA NA NA NA No flow.	MP-01A	NΔ	NΔ	No discharge		
Sewage Treatment Facility August	(Polishing Waste Stabilization Pond)	IVA	IVA	No discharge.		
(Sewage Treatment Facility) MP-MRY-2 (Freshwater Intake at Phillips Creek) MP-MRY-3 (Freshwater Intake from Km 32 Lake) MP-02 (Milne Port Maintenance Shop) MP-03 (Bulk Fuel Storage Facility MP-04 (Treated Oily Water from Milne Port Landfarm Facility to Tundra) MP-04A (Treated Oily Water from Milne Port Snow dump Facility to Tundra) MP-05 Ore Stockpile Sedimentation Pond (East) MP-06 Ore Stockpile Sedimentation Pond (West) MP-C-A (Downstream of Construction Area) MP-C-B (Downstream of Construction Area) MP-C-F NA NA NA NA NA NA NA NA NA N	MP-01B	2023-05-02	W/T23116///	Discharge volume recorded		
Freshwater Intake at Phillips Creek NA NA No water withdrawal.	(Sewage Treatment Facility)	2023-03-02	VV12311044	daily.		
(Freshwater Intake at Phillips Creek) NA Withdrawal volume recorded daily. MP-MRY-3 (Freshwater Intake from Km 32 Lake) NA NA NA Facility not constructed. MP-02 (Milne Port Maintenance Shop) NA NA NA Facility not constructed. MP-03 (Bulk Fuel Storage Facility NA NA NA No discharge. Stormwater) MP-04 (Treated Oily Water from Milne Port Landfarm Facility to Tundra) NA NA NA No discharge. MP-04 (Treated Oily Water from Milne Port Snow dump Facility to Tundra) NA NA NA No discharge. MP-05 Ore Stockpile Sedimentation Pond (East) NA NA NA No discharge. MP-06 Ore Stockpile Sedimentation Pond (West) NA NA NA No flow. MP-C-A (Downstream of Construction Area) NA NA NA No flow. MP-C-B (Downstream of Construction Area) NA NA NA No flow. MP-C-E (Downstream of Construction Area) NA NA NA No flow. MP-C-E (Downstream of Construction Area) NA NA NA No flow.	MP-MRY-2	NΛ	NA	No water withdrawal		
(Freshwater Intake from Km 32 Lake) MP-02 (Milne Port Maintenance Shop) MP-03 (Bulk Fuel Storage Facility Stormwater) MP-04 (Treated Oily Water from Milne Port Landfarm Facility to Tundra) MP-05 Ore Stockpile Sedimentation Pond (East) MP-06 Ore Stockpile Sedimentation Pond (West) MP-C-A (Downstream of Construction Area) MP-C-E (Downstream of Construction Area) MP-C-E (Downstream of Construction Area) MP-C-E (Downstream of Construction Area) MP-C-F NA NA NA NA NA NA NA NA NA N	(Freshwater Intake at Phillips Creek)	INA	INA	No water withdrawar.		
(Freshwater Intake from Km 32 Lake) recorded daily. MP-02 (Milne Port Maintenance Shop) NA NA Facility not constructed. MP-03 (Bulk Fuel Storage Facility NA NA NA No discharge. Stormwater) MP-04 (Treated Oily Water from Milne Port Landfarm Facility to Tundra) NA NA No discharge. MP-04A (Treated Oily Water from Milne Port Snow dump Facility to Tundra) NA NA No discharge. MP-05 Ore Stockpile Sedimentation Pond (East) NA NA No discharge. MP-06 Ore Stockpile Sedimentation Pond (West) NA NA No flow. MP-C-A (Downstream of Construction Area) NA NA No flow. MP-C-B (Downstream of Construction Area) NA NA No flow. MP-C-E (Downstream of Construction Area) NA NA No flow. MP-C-E (Downstream of Construction Area) NA NA No flow. MP-C-E (Downstream of Construction Area) NA NA No flow.	MP-MRY-3	NΙΔ	NA	Withdrawal volume		
(Milne Port Maintenance Shop) MP-03 (Bulk Fuel Storage Facility Stormwater) MP-04 (Treated Oily Water from Milne Port Landfarm Facility to Tundra) MP-04A (Treated Oily Water from Milne Port Snow dump Facility to Tundra) MP-05 Ore Stockpile Sedimentation Pond (East) MP-06 Ore Stockpile Sedimentation Pond (West) MP-C-A (Downstream of Construction Area) MP-C-B (Downstream of Construction Area) MP-C-E (Downstream of Construction Area) MP-C-F NA NA NA NA NA NA NA NA NA N	(Freshwater Intake from Km 32 Lake)	INA	INA	recorded daily.		
(Milne Port Maintenance Shop) MP-03 (Bulk Fuel Storage Facility Stormwater) MP-04 (Treated Oily Water from Milne Port Landfarm Facility to Tundra) MP-04A (Treated Oily Water from Milne Port Snow dump Facility to Tundra) MP-05 Ore Stockpile Sedimentation Pond (East) MP-06 Ore Stockpile Sedimentation Pond (West) MP-C-A (Downstream of Construction Area) MP-C-B (Downstream of Construction Area) MP-C-E (Downstream of Construction Area) MP-C-F NA NA NA NA No flow. No flow.	MP-02	NIA	NA	Facility and appearance of		
(Bulk Fuel Storage Facility Stormwater) MP-04 (Treated Oily Water from Milne Port Landfarm Facility to Tundra) MP-04A (Treated Oily Water from Milne Port Snow dump Facility to Tundra) MP-05 Ore Stockpile Sedimentation Pond (East) MP-06 Ore Stockpile Sedimentation Pond (West) MP-C-A (Downstream of Construction Area) MP-C-D (Downstream of Construction Area) MP-C-E (Downstream of Construction Area) MP-C-F NA NA NA NA No flow. No flow. No flow.	(Milne Port Maintenance Shop)	NA NA	INA I	Facility not constructed.		
Stormwater) MP-04 (Treated Oily Water from Milne Port Landfarm Facility to Tundra) MP-04A (Treated Oily Water from Milne Port NA NA NA NO discharge. MP-04A (Treated Oily Water from Milne Port Snow dump Facility to Tundra) MP-05 Ore Stockpile Sedimentation Pond (East) MP-06 Ore Stockpile Sedimentation Pond NA NA NO discharge. MP-C-A (Downstream of Construction Area) MP-C-B (Downstream of Construction Area) MP-C-B (Downstream of Construction Area) MP-C-E (Downstream of Construction Area) MP-C-F NA NA NA NO flow.	MP-03					
MP-04 (Treated Oily Water from Milne Port Landfarm Facility to Tundra) MP-04A (Treated Oily Water from Milne Port NA NA NA NO discharge. MP-04A (Treated Oily Water from Milne Port NA NA NA NO discharge. Snow dump Facility to Tundra) MP-05 Ore Stockpile Sedimentation Pond NA NA NA NO discharge. (East) MP-06 Ore Stockpile Sedimentation Pond NA NA NA NO discharge. (West) MP-C-A (Downstream of Construction Area) MP-C-B (Downstream of Construction Area) MP-C-D (Downstream of Construction Area) MP-C-E (Downstream of Construction Area) MP-C-E (Downstream of Construction Area) MP-C-E (Downstream of Construction Area) MP-C-F NA NA NA NA NO flow. No flow.	(Bulk Fuel Storage Facility	NA	NA	No discharge.		
(Treated Oily Water from Milne Port Landfarm Facility to Tundra) MP-04A (Treated Oily Water from Milne Port Snow dump Facility to Tundra) MP-05 Ore Stockpile Sedimentation Pond (East) MP-06 Ore Stockpile Sedimentation Pond (West) MP-C-A (Downstream of Construction Area) MP-C-B (Downstream of Construction Area) MP-C-E (Downstream of Construction Area) NA NA NA NA NA No flow. NA No flow.	Stormwater)					
Landfarm Facility to Tundra) MP-04A (Treated Oily Water from Milne Port Snow dump Facility to Tundra) MP-05 Ore Stockpile Sedimentation Pond (East) MP-06 Ore Stockpile Sedimentation Pond (West) MP-C-A (Downstream of Construction Area) MP-C-B (Downstream of Construction Area) MP-C-E (Downstream of Construction Area) MP-C-F NA NA NA No flow. No flow.	MP-04					
MP-04A (Treated Oily Water from Milne Port Snow dump Facility to Tundra) MP-05 Ore Stockpile Sedimentation Pond (East) MP-06 Ore Stockpile Sedimentation Pond (West) MP-C-A (Downstream of Construction Area) MP-C-B (Downstream of Construction Area) MP-C-C-B (Downstream of Construction Area)	(Treated Oily Water from Milne Port	NA	NA	No discharge.		
(Treated Oily Water from Milne Port Snow dump Facility to Tundra) MP-05 Ore Stockpile Sedimentation Pond (East) MP-06 Ore Stockpile Sedimentation Pond (West) MP-C-A (Downstream of Construction Area) MP-C-D (Downstream of Construction Area) MP-C-E (Downstream of Construction Area) NA NA NA No flow.	Landfarm Facility to Tundra)					
Snow dump Facility to Tundra) MP-05 Ore Stockpile Sedimentation Pond (East) MP-06 Ore Stockpile Sedimentation Pond (West) MP-C-A (Downstream of Construction Area) MP-C-D (Downstream of Construction Area) MP-C-E (Downstream of Construction Area) MP-C-F NA NA NA No flow. No flow.	MP-04A					
MP-05 Ore Stockpile Sedimentation Pond (East) MP-06 Ore Stockpile Sedimentation Pond (West) MP-C-A (Downstream of Construction Area) MP-C-D (Downstream of Construction Area) MP-C-E (Downstream of Construction Area) MP-C-F NA NA No flow.	(Treated Oily Water from Milne Port	NA	NA	No discharge.		
Ore Stockpile Sedimentation Pond (East) MP-06 Ore Stockpile Sedimentation Pond (West) MP-C-A (Downstream of Construction Area) MP-C-B (Downstream of Construction Area) MP-C-D (Downstream of Construction Area) MP-C-E (Downstream of Construction Area) MP-C-F NA NA NA No flow.	Snow dump Facility to Tundra)					
(East) MP-06 Ore Stockpile Sedimentation Pond (West) MP-C-A (Downstream of Construction Area) MP-C-B (Downstream of Construction Area) MP-C-D (Downstream of Construction Area) MP-C-E (Downstream of Construction Area) MP-C-F NA NA No flow.	MP-05					
MP-06 Ore Stockpile Sedimentation Pond (West) MP-C-A (Downstream of Construction Area) MP-C-B (Downstream of Construction Area) MP-C-D (Downstream of Construction Area) MP-C-E (Downstream of Construction Area) MP-C-E (Downstream of Construction Area) MP-C-E (Downstream of Construction Area) MP-C-F NA NA NA No flow. No flow.	Ore Stockpile Sedimentation Pond	NA	NA	No discharge.		
Ore Stockpile Sedimentation Pond (West) MP-C-A (Downstream of Construction Area) MP-C-B (Downstream of Construction Area) MP-C-D (Downstream of Construction Area) MP-C-E (Downstream of Construction Area) MP-C-F NA NA NA No flow.	(East)			_		
(West) MP-C-A (Downstream of Construction Area) MP-C-B (Downstream of Construction Area) MP-C-D (Downstream of Construction Area) MP-C-E (Downstream of Construction Area) MP-C-E (Downstream of Construction Area) MP-C-F NA NA NA No flow. No flow.	MP-06					
MP-C-A (Downstream of Construction Area) MP-C-B (Downstream of Construction Area) MP-C-D (Downstream of Construction Area) MP-C-E (Downstream of Construction Area) MP-C-E (Downstream of Construction Area) MP-C-F NA NA NA No flow. No flow. No flow.	Ore Stockpile Sedimentation Pond	NA	NA	No discharge.		
(Downstream of Construction Area) MP-C-B (Downstream of Construction Area) MP-C-D (Downstream of Construction Area) MP-C-E (Downstream of Construction Area) MP-C-E (Downstream of Construction Area) MP-C-F NA NA NA No flow. No flow.	(West)					
MP-C-B (Downstream of Construction Area) MP-C-D (Downstream of Construction Area) MP-C-D (Downstream of Construction Area) MP-C-E (Downstream of Construction Area) MP-C-F NA NA NA NO flow. No flow. No flow.	MP-C-A					
(Downstream of Construction Area) MP-C-D (Downstream of Construction Area) MP-C-E (Downstream of Construction Area) NA NA NA NO flow. NO flow. NO flow. NO flow. NO flow.	(Downstream of Construction Area)	NA	NA	No flow.		
MP-C-D (Downstream of Construction Area) MP-C-E (Downstream of Construction Area) MP-C-E (Downstream of Construction Area) MP-C-F NA NA NA NO flow. NO flow.						
MP-C-D (Downstream of Construction Area) MP-C-E (Downstream of Construction Area) MP-C-F NA NA NA No flow. No flow.	(Downstream of Construction Area)	NA	NA	No flow.		
(Downstream of Construction Area) MP-C-E (Downstream of Construction Area) MP-C-F NA NA NA NO flow. No flow.	,					
MP-C-E (Downstream of Construction Area) MP-C-F NA NA NA No flow. No flow.	(Downstream of Construction Area)	NA	NA	No flow.		
(Downstream of Construction Area) NA NA NO flow. MP-C-F NA NA NO flow.	,					
MP-C-F NA NA No flow.		NA	NA	No flow.		
I NA I NA I No flow.	,					
1=0	(Downstream of Construction Area)	NA	NA	No flow.		



May 2023

Monitoring Program Station	Sampling Date	Lab ID Number	Comment
	Sampling Bate	Edd 15 Namber	Comment
MP-C-H (Downstream of Construction Area)	NA	NA	No flow.
MP-C-J			
	NA	NA	No flow.
(Downstream of Construction Area) MP-C-K			
	NA	NA	No flow.
(Downstream of Construction Area)			
MP-Q1-01	NA	NA	No flow.
(Downstream of Q1 Quarry)			
MP-Q1-02	NA	NA	No flow.
(Downstream of Q1 Quarry)			
MS-01	Mary River M	ine Site	
(Sewage Treatment Facility)	N/A	N/A	No discharge.
MS-01A			
	N1/A	NI/A	Facility not constructed
(Mine Site Polishing Waste Stabilization Pond)	N/A	N/A	Facility not constructed.
,			Dialana and a
MS-01B	2023-05-02	WT2311657-001	Discharge volume recorded
(Sewage Treatment Facility)			daily.
MS-02	N/A	N/A	Facility not constructed.
(Mine Site Maintenance Shop)			NA/ible discount confirms
MS-MRY-1	N/A	N/A	Withdrawal volume
(Freshwater Intake Camp Lake)			recorded daily.
MS-MRY-04A	N/A	N/A	No discharge.
(Polishing Waste Stabilization Pond)			
MS-MRY-04B	N/A	N/A	No discharge.
(Polishing Waste Stabilization Pond)			
MS-MRY-04C	N/A	N/A	No discharge.
(Polishing Waste Stabilization Pond)			
MS-03			
(Mine Site Bulk Fuel Storage Facility	N/A	N/A	No discharge.
Stormwater)			
MS-03B			
(Mine Site Bulk Fuel Storage Facility	N/A	N/A	No discharge.
Stormwater)			
MS-04	_	_	
(Mine Site Fuel Unloading Station	N/A	N/A	Facility not constructed.
Stormwater)			
MS-05	N/A	N/A	No discharge.
(Mine Site Landfarm Facility)	,	,	0-
MS-06	N/A	N/A	No discharge.
(Ore Stockpile Pond Stormwater)	,		

Baffinland



Water Licence 2AM-MRY1325 Monthly Report

May 2023

Monitoring Program Station	Sampling Date	Lab ID Number	Comment
MS-07			
(Run of Mine Ore Stockpile Pond	NA	NA	No discharge.
Stormwater)			
MS-08	NA	NA	No discharge
(Mine Waste Rock Stockpile Pond)	IVA	IVA	No discharge
MS-09	N/A	N/A	Facility not constructed.
(Waste Rock Stockpile East Pond)	N/A	NA	racinty not constructed.
MS-10			
(SDLT-1 Pond Ore Stockpile	N/A	N/A	Facility not constructed.
Stormwater)			
MS-11	2023-05-20	BF2300049-001	Uncontrolled discharge. ¹
(KM105 Pond Stormwater)	2023-03-20	Bi 2300043-001	oncontrolled discharge.
MS-12	N/A	N/A	Facility not constructed.
(Weatherhaven Camp Stormwater)	N/A	14/7	racinty not constructed.
MS-13	N/A	N/A	Facility not constructed.
(Explosives Magazine Pond)	IN/A	IN/A	racility not constructed.
MS-14	N/A	N/A	Facility not constructed.
(Quarry QMR2 Pond/Sump)	N/A	14/7	racinty not constructed.
MS-MRY-6			
(Exploration Camp Bulk Fuel Storage	N/A	N/A	No discharge.
Facility Stormwater)			
MS-MRY-09	N/A	N/A	No flow.
(Deposit 1 Surface Water Drainage)	N/A	14/7	No now.
MS-MRY-13A			
(Downstream Non-Hazardous	N/A	N/A	No flow.
Landfill)			
MS-MRY-13B			
(Downstream Non-Hazardous	N/A	N/A	No flow.
Landfill)			
MS-C-A			
(Downstream of Construction and	N/A	N/A	No flow.
Borrow Areas)			
MS-C-B			
(Downstream of Construction and	N/A	N/A	No flow.
Borrow Areas)			
MS-C-C			No sample collected week
(Downstream of Construction and	2022 05 22	BF2300053-002	following May 22 sample
Borrow Areas)	2023-05-22	DF2300033-002	due to re-freezing
BOITOW AICas)			conditions.



Water Licence 2AM-MRY1325 Monthly Report

May 2023

Monitoring Program Station	Sampling Date	Lab ID Number	Comment		
MS-C-D (Downstream of Construction and Borrow Areas)	2023-05-22	BF2300053-001	No sample collected week following May 22 sample due to re-freezing conditions.		
MS-C-E (Downstream of Construction and Borrow Areas)	N/A	N/A	No flow.		
MS-C-F (Downstream of Construction and Borrow Areas)	N/A	N/A	No flow.		
MS-C-G (Downstream of Construction and Borrow Areas)	N/A	N/A	No flow.		
MS-C-H (Downstream of Construction and Borrow Areas)	N/A	N/A	No flow.		
MQ-C-A (Downstream of QMR2 Quarry)	N/A	N/A	No flow.		
MQ-C-B (Downstream of QMR2 Quarry)	N/A	N/A	No flow.		
MQ-C-D (Downstream of QMR2 Quarry)	N/A N/A		No flow.		
	Steensby I	Port			
Steensby Exploration Camp is presently inactive.	N/A	N/A	N/A		

¹ MS-11 results are from newly established seep location KM105-SWMP-SEEP-02.



Table 2.1: Water Quality Results for Water Licence Monitoring Location - MP-01

Analyte	ALS Labo Samp	Sample ID oratory Sample ID lle Date & Time QC Sample Type	MP-01 WT2311641 2023-05-02 14:30 N/A		
	Units	Criteria ¹			
рН	pH units	6.0 - 9.5	7.91		
Total Suspended Solids	mg/L	120	< 1.0		
Ammonia, Total (as N)	mg/L	-	0.0872		
Total Kjeldahl Nitrogen	mg/L	-	1.02		
Phosphorus, Total	mg/L	-	9.09		
Fecal Coliforms	CFU/100 mL	10,000	< 1		
BOD	mg/L	100	< 2.0		
Oil and Grease, Total	mg/L	-	< 5.0		
On and Grease, Total	_	No Visible Sheen	No Visible Sheen		
Toxicity	-	Not Acutely Toxic	-		

Bold highlight indicates result that exceeded the applicable water quality criteria.

 $^{^1}$ Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 5: Effluent Quality Discharge Limits for Sewage Treatment Facilities to the Ocean



Table 2.2: Water Quality Results for Water Licence Monitoring Location - MP-01B

Analyte	ALS Labo Samp	Sample ID pratory Sample ID le Date & Time IC Sample Type	MP-01B WT2311644 2023-05-02 13:30 N/A	
	Units	Criteria ¹		
рН	pH units	6.0 - 9.5	7.54	
Total Suspended Solids	mg/L	120	< 1.5	
Ammonia, Total (as N)	mg/L -		0.0135	
Total Kjeldahl Nitrogen	mg/L	-	1.26	
Phosphorus, Total	mg/L	-	9.17	
Fecal Coliforms	CFU/100 mL	10,000	< 1	
BOD	mg/L	100	< 2.0	
Oil and Grease, Total	mg/L	•	< 5.0	
Oil allu Grease, Total	-	No Visible Sheen	No Visible Sheen	
Toxicity	-	Not Acutely Toxic	-	

Bold highlight indicates result that exceeded the applicable water quality criteria.

 $^{^1}$ Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 5: Effluent Quality Discharge Limits for Sewage Treatment Facilities to the Ocean



Table 2.3: Water Quality Results for Water Licence Monitoring Location - MS-01B

Analyte	ALS Labor Sample	ample ID ratory Sample ID e Date & Time Sample Type	MS-01B WT2311657-001 2023-05-02 14:30 N/A
	Units	Criteria ¹	
рН	pH units	6.0 - 9.5	8.62
Total Suspended Solids	mg/L	35	8.0
Ammonia, Total (as N)	mg/L 4.0		0.0412
Total Kjeldahl Nitrogen	mg/L	=	1.15
Phosphorus, Total	mg/L	4.0	1.45
Fecal Coliforms	CFU/100 mL	1,000	< 1
BOD	mg/L	30	2.7
Oil and Crosso Total	mg/L	=	< 5.0
Oil and Grease, Total	_	No Visible Sheen	No Visible Sheen
Toxicity	-	Not Acutely Toxic	-

Bold highlight indicates result that exceeded the applicable water quality criteria.

¹ Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 4: Effluent Quality Discharge Limits for Sewage Treatment Facilities to Freshwater Receiving Environment

Table 2.4: Water Quality Results for Water Licence Monitoring Location - MS-C-C

Analyte	ALS Labo Samp	Sample ID oratory Sample ID ole Date & Time QC Sample Type	MS-C-C BF2300053-002 2023-05-22 16:10 N/A		
	Units	Criteria ¹			
Conductivity	umhos/cm	-	403		
рН	pH units	6.0 - 9.5	7.85		
Total Suspended Solids	mg/L	Grab 30, Average 15	502		
Total Dissolved Solids	mg/L	-	282		
Turbidity	NTU	-	746		
Ammonia, Total (as N)	mg/L	-	0.974		
Nitrate (as N)	mg/L	-	2.38		
Oil and Crease Total	mg/L	-	5.6		
Oil and Grease, Total	-	No Visible Sheen	No Visible Sheen		

Bold highlight indicate results that exceeded the applicable water quality criteria.

¹Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 11: Effluent Quality Discharge Limits for Contact Water during the Operations Phase and the Early Revenue Phase of the Project

Table 2.5: Water Quality Results for Water Licence Monitoring Location - MS-C-D

		Sample ID	MS-C-D BF2300053-001		
	ALS Lab	oratory Sample ID			
Analyte	Samp	le Date & Time	2023-05-22 16:05		
	QA/C	C Sample Type	N/A		
	Units	Criteria ¹			
Conductivity	umhos/cm	-	356		
рН	pH units	6.0 - 9.5	7.80		
Total Suspended Solids	mg/L	Grab 30, Average 15	282		
Total Dissolved Solids	mg/L	-	244		
Turbidity	NTU	-	435		
Ammonia, Total (as N)	mg/L	-	0.775		
Nitrate (as N)	mg/L	-	1.81		
Oil and Grease, Total	mg/L	-	< 5.0		
Oil allu Grease, Total	-	No Visible Sheen	No Visible Sheen		

Bold highlight indicate results that exceeded the applicable water quality criteria.

¹Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 11: Effluent Quality Discharge Limits for Contact Water during the Operations Phase and the Early Revenue Phase of the Project



Table 2.6: Water Quality Results for Water Licence Monitoring Location - MS-11

	Sam	ple ID	KM105-SWMP-SEEP-02		
	ALS Laborato	BF2300049-001			
Analyte		ate & Time	2023-05-20 8:00		
		mple Type	N/A		
	Units	Criteria ¹			
Conductivity	umhos/cm	-	90.9		
Hardness (as CaCO3)	mg/L		29.6		
рН	pH units	6.0 - 9.5	7.41		
Total Suspended Solids	mg/L	15	200		
Total Dissolved Solids	mg/L	-	124		
Turbidity	NTU	-	354		
Acidity (as CaCO3) Alkalinity, Total (as CaCO3)	mg/L mg/L	-	<2.0 24.9		
Ammonia, Total (as N)	mg/L	<u> </u>	0.0294		
Chloride (Cl)	mg/L	-	1.73		
Fluoride (F)	mg/L	-	0.065		
Nitrate (as N)	mg/L	-	0.492		
Total Kjeldahl Nitrogen	mg/L	-	0.252		
Phosphorus, Total	mg/L	-	0.114		
Sulfate (SO4)	mg/L	-	15.0		
Dissolved Organic Carbon	mg/L	-	3.48		
Total Organic Carbon	mg/L	-	3.22		
Aluminum (Al)-Total	mg/L	-	13.7		
Antimony (Sb)-Total	mg/L		<0.00100		
Arsenic (As)-Total	mg/L	0.50	<0.00100		
Barium (Ba)-Total	mg/L	-	0.100 0.000625		
Beryllium (Be)-Total Bismuth (Bi)-Total	mg/L	-	<0.000500		
Boron (B)-Total	mg/L	-	<0.100		
Cadmium (Cd)-Total	mg/L mg/L		0.000140		
Calcium (Ca)-Total	mg/L	<u> </u>	6.06		
Cesium (Cs)-Total	mg/L	-	0.000756		
Chromium (Cr)-Total	mg/L	-	0.0244		
Cobalt (Co)-Total	mg/L	-	0.00858		
Copper (Cu)-Total	mg/L	0.30	0.0248		
Iron (Fe)-Total	mg/L	-	20.5		
Lead (Pb)-Total	mg/L	0.20	0.00798		
Lithium (Li)-Total	mg/L	-	0.0194		
Magnesium (Mg)-Total	mg/L	-	16.0		
Manganese (Mn)-Total	mg/L	-	0.282		
Mercury (Hg)-Total	mg/L	-	<0.0000050 0.00270		
Molybdenum (Mo)-Total Nickel (Ni)-Total	mg/L mg/L	0.50	0.00270		
Phosphorus (P)-Total	mg/L	-	<0.500		
Potassium (K)-Total	mg/L	-	7.96		
Rubidium (Rb)-Total	mg/L	-	0.0284		
Selenium (Se)-Total	mg/L	-	<0.000500		
Silicon (Si)-Total	mg/L	-	20.6		
Silver (Ag)-Total	mg/L	-	<0.000100		
Sodium (Na)-Total	mg/L	-	0.983		
Strontium (Sr)-Total	mg/L	-	0.0165		
Sulfur (S)-Total	mg/L	-	<5.00		
Tellurium (Te)-Total	mg/L	-	<0.00200		
Thallium (TI)-Total	mg/L	-	0.000167		
Thorium (Th)-Total	mg/L	<u>-</u>	0.00439		
Tin (Sn)-Total Titanium (Ti)-Total	mg/L mg/L	-	<0.00100 0.522		
Tungsten (W)-Total	mg/L	<u> </u>	<0.00100		
Uranium (U)-Total	mg/L	-	0.00333		
Vanadium (V)-Total	mg/L	-	0.0194		
Zinc (Zn)-Total	mg/L	0.50	0.0383		
Zirconium (Zr)-Total	mg/L	-	<0.00200		
Aluminum (Al)-Dissolved	mg/L	-	0.0299		
Antimony (Sb)-Dissolved	mg/L	-	<0.00010		
Arsenic (As)-Dissolved	mg/L	-	<0.00010		
Barium (Ba)-Dissolved	mg/L	-	0.00365		
Beryllium (Be)-Dissolved	mg/L	-	<0.000020		
Bismuth (Bi)-Dissolved	mg/L	-	<0.000050		
Boron (B)-Dissolved	mg/L	-	<0.010		
Cadmium (Cd)-Dissolved	mg/L	-	0.0000146		
Calcium (Ca)-Dissolved	mg/L mg/L	-	4.84 <0.00010		



Table 2.6: Water Quality Results for Water Licence Monitoring Location - MS-11

	S	ample ID	KM105-SWMP-SEEP-02			
	ALS Labo	ratory Sample ID	BF2300049-001			
Analyte	Sample	e Date & Time	2023-05-20 8:00			
	QA/Q0	Sample Type	N/A			
	Units	Criteria ¹				
Chromium (Cr)-Dissolved	mg/L	-	<0.00050			
Cobalt (Co)-Dissolved	mg/L	-	0.00014			
Copper (Cu)-Dissolved	mg/L	-	0.00054			
Iron (Fe)-Dissolved	mg/L	-	0.033			
Lead (Pb)-Dissolved	mg/L	-	<0.00050			
Lithium (Li)-Dissolved	mg/L	-	0.0027			
Magnesium (Mg)-Dissolved	mg/L	-	4.25			
Manganese (Mn)-Dissolved	mg/L	-	0.0303			
Mercury (Hg)-Dissolved	mg/L	-	<0.000050			
Molybdenum (Mo)-Dissolved	mg/L	-	0.00393			
Nickel (Ni)-Dissolved	mg/L	-	<0.00050			
Phosphorus (P)-Dissolved	mg/L	-	<0.050			
Potassium (K)-Dissolved	mg/L	-	4.03			
Rubidium (Rb)-Dissolved	mg/L	-	0.00227			
Selenium (Se)-Dissolved	mg/L	-	0.000121			
Silicon (Si)-Dissolved	mg/L	-	0.807			
Silver (Ag)-Dissolved	mg/L	-	<0.00010			
Sodium (Na)-Dissolved	mg/L	-	0.807			
Strontium (Sr)-Dissolved	mg/L	-	0.0136			
Sulfur (S)-Dissolved	mg/L	-	4.67			
Tellurium (Te)-Dissolved	mg/L	-	<0.00020			
Thallium (Tl)-Dissolved	mg/L	-	<0.00010			
Thorium (Th)-Dissolved	mg/L	-	<0.00010			
Tin (Sn)-Dissolved	mg/L	-	<0.00010			
Titanium (Ti)-Dissolved	mg/L	-	0.00090			
Tungsten (W)-Dissolved	mg/L	-	<0.00010			
Uranium (U)-Dissolved	mg/L	-	0.000180			
Vanadium (V)-Dissolved	mg/L	-	<0.00050			
Zinc (Zn)-Dissolved	mg/L	-	<0.0010			
Zirconium (Zr)-Dissolved	mg/L	-	<0.00030			
Ra-226	Bq/L	-	0.0710			
Oil and Grease, Total		No Visible Sheen	No Visible Sheen			
Acute Toxicity	-	Not Acutely Toxic	Not Acutely Toxic			

Bold highlight indicate results that exceeded the applicable water quality criteria.

¹Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 10: Effluent Quality Discharge Limits for Open Pit, Stockpiles and Sedimentation Ponds



Table 3.1: Flow and Volume Measurements - Part I Item 11 - May 2023

DATE	Camp Lake Freshwater for Domestic Use - Daily Water MS-MRY-1 (m³)	Camp Lake Freshwater for Industrial Use - Daily Water MS-MRY-1 (m³)	Effluent from MS 01 to Discharge	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 01B to Milne Inlet (m³)	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-May-23	117.2	0.0	0.0	99.4	1.3	0.0	0.0	69.8	0.0	24.0	29.8	0.5	0.0	0.0
2-May-23	121.8	14.7	0.0	118.2	1.3	0.0	0.0	54.7	0.0	24.0	28.5	0.4	0.0	0.0
3-May-23	105.9	14.5	0.0	103.6	1.3	0.0	0.0	64.4	0.0	23.0	29.8	0.5	0.0	0.0
4-May-23	93.7	9.6	0.0	101.6	1.3	0.0	0.0	52.9	0.0	24.0	29.7	0.9	0.0	0.0
5-May-23	130.0	2.1	0.0	102.7	1.3	0.0	0.0	35.6	0.0	24.0	18.6	0.0	0.0	0.0
6-May-23	132.2	3.4	0.0	106.5	1.3	0.0	0.0	45.8	0.0	23.0	22.9	0.7	0.0	0.0
7-May-23	140.9	13.6	0.0	107.4	1.3	0.0	0.0	39.1	3.0	19.0	28.1	0.7	0.0	0.0
8-May-23	133.7	31.2	0.0	133.5	1.3	0.0	0.0	47.0	0.0	21.0	26.7	0.3	0.0	0.0
9-May-23	156.5	17.7	0.0	120.4	1.5	0.0	0.0	46.6	0.0	18.0	25.3	0.7	0.0	0.0
10-May-23	154.8	10.4	0.0	86.6	1.3	0.0	0.0	48.0	0.0	18.0	32.4	0.3	0.0	0.0
11-May-23	158.7	0.9	0.0	70.6	1.3	0.0	0.0	43.7	4.0	22.0	23.6	0.3	0.0	0.0
12-May-23	97.5	28.1	0.0	111.7	1.3	0.0	0.0	56.7	3.0	21.0	28.9	0.3	0.0	0.0
13-May-23	129.7	4.3	0.0	130.3	1.5	0.0	0.0	41.2	0.0	18.0	23.9	0.3	0.0	0.0
14-May-23	119.7	20.8	0.0	122.1	1.5	0.0	0.0	47.5	0.0	18.0	22.2	0.3	0.0	0.0
15-May-23	118.4	10.5	0.0	106.4	1.7	0.0	0.0	47.4	0.0	18.0	24.2	0.7	0.0	0.0
16-May-23	123.9	23.5	0.0	99.1	1.5	0.0	0.0	63.4	3.0	16.0	30.4	0.3	0.0	0.0
17-May-23	99.8	6.2	0.0	100.6	1.3	0.0	0.0	49.0	0.0	21.0	31.6	0.5	0.0	0.0
18-May-23	153.7	20.2	0.0	97.9	1.3	0.0	0.0	29.5	11.0	17.0	23.8	0.5	0.0	0.0
19-May-23	107.3	15.6	0.0	91.4	1.3	0.0	0.0	62.1	10.0	24.0	30.5	0.8	0.0	0.0
20-May-23	106.3	18.4	0.0	93.6	1.0	0.0	0.0	44.9	3.0	15.0	25.1	0.8	0.0	0.0
21-May-23	129.5	10.3	0.0	98.0	0.9	0.0	0.0	35.7	0.0	22.0	19.1	0.5	0.0	0.0
22-May-23	125.4	14.5	0.0	58.7	0.9	0.0	0.0	44.1	3.0	16.0	26.2	0.5	0.0	0.0
23-May-23	132.3	5.8	0.0	111.6	1.3	0.0	0.0	61.7	0.0	19.0	29.8	0.5	0.0	0.0
24-May-23	136.5	8.5	0.0	103.4	1.5	0.0	0.0	39.7	0.0	18.0	26.5	0.5	0.0	0.0
25-May-23	116.1	14.1	0.0	111.5	1.7	0.0	0.0	33.0	3.0	21.0	23.8	0.5	0.0	0.0
26-May-23	132.2	15.6	0.0	90.6	1.2	0.0	0.0	59.9	0.0	20.0	20.4	0.7	0.0	0.0
27-May-23	120.8	10.9	0.0	115.7	0.8	0.0	0.0	48.2	0.0	24.0	23.5	0.7	0.0	0.0
28-May-23	140.9	10.8	0.0	0.0	0.8	114.5	0.0	38.6	0.0	22.0	19.5	0.0	0.0	0.0
29-May-23	98.0	14.3	0.0	0.0	0.8	118.9	0.0	88.0	2.0	18.0	23.3	0.5	0.0	0.0
30-May-23	119.2	6.2	0.0	0.0	0.8	118.3	0.0	32.9	0.0	19.0	24.3	0.5	0.0	0.0
31-May-23	105.5	0.0	0.0	112.1	0.4	0.0	0.0	51.5	0.0	22.0	23.9	0.3	0.0	0.0
Total Notes:	3,858.6	376.7	0.0	2,905.2	38.4	351.7	0.0	1,522.8	45.0	629.0	796.2	14.6	0.0	0.0

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