

Work Order : 255957

Sample Number : 84178

SAMPLE IDENTIFICATION

Company :	Agnico Eagle Mines Limited - Meadowbank Division	Sampling Date :	2024-09-22
Location :	Baker Lake NU	Sampling Time :	17:30
Substance :	ST-5	Date Received :	2024-09-25
Sampling Method :	Grab	Time Received :	13:00
Sampled By :	EL, RW	Temperature at Receipt :	21 °C
Sample Description :	Cloudy, light green	Date Tested :	2024-09-26

Test Method : Reference Method for Determining Acute Lethality of Effluents to *Daphnia magna* .
 Environment Canada EPS 1/RM/14 (Second Edition, December 2000, with February 2016 amendments).

48-HOUR TEST RESULTS

Effect	Value	95% Confidence Limits	Calculation Method
LC50	>100%	—	—
EC50	>100%	—	—

The results reported relate only to the sample tested and as received.

TEST ORGANISM

Species :	<i>Daphnia magna</i>	Time to First Brood :	7.6 days
Organism Batch :	Dm24-18	Average Brood Size :	30.7
Culture Mortality :	2.0% (previous 7 days)		

TEST CONDITIONS

Sample Treatment :	None	Number of Replicates :	1
pH Adjustment :	None	Organisms per Replicate :	10
Pre-aeration Rate :	~30 mL/min/L	Organisms per Test Level :	10
Duration of Pre-Aeration :	0 minutes	Organism Loading Rate :	15.0 mL/organism
Test Aeration :	None	Impaired Control Organisms :	0.0%
Hardness Adjustment :	None	Test Method Deviation(s) :	None

REFERENCE TOXICANT DATA

Toxicant :	Sodium Chloride		
Date Tested :	2024-09-24	LC50 :	6.4 g/L
Organism Batch :	Dm24-18	95% Confidence Limits :	6.2 - 6.6 g/L
Analyst(s) :	JW, CGR, CQ, MK	Historical Mean LC50 :	6.3 g/L
Statistical Method :	Spearman-Kärber	Warning Limits (± 2SD) :	5.9 - 6.7 g/L

COMMENTS

•All test validity criteria as specified in the test method were satisfied.

Approved By :

Project Manager

Work Order: 255957

Sample Number: 84178

TEST DATA

	pH	Dissolved O ₂ (mg/L)	Conductivity (µmhos/cm)	Temperature (°C)	O ₂ Saturation (%)*	Hardness (as CaCO ₃)
Initial Chemistry (100%) :	7.9	8.7	223	20	99	100 mg/L

0 HOURS

Date & Time 2024-09-26 12:05

Analyst(s) : CGR/MK (CGR)

Concentration (%)	Dead	Immobile	pH	Dissolved O ₂	Conductivity	Temperature	O ₂ Saturation*	Hardness
100	0	0	7.9	8.7	223	20	99	100
50	0	0	8.1	8.8	378	21	—	—
25	0	0	8.0	8.7	452	21	—	—
12.5	0	0	8.2	8.7	488	21	—	—
6.25	0	0	8.2	8.5	509	21	—	—
Control	0	0	8.3	8.7	525	21	100	150

Notes:

24 HOURS

Date & Time 2024-09-27 11:50

Analyst(s) : GR (CGR)

Concentration (%)	Dead	Immobile	pH	Dissolved O ₂	Conductivity	Temperature
100	—	0	—	—	—	20
50	—	0	—	—	—	20
25	—	0	—	—	—	20
12.5	—	0	—	—	—	20
6.25	—	0	—	—	—	20
Control	—	0	—	—	—	20

Notes:

48 HOURS

Date & Time 2024-09-28 11:50

Analyst(s) : FM

Concentration (%)	Dead	Immobile	pH	Dissolved O ₂	Conductivity	Temperature
100	0	0	8.1	8.1	232	20
50	0	0	8.2	8.2	385	20
25	0	0	8.3	8.2	459	20
12.5	0	0	8.3	8.2	494	20
6.25	0	0	8.3	8.2	512	20
Control	0	0	8.3	8.2	530	20

Notes:

Number immobile does not include number dead.

"—" = not measured/not required

* adjusted for temperature and barometric pressure

Test Data Reviewed By : JJ

Date : 2024-10-02

Work Order : 255957

Sample Number : 84178

SAMPLE IDENTIFICATION

Company :	Agnico Eagle Mines Limited - Meadowbank Division	Sampling Date :	2024-09-22
Location :	Baker Lake NU	Sampling Time :	17:30
Substance :	ST-5	Date Received :	2024-09-25
Sampling Method :	Grab	Time Received :	13:00
Sampled By :	EL, RW	Temperature at Receipt :	21 °C
Sample Description :	Cloudy, light green	Date Tested :	2024-09-26

Test Method(s) : Reference Method for Determining Acute Lethality of Liquid Effluents to Rainbow Trout.
 Environment Canada, EPS 1/RM/13 (2nd Edition, December 2000, with May 2007, February 2016, and December 2023 amendments).

96-HOUR TEST RESULTS

Effect	Value	95% Confidence Limits	Statistical Method
LC50	>100%	—	—

The results reported relate only to the sample tested and as received.

TEST ORGANISM

Test Organism :	<i>Oncorhynchus mykiss</i>	Mean Fork Length :	45.0 mm
Organism Batch :	T24-19	Range of Fork Lengths :	43 - 48 mm
Control Sample Size :	10	Mean Wet Weight :	0.8 g
Cumulative stock tank mortality rate :	0% (previous 7 days)	Organism Loading Rate :	0.4 g/L
Control organisms showing stress :	0 (at test completion)		

TEST CONDITIONS

Test Type :	Multiple Concentration	Number of Replicates :	1
Sample pH Adjustment :	None	Organisms Per Replicate :	10
Sample Pre-aeration/Aeration Rate :	6.5 ± 1 mL/min/L	Organisms Per Test Level :	10
Duration of Sample Pre-Aeration :	30 minutes	Volume per Replicate :	20 L
Control Pre-aeration/Aeration Rate :	6.5 ± 1 mL/min/L	Volume of Control :	20 L
Duration of Control Pre-aeration:	30 minutes	Test Method Deviation(s) :	None

REFERENCE TOXICANT DATA

Toxicant :	Potassium Chloride		
Organism Batch :	T24-19	LC50 :	3022 mg/L
Date Tested :	2024-09-09	95% Confidence Limits :	2677 - 3412 mg/L
Analyst(s) :	NWP, FM, NM, GR, JGR	Historical Mean LC50 :	3763 mg/L
Statistical Method :	Linear Regression (MLE)	Warning Limits (± 2SD) :	2776 - 5100 mg/L

COMMENTS

•All test validity criteria as specified in the test method were satisfied.

Approved By :

Project Manager

Work Order : 255957
Sample Number : 84178

TEST DATA

	pH	Dissolved O ₂ (mg/L)	Conductivity (µmhos/cm)	Temperature (°C)	O ₂ Saturation (%) ³
Initial Water Chemistry (100%) :	7.8	9.6	202	15	99
After 30 min pre-aeration :	7.9	9.7	204	15	100

0 HOURS

Date & Time	2024-09-26	9:40					
Analyst(s) :	NWP/JGR						
Concentration (%)	Dead	Impaired	pH	Dissolved O ₂	Conductivity	Temperature	O ₂ Saturation ³
100	0	0	7.9	9.7	204	15	100
50	0	0	8.0	10.1	480	15	—
25	0	0	8.0	10.2	614	15	—
12.5	0	0	8.0	10.2	682	15	—
6.25	0	0	8.0	10.2	719	15	—
Control	0	0	8.0	9.8	745	15	100
Notes:							

Notes:

24 HOURS

Date & Time	2024-09-27	8:20				
Analyst(s) :	NM					
Concentration (%)	Dead	Impaired	pH	Dissolved O ₂	Conductivity	Temperature
100	0	0	—	—	—	15
50	0	0	—	—	—	15
25	0	0	—	—	—	15
12.5	0	0	—	—	—	15
6.25	0	0	—	—	—	15
Control	0	0	—	—	—	15

Notes:

48 HOURS

Date & Time	2024-09-28	11:30				
Analyst(s) :	JGR					
Concentration (%)	Dead	Impaired	pH	Dissolved O ₂	Conductivity	Temperature
100	0	0	—	—	—	15
50	0	0	—	—	—	15
25	0	0	—	—	—	15
12.5	0	0	—	—	—	15
6.25	0	0	—	—	—	15
Control	0	0	—	—	—	15

Notes:

72 HOURS

Date & Time	2024-09-29	8:55				
Analyst(s) :	JGR					
Concentration (%)	Dead	Impaired	pH	Dissolved O ₂	Conductivity	Temperature
100	0	0	—	—	—	15
50	0	0	—	—	—	15
25	0	0	—	—	—	15
12.5	0	0	—	—	—	15
6.25	0	0	—	—	—	15
Control	0	0	—	—	—	15

Notes:

96 HOURS

Date & Time	2024-09-30	8:50				
Analyst(s) :	NWP					
Concentration (%)	Dead	Impaired	pH	Dissolved O ₂	Conductivity	Temperature
100	0	0	7.8	9.3	217	15
50	0	0	8.0	9.4	493	15
25	0	0	8.1	9.2	626	15
12.5	0	0	8.1	9.7	693	15
6.25	0	0	8.2	9.8	726	15
Control	0	0	8.1	9.7	742	15

Notes:

"—" = not measured/not required

Number impaired does not include number dead.

³ adjusted for temperature and barometric pressure

Test Data Reviewed By : JL

Date : 2024-09-30

CHAIN OF CUSTODY RECORD



Nautilus Work Order No:

255957

Shipping Address: Nautilus Environmental Guelph.
B-11 Nicholas Beaver Road
Puslinch, Ontario Canada N0B 2J0

Voice: (519) 763-4412

Fax: (519) 763-4419

P.O. Number: 1368117	+
Field Sampler Name (print): EL RW	
Signature:	
Affiliation: AEM-MBK	
Sample Storage (prior to shipping):	
Custody Relinquished by: EL	
Date/Time Shipped: 2024-09-23	

Client:	Agnico Eagle Mines Meadowbank Division Baker Lake, Nunavut
Phone:	(819) 759-3555
Fax:	
Contact:	Rowan Woodall - Samuel Tapp #460 6744

Sample Identification					Analyses Requested										Sample Method and Volume		
Date Collected (yyyy-mm-dd)	Time Collected (e.g. 14:30, 24 hr clock)	Sample Name	Nautilus Sample Number	Temp. on arrival	Rainbow Trout Single Concentration	Rainbow Trout LC50	Daphnia magna Single Concentration	Daphnia magna LC50	Fathead Minnow Survival & Growth	Ceriodaphnia dubia Survival & Reproduction	Lemna minor Growth	Pseudokirchneriella subcapitata Growth	Other (please specify below)	Grab	Composite	# of Containers and Volume (eg. 2 x 1L, 3 x 10L, etc.)	
2024-09-22	17:30	ST-5	84178	21		✓		✓						✓		3x18L	

For Lab Use Only	
Received By:	AWP/XP
Date:	2024-09-25
Time:	13:00
Storage Location:	
Storage Temp.(°C)	

Please list any special requests or instructions: