

September 30, 2022

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
August 2022**

The following is the monthly report for August 2022 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

During the month of August 2022, water samples were collected as part of the Surveillance Network Program (SNP).

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 2.29. 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 August 2022.

Monitoring Program Results

Water Sampling and Analysis Results

Tables 2.1 through 2.29 provide the analytical results related to the SNP sampling requirements.

In August 2022, there were no exceedances of applicable water quality criteria observed at monitoring stations during August 2022 with the exception of surface water monitoring station MS-C-E, TSS was 42.4 mg/L on August 22. The MS-C-E TSS exceedance was the result of a significant precipitation event. A silt fence was installed at this location to prevent further migration of sediment. On August 23rd, the day after the precipitation event, water quality was re-sampled and was compliant with non detectable levels of TSS. There was no exceedance for monthly average TSS.

Samples taken at the previously established seepage monitoring point from MS-11 are labeled as KM105-SWMP-SEEP-01 for reporting purposes only.

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.

Flow and Volume Measurements

Table 3.1 provides a breakdown of volume measurements for August 2022 as required by Part I, Item 9 of the Licence. There were no exceedances of the source specific daily volume withdrawal limits in August 2022. In August re-treatment of effluent from the PWSPs through the Sailiviik WWTP occurred which resulted in an increase of effluent discharged from MS-01B.

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.

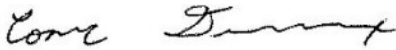
Prepared by:

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

Katherine Babin

Environmental Coordinator

Reviewed by:

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

Connor Devereaux

Environmental Manager

cc: Omer Pasalic, Jeremy Fraser (CIRNAC)
Chris Spencer, Hugh Karpik (QIA)
Tim Sewell, Megan Lord-Hoyle, Lou Kamermans, Francois Gaudreau, Martin Beausejour, Sylvain Proulx,
Connor Devereaux, Todd Swenson, Kendra Button, Katie Babin, Allison Parker (Baffinland)

Attachments

Attachments – Monthly Water Sampling Results: Table 1.1, Tables 2.1 – 2.29, Table 3.1

Attachments

Monthly Water Sampling Results

Table 1.1: Monitoring Program Water Sampling Summary for August 2022

Monitoring Program Station	Sampling Date	Lab ID Number	Comment
Milne Port			
MP-01 (Sewage Treatment Facility)	2022-08-02	L2726464-1	Discharge volume recorded daily.
MP-01A (Polishing Waste Stabilization Pond)	2022-08-16	L2728885-1	Discharge volume recorded daily.
MP-01B (Sewage Treatment Facility)	2022-08-02	L2726461-1	Discharge volume recorded daily.
MP-MRY-2 (Freshwater Intake at Phillips Creek)	NA	NA	No water withdrawal.
MP-MRY-3 (Freshwater Intake from Km 32 Lake)	NA	NA	Withdrawal volume recorded daily.
MP-02 (Milne Port Maintenance Shop)	NA	NA	No discharge.
MP-03 (Bulk Fuel Storage Facility Stormwater)	NA	NA	No discharge.
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)	2022-08-01	L2726814-1	Discharge volume recorded daily.
MP-05 Ore Stockpile Sedimentation Pond (East)	2022-08-01	L2726798-1	Discharge volume recorded daily.
MP-06 Ore Stockpile Sedimentation Pond (West)	2022-08-02	L2726807-1	Discharge volume recorded daily.
MP-C-A (Downstream of Construction Area)	NA	NA	No flow.
MP-C-B (Downstream of Construction Area)	NA	NA	No flow.
MP-C-D (Downstream of Construction Area)	NA	NA	No flow.
MP-C-E (Downstream of Construction Area)	NA	NA	No flow.
MP-C-F (Downstream of Construction Area)	NA	NA	No flow.

Monitoring Program Station	Sampling Date	Lab ID Number	Comment
MP-C-H (Downstream of Construction Area)	2022-08-02	L2726793-5	
	2022-08-09	L2727458-5	
	2022-08-16	L2728891-5	
	2022-08-23	L2730240-5	
	2022-08-30	L2731106-3	
MP-C-J (Downstream of Construction Area)	2022-08-02	L2726793-4	
	2022-08-09	L2727458-1	
	2022-08-16	L2728891-6	
	2022-08-23	L2730240-1	
	2022-08-30	L2731106-1	
MP-C-K (Downstream of Construction Area)	2022-08-02	L2726793-1	
	2022-08-09	L2727458-4	
	2022-08-16	L2728891-2	
	2022-08-23	L2730240-3	
	2022-08-30	L2731106-4	
MP-Q1-01 (Downstream of Q1 Quarry)	NA	NA	No flow.
MP-Q1-02 (Downstream of Q1 Quarry)	2022-08-02	L2726793-3	No flow during other scheduled sampling events in August.
	2022-08-09	L2727458-3	
	2022-08-16	L2728891-4	
	2022-08-23	L2730240-4	
Mary River Mine Site			
MS-01 (Sewage Treatment Facility)	2022-08-02	L2726465-1	Discharge volume recorded daily.
MS-01A (Mine Site Polishing Waste Stabilization Pond)	N/A	N/A	Facility not constructed.
MS-01B (Sewage Treatment Facility)	2022-08-02	L2726548-1	Discharge volume recorded daily.
MS-02 (Mine Site Maintenance Shop)	N/A	N/A	No discharge.
MS-MRY-1 (Freshwater Intake Camp Lake)	N/A	N/A	Withdrawal volume recorded daily.
MS-MRY-04A (Polishing Waste Stabilization Pond)	N/A	N/A	No discharge.
MS-MRY-04B (Polishing Waste Stabilization Pond)	N/A	N/A	No discharge.
MS-MRY-04C (Polishing Waste Stabilization Pond)	N/A	N/A	No discharge.

Monitoring Program Station	Sampling Date	Lab ID Number	Comment
MS-03 (Mine Site Bulk Fuel Storage Facility Stormwater)	N/A	N/A	No discharge.
MS-03B (Mine Site Bulk Fuel Storage Facility Stormwater)	N/A	N/A	No discharge.
MS-04 (Mine Site Fuel Unloading Station Stormwater)	N/A	N/A	No discharge.
MS-05 (Mine Site Landfarm Facility)	N/A	N/A	No Discharge
MS-06 (Ore Stockpile Pond Stormwater)	2022-08-16	L2728673-1	Discharge volume recorded daily.
MS-07 (Run of Mine Ore Stockpile Pond Stormwater)	2022-08-02 2022-08-29 2022-08-30	L2726074-1 L2730586-1 L2731105-1	Discharge volume recorded daily.
MS-08 (Mine Waste Rock Stockpile Pond)	2022-08-02 2022-08-28	L2726075-1 L2730434-1	Discharge volume recorded daily.
MS-09 (Waste Rock Stockpile East Pond)	N/A	N/A	No discharge.
MS-10 (SDLT-1 Pond Ore Stockpile Stormwater)	N/A	N/A	No discharge.
MS-11 (KM105 Pond Stormwater)	2022-08-02 2022-08-16	L2726077-1 L2728672-1	Discharge volume calculated daily.
MS-12 (Weatherhaven Camp Stormwater)	N/A	N/A	Facility not constructed.
MS-13 (Explosives Magazine Pond)	N/A	N/A	Facility not constructed.
MS-14 (Quarry QMR2 Pond/Sump)	N/A	N/A	Facility not constructed.
MS-MRY-6 (Exploration Camp Bulk Fuel Storage Facility Stormwater)	N/A	N/A	No Discharge.
MS-MRY-09 (Deposit 1 Surface Water Drainage)	2022-08-03 2022-08-09 2022-08-18 2022-08-23 2022-08-29	L2726644-2 L2727453-14 L2729151-11 L2730409-1 L2730582-14	
MS-MRY-10 (Deposit 1 Surface Water Drainage)	N/A	N/A	No flow.

Monitoring Program Station	Sampling Date	Lab ID Number	Comment
MS-MRY-13A (Downstream Non-Hazardous Landfill)	N/A	N/A	No flow.
MS-MRY-13B (Downstream Non-Hazardous Landfill)	2022-08-03 2022-08-08 2022-08-18 2022-08-22 2022-08-29	L2726644-7 L2727453-1 L2729151-3 L2729530-3 L2730582-13	
MS-MRY-13B01 (Field Duplicate of MS-MRY-13B)	2022-08-18	L2729151-4	
MS-C-A (Downstream of Construction and Borrow Areas)	2022-08-03 2022-08-08 2022-08-18 2022-08-22 2022-08-29	L2726644-1 L2727453-2 L2729151-8 L2729530-7 L2730582-5	
MS-C-A02 (Field Blank of MS-C-A)	2022-08-22	L2729530-8	
MS-C-B (Downstream of Construction and Borrow Areas)	2022-08-03 2022-08-08 2022-08-18 2022-08-22 2022-08-29	L2726644-3 L2727453-3 L2729151-9 L2729530-9 L2730582-6	
MS-C-B03 (Travel Blank of MS-C-B)	2022-08-08	L2727453-4	
MS-C-C (Downstream of Construction and Borrow Areas)	2022-08-03 2022-08-08 2022-08-18 2022-08-22 2022-08-29	L2726644-10 L2727453-11 L2729151-17 L2729530-6 L2730582-11	
MS-C-C03 (Travel Blank of MS-C-C)	2022-08-03	L2726644-11	
MS-C-D (Downstream of Construction and Borrow Areas)	2022-08-03 2022-08-09 2022-08-18 2022-08-22 2022-08-29	L2726644-9 L2727453-10 L2729151-6 L2729530-5 L2730582-9	

Monitoring Program Station	Sampling Date	Lab ID Number	Comment
MS-C-E (Downstream of Construction and Borrow Areas)	2022-08-03	L2726644-8	
	2022-08-09	L2727453-9	
	2022-08-18	L2729151-5	
	2022-08-22	L2729530-4	
	2022-08-23	L2730409-2	
	2022-08-29	L2730582-10	
MS-C-F (Downstream of Construction and Borrow Areas)	2022-08-03	L2726644-4	
	2022-08-09	L2727453-9	
	2022-08-18	L2729151-10	
	2022-08-22	L2729530-10	
	2022-08-29	L2730582-7	
MS-C-F01 (Field Duplicate of MS-C-F)	2022-08-29	L2730582-8	
MS-C-G (Downstream of Construction and Borrow Areas)	2022-08-03	L2726644-5	
	2022-08-09	L2727453-12	
	2022-08-18	L2729151-1	
	2022-08-22	L2729530-1	
	2022-08-29	L273058-12	
MS-C-G02 (Field Blank of MS-C-G)	2022-08-03	L2726644-6	
MS-C-H (Downstream of Construction and Borrow Areas)	2022-08-18	L2729151-2	No flow during other scheduled sampling events in August.
	2022-08-22	L2729530-2	
	2022-08-31	L2731287-1	
MQ-C-A (Downstream of QMR2 Quarry)	2022-08-03	L2726644-14	
	2022-08-09	L2727453-6	
	2022-08-18	L2729151-13	
	2022-08-22	L2729530-12	
	2022-08-29	L2730582-1	
MQ-C-A01 (Field Duplicate of MQ-C-A)	2022-08-09	L2727453-7	
MQ-C-A03 (Travel Blank of MQ-C-A)	2022-08-18	L2729151-14	
MQ-C-B (Downstream of QMR2 Quarry)	2022-08-03	L2726644-12	
	2022-08-09	L2727453-8	
	2022-08-18	L2729151-12	
	2022-08-22	L2729530-11	
	2022-08-29	L2730582-4	
MQ-C-B02 (Field Blank of MQ-C-B)	2022-08-29	L2730582-4	

Monitoring Program Station	Sampling Date	Lab ID Number	Comment
MQ-C-D (Downstream of QMR2 Quarry)	2022-08-03	L2726644-13	
	2022-08-09	L2727453-5	
	2022-08-18	L2729151-15	
	2022-08-22	L2729530-13	
	2022-08-29	L2730582-2	
MQ-C-D01 (Field duplicate of MQ-C-D)	2022-08-22	L2729530-14	
Steensby Port			
Steensby Exploration Camp is presently inactive.	N/A	N/A	N/A

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

Analyte	Sample ID			MP-01
	ALS Laboratory Sample ID			L2726464-1
	Sample Date & Time			2022-08-02 13:10
	QA/QC Sample Type			N/A
	Units	LOR	Criteria ¹	
pH	pH units	0.10	6.0 - 9.5	7.80
Total Suspended Solids	mg/L	1.0	120	<1.0
Ammonia, Total (as N)	mg/L	0.010	-	0.028
Total Kjeldahl Nitrogen	mg/L	0.050	-	4.84
Phosphorus, Total	mg/L	0.060	-	9.6
Fecal Coliforms	CFU/100 mL	-	10,000	0
BOD	mg/L	2.0	100	<2.0
Oil and Grease, Total	mg/L	5.0/10.0	-	<5.0
	-	-	No Visible Sheen	No Visible Sheen
Toxicity	-	-	Not Acutely Toxic	-

Notes:

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

¹Type 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-01A

Analyte	Sample ID			MP-01A
	ALS Laboratory Sample ID			L2728885-1
	Sample Date & Time			2022-08-16 0:00
	QA/QC Sample Type			N/A
	Units	LOR	Criteria ¹	
pH	pH units	0.10	6.0 - 9.5	7.95
Total Suspended Solids	mg/L	1.0	120	17.4
Alkalinity, Total (as CaCO ₃)	mg/L	1.0	-	219
Ammonia, Total (as N)	mg/L	0.10	-	3.65
Total Kjeldahl Nitrogen	mg/L	0.50	-	12.9
Phosphorus, Total	mg/L	0.0030	-	0.380
Fecal Coliforms	CFU/100mL	0	10,000	0
BOD	mg/L	2.0	100	2.8
COD	mg/L	10	-	178
Oil and Grease, Total	mg/L	1.0	-	<1.0
	-	-	No Visible Sheen	No Visible Sheen
Acute Toxicity	-	-	Not acutely toxic	Not acutely toxic

Notes:

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

¹Type 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 - MP-01B

Analyte	Sample ID			MP-01B
	ALS Laboratory Sample ID			L2726461-1
	Sample Date & Time			2022-08-02 13:40
	QA/QC Sample Type			N/A
	Units	LOR	Criteria ¹	
pH	pH units	0.10	6.0 - 9.5	8.02
Total Suspended Solids	mg/L	1.0	120	<1.0
Ammonia, Total (as N)	mg/L	0.010	-	0.025
Total Kjeldahl Nitrogen	mg/L	0.50	-	3.29
Phosphorus, Total	mg/L	0.030	-	5.84
Fecal Coliforms	CFU/100 mL	-	10,000	0
BOD	mg/L	2.0	100	<2.0
Oil and Grease, Total	mg/L	5.0	-	<5.0
	-	-	No Visible Sheen	No Visible Sheen
Toxicity	-	-	Not Acutely Toxic	-

Notes:

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

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

Table 2.4: Water Quality Results for Water Licence Monitoring Location - MP-04A

Analyte	Sample ID			MP-04A
	ALS Laboratory Sample ID			L2726814-1
	Sample Date & Time			2022-08-01 9:00
	QA/QC Sample Type			N/A
	Units	LOR	Criteria ¹	
pH	pH	0.10	6.0 - 9.0	7.38
Total Suspended Solids	mg/L	3.0	15	12.4
Total Dissolved Solids	mg/L	20	-	1190
Turbidity	NTU	0.10	-	2.93
Arsenic (As)-Total	mg/L	0.00010	-	-
Copper (Cu)-Total	mg/L	0.00050	-	-
Lead (Pb)-Total	mg/L	0.000050	0.001	<0.00050
Nickel (Ni)-Total	mg/L	0.00050	-	-
Phosphorus (P)-Total	mg/L	0.050	-	-
Zinc (Zn)-Total	mg/L	0.0030	-	-
Benzene	mg/L	0.50	0.370	<0.50
Ethylbenzene	mg/L	0.50	0.090	<0.50
Methyl t-butyl ether (MTBE)	mg/L	0.00050	-	-
Styrene	mg/L	0.00050	-	-
Toluene	mg/L	0.50000	0.002	<0.50
ortho-Xylene	mg/L	0.50	-	<0.50
meta- & para-Xylene	mg/L	1.0	-	<1.0
Xylenes	mg/L	1.1	-	<1.1
F1 (C6-C10)	mg/L	25	-	<25
F1-BTEX	mg/L	25	-	<25
F2 (C10-C16)	mg/L	100	-	<100
F3 (C16-C34)	mg/L	250	-	<250
F4 (C34-C50)	mg/L	250	-	<250
Oil and Grease, Total	mg/L	5.0	15	<5.0
	-	-	No Visible Sheen	No Visible Sheen

Notes:

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

¹Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 9: Effluent Quality Discharge Limits for the Landfarm Facilities

Table 2.5: Water Quality Results for Water Licence Monitoring Location - MP-05

Analyte	Sample ID			MP-05
	ALS Laboratory Sample ID			L2726798-1
	Sample Date & Time			2022-08-01 8:00
	QA/QC Sample Type			N/A
	Units	LOR	Criteria ¹	
Hardness (as CaCO ₃)	mg/L	0.5	-	278
pH	pH units	0.1	6.0 - 9.5	8.38
Total Suspended Solids	mg/L	1	15	<3.0
Total Dissolved Solids	mg/L	20	-	384
Turbidity	NTU	0.1	-	4.71
Alkalinity, Total (as CaCO ₃)	mg/L	1	-	175
Ammonia, Total (as N)	mg/L	0.01	-	0.057
Chloride (Cl)	mg/L	0.5	-	82.1
Fluoride (F)	mg/L	0.0	-	0.186
Nitrate (as N)	mg/L	0.0	-	3.14
Total Kjeldahl Nitrogen	mg/L	0.1	-	0.54
Phosphorus, Total	mg/L	0.003	-	0.0058
Sulfate (SO ₄)	mg/L	0.3	-	37.9
Dissolved Organic Carbon	mg/L	0.5	-	5.05
Total Organic Carbon	mg/L	0.5	-	4.73
Aluminum (Al)-Total	mg/L	0.01	-	0.0838
Arsenic (As)-Total	mg/L	0.0001	0.50	0.00025
Cadmium (Cd)-Total	mg/L	0.000005	-	0.000005
Calcium (Ca)-Total	mg/L	0.05	-	58.3
Copper (Cu)-Total	mg/L	0.0005	0.30	0.00169
Iron (Fe)-Total	mg/L	0.01	-	0.133
Lead (Pb)-Total	mg/L	0.00005	0.20	0.000235
Magnesium (Mg)-Total	mg/L	0.005	-	24.3
Manganese (Mn)-Total	mg/L	0.001	-	0.0237
Mercury (Hg)-Total	mg/L	0.000005	-	<0.0000050
Molybdenum (Mo)-Total	mg/L	0.000050	-	0.00533
Nickel (Ni)-Total	mg/L	0.0005	0.50	0.00088
Potassium (K)-Total	mg/L	0.05	-	6.63
Selenium (Se)-Total	mg/L	0.00005	-	0.000083
Sodium (Na)-Total	mg/L	0.05	-	35.7
Thallium (Tl)-Total	mg/L	0.00001	-	0.000015
Uranium (U)-Total	mg/L	0.00001	-	0.159
Zinc (Zn)-Total	mg/L	0.003	0.50	0.005
Aluminum (Al)-Dissolved	mg/L	0.005	-	0.0166
Arsenic (As)-Dissolved	mg/L	0.0001	-	0.00021
Cadmium (Cd)-Dissolved	mg/L	0.000005	-	<0.0000050
Calcium (Ca)-Dissolved	mg/L	0.05	-	69.7
Copper (Cu)-Dissolved	mg/L	0.0002	-	0.00176
Iron (Fe)-Dissolved	mg/L	0.01	-	0.018
Lead (Pb)-Dissolved	mg/L	0.00005	-	0.000063
Magnesium (Mg)-Dissolved	mg/L	0.005	-	25.4
Manganese (Mn)-Dissolved	mg/L	0.001	-	0.02
Mercury (Hg)-Dissolved	mg/L	0.000005	-	<0.0000050
Molybdenum (Mo)-Dissolved	mg/L	0.00005	-	0.00609
Nickel (Ni)-Dissolved	mg/L	0.0005	-	0.00084
Potassium (K)-Dissolved	mg/L	0.050	-	7.08
Selenium (Se)-Dissolved	mg/L	0.00005	-	0.000093
Sodium (Na)-Dissolved	mg/L	0.05	-	39.8
Thallium (Tl)-Dissolved	mg/L	0.00001	-	0.000013
Uranium (U)-Dissolved	mg/L	0.00001	-	0.168
Zinc (Zn)-Dissolved	mg/L	0.001	-	0.0051
Oil and Grease, Total	mg/L	-	-	-
	-	-	No Visible Sheen	No Visible Sheen
Toxicity	-	-	Not Acutely Toxic	-

Notes:

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 2.6: Water Quality Results for Water Licence Monitoring Location - MP-06

Analyte	Sample ID			MP-06
	ALS Laboratory Sample ID			L2726807-1
	Sample Date & Time			2022-08-02 10:20
	QA/QC Sample Type			N/A
	Units	LOR	Criteria ¹	
Hardness (as CaCO ₃)	mg/L	0.50	-	383
pH	pH units	0.10	6.0 - 9.5	8.31
Total Suspended Solids	mg/L	1.0	15	4.1
Total Dissolved Solids	mg/L	20	-	562
Turbidity	NTU	0.10	-	20.1
Alkalinity, Total (as CaCO ₃)	mg/L	1.0	-	118
Ammonia, Total (as N)	mg/L	0.020	-	0.185
Chloride (Cl)	mg/L	0.50	-	106
Fluoride (F)	mg/L	0.020	-	0.15
Nitrate (as N)	mg/L	0.020	-	4.38
Total Kjeldahl Nitrogen	mg/L	0.050	-	0.721
Phosphorus, Total	mg/L	0.0030	-	0.0056
Sulfate (SO ₄)	mg/L	0.30	-	180
Dissolved Organic Carbon	mg/L	0.50	-	4.73
Total Organic Carbon	mg/L	0.50	-	4.24
Aluminum (Al)-Total	mg/L	0.0050	-	0.113
Arsenic (As)-Total	mg/L	0.00010	0.50	<0.0010
Cadmium (Cd)-Total	mg/L	0.0000050	-	<0.000050
Calcium (Ca)-Total	mg/L	0.050	-	65.9
Copper (Cu)-Total	mg/L	0.00050	0.30	<0.0050
Iron (Fe)-Total	mg/L	0.010	-	0.19
Lead (Pb)-Total	mg/L	0.000050	0.20	<0.00050
Magnesium (Mg)-Total	mg/L	0.0050	-	51.3
Manganese (Mn)-Total	mg/L	0.00050	-	0.0257
Mercury (Hg)-Total	mg/L	0.0000050	-	<0.0000050
Molybdenum (Mo)-Total	mg/L	0.000050	-	0.00591
Nickel (Ni)-Total	mg/L	0.00050	0.50	<0.0050
Potassium (K)-Total	mg/L	0.050	-	8.14
Selenium (Se)-Total	mg/L	0.000050	-	0.00053
Sodium (Na)-Total	mg/L	0.050	-	51.7
Thallium (Tl)-Total	mg/L	0.000010	-	<0.00010
Uranium (U)-Total	mg/L	0.000010	-	0.138
Zinc (Zn)-Total	mg/L	0.0030	0.50	<0.030
Aluminum (Al)-Dissolved	mg/L	0.0050	-	0.0194
Arsenic (As)-Dissolved	mg/L	0.00010	-	0.00025
Cadmium (Cd)-Dissolved	mg/L	0.000005	-	<0.0000050
Calcium (Ca)-Dissolved	mg/L	0.050	-	69.7
Copper (Cu)-Dissolved	mg/L	0.00020	-	0.00082
Iron (Fe)-Dissolved	mg/L	0.010	-	0.034
Lead (Pb)-Dissolved	mg/L	0.000050	-	<0.000050
Magnesium (Mg)-Dissolved	mg/L	0.0050	-	50.6
Manganese (Mn)-Dissolved	mg/L	0.00050	-	0.00672
Mercury (Hg)-Dissolved	mg/L	0.0000050	-	<0.0000050
Molybdenum (Mo)-Dissolved	mg/L	0.000050	-	0.00664
Nickel (Ni)-Dissolved	mg/L	0.00050	-	0.00115
Potassium (K)-Dissolved	mg/L	0.050	-	8.72
Selenium (Se)-Dissolved	mg/L	0.000050	-	0.000525
Sodium (Na)-Dissolved	mg/L	0.050	-	51.1
Thallium (Tl)-Dissolved	mg/L	0.000010	-	0.000021
Uranium (U)-Dissolved	mg/L	0.000010	-	0.131
Zinc (Zn)-Dissolved	mg/L	0.0010	-	0.0016
Oil and Grease, Total	mg/L		-	-
	-	-	No Visible Sheen	No Visible Sheen
Toxicity	-	-	Not Acutely Toxic	-

Notes:

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 2.7: Water Quality Results for Water Licence Monitoring Location - MP-C-H

Analyte	Sample ID			MP-C-H	QD-BT2	MP-C-H	QD-CC2	MP-C-H	MP-C-H
	ALS Laboratory Sample ID			L2726793-5	L2726793-6	L2727458-5	L2727458-6	L2728891-5	L2730240-5
	Sample Date & Time			2022-08-02 9:00	2022-08-02 9:00	2022-08-09 11:20	2022-08-09 11:20	2022-08-16 10:10	2022-08-23 19:00
	QA/QC Sample Type			N/A	Travel Blank	N/A	Field Duplicate	N/A	N/A
	Units	LOR	Criteria ¹						
Conductivity	umhos/cm	1.0	-	348	<1.0	-	-	-	-
pH	pH units	0.10	6.0 - 9.5	8.36	5.85	8.22	8.23	8.22	8.57
Total Suspended Solids	mg/L	1.0/2.0	Grab 30, Average 15	<3.0	<3.0	<2.0	<2.0	<2.0	<3.0
Total Dissolved Solids	mg/L	10.0/20.0	-	167	<10	219	207	296	250
Turbidity	NTU	0.1/1	-	0.13	<0.10	0.21	0.26	0.7	<1.0
Ammonia, Total (as N)	mg/L	0.01/0.02	-	<0.010	<0.010	-	-	-	-
Nitrate (as N)	mg/L	0.020	-	0.309	<0.020	-	-	-	-
Oil and Grease, Total	mg/L	5.0	-	<5.0	<5.0	-	-	-	-
	-	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen

Notes:
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 2.7: Water Quality Results for Water Licence Monitoring Location - MP-C-H

Analyte	Sample ID			MP-C-H	MP-C-H
	ALS Laboratory Sample ID			L2731106-3	L2731106-2
	Sample Date & Time			2022-08-30 13:10	2022-08-30 13:10
	QA/QC Sample Type			N/A	Field Duplicate
	Units	LOR	Criteria ¹		
Conductivity	umhos/cm	1.0	-	-	-
pH	pH units	0.10	6.0 - 9.5	8.22	8.21
Total Suspended Solids	mg/L	1.0/2.0	Grab 30, Average 15	<2.0	<2.0
Total Dissolved Solids	mg/L	10.0/20.0	-	225	226
Turbidity	NTU	0.1/1	-	0.13	0.2
Ammonia, Total (as N)	mg/L	0.01/0.02	-	-	-
Nitrate (as N)	mg/L	0.020	-	-	-
Oil and Grease, Total	mg/L	5.0	-	-	-
	-	-	No Visible Sheen	No Visible Sheen	No Visible Sheen

Notes:
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 2.8: Water Quality Results for Water Licence Monitoring Location - MP-C-J

Analyte	Sample ID			MP-C-J	MP-C-J	MP-C-J	MP-C-J	MP-C-J	MP-C-J
	ALS Laboratory Sample ID			L2726793-4	L2727458-1	L2728891-6	L2730240-1	L2730240-2	L2731106-1
	Sample Date & Time			2022-08-02 8:10	2022-08-09 8:50	2022-08-16 8:50	2022-08-23 7:45	2022-08-23 7:45	2022-08-30 12:00
	QA/QC Sample Type			N/A	N/A	N/A	N/A	Travel Blank	N/A
	Units	LOR	Criteria ¹						
Conductivity	umhos/cm	1	-	501	-	-	-	-	-
pH	pH units	0.1	6.0 - 9.5	8.23	7.87	7.88	8.55	6.09	7.97
Total Suspended Solids	mg/L	1.0/2.0	Grab 30, Average 15	3.3	<2.0	2	<3.0	<3.0	<2.0
Total Dissolved Solids	mg/L	10.0/20.0	-	261	240	260	228	<10	256
Turbidity	NTU	0.1/1	-	<0.10	<0.10	0.23	<1.0	1	0.45
Ammonia, Total (as N)	mg/L	0.01/0.02	-	<0.010	-	-	-	-	-
Nitrate (as N)	mg/L	0.02	-	0.122	-	-	-	-	-
Oil and Grease, Total	mg/L	5	-	<5.0	-	-	-	-	-
	-	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen

Notes:
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 2.9: Water Quality Results for Water Licence Monitoring Location - MP-C-K

Analyte	Sample ID			MP-C-K	MP-C-K	MP-C-K	MP-C-K	MP-C-K
	ALS Laboratory Sample ID			L2726793-1	L2727458-4	L2728891-2	L2730240-3	L2731106-4
	Sample Date & Time			2022-08-02 8:00	2022-08-09 9:55	2022-08-16 9:20	2022-08-23 8:10	2022-08-30 14:20
	QA/QC Sample Type			N/A	N/A	N/A	N/A	N/A
	Units	LOR	Criteria ¹					
Conductivity	umhos/cm	1	-	711	-	-	-	-
pH	pH units	0.1	6.0 - 9.5	8.27	8.01	8.03	8.45	7.83
Total Suspended Solids	mg/L	1.0/2.0	Grab 30, Average 15	<3.0	<2.0	<2.0	<3.0	<2.0
Total Dissolved Solids	mg/L	10.0 / 20.0	-	384	414	521	537	561
Turbidity	NTU	0.1/1	-	0.32	0.85	0.3	<1.0	0.12
Ammonia, Total (as N)	mg/L	0.01/0.02	-	0.340	-	-	-	-
Nitrate (as N)	mg/L	0.02	-	1.790	-	-	-	-
Oil and Grease, Total	mg/L	5	-	<5.0	-	-	-	-
	-	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen

Notes:

Bold highlight indicates result 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 2.10: Water Quality Results for Water Licence Monitoring Location - MP-Q1-02

Analyte	Sample ID			MP-Q1-02	MP-Q1-02	MP-Q1-02	QD-BT2	MP-Q1-02
	ALS Laboratory Sample ID			L2726793-3	L2727458-3	L2728891-4	L2728891-1	L2730240-4
	Sample Date & Time			2022-08-02 7:20	2022-08-09 8:00	2022-08-16 7:55	2022-08-16 7:55	2022-08-23 16:40
	QA/QC Sample Type			N/A	N/A	N/A	Travel Blank	N/A
	Units	LOR	Criteria ¹					
Conductivity	umhos/cm	1	-	491	-	-	-	503
pH	pH units	0.1	6.0 - 9.5	8.27	7.85	7.85	6.37	8.55
Total Suspended Solids	mg/L	1.0/2.0	Grab 30, Average 15	<3.0	<2.0	<2.0	<2.0	<1.0
Total Dissolved Solids	mg/L	10.0/13.0	-	277	257	277	19	267
Turbidity	NTU	0.1/1	-	0.48	0.83	0.53	0.12	<1.0
Ammonia, Total (as N)	mg/L	0.01/0.02	-	0.013	-	-	-	0.043
Nitrate (as N)	mg/L	0.02	-	5.730	-	-	-	3.81
Oil and Grease, Total	mg/L	5	-	<5.0	-	-	-	<5.0
	-	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen
Acute Toxicity	-	-	Not Acutely Toxic	-	-	-	-	Not Acutely Toxic

Notes:

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 2.11: Water Quality Results for Water Licence Monitoring Location - MS-01

Analyte	Sample ID			MS-01
	ALS Laboratory Sample ID			L2726465-1
	Sample Date & Time			2022-08-02 14:45
	QA/QC Sample Type			N/A
	Units	LOR	Criteria ¹	
pH	pH units	0.10	6.0 - 9.5	7.59
Total Suspended Solids	mg/L	1.0	35	2.6
Ammonia, Total (as N)	mg/L	0.010	4.0	0.117
Total Kjeldahl Nitrogen	mg/L	0.050	-	3.91
Phosphorus, Total	mg/L	0.0030	4.0	0.422
Fecal Coliforms	CFU/100 mL	0.0	1,000	0
BOD	mg/L	2.0	30	<2.0
Oil and Grease, Total	mg/L	5.0	-	<5.0
	-	-	No Visible Sheen	No Visible Sheen
Toxicity	-	-	Not Acutely Toxic	-

Notes:

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

Analyte	Sample ID			MS-01B
	ALS Laboratory Sample ID			L2726548-1
	Sample Date & Time			2022-08-02 15:00
	QA/QC Sample Type			N/A
	Units	LOR	Criteria ¹	
pH	pH units	0.10	6.0 - 9.5	8.30
Total Suspended Solids	mg/L	1.0	35	1.6
Ammonia, Total (as N)	mg/L	0.010	4.0	0.083
Total Kjeldahl Nitrogen	mg/L	0.050	-	3.06
Phosphorus, Total	mg/L	0.0030	4.0	0.792
Fecal Coliforms	CFU/100 mL	0.0	1,000	4
BOD	mg/L	2.0	30	<2.0
Oil and Grease, Total	mg/L	5.0	-	<5.0
	-	-	No Visible Sheen	No visible sheen
Toxicity	-	-	Not Acutely Toxic	-

Notes:

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 2.13: Water Quality Results for Water Licence Monitoring Location - MS-06

Analyte	Sample ID			MS-06
	ALS Laboratory Sample ID			L2728673-1
	Sample Date & Time			2022-08-16 11:35
	QA/QC Sample Type			N/A
	Units	LOR	Criteria ¹	
Hardness (as CaCO ₃)	mg/L	0.50		723
pH	pH units	0.10	6.0 - 9.5	7.75
Total Suspended Solids	mg/L	2.0	15	9.9
Total Dissolved Solids	mg/L	10	-	1070
Turbidity	NTU	0.10	-	33.8
Alkalinity, Total (as CaCO ₃)	mg/L	1.0	-	128
Ammonia, Total (as N)	mg/L	0.010	-	0.759
Chloride (Cl)	mg/L	0.50	-	51.5
Fluoride (F)	mg/L	0.020	-	<0.10
Nitrate (as N)	mg/L	0.020	-	20.3
Total Kjeldahl Nitrogen	mg/L	0.050	-	1.1
Phosphorus, Total	mg/L	0.0030	-	0.0092
Sulfate (SO ₄)	mg/L	0.30	-	613
Dissolved Organic Carbon	mg/L	0.50	-	3.57
Total Organic Carbon	mg/L	0.50	-	3.37
Aluminum (Al)-Total	mg/L	0.0050	-	0.102
Arsenic (As)-Total	mg/L	0.00010	0.50	0.0003
Cadmium (Cd)-Total	mg/L	0.0000050	-	0.0000211
Calcium (Ca)-Total	mg/L	0.050	-	78.8
Copper (Cu)-Total	mg/L	0.00050	0.30	0.0009
Iron (Fe)-Total	mg/L	0.010	-	0.27
Lead (Pb)-Total	mg/L	0.000050	0.20	0.000968
Magnesium (Mg)-Total	mg/L	0.0050	-	131
Manganese (Mn)-Total	mg/L	0.00050	-	0.288
Mercury (Hg)-Total	mg/L	0.0000050	-	<0.0000050
Molybdenum (Mo)-Total	mg/L	0.000050	-	0.00533
Nickel (Ni)-Total	mg/L	0.00050	0.50	0.00393
Potassium (K)-Total	mg/L	0.050	-	18.3
Selenium (Se)-Total	mg/L	0.000050	-	0.00232
Sodium (Na)-Total	mg/L	0.050	-	19.9
Thallium (Tl)-Total	mg/L	0.000010	-	0.000089
Uranium (U)-Total	mg/L	0.000010	-	0.0156
Zinc (Zn)-Total	mg/L	0.0030	0.50	0.0115
Aluminum (Al)-Dissolved	mg/L	0.0050	-	0.0065
Arsenic (As)-Dissolved	mg/L	0.00010	-	0.00026
Cadmium (Cd)-Dissolved	mg/L	0.0000050	-	0.0000189
Calcium (Ca)-Dissolved	mg/L	0.050	-	78.4
Copper (Cu)-Dissolved	mg/L	0.00020	-	0.00055
Iron (Fe)-Dissolved	mg/L	0.010	-	0.00055
Lead (Pb)-Dissolved	mg/L	0.000050	-	<0.010
Magnesium (Mg)-Dissolved	mg/L	0.0050	-	128
Manganese (Mn)-Dissolved	mg/L	0.00050	-	0.168
Mercury (Hg)-Dissolved	mg/L	0.0000050	-	<0.0000050
Molybdenum (Mo)-Dissolved	mg/L	0.000050	-	0.00551
Nickel (Ni)-Dissolved	mg/L	0.00050	-	0.00321
Potassium (K)-Dissolved	mg/L	0.050	-	17.8
Selenium (Se)-Dissolved	mg/L	0.000050	-	0.00236
Sodium (Na)-Dissolved	mg/L	0.050	-	19.1
Thallium (Tl)-Dissolved	mg/L	0.000010	-	0.000088
Uranium (U)-Dissolved	mg/L	0.000010	-	0.0159
Zinc (Zn)-Dissolved	mg/L	0.0010	-	0.0085
Oil and Grease	mg/L	-	-	-
	-	-	No Visible Sheen	No Visible Sheen
Acute Toxicity	-	-	Not Acutely Toxic	Not Acutely Toxic

Notes:

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 2.14: Water Quality Results for Water Licence Monitoring Location - MS-07

Analyte	Sample ID			MS-07	MS-07	MS-07
	ALS Laboratory Sample ID			L2726074-1	L2730586-1	L2731105-1
	Sample Date & Time			2022-08-02 9:00	2022-08-29 9:25	2022-08-30 11:55
	QA/QC Sample Type			N/A	N/A	N/A
	Units	LOR	Criteria ¹			
Hardness (as CaCO3)	mg/L	0.50	-	113	177	-
pH	pH units	0.10	6.0 - 9.5	7.95	8.03	7.97
Total Suspended Solids	mg/L	2.0	15	29.9	3.8	12.2
Total Dissolved Solids	mg/L	10	-	163	257	253
Turbidity	NTU	0.10	-	57.3	7.94	20.90
Alkalinity, Total (as CaCO3)	mg/L	1.0	-	53.7	70	-
Ammonia, Total (as N)	mg/L	0.010	-	<0.010	0.021	-
Chloride (Cl)	mg/L	0.50	-	3.84	8.9	-
Fluoride (F)	mg/L	0.020	-	0.117	0.162	-
Nitrate (as N)	mg/L	0.020	-	2.00	3.39	-
Total Kjeldahl Nitrogen	mg/L	0.050	-	0.239	0.279	-
Phosphorus, Total	mg/L	0.0030	-	0.0051	0.0053	-
Sulfate (SO4)	mg/L	0.30	-	51.7	98.9	-
Dissolved Organic Carbon	mg/L	0.50	-	2.14	1.96	-
Total Organic Carbon	mg/L	0.50	-	3.31	2.47	-
Aluminum (Al)-Total	mg/L	0.0050	-	1.92	0.195	-
Arsenic (As)-Total	mg/L	0.00010	0.50	0.00030	0.00015	-
Cadmium (Cd)-Total	mg/L	0.0000050	-	0.0000340	0.0000167	-
Calcium (Ca)-Total	mg/L	0.050	-	16.5	25.8	-
Copper (Cu)-Total	mg/L	0.00050	0.30	0.00909	0.00477	-
Iron (Fe)-Total	mg/L	0.010	-	2.76	0.283	-
Lead (Pb)-Total	mg/L	0.000050	0.20	0.00831	0.00039	-
Magnesium (Mg)-Total	mg/L	0.0050	-	17.2	27.5	-
Manganese (Mn)-Total	mg/L	0.00050	-	0.0452	0.0208	-
Mercury (Hg)-Total	mg/L	0.0000050	-	<0.0000050	<0.0000050	-
Molybdenum (Mo)-Total	mg/L	0.000050	-	0.00761	0.0151	-
Nickel (Ni)-Total	mg/L	0.00050	0.50	0.00389	0.00075	-
Potassium (K)-Total	mg/L	0.050	-	8.88	13.90	-
Selenium (Se)-Total	mg/L	0.000050	-	0.000317	0.000493	-
Sodium (Na)-Total	mg/L	0.050	-	2.35	4.04	-
Thallium (Tl)-Total	mg/L	0.000010	-	0.000037	<0.000010	-
Uranium (U)-Total	mg/L	0.000010	-	0.00218	0.00376	-
Zinc (Zn)-Total	mg/L	0.0030	0.50	0.0094	<0.0030	-
Aluminum (Al)-Dissolved	mg/L	0.0050	-	0.0304	0.0157	-
Arsenic (As)-Dissolved	mg/L	0.00010	-	0.00013	0.00012	-
Cadmium (Cd)-Dissolved	mg/L	0.0000050	-	0.0000082	0.0000077	-
Calcium (Ca)-Dissolved	mg/L	0.050	-	18.5	26.1	-
Copper (Cu)-Dissolved	mg/L	0.00020	-	0.00105	0.00073	-
Iron (Fe)-Dissolved	mg/L	0.010	-	<0.010	<0.010	-
Lead (Pb)-Dissolved	mg/L	0.000050	-	0.000112	<0.000050	-
Magnesium (Mg)-Dissolved	mg/L	0.0050	-	16.1	27.1	-
Manganese (Mn)-Dissolved	mg/L	0.00050	-	0.00462	0.00054	-
Mercury (Hg)-Dissolved	mg/L	0.0000050	-	<0.0000050	<0.0000050	-
Molybdenum (Mo)-Dissolved	mg/L	0.000050	-	0.00912	0.01500	-
Nickel (Ni)-Dissolved	mg/L	0.00050	-	<0.00050	<0.00050	-
Potassium (K)-Dissolved	mg/L	0.050	-	8.65	13.70	-
Selenium (Se)-Dissolved	mg/L	0.000050	-	0.000324	0.000545	-
Sodium (Na)-Dissolved	mg/L	0.050	-	2.46	4.13	-
Thallium (Tl)-Dissolved	mg/L	0.000010	-	<0.000010	<0.000010	-
Uranium (U)-Dissolved	mg/L	0.000010	-	0.00188	0.00359	-
Zinc (Zn)-Dissolved	mg/L	0.0010	-	0.0031	<0.0010	-
Oil and Grease	-	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen
Acute Toxicity	-	-	Not Acutely Toxic	*	Not Acutely Toxic	-

Notes:

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

* Acute Toxicity Sample collected on August 2 passed, however lab control sample failed QA/QC. Due to this a second sample was collected on August 29th

Table 2.15: Water Quality Results for Water Licence Monitoring Location - MS-08

Analyte	Sample ID			MS-08	MS-08
	ALS Laboratory Sample ID			L2726075-1	L2730434-1
	Sample Date & Time			2022-08-02 9:45	2022-08-28 9:30
	QA/QC Sample Type			N/A	N/A
	Units	LOR	Criteria ¹		
Hardness (as CaCO ₃)	mg/L	0.50	-	991	2170
pH	pH units	0.10	6.0 - 9.5	8.72	6.85
Total Suspended Solids	mg/L	2.0	15	<2.0	6.0
Total Dissolved Solids	mg/L	10	-	1300	2740
Turbidity	NTU	0.10	-	0.48	10.6
Alkalinity, Total (as CaCO ₃)	mg/L	1.0	-	16.1	6.6
Ammonia, Total (as N)	mg/L	0.010	-	1.95	2.97
Chloride (Cl)	mg/L	0.50	-	9.0	42.6
Fluoride (F)	mg/L	0.020	-	0.11	<0.10
Nitrate (as N)	mg/L	0.020	-	13.5	15.8
Total Kjeldahl Nitrogen	mg/L	0.050	-	2.32	3.27
Phosphorus, Total	mg/L	0.0030	-	<0.0030	<0.0030
Sulfate (SO ₄)	mg/L	0.30	-	872	1740
Dissolved Organic Carbon	mg/L	0.50	-	1.60	2.11
Total Organic Carbon	mg/L	0.50	-	2.80	2.18
Aluminum (Al)-Total	mg/L	0.0050	-	<0.050	<0.050
Arsenic (As)-Total	mg/L	0.00010	0.50	<0.0010	<0.0010
Cadmium (Cd)-Total	mg/L	0.0000050	-	<0.000050	<0.000050
Calcium (Ca)-Total	mg/L	0.050	-	60.7	157
Copper (Cu)-Total	mg/L	0.00050	0.30	<0.0050	0.0055
Iron (Fe)-Total	mg/L	0.010	-	<0.10	1.88
Lead (Pb)-Total	mg/L	0.000050	0.20	<0.00050	<0.00050
Magnesium (Mg)-Total	mg/L	0.0050	-	197	415
Manganese (Mn)-Total	mg/L	0.00050	-	0.593	4.05
Mercury (Hg)-Total	mg/L	0.0000050	-	<0.0000050	<0.0000050
Molybdenum (Mo)-Total	mg/L	0.000050	-	0.00073	<0.00050
Nickel (Ni)-Total	mg/L	0.00050	0.50	0.0120	0.0247
Potassium (K)-Total	mg/L	0.050	-	5.10	5.89
Selenium (Se)-Total	mg/L	0.000050	-	0.00412	0.00719
Sodium (Na)-Total	mg/L	0.050	-	2.95	4.38
Thallium (Tl)-Total	mg/L	0.000010	-	<0.00010	0.00011
Uranium (U)-Total	mg/L	0.000010	-	0.00015	0.000184
Zinc (Zn)-Total	mg/L	0.0030	0.50	<0.030	<0.030
Aluminum (Al)-Dissolved	mg/L	0.0050	-	<0.050	<0.050
Arsenic (As)-Dissolved	mg/L	0.00010	-	<0.0010	<0.0010
Cadmium (Cd)-Dissolved	mg/L	0.0000050	-	<0.000050	<0.000050
Calcium (Ca)-Dissolved	mg/L	0.050	-	67.7	163
Copper (Cu)-Dissolved	mg/L	0.00020	-	<0.0020	<0.0020
Iron (Fe)-Dissolved	mg/L	0.010	-	<0.10	<0.10
Lead (Pb)-Dissolved	mg/L	0.000050	-	<0.00050	<0.00050
Magnesium (Mg)-Dissolved	mg/L	0.0050	-	200	427
Manganese (Mn)-Dissolved	mg/L	0.00050	-	0.591	4.13
Mercury (Hg)-Dissolved	mg/L	0.0000050	-	<0.0000050	<0.0000050
Molybdenum (Mo)-Dissolved	mg/L	0.000050	-	0.00087	<0.00050
Nickel (Ni)-Dissolved	mg/L	0.00050	-	0.0119	0.0204
Potassium (K)-Dissolved	mg/L	0.050	-	5.39	6.31
Selenium (Se)-Dissolved	mg/L	0.000050	-	0.00439	0.00715
Sodium (Na)-Dissolved	mg/L	0.050	-	3.10	4.61
Thallium (Tl)-Dissolved	mg/L	0.000010	-	<0.00010	0.00011
Uranium (U)-Dissolved	mg/L	0.000010	-	0.00017	0.00011
Zinc (Zn)-Dissolved	mg/L	0.0010	-	<0.010	<0.010
Oil and Grease	-	-	No Visible Sheen	No Visible Sheen	No Visible Sheen
Acute Toxicity	-	-	Not Acutely Toxic	-	-

Notes:

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 2.16: Water Quality Results for Water Licence Monitoring Location - MS-11

Analyte	Sample ID			KM105-SWMP-SEEP-01	KM105-SWMP-SEEP-01
	ALS Laboratory Sample ID			L2726077-1	L2728672-1
	Sample Date & Time			2022-08-02 11:00	2022-08-16 9:40
	QA/QC Sample Type			N/A	N/A
	Units	LOR	Criteria ¹		
Hardness (as CaCO3)	mg/L	0.50	-	251	264
pH	pH units	0.10	6.0 - 9.5	7.73	7.80
Total Suspended Solids	mg/L	3.0	15	<2.0	3.2
Total Dissolved Solids	mg/L	10.0	-	328	370
Turbidity	NTU	0.10	-	1.49	3.46
Alkalinity, Total (as CaCO3)	mg/L	1.0	-	104	113
Ammonia, Total (as N)	mg/L	0.5	-	0.096	0.045
Chloride (Cl)	mg/L	0.02	-	45.1	45.6
Fluoride (F)	mg/L	0.02	-	0.154	0.142
Nitrate (as N)	mg/L	0.05	-	2.82	2.75
Total Kjeldahl Nitrogen	mg/L	0.003	-	0.259	0.449
Phosphorus, Total	mg/L	0.3	-	0.0048	0.0032
Sulfate (SO4)	mg/L	n/a	-	71.9	96.0
Dissolved Organic Carbon	mg/L	0.5	-	1.60	2.43
Total Organic Carbon	mg/L	0.5	-	2.36	2.44
Aluminum (Al)-Total	mg/L	0.005	-	0.073	0.0346
Arsenic (As)-Total	mg/L	0.0001	0.50	<0.0010	<0.00010
Cadmium (Cd)-Total	mg/L	0.000005	-	0.000177	0.000164
Calcium (Ca)-Total	mg/L	0.05	-	48.8	54.0
Copper (Cu)-Total	mg/L	0.0005	0.30	<0.0050	0.00216
Iron (Fe)-Total	mg/L	0.01	-	<0.10	0.051
Lead (Pb)-Total	mg/L	0.00005	0.20	<0.00050	0.000147
Magnesium (Mg)-Total	mg/L	0.005	-	29.0	31.9
Manganese (Mn)-Total	mg/L	0.0005	-	0.0241	0.0182
Mercury (Hg)-Total	mg/L	0.000005	-	<0.0000050	<0.0000050
Molybdenum (Mo)-Total	mg/L	0.00005	-	0.0214	0.0192
Nickel (Ni)-Total	mg/L	0.0005	0.50	<0.0050	0.00108
Potassium (K)-Total	mg/L	0.05	-	7.67	7.46
Selenium (Se)-Total	mg/L	0.00005	-	<0.00050	0.000444
Sodium (Na)-Total	mg/L	0.05	-	4.72	5.10
Thallium (Tl)-Total	mg/L	0.00001	-	<0.00010	0.000019
Uranium (U)-Total	mg/L	0.00001	-	0.0275	0.0292
Zinc (Zn)-Total	mg/L	0.003	0.50	<0.030	<0.0030
Aluminum (Al)-Dissolved	mg/L	0.0050	-	<0.0050	<0.0050
Arsenic (As)-Dissolved	mg/L	0.00010	-	<0.00010	0.00011
Cadmium (Cd)-Dissolved	mg/L	0.0000050	-	0.000212	0.000157
Calcium (Ca)-Dissolved	mg/L	0.050	-	53.8	54.6
Copper (Cu)-Dissolved	mg/L	0.00020	-	0.00196	0.00194
Iron (Fe)-Dissolved	mg/L	0.010	-	<0.010	<0.010
Lead (Pb)-Dissolved	mg/L	0.000050	-	<0.000050	<0.000050
Magnesium (Mg)-Dissolved	mg/L	0.0050	-	28.4	31.0
Manganese (Mn)-Dissolved	mg/L	0.00050	-	0.0244	0.0170
Mercury (Hg)-Dissolved	mg/L	0.0000050	-	<0.0000050	<0.0000050
Molybdenum (Mo)-Dissolved	mg/L	0.000050	-	0.0236	0.0186
Nickel (Ni)-Dissolved	mg/L	0.00050	-	0.001	0.001
Potassium (K)-Dissolved	mg/L	0.050	-	8.62	7.21
Selenium (Se)-Dissolved	mg/L	0.000050	-	0.000432	0.000542
Sodium (Na)-Dissolved	mg/L	0.050	-	4.81	4.87
Thallium (Tl)-Dissolved	mg/L	0.000010	-	0.000024	0.000021
Uranium (U)-Dissolved	mg/L	0.000010	-	0.0287	0.0299
Zinc (Zn)-Dissolved	mg/L	0.0010	-	0.0078	0.0025
Oil and Grease	-	-	No Visible Sheen	No Visible Sheen	No Visible Sheen
Acute Toxicity	-	-	Not Acutely Toxic	-	-

Notes:

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 2.17: Water Quality Results for Water Licence Monitoring Location - MS-MRY-09

Analyte	Sample ID			MS-MRY-09	MS-MRY-09	MS-MRY-09
	ALS Laboratory Sample ID			L2726644-2	L2727453-14	L2729151-11
	Sample Date & Time			2022-08-03 11:30	2022-08-09 15:20	2022-08-18 13:25
	QA/QC Sample Type			N/A	N/A	N/A
	Units	LOR	Criteria ¹			
Hardness	mg/L	0.50	-	-	63.1	-
pH	pH units	0.10	6.0 - 9.5	7.92	8.03	7.99
Total Suspended Solids	mg/L	2.0	15	<2.0	<2.0	<2.0
Total Dissolved Solids	mg/L	10	-	71	104	102
Turbidity	NTU	0.10	-	0.33	0.35	0.36
Alkalinity, Total (as CaCO3)	mg/L	1.0	-	-	63.9	-
Ammonia, Total (as N)	mg/L	0.010	-	-	<0.010	-
Chloride (Cl)	mg/L	0.50	-	-	0.88	-
Fluoride (F)	mg/L	0.020	-	-	0.022	-
Nitrate (as N)	mg/L	0.020	-	-	0.158	-
Total Kjeldahl Nitrogen	mg/L	0.050	-	-	0.083	-
Phosphorus, Total	mg/L	0.0030	-	-	0.0047	-
Sulfate (SO4)	mg/L	0.30	-	-	3.78	-
Dissolved Organic Carbon	mg/L	0.50	-	-	2.30	-
Total Organic Carbon	mg/L	0.50	-	-	1.65	-
Aluminum (Al)-Total	mg/L	0.0050	-	-	0.0132	-
Arsenic (As)-Total	mg/L	0.00010	0.50	-	<0.00010	-
Cadmium (Cd)-Total	mg/L	0.0000050	-	-	<0.0000050	-
Calcium (Ca)-Total	mg/L	0.050	-	-	12.8	-
Copper (Cu)-Total	mg/L	0.00050	0.30	-	0.00207	-
Iron (Fe)-Total	mg/L	0.010	-	-	0.011	-
Lead (Pb)-Total	mg/L	0.000050	0.20	-	<0.000050	-
Magnesium (Mg)-Total	mg/L	0.0050	-	-	8.47	-
Manganese (Mn)-Total	mg/L	0.00050	-	-	0.00075	-
Mercury (Hg)-Total	mg/L	0.0000050	-	-	<0.0000050	-
Molybdenum (Mo)-Total	mg/L	0.000050	-	-	0.00147	-
Nickel (Ni)-Total	mg/L	0.00050	0.50	-	<0.00050	-
Potassium (K)-Total	mg/L	0.050	-	-	2.36	-
Selenium (Se)-Total	mg/L	0.000050	-	-	0.000077	-
Sodium (Na)-Total	mg/L	0.050	-	-	0.643	-
Thallium (Tl)-Total	mg/L	0.000010	-	-	0.000014	-
Uranium (U)-Total	mg/L	0.00001	-	-	0.00383	-
Zinc (Zn)-Total	mg/L	0.0030	0.50	-	<0.0030	-
Aluminum (Al)-Dissolved	mg/L	0.0050	-	-	0.0069	-
Arsenic (As)-Dissolved	mg/L	0.00010	-	-	<0.00010	-
Cadmium (Cd)-Dissolved	mg/L	0.0000050	-	-	<0.0000050	-
Calcium (Ca)-Dissolved	mg/L	0.050	-	-	12.5	-
Copper (Cu)-Dissolved	mg/L	0.00020	-	-	0.00210	-
Iron (Fe)-Dissolved	mg/L	0.010	-	-	<0.010	-
Lead (Pb)-Dissolved	mg/L	0.000050	-	-	<0.000050	-
Magnesium (Mg)-Dissolved	mg/L	0.0050	-	-	7.79	-
Manganese (Mn)-Dissolved	mg/L	0.00050	-	-	0.00063	-
Mercury (Hg)-Dissolved	mg/L	0.0000050	-	-	<0.0000050	-
Molybdenum (Mo)-Dissolved	mg/L	0.000050	-	-	0.00151	-
Nickel (Ni)-Dissolved	mg/L	0.00050	-	-	<0.00050	-
Potassium (K)-Dissolved	mg/L	0.050	-	-	2.24	-
Selenium (Se)-Dissolved	mg/L	0.000050	-	-	0.000109	-
Sodium (Na)-Dissolved	mg/L	0.050	-	-	0.650	-
Thallium (Tl)-Dissolved	mg/L	0.000010	-	-	0.000014	-
Uranium (U)-Dissolved	mg/L	0.000010	-	-	0.00378	-
Zinc (Zn)-Dissolved	mg/L	0.0010	-	-	<0.0010	-
Oil and Grease, Total	-	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen
Acute Toxicity	-	-	Not Acutely Toxic	-	-	-

Notes:
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 2.17: Water Quality Results for Water Licence Monitoring Location - MS-MRY

Analyte	Sample ID			MS-MRY-09	MS-MRY-09
	ALS Laboratory Sample ID			L2730409-1	L2730582-14
	Sample Date & Time			2022-08-23 9:40	2022-08-29 10:45
	QA/QC Sample Type			N/A	N/A
	Units	LOR	Criteria ¹		
Hardness	mg/L	0.50	-	-	92.9
pH	pH units	0.10	6.0 - 9.5	7.88	8.06
Total Suspended Solids	mg/L	2.0	15	<2.0	<2.0
Total Dissolved Solids	mg/L	10	-	107	107
Turbidity	NTU	0.10	-	0.71	0.23
Alkalinity, Total (as CaCO3)	mg/L	1.0	-	-	82.4
Ammonia, Total (as N)	mg/L	0.010	-	-	0.011
Chloride (Cl)	mg/L	0.50	-	-	1.49
Fluoride (F)	mg/L	0.020	-	-	<0.020
Nitrate (as N)	mg/L	0.020	-	-	0.145
Total Kjeldahl Nitrogen	mg/L	0.050	-	-	IP
Phosphorus, Total	mg/L	0.0030	-	-	<0.0030
Sulfate (SO4)	mg/L	0.30	-	-	5.04
Dissolved Organic Carbon	mg/L	0.50	-	-	1.49
Total Organic Carbon	mg/L	0.50	-	-	2.11
Aluminum (Al)-Total	mg/L	0.0050	-	-	0.0162
Arsenic (As)-Total	mg/L	0.00010	0.50	-	<0.00010
Cadmium (Cd)-Total	mg/L	0.0000050	-	-	<0.0000050
Calcium (Ca)-Total	mg/L	0.050	-	-	16.1
Copper (Cu)-Total	mg/L	0.00050	0.30	-	0.00216
Iron (Fe)-Total	mg/L	0.010	-	-	0.016
Lead (Pb)-Total	mg/L	0.000050	0.20	-	<0.000050
Magnesium (Mg)-Total	mg/L	0.0050	-	-	11.9
Manganese (Mn)-Total	mg/L	0.00050	-	-	0.00072
Mercury (Hg)-Total	mg/L	0.0000050	-	-	<0.0000050
Molybdenum (Mo)-Total	mg/L	0.000050	-	-	0.00166
Nickel (Ni)-Total	mg/L	0.00050	0.50	-	<0.00050
Potassium (K)-Total	mg/L	0.050	-	-	2.59
Selenium (Se)-Total	mg/L	0.000050	-	-	0.000089
Sodium (Na)-Total	mg/L	0.050	-	-	0.868
Thallium (Tl)-Total	mg/L	0.000010	-	-	0.000014
Uranium (U)-Total	mg/L	0.00001	-	-	0.00831
Zinc (Zn)-Total	mg/L	0.0030	0.50	-	<0.0030
Aluminum (Al)-Dissolved	mg/L	0.0050	-	-	0.0103
Arsenic (As)-Dissolved	mg/L	0.00010	-	-	<0.00010
Cadmium (Cd)-Dissolved	mg/L	0.0000050	-	-	<0.0000050
Calcium (Ca)-Dissolved	mg/L	0.050	-	-	17.2
Copper (Cu)-Dissolved	mg/L	0.00020	-	-	0.00199
Iron (Fe)-Dissolved	mg/L	0.010	-	-	<0.010
Lead (Pb)-Dissolved	mg/L	0.000050	-	-	<0.000050
Magnesium (Mg)-Dissolved	mg/L	0.0050	-	-	12.1
Manganese (Mn)-Dissolved	mg/L	0.00050	-	-	0.00065
Mercury (Hg)-Dissolved	mg/L	0.0000050	-	-	<0.0000050
Molybdenum (Mo)-Dissolved	mg/L	0.000050	-	-	0.00172
Nickel (Ni)-Dissolved	mg/L	0.00050	-	-	<0.0050
Potassium (K)-Dissolved	mg/L	0.050	-	-	2.69
Selenium (Se)-Dissolved	mg/L	0.000050	-	-	0.000110
Sodium (Na)-Dissolved	mg/L	0.050	-	-	0.860
Thallium (Tl)-Dissolved	mg/L	0.000010	-	-	0.000012
Uranium (U)-Dissolved	mg/L	0.000010	-	-	0.00788
Zinc (Zn)-Dissolved	mg/L	0.0010	-	-	<0.0010
Oil and Grease, Total	-	-	No Visible Sheen	No Visible Sheen	No Visible Sheen
Acute Toxicity	-	-	Not Acutely Toxic	-	Not Acutely Toxic

Notes:

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 2.18: Water Quality Results for Water Licence Monitoring Location - MS-MRY-13B

Analyte	Sample ID			MS-MRY-13B	MS-MRY-13B	MS-MRY-13B
	ALS Laboratory Sample ID			L2726644-7	L2727453-1	L2729151-3
	Sample Date & Time			2022-08-03 14:45	2022-08-08 13:25	2022-08-17 11:45
	QA/QC Sample Type			N/A	N/A	N/A
	Units	LOR	Criteria ¹			
Conductivity	umhos/cm	1.0	-	-	1200	-
pH	pH units	0.10	6.0 - 9.5	8.20	8.17	8.12
Total Suspended Solids	mg/L	2.0	15	<2.0	<2.0	2.0
Total Dissolved Solids	mg/L	10	-	724	816	936
Turbidity	NTU	0.10	-	0.23	0.28	0.28
Alkalinity, Total (as CaCO3)	mg/L	1.0	-	-	187	-
Dissolved Organic Carbon	mg/L	0.50	-	-	7.59	-
Total Organic Carbon	mg/L	0.50	-	-	6.76	-
Aluminum (Al)-Total	mg/L	0.005	-	-	0.050	-
Antimony (Sb)-Total	mg/L	0.0001	-	-	<0.0010	-
Arsenic (As)-Total	mg/L	0.0001	0.50	-	<0.0010	-
Barium (Ba)-Total	mg/L	0.0001	-	-	0.0728	-
Cadmium (Cd)-Total	mg/L	0.000005	-	-	<0.000050	-
Chromium (Cr)-Total	mg/L	0.0005	-	-	<0.0050	-
Cobalt (Co)-Total	mg/L	0.0001	-	-	<0.0010	-
Copper (Cu)-Total	mg/L	0.0005	0.30	-	<0.0050	-
Iron (Fe)-Total	mg/L	0.01	-	-	<0.10	-
Lead (Pb)-Total	mg/L	0.00005	0.20	-	<0.00050	-
Lithium (Li)-Total	mg/L	0.001	-	-	0.055	-
Manganese (Mn)-Total	mg/L	0.0005	-	-	<0.0050	-
Mercury (Hg)-Total	mg/L	0.0000050	-	-	<0.0000050	-
Molybdenum (Mo)-Total	mg/L	0.00005	-	-	<0.00050	-
Nickel (Ni)-Total	mg/L	0.0005	0.50	-	0.0160	-
Selenium (Se)-Total	mg/L	0.00005	-	-	<0.00050	-
Strontium (Sr)-Total	mg/L	0.001	-	-	0.172	-
Thallium (Tl)-Total	mg/L	0.00001	-	-	<0.00010	-
Tin (Sn)-Total	mg/L	0.0001	-	-	<0.0010	-
Titanium (Ti)-Total	mg/L	0.0003	-	-	<0.0030	-
Uranium (U)-Total	mg/L	0.00001	-	-	0.00970	-
Vanadium (V)-Total	mg/L	0.0005	-	-	<0.0050	-
Zinc (Zn)-Total	mg/L	0.003	0.50	-	<0.030	-
Oil and Grease, Total	mg/L	5.0	-	-	<5.0	-
	-	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen
Phenols (4AAP)	ug/L	0.0010	-	-	<0.0010	-
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 Hydrocarbons (C6-C50)	ug/L	370	-	-	<370	-

Notes:
Bold highlight indicate results that exceeded the applicable water quality criteria.
¹Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 7: Effluent Quality Discharge Limits for the Landfill Facilities

Table 2.18: Water Quality Results for Water Licence Monitoring Location - MS-MRY-13B

Analyte	Sample ID			MS-MRY-13B01	MS-MRY-13B	MS-MRY-13B
	ALS Laboratory Sample ID			L2729151-4	L2729530-3	L2730582-13
	Sample Date & Time			2022-08-18 11:45	2022-08-22 10:00	2022-08-29 8:25
	QA/QC Sample Type			Field Duplicate	N/A	N/A
	Units	LOR	Criteria ¹			
Conductivity	umhos/cm	1.0	-	-	-	-
pH	pH units	0.10	6.0 - 9.5	8.14	7.92	7.90
Total Suspended Solids	mg/L	2.0	15	<2.0	5.0	4.2
Total Dissolved Solids	mg/L	10	-	938	986	1120
Turbidity	NTU	0.10	-	0.30	1.01	0.54
Alkalinity, Total (as CaCO3)	mg/L	1.0	-	-	-	-
Dissolved Organic Carbon	mg/L	0.50	-	-	-	-
Total Organic Carbon	mg/L	0.50	-	-	-	-
Aluminum (Al)-Total	mg/L	0.005	-	-	-	-
Antimony (Sb)-Total	mg/L	0.0001	-	-	-	-
Arsenic (As)-Total	mg/L	0.0001	0.50	-	-	-
Barium (Ba)-Total	mg/L	0.0001	-	-	-	-
Cadmium (Cd)-Total	mg/L	0.000005	-	-	-	-
Chromium (Cr)-Total	mg/L	0.0005	-	-	-	-
Cobalt (Co)-Total	mg/L	0.0001	-	-	-	-
Copper (Cu)-Total	mg/L	0.0005	0.30	-	-	-
Iron (Fe)-Total	mg/L	0.01	-	-	-	-
Lead (Pb)-Total	mg/L	0.00005	0.20	-	-	-
Lithium (Li)-Total	mg/L	0.001	-	-	-	-
Manganese (Mn)-Total	mg/L	0.0005	-	-	-	-
Mercury (Hg)-Total	mg/L	0.0000050	-	-	-	-
Molybdenum (Mo)-Total	mg/L	0.00005	-	-	-	-
Nickel (Ni)-Total	mg/L	0.0005	0.50	-	-	-
Selenium (Se)-Total	mg/L	0.00005	-	-	-	-
Strontium (Sr)-Total	mg/L	0.001	-	-	-	-
Thallium (Tl)-Total	mg/L	0.00001	-	-	-	-
Tin (Sn)-Total	mg/L	0.0001	-	-	-	-
Titanium (Ti)-Total	mg/L	0.0003	-	-	-	-
Uranium (U)-Total	mg/L	0.00001	-	-	-	-
Vanadium (V)-Total	mg/L	0.0005	-	-	-	-
Zinc (Zn)-Total	mg/L	0.003	0.50	-	-	-
Oil and Grease, Total	mg/L	5.0	-	-	-	-
	-	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen
Phenols (4AAP)	ug/L	0.0010	-	-	-	-
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 Hydrocarbons (C6-C50)	ug/L	370	-	-	-	-

Notes:
Bold highlight indicate results that exceeded the applicable water quality criteria.
¹Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 7: Effluent Quality Discharge Limits for the Landfill Facilities

Table 2.19: Water Quality Results for Water Licence Monitoring Location - MS-C-A

Analyte	Sample ID			MS-C-A	MS-C-A	MS-C-A	MS-C-A	MS-C-A02	MS-C-A
	ALS Laboratory Sample ID			L2726644-1	L2727453-2	L2729151-8	L2729530-7	L2729530-8	L2730582-5
	Sample Date & Time			2022-08-03 11:00	2022-08-08 15:15	2022-08-17 14:40	2022-08-22 11:25	2022-08-22 11:25	2022-08-29 13:30
	QA/QC Sample Type			N/A	N/A	N/A	N/A	Field Blank	N/A
	Units	LOR	Criteria ¹						
Conductivity	umhos/cm	1.0	-	-	477	-	-	-	-
pH	pH units	0.10	6.0 - 9.5	7.72	7.87	7.93	7.91	6.79	7.84
Total Suspended Solids	mg/L	2.0	Grab 30, Average 15	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Total Dissolved Solids	mg/L	10	-	297	281	299	285	<10	403
Turbidity	NTU	0.10	-	0.26	0.27	0.31	0.42	<0.10	0.18
Ammonia, Total (as N)	mg/L	0.010	-	-	<0.010	-	-	-	-
Nitrate (as N)	mg/L	0.020	-	-	1.63	-	-	-	-
Oil and Grease, Total	mg/L	5.0	-	-	<5.0	-	-	-	-
	-	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen

Notes:
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 2.20: Water Quality Results for Water Licence Monitoring Location - MS-C-B

Analyte	Sample ID			MS-C-B	MS-C-B	MS-C-B03	MS-C-B	MS-C-B	MS-C-B
	ALS Laboratory Sample ID			L2726644-3	L2727453-3	L2727453-4	L2729151-9	L2729530-9	L2730582-6
	Sample Date & Time			2022-08-03 11:00	2022-08-08 16:20	2022-08-08 16:20	2022-08-17 13:30	2022-08-22 11:50	2022-08-29 13:30
	QA/QC Sample Type			N/A	N/A	Travel Blank	N/A	N/A	N/A
	Units	LOR	Criteria ¹						
Conductivity	umhos/cm	1.0	-	-	475	1.1	-	-	-
pH	pH units	0.10	6.0 - 9.5	7.65	7.70	7.24	7.78	7.71	7.70
Total Suspended Solids	mg/L	2.0	Grab 30, Average 15	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Total Dissolved Solids	mg/L	10	-	289	263	<10	289	246	376
Turbidity	NTU	0.10	-	0.26	0.29	<0.10	0.33	0.45	0.18
Ammonia, Total (as N)	mg/L	0.010	-	-	<0.010	<0.010	-	-	-
Nitrate (as N)	mg/L	0.020	-	-	1.51	<0.020	-	-	-
Oil and Grease, Total	mg/L	5.0	-	-	<5.0	<5.0	-	-	-
	-	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	-	No Visible Sheen	No Visible Sheen	No Visible Sheen

Notes:
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 2.21: Water Quality Results for Water Licence Monitoring Location - MS-C-C

Analyte	Sample ID			MS-C-C	MS-C-C03	MS-C-C	MS-C-C	MS-C-C	MS-C-C
	ALS Laboratory Sample ID			L2726644-10	L2726644-11	L2727453-11	L2729151-17	L2729530-6	L2730582-11
	Sample Date & Time			2022-08-03 16:15	2022-08-03 16:15	2022-08-09 10:30	2022-08-17 14:00	2022-08-22 11:00	2022-08-29 13:40
	QA/QC Sample Type			N/A	Travel Blank	N/A	N/A	N/A	N/A
	Units	LOR	Criteria ¹						
Conductivity	umhos/cm	3.0	-	-	-	949	-	-	-
pH	pH units	0.10	6.0 - 9.5	8.13	6.26	8.05	8.11	8.02	8.1
Total Suspended Solids	mg/L	2.0	Grab 30, Average 15	<2.0	<2.0	3.2	<2.0	<2.0	2.8
Total Dissolved Solids	mg/L	10	-	609	16	639	645	614	651
Turbidity	NTU	0.10	-	0.99	<0.10	2.21	1.18	3.80	0.73
Ammonia, Total (as N)	mg/L	0.010	-	-	-	<0.010	-	-	-
Nitrate (as N)	mg/L	0.020	-	-	-	9.33	-	-	-
Oil and Grease, Total	mg/L	2.0/5.0	-	-	-	<5.0	-	-	-
	-	-	No Visible Sheen	No Visible Sheen	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen

Notes:

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

Analyte	Sample ID			MS-C-D	MS-C-D	MS-C-D	MS-C-D	MS-C-D
	ALS Laboratory Sample ID			L2726644-9	L2727453-10	L2729151-6	L2729530-5	L2730582-9
	Sample Date & Time			2022-08-03 16:00	2022-08-09 10:15	2022-08-17 13:45	2022-08-22 10:50	2022-08-29 13:55
	QA/QC Sample Type			N/A	N/A	N/A	N/A	N/A
	Units	LOR	Criteria ¹					
Conductivity	umhos/cm	3.0	-	-	1030	-	-	-
pH	pH units	0.10	6.0 - 9.5	8.54	8.43	8.39	8.31	8.39
Total Suspended Solids	mg/L	2.0	Grab 30, Average 15	2.5	4.6	<2.0	4.0	<2.0
Total Dissolved Solids	mg/L	10	-	670	658	627	592	599
Turbidity	NTU	0.10	-	4.70	2.52	4.39	11.1	4.02
Ammonia, Total (as N)	mg/L	0.010	-	-	<0.010	-	-	-
Nitrate (as N)	mg/L	0.020	-	-	9.33	-	-	-
Oil and Grease, Total	mg/L	2.0/5.0	-	-	<5.0	-	-	-
	-	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen

Notes:

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 2.23: Water Quality Results for Water Licence Monitoring Location - MS-C-E

Analyte	Sample ID			MS-C-E	MS-C-E	MS-C-E	MS-C-E	MS-C-E	MS-C-E
	ALS Laboratory Sample ID			L2726644-8	L2727453-9	L2729151-5	L2729530-4	L2730409-2	L2730582-10
	Sample Date & Time			2022-08-03 15:45	2022-08-09 10:00	2022-08-17 13:35	2022-08-22 10:40	2022-08-23 13:55	2022-08-29 14:10
	QA/QC Sample Type			N/A	N/A	N/A	N/A	N/A	N/A
	Units	LOR	Criteria ¹						
Conductivity	umhos/cm	1.0	-	-	996	-	-	-	-
pH	pH units	0.10	6.0 - 9.5	8.11	7.78	8.09	7.97	8.11	7.94
Total Suspended Solids	mg/L	2.0	Grab 30, Average 15	7.6	8.5	<2.0	42.4	<2.0	4.2
Total Dissolved Solids	mg/L	10/20	-	673	671	800	779	756	680
Turbidity	NTU	0.10	-	2.32	1.20	1.29	74.8	1.94	2.52
Ammonia, Total (as N)	mg/L	0.010	-	-	0.010	-	-	-	-
Nitrate (as N)	mg/L	0.020	-	-	4.41	-	-	-	-
Oil and Grease, Total	mg/L	5.0	-	-	6.4	-	-	-	-
	-	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen

Notes:
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 2.24: Water Quality Results for Water Licence Monitoring Location - MS-C-F

Analyte	Sample ID			MS-C-F	MS-C-F	MS-C-F	MS-C-F	MS-C-F	MS-C-F01
	ALS Laboratory Sample ID			L2726644-4	L2727453-13	L2729151-10	L2729530-10	L2730582-7	L2730582-8
	Sample Date & Time			2022-08-03 12:00	2022-08-09 11:45	2022-08-17 16:00	2022-08-22 12:15	2022-08-29 14:30	2022-08-29 14:30
	QA/QC Sample Type			N/A	N/A	N/A	N/A	N/A	Field Duplicate
	Units	LOR	Criteria ¹						
Conductivity	umhos/cm	1.0	-	-	576	-	-	-	-
pH	pH units	0.10	6.0 - 9.5	8.11	8.11	8.00	7.90	7.94	7.95
Total Suspended Solids	mg/L	2.0	Grab 30, Average 15	<2.0	2.6	<2.0	<2.0	<2.0	<2.0
Total Dissolved Solids	mg/L	10	-	389	360	330	368	540	546
Turbidity	NTU	0.10	-	1.65	1.57	1.90	1.52	0.78	0.74
Ammonia, Total (as N)	mg/L	0.010	-	-	<0.010	-	-	-	-
Nitrate (as N)	mg/L	0.020	-	-	2.24	-	-	-	-
Oil and Grease, Total	mg/L	5.0	-	-	<5.0	-	-	-	-
	-	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen

Notes:
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 2.25: Water Quality Results for Water Licence Monitoring Location - MS-C-G

Analyte	Sample ID			MS-C-G	MS-C-G02	MS-C-G	MS-C-G	MS-C-G	MS-C-G
	ALS Laboratory Sample ID			L2726644-5	L2726644-6	L2727453-12	L2729151-1	L2729530-1	L2730582-12
	Sample Date & Time			2022-08-03 13:45	2022-08-03 13:45	2022-08-09 11:00	2022-08-17 10:05	2022-08-22 9:00	2022-08-29 8:55
	QA/QC Sample Type			N/A	Field Blank	N/A	N/A	N/A	N/A
	Units	LOR	Criteria ¹						
Conductivity	umhos/cm	1.0	-	-	-	503	-	-	-
pH	pH units	0.10	6.0 - 9.5	7.38	6.06	7.43	7.53	7.42	7.47
Total Suspended Solids	mg/L	2.0	Grab 30, Average 15	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Total Dissolved Solids	mg/L	10	-	315	<10	324	255	197	192
Turbidity	NTU	0.10	-	<0.10	0.12	<0.10	<0.10	0.19	0.11
Ammonia, Total (as N)	mg/L	0.010	-	-	-	4.43	-	-	-
Nitrate (as N)	mg/L	0.020	-	-	-	33.2	-	-	-
Oil and Grease, Total	mg/L	5.0	-	-	-	<5.0	-	-	-
	-	-	No Visible Sheen	No Visible Sheen	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen

Notes:
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 2.26: Water Quality Results for Water Licence Monitoring Location - MS-C-H

Analyte	Sample ID			MS-C-H	MS-C-H	MS-C-H
	ALS Laboratory Sample ID			L2729151-2	L2729530-2	L2731287-1
	Sample Date & Time			2022-08-17 10:55	2022-08-22 9:25	2022-08-31 3:35
	QA/QC Sample Type			N/A	N/A	N/A
	Units	LOR	Criteria ¹			
Conductivity	umhos/cm	1.0	-	-	-	284
pH	pH units	0.10	6.0 - 9.5	8.04	8.05	8.11
Total Suspended Solids	mg/L	2.0	Grab 30, Average 15	<2.0	<2.0	<2.0
Total Dissolved Solids	mg/L	10	-	151	137	154
Turbidity	NTU	0.10	-	0.44	0.95	0.59
Ammonia, Total (as N)	mg/L	0.050	-	-	-	0.04
Nitrate (as N)	mg/L	0.020	-	-	-	0.061
Oil and Grease, Total	mg/L	5.0	-	-	-	<5.0
	-	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen

Notes:

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 2.27: Water Quality Results for Water Licence Monitoring Location - MQ-C-A

Analyte	Sample ID			MQ-C-A	MQ-C-A	MQ-C-A01	MQ-C-A	MQ-C-A03
	ALS Laboratory Sample ID			L2726644-14	L2727453-6	L2727453-7	L2729151-13	L2729151-14
	Sample Date & Time			2022-08-04 10:25	2022-08-09 8:40	2022-08-09 8:40	2022-08-18 14:50	2022-08-18 14:50
	QA/QC Sample Type			N/A	N/A	Field Duplicate	N/A	Travel Blank
	Units	LOR	Criteria ¹					
Conductivity	umhos/cm	1.0	-	-	304	299	-	-
pH	pH units	0.10	6.0 - 9.5	8.05	8.03	8.05	8.15	6.65
Total Suspended Solids	mg/L	2.0	Grab 30, Average 15	<2.0	<2.0	<2.0	<2.0	<2.0
Total Dissolved Solids	mg/L	10	-	136	163	176	215	20
Turbidity	NTU	0.10	-	0.21	0.17	0.17	0.29	<0.10
Ammonia, Total (as N)	mg/L	0.010	-	-	<0.010	<0.010	-	-
Nitrate (as N)	mg/L	0.020	-	-	0.032	0.034	-	-
Oil and Grease, Total	mg/L	5.0	-	-	<5.0	<5.0	-	-
	-	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	-
Acute Toxicity	-	-	Not Acutely Toxic	-	-	-	-	-

Notes:

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 2.27: Water Quality Results for Water Licence Monitoring Location - MQ-C-A

Analyte	Sample ID			MQ-C-A	MQ-C-A
	ALS Laboratory Sample ID			L2729530-12	L2730582-1
	Sample Date & Time			2022-08-22 13:10	2022-08-29 10:50
	QA/QC Sample Type			N/A	N/A
	Units	LOR	Criteria ¹		
Conductivity	umhos/cm	1.0	-	-	-
pH	pH units	0.10	6.0 - 9.5	8.12	8.10
Total Suspended Solids	mg/L	2.0	Grab 30, Average 15	3.6	<2.0
Total Dissolved Solids	mg/L	10	-	194	207
Turbidity	NTU	0.10	-	0.38	0.18
Ammonia, Total (as N)	mg/L	0.010	-	-	-
Nitrate (as N)	mg/L	0.020	-	-	-
Oil and Grease, Total	mg/L	5.0	-	-	-
	-	-	No Visible Sheen	No Visble Sheen	No Visible Sheen
Acute Toxicity	-	-	Not Acutely Toxic	-	-

Notes:
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 2.28: Water Quality Results for Water Licence Monitoring Location - MQ-C-B

Analyte	Sample ID			MQ-C-B	MQ-C-B	MQ-C-B	MQ-C-B	MQ-C-B	MQ-C-B02
	ALS Laboratory Sample ID			L2726644-12	L2727453-8	L2729151-12	L2729530-11	L2730582-3	L2730582-4
	Sample Date & Time			2022-08-03 16:45	2022-08-09 9:15	2022-08-18 14:25	2022-08-22 12:40	2022-08-29 13:00	2022-08-29 13:00
	QA/QC Sample Type			N/A	N/A	N/A	N/A	N/A	Field Blank
	Units	LOR	Criteria ¹						
Conductivity	umhos/cm	1.0	-	-	619	-	-	-	-
pH	pH units	0.10	6.0 - 9.5	8.13	7.91	8.17	8.11	8.05	6.10
Total Suspended Solids	mg/L	2.0	Grab 30, Average 15	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Total Dissolved Solids	mg/L	10	-	317	338	274	210	273	12
Turbidity	NTU	0.10	-	4.32	5.52	2.48	2.53	2.29	<0.10
Ammonia, Total (as N)	mg/L	0.010	-	-	0.020	-	-	-	-
Nitrate (as N)	mg/L	0.020	-	-	5.59	-	-	-	-
Oil and Grease, Total	mg/L	5.0	-	-	<5.0	-	-	-	-
	-	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen
Acute Toxicity	-	-	Not Acutely Toxic	-	Not Acutely Toxic	-	-	-	-

Notes:
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 2.29: Water Quality Results for Water Licence Monitoring Location - MQ-C-D

Analyte	Sample ID			MQ-C-D	MQ-C-D	MQ-C-D	MQ-C-D	MQ-C-D01	MQ-C-D
	ALS Laboratory Sample ID			L2726644-13	L2727453-5	L2729151-15	L2729530-13	L2729530-14	L2730582-2
	Sample Date & Time			2022-08-04 9:00	2022-08-09 8:20	2022-08-18 15:10	2022-08-22 13:20	2022-08-22 13:20	2022-08-29 11:00
	QA/QC Sample Type			N/A	N/A	N/A	N/A	Field Duplicate	N/A
	Units	LOR	Criteria ¹						
Conductivity	umhos/cm	1.0	-	-	308	-	-	-	-
pH	pH units	0.10	6.0 - 9.5	7.92	7.98	8.10	8.01	7.96	8.14
Total Suspended Solids	mg/L	2.0	Grab 30, Average 15	<2.0	4.4	<2.0	2.6	<2.0	<2.0
Total Dissolved Solids	mg/L	10	-	135	157	177	163	163	181
Turbidity	NTU	0.10	-	5.59	12.4	7.03	7.97	7.84	5.75
Ammonia, Total (as N)	mg/L	0.010	-	-	<0.010	-	-	-	-
Nitrate (as N)	mg/L	0.020	-	-	0.088	-	-	-	-
Oil and Grease, Total	mg/L	5.0	-	-	<5.0	-	-	-	-
	-	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen
Acute Toxicity	-	-	Not Acutely Toxic	-	-	-	-	-	-

Notes:
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 3.1: Flow and Volume Measurements - Part I Item 11 - August 2022

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)	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)	Water Use for Dust Suppression from Authorized Sources (m³) ¹	Treated Sewage Effluent from PWSP MP-01A to Milne Inlet (MP- 01A) (m³)	Effluent Discharge from Mine Site Crusher Pad Sedimentation Pond (MS-06) (m³)	Effluent Discharge from Mine Site Run of Mine Ore Stockpile Pond Stormwater (MS-07) (m³)	Effluent Discharge from Mine Site Waste Rock Stockpile Pond (MS-08) (m³)	Effluent Discharge from KM105 Surface Water Management Pond (MS-11) (m³)	Effluent Discharge from Milne Port Ore Stockpile Sedimentation Pond (East) to Milne Inlet (MP-05) (m³)	Effluent Discharge from Milne Port Ore Stockpile Sedimentation Pond (West) to Milne Inlet (MP-06) (m³)	Treated Oily Water from Milne Port Snowdump Facility to Tundra (MP-04A) (m³)
1-Aug-22	133.3	5.9	32.0	122.7	1.0	50.2	22.0	29.0	34.4	1.3	424.0	0.0	0.0	189.9	1,486.0	917.8	34.5	0.0	8.7
2-Aug-22	132.6	28.0	32.0	122.3	0.8	55.9	0.0	24.0	43.7	0.3	608.7	0.0	0.0	60.6	2,199.0	902.3	13.9	38.2	8.7
3-Aug-22	191.2	13.2	32.0	121.0	0.9	63.4	3.0	22.0	47.2	1.0	302.0	0.0	0.0	0.0	2,985.2	893.2	25.3	0.0	7.6
4-Aug-22	83.5	26.9	24.0	137.1	1.0	55.3	0.0	22.0	39.6	1.3	606.6	0.0	0.0	0.0	2,059.2	904.9	28.0	0.0	16.3
5-Aug-22	164.1	10.2	32.0	124.5	1.1	60.6	0.0	23.0	38.4	0.3	455.0	0.0	0.0	0.0	2,227.9	886.7	64.9	0.0	16.7
6-Aug-22	138.4	43.5	32.0	136.4	0.9	49.8	0.0	20.0	32.9	1.3	273.0	0.0	0.0	0.0	2,654.6	828.6	64.9	0.0	1.1
7-Aug-22	133.2	10.7	34.0	134.5	0.9	22.7	0.0	18.0	33.9	0.3	514.8	0.0	0.0	0.0	1,363.9	784.1	0.0	0.0	5.3
8-Aug-22	153.2	18.3	36.0	130.6	1.1	49.4	0.0	19.0	37.1	1.3	726.8	0.0	0.0	0.0	1,911.4	753.0	80.3	49.7	17.8
9-Aug-22	153.8	11.5	36.0	137.9	0.9	49.8	0.0	19.0	44.1	0.0	1030.0	0.0	0.0	0.0	912.0	734.0	0.0	0.0	3.0
10-Aug-22	141.0	9.6	34.0	139.4	1.1	59.8	0.0	26.0	46.8	1.0	727.0	0.0	0.0	0.0	1,301.0	740.7	33.9	0.0	0.0
11-Aug-22	145.5	11.5	34.0	142.9	1.3	68.7	2.0	22.0	39.7	1.3	484.0	0.0	0.0	0.0	402.8	766.7	92.1	0.0	0.0
12-Aug-22	142.1	11.0	31.0	133.7	1.1	52.6	4.0	20.0	41.7	1.6	0.0	0.0	0.0	0.0	737.8	1,644.1	12.5	0.0	0.0
13-Aug-22	150.5	10.3	22.0	139.8	0.6	67.3	0.0	20.0	42.3	1.6	122.0	0.0	0.0	0.0	237.0	2,976.3	0.0	40.3	0.0
14-Aug-22	108.0	4.3	27.0	149.6	1.2	71.3	5.0	23.0	46.5	1.6	363.6	0.0	0.0	0.0	282.0	2,812.5	0.0	0.0	0.0
15-Aug-22	145.1	7.8	30.0	141.7	1.1	55.6	0.0	21.0	32.6	1.6	636.0	6.4	0.0	0.0	1,643.0	2,543.8	10.8	0.0	0.0
16-Aug-22	113.9	7.7	32.0	147.2	1.1	58.3	0.0	23.0	45.1	1.3	333.0	49.3	21.5	0.0	1,836.0	2,562.5	0.0	54.4	0.0
17-Aug-22	166.1	8.6	27.0	140.8	0.9	58.4	0.0	22.0	59.5	0.3	333.0	54.7	55.9	0.0	2,146.0	2,324.0	9.5	23.3	0.0
18-Aug-22	137.8	9.5	26.0	149.0	0.9	61.1	0.0	13.0	42.8	1.3	333.0	80.4	23.6	0.0	1,823.0	2,141.0	31.8	1.5	0.0
19-Aug-22	149.7	4.3	18.0	155.7	0.6	58.3	0.0	17.0	33.6	0.3	515.0	0.0	0.0	0.0	1,822.0	2,059.9	10.0	0.0	0.0
20-Aug-22	128.2	6.0	27.0	153.5	0.4	62.8	0.0	25.0	38.1	1.3	0.0	0.0	16.9	0.0	1,814.6	2,271.5	0.0	0.0	0.0
21-Aug-22	139.4	6.9	35.0	131.4	1.0	62.4	0.0	33.0	44.1	1.3	30.0	0.0	0.0	0.0	1,502.7	2,802.6	0.0	0.0	0.0
22-Aug-22	138.4	3.9	33.0	151.3	0.9	66.6	0.0	26.0	38.0	1.3	0.0	0.0	43.7	0.0	1,877.7	2,595.7	0.0	0.0	0.0
23-Aug-22	135.4	3.0	32.0	141.5	1.0	70.8	0.0	22.0	39.0	1.3	122.0	0.0	34.3	0.0	1,096.6	2,321.6	0.0	0.0	0.0
24-Aug-22	169.8	4.2	32.0	122.4	0.9	75.8	0.0	24.0	47.4	1.3	152.0	0.0	0.0	0.0	1,411.1	2,046.8	10.7	0.0	0.0
25-Aug-22	138.9	6.9	26.0	141.7	1.0	55.4	0.0	25.0	32.1	1.3	425.0	0.0	0.0	0.0	1,838.6	1,937.8	78.0	0.0	0.0
26-Aug-22	121.9	11.8	31.0	141.4	1.0	69.8	0.0	25.0	33.7	1.0	425.0	0.0	0.0	0.0	1,045.4	1,784.1	0.0	0.0	0.0
27-Aug-22	117.1	8.6	27.0	152.1	1.0	60.3	0.0	25.0	37.0	1.3	514.0	0.0	23.6	0.0	1,649.3	1,610.2	0.0	0.0	0.0
28-Aug-22	155.0	23.6	16.0	155.8	1.1	52.7	26.5	29.0	44.0	1.3	544.0	0.0	0.0	0.0	1,515.4	1,476.3	0.0	0.0	0.0
29-Aug-22	152.6	0.0	31.0	158.4	1.0	57.9	0.0	25.0	35.8	1.3	454.0	0.0	22.0	506.4	794.5	1,351.4	0.0	0.0	0.0
30-Aug-22	130.9	6.0	30.0	166.5	0.3	57.9	0.0	17.0	42.2	1.3	454.0	0.0	0.0	79.6	1,085.9	1,222.8	0.0	0.0	0.0
31-Aug-22	171.6	0.0	21.0	167.1	0.9	61.6	0.0	19.0	40.7	1.0	333.0	0.0	0.0	0.0	814.5	1,128.7	0.0	0.0	0.0
Total	4,382.2	333.7	912.0	4,389.9	28.8	1,822.2	62.5	698.0	1,253.5	34.7	12,240.5	190.8	241.4	836.5	46,476.0	50,725.7	601.1	207.3	85.2

Notes:
WWTP - Waste Water Treatment Plant
PWSP - Polishing Waste Stabilization Pond
¹ Includes water use for dust suppression from authorized water sources only. Some previous monthly water licence reports incorrectly included water from recycled water sources in the daily water use volumes present for dust suppression in Table 3.