Meliadine Gold Mine
NWB 2AM-MEL1631
July 2024 Monthly Report

Prepared for:
Nunavut Water Board

Prepared by:
Agnico Eagle Mines Limited – Meliadine Division

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SECTION 1 • BACKGROUND

As required under Part I, Item 9 of amended Type A Water License 2AM-MEL1631, this report documents the water management and monitoring activities at the mine site and provides a summary of spills/actions for the month of July 2024.

SECTION 2 • WATER MANAGEMENT

2.1 WATER USAGE

Table 2.1 details monthly water usage approved under Water License 2AM-MEL1631.

Table 2.1: Summary of the monthly water usage in 2024

Usage	Unit	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	2024 Total
MEL-11[1]	m^3	46,859	40,057	43,273	42,794	33,136	40,333	50,559	-	-	-	-	-	297,011
Dust suppression[2]	m^3	0	0	0	0	0	0	-	-	-	-	-	-	0
Dust suppression[3]	m^3	0	0	0	0	579	3,121	2,753	-	-	-	-	-	6,453

In July, approximately 2,753 m^3 of contact water was used for dust suppression purposes on site, in areas captured by the Contact Water management facilities reporting back to CP1 (including haul roads and open pit areas).

2.2 DEWATERING ACTIVITIES

No dewatering activities took place during the month.

2.3 WATER DISCHARGE

Table 2.3 details monthly water discharge, including:

- discharge from the EWTP to Meliadine Lake via the Final Discharge Point (MEL-14);

[1] Camp, Mill, Dust suppression

[2] Water obtained along AWAR/Meliadine River

[3] Reclaim water obtained from CP1 or other Contact Water management facilities and used for dust suppression on site

- discharge of treated saline effluent to Melvin Bay via the Final Discharge Point (MEL-26), and
- discharge from the Itivia fuel containment facility (MEL-25).

Table 2.3: Summary of the monthly water discharge in 2024

Location	Unit	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	2024 Total
MEL-14	m^3	0	0	0	0	0	171,936	72,724	-	-	-	-	-	244,660
MEL-26	m^3	0	0	0	0	0	0	0	-	-	-	-	-	0
MEL-25	m^3	0	0	0	0	0	0	0	-	-	-	-	-	0

Discharge of treated effluent from the EWTP into Meliadine Lake via the Final Discharge Point (MEL-14) started on June 17th, 2024. In July, discharge took place between July 1st and 16th.

In addition, a total of 70 m^3 of water was discharged from borrow pit B10 located at KM 20 along the All-Weather Access Road (AWAR). Water quality results from the related sample collected on June 21st are presented in Appendix.

2.4 SEEPAGE AND RUNOFF FROM THE LANDFILL AND LANDFARM

The 2AM-MEL1631 landfill and landfarm were commissioned in November 2017. No seepage or runoff was observed during the month.

As per the approved Landfill (Stage 4) Berm Raise Design Report and Monitoring station MEL-24 description Modification, water accumulated inside the landfill is pumped towards Pond H13, which is the current location seepage from the landfill flows towards.

2.5 SEWAGE TREATMENT PLANT

Table 2.5 details monthly discharge from the Sewage Treatment Plant (STP), including the treated wastewater discharge to CP1 and sludge removed and disposed of in the WRSF.

Table 2.5: Summary of the monthly disposal/discharge from the STP in 2024

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	2024 Total
Wastewater Discharge (m^3)		4,350	5,270	6,070	5,777	4,131	4,945	5,080	-	-	-	-	-	35,623
Sewage Sludge	Amount (m^3)	100	100	120	120	81.4	80	10.50	-	-	-	-	-	611.90

	Disposal Location	WRSF3	WRSF3	WRSF3	WRSF3	WRSF3	WRSF3	WRSF3	-	-	-	-	-	-

2.6 MONITORING ANALYTICAL DATA

Sixteen (16) samples related to the Water Licence were taken during the month. The analytical results are presented in Appendix.

SECTION 3 • MATERIAL MANAGEMENT

3.1 LANDFILL / LANDFARM

Table 3.1 details quarterly Landfill and Landfarm survey results, as well as the amount of material placed in the Landfarm every month.

Table 3.1: Summary of the monthly disposal in the Landfarm and quarterly survey volumes of Landfill and Landfarm

Location	Unit	Q1			Q2			Q3			Q4			2024 Total
		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	
Landfill (Survey)	m^3	28,127			26,087			-			-			-
Landfarm (Survey)	m^3	604[4]			537			-			-			-
Landfarm[5]	m^3	1.8	0.02	3.25	7.28	2.3	32.52	3.78	-	-	-	-	-	50.95

[4] From landfarm survey conducted in October 2023. Surveys of the Landfarm are generally not conducted during the winter months, as the presence of snow would not allow a representative survey of the soil quantity.
[5] Amount of contaminated solid material (soil) placed in the Landfarm or lined sorting area.

3.2 ORE, WASTE ROCK STORAGE FACILITY, TAILINGS

Table 3.2 details monthly material management, including processed ore, waste rock, and tailings.

Table 3.2: Summary of the monthly material management in 2024

Material (tonnes)		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Cumulative 2024
Processed Ore		190,946	154,435	156,820	166,561	113,952	144,504	190,576	-	-	-	-	-	1,117,794
Waste Rock	Removed from open pit mining	175,380	534,627	845,427	701,244	344,631	231,788	481,603	-	-	-	-	-	3,314,700
	Removed from underground mining	71,281[6]	67,267	73,926	87,413	54,382	71,177	65,504	-	-	-	-	-	490,951
	Used as underground dry rockfill	49,823	31,805	10,566	31,716	18,233	13,755	23,217	-	-	-	-	-	179,116
Tailings	Send to TSF	144,379	107,392	111,857	125,769	83,808	110,265	152,691	-	-	-	-	-	836,161
	Used as paste underground backfill	46,567	47,043	44,963	40,792	30,144	34,239	37,885	-	-	-	-	-	281,633

[6] January waste rock removed from underground mining was updated in February report

SECTION 4 SPILL MANAGEMENT

4.1 INTERNAL AND REPORTABLE SPILLS

Spills reported internally are listed in the table 4.1 and were managed according to Agnico Eagle's spill contingency plan. Spills were contained and cleaned up, contaminated material was disposed of in an appropriate manner, and the clean-up actions were monitored closely by the Environment Department. Five (5) reportable spills occurred during the month (Refer to the gray shading in Table 4.1).

Table 4.1: Summary of Agnico Eagle's Spill Reports during the month

Date and time of occurrence	Contaminant	Estimated quantity	Exact location of incident	Description of incident	Describe immediate corrective actions
Monday, July 01, 2024 6:30:00 PM	Sewage	100 L	Wing 16 lift station	An estimated 100 L of sewage was spilled onto the industrial pad at the Wing 16 lift station. Upon inspection of the lift station, it was discovered that the lift station pumps were not installed correctly inside the tank. The improper installation resulted in a lack of space between the impeller and the floor of the lift station tank, resulting in solids building up around the pump impeller and clogging the pumps. The lift station overflowed, resulting in the spill.	The water supply to Wing 16 was shutoff to stop the spill until the issue was resolved. The lift station tank was drained, and the free-standing liquid was recovered with the vacuum truck. The blades on the lift station pumps were replaced and the pumps were installed as per the manufacturer's recommendations. The contaminated material was excavated and brought to the Landfarm A.
Thursday, July 04, 2024 3:30:00 PM	Diesel	300 L	6 Million Gas Boy	A fuel tanker operator was filling his equipment of diesel when he realized that fuel was coming our of the nozzle at the back of the fuel truck. It should be noted this spill occurred within the fueling area at the 6 M fuel farm, which is lined.	Spill pads were deployed to clean-up the spill and disposed of in the appropriate bin.
Thursday, July 04, 2024 11:30:00 PM	Coolant	20 L	Channel 4 berm	A coolant hose on a loader broke resulting in a 20L spill onto the ground.	Spill pads were deployed to clean-up the spill and disposed of in the appropriate bin.
Sunday, July 07, 2024 11:30:00 AM	Hydraulic oil	1 L	TIRI-01	An o-ring failed on the main hydraulic valve on a drill resulting in a 1L	Contaminated material was scrapped and

				spill of hydraulic oil onto the ground.	disposed of at the landfarm.
Sunday, July 07, 2024 1:00:00 PM	Hydraulic Oil	200 L	Portal 1 at the dome 3	200 L of hydraulic oil was spilled onto the industrial pad at Portal 1. An Underground Construction operator was transporting a 1,000 L tote of waste hydraulic oil using a telehandler. The operator observed another vehicle in their blind spot and made an abrupt stop. The tote slid off the forks of the telehandler and was tipped on its side, allowing waste hydraulic oil to spill from the fill hole on the top of the tote.	The equipment operator used the telehandler to right the tote and stop the spill and reported the spill to the Environment department and their supervisor. Spill pads and berms were used to contain the spill and an excavator was used to assist with the remediation process. Approximately 3 m^3 of contaminated material was excavated and put into Quatrex bags and disposed of in a hazardous waste sea-can.
Tuesday, July 09, 2024 11:30:00 AM	Jet-A	20 L	Rankin Airport	After the Nolinor airplane landed In Rankin, a Jet-A leak occured at the back of the plane.	Spill pads were deployed to clean-up the spill and disposed of in the appropriate bin.
Wednesday, July 10, 2024 2:00:00 PM	Contaminated water	5 m^3	Outside southeast process plant	An estimated 5m3 of process water was spilled outside of the Process Plant. The spill occurred during the preliminary tests of the newly commissioned Vertimill. A change in grain size during the trial caused the trash screens of the cyclone separator to be plugged. This created an overflow with volume too large to be contained by the grinding sump of the Process Plant, which consequentially flowed through the doors of the Process Plant and into the garage bay.	Upon observing the spill, the operator shut down the cyclone separator to prevent the process water from overflowing, effectively stopping further spillage. An ore berm was constructed inside the process plant to contain the spill. Following the event, the contaminated ground was excavated. All contaminated material was put in the reclaim feeder of the Process Plant to be recirculated.
Sunday, July 14, 2024 9:30:00 AM	Fresh Water	6000 L	WTP	During a planned shutdown of the WTP, the operator remotely closed the valve to the raw water tank to isolate the system from the pumps feeding the process plant. An issue	The Fresh water pumps was turned off to eliminate water source from continuing to enter the WTP. Post shutdown inspection performed to ensure all components of the

				arose at the STP and the operator did not go to the WTP to perform a visual inspection to ensure the valve was in the closed position. It was later called in that there was a freshwater leak at the WTP and upon investigation the operator noted that the valve was still in the open position.	plant were operating correctly afterwards.
Tuesday, July 16, 2024 4:00:00 AM	Coolant	5 L	TIRI-01	Coolant leaked from an excavator in operation.	Spill pads were deployed to clean-up the spill and disposed of in the appropriate bin.
Tuesday, July 16, 2024 4:00:00 AM	Hydraulic Oil	12 L	OP2	While operating the excavator on the OP2 low grade ore pile, a hydraulic oil hose ruptured resulting in 12L spill of hydraulic oil onto the ground.	Spill pads were deployed to clean-up the spill and disposed of in the appropriate bin.
Tuesday, July 16, 2024 5:30:00 PM	Potable water	10 m^3	Outside the Power Plant	Approximately 10 m3 of potable water spilled at the Power Plant. Due to the hot weather conditions, the Power Plant operator was concerned that radiator 3 would overheat. In response, the operator decided to connect a hose to the potable water system and begin showering water onto the radiator. The operator left the hose in place for an extended period before it was noticed. The potable water dripped off the radiator platform and onto the industrial pad, resulting in the spill.	When the radiator had cooled down, the potable water hose was turned off and the spill stopped. No remediation was needed for this incident as it was just fresh water.
Friday, July 19, 2024 12:00:00 PM	Diesel fuel	4 L	Emulsion plant	While reloading a bulk truck, the worker noticed a diesel fuel leak under the truck.	Contaminated material was scrapped and disposed of at the landfarm.
Sunday, July 21, 2024 5:30:00 AM	Contaminated water	200 L	South Side of the Mill	An estimated 200 L of process water containing ore spilled at the Process Plant. A short-circuit on a	Upon observing the spill, the operator shut down the cyclone separator to prevent further spillage.

				solenoid caused the cyclone pump, the SAG Mill, and the SAG Mill conveyor to stop abruptly. This sudden stop caused an overflow of process water in the berm receiving the process water. The overflow was too large to be contained by the berm, which ended up spilling out of the Process Plant doors.	Following the spill, the contaminated ground outside of the Process Plant was excavated and recirculated through the reclaim feeder.
Wednesday, July 24, 2024 12:00:00 AM	Hydraulic oil	75 L	CP4	A hydraulic oil line broken on an excavator, resulting in a 75L spill of hydraulic oil.	Spill pads were deployed to clean-up the spill and disposed of in the appropriate bin. Contaminated material was scrapped and disposed of at the landfarm.
Saturday, July 27, 2024 7:30:00 AM	Diesel Fuel	50 L	KCG Shop	A fuel pump on the tower light was defective resulting in a 50L spill of diesel fuel on the ground, over a period of 7 days.	Spill pads were deployed to clean-up the spill and disposed of in the appropriate bin. Contaminated material was scrapped and disposed of at the landfarm.
Saturday, July 27, 2024 7:30:00 AM	Rock drill oil	1 L	TIRI-01	A hydraulic oil line broke on a drill, resulting in a 1L spill of hydraulic oil onto the ground.	Contaminated material was scrapped and disposed of at the landfarm.
Sunday, July 28, 2024 4:30:00 PM	Hydraulic oil	0.2 L	SH-146 Drill #7	A loose fitting on the foot clamp of a drill caused a small leak resulting in a 0.2L spill of hydraulic oil into the cutting tube beneath the drill.	Spill pads were deployed to clean-up the spill and disposed of in the appropriate bin.

Appendix – Monitoring Analytical Data

	Sample date	7/2/2024
	Sample name	MEL-11
Parameter	**Unit**	
WQ02- Conventional Parameters		
pH	**pH units**	7.36
Turbidity	**NTU**	0.4
Conductivity	**ms/cm**	0.101
Hardness, as CaCO3-Dissolved	**mg/L**	27.3
Total alkalinity, as CaCO3	**mg/L**	23
Carbonate, as CaCO3	**mg/L**	< 1.0
Bicarbonate, as CaCO3	**mg/L**	23
TDS	**mg/L**	60
TDS, calculated	**mg/L**	50
TSS	**mg/L**	1
Total organic carbon	**mg/L**	3.3
Dissolved organic carbon	**mg/L**	3.1
WQ03- Major Ions		
Chloride	**mg/L**	13
Cyanide	**mg/L**	< 0.00050
Cyanide (free)	**mg/L**	< 0.0020
Cyanide (WAD)	**mg/L**	0.00056
Silica	**mg/L**	0.58
Sulfate	**mg/L**	5.7
WQ04- Nutrients and Chlorophyll a		
Ammonia Nitrogen (as N)	**mg/L**	< 0.050
Nitrate (as N)	**mg/L**	< 0.10
Nitrite (as N)	**mg/L**	< 0.010
Total Kjeldahl nitrogen	**mg/L**	0.21
Total phosphorus	**mg/L**	< 0.020
Orthophosphate (P)	**mg/L**	< 0.010
WQ06- Total Metals		
Aluminum	**mg/L**	0.0043
Antimony	**mg/L**	< 0.00050
Arsenic	**mg/L**	0.00069
Barium	**mg/L**	0.0089
Beryllium	**mg/L**	< 0.00010
Boron	**mg/L**	< 0.050
Cadmium	**mg/L**	< 0.000010
Chromium	**mg/L**	< 0.0010
Copper	**mg/L**	0.00220
Iron	**mg/L**	0.032
Lead	**mg/L**	< 0.00020

Lithium	**mg/L**	< 0.0020
Manganese	**mg/L**	0.0070
Mercury	**mg/L**	< 0.00001
Molybdenum	**mg/L**	< 0.0010
Nickel	**mg/L**	< 0.0010
Selenium	**mg/L**	< 0.00010
Silver	**mg/L**	< 0.000020
Strontium	**mg/L**	0.0453
Thallium	**mg/L**	< 0.000010
Tin	**mg/L**	< 0.0050
Titanium	**mg/L**	< 0.0050
Uranium	**mg/L**	< 0.00010
Vanadium	**mg/L**	< 0.0050
Zinc	**mg/L**	< 0.0050
WQ07- Dissolved Metals		
Aluminum	**mg/L**	< 0.0030
Antimony	**mg/L**	< 0.00050
Arsenic	**mg/L**	0.00066
Barium	**mg/L**	0.0094
Beryllium	**mg/L**	< 0.00010
Boron	**mg/L**	< 0.050
Cadmium	**mg/L**	< 0.000010
Calcium (Dissolved)	**mg/L**	8.47
Chromium	**mg/L**	< 0.0010
Copper	**mg/L**	0.00077
Iron	**mg/L**	0.0126
Lead	**mg/L**	< 0.00020
Lithium	**mg/L**	< 0.0020
Magnesium (Dissolved)	**mg/L**	1.49
Manganese	**mg/L**	0.0011
Mercury	**mg/L**	< 0.00001
Molybdenum	**mg/L**	< 0.0010
Nickel	**mg/L**	< 0.0010
Potassium (Dissolved)	**mg/L**	1.03
Selenium	**mg/L**	< 0.00010
Silver	**mg/L**	< 0.000020
Sodium (Dissolved)	**mg/L**	6.39
Strontium	**mg/L**	0.0468
Thallium	**mg/L**	< 0.000010
Tin	**mg/L**	< 0.0050
Titanium	**mg/L**	< 0.0050
Uranium	**mg/L**	< 0.00010
Vanadium	**mg/L**	< 0.0050

Zinc	**mg/L**	< 0.0050
WQ10- Volatile Organics		
Benzene	**mg/L**	< 0.00020
Ethylbenzene	**mg/L**	< 0.00020
Toluene	**mg/L**	< 0.00020
Xylenes	**mg/L**	< 0.00040
m,p-Xylenes	**mg/L**	< 0.00040
o-Xylene	**mg/L**	< 0.00020
F1 (C6-C10)-BTEX	**mg/L**	-
F1 (C6-C10)	**mg/L**	-
F2 (C10-C16)	**mg/L**	< 0.1
F3 (C16-C34)	**mg/L**	< 0.2
F4 (C34-C50)	**mg/L**	< 0.2

	Sample date	7/8/2024
	Sample name	MEL-12
Parameter	**Unit**	
WQ02- Conventional Parameters		
pH	**pH units**	7.44
Turbidity	**NTU**	4.1
Conductivity	**ms/cm**	1.74
Hardness, as CaCO3-Dissolved	**mg/L**	330
Total alkalinity, as CaCO3	**mg/L**	51
TDS	**mg/L**	1260
TDS, calculated	**mg/L**	910
TSS	**mg/L**	11
WQ03- Major Ions		
Chloride	**mg/L**	370
Cyanide	**mg/L**	0.00142
Fluoride	**mg/L**	< 0.10
Silica	**mg/L**	0.49
Sulfate	**mg/L**	180
WQ04- Nutrients and Chlorophyll a		
Ammonia Nitrogen (as N)	**mg/L**	0.15
Nitrate (as N)	**mg/L**	4.99
Nitrite (as N)	**mg/L**	0.184
Total phosphorus	**mg/L**	0.063
Orthophosphate (P)	**mg/L**	0.013
WQ06- Total Metals		
Aluminum	**mg/L**	0.208
Arsenic	**mg/L**	0.0210
Barium	**mg/L**	0.0304

Cadmium	**mg/L**	0.000019
Chromium	**mg/L**	< 0.0010
Copper	**mg/L**	0.00335
Iron	**mg/L**	0.257
Lead	**mg/L**	0.00064
Manganese	**mg/L**	0.0941
Mercury	**mg/L**	0.00003
Molybdenum	**mg/L**	0.0053
Nickel	**mg/L**	0.0045
Selenium	**mg/L**	0.00072
Silver	**mg/L**	< 0.000020
Thallium	**mg/L**	-
Zinc	**mg/L**	0.0052
WQ07- Dissolved Metals		
Calcium (Dissolved)	**mg/L**	82.9
Magnesium (Dissolved)	**mg/L**	29.8
Potassium (Dissolved)	**mg/L**	16.0
Sodium (Dissolved)	**mg/L**	181

	Sample date	7/13/2024
	Sample name	MEL-13
Parameter	**Unit**	
WQ02- Conventional Parameters		
pH	**pH units**	7.59
Dissolved Oxygen	**mg/L**	10.5
Turbidity	**NTU**	0.5
Conductivity	**ms/cm**	0.148
Hardness, as CaCO3-Dissolved	**mg/L**	31.8
Total alkalinity, as CaCO3	**mg/L**	25
Carbonate, as CaCO3	**mg/L**	< 1.0
Bicarbonate, as CaCO3	**mg/L**	25
TDS	**mg/L**	70
TDS, calculated	**mg/L**	58
TSS	**mg/L**	2
Total organic carbon	**mg/L**	3.6
Dissolved organic carbon	**mg/L**	3.5
WQ03- Major Ions		
Chloride	**mg/L**	15
Cyanide	**mg/L**	< 0.00050
Cyanide (free)	**mg/L**	0.0023
Cyanide (WAD)	**mg/L**	0.00076
Silica	**mg/L**	0.58

Sulfate	**mg/L**	7.2
WQ04- Nutrients and Chlorophyll a		
Ammonia Nitrogen (as N)	**mg/L**	< 0.050
Nitrate (as N)	**mg/L**	< 0.10
Nitrite (as N)	**mg/L**	< 0.010
Total Kjeldahl nitrogen	**mg/L**	0.21
Total phosphorus	**mg/L**	< 0.020
Orthophosphate (P)	**mg/L**	< 0.010
WQ06- Total Metals		
Aluminum	**mg/L**	0.00629
Antimony	**mg/L**	< 0.000020
Arsenic	**mg/L**	0.000600
Barium	**mg/L**	0.00919
Beryllium	**mg/L**	< 0.000010
Boron	**mg/L**	< 0.01
Cadmium	**mg/L**	< 0.0000050
Chromium	**mg/L**	0.00013
Cobalt	**mg/L**	0.0000318
Copper	**mg/L**	0.00127
Iron	**mg/L**	0.0337
Lead	**mg/L**	0.0000296
Lithium	**mg/L**	0.00084
Manganese	**mg/L**	0.00591
Mercury	**mg/L**	< 0.00001
Molybdenum	**mg/L**	0.000121
Nickel	**mg/L**	0.000698
Selenium	**mg/L**	0.000044
Silver	**mg/L**	< 0.0000050
Strontium	**mg/L**	0.0557
Thallium	**mg/L**	0.0000026
Tin	**mg/L**	< 0.00020
Titanium	**mg/L**	< 0.00050
Uranium	**mg/L**	0.0000216
Vanadium	**mg/L**	< 0.00020
Zinc	**mg/L**	0.00076
WQ07- Dissolved Metals		
Aluminum	**mg/L**	0.00328
Antimony	**mg/L**	< 0.000020
Arsenic	**mg/L**	0.000581
Barium	**mg/L**	0.00907
Beryllium	**mg/L**	< 0.000010
Boron	**mg/L**	< 0.01
Cadmium	**mg/L**	< 0.0000050

Calcium (Dissolved)	**mg/L**	9.64
Chromium	**mg/L**	0.00015
Cobalt	**mg/L**	0.0000181
Copper	**mg/L**	0.000940
Iron	**mg/L**	0.0090
Lead	**mg/L**	0.0000121
Lithium	**mg/L**	0.00108
Magnesium (Dissolved)	**mg/L**	1.89
Manganese	**mg/L**	0.000996
Mercury	**mg/L**	< 0.00001
Molybdenum	**mg/L**	0.000143
Nickel	**mg/L**	0.000810
Potassium (Dissolved)	**mg/L**	1.16
Selenium	**mg/L**	< 0.000040
Silver	**mg/L**	< 0.0000050
Sodium (Dissolved)	**mg/L**	8.01
Strontium	**mg/L**	0.0572
Thallium	**mg/L**	0.0000021
Tin	**mg/L**	< 0.00020
Titanium	**mg/L**	< 0.00050
Uranium	**mg/L**	0.0000199
Vanadium	**mg/L**	< 0.00020
Zinc	**mg/L**	0.00077
WQ08- Radionuclides		
Radium-226	**Bq/l**	< 0.0050
WQ10- Volatile Organics		
Benzene	**mg/L**	< 0.00020
Ethylbenzene	**mg/L**	< 0.00020
Toluene	**mg/L**	< 0.00020
Xylenes	**mg/L**	< 0.00040
m,p-Xylenes	**mg/L**	< 0.00040
o-Xylene	**mg/L**	< 0.00020
F2 (C10-C16)	**mg/L**	< 0.1
F3 (C16-C34)	**mg/L**	< 0.2
F4 (C34-C50)	**mg/L**	< 0.2

	Sample date	7/1/2024	7/8/2024	7/15/2024
	Sample name	MEL-14	MEL-14	MEL-14
Parameter	**Unit**			
WQ02- Conventional Parameters				
pH	**pH units**	7.22	7.27	7.54
Dissolved Oxygen	**mg/L**	9.03	9.22	9.32
Turbidity	**NTU**	1.1	1.2	0.6
Conductivity	**ms/cm**	1.58	1.77	1.90
Hardness, as CaCO3-Dissolved	**mg/L**	304	339	356
Total alkalinity, as CaCO3	**mg/L**	27	43	60
Carbonate, as CaCO3	**mg/L**	< 1.0	< 1.0	< 1.0
Bicarbonate, as CaCO3	**mg/L**	27	42	60
TDS	**mg/L**	980	1140	1240
TDS, calculated	**mg/L**	830	930	990
TSS	**mg/L**	6	4	2
Total organic carbon	**mg/L**	5.8	7.6	7.9
Dissolved organic carbon	**mg/L**	4.8	6.3	6.7
WQ03- Major Ions				
Chloride	**mg/L**	350	380	410
Cyanide	**mg/L**	0.00363	0.00151	0.00144
Cyanide (free)	**mg/L**	0.0029	< 0.0020	0.0034
Cyanide (WAD)	**mg/L**	0.0033	0.0013	0.0016
Silica	**mg/L**	0.15	0.48	0.40
Sulfate	**mg/L**	160	180	190
WQ04- Nutrients and Chlorophyll a				
Ammonia Nitrogen (as N)	**mg/L**	< 0.050	0.17	0.40
Un-Ionized Ammonia, calculated	**mg/L**	< 0.00079	< 0.0004	0.0015
Nitrate (as N)	**mg/L**	5.03	4.94	5.78
Nitrite (as N)	**mg/L**	0.201	0.184	0.193
Total Kjeldahl nitrogen	**mg/L**	0.84	1.1	1.6
Total phosphorus	**mg/L**	0.043	0.052	0.031
Orthophosphate (P)	**mg/L**	0.014	< 0.010	< 0.010
WQ06- Total Metals				
Aluminum	**mg/L**	0.496	0.370	0.350
Antimony	**mg/L**	0.00080	0.00099	0.00087
Arsenic	**mg/L**	0.0131	0.0108	0.00568
Barium	**mg/L**	0.0244	0.0306	0.0361
Beryllium	**mg/L**	< 0.00010	< 0.00010	< 0.00010
Boron	**mg/L**	0.132	0.137	0.160
Cadmium	**mg/L**	0.000010	0.000019	0.000023
Chromium	**mg/L**	< 0.0010	< 0.0010	< 0.0010

Cobalt	**mg/L**	0.00138	0.00149	0.00146
Copper	**mg/L**	0.00204	0.00231	0.00266
Iron	**mg/L**	0.028	0.027	0.025
Lead	**mg/L**	< 0.00020	< 0.00020	< 0.00020
Lithium	**mg/L**	0.0158	0.0170	0.0199
Manganese	**mg/L**	0.0121	0.0497	0.0798
Mercury	**mg/L**	< 0.00001	0.00001	0.00018
Molybdenum	**mg/L**	0.0043	0.0053	0.0052
Nickel	**mg/L**	0.0035	0.0035	0.0038
Selenium	**mg/L**	0.00060	0.00067	0.00070
Silver	**mg/L**	< 0.000020	< 0.000020	< 0.000020
Strontium	**mg/L**	0.849	0.944	1.11
Thallium	**mg/L**	0.000016	0.000017	0.000016
Tin	**mg/L**	< 0.0050	< 0.0050	< 0.0050
Titanium	**mg/L**	< 0.0050	< 0.0050	< 0.0050
Uranium	**mg/L**	0.00019	0.00036	0.00072
Vanadium	**mg/L**	< 0.0050	< 0.0050	< 0.0050
Zinc	**mg/L**	< 0.0050	< 0.0050	< 0.0050
WQ07- Dissolved Metals				
Aluminum	**mg/L**	0.140	0.126	0.118
Antimony	**mg/L**	0.00086	0.00094	0.00097
Arsenic	**mg/L**	0.0125	0.0103	0.00471
Barium	**mg/L**	0.0268	0.0335	0.0396
Beryllium	**mg/L**	< 0.00010	< 0.00010	< 0.00010
Boron	**mg/L**	0.158	0.163	0.211
Cadmium	**mg/L**	0.000013	0.000019	0.000021
Calcium (Dissolved)	**mg/L**	77.7	84.9	91.3
Chromium	**mg/L**	< 0.0010	< 0.0010	< 0.0010
Cobalt	**mg/L**	0.00153	0.00154	0.00150
Copper	**mg/L**	0.00208	0.00234	0.00267
Iron	**mg/L**	0.0163	0.0114	0.0079
Lead	**mg/L**	< 0.00020	< 0.00020	< 0.00020
Lithium	**mg/L**	0.0174	0.0215	0.0227
Magnesium (Dissolved)	**mg/L**	26.7	30.8	31.2
Manganese	**mg/L**	0.0098	0.0516	0.0825
Mercury	**mg/L**	< 0.00001	0.00016	0.00014
Molybdenum	**mg/L**	0.0049	0.0058	0.0054
Nickel	**mg/L**	0.0037	0.0037	0.0039
Potassium (Dissolved)	**mg/L**	14.8	16.5	17.4
Selenium	**mg/L**	0.00071	0.00071	0.00080
Silver	**mg/L**	< 0.000020	< 0.000020	< 0.000020
Sodium (Dissolved)	**mg/L**	169	187	195
Strontium	**mg/L**	0.962	1.05	1.23

Thallium	**mg/L**	0.000016	0.000017	0.000019
Tin	**mg/L**	< 0.0050	< 0.0050	< 0.0050
Titanium	**mg/L**	< 0.0050	< 0.0050	< 0.0050
Uranium	**mg/L**	0.00011	0.00028	0.00074
Vanadium	**mg/L**	< 0.0050	< 0.0050	< 0.0050
Zinc	**mg/L**	< 0.0050	< 0.0050	< 0.0050
WQ08- Radionuclides				
Radium-226	**Bq/l**	< 0.0050	< 0.0050	< 0.0050
WQ09- Toxicity				
Daphnia 48 h static acute test - LC50	%	-	>100	-
Daphnia 48 h Static Acute Test - EC50	%	-	>100	-
LC50 (96h) - Rainbow Trout	%	-	>100	-
WQ10- Volatile Organics				
Benzene	**mg/L**	< 0.00020	< 0.00020	< 0.00020
Ethylbenzene	**mg/L**	< 0.00020	< 0.00020	< 0.00020
Toluene	**mg/L**	< 0.00020	< 0.00020	< 0.00020
Xylenes	**mg/L**	< 0.00040	< 0.00040	< 0.00040
m,p-Xylenes	**mg/L**	< 0.00040	< 0.00040	< 0.00040
o-Xylene	**mg/L**	< 0.00020	< 0.00020	< 0.00020
F1 (C6-C10)-BTEX	**mg/L**	-	-	-
F1 (C6-C10)	**mg/L**	-	-	-
F2 (C10-C16)	**mg/L**	< 0.1	< 0.1	< 0.1
F3 (C16-C34)	**mg/L**	< 0.2	< 0.2	< 0.2
F4 (C34-C50)	**mg/L**	< 0.2	< 0.2	< 0.2

	Sample date	7/8/2024
	Sample name	MEL-15
Parameter	**Unit**	
WQ02- Conventional Parameters		
pH	**pH units**	7.74
Turbidity	**NTU**	0.5
Conductivity	**ms/cm**	0.138
Hardness, as CaCO3-Dissolved	**mg/L**	47.5
Total alkalinity, as CaCO3	**mg/L**	46
Carbonate, as CaCO3	**mg/L**	< 1.0
Bicarbonate, as CaCO3	**mg/L**	45
TDS	**mg/L**	80
TDS, calculated	**mg/L**	66
TSS	**mg/L**	1
Total organic carbon	**mg/L**	4.7
Dissolved organic carbon	**mg/L**	3.9
WQ03- Major Ions		

Chloride	**mg/L**	9.9
Cyanide	**mg/L**	< 0.00050
Cyanide (free)	**mg/L**	< 0.0020
Cyanide (WAD)	**mg/L**	< 0.00050
Silica	**mg/L**	0.69
Sulfate	**mg/L**	4.6
WQ04- Nutrients and Chlorophyll a		
Ammonia Nitrogen (as N)	**mg/L**	< 0.050
Nitrate (as N)	**mg/L**	< 0.10
Nitrite (as N)	**mg/L**	< 0.010
Total Kjeldahl nitrogen	**mg/L**	0.27
Total phosphorus	**mg/L**	< 0.020
Orthophosphate (P)	**mg/L**	< 0.010
WQ06- Total Metals		
Aluminum	**mg/L**	0.0077
Antimony	**mg/L**	< 0.00050
Arsenic	**mg/L**	0.00232
Barium	**mg/L**	0.0121
Beryllium	**mg/L**	< 0.00010
Boron	**mg/L**	< 0.050
Cadmium	**mg/L**	< 0.000010
Chromium	**mg/L**	< 0.0010
Copper	**mg/L**	0.00055
Iron	**mg/L**	0.132
Lead	**mg/L**	< 0.00020
Lithium	**mg/L**	< 0.0020
Manganese	**mg/L**	0.0124
Mercury	**mg/L**	< 0.00001
Molybdenum	**mg/L**	< 0.0010
Nickel	**mg/L**	< 0.0010
Selenium	**mg/L**	< 0.00010
Silver	**mg/L**	< 0.000020
Strontium	**mg/L**	0.0760
Thallium	**mg/L**	< 0.000010
Tin	**mg/L**	< 0.0050
Titanium	**mg/L**	< 0.0050
Uranium	**mg/L**	< 0.00010
Vanadium	**mg/L**	< 0.0050
Zinc	**mg/L**	< 0.0050
WQ07- Dissolved Metals		
Aluminum	**mg/L**	< 0.0030
Antimony	**mg/L**	< 0.00050
Arsenic	**mg/L**	0.00182

Barium	**mg/L**	0.0125
Beryllium	**mg/L**	< 0.00010
Boron	**mg/L**	< 0.050
Cadmium	**mg/L**	< 0.000010
Calcium (Dissolved)	**mg/L**	15.8
Chromium	**mg/L**	< 0.0010
Copper	**mg/L**	0.00054
Iron	**mg/L**	0.0488
Lead	**mg/L**	< 0.00020
Lithium	**mg/L**	< 0.0020
Magnesium (Dissolved)	**mg/L**	1.97
Manganese	**mg/L**	0.0018
Mercury	**mg/L**	< 0.00001
Molybdenum	**mg/L**	< 0.0010
Nickel	**mg/L**	< 0.0010
Potassium (Dissolved)	**mg/L**	1.14
Selenium	**mg/L**	< 0.00010
Silver	**mg/L**	< 0.000020
Sodium (Dissolved)	**mg/L**	5.25
Strontium	**mg/L**	0.0768
Thallium	**mg/L**	< 0.000010
Tin	**mg/L**	< 0.0050
Titanium	**mg/L**	< 0.0050
Uranium	**mg/L**	< 0.00010
Vanadium	**mg/L**	< 0.0050
Zinc	**mg/L**	< 0.0050

	Sample date	7/8/2024
	Sample name	MEL-16
Parameter	**Unit**	
WQ02- Conventional Parameters		
pH	**pH units**	7.79
Turbidity	**NTU**	0.3
Conductivity	**ms/cm**	0.157
Hardness, as CaCO3-Dissolved	**mg/L**	52.5
Total alkalinity, as CaCO3	**mg/L**	44
Carbonate, as CaCO3	**mg/L**	< 1.0
Bicarbonate, as CaCO3	**mg/L**	43
TDS	**mg/L**	105
TDS, calculated	**mg/L**	74
TSS	**mg/L**	1
Total organic carbon	**mg/L**	4.2

Dissolved organic carbon	**mg/L**	4.1
WQ03- Major Ions		
Chloride	**mg/L**	17
Cyanide	**mg/L**	< 0.00050
Cyanide (free)	**mg/L**	0.0021
Cyanide (WAD)	**mg/L**	< 0.00050
Silica	**mg/L**	0.26
Sulfate	**mg/L**	4.7
WQ04- Nutrients and Chlorophyll a		
Ammonia Nitrogen (as N)	**mg/L**	< 0.050
Nitrate (as N)	**mg/L**	< 0.10
Nitrite (as N)	**mg/L**	< 0.010
Total Kjeldahl nitrogen	**mg/L**	0.24
Total phosphorus	**mg/L**	< 0.020
Orthophosphate (P)	**mg/L**	< 0.010
WQ06- Total Metals		
Aluminum	**mg/L**	0.0062
Antimony	**mg/L**	< 0.00050
Arsenic	**mg/L**	0.00854
Barium	**mg/L**	0.0224
Beryllium	**mg/L**	< 0.00010
Boron	**mg/L**	< 0.050
Cadmium	**mg/L**	< 0.000010
Chromium	**mg/L**	< 0.0010
Copper	**mg/L**	0.00081
Iron	**mg/L**	0.066
Lead	**mg/L**	< 0.00020
Lithium	**mg/L**	< 0.0020
Manganese	**mg/L**	0.0060
Mercury	**mg/L**	< 0.00001
Molybdenum	**mg/L**	< 0.0010
Nickel	**mg/L**	< 0.0010
Selenium	**mg/L**	< 0.00010
Silver	**mg/L**	< 0.000020
Strontium	**mg/L**	0.0861
Thallium	**mg/L**	< 0.000010
Tin	**mg/L**	< 0.0050
Titanium	**mg/L**	< 0.0050
Uranium	**mg/L**	< 0.00010
Vanadium	**mg/L**	< 0.0050
Zinc	**mg/L**	< 0.0050
WQ07- Dissolved Metals		
Aluminum	**mg/L**	0.0044

Antimony	**mg/L**	< 0.00050
Arsenic	**mg/L**	0.00792
Barium	**mg/L**	0.0235
Beryllium	**mg/L**	< 0.00010
Boron	**mg/L**	< 0.050
Cadmium	**mg/L**	< 0.000010
Calcium (Dissolved)	**mg/L**	16.9
Chromium	**mg/L**	< 0.0010
Copper	**mg/L**	0.00094
Iron	**mg/L**	0.0270
Lead	**mg/L**	< 0.00020
Lithium	**mg/L**	< 0.0020
Magnesium (Dissolved)	**mg/L**	2.50
Manganese	**mg/L**	0.0012
Mercury	**mg/L**	< 0.00001
Molybdenum	**mg/L**	< 0.0010
Nickel	**mg/L**	< 0.0010
Potassium (Dissolved)	**mg/L**	1.47
Selenium	**mg/L**	< 0.00010
Silver	**mg/L**	< 0.000020
Sodium (Dissolved)	**mg/L**	5.47
Strontium	**mg/L**	0.0882
Thallium	**mg/L**	< 0.000010
Tin	**mg/L**	< 0.0050
Titanium	**mg/L**	< 0.0050
Uranium	**mg/L**	< 0.00010
Vanadium	**mg/L**	< 0.0050
Zinc	**mg/L**	< 0.0050

	Sample date	7/8/2024
	Sample name	MEL-17
Parameter	**Unit**	
WQ02- Conventional Parameters		
pH	**pH units**	7.75
Turbidity	**NTU**	1.3
Conductivity	**ms/cm**	0.373
Hardness, as CaCO3-Dissolved	**mg/L**	123
Total alkalinity, as CaCO3	**mg/L**	68
Carbonate, as CaCO3	**mg/L**	< 1.0
Bicarbonate, as CaCO3	**mg/L**	68
TDS	**mg/L**	270
TDS, calculated	**mg/L**	200

TSS	**mg/L**	2
Total organic carbon	**mg/L**	11
Dissolved organic carbon	**mg/L**	9.8
WQ03- Major Ions		
Chloride	**mg/L**	47
Cyanide	**mg/L**	0.00064
Cyanide (free)	**mg/L**	0.0021
Cyanide (WAD)	**mg/L**	0.00057
Silica	**mg/L**	0.62
Sulfate	**mg/L**	44
WQ04- Nutrients and Chlorophyll a		
Ammonia Nitrogen (as N)	**mg/L**	< 0.050
Nitrate (as N)	**mg/L**	< 0.10
Nitrite (as N)	**mg/L**	< 0.010
Total Kjeldahl nitrogen	**mg/L**	0.72
Total phosphorus	**mg/L**	< 0.020
Orthophosphate (P)	**mg/L**	< 0.010
WQ06- Total Metals		
Aluminum	**mg/L**	0.0041
Antimony	**mg/L**	< 0.00050
Arsenic	**mg/L**	0.00100
Barium	**mg/L**	0.0357
Beryllium	**mg/L**	< 0.00010
Boron	**mg/L**	< 0.050
Cadmium	**mg/L**	< 0.000010
Chromium	**mg/L**	< 0.0010
Copper	**mg/L**	0.00093
Iron	**mg/L**	0.144
Lead	**mg/L**	< 0.00020
Lithium	**mg/L**	0.0054
Manganese	**mg/L**	0.0382
Mercury	**mg/L**	< 0.00001
Molybdenum	**mg/L**	< 0.0010
Nickel	**mg/L**	0.0016
Selenium	**mg/L**	< 0.00010
Silver	**mg/L**	< 0.000020
Strontium	**mg/L**	0.308
Thallium	**mg/L**	< 0.000010
Tin	**mg/L**	< 0.0050
Titanium	**mg/L**	< 0.0050
Uranium	**mg/L**	< 0.00010
Vanadium	**mg/L**	< 0.0050
Zinc	**mg/L**	< 0.0050

WQ07- Dissolved Metals		
Aluminum	**mg/L**	< 0.0030
Antimony	**mg/L**	< 0.00050
Arsenic	**mg/L**	0.00096
Barium	**mg/L**	0.0362
Beryllium	**mg/L**	< 0.00010
Boron	**mg/L**	< 0.050
Cadmium	**mg/L**	< 0.000010
Calcium (Dissolved)	**mg/L**	39.6
Chromium	**mg/L**	< 0.0010
Copper	**mg/L**	0.00104
Iron	**mg/L**	0.0908
Lead	**mg/L**	< 0.00020
Lithium	**mg/L**	0.0056
Magnesium (Dissolved)	**mg/L**	5.80
Manganese	**mg/L**	0.0250
Mercury	**mg/L**	< 0.00001
Molybdenum	**mg/L**	< 0.0010
Nickel	**mg/L**	0.0015
Potassium (Dissolved)	**mg/L**	2.77
Selenium	**mg/L**	< 0.00010
Silver	**mg/L**	< 0.000020
Sodium (Dissolved)	**mg/L**	15.7
Strontium	**mg/L**	0.307
Thallium	**mg/L**	< 0.000010
Tin	**mg/L**	< 0.0050
Titanium	**mg/L**	< 0.0050
Uranium	**mg/L**	0.00010
Vanadium	**mg/L**	< 0.0050
Zinc	**mg/L**	< 0.0050

	Sample date	7/8/2024
	Sample name	MEL-18
Parameter	**Unit**	
WQ02- Conventional Parameters		
pH	**pH units**	7.80
Turbidity	**NTU**	0.6
Conductivity	**ms/cm**	0.223
Hardness, as CaCO3-Dissolved	**mg/L**	74.4
Total alkalinity, as CaCO3	**mg/L**	50
Carbonate, as CaCO3	**mg/L**	< 1.0
Bicarbonate, as CaCO3	**mg/L**	50

TDS	**mg/L**	160
TDS, calculated	**mg/L**	100
TSS	**mg/L**	4
Total organic carbon	**mg/L**	4.4
Dissolved organic carbon	**mg/L**	3.8
WQ03- Major Ions		
Chloride	**mg/L**	28
Cyanide	**mg/L**	< 0.00050
Cyanide (free)	**mg/L**	0.0023
Cyanide (WAD)	**mg/L**	< 0.00050
Silica	**mg/L**	0.33
Sulfate	**mg/L**	8.5
WQ04- Nutrients and Chlorophyll a		
Ammonia Nitrogen (as N)	**mg/L**	< 0.050
Nitrate (as N)	**mg/L**	< 0.10
Nitrite (as N)	**mg/L**	< 0.010
Total Kjeldahl nitrogen	**mg/L**	0.44
Total phosphorus	**mg/L**	< 0.020
Orthophosphate (P)	**mg/L**	< 0.010
WQ06- Total Metals		
Aluminum	**mg/L**	0.0097
Antimony	**mg/L**	< 0.00050
Arsenic	**mg/L**	0.00364
Barium	**mg/L**	0.0201
Beryllium	**mg/L**	< 0.00010
Boron	**mg/L**	< 0.050
Cadmium	**mg/L**	< 0.000010
Chromium	**mg/L**	< 0.0010
Copper	**mg/L**	0.00067
Iron	**mg/L**	0.108
Lead	**mg/L**	< 0.00020
Lithium	**mg/L**	0.0092
Manganese	**mg/L**	0.0147
Mercury	**mg/L**	< 0.00001
Molybdenum	**mg/L**	< 0.0010
Nickel	**mg/L**	< 0.0010
Selenium	**mg/L**	< 0.00010
Silver	**mg/L**	< 0.000020
Strontium	**mg/L**	0.182
Thallium	**mg/L**	< 0.000010
Tin	**mg/L**	< 0.0050
Titanium	**mg/L**	< 0.0050
Uranium	**mg/L**	< 0.00010

Vanadium	**mg/L**	< 0.0050
Zinc	**mg/L**	< 0.0050
WQ07- Dissolved Metals		
Aluminum	**mg/L**	< 0.0030
Antimony	**mg/L**	< 0.00050
Arsenic	**mg/L**	0.00293
Barium	**mg/L**	0.0210
Beryllium	**mg/L**	< 0.00010
Boron	**mg/L**	< 0.050
Cadmium	**mg/L**	< 0.000010
Calcium (Dissolved)	**mg/L**	24.2
Chromium	**mg/L**	< 0.0010
Copper	**mg/L**	0.00079
Iron	**mg/L**	0.0332
Lead	**mg/L**	< 0.00020
Lithium	**mg/L**	0.0096
Magnesium (Dissolved)	**mg/L**	3.38
Manganese	**mg/L**	0.0038
Mercury	**mg/L**	< 0.00001
Molybdenum	**mg/L**	< 0.0010
Nickel	**mg/L**	< 0.0010
Potassium (Dissolved)	**mg/L**	1.59
Selenium	**mg/L**	< 0.00010
Silver	**mg/L**	< 0.000020
Sodium (Dissolved)	**mg/L**	8.04
Strontium	**mg/L**	0.190
Thallium	**mg/L**	< 0.000010
Tin	**mg/L**	< 0.0050
Titanium	**mg/L**	< 0.0050
Uranium	**mg/L**	< 0.00010
Vanadium	**mg/L**	< 0.0050
Zinc	**mg/L**	< 0.0050

	Sample date	7/8/2024
	Sample name	MEL-19
Parameter	**Unit**	
WQ02- Conventional Parameters		
pH	**pH units**	7.91
Turbidity	**NTU**	2.7
Hardness, as CaCO3-Dissolved	**mg/L**	452
Total alkalinity, as CaCO3	**mg/L**	74
TDS	**mg/L**	1270

TDS, calculated	**mg/L**	1100
TSS	**mg/L**	3
WQ03- Major Ions		
Chloride	**mg/L**	400
Cyanide	**mg/L**	0.00174
Fluoride	**mg/L**	0.11
Silica	**mg/L**	0.89
Sulfate	**mg/L**	290
WQ04- Nutrients and Chlorophyll a		
Ammonia Nitrogen (as N)	**mg/L**	0.39
Nitrate (as N)	**mg/L**	4.84
Nitrite (as N)	**mg/L**	0.087
Total phosphorus	**mg/L**	< 0.020
Orthophosphate (P)	**mg/L**	< 0.010
WQ06- Total Metals		
Aluminum	**mg/L**	0.0881
Arsenic	**mg/L**	0.00960
Barium	**mg/L**	0.0319
Cadmium	**mg/L**	0.000036
Chromium	**mg/L**	< 0.0010
Copper	**mg/L**	0.00316
Iron	**mg/L**	0.137
Lead	**mg/L**	0.00051
Manganese	**mg/L**	0.0767
Mercury	**mg/L**	< 0.00001
Molybdenum	**mg/L**	0.0028
Nickel	**mg/L**	0.0289
Selenium	**mg/L**	0.00070
Silver	**mg/L**	< 0.000020
Thallium	**mg/L**	-
Titanium	**mg/L**	< 0.0050
Zinc	**mg/L**	< 0.0050
WQ07- Dissolved Metals		
Calcium (Dissolved)	**mg/L**	119
Magnesium (Dissolved)	**mg/L**	37.6
Potassium (Dissolved)	**mg/L**	15.4
Sodium (Dissolved)	**mg/L**	199

	Sample date	7/8/2024
	Sample name	MEL-20
Parameter	**Unit**	
WQ02- Conventional Parameters		
pH	**pH units**	7.83
Turbidity	**NTU**	2.7
Conductivity	**ms/cm**	5.88
Hardness, as CaCO3-Dissolved	**mg/L**	1040
Total alkalinity, as CaCO3	**mg/L**	98
TDS	**mg/L**	3690
TDS, calculated	**mg/L**	3500
TSS	**mg/L**	8
Total organic carbon	**mg/L**	8.0
WQ03- Major Ions		
Chloride	**mg/L**	1300
Cyanide	**mg/L**	0.0189
Cyanide (free)	**mg/L**	0.012
Cyanide (WAD)	**mg/L**	0.013
Fluoride	**mg/L**	0.18
Silica	**mg/L**	3.8
Sulfate	**mg/L**	700
WQ04- Nutrients and Chlorophyll a		
Ammonia Nitrogen (as N)	**mg/L**	17
Nitrate (as N)	**mg/L**	54.6
Nitrite (as N)	**mg/L**	0.881
Total phosphorus	**mg/L**	< 0.020
Orthophosphate (P)	**mg/L**	0.017
WQ06- Total Metals		
Aluminum	**mg/L**	0.0910
Arsenic	**mg/L**	0.0905
Barium	**mg/L**	0.0489
Cadmium	**mg/L**	0.000218
Chromium	**mg/L**	< 0.0020
Copper	**mg/L**	0.0053
Iron	**mg/L**	0.194
Lead	**mg/L**	0.00323
Manganese	**mg/L**	0.669
Mercury	**mg/L**	0.00001
Molybdenum	**mg/L**	0.0100
Nickel	**mg/L**	0.0542
Selenium	**mg/L**	0.00463
Silver	**mg/L**	< 0.000040

Thallium	**mg/L**	-
Zinc	**mg/L**	< 0.010
WQ07- Dissolved Metals		
Calcium (Dissolved)	**mg/L**	238
Magnesium (Dissolved)	**mg/L**	109
Potassium (Dissolved)	**mg/L**	48.1
Sodium (Dissolved)	**mg/L**	727

	Sample date	7/8/2024
	Sample name	MEL-21
Parameter	**Unit**	
WQ02- Conventional Parameters		
pH	**pH units**	8.03
Turbidity	**NTU**	7.1
Hardness, as CaCO3-Dissolved	**mg/L**	475
Total alkalinity, as CaCO3	**mg/L**	100
TDS	**mg/L**	1240
TDS, calculated	**mg/L**	1100
TSS	**mg/L**	10
WQ03- Major Ions		
Chloride	**mg/L**	360
Cyanide	**mg/L**	0.00307
Fluoride	**mg/L**	0.12
Silica	**mg/L**	2.8
Sulfate	**mg/L**	270
WQ04- Nutrients and Chlorophyll a		
Ammonia Nitrogen (as N)	**mg/L**	1.2
Nitrate (as N)	**mg/L**	8.40
Nitrite (as N)	**mg/L**	0.089
Total phosphorus	**mg/L**	0.026
Orthophosphate (P)	**mg/L**	< 0.010
WQ06- Total Metals		
Aluminum	**mg/L**	0.273
Arsenic	**mg/L**	0.0525
Barium	**mg/L**	0.0361
Cadmium	**mg/L**	0.000041
Chromium	**mg/L**	< 0.0010
Copper	**mg/L**	0.00274
Iron	**mg/L**	0.439
Lead	**mg/L**	0.00171
Manganese	**mg/L**	0.188
Mercury	**mg/L**	< 0.00001

Molybdenum	**mg/L**	0.0080
Nickel	**mg/L**	0.0207
Selenium	**mg/L**	0.00102
Silver	**mg/L**	< 0.000020
Thallium	**mg/L**	-
Zinc	**mg/L**	< 0.0050
WQ07- Dissolved Metals		
Calcium (Dissolved)	**mg/L**	119
Magnesium (Dissolved)	**mg/L**	43.1
Potassium (Dissolved)	**mg/L**	16.0
Sodium (Dissolved)	**mg/L**	189

	Sample date	7/8/2024
	Sample name	MEL-22
Parameter	**Unit**	
WQ02- Conventional Parameters		
pH	**pH units**	7.99
Turbidity	**NTU**	0.9
Hardness, as CaCO3-Dissolved	**mg/L**	1240
Total alkalinity, as CaCO3	**mg/L**	120
TDS	**mg/L**	4780
TDS, calculated	**mg/L**	4300
TSS	**mg/L**	5
WQ03- Major Ions		
Chloride	**mg/L**	2100
Cyanide	**mg/L**	0.0207
Fluoride	**mg/L**	0.14
Silica	**mg/L**	4.7
Sulfate	**mg/L**	590
WQ04- Nutrients and Chlorophyll a		
Ammonia Nitrogen (as N)	**mg/L**	8.6
Nitrate (as N)	**mg/L**	17.6
Nitrite (as N)	**mg/L**	0.438
Total phosphorus	**mg/L**	< 0.020
Orthophosphate (P)	**mg/L**	< 0.010
WQ06- Total Metals		
Aluminum	**mg/L**	0.018
Arsenic	**mg/L**	0.0207
Barium	**mg/L**	0.0613
Cadmium	**mg/L**	0.000054
Chromium	**mg/L**	< 0.0050
Copper	**mg/L**	< 0.0025

Iron	**mg/L**	0.074
Lead	**mg/L**	< 0.0010
Manganese	**mg/L**	0.293
Mercury	**mg/L**	0.00001
Molybdenum	**mg/L**	0.0128
Nickel	**mg/L**	0.0615
Selenium	**mg/L**	0.00310
Silver	**mg/L**	< 0.00010
Thallium	**mg/L**	-
Zinc	**mg/L**	< 0.025
WQ07- Dissolved Metals		
Calcium (Dissolved)	**mg/L**	277
Magnesium (Dissolved)	**mg/L**	132
Potassium (Dissolved)	**mg/L**	71.5
Sodium (Dissolved)	**mg/L**	1000

	Sample date	7/8/2024
	Sample name	MEL-23
Parameter	**Unit**	
WQ02- Conventional Parameters		
pH	**pH units**	7.98
Turbidity	**NTU**	2.6
Hardness, as CaCO3-Dissolved	**mg/L**	572
Total alkalinity, as CaCO3	**mg/L**	90
TDS	**mg/L**	2110
TDS, calculated	**mg/L**	2000
TSS	**mg/L**	5
WQ03- Major Ions		
Chloride	**mg/L**	830
Cyanide	**mg/L**	0.00351
Fluoride	**mg/L**	0.18
Silica	**mg/L**	1.8
Sulfate	**mg/L**	360
WQ04- Nutrients and Chlorophyll a		
Ammonia Nitrogen (as N)	**mg/L**	1.3
Nitrate (as N)	**mg/L**	6.25
Nitrite (as N)	**mg/L**	0.104
Total phosphorus	**mg/L**	< 0.020
Orthophosphate (P)	**mg/L**	< 0.010
WQ06- Total Metals		
Aluminum	**mg/L**	0.115
Arsenic	**mg/L**	0.0110

Barium	**mg/L**	0.0359
Cadmium	**mg/L**	0.000051
Chromium	**mg/L**	< 0.0020
Copper	**mg/L**	0.0029
Iron	**mg/L**	0.173
Lead	**mg/L**	0.00075
Manganese	**mg/L**	0.149
Mercury	**mg/L**	< 0.00001
Molybdenum	**mg/L**	0.0063
Nickel	**mg/L**	0.0497
Selenium	**mg/L**	0.00078
Silver	**mg/L**	< 0.000040
Thallium	**mg/L**	-
Zinc	**mg/L**	< 0.010
WQ07- Dissolved Metals		
Calcium (Dissolved)	**mg/L**	93.7
Magnesium (Dissolved)	**mg/L**	81.9
Potassium (Dissolved)	**mg/L**	28.4
Sodium (Dissolved)	**mg/L**	490

	Sample date	7/6/2024
	Sample name	MEL-SR1
Parameter	**Unit**	
WQ01- Field Measured		
Temperature	**°C**	19.5
pH	**pH units**	7.7
Conductivity	**uS/cm**	1141
Dissolved oxygen	**mg/L**	7.08
Dissolved oxygen	%	79.1
Turbidity	**NTU**	1.28
WQ02- Conventional Parameters		
pH	**pH units**	8.00
Turbidity	**NTU**	0.3
Hardness, as CaCO3-Dissolved	**mg/L**	373
Total alkalinity, as CaCO3	**mg/L**	150
TDS	**mg/L**	840
TDS, calculated	**mg/L**	700
TSS	**mg/L**	1
WQ03- Major Ions		
Chloride	**mg/L**	220
Cyanide	**mg/L**	0.00105
Fluoride	**mg/L**	0.10

Silica	**mg/L**	3.4
Sulfate	**mg/L**	150
WQ04- Nutrients and Chlorophyll a		
Ammonia Nitrogen (as N)	**mg/L**	< 0.050
Nitrate (as N)	**mg/L**	0.36
Nitrite (as N)	**mg/L**	< 0.010
Total phosphorus	**mg/L**	< 0.020
Orthophosphate (P)	**mg/L**	< 0.010
WQ05- General Organics		
Total oil and grease	**mg/L**	1.1
WQ06- Total Metals		
Aluminum	**mg/L**	0.0111
Arsenic	**mg/L**	0.00282
Barium	**mg/L**	0.0476
Cadmium	**mg/L**	0.000020
Chromium	**mg/L**	< 0.0010
Copper	**mg/L**	0.00302
Iron	**mg/L**	0.036
Lead	**mg/L**	< 0.00020
Manganese	**mg/L**	0.0044
Mercury	**mg/L**	< 0.00001
Molybdenum	**mg/L**	< 0.0010
Nickel	**mg/L**	0.0115
Selenium	**mg/L**	0.00013
Silver	**mg/L**	< 0.000020
Thallium	**mg/L**	-
Zinc	**mg/L**	0.0367
WQ07- Dissolved Metals		
Calcium (Dissolved)	**mg/L**	110
Magnesium (Dissolved)	**mg/L**	24.2
Potassium (Dissolved)	**mg/L**	10.6
Sodium (Dissolved)	**mg/L**	93.4

	Sample date	6/21/2024
	Sample name	Borrow Pit KM20
Parameter	**Unit**	
WQ02- Conventional Parameters		
pH	**pH units**	7.16
Turbidity	**NTU**	25
Hardness, as CaCO3-Dissolved	**mg/L**	27.4
Total alkalinity, as CaCO3	**mg/L**	22
TDS	**mg/L**	75

TDS, calculated	**mg/L**	42
TSS	**mg/L**	19
WQ03- Major Ions		
Chloride	**mg/L**	4.0
Cyanide	**mg/L**	< 0.00050
Fluoride	**mg/L**	< 0.10
Silica	**mg/L**	0.70
Sulfate	**mg/L**	9.3
WQ04- Nutrients and Chlorophyll a		
Ammonia Nitrogen (as N)	**mg/L**	< 0.050
Nitrate (as N)	**mg/L**	0.11
Nitrite (as N)	**mg/L**	0.012
Total phosphorus	**mg/L**	0.043
Orthophosphate (P)	**mg/L**	< 0.010
WQ05- General Organics		
Total oil and grease	**mg/L**	1.8
WQ06- Total Metals		
Aluminum	**mg/L**	0.0397
Arsenic	**mg/L**	0.00104
Barium	**mg/L**	0.0086
Cadmium	**mg/L**	< 0.000010
Chromium	**mg/L**	< 0.0010
Copper	**mg/L**	0.00173
Iron	**mg/L**	0.022
Lead	**mg/L**	< 0.00020
Manganese	**mg/L**	0.0030
Mercury	**mg/L**	< 0.00001
Molybdenum	**mg/L**	< 0.0010
Nickel	**mg/L**	< 0.0010
Selenium	**mg/L**	< 0.00010
Silver	**mg/L**	< 0.000020
Thallium	**mg/L**	-
Zinc	**mg/L**	< 0.0050
WQ07- Dissolved Metals		
Calcium (Dissolved)	**mg/L**	9.14
Magnesium (Dissolved)	**mg/L**	1.11
Potassium (Dissolved)	**mg/L**	1.44
Sodium (Dissolved)	**mg/L**	2.96