

July 30, 2024

Manager of Licensing
Nunavut Water Board
P.O. Box 119
Gjoa Haven, Nunavut X0B 1J0

Resource Management Officer, CIRNAC
Nunavut District, Nunavut Region
P.O. Box 100
Iqaluit, NU X0A 0H0

**RE: Water Licence 2AM-MRY1325 Monthly Surveillance Network Program (SNP) Report
May 2024**

The following is the monthly report for June 2024 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 June 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 June 2024.

Monitoring Program Results

Water Sampling and Analysis Results

Table 2 provides the analytical results related to the Sewage Treatment Plant (STP) facilities. No exceedances of applicable water quality criteria were observed at STP monitoring stations in June 2024. In June 2024, there were three (3) exceedances of the site-specific grab sample limit of 30 mg/L for Total Suspended Solids (TSS) at SNP surface water monitoring stations MS-C-B (June 16), MS-C-D (June 16), and MS-C-E (June 3, 2024). The exceedance at MS-C-D and MS-C-E resulted from warming temperatures resulting in snowmelt runoff containing sediment-laden water entering the receiving watercourse due to conditions associated with annual freshet conditions typically occurring from mid-May to June 30. The various inputs to the stream were assessed, and an ESC plan was developed and implemented at locations where increased TSS was entering the channel in accordance with Baffinland's Surface Water and Aquatic Effects Management Plan (SWAEMP) and maintained and adjusted as required. Subsequent samples collected at MS-C-D and MS-C-E in late June 2024, were compliant with applicable water quality criteria, confirming that the elevated TSS was transient in nature.

The exceedance at MS-C-B was reported in the Field Duplicate sample and can potentially be explained by environmental site personnel slightly disturbing the stream bed after taking the first sample. This may have resulted in the subsequent Field Duplicate sample having a slightly elevated TSS result that is not representative of the conditions present on June 16, 2024.

On May 10, 2024, an uncontrolled release from the KM105 Surface Water Management Pond (KM105 Pond) to the isolated adjacent tundra occurred due to seepage upstream of the northwest embankment. A summary of this incident and the actions taken by Baffinland was reported in the May report submitted on June 30, 2024. In addition, details on initial mitigative actions were provided in the follow-up spill report submitted June 10, 2024. Monthly Water Licence samples will continue to be collected at an established representative water quality monitoring station when flowing water is present, and a representative sample can be collected.

On June 21st, rising temperatures and rapid snowmelt resulted in the Waste Rock Facility (WRF) pond water levels rising significantly over a short period. A controlled discharge was initiated through the FDP MS-08 on June 21. On June 23rd, despite continued discharge, water levels continued to rise. Three additional pumps were added to lower the level in the pond, and pumping commenced over the spillway onto frozen ground adjacent to the WRF at 12:05 am on June 24th.

When discharge commenced, a full suite of samples, including an acute toxicity test, was taken. The results were compliant with applicable water licence and MDMER requirements, and the effluent was not acutely toxic. The effluent discharged was suspected to contain mostly snow melt.

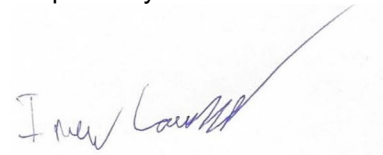
Effluent was discharged via pumping over the spillway for seven days, at which point it was confirmed that water levels had dropped sufficiently. The effluent discharged over the spillway flowed over frozen tundra into the Camp Lake watershed. The follow-up report submitted on July 24th, 2024, provides further details. Table 3.1 represents the effluent discharged through the FDP, not what was pumped over the spillway.

Flow and Volume Measurements

Table 3.1 provides a breakdown of volume measurements for June 2024, as required by Part I, Item 9 of the Licence. In June 2024, the source-specific daily volume withdrawal limits were not exceeded.

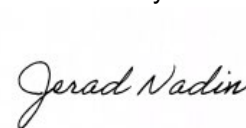
We trust that the information provided in this monthly report is acceptable. If you have any questions regarding this report, please contact the undersigned.

Prepared by:



Irniq Lecompte
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Reviewed by:



Jerad Nadin
Environmental Superintendent

cc: Jeremy Fraser, Omer Pasalic, Sean Noble-Nowdluk (CIRNAC)
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Connor Devereaux, Jerad Nadin, Allison Parker, Dale Kristoff, Katie Babin, 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	2024-06-11	P	WT2415658-004
MP-01B	Sewage Treatment Facility	2024-06-11	P	WT2415658-003
MP-03	Bulk Fuel Storage Facility Stormwater	2024-06-18	FD	WT2416705-002
MP-03	Bulk Fuel Storage Facility Stormwater	2024-06-18	P	WT2416705-001
MP-C-B	Downstream of Construction Area	2024-06-02	P	BF2400068-001
MP-C-B	Downstream of Construction Area	2024-06-11	P	BF2400103-001
MP-C-B	Downstream of Construction Area	2024-06-17	P	BF2400119-006
MP-C-B	Downstream of Construction Area	2024-06-23	P	BF2400133-003
MP-C-B	Downstream of Construction Area	2024-06-30	P	BF2400148-003
MP-C-K	Downstream of Construction Area	2024-06-02	FD	BF2400068-003
MP-C-K	Downstream of Construction Area	2024-06-02	P	BF2400068-002
MP-C-K	Downstream of Construction Area	2024-06-09	P	BF2400097-002
MP-C-K	Downstream of Construction Area	2024-06-17	FD	BF2400119-005
MP-C-K	Downstream of Construction Area	2024-06-17	P	BF2400119-004
MP-C-K	Downstream of Construction Area	2024-06-23	P	BF2400133-007
MP-C-K	Downstream of Construction Area	2024-06-30	P	BF2400148-004
MP-C-H	Downstream of Construction Area	2024-06-09	P	BF2400097-004
MP-C-H	Downstream of Construction Area	2024-06-09	TB	BF2400097-005
MP-C-H	Downstream of Construction Area	2024-06-17	P	BF2400119-007
MP-C-H	Downstream of Construction Area	2024-06-23	FD	BF2400133-002
MP-C-H	Downstream of Construction Area	2024-06-23	P	BF2400133-001
MP-C-H	Downstream of Construction Area	2024-06-30	FD	BF2400148-002
MP-C-H	Downstream of Construction Area	2024-06-30	P	BF2400148-001
MP-C-J	Downstream of Construction Area	2024-06-09	P	BF2400097-001
MP-C-J	Downstream of Construction Area	2024-06-17	P	BF2400119-003
MP-C-J	Downstream of Construction Area	2024-06-23	P	BF2400133-006
MP-C-J	Downstream of Construction Area	2024-06-30	P	BF2400148-005
MP-Q1-01	Downstream of Q1 Quarry	2024-06-02	P	BF2400068-004
MP-Q1-01	Downstream of Q1 Quarry	2024-06-09	P	BF2400097-007
MP-Q1-01	Downstream of Q1 Quarry	2024-06-17	P	BF2400119-001
MP-Q1-01	Downstream of Q1 Quarry	2024-06-23	P	BF2400133-004

Notes:

Sample Types:

P - Permitted Sample

FB - Field Blank

FD - Field Duplicate

TB - Trip Blank

NST - No Sample Taken

**Table 1.1: Monitoring Program
Water Sampling Summary**

Location	Location Description	Sample Date	Sample Type	Lab Sample ID
MP-Q1-01	Downstream of Q1 Quarry	2024-06-30	P	BF2400148-006
MP-Q1-02	Downstream of Q1 Quarry	2024-06-09	P	BF2400097-006
MP-Q1-02	Downstream of Q1 Quarry	2024-06-17	P	BF2400119-002
MP-Q1-02	Downstream of Q1 Quarry	2024-06-23	P	BF2400133-005
MP-Q1-02	Downstream of Q1 Quarry	2024-06-30	P	BF2400148-007
MS-01	Sewage Treatment Facility	2024-06-11	FD	BF2400102-008
MS-01	Sewage Treatment Facility	2024-06-11	P	BF2400102-007
MS-01B	Sewage Treatment Facility	2024-06-11	FD	BF2400102-002
MS-01B	Sewage Treatment Facility	2024-06-11	P	BF2400102-001
MS-07	Run of Mine Ore Stockpile Pond Stormwater	2024-06-26	P	WT2417882-001
MS-08	Mine Waste Rock Stockpile Pond	2024-06-21	P	BF2400129
MS-08	Mine Waste Rock Stockpile Pond	2024-06-25	P	WT2417334
MS-MRY-09	Deposit 1 Surface Water Drainage	2024-06-04	FD	BF2400069-002
MS-MRY-09	Deposit 1 Surface Water Drainage	2024-06-04	P	BF2400069-001
MS-MRY-09	Deposit 1 Surface Water Drainage	2024-06-09	P	BF2400096-014
MS-MRY-09	Deposit 1 Surface Water Drainage	2024-06-16	P	BF2400114-002
MS-MRY-09	Deposit 1 Surface Water Drainage	2024-06-23	P	BF2400137-002
MS-MRY-13A	Downstream Non-Hazardous Landfill	2024-06-03	P	BF2400070-002
MS-MRY-13A	Downstream Non-Hazardous Landfill	2024-06-09	P	BF2400096-003
MS-MRY-13A	Downstream Non-Hazardous Landfill	2024-06-17	P	BF2400114-012
MS-MRY-13A	Downstream Non-Hazardous Landfill	2024-06-23	P	BF2400137-004
MS-MRY-13B	Downstream Non-Hazardous Landfill	2024-06-09	P	BF2400096-002
MS-MRY-13B	Downstream Non-Hazardous Landfill	2024-06-17	P	BF2400114-011
MS-MRY-13B	Downstream Non-Hazardous Landfill	2024-06-23	P	BF2400137-003
MS-C-A	Downstream of Construction and Borrow Areas	2024-06-03	P	BF2400070-005
MS-C-A	Downstream of Construction and Borrow Areas	2024-06-09	P	BF2400096-011
MS-C-A	Downstream of Construction and Borrow Areas	2024-06-16	P	BF2400114-005
MS-C-A	Downstream of Construction and Borrow Areas	2024-06-26	P	WT2417954-001

Notes:

Sample Types:

P - Permitted Sample

FB - Field Blank

FD - Field Duplicate

TB - Trip Blank

NST - No Sample Taken

**Table 1.1: Monitoring Program
Water Sampling Summary**

Location	Location Description	Sample Date	Sample Type	Lab Sample ID
MS-C-B	Downstream of Construction and Borrow Areas	2024-06-03	P	BF2400070-006
MS-C-B	Downstream of Construction and Borrow Areas	2024-06-09	P	BF2400096-012
MS-C-B	Downstream of Construction and Borrow Areas	2024-06-16	FD	BF2400114-007
MS-C-B	Downstream of Construction and Borrow Areas	2024-06-16	P	BF2400114-006
MS-C-B	Downstream of Construction and Borrow Areas	2024-06-24	P	BF2400137-011
MS-C-C	Downstream of Construction and Borrow Areas	2024-06-03	P	BF2400070-009
MS-C-C	Downstream of Construction and Borrow Areas	2024-06-09	P	BF2400096-007
MS-C-C	Downstream of Construction and Borrow Areas	2024-06-09	FB	BF2400096-008
MS-C-D	Downstream of Construction and Borrow Areas	2024-06-03	P	BF2400070-011
MS-C-D	Downstream of Construction and Borrow Areas	2024-06-09	P	BF2400096-001
MS-C-D	Downstream of Construction and Borrow Areas	2024-06-16	P	BF2400114-004
MS-C-D	Downstream of Construction and Borrow Areas	2024-06-23	P	BF2400137-007
MS-C-E	Downstream of Construction and Borrow Areas	2024-06-03	P	BF2400070-010
MS-C-E	Downstream of Construction and Borrow Areas	2024-06-09	P	BF2400096-006
MS-C-E	Downstream of Construction and Borrow Areas	2024-06-16	P	BF2400114-003
MS-C-E	Downstream of Construction and Borrow Areas	2024-06-23	P	BF2400137-006
MS-C-F	Downstream of Construction and Borrow Areas	2024-06-03	P	BF2400071-001
MS-C-F	Downstream of Construction and Borrow Areas	2024-06-09	P	BF2400096-013
MS-C-F	Downstream of Construction and Borrow Areas	2024-06-17	P	BF2400114-013
MS-C-F	Downstream of Construction and Borrow Areas	2024-06-23	FD	BF2400137-009

Notes:

Sample Types:

P - Permitted Sample

FB - Field Blank

FD - Field Duplicate

TB - Trip Blank

NST - No Sample Taken

**Table 1.1: Monitoring Program
Water Sampling Summary**

Location	Location Description	Sample Date	Sample Type	Lab Sample ID
MS-C-F	Downstream of Construction and Borrow Areas	2024-06-23	P	BF2400137-008
MS-C-G	Downstream of Construction and Borrow Areas	2024-06-23	P	BF2400137-001
MS-C-G	Downstream of Construction and Borrow Areas	2024-06-30	P	BF2400147-007
MS-C-H	Downstream of Construction and Borrow Areas	2024-06-03	P	BF2400070-004
MS-C-H	Downstream of Construction and Borrow Areas	2024-06-09	FD	BF2400096-005
MS-C-H	Downstream of Construction and Borrow Areas	2024-06-09	P	BF2400096-004
MS-C-H	Downstream of Construction and Borrow Areas	2024-06-16	P	BF2400114-001
MS-C-H	Downstream of Construction and Borrow Areas	2024-06-23	P	BF2400137-005
MQ-C-A	Downstream of QMR2 Quarry	2024-06-03	P	BF2400070-001
MQ-C-A	Downstream of QMR2 Quarry	2024-06-09	P	BF2400096-009
MQ-C-A	Downstream of QMR2 Quarry	2024-06-16	P	BF2400114-009
MQ-C-A	Downstream of QMR2 Quarry	2024-06-24	P	BF2400137-014
MQ-C-B	Downstream of QMR2 Quarry	2024-06-03	FD	BF2400070-008
MQ-C-B	Downstream of QMR2 Quarry	2024-06-03	P	BF2400070-007
MQ-C-B	Downstream of QMR2 Quarry	2024-06-09	P	BF2400096-015
MQ-C-B	Downstream of QMR2 Quarry	2024-06-16	P	BF2400114-008
MQ-C-B	Downstream of QMR2 Quarry	2024-06-24	P	BF2400137-012
MQ-C-D	Downstream of QMR2 Quarry	2024-06-03	P	BF2400070-003
MQ-C-D	Downstream of QMR2 Quarry	2024-06-09	P	BF2400096-010
MQ-C-D	Downstream of QMR2 Quarry	2024-06-16	P	BF2400114-010
MQ-C-D	Downstream of QMR2 Quarry	2024-06-24	P	BF2400137-013
KM105-SWMP-SEEP-03	KM105 Pond Stormwater	2024-06-05	NP	BF2400078-001
KM105-SWMP-SEEP-03	KM105 Pond Stormwater	2024-06-05	NP	BF2400079-001

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
		Field Sample ID	MP-01_2024-06-11
		ALS Laboratory Work Order	WT2415658
		Sample Date	2024-06-11
		Sample Type	P
Analyte	Units	Criteria	
pH, Lab	pH units	9.5	7.68
Total Suspended Solids	mg/L	120	3.0
Total Dissolved Solids	mg/L		790
Turbidity	NTU		1.03
Alkalinity, Total	mg/L		65.6
Ammonia, Total (as N)	mg/L		0.0514
Total Kjeldahl Nitrogen	mg/L		4.47
Fecal Coliforms	CFU/100mL	10000	< 1
BOD	mg/L	100	< 3.0
Oil and Grease, Total	mg/L		< 5.0
Phosphorus, Nutrient	mg/L		5.00

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
			Field Sample ID	MP-01B_2024-06-11
			ALS Laboratory Work Order	WT2415658
			Sample Date	2024-06-11
			Sample Type	P
Analyte		Units	Criteria	
pH, Lab	pH units	9.5		7.27
Total Suspended Solids	mg/L	120		4.4
Total Dissolved Solids	mg/L			694
Turbidity	NTU			< 0.10
Alkalinity, Total	mg/L			40.8
Ammonia, Total (as N)	mg/L			0.0218
Total Kjeldahl Nitrogen	mg/L			0.673
Fecal Coliforms	CFU/100mL	10000		10
BOD	mg/L	100		< 3.0
Oil and Grease, Total	mg/L			< 5.0
Phosphorus, Nutrient	mg/L			8.04

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-03

Location Name Field Sample ID ALS Laboratory Work Order Sample Date Sample Type			MP-03	MP-03
			MP-03_2024-06-18	QW-CC2_2024-06-18
			WT2416705	WT2416705
			2024-06-18	2024-06-18
			P	FD
Analyte	Units	Criteria		
pH, Lab	pH units		8.03	8.18
Total Suspended Solids	mg/L		4.4	3.7
Total Dissolved Solids	mg/L		218	226
Turbidity	NTU		5.82	5.41
Ammonia, Total (as N)	mg/L		0.113	0.113
Arsenic - Total	mg/L		0.00032	0.00033
Copper - Total	mg/L		0.00190	0.00198
Lead - Total	mg/L	0.0010	0.000500	0.000504
Nickel - Total	mg/L		0.00074	0.00067
Zinc - Total	mg/L		0.0059	0.0058
Oil and Grease, Total	mg/L	15	< 5.0	< 5.0
Visible Sheen	-	No Visible Sheen	No Visible Sheen	No Visible Sheen
Benzene	ug/L	370	< 0.50	< 0.50
Ethylbenzene	ug/L	90	< 0.50	< 0.50
Toluene	ug/L	2.0	< 0.50	< 0.50
F1-BTEX	ug/L		< 25	< 25
F1 (C6-C10)	ug/L		< 25	< 25
F2 (C10-C16)	ug/L		< 100	< 100
F3 (C16-C34)	ug/L		< 250	< 250
F4 (C34-C50)	ug/L		< 250	< 250
Total Petroleum Hydrocarbons (C6-C50)	ug/L		< 370	< 370
Phosphorus, Nutrient	mg/L		0.0072	0.0070

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-C-B

Location Name Field Sample ID ALS Laboratory Work Order Sample Date Sample Type			MP-C-B	MP-C-B	MP-C-B	MP-C-B	MP-C-B
			MP-C-B_2024-06-02	MP-C-B_2024-06-11	MP-C-B_2024-06-17	MP-C-B_2024-06-23	MP-C-B_2024-06-30
			BF2400068	BF2400103	BF2400119	BF2400133	BF2400148
			2024-06-02	2024-06-11	2024-06-17	2024-06-23	2024-06-30
			P	P	P	P	P
Analyte	Units	Criteria					
Conductivity	umhos/cm		515	-	-	-	-
pH, Lab	pH units	9.5	7.93	7.69	7.97	7.94	8.09
Total Suspended Solids	mg/L	30	15.2	18.9	13.5	10.8	4.2
Total Dissolved Solids	mg/L		270	196	152	137	145
Turbidity	NTU		42.7	28.3	30.3	34.6	8.07
Ammonia, Total (as N)	mg/L		0.219	-	-	-	-
Nitrate	mg/L		0.598	-	-	-	-
Oil and Grease, Total	mg/L		< 5.0	-	-	-	-
Visible Sheen	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen

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-C-K**

Location Name Field Sample ID ALS Laboratory Work Order Sample Date Sample Type			MP-C-K	MP-C-K	MP-C-K	MP-C-K	MP-C-K	MP-C-K	MP-C-K
			MP-C-K_2024-06-02	QD-CC8_2024-06-02	MP-C-K_2024-06-09	MP-C-K_2024-06-17	QP-CC3_2024-06-17	MP-C-K_2024-06-23	MP-C-K_2024-06-30
			BF2400068	BF2400068	BF2400097	BF2400119	BF2400119	BF2400133	BF2400148
			2024-06-02	2024-06-02	2024-06-09	2024-06-17	2024-06-17	2024-06-23	2024-06-30
			P	FD	P	P	FD	P	P
Analyte	Units	Criteria							
Conductivity	umhos/cm		332	332	-	-	-	-	-
pH, Lab	pH units	9.5	7.97	7.97	7.73	8.05	8.04	8.08	8.11
Total Suspended Solids	mg/L	30	1.5	1.8	2.1	1.4	1.7	< 1.0	< 1.0
Total Dissolved Solids	mg/L		181	179	198	172	176	200	235
Turbidity	NTU		9.76	10.1	8.48	5.93	5.79	1.84	1.15
Ammonia, Total (as N)	mg/L		0.0098	0.0105	-	-	-	-	-
Nitrate	mg/L		0.200	0.198	-	-	-	-	-
Oil and Grease, Total	mg/L		< 5.0	< 5.0	-	-	-	-	-
Visible Sheen	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen

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-C-H**

Location Name Field Sample ID ALS Laboratory Work Order Sample Date Sample Type			MP-C-H	MP-C-H	MP-C-H	MP-C-H	MP-C-H	MP-C-H	MP-C-H
			MP-C-H_2024-06-09	QD-BT8_2024-06-09	MP-C-H_2024-06-17	MP-C-H_2024-06-23	QP-CC3_2024-06-23	MP-C-H_2024-06-30	QP-CC3_2024-06-30
			BF2400097	BF2400097	BF2400119	BF2400133	BF2400133	BF2400148	BF2400148
			2024-06-09	2024-06-09	2024-06-17	2024-06-23	2024-06-23	2024-06-30	2024-06-30
			P	TB	P	P	FD	P	FD
Analyte	Units	Criteria							
Conductivity	umhos/cm		357	1.3	-	-	-	-	-
pH, Lab	pH units	9.5	7.61	-	7.82	7.97	7.83	7.66	7.80
pH, Lab	pH units	9.5	-	5.80	-	-	-	-	-
Total Suspended Solids	mg/L	30	2.9	< 1.0	25.4	< 1.0	< 1.0	< 1.0	< 1.0
Total Dissolved Solids	mg/L		210	< 19	70	71	60	79	71
Turbidity	NTU		5.42	< 0.10	3.69	0.43	0.43	0.31	0.16
Ammonia, Total (as N)	mg/L		0.0058	< 0.0050	-	-	-	-	-
Nitrate	mg/L		0.111	< 0.020	-	-	-	-	-
Oil and Grease, Total	mg/L		< 5.0	< 5.0	-	-	-	-	-
Visible Sheen	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen

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-C-J

Location Name Field Sample ID ALS Laboratory Work Order Sample Date Sample Type			MP-C-J	MP-C-J	MP-C-J	MP-C-J
			MP-C-J_2024-06-09	MP-C-J_2024-06-17	MP-C-J_2024-06-23	MP-C-J_2024-06-30
			BF2400097	BF2400119	BF2400133	BF2400148
			2024-06-09	2024-06-17	2024-06-23	2024-06-30
			P	P	P	P
Analyte	Units	Criteria				
Conductivity	umhos/cm		252	-	-	-
pH, Lab	pH units	9.5	7.57	7.99	7.92	7.89
Total Suspended Solids	mg/L	30	1.6	< 1.0	< 1.0	< 1.0
Total Dissolved Solids	mg/L		157	165	178	200
Turbidity	NTU		4.94	0.46	0.28	0.16
Ammonia, Total (as N)	mg/L		< 0.0050	-	-	-
Nitrate	mg/L		< 0.020	-	-	-
Oil and Grease, Total	mg/L		< 5.0	-	-	-
Visible Sheen	-	No visible Sheen	No visible Sheen	No visible Sheen	No visible Sheen	No visible Sheen

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-Q1-01

Location Name Field Sample ID ALS Laboratory Work Order Sample Date Sample Type			MP-Q1-01	MP-Q1-01	MP-Q1-01	MP-Q1-01	MP-Q1-01
			MP-Q1-01_2024-06-02	MP-Q1-01_2024-06-09	MP-Q1-01_2024-06-17	MP-Q1-01_2024-06-23	MP-Q1-01_2024-06-30
			BF2400068	BF2400097	BF2400119	BF2400133	BF2400148
			2024-06-02	2024-06-09	2024-06-17	2024-06-23	2024-06-30
			P	P	P	P	P
Analyte	Units	Quarry Criteria					
Conductivity	umhos/cm		109	-	-	-	-
pH, Lab	pH units	9.5	7.50	7.38	8.19	7.73	7.89
Total Suspended Solids	mg/L	30	14.0	3.4	1.5	< 1.0	< 1.0
Total Dissolved Solids	mg/L		72	68	66	66	90
Turbidity	NTU		38.1	6.10	3.74	5.91	2.71
Ammonia, Total (as N)	mg/L		0.0496	-	-	-	-
Nitrate	mg/L		0.217	-	-	-	-
Oil and Grease, Total	mg/L		< 5.0	-	-	-	-
Visible Sheen	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen
Mean Mortality to Daphnia magna	-	Not Acutly Toxic	Not Acutly Toxic	-	-	-	-
Mean Mortality to Rainbow Trout	-	Not Acutly Toxic	Not Acutly 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-Q1-02

				Location Name	MP-Q1-02	MP-Q1-02	MP-Q1-02	MP-Q1-02
				Field Sample ID	MP-Q1-02_2024-06-09	MP-Q1-02_2024-06-17	MP-Q1-02_2024-06-23	MP-Q1-02_2024-06-30
				ALS Laboratory Work Order	BF2400097	BF2400119	BF2400133	BF2400148
				Sample Date	2024-06-09	2024-06-17	2024-06-23	2024-06-30
				Sample Type	P	P	P	P
Analyte		Units	Criteria	Quarry Criteria				
Conductivity	umhos/cm				198	-	-	-
pH, Lab	pH units	9.5	9.5		7.41	7.90	7.75	7.85
Total Suspended Solids	mg/L	30	30		14.7	2.5	2.2	1.5
Total Dissolved Solids	mg/L				122	150	129	178
Turbidity	NTU				24.5	8.62	8.69	5.37
Ammonia, Total (as N)	mg/L				0.0194	-	-	-
Nitrate	mg/L				0.839	-	-	-
Oil and Grease, Total	mg/L				< 5.0	-	-	-
Visible Sheen	-	No Visble Sheen	No Visble Sheen	No Visble Sheen	No Visble Sheen	No Visble Sheen	No Visble Sheen	No Visble Sheen

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 - MS-01

Location Name Field Sample ID ALS Laboratory Work Order Sample Date Sample Type			MS-01	MS-01
			MS-01_2024-06-11	QW-CC3_2024-06-11
			BF2400102	BF2400102
			2024-06-11	2024-06-11
			P	FD
Analyte	Units	Criteria		
pH, Lab	pH units	9.5	7.18	6.84
Total Suspended Solids	mg/L	35	4.9	3.7
Total Dissolved Solids	mg/L		2700	2740
Turbidity	NTU		1.85	1.84
Alkalinity, Total	mg/L		19.4	19.6
Ammonia, Total (as N)	mg/L	4.0	2.18	2.29
Total Kjeldahl Nitrogen	mg/L		6.78	6.29
Fecal Coliforms	CFU/100mL	1000	< 1	< 1
BOD	mg/L	30	< 3.0	< 3.0
Oil and Grease, Total	mg/L		< 5.0	< 5.0
Phosphorus, Nutrient	mg/L	4.0	0.190	0.205

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 - MS-01B

Location Name Field Sample ID ALS Laboratory Work Order Sample Date Sample Type			MS-01B	MS-01B
			MS-01B_2024-06-11	QW-CC4_2024-06-11
			BF2400102	BF2400102
			2024-06-11	2024-06-11
			P	FD
Analyte	Units	Criteria		
pH, Lab	pH units	9.5	7.68	7.64
Total Suspended Solids	mg/L	35	3.2	1.9
Total Dissolved Solids	mg/L		585	609
Turbidity	NTU		0.26	0.25
Alkalinity, Total	mg/L		140	142
Ammonia, Total (as N)	mg/L	4.0	0.0648	0.0638
Total Kjeldahl Nitrogen	mg/L		1.46	1.55
Fecal Coliforms	CFU/100mL	1000	14	17
BOD	mg/L	30	< 3.0	< 3.0
Oil and Grease, Total	mg/L		< 5.0	< 5.0
Phosphorus, Nutrient	mg/L	4.0	0.121	0.118

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 - MS-07**

ALS Laboratory Work Order			Location Name
			MS-07
			Field Sample ID
			MS-07_2024-06-26
			WT2417882
			Sample Date
			2024-06-26
			Sample Type
			P
Analyte	Units	Criteria	
Hardness	mg/L		71.3
Conductivity	umhos/cm		-
pH, Lab	pH units	9.5	7.81
Total Suspended Solids	mg/L	15	3.6
Total Dissolved Solids	mg/L		92
Turbidity	NTU		8.37
Alkalinity, Total	mg/L		27.4
Ammonia, Total (as N)	mg/L		0.0235
Chloride	mg/L		5.13
Fluoride	mg/L		0.046
Nitrate	mg/L		1.96
Total Kjeldahl Nitrogen	mg/L		0.342
Sulfate	mg/L		39.4
Dissolved Organic Carbon	mg/L		1.58
Total Organic Carbon	mg/L		1.37
Aluminum - Total	mg/L		0.193
Antimony - Total	mg/L		< 0.00010
Arsenic - Total	mg/L	0.50	< 0.00010
Barium - Total	mg/L		0.00736
Cadmium - Total	mg/L		0.0000244
Calcium - Total	mg/L		9.58
Chromium - Total	mg/L		< 0.00050
Cobalt - Total	mg/L		0.00072
Copper - Total	mg/L	0.30	0.00113
Iron - Total	mg/L		0.250
Lead - Total	mg/L	0.20	0.000663
Lithium - Total	mg/L		0.0028
Magnesium - Total	mg/L		11.5
Manganese - Total	mg/L		0.105
Mercury - Total	mg/L		< 0.0000050
Molybdenum - Total	mg/L		0.00244
Nickel - Total	mg/L	0.50	0.00105
Phosphorus, Total	mg/L		< 0.050
Potassium - Total	mg/L		3.90
Selenium - Total	mg/L		0.000238
Sodium - Total	mg/L		1.62
Strontium - Total	mg/L		0.0193
Thallium - Total	mg/L		0.000012
Tin - Total	mg/L		< 0.00010
Titanium - Total	mg/L		0.00822
Uranium - Total	mg/L		0.00138
Vanadium - Total	mg/L		< 0.00050
Zinc - Total	mg/L	0.50	0.0031
Aluminum - Dissolved	mg/L		0.0116
Arsenic - Dissolved	mg/L		< 0.00010
Cadmium - Dissolved	mg/L		0.0000189
Calcium - Dissolved	mg/L		10.6
Copper - Dissolved	mg/L		0.00036
Iron - Dissolved	mg/L		< 0.010
Lead - Dissolved	mg/L		< 0.000050
Magnesium - Dissolved	mg/L		11.8
Manganese - Dissolved	mg/L		0.0959
Mercury - Dissolved	mg/L		< 0.0000050
Molybdenum - Dissolved	mg/L		0.00277
Nickel - Dissolved	mg/L		0.00064
Potassium - Dissolved	mg/L		3.93

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 - MS-07

			Location Name	MS-07
			Field Sample ID	MS-07_2024-06-26
			ALS Laboratory Work Order	WT2417882
			Sample Date	2024-06-26
			Sample Type	P
Analyte		Units	Criteria	
Selenium - Dissolved	mg/L			0.000280
Sodium - Dissolved	mg/L			1.71
Thallium - Dissolved	mg/L			< 0.000010
Uranium - Dissolved	mg/L			0.00124
Zinc - Dissolved	mg/L			0.0020
Visible Sheen	-	No Visible Sheen		No Visible Sheen
Phenols	ug/L			< 1.0
Mean Mortality to Daphnia magna	-	Not Acutely Lethal		Not Acutely Lethal
Mean Mortality to Rainbow Trout	-	Not Acutely Lethal		Not Acutely Lethal
Phosphorus, Nutrient	mg/L			0.0056

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 - MS-08**

Location Name Field Sample ID ALS Laboratory Work Order Sample Date Sample Type			MS-08	MS-08
			MS-08_2024-06-21	MS-08_2024-06-25
			BF2400129	WT2417334
			2024-06-21	2024-06-25
			P	P
Analyte	Units	Criteria		
Hardness	mg/L		44.4	49.2
Conductivity	umhos/cm		111	118
pH, Lab	pH units	9.5	6.38	7.05
Total Suspended Solids	mg/L	15	8.3	8.0
Total Dissolved Solids	mg/L		21	78
Turbidity	NTU		36.2	25.6
Alkalinity, Total	mg/L		7.1	7.0
Ammonia, Total (as N)	mg/L		0.169	0.182
Chloride	mg/L		1.32	1.23
Fluoride	mg/L		<0.020	0.029
Nitrate	mg/L		0.302	1.22
Total Kjeldahl Nitrogen	mg/L		0.302	0.340
Sulfate	mg/L		35.3	37.4
Dissolved Organic Carbon	mg/L		.72	1.51
Total Organic Carbon	mg/L		.93	1.87
Aluminum - Total	mg/L		1.01	0.855
Antimony - Total	mg/L		<0.00010	< 0.00010
Arsenic - Total	mg/L	0.50	0.00018	0.00015
Barium - Total	mg/L		0.00531	0.00545
Cadmium - Total	mg/L		0.0000213	0.0000202
Calcium - Total	mg/L		3.36	3.56
Chromium - Total	mg/L		0.00278	0.00237
Cobalt - Total	mg/L		0.00316	0.00304
Copper - Total	mg/L	0.30	0.00244	0.00246
Iron - Total	mg/L		1.69	1.39
Lead - Total	mg/L	0.20	0.000450	0.000442
Lithium - Total	mg/L		0.0031	0.0029
Magnesium - Total	mg/L		10.0	11.0
Manganese - Total	mg/L		0.225	0.220
Mercury - Total	mg/L		<0.0000050	< 0.0000050
Molybdenum - Total	mg/L		0.00208	0.00213
Nickel - Total	mg/L	0.50	0.00601	0.00541
Phosphorus, Total	mg/L		0.0135	< 0.050
Potassium - Total	mg/L		1.30	1.33
Selenium - Total	mg/L		0.000716	0.000774
Sodium - Total	mg/L		0.552	0.551
Strontium - Total	mg/L		0.00659	0.00662
Thallium - Total	mg/L		0.000014	0.000018
Tin - Total	mg/L		<0.00010	< 0.00010
Titanium - Total	mg/L		0.0207	0.0205
Uranium - Total	mg/L		0.000220	0.000199
Vanadium - Total	mg/L		0.00120	0.00110
Zinc - Total	mg/L	0.50	<0.0030	< 0.0030
Aluminum - Dissolved	mg/L		0.149	0.0047
Arsenic - Dissolved	mg/L		<0.00100	< 0.00010
Cadmium - Dissolved	mg/L		<0.0000500	0.0000160
Calcium - Dissolved	mg/L		3.28	3.61
Copper - Dissolved	mg/L		<0.00200	0.00027
Iron - Dissolved	mg/L		0.197	< 0.010
Lead - Dissolved	mg/L		<0.000500	< 0.000050
Magnesium - Dissolved	mg/L		8.80	9.76
Manganese - Dissolved	mg/L		0.204	0.192
Mercury - Dissolved	mg/L		<0.0000050	< 0.0000050
Molybdenum - Dissolved	mg/L		0.00217	0.00217
Nickel - Dissolved	mg/L		<0.00500	0.00269
Potassium - Dissolved	mg/L		1.16	1.08

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 - MS-08

Location Name Field Sample ID ALS Laboratory Work Order Sample Date Sample Type			MS-08	MS-08
			MS-08_2024-06-21	MS-08_2024-06-25
			BF2400129	WT2417334
			2024-06-21	2024-06-25
			P	P
Analyte	Units	Criteria		
Selenium - Dissolved	mg/L		0.000907	0.000801
Sodium - Dissolved	mg/L		0.554	0.513
Thallium - Dissolved	mg/L		<0.000100	< 0.000010
Uranium - Dissolved	mg/L		<0.000100	0.000042
Zinc - Dissolved	mg/L		<0.0100	< 0.0010
Visible Sheen	-	No Visible Sheen	No Visible Sheen	0
Mean Mortality to Daphnia magna	-	Not Acutely Lethal	Not Acutely Lethal	-
Mean Mortality to Rainbow Trout	-	Not Acutely Lethal	Not Acutely Lethal	-
Phosphorus, Nutrient	mg/L		0.0135	0.0147

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 - MS-MRY-09

Location Name Field Sample ID ALS Laboratory Work Order Sample Date Sample Type			MS-MRY-09	MS-MRY-09	MS-MRY-09	MS-MRY-09	MS-MRY-09
			MS-MRY-09_2024-06-04	QD-CC8_2024-06-04	MS-MRY-09_2024-06-09	MS-MRY-09_2024-06-16	MS-MRY-09_2024-06-23
			BF2400069	BF2400069	BF2400096	BF2400114	BF2400137
			2024-06-04	2024-06-04	2024-06-09	2024-06-16	2024-06-23
			P	FD	P	P	P
Analyte	Units	Criteria					
Hardness	mg/L		21.3	21.4	-	-	-
pH, Lab	pH units	9.5	7.19	7.23	7.19	7.43	7.34
Total Suspended Solids	mg/L	15	< 1.1	< 1.0	1.9	1.4	< 1.0
Total Dissolved Solids	mg/L		35	37	52	25	39
Turbidity	NTU		2.31	2.30	5.09	3.90	1.06
Alkalinity, Total	mg/L		22.4	22.8	-	-	-
Ammonia, Total (as N)	mg/L		< 0.0050	< 0.0050	-	-	-
Chloride	mg/L		1.46	1.26	-	-	-
Fluoride	mg/L		< 0.020	< 0.020	-	-	-
Nitrate	mg/L		0.023	0.020	-	-	-
Total Kjeldahl Nitrogen	mg/L		0.143	0.125	-	-	-
Sulfate	mg/L		1.42	0.66	-	-	-
Dissolved Organic Carbon	mg/L		2.44	2.12	-	-	-
Total Organic Carbon	mg/L		2.84	2.77	-	-	-
Aluminum - Total	mg/L		0.0606	0.0596	-	-	-
Antimony - Total	mg/L		< 0.00010	< 0.00010	-	-	-
Arsenic - Total	mg/L	0.50	< 0.00010	< 0.00010	-	-	-
Barium - Total	mg/L		0.00400	0.00389	-	-	-
Cadmium - Total	mg/L		0.0000051	0.0000066	-	-	-
Calcium - Total	mg/L		4.18	3.99	-	-	-
Chromium - Total	mg/L		0.00152	< 0.00050	-	-	-
Cobalt - Total	mg/L		< 0.00010	< 0.00010	-	-	-
Copper - Total	mg/L	0.30	0.00089	0.00091	-	-	-
Iron - Total	mg/L		0.084	0.075	-	-	-
Lead - Total	mg/L	0.20	0.000058	0.000056	-	-	-
Lithium - Total	mg/L		< 0.0010	< 0.0010	-	-	-
Magnesium - Total	mg/L		2.64	2.78	-	-	-
Manganese - Total	mg/L		0.00223	0.00222	-	-	-
Mercury - Total	mg/L		< 0.0000050	< 0.0000050	-	-	-
Molybdenum - Total	mg/L		0.000229	0.000151	-	-	-
Nickel - Total	mg/L	0.50	< 0.00050	< 0.00050	-	-	-
Phosphorus, Total	mg/L		< 0.050	< 0.050	-	-	-
Potassium - Total	mg/L		0.881	0.874	-	-	-
Selenium - Total	mg/L		< 0.000050	< 0.000050	-	-	-
Sodium - Total	mg/L		0.340	0.329	-	-	-
Strontium - Total	mg/L		0.00252	0.00252	-	-	-
Thallium - Total	mg/L		< 0.000010	< 0.000010	-	-	-
Tin - Total	mg/L		< 0.00010	< 0.00010	-	-	-
Titanium - Total	mg/L		0.00189	0.00201	-	-	-
Uranium - Total	mg/L		0.000097	0.000095	-	-	-
Vanadium - Total	mg/L		< 0.00050	< 0.00050	-	-	-
Zinc - Total	mg/L	0.50	< 0.0030	< 0.0030	-	-	-
Aluminum - Dissolved	mg/L		0.0113	0.0107	-	-	-
Arsenic - Dissolved	mg/L		< 0.00010	< 0.00010	-	-	-
Cadmium - Dissolved	mg/L		0.0000053	0.0000052	-	-	-
Calcium - Dissolved	mg/L		4.06	4.20	-	-	-
Copper - Dissolved	mg/L		0.00076	0.00076	-	-	-
Iron - Dissolved	mg/L		0.010	< 0.010	-	-	-
Lead - Dissolved	mg/L		< 0.000050	< 0.000050	-	-	-
Magnesium - Dissolved	mg/L		2.67	2.69	-	-	-
Manganese - Dissolved	mg/L		0.00105	0.00099	-	-	-
Mercury - Dissolved	mg/L		< 0.0000050	< 0.0000050	-	-	-
Molybdenum - Dissolved	mg/L		0.000120	0.000128	-	-	-
Nickel - Dissolved	mg/L		< 0.00050	< 0.00050	-	-	-
Potassium - Dissolved	mg/L		0.878	0.860	-	-	-
Selenium - Dissolved	mg/L		< 0.000050	< 0.000050	-	-	-
Sodium - Dissolved	mg/L		0.340	0.329	-	-	-
Thallium - Dissolved	mg/L		< 0.000010	< 0.000010	-	-	-
Uranium - Dissolved	mg/L		0.000076	0.000076	-	-	-
Zinc - Dissolved	mg/L		< 0.0010	< 0.0010	-	-	-
Visible Sheen	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen
Phenols	ug/L		< 1.0	< 1.0	-	-	-
Phosphorus, Nutrient	mg/L		0.0072	0.0066	-	-	-

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 - MS-MRY-13A**

Location Name Field Sample ID ALS Laboratory Work Order Sample Date Sample Type			MS-MRY-13A	MS-MRY-13A	MS-MRY-13A	MS-MRY-13A
			MS-MRY-13A_2024-06-03	MS-MRY-13A_2024-06-09	MS-MRY-13A_2024-06-17	MS-MRY-13A_2024-06-23
			BF2400070	BF2400096	BF2400114	BF2400137
			2024-06-03	2024-06-09	2024-06-17	2024-06-23
			P	P	P	P
Analyte	Units	Criteria				
Conductivity	umhos/cm		90.1	-	-	-
pH, Lab	pH units	9.5	7.39	7.37	7.99	8.05
Total Suspended Solids	mg/L	15	< 1.0	1.5	< 1.0	< 1.0
Total Dissolved Solids	mg/L		55	88	83	239
Turbidity	NTU		13.4	6.41	2.73	1.39
Alkalinity, Total	mg/L		36.9	-	-	-
Dissolved Organic Carbon	mg/L		1.99	-	-	-
Total Organic Carbon	mg/L		2.25	-	-	-
Aluminum - Total	mg/L		0.297	-	-	-
Antimony - Total	mg/L		0.00014	-	-	-
Arsenic - Total	mg/L	0.50	0.00012	-	-	-
Barium - Total	mg/L		0.00744	-	-	-
Cadmium - Total	mg/L		0.0000055	-	-	-
Calcium - Total	mg/L		8.13	-	-	-
Chromium - Total	mg/L		0.00072	-	-	-
Cobalt - Total	mg/L		0.00024	-	-	-
Copper - Total	mg/L	0.30	0.00081	-	-	-
Iron - Total	mg/L		0.253	-	-	-
Lead - Total	mg/L	0.20	0.000140	-	-	-
Lithium - Total	mg/L		0.0030	-	-	-
Magnesium - Total	mg/L		5.10	-	-	-
Manganese - Total	mg/L		0.00394	-	-	-
Mercury - Total	mg/L		< 0.0000050	-	-	-
Molybdenum - Total	mg/L		0.000407	-	-	-
Nickel - Total	mg/L	0.50	0.00378	-	-	-
Phosphorus, Total	mg/L		< 0.050	-	-	-
Potassium - Total	mg/L		1.28	-	-	-
Selenium - Total	mg/L		< 0.000050	-	-	-
Sodium - Total	mg/L		1.16	-	-	-
Strontium - Total	mg/L		0.00794	-	-	-
Thallium - Total	mg/L		< 0.000010	-	-	-
Tin - Total	mg/L		< 0.00010	-	-	-
Titanium - Total	mg/L		0.00710	-	-	-
Uranium - Total	mg/L		0.000121	-	-	-
Vanadium - Total	mg/L		< 0.00050	-	-	-
Zinc - Total	mg/L	0.50	< 0.0030	-	-	-
Oil and Grease, Total	mg/L		< 5.0	-	-	-
Visible Sheen	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen
Phenols	ug/L		< 1.0	-	-	-
F1 (C6-C10)	ug/L		< 25	-	-	-
F2 (C10-C16)	ug/L		< 100	-	-	-
F3 (C16-C34)	ug/L		< 250	-	-	-
F4 (C34-C50)	ug/L		< 250	-	-	-
Total Petroleum Hydrocarbons (C6-C50)	ug/L		< 370	-	-	-

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 - MS-MRY-13B**

Location Name Field Sample ID ALS Laboratory Work Order Sample Date Sample Type			MS-MRY-13B	MS-MRY-13B	MS-MRY-13B
			MS-MRY-13B_2024-06-09	MS-MRY-13B_2024-06-17	MS-MRY-13B_2024-06-23
			BF2400096	BF2400114	BF2400137
			2024-06-09	2024-06-17	2024-06-23
			P	P	P
Analyte	Units	Criteria			
Conductivity	umhos/cm		291	-	-
pH, Lab	pH units	9.5	7.32	8.00	7.74
Total Suspended Solids	mg/L	15	1.2	2.1	< 1.0
Total Dissolved Solids	mg/L		178	185	224
Turbidity	NTU		1.32	0.99	2.24
Alkalinity, Total	mg/L		79.1	-	-
Dissolved Organic Carbon	mg/L		3.17	-	-
Total Organic Carbon	mg/L		3.71	-	-
Aluminum - Total	mg/L		0.0226	-	-
Antimony - Total	mg/L		0.00014	-	-
Arsenic - Total	mg/L	0.50	0.00013	-	-
Barium - Total	mg/L		0.0159	-	-
Cadmium - Total	mg/L		0.0000095	-	-
Calcium - Total	mg/L		28.9	-	-
Chromium - Total	mg/L		< 0.00050	-	-
Cobalt - Total	mg/L		< 0.00010	-	-
Copper - Total	mg/L	0.30	0.00104	-	-
Iron - Total	mg/L		0.025	-	-
Lead - Total	mg/L	0.20	< 0.000050	-	-
Lithium - Total	mg/L		0.0222	-	-
Magnesium - Total	mg/L		12.1	-	-
Manganese - Total	mg/L		0.00164	-	-
Mercury - Total	mg/L		< 0.0000050	-	-
Molybdenum - Total	mg/L		0.000599	-	-
Nickel - Total	mg/L	0.50	0.00654	-	-
Phosphorus, Total	mg/L		< 0.050	-	-
Potassium - Total	mg/L		2.39	-	-
Selenium - Total	mg/L		< 0.000050	-	-
Sodium - Total	mg/L		6.55	-	-
Strontium - Total	mg/L		0.0424	-	-
Thallium - Total	mg/L		< 0.000010	-	-
Tin - Total	mg/L		< 0.00010	-	-
Titanium - Total	mg/L		< 0.00060	-	-
Uranium - Total	mg/L		0.00191	-	-
Vanadium - Total	mg/L		< 0.00050	-	-
Zinc - Total	mg/L	0.50	< 0.0030	-	-
Oil and Grease, Total	mg/L		< 5.0	-	-
Visible Sheen	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen
Phenols	ug/L		1.0	-	-
F1 (C6-C10)	ug/L		< 25	-	-
F2 (C10-C16)	ug/L		< 100	-	-
F3 (C16-C34)	ug/L		< 250	-	-
F4 (C34-C50)	ug/L		< 250	-	-
Total Petroleum Hydrocarbons (C6-C50)	ug/L		< 370	-	-

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 - MS-C-A

Location Name Field Sample ID ALS Laboratory Work Order Sample Date Sample Type			MS-C-A	MS-C-A	MS-C-A	MS-C-A
			MS-C-A_2024-06-03	MS-C-A_2024-06-09	MS-C-A_2024-06-16	MS-C-A_2024-06-26
			BF2400070	BF2400096	BF2400114	WT2417954
			2024-06-03	2024-06-09	2024-06-16	2024-06-26
			P	P	P	P
Analyte	Units	Criteria				
Conductivity	umhos/cm		173	-	-	-
pH, Lab	pH units	9.5	7.35	7.21	7.65	7.76
Total Suspended Solids	mg/L	30	3.0	6.1	3.2	< 1.0
Total Dissolved Solids	mg/L		105	126	168	164
Turbidity	NTU		13.1	8.02	6.81	1.88
Ammonia, Total (as N)	mg/L		0.156	-	-	-
Nitrate	mg/L		1.24	-	-	-
Oil and Grease, Total	mg/L		< 5.0	-	-	-
Visible Sheen	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen

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 - MS-C-B

Location Name Field Sample ID ALS Laboratory Work Order Sample Date Sample Type			MS-C-B	MS-C-B	MS-C-B	MS-C-B	MS-C-B
			MS-C-B_2024-06-03	MS-C-B_2024-06-09	MS-C-B_2024-06-16	QD-CC1_2024-06-16	MS-C-B_2024-06-24
			BF2400070	BF2400096	BF2400114	BF2400114	BF2400137
			2024-06-03	2024-06-09	2024-06-16	2024-06-16	2024-06-24
			P	P	P	FD	P
Analyte	Units	Criteria					
Conductivity	umhos/cm		175	-	-	-	-
pH, Lab	pH units	9.5	7.37	7.27	7.61	7.58	7.46
Total Suspended Solids	mg/L	30	1.8	4.3	19.5	37.3	1.3
Total Dissolved Solids	mg/L		114	136	177	172	171
Turbidity	NTU		12.8	9.02	13.3	28.8	4.33
Ammonia, Total (as N)	mg/L		0.161	-	-	-	-
Nitrate	mg/L		1.25	-	-	-	-
Oil and Grease, Total	mg/L		< 5.0	-	-	-	-
Visible Sheen	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen

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 - MS-C-C

Location Name Field Sample ID ALS Laboratory Work Order Sample Date Sample Type			MS-C-C	MS-C-C	MS-C-C
			MS-C-C_2024-06-03	MS-C-C_2024-06-09	QD-BF1_2024-06-09
			BF2400070	BF2400096	BF2400096
			2024-06-03	2024-06-09	2024-06-09
			P	P	FB
Analyte	Units	Criteria			
Conductivity	umhos/cm		748	-	-
pH, Lab	pH units	9.5	7.55	7.58	-
pH, Lab	pH units	9.5	-	-	5.33
Total Suspended Solids	mg/L	30	8.0	2.9	< 1.0
Total Dissolved Solids	mg/L		438	393	< 17
Turbidity	NTU		10.5	8.09	0.13
Ammonia, Total (as N)	mg/L		2.69	-	-
Nitrate	mg/L		1.22	-	-
Oil and Grease, Total	mg/L		< 5.0	-	-
Visible Sheen	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen

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 - MS-C-D

Location Name Field Sample ID ALS Laboratory Work Order Sample Date Sample Type			MS-C-D	MS-C-D	MS-C-D	MS-C-D
			MS-C-D_2024-06-03	MS-C-D_2024-06-09	MS-C-D_2024-06-16	MS-C-D_2024-06-23
			BF2400070	BF2400096	BF2400114	BF2400137
			2024-06-03	2024-06-09	2024-06-16	2024-06-23
			P	P	P	P
Analyte	Units	Criteria				
Conductivity	umhos/cm		354	-	-	-
pH, Lab	pH units	9.5	7.85	7.71	7.81	8.29
Total Suspended Solids	mg/L	30	19.0	21.0	58.1	17.8
Total Dissolved Solids	mg/L		229	194	171	265
Turbidity	NTU		149	64.9	186	18.0
Ammonia, Total (as N)	mg/L		0.893	-	-	-
Nitrate	mg/L		1.05	-	-	-
Oil and Grease, Total	mg/L		< 5.0	-	-	-
Visible Sheen	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen

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 - MS-C-E

Location Name Field Sample ID ALS Laboratory Work Order Sample Date Sample Type			MS-C-E	MS-C-E	MS-C-E	MS-C-E
			MS-C-E_2024-06-03	MS-C-E_2024-06-09	MS-C-E_2024-06-16	MS-C-E_2024-06-23
			BF2400070	BF2400096	BF2400114	BF2400137
			2024-06-03	2024-06-09	2024-06-16	2024-06-23
			P	P	P	P
Analyte	Units	Criteria				
Conductivity	umhos/cm		205	-	-	-
pH, Lab	pH units	9.5	7.75	7.61	7.73	7.92
Total Suspended Solids	mg/L	30	61.1	7.7	18.6	1.2
Total Dissolved Solids	mg/L		142	166	218	377
Turbidity	NTU		206	22.9	68.8	4.10
Ammonia, Total (as N)	mg/L		0.171	-	-	-
Nitrate	mg/L		0.434	-	-	-
Oil and Grease, Total	mg/L		< 5.0	-	-	-
Visible Sheen	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen

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 - MS-C-F**

Location Name Field Sample ID ALS Laboratory Work Order Sample Date Sample Type			MS-C-F	MS-C-F	MS-C-F	MS-C-F	MS-C-F
			MS-C-F_2024-06-03	MS-C-F_2024-06-09	MS-C-F_2024-06-17	MS-C-F_2024-06-23	QD-CC1_2024-06-23
			BF2400071	BF2400096	BF2400114	BF2400137	BF2400137
			2024-06-03	2024-06-09	2024-06-17	2024-06-23	2024-06-23
			P	P	P	P	FD
Analyte	Units	Criteria					
Conductivity	umhos/cm		185	-	-	-	-
pH, Lab	pH units	9.5	7.51	7.35	7.79	7.92	7.64
Total Suspended Solids	mg/L	30	11.3	7.9	13.0	1.8	2.8
Total Dissolved Solids	mg/L		118	139	168	164	167
Turbidity	NTU		27.1	15.3	23.9	6.94	7.41
Ammonia, Total (as N)	mg/L		0.175	-	-	-	-
Nitrate	mg/L		1.22	-	-	-	-
Oil and Grease, Total	mg/L		< 5.0	-	-	-	-
Visible Sheen	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen

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 - MS-C-G

Location Name Field Sample ID ALS Laboratory Work Order Sample Date Sample Type			MS-C-G	MS-C-G
			MS-C-G_2024-06-23	MS-C-G_2024-06-30
			BF2400137	BF2400147
			2024-06-23	2024-06-30
			P	P
Analyte	Units	Criteria		
Conductivity	umhos/cm		98.5	167
pH, Lab	pH units	9.5	7.19	7.73
Total Suspended Solids	mg/L	30	< 1.0	< 1.0
Total Dissolved Solids	mg/L		65	93
Turbidity	NTU		1.25	0.38
Ammonia, Total (as N)	mg/L		< 0.0050	0.0080
Nitrate	mg/L		1.22	1.30
Oil and Grease, Total	mg/L		< 5.0	-
Visible Sheen	-	No Visible Sheen	No Visible Sheen	No Visible Sheen

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 - MS-C-H

Location Name Field Sample ID ALS Laboratory Work Order Sample Date Sample Type			MS-C-H	MS-C-H	MS-C-H	MS-C-H	MS-C-H
			MS-C-H_2024-06-03	MS-C-H_2024-06-09	QD-CC1_2024-06-09	MS-C-H_2024-06-16	MS-C-H_2024-06-23
			BF2400070	BF2400096	BF2400096	BF2400114	BF2400137
			2024-06-03	2024-06-09	2024-06-09	2024-06-16	2024-06-23
			P	P	FD	P	P
Analyte	Units	Criteria					
Conductivity	umhos/cm		70.9	-	-	-	-
pH, Lab	pH units	9.5	7.38	7.27	7.25	7.38	7.68
Total Suspended Solids	mg/L	30	< 1.0	1.2	1.0	2.3	< 1.0
Total Dissolved Solids	mg/L		45	48	62	59	93
Turbidity	NTU		6.30	5.94	5.92	12.2	0.49
Ammonia, Total (as N)	mg/L		0.325	-	-	-	-
Nitrate	mg/L		0.654	-	-	-	-
Oil and Grease, Total	mg/L		< 5.0	-	-	-	-
Visible Sheen	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen

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 - MQ-C-A

Location Name Field Sample ID ALS Laboratory Work Order Sample Date Sample Type			MQ-C-A	MQ-C-A	MQ-C-A	MQ-C-A
			MQ-C-A_2024-06-03	MQ-C-A_2024-06-09	MQ-C-A_2024-06-16	MQ-C-A_2024-06-24
			BF2400070	BF2400096	BF2400114	BF2400137
			2024-06-03	2024-06-09	2024-06-16	2024-06-24
			P	P	P	P
Analyte	Units	Quarry Criteria				
Conductivity	umhos/cm		68.6	-	-	-
pH, Lab	pH units	9.5	7.33	7.17	7.66	7.20
Total Suspended Solids	mg/L	30	3.5	< 1.0	1.0	1.3
Total Dissolved Solids	mg/L		41	43	40	40
Turbidity	NTU		3.95	5.38	5.29	17.3
Ammonia, Total (as N)	mg/L		< 0.0050	-	-	-
Nitrate	mg/L		< 0.020	-	-	-
Oil and Grease, Total	mg/L		< 5.0	-	-	-
Visible Sheen	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen

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 - MQ-C-D

				Location Name	MQ-C-D	MQ-C-D	MQ-C-D	MQ-C-D
				Field Sample ID	MQ-C-D_2024-06-03	MQ-C-D_2024-06-09	MQ-C-D_2024-06-16	MQ-C-D_2024-06-24
				ALS Laboratory Work Order	BF2400070	BF2400096	BF2400114	BF2400137
				Sample Date	2024-06-03	2024-06-09	2024-06-16	2024-06-24
				Sample Type	P	P	P	P
Analyte		Units	Criteria	Quarry Criteria				
Conductivity	umhos/cm				83.8	-	-	-
pH, Lab	pH units	9.5	9.5		7.41	7.37	8.08	8.00
Total Suspended Solids	mg/L	30	30		4.0	8.9	6.8	2.2
Total Dissolved Solids	mg/L				56	73	183	131
Turbidity	NTU				34.3	35.1	18.2	12.5
Ammonia, Total (as N)	mg/L				0.0127	-	-	-
Nitrate	mg/L				0.069	-	-	-
Oil and Grease, Total	mg/L				< 5.0	-	-	-
Visible Sheen	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen

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 - MQ-C-B

Location Name Field Sample ID ALS Laboratory Work Order Sample Date Sample Type			MQ-C-B	MQ-C-B	MQ-C-B	MQ-C-B	MQ-C-B
			MQ-C-B_2024-06-03	QD-CC7_2024-06-03	MQ-C-B_2024-06-10	MQ-C-B_2024-06-16	MQ-C-B_2024-06-24
			BF2400070	BF2400070	BF2400096	BF2400114	BF2400137
			2024-06-03	2024-06-03	2024-06-10	2024-06-16	2024-06-24
			P	FD	P	P	P
Analyte	Units	Quarry Criteria					
Conductivity	umhos/cm		80.9	81.5	82.7	-	-
pH, Lab	pH units	9.5	7.45	7.46	7.34	7.73	7.77
Total Suspended Solids	mg/L	30	4.2	4.2	9.4	13.3	3.0
Total Dissolved Solids	mg/L		45	58	41	80	96
Turbidity	NTU		12.7	11.5	21.1	38.1	28.4
Ammonia, Total (as N)	mg/L		0.0117	0.0149	0.0060	-	-
Nitrate	mg/L		< 0.020	< 0.020	< 0.020	-	-
Oil and Grease, Total	mg/L		< 5.0	< 5.0	< 5.0	-	-
Visible Sheen	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen
Mean Mortality to Daphnia magna	-	Not Acutely Lethal	-	-	Not Acutely Lethal	-	-
Mean Mortality to Rainbow Trout	-	Not Acutely Lethal	-	-	Not Acutely Lethal	-	-

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 - KM105-SWMP-SEEP-03**

Location Name Field Sample ID ALS Laboratory Work Order Sample Date Sample Type			KM105-SWMP-SEEP-03	KM105-SWMP-SEEP-03
			KM105-SWMP-SEEP-03_2024-06-05	KM105-SWMP-SEEP-03_2024-06-05
			BF2400078-001	BF2400079-001
			2024-06-05	2024-06-05
			NP	NP
Analyte	Units	Criteria		
pH, Lab	pH units	9.5	8.47	-
Total Suspended Solids	mg/L	30	24.1	-
Conductivity, Lab	umhos/cm		-	192
Total Kjeldahl Nitrogen	mg/L		-	0.39
Nitrate	mg/L		-	1.12
Phosphorus, Nutrient	mg/L		-	0.0238
Total Alkalinity	mg/L		-	29.4
Sulfate	mg/L		-	42.4
Fluoride	mg/L		-	0.062
Chloride	mg/L		-	6
Ammonia, Total	mg/L		-	0.201
Aluminum	mg/L		-	1.75
Antimony	mg/L		-	< 0.00100
Arsenic	mg/L	0.6	-	< 0.00100
Barium	mg/L		-	0.0143
Beryllium	mg/L		-	< 0.000200
Bismuth	mg/L		-	< 0.000500
Boron	mg/L		-	< 0.100
Cadmium	mg/L		-	0.0000667
Calcium	mg/L		-	16.6
Cesium	mg/L		-	0.000144
Chromium	mg/L		-	< 0.00500
Cobalt	mg/L		-	0.00125
Copper	mg/L	0.6	-	< 0.00500
Iron	mg/L		-	2.47
Lead	mg/L	0.2	-	0.00134
Lithium	mg/L		-	< 0.0100
Magnesium	mg/L		-	8.73
Manganese	mg/L		-	0.0532
Molybdenum	mg/L		-	0.00364
Nickel	mg/L	1	-	< 0.00500
Phosphorus	mg/L		-	< 0.500

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 - KM105-SWMP-SEEP-03**

Potassium	mg/L		-	4.27
Rubidium	mg/L		-	0.00634
Selenium	mg/L		-	< 0.000500
Silicon	mg/L		-	3.54
Silver	mg/L		-	< 0.000100
Sodium	mg/L		-	1.34
Strontium	mg/L		-	0.0617
Sulfur	mg/L		-	12.9
Tellurium	mg/L		-	< 0.00200
Thallium	mg/L		-	< 0.000100
Thorium	mg/L		-	< 0.00100
Tin	mg/L		-	< 0.00100
Titanium	mg/L		-	0.053
Tungsten	mg/L		-	< 0.00100
Uranium	mg/L		-	0.00277
Vanadium	mg/L		-	< 0.00500
Zinc	mg/L	1	-	< 0.0300
Zirconium	mg/L		-	< 0.00200
Total Dissolved Solids	mg/L		100	-
Mercury, Total	mg/L		-	< 0.0000050
Mercury, Dissolved	mg/L		-	< 0.0000050
Aluminum	mg/L		-	0.0195
Antimony	mg/L		-	< 0.00010
Arsenic	mg/L		-	< 0.00010
Barium	mg/L		-	0.00578
Beryllium	mg/L		-	< 0.000020
Bismuth	mg/L		-	< 0.000050
Boron	mg/L		-	< 0.010
Cadmium	mg/L		-	0.0000227
Calcium	mg/L		-	17.7
Cesium	mg/L		-	< 0.000010
Chromium	mg/L		-	0.00055
Cobalt	mg/L		-	0.0002
Copper	mg/L		-	0.00051
Iron	mg/L		-	< 0.010
Lead	mg/L		-	< 0.000050
Lithium	mg/L		-	0.0027
Manganese	mg/L		-	0.0242
Magnesium	mg/L		-	7.68
Molybdenum	mg/L		-	0.00385
Nickel	mg/L		-	< 0.00050

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 - KM105-SWMP-SEEP-03**

Phosphorus, Dissolved	mg/L		-	< 0.050
Potassium	mg/L		-	3.98
Rubidium	mg/L		-	0.00339
Selenium	mg/L		-	0.000195
Silver	mg/L		-	< 0.000010
Silicon	mg/L		-	0.745
Sodium	mg/L		-	1.34
Strontium	mg/L		-	0.06
Sulfur	mg/L		-	14.7
Tellurium	mg/L		-	< 0.00020
Thallium	mg/L		-	< 0.000010
Thorium	mg/L		-	< 0.00010
Tin	mg/L		-	< 0.00010
Titanium	mg/L		-	< 0.00030
Tungsten	mg/L		-	0.00031
Uranium	mg/L		-	0.0022
Vanadium	mg/L		-	< 0.00050
Zirconium	mg/L		-	< 0.00030
Zinc	mg/L		-	< 0.0010
Radium-226	Bq/L	1.11	-	0.0774

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 - June 2024

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)	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)	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)	Water Use for Dust Suppression from Authorized Sources (m³)	Effluent Discharge from Mine Site Waste Rock Stockpile Pond (MS-08) (m³)	Effluent Discharge from KM105 Surface Water Management Pond (MS-11) (m³) ¹	Effluent Discharge from Milne Port Bulk Fuel Tank Farm Facility to Milne Inlet (MP-03) (m³)
1-Jun-24	127.7	33.3	33.0	131.8	1.0	0.0	0.0	64.1	0.0	23.0	32.5	0.3	0.0	0.0	393.6	0.0	604.8	0.0
2-Jun-24	113.9	24.3	16.0	128.9	0.9	0.0	0.0	63.3	2.0	22.0	35.9	0.3	0.0	0.0	590.8	0.0	6,998.4	0.0
3-Jun-24	114.6	19.4	8.0	132.0	1.7	0.0	0.0	90.4	0.0	24.0	30.1	0.2	0.0	0.0	1380.5	0.0	27,561.6	0.0
4-Jun-24	151.7	29.1	1.0	121.8	0.9	0.0	0.0	47.7	0.0	26.0	29.1	0.3	0.0	0.0	1567.0	0.0	0.0	0.0
5-Jun-24	132.7	30.9	29.0	128.4	0.7	0.0	0.0	84.3	0.0	29.0	31.0	0.2	0.0	0.0	1286.9	0.0	6,891.3	0.0
6-Jun-24	116.1	22.6	29.2	123.7	0.9	0.0	0.0	65.6	4.0	27.0	29.5	0.2	0.0	0.0	1461.0	0.0	2,655.5	0.0
7-Jun-24	102.7	36.8	28.8	113.5	1.1	0.0	0.0	68.0	0.0	24.0	26.1	0.3	0.0	0.0	1900.1	0.0	3,599.4	0.0
8-Jun-24	143.7	34.6	28.2	119.9	0.0	0.0	0.0	70.2	0.0	24.0	27.1	0.3	0.0	0.0	2558.7	0.0	5,631.6	0.0
9-Jun-24	132.9	24.5	28.1	108.2	0.7	0.0	0.0	68.3	0.0	24.0	24.4	0.3	0.0	0.0	1627.6	0.0	0.0	0.0
10-Jun-24	110.5	55.5	20.7	111.6	0.0	0.0	0.0	71.5	13.4	24.0	27.2	0.3	0.0	0.0	514.8	0.0	0.0	0.0
11-Jun-24	152.3	31.1	21.1	119.1	1.2	0.0	10.0	59.8	11.4	23.0	21.8	0.3	0.0	0.0	666.2	0.0	0.0	0.0
12-Jun-24	141.4	35.4	26.2	117.8	1.0	0.0	0.0	105.4	5.7	24.0	26.3	0.2	0.0	0.0	605.6	0.0	0.0	0.0
13-Jun-24	133.7	13.6	5.3	121.3	1.3	8.0	12.0	66.7	0.0	24.0	33.7	0.3	0.0	0.0	757.0	0.0	0.0	0.0
14-Jun-24	132.8	20.2	3.4	114.6	1.1	0.0	0.0	70.2	0.0	24.0	27.9	0.3	0.0	0.0	1453.4	0.0	0.0	0.0
15-Jun-24	137.7	24.5	17.5	135.0	1.4	0.0	0.0	84.0	0.0	24.0	31.1	0.3	0.0	0.0	545.0	0.0	0.0	5383.0
16-Jun-24	122.0	27.2	15.5	118.6	0.4	0.0	0.0	84.1	0.0	22.0	21.1	0.3	0.0	0.0	726.7	0.0	0.0	0.0
17-Jun-24	141.1	23.8	13.2	115.3	0.9	0.0	0.0	45.6	0.0	25.0	28.6	0.3	0.0	0.0	1760.0	0.0	0.0	0.0
18-Jun-24	150.0	8.1	13.4	107.9	1.1	0.0	0.0	72.1	0.0	24.0	28.6	0.2	0.0	0.0	1423.2	0.0	2,847.0	5412.0
19-Jun-24	158.6	8.3	14.4	123.5	1.7	0.0	0.0	79.9	0.0	29.0	27.6	0.3	0.0	0.0	1635.1	0.0	6,480.2	5667.0
20-Jun-24	127.2	18.8	21.3	129.0	1.4	0.0	0.0	88.7	2.0	29.0	38.6	0.3	0.0	0.0	2013.6	0.0	6,332.0	5806.0
21-Jun-24	158.0	20.3	20.4	126.7	0.9	0.0	0.0	77.7	0.0	29.0	40.7	0.2	0.0	0.0	2134.7	600.0	5,170.3	5806.0
22-Jun-24	166.3	9.5	19.7	116.8	0.0	0.0	0.0	88.9	0.0	29.0	27.3	0.3	0.0	0.0	1362.6	3,500.0	3,619.0	5806.0
23-Jun-24	151.6	21.4	24.5	134.2	0.9	5.0	0.0	91.1	8.0	29.0	25.8	0.2	0.0	0.0	1786.5	3,500.0	2,683.1	5806.0
24-Jun-24	144.9	22.2	21.7	131.8	0.9	0.0	0.0	78.0	0.0	27.0	25.5	0.2	0.0	0.0	2498.1	3,000.0	3,058.8	5806.0
25-Jun-24	175.1	25.3	14.9	120.5	0.9	0.0	0.0	98.8	2.0	28.0	24.0	0.3	0.0	0.0	1544.3	3,200.0	2,687.3	0.0
26-Jun-24	192.1	15.1	19.0	141.8	0.6	0.0	0.0	92.0	0.0	26.0	28.4	0.3	0.0	9.0	2195.3	3,200.0	1,846.5	0.0
27-Jun-24	171.4	24.4	24.0	163.6	1.6	0.0	0.0	80.0	0.0	30.0	36.1	0.3	0.0	0.0	2255.9	3,200.0	1,842.4	0.0
28-Jun-24	199.7	0.0	23.0	161.8	2.0	0.0	0.0	102.6	0.0	29.0	28.8	0.3	0.0	0.0	1680.5	3,200.0	1,855.7	0.0
29-Jun-24	160.3	19.6	30.0	161.5	0.7	0.0	0.0	95.6	0.0	29.0	26.5	0.3	0.0	0.0	1271.8	3,200.0	1,133.6	0.0
30-Jun-24	165.1	1.1	26.0	152.6	0.0	0.0	0.0	85.3	0.0	21.0	37.1	0.3	0.0	0.0	817.6	4,937.0	794.5	0.0
Total	4,327.6	680.9	596.4	3,833.2	27.5	13.0	22.0	2,340.0	48.4	772.0	878.5	8.4	0.0	9.0	42,414.1	31,537.0	94,292.9	45,492.0

Notes:
WWTP - Waste Water Treatment Plant
PWSP - Polishing Waste Stabilization Pond
¹ Discharge quantity as MS-11 was estimated through daily flow measurement at the seepage location. Due to unsafe conditions, no flow measurements were recorded on June 4. Flow measurements were stopped on June 8 due to construction of a culvert at the FDP. On June 18, pressure transducers were installed at a downstream hydrology station to estimate discharge volumes.