

Appendix H-1

Analysis certificates for EEM samples

Your P.O. #: OL-664695
Site Location: MELIADINE
Your C.O.C. #: na

Attention: Reporting

Agnico-Eagle
Meliadine Mine
Rankin Inlet, NU
CANADA X0C 0G0

Report Date: 2018/12/19
Report #: R5532361
Version: 3 - Revision

CERTIFICATE OF ANALYSIS – REVISED REPORT

MAXXAM JOB #: B8J0420

Received: 2018/07/26, 11:35

Sample Matrix: Water
Samples Received: 2

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Alkalinity (1)	2	N/A	2018/07/31	CAM SOP-00448	SM 23 2320 B m
Carbonate, Bicarbonate and Hydroxide (1)	2	N/A	2018/08/01	CAM SOP-00102	APHA 4500-CO2 D
Chloride by Automated Colourimetry (1)	2	N/A	2018/07/30	CAM SOP-00463	EPA 325.2 m
Conductivity (1)	2	N/A	2018/07/31	CAM SOP-00414	SM 23 2510 m
Free (WAD) Cyanide (1)	2	N/A	2018/07/31	CAM SOP-00457	OMOE E3015 m
Total Cyanide (1)	2	2018/07/30	2018/07/31	CAM SOP-00457	OMOE E3015 5 m
Dissolved Organic Carbon (DOC) (1, 4)	2	N/A	2018/07/30	CAM SOP-00446	SM 23 5310 B m
Petroleum Hydro. CCME F1 & BTEX in Water (1)	2	N/A	2018/07/30	CAM SOP-00315	CCME PHC-CWS m
Petroleum Hydrocarbons F2-F4 in Water (1, 5)	2	2018/07/31	2018/08/01	CAM SOP-00316	CCME PHC-CWS m
Dissolved Mercury (low level) (1)	2	2018/08/01	2018/08/01	CAM SOP-00453	EPA 7470 m
Mercury (low level) (1)	2	2018/08/01	2018/08/01	CAM SOP-00453	EPA 7470 m
Total Ammonia-N (1)	2	N/A	2018/07/31	CAM SOP-00441	EPA GS I-2522-90 m
Nitrate (NO3) and Nitrite (NO2) in Water (1, 6)	2	N/A	2018/07/30	CAM SOP-00440	SM 23 4500-NO3I/NO2B
Total Oil and Grease (1)	2	2018/07/31	2018/07/31	CAM SOP-00326	EPA1664B m, SM5520A m
Orthophosphate (1)	2	N/A	2018/07/30	CAM SOP-00461	EPA 365.1 m
Radium-226 Low Level (2, 7)	2	N/A	2018/08/04	BQL SOP-00006 BQL SOP-00017 BQL SOP-00032	Alpha Spectrometry
Sulphate by Automated Colourimetry (1)	2	N/A	2018/07/30	CAM SOP-00464	EPA 375.4 m
Total Dissolved Solids (1)	2	2018/07/28	2018/07/28	CAM SOP-00428	SM 23 2540C m
Total Kjeldahl Nitrogen in Water (1)	1	2018/07/31	2018/08/02	CAM SOP-00938	OMOE E3516 m
Total Kjeldahl Nitrogen in Water (1)	1	2018/07/31	2018/08/03	CAM SOP-00938	OMOE E3516 m
Total Organic Carbon (TOC) (1, 8)	2	N/A	2018/07/31	CAM SOP-00446	SM 23 5310B m
Total Phosphorus (Colourimetric) (1)	2	2018/07/31	2018/08/01	CAM SOP-00407	SM 23 4500 P B H m
Low Level Total Suspended Solids (1)	2	2018/07/28	2018/07/28	CAM SOP-00428	SM 23 2540D m
Turbidity (1)	2	N/A	2018/07/30	CAM SOP-00417	SM 23 2130 B m
Hardness (calculated as CaCO3) (3)	2	N/A	2018/10/01	BBY WI-00033	Auto Calc

Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Maxxam's profession using

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Attention: Reporting

Agnico-Eagle
Meliadine Mine
Rankin Inlet, NU
CANADA X0C 0G0

Report Date: 2018/12/19
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CERTIFICATE OF ANALYSIS – REVISED REPORT

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accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Maxxam in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.

Maxxam Analytics' liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Maxxam has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Maxxam, unless otherwise agreed in writing. Maxxam is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.

Results relate to samples tested. When sampling is not conducted by Maxxam, results relate to the supplied samples tested.

This Certificate shall not be reproduced except in full, without the written approval of the laboratory.

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

- (1) This test was performed by Maxxam Analytics Mississauga
- (2) This test was performed by Maxxam Analytics Kitimat
- (3) This test was performed by Campo to Burnaby Subcontract
- (4) Dissolved Organic Carbon (DOC) present in the sample should be considered as non-purgeable DOC.
- (5) All CCME PHC results met required criteria unless otherwise stated in the report. The CWS PHC methods employed by Maxxam conform to all prescribed elements of the reference method and performance based elements have been validated. All modifications have been validated and proven equivalent following "Alberta Environment's Interpretation of the Reference Method for the Canada-Wide Standard for Petroleum Hydrocarbons in Soil Validation of Performance-Based Alternative Methods September 2003". Documentation is available upon request. Modifications from Reference Method for the Canada-wide Standard for Petroleum Hydrocarbons in Soil-Tier 1 Method: F2/F3/F4 data reported using validated cold solvent extraction instead of Soxhlet extraction.
- (6) Values for calculated parameters may not appear to add up due to rounding of raw data and significant figures.
- (7) Radium-226 results have not been corrected for blanks.
- (8) Total Organic Carbon (TOC) present in the sample should be considered as non-purgeable TOC.

Encryption Key



Alisha Williamson
Project Manager
19 Dec 2018 15:38:21

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Jonathan Urben, Senior Project Manager

Email: jurben@maxxam.ca

Phone# (613) 274-0573

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Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

CCME PETROLEUM HYDROCARBONS IN WATER (WATER)

Maxxam ID		HII609	HII610		
Sampling Date		2018/07/23 15:00	2018/07/23 12:35		
COC Number		na	na		
	UNITS	MEL-14	MEL-13	RDL	QC Batch
BTEX & F1 Hydrocarbons					
Benzene	ug/L	<0.20	<0.20	0.20	5654645
Toluene	ug/L	<0.20	<0.20	0.20	5654645
Ethylbenzene	ug/L	<0.20	<0.20	0.20	5654645
o-Xylene	ug/L	<0.20	<0.20	0.20	5654645
p+m-Xylene	ug/L	<0.40	<0.40	0.40	5654645
Total Xylenes	ug/L	<0.40	<0.40	0.40	5654645
F1 (C6-C10)	ug/L	<25	<25	25	5654645
F1 (C6-C10) - BTEX	ug/L	<25	<25	25	5654645
F2-F4 Hydrocarbons					
F2 (C10-C16 Hydrocarbons)	ug/L	<100	<100	100	5657080
F3 (C16-C34 Hydrocarbons)	ug/L	<200	<200	200	5657080
F4 (C34-C50 Hydrocarbons)	ug/L	<200	<200	200	5657080
Reached Baseline at C50	ug/L	Yes	Yes		5657080
Surrogate Recovery (%)					
1,4-Difluorobenzene	%	102	104		5654645
4-Bromofluorobenzene	%	98	99		5654645
D10-Ethylbenzene	%	121	121		5654645
D4-1,2-Dichloroethane	%	107	109		5654645
o-Terphenyl	%	95	91		5657080
RDL = Reportable Detection Limit					
QC Batch = Quality Control Batch					

RESULTS OF ANALYSES OF WATER

Maxxam ID		HII609			HII609			HII610		
Sampling Date		2018/07/23 15:00			2018/07/23 15:00			2018/07/23 12:35		
COC Number		na			na			na		
	UNITS	MEL-14	RDL	QC Batch	MEL-14 Lab-Dup	RDL	QC Batch	MEL-13	RDL	QC Batch

Calculated Parameters

Bicarb. Alkalinity (calc. as CaCO ₃)	mg/L	38	1.0	5651226				16	1.0	5651226
Carb. Alkalinity (calc. as CaCO ₃)	mg/L	<1.0	1.0	5651226				<1.0	1.0	5651226

Inorganics

Total Ammonia-N	mg/L	0.47	0.050	5655193				<0.050	0.050	5655193
Conductivity	umho/cm	1800	1.0	5653511				88	1.0	5653511
Total Dissolved Solids	mg/L	1070	10	5653751				15	10	5653751
Total Kjeldahl Nitrogen (TKN)	mg/L	1.2 (1)	0.20	5656652				0.12	0.10	5656652
Dissolved Organic Carbon	mg/L	7.4	0.50	5653605				3.0	0.50	5653605
Total Organic Carbon (TOC)	mg/L	13	0.50	5655289				3.1	0.50	5655289
Orthophosphate (P)	mg/L	<0.010	0.010	5653770				<0.010	0.010	5653770
Total Phosphorus	mg/L	0.099	0.020	5656535				<0.020	0.020	5656535
Total Suspended Solids	mg/L	21	3	5653669				1	1	5653669
Dissolved Sulphate (SO ₄)	mg/L	43	1.0	5653768				4.8	1.0	5653768
Total Cyanide (CN)	mg/L	<0.0050	0.0050	5655455				<0.0050	0.0050	5655455
Turbidity	NTU	1.6	0.1	5652935	1.6	0.1	5652935	0.3	0.1	5652935
WAD Cyanide (Free)	mg/L	0.0010	0.0010	5655460				<0.0010	0.0010	5655460
Alkalinity (Total as CaCO ₃)	mg/L	39	1.0	5653507				16	1.0	5653507
Dissolved Chloride (Cl ⁻)	mg/L	400	5.0	5653764				13	1.0	5653764
Nitrite (N)	mg/L	0.304	0.010	5653774				<0.010	0.010	5653774
Nitrate (N)	mg/L	4.48	0.10	5653774				<0.10	0.10	5653774
Nitrate + Nitrite (N)	mg/L	4.78	0.10	5653774				<0.10	0.10	5653774

RADIONUCLIDE

Radium-226	Bq/L	0.0070	0.0050	5656489				<0.0050	0.0050	5656489

Petroleum Hydrocarbons

Total Oil & Grease	mg/L	1.8	0.50	5657267				<0.50	0.50	5657267

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

Lab-Dup = Laboratory Initiated Duplicate

(1) Due to a high concentration of NO_x, the sample required dilution. The detection limit was adjusted accordingly.

Maxxam Job #: B8J0420
Report Date: 2018/12/19

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: OL-664695
Sampler Initials: LH

RESULTS OF ANALYSES OF WATER

Maxxam ID		HII610		
Sampling Date		2018/07/23 12:35		
COC Number		na		
	UNITS	MEL-13 Lab-Dup	RDL	QC Batch
Inorganics				
Total Dissolved Solids	mg/L	15	10	5653751
RDL = Reportable Detection Limit QC Batch = Quality Control Batch Lab-Dup = Laboratory Initiated Duplicate				

Maxxam Job #: B8J0420
Report Date: 2018/12/19

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: OL-664695
Sampler Initials: LH

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		HII609	HII610		
Sampling Date		2018/07/23 15:00	2018/07/23 12:35		
COC Number		na	na		
	UNITS	MEL-14	MEL-13	RDL	QC Batch
Metals					
Mercury (Hg)	mg/L	<0.00001	<0.00001	0.00001	5658501
Dissolved Mercury (Hg)	mg/L	<0.00001	<0.00001	0.00001	5658493
RDL = Reportable Detection Limit					
QC Batch = Quality Control Batch					

Maxxam Job #: B8J0420
Report Date: 2018/12/19

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: OL-664695
Sampler Initials: LH

TEST SUMMARY

Maxxam ID: HII609
Sample ID: MEL-14
Matrix: Water

Collected: 2018/07/23
Shipped:
Received: 2018/07/26

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	5653507	N/A	2018/07/31	Surinder Rai
Carbonate, Bicarbonate and Hydroxide	CALC	5651226	N/A	2018/08/01	Automated Statchk
Chloride by Automated Colourimetry	KONE	5653764	N/A	2018/07/30	Deonarine Ramnarine
Conductivity	AT	5653511	N/A	2018/07/31	Surinder Rai
Free (WAD) Cyanide	SKAL/CN	5655460	N/A	2018/07/31	Xuanhong Qiu
Total Cyanide	SKAL/CN	5655455	2018/07/30	2018/07/31	Xuanhong Qiu
Dissolved Organic Carbon (DOC)	TOCV/NDIR	5653605	N/A	2018/07/30	Nimarta Singh
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	5654645	N/A	2018/07/30	Georgeta Rusu
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	5657080	2018/07/31	2018/08/01	Barbara Wowk
Dissolved Mercury (low level)	CV/AA	5658493	2018/08/01	2018/08/01	Ron Morrison
Mercury (low level)	CV/AA	5658501	2018/08/01	2018/08/01	Ron Morrison
Total Ammonia-N	LACH/NH4	5655193	N/A	2018/07/31	Parminder Sangha
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	5653774	N/A	2018/07/30	Chandra Nandlal
Total Oil and Grease	BAL	5657267	2018/07/31	2018/07/31	Mansoor Ahmed
Orthophosphate	KONE	5653770	N/A	2018/07/30	Alina Dobreanu
Radium-226 Low Level	AS	5656489	N/A	2018/08/04	Rajmeet Kaur
Sulphate by Automated Colourimetry	KONE	5653768	N/A	2018/07/30	Deonarine Ramnarine
Total Dissolved Solids	BAL	5653751	2018/07/28	2018/07/28	Mandeep Kaur
Total Kjeldahl Nitrogen in Water	SKAL	5656652	2018/07/31	2018/08/03	Bramdeo Motiram
Total Organic Carbon (TOC)	TOCV/NDIR	5655289	N/A	2018/07/31	Nimarta Singh
Total Phosphorus (Colourimetric)	LACH/P	5656535	2018/07/31	2018/08/01	Amanpreet Sappal
Low Level Total Suspended Solids	BAL	5653669	2018/07/28	2018/07/28	Mandeep Kaur
Turbidity	AT	5652935	N/A	2018/07/30	Neil Dassanayake
Hardness (calculated as CaCO3)	CALC	5676192	N/A	2018/10/01	Tamsin Denison

Maxxam ID: HII609 Dup
Sample ID: MEL-14
Matrix: Water

Collected: 2018/07/23
Shipped:
Received: 2018/07/26

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Turbidity	AT	5652935	N/A	2018/07/30	Neil Dassanayake

Maxxam ID: HII610
Sample ID: MEL-13
Matrix: Water

Collected: 2018/07/23
Shipped:
Received: 2018/07/26

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	5653507	N/A	2018/07/31	Surinder Rai
Carbonate, Bicarbonate and Hydroxide	CALC	5651226	N/A	2018/08/01	Automated Statchk
Chloride by Automated Colourimetry	KONE	5653764	N/A	2018/07/30	Deonarine Ramnarine
Conductivity	AT	5653511	N/A	2018/07/31	Surinder Rai
Free (WAD) Cyanide	SKAL/CN	5655460	N/A	2018/07/31	Xuanhong Qiu
Total Cyanide	SKAL/CN	5655455	2018/07/30	2018/07/31	Xuanhong Qiu
Dissolved Organic Carbon (DOC)	TOCV/NDIR	5653605	N/A	2018/07/30	Nimarta Singh
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	5654645	N/A	2018/07/30	Georgeta Rusu

Maxxam Job #: B8J0420
Report Date: 2018/12/19

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: OL-664695
Sampler Initials: LH

TEST SUMMARY

Maxxam ID: HII610
Sample ID: MEL-13
Matrix: Water

Collected: 2018/07/23
Shipped:
Received: 2018/07/26

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	5657080	2018/07/31	2018/08/01	Barbara Wowk
Dissolved Mercury (low level)	CV/AA	5658493	2018/08/01	2018/08/01	Ron Morrison
Mercury (low level)	CV/AA	5658501	2018/08/01	2018/08/01	Ron Morrison
Total Ammonia-N	LACH/NH4	5655193	N/A	2018/07/31	Parminder Sangha
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	5653774	N/A	2018/07/30	Chandra Nandlal
Total Oil and Grease	BAL	5657267	2018/07/31	2018/07/31	Mansoor Ahmed
Orthophosphate	KONE	5653770	N/A	2018/07/30	Alina Dobreanu
Radium-226 Low Level	AS	5656489	N/A	2018/08/04	Rajmeet Kaur
Sulphate by Automated Colourimetry	KONE	5653768	N/A	2018/07/30	Deonarine Ramnarine
Total Dissolved Solids	BAL	5653751	2018/07/28	2018/07/28	Mandeep Kaur
Total Kjeldahl Nitrogen in Water	SKAL	5656652	2018/07/31	2018/08/02	Bramdeo Motiram
Total Organic Carbon (TOC)	TOCV/NDIR	5655289	N/A	2018/07/31	Nimarta Singh
Total Phosphorus (Colourimetric)	LACH/P	5656535	2018/07/31	2018/08/01	Amanpreet Sappal
Low Level Total Suspended Solids	BAL	5653669	2018/07/28	2018/07/28	Mandeep Kaur
Turbidity	AT	5652935	N/A	2018/07/30	Neil Dassanayake
Hardness (calculated as CaCO3)	CALC	5676192	N/A	2018/10/01	Tamsin Denison

Maxxam ID: HII610 Dup
Sample ID: MEL-13
Matrix: Water

Collected: 2018/07/23
Shipped:
Received: 2018/07/26

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Total Dissolved Solids	BAL	5653751	2018/07/28	2018/07/28	Mandeep Kaur

GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	12.7°C

Revised Report (2018/10/02): Client sample ID changed as per client request.

Revised Report (2018/12/18): Client sample ID changed to MEL-13 and MEL-14 as per client request.

MEL-14 - GPS coordinates: 63°02'15.5" 92°13'06.3"

MEL-13 - GPS coordinates: 63°01'44.6" 92°09'14.6"

Sample HII609 [MEL-14] : Total Cyanide < Free Cyanide: Both values fall within the method uncertainty for duplicates and are likely equivalent.

Results relate only to the items tested.

QUALITY ASSURANCE REPORT

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: OL-664695
Sampler Initials: LH

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
5654645	1,4-Difluorobenzene	2018/07/30	104	70 - 130	101	70 - 130	101	%				
5654645	4-Bromofluorobenzene	2018/07/30	102	70 - 130	103	70 - 130	97	%				
5654645	D10-Ethylbenzene	2018/07/30	118	70 - 130	104	70 - 130	117	%				
5654645	D4-1,2-Dichloroethane	2018/07/30	112	70 - 130	113	70 - 130	112	%				
5657080	o-Terphenyl	2018/07/31	96	60 - 130	93	60 - 130	90	%				
5652935	Turbidity	2018/07/30			99	85 - 115	<0.1	NTU	1.9	20		
5653507	Alkalinity (Total as CaCO3)	2018/07/31			95	85 - 115	<1.0	mg/L	2.9	20		
5653511	Conductivity	2018/07/31			100	85 - 115	<1.0	umho/cm	0	25		
5653605	Dissolved Organic Carbon	2018/07/30	95	80 - 120	97	80 - 120	<0.50	mg/L	0.15	20		
5653669	Total Suspended Solids	2018/07/28					<1	mg/L	9.7	25	96	85 - 115
5653751	Total Dissolved Solids	2018/07/28					<10	mg/L	0	25	100	90 - 110
5653764	Dissolved Chloride (Cl-)	2018/07/30	115	80 - 120	104	80 - 120	<1.0	mg/L	2.1	20		
5653768	Dissolved Sulphate (SO4)	2018/07/30	111	75 - 125	104	80 - 120	<1.0	mg/L	5.6	20		
5653770	Orthophosphate (P)	2018/07/30	98	75 - 125	100	80 - 120	<0.010	mg/L	11	25		
5653774	Nitrate (N)	2018/07/30	102	80 - 120	97	80 - 120	<0.10	mg/L	NC	20		
5653774	Nitrite (N)	2018/07/30	100	80 - 120	94	80 - 120	<0.010	mg/L	NC	20		
5654645	Benzene	2018/07/31	122	70 - 130	108	70 - 130	<0.20	ug/L	NC	30		
5654645	Ethylbenzene	2018/07/31	115	70 - 130	102	70 - 130	<0.20	ug/L	NC	30		
5654645	F1 (C6-C10) - BTEX	2018/07/31					<25	ug/L	NC	30		
5654645	F1 (C6-C10)	2018/07/31	97	70 - 130	100	70 - 130	<25	ug/L	NC	30		
5654645	o-Xylene	2018/07/31	117	70 - 130	108	70 - 130	<0.20	ug/L	NC	30		
5654645	p+m-Xylene	2018/07/31	106	70 - 130	97	70 - 130	<0.40	ug/L	NC	30		
5654645	Toluene	2018/07/31	114	70 - 130	103	70 - 130	<0.20	ug/L	NC	30		
5654645	Total Xylenes	2018/07/31					<0.40	ug/L	NC	30		
5655193	Total Ammonia-N	2018/07/31	96	75 - 125	100	80 - 120	<0.050	mg/L	NC	20		
5655289	Total Organic Carbon (TOC)	2018/07/30	96	80 - 120	96	80 - 120	<0.50	mg/L	0.28	20		
5655455	Total Cyanide (CN)	2018/07/31	104	80 - 120	101	80 - 120	<0.0050	mg/L	NC	20		
5655460	WAD Cyanide (Free)	2018/07/31	103	80 - 120	99	80 - 120	<0.0010	mg/L	NC	20		
5656489	Radium-226	2018/08/04			87	85 - 115	<0.0050	Bq/L	20	N/A		
5656535	Total Phosphorus	2018/08/01	99	80 - 120	98	80 - 120	<0.020	mg/L	0.57	20	98	80 - 120
5656652	Total Kjeldahl Nitrogen (TKN)	2018/08/02	104	80 - 120	105	80 - 120	<0.10	mg/L	NC	20	114	80 - 120

QUALITY ASSURANCE REPORT(CONT'D)

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: OL-664695
Sampler Initials: LH

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
5657080	F2 (C10-C16 Hydrocarbons)	2018/08/01	86	50 - 130	82	60 - 130	<100	ug/L	NC	30		
5657080	F3 (C16-C34 Hydrocarbons)	2018/08/01	86	50 - 130	82	60 - 130	<200	ug/L	NC	30		
5657080	F4 (C34-C50 Hydrocarbons)	2018/08/01	83	50 - 130	79	60 - 130	<200	ug/L	NC	30		
5657267	Total Oil & Grease	2018/07/31			97	85 - 115	<0.50	mg/L	2.9	25		
5658493	Dissolved Mercury (Hg)	2018/08/01	85	75 - 125	97	80 - 120	<0.00001	mg/L	NC	20		
5658501	Mercury (Hg)	2018/08/01	97	75 - 125	95	80 - 120	<0.00001	mg/L	NC	20		

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

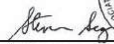
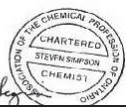
NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).




Ewa Pranjić, M.Sc., C.Chem, Scientific Specialist

Steven Simpson, Lab Director

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**Exceedence Summary Table – Metal Mining Effluent Reg
Result Exceedences**

Sample ID	Maxxam ID	Parameter	Criteria	Result	DL	Units
No Exceedences						
The exceedence summary table is for information purposes only and should not be considered a comprehensive listing or statement of conformance to applicable regulatory guidelines.						

Your P.O. #: B8J0420
Site#: 63*01'44.6" 92*09'14.6"
Site Location: MELIADINE
Your C.O.C. #: B8J0420-M060-01-01

Attention: Jonathan Urban

Agnico-Eagle
Meliadine
Rankin Inlet, NU
Canada X0C 0G0

Report Date: 2018/09/04
Report #: R2612843
Version: 2 - Revision

CERTIFICATE OF ANALYSIS – REVISED REPORT

MAXXAM JOB #: B863518

Received: 2018/07/31, 08:48

Sample Matrix: Water
Samples Received: 2

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Silica (Reactive)	2	N/A	2018/08/04	AB SOP-00011	EPA 370.1 R1978 m

Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Maxxam's profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Maxxam in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.

Maxxam Analytics' liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Maxxam has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Maxxam, unless otherwise agreed in writing. Maxxam is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.

Results relate to samples tested. When sampling is not conducted by Maxxam, results relate to the supplied samples tested.

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Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key



Omran Desouki
Junior Project Manager
04 Sep 2018 09:30:14

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Omran Desouki, Junior Project Manager

Email: ODesouki@maxxam.ca

Phone# (403) 291-3077

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Total Cover Pages : 1

Page 1 of 6

Maxxam Job #: B863518
Report Date: 2018/09/04

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8J0420
Sampler Initials: LH

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		TZ0467		TZ0468		
Sampling Date		2018/07/23 15:00		2018/07/23 12:35		
COC Number		B8J0420-M060-01-01		B8J0420-M060-01-01		
	UNITS	EWTP (MEL-14) (HII609)	QC Batch	MEL-13 (WL AND EEM)	RDL	QC Batch
Misc. Inorganics						
Reactive Silica	mg/L	0.21	9091570	0.39	0.050	9091565
RDL = Reportable Detection Limit						

Maxxam Job #: B863518
Report Date: 2018/09/04

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8J0420
Sampler Initials: LH

TEST SUMMARY

Maxxam ID: TZ0467
Sample ID: EWTP (MEL-14) (HII609)
Matrix: Water

Collected: 2018/07/23
Shipped: 2018/07/30
Received: 2018/07/31

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Silica (Reactive)	KONE/SL	9091570	N/A	2018/08/04	YuLun (steven) Qiu

Maxxam ID: TZ0468
Sample ID: MEL-13 (WL AND EEM)
Matrix: Water

Collected: 2018/07/23
Shipped: 2018/07/30
Received: 2018/07/31

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Silica (Reactive)	KONE/SL	9091565	N/A	2018/08/04	YuLun (steven) Qiu

Maxxam Job #: B863518
Report Date: 2018/09/04

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8J0420
Sampler Initials: LH

GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	3.7°C

Report Re-issued with updated sample ID and GPS Coordinates

Results relate only to the items tested.

QUALITY ASSURANCE REPORT

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8J0420
Sampler Initials: LH

QC Batch	Parameter	Date	Matrix Spike		Spiked Blank		Method Blank		RPD	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9091565	Reactive Silica	2018/08/04	98	80 - 120	103	80 - 120	<0.050	mg/L	0.90	20
9091570	Reactive Silica	2018/08/04	99	80 - 120	102	80 - 120	<0.050	mg/L	0.96	20
Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.										
Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.										
Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.										
Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.										

Maxxam Job #: B863518
Report Date: 2018/09/04

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8J0420
Sampler Initials: LH

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Harry (Peng) Liang, Senior Analyst

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Your P.O. #: B8J0420
Site Location: MELIADINE
Your C.O.C. #: B8J0420-M058-01-01

Attention: Alisha Williamson

Agnico-Eagle
Meliadine
Rankin Inlet, NU
Canada X0C 0G0

Report Date: 2018/10/03
Report #: R2629419
Version: 2 - Revision

CERTIFICATE OF ANALYSIS – REVISED REPORT

MAXXAM JOB #: B863796

Received: 2018/07/31, 08:30

Sample Matrix: Water
Samples Received: 2

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Hardness Total (calculated as CaCO ₃) (1)	1	N/A	2018/08/02	BBY WI-00033	Auto Calc
Hardness Total (calculated as CaCO ₃) (1)	1	N/A	2018/08/08	BBY WI-00033	Auto Calc
Hardness (calculated as CaCO ₃)	1	N/A	2018/08/03	BBY WI-00033	Auto Calc
Hardness (calculated as CaCO ₃)	1	N/A	2018/08/08	BBY WI-00033	Auto Calc
Elements by CRC ICPMS (dissolved)	1	N/A	2018/08/02	BBY7SOP-00002	EPA 6020b R2 m
Elements by CRC ICPMS (dissolved)	1	N/A	2018/08/07	BBY7SOP-00002	EPA 6020b R2 m
Elements by CRC ICPMS (total)	1	2018/08/01	2018/08/02	BBY7SOP-00003,	EPA 6020b R2 m
Elements by CRC ICPMS (total)	1	2018/08/04	2018/08/07	BBY7SOP-00003,	EPA 6020b R2 m
Filter and HNO ₃ Preserve for Metals	2	N/A	2018/08/01	BBY7 WI-00004	BCMOE Reqs 08/14

Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

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Maxxam Analytics' liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Maxxam has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Maxxam, unless otherwise agreed in writing. Maxxam is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.

Results relate to samples tested. When sampling is not conducted by Maxxam, results relate to the supplied samples tested.

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Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

(1) "Total Hardness" was calculated from Total Ca and Mg concentrations and may be biased high (Hardness, or Dissolved Hardness, calculated from Dissolved Ca and Mg, should be used for compliance if available).

Your P.O. #: B8J0420
Site Location: MELIADINE
Your C.O.C. #: B8J0420-M058-01-01

Attention: Alisha Williamson

Agnico-Eagle
Meliadine
Rankin Inlet, NU
Canada X0C 0G0

Report Date: 2018/10/03
Report #: R2629419
Version: 2 - Revision

CERTIFICATE OF ANALYSIS – REVISED REPORT

MAXXAM JOB #: B863796

Received: 2018/07/31, 08:30

Encryption Key



Mandheraj Chana
Junior Project Manager
03 Oct 2018 15:19:31

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Veronica De Guzman, B.Sc., Project Manager
Email: VDeGuzman@maxxam.ca
Phone# (604) 734 7276

=====

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam Job #: B863796
Report Date: 2018/10/03

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8J0420
Sampler Initials: LH

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		TZ1946		TZ1947		
Sampling Date		2018/07/23 15:00		2018/07/23 12:35		
COC Number		B8J0420-M058-01-01		B8J0420-M058-01-01		
	UNITS	MEL-14ac (MDMER and EEM)	QC Batch	MEL-13 (WL and EEM)	RDL	QC Batch
Calculated Parameters						
Filter and HNO3 Preservation	N/A	FIELD	ONSITE	FIELD	N/A	ONSITE
Dissolved Hardness (CaCO3)	mg/L	462	9090189	23.7	0.50	9086891
Total Hardness (CaCO3)	mg/L	344	9090188	485	0.50	9086968
RDL = Reportable Detection Limit N/A = Not Applicable						

Maxxam Job #: B863796
Report Date: 2018/10/03

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8J0420
Sampler Initials: LH

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		TZ1946		TZ1947		
Sampling Date		2018/07/23 15:00		2018/07/23 12:35		
COC Number		B8J0420-M058-01-01		B8J0420-M058-01-01		
	UNITS	MEL-14ac (MDMER and EEM)	QC Batch	MEL-13 (WL and EEM)	RDL	QC Batch
Dissolved Metals by ICPMS						
Dissolved Aluminum (Al)	mg/L	0.0994	9091293	0.0123	0.0030	9087349
Dissolved Antimony (Sb)	mg/L	<0.00050	9091293	<0.00050	0.00050	9087349
Dissolved Arsenic (As)	mg/L	0.00156	9091293	0.00031	0.00010	9087349
Dissolved Barium (Ba)	mg/L	0.114 (1)	9091293	0.0076	0.0010	9087349
Dissolved Beryllium (Be)	mg/L	<0.00010	9091293	<0.00010	0.00010	9087349
Dissolved Boron (B)	mg/L	0.138	9091293	<0.050	0.050	9087349
Dissolved Cadmium (Cd)	mg/L	0.000010	9091293	<0.000010	0.000010	9087349
Dissolved Chromium (Cr)	mg/L	<0.0010	9091293	<0.0010	0.0010	9087349
Dissolved Copper (Cu)	mg/L	0.00117	9091293	0.00062	0.00020	9087349
Dissolved Iron (Fe)	mg/L	<0.0050	9091293	0.0092	0.0050	9087349
Dissolved Lead (Pb)	mg/L	<0.00020	9091293	<0.00020	0.00020	9087349
Dissolved Lithium (Li)	mg/L	0.135 (1)	9091293	<0.0020	0.0020	9087349
Dissolved Manganese (Mn)	mg/L	0.0605	9091293	0.0012	0.0010	9087349
Dissolved Molybdenum (Mo)	mg/L	0.0011	9091293	<0.0010	0.0010	9087349
Dissolved Nickel (Ni)	mg/L	0.0022	9091293	<0.0010	0.0010	9087349
Dissolved Selenium (Se)	mg/L	<0.00010	9091293	<0.00010	0.00010	9087349
Dissolved Silver (Ag)	mg/L	<0.000020	9091293	<0.000020	0.000020	9087349
Dissolved Strontium (Sr)	mg/L	2.38	9091293	0.0490	0.0010	9087349
Dissolved Thallium (Tl)	mg/L	0.000033	9091293	<0.000010	0.000010	9087349
Dissolved Tin (Sn)	mg/L	<0.0050	9091293	<0.0050	0.0050	9087349
Dissolved Titanium (Ti)	mg/L	<0.0050	9091293	<0.0050	0.0050	9087349
Dissolved Uranium (U)	mg/L	0.00012	9091293	<0.00010	0.00010	9087349
Dissolved Vanadium (V)	mg/L	<0.0050	9091293	<0.0050	0.0050	9087349
Dissolved Zinc (Zn)	mg/L	<0.0050	9091293	<0.0050	0.0050	9087349
Dissolved Calcium (Ca)	mg/L	145 (1)	9091293	7.39	0.050	9087349
Dissolved Magnesium (Mg)	mg/L	24.3 (1)	9091293	1.28	0.050	9087349
Dissolved Potassium (K)	mg/L	13.8 (1)	9091293	0.914	0.050	9087349
Dissolved Sodium (Na)	mg/L	124 (1)	9091293	5.22	0.050	9087349
RDL = Reportable Detection Limit						
(1) Dissolved greater than total. Reanalysis yields similar results.						

Maxxam Job #: B863796
Report Date: 2018/10/03

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8J0420
Sampler Initials: LH

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		TZ1946		TZ1947		
Sampling Date		2018/07/23 15:00		2018/07/23 12:35		
COC Number		B8J0420-M058-01-01		B8J0420-M058-01-01		
	UNITS	MEL-14ac (MDMER and EEM)	QC Batch	MEL-13 (WL and EEM)	RDL	QC Batch
Total Metals by ICPMS						
Total Aluminum (Al)	mg/L	4.39	9091571	6.64	0.0030	9086950
Total Antimony (Sb)	mg/L	<0.00050	9091571	<0.00050	0.00050	9086950
Total Arsenic (As)	mg/L	0.00178	9091571	0.00283	0.00010	9086950
Total Barium (Ba)	mg/L	0.0830	9091571	0.126	0.0010	9086950
Total Beryllium (Be)	mg/L	<0.00010	9091571	<0.00010	0.00010	9086950
Total Boron (B)	mg/L	0.094	9091571	0.156	0.050	9086950
Total Cadmium (Cd)	mg/L	0.000020	9091571	0.000028	0.000010	9086950
Total Chromium (Cr)	mg/L	<0.0010	9091571	<0.0010	0.0010	9086950
Total Copper (Cu)	mg/L	0.00207	9091571	0.00281	0.00050	9086950
Total Iron (Fe)	mg/L	0.293	9091571	0.405	0.010	9086950
Total Lead (Pb)	mg/L	<0.00020	9091571	0.00021	0.00020	9086950
Total Lithium (Li)	mg/L	0.0917	9091571	0.145	0.0020	9086950
Total Manganese (Mn)	mg/L	0.190	9091571	0.271	0.0010	9086950
Total Molybdenum (Mo)	mg/L	<0.0010	9091571	0.0013	0.0010	9086950
Total Nickel (Ni)	mg/L	0.0025	9091571	0.0033	0.0010	9086950
Total Selenium (Se)	mg/L	<0.00010	9091571	0.00011	0.00010	9086950
Total Silver (Ag)	mg/L	<0.000020	9091571	<0.000020	0.000020	9086950
Total Strontium (Sr)	mg/L	2.18	9091571	3.80	0.0010	9086950
Total Thallium (Tl)	mg/L	0.000022	9091571	0.000036	0.000010	9086950
Total Tin (Sn)	mg/L	<0.0050	9091571	<0.0050	0.0050	9086950
Total Titanium (Ti)	mg/L	<0.0050	9091571	<0.0050	0.0050	9086950
Total Uranium (U)	mg/L	0.00064	9091571	0.00098	0.00010	9086950
Total Vanadium (V)	mg/L	<0.0050	9091571	<0.0050	0.0050	9086950
Total Zinc (Zn)	mg/L	0.0086	9091571	0.0107	0.0050	9086950
Total Calcium (Ca)	mg/L	109	9091571	152	0.050	9086950
Total Magnesium (Mg)	mg/L	17.6	9091571	25.9	0.050	9086950
Total Potassium (K)	mg/L	9.56	9091571	13.9	0.050	9086950
Total Sodium (Na)	mg/L	85.3	9091571	127	0.050	9086950
RDL = Reportable Detection Limit						

Maxxam Job #: B863796
Report Date: 2018/10/03

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8J0420
Sampler Initials: LH

GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	5.0°C

Revised Report (2018/10/03): Client sample ID changed as per client request, and GPS coordinates included.

Sample TZ1946 [MEL-14ac (MDMER and EEM)] : GPS coordinates: 63°02'15.5" 92°13'06.3"

Sample TZ1947 [MEL-13 (WL and EEM)] : GPS coordinates: 63°01'44.6" 92°09'14.6"

Results relate only to the items tested.

Maxxam Job #: B863796
Report Date: 2018/10/03

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8J0420
Sampler Initials: LH

QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9086950	GS9	Matrix Spike	Total Aluminum (Al)	2018/08/02		105	%	80 - 120
			Total Antimony (Sb)	2018/08/02		106	%	80 - 120
			Total Arsenic (As)	2018/08/02		120	%	80 - 120
			Total Barium (Ba)	2018/08/02		NC	%	80 - 120
			Total Beryllium (Be)	2018/08/02		103	%	80 - 120
			Total Boron (B)	2018/08/02		94	%	80 - 120
			Total Cadmium (Cd)	2018/08/02		98	%	80 - 120
			Total Chromium (Cr)	2018/08/02		97	%	80 - 120
			Total Copper (Cu)	2018/08/02		86	%	80 - 120
			Total Iron (Fe)	2018/08/02		98	%	80 - 120
			Total Lead (Pb)	2018/08/02		101	%	80 - 120
			Total Lithium (Li)	2018/08/02		NC	%	80 - 120
			Total Manganese (Mn)	2018/08/02		97	%	80 - 120
			Total Molybdenum (Mo)	2018/08/02		118	%	80 - 120
			Total Nickel (Ni)	2018/08/02		88	%	80 - 120
			Total Selenium (Se)	2018/08/02		112	%	80 - 120
			Total Silver (Ag)	2018/08/02		97	%	80 - 120
			Total Strontium (Sr)	2018/08/02		NC	%	80 - 120
			Total Thallium (Tl)	2018/08/02		95	%	80 - 120
			Total Tin (Sn)	2018/08/02		105	%	80 - 120
			Total Titanium (Ti)	2018/08/02		106	%	80 - 120
			Total Uranium (U)	2018/08/02		108	%	80 - 120
			Total Vanadium (V)	2018/08/02		105	%	80 - 120
			Total Zinc (Zn)	2018/08/02		86	%	80 - 120
			Total Calcium (Ca)	2018/08/02		NC	%	80 - 120
			Total Magnesium (Mg)	2018/08/02		NC	%	80 - 120
			Total Potassium (K)	2018/08/02		104	%	80 - 120
			Total Sodium (Na)	2018/08/02		NC	%	80 - 120
9086950	GS9	Spiked Blank	Total Aluminum (Al)	2018/08/02		106	%	80 - 120
			Total Antimony (Sb)	2018/08/02		109	%	80 - 120
			Total Arsenic (As)	2018/08/02		112	%	80 - 120
			Total Barium (Ba)	2018/08/02		108	%	80 - 120
			Total Beryllium (Be)	2018/08/02		108	%	80 - 120
			Total Boron (B)	2018/08/02		100	%	80 - 120
			Total Cadmium (Cd)	2018/08/02		106	%	80 - 120
			Total Chromium (Cr)	2018/08/02		106	%	80 - 120
			Total Copper (Cu)	2018/08/02		103	%	80 - 120
			Total Iron (Fe)	2018/08/02		110	%	80 - 120
			Total Lead (Pb)	2018/08/02		106	%	80 - 120
			Total Lithium (Li)	2018/08/02		108	%	80 - 120
			Total Manganese (Mn)	2018/08/02		107	%	80 - 120
			Total Molybdenum (Mo)	2018/08/02		111	%	80 - 120
			Total Nickel (Ni)	2018/08/02		105	%	80 - 120
			Total Selenium (Se)	2018/08/02		109	%	80 - 120
			Total Silver (Ag)	2018/08/02		105	%	80 - 120
			Total Strontium (Sr)	2018/08/02		112	%	80 - 120
			Total Thallium (Tl)	2018/08/02		102	%	80 - 120
			Total Tin (Sn)	2018/08/02		107	%	80 - 120
			Total Titanium (Ti)	2018/08/02		109	%	80 - 120
			Total Uranium (U)	2018/08/02		107	%	80 - 120
			Total Vanadium (V)	2018/08/02		108	%	80 - 120
			Total Zinc (Zn)	2018/08/02		108	%	80 - 120

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9086950	GS9	Method Blank	Total Calcium (Ca)	2018/08/02		107	%	80 - 120
			Total Magnesium (Mg)	2018/08/02		108	%	80 - 120
			Total Potassium (K)	2018/08/02		109	%	80 - 120
			Total Sodium (Na)	2018/08/02		105	%	80 - 120
			Total Aluminum (Al)	2018/08/02	<0.0030		mg/L	
			Total Antimony (Sb)	2018/08/02	<0.00050		mg/L	
			Total Arsenic (As)	2018/08/02	<0.00010		mg/L	
			Total Barium (Ba)	2018/08/02	<0.0010		mg/L	
			Total Beryllium (Be)	2018/08/02	<0.00010		mg/L	
			Total Boron (B)	2018/08/02	<0.050		mg/L	
			Total Cadmium (Cd)	2018/08/02	<0.000010		mg/L	
			Total Chromium (Cr)	2018/08/02	<0.0010		mg/L	
			Total Copper (Cu)	2018/08/02	<0.00050		mg/L	
			Total Iron (Fe)	2018/08/02	<0.010		mg/L	
			Total Lead (Pb)	2018/08/02	<0.00020		mg/L	
			Total Lithium (Li)	2018/08/02	<0.0020		mg/L	
			Total Manganese (Mn)	2018/08/02	<0.0010		mg/L	
			Total Molybdenum (Mo)	2018/08/02	<0.0010		mg/L	
			Total Nickel (Ni)	2018/08/02	<0.0010		mg/L	
			Total Selenium (Se)	2018/08/02	<0.00010		mg/L	
			Total Silver (Ag)	2018/08/02	<0.000020		mg/L	
			Total Strontium (Sr)	2018/08/02	<0.0010		mg/L	
			Total Thallium (Tl)	2018/08/02	<0.000010		mg/L	
			Total Tin (Sn)	2018/08/02	<0.0050		mg/L	
			Total Titanium (Ti)	2018/08/02	<0.0050		mg/L	
			Total Uranium (U)	2018/08/02	<0.00010		mg/L	
			Total Vanadium (V)	2018/08/02	<0.0050		mg/L	
			Total Zinc (Zn)	2018/08/02	<0.0050		mg/L	
			Total Calcium (Ca)	2018/08/02	<0.050		mg/L	
			Total Magnesium (Mg)	2018/08/02	<0.050		mg/L	
			Total Potassium (K)	2018/08/02	<0.050		mg/L	
			Total Sodium (Na)	2018/08/02	<0.050		mg/L	
9086950	GS9	RPD	Total Aluminum (Al)	2018/08/02	1.6		%	20
			Total Antimony (Sb)	2018/08/02	NC		%	20
			Total Arsenic (As)	2018/08/02	4.4		%	20
			Total Barium (Ba)	2018/08/02	1.1		%	20
			Total Beryllium (Be)	2018/08/02	NC		%	20
			Total Boron (B)	2018/08/02	3.0		%	20
			Total Cadmium (Cd)	2018/08/02	0.89		%	20
			Total Chromium (Cr)	2018/08/02	NC		%	20
			Total Copper (Cu)	2018/08/02	3.1		%	20
			Total Iron (Fe)	2018/08/02	5.9		%	20
			Total Lead (Pb)	2018/08/02	NC		%	20
			Total Lithium (Li)	2018/08/02	1.4		%	20
			Total Manganese (Mn)	2018/08/02	4.1		%	20
			Total Molybdenum (Mo)	2018/08/02	4.3		%	20
			Total Nickel (Ni)	2018/08/02	5.3		%	20
			Total Selenium (Se)	2018/08/02	2.3		%	20
			Total Silver (Ag)	2018/08/02	NC		%	20
			Total Strontium (Sr)	2018/08/02	3.4		%	20
			Total Thallium (Tl)	2018/08/02	0.52		%	20
			Total Tin (Sn)	2018/08/02	NC		%	20

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QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9087349	AA1	Matrix Spike	Total Titanium (Ti)	2018/08/02	NC		%	20
			Total Uranium (U)	2018/08/02	2.0		%	20
			Total Vanadium (V)	2018/08/02	NC		%	20
			Total Zinc (Zn)	2018/08/02	NC		%	20
			Dissolved Aluminum (Al)	2018/08/02		101	%	80 - 120
			Dissolved Antimony (Sb)	2018/08/02		98	%	80 - 120
			Dissolved Arsenic (As)	2018/08/02		103	%	80 - 120
			Dissolved Barium (Ba)	2018/08/02		NC	%	80 - 120
			Dissolved Beryllium (Be)	2018/08/02		97	%	80 - 120
			Dissolved Boron (B)	2018/08/02		98	%	80 - 120
			Dissolved Cadmium (Cd)	2018/08/02		98	%	80 - 120
			Dissolved Chromium (Cr)	2018/08/02		95	%	80 - 120
			Dissolved Copper (Cu)	2018/08/02		89	%	80 - 120
			Dissolved Iron (Fe)	2018/08/02		96	%	80 - 120
			Dissolved Lead (Pb)	2018/08/02		95	%	80 - 120
			Dissolved Lithium (Li)	2018/08/02		96	%	80 - 120
			Dissolved Manganese (Mn)	2018/08/02		93	%	80 - 120
			Dissolved Molybdenum (Mo)	2018/08/02		NC	%	80 - 120
			Dissolved Nickel (Ni)	2018/08/02		92	%	80 - 120
			Dissolved Selenium (Se)	2018/08/02		97	%	80 - 120
			Dissolved Silver (Ag)	2018/08/02		95	%	80 - 120
			Dissolved Strontium (Sr)	2018/08/02		NC	%	80 - 120
			Dissolved Thallium (Tl)	2018/08/02		94	%	80 - 120
			Dissolved Tin (Sn)	2018/08/02		99	%	80 - 120
			Dissolved Titanium (Ti)	2018/08/02		99	%	80 - 120
			Dissolved Uranium (U)	2018/08/02		102	%	80 - 120
			Dissolved Vanadium (V)	2018/08/02		98	%	80 - 120
			Dissolved Zinc (Zn)	2018/08/02		92	%	80 - 120
			Dissolved Calcium (Ca)	2018/08/02		NC	%	80 - 120
			Dissolved Magnesium (Mg)	2018/08/02		NC	%	80 - 120
			Dissolved Potassium (K)	2018/08/02		NC	%	80 - 120
			Dissolved Sodium (Na)	2018/08/02		NC	%	80 - 120
9087349	AA1	Spiked Blank	Dissolved Aluminum (Al)	2018/08/02		103	%	80 - 120
			Dissolved Antimony (Sb)	2018/08/02		100	%	80 - 120
			Dissolved Arsenic (As)	2018/08/02		103	%	80 - 120
			Dissolved Barium (Ba)	2018/08/02		99	%	80 - 120
			Dissolved Beryllium (Be)	2018/08/02		100	%	80 - 120
			Dissolved Boron (B)	2018/08/02		102	%	80 - 120
			Dissolved Cadmium (Cd)	2018/08/02		102	%	80 - 120
			Dissolved Chromium (Cr)	2018/08/02		98	%	80 - 120
			Dissolved Copper (Cu)	2018/08/02		96	%	80 - 120
			Dissolved Iron (Fe)	2018/08/02		101	%	80 - 120
			Dissolved Lead (Pb)	2018/08/02		101	%	80 - 120
			Dissolved Lithium (Li)	2018/08/02		103	%	80 - 120
			Dissolved Manganese (Mn)	2018/08/02		100	%	80 - 120
			Dissolved Molybdenum (Mo)	2018/08/02		101	%	80 - 120
			Dissolved Nickel (Ni)	2018/08/02		98	%	80 - 120
			Dissolved Selenium (Se)	2018/08/02		100	%	80 - 120
			Dissolved Silver (Ag)	2018/08/02		100	%	80 - 120
			Dissolved Strontium (Sr)	2018/08/02		103	%	80 - 120
			Dissolved Thallium (Tl)	2018/08/02		100	%	80 - 120
			Dissolved Tin (Sn)	2018/08/02		101	%	80 - 120

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QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9087349	AA1	Method Blank	Dissolved Titanium (Ti)	2018/08/02		102	%	80 - 120
			Dissolved Uranium (U)	2018/08/02		101	%	80 - 120
			Dissolved Vanadium (V)	2018/08/02		100	%	80 - 120
			Dissolved Zinc (Zn)	2018/08/02		99	%	80 - 120
			Dissolved Calcium (Ca)	2018/08/02		101	%	80 - 120
			Dissolved Magnesium (Mg)	2018/08/02		102	%	80 - 120
			Dissolved Potassium (K)	2018/08/02		103	%	80 - 120
			Dissolved Sodium (Na)	2018/08/02		101	%	80 - 120
			Dissolved Aluminum (Al)	2018/08/02	<0.0030		mg/L	
			Dissolved Antimony (Sb)	2018/08/02	<0.00050		mg/L	
			Dissolved Arsenic (As)	2018/08/02	<0.00010		mg/L	
			Dissolved Barium (Ba)	2018/08/02	<0.0010		mg/L	
			Dissolved Beryllium (Be)	2018/08/02	<0.00010		mg/L	
			Dissolved Boron (B)	2018/08/02	<0.050		mg/L	
			Dissolved Cadmium (Cd)	2018/08/02	<0.000010		mg/L	
			Dissolved Chromium (Cr)	2018/08/02	<0.0010		mg/L	
			Dissolved Copper (Cu)	2018/08/02	<0.00020		mg/L	
			Dissolved Iron (Fe)	2018/08/02	<0.0050		mg/L	
			Dissolved Lead (Pb)	2018/08/02	<0.00020		mg/L	
			Dissolved Lithium (Li)	2018/08/02	<0.0020		mg/L	
			Dissolved Manganese (Mn)	2018/08/02	<0.0010		mg/L	
			Dissolved Molybdenum (Mo)	2018/08/02	<0.0010		mg/L	
			Dissolved Nickel (Ni)	2018/08/02	<0.0010		mg/L	
			Dissolved Selenium (Se)	2018/08/02	<0.00010		mg/L	
			Dissolved Silver (Ag)	2018/08/02	<0.000020		mg/L	
			Dissolved Strontium (Sr)	2018/08/02	<0.0010		mg/L	
			Dissolved Thallium (Tl)	2018/08/02	<0.000010		mg/L	
			Dissolved Tin (Sn)	2018/08/02	<0.0050		mg/L	
			Dissolved Titanium (Ti)	2018/08/02	<0.0050		mg/L	
			Dissolved Uranium (U)	2018/08/02	<0.00010		mg/L	
			Dissolved Vanadium (V)	2018/08/02	<0.0050		mg/L	
			Dissolved Zinc (Zn)	2018/08/02	<0.0050		mg/L	
			Dissolved Calcium (Ca)	2018/08/02	<0.050		mg/L	
			Dissolved Magnesium (Mg)	2018/08/02	<0.050		mg/L	
			Dissolved Potassium (K)	2018/08/02	<0.050		mg/L	
			Dissolved Sodium (Na)	2018/08/02	<0.050		mg/L	
9087349	AA1	RPD	Dissolved Aluminum (Al)	2018/08/02	2.8		%	20
			Dissolved Antimony (Sb)	2018/08/02	2.6		%	20
			Dissolved Arsenic (As)	2018/08/02	1.0		%	20
			Dissolved Barium (Ba)	2018/08/02	3.2		%	20
			Dissolved Beryllium (Be)	2018/08/02	NC		%	20
			Dissolved Boron (B)	2018/08/02	5.4		%	20
			Dissolved Cadmium (Cd)	2018/08/02	15		%	20
			Dissolved Chromium (Cr)	2018/08/02	1.8		%	20
			Dissolved Copper (Cu)	2018/08/02	4.6		%	20
			Dissolved Iron (Fe)	2018/08/02	NC		%	20
			Dissolved Lead (Pb)	2018/08/02	NC		%	20
			Dissolved Lithium (Li)	2018/08/02	2.7		%	20
			Dissolved Manganese (Mn)	2018/08/02	4.8		%	20
			Dissolved Molybdenum (Mo)	2018/08/02	3.4		%	20
			Dissolved Nickel (Ni)	2018/08/02	4.0		%	20
			Dissolved Selenium (Se)	2018/08/02	3.6		%	20

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9091293	JC8	Matrix Spike	Dissolved Silver (Ag)	2018/08/02	NC		%	20
			Dissolved Strontium (Sr)	2018/08/02	2.6		%	20
			Dissolved Thallium (Tl)	2018/08/02	4.6		%	20
			Dissolved Tin (Sn)	2018/08/02	NC		%	20
			Dissolved Titanium (Ti)	2018/08/02	NC		%	20
			Dissolved Uranium (U)	2018/08/02	2.7		%	20
			Dissolved Vanadium (V)	2018/08/02	NC		%	20
			Dissolved Zinc (Zn)	2018/08/02	NC		%	20
			Dissolved Aluminum (Al)	2018/08/07		101	%	80 - 120
			Dissolved Antimony (Sb)	2018/08/07		102	%	80 - 120
			Dissolved Arsenic (As)	2018/08/07		110	%	80 - 120
			Dissolved Barium (Ba)	2018/08/07		105	%	80 - 120
			Dissolved Beryllium (Be)	2018/08/07		103	%	80 - 120
			Dissolved Boron (B)	2018/08/07		109	%	80 - 120
			Dissolved Cadmium (Cd)	2018/08/07		102	%	80 - 120
			Dissolved Chromium (Cr)	2018/08/07		97	%	80 - 120
			Dissolved Copper (Cu)	2018/08/07		92	%	80 - 120
			Dissolved Iron (Fe)	2018/08/07		104	%	80 - 120
			Dissolved Lead (Pb)	2018/08/07		103	%	80 - 120
			Dissolved Lithium (Li)	2018/08/07		105	%	80 - 120
			Dissolved Manganese (Mn)	2018/08/07		102	%	80 - 120
			Dissolved Molybdenum (Mo)	2018/08/07		104	%	80 - 120
			Dissolved Nickel (Ni)	2018/08/07		95	%	80 - 120
			Dissolved Selenium (Se)	2018/08/07		104	%	80 - 120
			Dissolved Silver (Ag)	2018/08/07		102	%	80 - 120
			Dissolved Strontium (Sr)	2018/08/07		NC	%	80 - 120
			Dissolved Thallium (Tl)	2018/08/07		100	%	80 - 120
			Dissolved Tin (Sn)	2018/08/07		101	%	80 - 120
			Dissolved Titanium (Ti)	2018/08/07		107	%	80 - 120
			Dissolved Uranium (U)	2018/08/07		106	%	80 - 120
			Dissolved Vanadium (V)	2018/08/07		100	%	80 - 120
			Dissolved Zinc (Zn)	2018/08/07		97	%	80 - 120
			Dissolved Calcium (Ca)	2018/08/07		NC	%	80 - 120
			Dissolved Magnesium (Mg)	2018/08/07		103	%	80 - 120
			Dissolved Potassium (K)	2018/08/07		106	%	80 - 120
			Dissolved Sodium (Na)	2018/08/07		NC	%	80 - 120
9091293	JC8	Spiked Blank	Dissolved Aluminum (Al)	2018/08/07		104	%	80 - 120
			Dissolved Antimony (Sb)	2018/08/07		95	%	80 - 120
			Dissolved Arsenic (As)	2018/08/07		102	%	80 - 120
			Dissolved Barium (Ba)	2018/08/07		96	%	80 - 120
			Dissolved Beryllium (Be)	2018/08/07		101	%	80 - 120
			Dissolved Boron (B)	2018/08/07		108	%	80 - 120
			Dissolved Cadmium (Cd)	2018/08/07		97	%	80 - 120
			Dissolved Chromium (Cr)	2018/08/07		94	%	80 - 120
			Dissolved Copper (Cu)	2018/08/07		90	%	80 - 120
			Dissolved Iron (Fe)	2018/08/07		103	%	80 - 120
			Dissolved Lead (Pb)	2018/08/07		99	%	80 - 120
			Dissolved Lithium (Li)	2018/08/07		102	%	80 - 120
			Dissolved Manganese (Mn)	2018/08/07		100	%	80 - 120
			Dissolved Molybdenum (Mo)	2018/08/07		102	%	80 - 120
			Dissolved Nickel (Ni)	2018/08/07		92	%	80 - 120
			Dissolved Selenium (Se)	2018/08/07		101	%	80 - 120

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QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9091293	JC8	Method Blank	Dissolved Silver (Ag)	2018/08/07		100	%	80 - 120
			Dissolved Strontium (Sr)	2018/08/07		103	%	80 - 120
			Dissolved Thallium (Tl)	2018/08/07		97	%	80 - 120
			Dissolved Tin (Sn)	2018/08/07		96	%	80 - 120
			Dissolved Titanium (Ti)	2018/08/07		100	%	80 - 120
			Dissolved Uranium (U)	2018/08/07		101	%	80 - 120
			Dissolved Vanadium (V)	2018/08/07		97	%	80 - 120
			Dissolved Zinc (Zn)	2018/08/07		95	%	80 - 120
			Dissolved Calcium (Ca)	2018/08/07		105	%	80 - 120
			Dissolved Magnesium (Mg)	2018/08/07		97	%	80 - 120
			Dissolved Potassium (K)	2018/08/07		103	%	80 - 120
			Dissolved Sodium (Na)	2018/08/07		97	%	80 - 120
			Dissolved Aluminum (Al)	2018/08/07	<0.0030		mg/L	
			Dissolved Antimony (Sb)	2018/08/07	<0.00050		mg/L	
			Dissolved Arsenic (As)	2018/08/07	<0.00010		mg/L	
			Dissolved Barium (Ba)	2018/08/07	<0.0010		mg/L	
			Dissolved Beryllium (Be)	2018/08/07	<0.00010		mg/L	
			Dissolved Boron (B)	2018/08/07	<0.050		mg/L	
			Dissolved Cadmium (Cd)	2018/08/07	<0.000010		mg/L	
			Dissolved Chromium (Cr)	2018/08/07	<0.0010		mg/L	
			Dissolved Copper (Cu)	2018/08/07	<0.00020		mg/L	
			Dissolved Iron (Fe)	2018/08/07	<0.0050		mg/L	
			Dissolved Lead (Pb)	2018/08/07	<0.00020		mg/L	
			Dissolved Lithium (Li)	2018/08/07	<0.0020		mg/L	
			Dissolved Manganese (Mn)	2018/08/07	<0.0010		mg/L	
			Dissolved Molybdenum (Mo)	2018/08/07	<0.0010		mg/L	
			Dissolved Nickel (Ni)	2018/08/07	<0.0010		mg/L	
			Dissolved Selenium (Se)	2018/08/07	<0.00010		mg/L	
			Dissolved Silver (Ag)	2018/08/07	<0.000020		mg/L	
			Dissolved Strontium (Sr)	2018/08/07	<0.0010		mg/L	
			Dissolved Thallium (Tl)	2018/08/07	<0.000010		mg/L	
			Dissolved Tin (Sn)	2018/08/07	<0.0050		mg/L	
			Dissolved Titanium (Ti)	2018/08/07	<0.0050		mg/L	
			Dissolved Uranium (U)	2018/08/07	<0.00010		mg/L	
			Dissolved Vanadium (V)	2018/08/07	<0.0050		mg/L	
			Dissolved Zinc (Zn)	2018/08/07	<0.0050		mg/L	
			Dissolved Calcium (Ca)	2018/08/07	<0.050		mg/L	
			Dissolved Magnesium (Mg)	2018/08/07	<0.050		mg/L	
			Dissolved Potassium (K)	2018/08/07	<0.050		mg/L	
			Dissolved Sodium (Na)	2018/08/07	<0.050		mg/L	
9091293	JC8	RPD	Dissolved Aluminum (Al)	2018/08/07	5.9		%	20
			Dissolved Antimony (Sb)	2018/08/07	NC		%	20
			Dissolved Arsenic (As)	2018/08/07	14		%	20
			Dissolved Barium (Ba)	2018/08/07	2.0		%	20
			Dissolved Beryllium (Be)	2018/08/07	NC		%	20
			Dissolved Boron (B)	2018/08/07	2.2		%	20
			Dissolved Cadmium (Cd)	2018/08/07	NC		%	20
			Dissolved Chromium (Cr)	2018/08/07	NC		%	20
			Dissolved Copper (Cu)	2018/08/07	9.6		%	20
			Dissolved Iron (Fe)	2018/08/07	5.3		%	20
			Dissolved Lead (Pb)	2018/08/07	NC		%	20
			Dissolved Lithium (Li)	2018/08/07	NC		%	20

Maxxam Job #: B863796
Report Date: 2018/10/03

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8J0420
Sampler Initials: LH

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9091571	JC8	Matrix Spike	Dissolved Manganese (Mn)	2018/08/07	3.0		%	20
			Dissolved Molybdenum (Mo)	2018/08/07	NC		%	20
			Dissolved Nickel (Ni)	2018/08/07	NC		%	20
			Dissolved Selenium (Se)	2018/08/07	NC		%	20
			Dissolved Silver (Ag)	2018/08/07	NC		%	20
			Dissolved Strontium (Sr)	2018/08/07	1.8		%	20
			Dissolved Thallium (Tl)	2018/08/07	NC		%	20
			Dissolved Tin (Sn)	2018/08/07	NC		%	20
			Dissolved Titanium (Ti)	2018/08/07	NC		%	20
			Dissolved Uranium (U)	2018/08/07	NC		%	20
			Dissolved Vanadium (V)	2018/08/07	NC		%	20
			Dissolved Zinc (Zn)	2018/08/07	NC		%	20
			Total Aluminum (Al)	2018/08/07		123 (1)	%	80 - 120
			Total Antimony (Sb)	2018/08/07		101	%	80 - 120
			Total Arsenic (As)	2018/08/07		107	%	80 - 120
			Total Barium (Ba)	2018/08/07		106	%	80 - 120
			Total Beryllium (Be)	2018/08/07		105	%	80 - 120
			Total Boron (B)	2018/08/07		114	%	80 - 120
			Total Cadmium (Cd)	2018/08/07		103	%	80 - 120
			Total Chromium (Cr)	2018/08/07		98	%	80 - 120
			Total Copper (Cu)	2018/08/07		93	%	80 - 120
			Total Iron (Fe)	2018/08/07		100	%	80 - 120
			Total Lead (Pb)	2018/08/07		107	%	80 - 120
			Total Lithium (Li)	2018/08/07		108	%	80 - 120
			Total Manganese (Mn)	2018/08/07		105	%	80 - 120
			Total Molybdenum (Mo)	2018/08/07		105	%	80 - 120
			Total Nickel (Ni)	2018/08/07		97	%	80 - 120
			Total Selenium (Se)	2018/08/07		103	%	80 - 120
			Total Silver (Ag)	2018/08/07		105	%	80 - 120
			Total Strontium (Sr)	2018/08/07		110	%	80 - 120
			Total Thallium (Tl)	2018/08/07		105	%	80 - 120
			Total Tin (Sn)	2018/08/07		97	%	80 - 120
			Total Titanium (Ti)	2018/08/07		104	%	80 - 120
			Total Uranium (U)	2018/08/07		109	%	80 - 120
			Total Vanadium (V)	2018/08/07		103	%	80 - 120
			Total Zinc (Zn)	2018/08/07		98	%	80 - 120
			Total Calcium (Ca)	2018/08/07		NC	%	80 - 120
			Total Magnesium (Mg)	2018/08/07		100	%	80 - 120
			Total Potassium (K)	2018/08/07		108	%	80 - 120
			Total Sodium (Na)	2018/08/07		102	%	80 - 120
9091571	JC8	Spiked Blank	Total Aluminum (Al)	2018/08/07		107	%	80 - 120
			Total Antimony (Sb)	2018/08/07		101	%	80 - 120
			Total Arsenic (As)	2018/08/07		106	%	80 - 120
			Total Barium (Ba)	2018/08/07		105	%	80 - 120
			Total Beryllium (Be)	2018/08/07		105	%	80 - 120
			Total Boron (B)	2018/08/07		115	%	80 - 120
			Total Cadmium (Cd)	2018/08/07		104	%	80 - 120
			Total Chromium (Cr)	2018/08/07		102	%	80 - 120
			Total Copper (Cu)	2018/08/07		96	%	80 - 120
			Total Iron (Fe)	2018/08/07		104	%	80 - 120
			Total Lead (Pb)	2018/08/07		107	%	80 - 120
			Total Lithium (Li)	2018/08/07		108	%	80 - 120

Maxxam Job #: B863796
Report Date: 2018/10/03

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8J0420
Sampler Initials: LH

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9091571	JC8	Method Blank	Total Manganese (Mn)	2018/08/07		107	%	80 - 120
			Total Molybdenum (Mo)	2018/08/07		106	%	80 - 120
			Total Nickel (Ni)	2018/08/07		99	%	80 - 120
			Total Selenium (Se)	2018/08/07		108	%	80 - 120
			Total Silver (Ag)	2018/08/07		106	%	80 - 120
			Total Strontium (Sr)	2018/08/07		108	%	80 - 120
			Total Thallium (Tl)	2018/08/07		106	%	80 - 120
			Total Tin (Sn)	2018/08/07		102	%	80 - 120
			Total Titanium (Ti)	2018/08/07		109	%	80 - 120
			Total Uranium (U)	2018/08/07		108	%	80 - 120
			Total Vanadium (V)	2018/08/07		105	%	80 - 120
			Total Zinc (Zn)	2018/08/07		101	%	80 - 120
			Total Calcium (Ca)	2018/08/07		111	%	80 - 120
			Total Magnesium (Mg)	2018/08/07		109	%	80 - 120
			Total Potassium (K)	2018/08/07		113	%	80 - 120
			Total Sodium (Na)	2018/08/07		104	%	80 - 120
			Total Aluminum (Al)	2018/08/07	<0.0030		mg/L	
			Total Antimony (Sb)	2018/08/07	<0.00050		mg/L	
			Total Arsenic (As)	2018/08/07	<0.00010		mg/L	
			Total Barium (Ba)	2018/08/07	<0.0010		mg/L	
			Total Beryllium (Be)	2018/08/07	<0.00010		mg/L	
			Total Boron (B)	2018/08/07	<0.050		mg/L	
			Total Cadmium (Cd)	2018/08/07	<0.000010		mg/L	
			Total Chromium (Cr)	2018/08/07	<0.0010		mg/L	
			Total Copper (Cu)	2018/08/07	<0.00050		mg/L	
			Total Iron (Fe)	2018/08/07	<0.010		mg/L	
			Total Lead (Pb)	2018/08/07	<0.00020		mg/L	
			Total Lithium (Li)	2018/08/07	<0.0020		mg/L	
			Total Manganese (Mn)	2018/08/07	<0.0010		mg/L	
			Total Molybdenum (Mo)	2018/08/07	<0.0010		mg/L	
			Total Nickel (Ni)	2018/08/07	<0.0010		mg/L	
			Total Selenium (Se)	2018/08/07	<0.00010		mg/L	
			Total Silver (Ag)	2018/08/07	<0.000020		mg/L	
			Total Strontium (Sr)	2018/08/07	<0.0010		mg/L	
			Total Thallium (Tl)	2018/08/07	<0.000010		mg/L	
			Total Tin (Sn)	2018/08/07	<0.0050		mg/L	
			Total Titanium (Ti)	2018/08/07	<0.0050		mg/L	
			Total Uranium (U)	2018/08/07	<0.00010		mg/L	
			Total Vanadium (V)	2018/08/07	<0.0050		mg/L	
			Total Zinc (Zn)	2018/08/07	<0.0050		mg/L	
			Total Calcium (Ca)	2018/08/07	<0.050		mg/L	
			Total Magnesium (Mg)	2018/08/07	<0.050		mg/L	
			Total Potassium (K)	2018/08/07	<0.050		mg/L	
			Total Sodium (Na)	2018/08/07	<0.050		mg/L	
9091571	JC8	RPD	Total Aluminum (Al)	2018/08/07	12		%	20
			Total Antimony (Sb)	2018/08/07	NC		%	20
			Total Arsenic (As)	2018/08/07	3.7		%	20
			Total Barium (Ba)	2018/08/07	0.27		%	20
			Total Beryllium (Be)	2018/08/07	NC		%	20
			Total Boron (B)	2018/08/07	NC		%	20
			Total Cadmium (Cd)	2018/08/07	0		%	20
			Total Chromium (Cr)	2018/08/07	NC		%	20

Maxxam Job #: B863796
Report Date: 2018/10/03

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8J0420
Sampler Initials: LH

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Total Copper (Cu)	2018/08/07	4.0		%	20
			Total Iron (Fe)	2018/08/07	3.7		%	20
			Total Lead (Pb)	2018/08/07	2.6		%	20
			Total Lithium (Li)	2018/08/07	1.1		%	20
			Total Manganese (Mn)	2018/08/07	5.7		%	20
			Total Molybdenum (Mo)	2018/08/07	NC		%	20
			Total Nickel (Ni)	2018/08/07	NC		%	20
			Total Selenium (Se)	2018/08/07	0.97		%	20
			Total Silver (Ag)	2018/08/07	NC		%	20
			Total Strontium (Sr)	2018/08/07	0.031		%	20
			Total Thallium (Tl)	2018/08/07	NC		%	20
			Total Tin (Sn)	2018/08/07	NC		%	20
			Total Titanium (Ti)	2018/08/07	10		%	20
			Total Uranium (U)	2018/08/07	0.95		%	20
			Total Vanadium (V)	2018/08/07	NC		%	20
			Total Zinc (Zn)	2018/08/07	NC		%	20
			Total Potassium (K)	2018/08/07	3.7		%	20

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference $\leq 2 \times$ RDL).

(1) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.

Maxxam Job #: B863796
Report Date: 2018/10/03

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8J0420
Sampler Initials: LH

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Rob Reinert, B.Sc., Scientific Specialist

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Your P.O. #: B8J0420
Site Location: MELIADINE
Your C.O.C. #: B8J0420-M058-01-01

Attention: Alisha Williamson

Agnico-Eagle
Meliadine
Rankin Inlet, NU
Canada X0C 0G0

Report Date: 2018/12/11
Report #: R2662614
Version: 4 - Revision

CERTIFICATE OF ANALYSIS – REVISED REPORT

MAXXAM JOB #: B863796

Received: 2018/07/31, 08:30

Sample Matrix: Water
Samples Received: 2

Analyses	Date		Date Analyzed	Laboratory Method	Analytical Method
	Quantity	Extracted			
Hardness Total (calculated as CaCO ₃) (1)	1	N/A	2018/08/02	BBY WI-00033	Auto Calc
Hardness Total (calculated as CaCO ₃) (1)	1	N/A	2018/08/08	BBY WI-00033	Auto Calc
Hardness (calculated as CaCO ₃)	1	N/A	2018/08/03	BBY WI-00033	Auto Calc
Hardness (calculated as CaCO ₃)	1	N/A	2018/08/08	BBY WI-00033	Auto Calc
Elements by CRC ICPMS (dissolved)	1	N/A	2018/08/02	BBY7SOP-00002	EPA 6020b R2 m
Elements by CRC ICPMS (dissolved)	1	N/A	2018/08/07	BBY7SOP-00002	EPA 6020b R2 m
Elements by CRC ICPMS (total)	1	2018/08/01	2018/08/02	BBY7SOP-00003 BBY7SOP-00002	EPA 6020b R2 m
Elements by CRC ICPMS (total)	1	2018/08/04	2018/08/07	BBY7SOP-00003 BBY7SOP-00002	EPA 6020b R2 m
Filter and HNO ₃ Preserve for Metals	2	N/A	2018/08/01	BBY7 WI-00004	BCMOE Reqs 08/14

Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Maxxam's profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Maxxam in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.

Maxxam Analytics' liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Maxxam has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Maxxam, unless otherwise agreed in writing. Maxxam is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.

Results relate to samples tested. When sampling is not conducted by Maxxam, results relate to the supplied samples tested.

This Certificate shall not be reproduced except in full, without the written approval of the laboratory.

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

(1) "Total Hardness" was calculated from Total Ca and Mg concentrations and may be biased high (Hardness, or Dissolved Hardness, calculated from Dissolved Ca and Mg, should be

Your P.O. #: B8J0420
Site Location: MELIADINE
Your C.O.C. #: B8J0420-M058-01-01

Attention: Alisha Williamson

Agnico-Eagle
Meliadine
Rankin Inlet, NU
Canada X0C 0G0

Report Date: 2018/12/11
Report #: R2662614
Version: 4 - Revision

CERTIFICATE OF ANALYSIS – REVISED REPORT

MAXXAM JOB #: B863796

Received: 2018/07/31, 08:30

used for compliance if available).

Encryption Key



Jennifer Villocero
Project Manager
11 Dec 2018 13:40:06

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Veronica De Guzman, B.Sc., Project Manager
Email: VDeGuzman@maxxam.ca
Phone# (604) 734 7276

=====

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam Job #: B863796
Report Date: 2018/12/11

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8J0420
Sampler Initials: LH

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		TZ1946		TZ1947		
Sampling Date		2018/07/23 15:00		2018/07/23 12:35		
COC Number		B8J0420-M058-01-01		B8J0420-M058-01-01		
	UNITS	MEL-14	QC Batch	MEL-13	RDL	QC Batch
Calculated Parameters						
Filter and HNO3 Preservation	N/A	FIELD	ONSITE	FIELD	N/A	ONSITE
Dissolved Hardness (CaCO3)	mg/L	462	9090189	23.7	0.50	9086891
Total Hardness (CaCO3)	mg/L	344	9090188	485	0.50	9086968
RDL = Reportable Detection Limit						
N/A = Not Applicable						

Maxxam Job #: B863796
Report Date: 2018/12/11

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8J0420
Sampler Initials: LH

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		TZ1946		TZ1947		
Sampling Date		2018/07/23 15:00		2018/07/23 12:35		
COC Number		B8J0420-M058-01-01		B8J0420-M058-01-01		
	UNITS	MEL-14	QC Batch	MEL-13	RDL	QC Batch
Dissolved Metals by ICPMS						
Dissolved Aluminum (Al)	mg/L	0.0994	9091293	0.0123	0.0030	9087349
Dissolved Antimony (Sb)	mg/L	<0.00050	9091293	<0.00050	0.00050	9087349
Dissolved Arsenic (As)	mg/L	0.00156	9091293	0.00031	0.00010	9087349
Dissolved Barium (Ba)	mg/L	0.114 (1)	9091293	0.0076	0.0010	9087349
Dissolved Beryllium (Be)	mg/L	<0.00010	9091293	<0.00010	0.00010	9087349
Dissolved Boron (B)	mg/L	0.138	9091293	<0.050	0.050	9087349
Dissolved Cadmium (Cd)	mg/L	0.000010	9091293	<0.000010	0.000010	9087349
Dissolved Chromium (Cr)	mg/L	<0.0010	9091293	<0.0010	0.0010	9087349
Dissolved Copper (Cu)	mg/L	0.00117	9091293	0.00062	0.00020	9087349
Dissolved Iron (Fe)	mg/L	<0.0050	9091293	0.0092	0.0050	9087349
Dissolved Lead (Pb)	mg/L	<0.00020	9091293	<0.00020	0.00020	9087349
Dissolved Lithium (Li)	mg/L	0.135 (1)	9091293	<0.0020	0.0020	9087349
Dissolved Manganese (Mn)	mg/L	0.0605	9091293	0.0012	0.0010	9087349
Dissolved Molybdenum (Mo)	mg/L	0.0011	9091293	<0.0010	0.0010	9087349
Dissolved Nickel (Ni)	mg/L	0.0022	9091293	<0.0010	0.0010	9087349
Dissolved Selenium (Se)	mg/L	<0.00010	9091293	<0.00010	0.00010	9087349
Dissolved Silver (Ag)	mg/L	<0.000020	9091293	<0.000020	0.000020	9087349
Dissolved Strontium (Sr)	mg/L	2.38	9091293	0.0490	0.0010	9087349
Dissolved Thallium (Tl)	mg/L	0.000033	9091293	<0.000010	0.000010	9087349
Dissolved Tin (Sn)	mg/L	<0.0050	9091293	<0.0050	0.0050	9087349
Dissolved Titanium (Ti)	mg/L	<0.0050	9091293	<0.0050	0.0050	9087349
Dissolved Uranium (U)	mg/L	0.00012	9091293	<0.00010	0.00010	9087349
Dissolved Vanadium (V)	mg/L	<0.0050	9091293	<0.0050	0.0050	9087349
Dissolved Zinc (Zn)	mg/L	<0.0050	9091293	<0.0050	0.0050	9087349
Dissolved Calcium (Ca)	mg/L	145 (1)	9091293	7.39	0.050	9087349
Dissolved Magnesium (Mg)	mg/L	24.3 (1)	9091293	1.28	0.050	9087349
Dissolved Potassium (K)	mg/L	13.8 (1)	9091293	0.914	0.050	9087349
Dissolved Sodium (Na)	mg/L	124 (1)	9091293	5.22	0.050	9087349
Total Metals by ICPMS						
Total Aluminum (Al)	mg/L	4.39	9091571	6.64	0.0030	9086950
Total Antimony (Sb)	mg/L	<0.00050	9091571	<0.00050	0.00050	9086950
RDL = Reportable Detection Limit						
(1) Dissolved greater than total. Reanalysis yields similar results.						

Maxxam Job #: B863796
Report Date: 2018/12/11

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8J0420
Sampler Initials: LH

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		TZ1946		TZ1947		
Sampling Date		2018/07/23 15:00		2018/07/23 12:35		
COC Number		B8J0420-M058-01-01		B8J0420-M058-01-01		
	UNITS	MEL-14	QC Batch	MEL-13	RDL	QC Batch
Total Arsenic (As)	mg/L	0.00178	9091571	0.00283	0.00010	9086950
Total Barium (Ba)	mg/L	0.0830	9091571	0.126	0.0010	9086950
Total Beryllium (Be)	mg/L	<0.00010	9091571	<0.00010	0.00010	9086950
Total Boron (B)	mg/L	0.094	9091571	0.156	0.050	9086950
Total Cadmium (Cd)	mg/L	0.000020	9091571	0.000028	0.000010	9086950
Total Chromium (Cr)	mg/L	<0.0010	9091571	<0.0010	0.0010	9086950
Total Copper (Cu)	mg/L	0.00207	9091571	0.00281	0.00050	9086950
Total Iron (Fe)	mg/L	0.293	9091571	0.405	0.010	9086950
Total Lead (Pb)	mg/L	<0.00020	9091571	0.00021	0.00020	9086950
Total Lithium (Li)	mg/L	0.0917	9091571	0.145	0.0020	9086950
Total Manganese (Mn)	mg/L	0.190	9091571	0.271	0.0010	9086950
Total Molybdenum (Mo)	mg/L	<0.0010	9091571	0.0013	0.0010	9086950
Total Nickel (Ni)	mg/L	0.0025	9091571	0.0033	0.0010	9086950
Total Selenium (Se)	mg/L	<0.00010	9091571	0.00011	0.00010	9086950
Total Silver (Ag)	mg/L	<0.000020	9091571	<0.000020	0.000020	9086950
Total Strontium (Sr)	mg/L	2.18	9091571	3.80	0.0010	9086950
Total Thallium (Tl)	mg/L	0.000022	9091571	0.000036	0.000010	9086950
Total Tin (Sn)	mg/L	<0.0050	9091571	<0.0050	0.0050	9086950
Total Titanium (Ti)	mg/L	<0.0050	9091571	<0.0050	0.0050	9086950
Total Uranium (U)	mg/L	0.00064	9091571	0.00098	0.00010	9086950
Total Vanadium (V)	mg/L	<0.0050	9091571	<0.0050	0.0050	9086950
Total Zinc (Zn)	mg/L	0.0086	9091571	0.0107	0.0050	9086950
Total Calcium (Ca)	mg/L	109	9091571	152	0.050	9086950
Total Magnesium (Mg)	mg/L	17.6	9091571	25.9	0.050	9086950
Total Potassium (K)	mg/L	9.56	9091571	13.9	0.050	9086950
Total Sodium (Na)	mg/L	85.3	9091571	127	0.050	9086950
RDL = Reportable Detection Limit						

Maxxam Job #: B863796
Report Date: 2018/12/11

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8J0420
Sampler Initials: LH

GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	5.0°C

Revised Report (2018/10/03): Client sample ID changed as per client request, and GPS coordinates included.

Revised Report (2018/12/11): Client sample ID and GPS coordinates for lab ID TZ1946 updated per client request.

Revised Report (2018/12/11): Client sample ID and GPS coordinates for lab ID TZ1947 updated per client request.

Sample TZ1946 [MEL-14] : GPS coordinates: 63°02'15.5" 92°13'06.3"

Sample TZ1947 [MEL-13] : GPS coordinates: 63°01'44.6" 92°09'14.6"

Results relate only to the items tested.

Maxxam Job #: B863796
Report Date: 2018/12/11

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8J0420
Sampler Initials: LH

QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9086950	GS9	Matrix Spike	Total Aluminum (Al)	2018/08/02		105	%	80 - 120
			Total Antimony (Sb)	2018/08/02		106	%	80 - 120
			Total Arsenic (As)	2018/08/02		120	%	80 - 120
			Total Barium (Ba)	2018/08/02		NC	%	80 - 120
			Total Beryllium (Be)	2018/08/02		103	%	80 - 120
			Total Boron (B)	2018/08/02		94	%	80 - 120
			Total Cadmium (Cd)	2018/08/02		98	%	80 - 120
			Total Chromium (Cr)	2018/08/02		97	%	80 - 120
			Total Copper (Cu)	2018/08/02		86	%	80 - 120
			Total Iron (Fe)	2018/08/02		98	%	80 - 120
			Total Lead (Pb)	2018/08/02		101	%	80 - 120
			Total Lithium (Li)	2018/08/02		NC	%	80 - 120
			Total Manganese (Mn)	2018/08/02		97	%	80 - 120
			Total Molybdenum (Mo)	2018/08/02		118	%	80 - 120
			Total Nickel (Ni)	2018/08/02		88	%	80 - 120
			Total Selenium (Se)	2018/08/02		112	%	80 - 120
			Total Silver (Ag)	2018/08/02		97	%	80 - 120
			Total Strontium (Sr)	2018/08/02		NC	%	80 - 120
			Total Thallium (Tl)	2018/08/02		95	%	80 - 120
			Total Tin (Sn)	2018/08/02		105	%	80 - 120
			Total Titanium (Ti)	2018/08/02		106	%	80 - 120
			Total Uranium (U)	2018/08/02		108	%	80 - 120
			Total Vanadium (V)	2018/08/02		105	%	80 - 120
			Total Zinc (Zn)	2018/08/02		86	%	80 - 120
			Total Calcium (Ca)	2018/08/02		NC	%	80 - 120
			Total Magnesium (Mg)	2018/08/02		NC	%	80 - 120
			Total Potassium (K)	2018/08/02		104	%	80 - 120
			Total Sodium (Na)	2018/08/02		NC	%	80 - 120
9086950	GS9	Spiked Blank	Total Aluminum (Al)	2018/08/02		106	%	80 - 120
			Total Antimony (Sb)	2018/08/02		109	%	80 - 120
			Total Arsenic (As)	2018/08/02		112	%	80 - 120
			Total Barium (Ba)	2018/08/02		108	%	80 - 120
			Total Beryllium (Be)	2018/08/02		108	%	80 - 120
			Total Boron (B)	2018/08/02		100	%	80 - 120
			Total Cadmium (Cd)	2018/08/02		106	%	80 - 120
			Total Chromium (Cr)	2018/08/02		106	%	80 - 120
			Total Copper (Cu)	2018/08/02		103	%	80 - 120
			Total Iron (Fe)	2018/08/02		110	%	80 - 120
			Total Lead (Pb)	2018/08/02		106	%	80 - 120
			Total Lithium (Li)	2018/08/02		108	%	80 - 120
			Total Manganese (Mn)	2018/08/02		107	%	80 - 120
			Total Molybdenum (Mo)	2018/08/02		111	%	80 - 120
			Total Nickel (Ni)	2018/08/02		105	%	80 - 120
			Total Selenium (Se)	2018/08/02		109	%	80 - 120
			Total Silver (Ag)	2018/08/02		105	%	80 - 120
			Total Strontium (Sr)	2018/08/02		112	%	80 - 120
			Total Thallium (Tl)	2018/08/02		102	%	80 - 120
			Total Tin (Sn)	2018/08/02		107	%	80 - 120
			Total Titanium (Ti)	2018/08/02		109	%	80 - 120
			Total Uranium (U)	2018/08/02		107	%	80 - 120
			Total Vanadium (V)	2018/08/02		108	%	80 - 120
			Total Zinc (Zn)	2018/08/02		108	%	80 - 120
			Total Calcium (Ca)	2018/08/02		107	%	80 - 120

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Site Location: MELIADINE
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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9086950	GS9	Method Blank	Total Magnesium (Mg)	2018/08/02		108	%	80 - 120
			Total Potassium (K)	2018/08/02		109	%	80 - 120
			Total Sodium (Na)	2018/08/02		105	%	80 - 120
			Total Aluminum (Al)	2018/08/02	<0.0030		mg/L	
			Total Antimony (Sb)	2018/08/02	<0.00050		mg/L	
			Total Arsenic (As)	2018/08/02	<0.00010		mg/L	
			Total Barium (Ba)	2018/08/02	<0.0010		mg/L	
			Total Beryllium (Be)	2018/08/02	<0.00010		mg/L	
			Total Boron (B)	2018/08/02	<0.050		mg/L	
			Total Cadmium (Cd)	2018/08/02	<0.000010		mg/L	
			Total Chromium (Cr)	2018/08/02	<0.0010		mg/L	
			Total Copper (Cu)	2018/08/02	<0.00050		mg/L	
			Total Iron (Fe)	2018/08/02	<0.010		mg/L	
			Total Lead (Pb)	2018/08/02	<0.00020		mg/L	
			Total Lithium (Li)	2018/08/02	<0.0020		mg/L	
			Total Manganese (Mn)	2018/08/02	<0.0010		mg/L	
			Total Molybdenum (Mo)	2018/08/02	<0.0010		mg/L	
			Total Nickel (Ni)	2018/08/02	<0.0010		mg/L	
			Total Selenium (Se)	2018/08/02	<0.00010		mg/L	
			Total Silver (Ag)	2018/08/02	<0.000020		mg/L	
			Total Strontium (Sr)	2018/08/02	<0.0010		mg/L	
			Total Thallium (Tl)	2018/08/02	<0.000010		mg/L	
			Total Tin (Sn)	2018/08/02	<0.0050		mg/L	
			Total Titanium (Ti)	2018/08/02	<0.0050		mg/L	
			Total Uranium (U)	2018/08/02	<0.00010		mg/L	
			Total Vanadium (V)	2018/08/02	<0.0050		mg/L	
			Total Zinc (Zn)	2018/08/02	<0.0050		mg/L	
			Total Calcium (Ca)	2018/08/02	<0.050		mg/L	
			Total Magnesium (Mg)	2018/08/02	<0.050		mg/L	
			Total Potassium (K)	2018/08/02	<0.050		mg/L	
			Total Sodium (Na)	2018/08/02	<0.050		mg/L	
9086950	GS9	RPD	Total Aluminum (Al)	2018/08/02	1.6		%	20
			Total Antimony (Sb)	2018/08/02	NC		%	20
			Total Arsenic (As)	2018/08/02	4.4		%	20
			Total Barium (Ba)	2018/08/02	1.1		%	20
			Total Beryllium (Be)	2018/08/02	NC		%	20
			Total Boron (B)	2018/08/02	3.0		%	20
			Total Cadmium (Cd)	2018/08/02	0.89		%	20
			Total Chromium (Cr)	2018/08/02	NC		%	20
			Total Copper (Cu)	2018/08/02	3.1		%	20
			Total Iron (Fe)	2018/08/02	5.9		%	20
			Total Lead (Pb)	2018/08/02	NC		%	20
			Total Lithium (Li)	2018/08/02	1.4		%	20
			Total Manganese (Mn)	2018/08/02	4.1		%	20
			Total Molybdenum (Mo)	2018/08/02	4.3		%	20
			Total Nickel (Ni)	2018/08/02	5.3		%	20
			Total Selenium (Se)	2018/08/02	2.3		%	20
			Total Silver (Ag)	2018/08/02	NC		%	20
			Total Strontium (Sr)	2018/08/02	3.4		%	20
			Total Thallium (Tl)	2018/08/02	0.52		%	20
			Total Tin (Sn)	2018/08/02	NC		%	20
			Total Titanium (Ti)	2018/08/02	NC		%	20
			Total Uranium (U)	2018/08/02	2.0		%	20

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9087349	AA1	Matrix Spike	Total Vanadium (V)	2018/08/02	NC		%	20
			Total Zinc (Zn)	2018/08/02	NC		%	20
			Dissolved Aluminum (Al)	2018/08/02		101	%	80 - 120
			Dissolved Antimony (Sb)	2018/08/02		98	%	80 - 120
			Dissolved Arsenic (As)	2018/08/02		103	%	80 - 120
			Dissolved Barium (Ba)	2018/08/02		NC	%	80 - 120
			Dissolved Beryllium (Be)	2018/08/02		97	%	80 - 120
			Dissolved Boron (B)	2018/08/02		98	%	80 - 120
			Dissolved Cadmium (Cd)	2018/08/02		98	%	80 - 120
			Dissolved Chromium (Cr)	2018/08/02		95	%	80 - 120
			Dissolved Copper (Cu)	2018/08/02		89	%	80 - 120
			Dissolved Iron (Fe)	2018/08/02		96	%	80 - 120
			Dissolved Lead (Pb)	2018/08/02		95	%	80 - 120
			Dissolved Lithium (Li)	2018/08/02		96	%	80 - 120
			Dissolved Manganese (Mn)	2018/08/02		93	%	80 - 120
			Dissolved Molybdenum (Mo)	2018/08/02		NC	%	80 - 120
			Dissolved Nickel (Ni)	2018/08/02		92	%	80 - 120
			Dissolved Selenium (Se)	2018/08/02		97	%	80 - 120
			Dissolved Silver (Ag)	2018/08/02		95	%	80 - 120
			Dissolved Strontium (Sr)	2018/08/02		NC	%	80 - 120
			Dissolved Thallium (Tl)	2018/08/02		94	%	80 - 120
			Dissolved Tin (Sn)	2018/08/02		99	%	80 - 120
			Dissolved Titanium (Ti)	2018/08/02		99	%	80 - 120
			Dissolved Uranium (U)	2018/08/02		102	%	80 - 120
			Dissolved Vanadium (V)	2018/08/02		98	%	80 - 120
			Dissolved Zinc (Zn)	2018/08/02		92	%	80 - 120
			Dissolved Calcium (Ca)	2018/08/02		NC	%	80 - 120
			Dissolved Magnesium (Mg)	2018/08/02		NC	%	80 - 120
			Dissolved Potassium (K)	2018/08/02		NC	%	80 - 120
			Dissolved Sodium (Na)	2018/08/02		NC	%	80 - 120
9087349	AA1	Spiked Blank	Dissolved Aluminum (Al)	2018/08/02		103	%	80 - 120
			Dissolved Antimony (Sb)	2018/08/02		100	%	80 - 120
			Dissolved Arsenic (As)	2018/08/02		103	%	80 - 120
			Dissolved Barium (Ba)	2018/08/02		99	%	80 - 120
			Dissolved Beryllium (Be)	2018/08/02		100	%	80 - 120
			Dissolved Boron (B)	2018/08/02		102	%	80 - 120
			Dissolved Cadmium (Cd)	2018/08/02		102	%	80 - 120
			Dissolved Chromium (Cr)	2018/08/02		98	%	80 - 120
			Dissolved Copper (Cu)	2018/08/02		96	%	80 - 120
			Dissolved Iron (Fe)	2018/08/02		101	%	80 - 120
			Dissolved Lead (Pb)	2018/08/02		101	%	80 - 120
			Dissolved Lithium (Li)	2018/08/02		103	%	80 - 120
			Dissolved Manganese (Mn)	2018/08/02		100	%	80 - 120
			Dissolved Molybdenum (Mo)	2018/08/02		101	%	80 - 120
			Dissolved Nickel (Ni)	2018/08/02		98	%	80 - 120
			Dissolved Selenium (Se)	2018/08/02		100	%	80 - 120
			Dissolved Silver (Ag)	2018/08/02		100	%	80 - 120
			Dissolved Strontium (Sr)	2018/08/02		103	%	80 - 120
			Dissolved Thallium (Tl)	2018/08/02		100	%	80 - 120
			Dissolved Tin (Sn)	2018/08/02		101	%	80 - 120
			Dissolved Titanium (Ti)	2018/08/02		102	%	80 - 120
			Dissolved Uranium (U)	2018/08/02		101	%	80 - 120
			Dissolved Vanadium (V)	2018/08/02		100	%	80 - 120

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9087349	AA1	Method Blank	Dissolved Zinc (Zn)	2018/08/02		99	%	80 - 120
			Dissolved Calcium (Ca)	2018/08/02		101	%	80 - 120
			Dissolved Magnesium (Mg)	2018/08/02		102	%	80 - 120
			Dissolved Potassium (K)	2018/08/02		103	%	80 - 120
			Dissolved Sodium (Na)	2018/08/02		101	%	80 - 120
			Dissolved Aluminum (Al)	2018/08/02	<0.0030		mg/L	
			Dissolved Antimony (Sb)	2018/08/02	<0.00050		mg/L	
			Dissolved Arsenic (As)	2018/08/02	<0.00010		mg/L	
			Dissolved Barium (Ba)	2018/08/02	<0.0010		mg/L	
			Dissolved Beryllium (Be)	2018/08/02	<0.00010		mg/L	
			Dissolved Boron (B)	2018/08/02	<0.050		mg/L	
			Dissolved Cadmium (Cd)	2018/08/02	<0.000010		mg/L	
			Dissolved Chromium (Cr)	2018/08/02	<0.0010		mg/L	
			Dissolved Copper (Cu)	2018/08/02	<0.00020		mg/L	
			Dissolved Iron (Fe)	2018/08/02	<0.0050		mg/L	
			Dissolved Lead (Pb)	2018/08/02	<0.00020		mg/L	
			Dissolved Lithium (Li)	2018/08/02	<0.0020		mg/L	
			Dissolved Manganese (Mn)	2018/08/02	<0.0010		mg/L	
			Dissolved Molybdenum (Mo)	2018/08/02	<0.0010		mg/L	
			Dissolved Nickel (Ni)	2018/08/02	<0.0010		mg/L	
			Dissolved Selenium (Se)	2018/08/02	<0.00010		mg/L	
			Dissolved Silver (Ag)	2018/08/02	<0.000020		mg/L	
			Dissolved Strontium (Sr)	2018/08/02	<0.0010		mg/L	
			Dissolved Thallium (Tl)	2018/08/02	<0.000010		mg/L	
			Dissolved Tin (Sn)	2018/08/02	<0.0050		mg/L	
			Dissolved Titanium (Ti)	2018/08/02	<0.0050		mg/L	
			Dissolved Uranium (U)	2018/08/02	<0.00010		mg/L	
			Dissolved Vanadium (V)	2018/08/02	<0.0050		mg/L	
			Dissolved Zinc (Zn)	2018/08/02	<0.0050		mg/L	
			Dissolved Calcium (Ca)	2018/08/02	<0.050		mg/L	
			Dissolved Magnesium (Mg)	2018/08/02	<0.050		mg/L	
			Dissolved Potassium (K)	2018/08/02	<0.050		mg/L	
			Dissolved Sodium (Na)	2018/08/02	<0.050		mg/L	
9087349	AA1	RPD	Dissolved Aluminum (Al)	2018/08/02	2.8		%	20
			Dissolved Antimony (Sb)	2018/08/02	2.6		%	20
			Dissolved Arsenic (As)	2018/08/02	1.0		%	20
			Dissolved Barium (Ba)	2018/08/02	3.2		%	20
			Dissolved Beryllium (Be)	2018/08/02	NC		%	20
			Dissolved Boron (B)	2018/08/02	5.4		%	20
			Dissolved Cadmium (Cd)	2018/08/02	15		%	20
			Dissolved Chromium (Cr)	2018/08/02	1.8		%	20
			Dissolved Copper (Cu)	2018/08/02	4.6		%	20
			Dissolved Iron (Fe)	2018/08/02	NC		%	20
			Dissolved Lead (Pb)	2018/08/02	NC		%	20
			Dissolved Lithium (Li)	2018/08/02	2.7		%	20
			Dissolved Manganese (Mn)	2018/08/02	4.8		%	20
			Dissolved Molybdenum (Mo)	2018/08/02	3.4		%	20
			Dissolved Nickel (Ni)	2018/08/02	4.0		%	20
			Dissolved Selenium (Se)	2018/08/02	3.6		%	20
			Dissolved Silver (Ag)	2018/08/02	NC		%	20
			Dissolved Strontium (Sr)	2018/08/02	2.6		%	20
			Dissolved Thallium (Tl)	2018/08/02	4.6		%	20
			Dissolved Tin (Sn)	2018/08/02	NC		%	20

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9091293	JC8	Matrix Spike	Dissolved Titanium (Ti)	2018/08/02	NC		%	20
			Dissolved Uranium (U)	2018/08/02	2.7		%	20
			Dissolved Vanadium (V)	2018/08/02	NC		%	20
			Dissolved Zinc (Zn)	2018/08/02	NC		%	20
			Dissolved Aluminum (Al)	2018/08/07		101	%	80 - 120
			Dissolved Antimony (Sb)	2018/08/07		102	%	80 - 120
			Dissolved Arsenic (As)	2018/08/07		110	%	80 - 120
			Dissolved Barium (Ba)	2018/08/07		105	%	80 - 120
			Dissolved Beryllium (Be)	2018/08/07		103	%	80 - 120
			Dissolved Boron (B)	2018/08/07		109	%	80 - 120
			Dissolved Cadmium (Cd)	2018/08/07		102	%	80 - 120
			Dissolved Chromium (Cr)	2018/08/07		97	%	80 - 120
			Dissolved Copper (Cu)	2018/08/07		92	%	80 - 120
			Dissolved Iron (Fe)	2018/08/07		104	%	80 - 120
			Dissolved Lead (Pb)	2018/08/07		103	%	80 - 120
			Dissolved Lithium (Li)	2018/08/07		105	%	80 - 120
			Dissolved Manganese (Mn)	2018/08/07		102	%	80 - 120
			Dissolved Molybdenum (Mo)	2018/08/07		104	%	80 - 120
			Dissolved Nickel (Ni)	2018/08/07		95	%	80 - 120
			Dissolved Selenium (Se)	2018/08/07		104	%	80 - 120
			Dissolved Silver (Ag)	2018/08/07		102	%	80 - 120
			Dissolved Strontium (Sr)	2018/08/07		NC	%	80 - 120
			Dissolved Thallium (Tl)	2018/08/07		100	%	80 - 120
			Dissolved Tin (Sn)	2018/08/07		101	%	80 - 120
			Dissolved Titanium (Ti)	2018/08/07		107	%	80 - 120
			Dissolved Uranium (U)	2018/08/07		106	%	80 - 120
			Dissolved Vanadium (V)	2018/08/07		100	%	80 - 120
			Dissolved Zinc (Zn)	2018/08/07		97	%	80 - 120
			Dissolved Calcium (Ca)	2018/08/07		NC	%	80 - 120
			Dissolved Magnesium (Mg)	2018/08/07		103	%	80 - 120
			Dissolved Potassium (K)	2018/08/07		106	%	80 - 120
			Dissolved Sodium (Na)	2018/08/07		NC	%	80 - 120
9091293	JC8	Spiked Blank	Dissolved Aluminum (Al)	2018/08/07		104	%	80 - 120
			Dissolved Antimony (Sb)	2018/08/07		95	%	80 - 120
			Dissolved Arsenic (As)	2018/08/07		102	%	80 - 120
			Dissolved Barium (Ba)	2018/08/07		96	%	80 - 120
			Dissolved Beryllium (Be)	2018/08/07		101	%	80 - 120
			Dissolved Boron (B)	2018/08/07		108	%	80 - 120
			Dissolved Cadmium (Cd)	2018/08/07		97	%	80 - 120
			Dissolved Chromium (Cr)	2018/08/07		94	%	80 - 120
			Dissolved Copper (Cu)	2018/08/07		90	%	80 - 120
			Dissolved Iron (Fe)	2018/08/07		103	%	80 - 120
			Dissolved Lead (Pb)	2018/08/07		99	%	80 - 120
			Dissolved Lithium (Li)	2018/08/07		102	%	80 - 120
			Dissolved Manganese (Mn)	2018/08/07		100	%	80 - 120
			Dissolved Molybdenum (Mo)	2018/08/07		102	%	80 - 120
			Dissolved Nickel (Ni)	2018/08/07		92	%	80 - 120
			Dissolved Selenium (Se)	2018/08/07		101	%	80 - 120
			Dissolved Silver (Ag)	2018/08/07		100	%	80 - 120
			Dissolved Strontium (Sr)	2018/08/07		103	%	80 - 120
			Dissolved Thallium (Tl)	2018/08/07		97	%	80 - 120
			Dissolved Tin (Sn)	2018/08/07		96	%	80 - 120
			Dissolved Titanium (Ti)	2018/08/07		100	%	80 - 120

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Agnico-Eagle
Site Location: MELIADINE
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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9091293	JC8	Method Blank	Dissolved Uranium (U)	2018/08/07		101	%	80 - 120
			Dissolved Vanadium (V)	2018/08/07		97	%	80 - 120
			Dissolved Zinc (Zn)	2018/08/07		95	%	80 - 120
			Dissolved Calcium (Ca)	2018/08/07		105	%	80 - 120
			Dissolved Magnesium (Mg)	2018/08/07		97	%	80 - 120
			Dissolved Potassium (K)	2018/08/07		103	%	80 - 120
			Dissolved Sodium (Na)	2018/08/07		97	%	80 - 120
			Dissolved Aluminum (Al)	2018/08/07	<0.0030		mg/L	
			Dissolved Antimony (Sb)	2018/08/07	<0.00050		mg/L	
			Dissolved Arsenic (As)	2018/08/07	<0.00010		mg/L	
			Dissolved Barium (Ba)	2018/08/07	<0.0010		mg/L	
			Dissolved Beryllium (Be)	2018/08/07	<0.00010		mg/L	
			Dissolved Boron (B)	2018/08/07	<0.050		mg/L	
			Dissolved Cadmium (Cd)	2018/08/07	<0.000010		mg/L	
			Dissolved Chromium (Cr)	2018/08/07	<0.0010		mg/L	
			Dissolved Copper (Cu)	2018/08/07	<0.00020		mg/L	
			Dissolved Iron (Fe)	2018/08/07	<0.0050		mg/L	
			Dissolved Lead (Pb)	2018/08/07	<0.00020		mg/L	
			Dissolved Lithium (Li)	2018/08/07	<0.0020		mg/L	
			Dissolved Manganese (Mn)	2018/08/07	<0.0010		mg/L	
			Dissolved Molybdenum (Mo)	2018/08/07	<0.0010		mg/L	
			Dissolved Nickel (Ni)	2018/08/07	<0.0010		mg/L	
			Dissolved Selenium (Se)	2018/08/07	<0.00010		mg/L	
			Dissolved Silver (Ag)	2018/08/07	<0.000020		mg/L	
			Dissolved Strontium (Sr)	2018/08/07	<0.0010		mg/L	
			Dissolved Thallium (Tl)	2018/08/07	<0.000010		mg/L	
			Dissolved Tin (Sn)	2018/08/07	<0.0050		mg/L	
			Dissolved Titanium (Ti)	2018/08/07	<0.0050		mg/L	
			Dissolved Uranium (U)	2018/08/07	<0.00010		mg/L	
			Dissolved Vanadium (V)	2018/08/07	<0.0050		mg/L	
			Dissolved Zinc (Zn)	2018/08/07	<0.0050		mg/L	
			Dissolved Calcium (Ca)	2018/08/07	<0.050		mg/L	
			Dissolved Magnesium (Mg)	2018/08/07	<0.050		mg/L	
			Dissolved Potassium (K)	2018/08/07	<0.050		mg/L	
			Dissolved Sodium (Na)	2018/08/07	<0.050		mg/L	
9091293	JC8	RPD	Dissolved Aluminum (Al)	2018/08/07	5.9		%	20
			Dissolved Antimony (Sb)	2018/08/07	NC		%	20
			Dissolved Arsenic (As)	2018/08/07	14		%	20
			Dissolved Barium (Ba)	2018/08/07	2.0		%	20
			Dissolved Beryllium (Be)	2018/08/07	NC		%	20
			Dissolved Boron (B)	2018/08/07	2.2		%	20
			Dissolved Cadmium (Cd)	2018/08/07	NC		%	20
			Dissolved Chromium (Cr)	2018/08/07	NC		%	20
			Dissolved Copper (Cu)	2018/08/07	9.6		%	20
			Dissolved Iron (Fe)	2018/08/07	5.3		%	20
			Dissolved Lead (Pb)	2018/08/07	NC		%	20
			Dissolved Lithium (Li)	2018/08/07	NC		%	20
			Dissolved Manganese (Mn)	2018/08/07	3.0		%	20
			Dissolved Molybdenum (Mo)	2018/08/07	NC		%	20
			Dissolved Nickel (Ni)	2018/08/07	NC		%	20
			Dissolved Selenium (Se)	2018/08/07	NC		%	20
			Dissolved Silver (Ag)	2018/08/07	NC		%	20
			Dissolved Strontium (Sr)	2018/08/07	1.8		%	20

Maxxam Job #: B863796
Report Date: 2018/12/11

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8J0420
Sampler Initials: LH

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9091571	JC8	Matrix Spike	Dissolved Thallium (Tl)	2018/08/07	NC		%	20
			Dissolved Tin (Sn)	2018/08/07	NC		%	20
			Dissolved Titanium (Ti)	2018/08/07	NC		%	20
			Dissolved Uranium (U)	2018/08/07	NC		%	20
			Dissolved Vanadium (V)	2018/08/07	NC		%	20
			Dissolved Zinc (Zn)	2018/08/07	NC		%	20
			Total Aluminum (Al)	2018/08/07		123 (1)	%	80 - 120
			Total Antimony (Sb)	2018/08/07		101	%	80 - 120
			Total Arsenic (As)	2018/08/07		107	%	80 - 120
			Total Barium (Ba)	2018/08/07		106	%	80 - 120
			Total Beryllium (Be)	2018/08/07		105	%	80 - 120
			Total Boron (B)	2018/08/07		114	%	80 - 120
			Total Cadmium (Cd)	2018/08/07		103	%	80 - 120
			Total Chromium (Cr)	2018/08/07		98	%	80 - 120
			Total Copper (Cu)	2018/08/07		93	%	80 - 120
			Total Iron (Fe)	2018/08/07		100	%	80 - 120
			Total Lead (Pb)	2018/08/07		107	%	80 - 120
			Total Lithium (Li)	2018/08/07		108	%	80 - 120
			Total Manganese (Mn)	2018/08/07		105	%	80 - 120
			Total Molybdenum (Mo)	2018/08/07		105	%	80 - 120
			Total Nickel (Ni)	2018/08/07		97	%	80 - 120
			Total Selenium (Se)	2018/08/07		103	%	80 - 120
			Total Silver (Ag)	2018/08/07		105	%	80 - 120
			Total Strontium (Sr)	2018/08/07		110	%	80 - 120
			Total Thallium (Tl)	2018/08/07		105	%	80 - 120
			Total Tin (Sn)	2018/08/07		97	%	80 - 120
			Total Titanium (Ti)	2018/08/07		104	%	80 - 120
			Total Uranium (U)	2018/08/07		109	%	80 - 120
			Total Vanadium (V)	2018/08/07		103	%	80 - 120
			Total Zinc (Zn)	2018/08/07		98	%	80 - 120
			Total Calcium (Ca)	2018/08/07		NC	%	80 - 120
			Total Magnesium (Mg)	2018/08/07		100	%	80 - 120
			Total Potassium (K)	2018/08/07		108	%	80 - 120
			Total Sodium (Na)	2018/08/07		102	%	80 - 120
9091571	JC8	Spiked Blank	Total Aluminum (Al)	2018/08/07		107	%	80 - 120
			Total Antimony (Sb)	2018/08/07		101	%	80 - 120
			Total Arsenic (As)	2018/08/07		106	%	80 - 120
			Total Barium (Ba)	2018/08/07		105	%	80 - 120
			Total Beryllium (Be)	2018/08/07		105	%	80 - 120
			Total Boron (B)	2018/08/07		115	%	80 - 120
			Total Cadmium (Cd)	2018/08/07		104	%	80 - 120
			Total Chromium (Cr)	2018/08/07		102	%	80 - 120
			Total Copper (Cu)	2018/08/07		96	%	80 - 120
			Total Iron (Fe)	2018/08/07		104	%	80 - 120
			Total Lead (Pb)	2018/08/07		107	%	80 - 120
			Total Lithium (Li)	2018/08/07		108	%	80 - 120
			Total Manganese (Mn)	2018/08/07		107	%	80 - 120
			Total Molybdenum (Mo)	2018/08/07		106	%	80 - 120
			Total Nickel (Ni)	2018/08/07		99	%	80 - 120
			Total Selenium (Se)	2018/08/07		108	%	80 - 120
			Total Silver (Ag)	2018/08/07		106	%	80 - 120
			Total Strontium (Sr)	2018/08/07		108	%	80 - 120
			Total Thallium (Tl)	2018/08/07		106	%	80 - 120

Maxxam Job #: B863796
Report Date: 2018/12/11

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8J0420
Sampler Initials: LH

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9091571	JC8	Method Blank	Total Tin (Sn)	2018/08/07		102	%	80 - 120
			Total Titanium (Ti)	2018/08/07		109	%	80 - 120
			Total Uranium (U)	2018/08/07		108	%	80 - 120
			Total Vanadium (V)	2018/08/07		105	%	80 - 120
			Total Zinc (Zn)	2018/08/07		101	%	80 - 120
			Total Calcium (Ca)	2018/08/07		111	%	80 - 120
			Total Magnesium (Mg)	2018/08/07		109	%	80 - 120
			Total Potassium (K)	2018/08/07		113	%	80 - 120
			Total Sodium (Na)	2018/08/07		104	%	80 - 120
			Total Aluminum (Al)	2018/08/07	<0.0030		mg/L	
			Total Antimony (Sb)	2018/08/07	<0.00050		mg/L	
			Total Arsenic (As)	2018/08/07	<0.00010		mg/L	
			Total Barium (Ba)	2018/08/07	<0.0010		mg/L	
			Total Beryllium (Be)	2018/08/07	<0.00010		mg/L	
			Total Boron (B)	2018/08/07	<0.050		mg/L	
			Total Cadmium (Cd)	2018/08/07	<0.000010		mg/L	
			Total Chromium (Cr)	2018/08/07	<0.0010		mg/L	
			Total Copper (Cu)	2018/08/07	<0.00050		mg/L	
			Total Iron (Fe)	2018/08/07	<0.010		mg/L	
			Total Lead (Pb)	2018/08/07	<0.00020		mg/L	
			Total Lithium (Li)	2018/08/07	<0.0020		mg/L	
			Total Manganese (Mn)	2018/08/07	<0.0010		mg/L	
			Total Molybdenum (Mo)	2018/08/07	<0.0010		mg/L	
			Total Nickel (Ni)	2018/08/07	<0.0010		mg/L	
			Total Selenium (Se)	2018/08/07	<0.00010		mg/L	
			Total Silver (Ag)	2018/08/07	<0.000020		mg/L	
			Total Strontium (Sr)	2018/08/07	<0.0010		mg/L	
			Total Thallium (Tl)	2018/08/07	<0.000010		mg/L	
			Total Tin (Sn)	2018/08/07	<0.0050		mg/L	
			Total Titanium (Ti)	2018/08/07	<0.0050		mg/L	
			Total Uranium (U)	2018/08/07	<0.00010		mg/L	
			Total Vanadium (V)	2018/08/07	<0.0050		mg/L	
			Total Zinc (Zn)	2018/08/07	<0.0050		mg/L	
			Total Calcium (Ca)	2018/08/07	<0.050		mg/L	
			Total Magnesium (Mg)	2018/08/07	<0.050		mg/L	
			Total Potassium (K)	2018/08/07	<0.050		mg/L	
			Total Sodium (Na)	2018/08/07	<0.050		mg/L	
9091571	JC8	RPD	Total Aluminum (Al)	2018/08/07	12		%	20
			Total Antimony (Sb)	2018/08/07	NC		%	20
			Total Arsenic (As)	2018/08/07	3.7		%	20
			Total Barium (Ba)	2018/08/07	0.27		%	20
			Total Beryllium (Be)	2018/08/07	NC		%	20
			Total Boron (B)	2018/08/07	NC		%	20
			Total Cadmium (Cd)	2018/08/07	0		%	20
			Total Chromium (Cr)	2018/08/07	NC		%	20
			Total Copper (Cu)	2018/08/07	4.0		%	20
			Total Iron (Fe)	2018/08/07	3.7		%	20
			Total Lead (Pb)	2018/08/07	2.6		%	20
			Total Lithium (Li)	2018/08/07	1.1		%	20
			Total Manganese (Mn)	2018/08/07	5.7		%	20
			Total Molybdenum (Mo)	2018/08/07	NC		%	20
			Total Nickel (Ni)	2018/08/07	NC		%	20
			Total Selenium (Se)	2018/08/07	0.97		%	20

Maxxam Job #: B863796
Report Date: 2018/12/11

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8J0420
Sampler Initials: LH

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Total Silver (Ag)	2018/08/07	NC		%	20
			Total Strontium (Sr)	2018/08/07	0.031		%	20
			Total Thallium (Tl)	2018/08/07	NC		%	20
			Total Tin (Sn)	2018/08/07	NC		%	20
			Total Titanium (Ti)	2018/08/07	10		%	20
			Total Uranium (U)	2018/08/07	0.95		%	20
			Total Vanadium (V)	2018/08/07	NC		%	20
			Total Zinc (Zn)	2018/08/07	NC		%	20
			Total Potassium (K)	2018/08/07	3.7		%	20
Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement. Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference. Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy. Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination. NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration) NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference $\leq 2 \times \text{RDL}$). (1) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.								

Maxxam Job #: B863796
Report Date: 2018/12/11

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8J0420
Sampler Initials: LH

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Rob Reinert, B.Sc., Scientific Spécialist

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Your P.O. #: B8J0420
Site Location: MELIADINE
Your C.O.C. #: B8J0420-M060-01-01

Attention: Alisha Williamson

Agnico-Eagle
Meliadine
Rankin Inlet, NU
Canada X0C 0G0

Report Date: 2018/12/12
Report #: R2663041
Version: 3 - Revision

CERTIFICATE OF ANALYSIS – REVISED REPORT

MAXXAM JOB #: B863518
Received: 2018/07/31, 08:48

Sample Matrix: Water
Samples Received: 2

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Silica (Reactive)	2	N/A	2018/08/04	AB SOP-00011	EPA 370.1 R1978 m

Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Maxxam's profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Maxxam in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.

Maxxam Analytics' liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Maxxam has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Maxxam, unless otherwise agreed in writing. Maxxam is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.

Results relate to samples tested. When sampling is not conducted by Maxxam, results relate to the supplied samples tested.

This Certificate shall not be reproduced except in full, without the written approval of the laboratory.

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key



Omran Desouki
Junior Project Manager
12 Dec 2018 12:12:50

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Omran Desouki, Junior Project Manager

Email: ODesouki@maxxam.ca

Phone# (403) 291-3077

=====

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam Job #: B863518
Report Date: 2018/12/12

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8J0420
Sampler Initials: LH

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		TZ0467		TZ0468		
Sampling Date		2018/07/23 15:00		2018/07/23 12:35		
COC Number		B8J0420-M060-01-01		B8J0420-M060-01-01		
	UNITS	MEL-14	QC Batch	MEL-13	RDL	QC Batch
Misc. Inorganics						
Reactive Silica	mg/L	0.21	9091570	0.39	0.050	9091565
RDL = Reportable Detection Limit						

Maxxam Job #: B863518
Report Date: 2018/12/12

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8J0420
Sampler Initials: LH

TEST SUMMARY

Maxxam ID: TZ0467
Sample ID: MEL-14
Matrix: Water

Collected: 2018/07/23
Shipped: 2018/07/30
Received: 2018/07/31

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Silica (Reactive)	KONE/SL	9091570	N/A	2018/08/04	YuLun (steven) Qiu

Maxxam ID: TZ0468
Sample ID: MEL-13
Matrix: Water

Collected: 2018/07/23
Shipped: 2018/07/30
Received: 2018/07/31

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Silica (Reactive)	KONE/SL	9091565	N/A	2018/08/04	YuLun (steven) Qiu

Maxxam Job #: B863518
Report Date: 2018/12/12

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8J0420
Sampler Initials: LH

GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	3.7°C

Revised Report (2018/12/12): Client sample ID and GPS coordinates updated per client request.

GPS coordinates: 63°02'15.5" 92°13'06.3" (MEL-14)

GPS coordinates: 63°01'44.6" 92°09'14.6" (MEL-13)

Report Re-issued with updated sample ID and GPS Coordinates 2018/09/04

Results relate only to the items tested.

Maxxam Job #: B863518
Report Date: 2018/12/12

QUALITY ASSURANCE REPORT

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8J0420
Sampler Initials: LH

QC Batch	Parameter	Date	Matrix Spike		Spiked Blank		Method Blank		RPD	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9091565	Reactive Silica	2018/08/04	98	80 - 120	103	80 - 120	<0.050	mg/L	0.90	20
9091570	Reactive Silica	2018/08/04	99	80 - 120	102	80 - 120	<0.050	mg/L	0.96	20

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Maxxam Job #: B863518
Report Date: 2018/12/12

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8J0420
Sampler Initials: LH

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Harry (Peng) Liang, Senior Analyst

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Your P.O. #: OL-664695
Site#: 63°02'15.5" 92°13'06.3"
Site Location: MELIADINE
Your C.O.C. #: n/a

Attention: Reporting

Agnico-Eagle
Meliadine Mine
Rankin Inlet, NU
CANADA X0C 0G0

Report Date: 2018/12/19
Report #: R5532386
Version: 5 - Revision

CERTIFICATE OF ANALYSIS – REVISED REPORT

MAXXAM JOB #: B8L7292

Received: 2018/08/22, 14:00

Sample Matrix: Water
Samples Received: 7

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Alkalinity (1)	2	N/A	2018/08/27	CAM SOP-00448	SM 23 2320 B m
Alkalinity (1)	5	N/A	2018/08/28	CAM SOP-00448	SM 23 2320 B m
Carbonate, Bicarbonate and Hydroxide (1)	7	N/A	2018/08/28	CAM SOP-00102	APHA 4500-CO2 D
Chloride by Automated Colourimetry (1)	7	N/A	2018/08/24	CAM SOP-00463	EPA 325.2 m
Conductivity (1)	2	N/A	2018/08/27	CAM SOP-00414	SM 23 2510 m
Conductivity (1)	5	N/A	2018/08/28	CAM SOP-00414	SM 23 2510 m
Free (WAD) Cyanide (1)	7	N/A	2018/08/27	CAM SOP-00457	OMOE E3015 m
Total Cyanide (1)	7	2018/08/24	2018/08/27	CAM SOP-00457	OMOE E3015 5 m
Dissolved Organic Carbon (DOC) (1, 4)	7	N/A	2018/08/24	CAM SOP-00446	SM 23 5310 B m
Petroleum Hydro. CCME F1 & BTEX in Water (1)	5	N/A	2018/08/25	CAM SOP-00315	CCME PHC-CWS m
Petroleum Hydrocarbons F2-F4 in Water (1, 5)	2	2018/08/24	2018/08/24	CAM SOP-00316	CCME PHC-CWS m
Petroleum Hydrocarbons F2-F4 in Water (1, 5)	3	2018/08/24	2018/08/25	CAM SOP-00316	CCME PHC-CWS m
Dissolved Mercury (low level) (1)	5	2018/08/27	2018/08/27	CAM SOP-00453	EPA 7470 m
Mercury (low level) (1)	7	2018/08/27	2018/08/27	CAM SOP-00453	EPA 7470 m
Total Ammonia-N (1)	7	N/A	2018/08/27	CAM SOP-00441	EPA GS I-2522-90 m
Nitrate (NO3) and Nitrite (NO2) in Water (1, 6)	7	N/A	2018/08/24	CAM SOP-00440	SM 23 4500-NO3I/NO2B
Total Oil and Grease (1)	5	2018/08/25	2018/08/25	CAM SOP-00326	EPA1664B m, SM5520A m
pH (1)	2	N/A	2018/08/27	CAM SOP-00413	SM 4500H+ B m
pH (1)	5	N/A	2018/08/28	CAM SOP-00413	SM 4500H+ B m
Orthophosphate (1)	7	N/A	2018/08/24	CAM SOP-00461	EPA 365.1 m
Radium-226 Low Level (2, 7)	4	N/A	2018/09/01	BQL SOP-00006 BQL SOP-00017 BQL SOP-00032	Alpha Spectrometry
Sulphate by Automated Colourimetry (1)	7	N/A	2018/08/24	CAM SOP-00464	EPA 375.4 m
Total Dissolved Solids (1)	5	2018/08/25	2018/08/25	CAM SOP-00428	SM 23 2540C m
Total Dissolved Solids (1)	2	2018/09/20	2018/09/20	CAM SOP-00428	SM 23 2540C m
Total Kjeldahl Nitrogen in Water (1)	7	2018/08/27	2018/08/28	CAM SOP-00938	OMOE E3516 m
Total Organic Carbon (TOC) (1, 8)	7	N/A	2018/08/25	CAM SOP-00446	SM 23 5310B m
Total Phosphorus (Colourimetric) (1)	7	2018/08/27	2018/08/27	CAM SOP-00407	SM 23 4500 P B H m
Low Level Total Suspended Solids (1)	7	2018/08/25	2018/08/25	CAM SOP-00428	SM 23 2540D m
Turbidity (1)	7	N/A	2018/08/24	CAM SOP-00417	SM 23 2130 B m
Hardness (calculated as CaCO3) (3)	7	N/A	2018/09/18	BBY WI-00033	Auto Calc

Your P.O. #: OL-664695
Site#: 63°02'15.5" 92°13'06.3"
Site Location: MELIADINE
Your C.O.C. #: n/a

Attention: Reporting

Agnico-Eagle
Meliadine Mine
Rankin Inlet, NU
CANADA X0C 0G0

Report Date: 2018/12/19

Report #: R5532386

Version: 5 - Revision

CERTIFICATE OF ANALYSIS – REVISED REPORT

MAXXAM JOB #: B8L7292

Received: 2018/08/22, 14:00

Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Maxxam's profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Maxxam in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.

Maxxam Analytics' liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Maxxam has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Maxxam, unless otherwise agreed in writing. Maxxam is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.

Results relate to samples tested. When sampling is not conducted by Maxxam, results relate to the supplied samples tested.

This Certificate shall not be reproduced except in full, without the written approval of the laboratory.

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

(1) This test was performed by Maxxam Analytics Mississauga

(2) This test was performed by Maxxam Analytics Kitimat

(3) This test was performed by Campo to Burnaby Subcontract

(4) Dissolved Organic Carbon (DOC) present in the sample should be considered as non-purgeable DOC.

(5) All CCME PHC results met required criteria unless otherwise stated in the report. The CWS PHC methods employed by Maxxam conform to all prescribed elements of the reference method and performance based elements have been validated. All modifications have been validated and proven equivalent following "Alberta Environment's Interpretation of the Reference Method for the Canada-Wide Standard for Petroleum Hydrocarbons in Soil Validation of Performance-Based Alternative Methods September 2003". Documentation is available upon request. Modifications from Reference Method for the Canada-wide Standard for Petroleum Hydrocarbons in Soil-Tier 1 Method: F2/F3/F4 data reported using validated cold solvent extraction instead of Soxhlet extraction.

(6) Values for calculated parameters may not appear to add up due to rounding of raw data and significant figures.

(7) Radium-226 results have not been corrected for blanks.

(8) Total Organic Carbon (TOC) present in the sample should be considered as non-purgeable TOC.

Encryption Key



Alisha Williamson
Project Manager
19 Dec 2018 15:44:08

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Alisha Williamson, Project Manager

Email: AWilliamson@maxxam.ca

Your P.O. #: OL-664695
Site#: 63°02'15.5" 92°13'06.3"
Site Location: MELIADINE
Your C.O.C. #: n/a

Attention: Reporting

Agnico-Eagle
Meliadine Mine
Rankin Inlet, NU
CANADA X0C 0G0

Report Date: 2018/12/19
Report #: R5532386
Version: 5 - Revision

CERTIFICATE OF ANALYSIS – REVISED REPORT

MAXXAM JOB #: B8L7292

Received: 2018/08/22, 14:00

Phone# (613) 274-0573

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Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

CCME PETROLEUM HYDROCARBONS IN WATER (WATER)

Maxxam ID		HOA135	HOA136	HOA137	HOA138	HOA139		
Sampling Date		2018/08/19 10:30	2018/08/19 10:45	2018/08/19 11:00	2018/08/19 10:15	2018/08/20 07:30		
COC Number		n/a	n/a	n/a	n/a	n/a		
	UNITS	MEL-14	2018-0085	2018-0086	MEL-22 CP5	RO EFFLUENT	RDL	QC Batch
BTEX & F1 Hydrocarbons								
Benzene	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	5697148
Toluene	ug/L	<0.20	<0.20	1.9	0.36	<0.20	0.20	5697148
Ethylbenzene	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	5697148
o-Xylene	ug/L	<0.20	<0.20	0.42	<0.20	<0.20	0.20	5697148
p+m-Xylene	ug/L	<0.40	<0.40	0.78	<0.40	<0.40	0.40	5697148
Total Xylenes	ug/L	<0.40	<0.40	1.2	<0.40	<0.40	0.40	5697148
F1 (C6-C10)	ug/L	<25	<25	<25	<25	<25	25	5697148
F1 (C6-C10) - BTEX	ug/L	<25	<25	<25	<25	<25	25	5697148
F2-F4 Hydrocarbons								
F2 (C10-C16 Hydrocarbons)	ug/L	<100	<100	<100	<100	<100	100	5697183
F3 (C16-C34 Hydrocarbons)	ug/L	<200	<200	<200	<200	<200	200	5697183
F4 (C34-C50 Hydrocarbons)	ug/L	<200	<200	<200	<200	<200	200	5697183
Reached Baseline at C50	ug/L	Yes	Yes	Yes	Yes	Yes		5697183
Surrogate Recovery (%)								
1,4-Difluorobenzene	%	102	100	103	100	99		5697148
4-Bromofluorobenzene	%	97	98	98	99	96		5697148
D10-Ethylbenzene	%	101	96	98	97	93		5697148
D4-1,2-Dichloroethane	%	89	90	91	92	89		5697148
o-Terphenyl	%	97	97	95	97	97		5697183
RDL = Reportable Detection Limit								
QC Batch = Quality Control Batch								

RESULTS OF ANALYSES OF WATER

Maxxam ID		HOA135			HOA135			HOA136		
Sampling Date		2018/08/19 10:30			2018/08/19 10:30			2018/08/19 10:45		
COC Number		n/a			n/a			n/a		
	UNITS	MEL-14	RDL	QC Batch	MEL-14 REPEAT	RDL	QC Batch	2018-0085	RDL	QC Batch

Calculated Parameters										
Bicarb. Alkalinity (calc. as CaCO ₃)	mg/L	37	1.0	5695167				37	1.0	5695167
Carb. Alkalinity (calc. as CaCO ₃)	mg/L	<1.0	1.0	5695167				<1.0	1.0	5695167
Inorganics										
Total Ammonia-N	mg/L	0.80	0.050	5700483				0.84	0.050	5700483
Conductivity	umho/cm	2300	1.0	5696395				2300	1.0	5696395
Total Dissolved Solids	mg/L	1430	10	5699369	1370	10	5742915	1400	10	5699369
Total Kjeldahl Nitrogen (TKN)	mg/L	1.4	0.20	5700413				1.3	0.20	5700413
Dissolved Organic Carbon	mg/L	11	0.50	5696357				9.9	0.50	5696357
Total Organic Carbon (TOC)	mg/L	12	0.50	5697780				12	0.50	5697780
Orthophosphate (P)	mg/L	<0.010	0.010	5696525				<0.010	0.010	5696525
pH	pH	7.18		5696399				7.32		5696399
Total Phosphorus	mg/L	0.037	0.020	5700373				0.034	0.020	5700373
Total Suspended Solids	mg/L	11	1	5699365				16	1	5699365
Dissolved Sulphate (SO ₄)	mg/L	60	1.0	5696506				60	1.0	5696506
Total Cyanide (CN)	mg/L	<0.0050	0.0050	5697306				<0.0050	0.0050	5697306
Turbidity	NTU	1.0	0.1	5698284				1.0	0.1	5696239
WAD Cyanide (Free)	mg/L	<0.0010	0.0010	5697312				<0.0010	0.0010	5697312
Alkalinity (Total as CaCO ₃)	mg/L	37	1.0	5696368				37	1.0	5696368
Dissolved Chloride (Cl ⁻)	mg/L	660	10	5696496				630	10	5696496
Nitrite (N)	mg/L	0.362	0.010	5696309				0.361	0.010	5696309
Nitrate (N)	mg/L	3.69	0.10	5696309				3.74	0.10	5696309
Nitrate + Nitrite (N)	mg/L	4.06	0.10	5696309				4.11	0.10	5696309
RADIONUCLIDE										
Radium-226	Bq/L	0.0080	0.0050	5702797				0.010	0.0050	5702797
Petroleum Hydrocarbons										
Total Oil & Grease	mg/L	<0.50	0.50	5699331				<0.50	0.50	5699331
RDL = Reportable Detection Limit										
QC Batch = Quality Control Batch										

RESULTS OF ANALYSES OF WATER

Maxxam ID		HOA136			HOA137		HOA138		
Sampling Date		2018/08/19 10:45			2018/08/19 11:00		2018/08/19 10:15		
COC Number		n/a			n/a		n/a		
	UNITS	2018-0085 REPEAT	RDL	QC Batch	2018-0086	RDL	MEL-22 CP5	RDL	QC Batch
Calculated Parameters									
Bicarb. Alkalinity (calc. as CaCO ₃)	mg/L				<1.0	1.0	79	1.0	5695167
Carb. Alkalinity (calc. as CaCO ₃)	mg/L				<1.0	1.0	<1.0	1.0	5695167
Inorganics									
Total Ammonia-N	mg/L				<0.050	0.050	29 (1)	0.050	5700483
Conductivity	umho/cm				1.4	1.0	18000	1.0	5696395
Total Dissolved Solids	mg/L	1450	10	5742915	75	10	11200	20	5699369
Total Kjeldahl Nitrogen (TKN)	mg/L				<0.10	0.10	25 (1)	5.0	5700413
Dissolved Organic Carbon	mg/L				<0.50	0.50	22	0.50	5696357
Total Organic Carbon (TOC)	mg/L				<0.50	0.50	24	0.50	5697780
Orthophosphate (P)	mg/L				<0.010	0.010	<0.010	0.010	5696525
pH	pH				5.96		7.47		5696399
Total Phosphorus	mg/L				<0.020	0.020	0.044	0.020	5700373
Total Suspended Solids	mg/L				<1	1	14	1	5699365
Dissolved Sulphate (SO ₄)	mg/L				<1.0	1.0	570	5.0	5696506
Total Cyanide (CN)	mg/L				<0.0050	0.0050	0.0082	0.0050	5697306
Turbidity	NTU				<0.1	0.1	3.7	0.1	5696239
WAD Cyanide (Free)	mg/L				<0.0010	0.0010	0.0020	0.0010	5697312
Alkalinity (Total as CaCO ₃)	mg/L				<1.0	1.0	79	1.0	5696368
Dissolved Chloride (Cl ⁻)	mg/L				<1.0	1.0	6400	70	5696496
Nitrite (N)	mg/L				<0.010	0.010	0.794	0.010	5696309
Nitrate (N)	mg/L				<0.10	0.10	45.7	0.50	5696309
Nitrate + Nitrite (N)	mg/L				<0.10	0.10	46.5	0.50	5696309
RADIONUCLIDE									
Radium-226	Bq/L				<0.0050	0.0050	0.039	0.0050	5702797
Petroleum Hydrocarbons									
Total Oil & Grease	mg/L				<0.50	0.50	<0.50	0.50	5699331
RDL = Reportable Detection Limit QC Batch = Quality Control Batch (1) TKN < NH ₄ : Both values fall within acceptable RPD limits for duplicates and are likely equivalent.									

RESULTS OF ANALYSES OF WATER

Maxxam ID		HOA138			HOA139			HOA139		
Sampling Date		2018/08/19 10:15			2018/08/20 07:30			2018/08/20 07:30		
COC Number		n/a			n/a			n/a		
	UNITS	MEL-22 CP5 Lab-Dup	RDL	QC Batch	RO EFFLUENT	RDL	QC Batch	RO EFFLUENT Lab-Dup	RDL	QC Batch

Calculated Parameters										
Bicarb. Alkalinity (calc. as CaCO ₃)	mg/L				4.7	1.0	5695167			
Carb. Alkalinity (calc. as CaCO ₃)	mg/L				<1.0	1.0	5695167			
Inorganics										
Total Ammonia-N	mg/L				1.9 (1)	0.050	5700483			
Conductivity	umho/cm				640	1.0	5696395			
Total Dissolved Solids	mg/L				315	10	5699369			
Total Kjeldahl Nitrogen (TKN)	mg/L				1.7 (1)	0.50	5700413			
Dissolved Organic Carbon	mg/L				<0.50	0.50	5696357			
Total Organic Carbon (TOC)	mg/L				<0.50	0.50	5697780	<0.50	0.50	5697780
Orthophosphate (P)	mg/L				<0.010	0.010	5696525			
pH	pH				6.82		5696399			
Total Phosphorus	mg/L				<0.020	0.020	5700373	<0.020	0.020	5700373
Total Suspended Solids	mg/L				<1	1	5699365			
Dissolved Sulphate (SO ₄)	mg/L				1.9	1.0	5696506			
Total Cyanide (CN)	mg/L	0.0075	0.0050	5697306	<0.0050	0.0050	5697306			
Turbidity	NTU				<0.1	0.1	5696239			
WAD Cyanide (Free)	mg/L	0.0014	0.0010	5697312	<0.0010	0.0010	5697312			
Alkalinity (Total as CaCO ₃)	mg/L				4.7	1.0	5696368			
Dissolved Chloride (Cl ⁻)	mg/L				150	2.0	5696496			
Nitrite (N)	mg/L				0.099	0.010	5696309	0.098	0.010	5696309
Nitrate (N)	mg/L				6.70	0.10	5696309	6.75	0.10	5696309
Nitrate + Nitrite (N)	mg/L				6.80	0.10	5696309	6.84	0.10	5696309
Petroleum Hydrocarbons										
Total Oil & Grease	mg/L				0.50	0.50	5699331			

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

Lab-Dup = Laboratory Initiated Duplicate

(1) TKN < NH₄: Both values fall within acceptable RPD limits for duplicates and are likely equivalent.

RESULTS OF ANALYSES OF WATER

Maxxam ID		HOA140	HOA141		
Sampling Date		2018/08/19 12:30	2018/08/19 12:45		
COC Number		n/a	n/a		
	UNITS	DCP1- DOWNSTREAM	2018-0083	RDL	QC Batch
Calculated Parameters					
Bicarb. Alkalinity (calc. as CaCO ₃)	mg/L	170	170	1.0	5695167
Carb. Alkalinity (calc. as CaCO ₃)	mg/L	1.5	1.5	1.0	5695167
Inorganics					
Total Ammonia-N	mg/L	15	15	0.050	5700483
Conductivity	umho/cm	6500	6500	1.0	5696395
Total Dissolved Solids	mg/L	4130	4180	10	5699369
Total Kjeldahl Nitrogen (TKN)	mg/L	15	15	2.0	5700413
Dissolved Organic Carbon	mg/L	27	27	0.50	5696357
Total Organic Carbon (TOC)	mg/L	27	28	0.50	5697780
Orthophosphate (P)	mg/L	<0.010	<0.010	0.010	5696525
pH	pH	7.96	7.97		5696399
Total Phosphorus	mg/L	<0.040 (1)	<0.040 (1)	0.040	5700373
Total Suspended Solids	mg/L	16	25	1	5699365
Dissolved Sulphate (SO ₄)	mg/L	490	480	2.0	5696506
Total Cyanide (CN)	mg/L	<0.0050	<0.0050	0.0050	5697306
Turbidity	NTU	0.8	1.3	0.1	5696239
WAD Cyanide (Free)	mg/L	0.0017	0.0018	0.0010	5697312
Alkalinity (Total as CaCO ₃)	mg/L	170	180	1.0	5696368
Dissolved Chloride (Cl ⁻)	mg/L	1900	1900	30	5696496
Nitrite (N)	mg/L	0.188	0.187	0.010	5696309
Nitrate (N)	mg/L	25.6	25.5	0.50	5696309
Nitrate + Nitrite (N)	mg/L	25.8	25.7	0.50	5696309
RDL = Reportable Detection Limit					
QC Batch = Quality Control Batch					
(1) Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly.					

Maxxam Job #: B8L7292
Report Date: 2018/12/19

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: OL-664695
Sampler Initials: PS

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		HOA135	HOA136	HOA137			HOA137		
Sampling Date		2018/08/19 10:30	2018/08/19 10:45	2018/08/19 11:00			2018/08/19 11:00		
COC Number		n/a	n/a	n/a			n/a		
	UNITS	MEL-14	2018-0085	2018-0086	RDL	QC Batch	2018-0086 Lab-Dup	RDL	QC Batch

Metals									
Mercury (Hg)	mg/L	<0.00001	<0.00001	<0.00001	0.00001	5700416	<0.00001	0.00001	5700416
Dissolved Mercury (Hg)	mg/L	<0.00001	<0.00001	<0.00001	0.00001	5700492			
RDL = Reportable Detection Limit QC Batch = Quality Control Batch Lab-Dup = Laboratory Initiated Duplicate									

Maxxam ID		HOA138	HOA139			HOA140	HOA141		
Sampling Date		2018/08/19 10:15	2018/08/20 07:30			2018/08/19 12:30	2018/08/19 12:45		
COC Number		n/a	n/a			n/a	n/a		
	UNITS	MEL-22 CP5	RO EFFLUENT	RDL	QC Batch	DCP1- DOWNSTREAM	2018-0083	RDL	QC Batch

Metals									
Mercury (Hg)	mg/L	<0.00001	<0.00001	0.00001	5700416	<0.00001	<0.00001	0.00001	5700416
Dissolved Mercury (Hg)	mg/L	<0.00001	<0.00001	0.00001	5700492				
RDL = Reportable Detection Limit QC Batch = Quality Control Batch									

Maxxam Job #: B8L7292
Report Date: 2018/12/19

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: OL-664695
Sampler Initials: PS

TEST SUMMARY

Maxxam ID: HOA135
Sample ID: MEL-14
Matrix: Water

Collected: 2018/08/19
Shipped:
Received: 2018/08/22

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	5696368	N/A	2018/08/27	Surinder Rai
Carbonate, Bicarbonate and Hydroxide	CALC	5695167	N/A	2018/08/28	Automated Statchk
Chloride by Automated Colourimetry	KONE	5696496	N/A	2018/08/24	Deonarine Ramnarine
Conductivity	AT	5696395	N/A	2018/08/27	Surinder Rai
Free (WAD) Cyanide	SKAL/CN	5697312	N/A	2018/08/27	Xuanhong Qiu
Total Cyanide	SKAL/CN	5697306	2018/08/24	2018/08/27	Xuanhong Qiu
Dissolved Organic Carbon (DOC)	TOCV/NDIR	5696357	N/A	2018/08/24	Nimarta Singh
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	5697148	N/A	2018/08/25	Domnica Andronesco
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	5697183	2018/08/24	2018/08/24	Zhiyue (Frank) Zhu
Dissolved Mercury (low level)	CV/AA	5700492	2018/08/27	2018/08/27	Ron Morrison
Mercury (low level)	CV/AA	5700416	2018/08/27	2018/08/27	Ron Morrison
Total Ammonia-N	LACH/NH4	5700483	N/A	2018/08/27	Parminder Sangha
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	5696309	N/A	2018/08/24	Charles Opoku-Ware
Total Oil and Grease	BAL	5699331	2018/08/25	2018/08/25	Amjad Mir
pH	AT	5696399	N/A	2018/08/27	Surinder Rai
Orthophosphate	KONE	5696525	N/A	2018/08/24	Alina Doboreanu
Radium-226 Low Level	AS	5702797	N/A	2018/09/01	Rajmeet Kaur
Sulphate by Automated Colourimetry	KONE	5696506	N/A	2018/08/24	Deonarine Ramnarine
Total Dissolved Solids	BAL	5742915	2018/09/20	2018/09/20	Jingwei (Alvin) Shi
Total Kjeldahl Nitrogen in Water	SKAL	5700413	2018/08/27	2018/08/28	Rajni Tyagi
Total Organic Carbon (TOC)	TOCV/NDIR	5697780	N/A	2018/08/25	Nimarta Singh
Total Phosphorus (Colourimetric)	LACH/P	5700373	2018/08/27	2018/08/27	Amanpreet Sappal
Low Level Total Suspended Solids	BAL	5699365	2018/08/25	2018/08/25	Jingwei (Alvin) Shi
Turbidity	AT	5698284	N/A	2018/08/24	Tahir Anwar
Hardness (calculated as CaCO3)	CALC	5730126	N/A	2018/09/18	Tamsin Denison

Maxxam ID: HOA136
Sample ID: 2018-0085
Matrix: Water

Collected: 2018/08/19
Shipped:
Received: 2018/08/22

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	5696368	N/A	2018/08/27	Surinder Rai
Carbonate, Bicarbonate and Hydroxide	CALC	5695167	N/A	2018/08/28	Automated Statchk
Chloride by Automated Colourimetry	KONE	5696496	N/A	2018/08/24	Deonarine Ramnarine
Conductivity	AT	5696395	N/A	2018/08/27	Surinder Rai
Free (WAD) Cyanide	SKAL/CN	5697312	N/A	2018/08/27	Xuanhong Qiu
Total Cyanide	SKAL/CN	5697306	2018/08/24	2018/08/27	Xuanhong Qiu
Dissolved Organic Carbon (DOC)	TOCV/NDIR	5696357	N/A	2018/08/24	Nimarta Singh
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	5697148	N/A	2018/08/25	Domnica Andronesco
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	5697183	2018/08/24	2018/08/24	Zhiyue (Frank) Zhu
Dissolved Mercury (low level)	CV/AA	5700492	2018/08/27	2018/08/27	Ron Morrison
Mercury (low level)	CV/AA	5700416	2018/08/27	2018/08/27	Ron Morrison
Total Ammonia-N	LACH/NH4	5700483	N/A	2018/08/27	Parminder Sangha
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	5696309	N/A	2018/08/24	Charles Opoku-Ware
Total Oil and Grease	BAL	5699331	2018/08/25	2018/08/25	Amjad Mir

Maxxam Job #: B8L7292
Report Date: 2018/12/19

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: OL-664695
Sampler Initials: PS

TEST SUMMARY

Maxxam ID: HOA136
Sample ID: 2018-0085
Matrix: Water

Collected: 2018/08/19
Shipped:
Received: 2018/08/22

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
pH	AT	5696399	N/A	2018/08/27	Surinder Rai
Orthophosphate	KONE	5696525	N/A	2018/08/24	Alina Dobreanu
Radium-226 Low Level	AS	5702797	N/A	2018/09/01	Rajmeet Kaur
Sulphate by Automated Colourimetry	KONE	5696506	N/A	2018/08/24	Deonarine Ramnarine
Total Dissolved Solids	BAL	5742915	2018/09/20	2018/09/20	Jingwei (Alvin) Shi
Total Kjeldahl Nitrogen in Water	SKAL	5700413	2018/08/27	2018/08/28	Rajni Tyagi
Total Organic Carbon (TOC)	TOCV/NDIR	5697780	N/A	2018/08/25	Nimarta Singh
Total Phosphorus (Colourimetric)	LACH/P	5700373	2018/08/27	2018/08/27	Amanpreet Sappal
Low Level Total Suspended Solids	BAL	5699365	2018/08/25	2018/08/25	Jingwei (Alvin) Shi
Turbidity	AT	5696239	N/A	2018/08/24	Tahir Anwar
Hardness (calculated as CaCO ₃)	CALC	5730126	N/A	2018/09/18	Tamsin Denison

Maxxam ID: HOA137
Sample ID: 2018-0086
Matrix: Water

Collected: 2018/08/19
Shipped:
Received: 2018/08/22

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	5696368	N/A	2018/08/28	Surinder Rai
Carbonate, Bicarbonate and Hydroxide	CALC	5695167	N/A	2018/08/28	Automated Statchk
Chloride by Automated Colourimetry	KONE	5696496	N/A	2018/08/24	Deonarine Ramnarine
Conductivity	AT	5696395	N/A	2018/08/28	Surinder Rai
Free (WAD) Cyanide	SKAL/CN	5697312	N/A	2018/08/27	Xuanhong Qiu
Total Cyanide	SKAL/CN	5697306	2018/08/24	2018/08/27	Xuanhong Qiu
Dissolved Organic Carbon (DOC)	TOCV/NDIR	5696357	N/A	2018/08/24	Nimarta Singh
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	5697148	N/A	2018/08/25	Domnica Andronesco
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	5697183	2018/08/24	2018/08/25	Zhiyue (Frank) Zhu
Dissolved Mercury (low level)	CV/AA	5700492	2018/08/27	2018/08/27	Ron Morrison
Mercury (low level)	CV/AA	5700416	2018/08/27	2018/08/27	Ron Morrison
Total Ammonia-N	LACH/NH ₄	5700483	N/A	2018/08/27	Parminder Sangha
Nitrate (NO ₃) and Nitrite (NO ₂) in Water	LACH	5696309	N/A	2018/08/24	Charles Opoku-Ware
Total Oil and Grease	BAL	5699331	2018/08/25	2018/08/25	Amjad Mir
pH	AT	5696399	N/A	2018/08/28	Surinder Rai
Orthophosphate	KONE	5696525	N/A	2018/08/24	Alina Dobreanu
Radium-226 Low Level	AS	5702797	N/A	2018/09/01	Rajmeet Kaur
Sulphate by Automated Colourimetry	KONE	5696506	N/A	2018/08/24	Deonarine Ramnarine
Total Dissolved Solids	BAL	5699369	2018/08/25	2018/08/25	Jingwei (Alvin) Shi
Total Kjeldahl Nitrogen in Water	SKAL	5700413	2018/08/27	2018/08/28	Rajni Tyagi
Total Organic Carbon (TOC)	TOCV/NDIR	5697780	N/A	2018/08/25	Nimarta Singh
Total Phosphorus (Colourimetric)	LACH/P	5700373	2018/08/27	2018/08/27	Amanpreet Sappal
Low Level Total Suspended Solids	BAL	5699365	2018/08/25	2018/08/25	Jingwei (Alvin) Shi
Turbidity	AT	5696239	N/A	2018/08/24	Tahir Anwar
Hardness (calculated as CaCO ₃)	CALC	5730126	N/A	2018/09/18	Tamsin Denison

Maxxam Job #: B8L7292
Report Date: 2018/12/19

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: OL-664695
Sampler Initials: PS

TEST SUMMARY

Maxxam ID: HOA137 Dup
Sample ID: 2018-0086
Matrix: Water

Collected: 2018/08/19
Shipped:
Received: 2018/08/22

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Mercury (low level)	CV/AA	5700416	2018/08/27	2018/08/27	Ron Morrison

Maxxam ID: HOA138
Sample ID: MEL-22 CP5
Matrix: Water

Collected: 2018/08/19
Shipped:
Received: 2018/08/22

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	5696368	N/A	2018/08/28	Surinder Rai
Carbonate, Bicarbonate and Hydroxide	CALC	5695167	N/A	2018/08/28	Automated Statchk
Chloride by Automated Colourimetry	KONE	5696496	N/A	2018/08/24	Deonarine Ramnarine
Conductivity	AT	5696395	N/A	2018/08/28	Surinder Rai
Free (WAD) Cyanide	SKAL/CN	5697312	N/A	2018/08/27	Xuanhong Qiu
Total Cyanide	SKAL/CN	5697306	2018/08/24	2018/08/27	Xuanhong Qiu
Dissolved Organic Carbon (DOC)	TOCV/NDIR	5696357	N/A	2018/08/24	Nimarta Singh
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	5697148	N/A	2018/08/25	Domnica Andronesco
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	5697183	2018/08/24	2018/08/25	Zhiyue (Frank) Zhu
Dissolved Mercury (low level)	CV/AA	5700492	2018/08/27	2018/08/27	Ron Morrison
Mercury (low level)	CV/AA	5700416	2018/08/27	2018/08/27	Ron Morrison
Total Ammonia-N	LACH/NH4	5700483	N/A	2018/08/27	Parminder Sangha
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	5696309	N/A	2018/08/24	Charles Opoku-Ware
Total Oil and Grease	BAL	5699331	2018/08/25	2018/08/25	Amjad Mir
pH	AT	5696399	N/A	2018/08/28	Surinder Rai
Orthophosphate	KONE	5696525	N/A	2018/08/24	Alina Dobreanu
Radium-226 Low Level	AS	5702797	N/A	2018/09/01	Rajmeet Kaur
Sulphate by Automated Colourimetry	KONE	5696506	N/A	2018/08/24	Deonarine Ramnarine
Total Dissolved Solids	BAL	5699369	2018/08/25	2018/08/25	Jingwei (Alvin) Shi
Total Kjeldahl Nitrogen in Water	SKAL	5700413	2018/08/27	2018/08/28	Rajni Tyagi
Total Organic Carbon (TOC)	TOCV/NDIR	5697780	N/A	2018/08/25	Nimarta Singh
Total Phosphorus (Colourimetric)	LACH/P	5700373	2018/08/27	2018/08/27	Amanpreet Sappal
Low Level Total Suspended Solids	BAL	5699365	2018/08/25	2018/08/25	Jingwei (Alvin) Shi
Turbidity	AT	5696239	N/A	2018/08/24	Tahir Anwar
Hardness (calculated as CaCO3)	CALC	5730126	N/A	2018/09/18	Tamsin Denison

Maxxam ID: HOA138 Dup
Sample ID: MEL-22 CP5
Matrix: Water

Collected: 2018/08/19
Shipped:
Received: 2018/08/22

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Free (WAD) Cyanide	SKAL/CN	5697312	N/A	2018/08/27	Xuanhong Qiu
Total Cyanide	SKAL/CN	5697306	2018/08/24	2018/08/27	Xuanhong Qiu

Maxxam Job #: B8L7292
Report Date: 2018/12/19

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: OL-664695
Sampler Initials: PS

TEST SUMMARY

Maxxam ID: HOA139
Sample ID: RO EFFLUENT
Matrix: Water

Collected: 2018/08/20
Shipped:
Received: 2018/08/22

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	5696368	N/A	2018/08/28	Surinder Rai
Carbonate, Bicarbonate and Hydroxide	CALC	5695167	N/A	2018/08/28	Automated Statchk
Chloride by Automated Colourimetry	KONE	5696496	N/A	2018/08/24	Deonarine Ramnarine
Conductivity	AT	5696395	N/A	2018/08/28	Surinder Rai
Free (WAD) Cyanide	SKAL/CN	5697312	N/A	2018/08/27	Xuanhong Qiu
Total Cyanide	SKAL/CN	5697306	2018/08/24	2018/08/27	Xuanhong Qiu
Dissolved Organic Carbon (DOC)	TOCV/NDIR	5696357	N/A	2018/08/24	Nimarta Singh
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	5697148	N/A	2018/08/25	Domnica Andronescu
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	5697183	2018/08/24	2018/08/25	Zhiyue (Frank) Zhu
Dissolved Mercury (low level)	CV/AA	5700492	2018/08/27	2018/08/27	Ron Morrison
Mercury (low level)	CV/AA	5700416	2018/08/27	2018/08/27	Ron Morrison
Total Ammonia-N	LACH/NH4	5700483	N/A	2018/08/27	Parminder Sangha
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	5696309	N/A	2018/08/24	Charles Opoku-Ware
Total Oil and Grease	BAL	5699331	2018/08/25	2018/08/25	Amjad Mir
pH	AT	5696399	N/A	2018/08/28	Surinder Rai
Orthophosphate	KONE	5696525	N/A	2018/08/24	Alina Dobreanu
Sulphate by Automated Colourimetry	KONE	5696506	N/A	2018/08/24	Deonarine Ramnarine
Total Dissolved Solids	BAL	5699369	2018/08/25	2018/08/25	Jingwei (Alvin) Shi
Total Kjeldahl Nitrogen in Water	SKAL	5700413	2018/08/27	2018/08/28	Rajni Tyagi
Total Organic Carbon (TOC)	TOCV/NDIR	5697780	N/A	2018/08/25	Nimarta Singh
Total Phosphorus (Colourimetric)	LACH/P	5700373	2018/08/27	2018/08/27	Amanpreet Sappal
Low Level Total Suspended Solids	BAL	5699365	2018/08/25	2018/08/25	Jingwei (Alvin) Shi
Turbidity	AT	5696239	N/A	2018/08/24	Tahir Anwar
Hardness (calculated as CaCO3)	CALC	5730126	N/A	2018/09/18	Tamsin Denison

Maxxam ID: HOA139 Dup
Sample ID: RO EFFLUENT
Matrix: Water

Collected: 2018/08/20
Shipped:
Received: 2018/08/22

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	5696309	N/A	2018/08/24	Charles Opoku-Ware
Total Organic Carbon (TOC)	TOCV/NDIR	5697780	N/A	2018/08/25	Nimarta Singh
Total Phosphorus (Colourimetric)	LACH/P	5700373	2018/08/27	2018/08/27	Amanpreet Sappal

Maxxam ID: HOA140
Sample ID: DCP1- DOWNSTREAM
Matrix: Water

Collected: 2018/08/19
Shipped:
Received: 2018/08/22

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	5696368	N/A	2018/08/28	Surinder Rai
Carbonate, Bicarbonate and Hydroxide	CALC	5695167	N/A	2018/08/28	Automated Statchk
Chloride by Automated Colourimetry	KONE	5696496	N/A	2018/08/24	Deonarine Ramnarine
Conductivity	AT	5696395	N/A	2018/08/28	Surinder Rai
Free (WAD) Cyanide	SKAL/CN	5697312	N/A	2018/08/27	Xuanhong Qiu
Total Cyanide	SKAL/CN	5697306	2018/08/24	2018/08/27	Xuanhong Qiu

Maxxam Job #: B8L7292
Report Date: 2018/12/19

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: OL-664695
Sampler Initials: PS

TEST SUMMARY

Maxxam ID: HOA140
Sample ID: DCP1- DOWNSTREAM
Matrix: Water

Collected: 2018/08/19
Shipped:
Received: 2018/08/22

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Dissolved Organic Carbon (DOC)	TOCV/NDIR	5696357	N/A	2018/08/24	Nimarta Singh
Mercury (low level)	CV/AA	5700416	2018/08/27	2018/08/27	Ron Morrison
Total Ammonia-N	LACH/NH4	5700483	N/A	2018/08/27	Parminder Sangha
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	5696309	N/A	2018/08/24	Charles Opoku-Ware
pH	AT	5696399	N/A	2018/08/28	Surinder Rai
Orthophosphate	KONE	5696525	N/A	2018/08/24	Alina Dobreanu
Sulphate by Automated Colourimetry	KONE	5696506	N/A	2018/08/24	Deonarine Ramnarine
Total Dissolved Solids	BAL	5699369	2018/08/25	2018/08/25	Jingwei (Alvin) Shi
Total Kjeldahl Nitrogen in Water	SKAL	5700413	2018/08/27	2018/08/28	Rajni Tyagi
Total Organic Carbon (TOC)	TOCV/NDIR	5697780	N/A	2018/08/25	Nimarta Singh
Total Phosphorus (Colourimetric)	LACH/P	5700373	2018/08/27	2018/08/27	Amanpreet Sappal
Low Level Total Suspended Solids	BAL	5699365	2018/08/25	2018/08/25	Jingwei (Alvin) Shi
Turbidity	AT	5696239	N/A	2018/08/24	Tahir Anwar
Hardness (calculated as CaCO3)	CALC	5730126	N/A	2018/09/18	Tamsin Denison

Maxxam ID: HOA141
Sample ID: 2018-0083
Matrix: Water

Collected: 2018/08/19
Shipped:
Received: 2018/08/22

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	5696368	N/A	2018/08/28	Surinder Rai
Carbonate, Bicarbonate and Hydroxide	CALC	5695167	N/A	2018/08/28	Automated Statchk
Chloride by Automated Colourimetry	KONE	5696496	N/A	2018/08/24	Deonarine Ramnarine
Conductivity	AT	5696395	N/A	2018/08/28	Surinder Rai
Free (WAD) Cyanide	SKAL/CN	5697312	N/A	2018/08/27	Xuanhong Qiu
Total Cyanide	SKAL/CN	5697306	2018/08/24	2018/08/27	Xuanhong Qiu
Dissolved Organic Carbon (DOC)	TOCV/NDIR	5696357	N/A	2018/08/24	Nimarta Singh
Mercury (low level)	CV/AA	5700416	2018/08/27	2018/08/27	Ron Morrison
Total Ammonia-N	LACH/NH4	5700483	N/A	2018/08/27	Parminder Sangha
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	5696309	N/A	2018/08/24	Charles Opoku-Ware
pH	AT	5696399	N/A	2018/08/28	Surinder Rai
Orthophosphate	KONE	5696525	N/A	2018/08/24	Alina Dobreanu
Sulphate by Automated Colourimetry	KONE	5696506	N/A	2018/08/24	Deonarine Ramnarine
Total Dissolved Solids	BAL	5699369	2018/08/25	2018/08/25	Jingwei (Alvin) Shi
Total Kjeldahl Nitrogen in Water	SKAL	5700413	2018/08/27	2018/08/28	Rajni Tyagi
Total Organic Carbon (TOC)	TOCV/NDIR	5697780	N/A	2018/08/25	Nimarta Singh
Total Phosphorus (Colourimetric)	LACH/P	5700373	2018/08/27	2018/08/27	Amanpreet Sappal
Low Level Total Suspended Solids	BAL	5699365	2018/08/25	2018/08/25	Jingwei (Alvin) Shi
Turbidity	AT	5696239	N/A	2018/08/24	Tahir Anwar
Hardness (calculated as CaCO3)	CALC	5730126	N/A	2018/09/18	Tamsin Denison

GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	10.3°C
Package 2	10.0°C
Package 3	10.3°C

Revised report (2018/09/21): Includes Repeat values for TDS.

Revised Report (2018/12/12): Client sample ID changed to MEL-14 per client request.

Sample HOA138 [MEL-22 CP5] : TKN < Ammonia: Both values fall within the method uncertainty for duplicates and are likely equivalent.

Sample HOA139 [RO EFFLUENT] : TKN < Ammonia: Both values fall within the method uncertainty for duplicates and are likely equivalent.

Sample HOA140 [DCP1- DOWNSTREAM] : Total Cyanide < Free Cyanide: Both values fall within the method uncertainty for duplicates and are likely equivalent.

Sample HOA141 [2018-0083] : Total Cyanide < Free Cyanide: Both values fall within the method uncertainty for duplicates and are likely equivalent.

Results relate only to the items tested.

QUALITY ASSURANCE REPORT

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: OL-664695
Sampler Initials: PS

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
5697148	1,4-Difluorobenzene	2018/08/24	99	70 - 130	99	70 - 130	100	%				
5697148	4-Bromofluorobenzene	2018/08/24	100	70 - 130	98	70 - 130	97	%				
5697148	D10-Ethylbenzene	2018/08/24	102	70 - 130	101	70 - 130	97	%				
5697148	D4-1,2-Dichloroethane	2018/08/24	91	70 - 130	91	70 - 130	89	%				
5697183	o-Terphenyl	2018/08/24	99	60 - 130	97	60 - 130	96	%				
5696239	Turbidity	2018/08/24			101	85 - 115	<0.1	NTU	1.3	20		
5696309	Nitrate (N)	2018/08/24	99	80 - 120	95	80 - 120	<0.10	mg/L	0.74	20		
5696309	Nitrite (N)	2018/08/24	106	80 - 120	98	80 - 120	<0.010	mg/L	0.71	20		
5696357	Dissolved Organic Carbon	2018/08/24	93	80 - 120	100	80 - 120	<0.50	mg/L	0.14	20		
5696368	Alkalinity (Total as CaCO3)	2018/08/27			100	85 - 115	<1.0	mg/L	0.66	20		
5696395	Conductivity	2018/08/27			101	85 - 115	<1.0	umho/cm	0.31	25		
5696399	pH	2018/08/27			101	98 - 103			0.36	N/A		
5696496	Dissolved Chloride (Cl-)	2018/08/24	NC	80 - 120	102	80 - 120	<1.0	mg/L	0.17	20		
5696506	Dissolved Sulphate (SO4)	2018/08/24	NC	75 - 125	106	80 - 120	<1.0	mg/L	0.031	20		
5696525	Orthophosphate (P)	2018/08/24	NC	75 - 125	100	80 - 120	<0.010	mg/L	0.63	25		
5697148	Benzene	2018/08/24	108	70 - 130	103	70 - 130	<0.20	ug/L				
5697148	Ethylbenzene	2018/08/24	102	70 - 130	99	70 - 130	<0.20	ug/L				
5697148	F1 (C6-C10) - BTEX	2018/08/24					<25	ug/L	NC	30		
5697148	F1 (C6-C10)	2018/08/24	99	70 - 130	87	70 - 130	<25	ug/L	NC	30		
5697148	o-Xylene	2018/08/24	105	70 - 130	104	70 - 130	<0.20	ug/L				
5697148	p+m-Xylene	2018/08/24	104	70 - 130	101	70 - 130	<0.40	ug/L				
5697148	Toluene	2018/08/24	109	70 - 130	106	70 - 130	<0.20	ug/L				
5697148	Total Xylenes	2018/08/24					<0.40	ug/L				
5697183	F2 (C10-C16 Hydrocarbons)	2018/08/24	108	50 - 130	106	60 - 130	<100	ug/L	NC	30		
5697183	F3 (C16-C34 Hydrocarbons)	2018/08/24	108	50 - 130	107	60 - 130	<200	ug/L	NC	30		
5697183	F4 (C34-C50 Hydrocarbons)	2018/08/24	99	50 - 130	98	60 - 130	<200	ug/L	NC	30		
5697306	Total Cyanide (CN)	2018/08/27	94	80 - 120	96	80 - 120	<0.0050	mg/L	8.9	20		
5697312	WAD Cyanide (Free)	2018/08/27	98	80 - 120	97	80 - 120	<0.0010	mg/L	NC	20		
5697780	Total Organic Carbon (TOC)	2018/08/25	96	80 - 120	96	80 - 120	<0.50	mg/L	NC	20		
5698284	Turbidity	2018/08/24			100	85 - 115	<0.1	NTU	1.5	20		
5699331	Total Oil & Grease	2018/08/25	94	75 - 125	97	85 - 115	<0.50	mg/L	1.3	25		

QUALITY ASSURANCE REPORT(CONT'D)

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: OL-664695
Sampler Initials: PS

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
5699365	Total Suspended Solids	2018/08/25					<1	mg/L	6.9	25	96	85 - 115
5699369	Total Dissolved Solids	2018/08/25					<10	mg/L	1.9	25	97	90 - 110
5700373	Total Phosphorus	2018/08/27	102	80 - 120	96	80 - 120	<0.020	mg/L	NC	20	102	80 - 120
5700413	Total Kjeldahl Nitrogen (TKN)	2018/08/27	99	80 - 120	103	80 - 120	<0.10	mg/L	NC	20	95	80 - 120
5700416	Mercury (Hg)	2018/08/27	100	75 - 125	99	80 - 120	<0.00001	mg/L	NC	20		
5700483	Total Ammonia-N	2018/08/27	96	75 - 125	103	80 - 120	<0.050	mg/L	NC	20		
5700492	Dissolved Mercury (Hg)	2018/08/27	99	75 - 125	99	80 - 120	<0.00001	mg/L	NC	20		
5702797	Radium-226	2018/08/31			93	85 - 115	<0.0050	Bq/L	NC	N/A		
5742915	Total Dissolved Solids	2018/09/20					<10	mg/L	11	25	97	90 - 110

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference $\leq 2 \times \text{RDL}$).

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Brad Newman, Scientific Service Specialist



Ewa Pranjić, M.Sc., C.Chem, Scientific Specialist



Steven Simpson, Lab Director

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Exceedence Summary Table – Metal Mining Effluent Reg
Result Exceedences

Sample ID	Maxxam ID	Parameter	Criteria	Result	DL	Units
No Exceedences						
The exceedence summary table is for information purposes only and should not be considered a comprehensive listing or statement of conformance to applicable regulatory guidelines.						

Your P.O. #: B8L7292
Site#: 63°02'15.5" 92°13'06.3"
Site Location: MELIADINE
Your C.O.C. #: B8L7292-M060-01-01

Attention: Jonathan Urban

Agnico-Eagle
Meliadine
Rankin Inlet, NU
Canada X0C 0G0

Report Date: 2018/09/04
Report #: R2612893
Version: 2 - Revision

CERTIFICATE OF ANALYSIS – REVISED REPORT

MAXXAM JOB #: B872191

Received: 2018/08/25, 11:30

Sample Matrix: Water
Samples Received: 5

Analyses	Date		Laboratory Method	Analytical Method
	Quantity	Extracted		
Silica (Reactive)	4	N/A	2018/08/27 AB SOP-00011	EPA 370.1 R1978 m
Silica (Reactive)	1	N/A	2018/08/28 AB SOP-00011	EPA 370.1 R1978 m

Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Maxxam's profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Maxxam in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.

Maxxam Analytics' liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Maxxam has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Maxxam, unless otherwise agreed in writing. Maxxam is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.

Results relate to samples tested. When sampling is not conducted by Maxxam, results relate to the supplied samples tested.

This Certificate shall not be reproduced except in full, without the written approval of the laboratory.

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Attention: Jonathan Urban

Agnico-Eagle
Meliadine
Rankin Inlet, NU
Canada X0C 0G0

Your P.O. #: B8L7292
Site#: 63°02'15.5" 92°13'06.3"
Site Location: MELIADINE
Your C.O.C. #: B8L7292-M060-01-01

Report Date: 2018/09/04
Report #: R2612893
Version: 2 - Revision

CERTIFICATE OF ANALYSIS – REVISED REPORT

MAXXAM JOB #: B872191

Received: 2018/08/25, 11:30

Encryption Key



Omran Desouki
Junior Project Manager
04 Sep 2018 11:28:45

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Omran Desouki, Junior Project Manager

Email: ODesouki@maxxam.ca

Phone# (403) 291-3077

=====

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Maxxam Job #: B872191
Report Date: 2018/09/04

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8L7292
Sampler Initials: PS

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		UD8561		UD8562	UD8563		
Sampling Date		2018/08/19 10:30		2018/08/19 10:45	2018/08/19 11:00		
COC Number		B8L7292-M060-01-01		B8L7292-M060-01-01	B8L7292-M060-01-01		
	UNITS	MEL-14AC (MDMER AND EEM)	QC Batch	2018-0085	2018-0086	RDL	QC Batch

Misc. Inorganics							
Reactive Silica	mg/L	1.3	9119329	2.2	<0.050	0.050	9119332
RDL = Reportable Detection Limit							

Maxxam ID		UD8564		UD8565		
Sampling Date		2018/08/19 10:15		2018/08/20 07:30		
COC Number		B8L7292-M060-01-01		B8L7292-M060-01-01		
	UNITS	MEL-22 CPS	RDL	RO EFFLUENT	RDL	QC Batch
Misc. Inorganics						
Reactive Silica	mg/L	1.8 (1)	0.50	<0.050	0.050	9119329
RDL = Reportable Detection Limit						
(1) Detection limits raised due to matrix interference.						

Maxxam Job #: B872191
Report Date: 2018/09/04

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8L7292
Sampler Initials: PS

TEST SUMMARY

Maxxam ID: UD8561
Sample ID: MEL-14AC (MDMER AND EEM)
Matrix: Water

Collected: 2018/08/19
Shipped: 2018/08/24
Received: 2018/08/25

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Silica (Reactive)	KONE/SL	9119329	N/A	2018/08/27	Jason Hollingsworth

Maxxam ID: UD8562
Sample ID: 2018-0085
Matrix: Water

Collected: 2018/08/19
Shipped: 2018/08/24
Received: 2018/08/25

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Silica (Reactive)	KONE/SL	9119332	N/A	2018/08/27	Jason Hollingsworth

Maxxam ID: UD8563
Sample ID: 2018-0086
Matrix: Water

Collected: 2018/08/19
Shipped: 2018/08/24
Received: 2018/08/25

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Silica (Reactive)	KONE/SL	9119332	N/A	2018/08/27	Jason Hollingsworth

Maxxam ID: UD8564
Sample ID: MEL-22 CPS
Matrix: Water

Collected: 2018/08/19
Shipped: 2018/08/24
Received: 2018/08/25

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Silica (Reactive)	KONE/SL	9119329	N/A	2018/08/28	Jason Hollingsworth

Maxxam ID: UD8565
Sample ID: RO EFFLUENT
Matrix: Water

Collected: 2018/08/20
Shipped: 2018/08/24
Received: 2018/08/25

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Silica (Reactive)	KONE/SL	9119329	N/A	2018/08/27	Jason Hollingsworth

Maxxam Job #: B872191
Report Date: 2018/09/04

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8L7292
Sampler Initials: PS

GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	0.0°C

Report Re-issued with updated Sample ID and GPS Coordinates 2018/09/04

Results relate only to the items tested.

QUALITY ASSURANCE REPORT

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8L7292
Sampler Initials: PS

QC Batch	Parameter	Date	Matrix Spike		Spiked Blank		Method Blank		RPD	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9119329	Reactive Silica	2018/08/27	NC	80 - 120	98	80 - 120	<0.050	mg/L	1.5	20
9119332	Reactive Silica	2018/08/27	115	80 - 120	100	80 - 120	<0.050	mg/L	13	20

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

Maxxam Job #: B872191
Report Date: 2018/09/04

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8L7292
Sampler Initials: PS

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Ghayasuddin Khan, M.Sc., P.Chem., QP, Scientific Specialist, Inorganics

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Your P.O. #: B8L7292
Site#: 63°02'15.5" 92°13'06.3"
Site Location: MELIADINE
Your C.O.C. #: B8L7292-M058-01-01

Attention: Alisha Williamson

Agnico-Eagle
Meliadine
Rankin Inlet, NU
Canada X0C 0G0

Report Date: 2018/10/12
Report #: R2633738
Version: 2 - Revision

CERTIFICATE OF ANALYSIS – REVISED REPORT

MAXXAM JOB #: B872232

Received: 2018/08/25, 12:00

Sample Matrix: Water
Samples Received: 7

Analyses	Date		Laboratory Method	Analytical Method
	Quantity	Extracted		
Hardness Total (calculated as CaCO ₃) (1)	7	N/A	2018/08/30 BBY WI-00033	Auto Calc
Hardness (calculated as CaCO ₃)	5	N/A	2018/08/28 BBY WI-00033	Auto Calc
Elements by CRC ICPMS (dissolved)	5	N/A	2018/08/28 BBY7SOP-00002	EPA 6020b R2 m
Elements by CRC ICPMS (total)	7	2018/08/28	2018/08/29 BBY7SOP-00003,	EPA 6020b R2 m
Filter and HNO ₃ Preserve for Metals	5	N/A	2018/08/27 BBY7 WI-00004	BCMOE Reqs 08/14

Remarks:

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Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.

Results relate to samples tested. When sampling is not conducted by Maxxam, results relate to the supplied samples tested.

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Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

(1) "Total Hardness" was calculated from Total Ca and Mg concentrations and may be biased high (Hardness, or Dissolved Hardness, calculated from Dissolved Ca and Mg, should be used for compliance if available).

Attention: Alisha Williamson

Agnico-Eagle
Meliadine
Rankin Inlet, NU
Canada X0C 0G0

Your P.O. #: B8L7292
Site#: 63°02'15.5" 92°13'06.3"
Site Location: MELIADINE
Your C.O.C. #: B8L7292-M058-01-01

Report Date: 2018/10/12
Report #: R2633738
Version: 2 - Revision

CERTIFICATE OF ANALYSIS – REVISED REPORT

MAXXAM JOB #: B872232

Received: 2018/08/25, 12:00

Encryption Key



Mandheraj Chana
Junior Project Manager
12 Oct 2018 11:47:46

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Veronica De Guzman, B.Sc., Project Manager
Email: VDeGuzman@maxxam.ca
Phone# (604) 734 7276

=====

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Maxxam Job #: B872232
Report Date: 2018/10/12

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8L7292
Sampler Initials: PS

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		UD8907	UD8908	UD8909	UD8910		
Sampling Date		2018/08/19 10:30	2018/08/19 10:45	2018/08/19 11:00	2018/08/19 10:15		
COC Number		B8L7292-M058-01-01	B8L7292-M058-01-01	B8L7292-M058-01-01	B8L7292-M058-01-01		
	UNITS	MEL-14ac (MDMER and EEM)	2018-0085	2018-0086	MEL-22 CP5	RDL	QC Batch

Calculated Parameters							
Filter and HNO3 Preservation	N/A	FIELD	FIELD	FIELD	FIELD	N/A	ONSITE
Dissolved Hardness (CaCO3)	mg/L	565	559	<0.50	4290	0.50	9118517
Total Hardness (CaCO3)	mg/L	557	541	<0.50	4030	0.50	9118516

RDL = Reportable Detection Limit

N/A = Not Applicable

Maxxam ID		UD8911	UD8912	UD8913		
Sampling Date		2018/08/19 07:30	2018/08/19 12:30	2018/08/19 12:45		
COC Number		B8L7292-M058-01-01	B8L7292-M058-01-01	B8L7292-M058-01-01		
	UNITS	RO EFFLUENT	DCP1- DOWNSTREAM	2018-0083	RDL	QC Batch

Calculated Parameters						
Filter and HNO3 Preservation	N/A	FIELD	N/A	N/A	N/A	ONSITE
Dissolved Hardness (CaCO3)	mg/L	16.9	N/A	N/A	0.50	9118517
Total Hardness (CaCO3)	mg/L	16.3	2140	2060	0.50	9118516

RDL = Reportable Detection Limit

N/A = Not Applicable

Maxxam Job #: B872232
Report Date: 2018/10/12

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8L7292
Sampler Initials: PS

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		UD8907	UD8908	UD8909		
Sampling Date		2018/08/19 10:30	2018/08/19 10:45	2018/08/19 11:00		
COC Number		B8L7292-M058-01-01	B8L7292-M058-01-01	B8L7292-M058-01-01		
	UNITS	MEL-14ac (MDMER and EEM)	2018-0085	2018-0086	RDL	QC Batch
Dissolved Metals by ICPMS						
Dissolved Aluminum (Al)	mg/L	0.0568	0.0569	0.0034	0.0030	9119838
Dissolved Antimony (Sb)	mg/L	<0.00050	<0.00050	<0.00050	0.00050	9119838
Dissolved Arsenic (As)	mg/L	0.00274	0.00259	<0.00010	0.00010	9119838
Dissolved Barium (Ba)	mg/L	0.150	0.147	<0.0010	0.0010	9119838
Dissolved Beryllium (Be)	mg/L	<0.00010	<0.00010	<0.00010	0.00010	9119838
Dissolved Boron (B)	mg/L	0.206	0.225	<0.050	0.050	9119838
Dissolved Cadmium (Cd)	mg/L	<0.000010	<0.000010	<0.000010	0.000010	9119838
Dissolved Chromium (Cr)	mg/L	<0.0010	<0.0010	<0.0010	0.0010	9119838
Dissolved Copper (Cu)	mg/L	0.00065	0.00066	<0.00020	0.00020	9119838
Dissolved Iron (Fe)	mg/L	0.0324	0.0297	<0.0050	0.0050	9119838
Dissolved Lead (Pb)	mg/L	<0.00020	<0.00020	<0.00020	0.00020	9119838
Dissolved Lithium (Li)	mg/L	0.163	0.165	<0.0020	0.0020	9119838
Dissolved Manganese (Mn)	mg/L	0.382	0.399	<0.0010	0.0010	9119838
Dissolved Molybdenum (Mo)	mg/L	0.0020	0.0020	<0.0010	0.0010	9119838
Dissolved Nickel (Ni)	mg/L	0.0030	0.0029	<0.0010	0.0010	9119838
Dissolved Selenium (Se)	mg/L	<0.00010	<0.00010	<0.00010	0.00010	9119838
Dissolved Silver (Ag)	mg/L	<0.000020	<0.000020	<0.000020	0.000020	9119838
Dissolved Strontium (Sr)	mg/L	4.10	4.11	<0.0010	0.0010	9119838
Dissolved Thallium (Tl)	mg/L	<0.000010	<0.000010	<0.000010	0.000010	9119838
Dissolved Tin (Sn)	mg/L	<0.0050	<0.0050	<0.0050	0.0050	9119838
Dissolved Titanium (Ti)	mg/L	<0.0050	<0.0050	<0.0050	0.0050	9119838
Dissolved Uranium (U)	mg/L	<0.00010	<0.00010	<0.00010	0.00010	9119838
Dissolved Vanadium (V)	mg/L	<0.0050	<0.0050	<0.0050	0.0050	9119838
Dissolved Zinc (Zn)	mg/L	<0.0050	<0.0050	<0.0050	0.0050	9119838
Dissolved Calcium (Ca)	mg/L	173	171	<0.050	0.050	9119838
Dissolved Magnesium (Mg)	mg/L	32.2	32.0	<0.050	0.050	9119838
Dissolved Potassium (K)	mg/L	16.6	16.6	<0.050	0.050	9119838
Dissolved Sodium (Na)	mg/L	165	164	<0.050	0.050	9119838
Total Metals by ICPMS						
Total Aluminum (Al)	mg/L	1.03	1.06	0.0055	0.0030	9120507
RDL = Reportable Detection Limit						

Maxxam Job #: B872232
Report Date: 2018/10/12

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8L7292
Sampler Initials: PS

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		UD8907	UD8908	UD8909		
Sampling Date		2018/08/19 10:30	2018/08/19 10:45	2018/08/19 11:00		
COC Number		B8L7292-M058-01-01	B8L7292-M058-01-01	B8L7292-M058-01-01		
	UNITS	MEL-14ac (MDMER and EEM)	2018-0085	2018-0086	RDL	QC Batch
Total Antimony (Sb)	mg/L	<0.00050	<0.00050	<0.00050	0.00050	9120507
Total Arsenic (As)	mg/L	0.00295	0.00295	<0.00010	0.00010	9120507
Total Barium (Ba)	mg/L	0.160	0.157	<0.0010	0.0010	9120507
Total Beryllium (Be)	mg/L	<0.00010	<0.00010	<0.00010	0.00010	9120507
Total Boron (B)	mg/L	0.190	0.192	<0.050	0.050	9120507
Total Cadmium (Cd)	mg/L	<0.000010	<0.000010	<0.000010	0.000010	9120507
Total Chromium (Cr)	mg/L	<0.0010	<0.0010	<0.0010	0.0010	9120507
Total Copper (Cu)	mg/L	0.00099	0.00098	<0.00050	0.00050	9120507
Total Iron (Fe)	mg/L	0.260	0.188	<0.010	0.010	9120507
Total Lead (Pb)	mg/L	<0.00020	0.00023	<0.00020	0.00020	9120507
Total Lithium (Li)	mg/L	0.159	0.161	<0.0020	0.0020	9120507
Total Manganese (Mn)	mg/L	0.406	0.423	<0.0010	0.0010	9120507
Total Molybdenum (Mo)	mg/L	0.0022	0.0023	<0.0010	0.0010	9120507
Total Nickel (Ni)	mg/L	0.0034	0.0034	<0.0010	0.0010	9120507
Total Selenium (Se)	mg/L	<0.00010	<0.00010	<0.00010	0.00010	9120507
Total Silver (Ag)	mg/L	<0.000020	<0.000020	<0.000020	0.000020	9120507
Total Strontium (Sr)	mg/L	3.97	3.93	<0.0010	0.0010	9120507
Total Thallium (Tl)	mg/L	<0.000010	<0.000010	<0.000010	0.000010	9120507
Total Tin (Sn)	mg/L	<0.0050	<0.0050	<0.0050	0.0050	9120507
Total Titanium (Ti)	mg/L	<0.0050	<0.0050	<0.0050	0.0050	9120507
Total Uranium (U)	mg/L	0.00018	0.00019	<0.00010	0.00010	9120507
Total Vanadium (V)	mg/L	<0.0050	<0.0050	<0.0050	0.0050	9120507
Total Zinc (Zn)	mg/L	0.0067	<0.0050	<0.0050	0.0050	9120507
Total Calcium (Ca)	mg/L	171	167	<0.050	0.050	9120507
Total Magnesium (Mg)	mg/L	31.4	30.5	<0.050	0.050	9120507
Total Potassium (K)	mg/L	16.7	16.5	<0.050	0.050	9120507
Total Sodium (Na)	mg/L	161	160	<0.050	0.050	9120507
RDL = Reportable Detection Limit						

Maxxam Job #: B872232
Report Date: 2018/10/12

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8L7292
Sampler Initials: PS

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		UD8910		UD8911		UD8912		
Sampling Date		2018/08/19 10:15		2018/08/19 07:30		2018/08/19 12:30		
COC Number		B8L7292-M058-01-01		B8L7292-M058-01-01		B8L7292-M058-01-01		
	UNITS	MEL-22 CP5	RDL	RO EFFLUENT	RDL	DCP1- DOWNSTREAM	RDL	QC Batch

Dissolved Metals by ICPMS								
Dissolved Aluminum (Al)	mg/L	<0.030	0.030	0.0038	0.0030	N/A	0.0030	9119838
Dissolved Antimony (Sb)	mg/L	<0.0050	0.0050	<0.00050	0.00050	N/A	0.00050	9119838
Dissolved Arsenic (As)	mg/L	0.0043	0.0010	0.00016	0.00010	N/A	0.00010	9119838
Dissolved Barium (Ba)	mg/L	0.317	0.010	0.0013	0.0010	N/A	0.0010	9119838
Dissolved Beryllium (Be)	mg/L	<0.0010	0.0010	<0.00010	0.00010	N/A	0.00010	9119838
Dissolved Boron (B)	mg/L	0.95	0.50	0.608	0.050	N/A	0.050	9119838
Dissolved Cadmium (Cd)	mg/L	0.00061	0.00010	<0.000010	0.000010	N/A	0.000010	9119838
Dissolved Chromium (Cr)	mg/L	<0.010	0.010	<0.0010	0.0010	N/A	0.0010	9119838
Dissolved Copper (Cu)	mg/L	0.0084	0.0020	<0.00020	0.00020	N/A	0.00020	9119838
Dissolved Iron (Fe)	mg/L	<0.050	0.050	<0.0050	0.0050	N/A	0.0050	9119838
Dissolved Lead (Pb)	mg/L	<0.0020	0.0020	<0.00020	0.00020	N/A	0.00020	9119838
Dissolved Lithium (Li)	mg/L	1.19	0.020	0.0613	0.0020	N/A	0.0020	9119838
Dissolved Manganese (Mn)	mg/L	0.238	0.010	<0.0010	0.0010	N/A	0.0010	9119838
Dissolved Molybdenum (Mo)	mg/L	<0.010	0.010	<0.0010	0.0010	N/A	0.0010	9119838
Dissolved Nickel (Ni)	mg/L	0.036	0.010	<0.0010	0.0010	N/A	0.0010	9119838
Dissolved Selenium (Se)	mg/L	<0.0010	0.0010	<0.00010	0.00010	N/A	0.00010	9119838
Dissolved Silver (Ag)	mg/L	<0.00020	0.00020	<0.000020	0.000020	N/A	0.000020	9119838
Dissolved Strontium (Sr)	mg/L	32.8	0.010	0.114	0.0010	N/A	0.0010	9119838
Dissolved Thallium (Tl)	mg/L	0.00029	0.00010	<0.000010	0.000010	N/A	0.000010	9119838
Dissolved Tin (Sn)	mg/L	<0.050	0.050	<0.0050	0.0050	N/A	0.0050	9119838
Dissolved Titanium (Ti)	mg/L	<0.050	0.050	<0.0050	0.0050	N/A	0.0050	9119838
Dissolved Uranium (U)	mg/L	0.0084	0.0010	<0.00010	0.00010	N/A	0.00010	9119838
Dissolved Vanadium (V)	mg/L	<0.050	0.050	<0.0050	0.0050	N/A	0.0050	9119838
Dissolved Zinc (Zn)	mg/L	<0.050	0.050	<0.0050	0.0050	N/A	0.0050	9119838
Dissolved Calcium (Ca)	mg/L	1220	0.50	4.92	0.050	N/A	0.050	9119838
Dissolved Magnesium (Mg)	mg/L	303	0.50	1.12	0.050	N/A	0.050	9119838
Dissolved Potassium (K)	mg/L	116	0.50	5.38	0.050	N/A	0.050	9119838
Dissolved Sodium (Na)	mg/L	1930	0.50	97.2	0.050	N/A	0.050	9119838

RDL = Reportable Detection Limit

N/A = Not Applicable

Maxxam Job #: B872232
Report Date: 2018/10/12

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8L7292
Sampler Initials: PS

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		UD8910		UD8911		UD8912		
Sampling Date		2018/08/19 10:15		2018/08/19 07:30		2018/08/19 12:30		
COC Number		B8L7292-M058-01-01		B8L7292-M058-01-01		B8L7292-M058-01-01		
	UNITS	MEL-22 CP5	RDL	RO EFFLUENT	RDL	DCP1- DOWNSTREAM	RDL	QC Batch

Total Metals by ICPMS								
Total Aluminum (Al)	mg/L	0.042	0.030	0.0043	0.0030	0.173	0.030	9120507
Total Antimony (Sb)	mg/L	<0.0050	0.0050	<0.00050	0.00050	<0.0050	0.0050	9120507
Total Arsenic (As)	mg/L	0.0054	0.0010	0.00013	0.00010	0.0064	0.0010	9120507
Total Barium (Ba)	mg/L	0.311	0.010	0.0013	0.0010	0.154	0.010	9120507
Total Beryllium (Be)	mg/L	<0.0010	0.0010	<0.00010	0.00010	<0.0010	0.0010	9120507
Total Boron (B)	mg/L	0.79	0.50	0.568	0.050	<0.50	0.50	9120507
Total Cadmium (Cd)	mg/L	0.00086	0.00010	<0.000010	0.000010	0.00030	0.00010	9120507
Total Chromium (Cr)	mg/L	<0.010	0.010	<0.0010	0.0010	<0.010	0.010	9120507
Total Copper (Cu)	mg/L	0.0111	0.0050	<0.00050	0.00050	0.0077	0.0050	9120507
Total Iron (Fe)	mg/L	0.36	0.10	<0.010	0.010	0.37	0.10	9120507
Total Lead (Pb)	mg/L	<0.0020	0.0020	<0.00020	0.00020	<0.0020	0.0020	9120507
Total Lithium (Li)	mg/L	1.13	0.020	0.0575	0.0020	0.326	0.020	9120507
Total Manganese (Mn)	mg/L	0.286	0.010	<0.0010	0.0010	1.12	0.010	9120507
Total Molybdenum (Mo)	mg/L	<0.010	0.010	<0.0010	0.0010	<0.010	0.010	9120507
Total Nickel (Ni)	mg/L	0.039	0.010	<0.0010	0.0010	0.063	0.010	9120507
Total Selenium (Se)	mg/L	<0.0010	0.0010	<0.00010	0.00010	<0.0010	0.0010	9120507
Total Silver (Ag)	mg/L	<0.00020	0.00020	<0.000020	0.000020	<0.00020	0.00020	9120507
Total Strontium (Sr)	mg/L	29.6	0.010	0.111	0.0010	10.0	0.010	9120507
Total Thallium (Tl)	mg/L	0.00033	0.00010	<0.000010	0.000010	0.00013	0.00010	9120507
Total Tin (Sn)	mg/L	<0.050	0.050	<0.0050	0.0050	<0.050	0.050	9120507
Total Titanium (Ti)	mg/L	<0.050	0.050	<0.0050	0.0050	<0.050	0.050	9120507
Total Uranium (U)	mg/L	0.0090	0.0010	<0.00010	0.00010	0.0225	0.0010	9120507
Total Vanadium (V)	mg/L	<0.050	0.050	<0.0050	0.0050	<0.050	0.050	9120507
Total Zinc (Zn)	mg/L	<0.050	0.050	<0.0050	0.0050	<0.050	0.050	9120507
Total Calcium (Ca)	mg/L	1150	0.50	4.71	0.050	666	0.50	9120507
Total Magnesium (Mg)	mg/L	278	0.50	1.09	0.050	115	0.50	9120507
Total Potassium (K)	mg/L	113	0.50	5.41	0.050	35.4	0.50	9120507
Total Sodium (Na)	mg/L	1860	0.50	94.7	0.050	391	0.50	9120507

RDL = Reportable Detection Limit

Maxxam Job #: B872232
Report Date: 2018/10/12

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8L7292
Sampler Initials: PS

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		UD8913		
Sampling Date		2018/08/19 12:45		
COC Number		B8L7292-M058-01-01		
	UNITS	2018-0083	RDL	QC Batch
Total Metals by ICPMS				
Total Aluminum (Al)	mg/L	0.143	0.015	9120507
Total Antimony (Sb)	mg/L	<0.0025	0.0025	9120507
Total Arsenic (As)	mg/L	0.00664	0.00050	9120507
Total Barium (Ba)	mg/L	0.151	0.0050	9120507
Total Beryllium (Be)	mg/L	<0.00050	0.00050	9120507
Total Boron (B)	mg/L	0.25	0.25	9120507
Total Cadmium (Cd)	mg/L	0.000274	0.000050	9120507
Total Chromium (Cr)	mg/L	<0.0050	0.0050	9120507
Total Copper (Cu)	mg/L	0.0075	0.0025	9120507
Total Iron (Fe)	mg/L	0.301	0.050	9120507
Total Lead (Pb)	mg/L	<0.0010	0.0010	9120507
Total Lithium (Li)	mg/L	0.323	0.010	9120507
Total Manganese (Mn)	mg/L	1.09	0.0050	9120507
Total Molybdenum (Mo)	mg/L	0.0080	0.0050	9120507
Total Nickel (Ni)	mg/L	0.0637	0.0050	9120507
Total Selenium (Se)	mg/L	0.00061	0.00050	9120507
Total Silver (Ag)	mg/L	<0.00010	0.00010	9120507
Total Strontium (Sr)	mg/L	9.93	0.0050	9120507
Total Thallium (Tl)	mg/L	0.000128	0.000050	9120507
Total Tin (Sn)	mg/L	<0.025	0.025	9120507
Total Titanium (Ti)	mg/L	<0.025	0.025	9120507
Total Uranium (U)	mg/L	0.0223	0.00050	9120507
Total Vanadium (V)	mg/L	<0.025	0.025	9120507
Total Zinc (Zn)	mg/L	<0.025	0.025	9120507
Total Calcium (Ca)	mg/L	644	0.25	9120507
Total Magnesium (Mg)	mg/L	109	0.25	9120507
Total Potassium (K)	mg/L	34.5	0.25	9120507
Total Sodium (Na)	mg/L	378	0.25	9120507
RDL = Reportable Detection Limit				

Maxxam Job #: B872232
Report Date: 2018/10/12

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8L7292
Sampler Initials: PS

GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	4.0°C

Revised Report (2018/10/12): Client sample ID changed as per client request, and GPS coordinates included.

Sample UD8907 [MEL-14ac (MDMER and EEM)] : GPS coordinates: 63°02'15.5" 92°13'06.3"

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER) Comments

Matrix Spike Elements by CRC ICPMS (total): RDL raised due to concentration over linear range, sample dilution required.

Sample UD8910 [MEL-22 CP5] Elements by CRC ICPMS (dissolved): RDL raised due to concentration over linear range, sample dilution required.

Sample UD8910 [MEL-22 CP5] Elements by CRC ICPMS (total): RDL raised due to concentration over linear range, sample dilution required.

Sample UD8912 [DCP1- DOWNSTREAM] Elements by CRC ICPMS (total): RDL raised due to concentration over linear range, sample dilution required.

Sample UD8913 [2018-0083] Elements by CRC ICPMS (total): RDL raised due to concentration over linear range, sample dilution required.

Results relate only to the items tested.

Maxxam Job #: B872232
Report Date: 2018/10/12

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8L7292
Sampler Initials: PS

QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9119838	JLP	Matrix Spike	Dissolved Aluminum (Al)	2018/08/28		100	%	80 - 120
			Dissolved Antimony (Sb)	2018/08/28		104	%	80 - 120
			Dissolved Arsenic (As)	2018/08/28		105	%	80 - 120
			Dissolved Barium (Ba)	2018/08/28		NC	%	80 - 120
			Dissolved Beryllium (Be)	2018/08/28		105	%	80 - 120
			Dissolved Boron (B)	2018/08/28		103	%	80 - 120
			Dissolved Cadmium (Cd)	2018/08/28		100	%	80 - 120
			Dissolved Chromium (Cr)	2018/08/28		97	%	80 - 120
			Dissolved Copper (Cu)	2018/08/28		89	%	80 - 120
			Dissolved Iron (Fe)	2018/08/28		NC	%	80 - 120
			Dissolved Lead (Pb)	2018/08/28		97	%	80 - 120
			Dissolved Lithium (Li)	2018/08/28		103	%	80 - 120
			Dissolved Manganese (Mn)	2018/08/28		NC	%	80 - 120
			Dissolved Molybdenum (Mo)	2018/08/28		107	%	80 - 120
			Dissolved Nickel (Ni)	2018/08/28		94	%	80 - 120
			Dissolved Selenium (Se)	2018/08/28		102	%	80 - 120
			Dissolved Silver (Ag)	2018/08/28		99	%	80 - 120
			Dissolved Strontium (Sr)	2018/08/28		NC	%	80 - 120
			Dissolved Thallium (Tl)	2018/08/28		97	%	80 - 120
			Dissolved Tin (Sn)	2018/08/28		104	%	80 - 120
			Dissolved Titanium (Ti)	2018/08/28		102	%	80 - 120
			Dissolved Uranium (U)	2018/08/28		105	%	80 - 120
			Dissolved Vanadium (V)	2018/08/28		100	%	80 - 120
			Dissolved Zinc (Zn)	2018/08/28		97	%	80 - 120
			Dissolved Calcium (Ca)	2018/08/28		NC	%	80 - 120
			Dissolved Magnesium (Mg)	2018/08/28		NC	%	80 - 120
			Dissolved Potassium (K)	2018/08/28		98	%	80 - 120
			Dissolved Sodium (Na)	2018/08/28		NC	%	80 - 120
9119838	JLP	Spiked Blank	Dissolved Aluminum (Al)	2018/08/28		94	%	80 - 120
			Dissolved Antimony (Sb)	2018/08/28		96	%	80 - 120
			Dissolved Arsenic (As)	2018/08/28		98	%	80 - 120
			Dissolved Barium (Ba)	2018/08/28		94	%	80 - 120
			Dissolved Beryllium (Be)	2018/08/28		96	%	80 - 120
			Dissolved Boron (B)	2018/08/28		95	%	80 - 120
			Dissolved Cadmium (Cd)	2018/08/28		94	%	80 - 120
			Dissolved Chromium (Cr)	2018/08/28		95	%	80 - 120
			Dissolved Copper (Cu)	2018/08/28		90	%	80 - 120
			Dissolved Iron (Fe)	2018/08/28		96	%	80 - 120
			Dissolved Lead (Pb)	2018/08/28		94	%	80 - 120
			Dissolved Lithium (Li)	2018/08/28		94	%	80 - 120
			Dissolved Manganese (Mn)	2018/08/28		95	%	80 - 120
			Dissolved Molybdenum (Mo)	2018/08/28		96	%	80 - 120
			Dissolved Nickel (Ni)	2018/08/28		94	%	80 - 120
			Dissolved Selenium (Se)	2018/08/28		93	%	80 - 120
			Dissolved Silver (Ag)	2018/08/28		94	%	80 - 120
			Dissolved Strontium (Sr)	2018/08/28		95	%	80 - 120
			Dissolved Thallium (Tl)	2018/08/28		95	%	80 - 120
			Dissolved Tin (Sn)	2018/08/28		95	%	80 - 120
			Dissolved Titanium (Ti)	2018/08/28		96	%	80 - 120
			Dissolved Uranium (U)	2018/08/28		97	%	80 - 120
			Dissolved Vanadium (V)	2018/08/28		95	%	80 - 120
			Dissolved Zinc (Zn)	2018/08/28		96	%	80 - 120

Maxxam Job #: B872232
Report Date: 2018/10/12

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8L7292
Sampler Initials: PS

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9119838	JLP	Method Blank	Dissolved Calcium (Ca)	2018/08/28		94	%	80 - 120
			Dissolved Magnesium (Mg)	2018/08/28		95	%	80 - 120
			Dissolved Potassium (K)	2018/08/28		94	%	80 - 120
			Dissolved Sodium (Na)	2018/08/28		94	%	80 - 120
			Dissolved Aluminum (Al)	2018/08/28	<0.0030		mg/L	
			Dissolved Antimony (Sb)	2018/08/28	<0.00050		mg/L	
			Dissolved Arsenic (As)	2018/08/28	<0.00010		mg/L	
			Dissolved Barium (Ba)	2018/08/28	<0.0010		mg/L	
			Dissolved Beryllium (Be)	2018/08/28	<0.00010		mg/L	
			Dissolved Boron (B)	2018/08/28	<0.050		mg/L	
			Dissolved Cadmium (Cd)	2018/08/28	<0.000010		mg/L	
			Dissolved Chromium (Cr)	2018/08/28	<0.0010		mg/L	
			Dissolved Copper (Cu)	2018/08/28	<0.00020		mg/L	
			Dissolved Iron (Fe)	2018/08/28	<0.0050		mg/L	
			Dissolved Lead (Pb)	2018/08/28	<0.00020		mg/L	
			Dissolved Lithium (Li)	2018/08/28	<0.0020		mg/L	
			Dissolved Manganese (Mn)	2018/08/28	<0.0010		mg/L	
			Dissolved Molybdenum (Mo)	2018/08/28	<0.0010		mg/L	
			Dissolved Nickel (Ni)	2018/08/28	<0.0010		mg/L	
			Dissolved Selenium (Se)	2018/08/28	<0.00010		mg/L	
			Dissolved Silver (Ag)	2018/08/28	<0.000020		mg/L	
			Dissolved Strontium (Sr)	2018/08/28	<0.0010		mg/L	
			Dissolved Thallium (Tl)	2018/08/28	<0.000010		mg/L	
			Dissolved Tin (Sn)	2018/08/28	<0.0050		mg/L	
			Dissolved Titanium (Ti)	2018/08/28	<0.0050		mg/L	
			Dissolved Uranium (U)	2018/08/28	<0.00010		mg/L	
			Dissolved Vanadium (V)	2018/08/28	<0.0050		mg/L	
			Dissolved Zinc (Zn)	2018/08/28	<0.0050		mg/L	
			Dissolved Calcium (Ca)	2018/08/28	<0.050		mg/L	
			Dissolved Magnesium (Mg)	2018/08/28	<0.050		mg/L	
			Dissolved Potassium (K)	2018/08/28	<0.050		mg/L	
			Dissolved Sodium (Na)	2018/08/28	<0.050		mg/L	
9119838	JLP	RPD	Dissolved Lithium (Li)	2018/08/28	2.7		%	20
			Dissolved Aluminum (Al)	2018/08/28	1.9		%	20
			Dissolved Antimony (Sb)	2018/08/28	NC		%	20
			Dissolved Arsenic (As)	2018/08/28	NC		%	20
			Dissolved Barium (Ba)	2018/08/28	NC		%	20
			Dissolved Beryllium (Be)	2018/08/28	NC		%	20
			Dissolved Boron (B)	2018/08/28	NC		%	20
			Dissolved Cadmium (Cd)	2018/08/28	NC		%	20
			Dissolved Chromium (Cr)	2018/08/28	NC		%	20
			Dissolved Copper (Cu)	2018/08/28	NC		%	20
			Dissolved Iron (Fe)	2018/08/28	NC		%	20
			Dissolved Lead (Pb)	2018/08/28	NC		%	20
			Dissolved Lithium (Li)	2018/08/28	NC		%	20
			Dissolved Manganese (Mn)	2018/08/28	NC		%	20
			Dissolved Molybdenum (Mo)	2018/08/28	NC		%	20
			Dissolved Nickel (Ni)	2018/08/28	NC		%	20
			Dissolved Selenium (Se)	2018/08/28	NC		%	20
			Dissolved Silver (Ag)	2018/08/28	NC		%	20
			Dissolved Strontium (Sr)	2018/08/28	NC		%	20
			Dissolved Thallium (Tl)	2018/08/28	NC		%	20

Maxxam Job #: B872232
Report Date: 2018/10/12

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8L7292
Sampler Initials: PS

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9120507	MHM	Matrix Spike	Dissolved Tin (Sn)	2018/08/28	NC		%	20
			Dissolved Titanium (Ti)	2018/08/28	NC		%	20
			Dissolved Uranium (U)	2018/08/28	NC		%	20
			Dissolved Vanadium (V)	2018/08/28	NC		%	20
			Dissolved Zinc (Zn)	2018/08/28	NC		%	20
			Dissolved Aluminum (Al)	2018/08/28	NC		%	20
			Dissolved Antimony (Sb)	2018/08/28	NC		%	20
			Dissolved Arsenic (As)	2018/08/28	NC		%	20
			Dissolved Barium (Ba)	2018/08/28	NC		%	20
			Dissolved Beryllium (Be)	2018/08/28	NC		%	20
			Dissolved Boron (B)	2018/08/28	NC		%	20
			Dissolved Cadmium (Cd)	2018/08/28	NC		%	20
			Dissolved Chromium (Cr)	2018/08/28	NC		%	20
			Dissolved Copper (Cu)	2018/08/28	NC		%	20
			Dissolved Iron (Fe)	2018/08/28	NC		%	20
			Dissolved Lead (Pb)	2018/08/28	NC		%	20
			Dissolved Lithium (Li)	2018/08/28	NC		%	20
			Dissolved Manganese (Mn)	2018/08/28	NC		%	20
			Dissolved Molybdenum (Mo)	2018/08/28	NC		%	20
			Dissolved Nickel (Ni)	2018/08/28	NC		%	20
			Dissolved Selenium (Se)	2018/08/28	NC		%	20
			Dissolved Silver (Ag)	2018/08/28	NC		%	20
			Dissolved Strontium (Sr)	2018/08/28	NC		%	20
			Dissolved Thallium (Tl)	2018/08/28	NC		%	20
			Dissolved Tin (Sn)	2018/08/28	NC		%	20
			Dissolved Titanium (Ti)	2018/08/28	NC		%	20
			Dissolved Uranium (U)	2018/08/28	NC		%	20
			Dissolved Vanadium (V)	2018/08/28	NC		%	20
			Dissolved Zinc (Zn)	2018/08/28	NC		%	20
			Total Aluminum (Al)	2018/08/29		97	%	80 - 120
			Total Antimony (Sb)	2018/08/29		NC	%	80 - 120
			Total Arsenic (As)	2018/08/29		106	%	80 - 120
			Total Barium (Ba)	2018/08/29		100	%	80 - 120
			Total Beryllium (Be)	2018/08/29		100	%	80 - 120
			Total Boron (B)	2018/08/29		100	%	80 - 120
			Total Cadmium (Cd)	2018/08/29		101	%	80 - 120
			Total Chromium (Cr)	2018/08/29		95	%	80 - 120
			Total Copper (Cu)	2018/08/29		89	%	80 - 120
			Total Iron (Fe)	2018/08/29		95	%	80 - 120
			Total Lead (Pb)	2018/08/29		98	%	80 - 120
			Total Lithium (Li)	2018/08/29		100	%	80 - 120
			Total Manganese (Mn)	2018/08/29		NC	%	80 - 120
			Total Molybdenum (Mo)	2018/08/29		NC	%	80 - 120
			Total Nickel (Ni)	2018/08/29		94	%	80 - 120
			Total Selenium (Se)	2018/08/29		104	%	80 - 120
			Total Silver (Ag)	2018/08/29		97	%	80 - 120
			Total Strontium (Sr)	2018/08/29		NC	%	80 - 120
			Total Thallium (Tl)	2018/08/29		98	%	80 - 120
			Total Tin (Sn)	2018/08/29		99	%	80 - 120
			Total Titanium (Ti)	2018/08/29		101	%	80 - 120
			Total Uranium (U)	2018/08/29		108	%	80 - 120
			Total Vanadium (V)	2018/08/29		101	%	80 - 120

Maxxam Job #: B872232
Report Date: 2018/10/12

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8L7292
Sampler Initials: PS

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9120507	MHM	Spiked Blank	Total Zinc (Zn)	2018/08/29		NC	%	80 - 120
			Total Calcium (Ca)	2018/08/29		NC	%	80 - 120
			Total Magnesium (Mg)	2018/08/29		NC	%	80 - 120
			Total Potassium (K)	2018/08/29		NC	%	80 - 120
			Total Sodium (Na)	2018/08/29		NC	%	80 - 120
			Total Aluminum (Al)	2018/08/29		101	%	80 - 120
			Total Antimony (Sb)	2018/08/29		102	%	80 - 120
			Total Arsenic (As)	2018/08/29		106	%	80 - 120
			Total Barium (Ba)	2018/08/29		102	%	80 - 120
			Total Beryllium (Be)	2018/08/29		104	%	80 - 120
			Total Boron (B)	2018/08/29		108	%	80 - 120
			Total Cadmium (Cd)	2018/08/29		105	%	80 - 120
			Total Chromium (Cr)	2018/08/29		100	%	80 - 120
			Total Copper (Cu)	2018/08/29		96	%	80 - 120
			Total Iron (Fe)	2018/08/29		103	%	80 - 120
			Total Lead (Pb)	2018/08/29		104	%	80 - 120
			Total Lithium (Li)	2018/08/29		105	%	80 - 120
			Total Manganese (Mn)	2018/08/29		101	%	80 - 120
			Total Molybdenum (Mo)	2018/08/29		106	%	80 - 120
			Total Nickel (Ni)	2018/08/29		98	%	80 - 120
			Total Selenium (Se)	2018/08/29		103	%	80 - 120
			Total Silver (Ag)	2018/08/29		102	%	80 - 120
			Total Strontium (Sr)	2018/08/29		107	%	80 - 120
			Total Thallium (Tl)	2018/08/29		102	%	80 - 120
			Total Tin (Sn)	2018/08/29		102	%	80 - 120
			Total Titanium (Ti)	2018/08/29		102	%	80 - 120
			Total Uranium (U)	2018/08/29		110	%	80 - 120
			Total Vanadium (V)	2018/08/29		102	%	80 - 120
			Total Zinc (Zn)	2018/08/29		107	%	80 - 120
			Total Calcium (Ca)	2018/08/29		105	%	80 - 120
			Total Magnesium (Mg)	2018/08/29		101	%	80 - 120
			Total Potassium (K)	2018/08/29		101	%	80 - 120
			Total Sodium (Na)	2018/08/29		100	%	80 - 120
9120507	MHM	Method Blank	Total Aluminum (Al)	2018/08/29	<0.0030		mg/L	
			Total Antimony (Sb)	2018/08/29	<0.00050		mg/L	
			Total Arsenic (As)	2018/08/29	<0.00010		mg/L	
			Total Barium (Ba)	2018/08/29	<0.0010		mg/L	
			Total Beryllium (Be)	2018/08/29	<0.00010		mg/L	
			Total Boron (B)	2018/08/29	<0.050		mg/L	
			Total Cadmium (Cd)	2018/08/29	<0.000010		mg/L	
			Total Chromium (Cr)	2018/08/29	<0.0010		mg/L	
			Total Copper (Cu)	2018/08/29	<0.00050		mg/L	
			Total Iron (Fe)	2018/08/29	<0.010		mg/L	
			Total Lead (Pb)	2018/08/29	<0.00020		mg/L	
			Total Lithium (Li)	2018/08/29	<0.0020		mg/L	
			Total Manganese (Mn)	2018/08/29	<0.0010		mg/L	
			Total Molybdenum (Mo)	2018/08/29	<0.0010		mg/L	
			Total Nickel (Ni)	2018/08/29	<0.0010		mg/L	
			Total Selenium (Se)	2018/08/29	<0.00010		mg/L	
			Total Silver (Ag)	2018/08/29	<0.000020		mg/L	
			Total Strontium (Sr)	2018/08/29	<0.0010		mg/L	
			Total Thallium (Tl)	2018/08/29	<0.000010		mg/L	

Maxxam Job #: B872232
Report Date: 2018/10/12

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8L7292
Sampler Initials: PS

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9120507	MHM	RPD	Total Tin (Sn)	2018/08/29	<0.0050		mg/L	
			Total Titanium (Ti)	2018/08/29	<0.0050		mg/L	
			Total Uranium (U)	2018/08/29	<0.00010		mg/L	
			Total Vanadium (V)	2018/08/29	<0.0050		mg/L	
			Total Zinc (Zn)	2018/08/29	<0.0050		mg/L	
			Total Calcium (Ca)	2018/08/29	<0.050		mg/L	
			Total Magnesium (Mg)	2018/08/29	<0.050		mg/L	
			Total Potassium (K)	2018/08/29	<0.050		mg/L	
			Total Sodium (Na)	2018/08/29	<0.050		mg/L	
			Total Aluminum (Al)	2018/08/29	NC		%	20
			Total Antimony (Sb)	2018/08/29	0.91		%	20
			Total Arsenic (As)	2018/08/29	3.7		%	20
			Total Barium (Ba)	2018/08/29	0.32		%	20
			Total Beryllium (Be)	2018/08/29	NC		%	20
			Total Boron (B)	2018/08/29	NC		%	20
			Total Cadmium (Cd)	2018/08/29	16		%	20
			Total Chromium (Cr)	2018/08/29	NC		%	20
			Total Copper (Cu)	2018/08/29	NC		%	20
			Total Iron (Fe)	2018/08/29	NC		%	20
			Total Lead (Pb)	2018/08/29	0.61		%	20
			Total Lithium (Li)	2018/08/29	1.6		%	20
			Total Manganese (Mn)	2018/08/29	1.5		%	20
			Total Molybdenum (Mo)	2018/08/29	3.3		%	20
			Total Nickel (Ni)	2018/08/29	0.64		%	20
			Total Selenium (Se)	2018/08/29	5.0		%	20
			Total Silver (Ag)	2018/08/29	NC		%	20
			Total Strontium (Sr)	2018/08/29	0.70		%	20
			Total Thallium (Tl)	2018/08/29	0		%	20
			Total Tin (Sn)	2018/08/29	NC		%	20
			Total Titanium (Ti)	2018/08/29	NC		%	20
			Total Uranium (U)	2018/08/29	1.0		%	20
			Total Vanadium (V)	2018/08/29	NC		%	20
			Total Zinc (Zn)	2018/08/29	4.7		%	20

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

Maxxam Job #: B872232
Report Date: 2018/10/12

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8L7292
Sampler Initials: PS

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Rob Reinert, B.Sc., Scientific Specialist

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Your P.O. #: B8L7292
Site#: 63°02'15.5" 92°13'06.3"
Site Location: MELIADINE
Your C.O.C. #: B8L7292-M058-01-01

Attention: Alisha Williamson

Agnico-Eagle
Meliadine
Rankin Inlet, NU
Canada X0C 0G0

Report Date: 2018/12/11
Report #: R2662591
Version: 3 - Revision

CERTIFICATE OF ANALYSIS – REVISED REPORT

MAXXAM JOB #: B872232

Received: 2018/08/25, 12:00

Sample Matrix: Water
Samples Received: 7

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Hardness Total (calculated as CaCO ₃) (1)	7	N/A	2018/08/30	BBY WI-00033	Auto Calc
Hardness (calculated as CaCO ₃)	5	N/A	2018/08/28	BBY WI-00033	Auto Calc
Elements by CRC ICPMS (dissolved)	5	N/A	2018/08/28	BBY7SOP-00002	EPA 6020b R2 m
Elements by CRC ICPMS (total)	7	2018/08/28	2018/08/29	BBY7SOP-00003 BBY7SOP-00002	EPA 6020b R2 m
Filter and HNO ₃ Preserve for Metals	5	N/A	2018/08/27	BBY7 WI-00004	BCMOE Reqs 08/14

Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Maxxam's profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Maxxam in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.

Maxxam Analytics' liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Maxxam has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Maxxam, unless otherwise agreed in writing. Maxxam is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.

Results relate to samples tested. When sampling is not conducted by Maxxam, results relate to the supplied samples tested.

This Certificate shall not be reproduced except in full, without the written approval of the laboratory.

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

(1) "Total Hardness" was calculated from Total Ca and Mg concentrations and may be biased high (Hardness, or Dissolved Hardness, calculated from Dissolved Ca and Mg, should be used for compliance if available).

Encryption Key


Jennifer Villocero
Project Manager
11 Dec 2018 13:25:55

Attention: Alisha Williamson

Agnico-Eagle
Meliadine
Rankin Inlet, NU
Canada X0C 0G0

Your P.O. #: B8L7292
Site#: 63°02'15.5" 92°13'06.3"
Site Location: MELIADINE
Your C.O.C. #: B8L7292-M058-01-01

Report Date: 2018/12/11
Report #: R2662591
Version: 3 - Revision

CERTIFICATE OF ANALYSIS – REVISED REPORT

MAXXAM JOB #: B872232

Received: 2018/08/25, 12:00

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Veronica De Guzman, B.Sc., Project Manager

Email: VDeGuzman@maxxam.ca

Phone# (604) 734 7276

=====

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam Job #: B872232
Report Date: 2018/12/11

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8L7292
Sampler Initials: PS

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		UD8907	UD8908	UD8909	UD8910		
Sampling Date		2018/08/19 10:30	2018/08/19 10:45	2018/08/19 11:00	2018/08/19 10:15		
COC Number		B8L7292-M058-01-01	B8L7292-M058-01-01	B8L7292-M058-01-01	B8L7292-M058-01-01		
	UNITS	MEL-14	2018-0085	2018-0086	MEL-22 CP5	RDL	QC Batch

Calculated Parameters							
Filter and HNO3 Preservation	N/A	FIELD	FIELD	FIELD	FIELD	N/A	ONSITE
Dissolved Hardness (CaCO3)	mg/L	565	559	<0.50	4290	0.50	9118517
Total Hardness (CaCO3)	mg/L	557	541	<0.50	4030	0.50	9118516

RDL = Reportable Detection Limit

N/A = Not Applicable

Maxxam ID		UD8911	UD8912	UD8913		
Sampling Date		2018/08/19 07:30	2018/08/19 12:30	2018/08/19 12:45		
COC Number		B8L7292-M058-01-01	B8L7292-M058-01-01	B8L7292-M058-01-01		
	UNITS	RO EFFLUENT	DCP1- DOWNSTREAM	2018-0083	RDL	QC Batch

Calculated Parameters						
Filter and HNO3 Preservation	N/A	FIELD	N/A	N/A	N/A	ONSITE
Dissolved Hardness (CaCO3)	mg/L	16.9	N/A	N/A	0.50	9118517
Total Hardness (CaCO3)	mg/L	16.3	2140	2060	0.50	9118516

RDL = Reportable Detection Limit

N/A = Not Applicable

Maxxam Job #: B872232
Report Date: 2018/12/11

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8L7292
Sampler Initials: PS

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		UD8907	UD8908	UD8909		
Sampling Date		2018/08/19 10:30	2018/08/19 10:45	2018/08/19 11:00		
COC Number		B8L7292-M058-01-01	B8L7292-M058-01-01	B8L7292-M058-01-01		
	UNITS	MEL-14	2018-0085	2018-0086	RDL	QC Batch
Dissolved Metals by ICPMS						
Dissolved Aluminum (Al)	mg/L	0.0568	0.0569	0.0034	0.0030	9119838
Dissolved Antimony (Sb)	mg/L	<0.00050	<0.00050	<0.00050	0.00050	9119838
Dissolved Arsenic (As)	mg/L	0.00274	0.00259	<0.00010	0.00010	9119838
Dissolved Barium (Ba)	mg/L	0.150	0.147	<0.0010	0.0010	9119838
Dissolved Beryllium (Be)	mg/L	<0.00010	<0.00010	<0.00010	0.00010	9119838
Dissolved Boron (B)	mg/L	0.206	0.225	<0.050	0.050	9119838
Dissolved Cadmium (Cd)	mg/L	<0.000010	<0.000010	<0.000010	0.000010	9119838
Dissolved Chromium (Cr)	mg/L	<0.0010	<0.0010	<0.0010	0.0010	9119838
Dissolved Copper (Cu)	mg/L	0.00065	0.00066	<0.00020	0.00020	9119838
Dissolved Iron (Fe)	mg/L	0.0324	0.0297	<0.0050	0.0050	9119838
Dissolved Lead (Pb)	mg/L	<0.00020	<0.00020	<0.00020	0.00020	9119838
Dissolved Lithium (Li)	mg/L	0.163	0.165	<0.0020	0.0020	9119838
Dissolved Manganese (Mn)	mg/L	0.382	0.399	<0.0010	0.0010	9119838
Dissolved Molybdenum (Mo)	mg/L	0.0020	0.0020	<0.0010	0.0010	9119838
Dissolved Nickel (Ni)	mg/L	0.0030	0.0029	<0.0010	0.0010	9119838
Dissolved Selenium (Se)	mg/L	<0.00010	<0.00010	<0.00010	0.00010	9119838
Dissolved Silver (Ag)	mg/L	<0.000020	<0.000020	<0.000020	0.000020	9119838
Dissolved Strontium (Sr)	mg/L	4.10	4.11	<0.0010	0.0010	9119838
Dissolved Thallium (Tl)	mg/L	<0.000010	<0.000010	<0.000010	0.000010	9119838
Dissolved Tin (Sn)	mg/L	<0.0050	<0.0050	<0.0050	0.0050	9119838
Dissolved Titanium (Ti)	mg/L	<0.0050	<0.0050	<0.0050	0.0050	9119838
Dissolved Uranium (U)	mg/L	<0.00010	<0.00010	<0.00010	0.00010	9119838
Dissolved Vanadium (V)	mg/L	<0.0050	<0.0050	<0.0050	0.0050	9119838
Dissolved Zinc (Zn)	mg/L	<0.0050	<0.0050	<0.0050	0.0050	9119838
Dissolved Calcium (Ca)	mg/L	173	171	<0.050	0.050	9119838
Dissolved Magnesium (Mg)	mg/L	32.2	32.0	<0.050	0.050	9119838
Dissolved Potassium (K)	mg/L	16.6	16.6	<0.050	0.050	9119838
Dissolved Sodium (Na)	mg/L	165	164	<0.050	0.050	9119838
Total Metals by ICPMS						
Total Aluminum (Al)	mg/L	1.03	1.06	0.0055	0.0030	9120507
Total Antimony (Sb)	mg/L	<0.00050	<0.00050	<0.00050	0.00050	9120507
RDL = Reportable Detection Limit						

Maxxam Job #: B872232
Report Date: 2018/12/11

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8L7292
Sampler Initials: PS

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		UD8907	UD8908	UD8909		
Sampling Date		2018/08/19 10:30	2018/08/19 10:45	2018/08/19 11:00		
COC Number		B8L7292-M058-01-01	B8L7292-M058-01-01	B8L7292-M058-01-01		
	UNITS	MEL-14	2018-0085	2018-0086	RDL	QC Batch
Total Arsenic (As)	mg/L	0.00295	0.00295	<0.00010	0.00010	9120507
Total Barium (Ba)	mg/L	0.160	0.157	<0.0010	0.0010	9120507
Total Beryllium (Be)	mg/L	<0.00010	<0.00010	<0.00010	0.00010	9120507
Total Boron (B)	mg/L	0.190	0.192	<0.050	0.050	9120507
Total Cadmium (Cd)	mg/L	<0.000010	<0.000010	<0.000010	0.000010	9120507
Total Chromium (Cr)	mg/L	<0.0010	<0.0010	<0.0010	0.0010	9120507
Total Copper (Cu)	mg/L	0.00099	0.00098	<0.00050	0.00050	9120507
Total Iron (Fe)	mg/L	0.260	0.188	<0.010	0.010	9120507
Total Lead (Pb)	mg/L	<0.00020	0.00023	<0.00020	0.00020	9120507
Total Lithium (Li)	mg/L	0.159	0.161	<0.0020	0.0020	9120507
Total Manganese (Mn)	mg/L	0.406	0.423	<0.0010	0.0010	9120507
Total Molybdenum (Mo)	mg/L	0.0022	0.0023	<0.0010	0.0010	9120507
Total Nickel (Ni)	mg/L	0.0034	0.0034	<0.0010	0.0010	9120507
Total Selenium (Se)	mg/L	<0.00010	<0.00010	<0.00010	0.00010	9120507
Total Silver (Ag)	mg/L	<0.000020	<0.000020	<0.000020	0.000020	9120507
Total Strontium (Sr)	mg/L	3.97	3.93	<0.0010	0.0010	9120507
Total Thallium (Tl)	mg/L	<0.000010	<0.000010	<0.000010	0.000010	9120507
Total Tin (Sn)	mg/L	<0.0050	<0.0050	<0.0050	0.0050	9120507
Total Titanium (Ti)	mg/L	<0.0050	<0.0050	<0.0050	0.0050	9120507
Total Uranium (U)	mg/L	0.00018	0.00019	<0.00010	0.00010	9120507
Total Vanadium (V)	mg/L	<0.0050	<0.0050	<0.0050	0.0050	9120507
Total Zinc (Zn)	mg/L	0.0067	<0.0050	<0.0050	0.0050	9120507
Total Calcium (Ca)	mg/L	171	167	<0.050	0.050	9120507
Total Magnesium (Mg)	mg/L	31.4	30.5	<0.050	0.050	9120507
Total Potassium (K)	mg/L	16.7	16.5	<0.050	0.050	9120507
Total Sodium (Na)	mg/L	161	160	<0.050	0.050	9120507
RDL = Reportable Detection Limit						

Maxxam Job #: B872232
Report Date: 2018/12/11

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8L7292
Sampler Initials: PS

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		UD8910		UD8911		UD8912		
Sampling Date		2018/08/19 10:15		2018/08/19 07:30		2018/08/19 12:30		
COC Number		B8L7292-M058-01-01		B8L7292-M058-01-01		B8L7292-M058-01-01		
	UNITS	MEL-22 CP5	RDL	RO EFFLUENT	RDL	DCP1- DOWNSTREAM	RDL	QC Batch

Dissolved Metals by ICPMS

Dissolved Aluminum (Al)	mg/L	<0.030	0.030	0.0038	0.0030	N/A	0.0030	9119838
Dissolved Antimony (Sb)	mg/L	<0.0050	0.0050	<0.00050	0.00050	N/A	0.00050	9119838
Dissolved Arsenic (As)	mg/L	0.0043	0.0010	0.00016	0.00010	N/A	0.00010	9119838
Dissolved Barium (Ba)	mg/L	0.317	0.010	0.0013	0.0010	N/A	0.0010	9119838
Dissolved Beryllium (Be)	mg/L	<0.0010	0.0010	<0.00010	0.00010	N/A	0.00010	9119838
Dissolved Boron (B)	mg/L	0.95	0.50	0.608	0.050	N/A	0.050	9119838
Dissolved Cadmium (Cd)	mg/L	0.00061	0.00010	<0.000010	0.000010	N/A	0.000010	9119838
Dissolved Chromium (Cr)	mg/L	<0.010	0.010	<0.0010	0.0010	N/A	0.0010	9119838
Dissolved Copper (Cu)	mg/L	0.0084	0.0020	<0.00020	0.00020	N/A	0.00020	9119838
Dissolved Iron (Fe)	mg/L	<0.050	0.050	<0.0050	0.0050	N/A	0.0050	9119838
Dissolved Lead (Pb)	mg/L	<0.0020	0.0020	<0.00020	0.00020	N/A	0.00020	9119838
Dissolved Lithium (Li)	mg/L	1.19	0.020	0.0613	0.0020	N/A	0.0020	9119838
Dissolved Manganese (Mn)	mg/L	0.238	0.010	<0.0010	0.0010	N/A	0.0010	9119838
Dissolved Molybdenum (Mo)	mg/L	<0.010	0.010	<0.0010	0.0010	N/A	0.0010	9119838
Dissolved Nickel (Ni)	mg/L	0.036	0.010	<0.0010	0.0010	N/A	0.0010	9119838
Dissolved Selenium (Se)	mg/L	<0.0010	0.0010	<0.00010	0.00010	N/A	0.00010	9119838
Dissolved Silver (Ag)	mg/L	<0.00020	0.00020	<0.000020	0.000020	N/A	0.000020	9119838
Dissolved Strontium (Sr)	mg/L	32.8	0.010	0.114	0.0010	N/A	0.0010	9119838
Dissolved Thallium (Tl)	mg/L	0.00029	0.00010	<0.000010	0.000010	N/A	0.000010	9119838
Dissolved Tin (Sn)	mg/L	<0.050	0.050	<0.0050	0.0050	N/A	0.0050	9119838
Dissolved Titanium (Ti)	mg/L	<0.050	0.050	<0.0050	0.0050	N/A	0.0050	9119838
Dissolved Uranium (U)	mg/L	0.0084	0.0010	<0.00010	0.00010	N/A	0.00010	9119838
Dissolved Vanadium (V)	mg/L	<0.050	0.050	<0.0050	0.0050	N/A	0.0050	9119838
Dissolved Zinc (Zn)	mg/L	<0.050	0.050	<0.0050	0.0050	N/A	0.0050	9119838
Dissolved Calcium (Ca)	mg/L	1220	0.50	4.92	0.050	N/A	0.050	9119838
Dissolved Magnesium (Mg)	mg/L	303	0.50	1.12	0.050	N/A	0.050	9119838
Dissolved Potassium (K)	mg/L	116	0.50	5.38	0.050	N/A	0.050	9119838
Dissolved Sodium (Na)	mg/L	1930	0.50	97.2	0.050	N/A	0.050	9119838

Total Metals by ICPMS

Total Aluminum (Al)	mg/L	0.042	0.030	0.0043	0.0030	0.173	0.030	9120507
Total Antimony (Sb)	mg/L	<0.0050	0.0050	<0.00050	0.00050	<0.0050	0.0050	9120507

RDL = Reportable Detection Limit
N/A = Not Applicable

Maxxam Job #: B872232
Report Date: 2018/12/11

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8L7292
Sampler Initials: PS

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		UD8910		UD8911		UD8912		
Sampling Date		2018/08/19 10:15		2018/08/19 07:30		2018/08/19 12:30		
COC Number		B8L7292-M058-01-01		B8L7292-M058-01-01		B8L7292-M058-01-01		
	UNITS	MEL-22 CP5	RDL	RO EFFLUENT	RDL	DCP1- DOWNSTREAM	RDL	QC Batch
Total Arsenic (As)	mg/L	0.0054	0.0010	0.00013	0.00010	0.0064	0.0010	9120507
Total Barium (Ba)	mg/L	0.311	0.010	0.0013	0.0010	0.154	0.010	9120507
Total Beryllium (Be)	mg/L	<0.0010	0.0010	<0.00010	0.00010	<0.0010	0.0010	9120507
Total Boron (B)	mg/L	0.79	0.50	0.568	0.050	<0.50	0.50	9120507
Total Cadmium (Cd)	mg/L	0.00086	0.00010	<0.000010	0.000010	0.00030	0.00010	9120507
Total Chromium (Cr)	mg/L	<0.010	0.010	<0.0010	0.0010	<0.010	0.010	9120507
Total Copper (Cu)	mg/L	0.0111	0.0050	<0.00050	0.00050	0.0077	0.0050	9120507
Total Iron (Fe)	mg/L	0.36	0.10	<0.010	0.010	0.37	0.10	9120507
Total Lead (Pb)	mg/L	<0.0020	0.0020	<0.00020	0.00020	<0.0020	0.0020	9120507
Total Lithium (Li)	mg/L	1.13	0.020	0.0575	0.0020	0.326	0.020	9120507
Total Manganese (Mn)	mg/L	0.286	0.010	<0.0010	0.0010	1.12	0.010	9120507
Total Molybdenum (Mo)	mg/L	<0.010	0.010	<0.0010	0.0010	<0.010	0.010	9120507
Total Nickel (Ni)	mg/L	0.039	0.010	<0.0010	0.0010	0.063	0.010	9120507
Total Selenium (Se)	mg/L	<0.0010	0.0010	<0.00010	0.00010	<0.0010	0.0010	9120507
Total Silver (Ag)	mg/L	<0.00020	0.00020	<0.000020	0.000020	<0.00020	0.00020	9120507
Total Strontium (Sr)	mg/L	29.6	0.010	0.111	0.0010	10.0	0.010	9120507
Total Thallium (Tl)	mg/L	0.00033	0.00010	<0.000010	0.000010	0.00013	0.00010	9120507
Total Tin (Sn)	mg/L	<0.050	0.050	<0.0050	0.0050	<0.050	0.050	9120507
Total Titanium (Ti)	mg/L	<0.050	0.050	<0.0050	0.0050	<0.050	0.050	9120507
Total Uranium (U)	mg/L	0.0090	0.0010	<0.00010	0.00010	0.0225	0.0010	9120507
Total Vanadium (V)	mg/L	<0.050	0.050	<0.0050	0.0050	<0.050	0.050	9120507
Total Zinc (Zn)	mg/L	<0.050	0.050	<0.0050	0.0050	<0.050	0.050	9120507
Total Calcium (Ca)	mg/L	1150	0.50	4.71	0.050	666	0.50	9120507
Total Magnesium (Mg)	mg/L	278	0.50	1.09	0.050	115	0.50	9120507
Total Potassium (K)	mg/L	113	0.50	5.41	0.050	35.4	0.50	9120507
Total Sodium (Na)	mg/L	1860	0.50	94.7	0.050	391	0.50	9120507

RDL = Reportable Detection Limit

Maxxam Job #: B872232
Report Date: 2018/12/11

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8L7292
Sampler Initials: PS

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		UD8913		
Sampling Date		2018/08/19 12:45		
COC Number		B8L7292-M058-01-01		
	UNITS	2018-0083	RDL	QC Batch
Total Metals by ICPMS				
Total Aluminum (Al)	mg/L	0.143	0.015	9120507
Total Antimony (Sb)	mg/L	<0.0025	0.0025	9120507
Total Arsenic (As)	mg/L	0.00664	0.00050	9120507
Total Barium (Ba)	mg/L	0.151	0.0050	9120507
Total Beryllium (Be)	mg/L	<0.00050	0.00050	9120507
Total Boron (B)	mg/L	0.25	0.25	9120507
Total Cadmium (Cd)	mg/L	0.000274	0.000050	9120507
Total Chromium (Cr)	mg/L	<0.0050	0.0050	9120507
Total Copper (Cu)	mg/L	0.0075	0.0025	9120507
Total Iron (Fe)	mg/L	0.301	0.050	9120507
Total Lead (Pb)	mg/L	<0.0010	0.0010	9120507
Total Lithium (Li)	mg/L	0.323	0.010	9120507
Total Manganese (Mn)	mg/L	1.09	0.0050	9120507
Total Molybdenum (Mo)	mg/L	0.0080	0.0050	9120507
Total Nickel (Ni)	mg/L	0.0637	0.0050	9120507
Total Selenium (Se)	mg/L	0.00061	0.00050	9120507
Total Silver (Ag)	mg/L	<0.00010	0.00010	9120507
Total Strontium (Sr)	mg/L	9.93	0.0050	9120507
Total Thallium (Tl)	mg/L	0.000128	0.000050	9120507
Total Tin (Sn)	mg/L	<0.025	0.025	9120507
Total Titanium (Ti)	mg/L	<0.025	0.025	9120507
Total Uranium (U)	mg/L	0.0223	0.00050	9120507
Total Vanadium (V)	mg/L	<0.025	0.025	9120507
Total Zinc (Zn)	mg/L	<0.025	0.025	9120507
Total Calcium (Ca)	mg/L	644	0.25	9120507
Total Magnesium (Mg)	mg/L	109	0.25	9120507
Total Potassium (K)	mg/L	34.5	0.25	9120507
Total Sodium (Na)	mg/L	378	0.25	9120507
RDL = Reportable Detection Limit				

Maxxam Job #: B872232
Report Date: 2018/12/11

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8L7292
Sampler Initials: PS

GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	4.0°C

Revised Report (2018/10/12): Client sample ID changed as per client request, and GPS coordinates included.

Revised Report (2018/12/11): Client sample ID and GPS coordinates for lab ID UD8907 updated as per client request.

Sample UD8907 [MEL-14] : GPS coordinates: 63°02'15.5" 92°13'06.3"

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER) Comments

Matrix Spike Elements by CRC ICPMS (total): RDL raised due to concentration over linear range, sample dilution required.

Sample UD8910 [MEL-22 CP5] Elements by CRC ICPMS (dissolved): RDL raised due to concentration over linear range, sample dilution required.

Sample UD8910 [MEL-22 CP5] Elements by CRC ICPMS (total): RDL raised due to concentration over linear range, sample dilution required.

Sample UD8912 [DCP1- DOWNSTREAM] Elements by CRC ICPMS (total): RDL raised due to concentration over linear range, sample dilution required.

Sample UD8913 [2018-0083] Elements by CRC ICPMS (total): RDL raised due to concentration over linear range, sample dilution required.

Results relate only to the items tested.

Maxxam Job #: B872232
Report Date: 2018/12/11

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8L7292
Sampler Initials: PS

QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9119838	JLP	Matrix Spike	Dissolved Aluminum (Al)	2018/08/28		100	%	80 - 120
			Dissolved Antimony (Sb)	2018/08/28		104	%	80 - 120
			Dissolved Arsenic (As)	2018/08/28		105	%	80 - 120
			Dissolved Barium (Ba)	2018/08/28		NC	%	80 - 120
			Dissolved Beryllium (Be)	2018/08/28		105	%	80 - 120
			Dissolved Boron (B)	2018/08/28		103	%	80 - 120
			Dissolved Cadmium (Cd)	2018/08/28		100	%	80 - 120
			Dissolved Chromium (Cr)	2018/08/28		97	%	80 - 120
			Dissolved Copper (Cu)	2018/08/28		89	%	80 - 120
			Dissolved Iron (Fe)	2018/08/28		NC	%	80 - 120
			Dissolved Lead (Pb)	2018/08/28		97	%	80 - 120
			Dissolved Lithium (Li)	2018/08/28		103	%	80 - 120
			Dissolved Manganese (Mn)	2018/08/28		NC	%	80 - 120
			Dissolved Molybdenum (Mo)	2018/08/28		107	%	80 - 120
			Dissolved Nickel (Ni)	2018/08/28		94	%	80 - 120
			Dissolved Selenium (Se)	2018/08/28		102	%	80 - 120
			Dissolved Silver (Ag)	2018/08/28		99	%	80 - 120
			Dissolved Strontium (Sr)	2018/08/28		NC	%	80 - 120
			Dissolved Thallium (Tl)	2018/08/28		97	%	80 - 120
			Dissolved Tin (Sn)	2018/08/28		104	%	80 - 120
			Dissolved Titanium (Ti)	2018/08/28		102	%	80 - 120
			Dissolved Uranium (U)	2018/08/28		105	%	80 - 120
			Dissolved Vanadium (V)	2018/08/28		100	%	80 - 120
			Dissolved Zinc (Zn)	2018/08/28		97	%	80 - 120
			Dissolved Calcium (Ca)	2018/08/28		NC	%	80 - 120
			Dissolved Magnesium (Mg)	2018/08/28		NC	%	80 - 120
			Dissolved Potassium (K)	2018/08/28		98	%	80 - 120
			Dissolved Sodium (Na)	2018/08/28		NC	%	80 - 120
9119838	JLP	Spiked Blank	Dissolved Aluminum (Al)	2018/08/28		94	%	80 - 120
			Dissolved Antimony (Sb)	2018/08/28		96	%	80 - 120
			Dissolved Arsenic (As)	2018/08/28		98	%	80 - 120
			Dissolved Barium (Ba)	2018/08/28		94	%	80 - 120
			Dissolved Beryllium (Be)	2018/08/28		96	%	80 - 120
			Dissolved Boron (B)	2018/08/28		95	%	80 - 120
			Dissolved Cadmium (Cd)	2018/08/28		94	%	80 - 120
			Dissolved Chromium (Cr)	2018/08/28		95	%	80 - 120
			Dissolved Copper (Cu)	2018/08/28		90	%	80 - 120
			Dissolved Iron (Fe)	2018/08/28		96	%	80 - 120
			Dissolved Lead (Pb)	2018/08/28		94	%	80 - 120
			Dissolved Lithium (Li)	2018/08/28		94	%	80 - 120
			Dissolved Manganese (Mn)	2018/08/28		95	%	80 - 120
			Dissolved Molybdenum (Mo)	2018/08/28		96	%	80 - 120
			Dissolved Nickel (Ni)	2018/08/28		94	%	80 - 120
			Dissolved Selenium (Se)	2018/08/28		93	%	80 - 120
			Dissolved Silver (Ag)	2018/08/28		94	%	80 - 120
			Dissolved Strontium (Sr)	2018/08/28		95	%	80 - 120
			Dissolved Thallium (Tl)	2018/08/28		95	%	80 - 120
			Dissolved Tin (Sn)	2018/08/28		95	%	80 - 120
			Dissolved Titanium (Ti)	2018/08/28		96	%	80 - 120
			Dissolved Uranium (U)	2018/08/28		97	%	80 - 120
			Dissolved Vanadium (V)	2018/08/28		95	%	80 - 120
			Dissolved Zinc (Zn)	2018/08/28		96	%	80 - 120
			Dissolved Calcium (Ca)	2018/08/28		94	%	80 - 120

Maxxam Job #: B872232
Report Date: 2018/12/11

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8L7292
Sampler Initials: PS

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9119838	JLP	Method Blank	Dissolved Magnesium (Mg)	2018/08/28		95	%	80 - 120
			Dissolved Potassium (K)	2018/08/28		94	%	80 - 120
			Dissolved Sodium (Na)	2018/08/28		94	%	80 - 120
			Dissolved Aluminum (Al)	2018/08/28	<0.0030		mg/L	
			Dissolved Antimony (Sb)	2018/08/28	<0.00050		mg/L	
			Dissolved Arsenic (As)	2018/08/28	<0.00010		mg/L	
			Dissolved Barium (Ba)	2018/08/28	<0.0010		mg/L	
			Dissolved Beryllium (Be)	2018/08/28	<0.00010		mg/L	
			Dissolved Boron (B)	2018/08/28	<0.050		mg/L	
			Dissolved Cadmium (Cd)	2018/08/28	<0.000010		mg/L	
			Dissolved Chromium (Cr)	2018/08/28	<0.0010		mg/L	
			Dissolved Copper (Cu)	2018/08/28	<0.00020		mg/L	
			Dissolved Iron (Fe)	2018/08/28	<0.0050		mg/L	
			Dissolved Lead (Pb)	2018/08/28	<0.00020		mg/L	
			Dissolved Lithium (Li)	2018/08/28	<0.0020		mg/L	
			Dissolved Manganese (Mn)	2018/08/28	<0.0010		mg/L	
			Dissolved Molybdenum (Mo)	2018/08/28	<0.0010		mg/L	
			Dissolved Nickel (Ni)	2018/08/28	<0.0010		mg/L	
			Dissolved Selenium (Se)	2018/08/28	<0.00010		mg/L	
			Dissolved Silver (Ag)	2018/08/28	<0.000020		mg/L	
			Dissolved Strontium (Sr)	2018/08/28	<0.0010		mg/L	
			Dissolved Thallium (Tl)	2018/08/28	<0.000010		mg/L	
			Dissolved Tin (Sn)	2018/08/28	<0.0050		mg/L	
			Dissolved Titanium (Ti)	2018/08/28	<0.0050		mg/L	
			Dissolved Uranium (U)	2018/08/28	<0.00010		mg/L	
			Dissolved Vanadium (V)	2018/08/28	<0.0050		mg/L	
			Dissolved Zinc (Zn)	2018/08/28	<0.0050		mg/L	
			Dissolved Calcium (Ca)	2018/08/28	<0.050		mg/L	
			Dissolved Magnesium (Mg)	2018/08/28	<0.050		mg/L	
			Dissolved Potassium (K)	2018/08/28	<0.050		mg/L	
			Dissolved Sodium (Na)	2018/08/28	<0.050		mg/L	
9119838	JLP	RPD	Dissolved Lithium (Li)	2018/08/28	2.7		%	20
			Dissolved Aluminum (Al)	2018/08/28	1.9		%	20
			Dissolved Antimony (Sb)	2018/08/28	NC		%	20
			Dissolved Arsenic (As)	2018/08/28	NC		%	20
			Dissolved Barium (Ba)	2018/08/28	NC		%	20
			Dissolved Beryllium (Be)	2018/08/28	NC		%	20
			Dissolved Boron (B)	2018/08/28	NC		%	20
			Dissolved Cadmium (Cd)	2018/08/28	NC		%	20
			Dissolved Chromium (Cr)	2018/08/28	NC		%	20
			Dissolved Copper (Cu)	2018/08/28	NC		%	20
			Dissolved Iron (Fe)	2018/08/28	NC		%	20
			Dissolved Lead (Pb)	2018/08/28	NC		%	20
			Dissolved Lithium (Li)	2018/08/28	NC		%	20
			Dissolved Manganese (Mn)	2018/08/28	NC		%	20
			Dissolved Molybdenum (Mo)	2018/08/28	NC		%	20
			Dissolved Nickel (Ni)	2018/08/28	NC		%	20
			Dissolved Selenium (Se)	2018/08/28	NC		%	20
			Dissolved Silver (Ag)	2018/08/28	NC		%	20
			Dissolved Strontium (Sr)	2018/08/28	NC		%	20
			Dissolved Thallium (Tl)	2018/08/28	NC		%	20
			Dissolved Tin (Sn)	2018/08/28	NC		%	20
			Dissolved Titanium (Ti)	2018/08/28	NC		%	20

Maxxam Job #: B872232
Report Date: 2018/12/11

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8L7292
Sampler Initials: PS

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9120507	MHM	Matrix Spike	Dissolved Uranium (U)	2018/08/28	NC		%	20
			Dissolved Vanadium (V)	2018/08/28	NC		%	20
			Dissolved Zinc (Zn)	2018/08/28	NC		%	20
			Dissolved Aluminum (Al)	2018/08/28	NC		%	20
			Dissolved Antimony (Sb)	2018/08/28	NC		%	20
			Dissolved Arsenic (As)	2018/08/28	NC		%	20
			Dissolved Barium (Ba)	2018/08/28	NC		%	20
			Dissolved Beryllium (Be)	2018/08/28	NC		%	20
			Dissolved Boron (B)	2018/08/28	NC		%	20
			Dissolved Cadmium (Cd)	2018/08/28	NC		%	20
			Dissolved Chromium (Cr)	2018/08/28	NC		%	20
			Dissolved Copper (Cu)	2018/08/28	NC		%	20
			Dissolved Iron (Fe)	2018/08/28	NC		%	20
			Dissolved Lead (Pb)	2018/08/28	NC		%	20
			Dissolved Lithium (Li)	2018/08/28	NC		%	20
			Dissolved Manganese (Mn)	2018/08/28	NC		%	20
			Dissolved Molybdenum (Mo)	2018/08/28	NC		%	20
			Dissolved Nickel (Ni)	2018/08/28	NC		%	20
			Dissolved Selenium (Se)	2018/08/28	NC		%	20
			Dissolved Silver (Ag)	2018/08/28	NC		%	20
			Dissolved Strontium (Sr)	2018/08/28	NC		%	20
			Dissolved Thallium (Tl)	2018/08/28	NC		%	20
			Dissolved Tin (Sn)	2018/08/28	NC		%	20
			Dissolved Titanium (Ti)	2018/08/28	NC		%	20
			Dissolved Uranium (U)	2018/08/28	NC		%	20
			Dissolved Vanadium (V)	2018/08/28	NC		%	20
			Dissolved Zinc (Zn)	2018/08/28	NC		%	20
			Total Aluminum (Al)	2018/08/29		97	%	80 - 120
			Total Antimony (Sb)	2018/08/29		NC	%	80 - 120
			Total Arsenic (As)	2018/08/29		106	%	80 - 120
			Total Barium (Ba)	2018/08/29		100	%	80 - 120
			Total Beryllium (Be)	2018/08/29		100	%	80 - 120
			Total Boron (B)	2018/08/29		100	%	80 - 120
			Total Cadmium (Cd)	2018/08/29		101	%	80 - 120
			Total Chromium (Cr)	2018/08/29		95	%	80 - 120
			Total Copper (Cu)	2018/08/29		89	%	80 - 120
			Total Iron (Fe)	2018/08/29		95	%	80 - 120
			Total Lead (Pb)	2018/08/29		98	%	80 - 120
			Total Lithium (Li)	2018/08/29		100	%	80 - 120
			Total Manganese (Mn)	2018/08/29		NC	%	80 - 120
			Total Molybdenum (Mo)	2018/08/29		NC	%	80 - 120
			Total Nickel (Ni)	2018/08/29		94	%	80 - 120
			Total Selenium (Se)	2018/08/29		104	%	80 - 120
			Total Silver (Ag)	2018/08/29		97	%	80 - 120
			Total Strontium (Sr)	2018/08/29		NC	%	80 - 120
			Total Thallium (Tl)	2018/08/29		98	%	80 - 120
			Total Tin (Sn)	2018/08/29		99	%	80 - 120
			Total Titanium (Ti)	2018/08/29		101	%	80 - 120
			Total Uranium (U)	2018/08/29		108	%	80 - 120
			Total Vanadium (V)	2018/08/29		101	%	80 - 120
			Total Zinc (Zn)	2018/08/29		NC	%	80 - 120
			Total Calcium (Ca)	2018/08/29		NC	%	80 - 120
			Total Magnesium (Mg)	2018/08/29		NC	%	80 - 120

Maxxam Job #: B872232
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Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8L7292
Sampler Initials: PS

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9120507	MHM	Spiked Blank	Total Potassium (K)	2018/08/29		NC	%	80 - 120
			Total Sodium (Na)	2018/08/29		NC	%	80 - 120
			Total Aluminum (Al)	2018/08/29		101	%	80 - 120
			Total Antimony (Sb)	2018/08/29		102	%	80 - 120
			Total Arsenic (As)	2018/08/29		106	%	80 - 120
			Total Barium (Ba)	2018/08/29		102	%	80 - 120
			Total Beryllium (Be)	2018/08/29		104	%	80 - 120
			Total Boron (B)	2018/08/29		108	%	80 - 120
			Total Cadmium (Cd)	2018/08/29		105	%	80 - 120
			Total Chromium (Cr)	2018/08/29		100	%	80 - 120
			Total Copper (Cu)	2018/08/29		96	%	80 - 120
			Total Iron (Fe)	2018/08/29		103	%	80 - 120
			Total Lead (Pb)	2018/08/29		104	%	80 - 120
			Total Lithium (Li)	2018/08/29		105	%	80 - 120
			Total Manganese (Mn)	2018/08/29		101	%	80 - 120
			Total Molybdenum (Mo)	2018/08/29		106	%	80 - 120
			Total Nickel (Ni)	2018/08/29		98	%	80 - 120
			Total Selenium (Se)	2018/08/29		103	%	80 - 120
			Total Silver (Ag)	2018/08/29		102	%	80 - 120
			Total Strontium (Sr)	2018/08/29		107	%	80 - 120
			Total Thallium (Tl)	2018/08/29		102	%	80 - 120
			Total Tin (Sn)	2018/08/29		102	%	80 - 120
			Total Titanium (Ti)	2018/08/29		102	%	80 - 120
			Total Uranium (U)	2018/08/29		110	%	80 - 120
			Total Vanadium (V)	2018/08/29		102	%	80 - 120
			Total Zinc (Zn)	2018/08/29		107	%	80 - 120
			Total Calcium (Ca)	2018/08/29		105	%	80 - 120
			Total Magnesium (Mg)	2018/08/29		101	%	80 - 120
9120507	MHM	Method Blank	Total Potassium (K)	2018/08/29		101	%	80 - 120
			Total Sodium (Na)	2018/08/29		100	%	80 - 120
			Total Aluminum (Al)	2018/08/29	<0.0030		mg/L	
			Total Antimony (Sb)	2018/08/29	<0.00050		mg/L	
			Total Arsenic (As)	2018/08/29	<0.00010		mg/L	
			Total Barium (Ba)	2018/08/29	<0.0010		mg/L	
			Total Beryllium (Be)	2018/08/29	<0.00010		mg/L	
			Total Boron (B)	2018/08/29	<0.050		mg/L	
			Total Cadmium (Cd)	2018/08/29	<0.000010		mg/L	
			Total Chromium (Cr)	2018/08/29	<0.0010		mg/L	
			Total Copper (Cu)	2018/08/29	<0.00050		mg/L	
			Total Iron (Fe)	2018/08/29	<0.010		mg/L	
			Total Lead (Pb)	2018/08/29	<0.00020		mg/L	
			Total Lithium (Li)	2018/08/29	<0.0020		mg/L	
			Total Manganese (Mn)	2018/08/29	<0.0010		mg/L	
			Total Molybdenum (Mo)	2018/08/29	<0.0010		mg/L	
			Total Nickel (Ni)	2018/08/29	<0.0010		mg/L	
			Total Selenium (Se)	2018/08/29	<0.00010		mg/L	
			Total Silver (Ag)	2018/08/29	<0.000020		mg/L	
			Total Strontium (Sr)	2018/08/29	<0.0010		mg/L	
			Total Thallium (Tl)	2018/08/29	<0.000010		mg/L	
			Total Tin (Sn)	2018/08/29	<0.0050		mg/L	
			Total Titanium (Ti)	2018/08/29	<0.0050		mg/L	
			Total Uranium (U)	2018/08/29	<0.00010		mg/L	
			Total Vanadium (V)	2018/08/29	<0.0050		mg/L	

Maxxam Job #: B872232
Report Date: 2018/12/11

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8L7292
Sampler Initials: PS

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9120507	MHM	RPD	Total Zinc (Zn)	2018/08/29	<0.0050		mg/L	
			Total Calcium (Ca)	2018/08/29	<0.050		mg/L	
			Total Magnesium (Mg)	2018/08/29	<0.050		mg/L	
			Total Potassium (K)	2018/08/29	<0.050		mg/L	
			Total Sodium (Na)	2018/08/29	<0.050		mg/L	
			Total Aluminum (Al)	2018/08/29	NC		%	20
			Total Antimony (Sb)	2018/08/29	0.91		%	20
			Total Arsenic (As)	2018/08/29	3.7		%	20
			Total Barium (Ba)	2018/08/29	0.32		%	20
			Total Beryllium (Be)	2018/08/29	NC		%	20
			Total Boron (B)	2018/08/29	NC		%	20
			Total Cadmium (Cd)	2018/08/29	16		%	20
			Total Chromium (Cr)	2018/08/29	NC		%	20
			Total Copper (Cu)	2018/08/29	NC		%	20
			Total Iron (Fe)	2018/08/29	NC		%	20
			Total Lead (Pb)	2018/08/29	0.61		%	20
			Total Lithium (Li)	2018/08/29	1.6		%	20
			Total Manganese (Mn)	2018/08/29	1.5		%	20
			Total Molybdenum (Mo)	2018/08/29	3.3		%	20
			Total Nickel (Ni)	2018/08/29	0.64		%	20
			Total Selenium (Se)	2018/08/29	5.0		%	20
			Total Silver (Ag)	2018/08/29	NC		%	20
			Total Strontium (Sr)	2018/08/29	0.70		%	20
			Total Thallium (Tl)	2018/08/29	0		%	20
			Total Tin (Sn)	2018/08/29	NC		%	20
			Total Titanium (Ti)	2018/08/29	NC		%	20
			Total Uranium (U)	2018/08/29	1.0		%	20
			Total Vanadium (V)	2018/08/29	NC		%	20
			Total Zinc (Zn)	2018/08/29	4.7		%	20
Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.								
Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.								
Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.								
Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.								
NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)								
NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).								

Maxxam Job #: B872232
Report Date: 2018/12/11

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8L7292
Sampler Initials: PS

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Rob Reinert, B.Sc., Scientific Spécialist

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Your P.O. #: B8L7292
Site Location: MELIADINE
Your C.O.C. #: B8L7292-M060-01-01

Attention: Alisha Williamson

Agnico-Eagle
Meliadine
Rankin Inlet, NU
Canada X0C 0G0

Report Date: 2018/12/12
Report #: R2663045
Version: 3 - Revision

CERTIFICATE OF ANALYSIS – REVISED REPORT

MAXXAM JOB #: B872191

Received: 2018/08/25, 11:30

Sample Matrix: Water
Samples Received: 5

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Silica (Reactive)	4	N/A	2018/08/27	AB SOP-00011	EPA 370.1 R1978 m
Silica (Reactive)	1	N/A	2018/08/28	AB SOP-00011	EPA 370.1 R1978 m

Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Maxxam's profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Maxxam in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.

Maxxam Analytics' liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Maxxam has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Maxxam, unless otherwise agreed in writing. Maxxam is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.

Results relate to samples tested. When sampling is not conducted by Maxxam, results relate to the supplied samples tested.

This Certificate shall not be reproduced except in full, without the written approval of the laboratory.

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key



Omran Desouki
Junior Project Manager
12 Dec 2018 12:13:45

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Omran Desouki, Junior Project Manager

Email: ODesouki@maxxam.ca

Phone# (403) 291-3077

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Total Cover Pages : 1

Page 1 of 6

Maxxam Job #: B872191
Report Date: 2018/12/12

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8L7292
Sampler Initials: PS

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		UD8561		UD8562	UD8563		
Sampling Date		2018/08/19 10:30		2018/08/19 10:45	2018/08/19 11:00		
COC Number		B8L7292-M060-01-01		B8L7292-M060-01-01	B8L7292-M060-01-01		
	UNITS	MEL-14	QC Batch	2018-0085	2018-0086	RDL	QC Batch

Misc. Inorganics							
Reactive Silica	mg/L	1.3	9119329	2.2	<0.050	0.050	9119332

RDL = Reportable Detection Limit

Maxxam ID		UD8564		UD8565		
Sampling Date		2018/08/19 10:15		2018/08/20 07:30		
COC Number		B8L7292-M060-01-01		B8L7292-M060-01-01		
	UNITS	MEL-22 CPS	RDL	RO EFFLUENT	RDL	QC Batch

Misc. Inorganics						
Reactive Silica	mg/L	1.8 (1)	0.50	<0.050	0.050	9119329

RDL = Reportable Detection Limit

(1) Detection limits raised due to matrix interference.

Maxxam Job #: B872191
Report Date: 2018/12/12

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8L7292
Sampler Initials: PS

TEST SUMMARY

Maxxam ID: UD8561
Sample ID: MEL-14
Matrix: Water

Collected: 2018/08/19
Shipped: 2018/08/24
Received: 2018/08/25

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Silica (Reactive)	KONE/SL	9119329	N/A	2018/08/27	Jason Hollingsworth

Maxxam ID: UD8562
Sample ID: 2018-0085
Matrix: Water

Collected: 2018/08/19
Shipped: 2018/08/24
Received: 2018/08/25

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Silica (Reactive)	KONE/SL	9119332	N/A	2018/08/27	Jason Hollingsworth

Maxxam ID: UD8563
Sample ID: 2018-0086
Matrix: Water

Collected: 2018/08/19
Shipped: 2018/08/24
Received: 2018/08/25

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Silica (Reactive)	KONE/SL	9119332	N/A	2018/08/27	Jason Hollingsworth

Maxxam ID: UD8564
Sample ID: MEL-22 CPS
Matrix: Water

Collected: 2018/08/19
Shipped: 2018/08/24
Received: 2018/08/25

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Silica (Reactive)	KONE/SL	9119329	N/A	2018/08/28	Jason Hollingsworth

Maxxam ID: UD8565
Sample ID: RO EFFLUENT
Matrix: Water

Collected: 2018/08/20
Shipped: 2018/08/24
Received: 2018/08/25

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Silica (Reactive)	KONE/SL	9119329	N/A	2018/08/27	Jason Hollingsworth

Maxxam Job #: B872191
Report Date: 2018/12/12

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8L7292
Sampler Initials: PS

GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	0.0°C

Revised Report (2018/12/12): Client sample ID and GPS coordinates updated per client request.

GPS coordinates: 63°02'15.5" 92°13'06.3"

Report Re-issued with updated Sample ID and GPS Coordinates 2018/09/04

Results relate only to the items tested.

Maxxam Job #: B872191
Report Date: 2018/12/12

QUALITY ASSURANCE REPORT

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8L7292
Sampler Initials: PS

QC Batch	Parameter	Date	Matrix Spike		Spiked Blank		Method Blank		RPD	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9119329	Reactive Silica	2018/08/27	NC	80 - 120	98	80 - 120	<0.050	mg/L	1.5	20
9119332	Reactive Silica	2018/08/27	115	80 - 120	100	80 - 120	<0.050	mg/L	13	20

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

Maxxam Job #: B872191
Report Date: 2018/12/12

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8L7292
Sampler Initials: PS

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Ghayasuddin Khan, M.Sc., P.Chem., QP, Scientific Specialist, Inorganics

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Your P.O. #: OL-664695
Site#: 63°01'44.6" 92°09'14.6"
Site Location: MELIADINE
Your C.O.C. #: na

Attention: Reporting

Agnico-Eagle
Meliadine Mine
Rankin Inlet, NU
CANADA X0C 0G0

Report Date: 2018/10/12
Report #: R5438000
Version: 2 - Revision

CERTIFICATE OF ANALYSIS – REVISED REPORT

MAXXAM JOB #: B8L8915

Received: 2018/08/23, 10:55

Sample Matrix: Water
Samples Received: 3

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Alkalinity (1)	3	N/A	2018/08/27	CAM SOP-00448	SM 23 2320 B m
Carbonate, Bicarbonate and Hydroxide (1)	3	N/A	2018/08/28	CAM SOP-00102	APHA 4500-CO2 D
Chloride by Automated Colourimetry (1)	3	N/A	2018/08/28	CAM SOP-00463	EPA 325.2 m
Conductivity (1)	3	N/A	2018/08/27	CAM SOP-00414	SM 23 2510 m
Free (WAD) Cyanide (1)	3	N/A	2018/08/28	CAM SOP-00457	OMOE E3015 m
Total Cyanide (1)	3	2018/08/28	2018/08/28	CAM SOP-00457	OMOE E3015 5 m
Dissolved Organic Carbon (DOC) (1, 4)	3	N/A	2018/08/27	CAM SOP-00446	SM 23 5310 B m
Petroleum Hydro. CCME F1 & BTEX in Water (1)	3	N/A	2018/08/27	CAM SOP-00315	CCME PHC-CWS m
Petroleum Hydrocarbons F2-F4 in Water (1, 5)	3	2018/08/28	2018/08/29	CAM SOP-00316	CCME PHC-CWS m
Dissolved Mercury (low level) (1)	3	2018/08/29	2018/08/29	CAM SOP-00453	EPA 7470 m
Mercury (low level) (1)	3	2018/08/29	2018/08/29	CAM SOP-00453	EPA 7470 m
Total Ammonia-N (1)	3	N/A	2018/08/28	CAM SOP-00441	EPA GS I-2522-90 m
Nitrate (NO3) and Nitrite (NO2) in Water (1, 6)	3	N/A	2018/08/28	CAM SOP-00440	SM 23 4500-NO3I/NO2B
Total Oil and Grease (1)	3	2018/08/26	2018/08/27	CAM SOP-00326	EPA1664B m, SM5520A m
pH (1)	3	N/A	2018/08/27	CAM SOP-00413	SM 4500H+ B m
Orthophosphate (1)	3	N/A	2018/08/28	CAM SOP-00461	EPA 365.1 m
Radium-226 Low Level (2, 7)	3	N/A	2018/09/05	BQL SOP-00006 BQL SOP-00017 BQL SOP-00032	Alpha Spectrometry
Sulphate by Automated Colourimetry (1)	3	N/A	2018/08/28	CAM SOP-00464	EPA 375.4 m
Total Dissolved Solids (1)	1	2018/08/28	2018/08/28	CAM SOP-00428	SM 23 2540C m
Total Dissolved Solids (1)	2	2018/08/28	2018/08/29	CAM SOP-00428	SM 23 2540C m
Total Kjeldahl Nitrogen in Water (1)	3	2018/08/27	2018/08/28	CAM SOP-00938	OMOE E3516 m
Total Organic Carbon (TOC) (1, 8)	3	N/A	2018/08/28	CAM SOP-00446	SM 23 5310B m
Total Phosphorus (Colourimetric) (1)	3	2018/08/28	2018/08/28	CAM SOP-00407	SM 23 4500 P B H m
Low Level Total Suspended Solids (1)	3	2018/08/28	2018/08/28	CAM SOP-00428	SM 23 2540D m
Turbidity (1)	3	N/A	2018/08/27	CAM SOP-00417	SM 23 2130 B m
Hardness (calculated as CaCO3) (3)	3	N/A	N/A	BBY WI-00033	Auto Calc

Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted,

Your P.O. #: OL-664695
Site#: 63°01'44.6" 92°09'14.6"
Site Location: MELIADINE
Your C.O.C. #: na

Attention: Reporting

Agnico-Eagle
Meliadine Mine
Rankin Inlet, NU
CANADA X0C 0G0

Report Date: 2018/10/12

Report #: R5438000

Version: 2 - Revision

CERTIFICATE OF ANALYSIS – REVISED REPORT

MAXXAM JOB #: B8L8915

Received: 2018/08/23, 10:55

procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Maxxam's profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Maxxam in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.

Maxxam Analytics' liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Maxxam has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Maxxam, unless otherwise agreed in writing. Maxxam is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.

Results relate to samples tested. When sampling is not conducted by Maxxam, results relate to the supplied samples tested.

This Certificate shall not be reproduced except in full, without the written approval of the laboratory.

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

- (1) This test was performed by Maxxam Analytics Mississauga
- (2) This test was performed by Maxxam Analytics Kitimat
- (3) This test was performed by Campo to Burnaby Subcontract
- (4) Dissolved Organic Carbon (DOC) present in the sample should be considered as non-purgeable DOC.
- (5) All CCME PHC results met required criteria unless otherwise stated in the report. The CWS PHC methods employed by Maxxam conform to all prescribed elements of the reference method and performance based elements have been validated. All modifications have been validated and proven equivalent following "Alberta Environment's Interpretation of the Reference Method for the Canada-Wide Standard for Petroleum Hydrocarbons in Soil Validation of Performance-Based Alternative Methods September 2003". Documentation is available upon request. Modifications from Reference Method for the Canada-wide Standard for Petroleum Hydrocarbons in Soil-Tier 1 Method: F2/F3/F4 data reported using validated cold solvent extraction instead of Soxhlet extraction.
- (6) Values for calculated parameters may not appear to add up due to rounding of raw data and significant figures.
- (7) Radium-226 results have not been corrected for blanks.
- (8) Total Organic Carbon (TOC) present in the sample should be considered as non-purgeable TOC.

Encryption Key



Sara Singh
Senior Project Manager
12 Oct 2018 13:50:09

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Jonathan Urben, Senior Project Manager

Email: jurben@maxxam.ca

Phone# (613) 274-0573

=====

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E),

Your P.O. #: OL-664695
Site#: 63°01'44.6" 92°09'14.6"
Site Location: MELIADINE
Your C.O.C. #: na

Attention: Reporting

Agnico-Eagle
Meliadine Mine
Rankin Inlet, NU
CANADA X0C 0G0

Report Date: 2018/10/12

Report #: R5438000

Version: 2 - Revision

CERTIFICATE OF ANALYSIS – REVISED REPORT

MAXXAM JOB #: B8L8915

Received: 2018/08/23, 10:55

signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam Job #: B8L8915
Report Date: 2018/10/12

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: OL-664695
Sampler Initials: PS

CCME PETROLEUM HYDROCARBONS IN WATER (WATER)

Maxxam ID		HOI315	HOI316	HOI317			HOI317		
Sampling Date		2018/08/20 12:35	2018/08/20 12:50	2018/08/20 13:10			2018/08/20 13:10		
COC Number		na	na	na			na		
	UNITS	MEL-13 (WL and EEM)	2018-0087	2018-0088	RDL	QC Batch	2018-0088 Lab-Dup	RDL	QC Batch

BTEX & F1 Hydrocarbons									
Benzene	ug/L	<0.20	<0.20	<0.20	0.20	5700207			
Toluene	ug/L	<0.20	1.8	<0.20	0.20	5700207			
Ethylbenzene	ug/L	<0.20	<0.20	<0.20	0.20	5700207			
o-Xylene	ug/L	<0.20	0.29	<0.20	0.20	5700207			
p+m-Xylene	ug/L	<0.40	0.52	<0.40	0.40	5700207			
Total Xylenes	ug/L	<0.40	0.81	<0.40	0.40	5700207			
F1 (C6-C10)	ug/L	<25	<25	<25	25	5700207			
F1 (C6-C10) - BTEX	ug/L	<25	<25	<25	25	5700207			
F2-F4 Hydrocarbons									
F2 (C10-C16 Hydrocarbons)	ug/L	<100	<100	<100	100	5703943	<100	100	5703943
F3 (C16-C34 Hydrocarbons)	ug/L	<200	<200	<200	200	5703943	<200	200	5703943
F4 (C34-C50 Hydrocarbons)	ug/L	<200	<200	<200	200	5703943	<200	200	5703943
Reached Baseline at C50	ug/L	Yes	Yes	Yes		5703943	Yes		5703943
Surrogate Recovery (%)									
1,4-Difluorobenzene	%	99	99	98		5700207			
4-Bromofluorobenzene	%	99	99	98		5700207			
D10-Ethylbenzene	%	93	94	94		5700207			
D4-1,2-Dichloroethane	%	96	96	95		5700207			
o-Terphenyl	%	93	93	92		5703943	93		5703943

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

RESULTS OF ANALYSES OF WATER

Maxxam ID		HOI315		HOI316			HOI316		
Sampling Date		2018/08/20 12:35		2018/08/20 12:50			2018/08/20 12:50		
COC Number		na		na			na		
	UNITS	MEL-13 (WL and EEM)	QC Batch	2018-0087	RDL	QC Batch	2018-0087 Lab-Dup	RDL	QC Batch
Calculated Parameters									
Bicarb. Alkalinity (calc. as CaCO ₃)	mg/L	17	5699465	<1.0	1.0	5699465			
Carb. Alkalinity (calc. as CaCO ₃)	mg/L	<1.0	5699465	<1.0	1.0	5699465			
Inorganics									
Total Ammonia-N	mg/L	<0.050	5701332	<0.050	0.050	5701332			
Conductivity	umho/cm	91	5699765	1.2	1.0	5699765			
Total Dissolved Solids	mg/L	400	5703176	50	10	5703963			
Total Kjeldahl Nitrogen (TKN)	mg/L	0.14	5701345	<0.10	0.10	5701345			
Dissolved Organic Carbon	mg/L	2.9	5699436	<0.50	0.50	5699778	<0.50	0.50	5699778
Total Organic Carbon (TOC)	mg/L	2.9	5702710	<0.50	0.50	5701256	<0.50	0.50	5701256
Orthophosphate (P)	mg/L	<0.010	5700819	<0.010	0.010	5700819			
pH	pH	7.27	5699766	5.93		5699766			
Total Phosphorus	mg/L	<0.020	5702198	<0.020	0.020	5702198			
Total Suspended Solids	mg/L	1	5702706	<1	1	5702691			
Dissolved Sulphate (SO ₄)	mg/L	4.3	5700816	<1.0	1.0	5700816			
Total Cyanide (CN)	mg/L	<0.0050	5702429	<0.0050	0.0050	5702429			
Turbidity	NTU	0.3	5699705	<0.1	0.1	5699705			
WAD Cyanide (Free)	mg/L	<0.0010	5702435	<0.0010	0.0010	5702435			
Alkalinity (Total as CaCO ₃)	mg/L	17	5699763	<1.0	1.0	5699763			
Dissolved Chloride (Cl ⁻)	mg/L	13	5700795	<1.0	1.0	5700795			
Nitrite (N)	mg/L	<0.010	5700892	<0.010	0.010	5700892			
Nitrate (N)	mg/L	<0.10	5700892	<0.10	0.10	5700892			
Nitrate + Nitrite (N)	mg/L	<0.10	5700892	<0.10	0.10	5700892			
RADIONUCLIDE									
Radium-226	Bq/L	<0.0050	5702810	<0.0050	0.0050	5702810			
Petroleum Hydrocarbons									
Total Oil & Grease	mg/L	0.60	5699974	1.1	0.50	5699974			
RDL = Reportable Detection Limit QC Batch = Quality Control Batch Lab-Dup = Laboratory Initiated Duplicate									

RESULTS OF ANALYSES OF WATER

Maxxam ID		HOI317			HOI317		
Sampling Date		2018/08/20 13:10			2018/08/20 13:10		
COC Number		na			na		
	UNITS	2018-0088	RDL	QC Batch	2018-0088 Lab-Dup	RDL	QC Batch
Calculated Parameters							
Bicarb. Alkalinity (calc. as CaCO ₃)	mg/L	15	1.0	5699465			
Carb. Alkalinity (calc. as CaCO ₃)	mg/L	<1.0	1.0	5699465			
Inorganics							
Total Ammonia-N	mg/L	<0.050	0.050	5701332			
Conductivity	umho/cm	90	1.0	5699765			
Total Dissolved Solids	mg/L	20	10	5703176			
Total Kjeldahl Nitrogen (TKN)	mg/L	<0.10	0.10	5701345			
Dissolved Organic Carbon	mg/L	3.3	0.50	5699778			
Total Organic Carbon (TOC)	mg/L	3.0	0.50	5702710			
Orthophosphate (P)	mg/L	<0.010	0.010	5700819			
pH	pH	7.23		5699766			
Total Phosphorus	mg/L	<0.020	0.020	5702198			
Total Suspended Solids	mg/L	<1	1	5702706			
Dissolved Sulphate (SO ₄)	mg/L	4.0	1.0	5700816			
Total Cyanide (CN)	mg/L	<0.0050	0.0050	5702429	<0.0050	0.0050	5702429
Turbidity	NTU	0.2	0.1	5699705			
WAD Cyanide (Free)	mg/L	<0.0010	0.0010	5702435	<0.0010	0.0010	5702435
Alkalinity (Total as CaCO ₃)	mg/L	15	1.0	5699763			
Dissolved Chloride (Cl ⁻)	mg/L	13	1.0	5700795			
Nitrite (N)	mg/L	<0.010	0.010	5700892			
Nitrate (N)	mg/L	<0.10	0.10	5700892			
Nitrate + Nitrite (N)	mg/L	<0.10	0.10	5700892			
RADIONUCLIDE							
Radium-226	Bq/L	<0.0050	0.0050	5702810			
Petroleum Hydrocarbons							
Total Oil & Grease	mg/L	1.8	0.50	5699974			
RDL = Reportable Detection Limit QC Batch = Quality Control Batch Lab-Dup = Laboratory Initiated Duplicate							

Maxxam Job #: B8L8915
Report Date: 2018/10/12

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: OL-664695
Sampler Initials: PS

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		HOI315	HOI316	HOI317			HOI317		
Sampling Date		2018/08/20 12:35	2018/08/20 12:50	2018/08/20 13:10			2018/08/20 13:10		
COC Number		na	na	na			na		
	UNITS	MEL-13 (WL and EEM)	2018-0087	2018-0088	RDL	QC Batch	2018-0088 Lab-Dup	RDL	QC Batch

Metals									
Mercury (Hg)	mg/L	<0.00001	<0.00001	<0.00001	0.00001	5704588			
Dissolved Mercury (Hg)	mg/L	<0.00001	<0.00001	<0.00001	0.00001	5704586	<0.00001	0.00001	5704586

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

Lab-Dup = Laboratory Initiated Duplicate

Maxxam Job #: B8L8915
Report Date: 2018/10/12

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: OL-664695
Sampler Initials: PS

TEST SUMMARY

Maxxam ID: HOI315
Sample ID: MEL-13 (WL and EEM)
Matrix: Water

Collected: 2018/08/20
Shipped:
Received: 2018/08/23

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	5699763	N/A	2018/08/27	Surinder Rai
Carbonate, Bicarbonate and Hydroxide	CALC	5699465	N/A	2018/08/28	Automated Statchk
Chloride by Automated Colourimetry	KONE	5700795	N/A	2018/08/28	Deonarine Ramnarine
Conductivity	AT	5699765	N/A	2018/08/27	Surinder Rai
Free (WAD) Cyanide	SKAL/CN	5702435	N/A	2018/08/28	Xuanhong Qiu
Total Cyanide	SKAL/CN	5702429	2018/08/28	2018/08/28	Xuanhong Qiu
Dissolved Organic Carbon (DOC)	TOCV/NDIR	5699436	N/A	2018/08/27	Shivani Shivani
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	5700207	N/A	2018/08/27	Abdi Mohamud
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	5703943	2018/08/28	2018/08/29	Zhiyue (Frank) Zhu
Dissolved Mercury (low level)	CV/AA	5704586	2018/08/29	2018/08/29	Ron Morrison
Mercury (low level)	CV/AA	5704588	2018/08/29	2018/08/29	Ron Morrison
Total Ammonia-N	LACH/NH4	5701332	N/A	2018/08/28	Parminder Sangha
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	5700892	N/A	2018/08/28	Charles Opoku-Ware
Total Oil and Grease	BAL	5699974	2018/08/26	2018/08/27	Francis Afonso
pH	AT	5699766	N/A	2018/08/27	Surinder Rai
Orthophosphate	KONE	5700819	N/A	2018/08/28	Alina Dobreanu
Radium-226 Low Level	AS	5702810	N/A	2018/09/05	Rajmeet Kaur
Sulphate by Automated Colourimetry	KONE	5700816	N/A	2018/08/28	Alina Dobreanu
Total Dissolved Solids	BAL	5703176	2018/08/28	2018/08/29	Mandeep Kaur
Total Kjeldahl Nitrogen in Water	SKAL	5701345	2018/08/27	2018/08/28	Rajni Tyagi
Total Organic Carbon (TOC)	TOCV/NDIR	5702710	N/A	2018/08/28	Nimarta Singh
Total Phosphorus (Colourimetric)	LACH/P	5702198	2018/08/28	2018/08/28	Amanpreet Sappal
Low Level Total Suspended Solids	BAL	5702706	2018/08/28	2018/08/28	Niket Kumar Patel
Turbidity	AT	5699705	N/A	2018/08/27	Tahir Anwar
Hardness (calculated as CaCO3)	CALC	5720078	N/A		Tamsin Denison

Maxxam ID: HOI316
Sample ID: 2018-0087
Matrix: Water

Collected: 2018/08/20
Shipped:
Received: 2018/08/23

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	5699763	N/A	2018/08/27	Surinder Rai
Carbonate, Bicarbonate and Hydroxide	CALC	5699465	N/A	2018/08/28	Automated Statchk
Chloride by Automated Colourimetry	KONE	5700795	N/A	2018/08/28	Deonarine Ramnarine
Conductivity	AT	5699765	N/A	2018/08/27	Surinder Rai
Free (WAD) Cyanide	SKAL/CN	5702435	N/A	2018/08/28	Xuanhong Qiu
Total Cyanide	SKAL/CN	5702429	2018/08/28	2018/08/28	Xuanhong Qiu
Dissolved Organic Carbon (DOC)	TOCV/NDIR	5699778	N/A	2018/08/27	Anastassia Hamanov
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	5700207	N/A	2018/08/27	Abdi Mohamud
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	5703943	2018/08/28	2018/08/29	Zhiyue (Frank) Zhu
Dissolved Mercury (low level)	CV/AA	5704586	2018/08/29	2018/08/29	Ron Morrison
Mercury (low level)	CV/AA	5704588	2018/08/29	2018/08/29	Ron Morrison
Total Ammonia-N	LACH/NH4	5701332	N/A	2018/08/28	Parminder Sangha
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	5700892	N/A	2018/08/28	Charles Opoku-Ware

Maxxam Job #: B8L8915
Report Date: 2018/10/12

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: OL-664695
Sampler Initials: PS

TEST SUMMARY

Maxxam ID: HOI316
Sample ID: 2018-0087
Matrix: Water

Collected: 2018/08/20
Shipped:
Received: 2018/08/23

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Total Oil and Grease	BAL	5699974	2018/08/26	2018/08/27	Francis Afonso
pH	AT	5699766	N/A	2018/08/27	Surinder Rai
Orthophosphate	KONE	5700819	N/A	2018/08/28	Alina Dobreanu
Radium-226 Low Level	AS	5702810	N/A	2018/09/05	Rajmeet Kaur
Sulphate by Automated Colourimetry	KONE	5700816	N/A	2018/08/28	Alina Dobreanu
Total Dissolved Solids	BAL	5703963	2018/08/28	2018/08/28	Jingwei (Alvin) Shi
Total Kjeldahl Nitrogen in Water	SKAL	5701345	2018/08/27	2018/08/28	Rajni Tyagi
Total Organic Carbon (TOC)	TOCV/NDIR	5701256	N/A	2018/08/28	Anastassia Hamanov
Total Phosphorus (Colourimetric)	LACH/P	5702198	2018/08/28	2018/08/28	Amanpreet Sappal
Low Level Total Suspended Solids	BAL	5702691	2018/08/28	2018/08/28	Jingwei (Alvin) Shi
Turbidity	AT	5699705	N/A	2018/08/27	Tahir Anwar
Hardness (calculated as CaCO ₃)	CALC	5720078	N/A		Tamsin Denison

Maxxam ID: HOI316 Dup
Sample ID: 2018-0087
Matrix: Water

Collected: 2018/08/20
Shipped:
Received: 2018/08/23

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Dissolved Organic Carbon (DOC)	TOCV/NDIR	5699778	N/A	2018/08/27	Anastassia Hamanov
Total Organic Carbon (TOC)	TOCV/NDIR	5701256	N/A	2018/08/28	Anastassia Hamanov

Maxxam ID: HOI317
Sample ID: 2018-0088
Matrix: Water

Collected: 2018/08/20
Shipped:
Received: 2018/08/23

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	5699763	N/A	2018/08/27	Surinder Rai
Carbonate, Bicarbonate and Hydroxide	CALC	5699465	N/A	2018/08/28	Automated Statchk
Chloride by Automated Colourimetry	KONE	5700795	N/A	2018/08/28	Deonarine Ramnarine
Conductivity	AT	5699765	N/A	2018/08/27	Surinder Rai
Free (WAD) Cyanide	SKAL/CN	5702435	N/A	2018/08/28	Xuanhong Qiu
Total Cyanide	SKAL/CN	5702429	2018/08/28	2018/08/28	Xuanhong Qiu
Dissolved Organic Carbon (DOC)	TOCV/NDIR	5699778	N/A	2018/08/27	Anastassia Hamanov
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	5700207	N/A	2018/08/27	Abdi Mohamud
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	5703943	2018/08/28	2018/08/29	Zhiyue (Frank) Zhu
Dissolved Mercury (low level)	CV/AA	5704586	2018/08/29	2018/08/29	Ron Morrison
Mercury (low level)	CV/AA	5704588	2018/08/29	2018/08/29	Ron Morrison
Total Ammonia-N	LACH/NH ₄	5701332	N/A	2018/08/28	Parminder Sangha
Nitrate (NO ₃) and Nitrite (NO ₂) in Water	LACH	5700892	N/A	2018/08/28	Charles Opoku-Ware
Total Oil and Grease	BAL	5699974	2018/08/26	2018/08/27	Francis Afonso
pH	AT	5699766	N/A	2018/08/27	Surinder Rai
Orthophosphate	KONE	5700819	N/A	2018/08/28	Alina Dobreanu
Radium-226 Low Level	AS	5702810	N/A	2018/09/05	Rajmeet Kaur
Sulphate by Automated Colourimetry	KONE	5700816	N/A	2018/08/28	Alina Dobreanu

Maxxam Job #: B8L8915
Report Date: 2018/10/12

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: OL-664695
Sampler Initials: PS

TEST SUMMARY

Maxxam ID: HOI317
Sample ID: 2018-0088
Matrix: Water

Collected: 2018/08/20
Shipped:
Received: 2018/08/23

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Total Dissolved Solids	BAL	5703176	2018/08/28	2018/08/29	Mandeep Kaur
Total Kjeldahl Nitrogen in Water	SKAL	5701345	2018/08/27	2018/08/28	Rajni Tyagi
Total Organic Carbon (TOC)	TOCV/NDIR	5702710	N/A	2018/08/28	Nimarta Singh
Total Phosphorus (Colourimetric)	LACH/P	5702198	2018/08/28	2018/08/28	Amanpreet Sappal
Low Level Total Suspended Solids	BAL	5702706	2018/08/28	2018/08/28	Niket Kumar Patel
Turbidity	AT	5699705	N/A	2018/08/27	Tahir Anwar
Hardness (calculated as CaCO ₃)	CALC	5720078	N/A		Tamsin Denison

Maxxam ID: HOI317 Dup
Sample ID: 2018-0088
Matrix: Water

Collected: 2018/08/20
Shipped:
Received: 2018/08/23

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Free (WAD) Cyanide	SKAL/CN	5702435	N/A	2018/08/28	Xuanhong Qiu
Total Cyanide	SKAL/CN	5702429	2018/08/28	2018/08/28	Xuanhong Qiu
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	5703943	2018/08/28	2018/08/29	Zhiyue (Frank) Zhu
Dissolved Mercury (low level)	CV/AA	5704586	2018/08/29	2018/08/29	Ron Morrison

GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	17.3°C
Package 2	11.3°C

Revised Report (2018/10/02): Client sample ID changed as per client request, and GPS coordinates included.

Sample HOI317 [2018-0088] : TOC< DOC: Both values fall within the method uncertainty for duplicates and are likely equivalent.

Results relate only to the items tested.

QUALITY ASSURANCE REPORT

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: OL-664695
Sampler Initials: PS

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
5700207	1,4-Difluorobenzene	2018/08/27	97	70 - 130	99	70 - 130	98	%				
5700207	4-Bromofluorobenzene	2018/08/27	100	70 - 130	100	70 - 130	99	%				
5700207	D10-Ethylbenzene	2018/08/27	94	70 - 130	100	70 - 130	94	%				
5700207	D4-1,2-Dichloroethane	2018/08/27	101	70 - 130	102	70 - 130	97	%				
5703943	o-Terphenyl	2018/08/29	96	60 - 130	97	60 - 130	93	%				
5699436	Dissolved Organic Carbon	2018/08/27	95	80 - 120	99	80 - 120	<0.50	mg/L	0.014	20		
5699705	Turbidity	2018/08/27			101	85 - 115	<0.1	NTU	4.3	20		
5699763	Alkalinity (Total as CaCO3)	2018/08/27			97	85 - 115	<1.0	mg/L	0.49	20		
5699765	Conductivity	2018/08/27			101	85 - 115	<1.0	umho/cm	0.32	25		
5699766	pH	2018/08/27			101	98 - 103			0.47	N/A		
5699778	Dissolved Organic Carbon	2018/08/27	94	80 - 120	97	80 - 120	<0.50	mg/L	NC	20		
5699974	Total Oil & Grease	2018/08/27			94	85 - 115	<0.50	mg/L	3.9	25		
5700207	Benzene	2018/08/27	95	70 - 130	95	70 - 130	<0.20	ug/L	NC	30		
5700207	Ethylbenzene	2018/08/27	90	70 - 130	92	70 - 130	<0.20	ug/L	NC	30		
5700207	F1 (C6-C10) - BTEX	2018/08/27					<25	ug/L	NC	30		
5700207	F1 (C6-C10)	2018/08/27	97	70 - 130	89	70 - 130	<25	ug/L	NC	30		
5700207	o-Xylene	2018/08/27	88	70 - 130	89	70 - 130	<0.20	ug/L	NC	30		
5700207	p+m-Xylene	2018/08/27	89	70 - 130	91	70 - 130	<0.40	ug/L	NC	30		
5700207	Toluene	2018/08/27	90	70 - 130	91	70 - 130	<0.20	ug/L	0.56	30		
5700207	Total Xylenes	2018/08/27					<0.40	ug/L	NC	30		
5700795	Dissolved Chloride (Cl-)	2018/08/28	108	80 - 120	102	80 - 120	<1.0	mg/L	0.031	20		
5700816	Dissolved Sulphate (SO4)	2018/08/28	107	75 - 125	104	80 - 120	<1.0	mg/L	NC	20		
5700819	Orthophosphate (P)	2018/08/28	104	75 - 125	100	80 - 120	<0.010	mg/L	NC	25		
5700892	Nitrate (N)	2018/08/28	98	80 - 120	96	80 - 120	<0.10	mg/L	4.9	20		
5700892	Nitrite (N)	2018/08/28	102	80 - 120	99	80 - 120	<0.010	mg/L				
5701256	Total Organic Carbon (TOC)	2018/08/28	95	80 - 120	98	80 - 120	<0.50	mg/L	NC	20		
5701332	Total Ammonia-N	2018/08/28	105	75 - 125	101	80 - 120	<0.050	mg/L	12	20		
5701345	Total Kjeldahl Nitrogen (TKN)	2018/08/28	96	80 - 120	94	80 - 120	<0.10	mg/L	18	20	91	80 - 120
5702198	Total Phosphorus	2018/08/28	97	80 - 120	95	80 - 120	<0.020	mg/L	7.8	20	98	N/A
5702429	Total Cyanide (CN)	2018/08/28	103	80 - 120	102	80 - 120	<0.0050	mg/L	NC	20		

QUALITY ASSURANCE REPORT(CONT'D)

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: OL-664695
Sampler Initials: PS

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
5702435	WAD Cyanide (Free)	2018/08/28	107	80 - 120	105	80 - 120	<0.0010	mg/L	NC	20		
5702691	Total Suspended Solids	2018/08/28					<1	mg/L	NC	25	101	85 - 115
5702706	Total Suspended Solids	2018/08/28					<1	mg/L	NC	25	97	85 - 115
5702710	Total Organic Carbon (TOC)	2018/08/28	95	80 - 120	96	80 - 120	<0.50	mg/L	0.88	20		
5702810	Radium-226	2018/09/05			96	85 - 115	<0.0050	Bq/L	0	N/A		
5703176	Total Dissolved Solids	2018/08/29					<10	mg/L	7.8	25	98	90 - 110
5703943	F2 (C10-C16 Hydrocarbons)	2018/08/29	103	50 - 130	103	60 - 130	<100	ug/L	NC	30		
5703943	F3 (C16-C34 Hydrocarbons)	2018/08/29	99	50 - 130	99	60 - 130	<200	ug/L	NC	30		
5703943	F4 (C34-C50 Hydrocarbons)	2018/08/29	92	50 - 130	92	60 - 130	<200	ug/L	NC	30		
5703963	Total Dissolved Solids	2018/08/28					<10	mg/L	4.6	25	100	90 - 110
5704586	Dissolved Mercury (Hg)	2018/08/29	100	75 - 125	99	80 - 120	<0.00001	mg/L	NC	20		
5704588	Mercury (Hg)	2018/08/29	99	75 - 125	98	80 - 120	<0.00001	mg/L	NC	20		

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

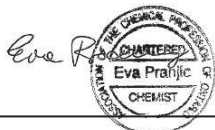
Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

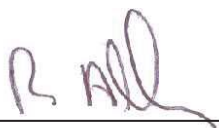
NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Ewa Pranjić, M.Sc., C.Chem, Scientific Specialist



Robert Allen, Scientific Specialist

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Exceedence Summary Table – Metal Mining Effluent Reg
Result Exceedences

Sample ID	Maxxam ID	Parameter	Criteria	Result	DL	Units
No Exceedences						
The exceedence summary table is for information purposes only and should not be considered a comprehensive listing or statement of conformance to applicable regulatory guidelines.						

Your P.O. #: B8L8915
Site#: 63*01'44.6" 92*09'14.6"
Site Location: MELIADINE
Your C.O.C. #: B8L8915-M060-01-01

Attention: Jonathan Urban

Agnico-Eagle
Meliadine
Rankin Inlet, NU
Canada X0C 0G0

Report Date: 2018/09/05

Report #: R2613944

Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B872797

Received: 2018/08/28, 09:52

Sample Matrix: Water
Samples Received: 3

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Silica (Reactive)	3	N/A	2018/09/05	AB SOP-00011	EPA 370.1 R1978 m

Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Maxxam's profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Maxxam in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.

Maxxam Analytics' liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Maxxam has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Maxxam, unless otherwise agreed in writing. Maxxam is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.

Results relate to samples tested. When sampling is not conducted by Maxxam, results relate to the supplied samples tested.

This Certificate shall not be reproduced except in full, without the written approval of the laboratory.

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Attention: Jonathan Urban

Agnico-Eagle
Meliadine
Rankin Inlet, NU
Canada X0C 0G0

Your P.O. #: B8L8915
Site#: 63*01'44.6" 92*09'14.6"
Site Location: MELIADINE
Your C.O.C. #: B8L8915-M060-01-01

Report Date: 2018/09/05

Report #: R2613944

Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B872797

Received: 2018/08/28, 09:52

Encryption Key



Maxxam

05 Sep 2018 13:00:10

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Omran Desouki, Junior Project Manager

Email: ODesouki@maxxam.ca

Phone# (403) 291-3077

=====

This report has been generated and distributed using a secure automated process.

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam Job #: B872797
Report Date: 2018/09/05

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8L8915
Sampler Initials: PS

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		UE1964	UE1965	UE1966	UE1966		
Sampling Date		2018/08/20 12:35	2018/08/20 12:50	2018/08/20 01:10	2018/08/20 01:10		
COC Number		B8L8915-M060-01-01	B8L8915-M060-01-01	B8L8915-M060-01-01	B8L8915-M060-01-01		
	UNITS	MEL-13 (WL AND EEM)	2018-0087	2018-0088	2018-0088 Lab-Dup	RDL	QC Batch

Misc. Inorganics							
Reactive Silica	mg/L	0.33	<0.050	0.33	0.34	0.050	9129646
RDL = Reportable Detection Limit							
Lab-Dup = Laboratory Initiated Duplicate							

Maxxam Job #: B872797
Report Date: 2018/09/05

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8L8915
Sampler Initials: PS

TEST SUMMARY

Maxxam ID: UE1964
Sample ID: MEL-13 (WL AND EEM)
Matrix: Water

Collected: 2018/08/20
Shipped: 2018/08/27
Received: 2018/08/28

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Silica (Reactive)	KONE/SL	9129646	N/A	2018/09/05	Zafar Iqbal

Maxxam ID: UE1965
Sample ID: 2018-0087
Matrix: Water

Collected: 2018/08/20
Shipped: 2018/08/27
Received: 2018/08/28

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Silica (Reactive)	KONE/SL	9129646	N/A	2018/09/05	Zafar Iqbal

Maxxam ID: UE1966
Sample ID: 2018-0088
Matrix: Water

Collected: 2018/08/20
Shipped: 2018/08/27
Received: 2018/08/28

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Silica (Reactive)	KONE/SL	9129646	N/A	2018/09/05	Zafar Iqbal

Maxxam ID: UE1966 Dup
Sample ID: 2018-0088
Matrix: Water

Collected: 2018/08/20
Shipped: 2018/08/27
Received: 2018/08/28

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Silica (Reactive)	KONE/SL	9129646	N/A	2018/09/05	Zafar Iqbal

Maxxam Job #: B872797
Report Date: 2018/09/05

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8L8915
Sampler Initials: PS

GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	4.0°C

Results relate only to the items tested.

QUALITY ASSURANCE REPORT

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8L8915
Sampler Initials: PS

QC Batch	Parameter	Date	Matrix Spike		Spiked Blank		Method Blank		RPD	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9129646	Reactive Silica	2018/09/05	105	80 - 120	102	80 - 120	<0.050	mg/L	3.5	20
Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.										
Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.										
Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.										
Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.										

Maxxam Job #: B872797
Report Date: 2018/09/05

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8L8915
Sampler Initials: PS

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Harry (Peng) Liang, Senior Analyst

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Your P.O. #: B8L8915
Site#: 63°01'44.6" 92°09'14.6"
Site Location: MELIADINE
Your C.O.C. #: B8L8915-M058-01-01

Attention: Alisha Williamson

Agnico-Eagle
Meliadine
Rankin Inlet, NU
Canada X0C 0G0

Report Date: 2018/10/03
Report #: R2629276
Version: 2 - Revision

CERTIFICATE OF ANALYSIS – REVISED REPORT

MAXXAM JOB #: B873034

Received: 2018/08/28, 09:05

Sample Matrix: Water
Samples Received: 3

Analyses	Date		Laboratory Method	Analytical Method
	Quantity	Extracted		
Hardness Total (calculated as CaCO ₃) (1)	3	N/A	2018/09/04 BBY WI-00033	Auto Calc
Hardness (calculated as CaCO ₃)	3	N/A	2018/08/30 BBY WI-00033	Auto Calc
Elements by CRC ICPMS (dissolved)	3	N/A	2018/08/30 BBY7SOP-00002	EPA 6020b R2 m
Elements by CRC ICPMS (total)	3	2018/08/30	2018/09/04 BBY7SOP-00003,	EPA 6020b R2 m
Filter and HNO ₃ Preserve for Metals	3	N/A	2018/08/29 BBY7 WI-00004	BCMOE Reqs 08/14

Remarks:

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Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.

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Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

(1) "Total Hardness" was calculated from Total Ca and Mg concentrations and may be biased high (Hardness, or Dissolved Hardness, calculated from Dissolved Ca and Mg, should be used for compliance if available).

Attention: Alisha Williamson

Agnico-Eagle
Meliadine
Rankin Inlet, NU
Canada X0C 0G0

Your P.O. #: B8L8915
Site#: 63°01'44.6" 92°09'14.6"
Site Location: MELIADINE
Your C.O.C. #: B8L8915-M058-01-01

Report Date: 2018/10/03
Report #: R2629276
Version: 2 - Revision

CERTIFICATE OF ANALYSIS – REVISED REPORT

MAXXAM JOB #: B873034

Received: 2018/08/28, 09:05

Encryption Key



Mandheraj Chana
Junior Project Manager
03 Oct 2018 13:44:10

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Veronica De Guzman, B.Sc., Project Manager
Email: VDeGuzman@maxxam.ca
Phone# (604) 734 7276

=====

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Maxxam Job #: B873034
Report Date: 2018/10/03

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8L8915
Sampler Initials: PS

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		UE3700	UE3701	UE3702		
Sampling Date		2018/08/20 12:35	2018/08/20 12:50	2018/08/20 01:10		
COC Number		B8L8915-M058-01-01	B8L8915-M058-01-01	B8L8915-M058-01-01		
	UNITS	MEL-13 (WL and EEM)	2018-0087	2018-0088	RDL	QC Batch
Calculated Parameters						
Filter and HNO3 Preservation	N/A	FIELD	FIELD	FIELD	N/A	ONSITE
Dissolved Hardness (CaCO3)	mg/L	24.8	<0.50	24.4	0.50	9121426
Total Hardness (CaCO3)	mg/L	25.3	<0.50	25.4	0.50	9121424
RDL = Reportable Detection Limit						
N/A = Not Applicable						

Maxxam Job #: B873034
Report Date: 2018/10/03

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8L8915
Sampler Initials: PS

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		UE3700	UE3701	UE3702		
Sampling Date		2018/08/20 12:35	2018/08/20 12:50	2018/08/20 01:10		
COC Number		B8L8915-M058-01-01	B8L8915-M058-01-01	B8L8915-M058-01-01		
	UNITS	MEL-13 (WL and EEM)	2018-0087	2018-0088	RDL	QC Batch

Dissolved Metals by ICPMS

Dissolved Aluminum (Al)	mg/L	0.0077	0.0036	0.0064	0.0030	9122743
Dissolved Antimony (Sb)	mg/L	<0.00050	<0.00050	<0.00050	0.00050	9122743
Dissolved Arsenic (As)	mg/L	0.00040	<0.00010	0.00038	0.00010	9122743
Dissolved Barium (Ba)	mg/L	0.0078	<0.0010	0.0077	0.0010	9122743
Dissolved Beryllium (Be)	mg/L	<0.00010	<0.00010	<0.00010	0.00010	9122743
Dissolved Boron (B)	mg/L	<0.050	<0.050	<0.050	0.050	9122743
Dissolved Cadmium (Cd)	mg/L	<0.000010	<0.000010	<0.000010	0.000010	9122743
Dissolved Chromium (Cr)	mg/L	<0.0010	<0.0010	<0.0010	0.0010	9122743
Dissolved Copper (Cu)	mg/L	0.00076	<0.00020	0.00071	0.00020	9122743
Dissolved Iron (Fe)	mg/L	0.0113	<0.0050	0.0062	0.0050	9122743
Dissolved Lead (Pb)	mg/L	<0.00020	<0.00020	<0.00020	0.00020	9122743
Dissolved Lithium (Li)	mg/L	<0.0020	<0.0020	<0.0020	0.0020	9122743
Dissolved Manganese (Mn)	mg/L	<0.0010	<0.0010	<0.0010	0.0010	9122743
Dissolved Molybdenum (Mo)	mg/L	<0.0010	<0.0010	<0.0010	0.0010	9122743
Dissolved Nickel (Ni)	mg/L	<0.0010	<0.0010	<0.0010	0.0010	9122743
Dissolved Selenium (Se)	mg/L	<0.00010	<0.00010	<0.00010	0.00010	9122743
Dissolved Silver (Ag)	mg/L	<0.000020	<0.000020	<0.000020	0.000020	9122743
Dissolved Strontium (Sr)	mg/L	0.0512	<0.0010	0.0531	0.0010	9122743
Dissolved Thallium (Tl)	mg/L	<0.000010	<0.000010	<0.000010	0.000010	9122743
Dissolved Tin (Sn)	mg/L	<0.0050	<0.0050	<0.0050	0.0050	9122743
Dissolved Titanium (Ti)	mg/L	<0.0050	<0.0050	<0.0050	0.0050	9122743
Dissolved Uranium (U)	mg/L	<0.00010	<0.00010	<0.00010	0.00010	9122743
Dissolved Vanadium (V)	mg/L	<0.0050	<0.0050	<0.0050	0.0050	9122743
Dissolved Zinc (Zn)	mg/L	<0.0050	<0.0050	<0.0050	0.0050	9122743
Dissolved Calcium (Ca)	mg/L	7.67	0.051	7.52	0.050	9122743
Dissolved Magnesium (Mg)	mg/L	1.37	<0.050	1.37	0.050	9122743
Dissolved Potassium (K)	mg/L	0.948	<0.050	0.923	0.050	9122743
Dissolved Sodium (Na)	mg/L	5.67	<0.050	5.73	0.050	9122743

Total Metals by ICPMS

Total Aluminum (Al)	mg/L	0.0118	0.0038	0.0114	0.0030	9124684

RDL = Reportable Detection Limit

Maxxam Job #: B873034
Report Date: 2018/10/03

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8L8915
Sampler Initials: PS

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		UE3700	UE3701	UE3702		
Sampling Date		2018/08/20 12:35	2018/08/20 12:50	2018/08/20 01:10		
COC Number		B8L8915-M058-01-01	B8L8915-M058-01-01	B8L8915-M058-01-01		
	UNITS	MEL-13 (WL and EEM)	2018-0087	2018-0088	RDL	QC Batch
Total Antimony (Sb)	mg/L	<0.00050	<0.00050	<0.00050	0.00050	9124684
Total Arsenic (As)	mg/L	0.00042	<0.00010	0.00044	0.00010	9124684
Total Barium (Ba)	mg/L	0.0082	<0.0010	0.0083	0.0010	9124684
Total Beryllium (Be)	mg/L	<0.00010	<0.00010	<0.00010	0.00010	9124684
Total Boron (B)	mg/L	<0.050	<0.050	<0.050	0.050	9124684
Total Cadmium (Cd)	mg/L	<0.000010	<0.000010	<0.000010	0.000010	9124684
Total Chromium (Cr)	mg/L	<0.0010	<0.0010	<0.0010	0.0010	9124684
Total Copper (Cu)	mg/L	0.00079	<0.00050	0.00079	0.00050	9124684
Total Iron (Fe)	mg/L	0.029	<0.010	0.024	0.010	9124684
Total Lead (Pb)	mg/L	<0.00020	<0.00020	<0.00020	0.00020	9124684
Total Lithium (Li)	mg/L	<0.0020	<0.0020	<0.0020	0.0020	9124684
Total Manganese (Mn)	mg/L	0.0048	<0.0010	0.0048	0.0010	9124684
Total Molybdenum (Mo)	mg/L	<0.0010	<0.0010	<0.0010	0.0010	9124684
Total Nickel (Ni)	mg/L	<0.0010	<0.0010	<0.0010	0.0010	9124684
Total Selenium (Se)	mg/L	<0.00010	<0.00010	<0.00010	0.00010	9124684
Total Silver (Ag)	mg/L	<0.000020	<0.000020	<0.000020	0.000020	9124684
Total Strontium (Sr)	mg/L	0.0494	<0.0010	0.0506	0.0010	9124684
Total Thallium (Tl)	mg/L	<0.000010	<0.000010	<0.000010	0.000010	9124684
Total Tin (Sn)	mg/L	<0.0050	<0.0050	<0.0050	0.0050	9124684
Total Titanium (Ti)	mg/L	<0.0050	<0.0050	<0.0050	0.0050	9124684
Total Uranium (U)	mg/L	<0.00010	<0.00010	<0.00010	0.00010	9124684
Total Vanadium (V)	mg/L	<0.0050	<0.0050	<0.0050	0.0050	9124684
Total Zinc (Zn)	mg/L	<0.0050	<0.0050	<0.0050	0.0050	9124684
Total Calcium (Ca)	mg/L	7.80	<0.050	7.73	0.050	9124684
Total Magnesium (Mg)	mg/L	1.43	<0.050	1.47	0.050	9124684
Total Potassium (K)	mg/L	0.949	<0.050	0.973	0.050	9124684
Total Sodium (Na)	mg/L	5.59	<0.050	5.72	0.050	9124684
RDL = Reportable Detection Limit						

Maxxam Job #: B873034
Report Date: 2018/10/03

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8L8915
Sampler Initials: PS

GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	-0.7°C

Revised Report (2018/10/03): Client sample ID changed as per client request, and GPS coordinates included.

Sample UE3700 [MEL-13 (WL and EEM)] : GPS coordinates: 63°01'44.6" 92°09'14.6"

Results relate only to the items tested.

Maxxam Job #: B873034
Report Date: 2018/10/03

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8L8915
Sampler Initials: PS

QUALITY ASSURANCE REPORT

QA/QC		QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
Batch	Init							
9122743	MHM	Matrix Spike	Dissolved Aluminum (Al)	2018/08/30		96	%	80 - 120
			Dissolved Antimony (Sb)	2018/08/30		102	%	80 - 120
			Dissolved Arsenic (As)	2018/08/30		106	%	80 - 120
			Dissolved Barium (Ba)	2018/08/30		NC	%	80 - 120
			Dissolved Beryllium (Be)	2018/08/30		101	%	80 - 120
			Dissolved Boron (B)	2018/08/30		104	%	80 - 120
			Dissolved Cadmium (Cd)	2018/08/30		101	%	80 - 120
			Dissolved Chromium (Cr)	2018/08/30		98	%	80 - 120
			Dissolved Copper (Cu)	2018/08/30		91	%	80 - 120
			Dissolved Iron (Fe)	2018/08/30		96	%	80 - 120
			Dissolved Lead (Pb)	2018/08/30		96	%	80 - 120
			Dissolved Lithium (Li)	2018/08/30		95	%	80 - 120
			Dissolved Manganese (Mn)	2018/08/30		NC	%	80 - 120
			Dissolved Molybdenum (Mo)	2018/08/30		105	%	80 - 120
			Dissolved Nickel (Ni)	2018/08/30		95	%	80 - 120
			Dissolved Selenium (Se)	2018/08/30		103	%	80 - 120
			Dissolved Silver (Ag)	2018/08/30		98	%	80 - 120
			Dissolved Strontium (Sr)	2018/08/30		NC	%	80 - 120
			Dissolved Thallium (Tl)	2018/08/30		94	%	80 - 120
			Dissolved Tin (Sn)	2018/08/30		99	%	80 - 120
			Dissolved Titanium (Ti)	2018/08/30		103	%	80 - 120
			Dissolved Uranium (U)	2018/08/30		103	%	80 - 120
			Dissolved Vanadium (V)	2018/08/30		100	%	80 - 120
			Dissolved Zinc (Zn)	2018/08/30		103	%	80 - 120
			Dissolved Calcium (Ca)	2018/08/30		NC	%	80 - 120
			Dissolved Magnesium (Mg)	2018/08/30		NC	%	80 - 120
			Dissolved Potassium (K)	2018/08/30		96	%	80 - 120
			Dissolved Sodium (Na)	2018/08/30		NC	%	80 - 120
9122743	MHM	Spiked Blank	Dissolved Aluminum (Al)	2018/08/30		106	%	80 - 120
			Dissolved Antimony (Sb)	2018/08/30		104	%	80 - 120
			Dissolved Arsenic (As)	2018/08/30		110	%	80 - 120
			Dissolved Barium (Ba)	2018/08/30		102	%	80 - 120
			Dissolved Beryllium (Be)	2018/08/30		109	%	80 - 120
			Dissolved Boron (B)	2018/08/30		111	%	80 - 120
			Dissolved Cadmium (Cd)	2018/08/30		107	%	80 - 120
			Dissolved Chromium (Cr)	2018/08/30		104	%	80 - 120
			Dissolved Copper (Cu)	2018/08/30		102	%	80 - 120
			Dissolved Iron (Fe)	2018/08/30		109	%	80 - 120
			Dissolved Lead (Pb)	2018/08/30		103	%	80 - 120
			Dissolved Lithium (Li)	2018/08/30		103	%	80 - 120
			Dissolved Manganese (Mn)	2018/08/30		105	%	80 - 120
			Dissolved Molybdenum (Mo)	2018/08/30		107	%	80 - 120
			Dissolved Nickel (Ni)	2018/08/30		102	%	80 - 120
			Dissolved Selenium (Se)	2018/08/30		108	%	80 - 120
			Dissolved Silver (Ag)	2018/08/30		103	%	80 - 120
			Dissolved Strontium (Sr)	2018/08/30		111	%	80 - 120
			Dissolved Thallium (Tl)	2018/08/30		102	%	80 - 120
			Dissolved Tin (Sn)	2018/08/30		101	%	80 - 120
			Dissolved Titanium (Ti)	2018/08/30		107	%	80 - 120
			Dissolved Uranium (U)	2018/08/30		108	%	80 - 120
			Dissolved Vanadium (V)	2018/08/30		105	%	80 - 120
			Dissolved Zinc (Zn)	2018/08/30		108	%	80 - 120

Maxxam Job #: B873034
Report Date: 2018/10/03

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8L8915
Sampler Initials: PS

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9122743	MHM	Method Blank	Dissolved Calcium (Ca)	2018/08/30		105	%	80 - 120
			Dissolved Magnesium (Mg)	2018/08/30		102	%	80 - 120
			Dissolved Potassium (K)	2018/08/30		102	%	80 - 120
			Dissolved Sodium (Na)	2018/08/30		105	%	80 - 120
			Dissolved Aluminum (Al)	2018/08/30	<0.0030		mg/L	
			Dissolved Antimony (Sb)	2018/08/30	<0.00050		mg/L	
			Dissolved Arsenic (As)	2018/08/30	<0.00010		mg/L	
			Dissolved Barium (Ba)	2018/08/30	<0.0010		mg/L	
			Dissolved Beryllium (Be)	2018/08/30	<0.00010		mg/L	
			Dissolved Boron (B)	2018/08/30	<0.050		mg/L	
			Dissolved Cadmium (Cd)	2018/08/30	<0.000010		mg/L	
			Dissolved Chromium (Cr)	2018/08/30	<0.0010		mg/L	
			Dissolved Copper (Cu)	2018/08/30	<0.00020		mg/L	
			Dissolved Iron (Fe)	2018/08/30	<0.0050		mg/L	
			Dissolved Lead (Pb)	2018/08/30	<0.00020		mg/L	
			Dissolved Lithium (Li)	2018/08/30	<0.0020		mg/L	
			Dissolved Manganese (Mn)	2018/08/30	<0.0010		mg/L	
			Dissolved Molybdenum (Mo)	2018/08/30	<0.0010		mg/L	
			Dissolved Nickel (Ni)	2018/08/30	<0.0010		mg/L	
			Dissolved Selenium (Se)	2018/08/30	<0.00010		mg/L	
			Dissolved Silver (Ag)	2018/08/30	<0.000020		mg/L	
			Dissolved Strontium (Sr)	2018/08/30	<0.0010		mg/L	
			Dissolved Thallium (Tl)	2018/08/30	<0.000010		mg/L	
			Dissolved Tin (Sn)	2018/08/30	<0.0050		mg/L	
			Dissolved Titanium (Ti)	2018/08/30	<0.0050		mg/L	
			Dissolved Uranium (U)	2018/08/30	<0.00010		mg/L	
			Dissolved Vanadium (V)	2018/08/30	<0.0050		mg/L	
			Dissolved Zinc (Zn)	2018/08/30	<0.0050		mg/L	
			Dissolved Calcium (Ca)	2018/08/30	<0.050		mg/L	
			Dissolved Magnesium (Mg)	2018/08/30	<0.050		mg/L	
			Dissolved Potassium (K)	2018/08/30	<0.050		mg/L	
			Dissolved Sodium (Na)	2018/08/30	<0.050		mg/L	
9122743	MHM	RPD	Dissolved Aluminum (Al)	2018/08/30	1.7		%	20
			Dissolved Antimony (Sb)	2018/08/30	NC		%	20
			Dissolved Arsenic (As)	2018/08/30	1.3		%	20
			Dissolved Barium (Ba)	2018/08/30	0.13		%	20
			Dissolved Beryllium (Be)	2018/08/30	NC		%	20
			Dissolved Boron (B)	2018/08/30	2.3		%	20
			Dissolved Cadmium (Cd)	2018/08/30	0		%	20
			Dissolved Chromium (Cr)	2018/08/30	NC		%	20
			Dissolved Copper (Cu)	2018/08/30	1.1		%	20
			Dissolved Iron (Fe)	2018/08/30	NC		%	20
			Dissolved Lead (Pb)	2018/08/30	NC		%	20
			Dissolved Lithium (Li)	2018/08/30	0.58		%	20
			Dissolved Manganese (Mn)	2018/08/30	0.98		%	20
			Dissolved Molybdenum (Mo)	2018/08/30	1.4		%	20
			Dissolved Nickel (Ni)	2018/08/30	2.5		%	20
			Dissolved Selenium (Se)	2018/08/30	9.7		%	20
			Dissolved Silver (Ag)	2018/08/30	NC		%	20
			Dissolved Strontium (Sr)	2018/08/30	0.31		%	20
			Dissolved Thallium (Tl)	2018/08/30	7.7		%	20
			Dissolved Tin (Sn)	2018/08/30	NC		%	20

Maxxam Job #: B873034
Report Date: 2018/10/03

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8L8915
Sampler Initials: PS

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9124684	JLP	Matrix Spike	Dissolved Titanium (Ti)	2018/08/30	NC		%	20
			Dissolved Uranium (U)	2018/08/30	0.095		%	20
			Dissolved Vanadium (V)	2018/08/30	NC		%	20
			Dissolved Zinc (Zn)	2018/08/30	NC		%	20
			Total Aluminum (Al)	2018/09/04		116	%	80 - 120
			Total Antimony (Sb)	2018/09/04		105	%	80 - 120
			Total Arsenic (As)	2018/09/04		111	%	80 - 120
			Total Barium (Ba)	2018/09/04		105	%	80 - 120
			Total Beryllium (Be)	2018/09/04		101	%	80 - 120
			Total Boron (B)	2018/09/04		91	%	80 - 120
			Total Cadmium (Cd)	2018/09/04		103	%	80 - 120
			Total Chromium (Cr)	2018/09/04		101	%	80 - 120
			Total Copper (Cu)	2018/09/04		96	%	80 - 120
			Total Iron (Fe)	2018/09/04		107	%	80 - 120
			Total Lead (Pb)	2018/09/04		102	%	80 - 120
			Total Lithium (Li)	2018/09/04		95	%	80 - 120
			Total Manganese (Mn)	2018/09/04		104	%	80 - 120
			Total Molybdenum (Mo)	2018/09/04		110	%	80 - 120
			Total Nickel (Ni)	2018/09/04		96	%	80 - 120
			Total Selenium (Se)	2018/09/04		108	%	80 - 120
			Total Silver (Ag)	2018/09/04		101	%	80 - 120
			Total Strontium (Sr)	2018/09/04		NC	%	80 - 120
			Total Thallium (Tl)	2018/09/04		97	%	80 - 120
			Total Tin (Sn)	2018/09/04		101	%	80 - 120
			Total Titanium (Ti)	2018/09/04		103	%	80 - 120
			Total Uranium (U)	2018/09/04		106	%	80 - 120
			Total Vanadium (V)	2018/09/04		105	%	80 - 120
			Total Zinc (Zn)	2018/09/04		103	%	80 - 120
			Total Calcium (Ca)	2018/09/04		NC	%	80 - 120
			Total Magnesium (Mg)	2018/09/04		NC	%	80 - 120
			Total Potassium (K)	2018/09/04		101	%	80 - 120
			Total Sodium (Na)	2018/09/04		NC	%	80 - 120
9124684	JLP	Spiked Blank	Total Aluminum (Al)	2018/09/04		101	%	80 - 120
			Total Antimony (Sb)	2018/09/04		100	%	80 - 120
			Total Arsenic (As)	2018/09/04		105	%	80 - 120
			Total Barium (Ba)	2018/09/04		101	%	80 - 120
			Total Beryllium (Be)	2018/09/04		98	%	80 - 120
			Total Boron (B)	2018/09/04		92	%	80 - 120
			Total Cadmium (Cd)	2018/09/04		100	%	80 - 120
			Total Chromium (Cr)	2018/09/04		101	%	80 - 120
			Total Copper (Cu)	2018/09/04		98	%	80 - 120
			Total Iron (Fe)	2018/09/04		105	%	80 - 120
			Total Lead (Pb)	2018/09/04		101	%	80 - 120
			Total Lithium (Li)	2018/09/04		95	%	80 - 120
			Total Manganese (Mn)	2018/09/04		100	%	80 - 120
			Total Molybdenum (Mo)	2018/09/04		102	%	80 - 120
			Total Nickel (Ni)	2018/09/04		99	%	80 - 120
			Total Selenium (Se)	2018/09/04		107	%	80 - 120
			Total Silver (Ag)	2018/09/04		99	%	80 - 120
			Total Strontium (Sr)	2018/09/04		101	%	80 - 120
			Total Thallium (Tl)	2018/09/04		94	%	80 - 120
			Total Tin (Sn)	2018/09/04		100	%	80 - 120

Maxxam Job #: B873034
Report Date: 2018/10/03

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8L8915
Sampler Initials: PS

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9124684	JLP	Method Blank	Total Titanium (Ti)	2018/09/04		100	%	80 - 120
			Total Uranium (U)	2018/09/04		101	%	80 - 120
			Total Vanadium (V)	2018/09/04		102	%	80 - 120
			Total Zinc (Zn)	2018/09/04		102	%	80 - 120
			Total Calcium (Ca)	2018/09/04		102	%	80 - 120
			Total Magnesium (Mg)	2018/09/04		98	%	80 - 120
			Total Potassium (K)	2018/09/04		99	%	80 - 120
			Total Sodium (Na)	2018/09/04		101	%	80 - 120
			Total Aluminum (Al)	2018/09/04	<0.0030		mg/L	
			Total Antimony (Sb)	2018/09/04	<0.00050		mg/L	
			Total Arsenic (As)	2018/09/04	<0.00010		mg/L	
			Total Barium (Ba)	2018/09/04	<0.0010		mg/L	
			Total Beryllium (Be)	2018/09/04	<0.00010		mg/L	
			Total Boron (B)	2018/09/04	<0.050		mg/L	
			Total Cadmium (Cd)	2018/09/04	<0.000010		mg/L	
			Total Chromium (Cr)	2018/09/04	<0.0010		mg/L	
			Total Copper (Cu)	2018/09/04	<0.00050		mg/L	
			Total Iron (Fe)	2018/09/04	<0.010		mg/L	
			Total Lead (Pb)	2018/09/04	<0.00020		mg/L	
			Total Lithium (Li)	2018/09/04	<0.0020		mg/L	
			Total Manganese (Mn)	2018/09/04	<0.0010		mg/L	
			Total Molybdenum (Mo)	2018/09/04	<0.0010		mg/L	
			Total Nickel (Ni)	2018/09/04	<0.0010		mg/L	
			Total Selenium (Se)	2018/09/04	<0.00010		mg/L	
			Total Silver (Ag)	2018/09/04	<0.000020		mg/L	
			Total Strontium (Sr)	2018/09/04	<0.0010		mg/L	
			Total Thallium (Tl)	2018/09/04	<0.000010		mg/L	
			Total Tin (Sn)	2018/09/04	<0.0050		mg/L	
			Total Titanium (Ti)	2018/09/04	<0.0050		mg/L	
			Total Uranium (U)	2018/09/04	<0.00010		mg/L	
			Total Vanadium (V)	2018/09/04	<0.0050		mg/L	
			Total Zinc (Zn)	2018/09/04	<0.0050		mg/L	
			Total Calcium (Ca)	2018/09/04	<0.050		mg/L	
			Total Magnesium (Mg)	2018/09/04	<0.050		mg/L	
			Total Potassium (K)	2018/09/04	<0.050		mg/L	
			Total Sodium (Na)	2018/09/04	<0.050		mg/L	
9124684	JLP	RPD	Total Aluminum (Al)	2018/09/04	18		%	20
			Total Antimony (Sb)	2018/09/04	9.1		%	20
			Total Arsenic (As)	2018/09/04	5.4		%	20
			Total Barium (Ba)	2018/09/04	7.3		%	20
			Total Beryllium (Be)	2018/09/04	NC		%	20
			Total Boron (B)	2018/09/04	NC		%	20
			Total Cadmium (Cd)	2018/09/04	11		%	20
			Total Chromium (Cr)	2018/09/04	NC		%	20
			Total Copper (Cu)	2018/09/04	4.0		%	20
			Total Iron (Fe)	2018/09/04	5.8		%	20
			Total Lead (Pb)	2018/09/04	11		%	20
			Total Lithium (Li)	2018/09/04	NC		%	20
			Total Manganese (Mn)	2018/09/04	4.7		%	20
			Total Molybdenum (Mo)	2018/09/04	5.6		%	20
			Total Nickel (Ni)	2018/09/04	0.13		%	20
			Total Selenium (Se)	2018/09/04	NC		%	20

Maxxam Job #: B873034
Report Date: 2018/10/03

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8L8915
Sampler Initials: PS

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Total Silver (Ag)	2018/09/04	NC		%	20
			Total Strontium (Sr)	2018/09/04	5.7		%	20
			Total Thallium (Tl)	2018/09/04	NC		%	20
			Total Tin (Sn)	2018/09/04	NC		%	20
			Total Titanium (Ti)	2018/09/04	NC		%	20
			Total Uranium (U)	2018/09/04	NC		%	20
			Total Vanadium (V)	2018/09/04	NC		%	20
			Total Zinc (Zn)	2018/09/04	7.7		%	20

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference $\leq 2 \times \text{RDL}$).

Maxxam Job #: B873034
Report Date: 2018/10/03

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8L8915
Sampler Initials: PS

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Rob Reinert, B.Sc., Scientific Specialist

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Your P.O. #: OL-664695
Site#: 63°02'15.5" 92°13'06.3"
Site Location: MELIADINE
Your C.O.C. #: na

Attention: Reporting

Agnico-Eagle
Meliadine Mine
Rankin Inlet, NU
CANADA X0C 0G0

Report Date: 2018/12/19
Report #: R5532382
Version: 3 - Revision

CERTIFICATE OF ANALYSIS – REVISED REPORT

MAXXAM JOB #: B8M4749

Received: 2018/08/29, 12:00

Sample Matrix: Water
Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Alkalinity (1)	1	N/A	2018/08/31	CAM SOP-00448	SM 23 2320 B m
Carbonate, Bicarbonate and Hydroxide (1)	1	N/A	2018/09/04	CAM SOP-00102	APHA 4500-CO2 D
Chloride by Automated Colourimetry (1)	1	N/A	2018/09/04	CAM SOP-00463	EPA 325.2 m
Conductivity (1)	1	N/A	2018/08/31	CAM SOP-00414	SM 23 2510 m
Free (WAD) Cyanide (1)	1	N/A	2018/08/31	CAM SOP-00457	OMOE E3015 m
Total Cyanide (1)	1	2018/08/31	2018/08/31	CAM SOP-00457	OMOE E3015 5 m
Dissolved Organic Carbon (DOC) (1, 4)	1	N/A	2018/08/31	CAM SOP-00446	SM 23 5310 B m
Dissolved Oxygen (1)	1	2018/08/30	2018/08/30	CAM SOP-00427	SM 23 4500 O G m
Petroleum Hydro. CCME F1 & BTEX in Water (1)	1	N/A	2018/09/01	CAM SOP-00315	CCME PHC-CWS m
Petroleum Hydrocarbons F2-F4 in Water (1, 5)	1	2018/09/04	2018/09/05	CAM SOP-00316	CCME PHC-CWS m
Dissolved Mercury (low level) (1)	1	2018/08/31	2018/09/03	CAM SOP-00453	EPA 7470 m
Mercury (low level) (1)	1	2018/08/31	2018/09/03	CAM SOP-00453	EPA 7470 m
Total Ammonia-N (1)	1	N/A	2018/09/05	CAM SOP-00441	EPA GS I-2522-90 m
Nitrate (NO3) and Nitrite (NO2) in Water (1, 6)	1	N/A	2018/08/31	CAM SOP-00440	SM 23 4500-NO3I/NO2B
pH (1)	1	N/A	2018/08/31	CAM SOP-00413	SM 4500H+ B m
Orthophosphate (1)	1	N/A	2018/09/04	CAM SOP-00461	EPA 365.1 m
Radium-226 Low Level (2, 7)	1	N/A	2018/09/10	BQL SOP-00006 BQL SOP-00017 BQL SOP-00032	Alpha Spectrometry
Sulphate by Automated Colourimetry (1)	1	N/A	2018/09/04	CAM SOP-00464	EPA 375.4 m
Total Dissolved Solids (1)	1	2018/09/04	2018/09/04	CAM SOP-00428	SM 23 2540C m
Total Kjeldahl Nitrogen in Water (1)	1	2018/09/01	2018/09/05	CAM SOP-00938	OMOE E3516 m
Total Organic Carbon (TOC) (1, 8)	1	N/A	2018/08/31	CAM SOP-00446	SM 23 5310B m
Total Phosphorus (Colourimetric) (1)	1	2018/08/31	2018/09/04	CAM SOP-00407	SM 23 4500 P B H m
Low Level Total Suspended Solids (1)	1	2018/09/01	2018/09/04	CAM SOP-00428	SM 23 2540D m
Turbidity (1)	1	N/A	2018/08/31	CAM SOP-00417	SM 23 2130 B m
Hardness (calculated as CaCO3) (3)	1	N/A	N/A	BBY WI-00033	Auto Calc

Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Maxxam's profession using

Your P.O. #: OL-664695
Site#: 63°02'15.5" 92°13'06.3"
Site Location: MELIADINE
Your C.O.C. #: na

Attention: Reporting

Agnico-Eagle
Meliadine Mine
Rankin Inlet, NU
CANADA X0C 0G0

Report Date: 2018/12/19

Report #: R5532382

Version: 3 - Revision

CERTIFICATE OF ANALYSIS – REVISED REPORT

MAXXAM JOB #: B8M4749

Received: 2018/08/29, 12:00

accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Maxxam in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.

Maxxam Analytics' liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Maxxam has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Maxxam, unless otherwise agreed in writing. Maxxam is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.

Results relate to samples tested. When sampling is not conducted by Maxxam, results relate to the supplied samples tested.

This Certificate shall not be reproduced except in full, without the written approval of the laboratory.

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

- (1) This test was performed by Maxxam Analytics Mississauga
- (2) This test was performed by Maxxam Analytics Kitimat
- (3) This test was performed by Campo to Burnaby Subcontract
- (4) Dissolved Organic Carbon (DOC) present in the sample should be considered as non-purgeable DOC.
- (5) All CCME PHC results met required criteria unless otherwise stated in the report. The CWS PHC methods employed by Maxxam conform to all prescribed elements of the reference method and performance based elements have been validated. All modifications have been validated and proven equivalent following "Alberta Environment's Interpretation of the Reference Method for the Canada-Wide Standard for Petroleum Hydrocarbons in Soil Validation of Performance-Based Alternative Methods September 2003". Documentation is available upon request. Modifications from Reference Method for the Canada-wide Standard for Petroleum Hydrocarbons in Soil-Tier 1 Method: F2/F3/F4 data reported using validated cold solvent extraction instead of Soxhlet extraction.
- (6) Values for calculated parameters may not appear to add up due to rounding of raw data and significant figures.
- (7) Radium-226 results have not been corrected for blanks.
- (8) Total Organic Carbon (TOC) present in the sample should be considered as non-purgeable TOC.

Encryption Key



Alisha Williamson
Project Manager
19 Dec 2018 15:42:19

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Alisha Williamson, Project Manager

Email: AWilliamson@maxxam.ca

Phone# (613) 274-0573

=====

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

CCME PETROLEUM HYDROCARBONS IN WATER (WATER)

Maxxam ID		HPR218		
Sampling Date		2018/08/26		
COC Number		na		
	UNITS	MEL-14	RDL	QC Batch
BTEX & F1 Hydrocarbons				
Benzene	ug/L	<0.20	0.20	5710040
Toluene	ug/L	<0.20	0.20	5710040
Ethylbenzene	ug/L	<0.20	0.20	5710040
o-Xylene	ug/L	<0.20	0.20	5710040
p+m-Xylene	ug/L	<0.40	0.40	5710040
Total Xylenes	ug/L	<0.40	0.40	5710040
F1 (C6-C10)	ug/L	<25	25	5710040
F1 (C6-C10) - BTEX	ug/L	<25	25	5710040
F2-F4 Hydrocarbons				
F2 (C10-C16 Hydrocarbons)	ug/L	<100	100	5712356
F3 (C16-C34 Hydrocarbons)	ug/L	<200	200	5712356
F4 (C34-C50 Hydrocarbons)	ug/L	<200	200	5712356
Reached Baseline at C50	ug/L	Yes		5712356
Surrogate Recovery (%)				
1,4-Difluorobenzene	%	98		5710040
4-Bromofluorobenzene	%	109		5710040
D10-Ethylbenzene	%	99		5710040
D4-1,2-Dichloroethane	%	90		5710040
o-Terphenyl	%	97		5712356
RDL = Reportable Detection Limit				
QC Batch = Quality Control Batch				

RESULTS OF ANALYSES OF WATER

Maxxam ID		HPR218			HPR218		
Sampling Date		2018/08/26			2018/08/26		
COC Number		na			na		
	UNITS	MEL-14	RDL	QC Batch	MEL-14 Lab-Dup	RDL	QC Batch
Calculated Parameters							
Bicarb. Alkalinity (calc. as CaCO ₃)	mg/L	6.2	1.0	5707057			
Carb. Alkalinity (calc. as CaCO ₃)	mg/L	<1.0	1.0	5707057			
Inorganics							
Total Ammonia-N	mg/L	4.1	0.050	5711486			
Conductivity	umho/cm	1500	1.0	5708280			
Total Dissolved Solids	mg/L	870	10	5712659			
Total Kjeldahl Nitrogen (TKN)	mg/L	3.6	0.50	5711459			
Dissolved Organic Carbon	mg/L	<0.50	0.50	5707562			
Total Organic Carbon (TOC)	mg/L	<0.50	0.50	5710189			
Orthophosphate (P)	mg/L	<0.010	0.010	5710261			
Dissolved Oxygen	mg/L	10.2		5708661	10.2		5708661
pH	pH	6.80		5708282			
Total Phosphorus	mg/L	0.021	0.020	5709959			
Total Suspended Solids	mg/L	<1	1	5711526			
Dissolved Sulphate (SO ₄)	mg/L	7.2	1.0	5710257			
Total Cyanide (CN)	mg/L	<0.0050	0.0050	5709305			
Turbidity	NTU	<0.1	0.1	5708298	<0.1	0.1	5708298
WAD Cyanide (Free)	mg/L	<0.0010	0.0010	5709300			
Alkalinity (Total as CaCO ₃)	mg/L	6.3	1.0	5708268			
Dissolved Chloride (Cl ⁻)	mg/L	400	5.0	5710254			
Nitrite (N)	mg/L	0.191	0.010	5708344			
Nitrate (N)	mg/L	15.3	0.10	5708344			
Nitrate + Nitrite (N)	mg/L	15.5	0.10	5708344			
RADIONUCLIDE							
Radium-226	Bq/L	<0.0050	0.0050	5714454			
RDL = Reportable Detection Limit QC Batch = Quality Control Batch Lab-Dup = Laboratory Initiated Duplicate							

Maxxam Job #: B8M4749
Report Date: 2018/12/19

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: OL-664695
Sampler Initials: LH

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		HPR218		
Sampling Date		2018/08/26		
COC Number		na		
	UNITS	MEL-14	RDL	QC Batch
Metals				
Mercury (Hg)	mg/L	<0.00001	0.00001	5709006
Dissolved Mercury (Hg)	mg/L	<0.00001	0.00001	5709004
RDL = Reportable Detection Limit				
QC Batch = Quality Control Batch				

Maxxam Job #: B8M4749
Report Date: 2018/12/19

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: OL-664695
Sampler Initials: LH

TEST SUMMARY

Maxxam ID: HPR218
Sample ID: MEL-14
Matrix: Water

Collected: 2018/08/26
Shipped:
Received: 2018/08/29

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	5708268	N/A	2018/08/31	Neil Dassanayake
Carbonate, Bicarbonate and Hydroxide	CALC	5707057	N/A	2018/09/04	Automated Statchk
Chloride by Automated Colourimetry	KONE	5710254	N/A	2018/09/04	Deonarine Ramnarine
Conductivity	AT	5708280	N/A	2018/08/31	Neil Dassanayake
Free (WAD) Cyanide	SKAL/CN	5709300	N/A	2018/08/31	Xuanhong Qiu
Total Cyanide	SKAL/CN	5709305	2018/08/31	2018/08/31	Xuanhong Qiu
Dissolved Organic Carbon (DOC)	TOCV/NDIR	5707562	N/A	2018/08/31	Nimarta Singh
Dissolved Oxygen	DO	5708661	2018/08/30	2018/08/30	Frank Zhang
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	5710040	N/A	2018/09/01	Lincoln Ramdahin
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	5712356	2018/09/04	2018/09/05	(Kent) Maolin Li
Dissolved Mercury (low level)	CV/AA	5709004	2018/08/31	2018/09/03	Ron Morrison
Mercury (low level)	CV/AA	5709006	2018/08/31	2018/09/03	Ron Morrison
Total Ammonia-N	LACH/NH4	5711486	N/A	2018/09/05	Parminder Sangha
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	5708344	N/A	2018/08/31	Chandra Nandlal
pH	AT	5708282	N/A	2018/08/31	Neil Dassanayake
Orthophosphate	KONE	5710261	N/A	2018/09/04	Alina Dobreanu
Radium-226 Low Level	AS	5714454	N/A	2018/09/10	Fariba Kashavarz
Sulphate by Automated Colourimetry	KONE	5710257	N/A	2018/09/04	Alina Dobreanu
Total Dissolved Solids	BAL	5712659	2018/09/04	2018/09/04	Jingwei (Alvin) Shi
Total Kjeldahl Nitrogen in Water	SKAL	5711459	2018/09/01	2018/09/05	Rajni Tyagi
Total Organic Carbon (TOC)	TOCV/NDIR	5710189	N/A	2018/08/31	Nimarta Singh
Total Phosphorus (Colourimetric)	LACH/P	5709959	2018/08/31	2018/09/04	Amanpreet Sappal
Low Level Total Suspended Solids	BAL	5711526	2018/09/01	2018/09/04	Mandeep Kaur
Turbidity	AT	5708298	N/A	2018/08/31	Tahir Anwar
Hardness (calculated as CaCO3)	CALC	5739311	N/A		Lims Auto Schedule Runner

Maxxam ID: HPR218 Dup
Sample ID: MEL-14
Matrix: Water

Collected: 2018/08/26
Shipped:
Received: 2018/08/29

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Dissolved Oxygen	DO	5708661	2018/08/30	2018/08/30	Frank Zhang
Turbidity	AT	5708298	N/A	2018/08/31	Tahir Anwar

GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	9.7°C

Revised Report (2018/12/18): Client sample ID changed to MEL-14 and GPS coordinates included per client request.

Sample HPR218 [MEL-14] : TKN < Ammonia: Both values fall within the method uncertainty for duplicates and are likely equivalent.

Results relate only to the items tested.

QUALITY ASSURANCE REPORT

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: OL-664695
Sampler Initials: LH

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
5710040	1,4-Difluorobenzene	2018/08/31	97	70 - 130	99	70 - 130	95	%				
5710040	4-Bromofluorobenzene	2018/08/31	113	70 - 130	112	70 - 130	111	%				
5710040	D10-Ethylbenzene	2018/08/31	103	70 - 130	93	70 - 130	97	%				
5710040	D4-1,2-Dichloroethane	2018/08/31	90	70 - 130	92	70 - 130	92	%				
5712356	o-Terphenyl	2018/09/04	87	60 - 130	63	60 - 130	83	%				
5707562	Dissolved Organic Carbon	2018/08/30	94	80 - 120	97	80 - 120	<0.50	mg/L	0.30	20		
5708268	Alkalinity (Total as CaCO3)	2018/08/31			98	85 - 115	<1.0	mg/L	0.55	20		
5708280	Conductivity	2018/08/31			102	85 - 115	<1.0	umho/cm	1.1	25		
5708282	pH	2018/08/31			101	98 - 103			0.11	N/A		
5708298	Turbidity	2018/08/31			101	85 - 115	<0.1	NTU	NC	20		
5708344	Nitrate (N)	2018/08/31	100	80 - 120	100	80 - 120	<0.10	mg/L	NC	20		
5708344	Nitrite (N)	2018/08/31	101	80 - 120	100	80 - 120	<0.010	mg/L	NC	20		
5709004	Dissolved Mercury (Hg)	2018/09/03	92	75 - 125	94	80 - 120	<0.00001	mg/L	NC	20		
5709006	Mercury (Hg)	2018/09/03	92	75 - 125	99	80 - 120	<0.00001	mg/L	NC	20		
5709300	WAD Cyanide (Free)	2018/08/31	105	80 - 120	102	80 - 120	<0.0010	mg/L	NC	20		
5709305	Total Cyanide (CN)	2018/08/31	101	80 - 120	98	80 - 120	<0.0050	mg/L	NC	20		
5709959	Total Phosphorus	2018/09/04	98	80 - 120	98	80 - 120	<0.020	mg/L	1.9	20	100	80 - 120
5710040	Benzene	2018/08/31	84	70 - 130	85	70 - 130	<0.20	ug/L	4.4	30		
5710040	Ethylbenzene	2018/08/31	91	70 - 130	88	70 - 130	<0.20	ug/L	3.2	30		
5710040	F1 (C6-C10) - BTEX	2018/08/31					<25	ug/L	NC	30		
5710040	F1 (C6-C10)	2018/08/31	88	70 - 130	93	70 - 130	<25	ug/L	5.2	30		
5710040	o-Xylene	2018/08/31	86	70 - 130	85	70 - 130	<0.20	ug/L	9.5	30		
5710040	p-m-Xylene	2018/08/31	89	70 - 130	90	70 - 130	<0.40	ug/L	0.26	30		
5710040	Toluene	2018/08/31	89	70 - 130	90	70 - 130	<0.20	ug/L	14	30		
5710040	Total Xylenes	2018/08/31					<0.40	ug/L	2.1	30		
5710189	Total Organic Carbon (TOC)	2018/08/31	95	80 - 120	94	80 - 120	<0.50	mg/L	0.086	20		
5710254	Dissolved Chloride (Cl-)	2018/09/04	110	80 - 120	103	80 - 120	<1.0	mg/L	2.0	20		
5710257	Dissolved Sulphate (SO4)	2018/09/04	NC	75 - 125	106	80 - 120	<1.0	mg/L	1.0	20		
5710261	Orthophosphate (P)	2018/09/04	109	75 - 125	100	80 - 120	<0.010	mg/L	NC	25		
5711459	Total Kjeldahl Nitrogen (TKN)	2018/09/04	102	80 - 120	101	80 - 120	<0.10	mg/L	18	20	108	80 - 120
5711486	Total Ammonia-N	2018/09/05	97	75 - 125	99	80 - 120	<0.050	mg/L	NC	20		

QUALITY ASSURANCE REPORT(CONT'D)

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: OL-664695
Sampler Initials: LH

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
5711526	Total Suspended Solids	2018/09/04					<1	mg/L	4.8	25	95	85 - 115
5712356	F2 (C10-C16 Hydrocarbons)	2018/09/04	85	50 - 130	83	60 - 130	<100	ug/L	NC	30		
5712356	F3 (C16-C34 Hydrocarbons)	2018/09/04	85	50 - 130	74	60 - 130	<200	ug/L	NC	30		
5712356	F4 (C34-C50 Hydrocarbons)	2018/09/04	79	50 - 130	71	60 - 130	<200	ug/L	NC	30		
5712659	Total Dissolved Solids	2018/09/04					<10	mg/L	6.9	25	100	90 - 110
5714454	Radium-226	2018/09/09			99	85 - 115	<0.0050	Bq/L	NC	N/A		

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference $\leq 2 \times \text{RDL}$).

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Brad Newman, Scientific Service Specialist



Steven Simpson, Lab Director

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**Exceedence Summary Table – Metal Mining Effluent Reg
Result Exceedences**

Sample ID	Maxxam ID	Parameter	Criteria	Result	DL	Units
No Exceedences						
The exceedence summary table is for information purposes only and should not be considered a comprehensive listing or statement of conformance to applicable regulatory guidelines.						

Your P.O. #: B8M4749
Site Location: MELIADINE
Your C.O.C. #: B8M4749-M060-01-01

Agnico-Eagle
Meliadine
Rankin Inlet, NU
Canada X0C 0G0

Report Date: 2018/09/05
Report #: R2613979
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B874301

Received: 2018/08/31, 09:11

Sample Matrix: Water
Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Silica (Reactive)	1	N/A	2018/09/05	AB SOP-00011	EPA 370.1 R1978 m

Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Maxxam's profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Maxxam in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.

Maxxam Analytics' liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Maxxam has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Maxxam, unless otherwise agreed in writing. Maxxam is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.

Results relate to samples tested. When sampling is not conducted by Maxxam, results relate to the supplied samples tested.

This Certificate shall not be reproduced except in full, without the written approval of the laboratory.

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Your P.O. #: B8M4749
Site Location: MELIADINE
Your C.O.C. #: B8M4749-M060-01-01

Agnico-Eagle
Meliadine
Rankin Inlet, NU
Canada X0C 0G0

Report Date: 2018/09/05
Report #: R2613979
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B874301
Received: 2018/08/31, 09:11

Encryption Key



Maxxam
05 Sep 2018 13:13:53

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Omran Desouki, Junior Project Manager
Email: ODesouki@maxxam.ca
Phone# (403) 291-3077

=====

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Maxxam Job #: B874301
Report Date: 2018/09/05

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8M4749
Sampler Initials: LH

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		UF1191		
Sampling Date		2018/08/26		
COC Number		B8M4749-M060-01-01		
	UNITS	MEL-14AC (MDMER AND EEM)	RDL	QC Batch
Misc. Inorganics				
Reactive Silica	mg/L	0.078	0.050	9129561
RDL = Reportable Detection Limit				

Maxxam Job #: B874301
Report Date: 2018/09/05

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8M4749
Sampler Initials: LH

TEST SUMMARY

Maxxam ID: UF1191
Sample ID: MEL-14AC (MDMER AND EEM)
Matrix: Water

Collected: 2018/08/26
Shipped: 2018/08/30
Received: 2018/08/31

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Silica (Reactive)	KONE/SL	9129561	N/A	2018/09/05	Zafar Iqbal

Maxxam Job #: B874301
Report Date: 2018/09/05

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8M4749
Sampler Initials: LH

GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	4.0°C

Results relate only to the items tested.

QUALITY ASSURANCE REPORT

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8M4749
Sampler Initials: LH

QC Batch	Parameter	Date	Matrix Spike		Spiked Blank		Method Blank		RPD	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9129561	Reactive Silica	2018/09/05	NC	80 - 120	102	80 - 120	<0.050	mg/L	0.067	20

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

Maxxam Job #: B874301
Report Date: 2018/09/05

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8M4749
Sampler Initials: LH

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Harry (Peng) Liang, Senior Analyst

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Your P.O. #: B8M4759
Site Location: MELIADINE
Your C.O.C. #: B8M4759-M058-01-01

Attention: Jonathan Urban

Agnico-Eagle
Meliadine
Rankin Inlet, NU
Canada X0C 0G0

Report Date: 2018/09/07
Report #: R2615554
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B874497

Received: 2018/08/31, 10:00

Sample Matrix: Water
Samples Received: 3

Analyses	Date		Date Analyzed	Laboratory Method	Analytical Method
	Quantity	Extracted			
Hardness Total (calculated as CaCO ₃) (1)	3	N/A	2018/09/06	BBY WI-00033	Auto Calc
Elements by CRC ICPMS (total)	3	2018/09/05	2018/09/06	BBY7SOP-00003,	EPA 6020b R2 m

Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Maxxam's profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Maxxam in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.

Maxxam Analytics' liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Maxxam has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Maxxam, unless otherwise agreed in writing. Maxxam is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.

Results relate to samples tested. When sampling is not conducted by Maxxam, results relate to the supplied samples tested.

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Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

(1) "Total Hardness" was calculated from Total Ca and Mg concentrations and may be biased high (Hardness, or Dissolved Hardness, calculated from Dissolved Ca and Mg, should be used for compliance if available).

Your P.O. #: B8M4759
Site Location: MELIADINE
Your C.O.C. #: B8M4759-M058-01-01

Attention: Jonathan Urban

Agnico-Eagle
Meliadine
Rankin Inlet, NU
Canada X0C 0G0

Report Date: 2018/09/07
Report #: R2615554
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B874497

Received: 2018/08/31, 10:00

Encryption Key



Morgan Melnychuk
Burnaby Project Manager
07 Sep 2018 15:33:40

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Veronica De Guzman, B.Sc., Project Manager

Email: VDeGuzman@maxxam.ca

Phone# (604) 734 7276

=====

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Maxxam Job #: B874497
Report Date: 2018/09/07

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8M4759
Sampler Initials: LH

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		UF2177	UF2178	UF2179		
Sampling Date		2018/08/24 15:02	2018/08/24 14:50	2018/08/24 15:10		
COC Number		B8M4759-M058-01-01	B8M4759-M058-01-01	B8M4759-M058-01-01		
	UNITS	MEL-SR-1	MEL-SR-8	ITIVIA MEL-SR-3	RDL	QC Batch
Calculated Parameters						
Total Hardness (CaCO ₃)	mg/L	524	229	4870	0.50	9125675
RDL = Reportable Detection Limit						

Maxxam Job #: B874497
Report Date: 2018/09/07

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8M4759
Sampler Initials: LH

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		UF2177		UF2178		UF2179		
Sampling Date		2018/08/24 15:02		2018/08/24 14:50		2018/08/24 15:10		
COC Number		B8M4759-M058-01-01		B8M4759-M058-01-01		B8M4759-M058-01-01		
	UNITS	MEL-SR-1	RDL	MEL-SR-8	RDL	ITIVIA MEL-SR-3	RDL	QC Batch

Total Metals by ICPMS								
Total Aluminum (Al)	mg/L	0.0147	0.0030	0.0941	0.0060	0.470	0.060	9130327
Total Antimony (Sb)	mg/L	<0.00050	0.00050	0.0012	0.0010	<0.010	0.010	9130327
Total Arsenic (As)	mg/L	0.00414	0.00010	0.00101	0.00020	0.0030	0.0020	9130327
Total Barium (Ba)	mg/L	0.0611	0.0010	0.0535	0.0020	<0.020	0.020	9130327
Total Beryllium (Be)	mg/L	<0.00010	0.00010	<0.00020	0.00020	<0.0020	0.0020	9130327
Total Boron (B)	mg/L	0.075	0.050	0.41	0.10	3.5	1.0	9130327
Total Cadmium (Cd)	mg/L	0.000023	0.000010	<0.000020	0.000020	<0.00020	0.00020	9130327
Total Chromium (Cr)	mg/L	<0.0010	0.0010	<0.0020	0.0020	<0.020	0.020	9130327
Total Copper (Cu)	mg/L	0.00434	0.00050	0.0050	0.0010	<0.010	0.010	9130327
Total Iron (Fe)	mg/L	0.092	0.010	0.075	0.020	0.97	0.20	9130327
Total Lead (Pb)	mg/L	<0.00020	0.00020	<0.00040	0.00040	<0.0040	0.0040	9130327
Total Lithium (Li)	mg/L	0.0163	0.0020	0.0056	0.0040	0.148	0.040	9130327
Total Manganese (Mn)	mg/L	0.0259	0.0010	0.0202	0.0020	<0.020	0.020	9130327
Total Molybdenum (Mo)	mg/L	0.0011	0.0010	0.0116	0.0020	<0.020	0.020	9130327
Total Nickel (Ni)	mg/L	0.0308	0.0010	0.0039	0.0020	<0.020	0.020	9130327
Total Selenium (Se)	mg/L	0.00013	0.00010	0.00303	0.00020	<0.0020	0.0020	9130327
Total Silver (Ag)	mg/L	<0.000020	0.000020	<0.000040	0.000040	<0.00040	0.00040	9130327
Total Strontium (Sr)	mg/L	0.752	0.0010	0.268	0.0020	6.76	0.020	9130327
Total Thallium (Tl)	mg/L	0.000012	0.000010	<0.000020	0.000020	<0.00020	0.00020	9130327
Total Tin (Sn)	mg/L	<0.0050	0.0050	<0.010	0.010	<0.10	0.10	9130327
Total Titanium (Ti)	mg/L	<0.0050	0.0050	<0.010	0.010	<0.10	0.10	9130327
Total Uranium (U)	mg/L	0.00325	0.00010	0.00364	0.00020	0.0029	0.0020	9130327
Total Vanadium (V)	mg/L	<0.0050	0.0050	<0.010	0.010	<0.10	0.10	9130327
Total Zinc (Zn)	mg/L	0.0506	0.0050	<0.010	0.010	<0.10	0.10	9130327
Total Calcium (Ca)	mg/L	159	0.050	53.0	0.10	347	1.0	9130327
Total Magnesium (Mg)	mg/L	30.7	0.050	23.4	0.10	972	1.0	9130327
Total Potassium (K)	mg/L	14.0	0.050	24.1	0.10	320	1.0	9130327
Total Sodium (Na)	mg/L	124	0.050	429	0.10	8380	1.0	9130327

RDL = Reportable Detection Limit

Maxxam Job #: B874497
Report Date: 2018/09/07

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8M4759
Sampler Initials: LH

GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	5.7°C

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER) Comments

Sample UF2178 [MEL-SR-8] Elements by CRC ICPMS (total): RDL raised due to concentration over linear range, sample dilution required.

Sample UF2179 [ITIVIA MEL-SR-3] Elements by CRC ICPMS (total): RDL raised due to concentration over linear range, sample dilution required.

Results relate only to the items tested.

Maxxam Job #: B874497
Report Date: 2018/09/07

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8M4759
Sampler Initials: LH

QUALITY ASSURANCE REPORT

QA/QC		QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
Batch	Init							
9130327	MHM	Matrix Spike	Total Aluminum (Al)	2018/09/06		100	%	80 - 120
			Total Antimony (Sb)	2018/09/06		101	%	80 - 120
			Total Arsenic (As)	2018/09/06		106	%	80 - 120
			Total Barium (Ba)	2018/09/06		100	%	80 - 120
			Total Beryllium (Be)	2018/09/06		104	%	80 - 120
			Total Boron (B)	2018/09/06		108	%	80 - 120
			Total Cadmium (Cd)	2018/09/06		103	%	80 - 120
			Total Chromium (Cr)	2018/09/06		99	%	80 - 120
			Total Copper (Cu)	2018/09/06		94	%	80 - 120
			Total Iron (Fe)	2018/09/06		97	%	80 - 120
			Total Lead (Pb)	2018/09/06		99	%	80 - 120
			Total Lithium (Li)	2018/09/06		99	%	80 - 120
			Total Manganese (Mn)	2018/09/06		99	%	80 - 120
			Total Molybdenum (Mo)	2018/09/06		106	%	80 - 120
			Total Nickel (Ni)	2018/09/06		95	%	80 - 120
			Total Selenium (Se)	2018/09/06		104	%	80 - 120
			Total Silver (Ag)	2018/09/06		99	%	80 - 120
			Total Strontium (Sr)	2018/09/06		NC	%	80 - 120
			Total Thallium (Tl)	2018/09/06		99	%	80 - 120
			Total Tin (Sn)	2018/09/06		100	%	80 - 120
			Total Titanium (Ti)	2018/09/06		108	%	80 - 120
			Total Uranium (U)	2018/09/06		105	%	80 - 120
			Total Vanadium (V)	2018/09/06		99	%	80 - 120
			Total Zinc (Zn)	2018/09/06		110	%	80 - 120
			Total Calcium (Ca)	2018/09/06		NC	%	80 - 120
			Total Magnesium (Mg)	2018/09/06		NC	%	80 - 120
			Total Potassium (K)	2018/09/06		101	%	80 - 120
			Total Sodium (Na)	2018/09/06		NC	%	80 - 120
9130327	MHM	Spiked Blank	Total Aluminum (Al)	2018/09/06		102	%	80 - 120
			Total Antimony (Sb)	2018/09/06		105	%	80 - 120
			Total Arsenic (As)	2018/09/06		106	%	80 - 120
			Total Barium (Ba)	2018/09/06		102	%	80 - 120
			Total Beryllium (Be)	2018/09/06		106	%	80 - 120
			Total Boron (B)	2018/09/06		109	%	80 - 120
			Total Cadmium (Cd)	2018/09/06		103	%	80 - 120
			Total Chromium (Cr)	2018/09/06		101	%	80 - 120
			Total Copper (Cu)	2018/09/06		97	%	80 - 120
			Total Iron (Fe)	2018/09/06		104	%	80 - 120
			Total Lead (Pb)	2018/09/06		101	%	80 - 120
			Total Lithium (Li)	2018/09/06		101	%	80 - 120
			Total Manganese (Mn)	2018/09/06		101	%	80 - 120
			Total Molybdenum (Mo)	2018/09/06		106	%	80 - 120
			Total Nickel (Ni)	2018/09/06		97	%	80 - 120
			Total Selenium (Se)	2018/09/06		105	%	80 - 120
			Total Silver (Ag)	2018/09/06		101	%	80 - 120
			Total Strontium (Sr)	2018/09/06		105	%	80 - 120
			Total Thallium (Tl)	2018/09/06		101	%	80 - 120
			Total Tin (Sn)	2018/09/06		101	%	80 - 120
			Total Titanium (Ti)	2018/09/06		104	%	80 - 120
			Total Uranium (U)	2018/09/06		105	%	80 - 120
			Total Vanadium (V)	2018/09/06		103	%	80 - 120
			Total Zinc (Zn)	2018/09/06		107	%	80 - 120

Maxxam Job #: B874497
Report Date: 2018/09/07

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8M4759
Sampler Initials: LH

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9130327	MHM	Method Blank	Total Calcium (Ca)	2018/09/06		104	%	80 - 120
			Total Magnesium (Mg)	2018/09/06		101	%	80 - 120
			Total Potassium (K)	2018/09/06		102	%	80 - 120
			Total Sodium (Na)	2018/09/06		104	%	80 - 120
			Total Aluminum (Al)	2018/09/06	<0.0030		mg/L	
			Total Antimony (Sb)	2018/09/06	<0.00050		mg/L	
			Total Arsenic (As)	2018/09/06	<0.00010		mg/L	
			Total Barium (Ba)	2018/09/06	<0.0010		mg/L	
			Total Beryllium (Be)	2018/09/06	<0.00010		mg/L	
			Total Boron (B)	2018/09/06	<0.050		mg/L	
			Total Cadmium (Cd)	2018/09/06	<0.000010		mg/L	
			Total Chromium (Cr)	2018/09/06	<0.0010		mg/L	
			Total Copper (Cu)	2018/09/06	<0.00050		mg/L	
			Total Iron (Fe)	2018/09/06	<0.010		mg/L	
			Total Lead (Pb)	2018/09/06	<0.00020		mg/L	
			Total Lithium (Li)	2018/09/06	<0.0020		mg/L	
			Total Manganese (Mn)	2018/09/06	<0.0010		mg/L	
			Total Molybdenum (Mo)	2018/09/06	<0.0010		mg/L	
			Total Nickel (Ni)	2018/09/06	<0.0010		mg/L	
			Total Selenium (Se)	2018/09/06	<0.00010		mg/L	
			Total Silver (Ag)	2018/09/06	<0.000020		mg/L	
			Total Strontium (Sr)	2018/09/06	<0.0010		mg/L	
			Total Thallium (Tl)	2018/09/06	<0.000010		mg/L	
			Total Tin (Sn)	2018/09/06	<0.0050		mg/L	
			Total Titanium (Ti)	2018/09/06	<0.0050		mg/L	
			Total Uranium (U)	2018/09/06	<0.00010		mg/L	
			Total Vanadium (V)	2018/09/06	<0.0050		mg/L	
			Total Zinc (Zn)	2018/09/06	<0.0050		mg/L	
			Total Calcium (Ca)	2018/09/06	<0.050		mg/L	
			Total Magnesium (Mg)	2018/09/06	<0.050		mg/L	
			Total Potassium (K)	2018/09/06	<0.050		mg/L	
			Total Sodium (Na)	2018/09/06	<0.050		mg/L	
9130327	MHM	RPD	Total Aluminum (Al)	2018/09/06	3.6		%	20
			Total Antimony (Sb)	2018/09/06	NC		%	20
			Total Arsenic (As)	2018/09/06	4.7		%	20
			Total Barium (Ba)	2018/09/06	1.7		%	20
			Total Beryllium (Be)	2018/09/06	NC		%	20
			Total Boron (B)	2018/09/06	NC		%	20
			Total Cadmium (Cd)	2018/09/06	NC		%	20
			Total Chromium (Cr)	2018/09/06	NC		%	20
			Total Copper (Cu)	2018/09/06	6.9		%	20
			Total Iron (Fe)	2018/09/06	3.1		%	20
			Total Lead (Pb)	2018/09/06	6.4		%	20
			Total Lithium (Li)	2018/09/06	NC		%	20
			Total Manganese (Mn)	2018/09/06	1.3		%	20
			Total Molybdenum (Mo)	2018/09/06	NC		%	20
			Total Nickel (Ni)	2018/09/06	NC		%	20
			Total Selenium (Se)	2018/09/06	NC		%	20
			Total Silver (Ag)	2018/09/06	NC		%	20
			Total Strontium (Sr)	2018/09/06	0.99		%	20
			Total Thallium (Tl)	2018/09/06	NC		%	20
			Total Tin (Sn)	2018/09/06	NC		%	20

Maxxam Job #: B874497
Report Date: 2018/09/07

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8M4759
Sampler Initials: LH

QUALITY ASSURANCE REPORT(CONT'D)

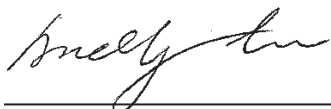
QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Total Titanium (Ti)	2018/09/06	NC		%	20
			Total Uranium (U)	2018/09/06	NC		%	20
			Total Vanadium (V)	2018/09/06	NC		%	20
			Total Zinc (Zn)	2018/09/06	0.72		%	20
Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement. Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference. Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy. Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination. NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration) NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).								

Maxxam Job #: B874497
Report Date: 2018/09/07

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8M4759
Sampler Initials: LH

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Andy Lu, Ph.D., P.Chem., Scientific Specialist

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Your P.O. #: B8M4749
Site Location: MELIADINE
Your C.O.C. #: B8M4749-M058-01-01

Attention: Jonathan Urban

Agnico-Eagle
Meliadine
Rankin Inlet, NU
Canada X0C 0G0

Report Date: 2018/09/07
Report #: R2615553
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B874487

Received: 2018/08/31, 10:00

Sample Matrix: Water
Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Hardness Total (calculated as CaCO ₃) (1)	1	N/A	2018/09/06	BBY WI-00033	Auto Calc
Hardness (calculated as CaCO ₃)	1	N/A	2018/09/05	BBY WI-00033	Auto Calc
Elements by CRC ICPMS (dissolved)	1	N/A	2018/09/04	BBY7SOP-00002	EPA 6020b R2 m
Elements by CRC ICPMS (total)	1	2018/09/05	2018/09/06	BBY7SOP-00003,	EPA 6020b R2 m
Filter and HNO ₃ Preserve for Metals	1	N/A	2018/08/31	BBY7 WI-00004	BCMOE Reqs 08/14

Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Maxxam's profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Maxxam in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.

Maxxam Analytics' liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Maxxam has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Maxxam, unless otherwise agreed in writing. Maxxam is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.

Results relate to samples tested. When sampling is not conducted by Maxxam, results relate to the supplied samples tested.

This Certificate shall not be reproduced except in full, without the written approval of the laboratory.

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

(1) "Total Hardness" was calculated from Total Ca and Mg concentrations and may be biased high (Hardness, or Dissolved Hardness, calculated from Dissolved Ca and Mg, should be used for compliance if available).

Your P.O. #: B8M4749
Site Location: MELIADINE
Your C.O.C. #: B8M4749-M058-01-01

Attention: Jonathan Urban

Agnico-Eagle
Meliadine
Rankin Inlet, NU
Canada X0C 0G0

Report Date: 2018/09/07
Report #: R2615553
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B874487

Received: 2018/08/31, 10:00

Encryption Key



Morgan Melnychuk
Burnaby Project Manager
07 Sep 2018 15:33:04

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Veronica De Guzman, B.Sc., Project Manager

Email: VDeGuzman@maxxam.ca

Phone# (604) 734 7276

=====

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam Job #: B874487
Report Date: 2018/09/07

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8M4749
Sampler Initials: LH

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		UF2141		
Sampling Date		2018/08/26		
COC Number		B8M4749-M058-01-01		
	UNITS	MEL-14AC (MDMER AND EEM)	RDL	QC Batch
Calculated Parameters				
Filter and HNO3 Preservation	N/A	FIELD	N/A	ONSITE
Dissolved Hardness (CaCO3)	mg/L	59.2	0.50	9125290
Total Hardness (CaCO3)	mg/L	57.1	0.50	9125675
RDL = Reportable Detection Limit				
N/A = Not Applicable				

Maxxam Job #: B874487
Report Date: 2018/09/07

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8M4749
Sampler Initials: LH

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		UF2141		
Sampling Date		2018/08/26		
COC Number		B8M4749-M058-01-01		
	UNITS	MEL-14AC (MDMER AND EEM)	RDL	QC Batch
Dissolved Metals by ICPMS				
Dissolved Aluminum (Al)	mg/L	0.0043	0.0030	9128928
Dissolved Antimony (Sb)	mg/L	<0.00050	0.00050	9128928
Dissolved Arsenic (As)	mg/L	0.00029	0.00010	9128928
Dissolved Barium (Ba)	mg/L	0.0044	0.0010	9128928
Dissolved Beryllium (Be)	mg/L	<0.00010	0.00010	9128928
Dissolved Boron (B)	mg/L	0.723	0.050	9128928
Dissolved Cadmium (Cd)	mg/L	<0.000010	0.000010	9128928
Dissolved Chromium (Cr)	mg/L	<0.0010	0.0010	9128928
Dissolved Copper (Cu)	mg/L	0.00022	0.00020	9128928
Dissolved Iron (Fe)	mg/L	<0.0050	0.0050	9128928
Dissolved Lead (Pb)	mg/L	<0.00020	0.00020	9128928
Dissolved Lithium (Li)	mg/L	0.134	0.0020	9128928
Dissolved Manganese (Mn)	mg/L	0.0025	0.0010	9128928
Dissolved Molybdenum (Mo)	mg/L	<0.0010	0.0010	9128928
Dissolved Nickel (Ni)	mg/L	<0.0010	0.0010	9128928
Dissolved Selenium (Se)	mg/L	<0.00010	0.00010	9128928
Dissolved Silver (Ag)	mg/L	<0.000020	0.000020	9128928
Dissolved Strontium (Sr)	mg/L	0.422	0.0010	9128928
Dissolved Thallium (Tl)	mg/L	0.000020	0.000010	9128928
Dissolved Tin (Sn)	mg/L	<0.0050	0.0050	9128928
Dissolved Titanium (Ti)	mg/L	<0.0050	0.0050	9128928
Dissolved Uranium (U)	mg/L	0.00011	0.00010	9128928
Dissolved Vanadium (V)	mg/L	<0.0050	0.0050	9128928
Dissolved Zinc (Zn)	mg/L	<0.0050	0.0050	9128928
Dissolved Calcium (Ca)	mg/L	17.2	0.050	9128928
Dissolved Magnesium (Mg)	mg/L	3.96	0.050	9128928
Dissolved Potassium (K)	mg/L	14.0	0.050	9128928
Dissolved Sodium (Na)	mg/L	236	0.050	9128928
Total Metals by ICPMS				
Total Aluminum (Al)	mg/L	0.0050	0.0030	9130327
Total Antimony (Sb)	mg/L	<0.00050	0.00050	9130327
RDL = Reportable Detection Limit				

Maxxam Job #: B874487
Report Date: 2018/09/07

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8M4749
Sampler Initials: LH

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		UF2141		
Sampling Date		2018/08/26		
COC Number		B8M4749-M058-01-01		
	UNITS	MEL-14AC (MDMER AND EEM)	RDL	QC Batch
Total Arsenic (As)	mg/L	0.00028	0.00010	9130327
Total Barium (Ba)	mg/L	0.0043	0.0010	9130327
Total Beryllium (Be)	mg/L	<0.00010	0.00010	9130327
Total Boron (B)	mg/L	0.770	0.050	9130327
Total Cadmium (Cd)	mg/L	<0.000010	0.000010	9130327
Total Chromium (Cr)	mg/L	<0.0010	0.0010	9130327
Total Copper (Cu)	mg/L	<0.00050	0.00050	9130327
Total Iron (Fe)	mg/L	<0.010	0.010	9130327
Total Lead (Pb)	mg/L	<0.00020	0.00020	9130327
Total Lithium (Li)	mg/L	0.133	0.0020	9130327
Total Manganese (Mn)	mg/L	0.0024	0.0010	9130327
Total Molybdenum (Mo)	mg/L	<0.0010	0.0010	9130327
Total Nickel (Ni)	mg/L	<0.0010	0.0010	9130327
Total Selenium (Se)	mg/L	<0.00010	0.00010	9130327
Total Silver (Ag)	mg/L	<0.000020	0.000020	9130327
Total Strontium (Sr)	mg/L	0.401	0.0010	9130327
Total Thallium (Tl)	mg/L	0.000020	0.000010	9130327
Total Tin (Sn)	mg/L	<0.0050	0.0050	9130327
Total Titanium (Ti)	mg/L	<0.0050	0.0050	9130327
Total Uranium (U)	mg/L	0.00010	0.00010	9130327
Total Vanadium (V)	mg/L	<0.0050	0.0050	9130327
Total Zinc (Zn)	mg/L	<0.0050	0.0050	9130327
Total Calcium (Ca)	mg/L	16.5	0.050	9130327
Total Magnesium (Mg)	mg/L	3.86	0.050	9130327
Total Potassium (K)	mg/L	13.2	0.050	9130327
Total Sodium (Na)	mg/L	229	0.050	9130327
RDL = Reportable Detection Limit				

Maxxam Job #: B874487
Report Date: 2018/09/07

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8M4749
Sampler Initials: LH

GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	5.7°C

Results relate only to the items tested.

Maxxam Job #: B874487
Report Date: 2018/09/07

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8M4749
Sampler Initials: LH

QUALITY ASSURANCE REPORT

QA/QC	Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9128928	MHM	Matrix Spike		Dissolved Aluminum (Al)	2018/09/04		97	%	80 - 120
				Dissolved Antimony (Sb)	2018/09/04		103	%	80 - 120
				Dissolved Arsenic (As)	2018/09/04		105	%	80 - 120
				Dissolved Barium (Ba)	2018/09/04		98	%	80 - 120
				Dissolved Beryllium (Be)	2018/09/04		95	%	80 - 120
				Dissolved Boron (B)	2018/09/04		96	%	80 - 120
				Dissolved Cadmium (Cd)	2018/09/04		103	%	80 - 120
				Dissolved Chromium (Cr)	2018/09/04		96	%	80 - 120
				Dissolved Copper (Cu)	2018/09/04		87	%	80 - 120
				Dissolved Iron (Fe)	2018/09/04		100	%	80 - 120
				Dissolved Lead (Pb)	2018/09/04		99	%	80 - 120
				Dissolved Lithium (Li)	2018/09/04		95	%	80 - 120
				Dissolved Manganese (Mn)	2018/09/04		97	%	80 - 120
				Dissolved Molybdenum (Mo)	2018/09/04		107	%	80 - 120
				Dissolved Nickel (Ni)	2018/09/04		89	%	80 - 120
				Dissolved Selenium (Se)	2018/09/04		103	%	80 - 120
				Dissolved Silver (Ag)	2018/09/04		99	%	80 - 120
				Dissolved Strontium (Sr)	2018/09/04		NC	%	80 - 120
				Dissolved Thallium (Tl)	2018/09/04		97	%	80 - 120
				Dissolved Tin (Sn)	2018/09/04		101	%	80 - 120
				Dissolved Titanium (Ti)	2018/09/04		104	%	80 - 120
				Dissolved Uranium (U)	2018/09/04		103	%	80 - 120
				Dissolved Vanadium (V)	2018/09/04		99	%	80 - 120
				Dissolved Zinc (Zn)	2018/09/04		104	%	80 - 120
				Dissolved Calcium (Ca)	2018/09/04		NC	%	80 - 120
				Dissolved Magnesium (Mg)	2018/09/04		NC	%	80 - 120
				Dissolved Potassium (K)	2018/09/04		101	%	80 - 120
				Dissolved Sodium (Na)	2018/09/04		NC	%	80 - 120
9128928	MHM	Spiked Blank		Dissolved Aluminum (Al)	2018/09/04		97	%	80 - 120
				Dissolved Antimony (Sb)	2018/09/04		99	%	80 - 120
				Dissolved Arsenic (As)	2018/09/04		103	%	80 - 120
				Dissolved Barium (Ba)	2018/09/04		97	%	80 - 120
				Dissolved Beryllium (Be)	2018/09/04		97	%	80 - 120
				Dissolved Boron (B)	2018/09/04		98	%	80 - 120
				Dissolved Cadmium (Cd)	2018/09/04		104	%	80 - 120
				Dissolved Chromium (Cr)	2018/09/04		97	%	80 - 120
				Dissolved Copper (Cu)	2018/09/04		92	%	80 - 120
				Dissolved Iron (Fe)	2018/09/04		102	%	80 - 120
				Dissolved Lead (Pb)	2018/09/04		102	%	80 - 120
				Dissolved Lithium (Li)	2018/09/04		94	%	80 - 120
				Dissolved Manganese (Mn)	2018/09/04		99	%	80 - 120
				Dissolved Molybdenum (Mo)	2018/09/04		102	%	80 - 120
				Dissolved Nickel (Ni)	2018/09/04		92	%	80 - 120
				Dissolved Selenium (Se)	2018/09/04		102	%	80 - 120
				Dissolved Silver (Ag)	2018/09/04		99	%	80 - 120
				Dissolved Strontium (Sr)	2018/09/04		106	%	80 - 120
				Dissolved Thallium (Tl)	2018/09/04		99	%	80 - 120
				Dissolved Tin (Sn)	2018/09/04		98	%	80 - 120
				Dissolved Titanium (Ti)	2018/09/04		101	%	80 - 120
				Dissolved Uranium (U)	2018/09/04		103	%	80 - 120
				Dissolved Vanadium (V)	2018/09/04		99	%	80 - 120
				Dissolved Zinc (Zn)	2018/09/04		107	%	80 - 120

Maxxam Job #: B874487
Report Date: 2018/09/07

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8M4749
Sampler Initials: LH

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9128928	MHM	Method Blank	Dissolved Calcium (Ca)	2018/09/04		100	%	80 - 120
			Dissolved Magnesium (Mg)	2018/09/04		96	%	80 - 120
			Dissolved Potassium (K)	2018/09/04		101	%	80 - 120
			Dissolved Sodium (Na)	2018/09/04		97	%	80 - 120
			Dissolved Aluminum (Al)	2018/09/04	<0.0030		mg/L	
			Dissolved Antimony (Sb)	2018/09/04	<0.00050		mg/L	
			Dissolved Arsenic (As)	2018/09/04	<0.00010		mg/L	
			Dissolved Barium (Ba)	2018/09/04	<0.0010		mg/L	
			Dissolved Beryllium (Be)	2018/09/04	<0.00010		mg/L	
			Dissolved Boron (B)	2018/09/04	<0.050		mg/L	
			Dissolved Cadmium (Cd)	2018/09/04	<0.000010		mg/L	
			Dissolved Chromium (Cr)	2018/09/04	<0.0010		mg/L	
			Dissolved Copper (Cu)	2018/09/04	<0.00020		mg/L	
			Dissolved Iron (Fe)	2018/09/04	<0.0050		mg/L	
			Dissolved Lead (Pb)	2018/09/04	<0.00020		mg/L	
			Dissolved Lithium (Li)	2018/09/04	<0.0020		mg/L	
			Dissolved Manganese (Mn)	2018/09/04	<0.0010		mg/L	
			Dissolved Molybdenum (Mo)	2018/09/04	<0.0010		mg/L	
			Dissolved Nickel (Ni)	2018/09/04	<0.0010		mg/L	
			Dissolved Selenium (Se)	2018/09/04	<0.00010		mg/L	
			Dissolved Silver (Ag)	2018/09/04	<0.000020		mg/L	
			Dissolved Strontium (Sr)	2018/09/04	<0.0010		mg/L	
			Dissolved Thallium (Tl)	2018/09/04	<0.000010		mg/L	
			Dissolved Tin (Sn)	2018/09/04	<0.0050		mg/L	
			Dissolved Titanium (Ti)	2018/09/04	<0.0050		mg/L	
			Dissolved Uranium (U)	2018/09/04	<0.00010		mg/L	
			Dissolved Vanadium (V)	2018/09/04	<0.0050		mg/L	
			Dissolved Zinc (Zn)	2018/09/04	<0.0050		mg/L	
			Dissolved Calcium (Ca)	2018/09/04	<0.050		mg/L	
			Dissolved Magnesium (Mg)	2018/09/04	<0.050		mg/L	
			Dissolved Potassium (K)	2018/09/04	<0.050		mg/L	
			Dissolved Sodium (Na)	2018/09/04	<0.050		mg/L	
9128928	MHM	RPD	Dissolved Aluminum (Al)	2018/09/04	NC		%	20
			Dissolved Antimony (Sb)	2018/09/04	NC		%	20
			Dissolved Arsenic (As)	2018/09/04	7.1		%	20
			Dissolved Barium (Ba)	2018/09/04	1.7		%	20
			Dissolved Beryllium (Be)	2018/09/04	NC		%	20
			Dissolved Boron (B)	2018/09/04	NC		%	20
			Dissolved Cadmium (Cd)	2018/09/04	0		%	20
			Dissolved Chromium (Cr)	2018/09/04	NC		%	20
			Dissolved Copper (Cu)	2018/09/04	1.1		%	20
			Dissolved Iron (Fe)	2018/09/04	NC		%	20
			Dissolved Lead (Pb)	2018/09/04	NC		%	20
			Dissolved Lithium (Li)	2018/09/04	NC		%	20
			Dissolved Manganese (Mn)	2018/09/04	0.75		%	20
			Dissolved Molybdenum (Mo)	2018/09/04	NC		%	20
			Dissolved Nickel (Ni)	2018/09/04	NC		%	20
			Dissolved Selenium (Se)	2018/09/04	NC		%	20
			Dissolved Silver (Ag)	2018/09/04	NC		%	20
			Dissolved Strontium (Sr)	2018/09/04	0.99		%	20
			Dissolved Thallium (Tl)	2018/09/04	NC		%	20
			Dissolved Tin (Sn)	2018/09/04	NC		%	20

Maxxam Job #: B874487
Report Date: 2018/09/07

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8M4749
Sampler Initials: LH

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9130327	MHM	Matrix Spike	Dissolved Titanium (Ti)	2018/09/04	NC		%	20
			Dissolved Uranium (U)	2018/09/04	0.98		%	20
			Dissolved Vanadium (V)	2018/09/04	NC		%	20
			Dissolved Zinc (Zn)	2018/09/04	NC		%	20
			Total Aluminum (Al)	2018/09/06		100	%	80 - 120
			Total Antimony (Sb)	2018/09/06		101	%	80 - 120
			Total Arsenic (As)	2018/09/06		106	%	80 - 120
			Total Barium (Ba)	2018/09/06		100	%	80 - 120
			Total Beryllium (Be)	2018/09/06		104	%	80 - 120
			Total Boron (B)	2018/09/06		108	%	80 - 120
			Total Cadmium (Cd)	2018/09/06		103	%	80 - 120
			Total Chromium (Cr)	2018/09/06		99	%	80 - 120
			Total Copper (Cu)	2018/09/06		94	%	80 - 120
			Total Iron (Fe)	2018/09/06		97	%	80 - 120
			Total Lead (Pb)	2018/09/06		99	%	80 - 120
			Total Lithium (Li)	2018/09/06		99	%	80 - 120
			Total Manganese (Mn)	2018/09/06		99	%	80 - 120
			Total Molybdenum (Mo)	2018/09/06		106	%	80 - 120
			Total Nickel (Ni)	2018/09/06		95	%	80 - 120
			Total Selenium (Se)	2018/09/06		104	%	80 - 120
			Total Silver (Ag)	2018/09/06		99	%	80 - 120
			Total Strontium (Sr)	2018/09/06		NC	%	80 - 120
			Total Thallium (Tl)	2018/09/06		99	%	80 - 120
			Total Tin (Sn)	2018/09/06		100	%	80 - 120
			Total Titanium (Ti)	2018/09/06		108	%	80 - 120
			Total Uranium (U)	2018/09/06		105	%	80 - 120
			Total Vanadium (V)	2018/09/06		99	%	80 - 120
			Total Zinc (Zn)	2018/09/06		110	%	80 - 120
			Total Calcium (Ca)	2018/09/06		NC	%	80 - 120
			Total Magnesium (Mg)	2018/09/06		NC	%	80 - 120
			Total Potassium (K)	2018/09/06		101	%	80 - 120
			Total Sodium (Na)	2018/09/06		NC	%	80 - 120
9130327	MHM	Spiked Blank	Total Aluminum (Al)	2018/09/06		102	%	80 - 120
			Total Antimony (Sb)	2018/09/06		105	%	80 - 120
			Total Arsenic (As)	2018/09/06		106	%	80 - 120
			Total Barium (Ba)	2018/09/06		102	%	80 - 120
			Total Beryllium (Be)	2018/09/06		106	%	80 - 120
			Total Boron (B)	2018/09/06		109	%	80 - 120
			Total Cadmium (Cd)	2018/09/06		103	%	80 - 120
			Total Chromium (Cr)	2018/09/06		101	%	80 - 120
			Total Copper (Cu)	2018/09/06		97	%	80 - 120
			Total Iron (Fe)	2018/09/06		104	%	80 - 120
			Total Lead (Pb)	2018/09/06		101	%	80 - 120
			Total Lithium (Li)	2018/09/06		101	%	80 - 120
			Total Manganese (Mn)	2018/09/06		101	%	80 - 120
			Total Molybdenum (Mo)	2018/09/06		106	%	80 - 120
			Total Nickel (Ni)	2018/09/06		97	%	80 - 120
			Total Selenium (Se)	2018/09/06		105	%	80 - 120
			Total Silver (Ag)	2018/09/06		101	%	80 - 120
			Total Strontium (Sr)	2018/09/06		105	%	80 - 120
			Total Thallium (Tl)	2018/09/06		101	%	80 - 120
			Total Tin (Sn)	2018/09/06		101	%	80 - 120

Maxxam Job #: B874487
Report Date: 2018/09/07

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8M4749
Sampler Initials: LH

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9130327	MHM	Method Blank	Total Titanium (Ti)	2018/09/06		104	%	80 - 120
			Total Uranium (U)	2018/09/06		105	%	80 - 120
			Total Vanadium (V)	2018/09/06		103	%	80 - 120
			Total Zinc (Zn)	2018/09/06		107	%	80 - 120
			Total Calcium (Ca)	2018/09/06		104	%	80 - 120
			Total Magnesium (Mg)	2018/09/06		101	%	80 - 120
			Total Potassium (K)	2018/09/06		102	%	80 - 120
			Total Sodium (Na)	2018/09/06		104	%	80 - 120
			Total Aluminum (Al)	2018/09/06	<0.0030		mg/L	
			Total Antimony (Sb)	2018/09/06	<0.00050		mg/L	
			Total Arsenic (As)	2018/09/06	<0.00010		mg/L	
			Total Barium (Ba)	2018/09/06	<0.0010		mg/L	
			Total Beryllium (Be)	2018/09/06	<0.00010		mg/L	
			Total Boron (B)	2018/09/06	<0.050		mg/L	
			Total Cadmium (Cd)	2018/09/06	<0.000010		mg/L	
			Total Chromium (Cr)	2018/09/06	<0.0010		mg/L	
			Total Copper (Cu)	2018/09/06	<0.00050		mg/L	
			Total Iron (Fe)	2018/09/06	<0.010		mg/L	
			Total Lead (Pb)	2018/09/06	<0.00020		mg/L	
			Total Lithium (Li)	2018/09/06	<0.0020		mg/L	
			Total Manganese (Mn)	2018/09/06	<0.0010		mg/L	
			Total Molybdenum (Mo)	2018/09/06	<0.0010		mg/L	
			Total Nickel (Ni)	2018/09/06	<0.0010		mg/L	
			Total Selenium (Se)	2018/09/06	<0.00010		mg/L	
			Total Silver (Ag)	2018/09/06	<0.000020		mg/L	
			Total Strontium (Sr)	2018/09/06	<0.0010		mg/L	
			Total Thallium (Tl)	2018/09/06	<0.000010		mg/L	
			Total Tin (Sn)	2018/09/06	<0.0050		mg/L	
			Total Titanium (Ti)	2018/09/06	<0.0050		mg/L	
			Total Uranium (U)	2018/09/06	<0.00010		mg/L	
			Total Vanadium (V)	2018/09/06	<0.0050		mg/L	
			Total Zinc (Zn)	2018/09/06	<0.0050		mg/L	
			Total Calcium (Ca)	2018/09/06	<0.050		mg/L	
			Total Magnesium (Mg)	2018/09/06	<0.050		mg/L	
			Total Potassium (K)	2018/09/06	<0.050		mg/L	
			Total Sodium (Na)	2018/09/06	<0.050		mg/L	
9130327	MHM	RPD	Total Aluminum (Al)	2018/09/06	3.6		%	20
			Total Antimony (Sb)	2018/09/06	NC		%	20
			Total Arsenic (As)	2018/09/06	4.7		%	20
			Total Barium (Ba)	2018/09/06	1.7		%	20
			Total Beryllium (Be)	2018/09/06	NC		%	20
			Total Boron (B)	2018/09/06	NC		%	20
			Total Cadmium (Cd)	2018/09/06	NC		%	20
			Total Chromium (Cr)	2018/09/06	NC		%	20
			Total Copper (Cu)	2018/09/06	6.9		%	20
			Total Iron (Fe)	2018/09/06	3.1		%	20
			Total Lead (Pb)	2018/09/06	6.4		%	20
			Total Lithium (Li)	2018/09/06	NC		%	20
			Total Manganese (Mn)	2018/09/06	1.3		%	20
			Total Molybdenum (Mo)	2018/09/06	NC		%	20
			Total Nickel (Ni)	2018/09/06	NC		%	20
			Total Selenium (Se)	2018/09/06	NC		%	20

Maxxam Job #: B874487
Report Date: 2018/09/07

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8M4749
Sampler Initials: LH

QUALITY ASSURANCE REPORT(CONT'D)

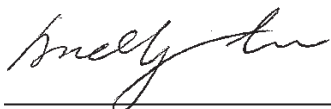
QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Total Silver (Ag)	2018/09/06	NC		%	20
			Total Strontium (Sr)	2018/09/06	0.99		%	20
			Total Thallium (Tl)	2018/09/06	NC		%	20
			Total Tin (Sn)	2018/09/06	NC		%	20
			Total Titanium (Ti)	2018/09/06	NC		%	20
			Total Uranium (U)	2018/09/06	NC		%	20
			Total Vanadium (V)	2018/09/06	NC		%	20
			Total Zinc (Zn)	2018/09/06	0.72		%	20
Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement. Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference. Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy. Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination. NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration) NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference $\leq 2 \times \text{RDL}$).								

Maxxam Job #: B874487
Report Date: 2018/09/07

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8M4749
Sampler Initials: LH

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Andy Lu, Ph.D., P.Chem., Scientific Specialist

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Your P.O. #: B8M4749
Site Location: MELIADINE
Your C.O.C. #: B8M4749-M060-01-01

Attention: Alisha Williamson

Agnico-Eagle
Meliadine
Rankin Inlet, NU
Canada X0C 0G0

Report Date: 2018/12/12
Report #: R2663048
Version: 2 - Revision

CERTIFICATE OF ANALYSIS – REVISED REPORT

MAXXAM JOB #: B874301

Received: 2018/08/31, 09:11

Sample Matrix: Water
Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Silica (Reactive)	1	N/A	2018/09/05	AB SOP-00011	EPA 370.1 R1978 m

Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Maxxam's profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Maxxam in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.

Maxxam Analytics' liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Maxxam has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Maxxam, unless otherwise agreed in writing. Maxxam is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.

Results relate to samples tested. When sampling is not conducted by Maxxam, results relate to the supplied samples tested.

This Certificate shall not be reproduced except in full, without the written approval of the laboratory.

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key



Omran Desouki
Junior Project Manager
12 Dec 2018 12:14:45

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Omran Desouki, Junior Project Manager

Email: ODesouki@maxxam.ca

Phone# (403) 291-3077

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam Job #: B874301
Report Date: 2018/12/12

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8M4749
Sampler Initials: LH

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		UF1191		
Sampling Date		2018/08/26		
COC Number		B8M4749-M060-01-01		
	UNITS	MEL-14	RDL	QC Batch
Misc. Inorganics				
Reactive Silica	mg/L	0.078	0.050	9129561
RDL = Reportable Detection Limit				

Maxxam Job #: B874301
Report Date: 2018/12/12

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8M4749
Sampler Initials: LH

TEST SUMMARY

Maxxam ID: UF1191
Sample ID: MEL-14
Matrix: Water

Collected: 2018/08/26
Shipped: 2018/08/30
Received: 2018/08/31

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Silica (Reactive)	KONE/SL	9129561	N/A	2018/09/05	Zafar Iqbal

Maxxam Job #: B874301
Report Date: 2018/12/12

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8M4749
Sampler Initials: LH

GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	4.0°C

Revised Report (2018/12/12): Client sample ID and GPS coordinates updated per client request.

GPS coordinates: 63°02'15.5" 92°13'06.3"

Results relate only to the items tested.

QUALITY ASSURANCE REPORT

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8M4749
Sampler Initials: LH

QC Batch	Parameter	Date	Matrix Spike		Spiked Blank		Method Blank		RPD	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9129561	Reactive Silica	2018/09/05	NC	80 - 120	102	80 - 120	<0.050	mg/L	0.067	20

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

Maxxam Job #: B874301
Report Date: 2018/12/12

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8M4749
Sampler Initials: LH

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Harry (Peng) Liang, Senior Analyst

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Your P.O. #: OL-664695
Site Location: MELIADINE
Your C.O.C. #: na

Attention: Reporting

Agnico-Eagle
Meliadine Mine
Rankin Inlet, NU
CANADA X0C 0G0

Report Date: 2018/12/19

Report #: R5532380

Version: 2 - Revision

CERTIFICATE OF ANALYSIS – REVISED REPORT

MAXXAM JOB #: B8M4777

Received: 2018/08/29, 12:00

Sample Matrix: Water
Samples Received: 2

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Alkalinity (1)	1	N/A	2018/08/31	CAM SOP-00448	SM 23 2320 B m
Alkalinity (1)	1	N/A	2018/09/04	CAM SOP-00448	SM 23 2320 B m
Carbonate, Bicarbonate and Hydroxide (1)	1	N/A	2018/09/04	CAM SOP-00102	APHA 4500-CO2 D
Carbonate, Bicarbonate and Hydroxide (1)	1	N/A	2018/09/05	CAM SOP-00102	APHA 4500-CO2 D
Chloride by Automated Colourimetry (1)	2	N/A	2018/09/04	CAM SOP-00463	EPA 325.2 m
Conductivity (1)	1	N/A	2018/08/31	CAM SOP-00414	SM 23 2510 m
Conductivity (1)	1	N/A	2018/09/04	CAM SOP-00414	SM 23 2510 m
Free (WAD) Cyanide (1)	2	N/A	2018/08/31	CAM SOP-00457	OMOE E3015 m
Total Cyanide (1)	2	2018/08/31	2018/08/31	CAM SOP-00457	OMOE E3015 5 m
Dissolved Organic Carbon (DOC) (1, 4)	1	N/A	2018/08/31	CAM SOP-00446	SM 23 5310 B m
Dissolved Organic Carbon (DOC) (1, 4)	1	N/A	2018/09/04	CAM SOP-00446	SM 23 5310 B m
Dissolved Oxygen (1)	1	2018/08/30	2018/08/30	CAM SOP-00427	SM 23 4500 O G m
Dissolved Oxygen (1)	1	2018/08/31	2018/08/31	CAM SOP-00427	SM 23 4500 O G m
Petroleum Hydro. CCME F1 & BTEX in Water (1)	2	N/A	2018/09/02	CAM SOP-00315	CCME PHC-CWS m
Petroleum Hydrocarbons F2-F4 in Water (1, 5)	2	2018/09/04	2018/09/05	CAM SOP-00316	CCME PHC-CWS m
Dissolved Mercury (low level) (1)	2	2018/08/31	2018/09/03	CAM SOP-00453	EPA 7470 m
Mercury (low level) (1)	2	2018/08/31	2018/09/03	CAM SOP-00453	EPA 7470 m
Total Ammonia-N (1)	2	N/A	2018/09/05	CAM SOP-00441	EPA GS I-2522-90 m
Nitrate (NO3) and Nitrite (NO2) in Water (1, 6)	1	N/A	2018/08/31	CAM SOP-00440	SM 23 4500-NO3I/NO2B
Nitrate (NO3) and Nitrite (NO2) in Water (1, 6)	1	N/A	2018/09/04	CAM SOP-00440	SM 23 4500-NO3I/NO2B
pH (1)	1	N/A	2018/08/31	CAM SOP-00413	SM 4500H+ B m
pH (1)	1	N/A	2018/09/04	CAM SOP-00413	SM 4500H+ B m
Orthophosphate (1)	2	N/A	2018/09/04	CAM SOP-00461	EPA 365.1 m
Radium-226 Low Level (2, 7)	2	N/A	2018/09/10	BQL SOP-00006 BQL SOP-00017 BQL SOP-00032	Alpha Spectrometry
Sulphate by Automated Colourimetry (1)	2	N/A	2018/09/04	CAM SOP-00464	EPA 375.4 m
Total Dissolved Solids (1)	1	2018/09/04	2018/09/04	CAM SOP-00428	SM 23 2540C m
Total Dissolved Solids (1)	1	2018/09/05	2018/09/05	CAM SOP-00428	SM 23 2540C m
Total Kjeldahl Nitrogen in Water (1)	2	2018/09/01	2018/09/04	CAM SOP-00938	OMOE E3516 m
Total Organic Carbon (TOC) (1, 8)	2	N/A	2018/08/31	CAM SOP-00446	SM 23 5310B m
Total Phosphorus (Colourimetric) (1)	2	2018/08/31	2018/09/04	CAM SOP-00407	SM 23 4500 P B H m

Your P.O. #: OL-664695
Site Location: MELIADINE
Your C.O.C. #: na

Attention: Reporting

Agnico-Eagle
Meliadine Mine
Rankin Inlet, NU
CANADA X0C 0G0

Report Date: 2018/12/19
Report #: R5532380
Version: 2 - Revision

CERTIFICATE OF ANALYSIS – REVISED REPORT

MAXXAM JOB #: B8M4777
Received: 2018/08/29, 12:00

Sample Matrix: Water
Samples Received: 2

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Low Level Total Suspended Solids (1)	1	2018/09/01	2018/09/04	CAM SOP-00428	SM 23 2540D m
Low Level Total Suspended Solids (1)	1	2018/09/05	2018/09/05	CAM SOP-00428	SM 23 2540D m
Turbidity (1)	2	N/A	2018/08/31	CAM SOP-00417	SM 23 2130 B m
Hardness (calculated as CaCO ₃) (3)	2	N/A	2018/09/11	BBY WI-00033	Auto Calc

Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Maxxam's profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Maxxam in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.

Maxxam Analytics' liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Maxxam has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Maxxam, unless otherwise agreed in writing. Maxxam is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.

Results relate to samples tested. When sampling is not conducted by Maxxam, results relate to the supplied samples tested.

This Certificate shall not be reproduced except in full, without the written approval of the laboratory.

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

(1) This test was performed by Maxxam Analytics Mississauga

(2) This test was performed by Maxxam Analytics Kitimat

(3) This test was performed by Campo to Burnaby Subcontract

(4) Dissolved Organic Carbon (DOC) present in the sample should be considered as non-purgeable DOC.

(5) All CCME PHC results met required criteria unless otherwise stated in the report. The CWS PHC methods employed by Maxxam conform to all prescribed elements of the reference method and performance based elements have been validated. All modifications have been validated and proven equivalent following "Alberta Environment's Interpretation of the Reference Method for the Canada-Wide Standard for Petroleum Hydrocarbons in Soil Validation of Performance-Based Alternative Methods September 2003". Documentation is available upon request. Modifications from Reference Method for the Canada-wide Standard for Petroleum Hydrocarbons in Soil-Tier 1 Method: F2/F3/F4 data reported using validated cold solvent extraction instead of Soxhlet extraction.

(6) Values for calculated parameters may not appear to add up due to rounding of raw data and significant figures.

Your P.O. #: OL-664695
Site Location: MELIADINE
Your C.O.C. #: na

Attention: Reporting

Agnico-Eagle
Meliadine Mine
Rankin Inlet, NU
CANADA X0C 0G0

Report Date: 2018/12/19
Report #: R5532380
Version: 2 - Revision

CERTIFICATE OF ANALYSIS – REVISED REPORT

MAXXAM JOB #: B8M4777

Received: 2018/08/29, 12:00

- (7) Radium-226 results have not been corrected for blanks.
(8) Total Organic Carbon (TOC) present in the sample should be considered as non-purgeable TOC.

Encryption Key



Alisha Williamson
Project Manager
19 Dec 2018 15:43:04

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Alisha Williamson, Project Manager
Email: AWilliamson@maxxam.ca
Phone# (613) 274-0573

=====

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

CCME PETROLEUM HYDROCARBONS IN WATER (WATER)

Maxxam ID		HPR415	HPR416		
Sampling Date		2018/08/26 15:10	2018/08/26 16:30		
COC Number		na	na		
	UNITS	MEL-13	MEL-03-01	RDL	QC Batch
BTEX & F1 Hydrocarbons					
Benzene	ug/L	<0.20	<0.20	0.20	5711511
Toluene	ug/L	<0.20	<0.20	0.20	5711511
Ethylbenzene	ug/L	<0.20	<0.20	0.20	5711511
o-Xylene	ug/L	<0.20	<0.20	0.20	5711511
p+m-Xylene	ug/L	<0.40	<0.40	0.40	5711511
Total Xylenes	ug/L	<0.40	<0.40	0.40	5711511
F1 (C6-C10)	ug/L	<25	<25	25	5711511
F1 (C6-C10) - BTEX	ug/L	<25	<25	25	5711511
F2-F4 Hydrocarbons					
F2 (C10-C16 Hydrocarbons)	ug/L	<100	<100	100	5712356
F3 (C16-C34 Hydrocarbons)	ug/L	<200	<200	200	5712356
F4 (C34-C50 Hydrocarbons)	ug/L	<200	<200	200	5712356
Reached Baseline at C50	ug/L	Yes	Yes		5712356
Surrogate Recovery (%)					
1,4-Difluorobenzene	%	96	96		5711511
4-Bromofluorobenzene	%	112	113		5711511
D10-Ethylbenzene	%	101	100		5711511
D4-1,2-Dichloroethane	%	94	94		5711511
o-Terphenyl	%	99	98		5712356
RDL = Reportable Detection Limit					
QC Batch = Quality Control Batch					

RESULTS OF ANALYSES OF WATER

Maxxam ID		HPR415			HPR415			HPR416		
Sampling Date		2018/08/26 15:10			2018/08/26 15:10			2018/08/26 16:30		
COC Number		na			na			na		
	UNITS	MEL-13	RDL	QC Batch	MEL-13 Lab-Dup	RDL	QC Batch	MEL-03-01	RDL	QC Batch

Calculated Parameters										
Bicarb. Alkalinity (calc. as CaCO ₃)	mg/L	15	1.0	5707057				18	1.0	5709761
Carb. Alkalinity (calc. as CaCO ₃)	mg/L	<1.0	1.0	5707057				<1.0	1.0	5709761

Inorganics										
Total Ammonia-N	mg/L	0.19	0.050	5711486				<0.050	0.050	5711486
Conductivity	umho/cm	87	1.0	5708280				76	1.0	5711266
Total Dissolved Solids	mg/L	75	10	5712659	70	10	5712659	25	10	5715435
Total Kjeldahl Nitrogen (TKN)	mg/L	0.27	0.10	5711458				0.12	0.10	5711458
Dissolved Organic Carbon	mg/L	2.8	0.50	5707562				2.4	0.50	5710288
Total Organic Carbon (TOC)	mg/L	3.0	0.50	5710189				2.3	0.50	5710189
Orthophosphate (P)	mg/L	<0.010	0.010	5710261				<0.010	0.010	5711461
Dissolved Oxygen	mg/L	10.3		5708661				10.4		5710717
pH	pH	7.32		5708282				7.48		5711269
Total Phosphorus	mg/L	<0.020	0.020	5709959				<0.020	0.020	5709959
Total Suspended Solids	mg/L	1	1	5711526				<1	1	5714430
Dissolved Sulphate (SO ₄)	mg/L	3.7	1.0	5710257				3.2	1.0	5711460
Total Cyanide (CN)	mg/L	<0.0050	0.0050	5709305				<0.0050	0.0050	5709305
Turbidity	NTU	0.3	0.1	5708298				0.2	0.1	5710018
WAD Cyanide (Free)	mg/L	<0.0010	0.0010	5709300				<0.0010	0.0010	5709300
Alkalinity (Total as CaCO ₃)	mg/L	15	1.0	5708268				18	1.0	5711265
Dissolved Chloride (Cl ⁻)	mg/L	13	1.0	5710254				8.4	1.0	5711457
Nitrite (N)	mg/L	<0.010	0.010	5708344				<0.010	0.010	5711445
Nitrate (N)	mg/L	<0.10	0.10	5708344				<0.10	0.10	5711445
Nitrate + Nitrite (N)	mg/L	<0.10	0.10	5708344				<0.10	0.10	5711445

RADIONUCLIDE										
Radium-226	Bq/L	<0.0050	0.0050	5714454				<0.0050	0.0050	5714454

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

Maxxam Job #: B8M4777
Report Date: 2018/12/19

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: OL-664695
Sampler Initials: LH

RESULTS OF ANALYSES OF WATER

Maxxam ID		HPR416	
Sampling Date		2018/08/26 16:30	
COC Number		na	
	UNITS	MEL-03-01 Lab-Dup	QC Batch
Inorganics			
Dissolved Oxygen	mg/L	10.4	5710717
QC Batch = Quality Control Batch			
Lab-Dup = Laboratory Initiated Duplicate			

Maxxam Job #: B8M4777
Report Date: 2018/12/19

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: OL-664695
Sampler Initials: LH

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		HPR415	HPR416			HPR416		
Sampling Date		2018/08/26 15:10	2018/08/26 16:30			2018/08/26 16:30		
COC Number		na	na			na		
	UNITS	MEL-13	MEL-03-01	RDL	QC Batch	MEL-03-01 Lab-Dup	RDL	QC Batch
Metals								
Mercury (Hg)	mg/L	<0.00001	<0.00001	0.00001	5709006	<0.00001	0.00001	5709006
Dissolved Mercury (Hg)	mg/L	<0.00001	<0.00001	0.00001	5709004			
RDL = Reportable Detection Limit QC Batch = Quality Control Batch Lab-Dup = Laboratory Initiated Duplicate								

TEST SUMMARY

Maxxam ID: HPR415

Sample ID: MEL-13

Matrix: Water

Collected: 2018/08/26

Shipped:

Received: 2018/08/29

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	5708268	N/A	2018/08/31	Neil Dassanayake
Carbonate, Bicarbonate and Hydroxide	CALC	5707057	N/A	2018/09/04	Automated Statchk
Chloride by Automated Colourimetry	KONE	5710254	N/A	2018/09/04	Deonarine Ramnarine
Conductivity	AT	5708280	N/A	2018/08/31	Neil Dassanayake
Free (WAD) Cyanide	SKAL/CN	5709300	N/A	2018/08/31	Xuanhong Qiu
Total Cyanide	SKAL/CN	5709305	2018/08/31	2018/08/31	Xuanhong Qiu
Dissolved Organic Carbon (DOC)	TOCV/NDIR	5707562	N/A	2018/08/31	Nimarta Singh
Dissolved Oxygen	DO	5708661	2018/08/30	2018/08/30	Frank Zhang
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	5711511	N/A	2018/09/02	Abdikarim Ali
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	5712356	2018/09/04	2018/09/05	(Kent) Maolin Li
Dissolved Mercury (low level)	CV/AA	5709004	2018/08/31	2018/09/03	Ron Morrison
Mercury (low level)	CV/AA	5709006	2018/08/31	2018/09/03	Ron Morrison
Total Ammonia-N	LACH/NH4	5711486	N/A	2018/09/05	Parminder Sangha
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	5708344	N/A	2018/08/31	Chandra Nandlal
pH	AT	5708282	N/A	2018/08/31	Neil Dassanayake
Orthophosphate	KONE	5710261	N/A	2018/09/04	Alina Dobreanu
Radium-226 Low Level	AS	5714454	N/A	2018/09/10	Fariba Kashavarz
Sulphate by Automated Colourimetry	KONE	5710257	N/A	2018/09/04	Alina Dobreanu
Total Dissolved Solids	BAL	5712659	2018/09/04	2018/09/04	Jingwei (Alvin) Shi
Total Kjeldahl Nitrogen in Water	SKAL	5711458	2018/09/01	2018/09/04	Rajni Tyagi
Total Organic Carbon (TOC)	TOCV/NDIR	5710189	N/A	2018/08/31	Nimarta Singh
Total Phosphorus (Colourimetric)	LACH/P	5709959	2018/08/31	2018/09/04	Amanpreet Sappal
Low Level Total Suspended Solids	BAL	5711526	2018/09/01	2018/09/04	Mandeep Kaur
Turbidity	AT	5708298	N/A	2018/08/31	Tahir Anwar
Hardness (calculated as CaCO3)	CALC	5722717	N/A	2018/09/11	Tamsin Denison

Maxxam ID: HPR415 Dup

Sample ID: MEL-13

Matrix: Water

Collected: 2018/08/26

Shipped:

Received: 2018/08/29

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Total Dissolved Solids	BAL	5712659	2018/09/04	2018/09/04	Jingwei (Alvin) Shi

Maxxam ID: HPR416

Sample ID: MEL-03-01

Matrix: Water

Collected: 2018/08/26

Shipped:

Received: 2018/08/29

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	5711265	N/A	2018/09/04	Surinder Rai
Carbonate, Bicarbonate and Hydroxide	CALC	5709761	N/A	2018/09/05	Automated Statchk
Chloride by Automated Colourimetry	KONE	5711457	N/A	2018/09/04	Deonarine Ramnarine
Conductivity	AT	5711266	N/A	2018/09/04	Surinder Rai
Free (WAD) Cyanide	SKAL/CN	5709300	N/A	2018/08/31	Xuanhong Qiu
Total Cyanide	SKAL/CN	5709305	2018/08/31	2018/08/31	Xuanhong Qiu
Dissolved Organic Carbon (DOC)	TOCV/NDIR	5710288	N/A	2018/09/04	Nimarta Singh

Maxxam Job #: B8M4777
Report Date: 2018/12/19

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: OL-664695
Sampler Initials: LH

TEST SUMMARY

Maxxam ID: HPR416
Sample ID: MEL-03-01
Matrix: Water

Collected: 2018/08/26
Shipped:
Received: 2018/08/29

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Dissolved Oxygen	DO	5710717	2018/08/31	2018/08/31	Prakash Piya
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	5711511	N/A	2018/09/02	Abdikarim Ali
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	5712356	2018/09/04	2018/09/05	(Kent) Maolin Li
Dissolved Mercury (low level)	CV/AA	5709004	2018/08/31	2018/09/03	Ron Morrison
Mercury (low level)	CV/AA	5709006	2018/08/31	2018/09/03	Ron Morrison
Total Ammonia-N	LACH/NH4	5711486	N/A	2018/09/05	Parminder Sangha
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	5711445	N/A	2018/09/04	Chandra Nandlal
pH	AT	5711269	N/A	2018/09/04	Surinder Rai
Orthophosphate	KONE	5711461	N/A	2018/09/04	Alina Dobreanu
Radium-226 Low Level	AS	5714454	N/A	2018/09/10	Fariba Kashavarz
Sulphate by Automated Colourimetry	KONE	5711460	N/A	2018/09/04	Alina Dobreanu
Total Dissolved Solids	BAL	5715435	2018/09/05	2018/09/05	Mandeep Kaur
Total Kjeldahl Nitrogen in Water	SKAL	5711458	2018/09/01	2018/09/04	Rajni Tyagi
Total Organic Carbon (TOC)	TOCV/NDIR	5710189	N/A	2018/08/31	Nimarta Singh
Total Phosphorus (Colourimetric)	LACH/P	5709959	2018/08/31	2018/09/04	Amanpreet Sappal
Low Level Total Suspended Solids	BAL	5714430	2018/09/05	2018/09/05	Nusrat Naz
Turbidity	AT	5710018	N/A	2018/08/31	Tahir Anwar
Hardness (calculated as CaCO3)	CALC	5722717	N/A	2018/09/11	Tamsin Denison

Maxxam ID: HPR416 Dup
Sample ID: MEL-03-01
Matrix: Water

Collected: 2018/08/26
Shipped:
Received: 2018/08/29

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Dissolved Oxygen	DO	5710717	2018/08/31	2018/08/31	Prakash Piya
Mercury (low level)	CV/AA	5709006	2018/08/31	2018/09/03	Ron Morrison

GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	5.7°C

Revised Report (2018/12/18): Client sample ID changed to MEL-13 as per client request.

MEL-13 - GPS coordinates: 63°01'44.6" 92°09'14.6"

MEL-03-01 - GPS coordinates: 63°06'52.2" 92°20'23.6"

Sample HPR416 [MEL-03-01] : TOC< DOC: Both values fall within the method uncertainty for duplicates and are likely equivalent.

Results relate only to the items tested.

QUALITY ASSURANCE REPORT

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: OL-664695
Sampler Initials: LH

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
5711511	1,4-Difluorobenzene	2018/09/02	98	70 - 130	98	70 - 130	98	%				
5711511	4-Bromofluorobenzene	2018/09/02	116	70 - 130	113	70 - 130	112	%				
5711511	D10-Ethylbenzene	2018/09/02	102	70 - 130	95	70 - 130	101	%				
5711511	D4-1,2-Dichloroethane	2018/09/02	95	70 - 130	97	70 - 130	96	%				
5712356	o-Terphenyl	2018/09/04	87	60 - 130	63	60 - 130	83	%				
5707562	Dissolved Organic Carbon	2018/08/30	94	80 - 120	97	80 - 120	<0.50	mg/L	0.30	20		
5708268	Alkalinity (Total as CaCO ₃)	2018/08/31			98	85 - 115	<1.0	mg/L	0.55	20		
5708280	Conductivity	2018/08/31			102	85 - 115	<1.0	umho/cm	1.1	25		
5708282	pH	2018/08/31			101	98 - 103			0.11	N/A		
5708298	Turbidity	2018/08/31			101	85 - 115	<0.1	NTU	NC	20		
5708344	Nitrate (N)	2018/08/31	100	80 - 120	100	80 - 120	<0.10	mg/L	NC	20		
5708344	Nitrite (N)	2018/08/31	101	80 - 120	100	80 - 120	<0.010	mg/L	NC	20		
5709004	Dissolved Mercury (Hg)	2018/09/03	92	75 - 125	94	80 - 120	<0.00001	mg/L	NC	20		
5709006	Mercury (Hg)	2018/09/03	92	75 - 125	99	80 - 120	<0.00001	mg/L	NC	20		
5709300	WAD Cyanide (Free)	2018/08/31	105	80 - 120	102	80 - 120	<0.0010	mg/L	NC	20		
5709305	Total Cyanide (CN)	2018/08/31	101	80 - 120	98	80 - 120	<0.0050	mg/L	NC	20		
5709959	Total Phosphorus	2018/09/04	98	80 - 120	98	80 - 120	<0.020	mg/L	1.9	20	100	80 - 120
5710018	Turbidity	2018/08/31			101	85 - 115	<0.1	NTU	0	20		
5710189	Total Organic Carbon (TOC)	2018/08/31	95	80 - 120	94	80 - 120	<0.50	mg/L	0.086	20		
5710254	Dissolved Chloride (Cl-)	2018/09/04	110	80 - 120	103	80 - 120	<1.0	mg/L	2.0	20		
5710257	Dissolved Sulphate (SO ₄)	2018/09/04	NC	75 - 125	106	80 - 120	<1.0	mg/L	1.0	20		
5710261	Orthophosphate (P)	2018/09/04	109	75 - 125	100	80 - 120	<0.010	mg/L	NC	25		
5710288	Dissolved Organic Carbon	2018/09/04	99	80 - 120	99	80 - 120	<0.50	mg/L	0.92	20		
5711265	Alkalinity (Total as CaCO ₃)	2018/09/04			99	85 - 115	<1.0	mg/L	0.33	20		
5711266	Conductivity	2018/09/04			103	85 - 115	<1.0	umho/cm	0	25		
5711269	pH	2018/09/04			101	98 - 103			0.64	N/A		
5711445	Nitrate (N)	2018/09/04	103	80 - 120	103	80 - 120	<0.10	mg/L	NC	20		
5711445	Nitrite (N)	2018/09/04	103	80 - 120	102	80 - 120	<0.010	mg/L	NC	20		
5711457	Dissolved Chloride (Cl-)	2018/09/04	NC	80 - 120	103	80 - 120	<1.0	mg/L	0.18	20		
5711458	Total Kjeldahl Nitrogen (TKN)	2018/09/04	101	80 - 120	100	80 - 120	<0.10	mg/L	14	20	105	80 - 120

QUALITY ASSURANCE REPORT(CONT'D)

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: OL-664695
Sampler Initials: LH

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
5711460	Dissolved Sulphate (SO4)	2018/09/04	NC	75 - 125	99	80 - 120	<1.0	mg/L	1.5	20		
5711461	Orthophosphate (P)	2018/09/04	105	75 - 125	99	80 - 120	<0.010	mg/L	NC	25		
5711486	Total Ammonia-N	2018/09/05	97	75 - 125	99	80 - 120	<0.050	mg/L	NC	20		
5711511	Benzene	2018/09/02	79	70 - 130	85	70 - 130	<0.20	ug/L	NC	30		
5711511	Ethylbenzene	2018/09/02	88	70 - 130	91	70 - 130	<0.20	ug/L	NC	30		
5711511	F1 (C6-C10) - BTEX	2018/09/02					<25	ug/L	NC	30		
5711511	F1 (C6-C10)	2018/09/02	94	70 - 130	94	70 - 130	<25	ug/L	NC	30		
5711511	o-Xylene	2018/09/02	85	70 - 130	88	70 - 130	<0.20	ug/L	NC	30		
5711511	p+m-Xylene	2018/09/02	88	70 - 130	92	70 - 130	<0.40	ug/L	NC	30		
5711511	Toluene	2018/09/02	88	70 - 130	92	70 - 130	<0.20	ug/L	NC	30		
5711511	Total Xylenes	2018/09/02					<0.40	ug/L	NC	30		
5711526	Total Suspended Solids	2018/09/04					<1	mg/L	4.8	25	95	85 - 115
5712356	F2 (C10-C16 Hydrocarbons)	2018/09/04	85	50 - 130	83	60 - 130	<100	ug/L	NC	30		
5712356	F3 (C16-C34 Hydrocarbons)	2018/09/04	85	50 - 130	74	60 - 130	<200	ug/L	NC	30		
5712356	F4 (C34-C50 Hydrocarbons)	2018/09/04	79	50 - 130	71	60 - 130	<200	ug/L	NC	30		
5712659	Total Dissolved Solids	2018/09/04					<10	mg/L	6.9	25	100	90 - 110
5714430	Total Suspended Solids	2018/09/05					<1	mg/L	0	25	97	85 - 115
5714454	Radium-226	2018/09/09			99	85 - 115	<0.0050	Bq/L	NC	N/A		
5715435	Total Dissolved Solids	2018/09/05					<10	mg/L	3.2	25	100	90 - 110

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Brad Newman, Scientific Service Specialist



Steven Simpson, Lab Director

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Exceedence Summary Table – Metal Mining Effluent Reg
Result Exceedences

Sample ID	Maxxam ID	Parameter	Criteria	Result	DL	Units
No Exceedences						
The exceedence summary table is for information purposes only and should not be considered a comprehensive listing or statement of conformance to applicable regulatory guidelines.						

Your P.O. #: B8M4777
Site Location: MELIADINE
Your C.O.C. #: B8M4777-M060-01-01

Attention: Jonathan Urban

Agnico-Eagle
Meliadine
Rankin Inlet, NU
Canada X0C 0G0

Report Date: 2018/09/06
Report #: R2614648
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B874816

Received: 2018/09/01, 11:35

Sample Matrix: Water
Samples Received: 2

Analyses	Date		Laboratory Method	Analytical Method
	Quantity	Extracted		
Silica (Reactive)	2	N/A	2018/09/05 AB SOP-00011	EPA 370.1 R1978 m

Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Maxxam's profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Maxxam in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.

Maxxam Analytics' liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Maxxam has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Maxxam, unless otherwise agreed in writing. Maxxam is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.

Results relate to samples tested. When sampling is not conducted by Maxxam, results relate to the supplied samples tested.

This Certificate shall not be reproduced except in full, without the written approval of the laboratory.

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Your P.O. #: B8M4777
Site Location: MELIADINE
Your C.O.C. #: B8M4777-M060-01-01

Attention: Jonathan Urban

Agnico-Eagle
Meliadine
Rankin Inlet, NU
Canada X0C 0G0

Report Date: 2018/09/06
Report #: R2614648
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B874816

Received: 2018/09/01, 11:35

Encryption Key



Maxxam

06 Sep 2018 10:01:04

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Omran Desouki, Junior Project Manager

Email: ODesouki@maxxam.ca

Phone# (403) 291-3077

=====

This report has been generated and distributed using a secure automated process.

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam Job #: B874816
Report Date: 2018/09/06

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8M4777
Sampler Initials: LH

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		UF4393	UF4393	UF4394		
Sampling Date		2018/08/26 15:10	2018/08/26 15:10	2018/08/26 16:30		
COC Number		B8M4777-M060-01-01	B8M4777-M060-01-01	B8M4777-M060-01-01		
	UNITS	MEL-13 (WL AND EEM) (HPR415)	MEL-13 (WL AND EEM) (HPR415) Lab-Dup	ML-03-01 (HPR416)	RDL	QC Batch
Misc. Inorganics						
Reactive Silica	mg/L	0.29	0.29	0.23	0.050	9129608
RDL = Reportable Detection Limit Lab-Dup = Laboratory Initiated Duplicate						

Maxxam Job #: B874816
Report Date: 2018/09/06

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8M4777
Sampler Initials: LH

TEST SUMMARY

Maxxam ID: UF4393
Sample ID: MEL-13 (WL AND EEM) (HPR415)
Matrix: Water

Collected: 2018/08/26
Shipped: 2018/08/31
Received: 2018/09/01

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Silica (Reactive)	KONE/SL	9129608	N/A	2018/09/05	Zafar Iqbal

Maxxam ID: UF4393 Dup
Sample ID: MEL-13 (WL AND EEM) (HPR415)
Matrix: Water

Collected: 2018/08/26
Shipped: 2018/08/31
Received: 2018/09/01

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Silica (Reactive)	KONE/SL	9129608	N/A	2018/09/05	Zafar Iqbal

Maxxam ID: UF4394
Sample ID: ML-03-01 (HPR416)
Matrix: Water

Collected: 2018/08/26
Shipped: 2018/08/31
Received: 2018/09/01

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Silica (Reactive)	KONE/SL	9129608	N/A	2018/09/05	Zafar Iqbal

Maxxam Job #: B874816
Report Date: 2018/09/06

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8M4777
Sampler Initials: LH

GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	0.7°C

Results relate only to the items tested.

QUALITY ASSURANCE REPORT

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8M4777
Sampler Initials: LH

QC Batch	Parameter	Date	Matrix Spike		Spiked Blank		Method Blank		RPD	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9129608	Reactive Silica	2018/09/05	107	80 - 120	101	80 - 120	<0.050	mg/L	1.8	20
Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.										
Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.										
Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.										
Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.										

Maxxam Job #: B874816
Report Date: 2018/09/06

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8M4777
Sampler Initials: LH

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Ghayasuddin Khan, M.Sc., P.Chem., QP, Scientific Specialist, Inorganics

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Your P.O. #: B8M4777
Site Location: MELIADINE
Your C.O.C. #: B8M4777-M058-01-01

Attention: Alisha Williamson

Agnico-Eagle
Meliadine
Rankin Inlet, NU
Canada X0C 0G0

Report Date: 2018/09/10
Report #: R2616343
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B874841

Received: 2018/09/01, 12:30

Sample Matrix: Water
Samples Received: 2

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Hardness Total (calculated as CaCO ₃) (1)	2	N/A	2018/09/06	BBY WI-00033	Auto Calc
Hardness (calculated as CaCO ₃)	2	N/A	2018/09/07	BBY WI-00033	Auto Calc
Elements by CRC ICPMS (dissolved)	2	N/A	2018/09/06	BBY7SOP-00002	EPA 6020b R2 m
Elements by CRC ICPMS (total)	2	2018/09/05	2018/09/06	BBY7SOP-00003,	EPA 6020b R2 m
Filter and HNO ₃ Preserve for Metals	2	N/A	2018/09/01	BBY7 WI-00004	BCMOE Reqs 08/14

Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Maxxam's profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Maxxam in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.

Maxxam Analytics' liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Maxxam has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Maxxam, unless otherwise agreed in writing. Maxxam is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.

Results relate to samples tested. When sampling is not conducted by Maxxam, results relate to the supplied samples tested.

This Certificate shall not be reproduced except in full, without the written approval of the laboratory.

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

(1) "Total Hardness" was calculated from Total Ca and Mg concentrations and may be biased high (Hardness, or Dissolved Hardness, calculated from Dissolved Ca and Mg, should be used for compliance if available).

Your P.O. #: B8M4777
Site Location: MELIADINE
Your C.O.C. #: B8M4777-M058-01-01

Attention: Alisha Williamson

Agnico-Eagle
Meliadine
Rankin Inlet, NU
Canada X0C 0G0

Report Date: 2018/09/10
Report #: R2616343
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B874841

Received: 2018/09/01, 12:30

Encryption Key



Morgan Melnychuk
Burnaby Project Manager
10 Sep 2018 09:52:54

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Veronica De Guzman, B.Sc., Project Manager

Email: VDeGuzman@maxxam.ca

Phone# (604) 734 7276

=====

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Maxxam Job #: B874841
Report Date: 2018/09/10

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8M4777
Sampler Initials: LH

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		UF4499	UF4500		
Sampling Date		2018/08/26 15:10	2018/08/26 16:30		
COC Number		B8M4777-M058-01-01	B8M4777-M058-01-01		
	UNITS	MEL-13 (WL AND EEM)	MEL-03-01	RDL	QC Batch
Calculated Parameters					
Filter and HNO3 Preservation	N/A	FIELD	FIELD	N/A	ONSITE
Dissolved Hardness (CaCO3)	mg/L	25.0	21.9	0.50	9126845
Total Hardness (CaCO3)	mg/L	24.5	21.4	0.50	9127031
RDL = Reportable Detection Limit					
N/A = Not Applicable					

Maxxam Job #: B874841
Report Date: 2018/09/10

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8M4777
Sampler Initials: LH

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		UF4499	UF4500		
Sampling Date		2018/08/26 15:10	2018/08/26 16:30		
COC Number		B8M4777-M058-01-01	B8M4777-M058-01-01		
	UNITS	MEL-13 (WL AND EEM)	MEL-03-01	RDL	QC Batch
Dissolved Metals by ICPMS					
Dissolved Aluminum (Al)	mg/L	0.0054	0.0043	0.0030	9130273
Dissolved Antimony (Sb)	mg/L	<0.00050	<0.00050	0.00050	9130273
Dissolved Arsenic (As)	mg/L	0.00040	0.00019	0.00010	9130273
Dissolved Barium (Ba)	mg/L	0.0076	0.0072	0.0010	9130273
Dissolved Beryllium (Be)	mg/L	<0.00010	<0.00010	0.00010	9130273
Dissolved Boron (B)	mg/L	<0.050	<0.050	0.050	9130273
Dissolved Cadmium (Cd)	mg/L	<0.000010	<0.000010	0.000010	9130273
Dissolved Chromium (Cr)	mg/L	<0.0010	<0.0010	0.0010	9130273
Dissolved Copper (Cu)	mg/L	0.00075	0.00060	0.00020	9130273
Dissolved Iron (Fe)	mg/L	0.0074	<0.0050	0.0050	9130273
Dissolved Lead (Pb)	mg/L	<0.00020	<0.00020	0.00020	9130273
Dissolved Lithium (Li)	mg/L	<0.0020	<0.0020	0.0020	9130273
Dissolved Manganese (Mn)	mg/L	<0.0010	<0.0010	0.0010	9130273
Dissolved Molybdenum (Mo)	mg/L	<0.0010	<0.0010	0.0010	9130273
Dissolved Nickel (Ni)	mg/L	<0.0010	<0.0010	0.0010	9130273
Dissolved Selenium (Se)	mg/L	<0.00010	<0.00010	0.00010	9130273
Dissolved Silver (Ag)	mg/L	<0.000020	<0.000020	0.000020	9130273
Dissolved Strontium (Sr)	mg/L	0.0491	0.0335	0.0010	9130273
Dissolved Thallium (Tl)	mg/L	<0.000010	<0.000010	0.000010	9130273
Dissolved Tin (Sn)	mg/L	<0.0050	<0.0050	0.0050	9130273
Dissolved Titanium (Ti)	mg/L	<0.0050	<0.0050	0.0050	9130273
Dissolved Uranium (U)	mg/L	<0.00010	<0.00010	0.00010	9130273
Dissolved Vanadium (V)	mg/L	<0.0050	<0.0050	0.0050	9130273
Dissolved Zinc (Zn)	mg/L	<0.0050	<0.0050	0.0050	9130273
Dissolved Calcium (Ca)	mg/L	7.82	6.95	0.050	9130273
Dissolved Magnesium (Mg)	mg/L	1.33	1.11	0.050	9130273
Dissolved Potassium (K)	mg/L	0.986	0.874	0.050	9130273
Dissolved Sodium (Na)	mg/L	5.41	4.36	0.050	9130273
Total Metals by ICPMS					
Total Aluminum (Al)	mg/L	0.0098	0.0070	0.0030	9130327
RDL = Reportable Detection Limit					

Maxxam Job #: B874841
Report Date: 2018/09/10

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8M4777
Sampler Initials: LH

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		UF4499	UF4500		
Sampling Date		2018/08/26 15:10	2018/08/26 16:30		
COC Number		B8M4777-M058-01-01	B8M4777-M058-01-01		
	UNITS	MEL-13 (WL AND EEM)	MEL-03-01	RDL	QC Batch
Total Antimony (Sb)	mg/L	<0.00050	<0.00050	0.00050	9130327
Total Arsenic (As)	mg/L	0.00046	0.00020	0.00010	9130327
Total Barium (Ba)	mg/L	0.0077	0.0072	0.0010	9130327
Total Beryllium (Be)	mg/L	<0.00010	<0.00010	0.00010	9130327
Total Boron (B)	mg/L	<0.050	<0.050	0.050	9130327
Total Cadmium (Cd)	mg/L	<0.000010	<0.000010	0.000010	9130327
Total Chromium (Cr)	mg/L	<0.0010	<0.0010	0.0010	9130327
Total Copper (Cu)	mg/L	0.00077	0.00067	0.00050	9130327
Total Iron (Fe)	mg/L	0.024	0.014	0.010	9130327
Total Lead (Pb)	mg/L	<0.00020	<0.00020	0.00020	9130327
Total Lithium (Li)	mg/L	<0.0020	<0.0020	0.0020	9130327
Total Manganese (Mn)	mg/L	0.0044	0.0022	0.0010	9130327
Total Molybdenum (Mo)	mg/L	<0.0010	<0.0010	0.0010	9130327
Total Nickel (Ni)	mg/L	<0.0010	<0.0010	0.0010	9130327
Total Selenium (Se)	mg/L	<0.00010	<0.00010	0.00010	9130327
Total Silver (Ag)	mg/L	<0.000020	<0.000020	0.000020	9130327
Total Strontium (Sr)	mg/L	0.0482	0.0333	0.0010	9130327
Total Thallium (Tl)	mg/L	<0.000010	<0.000010	0.000010	9130327
Total Tin (Sn)	mg/L	<0.0050	<0.0050	0.0050	9130327
Total Titanium (Ti)	mg/L	<0.0050	<0.0050	0.0050	9130327
Total Uranium (U)	mg/L	<0.00010	<0.00010	0.00010	9130327
Total Vanadium (V)	mg/L	<0.0050	<0.0050	0.0050	9130327
Total Zinc (Zn)	mg/L	<0.0050	<0.0050	0.0050	9130327
Total Calcium (Ca)	mg/L	7.61	6.79	0.050	9130327
Total Magnesium (Mg)	mg/L	1.33	1.08	0.050	9130327
Total Potassium (K)	mg/L	1.00	0.885	0.050	9130327
Total Sodium (Na)	mg/L	5.44	4.25	0.050	9130327
RDL = Reportable Detection Limit					

Maxxam Job #: B874841
Report Date: 2018/09/10

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8M4777
Sampler Initials: LH

GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	3.7°C

Results relate only to the items tested.

Maxxam Job #: B874841
Report Date: 2018/09/10

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8M4777
Sampler Initials: LH

QUALITY ASSURANCE REPORT

QA/QC		QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
Batch	Init							
9130273	MHM	Matrix Spike	Dissolved Aluminum (Al)	2018/09/06		95	%	80 - 120
			Dissolved Antimony (Sb)	2018/09/06		NC	%	80 - 120
			Dissolved Arsenic (As)	2018/09/06		109	%	80 - 120
			Dissolved Barium (Ba)	2018/09/06		NC	%	80 - 120
			Dissolved Beryllium (Be)	2018/09/06		98	%	80 - 120
			Dissolved Boron (B)	2018/09/06		98	%	80 - 120
			Dissolved Cadmium (Cd)	2018/09/06		98	%	80 - 120
			Dissolved Chromium (Cr)	2018/09/06		94	%	80 - 120
			Dissolved Copper (Cu)	2018/09/06		91	%	80 - 120
			Dissolved Iron (Fe)	2018/09/06		97	%	80 - 120
			Dissolved Lead (Pb)	2018/09/06		92	%	80 - 120
			Dissolved Lithium (Li)	2018/09/06		99	%	80 - 120
			Dissolved Manganese (Mn)	2018/09/06		93	%	80 - 120
			Dissolved Molybdenum (Mo)	2018/09/06		NC	%	80 - 120
			Dissolved Nickel (Ni)	2018/09/06		92	%	80 - 120
			Dissolved Selenium (Se)	2018/09/06		103	%	80 - 120
			Dissolved Silver (Ag)	2018/09/06		92	%	80 - 120
			Dissolved Strontium (Sr)	2018/09/06		NC	%	80 - 120
			Dissolved Thallium (Tl)	2018/09/06		93	%	80 - 120
			Dissolved Tin (Sn)	2018/09/06		98	%	80 - 120
			Dissolved Titanium (Ti)	2018/09/06		102	%	80 - 120
			Dissolved Uranium (U)	2018/09/06		103	%	80 - 120
			Dissolved Vanadium (V)	2018/09/06		100	%	80 - 120
			Dissolved Zinc (Zn)	2018/09/06		104	%	80 - 120
			Dissolved Calcium (Ca)	2018/09/06		NC	%	80 - 120
			Dissolved Magnesium (Mg)	2018/09/06		91	%	80 - 120
			Dissolved Potassium (K)	2018/09/06		NC	%	80 - 120
			Dissolved Sodium (Na)	2018/09/06		NC	%	80 - 120
9130273	MHM	Spiked Blank	Dissolved Aluminum (Al)	2018/09/06		98	%	80 - 120
			Dissolved Antimony (Sb)	2018/09/06		100	%	80 - 120
			Dissolved Arsenic (As)	2018/09/06		102	%	80 - 120
			Dissolved Barium (Ba)	2018/09/06		99	%	80 - 120
			Dissolved Beryllium (Be)	2018/09/06		101	%	80 - 120
			Dissolved Boron (B)	2018/09/06		107	%	80 - 120
			Dissolved Cadmium (Cd)	2018/09/06		101	%	80 - 120
			Dissolved Chromium (Cr)	2018/09/06		94	%	80 - 120
			Dissolved Copper (Cu)	2018/09/06		93	%	80 - 120
			Dissolved Iron (Fe)	2018/09/06		98	%	80 - 120
			Dissolved Lead (Pb)	2018/09/06		98	%	80 - 120
			Dissolved Lithium (Li)	2018/09/06		97	%	80 - 120
			Dissolved Manganese (Mn)	2018/09/06		97	%	80 - 120
			Dissolved Molybdenum (Mo)	2018/09/06		105	%	80 - 120
			Dissolved Nickel (Ni)	2018/09/06		93	%	80 - 120
			Dissolved Selenium (Se)	2018/09/06		100	%	80 - 120
			Dissolved Silver (Ag)	2018/09/06		98	%	80 - 120
			Dissolved Strontium (Sr)	2018/09/06		102	%	80 - 120
			Dissolved Thallium (Tl)	2018/09/06		96	%	80 - 120
			Dissolved Tin (Sn)	2018/09/06		98	%	80 - 120
			Dissolved Titanium (Ti)	2018/09/06		98	%	80 - 120
			Dissolved Uranium (U)	2018/09/06		99	%	80 - 120
			Dissolved Vanadium (V)	2018/09/06		98	%	80 - 120
			Dissolved Zinc (Zn)	2018/09/06		104	%	80 - 120

Maxxam Job #: B874841
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Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8M4777
Sampler Initials: LH

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9130273	MHM	Method Blank	Dissolved Calcium (Ca)	2018/09/06		98	%	80 - 120
			Dissolved Magnesium (Mg)	2018/09/06		96	%	80 - 120
			Dissolved Potassium (K)	2018/09/06		100	%	80 - 120
			Dissolved Sodium (Na)	2018/09/06		99	%	80 - 120
			Dissolved Aluminum (Al)	2018/09/06	<0.0030		mg/L	
			Dissolved Antimony (Sb)	2018/09/06	<0.00050		mg/L	
			Dissolved Arsenic (As)	2018/09/06	<0.00010		mg/L	
			Dissolved Barium (Ba)	2018/09/06	<0.0010		mg/L	
			Dissolved Beryllium (Be)	2018/09/06	<0.00010		mg/L	
			Dissolved Boron (B)	2018/09/06	<0.050		mg/L	
			Dissolved Cadmium (Cd)	2018/09/06	<0.000010		mg/L	
			Dissolved Chromium (Cr)	2018/09/06	<0.0010		mg/L	
			Dissolved Copper (Cu)	2018/09/06	<0.00020		mg/L	
			Dissolved Iron (Fe)	2018/09/06	<0.0050		mg/L	
			Dissolved Lead (Pb)	2018/09/06	<0.00020		mg/L	
			Dissolved Lithium (Li)	2018/09/06	<0.0020		mg/L	
			Dissolved Manganese (Mn)	2018/09/06	<0.0010		mg/L	
			Dissolved Molybdenum (Mo)	2018/09/06	<0.0010		mg/L	
			Dissolved Nickel (Ni)	2018/09/06	<0.0010		mg/L	
			Dissolved Selenium (Se)	2018/09/06	<0.00010		mg/L	
			Dissolved Silver (Ag)	2018/09/06	<0.000020		mg/L	
			Dissolved Strontium (Sr)	2018/09/06	<0.0010		mg/L	
			Dissolved Thallium (Tl)	2018/09/06	<0.000010		mg/L	
			Dissolved Tin (Sn)	2018/09/06	<0.0050		mg/L	
			Dissolved Titanium (Ti)	2018/09/06	<0.0050		mg/L	
			Dissolved Uranium (U)	2018/09/06	<0.00010		mg/L	
			Dissolved Vanadium (V)	2018/09/06	<0.0050		mg/L	
			Dissolved Zinc (Zn)	2018/09/06	<0.0050		mg/L	
			Dissolved Calcium (Ca)	2018/09/06	<0.050		mg/L	
			Dissolved Magnesium (Mg)	2018/09/06	<0.050		mg/L	
			Dissolved Potassium (K)	2018/09/06	<0.050		mg/L	
			Dissolved Sodium (Na)	2018/09/06	<0.050		mg/L	
9130273	MHM	RPD	Dissolved Aluminum (Al)	2018/09/07	0.33		%	20
			Dissolved Antimony (Sb)	2018/09/07	0.68		%	20
			Dissolved Arsenic (As)	2018/09/07	0.98		%	20
			Dissolved Barium (Ba)	2018/09/07	1.7		%	20
			Dissolved Beryllium (Be)	2018/09/07	NC		%	20
			Dissolved Boron (B)	2018/09/07	3.0		%	20
			Dissolved Cadmium (Cd)	2018/09/07	NC		%	20
			Dissolved Chromium (Cr)	2018/09/07	NC		%	20
			Dissolved Copper (Cu)	2018/09/07	1.8		%	20
			Dissolved Iron (Fe)	2018/09/07	3.6		%	20
			Dissolved Lead (Pb)	2018/09/07	NC		%	20
			Dissolved Lithium (Li)	2018/09/07	2.8		%	20
			Dissolved Manganese (Mn)	2018/09/07	NC		%	20
			Dissolved Molybdenum (Mo)	2018/09/07	0.23		%	20
			Dissolved Nickel (Ni)	2018/09/07	3.6		%	20
			Dissolved Selenium (Se)	2018/09/07	2.5		%	20
			Dissolved Silver (Ag)	2018/09/07	NC		%	20
			Dissolved Strontium (Sr)	2018/09/07	1.0		%	20
			Dissolved Thallium (Tl)	2018/09/07	NC		%	20
			Dissolved Tin (Sn)	2018/09/07	NC		%	20

Maxxam Job #: B874841
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Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8M4777
Sampler Initials: LH

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9130327	MHM	Matrix Spike	Dissolved Titanium (Ti)	2018/09/07	NC		%	20
			Dissolved Uranium (U)	2018/09/07	0.14		%	20
			Dissolved Vanadium (V)	2018/09/07	NC		%	20
			Dissolved Zinc (Zn)	2018/09/07	NC		%	20
			Dissolved Aluminum (Al)	2018/09/07	NC		%	20
			Dissolved Antimony (Sb)	2018/09/07	NC		%	20
			Dissolved Arsenic (As)	2018/09/07	NC		%	20
			Dissolved Barium (Ba)	2018/09/07	NC		%	20
			Dissolved Beryllium (Be)	2018/09/07	NC		%	20
			Dissolved Boron (B)	2018/09/07	NC		%	20
			Dissolved Cadmium (Cd)	2018/09/07	NC		%	20
			Dissolved Chromium (Cr)	2018/09/07	NC		%	20
			Dissolved Copper (Cu)	2018/09/07	0.15		%	20
			Dissolved Iron (Fe)	2018/09/07	NC		%	20
			Dissolved Lead (Pb)	2018/09/07	NC		%	20
			Dissolved Lithium (Li)	2018/09/07	NC		%	20
			Dissolved Manganese (Mn)	2018/09/07	NC		%	20
			Dissolved Molybdenum (Mo)	2018/09/07	NC		%	20
			Dissolved Nickel (Ni)	2018/09/07	NC		%	20
			Dissolved Selenium (Se)	2018/09/07	NC		%	20
			Dissolved Silver (Ag)	2018/09/07	8.9		%	20
			Dissolved Strontium (Sr)	2018/09/07	NC		%	20
			Dissolved Thallium (Tl)	2018/09/07	NC		%	20
			Dissolved Tin (Sn)	2018/09/07	NC		%	20
			Dissolved Titanium (Ti)	2018/09/07	NC		%	20
			Dissolved Uranium (U)	2018/09/07	NC		%	20
			Dissolved Vanadium (V)	2018/09/07	NC		%	20
			Dissolved Zinc (Zn)	2018/09/07	0.40		%	20
			Total Aluminum (Al)	2018/09/06		100	%	80 - 120
			Total Antimony (Sb)	2018/09/06		101	%	80 - 120
			Total Arsenic (As)	2018/09/06		106	%	80 - 120
			Total Barium (Ba)	2018/09/06		100	%	80 - 120
			Total Beryllium (Be)	2018/09/06		104	%	80 - 120
			Total Boron (B)	2018/09/06		108	%	80 - 120
			Total Cadmium (Cd)	2018/09/06		103	%	80 - 120
			Total Chromium (Cr)	2018/09/06		99	%	80 - 120
			Total Copper (Cu)	2018/09/06		94	%	80 - 120
			Total Iron (Fe)	2018/09/06		97	%	80 - 120
			Total Lead (Pb)	2018/09/06		99	%	80 - 120
			Total Lithium (Li)	2018/09/06		99	%	80 - 120
			Total Manganese (Mn)	2018/09/06		99	%	80 - 120
			Total Molybdenum (Mo)	2018/09/06		106	%	80 - 120
			Total Nickel (Ni)	2018/09/06		95	%	80 - 120
			Total Selenium (Se)	2018/09/06		104	%	80 - 120
			Total Silver (Ag)	2018/09/06		99	%	80 - 120
			Total Strontium (Sr)	2018/09/06		NC	%	80 - 120
			Total Thallium (Tl)	2018/09/06		99	%	80 - 120
			Total Tin (Sn)	2018/09/06		100	%	80 - 120
			Total Titanium (Ti)	2018/09/06		108	%	80 - 120
			Total Uranium (U)	2018/09/06		105	%	80 - 120
			Total Vanadium (V)	2018/09/06		99	%	80 - 120
			Total Zinc (Zn)	2018/09/06		110	%	80 - 120

Maxxam Job #: B874841
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Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8M4777
Sampler Initials: LH

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9130327	MHM	Spiked Blank	Total Calcium (Ca)	2018/09/06		NC	%	80 - 120
			Total Magnesium (Mg)	2018/09/06		NC	%	80 - 120
			Total Potassium (K)	2018/09/06		101	%	80 - 120
			Total Sodium (Na)	2018/09/06		NC	%	80 - 120
			Total Aluminum (Al)	2018/09/06		102	%	80 - 120
			Total Antimony (Sb)	2018/09/06		105	%	80 - 120
			Total Arsenic (As)	2018/09/06		106	%	80 - 120
			Total Barium (Ba)	2018/09/06		102	%	80 - 120
			Total Beryllium (Be)	2018/09/06		106	%	80 - 120
			Total Boron (B)	2018/09/06		109	%	80 - 120
			Total Cadmium (Cd)	2018/09/06		103	%	80 - 120
			Total Chromium (Cr)	2018/09/06		101	%	80 - 120
			Total Copper (Cu)	2018/09/06		97	%	80 - 120
			Total Iron (Fe)	2018/09/06		104	%	80 - 120
			Total Lead (Pb)	2018/09/06		101	%	80 - 120
			Total Lithium (Li)	2018/09/06		101	%	80 - 120
			Total Manganese (Mn)	2018/09/06		101	%	80 - 120
			Total Molybdenum (Mo)	2018/09/06		106	%	80 - 120
			Total Nickel (Ni)	2018/09/06		97	%	80 - 120
			Total Selenium (Se)	2018/09/06		105	%	80 - 120
			Total Silver (Ag)	2018/09/06		101	%	80 - 120
			Total Strontium (Sr)	2018/09/06		105	%	80 - 120
			Total Thallium (Tl)	2018/09/06		101	%	80 - 120
			Total Tin (Sn)	2018/09/06		101	%	80 - 120
			Total Titanium (Ti)	2018/09/06		104	%	80 - 120
			Total Uranium (U)	2018/09/06		105	%	80 - 120
			Total Vanadium (V)	2018/09/06		103	%	80 - 120
			Total Zinc (Zn)	2018/09/06		107	%	80 - 120
			Total Calcium (Ca)	2018/09/06		104	%	80 - 120
			Total Magnesium (Mg)	2018/09/06		101	%	80 - 120
			Total Potassium (K)	2018/09/06		102	%	80 - 120
			Total Sodium (Na)	2018/09/06		104	%	80 - 120
9130327	MHM	Method Blank	Total Aluminum (Al)	2018/09/06	<0.0030		mg/L	
			Total Antimony (Sb)	2018/09/06	<0.00050		mg/L	
			Total Arsenic (As)	2018/09/06	<0.00010		mg/L	
			Total Barium (Ba)	2018/09/06	<0.0010		mg/L	
			Total Beryllium (Be)	2018/09/06	<0.00010		mg/L	
			Total Boron (B)	2018/09/06	<0.050		mg/L	
			Total Cadmium (Cd)	2018/09/06	<0.000010		mg/L	
			Total Chromium (Cr)	2018/09/06	<0.0010		mg/L	
			Total Copper (Cu)	2018/09/06	<0.00050		mg/L	
			Total Iron (Fe)	2018/09/06	<0.010		mg/L	
			Total Lead (Pb)	2018/09/06	<0.00020		mg/L	
			Total Lithium (Li)	2018/09/06	<0.0020		mg/L	
			Total Manganese (Mn)	2018/09/06	<0.0010		mg/L	
			Total Molybdenum (Mo)	2018/09/06	<0.0010		mg/L	
			Total Nickel (Ni)	2018/09/06	<0.0010		mg/L	
			Total Selenium (Se)	2018/09/06	<0.00010		mg/L	
			Total Silver (Ag)	2018/09/06	<0.000020		mg/L	
			Total Strontium (Sr)	2018/09/06	<0.0010		mg/L	
			Total Thallium (Tl)	2018/09/06	<0.000010		mg/L	
			Total Tin (Sn)	2018/09/06	<0.0050		mg/L	

Maxxam Job #: B874841
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Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8M4777
Sampler Initials: LH

QUALITY ASSURANCE REPORT(CONT'D)

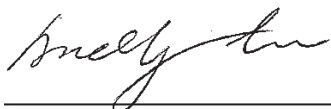
QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9130327	MHM	RPD	Total Titanium (Ti)	2018/09/06	<0.0050		mg/L	
			Total Uranium (U)	2018/09/06	<0.00010		mg/L	
			Total Vanadium (V)	2018/09/06	<0.0050		mg/L	
			Total Zinc (Zn)	2018/09/06	<0.0050		mg/L	
			Total Calcium (Ca)	2018/09/06	<0.050		mg/L	
			Total Magnesium (Mg)	2018/09/06	<0.050		mg/L	
			Total Potassium (K)	2018/09/06	<0.050		mg/L	
			Total Sodium (Na)	2018/09/06	<0.050		mg/L	
			Total Aluminum (Al)	2018/09/06	3.6		%	20
			Total Antimony (Sb)	2018/09/06	NC		%	20
			Total Arsenic (As)	2018/09/06	4.7		%	20
			Total Barium (Ba)	2018/09/06	1.7		%	20
			Total Beryllium (Be)	2018/09/06	NC		%	20
			Total Boron (B)	2018/09/06	NC		%	20
			Total Cadmium (Cd)	2018/09/06	NC		%	20
			Total Chromium (Cr)	2018/09/06	NC		%	20
			Total Copper (Cu)	2018/09/06	6.9		%	20
			Total Iron (Fe)	2018/09/06	3.1		%	20
			Total Lead (Pb)	2018/09/06	6.4		%	20
			Total Lithium (Li)	2018/09/06	NC		%	20
			Total Manganese (Mn)	2018/09/06	1.3		%	20
			Total Molybdenum (Mo)	2018/09/06	NC		%	20
			Total Nickel (Ni)	2018/09/06	NC		%	20
			Total Selenium (Se)	2018/09/06	NC		%	20
			Total Silver (Ag)	2018/09/06	NC		%	20
			Total Strontium (Sr)	2018/09/06	0.99		%	20
			Total Thallium (Tl)	2018/09/06	NC		%	20
			Total Tin (Sn)	2018/09/06	NC		%	20
			Total Titanium (Ti)	2018/09/06	NC		%	20
			Total Uranium (U)	2018/09/06	NC		%	20
			Total Vanadium (V)	2018/09/06	NC		%	20
			Total Zinc (Zn)	2018/09/06	0.72		%	20
Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.								
Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.								
Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.								
Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.								
NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)								
NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).								

Maxxam Job #: B874841
Report Date: 2018/09/10

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8M4777
Sampler Initials: LH

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Andy Lu, Ph.D., P.Chem., Scientific Specialist

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Your P.O. #: B8M4777
Site Location: MELIADINE
Your C.O.C. #: B8M4777-M060-01-01

Attention: Alisha Williamson

Agnico-Eagle
Meliadine
Rankin Inlet, NU
Canada X0C 0G0

Report Date: 2018/12/12
Report #: R2663084
Version: 2 - Revision

CERTIFICATE OF ANALYSIS – REVISED REPORT

MAXXAM JOB #: B874816

Received: 2018/09/01, 11:35

Sample Matrix: Water
Samples Received: 2

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Silica (Reactive)	2	N/A	2018/09/05	AB SOP-00011	EPA 370.1 R1978 m

Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Maxxam's profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Maxxam in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.

Maxxam Analytics' liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Maxxam has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Maxxam, unless otherwise agreed in writing. Maxxam is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.

Results relate to samples tested. When sampling is not conducted by Maxxam, results relate to the supplied samples tested.

This Certificate shall not be reproduced except in full, without the written approval of the laboratory.

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key



Omran Desouki
Junior Project Manager
12 Dec 2018 13:27:57

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Omran Desouki, Junior Project Manager

Email: ODesouki@maxxam.ca

Phone# (403) 291-3077

=====

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam Job #: B874816
Report Date: 2018/12/12

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8M4777
Sampler Initials: LH

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		UF4393	UF4393	UF4394		
Sampling Date		2018/08/26 15:10	2018/08/26 15:10	2018/08/26 16:30		
COC Number		B8M4777-M060-01-01	B8M4777-M060-01-01	B8M4777-M060-01-01		
	UNITS	MEL-13	MEL-13 Lab-Dup	ML-03-01	RDL	QC Batch
Misc. Inorganics						
Reactive Silica	mg/L	0.29	0.29	0.23	0.050	9129608
RDL = Reportable Detection Limit						
Lab-Dup = Laboratory Initiated Duplicate						

Maxxam Job #: B874816
Report Date: 2018/12/12

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8M4777
Sampler Initials: LH

TEST SUMMARY

Maxxam ID: UF4393
Sample ID: MEL-13
Matrix: Water

Collected: 2018/08/26
Shipped: 2018/08/31
Received: 2018/09/01

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Silica (Reactive)	KONE/SL	9129608	N/A	2018/09/05	Zafar Iqbal

Maxxam ID: UF4393 Dup
Sample ID: MEL-13
Matrix: Water

Collected: 2018/08/26
Shipped: 2018/08/31
Received: 2018/09/01

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Silica (Reactive)	KONE/SL	9129608	N/A	2018/09/05	Zafar Iqbal

Maxxam ID: UF4394
Sample ID: ML-03-01
Matrix: Water

Collected: 2018/08/26
Shipped: 2018/08/31
Received: 2018/09/01

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Silica (Reactive)	KONE/SL	9129608	N/A	2018/09/05	Zafar Iqbal

Maxxam Job #: B874816
Report Date: 2018/12/12

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8M4777
Sampler Initials: LH

GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	0.7°C

Revised Report (2018/12/12): Client sample ID and GPS coordinates updated per client request.

GPS coordinates: 63°01'44.6" 92°09'14.6"

Results relate only to the items tested.

QUALITY ASSURANCE REPORT

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8M4777
Sampler Initials: LH

QC Batch	Parameter	Date	Matrix Spike		Spiked Blank		Method Blank		RPD	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9129608	Reactive Silica	2018/09/05	107	80 - 120	101	80 - 120	<0.050	mg/L	1.8	20
Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.										
Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.										
Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.										
Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.										

Maxxam Job #: B874816
Report Date: 2018/12/12

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8M4777
Sampler Initials: LH

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Ghayasuddin Khan, M.Sc., P.Chem., QP, Scientific Specialist, Inorganics

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Your P.O. #: B8M4777
Site Location: MELIADINE
Your C.O.C. #: B8M4777-M058-01-01

Attention: Alisha Williamson

Agnico-Eagle
Meliadine
Rankin Inlet, NU
Canada X0C 0G0

Report Date: 2018/12/12
Report #: R2663167
Version: 2 - Revision

CERTIFICATE OF ANALYSIS – REVISED REPORT

MAXXAM JOB #: B874841

Received: 2018/09/01, 12:30

Sample Matrix: Water
Samples Received: 2

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Hardness Total (calculated as CaCO ₃) (1)	2	N/A	2018/09/06	BBY WI-00033	Auto Calc
Hardness (calculated as CaCO ₃)	2	N/A	2018/09/07	BBY WI-00033	Auto Calc
Elements by CRC ICPMS (dissolved)	2	N/A	2018/09/06	BBY7SOP-00002	EPA 6020b R2 m
Elements by CRC ICPMS (total)	2	2018/09/05	2018/09/06	BBY7SOP-00003 BBY7SOP-00002	EPA 6020b R2 m
Filter and HNO ₃ Preserve for Metals	2	N/A	2018/09/01	BBY7 WI-00004	BCMOE Reqs 08/14

Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Maxxam's profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Maxxam in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.

Maxxam Analytics' liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Maxxam has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Maxxam, unless otherwise agreed in writing. Maxxam is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.

Results relate to samples tested. When sampling is not conducted by Maxxam, results relate to the supplied samples tested.

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Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

(1) "Total Hardness" was calculated from Total Ca and Mg concentrations and may be biased high (Hardness, or Dissolved Hardness, calculated from Dissolved Ca and Mg, should be used for compliance if available).

Encryption Key



Jennifer Villocero
Project Manager
12 Dec 2018 13:38:18

Your P.O. #: B8M4777
Site Location: MELIADINE
Your C.O.C. #: B8M4777-M058-01-01

Attention: Alisha Williamson

Agnico-Eagle
Meliadine
Rankin Inlet, NU
Canada X0C 0G0

Report Date: 2018/12/12
Report #: R2663167
Version: 2 - Revision

CERTIFICATE OF ANALYSIS – REVISED REPORT

MAXXAM JOB #: B874841

Received: 2018/09/01, 12:30

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Veronica De Guzman, B.Sc., Project Manager

Email: VDeGuzman@maxxam.ca

Phone# (604) 734 7276

=====

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam Job #: B874841
Report Date: 2018/12/12

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8M4777
Sampler Initials: LH

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		UF4499	UF4500		
Sampling Date		2018/08/26 15:10	2018/08/26 16:30		
COC Number		B8M4777-M058-01-01	B8M4777-M058-01-01		
	UNITS	MEL-13	MEL-03-01	RDL	QC Batch
Calculated Parameters					
Filter and HNO3 Preservation	N/A	FIELD	FIELD	N/A	ONSITE
Dissolved Hardness (CaCO3)	mg/L	25.0	21.9	0.50	9126845
Total Hardness (CaCO3)	mg/L	24.5	21.4	0.50	9127031
RDL = Reportable Detection Limit					
N/A = Not Applicable					

Maxxam Job #: B874841
Report Date: 2018/12/12

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8M4777
Sampler Initials: LH

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		UF4499	UF4500		
Sampling Date		2018/08/26 15:10	2018/08/26 16:30		
COC Number		B8M4777-M058-01-01	B8M4777-M058-01-01		
	UNITS	MEL-13	MEL-03-01	RDL	QC Batch
Dissolved Metals by ICPMS					
Dissolved Aluminum (Al)	mg/L	0.0054	0.0043	0.0030	9130273
Dissolved Antimony (Sb)	mg/L	<0.00050	<0.00050	0.00050	9130273
Dissolved Arsenic (As)	mg/L	0.00040	0.00019	0.00010	9130273
Dissolved Barium (Ba)	mg/L	0.0076	0.0072	0.0010	9130273
Dissolved Beryllium (Be)	mg/L	<0.00010	<0.00010	0.00010	9130273
Dissolved Boron (B)	mg/L	<0.050	<0.050	0.050	9130273
Dissolved Cadmium (Cd)	mg/L	<0.000010	<0.000010	0.000010	9130273
Dissolved Chromium (Cr)	mg/L	<0.0010	<0.0010	0.0010	9130273
Dissolved Copper (Cu)	mg/L	0.00075	0.00060	0.00020	9130273
Dissolved Iron (Fe)	mg/L	0.0074	<0.0050	0.0050	9130273
Dissolved Lead (Pb)	mg/L	<0.00020	<0.00020	0.00020	9130273
Dissolved Lithium (Li)	mg/L	<0.0020	<0.0020	0.0020	9130273
Dissolved Manganese (Mn)	mg/L	<0.0010	<0.0010	0.0010	9130273
Dissolved Molybdenum (Mo)	mg/L	<0.0010	<0.0010	0.0010	9130273
Dissolved Nickel (Ni)	mg/L	<0.0010	<0.0010	0.0010	9130273
Dissolved Selenium (Se)	mg/L	<0.00010	<0.00010	0.00010	9130273
Dissolved Silver (Ag)	mg/L	<0.000020	<0.000020	0.000020	9130273
Dissolved Strontium (Sr)	mg/L	0.0491	0.0335	0.0010	9130273
Dissolved Thallium (Tl)	mg/L	<0.000010	<0.000010	0.000010	9130273
Dissolved Tin (Sn)	mg/L	<0.0050	<0.0050	0.0050	9130273
Dissolved Titanium (Ti)	mg/L	<0.0050	<0.0050	0.0050	9130273
Dissolved Uranium (U)	mg/L	<0.00010	<0.00010	0.00010	9130273
Dissolved Vanadium (V)	mg/L	<0.0050	<0.0050	0.0050	9130273
Dissolved Zinc (Zn)	mg/L	<0.0050	<0.0050	0.0050	9130273
Dissolved Calcium (Ca)	mg/L	7.82	6.95	0.050	9130273
Dissolved Magnesium (Mg)	mg/L	1.33	1.11	0.050	9130273
Dissolved Potassium (K)	mg/L	0.986	0.874	0.050	9130273
Dissolved Sodium (Na)	mg/L	5.41	4.36	0.050	9130273
Total Metals by ICPMS					
Total Aluminum (Al)	mg/L	0.0098	0.0070	0.0030	9130327
Total Antimony (Sb)	mg/L	<0.00050	<0.00050	0.00050	9130327
RDL = Reportable Detection Limit					

Maxxam Job #: B874841
Report Date: 2018/12/12

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8M4777
Sampler Initials: LH

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		UF4499	UF4500		
Sampling Date		2018/08/26 15:10	2018/08/26 16:30		
COC Number		B8M4777-M058-01-01	B8M4777-M058-01-01		
	UNITS	MEL-13	MEL-03-01	RDL	QC Batch
Total Arsenic (As)	mg/L	0.00046	0.00020	0.00010	9130327
Total Barium (Ba)	mg/L	0.0077	0.0072	0.0010	9130327
Total Beryllium (Be)	mg/L	<0.00010	<0.00010	0.00010	9130327
Total Boron (B)	mg/L	<0.050	<0.050	0.050	9130327
Total Cadmium (Cd)	mg/L	<0.000010	<0.000010	0.000010	9130327
Total Chromium (Cr)	mg/L	<0.0010	<0.0010	0.0010	9130327
Total Copper (Cu)	mg/L	0.00077	0.00067	0.00050	9130327
Total Iron (Fe)	mg/L	0.024	0.014	0.010	9130327
Total Lead (Pb)	mg/L	<0.00020	<0.00020	0.00020	9130327
Total Lithium (Li)	mg/L	<0.0020	<0.0020	0.0020	9130327
Total Manganese (Mn)	mg/L	0.0044	0.0022	0.0010	9130327
Total Molybdenum (Mo)	mg/L	<0.0010	<0.0010	0.0010	9130327
Total Nickel (Ni)	mg/L	<0.0010	<0.0010	0.0010	9130327
Total Selenium (Se)	mg/L	<0.00010	<0.00010	0.00010	9130327
Total Silver (Ag)	mg/L	<0.000020	<0.000020	0.000020	9130327
Total Strontium (Sr)	mg/L	0.0482	0.0333	0.0010	9130327
Total Thallium (Tl)	mg/L	<0.000010	<0.000010	0.000010	9130327
Total Tin (Sn)	mg/L	<0.0050	<0.0050	0.0050	9130327
Total Titanium (Ti)	mg/L	<0.0050	<0.0050	0.0050	9130327
Total Uranium (U)	mg/L	<0.00010	<0.00010	0.00010	9130327
Total Vanadium (V)	mg/L	<0.0050	<0.0050	0.0050	9130327
Total Zinc (Zn)	mg/L	<0.0050	<0.0050	0.0050	9130327
Total Calcium (Ca)	mg/L	7.61	6.79	0.050	9130327
Total Magnesium (Mg)	mg/L	1.33	1.08	0.050	9130327
Total Potassium (K)	mg/L	1.00	0.885	0.050	9130327
Total Sodium (Na)	mg/L	5.44	4.25	0.050	9130327
RDL = Reportable Detection Limit					

Maxxam Job #: B874841
Report Date: 2018/12/12

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8M4777
Sampler Initials: LH

GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	3.7°C

Revised Report (2018/12/12): Client sample ID and GPS coordinates updated as per client request.

Sample UF4499 [MEL-13] : GPS coordinates: 63°01'44.6" 92°09'14.6"

Sample UF4500 [MEL-03-01] : GPS coordinates: 63°06'52.2" 92°20'23.6"

Results relate only to the items tested.

Maxxam Job #: B874841
Report Date: 2018/12/12

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8M4777
Sampler Initials: LH

QUALITY ASSURANCE REPORT

QA/QC	Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9130273	MHM	Matrix Spike		Dissolved Aluminum (Al)	2018/09/06		95	%	80 - 120
				Dissolved Antimony (Sb)	2018/09/06		NC	%	80 - 120
				Dissolved Arsenic (As)	2018/09/06		109	%	80 - 120
				Dissolved Barium (Ba)	2018/09/06		NC	%	80 - 120
				Dissolved Beryllium (Be)	2018/09/06		98	%	80 - 120
				Dissolved Boron (B)	2018/09/06		98	%	80 - 120
				Dissolved Cadmium (Cd)	2018/09/06		98	%	80 - 120
				Dissolved Chromium (Cr)	2018/09/06		94	%	80 - 120
				Dissolved Copper (Cu)	2018/09/06		91	%	80 - 120
				Dissolved Iron (Fe)	2018/09/06		97	%	80 - 120
				Dissolved Lead (Pb)	2018/09/06		92	%	80 - 120
				Dissolved Lithium (Li)	2018/09/06		99	%	80 - 120
				Dissolved Manganese (Mn)	2018/09/06		93	%	80 - 120
				Dissolved Molybdenum (Mo)	2018/09/06		NC	%	80 - 120
				Dissolved Nickel (Ni)	2018/09/06		92	%	80 - 120
				Dissolved Selenium (Se)	2018/09/06		103	%	80 - 120
				Dissolved Silver (Ag)	2018/09/06		92	%	80 - 120
				Dissolved Strontium (Sr)	2018/09/06		NC	%	80 - 120
				Dissolved Thallium (Tl)	2018/09/06		93	%	80 - 120
				Dissolved Tin (Sn)	2018/09/06		98	%	80 - 120
				Dissolved Titanium (Ti)	2018/09/06		102	%	80 - 120
				Dissolved Uranium (U)	2018/09/06		103	%	80 - 120
				Dissolved Vanadium (V)	2018/09/06		100	%	80 - 120
				Dissolved Zinc (Zn)	2018/09/06		104	%	80 - 120
				Dissolved Calcium (Ca)	2018/09/06		NC	%	80 - 120
				Dissolved Magnesium (Mg)	2018/09/06		91	%	80 - 120
				Dissolved Potassium (K)	2018/09/06		NC	%	80 - 120
				Dissolved Sodium (Na)	2018/09/06		NC	%	80 - 120
9130273	MHM	Spiked Blank		Dissolved Aluminum (Al)	2018/09/06		98	%	80 - 120
				Dissolved Antimony (Sb)	2018/09/06		100	%	80 - 120
				Dissolved Arsenic (As)	2018/09/06		102	%	80 - 120
				Dissolved Barium (Ba)	2018/09/06		99	%	80 - 120
				Dissolved Beryllium (Be)	2018/09/06		101	%	80 - 120
				Dissolved Boron (B)	2018/09/06		107	%	80 - 120
				Dissolved Cadmium (Cd)	2018/09/06		101	%	80 - 120
				Dissolved Chromium (Cr)	2018/09/06		94	%	80 - 120
				Dissolved Copper (Cu)	2018/09/06		93	%	80 - 120
				Dissolved Iron (Fe)	2018/09/06		98	%	80 - 120
				Dissolved Lead (Pb)	2018/09/06		98	%	80 - 120
				Dissolved Lithium (Li)	2018/09/06		97	%	80 - 120
				Dissolved Manganese (Mn)	2018/09/06		97	%	80 - 120
				Dissolved Molybdenum (Mo)	2018/09/06		105	%	80 - 120
				Dissolved Nickel (Ni)	2018/09/06		93	%	80 - 120
				Dissolved Selenium (Se)	2018/09/06		100	%	80 - 120
				Dissolved Silver (Ag)	2018/09/06		98	%	80 - 120
				Dissolved Strontium (Sr)	2018/09/06		102	%	80 - 120
				Dissolved Thallium (Tl)	2018/09/06		96	%	80 - 120
				Dissolved Tin (Sn)	2018/09/06		98	%	80 - 120
				Dissolved Titanium (Ti)	2018/09/06		98	%	80 - 120
				Dissolved Uranium (U)	2018/09/06		99	%	80 - 120
				Dissolved Vanadium (V)	2018/09/06		98	%	80 - 120
				Dissolved Zinc (Zn)	2018/09/06		104	%	80 - 120
				Dissolved Calcium (Ca)	2018/09/06		98	%	80 - 120

Maxxam Job #: B874841
Report Date: 2018/12/12

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8M4777
Sampler Initials: LH

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9130273	MHM	Method Blank	Dissolved Magnesium (Mg)	2018/09/06		96	%	80 - 120
			Dissolved Potassium (K)	2018/09/06		100	%	80 - 120
			Dissolved Sodium (Na)	2018/09/06		99	%	80 - 120
			Dissolved Aluminum (Al)	2018/09/06	<0.0030		mg/L	
			Dissolved Antimony (Sb)	2018/09/06	<0.00050		mg/L	
			Dissolved Arsenic (As)	2018/09/06	<0.00010		mg/L	
			Dissolved Barium (Ba)	2018/09/06	<0.0010		mg/L	
			Dissolved Beryllium (Be)	2018/09/06	<0.00010		mg/L	
			Dissolved Boron (B)	2018/09/06	<0.050		mg/L	
			Dissolved Cadmium (Cd)	2018/09/06	<0.000010		mg/L	
			Dissolved Chromium (Cr)	2018/09/06	<0.0010		mg/L	
			Dissolved Copper (Cu)	2018/09/06	<0.00020		mg/L	
			Dissolved Iron (Fe)	2018/09/06	<0.0050		mg/L	
			Dissolved Lead (Pb)	2018/09/06	<0.00020		mg/L	
			Dissolved Lithium (Li)	2018/09/06	<0.0020		mg/L	
			Dissolved Manganese (Mn)	2018/09/06	<0.0010		mg/L	
			Dissolved Molybdenum (Mo)	2018/09/06	<0.0010		mg/L	
			Dissolved Nickel (Ni)	2018/09/06	<0.0010		mg/L	
			Dissolved Selenium (Se)	2018/09/06	<0.00010		mg/L	
			Dissolved Silver (Ag)	2018/09/06	<0.000020		mg/L	
			Dissolved Strontium (Sr)	2018/09/06	<0.0010		mg/L	
			Dissolved Thallium (Tl)	2018/09/06	<0.000010		mg/L	
			Dissolved Tin (Sn)	2018/09/06	<0.0050		mg/L	
			Dissolved Titanium (Ti)	2018/09/06	<0.0050		mg/L	
			Dissolved Uranium (U)	2018/09/06	<0.00010		mg/L	
			Dissolved Vanadium (V)	2018/09/06	<0.0050		mg/L	
			Dissolved Zinc (Zn)	2018/09/06	<0.0050		mg/L	
			Dissolved Calcium (Ca)	2018/09/06	<0.050		mg/L	
			Dissolved Magnesium (Mg)	2018/09/06	<0.050		mg/L	
			Dissolved Potassium (K)	2018/09/06	<0.050		mg/L	
			Dissolved Sodium (Na)	2018/09/06	<0.050		mg/L	
9130273	MHM	RPD	Dissolved Aluminum (Al)	2018/09/07	0.33		%	20
			Dissolved Antimony (Sb)	2018/09/07	0.68		%	20
			Dissolved Arsenic (As)	2018/09/07	0.98		%	20
			Dissolved Barium (Ba)	2018/09/07	1.7		%	20
			Dissolved Beryllium (Be)	2018/09/07	NC		%	20
			Dissolved Boron (B)	2018/09/07	3.0		%	20
			Dissolved Cadmium (Cd)	2018/09/07	NC		%	20
			Dissolved Chromium (Cr)	2018/09/07	NC		%	20
			Dissolved Copper (Cu)	2018/09/07	1.8		%	20
			Dissolved Iron (Fe)	2018/09/07	3.6		%	20
			Dissolved Lead (Pb)	2018/09/07	NC		%	20
			Dissolved Lithium (Li)	2018/09/07	2.8		%	20
			Dissolved Manganese (Mn)	2018/09/07	NC		%	20
			Dissolved Molybdenum (Mo)	2018/09/07	0.23		%	20
			Dissolved Nickel (Ni)	2018/09/07	3.6		%	20
			Dissolved Selenium (Se)	2018/09/07	2.5		%	20
			Dissolved Silver (Ag)	2018/09/07	NC		%	20
			Dissolved Strontium (Sr)	2018/09/07	1.0		%	20
			Dissolved Thallium (Tl)	2018/09/07	NC		%	20
			Dissolved Tin (Sn)	2018/09/07	NC		%	20
			Dissolved Titanium (Ti)	2018/09/07	NC		%	20
			Dissolved Uranium (U)	2018/09/07	0.14		%	20

Maxxam Job #: B874841
Report Date: 2018/12/12

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8M4777
Sampler Initials: LH

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9130327	MHM	Matrix Spike	Dissolved Vanadium (V)	2018/09/07	NC		%	20
			Dissolved Zinc (Zn)	2018/09/07	NC		%	20
			Dissolved Aluminum (Al)	2018/09/07	NC		%	20
			Dissolved Antimony (Sb)	2018/09/07	NC		%	20
			Dissolved Arsenic (As)	2018/09/07	NC		%	20
			Dissolved Barium (Ba)	2018/09/07	NC		%	20
			Dissolved Beryllium (Be)	2018/09/07	NC		%	20
			Dissolved Boron (B)	2018/09/07	NC		%	20
			Dissolved Cadmium (Cd)	2018/09/07	NC		%	20
			Dissolved Chromium (Cr)	2018/09/07	NC		%	20
			Dissolved Copper (Cu)	2018/09/07	0.15		%	20
			Dissolved Iron (Fe)	2018/09/07	NC		%	20
			Dissolved Lead (Pb)	2018/09/07	NC		%	20
			Dissolved Lithium (Li)	2018/09/07	NC		%	20
			Dissolved Manganese (Mn)	2018/09/07	NC		%	20
			Dissolved Molybdenum (Mo)	2018/09/07	NC		%	20
			Dissolved Nickel (Ni)	2018/09/07	NC		%	20
			Dissolved Selenium (Se)	2018/09/07	NC		%	20
			Dissolved Silver (Ag)	2018/09/07	8.9		%	20
			Dissolved Strontium (Sr)	2018/09/07	NC		%	20
			Dissolved Thallium (Tl)	2018/09/07	NC		%	20
			Dissolved Tin (Sn)	2018/09/07	NC		%	20
			Dissolved Titanium (Ti)	2018/09/07	NC		%	20
			Dissolved Uranium (U)	2018/09/07	NC		%	20
			Dissolved Vanadium (V)	2018/09/07	NC		%	20
			Dissolved Zinc (Zn)	2018/09/07	0.40		%	20
			Total Aluminum (Al)	2018/09/06		100	%	80 - 120
			Total Antimony (Sb)	2018/09/06		101	%	80 - 120
			Total Arsenic (As)	2018/09/06		106	%	80 - 120
			Total Barium (Ba)	2018/09/06		100	%	80 - 120
			Total Beryllium (Be)	2018/09/06		104	%	80 - 120
			Total Boron (B)	2018/09/06		108	%	80 - 120
			Total Cadmium (Cd)	2018/09/06		103	%	80 - 120
			Total Chromium (Cr)	2018/09/06		99	%	80 - 120
			Total Copper (Cu)	2018/09/06		94	%	80 - 120
			Total Iron (Fe)	2018/09/06		97	%	80 - 120
			Total Lead (Pb)	2018/09/06		99	%	80 - 120
			Total Lithium (Li)	2018/09/06		99	%	80 - 120
			Total Manganese (Mn)	2018/09/06		99	%	80 - 120
			Total Molybdenum (Mo)	2018/09/06		106	%	80 - 120
			Total Nickel (Ni)	2018/09/06		95	%	80 - 120
			Total Selenium (Se)	2018/09/06		104	%	80 - 120
			Total Silver (Ag)	2018/09/06		99	%	80 - 120
			Total Strontium (Sr)	2018/09/06		NC	%	80 - 120
			Total Thallium (Tl)	2018/09/06		99	%	80 - 120
			Total Tin (Sn)	2018/09/06		100	%	80 - 120
			Total Titanium (Ti)	2018/09/06		108	%	80 - 120
			Total Uranium (U)	2018/09/06		105	%	80 - 120
			Total Vanadium (V)	2018/09/06		99	%	80 - 120
			Total Zinc (Zn)	2018/09/06		110	%	80 - 120
			Total Calcium (Ca)	2018/09/06		NC	%	80 - 120
			Total Magnesium (Mg)	2018/09/06		NC	%	80 - 120
			Total Potassium (K)	2018/09/06		101	%	80 - 120

Maxxam Job #: B874841
Report Date: 2018/12/12

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8M4777
Sampler Initials: LH

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9130327	MHM	Spiked Blank	Total Sodium (Na)	2018/09/06		NC	%	80 - 120
			Total Aluminum (Al)	2018/09/06		102	%	80 - 120
			Total Antimony (Sb)	2018/09/06		105	%	80 - 120
			Total Arsenic (As)	2018/09/06		106	%	80 - 120
			Total Barium (Ba)	2018/09/06		102	%	80 - 120
			Total Beryllium (Be)	2018/09/06		106	%	80 - 120
			Total Boron (B)	2018/09/06		109	%	80 - 120
			Total Cadmium (Cd)	2018/09/06		103	%	80 - 120
			Total Chromium (Cr)	2018/09/06		101	%	80 - 120
			Total Copper (Cu)	2018/09/06		97	%	80 - 120
			Total Iron (Fe)	2018/09/06		104	%	80 - 120
			Total Lead (Pb)	2018/09/06		101	%	80 - 120
			Total Lithium (Li)	2018/09/06		101	%	80 - 120
			Total Manganese (Mn)	2018/09/06		101	%	80 - 120
			Total Molybdenum (Mo)	2018/09/06		106	%	80 - 120
			Total Nickel (Ni)	2018/09/06		97	%	80 - 120
			Total Selenium (Se)	2018/09/06		105	%	80 - 120
			Total Silver (Ag)	2018/09/06		101	%	80 - 120
			Total Strontium (Sr)	2018/09/06		105	%	80 - 120
			Total Thallium (Tl)	2018/09/06		101	%	80 - 120
			Total Tin (Sn)	2018/09/06		101	%	80 - 120
			Total Titanium (Ti)	2018/09/06		104	%	80 - 120
			Total Uranium (U)	2018/09/06		105	%	80 - 120
			Total Vanadium (V)	2018/09/06		103	%	80 - 120
			Total Zinc (Zn)	2018/09/06		107	%	80 - 120
			Total Calcium (Ca)	2018/09/06		104	%	80 - 120
			Total Magnesium (Mg)	2018/09/06		101	%	80 - 120
			Total Potassium (K)	2018/09/06		102	%	80 - 120
			Total Sodium (Na)	2018/09/06		104	%	80 - 120
9130327	MHM	Method Blank	Total Aluminum (Al)	2018/09/06	<0.0030		mg/L	
			Total Antimony (Sb)	2018/09/06	<0.00050		mg/L	
			Total Arsenic (As)	2018/09/06	<0.00010		mg/L	
			Total Barium (Ba)	2018/09/06	<0.0010		mg/L	
			Total Beryllium (Be)	2018/09/06	<0.00010		mg/L	
			Total Boron (B)	2018/09/06	<0.050		mg/L	
			Total Cadmium (Cd)	2018/09/06	<0.000010		mg/L	
			Total Chromium (Cr)	2018/09/06	<0.0010		mg/L	
			Total Copper (Cu)	2018/09/06	<0.00050		mg/L	
			Total Iron (Fe)	2018/09/06	<0.010		mg/L	
			Total Lead (Pb)	2018/09/06	<0.00020		mg/L	
			Total Lithium (Li)	2018/09/06	<0.0020		mg/L	
			Total Manganese (Mn)	2018/09/06	<0.0010		mg/L	
			Total Molybdenum (Mo)	2018/09/06	<0.0010		mg/L	
			Total Nickel (Ni)	2018/09/06	<0.0010		mg/L	
			Total Selenium (Se)	2018/09/06	<0.00010		mg/L	
			Total Silver (Ag)	2018/09/06	<0.000020		mg/L	
			Total Strontium (Sr)	2018/09/06	<0.0010		mg/L	
			Total Thallium (Tl)	2018/09/06	<0.000010		mg/L	
			Total Tin (Sn)	2018/09/06	<0.0050		mg/L	
			Total Titanium (Ti)	2018/09/06	<0.0050		mg/L	
			Total Uranium (U)	2018/09/06	<0.00010		mg/L	
			Total Vanadium (V)	2018/09/06	<0.0050		mg/L	
			Total Zinc (Zn)	2018/09/06	<0.0050		mg/L	

Maxxam Job #: B874841
Report Date: 2018/12/12

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8M4777
Sampler Initials: LH

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9130327	MHM	RPD	Total Calcium (Ca)	2018/09/06	<0.050		mg/L	
			Total Magnesium (Mg)	2018/09/06	<0.050		mg/L	
			Total Potassium (K)	2018/09/06	<0.050		mg/L	
			Total Sodium (Na)	2018/09/06	<0.050		mg/L	
			Total Aluminum (Al)	2018/09/06	3.6		%	20
			Total Antimony (Sb)	2018/09/06	NC		%	20
			Total Arsenic (As)	2018/09/06	4.7		%	20
			Total Barium (Ba)	2018/09/06	1.7		%	20
			Total Beryllium (Be)	2018/09/06	NC		%	20
			Total Boron (B)	2018/09/06	NC		%	20
			Total Cadmium (Cd)	2018/09/06	NC		%	20
			Total Chromium (Cr)	2018/09/06	NC		%	20
			Total Copper (Cu)	2018/09/06	6.9		%	20
			Total Iron (Fe)	2018/09/06	3.1		%	20
			Total Lead (Pb)	2018/09/06	6.4		%	20
			Total Lithium (Li)	2018/09/06	NC		%	20
			Total Manganese (Mn)	2018/09/06	1.3		%	20
			Total Molybdenum (Mo)	2018/09/06	NC		%	20
			Total Nickel (Ni)	2018/09/06	NC		%	20
			Total Selenium (Se)	2018/09/06	NC		%	20
			Total Silver (Ag)	2018/09/06	NC		%	20
			Total Strontium (Sr)	2018/09/06	0.99		%	20
			Total Thallium (Tl)	2018/09/06	NC		%	20
			Total Tin (Sn)	2018/09/06	NC		%	20
			Total Titanium (Ti)	2018/09/06	NC		%	20
			Total Uranium (U)	2018/09/06	NC		%	20
			Total Vanadium (V)	2018/09/06	NC		%	20
			Total Zinc (Zn)	2018/09/06	0.72		%	20

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

Maxxam Job #: B874841
Report Date: 2018/12/12

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8M4777
Sampler Initials: LH

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Andy Lu, Ph.D., P.Chem., Scientific Specialist

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Your P.O. #: OL-664695
Site#: 63°01'44.6" 92°09'14.6"
Site Location: MELIADINE
Your C.O.C. #: n/a

Attention: Reporting

Agnico-Eagle
Meliadine Mine
Rankin Inlet, NU
CANADA X0C 0G0

Report Date: 2018/12/19
Report #: R5532390
Version: 3 - Revision

CERTIFICATE OF ANALYSIS – REVISED REPORT

MAXXAM JOB #: B8N2546

Received: 2018/09/06, 11:00

Sample Matrix: Water
Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Alkalinity (1)	1	N/A	2018/09/10	CAM SOP-00448	SM 23 2320 B m
Carbonate, Bicarbonate and Hydroxide (1)	1	N/A	2018/09/11	CAM SOP-00102	APHA 4500-CO2 D
Chloride by Automated Colourimetry (1)	1	N/A	2018/09/10	CAM SOP-00463	EPA 325.2 m
Conductivity (1)	1	N/A	2018/09/11	CAM SOP-00414	SM 23 2510 m
Free (WAD) Cyanide (1)	1	N/A	2018/09/10	CAM SOP-00457	OMOE E3015 m
Total Cyanide (1)	1	2018/09/10	2018/09/10	CAM SOP-00457	OMOE E3015 5 m
Dissolved Organic Carbon (DOC) (1, 4)	1	N/A	2018/09/10	CAM SOP-00446	SM 23 5310 B m
Dissolved Oxygen (1)	1	2018/09/07	2018/09/07	CAM SOP-00427	SM 23 4500 O G m
Petroleum Hydro. CCME F1 & BTEX in Water (1)	1	N/A	2018/09/09	CAM SOP-00315	CCME PHC-CWS m
Petroleum Hydrocarbons F2-F4 in Water (1, 5)	1	2018/09/10	2018/09/10	CAM SOP-00316	CCME PHC-CWS m
Dissolved Mercury (low level) (1)	1	2018/09/11	2018/09/11	CAM SOP-00453	EPA 7470 m
Mercury (low level) (1)	1	2018/09/11	2018/09/11	CAM SOP-00453	EPA 7470 m
Total Ammonia-N (1)	1	N/A	2018/09/11	CAM SOP-00441	EPA GS I-2522-90 m
Nitrate (NO3) and Nitrite (NO2) in Water (1, 6)	1	N/A	2018/09/10	CAM SOP-00440	SM 23 4500-NO3I/NO2B
pH (1)	1	N/A	2018/09/10	CAM SOP-00413	SM 4500H+ B m
Orthophosphate (1)	1	N/A	2018/09/10	CAM SOP-00461	EPA 365.1 m
Radium-226 Low Level (2, 7)	1	N/A	2018/09/18	BQL SOP-00006 BQL SOP-00017 BQL SOP-00032	Alpha Spectrometry
Sulphate by Automated Colourimetry (1)	1	N/A	2018/09/10	CAM SOP-00464	EPA 375.4 m
Total Dissolved Solids (1)	1	2018/09/11	2018/09/11	CAM SOP-00428	SM 23 2540C m
Total Kjeldahl Nitrogen in Water (1)	1	2018/09/10	2018/09/11	CAM SOP-00938	OMOE E3516 m
Total Organic Carbon (TOC) (1, 8)	1	N/A	2018/09/11	CAM SOP-00446	SM 23 5310B m
Total Phosphorus (Colourimetric) (1)	1	2018/09/11	2018/09/11	CAM SOP-00407	SM 23 4500 P B H m
Low Level Total Suspended Solids (1)	1	2018/09/10	2018/09/10	CAM SOP-00428	SM 23 2540D m
Turbidity (1)	1	N/A	2018/09/10	CAM SOP-00417	SM 23 2130 B m
Hardness (calculated as CaCO3) (3)	1	N/A	N/A	BBY WI-00033	Auto Calc

Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Maxxam's profession using

Your P.O. #: OL-664695
Site#: 63°01'44.6" 92°09'14.6"
Site Location: MELIADINE
Your C.O.C. #: n/a

Attention: Reporting

Agnico-Eagle
Meliadine Mine
Rankin Inlet, NU
CANADA X0C 0G0

Report Date: 2018/12/19
Report #: R5532390
Version: 3 - Revision

CERTIFICATE OF ANALYSIS – REVISED REPORT

MAXXAM JOB #: B8N2546

Received: 2018/09/06, 11:00

accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Maxxam in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.

Maxxam Analytics' liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Maxxam has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Maxxam, unless otherwise agreed in writing. Maxxam is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.

Results relate to samples tested. When sampling is not conducted by Maxxam, results relate to the supplied samples tested.

This Certificate shall not be reproduced except in full, without the written approval of the laboratory.

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

- (1) This test was performed by Maxxam Analytics Mississauga
- (2) This test was performed by Maxxam Analytics Kitimat
- (3) This test was performed by Campo to Burnaby Subcontract
- (4) Dissolved Organic Carbon (DOC) present in the sample should be considered as non-purgeable DOC.
- (5) All CCME PHC results met required criteria unless otherwise stated in the report. The CWS PHC methods employed by Maxxam conform to all prescribed elements of the reference method and performance based elements have been validated. All modifications have been validated and proven equivalent following "Alberta Environment's Interpretation of the Reference Method for the Canada-Wide Standard for Petroleum Hydrocarbons in Soil Validation of Performance-Based Alternative Methods September 2003". Documentation is available upon request. Modifications from Reference Method for the Canada-wide Standard for Petroleum Hydrocarbons in Soil-Tier 1 Method: F2/F3/F4 data reported using validated cold solvent extraction instead of Soxhlet extraction.
- (6) Values for calculated parameters may not appear to add up due to rounding of raw data and significant figures.
- (7) Radium-226 results have not been corrected for blanks.
- (8) Total Organic Carbon (TOC) present in the sample should be considered as non-purgeable TOC.

Encryption Key



Alisha Williamson
Project Manager
19 Dec 2018 15:48:27

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Alisha Williamson, Project Manager
Email: AWilliamson@maxxam.ca
Phone# (613) 274-0573

=====

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

CCME PETROLEUM HYDROCARBONS IN WATER (WATER)

Maxxam ID		HRK621		
Sampling Date		2018/09/04 13:30		
COC Number		n/a		
	UNITS	MEL-13	RDL	QC Batch
BTEX & F1 Hydrocarbons				
Benzene	ug/L	<0.20	0.20	5721232
Toluene	ug/L	<0.20	0.20	5721232
Ethylbenzene	ug/L	<0.20	0.20	5721232
o-Xylene	ug/L	<0.20	0.20	5721232
p+m-Xylene	ug/L	<0.40	0.40	5721232
Total Xylenes	ug/L	<0.40	0.40	5721232
F1 (C6-C10)	ug/L	<25	25	5721232
F1 (C6-C10) - BTEX	ug/L	<25	25	5721232
F2-F4 Hydrocarbons				
F2 (C10-C16 Hydrocarbons)	ug/L	<100	100	5722301
F3 (C16-C34 Hydrocarbons)	ug/L	<200	200	5722301
F4 (C34-C50 Hydrocarbons)	ug/L	<200	200	5722301
Reached Baseline at C50	ug/L	Yes		5722301
Surrogate Recovery (%)				
1,4-Difluorobenzene	%	100		5721232
4-Bromofluorobenzene	%	96		5721232
D10-Ethylbenzene	%	100		5721232
D4-1,2-Dichloroethane	%	109		5721232
o-Terphenyl	%	97		5722301
RDL = Reportable Detection Limit				
QC Batch = Quality Control Batch				

RESULTS OF ANALYSES OF WATER

Maxxam ID		HRK621		
Sampling Date		2018/09/04 13:30		
COC Number		n/a		
	UNITS	MEL-13	RDL	QC Batch
Calculated Parameters				
Bicarb. Alkalinity (calc. as CaCO ₃)	mg/L	16	1.0	5719975
Carb. Alkalinity (calc. as CaCO ₃)	mg/L	<1.0	1.0	5719975
Inorganics				
Total Ammonia-N	mg/L	<0.050	0.050	5724301
Conductivity	umho/cm	84	1.0	5721313
Total Dissolved Solids	mg/L	100	10	5724672
Total Kjeldahl Nitrogen (TKN)	mg/L	<0.10	0.10	5722944
Dissolved Organic Carbon	mg/L	2.9	0.50	5720262
Total Organic Carbon (TOC)	mg/L	3.0	0.50	5724690
Orthophosphate (P)	mg/L	<0.010	0.010	5721404
Dissolved Oxygen	mg/L	10.6		5720610
pH	pH	7.44		5721317
Total Phosphorus	mg/L	<0.020	0.020	5724105
Total Suspended Solids	mg/L	1	1	5722988
Dissolved Sulphate (SO ₄)	mg/L	4.5	1.0	5721402
Total Cyanide (CN)	mg/L	<0.0050	0.0050	5722432
Turbidity	NTU	0.2	0.1	5720528
WAD Cyanide (Free)	mg/L	<0.0010	0.0010	5722440
Alkalinity (Total as CaCO ₃)	mg/L	16	1.0	5721315
Dissolved Chloride (Cl ⁻)	mg/L	13	1.0	5721401
Nitrite (N)	mg/L	<0.010	0.010	5721405
Nitrate (N)	mg/L	<0.10	0.10	5721405
Nitrate + Nitrite (N)	mg/L	<0.10	0.10	5721405
RADIONUCLIDE				
Radium-226	Bq/L	<0.0050	0.0050	5717205
RDL = Reportable Detection Limit				
QC Batch = Quality Control Batch				

Maxxam Job #: B8N2546
Report Date: 2018/12/19

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: OL-664695
Sampler Initials: SA

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		HRK621			HRK621		
Sampling Date		2018/09/04 13:30			2018/09/04 13:30		
COC Number		n/a			n/a		
	UNITS	MEL-13	RDL	QC Batch	MEL-13 Lab-Dup	RDL	QC Batch
Metals							
Mercury (Hg)	mg/L	<0.00001	0.00001	5724123	<0.00001	0.00001	5724123
Dissolved Mercury (Hg)	mg/L	<0.00001	0.00001	5724569			
RDL = Reportable Detection Limit QC Batch = Quality Control Batch Lab-Dup = Laboratory Initiated Duplicate							

Maxxam Job #: B8N2546
Report Date: 2018/12/19

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: OL-664695
Sampler Initials: SA

TEST SUMMARY

Maxxam ID: HRK621
Sample ID: MEL-13
Matrix: Water

Collected: 2018/09/04
Shipped:
Received: 2018/09/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	5721315	N/A	2018/09/10	Surinder Rai
Carbonate, Bicarbonate and Hydroxide	CALC	5719975	N/A	2018/09/11	Automated Statchk
Chloride by Automated Colourimetry	KONE	5721401	N/A	2018/09/10	Deonarine Ramnarine
Conductivity	AT	5721313	N/A	2018/09/11	Surinder Rai
Free (WAD) Cyanide	SKAL/CN	5722440	N/A	2018/09/10	Xuanhong Qiu
Total Cyanide	SKAL/CN	5722432	2018/09/10	2018/09/10	Xuanhong Qiu
Dissolved Organic Carbon (DOC)	TOCV/NDIR	5720262	N/A	2018/09/10	Nimarta Singh
Dissolved Oxygen	DO	5720610	2018/09/07	2018/09/07	Prakash Piya
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	5721232	N/A	2018/09/09	Abdikarim Ali
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	5722301	2018/09/10	2018/09/10	(Kent) Maolin Li
Dissolved Mercury (low level)	CV/AA	5724569	2018/09/11	2018/09/11	Ron Morrison
Mercury (low level)	CV/AA	5724123	2018/09/11	2018/09/11	Ron Morrison
Total Ammonia-N	LACH/NH4	5724301	N/A	2018/09/11	Parminder Sangha
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	5721405	N/A	2018/09/10	Charles Opoku-Ware
pH	AT	5721317	N/A	2018/09/10	Surinder Rai
Orthophosphate	KONE	5721404	N/A	2018/09/10	Alina Dobreanu
Radium-226 Low Level	AS	5717205	N/A	2018/09/18	Rajmeet Kaur
Sulphate by Automated Colourimetry	KONE	5721402	N/A	2018/09/10	Alina Dobreanu
Total Dissolved Solids	BAL	5724672	2018/09/11	2018/09/11	Jingwei (Alvin) Shi
Total Kjeldahl Nitrogen in Water	SKAL	5722944	2018/09/10	2018/09/11	Rajni Tyagi
Total Organic Carbon (TOC)	TOCV/NDIR	5724690	N/A	2018/09/11	Nimarta Singh
Total Phosphorus (Colourimetric)	LACH/P	5724105	2018/09/11	2018/09/11	Amanpreet Sappal
Low Level Total Suspended Solids	BAL	5722988	2018/09/10	2018/09/10	Mandeep Kaur
Turbidity	AT	5720528	N/A	2018/09/10	Tahir Anwar
Hardness (calculated as CaCO3)	CALC	5749409	N/A		Tamsin Denison

Maxxam ID: HRK621 Dup
Sample ID: MEL-13
Matrix: Water

Collected: 2018/09/04
Shipped:
Received: 2018/09/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Mercury (low level)	CV/AA	5724123	2018/09/11	2018/09/11	Ron Morrison

GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	15.7°C

Revised Report (2018/09/27): Silica results attached.

Revised Report (2018/12/18): Client sample ID changed to MEL-13 per client request.

Results relate only to the items tested.

QUALITY ASSURANCE REPORT

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: OL-664695
Sampler Initials: SA

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
5721232	1,4-Difluorobenzene	2018/09/09	103	70 - 130	104	70 - 130	101	%				
5721232	4-Bromofluorobenzene	2018/09/09	99	70 - 130	100	70 - 130	99	%				
5721232	D10-Ethylbenzene	2018/09/09	107	70 - 130	105	70 - 130	103	%				
5721232	D4-1,2-Dichloroethane	2018/09/09	108	70 - 130	112	70 - 130	106	%				
5722301	o-Terphenyl	2018/09/10	109	60 - 130	102	60 - 130	99	%				
5717205	Radium-226	2018/09/18			90	85 - 115	<0.0050	Bq/L	NC	N/A		
5720262	Dissolved Organic Carbon	2018/09/10	96	80 - 120	98	80 - 120	<0.50	mg/L	1.7	20		
5720528	Turbidity	2018/09/10			100	85 - 115	<0.1	NTU	0.44	20		
5721232	Benzene	2018/09/09	93	70 - 130	89	70 - 130	<0.20	ug/L	NC	30		
5721232	Ethylbenzene	2018/09/09	93	70 - 130	89	70 - 130	<0.20	ug/L	NC	30		
5721232	F1 (C6-C10) - BTEX	2018/09/09					<25	ug/L	NC	30		
5721232	F1 (C6-C10)	2018/09/09	92	70 - 130	84	70 - 130	<25	ug/L	NC	30		
5721232	o-Xylene	2018/09/09	95	70 - 130	89	70 - 130	<0.20	ug/L	NC	30		
5721232	p+m-Xylene	2018/09/09	94	70 - 130	92	70 - 130	<0.40	ug/L	NC	30		
5721232	Toluene	2018/09/09	89	70 - 130	85	70 - 130	<0.20	ug/L	NC	30		
5721232	Total Xylenes	2018/09/09					<0.40	ug/L	NC	30		
5721313	Conductivity	2018/09/11			101	85 - 115	<1.0	umho/cm	3.7	25		
5721315	Alkalinity (Total as CaCO3)	2018/09/10			96	85 - 115	<1.0	mg/L	0.22	20		
5721317	pH	2018/09/10			101	98 - 103			2.3	N/A		
5721401	Dissolved Chloride (Cl-)	2018/09/10	NC	80 - 120	104	80 - 120	<1.0	mg/L	0.82	20		
5721402	Dissolved Sulphate (SO4)	2018/09/10	NC	75 - 125	104	80 - 120	<1.0	mg/L	0.41	20		
5721404	Orthophosphate (P)	2018/09/10	NC	75 - 125	100	80 - 120	<0.010	mg/L	0.81	25		
5721405	Nitrate (N)	2018/09/10	NC	80 - 120	103	80 - 120	<0.10	mg/L	2.6	20		
5721405	Nitrite (N)	2018/09/10	101	80 - 120	103	80 - 120	<0.010	mg/L	0.26	20		
5722301	F2 (C10-C16 Hydrocarbons)	2018/09/10	107	50 - 130	100	60 - 130	<100	ug/L	NC	30		
5722301	F3 (C16-C34 Hydrocarbons)	2018/09/10	109	50 - 130	103	60 - 130	<200	ug/L	NC	30		
5722301	F4 (C34-C50 Hydrocarbons)	2018/09/10	100	50 - 130	93	60 - 130	<200	ug/L	NC	30		
5722432	Total Cyanide (CN)	2018/09/10	NC	80 - 120	104	80 - 120	<0.0050	mg/L	2.2	20		
5722440	WAD Cyanide (Free)	2018/09/10	105	80 - 120	104	80 - 120	<0.0010	mg/L	11	20		
5722944	Total Kjeldahl Nitrogen (TKN)	2018/09/12	102	80 - 120	99	80 - 120	<0.10	mg/L	1.0	20	96	80 - 120
5722988	Total Suspended Solids	2018/09/10					<1	mg/L	0	25	101	85 - 115

QUALITY ASSURANCE REPORT(CONT'D)

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: OL-664695
Sampler Initials: SA

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
5724105	Total Phosphorus	2018/09/11	101	80 - 120	100	80 - 120	<0.020	mg/L	3.1	20	101	80 - 120
5724123	Mercury (Hg)	2018/09/11	95	75 - 125	98	80 - 120	<0.00001	mg/L	NC	20		
5724301	Total Ammonia-N	2018/09/11	101	75 - 125	99	80 - 120	<0.050	mg/L	NC	20		
5724569	Dissolved Mercury (Hg)	2018/09/11	93	75 - 125	95	80 - 120	<0.00001	mg/L	NC	20		
5724672	Total Dissolved Solids	2018/09/11					<10	mg/L	0.84	25	98	90 - 110
5724690	Total Organic Carbon (TOC)	2018/09/11	98	80 - 120	99	80 - 120	<0.50	mg/L	0.14	20		

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

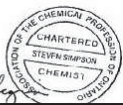
NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

Cristina Carriere

Cristina Carriere, Scientific Service Specialist



Steven Simpson, Lab Director

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Exceedence Summary Table – Metal Mining Effluent Reg
Result Exceedences

Sample ID	Maxxam ID	Parameter	Criteria	Result	DL	Units
No Exceedences						
The exceedence summary table is for information purposes only and should not be considered a comprehensive listing or statement of conformance to applicable regulatory guidelines.						

Your P.O. #: B8N2546
Your Project #: LEACHATE CELL
Site Location: MELIADINE
Your C.O.C. #: B8N2546-M058-01-01

Attention: Alisha Williamson

Agnico-Eagle
Meliadine
Rankin Inlet, NU
Canada X0C 0G0

Report Date: 2018/09/17
Report #: R2619958
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B878261

Received: 2018/09/11, 10:15

Sample Matrix: SURFACE WATER
Samples Received: 1

Analyses	Date		Laboratory Method	Analytical Method
	Quantity	Extracted		
Hardness Total (calculated as CaCO ₃) (1)	1	N/A	2018/09/17 BBY WI-00033	Auto Calc
Hardness (calculated as CaCO ₃)	1	N/A	2018/09/13 BBY WI-00033	Auto Calc
Elements by CRC ICPMS (dissolved)	1	N/A	2018/09/13 BBY7SOP-00002	EPA 6020b R2 m
Elements by CRC ICPMS (total)	1	2018/09/13	2018/09/14 BBY7SOP-00003,	EPA 6020b R2 m
Filter and HNO ₃ Preserve for Metals	1	N/A	2018/09/12 BBY7 WI-00004	BCMOE Reqs 08/14

Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Maxxam's profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Maxxam in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.

Maxxam Analytics' liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Maxxam has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Maxxam, unless otherwise agreed in writing. Maxxam is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.

Results relate to samples tested. When sampling is not conducted by Maxxam, results relate to the supplied samples tested.

This Certificate shall not be reproduced except in full, without the written approval of the laboratory.

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

(1) "Total Hardness" was calculated from Total Ca and Mg concentrations and may be biased high (Hardness, or Dissolved Hardness, calculated from Dissolved Ca and Mg, should be used for compliance if available).

Attention: Alisha Williamson

Agnico-Eagle
Meliadine
Rankin Inlet, NU
Canada X0C 0G0

Your P.O. #: B8N2546
Your Project #: LEACHATE CELL
Site Location: MELIADINE
Your C.O.C. #: B8N2546-M058-01-01

Report Date: 2018/09/17
Report #: R2619958
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B878261

Received: 2018/09/11, 10:15

Encryption Key



Veronica De Guzman
Project Manager
17 Sep 2018 17:13:32

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Veronica De Guzman, B.Sc., Project Manager

Email: VDeGuzman@maxxam.ca

Phone# (604) 734 7276

=====

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam Job #: B878261
Report Date: 2018/09/17

Agnico-Eagle
Client Project #: LEACHATE CELL
Site Location: MELIADINE
Your P.O. #: B8N2546

RESULTS OF CHEMICAL ANALYSES OF SURFACE WATER

Maxxam ID		UH2948		
Sampling Date		2018/09/04 13:30		
COC Number		B8N2546-M058-01-01		
	UNITS	ME6-13 (WL AND EEM)	RDL	QC Batch
Calculated Parameters				
Filter and HNO3 Preservation	N/A	FIELD	N/A	ONSITE
Dissolved Hardness (CaCO3)	mg/L	22.7	0.50	9138712
Total Hardness (CaCO3)	mg/L	25.2	0.50	9138710
RDL = Reportable Detection Limit				
N/A = Not Applicable				

Maxxam Job #: B878261
Report Date: 2018/09/17

Agnico-Eagle
Client Project #: LEACHATE CELL
Site Location: MELIADINE
Your P.O. #: B8N2546

ELEMENTS BY ATOMIC SPECTROSCOPY (SURFACE WATER)

Maxxam ID		UH2948		
Sampling Date		2018/09/04 13:30		
COC Number		B8N2546-M058-01-01		
	UNITS	ME6-13 (WL AND EEM)	RDL	QC Batch
Dissolved Metals by ICPMS				
Dissolved Aluminum (Al)	mg/L	0.0060	0.0030	9140761
Dissolved Antimony (Sb)	mg/L	<0.00050	0.00050	9140761
Dissolved Arsenic (As)	mg/L	0.00034	0.00010	9140761
Dissolved Barium (Ba)	mg/L	0.0075	0.0010	9140761
Dissolved Beryllium (Be)	mg/L	<0.00010	0.00010	9140761
Dissolved Boron (B)	mg/L	<0.050	0.050	9140761
Dissolved Cadmium (Cd)	mg/L	<0.000010	0.000010	9140761
Dissolved Chromium (Cr)	mg/L	<0.0010	0.0010	9140761
Dissolved Copper (Cu)	mg/L	0.00073	0.00020	9140761
Dissolved Iron (Fe)	mg/L	0.0054	0.0050	9140761
Dissolved Lead (Pb)	mg/L	<0.00020	0.00020	9140761
Dissolved Lithium (Li)	mg/L	<0.0020	0.0020	9140761
Dissolved Manganese (Mn)	mg/L	<0.0010	0.0010	9140761
Dissolved Molybdenum (Mo)	mg/L	<0.0010	0.0010	9140761
Dissolved Nickel (Ni)	mg/L	<0.0010	0.0010	9140761
Dissolved Selenium (Se)	mg/L	<0.00010	0.00010	9140761
Dissolved Silver (Ag)	mg/L	<0.000020	0.000020	9140761
Dissolved Strontium (Sr)	mg/L	0.0471	0.0010	9140761
Dissolved Thallium (Tl)	mg/L	<0.000010	0.000010	9140761
Dissolved Tin (Sn)	mg/L	<0.0050	0.0050	9140761
Dissolved Titanium (Ti)	mg/L	<0.0050	0.0050	9140761
Dissolved Uranium (U)	mg/L	<0.00010	0.00010	9140761
Dissolved Vanadium (V)	mg/L	<0.0050	0.0050	9140761
Dissolved Zinc (Zn)	mg/L	<0.0050	0.0050	9140761
Dissolved Calcium (Ca)	mg/L	7.02	0.050	9140761
Dissolved Magnesium (Mg)	mg/L	1.25	0.050	9140761
Dissolved Potassium (K)	mg/L	0.902	0.050	9140761
Dissolved Sodium (Na)	mg/L	5.34	0.050	9140761
Total Metals by ICPMS				
Total Aluminum (Al)	mg/L	0.0083	0.0030	9141492
RDL = Reportable Detection Limit				

Maxxam Job #: B878261
Report Date: 2018/09/17

Agnico-Eagle
Client Project #: LEACHATE CELL
Site Location: MELIADINE
Your P.O. #: B8N2546

ELEMENTS BY ATOMIC SPECTROSCOPY (SURFACE WATER)

Maxxam ID		UH2948		
Sampling Date		2018/09/04 13:30		
COC Number		B8N2546-M058-01-01		
	UNITS	ME6-13 (WL AND EEM)	RDL	QC Batch
Total Antimony (Sb)	mg/L	<0.00050	0.00050	9141492
Total Arsenic (As)	mg/L	0.00043	0.00010	9141492
Total Barium (Ba)	mg/L	0.0079	0.0010	9141492
Total Beryllium (Be)	mg/L	<0.00010	0.00010	9141492
Total Boron (B)	mg/L	<0.050	0.050	9141492
Total Cadmium (Cd)	mg/L	<0.000010	0.000010	9141492
Total Chromium (Cr)	mg/L	<0.0010	0.0010	9141492
Total Copper (Cu)	mg/L	0.00076	0.00050	9141492
Total Iron (Fe)	mg/L	0.019	0.010	9141492
Total Lead (Pb)	mg/L	<0.00020	0.00020	9141492
Total Lithium (Li)	mg/L	<0.0020	0.0020	9141492
Total Manganese (Mn)	mg/L	0.0045	0.0010	9141492
Total Molybdenum (Mo)	mg/L	<0.0010	0.0010	9141492
Total Nickel (Ni)	mg/L	<0.0010	0.0010	9141492
Total Selenium (Se)	mg/L	<0.00010	0.00010	9141492
Total Silver (Ag)	mg/L	<0.000020	0.000020	9141492
Total Strontium (Sr)	mg/L	0.0488	0.0010	9141492
Total Thallium (Tl)	mg/L	<0.000010	0.000010	9141492
Total Tin (Sn)	mg/L	<0.0050	0.0050	9141492
Total Titanium (Ti)	mg/L	<0.0050	0.0050	9141492
Total Uranium (U)	mg/L	<0.00010	0.00010	9141492
Total Vanadium (V)	mg/L	<0.0050	0.0050	9141492
Total Zinc (Zn)	mg/L	<0.0050	0.0050	9141492
Total Calcium (Ca)	mg/L	7.91	0.050	9141492
Total Magnesium (Mg)	mg/L	1.33	0.050	9141492
Total Potassium (K)	mg/L	0.974	0.050	9141492
Total Sodium (Na)	mg/L	5.52	0.050	9141492
RDL = Reportable Detection Limit				

Maxxam Job #: B878261
Report Date: 2018/09/17

Agnico-Eagle
Client Project #: LEACHATE CELL
Site Location: MELIADINE
Your P.O. #: B8N2546

GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	3.7°C

Results relate only to the items tested.

Maxxam Job #: B878261
Report Date: 2018/09/17

Agnico-Eagle
Client Project #: LEACHATE CELL
Site Location: MELIADINE
Your P.O. #: B8N2546

QUALITY ASSURANCE REPORT

QA/QC	Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9140761	AA1	Matrix Spike		Dissolved Aluminum (Al)	2018/09/13		95	%	80 - 120
				Dissolved Antimony (Sb)	2018/09/13		96	%	80 - 120
				Dissolved Arsenic (As)	2018/09/13		101	%	80 - 120
				Dissolved Barium (Ba)	2018/09/13		NC	%	80 - 120
				Dissolved Beryllium (Be)	2018/09/13		90	%	80 - 120
				Dissolved Boron (B)	2018/09/13		89	%	80 - 120
				Dissolved Cadmium (Cd)	2018/09/13		96	%	80 - 120
				Dissolved Chromium (Cr)	2018/09/13		97	%	80 - 120
				Dissolved Copper (Cu)	2018/09/13		93	%	80 - 120
				Dissolved Iron (Fe)	2018/09/13		99	%	80 - 120
				Dissolved Lead (Pb)	2018/09/13		96	%	80 - 120
				Dissolved Lithium (Li)	2018/09/13		83	%	80 - 120
				Dissolved Manganese (Mn)	2018/09/13		NC	%	80 - 120
				Dissolved Molybdenum (Mo)	2018/09/13		NC	%	80 - 120
				Dissolved Nickel (Ni)	2018/09/13		95	%	80 - 120
				Dissolved Selenium (Se)	2018/09/13		97	%	80 - 120
				Dissolved Silver (Ag)	2018/09/13		95	%	80 - 120
				Dissolved Strontium (Sr)	2018/09/13		NC	%	80 - 120
				Dissolved Thallium (Tl)	2018/09/13		105	%	80 - 120
				Dissolved Tin (Sn)	2018/09/13		97	%	80 - 120
				Dissolved Titanium (Ti)	2018/09/13		100	%	80 - 120
				Dissolved Uranium (U)	2018/09/13		103	%	80 - 120
				Dissolved Vanadium (V)	2018/09/13		101	%	80 - 120
				Dissolved Zinc (Zn)	2018/09/13		94	%	80 - 120
				Dissolved Calcium (Ca)	2018/09/13		NC	%	80 - 120
				Dissolved Magnesium (Mg)	2018/09/13		NC	%	80 - 120
				Dissolved Potassium (K)	2018/09/13		97	%	80 - 120
				Dissolved Sodium (Na)	2018/09/13		NC	%	80 - 120
9140761	AA1	Spiked Blank		Dissolved Aluminum (Al)	2018/09/13		100	%	80 - 120
				Dissolved Antimony (Sb)	2018/09/13		100	%	80 - 120
				Dissolved Arsenic (As)	2018/09/13		101	%	80 - 120
				Dissolved Barium (Ba)	2018/09/13		102	%	80 - 120
				Dissolved Beryllium (Be)	2018/09/13		93	%	80 - 120
				Dissolved Boron (B)	2018/09/13		95	%	80 - 120
				Dissolved Cadmium (Cd)	2018/09/13		101	%	80 - 120
				Dissolved Chromium (Cr)	2018/09/13		101	%	80 - 120
				Dissolved Copper (Cu)	2018/09/13		101	%	80 - 120
				Dissolved Iron (Fe)	2018/09/13		106	%	80 - 120
				Dissolved Lead (Pb)	2018/09/13		101	%	80 - 120
				Dissolved Lithium (Li)	2018/09/13		97	%	80 - 120
				Dissolved Manganese (Mn)	2018/09/13		100	%	80 - 120
				Dissolved Molybdenum (Mo)	2018/09/13		104	%	80 - 120
				Dissolved Nickel (Ni)	2018/09/13		103	%	80 - 120
				Dissolved Selenium (Se)	2018/09/13		100	%	80 - 120
				Dissolved Silver (Ag)	2018/09/13		99	%	80 - 120
				Dissolved Strontium (Sr)	2018/09/13		103	%	80 - 120
				Dissolved Thallium (Tl)	2018/09/13		110	%	80 - 120
				Dissolved Tin (Sn)	2018/09/13		98	%	80 - 120
				Dissolved Titanium (Ti)	2018/09/13		101	%	80 - 120
				Dissolved Uranium (U)	2018/09/13		102	%	80 - 120
				Dissolved Vanadium (V)	2018/09/13		102	%	80 - 120
				Dissolved Zinc (Zn)	2018/09/13		106	%	80 - 120

Maxxam Job #: B878261
Report Date: 2018/09/17

Agnico-Eagle
Client Project #: LEACHATE CELL
Site Location: MELIADINE
Your P.O. #: B8N2546

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9140761	AA1	Method Blank	Dissolved Calcium (Ca)	2018/09/13		100	%	80 - 120
			Dissolved Magnesium (Mg)	2018/09/13		98	%	80 - 120
			Dissolved Potassium (K)	2018/09/13		102	%	80 - 120
			Dissolved Sodium (Na)	2018/09/13		98	%	80 - 120
			Dissolved Aluminum (Al)	2018/09/13	<0.0030		mg/L	
			Dissolved Antimony (Sb)	2018/09/13	<0.00050		mg/L	
			Dissolved Arsenic (As)	2018/09/13	<0.00010		mg/L	
			Dissolved Barium (Ba)	2018/09/13	<0.0010		mg/L	
			Dissolved Beryllium (Be)	2018/09/13	<0.00010		mg/L	
			Dissolved Boron (B)	2018/09/13	<0.050		mg/L	
			Dissolved Cadmium (Cd)	2018/09/13	<0.000010		mg/L	
			Dissolved Chromium (Cr)	2018/09/13	<0.0010		mg/L	
			Dissolved Copper (Cu)	2018/09/13	<0.00020		mg/L	
			Dissolved Iron (Fe)	2018/09/13	<0.0050		mg/L	
			Dissolved Lead (Pb)	2018/09/13	<0.00020		mg/L	
			Dissolved Lithium (Li)	2018/09/13	<0.0020		mg/L	
			Dissolved Manganese (Mn)	2018/09/13	<0.0010		mg/L	
			Dissolved Molybdenum (Mo)	2018/09/13	<0.0010		mg/L	
			Dissolved Nickel (Ni)	2018/09/13	<0.0010		mg/L	
			Dissolved Selenium (Se)	2018/09/13	<0.00010		mg/L	
			Dissolved Silver (Ag)	2018/09/13	<0.000020		mg/L	
			Dissolved Strontium (Sr)	2018/09/13	<0.0010		mg/L	
			Dissolved Thallium (Tl)	2018/09/13	<0.000010		mg/L	
			Dissolved Tin (Sn)	2018/09/13	<0.0050		mg/L	
			Dissolved Titanium (Ti)	2018/09/13	<0.0050		mg/L	
			Dissolved Uranium (U)	2018/09/13	<0.00010		mg/L	
			Dissolved Vanadium (V)	2018/09/13	<0.0050		mg/L	
			Dissolved Zinc (Zn)	2018/09/13	<0.0050		mg/L	
			Dissolved Calcium (Ca)	2018/09/13	<0.050		mg/L	
			Dissolved Magnesium (Mg)	2018/09/13	<0.050		mg/L	
			Dissolved Potassium (K)	2018/09/13	<0.050		mg/L	
			Dissolved Sodium (Na)	2018/09/13	<0.050		mg/L	
9140761	AA1	RPD	Dissolved Aluminum (Al)	2018/09/13	0.85		%	20
			Dissolved Antimony (Sb)	2018/09/13	0.51		%	20
			Dissolved Arsenic (As)	2018/09/13	0.046		%	20
			Dissolved Barium (Ba)	2018/09/13	0.57		%	20
			Dissolved Beryllium (Be)	2018/09/13	NC		%	20
			Dissolved Boron (B)	2018/09/13	1.6		%	20
			Dissolved Cadmium (Cd)	2018/09/13	3.4		%	20
			Dissolved Chromium (Cr)	2018/09/13	1.1		%	20
			Dissolved Copper (Cu)	2018/09/13	4.5		%	20
			Dissolved Iron (Fe)	2018/09/13	NC		%	20
			Dissolved Lead (Pb)	2018/09/13	NC		%	20
			Dissolved Lithium (Li)	2018/09/13	0.48		%	20
			Dissolved Manganese (Mn)	2018/09/13	0.41		%	20
			Dissolved Molybdenum (Mo)	2018/09/13	2.1		%	20
			Dissolved Nickel (Ni)	2018/09/13	1.4		%	20
			Dissolved Selenium (Se)	2018/09/13	0.93		%	20
			Dissolved Silver (Ag)	2018/09/13	NC		%	20
			Dissolved Strontium (Sr)	2018/09/13	1.1		%	20
			Dissolved Thallium (Tl)	2018/09/13	NC		%	20
			Dissolved Tin (Sn)	2018/09/13	NC		%	20

Maxxam Job #: B878261
Report Date: 2018/09/17

Agnico-Eagle
Client Project #: LEACHATE CELL
Site Location: MELIADINE
Your P.O. #: B8N2546

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9141492	AA1	Matrix Spike	Dissolved Titanium (Ti)	2018/09/13	NC		%	20
			Dissolved Uranium (U)	2018/09/13	1.4		%	20
			Dissolved Vanadium (V)	2018/09/13	NC		%	20
			Dissolved Zinc (Zn)	2018/09/13	NC		%	20
			Total Aluminum (Al)	2018/09/14		103	%	80 - 120
			Total Antimony (Sb)	2018/09/14		106	%	80 - 120
			Total Arsenic (As)	2018/09/14		112	%	80 - 120
			Total Barium (Ba)	2018/09/14		105	%	80 - 120
			Total Beryllium (Be)	2018/09/14		97	%	80 - 120
			Total Boron (B)	2018/09/14		99	%	80 - 120
			Total Cadmium (Cd)	2018/09/14		105	%	80 - 120
			Total Chromium (Cr)	2018/09/14		103	%	80 - 120
			Total Copper (Cu)	2018/09/14		101	%	80 - 120
			Total Iron (Fe)	2018/09/14		107	%	80 - 120
			Total Lead (Pb)	2018/09/14		104	%	80 - 120
			Total Lithium (Li)	2018/09/14		99	%	80 - 120
			Total Manganese (Mn)	2018/09/14		105	%	80 - 120
			Total Molybdenum (Mo)	2018/09/14		107	%	80 - 120
			Total Nickel (Ni)	2018/09/14		102	%	80 - 120
			Total Selenium (Se)	2018/09/14		108	%	80 - 120
			Total Silver (Ag)	2018/09/14		105	%	80 - 120
			Total Strontium (Sr)	2018/09/14		NC	%	80 - 120
			Total Thallium (Tl)	2018/09/14		111	%	80 - 120
			Total Tin (Sn)	2018/09/14		104	%	80 - 120
			Total Titanium (Ti)	2018/09/14		105	%	80 - 120
			Total Uranium (U)	2018/09/14		108	%	80 - 120
			Total Vanadium (V)	2018/09/14		105	%	80 - 120
			Total Zinc (Zn)	2018/09/14		104	%	80 - 120
			Total Calcium (Ca)	2018/09/14		NC	%	80 - 120
			Total Magnesium (Mg)	2018/09/14		101	%	80 - 120
			Total Potassium (K)	2018/09/14		106	%	80 - 120
			Total Sodium (Na)	2018/09/14		99	%	80 - 120
9141492	AA1	Spiked Blank	Total Aluminum (Al)	2018/09/14		102	%	80 - 120
			Total Antimony (Sb)	2018/09/14		104	%	80 - 120
			Total Arsenic (As)	2018/09/14		110	%	80 - 120
			Total Barium (Ba)	2018/09/14		105	%	80 - 120
			Total Beryllium (Be)	2018/09/14		95	%	80 - 120
			Total Boron (B)	2018/09/14		98	%	80 - 120
			Total Cadmium (Cd)	2018/09/14		105	%	80 - 120
			Total Chromium (Cr)	2018/09/14		103	%	80 - 120
			Total Copper (Cu)	2018/09/14		102	%	80 - 120
			Total Iron (Fe)	2018/09/14		107	%	80 - 120
			Total Lead (Pb)	2018/09/14		103	%	80 - 120
			Total Lithium (Li)	2018/09/14		99	%	80 - 120
			Total Manganese (Mn)	2018/09/14		105	%	80 - 120
			Total Molybdenum (Mo)	2018/09/14		103	%	80 - 120
			Total Nickel (Ni)	2018/09/14		103	%	80 - 120
			Total Selenium (Se)	2018/09/14		106	%	80 - 120
			Total Silver (Ag)	2018/09/14		105	%	80 - 120
			Total Strontium (Sr)	2018/09/14		108	%	80 - 120
			Total Thallium (Tl)	2018/09/14		111	%	80 - 120
			Total Tin (Sn)	2018/09/14		101	%	80 - 120

Maxxam Job #: B878261
Report Date: 2018/09/17

Agnico-Eagle
Client Project #: LEACHATE CELL
Site Location: MELIADINE
Your P.O. #: B8N2546

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9141492	AA1	Method Blank	Total Titanium (Ti)	2018/09/14		107	%	80 - 120
			Total Uranium (U)	2018/09/14		107	%	80 - 120
			Total Vanadium (V)	2018/09/14		103	%	80 - 120
			Total Zinc (Zn)	2018/09/14		104	%	80 - 120
			Total Calcium (Ca)	2018/09/14		105	%	80 - 120
			Total Magnesium (Mg)	2018/09/14		100	%	80 - 120
			Total Potassium (K)	2018/09/14		105	%	80 - 120
			Total Sodium (Na)	2018/09/14		101	%	80 - 120
			Total Aluminum (Al)	2018/09/14	<0.0030		mg/L	
			Total Antimony (Sb)	2018/09/14	<0.00050		mg/L	
			Total Arsenic (As)	2018/09/14	<0.00010		mg/L	
			Total Barium (Ba)	2018/09/14	<0.0010		mg/L	
			Total Beryllium (Be)	2018/09/14	<0.00010		mg/L	
			Total Boron (B)	2018/09/14	<0.050		mg/L	
			Total Cadmium (Cd)	2018/09/14	<0.000010		mg/L	
			Total Chromium (Cr)	2018/09/14	<0.0010		mg/L	
			Total Copper (Cu)	2018/09/14	<0.00050		mg/L	
			Total Iron (Fe)	2018/09/14	<0.010		mg/L	
			Total Lead (Pb)	2018/09/14	<0.00020		mg/L	
			Total Lithium (Li)	2018/09/14	<0.0020		mg/L	
			Total Manganese (Mn)	2018/09/14	<0.0010		mg/L	
			Total Molybdenum (Mo)	2018/09/14	<0.0010		mg/L	
			Total Nickel (Ni)	2018/09/14	<0.0010		mg/L	
			Total Selenium (Se)	2018/09/14	<0.00010		mg/L	
			Total Silver (Ag)	2018/09/14	<0.000020		mg/L	
			Total Strontium (Sr)	2018/09/14	<0.0010		mg/L	
			Total Thallium (Tl)	2018/09/14	<0.000010		mg/L	
			Total Tin (Sn)	2018/09/14	<0.0050		mg/L	
			Total Titanium (Ti)	2018/09/14	<0.0050		mg/L	
			Total Uranium (U)	2018/09/14	<0.00010		mg/L	
			Total Vanadium (V)	2018/09/14	<0.0050		mg/L	
			Total Zinc (Zn)	2018/09/14	<0.0050		mg/L	
			Total Calcium (Ca)	2018/09/14	<0.050		mg/L	
			Total Magnesium (Mg)	2018/09/14	<0.050		mg/L	
			Total Potassium (K)	2018/09/14	<0.050		mg/L	
			Total Sodium (Na)	2018/09/14	<0.050		mg/L	
9141492	AA1	RPD	Total Aluminum (Al)	2018/09/14	0.018		%	20
			Total Antimony (Sb)	2018/09/14	NC		%	20
			Total Arsenic (As)	2018/09/14	4.8		%	20
			Total Barium (Ba)	2018/09/14	0.87		%	20
			Total Beryllium (Be)	2018/09/14	NC		%	20
			Total Boron (B)	2018/09/14	NC		%	20
			Total Cadmium (Cd)	2018/09/14	7.7		%	20
			Total Chromium (Cr)	2018/09/14	NC		%	20
			Total Copper (Cu)	2018/09/14	NC		%	20
			Total Iron (Fe)	2018/09/14	NC		%	20
			Total Lead (Pb)	2018/09/14	NC		%	20
			Total Lithium (Li)	2018/09/14	NC		%	20
			Total Manganese (Mn)	2018/09/14	NC		%	20
			Total Molybdenum (Mo)	2018/09/14	NC		%	20
			Total Nickel (Ni)	2018/09/14	NC		%	20
			Total Selenium (Se)	2018/09/14	NC		%	20

Maxxam Job #: B878261
Report Date: 2018/09/17

Agnico-Eagle
Client Project #: LEACHATE CELL
Site Location: MELIADINE
Your P.O. #: B8N2546

QUALITY ASSURANCE REPORT(CONT'D)

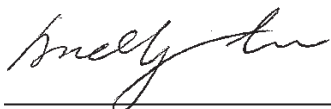
QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Total Silver (Ag)	2018/09/14	NC		%	20
			Total Strontium (Sr)	2018/09/14	1.3		%	20
			Total Thallium (Tl)	2018/09/14	NC		%	20
			Total Tin (Sn)	2018/09/14	NC		%	20
			Total Titanium (Ti)	2018/09/14	NC		%	20
			Total Uranium (U)	2018/09/14	NC		%	20
			Total Vanadium (V)	2018/09/14	NC		%	20
			Total Zinc (Zn)	2018/09/14	NC		%	20
Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement. Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference. Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy. Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination. NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration) NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).								

Maxxam Job #: B878261
Report Date: 2018/09/17

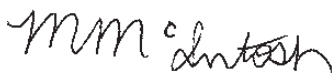
Agnico-Eagle
Client Project #: LEACHATE CELL
Site Location: MELIADINE
Your P.O. #: B8N2546

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Andy Lu, Ph.D., P.Chem., Scientific Specialist



Melissa McIntosh, Project Manager

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Your P.O. #: B8N2546
Site Location: MELIADINE
Your C.O.C. #: 1 of 1

Attention: Alisha Williamson

Agnico-Eagle
Meliadine
Rankin Inlet, NU
Canada X0C 0G0

Report Date: 2018/09/17
Report #: R2620440
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B877821

Received: 2018/09/11, 09:53

Sample Matrix: Water
Samples Received: 1

Analyses	Date		Laboratory Method	Analytical Method
	Quantity	Extracted		
Silica (Reactive)	1	N/A	2018/09/17 AB SOP-00011	EPA 370.1 R1978 m

Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Maxxam's profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Maxxam in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.

Maxxam Analytics' liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Maxxam has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Maxxam, unless otherwise agreed in writing. Maxxam is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.

Results relate to samples tested. When sampling is not conducted by Maxxam, results relate to the supplied samples tested.

This Certificate shall not be reproduced except in full, without the written approval of the laboratory.

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Your P.O. #: B8N2546
Site Location: MELIADINE
Your C.O.C. #: 1 of 1

Attention: Alisha Williamson

Agnico-Eagle
Meliadine
Rankin Inlet, NU
Canada X0C 0G0

Report Date: 2018/09/17
Report #: R2620440
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B877821

Received: 2018/09/11, 09:53

Encryption Key



Maxxam

17 Sep 2018 17:00:36

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Omran Desouki, Junior Project Manager

Email: ODesouki@maxxam.ca

Phone# (403) 291-3077

=====

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Maxxam Job #: B877821
Report Date: 2018/09/17

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8N2546

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		UH0487	UH0487		
Sampling Date		2018/09/04 13:30	2018/09/04 13:30		
COC Number		1 of 1	1 of 1		
	UNITS	MEL-13 (WL AND EEM)	MEL-13 (WL AND EEM) Lab-Dup	RDL	QC Batch
Misc. Inorganics					
Reactive Silica	mg/L	0.27	0.28	0.050	9146428
RDL = Reportable Detection Limit					
Lab-Dup = Laboratory Initiated Duplicate					

Maxxam Job #: B877821
Report Date: 2018/09/17

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8N2546

TEST SUMMARY

Maxxam ID: UH0487
Sample ID: MEL-13 (WL AND EEM)
Matrix: Water

Collected: 2018/09/04
Shipped: 2018/09/10
Received: 2018/09/11

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Silica (Reactive)	KONE/SL	9146428	N/A	2018/09/17	Zafar Iqbal

Maxxam ID: UH0487 Dup
Sample ID: MEL-13 (WL AND EEM)
Matrix: Water

Collected: 2018/09/04
Shipped: 2018/09/10
Received: 2018/09/11

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Silica (Reactive)	KONE/SL	9146428	N/A	2018/09/17	Zafar Iqbal

Maxxam Job #: B877821
Report Date: 2018/09/17

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8N2546

GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	4.3°C

Results relate only to the items tested.

QUALITY ASSURANCE REPORT

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8N2546

QC Batch	Parameter	Date	Matrix Spike		Spiked Blank		Method Blank		RPD	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9146428	Reactive Silica	2018/09/17	104	80 - 120	100	80 - 120	<0.050	mg/L	2.4	20
Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.										
Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.										
Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.										
Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.										

Maxxam Job #: B877821
Report Date: 2018/09/17

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8N2546

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Harry (Peng) Liang, Senior Analyst

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Your P.O. #: B8N2546
Site Location: MELIADINE
Your C.O.C. #: 1 of 1

Attention: Alisha Williamson

Agnico-Eagle
Meliadine
Rankin Inlet, NU
Canada X0C 0G0

Report Date: 2018/12/12
Report #: R2663056
Version: 2 - Revision

CERTIFICATE OF ANALYSIS – REVISED REPORT

MAXXAM JOB #: B877821

Received: 2018/09/11, 09:53

Sample Matrix: Water
Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Silica (Reactive)	1	N/A	2018/09/17	AB SOP-00011	EPA 370.1 R1978 m

Remarks:

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Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.

Results relate to samples tested. When sampling is not conducted by Maxxam, results relate to the supplied samples tested.

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Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key



Omran Desouki
Junior Project Manager
12 Dec 2018 12:18:01

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Omran Desouki, Junior Project Manager

Email: ODesouki@maxxam.ca

Phone# (403) 291-3077

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Total Cover Pages : 1

Page 1 of 6

Maxxam Job #: B877821
Report Date: 2018/12/12

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8N2546
Sampler Initials: SA

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		UH0487	UH0487		
Sampling Date		2018/09/04 13:30	2018/09/04 13:30		
COC Number		1 of 1	1 of 1		
	UNITS	MEL-13	MEL-13 Lab-Dup	RDL	QC Batch
Misc. Inorganics					
Reactive Silica	mg/L	0.27	0.28	0.050	9146428
RDL = Reportable Detection Limit					
Lab-Dup = Laboratory Initiated Duplicate					

Maxxam Job #: B877821
Report Date: 2018/12/12

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8N2546
Sampler Initials: SA

TEST SUMMARY

Maxxam ID: UH0487
Sample ID: MEL-13
Matrix: Water

Collected: 2018/09/04
Shipped: 2018/09/10
Received: 2018/09/11

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Silica (Reactive)	KONE/SL	9146428	N/A	2018/09/17	Zafar Iqbal

Maxxam ID: UH0487 Dup
Sample ID: MEL-13
Matrix: Water

Collected: 2018/09/04
Shipped: 2018/09/10
Received: 2018/09/11

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Silica (Reactive)	KONE/SL	9146428	N/A	2018/09/17	Zafar Iqbal

Maxxam Job #: B877821
Report Date: 2018/12/12

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8N2546
Sampler Initials: SA

GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	4.3°C

Revised Report (2018/12/12): Client sample ID and GPS coordinates updated per client request.

GPS coordinates: 63°01'44.6" 92°09'14.6"

Results relate only to the items tested.

QUALITY ASSURANCE REPORT

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8N2546
Sampler Initials: SA

QC Batch	Parameter	Date	Matrix Spike		Spiked Blank		Method Blank		RPD	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9146428	Reactive Silica	2018/09/17	104	80 - 120	100	80 - 120	<0.050	mg/L	2.4	20
Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.										
Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.										
Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.										
Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.										

Maxxam Job #: B877821
Report Date: 2018/12/12

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8N2546
Sampler Initials: SA

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Harry (Peng) Liang, Senior Analyst

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Your P.O. #: B8N2546
Your Project #: LEACHATE CELL
Site Location: MELIADINE
Your C.O.C. #: B8N2546-M058-01-01

Attention: Alisha Williamson

Agnico-Eagle
Meliadine
Rankin Inlet, NU
Canada X0C 0G0

Report Date: 2018/12/12
Report #: R2663177
Version: 2 - Revision

CERTIFICATE OF ANALYSIS – REVISED REPORT

MAXXAM JOB #: B878261

Received: 2018/09/11, 10:15

Sample Matrix: SURFACE WATER
Samples Received: 1

Analyses	Date		Laboratory Method	Analytical Method
	Quantity	Date Extracted		
Hardness Total (calculated as CaCO ₃) (1)	1	N/A	2018/09/17 BBY WI-00033	Auto Calc
Hardness (calculated as CaCO ₃)	1	N/A	2018/09/13 BBY WI-00033	Auto Calc
Elements by CRC ICPMS (dissolved)	1	N/A	2018/09/13 BBY7SOP-00002	EPA 6020b R2 m
Elements by CRC ICPMS (total)	1	2018/09/13	2018/09/14 BBY7SOP-00003 BBY7SOP-00002	EPA 6020b R2 m
Filter and HNO ₃ Preserve for Metals	1	N/A	2018/09/12 BBY7 WI-00004	BCMOE Reqs 08/14

Remarks:

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Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.

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Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

(1) "Total Hardness" was calculated from Total Ca and Mg concentrations and may be biased high (Hardness, or Dissolved Hardness, calculated from Dissolved Ca and Mg, should be used for compliance if available).

Your P.O. #: B8N2546
Your Project #: LEACHATE CELL
Site Location: MELIADINE
Your C.O.C. #: B8N2546-M058-01-01

Attention: Alisha Williamson

Agnico-Eagle
Meliadine
Rankin Inlet, NU
Canada X0C 0G0

Report Date: 2018/12/12
Report #: R2663177
Version: 2 - Revision

CERTIFICATE OF ANALYSIS – REVISED REPORT

MAXXAM JOB #: B878261

Received: 2018/09/11, 10:15

Encryption Key



Jennifer Villocero
Project Manager
12 Dec 2018 16:47:12

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Veronica De Guzman, B.Sc., Project Manager

Email: VDeGuzman@maxxam.ca

Phone# (604) 734 7276

=====

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Maxxam Job #: B878261
Report Date: 2018/12/12

Agnico-Eagle
Client Project #: LEACHATE CELL
Site Location: MELIADINE
Your P.O. #: B8N2546
Sampler Initials: SA

RESULTS OF CHEMICAL ANALYSES OF SURFACE WATER

Maxxam ID		UH2948		
Sampling Date		2018/09/04 13:30		
COC Number		B8N2546-M058-01-01		
	UNITS	MEL-13	RDL	QC Batch
Calculated Parameters				
Filter and HNO3 Preservation	N/A	FIELD	N/A	ONSITE
Dissolved Hardness (CaCO3)	mg/L	22.7	0.50	9138712
Total Hardness (CaCO3)	mg/L	25.2	0.50	9138710
RDL = Reportable Detection Limit				
N/A = Not Applicable				

Maxxam Job #: B878261
Report Date: 2018/12/12

Agnico-Eagle
Client Project #: LEACHATE CELL
Site Location: MELIADINE
Your P.O. #: B8N2546
Sampler Initials: SA

ELEMENTS BY ATOMIC SPECTROSCOPY (SURFACE WATER)

Maxxam ID		UH2948		
Sampling Date		2018/09/04 13:30		
COC Number		B8N2546-M058-01-01		
	UNITS	MEL-13	RDL	QC Batch
Dissolved Metals by ICPMS				
Dissolved Aluminum (Al)	mg/L	0.0060	0.0030	9140761
Dissolved Antimony (Sb)	mg/L	<0.00050	0.00050	9140761
Dissolved Arsenic (As)	mg/L	0.00034	0.00010	9140761
Dissolved Barium (Ba)	mg/L	0.0075	0.0010	9140761
Dissolved Beryllium (Be)	mg/L	<0.00010	0.00010	9140761
Dissolved Boron (B)	mg/L	<0.050	0.050	9140761
Dissolved Cadmium (Cd)	mg/L	<0.000010	0.000010	9140761
Dissolved Chromium (Cr)	mg/L	<0.0010	0.0010	9140761
Dissolved Copper (Cu)	mg/L	0.00073	0.00020	9140761
Dissolved Iron (Fe)	mg/L	0.0054	0.0050	9140761
Dissolved Lead (Pb)	mg/L	<0.00020	0.00020	9140761
Dissolved Lithium (Li)	mg/L	<0.0020	0.0020	9140761
Dissolved Manganese (Mn)	mg/L	<0.0010	0.0010	9140761
Dissolved Molybdenum (Mo)	mg/L	<0.0010	0.0010	9140761
Dissolved Nickel (Ni)	mg/L	<0.0010	0.0010	9140761
Dissolved Selenium (Se)	mg/L	<0.00010	0.00010	9140761
Dissolved Silver (Ag)	mg/L	<0.000020	0.000020	9140761
Dissolved Strontium (Sr)	mg/L	0.0471	0.0010	9140761
Dissolved Thallium (Tl)	mg/L	<0.000010	0.000010	9140761
Dissolved Tin (Sn)	mg/L	<0.0050	0.0050	9140761
Dissolved Titanium (Ti)	mg/L	<0.0050	0.0050	9140761
Dissolved Uranium (U)	mg/L	<0.00010	0.00010	9140761
Dissolved Vanadium (V)	mg/L	<0.0050	0.0050	9140761
Dissolved Zinc (Zn)	mg/L	<0.0050	0.0050	9140761
Dissolved Calcium (Ca)	mg/L	7.02	0.050	9140761
Dissolved Magnesium (Mg)	mg/L	1.25	0.050	9140761
Dissolved Potassium (K)	mg/L	0.902	0.050	9140761
Dissolved Sodium (Na)	mg/L	5.34	0.050	9140761
Total Metals by ICPMS				
Total Aluminum (Al)	mg/L	0.0083	0.0030	9141492
RDL = Reportable Detection Limit				

Maxxam Job #: B878261
Report Date: 2018/12/12

Agnico-Eagle
Client Project #: LEACHATE CELL
Site Location: MELIADINE
Your P.O. #: B8N2546
Sampler Initials: SA

ELEMENTS BY ATOMIC SPECTROSCOPY (SURFACE WATER)

Maxxam ID		UH2948		
Sampling Date		2018/09/04 13:30		
COC Number		B8N2546-M058-01-01		
	UNITS	MEL-13	RDL	QC Batch
Total Antimony (Sb)	mg/L	<0.00050	0.00050	9141492
Total Arsenic (As)	mg/L	0.00043	0.00010	9141492
Total Barium (Ba)	mg/L	0.0079	0.0010	9141492
Total Beryllium (Be)	mg/L	<0.00010	0.00010	9141492
Total Boron (B)	mg/L	<0.050	0.050	9141492
Total Cadmium (Cd)	mg/L	<0.000010	0.000010	9141492
Total Chromium (Cr)	mg/L	<0.0010	0.0010	9141492
Total Copper (Cu)	mg/L	0.00076	0.00050	9141492
Total Iron (Fe)	mg/L	0.019	0.010	9141492
Total Lead (Pb)	mg/L	<0.00020	0.00020	9141492
Total Lithium (Li)	mg/L	<0.0020	0.0020	9141492
Total Manganese (Mn)	mg/L	0.0045	0.0010	9141492
Total Molybdenum (Mo)	mg/L	<0.0010	0.0010	9141492
Total Nickel (Ni)	mg/L	<0.0010	0.0010	9141492
Total Selenium (Se)	mg/L	<0.00010	0.00010	9141492
Total Silver (Ag)	mg/L	<0.000020	0.000020	9141492
Total Strontium (Sr)	mg/L	0.0488	0.0010	9141492
Total Thallium (Tl)	mg/L	<0.000010	0.000010	9141492
Total Tin (Sn)	mg/L	<0.0050	0.0050	9141492
Total Titanium (Ti)	mg/L	<0.0050	0.0050	9141492
Total Uranium (U)	mg/L	<0.00010	0.00010	9141492
Total Vanadium (V)	mg/L	<0.0050	0.0050	9141492
Total Zinc (Zn)	mg/L	<0.0050	0.0050	9141492
Total Calcium (Ca)	mg/L	7.91	0.050	9141492
Total Magnesium (Mg)	mg/L	1.33	0.050	9141492
Total Potassium (K)	mg/L	0.974	0.050	9141492
Total Sodium (Na)	mg/L	5.52	0.050	9141492
RDL = Reportable Detection Limit				

Maxxam Job #: B878261
Report Date: 2018/12/12

Agnico-Eagle
Client Project #: LEACHATE CELL
Site Location: MELIADINE
Your P.O. #: B8N2546
Sampler Initials: SA

GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	3.7°C

Revised Report (2018/12/12): Client sample ID and GPS coordinates updated as per client request.

Sample UH2948 [MEL-13] : GPS coordinates: 63°01'44.6" 92°09'14.6"

Results relate only to the items tested.

Maxxam Job #: B878261
Report Date: 2018/12/12

Agnico-Eagle
Client Project #: LEACHATE CELL
Site Location: MELIADINE
Your P.O. #: B8N2546
Sampler Initials: SA

QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9140761	AA1	Matrix Spike	Dissolved Aluminum (Al)	2018/09/13		95	%	80 - 120
			Dissolved Antimony (Sb)	2018/09/13		96	%	80 - 120
			Dissolved Arsenic (As)	2018/09/13		101	%	80 - 120
			Dissolved Barium (Ba)	2018/09/13		NC	%	80 - 120
			Dissolved Beryllium (Be)	2018/09/13		90	%	80 - 120
			Dissolved Boron (B)	2018/09/13		89	%	80 - 120
			Dissolved Cadmium (Cd)	2018/09/13		96	%	80 - 120
			Dissolved Chromium (Cr)	2018/09/13		97	%	80 - 120
			Dissolved Copper (Cu)	2018/09/13		93	%	80 - 120
			Dissolved Iron (Fe)	2018/09/13		99	%	80 - 120
			Dissolved Lead (Pb)	2018/09/13		96	%	80 - 120
			Dissolved Lithium (Li)	2018/09/13		83	%	80 - 120
			Dissolved Manganese (Mn)	2018/09/13		NC	%	80 - 120
			Dissolved Molybdenum (Mo)	2018/09/13		NC	%	80 - 120
			Dissolved Nickel (Ni)	2018/09/13		95	%	80 - 120
			Dissolved Selenium (Se)	2018/09/13		97	%	80 - 120
			Dissolved Silver (Ag)	2018/09/13		95	%	80 - 120
			Dissolved Strontium (Sr)	2018/09/13		NC	%	80 - 120
			Dissolved Thallium (Tl)	2018/09/13		105	%	80 - 120
			Dissolved Tin (Sn)	2018/09/13		97	%	80 - 120
			Dissolved Titanium (Ti)	2018/09/13		100	%	80 - 120
			Dissolved Uranium (U)	2018/09/13		103	%	80 - 120
			Dissolved Vanadium (V)	2018/09/13		101	%	80 - 120
			Dissolved Zinc (Zn)	2018/09/13		94	%	80 - 120
			Dissolved Calcium (Ca)	2018/09/13		NC	%	80 - 120
			Dissolved Magnesium (Mg)	2018/09/13		NC	%	80 - 120
			Dissolved Potassium (K)	2018/09/13		97	%	80 - 120
			Dissolved Sodium (Na)	2018/09/13		NC	%	80 - 120
9140761	AA1	Spiked Blank	Dissolved Aluminum (Al)	2018/09/13		100	%	80 - 120
			Dissolved Antimony (Sb)	2018/09/13		100	%	80 - 120
			Dissolved Arsenic (As)	2018/09/13		101	%	80 - 120
			Dissolved Barium (Ba)	2018/09/13		102	%	80 - 120
			Dissolved Beryllium (Be)	2018/09/13		93	%	80 - 120
			Dissolved Boron (B)	2018/09/13		95	%	80 - 120
			Dissolved Cadmium (Cd)	2018/09/13		101	%	80 - 120
			Dissolved Chromium (Cr)	2018/09/13		101	%	80 - 120
			Dissolved Copper (Cu)	2018/09/13		101	%	80 - 120
			Dissolved Iron (Fe)	2018/09/13		106	%	80 - 120
			Dissolved Lead (Pb)	2018/09/13		101	%	80 - 120
			Dissolved Lithium (Li)	2018/09/13		97	%	80 - 120
			Dissolved Manganese (Mn)	2018/09/13		100	%	80 - 120
			Dissolved Molybdenum (Mo)	2018/09/13		104	%	80 - 120
			Dissolved Nickel (Ni)	2018/09/13		103	%	80 - 120
			Dissolved Selenium (Se)	2018/09/13		100	%	80 - 120
			Dissolved Silver (Ag)	2018/09/13		99	%	80 - 120
			Dissolved Strontium (Sr)	2018/09/13		103	%	80 - 120
			Dissolved Thallium (Tl)	2018/09/13		110	%	80 - 120
			Dissolved Tin (Sn)	2018/09/13		98	%	80 - 120
			Dissolved Titanium (Ti)	2018/09/13		101	%	80 - 120
			Dissolved Uranium (U)	2018/09/13		102	%	80 - 120
			Dissolved Vanadium (V)	2018/09/13		102	%	80 - 120

Maxxam Job #: B878261
Report Date: 2018/12/12

Agnico-Eagle
Client Project #: LEACHATE CELL
Site Location: MELIADINE
Your P.O. #: B8N2546
Sampler Initials: SA

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9140761	AA1	Method Blank	Dissolved Zinc (Zn)	2018/09/13		106	%	80 - 120
			Dissolved Calcium (Ca)	2018/09/13		100	%	80 - 120
			Dissolved Magnesium (Mg)	2018/09/13		98	%	80 - 120
			Dissolved Potassium (K)	2018/09/13		102	%	80 - 120
			Dissolved Sodium (Na)	2018/09/13		98	%	80 - 120
			Dissolved Aluminum (Al)	2018/09/13	<0.0030		mg/L	
			Dissolved Antimony (Sb)	2018/09/13	<0.00050		mg/L	
			Dissolved Arsenic (As)	2018/09/13	<0.00010		mg/L	
			Dissolved Barium (Ba)	2018/09/13	<0.0010		mg/L	
			Dissolved Beryllium (Be)	2018/09/13	<0.00010		mg/L	
			Dissolved Boron (B)	2018/09/13	<0.050		mg/L	
			Dissolved Cadmium (Cd)	2018/09/13	<0.000010		mg/L	
			Dissolved Chromium (Cr)	2018/09/13	<0.0010		mg/L	
			Dissolved Copper (Cu)	2018/09/13	<0.00020		mg/L	
			Dissolved Iron (Fe)	2018/09/13	<0.0050		mg/L	
			Dissolved Lead (Pb)	2018/09/13	<0.00020		mg/L	
			Dissolved Lithium (Li)	2018/09/13	<0.0020		mg/L	
			Dissolved Manganese (Mn)	2018/09/13	<0.0010		mg/L	
			Dissolved Molybdenum (Mo)	2018/09/13	<0.0010		mg/L	
			Dissolved Nickel (Ni)	2018/09/13	<0.0010		mg/L	
			Dissolved Selenium (Se)	2018/09/13	<0.00010		mg/L	
			Dissolved Silver (Ag)	2018/09/13	<0.000020		mg/L	
			Dissolved Strontium (Sr)	2018/09/13	<0.0010		mg/L	
			Dissolved Thallium (Tl)	2018/09/13	<0.000010		mg/L	
			Dissolved Tin (Sn)	2018/09/13	<0.0050		mg/L	
			Dissolved Titanium (Ti)	2018/09/13	<0.0050		mg/L	
			Dissolved Uranium (U)	2018/09/13	<0.00010		mg/L	
			Dissolved Vanadium (V)	2018/09/13	<0.0050		mg/L	
			Dissolved Zinc (Zn)	2018/09/13	<0.0050		mg/L	
			Dissolved Calcium (Ca)	2018/09/13	<0.050		mg/L	
			Dissolved Magnesium (Mg)	2018/09/13	<0.050		mg/L	
			Dissolved Potassium (K)	2018/09/13	<0.050		mg/L	
			Dissolved Sodium (Na)	2018/09/13	<0.050		mg/L	
9140761	AA1	RPD	Dissolved Aluminum (Al)	2018/09/13	0.85		%	20
			Dissolved Antimony (Sb)	2018/09/13	0.51		%	20
			Dissolved Arsenic (As)	2018/09/13	0.046		%	20
			Dissolved Barium (Ba)	2018/09/13	0.57		%	20
			Dissolved Beryllium (Be)	2018/09/13	NC		%	20
			Dissolved Boron (B)	2018/09/13	1.6		%	20
			Dissolved Cadmium (Cd)	2018/09/13	3.4		%	20
			Dissolved Chromium (Cr)	2018/09/13	1.1		%	20
			Dissolved Copper (Cu)	2018/09/13	4.5		%	20
			Dissolved Iron (Fe)	2018/09/13	NC		%	20
			Dissolved Lead (Pb)	2018/09/13	NC		%	20
			Dissolved Lithium (Li)	2018/09/13	0.48		%	20
			Dissolved Manganese (Mn)	2018/09/13	0.41		%	20
			Dissolved Molybdenum (Mo)	2018/09/13	2.1		%	20
			Dissolved Nickel (Ni)	2018/09/13	1.4		%	20
			Dissolved Selenium (Se)	2018/09/13	0.93		%	20
			Dissolved Silver (Ag)	2018/09/13	NC		%	20
			Dissolved Strontium (Sr)	2018/09/13	1.1		%	20

Maxxam Job #: B878261
Report Date: 2018/12/12

Agnico-Eagle
Client Project #: LEACHATE CELL
Site Location: MELIADINE
Your P.O. #: B8N2546
Sampler Initials: SA

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9141492	AA1	Matrix Spike	Dissolved Thallium (Tl)	2018/09/13	NC		%	20
			Dissolved Tin (Sn)	2018/09/13	NC		%	20
			Dissolved Titanium (Ti)	2018/09/13	NC		%	20
			Dissolved Uranium (U)	2018/09/13	1.4		%	20
			Dissolved Vanadium (V)	2018/09/13	NC		%	20
			Dissolved Zinc (Zn)	2018/09/13	NC		%	20
			Total Aluminum (Al)	2018/09/14		103	%	80 - 120
			Total Antimony (Sb)	2018/09/14		106	%	80 - 120
			Total Arsenic (As)	2018/09/14		112	%	80 - 120
			Total Barium (Ba)	2018/09/14		105	%	80 - 120
			Total Beryllium (Be)	2018/09/14		97	%	80 - 120
			Total Boron (B)	2018/09/14		99	%	80 - 120
			Total Cadmium (Cd)	2018/09/14		105	%	80 - 120
			Total Chromium (Cr)	2018/09/14		103	%	80 - 120
			Total Copper (Cu)	2018/09/14		101	%	80 - 120
			Total Iron (Fe)	2018/09/14		107	%	80 - 120
			Total Lead (Pb)	2018/09/14		104	%	80 - 120
			Total Lithium (Li)	2018/09/14		99	%	80 - 120
			Total Manganese (Mn)	2018/09/14		105	%	80 - 120
			Total Molybdenum (Mo)	2018/09/14		107	%	80 - 120
			Total Nickel (Ni)	2018/09/14		102	%	80 - 120
			Total Selenium (Se)	2018/09/14		108	%	80 - 120
			Total Silver (Ag)	2018/09/14		105	%	80 - 120
			Total Strontium (Sr)	2018/09/14		NC	%	80 - 120
			Total Thallium (Tl)	2018/09/14		111	%	80 - 120
			Total Tin (Sn)	2018/09/14		104	%	80 - 120
			Total Titanium (Ti)	2018/09/14		105	%	80 - 120
			Total Uranium (U)	2018/09/14		108	%	80 - 120
			Total Vanadium (V)	2018/09/14		105	%	80 - 120
			Total Zinc (Zn)	2018/09/14		104	%	80 - 120
			Total Calcium (Ca)	2018/09/14		NC	%	80 - 120
			Total Magnesium (Mg)	2018/09/14		101	%	80 - 120
			Total Potassium (K)	2018/09/14		106	%	80 - 120
			Total Sodium (Na)	2018/09/14		99	%	80 - 120
9141492	AA1	Spiked Blank	Total Aluminum (Al)	2018/09/14		102	%	80 - 120
			Total Antimony (Sb)	2018/09/14		104	%	80 - 120
			Total Arsenic (As)	2018/09/14		110	%	80 - 120
			Total Barium (Ba)	2018/09/14		105	%	80 - 120
			Total Beryllium (Be)	2018/09/14		95	%	80 - 120
			Total Boron (B)	2018/09/14		98	%	80 - 120
			Total Cadmium (Cd)	2018/09/14		105	%	80 - 120
			Total Chromium (Cr)	2018/09/14		103	%	80 - 120
			Total Copper (Cu)	2018/09/14		102	%	80 - 120
			Total Iron (Fe)	2018/09/14		107	%	80 - 120
			Total Lead (Pb)	2018/09/14		103	%	80 - 120
			Total Lithium (Li)	2018/09/14		99	%	80 - 120
			Total Manganese (Mn)	2018/09/14		105	%	80 - 120
			Total Molybdenum (Mo)	2018/09/14		103	%	80 - 120
			Total Nickel (Ni)	2018/09/14		103	%	80 - 120
			Total Selenium (Se)	2018/09/14		106	%	80 - 120
			Total Silver (Ag)	2018/09/14		105	%	80 - 120

Maxxam Job #: B878261
Report Date: 2018/12/12

Agnico-Eagle
Client Project #: LEACHATE CELL
Site Location: MELIADINE
Your P.O. #: B8N2546
Sampler Initials: SA

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9141492	AA1	Method Blank	Total Strontium (Sr)	2018/09/14		108	%	80 - 120
			Total Thallium (Tl)	2018/09/14		111	%	80 - 120
			Total Tin (Sn)	2018/09/14		101	%	80 - 120
			Total Titanium (Ti)	2018/09/14		107	%	80 - 120
			Total Uranium (U)	2018/09/14		107	%	80 - 120
			Total Vanadium (V)	2018/09/14		103	%	80 - 120
			Total Zinc (Zn)	2018/09/14		104	%	80 - 120
			Total Calcium (Ca)	2018/09/14		105	%	80 - 120
			Total Magnesium (Mg)	2018/09/14		100	%	80 - 120
			Total Potassium (K)	2018/09/14		105	%	80 - 120
			Total Sodium (Na)	2018/09/14		101	%	80 - 120
			Total Aluminum (Al)	2018/09/14	<0.0030		mg/L	
			Total Antimony (Sb)	2018/09/14	<0.00050		mg/L	
			Total Arsenic (As)	2018/09/14	<0.00010		mg/L	
			Total Barium (Ba)	2018/09/14	<0.0010		mg/L	
			Total Beryllium (Be)	2018/09/14	<0.00010		mg/L	
			Total Boron (B)	2018/09/14	<0.050		mg/L	
			Total Cadmium (Cd)	2018/09/14	<0.000010		mg/L	
			Total Chromium (Cr)	2018/09/14	<0.0010		mg/L	
			Total Copper (Cu)	2018/09/14	<0.00050		mg/L	
			Total Iron (Fe)	2018/09/14	<0.010		mg/L	
			Total Lead (Pb)	2018/09/14	<0.00020		mg/L	
			Total Lithium (Li)	2018/09/14	<0.0020		mg/L	
			Total Manganese (Mn)	2018/09/14	<0.0010		mg/L	
			Total Molybdenum (Mo)	2018/09/14	<0.0010		mg/L	
			Total Nickel (Ni)	2018/09/14	<0.0010		mg/L	
			Total Selenium (Se)	2018/09/14	<0.00010		mg/L	
			Total Silver (Ag)	2018/09/14	<0.000020		mg/L	
			Total Strontium (Sr)	2018/09/14	<0.0010		mg/L	
			Total Thallium (Tl)	2018/09/14	<0.000010		mg/L	
			Total Tin (Sn)	2018/09/14	<0.0050		mg/L	
			Total Titanium (Ti)	2018/09/14	<0.0050		mg/L	
			Total Uranium (U)	2018/09/14	<0.00010		mg/L	
			Total Vanadium (V)	2018/09/14	<0.0050		mg/L	
			Total Zinc (Zn)	2018/09/14	<0.0050		mg/L	
			Total Calcium (Ca)	2018/09/14	<0.050		mg/L	
			Total Magnesium (Mg)	2018/09/14	<0.050		mg/L	
			Total Potassium (K)	2018/09/14	<0.050		mg/L	
			Total Sodium (Na)	2018/09/14	<0.050		mg/L	
9141492	AA1	RPD	Total Aluminum (Al)	2018/09/14	0.018		%	20
			Total Antimony (Sb)	2018/09/14	NC		%	20
			Total Arsenic (As)	2018/09/14	4.8		%	20
			Total Barium (Ba)	2018/09/14	0.87		%	20
			Total Beryllium (Be)	2018/09/14	NC		%	20
			Total Boron (B)	2018/09/14	NC		%	20
			Total Cadmium (Cd)	2018/09/14	7.7		%	20
			Total Chromium (Cr)	2018/09/14	NC		%	20
			Total Copper (Cu)	2018/09/14	NC		%	20
			Total Iron (Fe)	2018/09/14	NC		%	20
			Total Lead (Pb)	2018/09/14	NC		%	20
			Total Lithium (Li)	2018/09/14	NC		%	20

Maxxam Job #: B878261
Report Date: 2018/12/12

Agnico-Eagle
Client Project #: LEACHATE CELL
Site Location: MELIADINE
Your P.O. #: B8N2546
Sampler Initials: SA

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Total Manganese (Mn)	2018/09/14	NC		%	20
			Total Molybdenum (Mo)	2018/09/14	NC		%	20
			Total Nickel (Ni)	2018/09/14	NC		%	20
			Total Selenium (Se)	2018/09/14	NC		%	20
			Total Silver (Ag)	2018/09/14	NC		%	20
			Total Strontium (Sr)	2018/09/14	1.3		%	20
			Total Thallium (Tl)	2018/09/14	NC		%	20
			Total Tin (Sn)	2018/09/14	NC		%	20
			Total Titanium (Ti)	2018/09/14	NC		%	20
			Total Uranium (U)	2018/09/14	NC		%	20
			Total Vanadium (V)	2018/09/14	NC		%	20
			Total Zinc (Zn)	2018/09/14	NC		%	20

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference $\leq 2 \times \text{RDL}$).

Maxxam Job #: B878261
Report Date: 2018/12/12

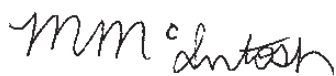
Agnico-Eagle
Client Project #: LEACHATE CELL
Site Location: MELIADINE
Your P.O. #: B8N2546
Sampler Initials: SA

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Andy Lu, Ph.D., P.Chem., Scientific Specialist



Melissa McIntosh, Project Manager

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Your P.O. #: OL-664695
Site#: 63°02'15.5" 92°13'06.3"
Site Location: MELIADINE
Your C.O.C. #: n/a

Attention: Reporting

Agnico-Eagle
Meliadine Mine
Rankin Inlet, NU
CANADA X0C 0G0

Report Date: 2018/12/19
Report #: R5532393
Version: 4 - Revision

CERTIFICATE OF ANALYSIS – REVISED REPORT

MAXXAM JOB #: B8N2551

Received: 2018/09/06, 11:00

Sample Matrix: Water
Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Alkalinity (1)	1	N/A	2018/09/10	CAM SOP-00448	SM 23 2320 B m
Carbonate, Bicarbonate and Hydroxide (1)	1	N/A	2018/09/10	CAM SOP-00102	APHA 4500-CO2 D
Chloride by Automated Colourimetry (1)	1	N/A	2018/09/10	CAM SOP-00463	EPA 325.2 m
Conductivity (1)	1	N/A	2018/09/10	CAM SOP-00414	SM 23 2510 m
Free (WAD) Cyanide (1)	1	N/A	2018/09/10	CAM SOP-00457	OMOE E3015 m
Total Cyanide (1)	1	2018/09/10	2018/09/10	CAM SOP-00457	OMOE E3015 5 m
Dissolved Organic Carbon (DOC) (1, 4)	1	N/A	2018/09/10	CAM SOP-00446	SM 23 5310 B m
Dissolved Oxygen (1)	1	2018/09/07	2018/09/07	CAM SOP-00427	SM 23 4500 O G m
Petroleum Hydro. CCME F1 & BTEX in Water (1)	1	N/A	2018/09/09	CAM SOP-00315	CCME PHC-CWS m
Petroleum Hydrocarbons F2-F4 in Water (1, 5)	1	2018/09/10	2018/09/10	CAM SOP-00316	CCME PHC-CWS m
Dissolved Mercury (low level) (1)	1	2018/09/11	2018/09/11	CAM SOP-00453	EPA 7470 m
Mercury (low level) (1)	1	2018/09/11	2018/09/11	CAM SOP-00453	EPA 7470 m
Total Ammonia-N (1)	1	N/A	2018/09/11	CAM SOP-00441	EPA GS I-2522-90 m
Nitrate (NO3) and Nitrite (NO2) in Water (1, 6)	1	N/A	2018/09/10	CAM SOP-00440	SM 23 4500-NO3I/NO2B
pH (1)	1	N/A	2018/09/10	CAM SOP-00413	SM 4500H+ B m
Orthophosphate (1)	1	N/A	2018/09/10	CAM SOP-00461	EPA 365.1 m
Radium-226 Low Level (2, 7)	1	N/A	2018/09/18	BQL SOP-00006 BQL SOP-00017 BQL SOP-00032	Alpha Spectrometry
Sulphate by Automated Colourimetry (1)	1	N/A	2018/09/10	CAM SOP-00464	EPA 375.4 m
Total Dissolved Solids (1)	1	2018/09/10	2018/09/10	CAM SOP-00428	SM 23 2540C m
Total Kjeldahl Nitrogen in Water (1)	1	2018/09/10	2018/09/12	CAM SOP-00938	OMOE E3516 m
Total Organic Carbon (TOC) (1, 8)	1	N/A	2018/09/11	CAM SOP-00446	SM 23 5310B m
Total Phosphorus (Colourimetric) (1)	1	2018/09/11	2018/09/11	CAM SOP-00407	SM 23 4500 P B H m
Low Level Total Suspended Solids (1)	1	2018/09/07	2018/09/08	CAM SOP-00428	SM 23 2540D m
Turbidity (1)	1	N/A	2018/09/10	CAM SOP-00417	SM 23 2130 B m
Hardness (calculated as CaCO3) (3)	1	N/A	2018/09/18	BBY WI-00033	Auto Calc

Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Maxxam's profession using

Your P.O. #: OL-664695
Site#: 63°02'15.5" 92°13'06.3"
Site Location: MELIADINE
Your C.O.C. #: n/a

Attention: Reporting

Agnico-Eagle
Meliadine Mine
Rankin Inlet, NU
CANADA X0C 0G0

Report Date: 2018/12/19
Report #: R5532393
Version: 4 - Revision

CERTIFICATE OF ANALYSIS – REVISED REPORT

MAXXAM JOB #: B8N2551

Received: 2018/09/06, 11:00

accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Maxxam in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.

Maxxam Analytics' liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Maxxam has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Maxxam, unless otherwise agreed in writing. Maxxam is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.

Results relate to samples tested. When sampling is not conducted by Maxxam, results relate to the supplied samples tested.

This Certificate shall not be reproduced except in full, without the written approval of the laboratory.

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

- (1) This test was performed by Maxxam Analytics Mississauga
- (2) This test was performed by Maxxam Analytics Kitimat
- (3) This test was performed by Campo to Burnaby Subcontract
- (4) Dissolved Organic Carbon (DOC) present in the sample should be considered as non-purgeable DOC.
- (5) All CCME PHC results met required criteria unless otherwise stated in the report. The CWS PHC methods employed by Maxxam conform to all prescribed elements of the reference method and performance based elements have been validated. All modifications have been validated and proven equivalent following "Alberta Environment's Interpretation of the Reference Method for the Canada-Wide Standard for Petroleum Hydrocarbons in Soil Validation of Performance-Based Alternative Methods September 2003". Documentation is available upon request. Modifications from Reference Method for the Canada-wide Standard for Petroleum Hydrocarbons in Soil-Tier 1 Method: F2/F3/F4 data reported using validated cold solvent extraction instead of Soxhlet extraction.
- (6) Values for calculated parameters may not appear to add up due to rounding of raw data and significant figures.
- (7) Radium-226 results have not been corrected for blanks.
- (8) Total Organic Carbon (TOC) present in the sample should be considered as non-purgeable TOC.

Encryption Key



Alisha Williamson
Project Manager
19 Dec 2018 15:50:08

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Alisha Williamson, Project Manager
Email: AWilliamson@maxxam.ca
Phone# (613) 274-0573

=====

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

CCME PETROLEUM HYDROCARBONS IN WATER (WATER)

Maxxam ID		HRK627		
Sampling Date		2018/09/03 07:50		
COC Number		n/a		
	UNITS	MEL-14	RDL	QC Batch
BTEX & F1 Hydrocarbons				
Benzene	ug/L	<0.20	0.20	5721232
Toluene	ug/L	<0.20	0.20	5721232
Ethylbenzene	ug/L	<0.20	0.20	5721232
o-Xylene	ug/L	<0.20	0.20	5721232
p+m-Xylene	ug/L	<0.40	0.40	5721232
Total Xylenes	ug/L	<0.40	0.40	5721232
F1 (C6-C10)	ug/L	<25	25	5721232
F1 (C6-C10) - BTEX	ug/L	<25	25	5721232
F2-F4 Hydrocarbons				
F2 (C10-C16 Hydrocarbons)	ug/L	<100	100	5722256
F3 (C16-C34 Hydrocarbons)	ug/L	<200	200	5722256
F4 (C34-C50 Hydrocarbons)	ug/L	<200	200	5722256
Reached Baseline at C50	ug/L	Yes		5722256
Surrogate Recovery (%)				
1,4-Difluorobenzene	%	100		5721232
4-Bromofluorobenzene	%	96		5721232
D10-Ethylbenzene	%	104		5721232
D4-1,2-Dichloroethane	%	109		5721232
o-Terphenyl	%	96		5722256
RDL = Reportable Detection Limit				
QC Batch = Quality Control Batch				

RESULTS OF ANALYSES OF WATER

Maxxam ID		HRK627		
Sampling Date		2018/09/03 07:50		
COC Number		n/a		
	UNITS	MEL-14	RDL	QC Batch
Calculated Parameters				
Bicarb. Alkalinity (calc. as CaCO ₃)	mg/L	15	1.0	5719975
Carb. Alkalinity (calc. as CaCO ₃)	mg/L	<1.0	1.0	5719975
Inorganics				
Total Ammonia-N	mg/L	0.91	0.050	5722904
Conductivity	umho/cm	2400	1.0	5720521
Total Dissolved Solids	mg/L	1360	10	5722803
Total Kjeldahl Nitrogen (TKN)	mg/L	1.3	0.20	5722944
Dissolved Organic Carbon	mg/L	7.0	0.50	5720262
Total Organic Carbon (TOC)	mg/L	9.1	0.50	5724690
Orthophosphate (P)	mg/L	<0.010	0.010	5721404
Dissolved Oxygen	mg/L	10.5		5720610
pH	pH	7.08		5720522
Total Phosphorus	mg/L	0.023	0.020	5724105
Total Suspended Solids	mg/L	14	2	5720686
Dissolved Sulphate (SO ₄)	mg/L	53	1.0	5721402
Total Cyanide (CN)	mg/L	<0.0050	0.0050	5722432
Turbidity	NTU	0.4	0.1	5720528
WAD Cyanide (Free)	mg/L	0.0010	0.0010	5722440
Alkalinity (Total as CaCO ₃)	mg/L	15	1.0	5720518
Dissolved Chloride (Cl ⁻)	mg/L	660	10	5721401
Nitrite (N)	mg/L	0.331	0.010	5721405
Nitrate (N)	mg/L	5.74	0.10	5721405
Nitrate + Nitrite (N)	mg/L	6.07	0.10	5721405
RADIONUCLIDE				
Radium-226	Bq/L	<0.0050	0.0050	5717205
RDL = Reportable Detection Limit				
QC Batch = Quality Control Batch				

Maxxam Job #: B8N2551
Report Date: 2018/12/19

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: OL-664695
Sampler Initials: SA

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		HRK627		
Sampling Date		2018/09/03 07:50		
COC Number		n/a		
	UNITS	MEL-14	RDL	QC Batch
Metals				
Mercury (Hg)	mg/L	<0.00001	0.00001	5724123
Dissolved Mercury (Hg)	mg/L	<0.00001	0.00001	5724569
RDL = Reportable Detection Limit				
QC Batch = Quality Control Batch				

Maxxam Job #: B8N2551
Report Date: 2018/12/19

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: OL-664695
Sampler Initials: SA

TEST SUMMARY

Maxxam ID: HRK627
Sample ID: MEL-14
Matrix: Water

Collected: 2018/09/03
Shipped:
Received: 2018/09/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	5720518	N/A	2018/09/10	Surinder Rai
Carbonate, Bicarbonate and Hydroxide	CALC	5719975	N/A	2018/09/10	Automated Statchk
Chloride by Automated Colourimetry	KONE	5721401	N/A	2018/09/10	Deonarine Ramnarine
Conductivity	AT	5720521	N/A	2018/09/10	Surinder Rai
Free (WAD) Cyanide	SKAL/CN	5722440	N/A	2018/09/10	Xuanhong Qiu
Total Cyanide	SKAL/CN	5722432	2018/09/10	2018/09/10	Xuanhong Qiu
Dissolved Organic Carbon (DOC)	TOCV/NDIR	5720262	N/A	2018/09/10	Nimarta Singh
Dissolved Oxygen	DO	5720610	2018/09/07	2018/09/07	Prakash Piya
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	5721232	N/A	2018/09/09	Abdikarim Ali
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	5722256	2018/09/10	2018/09/10	Atoosa Keshavarz
Dissolved Mercury (low level)	CV/AA	5724569	2018/09/11	2018/09/11	Ron Morrison
Mercury (low level)	CV/AA	5724123	2018/09/11	2018/09/11	Ron Morrison
Total Ammonia-N	LACH/NH4	5722904	N/A	2018/09/11	Parminder Sangha
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	5721405	N/A	2018/09/10	Charles Opoku-Ware
pH	AT	5720522	N/A	2018/09/10	Surinder Rai
Orthophosphate	KONE	5721404	N/A	2018/09/10	Alina Dobreanu
Radium-226 Low Level	AS	5717205	N/A	2018/09/18	Rajmeet Kaur
Sulphate by Automated Colourimetry	KONE	5721402	N/A	2018/09/10	Alina Dobreanu
Total Dissolved Solids	BAL	5722803	2018/09/10	2018/09/10	Jingwei (Alvin) Shi
Total Kjeldahl Nitrogen in Water	SKAL	5722944	2018/09/10	2018/09/12	Rajni Tyagi
Total Organic Carbon (TOC)	TOCV/NDIR	5724690	N/A	2018/09/11	Nimarta Singh
Total Phosphorus (Colourimetric)	LACH/P	5724105	2018/09/11	2018/09/11	Amanpreet Sappal
Low Level Total Suspended Solids	BAL	5720686	2018/09/07	2018/09/08	Mandeep Kaur
Turbidity	AT	5720528	N/A	2018/09/10	Tahir Anwar
Hardness (calculated as CaCO3)	CALC	5736820	N/A	2018/09/18	Tamsin Denison

GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	15.7°C

Revised Report (2018/12/18): Client sample ID changed to MEL-14 and GPS coordinates included per client request.

Sample HRK627 [MEL-14] : Total Cyanide < Free Cyanide: Both values fall within the method uncertainty for duplicates and are likely equivalent.

Results relate only to the items tested.

Maxxam Job #: B8N2551
Report Date: 2018/12/19

QUALITY ASSURANCE REPORT

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: OL-664695
Sampler Initials: SA

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
5721232	1,4-Difluorobenzene	2018/09/09	103	70 - 130	104	70 - 130	101	%				
5721232	4-Bromofluorobenzene	2018/09/09	99	70 - 130	100	70 - 130	99	%				
5721232	D10-Ethylbenzene	2018/09/09	107	70 - 130	105	70 - 130	103	%				
5721232	D4-1,2-Dichloroethane	2018/09/09	108	70 - 130	112	70 - 130	106	%				
5722256	o-Terphenyl	2018/09/10	98	60 - 130	97	60 - 130	94	%				
5717205	Radium-226	2018/09/18			90	85 - 115	<0.0050	Bq/L	NC	N/A		
5720262	Dissolved Organic Carbon	2018/09/10	96	80 - 120	98	80 - 120	<0.50	mg/L	1.7	20		
5720518	Alkalinity (Total as CaCO3)	2018/09/10			94	85 - 115	<1.0	mg/L	2.4	20		
5720521	Conductivity	2018/09/10			101	85 - 115	<1.0	umho/cm	3.5	25		
5720522	pH	2018/09/10			101	98 - 103			0.39	N/A		
5720528	Turbidity	2018/09/10			100	85 - 115	<0.1	NTU	0.44	20		
5720686	Total Suspended Solids	2018/09/08					<1	mg/L	7.7	25	95	85 - 115
5721232	Benzene	2018/09/09	93	70 - 130	89	70 - 130	<0.20	ug/L	NC	30		
5721232	Ethylbenzene	2018/09/09	93	70 - 130	89	70 - 130	<0.20	ug/L	NC	30		
5721232	F1 (C6-C10) - BTEX	2018/09/09					<25	ug/L	NC	30		
5721232	F1 (C6-C10)	2018/09/09	92	70 - 130	84	70 - 130	<25	ug/L	NC	30		
5721232	o-Xylene	2018/09/09	95	70 - 130	89	70 - 130	<0.20	ug/L	NC	30		
5721232	p+m-Xylene	2018/09/09	94	70 - 130	92	70 - 130	<0.40	ug/L	NC	30		
5721232	Toluene	2018/09/09	89	70 - 130	85	70 - 130	<0.20	ug/L	NC	30		
5721232	Total Xylenes	2018/09/09					<0.40	ug/L	NC	30		
5721401	Dissolved Chloride (Cl-)	2018/09/10	NC	80 - 120	104	80 - 120	<1.0	mg/L	0.82	20		
5721402	Dissolved Sulphate (SO4)	2018/09/10	NC	75 - 125	104	80 - 120	<1.0	mg/L	0.41	20		
5721404	Orthophosphate (P)	2018/09/10	NC	75 - 125	100	80 - 120	<0.010	mg/L	0.81	25		
5721405	Nitrate (N)	2018/09/10	NC	80 - 120	103	80 - 120	<0.10	mg/L	2.6	20		
5721405	Nitrite (N)	2018/09/10	101	80 - 120	103	80 - 120	<0.010	mg/L	0.26	20		
5722256	F2 (C10-C16 Hydrocarbons)	2018/09/10	101	50 - 130	95	60 - 130	<100	ug/L	NC	30		
5722256	F3 (C16-C34 Hydrocarbons)	2018/09/10	NC	50 - 130	92	60 - 130	<200	ug/L	NC	30		
5722256	F4 (C34-C50 Hydrocarbons)	2018/09/10	95	50 - 130	91	60 - 130	<200	ug/L	NC	30		
5722432	Total Cyanide (CN)	2018/09/10	NC	80 - 120	104	80 - 120	<0.0050	mg/L	2.2	20		
5722440	WAD Cyanide (Free)	2018/09/10	105	80 - 120	104	80 - 120	<0.0010	mg/L	11	20		
5722803	Total Dissolved Solids	2018/09/10					<10	mg/L	1.2	25	97	90 - 110

QUALITY ASSURANCE REPORT(CONT'D)

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: OL-664695
Sampler Initials: SA

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
5722904	Total Ammonia-N	2018/09/11	98	75 - 125	100	80 - 120	<0.050	mg/L	NC	20		
5722944	Total Kjeldahl Nitrogen (TKN)	2018/09/12	102	80 - 120	99	80 - 120	<0.10	mg/L	1.0	20	96	80 - 120
5724105	Total Phosphorus	2018/09/11	101	80 - 120	100	80 - 120	<0.020	mg/L	3.1	20	101	80 - 120
5724123	Mercury (Hg)	2018/09/11	95	75 - 125	98	80 - 120	<0.00001	mg/L	NC	20		
5724569	Dissolved Mercury (Hg)	2018/09/11	93	75 - 125	95	80 - 120	<0.00001	mg/L	NC	20		
5724690	Total Organic Carbon (TOC)	2018/09/11	98	80 - 120	99	80 - 120	<0.50	mg/L	0.14	20		

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference $\leq 2 \times \text{RDL}$).

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

Cristina Carriere

Cristina Carriere, Scientific Service Specialist

Kurt Headrick



Kurt Headrick, Ph.D., C. Chem., Laboratory Manager

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**Exceedence Summary Table – Metal Mining Effluent Reg
Result Exceedences**

Sample ID	Maxxam ID	Parameter	Criteria	Result	DL	Units
No Exceedences						
The exceedence summary table is for information purposes only and should not be considered a comprehensive listing or statement of conformance to applicable regulatory guidelines.						

Your P.O. #: B8N2551
Site Location: MELIADINE
Your C.O.C. #: 1 of 1

Attention: Alisha Williamson

Agnico-Eagle
Meliadine
Rankin Inlet, NU
Canada X0C 0G0

Report Date: 2018/09/17
Report #: R2620441
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B877822

Received: 2018/09/11, 09:53

Sample Matrix: Water
Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Silica (Reactive)	1	N/A	2018/09/17	AB SOP-00011	EPA 370.1 R1978 m

Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Maxxam's profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Maxxam in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.

Maxxam Analytics' liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Maxxam has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Maxxam, unless otherwise agreed in writing. Maxxam is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.

Results relate to samples tested. When sampling is not conducted by Maxxam, results relate to the supplied samples tested.

This Certificate shall not be reproduced except in full, without the written approval of the laboratory.

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Your P.O. #: B8N2551
Site Location: MELIADINE
Your C.O.C. #: 1 of 1

Attention: Alisha Williamson

Agnico-Eagle
Meliadine
Rankin Inlet, NU
Canada X0C 0G0

Report Date: 2018/09/17
Report #: R2620441
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B877822

Received: 2018/09/11, 09:53

Encryption Key



Maxxam

17 Sep 2018 17:01:09

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Omran Desouki, Junior Project Manager

Email: ODesouki@maxxam.ca

Phone# (403) 291-3077

=====

This report has been generated and distributed using a secure automated process.

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Maxxam Job #: B877822
Report Date: 2018/09/17

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8N2551
Sampler Initials: SA

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		UH0488		
Sampling Date		2018/09/03 07:50		
COC Number		1 of 1		
	UNITS	MEL-14 (MDMER AND EEM)	RDL	QC Batch
Misc. Inorganics				
Reactive Silica	mg/L	1.2	0.050	9146428
RDL = Reportable Detection Limit				

Maxxam Job #: B877822
Report Date: 2018/09/17

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8N2551
Sampler Initials: SA

TEST SUMMARY

Maxxam ID: UH0488
Sample ID: MEL-14 (MDMER AND EEM)
Matrix: Water

Collected: 2018/09/03
Shipped: 2018/09/10
Received: 2018/09/11

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Silica (Reactive)	KONE/SL	9146428	N/A	2018/09/17	Zafar Iqbal

Maxxam Job #: B877822
Report Date: 2018/09/17

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8N2551
Sampler Initials: SA

GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	4.3°C

Results relate only to the items tested.

QUALITY ASSURANCE REPORT

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8N2551
Sampler Initials: SA

QC Batch	Parameter	Date	Matrix Spike		Spiked Blank		Method Blank		RPD	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9146428	Reactive Silica	2018/09/17	104	80 - 120	100	80 - 120	<0.050	mg/L	2.4	20
Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.										
Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.										
Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.										
Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.										

Maxxam Job #: B877822
Report Date: 2018/09/17

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8N2551
Sampler Initials: SA

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Harry (Peng) Liang, Senior Analyst

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Your P.O. #: B8N2551
Your Project #: LEACHATE CELL
Site Location: MELIADINE
Your C.O.C. #: B8N2551-M058-01-01

Attention: Alisha Williamson

Agnico-Eagle
Meliadine
Rankin Inlet, NU
Canada X0C 0G0

Report Date: 2018/09/17
Report #: R2619964
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B878278

Received: 2018/09/11, 10:16

Sample Matrix: SURFACE WATER
Samples Received: 1

Analyses	Date		Laboratory Method	Analytical Method
	Quantity	Extracted		
Hardness Total (calculated as CaCO ₃) (1)	1	N/A	2018/09/17 BBY WI-00033	Auto Calc
Hardness (calculated as CaCO ₃)	1	N/A	2018/09/14 BBY WI-00033	Auto Calc
Elements by CRC ICPMS (dissolved)	1	N/A	2018/09/13 BBY7SOP-00002	EPA 6020b R2 m
Elements by CRC ICPMS (total)	1	2018/09/13	2018/09/14 BBY7SOP-00003,	EPA 6020b R2 m
Filter and HNO ₃ Preserve for Metals	1	N/A	2018/09/12 BBY7 WI-00004	BCMOE Reqs 08/14

Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Maxxam's profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Maxxam in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.

Maxxam Analytics' liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Maxxam has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Maxxam, unless otherwise agreed in writing. Maxxam is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.

Results relate to samples tested. When sampling is not conducted by Maxxam, results relate to the supplied samples tested.

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Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

(1) "Total Hardness" was calculated from Total Ca and Mg concentrations and may be biased high (Hardness, or Dissolved Hardness, calculated from Dissolved Ca and Mg, should be used for compliance if available).

Attention: Alisha Williamson

Agnico-Eagle
Meliadine
Rankin Inlet, NU
Canada X0C 0G0

Your P.O. #: B8N2551
Your Project #: LEACHATE CELL
Site Location: MELIADINE
Your C.O.C. #: B8N2551-M058-01-01

Report Date: 2018/09/17
Report #: R2619964
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B878278

Received: 2018/09/11, 10:16

Encryption Key



Veronica De Guzman
Project Manager
17 Sep 2018 17:14:49

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Veronica De Guzman, B.Sc., Project Manager

Email: VDeGuzman@maxxam.ca

Phone# (604) 734 7276

=====

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam Job #: B878278
Report Date: 2018/09/17

Agnico-Eagle
Client Project #: LEACHATE CELL
Site Location: MELIADINE
Your P.O. #: B8N2551

RESULTS OF CHEMICAL ANALYSES OF SURFACE WATER

Maxxam ID		UH3034		
Sampling Date		2018/09/03 07:50		
COC Number		B8N2551-M058-01-01		
	UNITS	MEL-14 (MDMER AND EEM)	RDL	QC Batch
Calculated Parameters				
Filter and HNO3 Preservation	N/A	FIELD	N/A	ONSITE
Dissolved Hardness (CaCO3)	mg/L	510	0.50	9140358
Total Hardness (CaCO3)	mg/L	544	0.50	9140354
RDL = Reportable Detection Limit				
N/A = Not Applicable				

Maxxam Job #: B878278
Report Date: 2018/09/17

Agnico-Eagle
Client Project #: LEACHATE CELL
Site Location: MELIADINE
Your P.O. #: B8N2551

ELEMENTS BY ATOMIC SPECTROSCOPY (SURFACE WATER)

Maxxam ID		UH3034		
Sampling Date		2018/09/03 07:50		
COC Number		B8N2551-M058-01-01		
	UNITS	MEL-14 (MDMER AND EEM)	RDL	QC Batch
Dissolved Metals by ICPMS				
Dissolved Aluminum (Al)	mg/L	0.0233	0.0030	9141253
Dissolved Antimony (Sb)	mg/L	<0.00050	0.00050	9141253
Dissolved Arsenic (As)	mg/L	0.00202	0.00010	9141253
Dissolved Barium (Ba)	mg/L	0.141	0.0010	9141253
Dissolved Beryllium (Be)	mg/L	<0.00010	0.00010	9141253
Dissolved Bismuth (Bi)	mg/L	<0.0010	0.0010	9141253
Dissolved Boron (B)	mg/L	0.317	0.050	9141253
Dissolved Cadmium (Cd)	mg/L	<0.000010	0.000010	9141253
Dissolved Chromium (Cr)	mg/L	<0.0010	0.0010	9141253
Dissolved Cobalt (Co)	mg/L	0.00058	0.00020	9141253
Dissolved Copper (Cu)	mg/L	0.00050	0.00020	9141253
Dissolved Iron (Fe)	mg/L	0.0414	0.0050	9141253
Dissolved Lead (Pb)	mg/L	<0.00020	0.00020	9141253
Dissolved Lithium (Li)	mg/L	0.158	0.0020	9141253
Dissolved Manganese (Mn)	mg/L	0.209	0.0010	9141253
Dissolved Molybdenum (Mo)	mg/L	0.0013	0.0010	9141253
Dissolved Nickel (Ni)	mg/L	0.0023	0.0010	9141253
Dissolved Selenium (Se)	mg/L	<0.00010	0.00010	9141253
Dissolved Silicon (Si)	mg/L	0.59	0.10	9141253
Dissolved Silver (Ag)	mg/L	<0.000020	0.000020	9141253
Dissolved Strontium (Sr)	mg/L	3.31	0.0010	9141253
Dissolved Thallium (Tl)	mg/L	0.000016	0.000010	9141253
Dissolved Tin (Sn)	mg/L	<0.0050	0.0050	9141253
Dissolved Titanium (Ti)	mg/L	<0.0050	0.0050	9141253
Dissolved Uranium (U)	mg/L	<0.00010	0.00010	9141253
Dissolved Vanadium (V)	mg/L	<0.0050	0.0050	9141253
Dissolved Zinc (Zn)	mg/L	<0.0050	0.0050	9141253
Dissolved Zirconium (Zr)	mg/L	<0.00010	0.00010	9141253
Dissolved Calcium (Ca)	mg/L	156	0.050	9141253
Dissolved Magnesium (Mg)	mg/L	29.1	0.050	9141253
RDL = Reportable Detection Limit				

Maxxam Job #: B878278
Report Date: 2018/09/17

Agnico-Eagle
Client Project #: LEACHATE CELL
Site Location: MELIADINE
Your P.O. #: B8N2551

ELEMENTS BY ATOMIC SPECTROSCOPY (SURFACE WATER)

Maxxam ID		UH3034		
Sampling Date		2018/09/03 07:50		
COC Number		B8N2551-M058-01-01		
	UNITS	MEL-14 (MDMER AND EEM)	RDL	QC Batch
Dissolved Potassium (K)	mg/L	17.4	0.050	9141253
Dissolved Sodium (Na)	mg/L	189	0.050	9141253
Total Metals by ICPMS				
Total Aluminum (Al)	mg/L	1.32	0.0030	9141492
Total Antimony (Sb)	mg/L	<0.00050	0.00050	9141492
Total Arsenic (As)	mg/L	0.00237	0.00010	9141492
Total Barium (Ba)	mg/L	0.150	0.0010	9141492
Total Beryllium (Be)	mg/L	<0.00010	0.00010	9141492
Total Bismuth (Bi)	mg/L	<0.0010	0.0010	9141492
Total Boron (B)	mg/L	0.325	0.050	9141492
Total Cadmium (Cd)	mg/L	<0.000010	0.000010	9141492
Total Chromium (Cr)	mg/L	<0.0010	0.0010	9141492
Total Cobalt (Co)	mg/L	0.00066	0.00020	9141492
Total Copper (Cu)	mg/L	0.00062	0.00050	9141492
Total Iron (Fe)	mg/L	0.153	0.010	9141492
Total Lead (Pb)	mg/L	<0.00020	0.00020	9141492
Total Lithium (Li)	mg/L	0.157	0.0020	9141492
Total Manganese (Mn)	mg/L	0.253	0.0010	9141492
Total Molybdenum (Mo)	mg/L	0.0014	0.0010	9141492
Total Nickel (Ni)	mg/L	0.0027	0.0010	9141492
Total Selenium (Se)	mg/L	<0.00010	0.00010	9141492
Total Silicon (Si)	mg/L	0.65	0.10	9141492
Total Silver (Ag)	mg/L	<0.000020	0.000020	9141492
Total Strontium (Sr)	mg/L	4.06	0.0010	9141492
Total Thallium (Tl)	mg/L	0.000015	0.000010	9141492
Total Tin (Sn)	mg/L	<0.0050	0.0050	9141492
Total Titanium (Ti)	mg/L	<0.0050	0.0050	9141492
Total Uranium (U)	mg/L	0.00013	0.00010	9141492
Total Vanadium (V)	mg/L	<0.0050	0.0050	9141492
Total Zinc (Zn)	mg/L	<0.0050	0.0050	9141492
Total Zirconium (Zr)	mg/L	<0.00010	0.00010	9141492
RDL = Reportable Detection Limit				

Maxxam Job #: B878278
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Agnico-Eagle
Client Project #: LEACHATE CELL
Site Location: MELIADINE
Your P.O. #: B8N2551

ELEMENTS BY ATOMIC SPECTROSCOPY (SURFACE WATER)

Maxxam ID		UH3034		
Sampling Date		2018/09/03 07:50		
COC Number		B8N2551-M058-01-01		
	UNITS	MEL-14 (MDMER AND EEM)	RDL	QC Batch
Total Calcium (Ca)	mg/L	168	0.050	9141492
Total Magnesium (Mg)	mg/L	30.2	0.050	9141492
Total Potassium (K)	mg/L	18.5	0.050	9141492
Total Sodium (Na)	mg/L	194	0.050	9141492
RDL = Reportable Detection Limit				

Maxxam Job #: B878278
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Agnico-Eagle
Client Project #: LEACHATE CELL
Site Location: MELIADINE
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GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	3.7°C

Results relate only to the items tested.

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Agnico-Eagle
Client Project #: LEACHATE CELL
Site Location: MELIADINE
Your P.O. #: B8N2551

QUALITY ASSURANCE REPORT

QA/QC	Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9141253	JC8	Matrix Spike		Dissolved Aluminum (Al)	2018/09/13		92	%	80 - 120
				Dissolved Antimony (Sb)	2018/09/13		98	%	80 - 120
				Dissolved Arsenic (As)	2018/09/13		106	%	80 - 120
				Dissolved Barium (Ba)	2018/09/13		98	%	80 - 120
				Dissolved Beryllium (Be)	2018/09/13		94	%	80 - 120
				Dissolved Bismuth (Bi)	2018/09/13		94	%	80 - 120
				Dissolved Boron (B)	2018/09/13		92	%	80 - 120
				Dissolved Cadmium (Cd)	2018/09/13		96	%	80 - 120
				Dissolved Chromium (Cr)	2018/09/13		97	%	80 - 120
				Dissolved Cobalt (Co)	2018/09/13		96	%	80 - 120
				Dissolved Copper (Cu)	2018/09/13		97	%	80 - 120
				Dissolved Iron (Fe)	2018/09/13		100	%	80 - 120
				Dissolved Lead (Pb)	2018/09/13		95	%	80 - 120
				Dissolved Lithium (Li)	2018/09/13		93	%	80 - 120
				Dissolved Manganese (Mn)	2018/09/13		96	%	80 - 120
				Dissolved Molybdenum (Mo)	2018/09/13		97	%	80 - 120
				Dissolved Nickel (Ni)	2018/09/13		95	%	80 - 120
				Dissolved Selenium (Se)	2018/09/13		99	%	80 - 120
				Dissolved Silicon (Si)	2018/09/13		104	%	80 - 120
				Dissolved Silver (Ag)	2018/09/13		94	%	80 - 120
				Dissolved Strontium (Sr)	2018/09/13		NC	%	80 - 120
				Dissolved Thallium (Tl)	2018/09/13		95	%	80 - 120
				Dissolved Tin (Sn)	2018/09/13		96	%	80 - 120
				Dissolved Titanium (Ti)	2018/09/13		102	%	80 - 120
				Dissolved Uranium (U)	2018/09/13		95	%	80 - 120
				Dissolved Vanadium (V)	2018/09/13		98	%	80 - 120
				Dissolved Zinc (Zn)	2018/09/13		98	%	80 - 120
				Dissolved Zirconium (Zr)	2018/09/13		91	%	80 - 120
				Dissolved Calcium (Ca)	2018/09/13		NC	%	80 - 120
				Dissolved Magnesium (Mg)	2018/09/13		103	%	80 - 120
				Dissolved Potassium (K)	2018/09/13		98	%	80 - 120
				Dissolved Sodium (Na)	2018/09/13		104	%	80 - 120
9141253	JC8	Spiked Blank		Dissolved Aluminum (Al)	2018/09/13		95	%	80 - 120
				Dissolved Antimony (Sb)	2018/09/13		99	%	80 - 120
				Dissolved Arsenic (As)	2018/09/13		106	%	80 - 120
				Dissolved Barium (Ba)	2018/09/13		96	%	80 - 120
				Dissolved Beryllium (Be)	2018/09/13		95	%	80 - 120
				Dissolved Bismuth (Bi)	2018/09/13		100	%	80 - 120
				Dissolved Boron (B)	2018/09/13		87	%	80 - 120
				Dissolved Cadmium (Cd)	2018/09/13		96	%	80 - 120
				Dissolved Chromium (Cr)	2018/09/13		97	%	80 - 120
				Dissolved Cobalt (Co)	2018/09/13		97	%	80 - 120
				Dissolved Copper (Cu)	2018/09/13		96	%	80 - 120
				Dissolved Iron (Fe)	2018/09/13		98	%	80 - 120
				Dissolved Lead (Pb)	2018/09/13		100	%	80 - 120
				Dissolved Lithium (Li)	2018/09/13		95	%	80 - 120
				Dissolved Manganese (Mn)	2018/09/13		97	%	80 - 120
				Dissolved Molybdenum (Mo)	2018/09/13		94	%	80 - 120
				Dissolved Nickel (Ni)	2018/09/13		97	%	80 - 120
				Dissolved Selenium (Se)	2018/09/13		96	%	80 - 120
				Dissolved Silicon (Si)	2018/09/13		106	%	80 - 120
				Dissolved Silver (Ag)	2018/09/13		96	%	80 - 120

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Agnico-Eagle
Client Project #: LEACHATE CELL
Site Location: MELIADINE
Your P.O. #: B8N2551

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9141253	JC8	Method Blank	Dissolved Strontium (Sr)	2018/09/13		96	%	80 - 120
			Dissolved Thallium (Tl)	2018/09/13		100	%	80 - 120
			Dissolved Tin (Sn)	2018/09/13		97	%	80 - 120
			Dissolved Titanium (Ti)	2018/09/13		104	%	80 - 120
			Dissolved Uranium (U)	2018/09/13		100	%	80 - 120
			Dissolved Vanadium (V)	2018/09/13		98	%	80 - 120
			Dissolved Zinc (Zn)	2018/09/13		98	%	80 - 120
			Dissolved Zirconium (Zr)	2018/09/13		94	%	80 - 120
			Dissolved Calcium (Ca)	2018/09/13		101	%	80 - 120
			Dissolved Magnesium (Mg)	2018/09/13		101	%	80 - 120
			Dissolved Potassium (K)	2018/09/13		101	%	80 - 120
			Dissolved Sodium (Na)	2018/09/13		99	%	80 - 120
			Dissolved Aluminum (Al)	2018/09/13	<0.0030		mg/L	
			Dissolved Antimony (Sb)	2018/09/13	<0.00050		mg/L	
			Dissolved Arsenic (As)	2018/09/13	<0.00010		mg/L	
			Dissolved Barium (Ba)	2018/09/13	<0.0010		mg/L	
			Dissolved Beryllium (Be)	2018/09/13	<0.00010		mg/L	
			Dissolved Bismuth (Bi)	2018/09/13	<0.0010		mg/L	
			Dissolved Boron (B)	2018/09/13	<0.050		mg/L	
			Dissolved Cadmium (Cd)	2018/09/13	<0.000010		mg/L	
			Dissolved Chromium (Cr)	2018/09/13	<0.0010		mg/L	
			Dissolved Cobalt (Co)	2018/09/13	<0.00020		mg/L	
			Dissolved Copper (Cu)	2018/09/13	<0.00020		mg/L	
			Dissolved Iron (Fe)	2018/09/13	<0.0050		mg/L	
			Dissolved Lead (Pb)	2018/09/13	<0.00020		mg/L	
			Dissolved Lithium (Li)	2018/09/13	<0.0020		mg/L	
			Dissolved Manganese (Mn)	2018/09/13	<0.0010		mg/L	
			Dissolved Molybdenum (Mo)	2018/09/13	<0.0010		mg/L	
			Dissolved Nickel (Ni)	2018/09/13	<0.0010		mg/L	
			Dissolved Selenium (Se)	2018/09/13	<0.00010		mg/L	
			Dissolved Silicon (Si)	2018/09/13	<0.10		mg/L	
			Dissolved Silver (Ag)	2018/09/13	<0.000020		mg/L	
			Dissolved Strontium (Sr)	2018/09/13	<0.0010		mg/L	
			Dissolved Thallium (Tl)	2018/09/13	<0.000010		mg/L	
			Dissolved Tin (Sn)	2018/09/13	<0.0050		mg/L	
			Dissolved Titanium (Ti)	2018/09/13	<0.0050		mg/L	
			Dissolved Uranium (U)	2018/09/13	<0.00010		mg/L	
			Dissolved Vanadium (V)	2018/09/13	<0.0050		mg/L	
			Dissolved Zinc (Zn)	2018/09/13	<0.0050		mg/L	
			Dissolved Zirconium (Zr)	2018/09/13	<0.00010		mg/L	
			Dissolved Calcium (Ca)	2018/09/13	<0.050		mg/L	
			Dissolved Magnesium (Mg)	2018/09/13	<0.050		mg/L	
			Dissolved Potassium (K)	2018/09/13	<0.050		mg/L	
			Dissolved Sodium (Na)	2018/09/13	<0.050		mg/L	
9141253	JC8	RPD	Dissolved Aluminum (Al)	2018/09/13	1.2		%	20
			Dissolved Antimony (Sb)	2018/09/13	NC		%	20
			Dissolved Arsenic (As)	2018/09/13	15		%	20
			Dissolved Barium (Ba)	2018/09/13	2.6		%	20
			Dissolved Beryllium (Be)	2018/09/13	NC		%	20
			Dissolved Bismuth (Bi)	2018/09/13	NC		%	20
			Dissolved Boron (B)	2018/09/13	NC		%	20
			Dissolved Cadmium (Cd)	2018/09/13	NC		%	20

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Agnico-Eagle
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Site Location: MELIADINE
Your P.O. #: B8N2551

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9141492	AA1	Matrix Spike	Dissolved Chromium (Cr)	2018/09/13	NC		%	20
			Dissolved Cobalt (Co)	2018/09/13	NC		%	20
			Dissolved Copper (Cu)	2018/09/13	5.4		%	20
			Dissolved Iron (Fe)	2018/09/13	NC		%	20
			Dissolved Lead (Pb)	2018/09/13	NC		%	20
			Dissolved Lithium (Li)	2018/09/13	NC		%	20
			Dissolved Manganese (Mn)	2018/09/13	NC		%	20
			Dissolved Molybdenum (Mo)	2018/09/13	NC		%	20
			Dissolved Nickel (Ni)	2018/09/13	NC		%	20
			Dissolved Selenium (Se)	2018/09/13	NC		%	20
			Dissolved Silicon (Si)	2018/09/13	1.1		%	20
			Dissolved Silver (Ag)	2018/09/13	NC		%	20
			Dissolved Strontium (Sr)	2018/09/13	2.9		%	20
			Dissolved Thallium (Tl)	2018/09/13	NC		%	20
			Dissolved Tin (Sn)	2018/09/13	NC		%	20
			Dissolved Titanium (Ti)	2018/09/13	NC		%	20
			Dissolved Uranium (U)	2018/09/13	NC		%	20
			Dissolved Vanadium (V)	2018/09/13	NC		%	20
			Dissolved Zinc (Zn)	2018/09/13	NC		%	20
			Dissolved Zirconium (Zr)	2018/09/13	NC		%	20
			Total Aluminum (Al)	2018/09/14		103	%	80 - 120
			Total Antimony (Sb)	2018/09/14		106	%	80 - 120
			Total Arsenic (As)	2018/09/14		112	%	80 - 120
			Total Barium (Ba)	2018/09/14		105	%	80 - 120
			Total Beryllium (Be)	2018/09/14		97	%	80 - 120
			Total Bismuth (Bi)	2018/09/14		105	%	80 - 120
			Total Boron (B)	2018/09/14		99	%	80 - 120
			Total Cadmium (Cd)	2018/09/14		105	%	80 - 120
			Total Chromium (Cr)	2018/09/14		103	%	80 - 120
			Total Cobalt (Co)	2018/09/14		101	%	80 - 120
			Total Copper (Cu)	2018/09/14		101	%	80 - 120
			Total Iron (Fe)	2018/09/14		107	%	80 - 120
			Total Lead (Pb)	2018/09/14		104	%	80 - 120
			Total Lithium (Li)	2018/09/14		99	%	80 - 120
			Total Manganese (Mn)	2018/09/14		105	%	80 - 120
			Total Molybdenum (Mo)	2018/09/14		107	%	80 - 120
			Total Nickel (Ni)	2018/09/14		102	%	80 - 120
			Total Selenium (Se)	2018/09/14		108	%	80 - 120
			Total Silicon (Si)	2018/09/14		101	%	80 - 120
			Total Silver (Ag)	2018/09/14		105	%	80 - 120
			Total Strontium (Sr)	2018/09/14		NC	%	80 - 120
			Total Thallium (Tl)	2018/09/14		111	%	80 - 120
			Total Tin (Sn)	2018/09/14		104	%	80 - 120
			Total Titanium (Ti)	2018/09/14		105	%	80 - 120
			Total Uranium (U)	2018/09/14		108	%	80 - 120
			Total Vanadium (V)	2018/09/14		105	%	80 - 120
			Total Zinc (Zn)	2018/09/14		104	%	80 - 120
			Total Zirconium (Zr)	2018/09/14		108	%	80 - 120
			Total Calcium (Ca)	2018/09/14		NC	%	80 - 120
			Total Magnesium (Mg)	2018/09/14		101	%	80 - 120
			Total Potassium (K)	2018/09/14		106	%	80 - 120
			Total Sodium (Na)	2018/09/14		99	%	80 - 120

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Site Location: MELIADINE
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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9141492	AA1	Spiked Blank	Total Aluminum (Al)	2018/09/14		102	%	80 - 120
			Total Antimony (Sb)	2018/09/14		104	%	80 - 120
			Total Arsenic (As)	2018/09/14		110	%	80 - 120
			Total Barium (Ba)	2018/09/14		105	%	80 - 120
			Total Beryllium (Be)	2018/09/14		95	%	80 - 120
			Total Bismuth (Bi)	2018/09/14		106	%	80 - 120
			Total Boron (B)	2018/09/14		98	%	80 - 120
			Total Cadmium (Cd)	2018/09/14		105	%	80 - 120
			Total Chromium (Cr)	2018/09/14		103	%	80 - 120
			Total Cobalt (Co)	2018/09/14		101	%	80 - 120
			Total Copper (Cu)	2018/09/14		102	%	80 - 120
			Total Iron (Fe)	2018/09/14		107	%	80 - 120
			Total Lead (Pb)	2018/09/14		103	%	80 - 120
			Total Lithium (Li)	2018/09/14		99	%	80 - 120
			Total Manganese (Mn)	2018/09/14		105	%	80 - 120
			Total Molybdenum (Mo)	2018/09/14		103	%	80 - 120
			Total Nickel (Ni)	2018/09/14		103	%	80 - 120
			Total Selenium (Se)	2018/09/14		106	%	80 - 120
			Total Silicon (Si)	2018/09/14		107	%	80 - 120
			Total Silver (Ag)	2018/09/14		105	%	80 - 120
			Total Strontium (Sr)	2018/09/14		108	%	80 - 120
			Total Thallium (Tl)	2018/09/14		111	%	80 - 120
			Total Tin (Sn)	2018/09/14		101	%	80 - 120
			Total Titanium (Ti)	2018/09/14		107	%	80 - 120
			Total Uranium (U)	2018/09/14		107	%	80 - 120
			Total Vanadium (V)	2018/09/14		103	%	80 - 120
			Total Zinc (Zn)	2018/09/14		104	%	80 - 120
			Total Zirconium (Zr)	2018/09/14		105	%	80 - 120
			Total Calcium (Ca)	2018/09/14		105	%	80 - 120
			Total Magnesium (Mg)	2018/09/14		100	%	80 - 120
			Total Potassium (K)	2018/09/14		105	%	80 - 120
			Total Sodium (Na)	2018/09/14		101	%	80 - 120
9141492	AA1	Method Blank	Total Aluminum (Al)	2018/09/14	<0.0030		mg/L	
			Total Antimony (Sb)	2018/09/14	<0.00050		mg/L	
			Total Arsenic (As)	2018/09/14	<0.00010		mg/L	
			Total Barium (Ba)	2018/09/14	<0.0010		mg/L	
			Total Beryllium (Be)	2018/09/14	<0.00010		mg/L	
			Total Bismuth (Bi)	2018/09/14	<0.0010		mg/L	
			Total Boron (B)	2018/09/14	<0.050		mg/L	
			Total Cadmium (Cd)	2018/09/14	<0.000010		mg/L	
			Total Chromium (Cr)	2018/09/14	<0.0010		mg/L	
			Total Cobalt (Co)	2018/09/14	<0.00020		mg/L	
			Total Copper (Cu)	2018/09/14	<0.00050		mg/L	
			Total Iron (Fe)	2018/09/14	<0.010		mg/L	
			Total Lead (Pb)	2018/09/14	<0.00020		mg/L	
			Total Lithium (Li)	2018/09/14	<0.0020		mg/L	
			Total Manganese (Mn)	2018/09/14	<0.0010		mg/L	
			Total Molybdenum (Mo)	2018/09/14	<0.0010		mg/L	
			Total Nickel (Ni)	2018/09/14	<0.0010		mg/L	
			Total Selenium (Se)	2018/09/14	<0.00010		mg/L	
			Total Silicon (Si)	2018/09/14	<0.10		mg/L	
			Total Silver (Ag)	2018/09/14	<0.000020		mg/L	

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Agnico-Eagle
Client Project #: LEACHATE CELL
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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9141492	AA1	RPD	Total Strontium (Sr)	2018/09/14	<0.0010		mg/L	
			Total Thallium (Tl)	2018/09/14	<0.000010		mg/L	
			Total Tin (Sn)	2018/09/14	<0.0050		mg/L	
			Total Titanium (Ti)	2018/09/14	<0.0050		mg/L	
			Total Uranium (U)	2018/09/14	<0.00010		mg/L	
			Total Vanadium (V)	2018/09/14	<0.0050		mg/L	
			Total Zinc (Zn)	2018/09/14	<0.0050		mg/L	
			Total Zirconium (Zr)	2018/09/14	<0.00010		mg/L	
			Total Calcium (Ca)	2018/09/14	<0.050		mg/L	
			Total Magnesium (Mg)	2018/09/14	<0.050		mg/L	
			Total Potassium (K)	2018/09/14	<0.050		mg/L	
			Total Sodium (Na)	2018/09/14	<0.050		mg/L	
			Total Aluminum (Al)	2018/09/14	0.018		%	20
			Total Antimony (Sb)	2018/09/14	NC		%	20
			Total Arsenic (As)	2018/09/14	4.8		%	20
			Total Barium (Ba)	2018/09/14	0.87		%	20
			Total Beryllium (Be)	2018/09/14	NC		%	20
			Total Bismuth (Bi)	2018/09/14	NC		%	20
			Total Boron (B)	2018/09/14	NC		%	20
			Total Cadmium (Cd)	2018/09/14	7.7		%	20
			Total Chromium (Cr)	2018/09/14	NC		%	20
			Total Cobalt (Co)	2018/09/14	NC		%	20
			Total Copper (Cu)	2018/09/14	NC		%	20
			Total Iron (Fe)	2018/09/14	NC		%	20
			Total Lead (Pb)	2018/09/14	NC		%	20
			Total Lithium (Li)	2018/09/14	NC		%	20
			Total Manganese (Mn)	2018/09/14	NC		%	20
			Total Molybdenum (Mo)	2018/09/14	NC		%	20
			Total Nickel (Ni)	2018/09/14	NC		%	20
			Total Selenium (Se)	2018/09/14	NC		%	20
			Total Silicon (Si)	2018/09/14	2.3		%	20
			Total Silver (Ag)	2018/09/14	NC		%	20
			Total Strontium (Sr)	2018/09/14	1.3		%	20
			Total Thallium (Tl)	2018/09/14	NC		%	20
			Total Tin (Sn)	2018/09/14	NC		%	20
			Total Titanium (Ti)	2018/09/14	NC		%	20
			Total Uranium (U)	2018/09/14	NC		%	20
			Total Vanadium (V)	2018/09/14	NC		%	20
			Total Zinc (Zn)	2018/09/14	NC		%	20
			Total Zirconium (Zr)	2018/09/14	NC		%	20

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

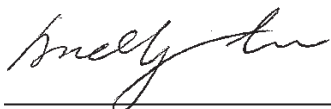
NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

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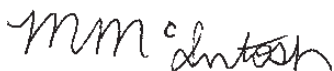
Agnico-Eagle
Client Project #: LEACHATE CELL
Site Location: MELIADINE
Your P.O. #: B8N2551

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Andy Lu, Ph.D., P.Chem., Scientific Specialist



Melissa McIntosh, Project Manager

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Your P.O. #: B8N2551
Your Project #: LEACHATE CELL
Site Location: MELIADINE
Your C.O.C. #: B8N2551-M058-01-01

Attention: Alisha Williamson

Agnico-Eagle
Meliadine
Rankin Inlet, NU
Canada X0C 0G0

Report Date: 2018/12/11
Report #: R2662597
Version: 2 - Revision

CERTIFICATE OF ANALYSIS – REVISED REPORT

MAXXAM JOB #: B878278

Received: 2018/09/11, 10:16

Sample Matrix: SURFACE WATER
Samples Received: 1

Analyses	Date		Laboratory Method	Analytical Method
	Quantity	Extracted	Analyzed	
Hardness Total (calculated as CaCO ₃) (1)	1	N/A	2018/09/17 BBY WI-00033	Auto Calc
Hardness (calculated as CaCO ₃)	1	N/A	2018/09/14 BBY WI-00033	Auto Calc
Elements by CRC ICPMS (dissolved)	1	N/A	2018/09/13 BBY7SOP-00002	EPA 6020b R2 m
Elements by CRC ICPMS (total)	1	2018/09/13	2018/09/14 BBY7SOP-00003 BBY7SOP-00002	EPA 6020b R2 m
Filter and HNO ₃ Preserve for Metals	1	N/A	2018/09/12 BBY7 WI-00004	BCMOE Reqs 08/14

Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Maxxam's profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Maxxam in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.

Maxxam Analytics' liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Maxxam has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Maxxam, unless otherwise agreed in writing. Maxxam is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.

Results relate to samples tested. When sampling is not conducted by Maxxam, results relate to the supplied samples tested.

This Certificate shall not be reproduced except in full, without the written approval of the laboratory.

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

(1) "Total Hardness" was calculated from Total Ca and Mg concentrations and may be biased high (Hardness, or Dissolved Hardness, calculated from Dissolved Ca and Mg, should be used for compliance if available).

Encryption Key


Jennifer Villocero
Project Manager
11 Dec 2018 13:36:42

Attention: Alisha Williamson

Agnico-Eagle
Meliadine
Rankin Inlet, NU
Canada X0C 0G0

Your P.O. #: B8N2551
Your Project #: LEACHATE CELL
Site Location: MELIADINE
Your C.O.C. #: B8N2551-M058-01-01

Report Date: 2018/12/11
Report #: R2662597
Version: 2 - Revision

CERTIFICATE OF ANALYSIS – REVISED REPORT

MAXXAM JOB #: B878278

Received: 2018/09/11, 10:16

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Veronica De Guzman, B.Sc., Project Manager

Email: VDeGuzman@maxxam.ca

Phone# (604) 734 7276

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Maxxam Job #: B878278
Report Date: 2018/12/11

Agnico-Eagle
Client Project #: LEACHATE CELL
Site Location: MELIADINE
Your P.O. #: B8N2551
Sampler Initials: SA

RESULTS OF CHEMICAL ANALYSES OF SURFACE WATER

Maxxam ID		UH3034		
Sampling Date		2018/09/03 07:50		
COC Number		B8N2551-M058-01-01		
	UNITS	MEL-14	RDL	QC Batch
Calculated Parameters				
Filter and HNO3 Preservation	N/A	FIELD	N/A	ONSITE
Dissolved Hardness (CaCO3)	mg/L	510	0.50	9140358
Total Hardness (CaCO3)	mg/L	544	0.50	9140354
RDL = Reportable Detection Limit				
N/A = Not Applicable				

Maxxam Job #: B878278
Report Date: 2018/12/11

Agnico-Eagle
Client Project #: LEACHATE CELL
Site Location: MELIADINE
Your P.O. #: B8N2551
Sampler Initials: SA

ELEMENTS BY ATOMIC SPECTROSCOPY (SURFACE WATER)

Maxxam ID		UH3034		
Sampling Date		2018/09/03 07:50		
COC Number		B8N2551-M058-01-01		
	UNITS	MEL-14	RDL	QC Batch
Dissolved Metals by ICPMS				
Dissolved Aluminum (Al)	mg/L	0.0233	0.0030	9141253
Dissolved Antimony (Sb)	mg/L	<0.00050	0.00050	9141253
Dissolved Arsenic (As)	mg/L	0.00202	0.00010	9141253
Dissolved Barium (Ba)	mg/L	0.141	0.0010	9141253
Dissolved Beryllium (Be)	mg/L	<0.00010	0.00010	9141253
Dissolved Bismuth (Bi)	mg/L	<0.0010	0.0010	9141253
Dissolved Boron (B)	mg/L	0.317	0.050	9141253
Dissolved Cadmium (Cd)	mg/L	<0.000010	0.000010	9141253
Dissolved Chromium (Cr)	mg/L	<0.0010	0.0010	9141253
Dissolved Cobalt (Co)	mg/L	0.00058	0.00020	9141253
Dissolved Copper (Cu)	mg/L	0.00050	0.00020	9141253
Dissolved Iron (Fe)	mg/L	0.0414	0.0050	9141253
Dissolved Lead (Pb)	mg/L	<0.00020	0.00020	9141253
Dissolved Lithium (Li)	mg/L	0.158	0.0020	9141253
Dissolved Manganese (Mn)	mg/L	0.209	0.0010	9141253
Dissolved Molybdenum (Mo)	mg/L	0.0013	0.0010	9141253
Dissolved Nickel (Ni)	mg/L	0.0023	0.0010	9141253
Dissolved Selenium (Se)	mg/L	<0.00010	0.00010	9141253
Dissolved Silicon (Si)	mg/L	0.59	0.10	9141253
Dissolved Silver (Ag)	mg/L	<0.000020	0.000020	9141253
Dissolved Strontium (Sr)	mg/L	3.31	0.0010	9141253
Dissolved Thallium (Tl)	mg/L	0.000016	0.000010	9141253
Dissolved Tin (Sn)	mg/L	<0.0050	0.0050	9141253
Dissolved Titanium (Ti)	mg/L	<0.0050	0.0050	9141253
Dissolved Uranium (U)	mg/L	<0.00010	0.00010	9141253
Dissolved Vanadium (V)	mg/L	<0.0050	0.0050	9141253
Dissolved Zinc (Zn)	mg/L	<0.0050	0.0050	9141253
Dissolved Zirconium (Zr)	mg/L	<0.00010	0.00010	9141253
Dissolved Calcium (Ca)	mg/L	156	0.050	9141253
Dissolved Magnesium (Mg)	mg/L	29.1	0.050	9141253
Dissolved Potassium (K)	mg/L	17.4	0.050	9141253
RDL = Reportable Detection Limit				

Maxxam Job #: B878278
Report Date: 2018/12/11

Agnico-Eagle
Client Project #: LEACHATE CELL
Site Location: MELIADINE
Your P.O. #: B8N2551
Sampler Initials: SA

ELEMENTS BY ATOMIC SPECTROSCOPY (SURFACE WATER)

Maxxam ID		UH3034		
Sampling Date		2018/09/03 07:50		
COC Number		B8N2551-M058-01-01		
	UNITS	MEL-14	RDL	QC Batch
Dissolved Sodium (Na)	mg/L	189	0.050	9141253
Total Metals by ICPMS				
Total Aluminum (Al)	mg/L	1.32	0.0030	9141492
Total Antimony (Sb)	mg/L	<0.00050	0.00050	9141492
Total Arsenic (As)	mg/L	0.00237	0.00010	9141492
Total Barium (Ba)	mg/L	0.150	0.0010	9141492
Total Beryllium (Be)	mg/L	<0.00010	0.00010	9141492
Total Bismuth (Bi)	mg/L	<0.0010	0.0010	9141492
Total Boron (B)	mg/L	0.325	0.050	9141492
Total Cadmium (Cd)	mg/L	<0.000010	0.000010	9141492
Total Chromium (Cr)	mg/L	<0.0010	0.0010	9141492
Total Cobalt (Co)	mg/L	0.00066	0.00020	9141492
Total Copper (Cu)	mg/L	0.00062	0.00050	9141492
Total Iron (Fe)	mg/L	0.153	0.010	9141492
Total Lead (Pb)	mg/L	<0.00020	0.00020	9141492
Total Lithium (Li)	mg/L	0.157	0.0020	9141492
Total Manganese (Mn)	mg/L	0.253	0.0010	9141492
Total Molybdenum (Mo)	mg/L	0.0014	0.0010	9141492
Total Nickel (Ni)	mg/L	0.0027	0.0010	9141492
Total Selenium (Se)	mg/L	<0.00010	0.00010	9141492
Total Silicon (Si)	mg/L	0.65	0.10	9141492
Total Silver (Ag)	mg/L	<0.000020	0.000020	9141492
Total Strontium (Sr)	mg/L	4.06	0.0010	9141492
Total Thallium (Tl)	mg/L	0.000015	0.000010	9141492
Total Tin (Sn)	mg/L	<0.0050	0.0050	9141492
Total Titanium (Ti)	mg/L	<0.0050	0.0050	9141492
Total Uranium (U)	mg/L	0.00013	0.00010	9141492
Total Vanadium (V)	mg/L	<0.0050	0.0050	9141492
Total Zinc (Zn)	mg/L	<0.0050	0.0050	9141492
Total Zirconium (Zr)	mg/L	<0.00010	0.00010	9141492
Total Calcium (Ca)	mg/L	168	0.050	9141492
Total Magnesium (Mg)	mg/L	30.2	0.050	9141492
RDL = Reportable Detection Limit				

Maxxam Job #: B878278
Report Date: 2018/12/11

Agnico-Eagle
Client Project #: LEACHATE CELL
Site Location: MELIADINE
Your P.O. #: B8N2551
Sampler Initials: SA

ELEMENTS BY ATOMIC SPECTROSCOPY (SURFACE WATER)

Maxxam ID		UH3034		
Sampling Date		2018/09/03 07:50		
COC Number		B8N2551-M058-01-01		
	UNITS	MEL-14	RDL	QC Batch
Total Potassium (K)	mg/L	18.5	0.050	9141492
Total Sodium (Na)	mg/L	194	0.050	9141492
RDL = Reportable Detection Limit				

Maxxam Job #: B878278
Report Date: 2018/12/11

Agnico-Eagle
Client Project #: LEACHATE CELL
Site Location: MELIADINE
Your P.O. #: B8N2551
Sampler Initials: SA

GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	3.7°C

Revised Report (2018/12/11): Client sample ID and GPS coordinates updated as per client request.

Sample UH3034 [MEL-14] : GPS coordinates: 63°02'15.5" 92°13'06.3"

Results relate only to the items tested.

Maxxam Job #: B878278
Report Date: 2018/12/11

Agnico-Eagle
Client Project #: LEACHATE CELL
Site Location: MELIADINE
Your P.O. #: B8N2551
Sampler Initials: SA

QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9141253	JC8	Matrix Spike	Dissolved Aluminum (Al)	2018/09/13		92	%	80 - 120
			Dissolved Antimony (Sb)	2018/09/13		98	%	80 - 120
			Dissolved Arsenic (As)	2018/09/13		106	%	80 - 120
			Dissolved Barium (Ba)	2018/09/13		98	%	80 - 120
			Dissolved Beryllium (Be)	2018/09/13		94	%	80 - 120
			Dissolved Bismuth (Bi)	2018/09/13		94	%	80 - 120
			Dissolved Boron (B)	2018/09/13		92	%	80 - 120
			Dissolved Cadmium (Cd)	2018/09/13		96	%	80 - 120
			Dissolved Chromium (Cr)	2018/09/13		97	%	80 - 120
			Dissolved Cobalt (Co)	2018/09/13		96	%	80 - 120
			Dissolved Copper (Cu)	2018/09/13		97	%	80 - 120
			Dissolved Iron (Fe)	2018/09/13		100	%	80 - 120
			Dissolved Lead (Pb)	2018/09/13		95	%	80 - 120
			Dissolved Lithium (Li)	2018/09/13		93	%	80 - 120
			Dissolved Manganese (Mn)	2018/09/13		96	%	80 - 120
			Dissolved Molybdenum (Mo)	2018/09/13		97	%	80 - 120
			Dissolved Nickel (Ni)	2018/09/13		95	%	80 - 120
			Dissolved Selenium (Se)	2018/09/13		99	%	80 - 120
			Dissolved Silicon (Si)	2018/09/13		104	%	80 - 120
			Dissolved Silver (Ag)	2018/09/13		94	%	80 - 120
			Dissolved Strontium (Sr)	2018/09/13		NC	%	80 - 120
			Dissolved Thallium (Tl)	2018/09/13		95	%	80 - 120
			Dissolved Tin (Sn)	2018/09/13		96	%	80 - 120
			Dissolved Titanium (Ti)	2018/09/13		102	%	80 - 120
			Dissolved Uranium (U)	2018/09/13		95	%	80 - 120
			Dissolved Vanadium (V)	2018/09/13		98	%	80 - 120
			Dissolved Zinc (Zn)	2018/09/13		98	%	80 - 120
			Dissolved Zirconium (Zr)	2018/09/13		91	%	80 - 120
			Dissolved Calcium (Ca)	2018/09/13		NC	%	80 - 120
			Dissolved Magnesium (Mg)	2018/09/13		103	%	80 - 120
			Dissolved Potassium (K)	2018/09/13		98	%	80 - 120
			Dissolved Sodium (Na)	2018/09/13		104	%	80 - 120
9141253	JC8	Spiked Blank	Dissolved Aluminum (Al)	2018/09/13		95	%	80 - 120
			Dissolved Antimony (Sb)	2018/09/13		99	%	80 - 120
			Dissolved Arsenic (As)	2018/09/13		106	%	80 - 120
			Dissolved Barium (Ba)	2018/09/13		96	%	80 - 120
			Dissolved Beryllium (Be)	2018/09/13		95	%	80 - 120
			Dissolved Bismuth (Bi)	2018/09/13		100	%	80 - 120
			Dissolved Boron (B)	2018/09/13		87	%	80 - 120
			Dissolved Cadmium (Cd)	2018/09/13		96	%	80 - 120
			Dissolved Chromium (Cr)	2018/09/13		97	%	80 - 120
			Dissolved Cobalt (Co)	2018/09/13		97	%	80 - 120
			Dissolved Copper (Cu)	2018/09/13		96	%	80 - 120
			Dissolved Iron (Fe)	2018/09/13		98	%	80 - 120
			Dissolved Lead (Pb)	2018/09/13		100	%	80 - 120
			Dissolved Lithium (Li)	2018/09/13		95	%	80 - 120
			Dissolved Manganese (Mn)	2018/09/13		97	%	80 - 120
			Dissolved Molybdenum (Mo)	2018/09/13		94	%	80 - 120
			Dissolved Nickel (Ni)	2018/09/13		97	%	80 - 120
			Dissolved Selenium (Se)	2018/09/13		96	%	80 - 120
			Dissolved Silicon (Si)	2018/09/13		106	%	80 - 120
			Dissolved Silver (Ag)	2018/09/13		96	%	80 - 120

Maxxam Job #: B878278
Report Date: 2018/12/11

Agnico-Eagle
Client Project #: LEACHATE CELL
Site Location: MELIADINE
Your P.O. #: B8N2551
Sampler Initials: SA

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9141253	JC8	Method Blank	Dissolved Strontium (Sr)	2018/09/13		96	%	80 - 120
			Dissolved Thallium (Tl)	2018/09/13		100	%	80 - 120
			Dissolved Tin (Sn)	2018/09/13		97	%	80 - 120
			Dissolved Titanium (Ti)	2018/09/13		104	%	80 - 120
			Dissolved Uranium (U)	2018/09/13		100	%	80 - 120
			Dissolved Vanadium (V)	2018/09/13		98	%	80 - 120
			Dissolved Zinc (Zn)	2018/09/13		98	%	80 - 120
			Dissolved Zirconium (Zr)	2018/09/13		94	%	80 - 120
			Dissolved Calcium (Ca)	2018/09/13		101	%	80 - 120
			Dissolved Magnesium (Mg)	2018/09/13		101	%	80 - 120
			Dissolved Potassium (K)	2018/09/13		101	%	80 - 120
			Dissolved Sodium (Na)	2018/09/13		99	%	80 - 120
			Dissolved Aluminum (Al)	2018/09/13	<0.0030		mg/L	
			Dissolved Antimony (Sb)	2018/09/13	<0.00050		mg/L	
			Dissolved Arsenic (As)	2018/09/13	<0.00010		mg/L	
			Dissolved Barium (Ba)	2018/09/13	<0.0010		mg/L	
			Dissolved Beryllium (Be)	2018/09/13	<0.00010		mg/L	
			Dissolved Bismuth (Bi)	2018/09/13	<0.0010		mg/L	
			Dissolved Boron (B)	2018/09/13	<0.050		mg/L	
			Dissolved Cadmium (Cd)	2018/09/13	<0.000010		mg/L	
			Dissolved Chromium (Cr)	2018/09/13	<0.0010		mg/L	
			Dissolved Cobalt (Co)	2018/09/13	<0.00020		mg/L	
			Dissolved Copper (Cu)	2018/09/13	<0.00020		mg/L	
			Dissolved Iron (Fe)	2018/09/13	<0.0050		mg/L	
			Dissolved Lead (Pb)	2018/09/13	<0.00020		mg/L	
			Dissolved Lithium (Li)	2018/09/13	<0.0020		mg/L	
			Dissolved Manganese (Mn)	2018/09/13	<0.0010		mg/L	
			Dissolved Molybdenum (Mo)	2018/09/13	<0.0010		mg/L	
			Dissolved Nickel (Ni)	2018/09/13	<0.0010		mg/L	
			Dissolved Selenium (Se)	2018/09/13	<0.00010		mg/L	
			Dissolved Silicon (Si)	2018/09/13	<0.10		mg/L	
			Dissolved Silver (Ag)	2018/09/13	<0.000020		mg/L	
			Dissolved Strontium (Sr)	2018/09/13	<0.0010		mg/L	
			Dissolved Thallium (Tl)	2018/09/13	<0.000010		mg/L	
			Dissolved Tin (Sn)	2018/09/13	<0.0050		mg/L	
			Dissolved Titanium (Ti)	2018/09/13	<0.0050		mg/L	
			Dissolved Uranium (U)	2018/09/13	<0.00010		mg/L	
			Dissolved Vanadium (V)	2018/09/13	<0.0050		mg/L	
			Dissolved Zinc (Zn)	2018/09/13	<0.0050		mg/L	
			Dissolved Zirconium (Zr)	2018/09/13	<0.00010		mg/L	
			Dissolved Calcium (Ca)	2018/09/13	<0.050		mg/L	
			Dissolved Magnesium (Mg)	2018/09/13	<0.050		mg/L	
			Dissolved Potassium (K)	2018/09/13	<0.050		mg/L	
			Dissolved Sodium (Na)	2018/09/13	<0.050		mg/L	
9141253	JC8	RPD	Dissolved Aluminum (Al)	2018/09/13	1.2		%	20
			Dissolved Antimony (Sb)	2018/09/13	NC		%	20
			Dissolved Arsenic (As)	2018/09/13	15		%	20
			Dissolved Barium (Ba)	2018/09/13	2.6		%	20
			Dissolved Beryllium (Be)	2018/09/13	NC		%	20
			Dissolved Bismuth (Bi)	2018/09/13	NC		%	20
			Dissolved Boron (B)	2018/09/13	NC		%	20
			Dissolved Cadmium (Cd)	2018/09/13	NC		%	20

Maxxam Job #: B878278
Report Date: 2018/12/11

Agnico-Eagle
Client Project #: LEACHATE CELL
Site Location: MELIADINE
Your P.O. #: B8N2551
Sampler Initials: SA

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9141492	AA1	Matrix Spike	Dissolved Chromium (Cr)	2018/09/13	NC		%	20
			Dissolved Cobalt (Co)	2018/09/13	NC		%	20
			Dissolved Copper (Cu)	2018/09/13	5.4		%	20
			Dissolved Iron (Fe)	2018/09/13	NC		%	20
			Dissolved Lead (Pb)	2018/09/13	NC		%	20
			Dissolved Lithium (Li)	2018/09/13	NC		%	20
			Dissolved Manganese (Mn)	2018/09/13	NC		%	20
			Dissolved Molybdenum (Mo)	2018/09/13	NC		%	20
			Dissolved Nickel (Ni)	2018/09/13	NC		%	20
			Dissolved Selenium (Se)	2018/09/13	NC		%	20
			Dissolved Silicon (Si)	2018/09/13	1.1		%	20
			Dissolved Silver (Ag)	2018/09/13	NC		%	20
			Dissolved Strontium (Sr)	2018/09/13	2.9		%	20
			Dissolved Thallium (Tl)	2018/09/13	NC		%	20
			Dissolved Tin (Sn)	2018/09/13	NC		%	20
			Dissolved Titanium (Ti)	2018/09/13	NC		%	20
			Dissolved Uranium (U)	2018/09/13	NC		%	20
			Dissolved Vanadium (V)	2018/09/13	NC		%	20
			Dissolved Zinc (Zn)	2018/09/13	NC		%	20
			Dissolved Zirconium (Zr)	2018/09/13	NC		%	20
			Total Aluminum (Al)	2018/09/14		103	%	80 - 120
			Total Antimony (Sb)	2018/09/14		106	%	80 - 120
			Total Arsenic (As)	2018/09/14		112	%	80 - 120
			Total Barium (Ba)	2018/09/14		105	%	80 - 120
			Total Beryllium (Be)	2018/09/14		97	%	80 - 120
			Total Bismuth (Bi)	2018/09/14		105	%	80 - 120
			Total Boron (B)	2018/09/14		99	%	80 - 120
			Total Cadmium (Cd)	2018/09/14		105	%	80 - 120
			Total Chromium (Cr)	2018/09/14		103	%	80 - 120
			Total Cobalt (Co)	2018/09/14		101	%	80 - 120
			Total Copper (Cu)	2018/09/14		101	%	80 - 120
			Total Iron (Fe)	2018/09/14		107	%	80 - 120
			Total Lead (Pb)	2018/09/14		104	%	80 - 120
			Total Lithium (Li)	2018/09/14		99	%	80 - 120
			Total Manganese (Mn)	2018/09/14		105	%	80 - 120
			Total Molybdenum (Mo)	2018/09/14		107	%	80 - 120
			Total Nickel (Ni)	2018/09/14		102	%	80 - 120
			Total Selenium (Se)	2018/09/14		108	%	80 - 120
			Total Silicon (Si)	2018/09/14		101	%	80 - 120
			Total Silver (Ag)	2018/09/14		105	%	80 - 120
			Total Strontium (Sr)	2018/09/14		NC	%	80 - 120
			Total Thallium (Tl)	2018/09/14		111	%	80 - 120
			Total Tin (Sn)	2018/09/14		104	%	80 - 120
			Total Titanium (Ti)	2018/09/14		105	%	80 - 120
			Total Uranium (U)	2018/09/14		108	%	80 - 120
			Total Vanadium (V)	2018/09/14		105	%	80 - 120
			Total Zinc (Zn)	2018/09/14		104	%	80 - 120
			Total Zirconium (Zr)	2018/09/14		108	%	80 - 120
			Total Calcium (Ca)	2018/09/14		NC	%	80 - 120
			Total Magnesium (Mg)	2018/09/14		101	%	80 - 120
			Total Potassium (K)	2018/09/14		106	%	80 - 120
			Total Sodium (Na)	2018/09/14		99	%	80 - 120

Maxxam Job #: B878278
Report Date: 2018/12/11

Agnico-Eagle
Client Project #: LEACHATE CELL
Site Location: MELIADINE
Your P.O. #: B8N2551
Sampler Initials: SA

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9141492	AA1	Spiked Blank	Total Aluminum (Al)	2018/09/14		102	%	80 - 120
			Total Antimony (Sb)	2018/09/14		104	%	80 - 120
			Total Arsenic (As)	2018/09/14		110	%	80 - 120
			Total Barium (Ba)	2018/09/14		105	%	80 - 120
			Total Beryllium (Be)	2018/09/14		95	%	80 - 120
			Total Bismuth (Bi)	2018/09/14		106	%	80 - 120
			Total Boron (B)	2018/09/14		98	%	80 - 120
			Total Cadmium (Cd)	2018/09/14		105	%	80 - 120
			Total Chromium (Cr)	2018/09/14		103	%	80 - 120
			Total Cobalt (Co)	2018/09/14		101	%	80 - 120
			Total Copper (Cu)	2018/09/14		102	%	80 - 120
			Total Iron (Fe)	2018/09/14		107	%	80 - 120
			Total Lead (Pb)	2018/09/14		103	%	80 - 120
			Total Lithium (Li)	2018/09/14		99	%	80 - 120
			Total Manganese (Mn)	2018/09/14		105	%	80 - 120
			Total Molybdenum (Mo)	2018/09/14		103	%	80 - 120
			Total Nickel (Ni)	2018/09/14		103	%	80 - 120
			Total Selenium (Se)	2018/09/14		106	%	80 - 120
			Total Silicon (Si)	2018/09/14		107	%	80 - 120
			Total Silver (Ag)	2018/09/14		105	%	80 - 120
			Total Strontium (Sr)	2018/09/14		108	%	80 - 120
			Total Thallium (Tl)	2018/09/14		111	%	80 - 120
			Total Tin (Sn)	2018/09/14		101	%	80 - 120
			Total Titanium (Ti)	2018/09/14		107	%	80 - 120
			Total Uranium (U)	2018/09/14		107	%	80 - 120
			Total Vanadium (V)	2018/09/14		103	%	80 - 120
			Total Zinc (Zn)	2018/09/14		104	%	80 - 120
			Total Zirconium (Zr)	2018/09/14		105	%	80 - 120
			Total Calcium (Ca)	2018/09/14		105	%	80 - 120
			Total Magnesium (Mg)	2018/09/14		100	%	80 - 120
			Total Potassium (K)	2018/09/14		105	%	80 - 120
			Total Sodium (Na)	2018/09/14		101	%	80 - 120
9141492	AA1	Method Blank	Total Aluminum (Al)	2018/09/14	<0.0030		mg/L	
			Total Antimony (Sb)	2018/09/14	<0.00050		mg/L	
			Total Arsenic (As)	2018/09/14	<0.00010		mg/L	
			Total Barium (Ba)	2018/09/14	<0.0010		mg/L	
			Total Beryllium (Be)	2018/09/14	<0.00010		mg/L	
			Total Bismuth (Bi)	2018/09/14	<0.0010		mg/L	
			Total Boron (B)	2018/09/14	<0.050		mg/L	
			Total Cadmium (Cd)	2018/09/14	<0.000010		mg/L	
			Total Chromium (Cr)	2018/09/14	<0.0010		mg/L	
			Total Cobalt (Co)	2018/09/14	<0.00020		mg/L	
			Total Copper (Cu)	2018/09/14	<0.00050		mg/L	
			Total Iron (Fe)	2018/09/14	<0.010		mg/L	
			Total Lead (Pb)	2018/09/14	<0.00020		mg/L	
			Total Lithium (Li)	2018/09/14	<0.0020		mg/L	
			Total Manganese (Mn)	2018/09/14	<0.0010		mg/L	
			Total Molybdenum (Mo)	2018/09/14	<0.0010		mg/L	
			Total Nickel (Ni)	2018/09/14	<0.0010		mg/L	
			Total Selenium (Se)	2018/09/14	<0.00010		mg/L	
			Total Silicon (Si)	2018/09/14	<0.10		mg/L	
			Total Silver (Ag)	2018/09/14	<0.000020		mg/L	

Maxxam Job #: B878278
Report Date: 2018/12/11

Agnico-Eagle
Client Project #: LEACHATE CELL
Site Location: MELIADINE
Your P.O. #: B8N2551
Sampler Initials: SA

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9141492	AA1	RPD	Total Strontium (Sr)	2018/09/14	<0.0010		mg/L	
			Total Thallium (Tl)	2018/09/14	<0.000010		mg/L	
			Total Tin (Sn)	2018/09/14	<0.0050		mg/L	
			Total Titanium (Ti)	2018/09/14	<0.0050		mg/L	
			Total Uranium (U)	2018/09/14	<0.00010		mg/L	
			Total Vanadium (V)	2018/09/14	<0.0050		mg/L	
			Total Zinc (Zn)	2018/09/14	<0.0050		mg/L	
			Total Zirconium (Zr)	2018/09/14	<0.00010		mg/L	
			Total Calcium (Ca)	2018/09/14	<0.050		mg/L	
			Total Magnesium (Mg)	2018/09/14	<0.050		mg/L	
			Total Potassium (K)	2018/09/14	<0.050		mg/L	
			Total Sodium (Na)	2018/09/14	<0.050		mg/L	
			Total Aluminum (Al)	2018/09/14	0.018		%	20
			Total Antimony (Sb)	2018/09/14	NC		%	20
			Total Arsenic (As)	2018/09/14	4.8		%	20
			Total Barium (Ba)	2018/09/14	0.87		%	20
			Total Beryllium (Be)	2018/09/14	NC		%	20
			Total Bismuth (Bi)	2018/09/14	NC		%	20
			Total Boron (B)	2018/09/14	NC		%	20
			Total Cadmium (Cd)	2018/09/14	7.7		%	20
			Total Chromium (Cr)	2018/09/14	NC		%	20
			Total Cobalt (Co)	2018/09/14	NC		%	20
			Total Copper (Cu)	2018/09/14	NC		%	20
			Total Iron (Fe)	2018/09/14	NC		%	20
			Total Lead (Pb)	2018/09/14	NC		%	20
			Total Lithium (Li)	2018/09/14	NC		%	20
			Total Manganese (Mn)	2018/09/14	NC		%	20
			Total Molybdenum (Mo)	2018/09/14	NC		%	20
			Total Nickel (Ni)	2018/09/14	NC		%	20
			Total Selenium (Se)	2018/09/14	NC		%	20
			Total Silicon (Si)	2018/09/14	2.3		%	20
			Total Silver (Ag)	2018/09/14	NC		%	20
			Total Strontium (Sr)	2018/09/14	1.3		%	20
			Total Thallium (Tl)	2018/09/14	NC		%	20
			Total Tin (Sn)	2018/09/14	NC		%	20
			Total Titanium (Ti)	2018/09/14	NC		%	20
			Total Uranium (U)	2018/09/14	NC		%	20
			Total Vanadium (V)	2018/09/14	NC		%	20
			Total Zinc (Zn)	2018/09/14	NC		%	20
			Total Zirconium (Zr)	2018/09/14	NC		%	20

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

Maxxam Job #: B878278
Report Date: 2018/12/11

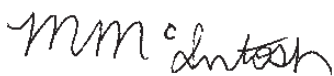
Agnico-Eagle
Client Project #: LEACHATE CELL
Site Location: MELIADINE
Your P.O. #: B8N2551
Sampler Initials: SA

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Andy Lu, Ph.D., P.Chem., Scientific Specialist



Melissa McIntosh, Project Manager

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Your P.O. #: B8N2551
Site Location: MELIADINE
Your C.O.C. #: 1 of 1

Attention: Alisha Williamson

Agnico-Eagle
Meliadine
Rankin Inlet, NU
Canada X0C 0G0

Report Date: 2018/12/12
Report #: R2663050
Version: 2 - Revision

CERTIFICATE OF ANALYSIS – REVISED REPORT

MAXXAM JOB #: B877822

Received: 2018/09/11, 09:53

Sample Matrix: Water
Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Silica (Reactive)	1	N/A	2018/09/17	AB SOP-00011	EPA 370.1 R1978 m

Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Maxxam's profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Maxxam in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.

Maxxam Analytics' liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Maxxam has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Maxxam, unless otherwise agreed in writing. Maxxam is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.

Results relate to samples tested. When sampling is not conducted by Maxxam, results relate to the supplied samples tested.

This Certificate shall not be reproduced except in full, without the written approval of the laboratory.

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key



Omran Desouki
Junior Project Manager
12 Dec 2018 12:16:03

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Omran Desouki, Junior Project Manager

Email: ODesouki@maxxam.ca

Phone# (403) 291-3077

=====

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Maxxam Job #: B877822
Report Date: 2018/12/12

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8N2551
Sampler Initials: SA

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		UH0488		
Sampling Date		2018/09/03 07:50		
COC Number		1 of 1		
	UNITS	MEL-14	RDL	QC Batch
Misc. Inorganics				
Reactive Silica	mg/L	1.2	0.050	9146428
RDL = Reportable Detection Limit				

Maxxam Job #: B877822
Report Date: 2018/12/12

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8N2551
Sampler Initials: SA

TEST SUMMARY

Maxxam ID: UH0488
Sample ID: MEL-14
Matrix: Water

Collected: 2018/09/03
Shipped: 2018/09/10
Received: 2018/09/11

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Silica (Reactive)	KONE/SL	9146428	N/A	2018/09/17	Zafar Iqbal

Maxxam Job #: B877822
Report Date: 2018/12/12

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8N2551
Sampler Initials: SA

GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	4.3°C

Revised Report (2018/12/12): Client sample ID and GPS coordinates updated per client request.

GPS coordinates: 63°02'15.5" 92°13'06.3"

Results relate only to the items tested.

QUALITY ASSURANCE REPORT

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8N2551
Sampler Initials: SA

QC Batch	Parameter	Date	Matrix Spike		Spiked Blank		Method Blank		RPD	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9146428	Reactive Silica	2018/09/17	104	80 - 120	100	80 - 120	<0.050	mg/L	2.4	20
Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.										
Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.										
Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.										
Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.										

Maxxam Job #: B877822
Report Date: 2018/12/12

Agnico-Eagle
Site Location: MELIADINE
Your P.O. #: B8N2551
Sampler Initials: SA

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Harry (Peng) Liang, Senior Analyst

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.



Agnico-Eagle - Meliadine Gold Project
ATTN: JESSICA HUZA
PO Box 99
Rankin Inlet NU X0C 0G0

Date Received: 01-AUG-18
Report Date: 21-FEB-19 07:14 (MT)
Version: FINAL REV. 3

Client Phone: 819-759-3555

Certificate of Analysis

Lab Work Order #: L2139293
Project P.O. #: NOT SUBMITTED
Job Reference: MEL
C of C Numbers:
Legal Site Desc: 63*06'52.2" 92*20'23.6"

Comments: 15-FEB-2019 AMENDED REPORT - Missing metals reported for L2139293-13
21-FEB-2019 Revised report - GPS added

Hua Wo
Chemistry Laboratory Manager

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ADDRESS: 1329 Niakwa Road East, Unit 12, Winnipeg, MB R2J 3T4 Canada | Phone: +1 204 255 9720 | Fax: +1 204 255 9721
ALS CANADA LTD Part of the ALS Group An ALS Limited Company

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters		Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2139293-1	MEL-03-01 (EEM)							
Sampled By: CLIENT on 25-JUL-18 @ 10:15								
Matrix: WATER								
Agnico-Golder Routine parameters								
Alkalinity, Bicarbonate								
Bicarbonate (HCO3)		19.5		1.2	mg/L		02-AUG-18	
Alkalinity, Carbonate								
Carbonate (CO3)		<0.60		0.60	mg/L		02-AUG-18	
Alkalinity, Hydroxide								
Hydroxide (OH)		<0.34		0.34	mg/L		02-AUG-18	
Alkalinity, Total (as CaCO3)								
Alkalinity, Total (as CaCO3)		16.0		1.0	mg/L		01-AUG-18	R4153108
Chloride in Water by IC (Low Level)								
Chloride (Cl)		8.12		0.10	mg/L		01-AUG-18	R4158659
Conductivity								
Conductivity		68.0		1.0	umhos/cm		01-AUG-18	R4153108
Fluoride in Water by IC								
Fluoride (F)		<0.020		0.020	mg/L		01-AUG-18	R4158659
Ion Balance Calculation								
Ion Balance		Low EC			%		09-AUG-18	
TDS (Calculated)		40.1			mg/L		09-AUG-18	
Nitrate in Water by IC (Low Level)								
Nitrate (as N)		1.26		0.0050	mg/L		01-AUG-18	R4158659
Nitrate+Nitrite								
Nitrate and Nitrite as N		1.36		0.0051	mg/L		03-AUG-18	
Nitrite in Water by IC (Low Level)								
Nitrite (as N)		0.0968		0.0010	mg/L		01-AUG-18	R4158659
Sulfate in Water by IC								
Sulfate (SO4)		3.55		0.30	mg/L		01-AUG-18	R4158659
Total Dissolved Solids (TDS)								
Total Dissolved Solids		33		13	mg/L		02-AUG-18	R4160187
Turbidity								
Turbidity		0.26		0.10	NTU		01-AUG-18	R4153812
pH								
pH		7.41		0.10	pH units		01-AUG-18	R4153108
Miscellaneous Parameters								
Ammonia, Total (as N)		<0.0050		0.0050	mg/L		08-AUG-18	R4161373
Dissolved Organic Carbon		2.30		0.50	mg/L		17-AUG-18	R4178088
Cyanide, Free		<0.0010		0.0010	mg/L		01-AUG-18	R4154750
Hardness (as CaCO3)		21.1		0.053	mg/L		04-SEP-18	
Mercury (Hg)-Total		0.80		0.50	ng/L	15-AUG-18	15-AUG-18	R4175588
Orthophosphate-Dissolved (as P)		<0.0010		0.0010	mg/L		02-AUG-18	R4157709
Phosphorus (P)-Total		0.0013		0.0010	mg/L		15-AUG-18	R4172289
Phosphorus (P)-Total Dissolved		<0.0010		0.0010	mg/L		20-AUG-18	R4178860
Ra-226		<0.0067		0.0067	Bq/L	20-AUG-18	28-AUG-18	R4211673
Silica, Reactive (as SiO2)		0.273		0.010	mg/L		04-AUG-18	R4161112
Total Kjeldahl Nitrogen		0.161		0.050	mg/L	21-AUG-18	22-AUG-18	R4180486
Cyanide, Total		<0.0010	CNI	0.0010	mg/L		01-AUG-18	R4154750
Total Organic Carbon		2.25		0.50	mg/L		17-AUG-18	R4178039
Total Suspended Solids		<1.0		1.0	mg/L		02-AUG-18	R4158489
Cyanide, Weak Acid Diss		<0.0010		0.0010	mg/L		01-AUG-18	R4154750
Metals in Water by CRC ICPMS (No Digest)								
Aluminum (Al)-Total		0.00357		0.00030	mg/L		01-SEP-18	R4196265
Antimony (Sb)-Total		<0.000020		0.000020	mg/L		01-SEP-18	R4196265
Arsenic (As)-Total		0.000195		0.000020	mg/L		01-SEP-18	R4196265

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2139293-1 MEL-03-01 (EEM)							
Sampled By: CLIENT on 25-JUL-18 @ 10:15							
Matrix: WATER							
Metals in Water by CRC ICPMS (No Digest)							
Barium (Ba)-Total	0.00785		0.000050	mg/L		01-SEP-18	R4196265
Beryllium (Be)-Total	<0.000010		0.000010	mg/L		01-SEP-18	R4196265
Bismuth (Bi)-Total	<0.000010		0.000010	mg/L		01-SEP-18	R4196265
Boron (B)-Total	0.0039		0.0010	mg/L		01-SEP-18	R4196265
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L		01-SEP-18	R4196265
Calcium (Ca)-Total	6.78		0.020	mg/L		01-SEP-18	R4196265
Chromium (Cr)-Total	<0.000060		0.000060	mg/L		01-SEP-18	R4196265
Cobalt (Co)-Total	0.000024		0.000010	mg/L		01-SEP-18	R4196265
Copper (Cu)-Total	0.00077		0.00010	mg/L		01-SEP-18	R4196265
Iron (Fe)-Total	0.0236		0.0010	mg/L		01-SEP-18	R4196265
Lead (Pb)-Total	<0.000010		0.000010	mg/L		01-SEP-18	R4196265
Lithium (Li)-Total	0.00051		0.00050	mg/L		01-SEP-18	R4196265
Magnesium (Mg)-Total	1.13		0.0040	mg/L		01-SEP-18	R4196265
Manganese (Mn)-Total	0.00334		0.000050	mg/L		01-SEP-18	R4196265
Molybdenum (Mo)-Total	0.000083		0.000050	mg/L		01-SEP-18	R4196265
Nickel (Ni)-Total	0.000706		0.000060	mg/L		01-SEP-18	R4196265
Potassium (K)-Total	0.890		0.020	mg/L		01-SEP-18	R4196265
Selenium (Se)-Total	0.000050		0.000040	mg/L		01-SEP-18	R4196265
Silver (Ag)-Total	<0.0000050		0.0000050	mg/L		01-SEP-18	R4196265
Sodium (Na)-Total	4.29		0.0050	mg/L		01-SEP-18	R4196265
Strontium (Sr)-Total	0.0330		0.000050	mg/L		01-SEP-18	R4196265
Thallium (Tl)-Total	<0.0000050		0.0000050	mg/L		01-SEP-18	R4196265
Tin (Sn)-Total	<0.000050		0.000050	mg/L		01-SEP-18	R4196265
Titanium (Ti)-Total	<0.00010		0.00010	mg/L		01-SEP-18	R4196265
Uranium (U)-Total	0.000016		0.000010	mg/L		01-SEP-18	R4196265
Vanadium (V)-Total	<0.000050		0.000050	mg/L		01-SEP-18	R4196265
Zinc (Zn)-Total	0.00103		0.00080	mg/L		01-SEP-18	R4196265
Diss. Metals in Water by CRC ICPMS (Ult)							
Dissolved Metals Filtration Location	FIELD					23-AUG-18	R4181194
Aluminum (Al)-Dissolved	0.00141		0.00030	mg/L		01-SEP-18	R4196265
Antimony (Sb)-Dissolved	<0.000020		0.000020	mg/L		01-SEP-18	R4196265
Arsenic (As)-Dissolved	0.000179		0.000020	mg/L		01-SEP-18	R4196265
Barium (Ba)-Dissolved	0.00757		0.000050	mg/L		01-SEP-18	R4196265
Beryllium (Be)-Dissolved	<0.000010		0.000010	mg/L		01-SEP-18	R4196265
Bismuth (Bi)-Dissolved	<0.000010		0.000010	mg/L		01-SEP-18	R4196265
Boron (B)-Dissolved	0.0037		0.0010	mg/L		01-SEP-18	R4196265
Cadmium (Cd)-Dissolved	<0.0000050		0.0000050	mg/L		01-SEP-18	R4196265
Calcium (Ca)-Dissolved	6.64		0.020	mg/L		01-SEP-18	R4196265
Chromium (Cr)-Dissolved	0.000065		0.000060	mg/L		01-SEP-18	R4196265
Cobalt (Co)-Dissolved	0.000013		0.000010	mg/L		01-SEP-18	R4196265
Copper (Cu)-Dissolved	0.00072		0.00010	mg/L		01-SEP-18	R4196265
Iron (Fe)-Dissolved	0.0127		0.0010	mg/L		01-SEP-18	R4196265
Lead (Pb)-Dissolved	<0.000010		0.000010	mg/L		01-SEP-18	R4196265
Lithium (Li)-Dissolved	0.00062		0.00050	mg/L		01-SEP-18	R4196265
Magnesium (Mg)-Dissolved	1.10		0.0040	mg/L		01-SEP-18	R4196265
Manganese (Mn)-Dissolved	0.00131		0.000050	mg/L		01-SEP-18	R4196265
Molybdenum (Mo)-Dissolved	0.000075		0.000050	mg/L		01-SEP-18	R4196265
Nickel (Ni)-Dissolved	0.000669		0.000060	mg/L		01-SEP-18	R4196265
Potassium (K)-Dissolved	0.849		0.020	mg/L		01-SEP-18	R4196265
Selenium (Se)-Dissolved	<0.000040		0.000040	mg/L		01-SEP-18	R4196265
Silver (Ag)-Dissolved	<0.0000050		0.0000050	mg/L		01-SEP-18	R4196265

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

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ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2139293-2 MEL-03-02							
Sampled By: CLIENT on 25-JUL-18 @ 12:00							
Matrix: WATER							
Mercury (Hg)-Total	0.80		0.50	ng/L	15-AUG-18	15-AUG-18	R4175588
Orthophosphate-Dissolved (as P)	<0.0010		0.0010	mg/L		02-AUG-18	R4157709
Phosphorus (P)-Total	<0.0010		0.0010	mg/L		15-AUG-18	R4172289
Phosphorus (P)-Total Dissolved	<0.0010		0.0010	mg/L		20-AUG-18	R4178860
Ra-226	<0.0065		0.0065	Bq/L	20-AUG-18	28-AUG-18	R4211673
Silica, Reactive (as SiO2)	0.263		0.010	mg/L		04-AUG-18	R4161112
Total Kjeldahl Nitrogen	0.114		0.050	mg/L	21-AUG-18	22-AUG-18	R4180486
Cyanide, Total	<0.0010		0.0010	mg/L		01-AUG-18	R4154750
Total Organic Carbon	2.24		0.50	mg/L		17-AUG-18	R4178039
Total Suspended Solids	<1.0		1.0	mg/L		02-AUG-18	R4158489
Cyanide, Weak Acid Diss	<0.0010		0.0010	mg/L		01-AUG-18	R4154750
Metals in Water by CRC ICPMS (No Digest)							
Aluminum (Al)-Total	0.00466		0.00030	mg/L		01-SEP-18	R4196265
Antimony (Sb)-Total	<0.000020		0.000020	mg/L		01-SEP-18	R4196265
Arsenic (As)-Total	0.000208		0.000020	mg/L		01-SEP-18	R4196265
Barium (Ba)-Total	0.00783		0.000050	mg/L		01-SEP-18	R4196265
Beryllium (Be)-Total	<0.000010		0.000010	mg/L		01-SEP-18	R4196265
Bismuth (Bi)-Total	<0.000010		0.000010	mg/L		01-SEP-18	R4196265
Boron (B)-Total	0.0035		0.0010	mg/L		01-SEP-18	R4196265
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L		01-SEP-18	R4196265
Calcium (Ca)-Total	6.69		0.020	mg/L		01-SEP-18	R4196265
Chromium (Cr)-Total	0.000086		0.000060	mg/L		01-SEP-18	R4196265
Cobalt (Co)-Total	0.000027		0.000010	mg/L		01-SEP-18	R4196265
Copper (Cu)-Total	0.00082		0.00010	mg/L		01-SEP-18	R4196265
Iron (Fe)-Total	0.0252		0.0010	mg/L		01-SEP-18	R4196265
Lead (Pb)-Total	0.000015		0.000010	mg/L		01-SEP-18	R4196265
Lithium (Li)-Total	0.00055		0.00050	mg/L		01-SEP-18	R4196265
Magnesium (Mg)-Total	1.12		0.0040	mg/L		01-SEP-18	R4196265
Manganese (Mn)-Total	0.00338		0.000050	mg/L		01-SEP-18	R4196265
Molybdenum (Mo)-Total	0.000093		0.000050	mg/L		01-SEP-18	R4196265
Nickel (Ni)-Total	0.000783		0.000060	mg/L		01-SEP-18	R4196265
Potassium (K)-Total	0.894		0.020	mg/L		01-SEP-18	R4196265
Selenium (Se)-Total	<0.000040		0.000040	mg/L		01-SEP-18	R4196265
Silver (Ag)-Total	<0.0000050		0.0000050	mg/L		01-SEP-18	R4196265
Sodium (Na)-Total	4.39		0.0050	mg/L		01-SEP-18	R4196265
Strontium (Sr)-Total	0.0323		0.000050	mg/L		01-SEP-18	R4196265
Thallium (Tl)-Total	<0.0000050		0.0000050	mg/L		01-SEP-18	R4196265
Tin (Sn)-Total	<0.000050		0.000050	mg/L		01-SEP-18	R4196265
Titanium (Ti)-Total	<0.00010		0.00010	mg/L		01-SEP-18	R4196265
Uranium (U)-Total	0.000017		0.000010	mg/L		01-SEP-18	R4196265
Vanadium (V)-Total	<0.000050		0.000050	mg/L		01-SEP-18	R4196265
Zinc (Zn)-Total	0.00091		0.00080	mg/L		01-SEP-18	R4196265
Diss. Metals in Water by CRC ICPMS (Ult)							
Dissolved Metals Filtration Location	FIELD					23-AUG-18	R4181194
Aluminum (Al)-Dissolved	0.00098	DTC	0.00030	mg/L		01-SEP-18	R4196265
Antimony (Sb)-Dissolved	0.000143		0.000020	mg/L		01-SEP-18	R4196265
Arsenic (As)-Dissolved	0.000189		0.000020	mg/L		01-SEP-18	R4196265
Barium (Ba)-Dissolved	0.00757		0.000050	mg/L		01-SEP-18	R4196265
Beryllium (Be)-Dissolved	<0.000010		0.000010	mg/L		01-SEP-18	R4196265
Bismuth (Bi)-Dissolved	<0.000010		0.000010	mg/L		01-SEP-18	R4196265
Boron (B)-Dissolved	0.0034		0.0010	mg/L		01-SEP-18	R4196265

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ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2139293-3 MEL-03-03							
Sampled By: CLIENT on 25-JUL-18 @ 14:00							
Matrix: WATER							
Nitrite in Water by IC (Low Level)							
Nitrite (as N)	<0.0010		0.0010	mg/L		01-AUG-18	R4158659
Sulfate in Water by IC							
Sulfate (SO4)	3.29		0.30	mg/L		01-AUG-18	R4158659
Total Dissolved Solids (TDS)							
Total Dissolved Solids	46		13	mg/L		02-AUG-18	R4160187
Turbidity							
Turbidity	0.22		0.10	NTU		01-AUG-18	R4153812
pH							
pH	7.46		0.10	pH units		01-AUG-18	R4153108
Miscellaneous Parameters							
Ammonia, Total (as N)	<0.0050		0.0050	mg/L		08-AUG-18	R4161373
Dissolved Organic Carbon	2.29		0.50	mg/L		17-AUG-18	R4178088
Cyanide, Free	<0.0010		0.0010	mg/L		01-AUG-18	R4154750
Hardness (as CaCO3)	21.4		0.053	mg/L		04-SEP-18	
Mercury (Hg)-Total	0.70		0.50	ng/L	15-AUG-18	15-AUG-18	R4175588
Orthophosphate-Dissolved (as P)	<0.0010		0.0010	mg/L		02-AUG-18	R4157709
Phosphorus (P)-Total	0.0021		0.0010	mg/L		15-AUG-18	R4172289
Phosphorus (P)-Total Dissolved	0.0016		0.0010	mg/L		20-AUG-18	R4178860
Ra-226	<0.0066		0.0066	Bq/L	05-SEP-18	11-SEP-18	R4211673
Silica, Reactive (as SiO2)	0.276		0.010	mg/L		04-AUG-18	R4161112
Total Kjeldahl Nitrogen	0.139		0.050	mg/L	21-AUG-18	22-AUG-18	R4180486
Cyanide, Total	<0.0010		0.0010	mg/L		01-AUG-18	R4154750
Total Organic Carbon	2.33		0.50	mg/L		17-AUG-18	R4178039
Total Suspended Solids	<1.0		1.0	mg/L		02-AUG-18	R4158489
Cyanide, Weak Acid Diss	<0.0010		0.0010	mg/L		01-AUG-18	R4154750
Metals in Water by CRC ICPMS (No Digest)							
Aluminum (Al)-Total	0.00297		0.00030	mg/L		01-SEP-18	R4196265
Antimony (Sb)-Total	<0.000020		0.000020	mg/L		01-SEP-18	R4196265
Arsenic (As)-Total	0.000196		0.000020	mg/L		01-SEP-18	R4196265
Barium (Ba)-Total	0.00782		0.000050	mg/L		01-SEP-18	R4196265
Beryllium (Be)-Total	<0.000010		0.000010	mg/L		01-SEP-18	R4196265
Bismuth (Bi)-Total	<0.000010		0.000010	mg/L		01-SEP-18	R4196265
Boron (B)-Total	0.0036		0.0010	mg/L		01-SEP-18	R4196265
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L		01-SEP-18	R4196265
Calcium (Ca)-Total	6.70		0.020	mg/L		01-SEP-18	R4196265
Chromium (Cr)-Total	<0.000060		0.000060	mg/L		01-SEP-18	R4196265
Cobalt (Co)-Total	0.000015		0.000010	mg/L		01-SEP-18	R4196265
Copper (Cu)-Total	0.00062		0.00010	mg/L		01-SEP-18	R4196265
Iron (Fe)-Total	0.0152		0.0010	mg/L		01-SEP-18	R4196265
Lead (Pb)-Total	<0.000010		0.000010	mg/L		01-SEP-18	R4196265
Lithium (Li)-Total	<0.00050		0.00050	mg/L		01-SEP-18	R4196265
Magnesium (Mg)-Total	1.14		0.0040	mg/L		01-SEP-18	R4196265
Manganese (Mn)-Total	0.00322		0.000050	mg/L		01-SEP-18	R4196265
Molybdenum (Mo)-Total	0.000058		0.000050	mg/L		01-SEP-18	R4196265
Nickel (Ni)-Total	0.000457		0.000060	mg/L		01-SEP-18	R4196265
Potassium (K)-Total	0.890		0.020	mg/L		01-SEP-18	R4196265
Selenium (Se)-Total	0.000049		0.000040	mg/L		01-SEP-18	R4196265
Silver (Ag)-Total	<0.0000050		0.0000050	mg/L		01-SEP-18	R4196265
Sodium (Na)-Total	4.39		0.0050	mg/L		01-SEP-18	R4196265
Strontium (Sr)-Total	0.0332		0.000050	mg/L		01-SEP-18	R4196265

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ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2139293-4 MEL-03-04							
Sampled By: CLIENT on 25-JUL-18 @ 16:00							
Matrix: WATER							
Alkalinity, Total (as CaCO3)							
Alkalinity, Total (as CaCO3)	16.4		1.0	mg/L		01-AUG-18	R4153108
Chloride in Water by IC (Low Level)							
Chloride (Cl)	7.88		0.10	mg/L		01-AUG-18	R4158659
Conductivity							
Conductivity	66.6		1.0	umhos/cm		01-AUG-18	R4153108
Fluoride in Water by IC							
Fluoride (F)	0.022		0.020	mg/L		01-AUG-18	R4158659
Ion Balance Calculation							
Ion Balance	Low EC			%		09-AUG-18	
TDS (Calculated)	34.0			mg/L		09-AUG-18	
Nitrate in Water by IC (Low Level)							
Nitrate (as N)	<0.0050		0.0050	mg/L		01-AUG-18	R4158659
Nitrate+Nitrite							
Nitrate and Nitrite as N	<0.0051		0.0051	mg/L		03-AUG-18	
Nitrite in Water by IC (Low Level)							
Nitrite (as N)	<0.0010		0.0010	mg/L		01-AUG-18	R4158659
Sulfate in Water by IC							
Sulfate (SO4)	3.23		0.30	mg/L		01-AUG-18	R4158659
Total Dissolved Solids (TDS)							
Total Dissolved Solids	42		13	mg/L		02-AUG-18	R4160187
Turbidity							
Turbidity	0.25		0.10	NTU		01-AUG-18	R4153812
pH							
pH	7.46		0.10	pH units		01-AUG-18	R4153108
Miscellaneous Parameters							
Ammonia, Total (as N)	<0.0050		0.0050	mg/L		08-AUG-18	R4161373
Dissolved Organic Carbon	2.21		0.50	mg/L		17-AUG-18	R4178088
Cyanide, Free	<0.0010		0.0010	mg/L		01-AUG-18	R4154750
Hardness (as CaCO3)	21.2		0.053	mg/L		04-SEP-18	
Mercury (Hg)-Total	0.80		0.50	ng/L	15-AUG-18	15-AUG-18	R4175588
Orthophosphate-Dissolved (as P)	<0.0010		0.0010	mg/L		02-AUG-18	R4157709
Phosphorus (P)-Total	<0.0010		0.0010	mg/L		15-AUG-18	R4172289
Phosphorus (P)-Total Dissolved	<0.0010		0.0010	mg/L		20-AUG-18	R4178860
Ra-226	0.011		0.0067	Bq/L	20-AUG-18	28-AUG-18	R4211673
Silica, Reactive (as SiO2)	0.257		0.010	mg/L		04-AUG-18	R4161112
Total Kjeldahl Nitrogen	0.193		0.050	mg/L	21-AUG-18	22-AUG-18	R4180486
Cyanide, Total	<0.0010		0.0010	mg/L		01-AUG-18	R4154750
Total Organic Carbon	2.17		0.50	mg/L		17-AUG-18	R4178039
Total Suspended Solids	<1.0		1.0	mg/L		02-AUG-18	R4158489
Cyanide, Weak Acid Diss	<0.0010		0.0010	mg/L		01-AUG-18	R4154750
Metals in Water by CRC ICPMS (No Digest)							
Aluminum (Al)-Total	0.00246		0.00030	mg/L		01-SEP-18	R4196265
Antimony (Sb)-Total	<0.000020		0.000020	mg/L		01-SEP-18	R4196265
Arsenic (As)-Total	0.000201		0.000020	mg/L		01-SEP-18	R4196265
Barium (Ba)-Total	0.00768		0.000050	mg/L		01-SEP-18	R4196265
Beryllium (Be)-Total	<0.000010		0.000010	mg/L		01-SEP-18	R4196265
Bismuth (Bi)-Total	<0.000010		0.000010	mg/L		01-SEP-18	R4196265
Boron (B)-Total	0.0036		0.0010	mg/L		01-SEP-18	R4196265
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L		01-SEP-18	R4196265
Calcium (Ca)-Total	6.65		0.020	mg/L		01-SEP-18	R4196265
Chromium (Cr)-Total	<0.000060		0.000060	mg/L		01-SEP-18	R4196265

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ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2139293-4 MEL-03-04							
Sampled By: CLIENT on 25-JUL-18 @ 16:00							
Matrix: WATER							
Metals in Water by CRC ICPMS (No Digest)							
Cobalt (Co)-Total	0.000012		0.000010	mg/L		01-SEP-18	R4196265
Copper (Cu)-Total	0.00064		0.00010	mg/L		01-SEP-18	R4196265
Iron (Fe)-Total	0.0147		0.0010	mg/L		01-SEP-18	R4196265
Lead (Pb)-Total	<0.000010		0.000010	mg/L		01-SEP-18	R4196265
Lithium (Li)-Total	<0.00050		0.00050	mg/L		01-SEP-18	R4196265
Magnesium (Mg)-Total	1.10		0.0040	mg/L		01-SEP-18	R4196265
Manganese (Mn)-Total	0.00297		0.000050	mg/L		01-SEP-18	R4196265
Molybdenum (Mo)-Total	0.000057		0.000050	mg/L		01-SEP-18	R4196265
Nickel (Ni)-Total	0.000413		0.000060	mg/L		01-SEP-18	R4196265
Potassium (K)-Total	0.868		0.020	mg/L		01-SEP-18	R4196265
Selenium (Se)-Total	<0.000040		0.000040	mg/L		01-SEP-18	R4196265
Silver (Ag)-Total	<0.0000050		0.0000050	mg/L		01-SEP-18	R4196265
Sodium (Na)-Total	4.26		0.0050	mg/L		01-SEP-18	R4196265
Strontium (Sr)-Total	0.0325		0.000050	mg/L		01-SEP-18	R4196265
Thallium (Tl)-Total	<0.0000050		0.0000050	mg/L		01-SEP-18	R4196265
Tin (Sn)-Total	<0.000050		0.000050	mg/L		01-SEP-18	R4196265
Titanium (Ti)-Total	<0.00010		0.00010	mg/L		01-SEP-18	R4196265
Uranium (U)-Total	0.000015		0.000010	mg/L		01-SEP-18	R4196265
Vanadium (V)-Total	<0.000050		0.000050	mg/L		01-SEP-18	R4196265
Zinc (Zn)-Total	<0.00080		0.00080	mg/L		01-SEP-18	R4196265
Diss. Metals in Water by CRC ICPMS (Ult)							
Dissolved Metals Filtration Location	FIELD					23-AUG-18	R4181194
Aluminum (Al)-Dissolved	0.00118	DTC	0.00030	mg/L		01-SEP-18	R4196265
Antimony (Sb)-Dissolved	0.000166		0.000020	mg/L		01-SEP-18	R4196265
Arsenic (As)-Dissolved	0.000195		0.000020	mg/L		01-SEP-18	R4196265
Barium (Ba)-Dissolved	0.00751		0.000050	mg/L		01-SEP-18	R4196265
Beryllium (Be)-Dissolved	<0.000010		0.000010	mg/L		01-SEP-18	R4196265
Bismuth (Bi)-Dissolved	<0.000010		0.000010	mg/L		01-SEP-18	R4196265
Boron (B)-Dissolved	0.0035		0.0010	mg/L		01-SEP-18	R4196265
Cadmium (Cd)-Dissolved	<0.0000050		0.0000050	mg/L		01-SEP-18	R4196265
Calcium (Ca)-Dissolved	6.61		0.020	mg/L		01-SEP-18	R4196265
Chromium (Cr)-Dissolved	0.000076		0.000060	mg/L		01-SEP-18	R4196265
Cobalt (Co)-Dissolved	<0.000010		0.000010	mg/L		01-SEP-18	R4196265
Copper (Cu)-Dissolved	0.00063		0.00010	mg/L		01-SEP-18	R4196265
Iron (Fe)-Dissolved	0.0063		0.0010	mg/L		01-SEP-18	R4196265
Lead (Pb)-Dissolved	<0.000010		0.000010	mg/L		01-SEP-18	R4196265
Lithium (Li)-Dissolved	0.00055		0.00050	mg/L		01-SEP-18	R4196265
Magnesium (Mg)-Dissolved	1.13		0.0040	mg/L		01-SEP-18	R4196265
Manganese (Mn)-Dissolved	0.00114		0.000050	mg/L		01-SEP-18	R4196265
Molybdenum (Mo)-Dissolved	0.000063		0.000050	mg/L		01-SEP-18	R4196265
Nickel (Ni)-Dissolved	0.000392		0.000060	mg/L		01-SEP-18	R4196265
Potassium (K)-Dissolved	0.871		0.020	mg/L		01-SEP-18	R4196265
Selenium (Se)-Dissolved	<0.000040		0.000040	mg/L		01-SEP-18	R4196265
Silver (Ag)-Dissolved	<0.0000050		0.0000050	mg/L		01-SEP-18	R4196265
Sodium (Na)-Dissolved	4.39		0.0050	mg/L		01-SEP-18	R4196265
Strontium (Sr)-Dissolved	0.0318		0.000050	mg/L		01-SEP-18	R4196265
Thallium (Tl)-Dissolved	<0.0000050		0.0000050	mg/L		01-SEP-18	R4196265
Tin (Sn)-Dissolved	<0.000050		0.000050	mg/L		01-SEP-18	R4196265
Titanium (Ti)-Dissolved	<0.00010		0.00010	mg/L		01-SEP-18	R4196265
Uranium (U)-Dissolved	0.000015		0.000010	mg/L		01-SEP-18	R4196265
Vanadium (V)-Dissolved	<0.000050		0.000050	mg/L		01-SEP-18	R4196265

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

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ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2139293-5 MEL-01-08							
Sampled By: CLIENT on 23-JUL-18 @ 15:00							
Matrix: WATER							
Cyanide, Total	<0.0010		0.0010	mg/L		01-AUG-18	R4154750
Total Organic Carbon	2.90		0.50	mg/L		17-AUG-18	R4178039
Total Suspended Solids	<1.0		1.0	mg/L		02-AUG-18	R4158489
Cyanide, Weak Acid Diss	<0.0010		0.0010	mg/L		01-AUG-18	R4154750
Metals in Water by CRC ICPMS (No Digest)							
Aluminum (Al)-Total	0.0235		0.00030	mg/L		01-SEP-18	R4196265
Antimony (Sb)-Total	<0.000020		0.000020	mg/L		01-SEP-18	R4196265
Arsenic (As)-Total	0.000365		0.000020	mg/L		01-SEP-18	R4196265
Barium (Ba)-Total	0.00874		0.000050	mg/L		01-SEP-18	R4196265
Beryllium (Be)-Total	<0.000010		0.000010	mg/L		01-SEP-18	R4196265
Bismuth (Bi)-Total	<0.000010		0.000010	mg/L		01-SEP-18	R4196265
Boron (B)-Total	0.0050		0.0010	mg/L		01-SEP-18	R4196265
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L		01-SEP-18	R4196265
Calcium (Ca)-Total	8.00		0.020	mg/L		01-SEP-18	R4196265
Chromium (Cr)-Total	<0.000060		0.000060	mg/L		01-SEP-18	R4196265
Cobalt (Co)-Total	0.000028		0.000010	mg/L		01-SEP-18	R4196265
Copper (Cu)-Total	0.00085		0.00010	mg/L		01-SEP-18	R4196265
Iron (Fe)-Total	0.0260		0.0010	mg/L		01-SEP-18	R4196265
Lead (Pb)-Total	<0.000010		0.000010	mg/L		01-SEP-18	R4196265
Lithium (Li)-Total	0.00176		0.00050	mg/L		01-SEP-18	R4196265
Magnesium (Mg)-Total	1.44		0.0040	mg/L		01-SEP-18	R4196265
Manganese (Mn)-Total	0.00726		0.000050	mg/L		01-SEP-18	R4196265
Molybdenum (Mo)-Total	0.000078		0.000050	mg/L		01-SEP-18	R4196265
Nickel (Ni)-Total	0.000668		0.000060	mg/L		01-SEP-18	R4196265
Potassium (K)-Total	1.00		0.020	mg/L		01-SEP-18	R4196265
Selenium (Se)-Total	<0.000040		0.000040	mg/L		01-SEP-18	R4196265
Silver (Ag)-Total	<0.0000050		0.0000050	mg/L		01-SEP-18	R4196265
Sodium (Na)-Total	5.78		0.0050	mg/L		01-SEP-18	R4196265
Strontium (Sr)-Total	0.0580		0.000050	mg/L		01-SEP-18	R4196265
Thallium (Tl)-Total	<0.0000050		0.0000050	mg/L		01-SEP-18	R4196265
Tin (Sn)-Total	<0.000050		0.000050	mg/L		01-SEP-18	R4196265
Titanium (Ti)-Total	0.00010		0.00010	mg/L		01-SEP-18	R4196265
Uranium (U)-Total	0.000019		0.000010	mg/L		01-SEP-18	R4196265
Vanadium (V)-Total	<0.000050		0.000050	mg/L		01-SEP-18	R4196265
Zinc (Zn)-Total	<0.00080		0.00080	mg/L		01-SEP-18	R4196265
Diss. Metals in Water by CRC ICPMS (Ult)							
Dissolved Metals Filtration Location	FIELD					23-AUG-18	R4181194
Aluminum (Al)-Dissolved	0.0185		0.00030	mg/L		01-SEP-18	R4196265
Antimony (Sb)-Dissolved	<0.000020		0.000020	mg/L		01-SEP-18	R4196265
Arsenic (As)-Dissolved	0.000346		0.000020	mg/L		01-SEP-18	R4196265
Barium (Ba)-Dissolved	0.00868		0.000050	mg/L		01-SEP-18	R4196265
Beryllium (Be)-Dissolved	<0.000010		0.000010	mg/L		01-SEP-18	R4196265
Bismuth (Bi)-Dissolved	<0.000010		0.000010	mg/L		01-SEP-18	R4196265
Boron (B)-Dissolved	0.0050		0.0010	mg/L		01-SEP-18	R4196265
Cadmium (Cd)-Dissolved	<0.0000050		0.0000050	mg/L		01-SEP-18	R4196265
Calcium (Ca)-Dissolved	8.15		0.020	mg/L		01-SEP-18	R4196265
Chromium (Cr)-Dissolved	<0.000060		0.000060	mg/L		01-SEP-18	R4196265
Cobalt (Co)-Dissolved	0.000010		0.000010	mg/L		01-SEP-18	R4196265
Copper (Cu)-Dissolved	0.00082		0.00010	mg/L		01-SEP-18	R4196265
Iron (Fe)-Dissolved	0.0089		0.0010	mg/L		01-SEP-18	R4196265
Lead (Pb)-Dissolved	<0.000010		0.000010	mg/L		01-SEP-18	R4196265
Lithium (Li)-Dissolved	0.00196		0.00050	mg/L		01-SEP-18	R4196265

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

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ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2139293-6 MEL-01-07 Sampled By: CLIENT on 22-JUL-18 @ 09:00 Matrix: WATER							
pH pH	7.36		0.10	pH units		01-AUG-18	R4153108
Miscellaneous Parameters							
Ammonia, Total (as N)	<0.0050		0.0050	mg/L		08-AUG-18	R4161373
Dissolved Organic Carbon	2.92		0.50	mg/L		17-AUG-18	R4178088
Cyanide, Free	<0.0010		0.0010	mg/L		01-AUG-18	R4154750
Hardness (as CaCO3)	25.7		0.053	mg/L		04-SEP-18	
Mercury (Hg)-Total	1.10		0.50	ng/L	15-AUG-18	15-AUG-18	R4175588
Orthophosphate-Dissolved (as P)	<0.0010		0.0010	mg/L		02-AUG-18	R4157709
Phosphorus (P)-Total	0.0021		0.0010	mg/L		15-AUG-18	R4172289
Phosphorus (P)-Total Dissolved	<0.0010		0.0010	mg/L		20-AUG-18	R4178860
Ra-226	<0.0078		0.0078	Bq/L	20-AUG-18	28-AUG-18	R4211673
Silica, Reactive (as SiO2)	0.423		0.010	mg/L		04-AUG-18	R4161112
Total Kjeldahl Nitrogen	0.175		0.050	mg/L	21-AUG-18	22-AUG-18	R4180486
Cyanide, Total	<0.0010		0.0010	mg/L		01-AUG-18	R4154750
Total Organic Carbon	2.96		0.50	mg/L		17-AUG-18	R4178039
Total Suspended Solids	<1.0		1.0	mg/L		02-AUG-18	R4158489
Cyanide, Weak Acid Diss	<0.0010		0.0010	mg/L		01-AUG-18	R4154750
Metals in Water by CRC ICPMS (No Digest)							
Aluminum (Al)-Total	0.0232		0.00030	mg/L		01-SEP-18	R4196265
Antimony (Sb)-Total	<0.000020		0.000020	mg/L		01-SEP-18	R4196265
Arsenic (As)-Total	0.000364		0.000020	mg/L		01-SEP-18	R4196265
Barium (Ba)-Total	0.00866		0.000050	mg/L		01-SEP-18	R4196265
Beryllium (Be)-Total	<0.000010		0.000010	mg/L		01-SEP-18	R4196265
Bismuth (Bi)-Total	<0.000010		0.000010	mg/L		01-SEP-18	R4196265
Boron (B)-Total	0.0051		0.0010	mg/L		01-SEP-18	R4196265
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L		01-SEP-18	R4196265
Calcium (Ca)-Total	8.06		0.020	mg/L		01-SEP-18	R4196265
Chromium (Cr)-Total	<0.000060		0.000060	mg/L		01-SEP-18	R4196265
Cobalt (Co)-Total	0.000027		0.000010	mg/L		01-SEP-18	R4196265
Copper (Cu)-Total	0.00082		0.00010	mg/L		01-SEP-18	R4196265
Iron (Fe)-Total	0.0271		0.0010	mg/L		01-SEP-18	R4196265
Lead (Pb)-Total	0.000010		0.000010	mg/L		01-SEP-18	R4196265
Lithium (Li)-Total	0.00183		0.00050	mg/L		01-SEP-18	R4196265
Magnesium (Mg)-Total	1.45		0.0040	mg/L		01-SEP-18	R4196265
Manganese (Mn)-Total	0.00711		0.000050	mg/L		01-SEP-18	R4196265
Molybdenum (Mo)-Total	0.000059		0.000050	mg/L		01-SEP-18	R4196265
Nickel (Ni)-Total	0.000707		0.000060	mg/L		01-SEP-18	R4196265
Potassium (K)-Total	0.998		0.020	mg/L		01-SEP-18	R4196265
Selenium (Se)-Total	<0.000040		0.000040	mg/L		01-SEP-18	R4196265
Silver (Ag)-Total	<0.0000050		0.0000050	mg/L		01-SEP-18	R4196265
Sodium (Na)-Total	5.92		0.0050	mg/L		01-SEP-18	R4196265
Strontium (Sr)-Total	0.0582		0.000050	mg/L		01-SEP-18	R4196265
Thallium (Tl)-Total	<0.0000050		0.0000050	mg/L		01-SEP-18	R4196265
Tin (Sn)-Total	<0.000050		0.000050	mg/L		01-SEP-18	R4196265
Titanium (Ti)-Total	<0.00010		0.00010	mg/L		01-SEP-18	R4196265
Uranium (U)-Total	0.000021		0.000010	mg/L		01-SEP-18	R4196265
Vanadium (V)-Total	<0.000050		0.000050	mg/L		01-SEP-18	R4196265
Zinc (Zn)-Total	<0.00080		0.00080	mg/L		01-SEP-18	R4196265
Diss. Metals in Water by CRC ICPMS (Ult)							
Dissolved Metals Filtration Location	FIELD					23-AUG-18	R4181194

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

Sample Details/Parameters		Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2139293-6	MEL-01-07							
Sampled By: CLIENT on 22-JUL-18 @ 09:00								
Matrix: WATER								
Diss. Metals in Water by CRC ICPMS (Ult)								
Aluminum (Al)-Dissolved		0.0187		0.00030	mg/L		01-SEP-18	R4196265
Antimony (Sb)-Dissolved		<0.000020		0.000020	mg/L		01-SEP-18	R4196265
Arsenic (As)-Dissolved		0.000341		0.000020	mg/L		01-SEP-18	R4196265
Barium (Ba)-Dissolved		0.00880		0.000050	mg/L		01-SEP-18	R4196265
Beryllium (Be)-Dissolved		<0.000010		0.000010	mg/L		01-SEP-18	R4196265
Bismuth (Bi)-Dissolved		<0.000010		0.000010	mg/L		01-SEP-18	R4196265
Boron (B)-Dissolved		0.0048		0.0010	mg/L		01-SEP-18	R4196265
Cadmium (Cd)-Dissolved		<0.0000050		0.0000050	mg/L		01-SEP-18	R4196265
Calcium (Ca)-Dissolved		7.92		0.020	mg/L		01-SEP-18	R4196265
Chromium (Cr)-Dissolved		<0.000060		0.000060	mg/L		01-SEP-18	R4196265
Cobalt (Co)-Dissolved		0.000022		0.000010	mg/L		01-SEP-18	R4196265
Copper (Cu)-Dissolved		0.00065		0.00010	mg/L		01-SEP-18	R4196265
Iron (Fe)-Dissolved		0.0093		0.0010	mg/L		01-SEP-18	R4196265
Lead (Pb)-Dissolved		<0.000010		0.000010	mg/L		01-SEP-18	R4196265
Lithium (Li)-Dissolved		0.00186		0.00050	mg/L		01-SEP-18	R4196265
Magnesium (Mg)-Dissolved		1.45		0.0040	mg/L		01-SEP-18	R4196265
Manganese (Mn)-Dissolved		0.00271		0.000050	mg/L		01-SEP-18	R4196265
Molybdenum (Mo)-Dissolved		0.000054		0.000050	mg/L		01-SEP-18	R4196265
Nickel (Ni)-Dissolved		0.000647		0.000060	mg/L		01-SEP-18	R4196265
Potassium (K)-Dissolved		0.984		0.020	mg/L		01-SEP-18	R4196265
Selenium (Se)-Dissolved		0.000041		0.000040	mg/L		01-SEP-18	R4196265
Silver (Ag)-Dissolved		<0.0000050		0.0000050	mg/L		01-SEP-18	R4196265
Sodium (Na)-Dissolved		6.10		0.0050	mg/L		01-SEP-18	R4196265
Strontium (Sr)-Dissolved		0.0556		0.000050	mg/L		01-SEP-18	R4196265
Thallium (Tl)-Dissolved		<0.0000050		0.0000050	mg/L		01-SEP-18	R4196265
Tin (Sn)-Dissolved		<0.000050		0.000050	mg/L		01-SEP-18	R4196265
Titanium (Ti)-Dissolved		<0.00010		0.00010	mg/L		01-SEP-18	R4196265
Uranium (U)-Dissolved		0.000019		0.000010	mg/L		01-SEP-18	R4196265
Vanadium (V)-Dissolved		<0.000050		0.000050	mg/L		01-SEP-18	R4196265
Zinc (Zn)-Dissolved		<0.00080		0.00080	mg/L		01-SEP-18	R4196265
Mercury, Dissolved								
Dissolved Mercury Filtration Location		FIELD					08-AUG-18	R4175533
Mercury (Hg)-Dissolved		1.30		0.50	ng/L		15-AUG-18	R4175604
L2139293-7	MEL-01-09							
Sampled By: CLIENT on 24-JUL-18 @ 15:30								
Matrix: WATER								
Agnico-Golder Routine parameters								
Alkalinity, Bicarbonate								
Bicarbonate (HCO3)		18.4		1.2	mg/L		02-AUG-18	
Alkalinity, Carbonate								
Carbonate (CO3)		<0.60		0.60	mg/L		02-AUG-18	
Alkalinity, Hydroxide								
Hydroxide (OH)		<0.34		0.34	mg/L		02-AUG-18	
Alkalinity, Total (as CaCO3)								
Alkalinity, Total (as CaCO3)		15.1		1.0	mg/L		01-AUG-18	R4153108
Chloride in Water by IC (Low Level)								
Chloride (Cl)		13.1		0.10	mg/L		01-AUG-18	R4158659
Conductivity								
Conductivity		86.0		1.0	umhos/cm		01-AUG-18	R4153108
Fluoride in Water by IC								
Fluoride (F)		0.021		0.020	mg/L		01-AUG-18	R4158659

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2139293-7 MEL-01-09							
Sampled By: CLIENT on 24-JUL-18 @ 15:30							
Matrix: WATER							
Ion Balance Calculation							
Ion Balance	Low EC			%		09-AUG-18	
TDS (Calculated)	43.0			mg/L		09-AUG-18	
Nitrate in Water by IC (Low Level)							
Nitrate (as N)	0.0117		0.0050	mg/L		01-AUG-18	R4158659
Nitrate+Nitrite							
Nitrate and Nitrite as N	0.0129		0.0051	mg/L		03-AUG-18	
Nitrite in Water by IC (Low Level)							
Nitrite (as N)	0.0012		0.0010	mg/L		01-AUG-18	R4158659
Sulfate in Water by IC							
Sulfate (SO4)	4.19		0.30	mg/L		01-AUG-18	R4158659
Total Dissolved Solids (TDS)							
Total Dissolved Solids	51		13	mg/L		16-AUG-18	R4177308
Turbidity							
Turbidity	0.43		0.10	NTU		01-AUG-18	R4153812
pH							
pH	7.41		0.10	pH units		01-AUG-18	R4153108
Miscellaneous Parameters							
Ammonia, Total (as N)	<0.0050		0.0050	mg/L		08-AUG-18	R4161373
Dissolved Organic Carbon	2.97		0.50	mg/L		17-AUG-18	R4178088
Cyanide, Free	<0.0010		0.0010	mg/L		01-AUG-18	R4154750
Hardness (as CaCO3)	26.0		0.053	mg/L		04-SEP-18	
Mercury (Hg)-Total	1.00		0.50	ng/L	15-AUG-18	15-AUG-18	R4175588
Orthophosphate-Dissolved (as P)	<0.0010		0.0010	mg/L		02-AUG-18	R4157709
Phosphorus (P)-Total	0.0025		0.0010	mg/L		15-AUG-18	R4172289
Phosphorus (P)-Total Dissolved	<0.0010		0.0010	mg/L		20-AUG-18	R4178860
Ra-226	0.10		0.0059	Bq/L	20-AUG-18	28-AUG-18	R4211673
Silica, Reactive (as SiO2)	0.411		0.010	mg/L		04-AUG-18	R4161112
Total Kjeldahl Nitrogen	0.236		0.050	mg/L	21-AUG-18	22-AUG-18	R4180486
Cyanide, Total	<0.0010		0.0010	mg/L		01-AUG-18	R4154750
Total Organic Carbon	2.95		0.50	mg/L		17-AUG-18	R4178039
Total Suspended Solids	<1.0		1.0	mg/L		02-AUG-18	R4158489
Cyanide, Weak Acid Diss	<0.0010		0.0010	mg/L		01-AUG-18	R4154750
Metals in Water by CRC ICPMS (No Digest)							
Aluminum (Al)-Total	0.0291		0.00030	mg/L		01-SEP-18	R4196265
Antimony (Sb)-Total	<0.000020		0.000020	mg/L		01-SEP-18	R4196265
Arsenic (As)-Total	0.000342		0.000020	mg/L		01-SEP-18	R4196265
Barium (Ba)-Total	0.00888		0.000050	mg/L		01-SEP-18	R4196265
Beryllium (Be)-Total	<0.000010		0.000010	mg/L		01-SEP-18	R4196265
Bismuth (Bi)-Total	<0.000010		0.000010	mg/L		01-SEP-18	R4196265
Boron (B)-Total	0.0050		0.0010	mg/L		01-SEP-18	R4196265
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L		01-SEP-18	R4196265
Calcium (Ca)-Total	8.08		0.020	mg/L		01-SEP-18	R4196265
Chromium (Cr)-Total	<0.000060		0.000060	mg/L		01-SEP-18	R4196265
Cobalt (Co)-Total	0.000027		0.000010	mg/L		01-SEP-18	R4196265
Copper (Cu)-Total	0.00086		0.00010	mg/L		01-SEP-18	R4196265
Iron (Fe)-Total	0.0263		0.0010	mg/L		01-SEP-18	R4196265
Lead (Pb)-Total	0.000010		0.000010	mg/L		01-SEP-18	R4196265
Lithium (Li)-Total	0.00182		0.00050	mg/L		01-SEP-18	R4196265
Magnesium (Mg)-Total	1.46		0.0040	mg/L		01-SEP-18	R4196265
Manganese (Mn)-Total	0.00727		0.000050	mg/L		01-SEP-18	R4196265

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters		Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2139293-7	MEL-01-09							
Sampled By:	CLIENT on 24-JUL-18 @ 15:30							
Matrix:	WATER							
Metals in Water by CRC ICPMS (No Digest)								
Molybdenum (Mo)-Total	0.000067			0.000050	mg/L		01-SEP-18	R4196265
Nickel (Ni)-Total	0.000694			0.000060	mg/L		01-SEP-18	R4196265
Potassium (K)-Total	1.01			0.020	mg/L		01-SEP-18	R4196265
Selenium (Se)-Total	<0.000040			0.000040	mg/L		01-SEP-18	R4196265
Silver (Ag)-Total	<0.0000050			0.0000050	mg/L		01-SEP-18	R4196265
Sodium (Na)-Total	6.00			0.0050	mg/L		01-SEP-18	R4196265
Strontium (Sr)-Total	0.0590			0.000050	mg/L		01-SEP-18	R4196265
Thallium (Tl)-Total	<0.0000050			0.0000050	mg/L		01-SEP-18	R4196265
Tin (Sn)-Total	<0.000050			0.000050	mg/L		01-SEP-18	R4196265
Titanium (Ti)-Total	0.00018			0.00010	mg/L		01-SEP-18	R4196265
Uranium (U)-Total	0.000018			0.000010	mg/L		01-SEP-18	R4196265
Vanadium (V)-Total	<0.000050			0.000050	mg/L		01-SEP-18	R4196265
Zinc (Zn)-Total	<0.00080			0.00080	mg/L		01-SEP-18	R4196265
Diss. Metals in Water by CRC ICPMS (Ult)								
Dissolved Metals Filtration Location	FIELD						23-AUG-18	R4181194
Aluminum (Al)-Dissolved	0.0222		DTC	0.00030	mg/L		01-SEP-18	R4196265
Antimony (Sb)-Dissolved	0.000104			0.000020	mg/L		01-SEP-18	R4196265
Arsenic (As)-Dissolved	0.000329			0.000020	mg/L		01-SEP-18	R4196265
Barium (Ba)-Dissolved	0.00837			0.000050	mg/L		01-SEP-18	R4196265
Beryllium (Be)-Dissolved	<0.000010			0.000010	mg/L		01-SEP-18	R4196265
Bismuth (Bi)-Dissolved	<0.000010			0.000010	mg/L		01-SEP-18	R4196265
Boron (B)-Dissolved	0.0048			0.0010	mg/L		01-SEP-18	R4196265
Cadmium (Cd)-Dissolved	<0.0000050			0.0000050	mg/L		01-SEP-18	R4196265
Calcium (Ca)-Dissolved	7.99			0.020	mg/L		01-SEP-18	R4196265
Chromium (Cr)-Dissolved	<0.000060			0.000060	mg/L		01-SEP-18	R4196265
Cobalt (Co)-Dissolved	0.000012			0.000010	mg/L		01-SEP-18	R4196265
Copper (Cu)-Dissolved	0.00064			0.00010	mg/L		01-SEP-18	R4196265
Iron (Fe)-Dissolved	0.0085			0.0010	mg/L		01-SEP-18	R4196265
Lead (Pb)-Dissolved	<0.000010			0.000010	mg/L		01-SEP-18	R4196265
Lithium (Li)-Dissolved	0.00201			0.00050	mg/L		01-SEP-18	R4196265
Magnesium (Mg)-Dissolved	1.46			0.0040	mg/L		01-SEP-18	R4196265
Manganese (Mn)-Dissolved	0.00137			0.000050	mg/L		01-SEP-18	R4196265
Molybdenum (Mo)-Dissolved	0.000071			0.000050	mg/L		01-SEP-18	R4196265
Nickel (Ni)-Dissolved	0.000640			0.000060	mg/L		01-SEP-18	R4196265
Potassium (K)-Dissolved	1.01			0.020	mg/L		01-SEP-18	R4196265
Selenium (Se)-Dissolved	<0.000040			0.000040	mg/L		01-SEP-18	R4196265
Silver (Ag)-Dissolved	<0.0000050			0.0000050	mg/L		01-SEP-18	R4196265
Sodium (Na)-Dissolved	6.15			0.0050	mg/L		01-SEP-18	R4196265
Strontium (Sr)-Dissolved	0.0564			0.000050	mg/L		01-SEP-18	R4196265
Thallium (Tl)-Dissolved	<0.0000050			0.0000050	mg/L		01-SEP-18	R4196265
Tin (Sn)-Dissolved	<0.000050			0.000050	mg/L		01-SEP-18	R4196265
Titanium (Ti)-Dissolved	<0.00010			0.00010	mg/L		01-SEP-18	R4196265
Uranium (U)-Dissolved	0.000020			0.000010	mg/L		01-SEP-18	R4196265
Vanadium (V)-Dissolved	<0.000050			0.000050	mg/L		01-SEP-18	R4196265
Zinc (Zn)-Dissolved	<0.00080			0.00080	mg/L		01-SEP-18	R4196265
Mercury, Dissolved								
Dissolved Mercury Filtration Location	FIELD						08-AUG-18	R4175533
Mercury (Hg)-Dissolved	1.30			0.50	ng/L		15-AUG-18	R4175604
L2139293-8	R-18-07-01							
Sampled By:	CLIENT on 23-JUL-18							
Matrix:	WATER							

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2139293-8 R-18-07-01							
Sampled By: CLIENT on 23-JUL-18							
Matrix: WATER							
Agnico-Golder Routine parameters							
Alkalinity, Bicarbonate							
Bicarbonate (HCO3)	19.2		1.2	mg/L		02-AUG-18	
Alkalinity, Carbonate							
Carbonate (CO3)	<0.60		0.60	mg/L		02-AUG-18	
Alkalinity, Hydroxide							
Hydroxide (OH)	<0.34		0.34	mg/L		02-AUG-18	
Alkalinity, Total (as CaCO3)							
Alkalinity, Total (as CaCO3)	15.7		1.0	mg/L		01-AUG-18	R4153108
Chloride in Water by IC (Low Level)							
Chloride (Cl)	14.2		0.10	mg/L		01-AUG-18	R4158659
Conductivity							
Conductivity	90.9		1.0	umhos/cm		01-AUG-18	R4153108
Fluoride in Water by IC							
Fluoride (F)	0.021		0.020	mg/L		01-AUG-18	R4158659
Ion Balance Calculation							
Ion Balance	Low EC			%		09-AUG-18	
TDS (Calculated)	44.9			mg/L		09-AUG-18	
Nitrate in Water by IC (Low Level)							
Nitrate (as N)	0.0274		0.0050	mg/L		01-AUG-18	R4158659
Nitrate+Nitrite							
Nitrate and Nitrite as N	0.0294		0.0051	mg/L		03-AUG-18	
Nitrite in Water by IC (Low Level)							
Nitrite (as N)	0.0020		0.0010	mg/L		01-AUG-18	R4158659
Sulfate in Water by IC							
Sulfate (SO4)	4.31		0.30	mg/L		01-AUG-18	R4158659
Total Dissolved Solids (TDS)							
Total Dissolved Solids	53		13	mg/L		16-AUG-18	R4177308
Turbidity							
Turbidity	0.39		0.10	NTU		01-AUG-18	R4153812
pH							
pH	7.39		0.10	pH units		01-AUG-18	R4153108
Miscellaneous Parameters							
Ammonia, Total (as N)	<0.0050		0.0050	mg/L		08-AUG-18	R4161373
Dissolved Organic Carbon	2.93		0.50	mg/L		17-AUG-18	R4178088
Cyanide, Free	<0.0010		0.0010	mg/L		01-AUG-18	R4154750
Hardness (as CaCO3)	26.3		0.053	mg/L		04-SEP-18	
Mercury (Hg)-Total	1.10		0.50	ng/L	15-AUG-18	15-AUG-18	R4175588
Orthophosphate-Dissolved (as P)	<0.0010		0.0010	mg/L		02-AUG-18	R4157709
Phosphorus (P)-Total	0.0032		0.0010	mg/L		15-AUG-18	R4172289
Phosphorus (P)-Total Dissolved	<0.0010		0.0010	mg/L		20-AUG-18	R4178860
Ra-226	<0.0072		0.0072	Bq/L	20-AUG-18	28-AUG-18	R4211673
Silica, Reactive (as SiO2)	0.420		0.010	mg/L		04-AUG-18	R4161112
Total Kjeldahl Nitrogen	0.246		0.050	mg/L	21-AUG-18	22-AUG-18	R4180486
Cyanide, Total	<0.0010		0.0010	mg/L		01-AUG-18	R4154750
Total Organic Carbon	2.99		0.50	mg/L		17-AUG-18	R4178039
Total Suspended Solids	<1.0		1.0	mg/L		02-AUG-18	R4158489
Cyanide, Weak Acid Diss	<0.0010		0.0010	mg/L		01-AUG-18	R4154750
Metals in Water by CRC ICPMS (No Digest)							
Aluminum (Al)-Total	0.0280		0.00030	mg/L		01-SEP-18	R4196265
Antimony (Sb)-Total	<0.000020		0.000020	mg/L		01-SEP-18	R4196265
Arsenic (As)-Total	0.000319		0.000020	mg/L		01-SEP-18	R4196265

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2139293-8 R-18-07-01							
Sampled By: CLIENT on 23-JUL-18							
Matrix: WATER							
Metals in Water by CRC ICPMS (No Digest)							
Barium (Ba)-Total	0.00888		0.000050	mg/L		01-SEP-18	R4196265
Beryllium (Be)-Total	<0.000010		0.000010	mg/L		01-SEP-18	R4196265
Bismuth (Bi)-Total	<0.000010		0.000010	mg/L		01-SEP-18	R4196265
Boron (B)-Total	0.0052		0.0010	mg/L		01-SEP-18	R4196265
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L		01-SEP-18	R4196265
Calcium (Ca)-Total	8.08		0.020	mg/L		01-SEP-18	R4196265
Chromium (Cr)-Total	0.000069		0.000060	mg/L		01-SEP-18	R4196265
Cobalt (Co)-Total	0.000030		0.000010	mg/L		01-SEP-18	R4196265
Copper (Cu)-Total	0.00073		0.00010	mg/L		01-SEP-18	R4196265
Iron (Fe)-Total	0.0286		0.0010	mg/L		01-SEP-18	R4196265
Lead (Pb)-Total	<0.000010		0.000010	mg/L		01-SEP-18	R4196265
Lithium (Li)-Total	0.00194		0.00050	mg/L		01-SEP-18	R4196265
Magnesium (Mg)-Total	1.46		0.0040	mg/L		01-SEP-18	R4196265
Manganese (Mn)-Total	0.00770		0.000050	mg/L		01-SEP-18	R4196265
Molybdenum (Mo)-Total	0.000078		0.000050	mg/L		01-SEP-18	R4196265
Nickel (Ni)-Total	0.000738		0.000060	mg/L		01-SEP-18	R4196265
Potassium (K)-Total	0.999		0.020	mg/L		01-SEP-18	R4196265
Selenium (Se)-Total	<0.000040		0.000040	mg/L		01-SEP-18	R4196265
Silver (Ag)-Total	<0.0000050		0.0000050	mg/L		01-SEP-18	R4196265
Sodium (Na)-Total	6.06		0.0050	mg/L		01-SEP-18	R4196265
Strontium (Sr)-Total	0.0614		0.000050	mg/L		01-SEP-18	R4196265
Thallium (Tl)-Total	<0.0000050		0.0000050	mg/L		01-SEP-18	R4196265
Tin (Sn)-Total	<0.000050		0.000050	mg/L		01-SEP-18	R4196265
Titanium (Ti)-Total	0.00013		0.00010	mg/L		01-SEP-18	R4196265
Uranium (U)-Total	0.000019		0.000010	mg/L		01-SEP-18	R4196265
Vanadium (V)-Total	0.000051		0.000050	mg/L		01-SEP-18	R4196265
Zinc (Zn)-Total	<0.00080		0.00080	mg/L		01-SEP-18	R4196265
Diss. Metals in Water by CRC ICPMS (Ult)							
Dissolved Metals Filtration Location	FIELD					23-AUG-18	R4181194
Aluminum (Al)-Dissolved	0.0218		0.00030	mg/L		01-SEP-18	R4196265
Antimony (Sb)-Dissolved	<0.000020		0.000020	mg/L		01-SEP-18	R4196265
Arsenic (As)-Dissolved	0.000330		0.000020	mg/L		01-SEP-18	R4196265
Barium (Ba)-Dissolved	0.00865		0.000050	mg/L		01-SEP-18	R4196265
Beryllium (Be)-Dissolved	<0.000010		0.000010	mg/L		01-SEP-18	R4196265
Bismuth (Bi)-Dissolved	<0.000010		0.000010	mg/L		01-SEP-18	R4196265
Boron (B)-Dissolved	0.0050		0.0010	mg/L		01-SEP-18	R4196265
Cadmium (Cd)-Dissolved	<0.0000050		0.0000050	mg/L		01-SEP-18	R4196265
Calcium (Ca)-Dissolved	8.10		0.020	mg/L		01-SEP-18	R4196265
Chromium (Cr)-Dissolved	<0.000060		0.000060	mg/L		01-SEP-18	R4196265
Cobalt (Co)-Dissolved	0.000015		0.000010	mg/L		01-SEP-18	R4196265
Copper (Cu)-Dissolved	0.00069		0.00010	mg/L		01-SEP-18	R4196265
Iron (Fe)-Dissolved	0.0088		0.0010	mg/L		01-SEP-18	R4196265
Lead (Pb)-Dissolved	<0.000010		0.000010	mg/L		01-SEP-18	R4196265
Lithium (Li)-Dissolved	0.00206		0.00050	mg/L		01-SEP-18	R4196265
Magnesium (Mg)-Dissolved	1.48		0.0040	mg/L		01-SEP-18	R4196265
Manganese (Mn)-Dissolved	0.00173		0.000050	mg/L		01-SEP-18	R4196265
Molybdenum (Mo)-Dissolved	0.000064		0.000050	mg/L		01-SEP-18	R4196265
Nickel (Ni)-Dissolved	0.000655		0.000060	mg/L		01-SEP-18	R4196265
Potassium (K)-Dissolved	1.01		0.020	mg/L		01-SEP-18	R4196265
Selenium (Se)-Dissolved	<0.000040		0.000040	mg/L		01-SEP-18	R4196265
Silver (Ag)-Dissolved	<0.0000050		0.0000050	mg/L		01-SEP-18	R4196265

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

Sample Details/Parameters		Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2139293-8	R-18-07-01							
Sampled By:	CLIENT on 23-JUL-18							
Matrix:	WATER							
Diss. Metals in Water by CRC ICPMS (Ult)								
Sodium (Na)-Dissolved		6.22		0.0050	mg/L		01-SEP-18	R4196265
Strontium (Sr)-Dissolved		0.0604		0.000050	mg/L		01-SEP-18	R4196265
Thallium (Tl)-Dissolved		<0.0000050		0.0000050	mg/L		01-SEP-18	R4196265
Tin (Sn)-Dissolved		<0.000050		0.000050	mg/L		01-SEP-18	R4196265
Titanium (Ti)-Dissolved		<0.00010		0.00010	mg/L		01-SEP-18	R4196265
Uranium (U)-Dissolved		0.000019		0.000010	mg/L		01-SEP-18	R4196265
Vanadium (V)-Dissolved		<0.000050		0.000050	mg/L		01-SEP-18	R4196265
Zinc (Zn)-Dissolved		<0.00080		0.00080	mg/L		01-SEP-18	R4196265
Mercury, Dissolved								
Dissolved Mercury Filtration Location		FIELD					08-AUG-18	R4175533
Mercury (Hg)-Dissolved		1.30		0.50	ng/L		15-AUG-18	R4175604
L2139293-9	A8-01							
Sampled By:	CLIENT on 24-JUL-18 @ 08:45							
Matrix:	WATER							
Agnico-Golder Routine parameters								
Alkalinity, Bicarbonate								
Bicarbonate (HCO3)		48.4		1.2	mg/L		02-AUG-18	
Alkalinity, Carbonate								
Carbonate (CO3)		<0.60		0.60	mg/L		02-AUG-18	
Alkalinity, Hydroxide								
Hydroxide (OH)		<0.34		0.34	mg/L		02-AUG-18	
Alkalinity, Total (as CaCO3)								
Alkalinity, Total (as CaCO3)		39.7		1.0	mg/L		01-AUG-18	R4153108
Chloride in Water by IC (Low Level)								
Chloride (Cl)		40.3		0.10	mg/L		01-AUG-18	R4158659
Conductivity								
Conductivity		220		1.0	umhos/cm		01-AUG-18	R4153108
Fluoride in Water by IC								
Fluoride (F)		0.027		0.020	mg/L		01-AUG-18	R4158659
Ion Balance Calculation								
Ion Balance		97.8			%		09-AUG-18	
TDS (Calculated)		109			mg/L		09-AUG-18	
Nitrate in Water by IC (Low Level)								
Nitrate (as N)		<0.0050		0.0050	mg/L		01-AUG-18	R4158659
Nitrate+Nitrite								
Nitrate and Nitrite as N		<0.0051		0.0051	mg/L		03-AUG-18	
Nitrite in Water by IC (Low Level)								
Nitrite (as N)		<0.0010		0.0010	mg/L		01-AUG-18	R4158659
Sulfate in Water by IC								
Sulfate (SO4)		5.48		0.30	mg/L		01-AUG-18	R4158659
Total Dissolved Solids (TDS)								
Total Dissolved Solids		170		20	mg/L		10-AUG-18	R4167826
Turbidity								
Turbidity		0.49		0.10	NTU		01-AUG-18	R4153812
pH								
pH		7.82		0.10	pH units		01-AUG-18	R4153108
Miscellaneous Parameters								
Ammonia, Total (as N)		0.0062		0.0050	mg/L		08-AUG-18	R4161373
Dissolved Organic Carbon		3.52		0.50	mg/L		17-AUG-18	R4178088
Cyanide, Free		<0.0010		0.0010	mg/L		01-AUG-18	R4154750
Hardness (as CaCO3)		83.7		0.053	mg/L		04-SEP-18	

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2139293-9 A8-01							
Sampled By: CLIENT on 24-JUL-18 @ 08:45							
Matrix: WATER							
Mercury (Hg)-Total	1.00		0.50	ng/L	15-AUG-18	15-AUG-18	R4175588
Orthophosphate-Dissolved (as P)	<0.0010		0.0010	mg/L		02-AUG-18	R4157709
Phosphorus (P)-Total	0.0032		0.0010	mg/L		15-AUG-18	R4172289
Phosphorus (P)-Total Dissolved	<0.0010		0.0010	mg/L		20-AUG-18	R4178860
Silica, Reactive (as SiO2)	0.698		0.020	mg/L		04-AUG-18	R4161112
Total Kjeldahl Nitrogen	0.396		0.050	mg/L	17-AUG-18	20-AUG-18	R4178658
Cyanide, Total	<0.0010		0.0010	mg/L		01-AUG-18	R4154750
Total Organic Carbon	3.39		0.50	mg/L		17-AUG-18	R4178039
Total Suspended Solids	1.2		1.0	mg/L		02-AUG-18	R4158489
Cyanide, Weak Acid Diss	<0.0010		0.0010	mg/L		01-AUG-18	R4154750
Metals in Water by CRC ICPMS (No Digest)							
Aluminum (Al)-Total	0.00235		0.00030	mg/L		01-SEP-18	R4196265
Antimony (Sb)-Total	0.000020		0.000020	mg/L		01-SEP-18	R4196265
Arsenic (As)-Total	0.00269		0.000020	mg/L		01-SEP-18	R4196265
Barium (Ba)-Total	0.0242		0.000050	mg/L		01-SEP-18	R4196265
Beryllium (Be)-Total	<0.000010		0.000010	mg/L		01-SEP-18	R4196265
Bismuth (Bi)-Total	<0.000010		0.000010	mg/L		01-SEP-18	R4196265
Boron (B)-Total	0.0031		0.0010	mg/L		01-SEP-18	R4196265
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L		01-SEP-18	R4196265
Calcium (Ca)-Total	27.8		0.020	mg/L		01-SEP-18	R4196265
Chromium (Cr)-Total	<0.000060		0.000060	mg/L		01-SEP-18	R4196265
Cobalt (Co)-Total	0.000046		0.000010	mg/L		01-SEP-18	R4196265
Copper (Cu)-Total	0.00064		0.00010	mg/L		01-SEP-18	R4196265
Iron (Fe)-Total	0.0830		0.0010	mg/L		01-SEP-18	R4196265
Lead (Pb)-Total	<0.000010		0.000010	mg/L		01-SEP-18	R4196265
Lithium (Li)-Total	0.00660		0.00050	mg/L		01-SEP-18	R4196265
Magnesium (Mg)-Total	3.67		0.0040	mg/L		01-SEP-18	R4196265
Manganese (Mn)-Total	0.0146		0.000050	mg/L		01-SEP-18	R4196265
Molybdenum (Mo)-Total	0.000204		0.000050	mg/L		01-SEP-18	R4196265
Nickel (Ni)-Total	0.000731		0.000060	mg/L		01-SEP-18	R4196265
Potassium (K)-Total	1.67		0.020	mg/L		01-SEP-18	R4196265
Selenium (Se)-Total	<0.000040		0.000040	mg/L		01-SEP-18	R4196265
Silver (Ag)-Total	<0.0000050		0.0000050	mg/L		01-SEP-18	R4196265
Sodium (Na)-Total	6.44		0.0050	mg/L		01-SEP-18	R4196265
Strontium (Sr)-Total	0.208		0.000050	mg/L		01-SEP-18	R4196265
Thallium (Tl)-Total	<0.0000050		0.0000050	mg/L		01-SEP-18	R4196265
Tin (Sn)-Total	<0.000050		0.000050	mg/L		01-SEP-18	R4196265
Titanium (Ti)-Total	<0.00010		0.00010	mg/L		01-SEP-18	R4196265
Uranium (U)-Total	0.000034		0.000010	mg/L		01-SEP-18	R4196265
Vanadium (V)-Total	<0.000050		0.000050	mg/L		01-SEP-18	R4196265
Zinc (Zn)-Total	<0.00080		0.00080	mg/L		01-SEP-18	R4196265
Diss. Metals in Water by CRC ICPMS (Ult)							
Dissolved Metals Filtration Location	FIELD					23-AUG-18	R4181194
Aluminum (Al)-Dissolved	0.00156		0.00030	mg/L		01-SEP-18	R4196265
Antimony (Sb)-Dissolved	0.000024		0.000020	mg/L		01-SEP-18	R4196265
Arsenic (As)-Dissolved	0.00221		0.000020	mg/L		01-SEP-18	R4196265
Barium (Ba)-Dissolved	0.0232		0.000050	mg/L		01-SEP-18	R4196265
Beryllium (Be)-Dissolved	<0.000010		0.000010	mg/L		01-SEP-18	R4196265
Bismuth (Bi)-Dissolved	<0.000010		0.000010	mg/L		01-SEP-18	R4196265
Boron (B)-Dissolved	0.0031		0.0010	mg/L		01-SEP-18	R4196265
Cadmium (Cd)-Dissolved	<0.0000050		0.0000050	mg/L		01-SEP-18	R4196265
Calcium (Ca)-Dissolved	27.5		0.020	mg/L		01-SEP-18	R4196265

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

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ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2139293-10 A8-02							
Sampled By: CLIENT on 24-JUL-18 @ 10:00							
Matrix: WATER							
Sulfate in Water by IC							
Sulfate (SO4)	4.88		0.30	mg/L		01-AUG-18	R4158659
Total Dissolved Solids (TDS)							
Total Dissolved Solids	183		20	mg/L		10-AUG-18	R4167826
Turbidity							
Turbidity	0.49		0.10	NTU		01-AUG-18	R4153812
pH							
pH	7.83		0.10	pH units		01-AUG-18	R4153108
Miscellaneous Parameters							
Ammonia, Total (as N)	<0.0050		0.0050	mg/L		08-AUG-18	R4161373
Dissolved Organic Carbon	3.34		0.50	mg/L		17-AUG-18	R4178088
Cyanide, Free	<0.0010		0.0010	mg/L		01-AUG-18	R4154750
Hardness (as CaCO3)	84.4		0.053	mg/L		04-SEP-18	
Mercury (Hg)-Total	0.90		0.50	ng/L	15-AUG-18	15-AUG-18	R4175588
Orthophosphate-Dissolved (as P)	<0.0010		0.0010	mg/L		02-AUG-18	R4157709
Phosphorus (P)-Total	0.0017		0.0010	mg/L		15-AUG-18	R4172289
Phosphorus (P)-Total Dissolved	<0.0010		0.0010	mg/L		20-AUG-18	R4178860
Silica, Reactive (as SiO2)	0.708		0.020	mg/L		04-AUG-18	R4161112
Total Kjeldahl Nitrogen	0.405		0.050	mg/L	17-AUG-18	20-AUG-18	R4178658
Cyanide, Total	<0.0010		0.0010	mg/L		01-AUG-18	R4154750
Total Organic Carbon	3.34		0.50	mg/L		17-AUG-18	R4178039
Total Suspended Solids	<1.0		1.0	mg/L		02-AUG-18	R4158489
Cyanide, Weak Acid Diss	<0.0010		0.0010	mg/L		01-AUG-18	R4154750
Metals in Water by CRC ICPMS (No Digest)							
Aluminum (Al)-Total	0.00271		0.00030	mg/L		28-AUG-18	R4189547
Antimony (Sb)-Total	<0.000020		0.000020	mg/L		28-AUG-18	R4189547
Arsenic (As)-Total	0.00254		0.000020	mg/L		28-AUG-18	R4189547
Barium (Ba)-Total	0.0240		0.000050	mg/L		28-AUG-18	R4189547
Beryllium (Be)-Total	<0.000010		0.000010	mg/L		28-AUG-18	R4189547
Bismuth (Bi)-Total	<0.000010		0.000010	mg/L		28-AUG-18	R4189547
Boron (B)-Total	0.0030		0.0010	mg/L		28-AUG-18	R4189547
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L		28-AUG-18	R4189547
Calcium (Ca)-Total	27.0		0.020	mg/L		28-AUG-18	R4189547
Chromium (Cr)-Total	<0.000060		0.000060	mg/L		28-AUG-18	R4189547
Cobalt (Co)-Total	0.000048		0.000010	mg/L		28-AUG-18	R4189547
Copper (Cu)-Total	0.00082		0.00010	mg/L		28-AUG-18	R4189547
Iron (Fe)-Total	0.0757		0.0010	mg/L		28-AUG-18	R4189547
Lead (Pb)-Total	0.000018		0.000010	mg/L		28-AUG-18	R4189547
Lithium (Li)-Total	0.00648		0.00050	mg/L		28-AUG-18	R4189547
Magnesium (Mg)-Total	3.48		0.0040	mg/L		28-AUG-18	R4189547
Manganese (Mn)-Total	0.0146		0.000050	mg/L		28-AUG-18	R4189547
Molybdenum (Mo)-Total	0.000192		0.000050	mg/L		28-AUG-18	R4189547
Nickel (Ni)-Total	0.000693		0.000060	mg/L		28-AUG-18	R4189547
Potassium (K)-Total	1.62		0.020	mg/L		28-AUG-18	R4189547
Selenium (Se)-Total	<0.000040		0.000040	mg/L		28-AUG-18	R4189547
Silver (Ag)-Total	<0.0000050		0.0000050	mg/L		28-AUG-18	R4189547
Sodium (Na)-Total	6.23		0.0050	mg/L		28-AUG-18	R4189547
Strontium (Sr)-Total	0.202		0.000050	mg/L		28-AUG-18	R4189547
Thallium (Tl)-Total	<0.0000050		0.0000050	mg/L		28-AUG-18	R4189547
Tin (Sn)-Total	<0.000050		0.000050	mg/L		28-AUG-18	R4189547
Titanium (Ti)-Total	<0.00010		0.00010	mg/L		28-AUG-18	R4189547

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

Sample Details/Parameters		Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2139293-10	A8-02							
Sampled By: CLIENT on 24-JUL-18 @ 10:00								
Matrix: WATER								
Metals in Water by CRC ICPMS (No Digest)								
Uranium (U)-Total		0.000033		0.000010	mg/L		28-AUG-18	R4189547
Vanadium (V)-Total		<0.000050		0.000050	mg/L		28-AUG-18	R4189547
Zinc (Zn)-Total		<0.00080		0.00080	mg/L		28-AUG-18	R4189547
Diss. Metals in Water by CRC ICPMS (Ult)								
Dissolved Metals Filtration Location		FIELD					24-AUG-18	R4182500
Aluminum (Al)-Dissolved		0.00153		0.00030	mg/L		30-AUG-18	R4194848
Antimony (Sb)-Dissolved		0.000134		0.000020	mg/L		30-AUG-18	R4194848
Arsenic (As)-Dissolved		0.00219		0.000020	mg/L		30-AUG-18	R4194848
Barium (Ba)-Dissolved		0.0238		0.000050	mg/L		30-AUG-18	R4194848
Beryllium (Be)-Dissolved		<0.000010		0.000010	mg/L		30-AUG-18	R4194848
Bismuth (Bi)-Dissolved		<0.000010		0.000010	mg/L		30-AUG-18	R4194848
Boron (B)-Dissolved		0.0028		0.0010	mg/L		30-AUG-18	R4194848
Cadmium (Cd)-Dissolved		<0.0000050		0.0000050	mg/L		30-AUG-18	R4194848
Calcium (Ca)-Dissolved		28.0		0.020	mg/L		30-AUG-18	R4194848
Chromium (Cr)-Dissolved		<0.000060		0.000060	mg/L		30-AUG-18	R4194848
Cobalt (Co)-Dissolved		0.000024		0.000010	mg/L		30-AUG-18	R4194848
Copper (Cu)-Dissolved		0.00073		0.00010	mg/L		30-AUG-18	R4194848
Iron (Fe)-Dissolved		0.0366		0.0010	mg/L		30-AUG-18	R4194848
Lead (Pb)-Dissolved		0.000017		0.000010	mg/L		30-AUG-18	R4194848
Lithium (Li)-Dissolved		0.00682		0.00050	mg/L		30-AUG-18	R4194848
Magnesium (Mg)-Dissolved		3.51		0.0040	mg/L		30-AUG-18	R4194848
Manganese (Mn)-Dissolved		0.00171		0.000050	mg/L		30-AUG-18	R4194848
Molybdenum (Mo)-Dissolved		0.000202		0.000050	mg/L		30-AUG-18	R4194848
Nickel (Ni)-Dissolved		0.000904		0.000060	mg/L		30-AUG-18	R4194848
Potassium (K)-Dissolved		1.61		0.020	mg/L		30-AUG-18	R4194848
Selenium (Se)-Dissolved		<0.000040		0.000040	mg/L		30-AUG-18	R4194848
Silver (Ag)-Dissolved		<0.0000050		0.0000050	mg/L		30-AUG-18	R4194848
Sodium (Na)-Dissolved		6.28		0.0050	mg/L		30-AUG-18	R4194848
Strontium (Sr)-Dissolved		0.192		0.000050	mg/L		30-AUG-18	R4194848
Thallium (Tl)-Dissolved		<0.0000050		0.0000050	mg/L		30-AUG-18	R4194848
Tin (Sn)-Dissolved		<0.000050		0.000050	mg/L		30-AUG-18	R4194848
Titanium (Ti)-Dissolved		<0.00010		0.00010	mg/L		30-AUG-18	R4194848
Uranium (U)-Dissolved		0.000034		0.000010	mg/L		30-AUG-18	R4194848
Vanadium (V)-Dissolved		0.000061		0.000050	mg/L		30-AUG-18	R4194848
Zinc (Zn)-Dissolved		0.00085		0.00080	mg/L		30-AUG-18	R4194848
Mercury, Dissolved								
Dissolved Mercury Filtration Location		FIELD					03-AUG-18	R4161092
Mercury (Hg)-Dissolved		1.20		0.50	ng/L		07-AUG-18	R4161122
L2139293-11	A8-03							
Sampled By: CLIENT on 24-JUL-18 @ 11:15								
Matrix: WATER								
Agnico-Golder Routine parameters								
Alkalinity, Bicarbonate								
Bicarbonate (HCO3)		54.7		1.2	mg/L		02-AUG-18	
Alkalinity, Carbonate								
Carbonate (CO3)		<0.60		0.60	mg/L		02-AUG-18	
Alkalinity, Hydroxide								
Hydroxide (OH)		<0.34		0.34	mg/L		02-AUG-18	
Alkalinity, Total (as CaCO3)								
Alkalinity, Total (as CaCO3)		44.8		1.0	mg/L		01-AUG-18	R4153108
Chloride in Water by IC (Low								

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2139293-11 A8-03							
Sampled By: CLIENT on 24-JUL-18 @ 11:15							
Matrix: WATER							
Chloride in Water by IC (Low Level)							
Chloride (Cl)	33.3		0.10	mg/L		01-AUG-18	R4158659
Conductivity							
Conductivity	204		1.0	umhos/cm		01-AUG-18	R4153108
Fluoride in Water by IC							
Fluoride (F)	0.027		0.020	mg/L		01-AUG-18	R4158659
Ion Balance Calculation							
Ion Balance	97.7			%		09-AUG-18	
TDS (Calculated)	102			mg/L		09-AUG-18	
Nitrate in Water by IC (Low Level)							
Nitrate (as N)	<0.0050		0.0050	mg/L		01-AUG-18	R4158659
Nitrate+Nitrite							
Nitrate and Nitrite as N	<0.0051		0.0051	mg/L		03-AUG-18	
Nitrite in Water by IC (Low Level)							
Nitrite (as N)	<0.0010		0.0010	mg/L		01-AUG-18	R4158659
Sulfate in Water by IC							
Sulfate (SO4)	4.44		0.30	mg/L		01-AUG-18	R4158659
Total Dissolved Solids (TDS)							
Total Dissolved Solids	163		20	mg/L		10-AUG-18	R4167826
Turbidity							
Turbidity	0.63		0.10	NTU		01-AUG-18	R4153812
pH							
pH	7.87		0.10	pH units		01-AUG-18	R4153108
Miscellaneous Parameters							
Ammonia, Total (as N)	0.0114		0.0050	mg/L		08-AUG-18	R4161373
Dissolved Organic Carbon	4.12		0.50	mg/L		17-AUG-18	R4178088
Cyanide, Free	<0.0010		0.0010	mg/L		01-AUG-18	R4154750
Hardness (as CaCO3)	79.8		0.053	mg/L		04-SEP-18	
Mercury (Hg)-Total	1.20		0.50	ng/L	15-AUG-18	15-AUG-18	R4175588
Orthophosphate-Dissolved (as P)	<0.0010		0.0010	mg/L		21-AUG-18	R4180345
Phosphorus (P)-Total	0.0024		0.0010	mg/L		15-AUG-18	R4172289
Phosphorus (P)-Total Dissolved	0.0011		0.0010	mg/L		20-AUG-18	R4178860
Silica, Reactive (as SiO2)	0.942		0.020	mg/L		04-AUG-18	R4161112
Total Kjeldahl Nitrogen	0.362		0.050	mg/L	17-AUG-18	20-AUG-18	R4178658
Cyanide, Total	<0.0010		0.0010	mg/L		01-AUG-18	R4154750
Total Organic Carbon	4.09		0.50	mg/L		17-AUG-18	R4178039
Total Suspended Solids	<1.0		1.0	mg/L		02-AUG-18	R4158489
Cyanide, Weak Acid Diss	<0.0010		0.0010	mg/L		01-AUG-18	R4154750
Metals in Water by CRC ICPMS (No Digest)							
Aluminum (Al)-Total	0.00296		0.00030	mg/L		28-AUG-18	R4189547
Antimony (Sb)-Total	<0.000020		0.000020	mg/L		28-AUG-18	R4189547
Arsenic (As)-Total	0.00288		0.000020	mg/L		28-AUG-18	R4189547
Barium (Ba)-Total	0.0228		0.000050	mg/L		28-AUG-18	R4189547
Beryllium (Be)-Total	<0.000010		0.000010	mg/L		28-AUG-18	R4189547
Bismuth (Bi)-Total	<0.000010		0.000010	mg/L		28-AUG-18	R4189547
Boron (B)-Total	0.0025		0.0010	mg/L		28-AUG-18	R4189547
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L		28-AUG-18	R4189547
Calcium (Ca)-Total	25.6		0.020	mg/L		28-AUG-18	R4189547
Chromium (Cr)-Total	<0.000060		0.000060	mg/L		28-AUG-18	R4189547
Cobalt (Co)-Total	0.000066		0.000010	mg/L		28-AUG-18	R4189547
Copper (Cu)-Total	0.00084		0.00010	mg/L		28-AUG-18	R4189547
Iron (Fe)-Total	0.0974		0.0010	mg/L		28-AUG-18	R4189547

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ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2139293-11 A8-03							
Sampled By: CLIENT on 24-JUL-18 @ 11:15							
Matrix: WATER							
Metals in Water by CRC ICPMS (No Digest)							
Lead (Pb)-Total	0.000017		0.000010	mg/L		28-AUG-18	R4189547
Lithium (Li)-Total	0.00537		0.00050	mg/L		28-AUG-18	R4189547
Magnesium (Mg)-Total	3.30		0.0040	mg/L		28-AUG-18	R4189547
Manganese (Mn)-Total	0.0187		0.000050	mg/L		28-AUG-18	R4189547
Molybdenum (Mo)-Total	0.000181		0.000050	mg/L		28-AUG-18	R4189547
Nickel (Ni)-Total	0.000859		0.000060	mg/L		28-AUG-18	R4189547
Potassium (K)-Total	1.55		0.020	mg/L		28-AUG-18	R4189547
Selenium (Se)-Total	<0.000040		0.000040	mg/L		31-AUG-18	R4195731
Silver (Ag)-Total	<0.0000050		0.0000050	mg/L		28-AUG-18	R4189547
Sodium (Na)-Total	5.64		0.0050	mg/L		28-AUG-18	R4189547
Strontium (Sr)-Total	0.173		0.000050	mg/L		28-AUG-18	R4189547
Thallium (Tl)-Total	<0.0000050		0.0000050	mg/L		28-AUG-18	R4189547
Tin (Sn)-Total	<0.000050		0.000050	mg/L		28-AUG-18	R4189547
Titanium (Ti)-Total	<0.00010		0.00010	mg/L		28-AUG-18	R4189547
Uranium (U)-Total	0.000030		0.000010	mg/L		28-AUG-18	R4189547
Vanadium (V)-Total	<0.000050		0.000050	mg/L		28-AUG-18	R4189547
Zinc (Zn)-Total	<0.00080		0.00080	mg/L		28-AUG-18	R4189547
Diss. Metals in Water by CRC ICPMS (Ult)							
Dissolved Metals Filtration Location	FIELD					24-AUG-18	R4182500
Aluminum (Al)-Dissolved	0.00185		0.00030	mg/L		30-AUG-18	R4194848
Antimony (Sb)-Dissolved	<0.000020		0.000020	mg/L		30-AUG-18	R4194848
Arsenic (As)-Dissolved	0.00248		0.000020	mg/L		30-AUG-18	R4194848
Barium (Ba)-Dissolved	0.0235		0.000050	mg/L		30-AUG-18	R4194848
Beryllium (Be)-Dissolved	<0.000010		0.000010	mg/L		30-AUG-18	R4194848
Bismuth (Bi)-Dissolved	<0.000010		0.000010	mg/L		30-AUG-18	R4194848
Boron (B)-Dissolved	0.0024		0.0010	mg/L		30-AUG-18	R4194848
Cadmium (Cd)-Dissolved	<0.0000050		0.0000050	mg/L		30-AUG-18	R4194848
Calcium (Ca)-Dissolved	26.3		0.020	mg/L		30-AUG-18	R4194848
Chromium (Cr)-Dissolved	0.000158		0.000060	mg/L		30-AUG-18	R4194848
Cobalt (Co)-Dissolved	0.000033		0.000010	mg/L		30-AUG-18	R4194848
Copper (Cu)-Dissolved	0.00084		0.00010	mg/L		30-AUG-18	R4194848
Iron (Fe)-Dissolved	0.0514		0.0010	mg/L		30-AUG-18	R4194848
Lead (Pb)-Dissolved	0.000011		0.000010	mg/L		30-AUG-18	R4194848
Lithium (Li)-Dissolved	0.00557		0.00050	mg/L		30-AUG-18	R4194848
Magnesium (Mg)-Dissolved	3.40		0.0040	mg/L		30-AUG-18	R4194848
Manganese (Mn)-Dissolved	0.00124		0.000050	mg/L		30-AUG-18	R4194848
Molybdenum (Mo)-Dissolved	0.000210		0.000050	mg/L		30-AUG-18	R4194848
Nickel (Ni)-Dissolved	0.00114		0.000060	mg/L		30-AUG-18	R4194848
Potassium (K)-Dissolved	1.54		0.020	mg/L		30-AUG-18	R4194848
Selenium (Se)-Dissolved	<0.000040		0.000040	mg/L		30-AUG-18	R4194848
Silver (Ag)-Dissolved	<0.0000050		0.0000050	mg/L		30-AUG-18	R4194848
Sodium (Na)-Dissolved	5.80		0.0050	mg/L		30-AUG-18	R4194848
Strontium (Sr)-Dissolved	0.171		0.000050	mg/L		30-AUG-18	R4194848
Thallium (Tl)-Dissolved	<0.0000050		0.0000050	mg/L		30-AUG-18	R4194848
Tin (Sn)-Dissolved	<0.000050		0.000050	mg/L		30-AUG-18	R4194848
Titanium (Ti)-Dissolved	<0.00010		0.00010	mg/L		30-AUG-18	R4194848
Uranium (U)-Dissolved	0.000031		0.000010	mg/L		30-AUG-18	R4194848
Vanadium (V)-Dissolved	<0.000050		0.000050	mg/L		30-AUG-18	R4194848
Zinc (Zn)-Dissolved	0.00147		0.00080	mg/L		30-AUG-18	R4194848
Mercury, Dissolved							
Dissolved Mercury Filtration Location	FIELD					03-AUG-18	R4161092

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

Sample Details/Parameters		Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2139293-11	A8-03							
Sampled By:	CLIENT on 24-JUL-18 @ 11:15							
Matrix:	WATER							
Mercury, Dissolved								
Mercury (Hg)-Dissolved		1.30		0.50	ng/L		07-AUG-18	R4161122
L2139293-12	R-18-07-02							
Sampled By:	CLIENT on 24-JUL-18							
Matrix:	WATER							
Agnico-Golder Routine parameters								
Alkalinity, Bicarbonate								
Bicarbonate (HCO3)		18.9		1.2	mg/L		02-AUG-18	
Alkalinity, Carbonate								
Carbonate (CO3)		<0.60		0.60	mg/L		02-AUG-18	
Alkalinity, Hydroxide								
Hydroxide (OH)		<0.34		0.34	mg/L		02-AUG-18	
Alkalinity, Total (as CaCO3)								
Alkalinity, Total (as CaCO3)		15.5		1.0	mg/L		01-AUG-18	R4153108
Chloride in Water by IC (Low Level)								
Chloride (Cl)		13.1		0.10	mg/L		01-AUG-18	R4158659
Conductivity								
Conductivity		86.4		1.0	umhos/cm		01-AUG-18	R4153108
Fluoride in Water by IC								
Fluoride (F)		0.021		0.020	mg/L		01-AUG-18	R4158659
Ion Balance Calculation								
Ion Balance		Low EC			%		09-AUG-18	
TDS (Calculated)		42.7			mg/L		09-AUG-18	
Nitrate in Water by IC (Low Level)								
Nitrate (as N)		0.0123		0.0050	mg/L		01-AUG-18	R4158659
Nitrate+Nitrite								
Nitrate and Nitrite as N		0.0135		0.0051	mg/L		03-AUG-18	
Nitrite in Water by IC (Low Level)								
Nitrite (as N)		0.0012		0.0010	mg/L		01-AUG-18	R4158659
Sulfate in Water by IC								
Sulfate (SO4)		4.20		0.30	mg/L		01-AUG-18	R4158659
Total Dissolved Solids (TDS)								
Total Dissolved Solids		53		13	mg/L		16-AUG-18	R4177308
Turbidity								
Turbidity		0.39		0.10	NTU		01-AUG-18	R4153812
pH								
pH		7.41		0.10	pH units		01-AUG-18	R4153108
Miscellaneous Parameters								
Ammonia, Total (as N)		0.0055		0.0050	mg/L		08-AUG-18	R4161373
Dissolved Organic Carbon		3.00		0.50	mg/L		17-AUG-18	R4178088
Cyanide, Free		<0.0010		0.0010	mg/L		01-AUG-18	R4154750
Hardness (as CaCO3)		25.5		0.053	mg/L		04-SEP-18	
Mercury (Hg)-Total		1.50		0.50	ng/L	15-AUG-18	15-AUG-18	R4175588
Orthophosphate-Dissolved (as P)		<0.0010		0.0010	mg/L		02-AUG-18	R4157709
Phosphorus (P)-Total		0.0020		0.0010	mg/L		15-AUG-18	R4172289
Phosphorus (P)-Total Dissolved		<0.0010		0.0010	mg/L		20-AUG-18	R4178860
Ra-226		<0.0041		0.0041	Bq/L	20-AUG-18	28-AUG-18	R4211673
Silica, Reactive (as SiO2)		0.402		0.010	mg/L		04-AUG-18	R4161112
Total Kjeldahl Nitrogen		0.235		0.050	mg/L	21-AUG-18	22-AUG-18	R4180486
Cyanide, Total		<0.0010		0.0010	mg/L		01-AUG-18	R4154750
Total Organic Carbon		3.01		0.50	mg/L		17-AUG-18	R4178039

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2139293-12 R-18-07-02							
Sampled By: CLIENT on 24-JUL-18							
Matrix: WATER							
Total Suspended Solids	<1.0		1.0	mg/L		02-AUG-18	R4158489
Cyanide, Weak Acid Diss	<0.0010		0.0010	mg/L		01-AUG-18	R4154750
Metals in Water by CRC ICPMS (No Digest)							
Aluminum (Al)-Total	0.0206		0.00030	mg/L		28-AUG-18	R4189547
Antimony (Sb)-Total	<0.000020		0.000020	mg/L		28-AUG-18	R4189547
Arsenic (As)-Total	0.000346		0.000020	mg/L		28-AUG-18	R4189547
Barium (Ba)-Total	0.00853		0.000050	mg/L		28-AUG-18	R4189547
Beryllium (Be)-Total	<0.000010		0.000010	mg/L		28-AUG-18	R4189547
Bismuth (Bi)-Total	<0.000010		0.000010	mg/L		28-AUG-18	R4189547
Boron (B)-Total	0.0046		0.0010	mg/L		28-AUG-18	R4189547
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L		28-AUG-18	R4189547
Calcium (Ca)-Total	7.67		0.020	mg/L		28-AUG-18	R4189547
Chromium (Cr)-Total	<0.000060		0.000060	mg/L		28-AUG-18	R4189547
Cobalt (Co)-Total	0.000027		0.000010	mg/L		28-AUG-18	R4189547
Copper (Cu)-Total	0.00070		0.00010	mg/L		28-AUG-18	R4189547
Iron (Fe)-Total	0.0233		0.0010	mg/L		28-AUG-18	R4189547
Lead (Pb)-Total	<0.000010		0.000010	mg/L		28-AUG-18	R4189547
Lithium (Li)-Total	0.00176		0.00050	mg/L		28-AUG-18	R4189547
Magnesium (Mg)-Total	1.38		0.0040	mg/L		28-AUG-18	R4189547
Manganese (Mn)-Total	0.00670		0.000050	mg/L		28-AUG-18	R4189547
Molybdenum (Mo)-Total	0.000057		0.000050	mg/L		28-AUG-18	R4189547
Nickel (Ni)-Total	0.000639		0.000060	mg/L		28-AUG-18	R4189547
Potassium (K)-Total	0.992		0.020	mg/L		28-AUG-18	R4189547
Selenium (Se)-Total	<0.000040		0.000040	mg/L		28-AUG-18	R4189547
Silver (Ag)-Total	<0.0000050		0.0000050	mg/L		28-AUG-18	R4189547
Sodium (Na)-Total	5.70		0.0050	mg/L		28-AUG-18	R4189547
Strontium (Sr)-Total	0.0559		0.000050	mg/L		28-AUG-18	R4189547
Thallium (Tl)-Total	<0.0000050		0.0000050	mg/L		28-AUG-18	R4189547
Tin (Sn)-Total	<0.000050		0.000050	mg/L		28-AUG-18	R4189547
Titanium (Ti)-Total	<0.00010		0.00010	mg/L		28-AUG-18	R4189547
Uranium (U)-Total	0.000016		0.000010	mg/L		28-AUG-18	R4189547
Vanadium (V)-Total	<0.000050		0.000050	mg/L		28-AUG-18	R4189547
Zinc (Zn)-Total	0.00140		0.00080	mg/L		28-AUG-18	R4189547
Diss. Metals in Water by CRC ICPMS (Ult)							
Dissolved Metals Filtration Location	FIELD					24-AUG-18	R4182500
Aluminum (Al)-Dissolved	0.0171		0.00030	mg/L		30-AUG-18	R4194848
Antimony (Sb)-Dissolved	<0.000020		0.000020	mg/L		30-AUG-18	R4194848
Arsenic (As)-Dissolved	0.000323		0.000020	mg/L		30-AUG-18	R4194848
Barium (Ba)-Dissolved	0.00858		0.000050	mg/L		30-AUG-18	R4194848
Beryllium (Be)-Dissolved	<0.000010		0.000010	mg/L		30-AUG-18	R4194848
Bismuth (Bi)-Dissolved	<0.000010		0.000010	mg/L		30-AUG-18	R4194848
Boron (B)-Dissolved	0.0044		0.0010	mg/L		30-AUG-18	R4194848
Cadmium (Cd)-Dissolved	<0.0000050		0.0000050	mg/L		30-AUG-18	R4194848
Calcium (Ca)-Dissolved	7.90		0.020	mg/L		30-AUG-18	R4194848
Chromium (Cr)-Dissolved	0.000083		0.000060	mg/L		30-AUG-18	R4194848
Cobalt (Co)-Dissolved	0.000011		0.000010	mg/L		30-AUG-18	R4194848
Copper (Cu)-Dissolved	0.00070		0.00010	mg/L		30-AUG-18	R4194848
Iron (Fe)-Dissolved	0.0103		0.0010	mg/L		30-AUG-18	R4194848
Lead (Pb)-Dissolved	<0.000010		0.000010	mg/L		30-AUG-18	R4194848
Lithium (Li)-Dissolved	0.00201		0.00050	mg/L		30-AUG-18	R4194848
Magnesium (Mg)-Dissolved	1.40		0.0040	mg/L		30-AUG-18	R4194848
Manganese (Mn)-Dissolved	0.00140		0.000050	mg/L		30-AUG-18	R4194848

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

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ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2139293-13 T-18-07-01							
Sampled By: CLIENT on 23-JUL-18 @ 16:30							
Matrix: WATER							
Cyanide, Free	<0.0010		0.0010	mg/L		01-AUG-18	R4154750
Hardness (as CaCO3)	<0.053		0.053	mg/L		04-SEP-18	
Mercury (Hg)-Total	<0.50		0.50	ng/L	15-AUG-18	15-AUG-18	R4175588
Orthophosphate-Dissolved (as P)	<0.0010		0.0010	mg/L		02-AUG-18	R4157709
Phosphorus (P)-Total	<0.0010		0.0010	mg/L		15-AUG-18	R4172289
Phosphorus (P)-Total Dissolved	<0.0010		0.0010	mg/L		20-AUG-18	R4178860
Silica, Reactive (as SiO2)	<0.010		0.010	mg/L		04-AUG-18	R4161112
Total Kjeldahl Nitrogen	<0.050		0.050	mg/L	21-AUG-18	22-AUG-18	R4180486
Cyanide, Total	<0.0010		0.0010	mg/L		01-AUG-18	R4154750
Total Organic Carbon	<0.50		0.50	mg/L		17-AUG-18	R4178039
Total Suspended Solids	<1.0		1.0	mg/L		02-AUG-18	R4158489
Cyanide, Weak Acid Diss	<0.0010		0.0010	mg/L		01-AUG-18	R4154750
Metals in Water by CRC ICPMS (No Digest)							
Aluminum (Al)-Total	0.00083	RRV	0.00030	mg/L		28-AUG-18	R4189547
Antimony (Sb)-Total	<0.000020		0.000020	mg/L		28-AUG-18	R4189547
Arsenic (As)-Total	<0.000020		0.000020	mg/L		28-AUG-18	R4189547
Barium (Ba)-Total	0.000051	RRV	0.000050	mg/L		28-AUG-18	R4189547
Beryllium (Be)-Total	<0.000010		0.000010	mg/L		28-AUG-18	R4189547
Bismuth (Bi)-Total	<0.000010		0.000010	mg/L		28-AUG-18	R4189547
Boron (B)-Total	0.0019	RRV	0.0010	mg/L		28-AUG-18	R4189547
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L		28-AUG-18	R4189547
Calcium (Ca)-Total	0.030	RRV	0.020	mg/L		28-AUG-18	R4189547
Chromium (Cr)-Total	<0.000060		0.000060	mg/L		28-AUG-18	R4189547
Cobalt (Co)-Total	<0.000010		0.000010	mg/L		28-AUG-18	R4189547
Copper (Cu)-Total	<0.00010		0.00010	mg/L		28-AUG-18	R4189547
Iron (Fe)-Total	<0.0010		0.0010	mg/L		28-AUG-18	R4189547
Lead (Pb)-Total	<0.000010		0.000010	mg/L		28-AUG-18	R4189547
Lithium (Li)-Total	<0.00050		0.00050	mg/L		28-AUG-18	R4189547
Magnesium (Mg)-Total	0.0120	RRV	0.0040	mg/L		28-AUG-18	R4189547
Manganese (Mn)-Total	<0.000050		0.000050	mg/L		28-AUG-18	R4189547
Molybdenum (Mo)-Total	<0.000050		0.000050	mg/L		28-AUG-18	R4189547
Nickel (Ni)-Total	<0.000060		0.000060	mg/L		28-AUG-18	R4189547
Potassium (K)-Total	<0.020		0.020	mg/L		28-AUG-18	R4189547
Selenium (Se)-Total	<0.000040		0.000040	mg/L		28-AUG-18	R4189547
Silver (Ag)-Total	<0.0000050		0.0000050	mg/L		28-AUG-18	R4189547
Sodium (Na)-Total	<0.0050		0.0050	mg/L		28-AUG-18	R4189547
Strontium (Sr)-Total	<0.000050		0.000050	mg/L		28-AUG-18	R4189547
Thallium (Tl)-Total	<0.0000050		0.0000050	mg/L		28-AUG-18	R4189547
Tin (Sn)-Total	<0.000050		0.000050	mg/L		28-AUG-18	R4189547
Titanium (Ti)-Total	<0.00010		0.00010	mg/L		28-AUG-18	R4189547
Uranium (U)-Total	<0.000010		0.000010	mg/L		28-AUG-18	R4189547
Vanadium (V)-Total	<0.000050		0.000050	mg/L		28-AUG-18	R4189547
Zinc (Zn)-Total	<0.00080		0.00080	mg/L		28-AUG-18	R4189547
Diss. Metals in Water by CRC ICPMS (Ult)							
Dissolved Metals Filtration Location	FIELD					24-AUG-18	R4182500
Aluminum (Al)-Dissolved	0.00109		0.00030	mg/L		30-AUG-18	R4194848
Antimony (Sb)-Dissolved	<0.000020		0.000020	mg/L		30-AUG-18	R4194848
Arsenic (As)-Dissolved	<0.000020		0.000020	mg/L		30-AUG-18	R4194848
Barium (Ba)-Dissolved	0.000053		0.000050	mg/L		30-AUG-18	R4194848
Beryllium (Be)-Dissolved	<0.000010		0.000010	mg/L		30-AUG-18	R4194848
Bismuth (Bi)-Dissolved	<0.000010		0.000010	mg/L		30-AUG-18	R4194848

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2139293-13 T-18-07-01							
Sampled By: CLIENT on 23-JUL-18 @ 16:30							
Matrix: WATER							
Diss. Metals in Water by CRC ICPMS (Ult)							
Boron (B)-Dissolved	0.0023		0.0010	mg/L		30-AUG-18	R4194848
Cadmium (Cd)-Dissolved	<0.0000050		0.0000050	mg/L		30-AUG-18	R4194848
Calcium (Ca)-Dissolved	<0.020		0.020	mg/L		30-AUG-18	R4194848
Chromium (Cr)-Dissolved	<0.000060		0.000060	mg/L		30-AUG-18	R4194848
Cobalt (Co)-Dissolved	<0.000010		0.000010	mg/L		30-AUG-18	R4194848
Copper (Cu)-Dissolved	<0.00010		0.00010	mg/L		30-AUG-18	R4194848
Iron (Fe)-Dissolved	0.0012		0.0010	mg/L		30-AUG-18	R4194848
Lead (Pb)-Dissolved	<0.000010		0.000010	mg/L		30-AUG-18	R4194848
Lithium (Li)-Dissolved	<0.00050		0.00050	mg/L		30-AUG-18	R4194848
Magnesium (Mg)-Dissolved	<0.0040		0.0040	mg/L		30-AUG-18	R4194848
Manganese (Mn)-Dissolved	<0.000050		0.000050	mg/L		30-AUG-18	R4194848
Molybdenum (Mo)-Dissolved	<0.000050		0.000050	mg/L		30-AUG-18	R4194848
Nickel (Ni)-Dissolved	<0.000060		0.000060	mg/L		30-AUG-18	R4194848
Potassium (K)-Dissolved	<0.020		0.020	mg/L		30-AUG-18	R4194848
Selenium (Se)-Dissolved	<0.000040		0.000040	mg/L		30-AUG-18	R4194848
Silver (Ag)-Dissolved	<0.0000050		0.0000050	mg/L		30-AUG-18	R4194848
Sodium (Na)-Dissolved	<0.0080	DLB	0.0080	mg/L		30-AUG-18	R4194848
Strontium (Sr)-Dissolved	<0.000050		0.000050	mg/L		30-AUG-18	R4194848
Thallium (Tl)-Dissolved	<0.0000050		0.0000050	mg/L		30-AUG-18	R4194848
Tin (Sn)-Dissolved	<0.000050		0.000050	mg/L		30-AUG-18	R4194848
Titanium (Ti)-Dissolved	<0.00010		0.00010	mg/L		30-AUG-18	R4194848
Uranium (U)-Dissolved	<0.000010		0.000010	mg/L		30-AUG-18	R4194848
Vanadium (V)-Dissolved	<0.000050		0.000050	mg/L		30-AUG-18	R4194848
Zinc (Zn)-Dissolved	<0.00080		0.00080	mg/L		30-AUG-18	R4194848
Mercury, Dissolved							
Dissolved Mercury Filtration Location	FIELD					03-AUG-18	R4161092
Mercury (Hg)-Dissolved	<0.50		0.50	ng/L		07-AUG-18	R4161122

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

Reference Information

Sample Parameter Qualifier Key:

Qualifier	Description
B	Method Blank exceeds ALS DQO. Associated sample results which are < Limit of Reporting or > 5 times blank level are considered reliable.
CNI	Test result for Total Cyanide may be biased high due to interference from high nitrite in this sample. Nitrite can cause false positives for T-CN at up to ~ 0.8% of the nitrite concentration. Interpret result as a maximum possible value.
DLB	Detection Limit Raised. Analyte detected at comparable level in Method Blank.
DTC	Dissolved concentration exceeds total. Results were confirmed by re-analysis.
K	Matrix Spike recovery outside ALS DQO due to sample matrix effects.
MB-LOR	Method Blank exceeds ALS DQO. Limits of Reporting have been adjusted for samples with positive hits below 5x blank level.
MS-B	Matrix Spike recovery could not be accurately calculated due to high analyte background in sample.
RRV	Reported Result Verified By Repeat Analysis

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
ALK-CO3CO3-CALC-WP	Water	Alkalinity, Carbonate	CALCULATION
The Alkalinity of water is a measure of its acid neutralizing capacity. Alkalinity is imparted by bicarbonate, carbonate and hydroxide components of water. The fraction of alkalinity contributed by carbonate is calculated and reported as mg CO3 2-/L.			
ALK-HCO3HCO3-CALC-WP	Water	Alkalinity, Bicarbonate	CALCULATION
The Alkalinity of water is a measure of its acid neutralizing capacity. Alkalinity is imparted by bicarbonate, carbonate and hydroxide components of water. The fraction of alkalinity contributed by bicarbonate is calculated and reported as mg HCO3-/L			
ALK-OHOH-CALC-WP	Water	Alkalinity, Hydroxide	CALCULATION
The Alkalinity of water is a measure of its acid neutralizing capacity. Alkalinity is imparted by bicarbonate, carbonate and hydroxide components of water. The fraction of alkalinity contributed by hydroxide is calculated and reported as mg OH-/L.			
ALK-TITR-WP	Water	Alkalinity, Total (as CaCO3)	APHA 2320B
The Alkalinity of water is a measure of its acid neutralizing capacity. Alkalinity is imparted by bicarbonate, carbonate and hydroxide components of water. Total alkalinity is determined by titration with a strong standard mineral acid to the successive HCO3- and H2CO3 endpoints indicated electrometrically.			
C-DOC-HTC-WP	Water	Dissolved Organic Carbon by Combustion	APHA 5310 B-WP
Filtered (0.45 um) sample is acidified and purged to remove inorganic carbon, then injected into a heated reaction chamber where organic carbon is oxidized to CO2 which is then transported in the carrier gas stream and measured via a non-dispersive infrared analyzer.			
C-TOC-HTC-WP	Water	Total Organic Carbon by Combustion	APHA 5310 B-WP
Sample is acidified and purged to remove inorganic carbon, then injected into a heated reaction chamber where organic carbon is oxidized to CO2 which is then transported in the carrier gas stream and measured via a non-dispersive infrared analyzer.			
CL-L-IC-N-WP	Water	Chloride in Water by IC (Low Level)	EPA 300.1 (mod)
Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.			
CN-FREE-CFA-WP	Water	Free Cyanide in water by CFA	ASTM D7237
This analysis is carried out using procedures adapted from ASTM Method 7237 "Free Cyanide with Flow Injection Analysis (FIA) Utilizing Gas Diffusion Separation and Amperometric Detection". Free cyanide is determined by in-line gas diffusion at pH 6 with final determination by colourimetric analysis.			
CN-T-CFA-WP	Water	Total Cyanide in water by CFA	ISO 14403-2
This analysis is carried out using procedures adapted from ISO Method 14403-2:2012 "Determination of Total Cyanide using Flow Analysis (FIA and CFA)". Total or strong acid dissociable (SAD) cyanide is determined by in-line UV digestion along with sample distillation and final determination by colourimetric analysis.			
CN-WAD-CFA-WP	Water	Weak Acid Diss. Cyanide in water by CFA	APHA 4500-CN I
This analysis is carried out using procedures adapted from APHA Method 4500-CN I. "Weak Acid Dissociable Cyanide". Weak acid dissociable (WAD) cyanide is determined by in-line sample distillation and final determination by colourimetric analysis.			
EC-WP	Water	Conductivity	APHA 2510B
Conductivity of an aqueous solution refers to its ability to carry an electric current. Conductance of a solution is measured between two spatially fixed and chemically inert electrodes.			

Reference Information

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
ETL-HARDNESS-DIS-ED	Water	Hardness (from Dissolved Ca and Mg)	APHA 2340 B-Calculation
F-IC-N-WP	Water	Fluoride in Water by IC	EPA 300.1 (mod)
Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.			
HG-D-L-CVAF-WP	Water	Mercury, Dissolved	EPA 1631 D (modified)
Mercury in filtered aqueous matrices is oxidized with bromine monochloride and analyzed by cold-vapor atomic fluorescence spectrometer.			
HG-T-L-CVAF-WP	Water	Mercury, Total	EPA 1631 T (modified)
Mercury in unfiltered aqueous matrices is oxidized with bromine monochloride and analyzed by cold-vapor atomic fluorescence spectrometer.			
IONBALANCE-CALC-WP	Water	Ion Balance Calculation	APHA 1030E
Cation Sum, Anion Sum, and Ion Balance (as % difference) are calculated based on guidance from APHA Standard Methods (1030E Checking Correctness of Analysis). Because all aqueous solutions are electrically neutral, the calculated ion balance (% difference of cations minus anions) should be near-zero.			
Cation and Anion Sums are the total meq/L concentration of major cations and anions. Dissolved species are used where available. Minor ions are included where data is present. Ion Balance (as % difference) cannot be calculated accurately for waters with very low electrical conductivity (EC), and is reported as "Low EC" where EC < 100 uS/cm (umhos/cm). Ion Balance is calculated as:			
Ion Balance (%) = [Cation Sum-Anion Sum] / [Cation Sum+Anion Sum]			
MET-D-NP-U-CCMS-ED	Water	Diss. Metals in Water by CRC ICPMS (Ult)	APHA 3125-ICP-MS
Ultra trace metals in water are analyzed by ICPMS, based on US EPA Method 6020A (Jan 1998). This procedure is intended for pristine field-filtered acid-preserved water samples. ALS recommends that filtration blanks be submitted for this test to aid with interpretation of results.			
MET-T-NP-U-CCMS-ED	Water	Metals in Water by CRC ICPMS (No Digest)	APHA 3125-ICP-MS
Ultra trace metals in water are analyzed by ICPMS, based on US EPA Method 6020A (Jan 1998). The detection limits provided can only be met for undigested samples. This procedure is intended for pristine, non-turbid, acid-preserved water samples, where sample turbidity is < 1 NTU. Where turbidity exceeds 1 NTU, results may be biased low compared to true Total Metals concentrations. ALS recommends that turbidity analysis be requested on samples submitted for this test to aid with interpretation of results.			
NH3-L-CFA-ED	Water	Ammonia in Water by Colour	APHA 4500 NH3-NITROGEN (AMMONIA)
This analysis is carried out using procedures adapted from APHA Method 4500 NH3 "NITROGEN (AMMONIA)". Ammonia is determined using the automated phenate colourimetric method.			
NO2+NO3-CALC-L-WP	Water	Nitrate+Nitrite	CALCULATION
NO2-L-IC-N-WP	Water	Nitrite in Water by IC (Low Level)	EPA 300.1 (mod)
Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.			
NO3-L-IC-N-WP	Water	Nitrate in Water by IC (Low Level)	EPA 300.1 (mod)
Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.			
P-T-L-COL-WP	Water	Phosphorus, Total	APHA 4500 P PHOSPHORUS-L
This analysis is carried out using procedures adapted from APHA Method 4500-P "Phosphorus". Total Phosphorous is determined colourimetrically after persulphate digestion of the sample.			
P-TD-L-COL-WP	Water	Phosphorus, Total Dissolved	APHA 4500 P PHOSPHORUS-L
This analysis is carried out using procedures adapted from APHA Method 4500-P "Phosphorus". Total Dissolved Phosphorous is determined colourimetrically after persulphate digestion of a sample that has been lab or field filtered through a 0.45 micron membrane filter.			
PH-WP	Water	pH	APHA 4500H
The pH of a sample is the determination of the activity of the hydrogen ions by potentiometric measurement using a standard hydrogen electrode and a reference electrode.			
PO4-DO-L-COL-WP	Water	Phosphate Ortho Dissolved in Water	APHA 4500 P PHOSPHORUS-L
This analysis is carried out using procedures adapted from APHA Method 4500-P "Phosphorus". Dissolved Orthophosphate is determined colourimetrically on a sample that has been lab or field filtered through a 0.45 micron membrane filter.			
RA226-MMER-FC	Water	Ra226 by Alpha Scint, MDC=0.01 Bq/L	EPA 903.1
SIO2-L-COL-WP	Water	Reactive Silica by colour	APHA 4500 SIO2
This analysis is carried out using procedures adapted from APHA Method 4500-SiO2 "Silica". Molybdate Reactive Silica is determined by analysis of the sample using the heteropoly blue colourimetric method.			
SO4-IC-N-WP	Water	Sulfate in Water by IC	EPA 300.1 (mod)

Reference Information

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.			
TDS-WP	Water	Total Dissolved Solids (TDS)	APHA 2540 SOLIDS C,E
A well-mixed sample is filtered through a glass fiber filter paper. The filtrate is then evaporated to dryness in a pre-weighed vial and dried at 180 – 2C. The increase in vial weight represents the total dissolved solids.			
TKN-L-CFA-ED	Water	TKN in Water by Colour	APHA 4500-NORG (TKN)
This analysis is carried out using procedures adapted from APHA Method 4500-Norg "Nitrogen (Organic)". Total Kjeldahl Nitrogen is determined by sample digestion at 380 celcius with analysis using an automated colourimetric finish.			
TSS-LOW-VA	Water	Total Suspended Solids by Grav. (1 mg/L)	APHA 2540D
This analysis is carried out using procedures adapted from APHA Method 2540 "Solids". Solids are determined gravimetrically. Total suspended solids (TSS) are determined by filtering a sample through a glass fibre filter, TSS is determined by drying the filter at 104 degrees celsius. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.			
TURBIDITY-WP	Water	Turbidity	APHA 2130B (modified)
Turbidity in aqueous matrices is determined by the nephelometric method.			

** ALS test methods may incorporate modifications from specified reference methods to improve performance.

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location
WP	ALS ENVIRONMENTAL - WINNIPEG, MANITOBA, CANADA
ED	ALS ENVIRONMENTAL - EDMONTON, ALBERTA, CANADA
VA	ALS ENVIRONMENTAL - VANCOUVER, BRITISH COLUMBIA, CANADA
FC	ALS ENVIRONMENTAL - FORT COLLINS, COLORADO, USA

Chain of Custody Numbers:

GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.

mg/kg - milligrams per kilogram based on dry weight of sample
mg/kg ww - milligrams per kilogram based on wet weight of sample
mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight
mg/L - unit of concentration based on volume, parts per million.

< - Less than.
D.L. - The reporting limit.
N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.
UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.
Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.

Quality Control Report

Workorder: L2139293

Report Date: 21-FEB-19

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Client: Agnico-Eagle - Meliadine Gold Project
PO Box 99
Rankin Inlet NU X0C 0G0

Contact: JESSICA HUZA

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
ALK-TITR-WP		Water						
Batch	R4153108							
WG2839344-20 DUP		L2139293-8						
Alkalinity, Total (as CaCO ₃)		15.7	16.4		mg/L	4.4	20	01-AUG-18
WG2839344-14 LCS								
Alkalinity, Total (as CaCO ₃)			100.6		%		85-115	01-AUG-18
WG2839344-19 LCS								
Alkalinity, Total (as CaCO ₃)			101.4		%		85-115	01-AUG-18
WG2839344-11 MB								
Alkalinity, Total (as CaCO ₃)			<1.0		mg/L		1	01-AUG-18
WG2839344-16 MB								
Alkalinity, Total (as CaCO ₃)			<1.0		mg/L		1	01-AUG-18
C-DOC-HTC-WP		Water						
Batch	R4178088							
WG2854043-3 DUP		L2139293-12						
Dissolved Organic Carbon		3.00	2.96		mg/L	1.3	20	17-AUG-18
WG2854043-2 LCS								
Dissolved Organic Carbon			97.1		%		80-120	17-AUG-18
WG2854043-1 MB								
Dissolved Organic Carbon			<0.50		mg/L		0.5	17-AUG-18
WG2854043-4 MS		L2139293-13						
Dissolved Organic Carbon			97.7		%		70-130	17-AUG-18
C-TOC-HTC-WP		Water						
Batch	R4178039							
WG2854099-3 DUP		L2139293-1						
Total Organic Carbon		2.25	2.18		mg/L	3.2	20	17-AUG-18
WG2854099-2 LCS								
Total Organic Carbon			91.9		%		80-120	17-AUG-18
WG2854099-1 MB								
Total Organic Carbon			<0.50		mg/L		0.5	17-AUG-18
WG2854099-4 MS		L2139293-2						
Total Organic Carbon			95.8		%		70-130	17-AUG-18
CL-L-IC-N-WP		Water						
Batch	R4158659							
WG2838604-7 DUP		L2139293-9						
Chloride (Cl)		40.3	40.7		mg/L	0.9	20	01-AUG-18
WG2838604-2 LCS								
Chloride (Cl)			102.1		%		90-110	01-AUG-18
WG2838604-6 LCS								
Chloride (Cl)			102.2		%		90-110	01-AUG-18



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Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CL-L-IC-N-WP		Water						
Batch	R4158659							
WG2838604-1	MB							
Chloride (Cl)			<0.10		mg/L		0.1	01-AUG-18
WG2838604-5	MB							
Chloride (Cl)			<0.10		mg/L		0.1	01-AUG-18
WG2838604-8	MS	L2139293-9						
Chloride (Cl)			101.1		%		75-125	01-AUG-18
CN-FREE-CFA-WP		Water						
Batch	R4154750							
WG2838743-8	DUP	L2139293-1						
Cyanide, Free		<0.0010	<0.0010	RPD-NA	mg/L	N/A	20	01-AUG-18
WG2838743-2	LCS							
Cyanide, Free			104.4		%		80-120	01-AUG-18
WG2838743-7	LCS							
Cyanide, Free			104.7		%		80-120	01-AUG-18
WG2838743-1	MB							
Cyanide, Free			<0.0010		mg/L		0.001	01-AUG-18
WG2838743-6	MB							
Cyanide, Free			<0.0010		mg/L		0.001	01-AUG-18
WG2838743-9	MS	L2139293-1						
Cyanide, Free			104.4		%		75-125	01-AUG-18
CN-T-CFA-WP		Water						
Batch	R4154750							
WG2838743-8	DUP	L2139293-1						
Cyanide, Total		<0.0010	<0.0010	RPD-NA	mg/L	N/A	20	01-AUG-18
WG2838743-2	LCS							
Cyanide, Total			95.8		%		80-120	01-AUG-18
WG2838743-7	LCS							
Cyanide, Total			94.6		%		80-120	01-AUG-18
WG2838743-1	MB							
Cyanide, Total			<0.0010		mg/L		0.001	01-AUG-18
WG2838743-6	MB							
Cyanide, Total			<0.0010		mg/L		0.001	01-AUG-18
WG2838743-9	MS	L2139293-1						
Cyanide, Total			94.7		%		75-125	01-AUG-18
CN-WAD-CFA-WP		Water						

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Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CN-WAD-CFA-WP		Water						
Batch	R4154750							
WG2838743-8	DUP	L2139293-1						
Cyanide, Weak Acid Diss		<0.0010	<0.0010	RPD-NA	mg/L	N/A	20	01-AUG-18
WG2838743-2	LCS							
Cyanide, Weak Acid Diss			102.8		%		80-120	01-AUG-18
WG2838743-7	LCS							
Cyanide, Weak Acid Diss			101.3		%		80-120	01-AUG-18
WG2838743-1	MB							
Cyanide, Weak Acid Diss			<0.0010		mg/L		0.001	01-AUG-18
WG2838743-6	MB							
Cyanide, Weak Acid Diss			<0.0010		mg/L		0.001	01-AUG-18
WG2838743-9	MS	L2139293-1						
Cyanide, Weak Acid Diss			99.9		%		75-125	01-AUG-18
EC-WP		Water						
Batch	R4153108							
WG2839344-20	DUP	L2139293-8						
Conductivity		90.9	90.9		umhos/cm	0.0	10	01-AUG-18
WG2839344-13	LCS							
Conductivity			97.4		%		90-110	01-AUG-18
WG2839344-18	LCS							
Conductivity			97.8		%		90-110	01-AUG-18
WG2839344-11	MB							
Conductivity			<1.0		umhos/cm		1	01-AUG-18
WG2839344-16	MB							
Conductivity			<1.0		umhos/cm		1	01-AUG-18
F-IC-N-WP		Water						
Batch	R4158659							
WG2838604-7	DUP	L2139293-9						
Fluoride (F)		0.027	0.025		mg/L	6.7	20	01-AUG-18
WG2838604-2	LCS							
Fluoride (F)			102.9		%		90-110	01-AUG-18
WG2838604-6	LCS							
Fluoride (F)			104.3		%		90-110	01-AUG-18
WG2838604-1	MB							
Fluoride (F)			<0.020		mg/L		0.02	01-AUG-18
WG2838604-5	MB							
Fluoride (F)			<0.020		mg/L		0.02	01-AUG-18
WG2838604-8	MS	L2139293-9						
Fluoride (F)			107.9		%		75-125	01-AUG-18

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Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
HG-D-L-CVAF-WP		Water						
Batch	R4161122							
WG2843801-3	DUP	L2139293-10						
Mercury (Hg)-Dissolved		1.20	1.10		ng/L	8.7	20	07-AUG-18
WG2843801-2	LCS							
Mercury (Hg)-Dissolved			98.0		%		80-120	07-AUG-18
WG2843801-1	MB							
Mercury (Hg)-Dissolved			<0.50		ng/L		0.5	07-AUG-18
WG2843801-4	MS	L2139293-11						
Mercury (Hg)-Dissolved			80.0		%		70-130	07-AUG-18
Batch	R4175604							
WG2852944-2	LCS							
Mercury (Hg)-Dissolved			96.2		%		80-120	15-AUG-18
WG2852944-1	MB							
Mercury (Hg)-Dissolved			<0.50		ng/L		0.5	15-AUG-18
HG-T-L-CVAF-WP		Water						
Batch	R4175588							
WG2852941-3	DUP	L2139293-12						
Mercury (Hg)-Total		1.50	1.30		ng/L	14	20	15-AUG-18
WG2852930-2	LCS							
Mercury (Hg)-Total			99.8		%		80-120	15-AUG-18
WG2852941-2	LCS							
Mercury (Hg)-Total			94.4		%		80-120	15-AUG-18
WG2852930-1	MB							
Mercury (Hg)-Total			<0.50		ng/L		0.5	15-AUG-18
WG2852941-1	MB							
Mercury (Hg)-Total			<0.50		ng/L		0.5	15-AUG-18
WG2852941-4	MS	L2139293-13						
Mercury (Hg)-Total			93.0		%		70-130	15-AUG-18
MET-D-NP-U-CCMS-ED		Water						
Batch	R4194848							
WG2859280-2	LCS							
Aluminum (Al)-Dissolved			100.5		%		80-120	30-AUG-18
Antimony (Sb)-Dissolved			101.3		%		80-120	30-AUG-18
Arsenic (As)-Dissolved			98.8		%		80-120	30-AUG-18
Barium (Ba)-Dissolved			102.1		%		80-120	30-AUG-18
Beryllium (Be)-Dissolved			97.9		%		80-120	30-AUG-18
Bismuth (Bi)-Dissolved			96.8		%		80-120	30-AUG-18
Boron (B)-Dissolved			103.2		%		80-120	30-AUG-18

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Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-NP-U-CCMS-ED		Water						
Batch	R4194848							
WG2859280-2	LCS							
Cadmium (Cd)-Dissolved			97.9		%		80-120	30-AUG-18
Calcium (Ca)-Dissolved			101.2		%		80-120	30-AUG-18
Chromium (Cr)-Dissolved			98.1		%		80-120	30-AUG-18
Cobalt (Co)-Dissolved			99.4		%		80-120	30-AUG-18
Copper (Cu)-Dissolved			97.9		%		80-120	30-AUG-18
Iron (Fe)-Dissolved			99.7		%		80-120	30-AUG-18
Lead (Pb)-Dissolved			99.4		%		80-120	30-AUG-18
Lithium (Li)-Dissolved			99.3		%		80-120	30-AUG-18
Magnesium (Mg)-Dissolved			100.2		%		80-120	30-AUG-18
Manganese (Mn)-Dissolved			99.0		%		80-120	30-AUG-18
Molybdenum (Mo)-Dissolved			98.4		%		80-120	30-AUG-18
Nickel (Ni)-Dissolved			99.0		%		80-120	30-AUG-18
Potassium (K)-Dissolved			99.5		%		80-120	30-AUG-18
Selenium (Se)-Dissolved			97.8		%		80-120	30-AUG-18
Silver (Ag)-Dissolved			102.0		%		80-120	30-AUG-18
Sodium (Na)-Dissolved			102.9		%		80-120	30-AUG-18
Strontium (Sr)-Dissolved			98.6		%		80-120	30-AUG-18
Thallium (Tl)-Dissolved			100.3		%		80-120	30-AUG-18
Tin (Sn)-Dissolved			98.7		%		80-120	30-AUG-18
Titanium (Ti)-Dissolved			99.1		%		80-120	30-AUG-18
Uranium (U)-Dissolved			98.3		%		80-120	30-AUG-18
Vanadium (V)-Dissolved			100.2		%		80-120	30-AUG-18
Zinc (Zn)-Dissolved			96.1		%		80-120	30-AUG-18
WG2859280-1	MB							
Aluminum (Al)-Dissolved			<0.00030		mg/L		0.0003	30-AUG-18
Antimony (Sb)-Dissolved			<0.000020		mg/L		0.00002	30-AUG-18
Arsenic (As)-Dissolved			<0.000020		mg/L		0.00002	30-AUG-18
Barium (Ba)-Dissolved			<0.000050		mg/L		0.00005	30-AUG-18
Beryllium (Be)-Dissolved			<0.000010		mg/L		0.00001	30-AUG-18
Bismuth (Bi)-Dissolved			<0.000010		mg/L		0.00001	30-AUG-18
Boron (B)-Dissolved			<0.0010		mg/L		0.001	30-AUG-18
Cadmium (Cd)-Dissolved			<0.0000050		mg/L		0.000005	30-AUG-18
Calcium (Ca)-Dissolved			<0.020		mg/L		0.02	30-AUG-18
Chromium (Cr)-Dissolved			<0.000060		mg/L		0.00006	30-AUG-18

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Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-NP-U-CCMS-ED		Water						
Batch R4194848								
WG2859280-1 MB								
Cobalt (Co)-Dissolved			<0.000010		mg/L		0.00001	30-AUG-18
Copper (Cu)-Dissolved			<0.00010		mg/L		0.0001	30-AUG-18
Iron (Fe)-Dissolved			<0.0010		mg/L		0.001	30-AUG-18
Lead (Pb)-Dissolved			<0.000010		mg/L		0.00001	30-AUG-18
Lithium (Li)-Dissolved			<0.00050		mg/L		0.0005	30-AUG-18
Magnesium (Mg)-Dissolved			<0.0040		mg/L		0.004	30-AUG-18
Manganese (Mn)-Dissolved			<0.000050		mg/L		0.00005	30-AUG-18
Molybdenum (Mo)-Dissolved			<0.000050		mg/L		0.00005	30-AUG-18
Nickel (Ni)-Dissolved			<0.000060		mg/L		0.00006	30-AUG-18
Potassium (K)-Dissolved			<0.020		mg/L		0.02	30-AUG-18
Selenium (Se)-Dissolved			<0.000040		mg/L		0.00004	30-AUG-18
Silver (Ag)-Dissolved			<0.0000050		mg/L		0.000005	30-AUG-18
Sodium (Na)-Dissolved			0.0065	MB-LOR	mg/L		0.005	30-AUG-18
Strontium (Sr)-Dissolved			<0.000050		mg/L		0.00005	30-AUG-18
Thallium (Tl)-Dissolved			<0.0000050		mg/L		0.000005	30-AUG-18
Tin (Sn)-Dissolved			<0.000050		mg/L		0.00005	30-AUG-18
Titanium (Ti)-Dissolved			<0.00010		mg/L		0.0001	30-AUG-18
Uranium (U)-Dissolved			<0.000010		mg/L		0.00001	30-AUG-18
Vanadium (V)-Dissolved			<0.000050		mg/L		0.00005	30-AUG-18
Zinc (Zn)-Dissolved			<0.00080		mg/L		0.0008	30-AUG-18
Batch R4196265								
WG2857831-3 DUP		L2139293-8						
Aluminum (Al)-Dissolved		0.0218	0.0211		mg/L	3.2	20	01-SEP-18
Antimony (Sb)-Dissolved		<0.000020	<0.000020	RPD-NA	mg/L	N/A	20	01-SEP-18
Arsenic (As)-Dissolved		0.000330	0.000340		mg/L	3.1	20	01-SEP-18
Barium (Ba)-Dissolved		0.00865	0.00849		mg/L	1.9	20	01-SEP-18
Beryllium (Be)-Dissolved		<0.000010	<0.000010	RPD-NA	mg/L	N/A	20	01-SEP-18
Bismuth (Bi)-Dissolved		<0.000010	<0.000010	RPD-NA	mg/L	N/A	20	01-SEP-18
Boron (B)-Dissolved		0.0050	0.0049		mg/L	0.8	20	01-SEP-18
Cadmium (Cd)-Dissolved		<0.0000050	<0.0000050	RPD-NA	mg/L	N/A	20	01-SEP-18
Calcium (Ca)-Dissolved		8.10	8.04		mg/L	0.8	20	01-SEP-18
Chromium (Cr)-Dissolved		<0.000060	<0.000060	RPD-NA	mg/L	N/A	20	01-SEP-18
Cobalt (Co)-Dissolved		0.000015	0.000015		mg/L	4.4	20	01-SEP-18
Copper (Cu)-Dissolved		0.00069	0.00067		mg/L	3.4	20	01-SEP-18

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Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-NP-U-CCMS-ED		Water						
Batch	R4196265							
WG2857831-3	DUP	L2139293-8						
Iron (Fe)-Dissolved		0.0088	0.0084		mg/L	5.4	20	01-SEP-18
Lead (Pb)-Dissolved		<0.000010	<0.000010	RPD-NA	mg/L	N/A	20	01-SEP-18
Lithium (Li)-Dissolved		0.00206	0.00196		mg/L	4.6	20	01-SEP-18
Magnesium (Mg)-Dissolved		1.48	1.46		mg/L	1.6	20	01-SEP-18
Manganese (Mn)-Dissolved		0.00173	0.00167		mg/L	3.6	20	01-SEP-18
Molybdenum (Mo)-Dissolved		0.000064	0.000075		mg/L	15	20	01-SEP-18
Nickel (Ni)-Dissolved		0.000655	0.000646		mg/L	1.4	20	01-SEP-18
Potassium (K)-Dissolved		1.01	0.995		mg/L	1.0	20	01-SEP-18
Selenium (Se)-Dissolved		<0.000040	0.000048	RPD-NA	mg/L	N/A	20	01-SEP-18
Silver (Ag)-Dissolved		<0.0000050	<0.0000050	RPD-NA	mg/L	N/A	20	01-SEP-18
Sodium (Na)-Dissolved		6.22	6.14		mg/L	1.4	20	01-SEP-18
Strontium (Sr)-Dissolved		0.0604	0.0586		mg/L	3.2	20	01-SEP-18
Thallium (Tl)-Dissolved		<0.0000050	<0.0000050	RPD-NA	mg/L	N/A	20	01-SEP-18
Tin (Sn)-Dissolved		<0.000050	<0.000050	RPD-NA	mg/L	N/A	20	01-SEP-18
Titanium (Ti)-Dissolved		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	01-SEP-18
Uranium (U)-Dissolved		0.000019	0.000018		mg/L	3.0	20	01-SEP-18
Vanadium (V)-Dissolved		<0.000050	<0.000050	RPD-NA	mg/L	N/A	20	01-SEP-18
Zinc (Zn)-Dissolved		<0.00080	<0.00080	RPD-NA	mg/L	N/A	20	01-SEP-18
WG2857831-2	LCS							
Aluminum (Al)-Dissolved			105.1		%		80-120	01-SEP-18
Antimony (Sb)-Dissolved			97.8		%		80-120	01-SEP-18
Arsenic (As)-Dissolved			100.5		%		80-120	01-SEP-18
Barium (Ba)-Dissolved			101.4		%		80-120	01-SEP-18
Beryllium (Be)-Dissolved			103.1		%		80-120	01-SEP-18
Bismuth (Bi)-Dissolved			108.7		%		80-120	01-SEP-18
Boron (B)-Dissolved			96.7		%		80-120	01-SEP-18
Cadmium (Cd)-Dissolved			100.6		%		80-120	01-SEP-18
Calcium (Ca)-Dissolved			97.1		%		80-120	01-SEP-18
Chromium (Cr)-Dissolved			101.0		%		80-120	01-SEP-18
Cobalt (Co)-Dissolved			99.7		%		80-120	01-SEP-18
Copper (Cu)-Dissolved			98.5		%		80-120	01-SEP-18
Iron (Fe)-Dissolved			97.2		%		80-120	01-SEP-18
Lead (Pb)-Dissolved			110.6		%		80-120	01-SEP-18
Lithium (Li)-Dissolved			101.5		%		80-120	01-SEP-18

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Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-NP-U-CCMS-ED		Water						
Batch	R4196265							
WG2857831-2		LCS						
Magnesium (Mg)-Dissolved			102.9		%		80-120	01-SEP-18
Manganese (Mn)-Dissolved			102.9		%		80-120	01-SEP-18
Molybdenum (Mo)-Dissolved			100.8		%		80-120	01-SEP-18
Nickel (Ni)-Dissolved			99.1		%		80-120	01-SEP-18
Potassium (K)-Dissolved			101.1		%		80-120	01-SEP-18
Selenium (Se)-Dissolved			99.8		%		80-120	01-SEP-18
Silver (Ag)-Dissolved			102.0		%		80-120	01-SEP-18
Sodium (Na)-Dissolved			100.5		%		80-120	01-SEP-18
Strontium (Sr)-Dissolved			99.6		%		80-120	01-SEP-18
Thallium (Tl)-Dissolved			106.5		%		80-120	01-SEP-18
Tin (Sn)-Dissolved			103.8		%		80-120	01-SEP-18
Titanium (Ti)-Dissolved			91.2		%		80-120	01-SEP-18
Uranium (U)-Dissolved			112.7		%		80-120	01-SEP-18
Vanadium (V)-Dissolved			100.1		%		80-120	01-SEP-18
Zinc (Zn)-Dissolved			106.1		%		80-120	01-SEP-18
WG2857831-1		MB						
Aluminum (Al)-Dissolved			0.00047	B	mg/L		0.0003	01-SEP-18
Antimony (Sb)-Dissolved			<0.000020		mg/L		0.00002	01-SEP-18
Arsenic (As)-Dissolved			<0.000020		mg/L		0.00002	01-SEP-18
Barium (Ba)-Dissolved			<0.000050		mg/L		0.00005	01-SEP-18
Beryllium (Be)-Dissolved			<0.000010		mg/L		0.00001	01-SEP-18
Bismuth (Bi)-Dissolved			<0.000010		mg/L		0.00001	01-SEP-18
Boron (B)-Dissolved			<0.0010		mg/L		0.001	01-SEP-18
Cadmium (Cd)-Dissolved			<0.0000050		mg/L		0.000005	01-SEP-18
Calcium (Ca)-Dissolved			<0.020		mg/L		0.02	01-SEP-18
Chromium (Cr)-Dissolved			<0.000060		mg/L		0.00006	01-SEP-18
Cobalt (Co)-Dissolved			<0.000010		mg/L		0.00001	01-SEP-18
Copper (Cu)-Dissolved			<0.00010		mg/L		0.0001	01-SEP-18
Iron (Fe)-Dissolved			<0.0010		mg/L		0.001	01-SEP-18
Lead (Pb)-Dissolved			<0.000010		mg/L		0.00001	01-SEP-18
Lithium (Li)-Dissolved			<0.00050		mg/L		0.0005	01-SEP-18
Magnesium (Mg)-Dissolved			<0.0040		mg/L		0.004	01-SEP-18
Manganese (Mn)-Dissolved			<0.000050		mg/L		0.00005	01-SEP-18
Molybdenum (Mo)-Dissolved			<0.000050		mg/L		0.00005	01-SEP-18

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Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-NP-U-CCMS-ED								
Water								
Batch	R4196265							
WG2857831-1 MB								
Nickel (Ni)-Dissolved			<0.000060		mg/L		0.00006	01-SEP-18
Potassium (K)-Dissolved			<0.020		mg/L		0.02	01-SEP-18
Selenium (Se)-Dissolved			<0.000040		mg/L		0.00004	01-SEP-18
Silver (Ag)-Dissolved			<0.0000050		mg/L		0.000005	01-SEP-18
Sodium (Na)-Dissolved			<0.0050		mg/L		0.005	01-SEP-18
Strontium (Sr)-Dissolved			<0.000050		mg/L		0.00005	01-SEP-18
Thallium (Tl)-Dissolved			<0.0000050		mg/L		0.000005	01-SEP-18
Tin (Sn)-Dissolved			<0.000050		mg/L		0.00005	01-SEP-18
Titanium (Ti)-Dissolved			<0.00010		mg/L		0.0001	01-SEP-18
Uranium (U)-Dissolved			<0.000010		mg/L		0.00001	01-SEP-18
Vanadium (V)-Dissolved			<0.000050		mg/L		0.00005	01-SEP-18
Zinc (Zn)-Dissolved			<0.00080		mg/L		0.0008	01-SEP-18
WG2857831-4 MS		L2139293-9						
Aluminum (Al)-Dissolved			108.3		%		70-130	01-SEP-18
Antimony (Sb)-Dissolved			122.6		%		70-130	01-SEP-18
Arsenic (As)-Dissolved			108.7		%		70-130	01-SEP-18
Barium (Ba)-Dissolved			N/A	MS-B	%		-	01-SEP-18
Beryllium (Be)-Dissolved			106.8		%		70-130	01-SEP-18
Bismuth (Bi)-Dissolved			98.6		%		70-130	01-SEP-18
Boron (B)-Dissolved			109.9		%		70-130	01-SEP-18
Cadmium (Cd)-Dissolved			111.2		%		70-130	01-SEP-18
Calcium (Ca)-Dissolved			N/A	MS-B	%		-	01-SEP-18
Chromium (Cr)-Dissolved			106.2		%		70-130	01-SEP-18
Cobalt (Co)-Dissolved			104.9		%		70-130	01-SEP-18
Copper (Cu)-Dissolved			106.0		%		70-130	01-SEP-18
Iron (Fe)-Dissolved			105.0		%		70-130	01-SEP-18
Lead (Pb)-Dissolved			108.0		%		70-130	01-SEP-18
Lithium (Li)-Dissolved			100.7		%		70-130	01-SEP-18
Magnesium (Mg)-Dissolved			N/A	MS-B	%		-	01-SEP-18
Manganese (Mn)-Dissolved			108.0		%		70-130	01-SEP-18
Molybdenum (Mo)-Dissolved			118.1		%		70-130	01-SEP-18
Nickel (Ni)-Dissolved			103.8		%		70-130	01-SEP-18
Potassium (K)-Dissolved			106.4		%		70-130	01-SEP-18
Selenium (Se)-Dissolved			111.5		%		70-130	01-SEP-18

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Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-NP-U-CCMS-ED		Water						
Batch	R4196265							
WG2857831-4 MS		L2139293-9						
Silver (Ag)-Dissolved			59.0	K	%		70-130	01-SEP-18
Sodium (Na)-Dissolved			N/A	MS-B	%		-	01-SEP-18
Strontium (Sr)-Dissolved			N/A	MS-B	%		-	01-SEP-18
Thallium (Tl)-Dissolved			107.3		%		70-130	01-SEP-18
Tin (Sn)-Dissolved			121.9		%		70-130	01-SEP-18
Titanium (Ti)-Dissolved			114.6		%		70-130	01-SEP-18
Uranium (U)-Dissolved			109.4		%		70-130	01-SEP-18
Vanadium (V)-Dissolved			105.6		%		70-130	01-SEP-18
Zinc (Zn)-Dissolved			100.4		%		70-130	01-SEP-18
MET-T-NP-U-CCMS-ED		Water						
Batch	R4189547							
WG2859162-2 LCS								
Aluminum (Al)-Total			101.7		%		80-120	28-AUG-18
Antimony (Sb)-Total			97.3		%		80-120	28-AUG-18
Arsenic (As)-Total			101.1		%		80-120	28-AUG-18
Barium (Ba)-Total			101.2		%		80-120	28-AUG-18
Beryllium (Be)-Total			102.2		%		80-120	28-AUG-18
Bismuth (Bi)-Total			93.6		%		80-120	28-AUG-18
Boron (B)-Total			95.1		%		80-120	28-AUG-18
Cadmium (Cd)-Total			99.0		%		80-120	28-AUG-18
Calcium (Ca)-Total			97.1		%		80-120	28-AUG-18
Chromium (Cr)-Total			103.5		%		80-120	28-AUG-18
Cobalt (Co)-Total			101.9		%		80-120	28-AUG-18
Copper (Cu)-Total			99.5		%		80-120	28-AUG-18
Iron (Fe)-Total			96.9		%		80-120	28-AUG-18
Lead (Pb)-Total			94.7		%		80-120	28-AUG-18
Lithium (Li)-Total			102.6		%		80-120	28-AUG-18
Magnesium (Mg)-Total			102.9		%		80-120	28-AUG-18
Manganese (Mn)-Total			103.6		%		80-120	28-AUG-18
Molybdenum (Mo)-Total			95.6		%		80-120	28-AUG-18
Nickel (Ni)-Total			101.7		%		80-120	28-AUG-18
Potassium (K)-Total			101.2		%		80-120	28-AUG-18
Selenium (Se)-Total			95.8		%		80-120	28-AUG-18
Silver (Ag)-Total			97.9		%		80-120	28-AUG-18

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Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-NP-U-CCMS-ED		Water						
Batch	R4189547							
WG2859162-2	LCS							
Sodium (Na)-Total			100.8		%		80-120	28-AUG-18
Strontium (Sr)-Total			97.8		%		80-120	28-AUG-18
Thallium (Tl)-Total			95.1		%		80-120	28-AUG-18
Tin (Sn)-Total			99.6		%		80-120	28-AUG-18
Titanium (Ti)-Total			94.2		%		80-120	28-AUG-18
Uranium (U)-Total			95.1		%		80-120	28-AUG-18
Vanadium (V)-Total			103.6		%		80-120	28-AUG-18
Zinc (Zn)-Total			98.2		%		80-120	28-AUG-18
WG2859162-1	MB							
Aluminum (Al)-Total			<0.00030		mg/L		0.0003	28-AUG-18
Antimony (Sb)-Total			<0.000020		mg/L		0.00002	28-AUG-18
Arsenic (As)-Total			<0.000020		mg/L		0.00002	28-AUG-18
Barium (Ba)-Total			<0.000050		mg/L		0.00005	28-AUG-18
Beryllium (Be)-Total			<0.000010		mg/L		0.00001	28-AUG-18
Bismuth (Bi)-Total			<0.000010		mg/L		0.00001	28-AUG-18
Boron (B)-Total			<0.0010		mg/L		0.001	28-AUG-18
Cadmium (Cd)-Total			<0.0000050		mg/L		0.000005	28-AUG-18
Calcium (Ca)-Total			<0.020		mg/L		0.02	28-AUG-18
Chromium (Cr)-Total			<0.000060		mg/L		0.00006	28-AUG-18
Cobalt (Co)-Total			<0.000010		mg/L		0.00001	28-AUG-18
Copper (Cu)-Total			<0.00010		mg/L		0.0001	28-AUG-18
Iron (Fe)-Total			<0.0010		mg/L		0.001	28-AUG-18
Lead (Pb)-Total			<0.000010		mg/L		0.00001	28-AUG-18
Lithium (Li)-Total			<0.00050		mg/L		0.0005	28-AUG-18
Magnesium (Mg)-Total			<0.0040		mg/L		0.004	28-AUG-18
Manganese (Mn)-Total			<0.000050		mg/L		0.00005	28-AUG-18
Molybdenum (Mo)-Total			<0.000050		mg/L		0.00005	28-AUG-18
Nickel (Ni)-Total			<0.000060		mg/L		0.00006	28-AUG-18
Potassium (K)-Total			<0.020		mg/L		0.02	28-AUG-18
Selenium (Se)-Total			<0.000040		mg/L		0.00004	28-AUG-18
Silver (Ag)-Total			<0.0000050		mg/L		0.000005	28-AUG-18
Sodium (Na)-Total			<0.0050		mg/L		0.005	28-AUG-18
Strontium (Sr)-Total			<0.000050		mg/L		0.00005	28-AUG-18
Thallium (Tl)-Total			<0.0000050		mg/L		0.000005	28-AUG-18

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Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-NP-U-CCMS-ED		Water						
Batch R4189547								
WG2859162-1 MB								
Tin (Sn)-Total			<0.000050		mg/L		0.00005	28-AUG-18
Titanium (Ti)-Total			<0.00010		mg/L		0.0001	28-AUG-18
Uranium (U)-Total			<0.000010		mg/L		0.00001	28-AUG-18
Vanadium (V)-Total			<0.000050		mg/L		0.00005	28-AUG-18
Zinc (Zn)-Total			<0.00080		mg/L		0.0008	28-AUG-18
Batch R4196265								
WG2857799-3 DUP		L2139293-8						
Aluminum (Al)-Total		0.0280	0.0282		mg/L	0.6	20	01-SEP-18
Antimony (Sb)-Total		<0.000020	<0.000020	RPD-NA	mg/L	N/A	20	01-SEP-18
Arsenic (As)-Total		0.000319	0.000326		mg/L	2.2	20	01-SEP-18
Barium (Ba)-Total		0.00888	0.00898		mg/L	1.1	20	01-SEP-18
Beryllium (Be)-Total		<0.000010	<0.000010	RPD-NA	mg/L	N/A	20	01-SEP-18
Bismuth (Bi)-Total		<0.000010	<0.000010	RPD-NA	mg/L	N/A	20	01-SEP-18
Boron (B)-Total		0.0052	0.0052		mg/L	0.4	20	01-SEP-18
Cadmium (Cd)-Total		<0.0000050	<0.0000050	RPD-NA	mg/L	N/A	20	01-SEP-18
Calcium (Ca)-Total		8.08	8.11		mg/L	0.4	20	01-SEP-18
Chromium (Cr)-Total		0.000069	0.000071		mg/L	2.7	20	01-SEP-18
Cobalt (Co)-Total		0.000030	0.000030		mg/L	0.1	20	01-SEP-18
Copper (Cu)-Total		0.00073	0.00078		mg/L	5.7	20	01-SEP-18
Iron (Fe)-Total		0.0286	0.0276		mg/L	3.4	25	01-SEP-18
Lead (Pb)-Total		<0.000010	<0.000010	RPD-NA	mg/L	N/A	20	01-SEP-18
Lithium (Li)-Total		0.00194	0.00192		mg/L	0.9	20	01-SEP-18
Magnesium (Mg)-Total		1.46	1.46		mg/L	0.0	20	01-SEP-18
Manganese (Mn)-Total		0.00770	0.00763		mg/L	1.0	20	01-SEP-18
Molybdenum (Mo)-Total		0.000078	0.000059	J	mg/L	0.000018	0.0001	01-SEP-18
Nickel (Ni)-Total		0.000738	0.000714		mg/L	3.3	20	01-SEP-18
Potassium (K)-Total		0.999	0.994		mg/L	0.6	20	01-SEP-18
Selenium (Se)-Total		<0.000040	<0.000040	RPD-NA	mg/L	N/A	20	01-SEP-18
Silver (Ag)-Total		<0.0000050	<0.0000050	RPD-NA	mg/L	N/A	20	01-SEP-18
Sodium (Na)-Total		6.06	5.82		mg/L	4.0	20	01-SEP-18
Strontium (Sr)-Total		0.0614	0.0606		mg/L	1.3	20	01-SEP-18
Thallium (Tl)-Total		<0.0000050	<0.0000050	RPD-NA	mg/L	N/A	20	01-SEP-18
Tin (Sn)-Total		<0.000050	<0.000050	RPD-NA	mg/L	N/A	20	01-SEP-18
Titanium (Ti)-Total		0.00013	0.00015		mg/L	9.6	20	01-SEP-18

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Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-NP-U-CCMS-ED								
Water								
Batch	R4196265							
WG2857799-1 MB								
Aluminum (Al)-Total			0.00086	B	mg/L		0.0003	01-SEP-18
Antimony (Sb)-Total			<0.000020		mg/L		0.00002	01-SEP-18
Arsenic (As)-Total			<0.000020		mg/L		0.00002	01-SEP-18
Barium (Ba)-Total			<0.000050		mg/L		0.00005	01-SEP-18
Beryllium (Be)-Total			<0.000010		mg/L		0.00001	01-SEP-18
Bismuth (Bi)-Total			<0.000010		mg/L		0.00001	01-SEP-18
Boron (B)-Total			<0.0010		mg/L		0.001	01-SEP-18
Cadmium (Cd)-Total			<0.0000050		mg/L		0.000005	01-SEP-18
Calcium (Ca)-Total			<0.020		mg/L		0.02	01-SEP-18
Chromium (Cr)-Total			<0.000060		mg/L		0.00006	01-SEP-18
Cobalt (Co)-Total			<0.000010		mg/L		0.00001	01-SEP-18
Copper (Cu)-Total			<0.00010		mg/L		0.0001	01-SEP-18
Iron (Fe)-Total			<0.0010		mg/L		0.001	01-SEP-18
Lead (Pb)-Total			<0.000010		mg/L		0.00001	01-SEP-18
Lithium (Li)-Total			<0.00050		mg/L		0.0005	01-SEP-18
Magnesium (Mg)-Total			<0.0040		mg/L		0.004	01-SEP-18
Manganese (Mn)-Total			<0.000050		mg/L		0.00005	01-SEP-18
Molybdenum (Mo)-Total			<0.000050		mg/L		0.00005	01-SEP-18
Nickel (Ni)-Total			<0.000060		mg/L		0.00006	01-SEP-18
Potassium (K)-Total			<0.020		mg/L		0.02	01-SEP-18
Selenium (Se)-Total			<0.000040		mg/L		0.00004	01-SEP-18
Silver (Ag)-Total			<0.0000050		mg/L		0.000005	01-SEP-18
Sodium (Na)-Total			<0.0050		mg/L		0.005	01-SEP-18
Strontium (Sr)-Total			<0.000050		mg/L		0.00005	01-SEP-18
Thallium (Tl)-Total			<0.0000050		mg/L		0.000005	01-SEP-18
Tin (Sn)-Total			<0.000050		mg/L		0.00005	01-SEP-18
Titanium (Ti)-Total			<0.00010		mg/L		0.0001	01-SEP-18
Uranium (U)-Total			<0.000010		mg/L		0.00001	01-SEP-18
Vanadium (V)-Total			<0.000050		mg/L		0.00005	01-SEP-18
Zinc (Zn)-Total			<0.00080		mg/L		0.0008	01-SEP-18
WG2857799-4 MS		L2139293-9						
Aluminum (Al)-Total			107.0		%		70-130	01-SEP-18
Antimony (Sb)-Total			126.0		%		70-130	01-SEP-18
Arsenic (As)-Total			107.9		%		70-130	01-SEP-18



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Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
NH3-L-CFA-ED		Water						
Batch	R4161373							
WG2844128-6	LCS							
Ammonia, Total (as N)			94.2		%		85-115	08-AUG-18
WG2844128-1	MB							
Ammonia, Total (as N)			<0.0050		mg/L		0.005	08-AUG-18
WG2844128-5	MB							
Ammonia, Total (as N)			<0.0050		mg/L		0.005	08-AUG-18
WG2844128-9	MB							
Ammonia, Total (as N)			<0.0050		mg/L		0.005	08-AUG-18
NO2-L-IC-N-WP		Water						
Batch	R4158659							
WG2838604-7	DUP	L2139293-9						
Nitrite (as N)			<0.0010	RPD-NA	mg/L	N/A	20	01-AUG-18
WG2838604-2	LCS							
Nitrite (as N)			105.5		%		90-110	01-AUG-18
WG2838604-6	LCS							
Nitrite (as N)			104.2		%		90-110	01-AUG-18
WG2838604-1	MB							
Nitrite (as N)			<0.0010		mg/L		0.001	01-AUG-18
WG2838604-5	MB							
Nitrite (as N)			<0.0010		mg/L		0.001	01-AUG-18
WG2838604-8	MS	L2139293-9						
Nitrite (as N)			104.6		%		75-125	01-AUG-18
NO3-L-IC-N-WP		Water						
Batch	R4158659							
WG2838604-7	DUP	L2139293-9						
Nitrate (as N)			<0.0050	RPD-NA	mg/L	N/A	20	01-AUG-18
WG2838604-2	LCS							
Nitrate (as N)			102.6		%		90-110	01-AUG-18
WG2838604-6	LCS							
Nitrate (as N)			101.8		%		90-110	01-AUG-18
WG2838604-1	MB							
Nitrate (as N)			<0.0050		mg/L		0.005	01-AUG-18
WG2838604-5	MB							
Nitrate (as N)			<0.0050		mg/L		0.005	01-AUG-18
WG2838604-8	MS	L2139293-9						
Nitrate (as N)			101.6		%		75-125	01-AUG-18
P-T-L-COL-WP		Water						

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Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
P-T-L-COL-WP		Water						
Batch	R4172289							
WG2848158-11	DUP	L2139293-2						
Phosphorus (P)-Total		<0.0010	<0.0010	RPD-NA	mg/L	N/A	20	15-AUG-18
WG2848158-10	LCS							
Phosphorus (P)-Total			99.9		%		80-120	15-AUG-18
WG2848158-6	LCS							
Phosphorus (P)-Total			100.4		%		80-120	15-AUG-18
WG2848158-5	MB							
Phosphorus (P)-Total			<0.0010		mg/L		0.001	15-AUG-18
WG2848158-9	MB							
Phosphorus (P)-Total			<0.0010		mg/L		0.001	15-AUG-18
WG2848158-12	MS	L2139293-3						
Phosphorus (P)-Total			101.1		%		70-130	15-AUG-18
P-TD-L-COL-WP		Water						
Batch	R4178860							
WG2854008-3	DUP	L2139293-1						
Phosphorus (P)-Total Dissolved		<0.0010	<0.0010	RPD-NA	mg/L	N/A	20	20-AUG-18
WG2854008-2	LCS							
Phosphorus (P)-Total Dissolved			99.7		%		80-120	20-AUG-18
WG2854008-1	MB							
Phosphorus (P)-Total Dissolved			<0.0010		mg/L		0.001	20-AUG-18
WG2854008-4	MS	L2139293-2						
Phosphorus (P)-Total Dissolved			100.1		%		70-130	20-AUG-18
PH-WP		Water						
Batch	R4153108							
WG2839344-20	DUP	L2139293-8						
pH		7.39	7.41	J	pH units	0.02	0.2	01-AUG-18
WG2839344-12	LCS							
pH			7.48		pH units		7.3-7.5	01-AUG-18
WG2839344-17	LCS							
pH			7.47		pH units		7.3-7.5	01-AUG-18
PO4-DO-L-COL-WP		Water						
Batch	R4157709							
WG2840606-3	DUP	L2139293-1						
Orthophosphate-Dissolved (as P)		<0.0010	<0.0010	RPD-NA	mg/L	N/A	20	02-AUG-18
WG2840606-2	LCS							
Orthophosphate-Dissolved (as P)			100.1		%		80-120	02-AUG-18
WG2840606-1	MB							
Orthophosphate-Dissolved (as P)			<0.0010		mg/L		0.001	02-AUG-18

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Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PO4-DO-L-COL-WP								
Batch R4157709								
WG2840606-4 MS		L2139293-2						
Orthophosphate-Dissolved (as P)			106.8		%		70-130	02-AUG-18
Batch R4180345								
WG2856715-2 LCS								
Orthophosphate-Dissolved (as P)			98.5		%		80-120	21-AUG-18
WG2856715-1 MB								
Orthophosphate-Dissolved (as P)			<0.0010		mg/L		0.001	21-AUG-18
SIO2-L-COL-WP								
Batch R4161112								
WG2843745-7 DUP		L2139293-10						
Silica, Reactive (as SiO2)		0.708	0.689		mg/L	2.7	20	04-AUG-18
WG2843745-2 LCS								
Silica, Reactive (as SiO2)			104.9		%		85-115	04-AUG-18
WG2843745-6 LCS								
Silica, Reactive (as SiO2)			105.3		%		85-115	04-AUG-18
WG2843745-1 MB								
Silica, Reactive (as SiO2)			<0.010		mg/L		0.01	04-AUG-18
WG2843745-5 MB								
Silica, Reactive (as SiO2)			<0.010		mg/L		0.01	04-AUG-18
SO4-IC-N-WP								
Batch R4158659								
WG2838604-7 DUP		L2139293-9						
Sulfate (SO4)		5.48	5.51		mg/L	0.7	20	01-AUG-18
WG2838604-2 LCS								
Sulfate (SO4)			102.8		%		90-110	01-AUG-18
WG2838604-6 LCS								
Sulfate (SO4)			102.6		%		90-110	01-AUG-18
WG2838604-1 MB								
Sulfate (SO4)			<0.30		mg/L		0.3	01-AUG-18
WG2838604-5 MB								
Sulfate (SO4)			<0.30		mg/L		0.3	01-AUG-18
WG2838604-8 MS		L2139293-9						
Sulfate (SO4)			101.4		%		75-125	01-AUG-18
TDS-WP								
Water								



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Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
TDS-WP		Water						
Batch	R4160187							
WG2839372-2	LCS							
Total Dissolved Solids			97.8		%		85-115	02-AUG-18
WG2839372-1	MB							
Total Dissolved Solids			<4.0		mg/L		4	02-AUG-18
Batch	R4167826							
WG2845148-2	LCS							
Total Dissolved Solids			100.8		%		85-115	10-AUG-18
WG2845148-1	MB							
Total Dissolved Solids			<4.0		mg/L		4	10-AUG-18
Batch	R4177308							
WG2850860-3	DUP	L2139293-5						
Total Dissolved Solids			58	56	mg/L	4.7	20	16-AUG-18
WG2850860-2	LCS							
Total Dissolved Solids				99.2	%		85-115	16-AUG-18
WG2850860-1	MB							
Total Dissolved Solids			<4.0		mg/L		4	16-AUG-18
TKN-L-CFA-ED		Water						
Batch	R4178658							
WG2852974-2	LCS							
Total Kjeldahl Nitrogen			109		%		75-125	20-AUG-18
WG2852974-1	MB							
Total Kjeldahl Nitrogen			<0.050		mg/L		0.05	20-AUG-18
Batch	R4180486							
WG2855864-3	DUP	L2139293-1						
Total Kjeldahl Nitrogen			0.161	0.136	mg/L	17	20	22-AUG-18
WG2855864-2	LCS							
Total Kjeldahl Nitrogen				102	%		75-125	22-AUG-18
WG2855864-1	MB							
Total Kjeldahl Nitrogen			<0.050		mg/L		0.05	22-AUG-18
WG2855864-4	MS	L2139293-1						
Total Kjeldahl Nitrogen				104	%		70-130	22-AUG-18
TSS-LOW-VA		Water						
Batch	R4158489							
WG2840029-2	LCS							
Total Suspended Solids			87.6		%		85-115	02-AUG-18
WG2840029-1	MB							
Total Suspended Solids			<1.0		mg/L		1	02-AUG-18
TURBIDITY-WP		Water						



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Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
TURBIDITY-WP		Water						
Batch	R4153812							
WG2839544-2	LCS							
Turbidity			107.0		%		85-115	01-AUG-18
WG2839544-1	MB							
Turbidity			<0.10		NTU		0.1	01-AUG-18

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Legend:

Limit	ALS Control Limit (Data Quality Objectives)
DUP	Duplicate
RPD	Relative Percent Difference
N/A	Not Available
LCS	Laboratory Control Sample
SRM	Standard Reference Material
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ADE	Average Desorption Efficiency
MB	Method Blank
IRM	Internal Reference Material
CRM	Certified Reference Material
CCV	Continuing Calibration Verification
CVS	Calibration Verification Standard
LCSD	Laboratory Control Sample Duplicate

Sample Parameter Qualifier Definitions:

Qualifier	Description
B	Method Blank exceeds ALS DQO. Associated sample results which are < Limit of Reporting or > 5 times blank level are considered reliable.
J	Duplicate results and limits are expressed in terms of absolute difference.
K	Matrix Spike recovery outside ALS DQO due to sample matrix effects.
MB-LOR	Method Blank exceeds ALS DQO. Limits of Reporting have been adjusted for samples with positive hits below 5x blank level.
MS-B	Matrix Spike recovery could not be accurately calculated due to high analyte background in sample.
RPD-NA	Relative Percent Difference Not Available due to result(s) being less than detection limit.

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Hold Time Exceedances:

ALS Product Description	Sample ID	Sampling Date	Date Processed	Rec. HT	Actual HT	Units	Qualifier
Physical Tests							
Total Dissolved Solids (TDS)							
	1	25-JUL-18 10:15	02-AUG-18 07:00	7	8	days	EHTL
	2	25-JUL-18 12:00	02-AUG-18 07:00	7	8	days	EHTL
	3	25-JUL-18 14:00	02-AUG-18 07:00	7	8	days	EHTL
	4	25-JUL-18 16:00	02-AUG-18 07:00	7	8	days	EHTL
	5	23-JUL-18 15:00	16-AUG-18 07:00	7	24	days	EHTR
	6	22-JUL-18 09:00	16-AUG-18 07:00	7	25	days	EHTR
	7	24-JUL-18 15:30	16-AUG-18 07:00	7	23	days	EHTR
	8	23-JUL-18	16-AUG-18 07:00	7	24	days	EHTR
	9	24-JUL-18 08:45	10-AUG-18 07:00	7	17	days	EHTR
	10	24-JUL-18 10:00	10-AUG-18 07:00	7	17	days	EHTR
	11	24-JUL-18 11:15	10-AUG-18 07:00	7	17	days	EHTR
	12	24-JUL-18	16-AUG-18 07:00	7	23	days	EHTR
	13	23-JUL-18 16:30	16-AUG-18 07:00	7	24	days	EHTR
Total Suspended Solids by Grav. (1 mg/L)							
	1	25-JUL-18 10:15	02-AUG-18 14:05	7	8	days	EHTL
	2	25-JUL-18 12:00	02-AUG-18 14:05	7	8	days	EHTL
	3	25-JUL-18 14:00	02-AUG-18 14:05	7	8	days	EHTL
	4	25-JUL-18 16:00	02-AUG-18 14:05	7	8	days	EHTL
	5	23-JUL-18 15:00	02-AUG-18 14:05	7	10	days	EHTR
	6	22-JUL-18 09:00	02-AUG-18 14:05	7	11	days	EHTR
	7	24-JUL-18 15:30	02-AUG-18 14:05	7	9	days	EHTR
	8	23-JUL-18	02-AUG-18 14:05	7	10	days	EHTR
	9	24-JUL-18 08:45	02-AUG-18 14:05	7	9	days	EHTR
	10	24-JUL-18 10:00	02-AUG-18 14:05	7	9	days	EHTR
	11	24-JUL-18 11:15	02-AUG-18 14:05	7	9	days	EHTR
	12	24-JUL-18	02-AUG-18 14:05	7	9	days	EHTR
	13	23-JUL-18 16:30	02-AUG-18 14:05	7	10	days	EHTR
Turbidity							
	1	25-JUL-18 10:15	01-AUG-18 14:00	3	7	days	EHTR
	2	25-JUL-18 12:00	01-AUG-18 14:00	3	7	days	EHTR
	3	25-JUL-18 14:00	01-AUG-18 14:00	3	7	days	EHTR
	4	25-JUL-18 16:00	01-AUG-18 14:00	3	7	days	EHTR
	5	23-JUL-18 15:00	01-AUG-18 14:00	3	9	days	EHTR
	6	22-JUL-18 09:00	01-AUG-18 14:00	3	10	days	EHTR
	7	24-JUL-18 15:30	01-AUG-18 14:00	3	8	days	EHTR
	8	23-JUL-18	01-AUG-18 14:00	3	9	days	EHTR
	9	24-JUL-18 08:45	01-AUG-18 14:00	3	8	days	EHTR
	10	24-JUL-18 10:00	01-AUG-18 14:00	3	8	days	EHTR
	11	24-JUL-18 11:15	01-AUG-18 14:00	3	8	days	EHTR
	12	24-JUL-18	01-AUG-18 14:00	3	8	days	EHTR
	13	23-JUL-18 16:30	01-AUG-18 14:00	3	9	days	EHTR
pH							
	1	25-JUL-18 10:15	01-AUG-18 12:00	0.25	170	hours	EHTR-FM
	2	25-JUL-18 12:00	01-AUG-18 12:00	0.25	168	hours	EHTR-FM
	3	25-JUL-18 14:00	01-AUG-18 12:00	0.25	166	hours	EHTR-FM
	4	25-JUL-18 16:00	01-AUG-18 12:00	0.25	164	hours	EHTR-FM
	5	23-JUL-18 15:00	01-AUG-18 12:00	0.25	213	hours	EHTR-FM
	6	22-JUL-18 09:00	01-AUG-18 12:00	0.25	243	hours	EHTR-FM
	7	24-JUL-18 15:30	01-AUG-18 12:00	0.25	188	hours	EHTR-FM
	8	23-JUL-18	01-AUG-18 12:00	0.25	216	hours	EHTR-FM
	9	24-JUL-18 08:45	01-AUG-18 12:00	0.25	195	hours	EHTR-FM
	10	24-JUL-18 10:00	01-AUG-18 12:00	0.25	194	hours	EHTR-FM
	11	24-JUL-18 11:15	01-AUG-18 12:00	0.25	193	hours	EHTR-FM
	12	24-JUL-18	01-AUG-18 12:00	0.25	192	hours	EHTR-FM
	13	23-JUL-18 16:30	01-AUG-18 12:00	0.25	211	hours	EHTR-FM

Anions and Nutrients

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Hold Time Exceedances:

ALS Product Description	Sample ID	Sampling Date	Date Processed	Rec. HT	Actual HT	Units	Qualifier
Anions and Nutrients							
Nitrate in Water by IC (Low Level)							
	1	25-JUL-18 10:15	01-AUG-18 11:00	3	7	days	EHTR
	2	25-JUL-18 12:00	01-AUG-18 11:00	3	7	days	EHTR
	3	25-JUL-18 14:00	01-AUG-18 11:00	3	7	days	EHTR
	4	25-JUL-18 16:00	01-AUG-18 11:00	3	7	days	EHTR
	5	23-JUL-18 15:00	01-AUG-18 11:00	3	9	days	EHTR
	6	22-JUL-18 09:00	01-AUG-18 11:00	3	10	days	EHTR
	7	24-JUL-18 15:30	01-AUG-18 11:00	3	8	days	EHTR
	8	23-JUL-18	01-AUG-18 11:00	3	9	days	EHTR
	9	24-JUL-18 08:45	01-AUG-18 11:00	3	8	days	EHTR
	10	24-JUL-18 10:00	01-AUG-18 11:00	3	8	days	EHTR
	11	24-JUL-18 11:15	01-AUG-18 11:00	3	8	days	EHTR
	12	24-JUL-18	01-AUG-18 11:00	3	8	days	EHTR
	13	23-JUL-18 16:30	01-AUG-18 11:00	3	9	days	EHTR
Nitrite in Water by IC (Low Level)							
	1	25-JUL-18 10:15	01-AUG-18 11:00	3	7	days	EHTR
	2	25-JUL-18 12:00	01-AUG-18 11:00	3	7	days	EHTR
	3	25-JUL-18 14:00	01-AUG-18 11:00	3	7	days	EHTR
	4	25-JUL-18 16:00	01-AUG-18 11:00	3	7	days	EHTR
	5	23-JUL-18 15:00	01-AUG-18 11:00	3	9	days	EHTR
	6	22-JUL-18 09:00	01-AUG-18 11:00	3	10	days	EHTR
	7	24-JUL-18 15:30	01-AUG-18 11:00	3	8	days	EHTR
	8	23-JUL-18	01-AUG-18 11:00	3	9	days	EHTR
	9	24-JUL-18 08:45	01-AUG-18 11:00	3	8	days	EHTR
	10	24-JUL-18 10:00	01-AUG-18 11:00	3	8	days	EHTR
	11	24-JUL-18 11:15	01-AUG-18 11:00	3	8	days	EHTR
	12	24-JUL-18	01-AUG-18 11:00	3	8	days	EHTR
	13	23-JUL-18 16:30	01-AUG-18 11:00	3	9	days	EHTR
Phosphate Ortho Dissolved in Water							
	1	25-JUL-18 10:15	02-AUG-18 15:00	3	8	days	EHTR
	2	25-JUL-18 12:00	02-AUG-18 15:00	3	8	days	EHTR
	3	25-JUL-18 14:00	02-AUG-18 15:00	3	8	days	EHTR
	4	25-JUL-18 16:00	02-AUG-18 15:00	3	8	days	EHTR
	5	23-JUL-18 15:00	02-AUG-18 15:00	3	10	days	EHTR
	6	22-JUL-18 09:00	02-AUG-18 15:00	3	11	days	EHTR
	7	24-JUL-18 15:30	02-AUG-18 15:00	3	9	days	EHTR
	8	23-JUL-18	02-AUG-18 15:00	3	10	days	EHTR
	9	24-JUL-18 08:45	02-AUG-18 15:00	3	9	days	EHTR
	10	24-JUL-18 10:00	02-AUG-18 15:00	3	9	days	EHTR
	11	24-JUL-18 11:15	21-AUG-18 14:00	3	28	days	EHTR
	12	24-JUL-18	02-AUG-18 15:00	3	9	days	EHTR
	13	23-JUL-18 16:30	02-AUG-18 15:00	3	10	days	EHTR
Phosphorus, Total Dissolved							
	6	22-JUL-18 09:00	20-AUG-18 12:00	28	29	days	EHT
TKN in Water by Colour							
	6	22-JUL-18 09:00	21-AUG-18 00:00	28	30	days	EHT
	8	23-JUL-18	21-AUG-18 00:00	28	29	days	EHT
	12	24-JUL-18	22-AUG-18 00:00	28	29	days	EHT

Legend & Qualifier Definitions:

EHTR-FM:	Exceeded ALS recommended hold time prior to sample receipt. Field Measurement recommended.
EHTR:	Exceeded ALS recommended hold time prior to sample receipt.
EHTL:	Exceeded ALS recommended hold time prior to analysis. Sample was received less than 24 hours prior to expiry.
EHT:	Exceeded ALS recommended hold time prior to analysis.
Rec. HT:	ALS recommended hold time (see units).

Notes*:

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Where actual sampling date is not provided to ALS, the date (& time) of receipt is used for calculation purposes.
Where actual sampling time is not provided to ALS, the earlier of 12 noon on the sampling date or the time (& date) of receipt is used for calculation purposes. Samples for L2139293 were received on 01-AUG-18 09:40.

ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where available). For more information, please contact ALS.

The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against pre-determined data quality objectives to provide confidence in the accuracy of associated test results.

Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.



Wednesday, September 12, 2018

Judy Dalmaijer
ALS Environmental
1329 Niakwa Road East, Unit 12
Winnipeg, MB R2J 3T4

Re: ALS Workorder: 1808031
Project Name:
Project Number: L2139293

Dear Ms. Dalmaijer:

Ten water samples were received from ALS Environmental, on 8/2/2018. The samples were scheduled for the following analysis:

Radium-226

The results for these analyses are contained in the enclosed reports.

The data contained in the following report have been reviewed and approved by the personnel listed below. In addition, ALS certifies that the analyses reported herein are true, complete and correct within the limits of the methods employed.

Thank you for your confidence in ALS Environmental. Should you have any questions, please call.

Sincerely,

ALS Environmental
Katie M. O'Brien
Project Manager

ALS Environmental – Fort Collins is accredited by the following accreditation bodies for various testing scopes in accordance with requirements of each accreditation body. All testing is performed under the laboratory management system, which is maintained to meet these requirement and regulations. Please contact the laboratory or accreditation body for the current scope testing parameters.

ALS Environmental – Fort Collins	
Accreditation Body	License or Certification Number
AIHA	214884
Alaska (AK)	UST-086
Arizona (AZ)	AZ0742
California (CA)	06251CA
Colorado (CO)	CO01099
Florida (FL)	E87914
Idaho (ID)	CO01099
Kansas (KS)	E-10381
Kentucky (KY)	90137
PJ-LA (DoD ELAP/ISO 170250)	95377
Maryland (MD)	285
Missouri (MO)	175
Nebraska(NE)	NE-OS-24-13
Nevada (NV)	CO000782008A
New York (NY)	12036
North Dakota (ND)	R-057
Oklahoma (OK)	1301
Pennsylvania (PA)	68-03116
Tennessee (TN)	2976
Texas (TX)	T104704241
Utah (UT)	CO01099
Washington (WA)	C1280



1808031

Radium-226:

The samples were prepared and analyzed according to the current revision of SOP 783.

Sample 1808031-3 was originally prepped in batch RE180820-2 on 08/20/2018. Due to a laboratory incident, the sample was lost prior to analysis. A replacement was received from the client and the sample was analyzed on 09/11/2018 in batch RE180905-2. Please refer to NCR #14744 at the end of this report for further information.

All acceptance criteria were met.

ALS -- Fort Collins

Sample Number(s) Cross-Reference Table

OrderNum: 1808031

Client Name: ALS Environmental

Client Project Name:

Client Project Number: L2139293

Client PO Number: L2139293

Client Sample Number	Lab Sample Number	COC Number	Matrix	Date Collected	Time Collected
L2139293-1	1808031-1		WATER	25-Jul-18	
L2139293-2	1808031-2		WATER	25-Jul-18	
L2139293-3	1808031-3		WATER	25-Jul-18	
L2139293-4	1808031-4		WATER	25-Jul-18	
L2139293-5	1808031-5		WATER	23-Jul-18	
L2139293-6	1808031-6		WATER	22-Jul-18	
L2139293-7	1808031-7		WATER	24-Jul-18	
L2139293-8	1808031-8		WATER	23-Jul-18	
L2139293-12	1808031-9		WATER	24-Jul-18	
L2139293-13	1808031-10		WATER	23-Jul-18	



1808031

L2139293

WINNIPEG

Subcontract Request Form**Subcontract To:****WP-SHIPTO-FC-WED****ALS ENVIRONMENTAL - FORT COLLINS, COLORADO, USA**225 COMMERCE DRIVE
FORT COLLINS, CO 80524**NOTES:** Please reference on final report and invoice: PO# L2139293
ALS requires QC data to be provided with your final results.**Please see enclosed 10 sample(s) in 10 Container(s)**

SAMPLE NUMBER	ANALYTICAL REQUIRED	DATE SAMPLED	Priority Flag
		DUE DATE	
① L2139293-1 MEL-03-01		7/25/2018	
	Ra226 by Alpha Scint, MDC=0.01 Bq/L (RA226-MMER-FC 1)	8/22/2018	
② L2139293-2 MEL-03-02		7/25/2018	
	Ra226 by Alpha Scint, MDC=0.01 Bq/L (RA226-MMER-FC 1)	8/22/2018	
③ L2139293-3 MEL-03-03		7/25/2018	
	Ra226 by Alpha Scint, MDC=0.01 Bq/L (RA226-MMER-FC 1)	8/22/2018	
④ L2139293-4 MEL-03-04		7/25/2018	
	Ra226 by Alpha Scint, MDC=0.01 Bq/L (RA226-MMER-FC 1)	8/22/2018	
⑤ L2139293-5 MEL-01-08		7/23/2018	
	Ra226 by Alpha Scint, MDC=0.01 Bq/L (RA226-MMER-FC 1)	8/22/2018	
⑥ L2139293-6 MEL-01-07		7/22/2018	
	Ra226 by Alpha Scint, MDC=0.01 Bq/L (RA226-MMER-FC 1)	8/22/2018	
⑦ L2139293-7 MEL-01-09		7/24/2018	
	Ra226 by Alpha Scint, MDC=0.01 Bq/L (RA226-MMER-FC 1)	8/22/2018	
⑧ L2139293-8 R-18-07-01		7/23/2018	
	Ra226 by Alpha Scint, MDC=0.01 Bq/L (RA226-MMER-FC 1)	8/22/2018	
⑨ L2139293-12 R-18-07-02		7/24/2018	
	Ra226 by Alpha Scint, MDC=0.01 Bq/L (RA226-MMER-FC 1)	8/22/2018	
⑩ L2139293-13 T-18-07-01		7/23/2018	
	Ra226 by Alpha Scint, MDC=0.01 Bq/L (RA226-MMER-FC 1)	8/22/2018	



1808031

L2139293

WINNIPEG

Subcontract Request Form

Subcontract To:

ALS ENVIRONMENTAL - FORT COLLINS, COLORADO, USA

225 COMMERCE DRIVE
FORT COLLINS, CO 80524

Subcontract Info Contact: Judy Dalmaijer (204) 255-9749

Analysis and reporting info contact: Judy Dalmaijer
12-1329 NIAKWA ROAD E
WINNIPEG, MB R2J3T4

Phone: (204) 255-9749

Email: Judy.Dalmaijer@alsglobal.com

Please email confirmation of receipt to:

Judy.Dalmaijer@alsglobal.com

Shipped By:

BL

Date Shipped:

08/01/18

Received By:

C. Humble

Date Received:

8-2-18 6953

Verified By:

Date Verified:

Temperature:

10°

Sample Integrity Issues:



ALS Environmental - Fort Collins
CONDITION OF SAMPLE UPON RECEIPT FORM

Client: ALS - Winnipeg Workorder No: 1808031
Project Manager: KO Initials: CDI Date: 8-2-18

1. Are airbills / shipping documents present and/or removable?	DROP OFF	<u>YES</u>	NO
2. Are custody seals on shipping containers intact?	<u>NONE</u>	YES	NO
3. Are custody seals on sample containers intact?	<u>NONE</u>	YES	NO
4. Is there a COC (chain-of-custody) present?		<u>YES</u>	NO
5. Is the COC in agreement with samples received? (IDs, dates, times, # of samples, # of containers, matrix, requested analyses, etc.)		<u>YES</u>	NO
6. Are short-hold samples present?		YES	<u>NO</u>
7. Are all samples within holding times for the requested analyses?		<u>YES</u>	NO
8. Were all sample containers received intact? (not broken or leaking)		<u>YES</u>	NO
9. Is there sufficient sample for the requested analyses?		<u>YES</u>	NO
10. Are all samples in the proper containers for the requested analyses?		<u>YES</u>	NO
11. Are all aqueous samples preserved correctly, if required? (excluding volatiles)	N/A	<u>YES</u>	NO
12. Are all aqueous non-preserved samples pH 4-9?	<u>N/A</u>	YES	NO
13. Are all samples requiring no headspace (VOC, GRO, RSK/MEE, Rx CN/S, radon) free of bubbles > 6 mm (1/4 inch) diameter? (i.e. size of green pea)	<u>N/A</u>	YES	NO
14. Were the samples shipped on ice?		<u>YES</u>	NO
15. Were cooler temperatures measured at 0.1-6.0°C?	IR gun used*: #1 #3 #4	<u>RAD ONLY</u>	YES <u>NO</u>
Cooler #: <u>1</u>			
Temperature (°C): <u>12.2</u>			
No. of custody seals on cooler: <u>0</u>			
DOT Survey/ Acceptance Information	External µR/hr reading: <u>10</u>		
	Background µR/hr reading: <u>11</u>		
Were external µR/hr readings ≤ two times background and within DOT acceptance criteria? <u>YES</u> / NO / NA (If no, see Form 008.)			

Additional Information: Please provide details here for any NO responses to gray-shaded boxes above, or any other issues noted:

If applicable, was the client contacted? YES / NO / NA Contact: _____ Date/Time: _____

Project Manager Signature / Date: [Signature] 8/3/18



ALS Environmental - Fort Collins
CONDITION OF SAMPLE UPON RECEIPT FORM

Client: ALS Winnipeg Workorder No: 1808031
Project Manager: Kmo Initials: Kmo Date: 8/29/13

1. Are airbills / shipping documents present and/or removable?	DROP OFF	<u>YES</u>	NO
2. Are custody seals on shipping containers intact?	<u>NONE</u>	YES	NO
3. Are custody seals on sample containers intact?	<u>NONE</u>	YES	NO
4. Is there a COC (chain-of-custody) present?		YES	<u>NO</u>
5. Is the COC in agreement with samples received? (IDs, dates, times, # of samples, # of containers, matrix, requested analyses, etc.)		YES	<u>NO</u>
6. Are short-hold samples present?		YES	<u>NO</u>
7. Are all samples within holding times for the requested analyses?		<u>YES</u>	NO
8. Were all sample containers received intact? (not broken or leaking)		<u>YES</u>	NO
9. Is there sufficient sample for the requested analyses?		<u>YES</u>	NO
10. Are all samples in the proper containers for the requested analyses?		<u>YES</u>	NO
11. Are all aqueous samples preserved correctly, if required? (excluding volatiles)	<u>no</u>	<u>N/A</u>	<u>YES</u>
12. Are all aqueous non-preserved samples pH 4-9?	<u>no</u>	<u>N/A</u>	<u>YES</u>
13. Are all samples requiring no headspace (VOC, GRO, RSK/MEE, Rx CN/S, radon) free of bubbles > 6 mm (1/4 inch) diameter? (i.e. size of green pea)	<u>N/A</u>	YES	NO
14. Were the samples shipped on ice?		YES	<u>NO</u>
15. Were cooler temperatures measured at 0.1-6.0°C?	IR gun used*: #1 #3 #4	<u>RAD ONLY</u>	YES <u>NO</u>
Cooler #: <u>1</u>			
Temperature (°C): <u>Amb</u>			
No. of custody seals on cooler: <u>0</u>			
External µR/hr reading: <u>8</u>			
Background µR/hr reading: <u>10</u>			
Were external µR/hr readings ≤ two times background and within DOT acceptance criteria? YES / NO / NA (If no, see Form 008.)			

Additional Information: Please provide details here for any NO responses to gray-shaded boxes above, or any other issues noted:

Replacement sample - 3

If applicable, was the client contacted? YES / NO / NA Contact: _____ Date/Time: _____

Project Manager Signature / Date: [Signature] 8/29/13

1808031

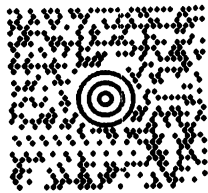
SHIPPING/RECIE VING
ALS LABORATORY GROUP
12042559764
1329 NIAKWA RD E
STE: 12
WINNIPEG MB R2J 3T4
CANADA

33 LBS 1 OF 1
SHP#: 662F 45MP 7RG
SHP WT: 33 LBS
DATE: 01 AUG 2018

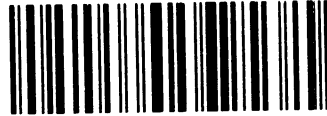
12.00

10-0

SHIP LOGIN
TO ALS ENVIRO
0
225 COMMERCE DRIVE
FORT COLLINS CO 80524
UNITED STATES



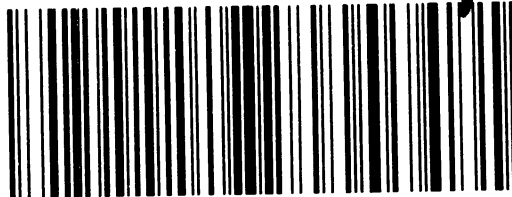
C0 805 0-01



UPS EXPRESS

TRACKING #: 1Z 662 F45 66 6680 7092

16.21
12.21



BILLING: F/D
DESC: water samples
PUROLATOR PIN: 6919904132



PIECE PIN: 6919904132



ups EXPORT #

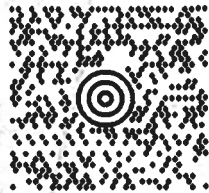
- 5)

1008031

Shipping/Receiving
ALS Laboratory Group
12042559764
1329 Niakwa RD E
Ste: 12
WINNIPEG MB R2J 3T4
CANADA

6 LBS 1 OF 1
SHP#: 662F 45MP C7S
SHP WT: 6 LBS
DATE: 28 AUG 2018

SHIP LOGIN
TO ALS ENVIRO
00
225 COMMERCE DRIVE
FORT COLLINS CO 80524
UNITED STATES

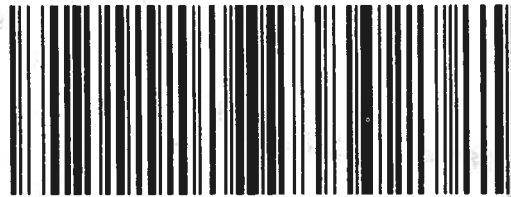


C0 805 0-01



UPS EXPRESS

TRACKING #: 1Z 662 F45 66 6683 0075



Client: ALS Environmental

Date: 12-Sep-18

Project: L2139293

Work Order: 1808031

Sample ID: L2139293-1

Lab ID: 1808031-1

Legal Location:

Matrix: WATER

Collection Date: 7/25/2018

Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Radium-226 by Radon Emanation - Method 903.1			SOP 783		Prep Date: 8/20/2018	PrepBy: CXW
Ra-226	0 (+/- 0.0032)	U	0.0067	BQ/l	NA	8/28/2018 11:49
Carr: BARIUM	90.9		40-110	%REC	DL = NA	8/28/2018 11:49

Client: ALS Environmental

Date: 12-Sep-18

Project: L2139293

Work Order: 1808031

Sample ID: L2139293-2

Lab ID: 1808031-2

Legal Location:

Matrix: WATER

Collection Date: 7/25/2018

Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed

Radium-226 by Radon Emanation - Method 903.1**SOP 783**

Prep Date: 8/20/2018

PrepBy: CXW

Ra-226 0.0059 (+/- 0.0049)

U

0.0065 BQ/l

NA

8/28/2018 11:49

Carr: BARIUM

97.5

40-110 %REC

DL = NA

8/28/2018 11:49

Client: ALS Environmental

Date: 12-Sep-18

Project: L2139293

Work Order: 1808031

Sample ID: L2139293-3

Lab ID: 1808031-3

Legal Location:

Matrix: WATER

Collection Date: 7/25/2018

Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed

Radium-226 by Radon Emanation - Method 903.1**SOP 783**

Prep Date: 9/5/2018

PrepBy: ASZ

Ra-226 0.0035 (+/- 0.0043)

U

0.0066 BQ/l

NA

9/11/2018 11:48

Carr: BARIUM

87.7

40-110 %REC

DL = NA

9/11/2018 11:48

Client: ALS Environmental

Date: 12-Sep-18

Project: L2139293

Work Order: 1808031

Sample ID: L2139293-4

Lab ID: 1808031-4

Legal Location:

Matrix: WATER

Collection Date: 7/25/2018

Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed

Radium-226 by Radon Emanation - Method 903.1**SOP 783**

Prep Date: 8/20/2018

PrepBy: CXW

Ra-226 0.011 (+/- 0.0062)

0.0067 BQ/l

NA

8/28/2018 11:49

Carr: BARIUM

93.3

40-110 %REC

DL = NA

8/28/2018 11:49

Client: ALS Environmental

Date: 12-Sep-18

Project: L2139293

Work Order: 1808031

Sample ID: L2139293-5

Lab ID: 1808031-5

Legal Location:

Matrix: WATER

Collection Date: 7/23/2018

Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed

Radium-226 by Radon Emanation - Method 903.1**SOP 783**

Prep Date: 8/20/2018

PrepBy: CXW

Ra-226 0.0020 (+/- 0.0045)

U

0.0081

BQ/l

NA

8/28/2018 11:49

Carr: BARIUM

94.4

40-110

%REC

DL = NA

8/28/2018 11:49

Client: ALS Environmental

Date: 12-Sep-18

Project: L2139293

Work Order: 1808031

Sample ID: L2139293-6

Lab ID: 1808031-6

Legal Location:

Matrix: WATER

Collection Date: 7/22/2018

Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed

Radium-226 by Radon Emanation - Method 903.1**SOP 783**

Prep Date: 8/20/2018

PrepBy: CXW

Ra-226 0.0037 (+/- 0.0049)

U

0.0078

BQ/l

NA

8/28/2018 11:49

Carr: BARIUM

92

40-110

%REC

DL = NA

8/28/2018 11:49

Client: ALS Environmental

Date: 12-Sep-18

Project: L2139293

Work Order: 1808031

Sample ID: L2139293-7

Lab ID: 1808031-7

Legal Location:

Matrix: WATER

Collection Date: 7/24/2018

Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Radium-226 by Radon Emanation - Method 903.1			SOP 783		Prep Date: 8/20/2018	PrepBy: CXW
Ra-226	0.10 (+/- 0.029)		0.0059	BQ/l	NA	8/28/2018 11:49
Carr: <i>BARIUM</i>	95.8		40-110	%REC	DL = NA	8/28/2018 11:49

Client: ALS Environmental

Date: 12-Sep-18

Project: L2139293

Work Order: 1808031

Sample ID: L2139293-8

Lab ID: 1808031-8

Legal Location:

Matrix: WATER

Collection Date: 7/23/2018

Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed

Radium-226 by Radon Emanation - Method 903.1**SOP 783**

Prep Date: 8/20/2018

PrepBy: CXW

Ra-226 0.0036 (+/- 0.0046)

U

0.0072 BQ/l

NA

8/28/2018 11:49

Carr: BARIUM

91.6

40-110 %REC

DL = NA

8/28/2018 11:49

Client: ALS Environmental

Date: 12-Sep-18

Project: L2139293

Work Order: 1808031

Sample ID: L2139293-12

Lab ID: 1808031-9

Legal Location:

Matrix: WATER

Collection Date: 7/24/2018

Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed

Radium-226 by Radon Emanation - Method 903.1**SOP 783**

Prep Date: 8/20/2018

PrepBy: CXW

Ra-226 0.0034 (+/- 0.0033)

U

0.0041

BQ/l

NA

8/28/2018 11:49

Carr: BARIUM

98.6

40-110

%REC

DL = NA

8/28/2018 11:49

Client: ALS Environmental

Date: 12-Sep-18

Project: L2139293

Work Order: 1808031

Sample ID: L2139293-13

Lab ID: 1808031-10

Legal Location:

Matrix: WATER

Collection Date: 7/23/2018

Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed

Radium-226 by Radon Emanation - Method 903.1**SOP 783**

Prep Date: 8/20/2018

PrepBy: CXW

Ra-226 0.0022 (+/- 0.0041)

Y1,U

0.0071

BQ/l

NA

8/28/2018 11:49

Carr: BARIUM

106

Y1

40-110

%REC

DL = NA

8/28/2018 11:49

Client: ALS Environmental

Date: 12-Sep-18

Project: L2139293

Work Order: 1808031

Sample ID: L2139293-13

Lab ID: 1808031-10

Legal Location:

Matrix: WATER

Collection Date: 7/23/2018

Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed

Explanation of Qualifiers**Radiochemistry:**

- "Report Limit" is the MDC

U or ND - Result is less than the sample specific MDC.

Y1 - Chemical Yield is in control at 100-110%. Quantitative yield is assumed.

Y2 - Chemical Yield outside default limits.

W - DER is greater than Warning Limit of 1.42

* - Aliquot Basis is 'As Received' while the Report Basis is 'Dry Weight'.

- Aliquot Basis is 'Dry Weight' while the Report Basis is 'As Received'.

G - Sample density differs by more than 15% of LCS density.

D - DER is greater than Control Limit

M - Requested MDC not met.

LT - Result is less than requested MDC but greater than achieved MDC.

M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.

L - LCS Recovery below lower control limit.

H - LCS Recovery above upper control limit.

P - LCS, Matrix Spike Recovery within control limits.

N - Matrix Spike Recovery outside control limits

NC - Not Calculated for duplicate results less than 5 times MDC

B - Analyte concentration greater than MDC.

B3 - Analyte concentration greater than MDC but less than Requested MDC.

Inorganics:

B - Result is less than the requested reporting limit but greater than the instrument method detection limit (MDL).

U or ND - Indicates that the compound was analyzed for but not detected.

E - The reported value is estimated because of the presence of interference. An explanatory note may be included in the narrative.

M - Duplicate injection precision was not met.

N - Spiked sample recovery not within control limits. A post spike is analyzed for all ICP analyses when the matrix spike and or spike duplicate fail and the native sample concentration is less than four times the spike added concentration.

Z - Spiked recovery not within control limits. An explanatory note may be included in the narrative.

* - Duplicate analysis (relative percent difference) not within control limits.

S - SAR value is estimated as one or more analytes used in the calculation were not detected above the detection limit.

Organics:

U or ND - Indicates that the compound was analyzed for but not detected.

B - Analyte is detected in the associated method blank as well as in the sample. It indicates probable blank contamination and warns the data user.

E - Analyte concentration exceeds the upper level of the calibration range.

J - Estimated value. The result is less than the reporting limit but greater than the instrument method detection limit (MDL).

A - A tentatively identified compound is a suspected aldol-condensation product.

X - The analyte was diluted below an accurate quantitation level.

* - The spike recovery is equal to or outside the control criteria used.

+ - The relative percent difference (RPD) equals or exceeds the control criteria.

G - A pattern resembling gasoline was detected in this sample.

D - A pattern resembling diesel was detected in this sample.

M - A pattern resembling motor oil was detected in this sample.

C - A pattern resembling crude oil was detected in this sample.

4 - A pattern resembling JP-4 was detected in this sample.

5 - A pattern resembling JP-5 was detected in this sample.

H - Indicates that the fuel pattern was in the heavier end of the retention time window for the analyte of interest.

L - Indicates that the fuel pattern was in the lighter end of the retention time window for the analyte of interest.

Z - This flag indicates that a significant fraction of the reported result did not resemble the patterns of any of the following petroleum hydrocarbon products:

- gasoline

- JP-8

- diesel

- mineral spirits

- motor oil

- Stoddard solvent

- bunker C

ALS -- Fort Collins

Date: 9/12/2018 10:10

Client: ALS Environmental

QC BATCH REPORT

Work Order: 1808031

Project: L2139293

Batch ID: RE180820-2-1

Instrument ID Alpha Scin

Method: Radium-226 by Radon Emanation

LCS	Sample ID: RE180820-2			Units: BQ/I		Analysis Date: 8/28/2018 13:09					
Client ID:		Run ID: RE180820-2A			Prep Date: 8/20/2018			DF: NA			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	DER Ref	DER	DER Limit	Qual
Ra-226	1.86 (+/- 0.465)	0.0184	1.771		105	67-120					P,M3
Carr: BARIUM	15300		16240		94	40-110					

LCSD	Sample ID: RE180820-2			Units: BQ/I			Analysis Date: 8/28/2018 13:09				
Client ID:	Run ID: RE180820-2A						Prep Date: 8/20/2018		DF: NA		
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	DER Ref	DER	DER Limit	Qual
Ra-226	1.87 (+/- 0.468)	0.0201	1.771		106	67-120		1.86	0.02	2.1	P,Y1,M3
Carr: BARIUM	16900		16240		104	40-110		15300			Y1

MB	Sample ID: RE180820-2				Units: BQ/I		Analysis Date: 8/28/2018 13:09				
Client ID:		Run ID: RE180820-2A				Prep Date: 8/20/2018			DF: NA		
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	DER Ref	DER	DER Limit	Qual
Ra-226	0.0010 (+/- 0.0033)	0.0063									U
Carr: BARIUM	14600		16240		90	40-110					

The following samples were analyzed in this batch:

1808031-1	1808031-2	1808031-4
1808031-5	1808031-6	1808031-7
1808031-8	1808031-9	1808031-10

Client: ALS Environmental
Work Order: 1808031
Project: L2139293

QC BATCH REPORT

Batch ID: **RE180905-2-1** Instrument ID **Alpha Scin** Method: **Radium-226 by Radon Emanation**

LCS	Sample ID: RE180905-2				Units: BQ/l		Analysis Date: 9/11/2018 13:21				
Client ID:		Run ID: RE180905-2A				Prep Date: 9/5/2018			DF: NA		
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	DER Ref	DER	DER Limit	Qual
Ra-226	1.39 (+/- 0.351)	0.0207	1.771		78.4	67-120					P,M3
Carr: BARIUM	15600		15930		97.9	40-110					

MB		Sample ID: RE180905-2				Units: BQ/l		Analysis Date: 9/11/2018 13:21			
Client ID:		Run ID: RE180905-2A				Prep Date: 9/5/2018			DF: NA		
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	DER Ref	DER	DER Limit	Qual
Ra-226	-0.00081 (+/- 0.0031)	0.0065									U
Carr: BARIUM	15200		15930		95.3	40-110					

The following samples were analyzed in this batch:

1808031-3

CONTROLLED NON-CONFORMANCE REPORT

Non-Conformance

Initiated By: Channing R. Weber on 9/4/2018

Event Type: Laboratory Incident/Error

Event Explanation: The lid to the vial on sample 1808301-3 fell apart while sample was ingrowing and all of sample leaked out before analysis could be completed.

Action To Prevent Recurrence: (isolated incident).(jfn)

Corrective Action

Corrective Action: Replacement volume received from client

Department Manager Approval:

Approval Date:

Corrective Action Comments:

Workorders Affected

Workorder -- Procedure

1808031 -- Ra226_RnE

Judy was contacted on 8/28/2018

Approved By

Katie M. OBrien

Approval Date

9/6/2018

Associated Batches

The samples were originally associated with the following Batch(es):

RE180820-2 created on 8/20/2018

All rework was completed in the following Batch(es):

Not Applicable

NCR Approval

Comments: Isolated incident.(jfn)

Project Manager Approval: KMO on 9/6/2018

Department Manager Approval:

QA Manager Approval: Joel F. Nolte on 9/10/2018



L2139293-COFC

C Number: 18 -

Page 1 of 2

Report To Contact and company name below will appear on the final report		Report Format / Distribution		☐ Standard TAT if received by 3 pm - business days - no surcharges apply ☐ Standard TAT if received by 3 pm - business days - no surcharges apply	
Company:	AGNICO EAGLE	Select Report Format:	☒ PDF ☒ EXCEL ☐ EDD (DIGITAL)	Regular [R] ☒ Standard TAT if received by 3 pm - business days - no surcharges apply 4 day [P4] ☐ 3 day [P3] ☐ 2 day [P2] ☐	
Contact:	Jessica Huza	Quality Control (QC) Report with Report:	☒ YES ☐ NO	1 Business day [E1] ☐ Same Day, Weekend or Statutory holiday [E0] ☐	
Phone:	1-819-759-3555 x3928	☐ Compare Results to Criteria on Report - provide details below if box checked Select Distribution:	☒ EMAIL ☐ MAIL ☐ FAX	Date and Time Required for all E&P TATs: dd-mm-yy hh:mm For tests that can not be performed according to the service level selected, you will be contacted.	
Company address below will appear on the final report		Select Distribution:			
Street:	PO Box 99	Email 1 or Fax:	meli.environment@agnicoeagle.com; jessica.huza@agnicoeagle.com		
City/Province:	Rankin Inlet, NU	Email 2:	Jarett_Nevill@golder.com; colleen_prather@golder.com		
Postal Code:	X0C 0G0	Email 3:	gal_equis@golder.com		
Invoice To:	Same as Report To ☒ YES ☐ NO	Invoice Distribution		Analysis Request	
Copy of Invoice with Report:	☒ YES ☐ NO	Select Invoice Distribution:	☒ EMAIL ☒ MAIL ☒ FAX	Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below	
Company:		Email 1 or Fax:			
Contact:		Email 2:			
Project Information		Oil and Gas Required Fields (client use)			
ALS Account # / Quote #:	Q57496	AFE/Cost Center:	PO#		
Job #:		Major/Minor Code:	Routing Code:		
PO / AFE:		Requisitioner:			
LSD:		Location:			
ALS Lab Work Order # (lab use only)		ALS Contact:	Sampler:		
ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mm-yy)	Time (hh:mm)	Sample Type	
1	MEL-03-01	25/07/18	10:15	Water	
2	MEL-03-02	25/07/18	12:00		
3	MEL-03-03	25/07/18	14:00		
4	MEL-03-04	25/07/18	16:00		
5	MEL-01-08	25/07/18	15:00		
6	MEL-01-07	24/07/18	9:00		
7	MEL-01-09	24/07/18	15:30		
8	R-18-07-01	23/07/18			
9	A-8-01	24/07/18	8:45		
10	A-8-02	24/07/18	10:00		
11	A-8-03	24/07/18	11:15		
12	R-18-07-02	24/07/18			
Drinking Water (DW) Samples¹ (client use) Are samples taken from a Regulated DW System? ☐ YES ☐ NO Are samples for human drinking water use? ☐ YES ☐ NO		Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only) EquiS facility code: 36923771		SAMPLE CONDITION AS RECEIVED (lab use only) Frozen ☐ SIF Observations Yes ☐ No ☐ Ice Packs ☐ Ice Cubes ☐ Custody seal intact Yes ☐ No ☐ Cooling Initiated ☐ INITIAL COOLER TEMPERATURES °C: _____ FINAL COOLER TEMPERATURES °C: _____	
SHIPMENT RELEASE (client use)		INITIAL SHIPMENT RECEPTION (lab use only)		FINAL SHIPMENT RECEPTION (lab use only)	
Released by:	Date:	Time:	Received by:	Date:	Time:
Brian Lingelbach	July 26/18	600		Aug 7/18	940

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Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

1. If any water samples are taken from a Regulated Drinking Water (DW) System, please submit using an Authorized DW COC form.

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

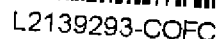
OCTOBER 2015 FRONT

C1-18°C C2-16°C C3-18°C C4-18°C C5-19°C C6-18°C



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COC Number: 18 -

Page 2 of 2

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1. If any water samples are taken from a **Regulated Drinking Water (DW) System**, please submit using an **Authorized DW COC form**.

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

OCTOBER 2015 FROM



Agnico-Eagle - Meliadine Gold Project
ATTN: JENNIFER BROWN
PO Box 99
Rankin Inlet NU X0C 0G0

Date Received: 27-AUG-18
Report Date: 21-FEB-19 07:21 (MT)
Version: FINAL REV. 2

Client Phone: 819-759-3555

Certificate of Analysis

Lab Work Order #: L2153439
Project P.O. #: NOT SUBMITTED
Job Reference: MEL
C of C Numbers:
Legal Site Desc: 63*06'52.2" 92*20'23.6"

Comments:

21-FEB-2019 revised report - GPS added

Hua Wo
Chemistry Laboratory Manager

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ADDRESS: 1329 Niakwa Road East, Unit 12, Winnipeg, MB R2J 3T4 Canada | Phone: +1 204 255 9720 | Fax: +1 204 255 9721
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ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters		Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2153439-1	R-18-08-01							
Sampled By:	CLIENT on 20-AUG-18 @ 10:00							
Matrix:	WATER							
Agnico-Golder Routine parameters								
Alkalinity, Bicarbonate								
Bicarbonate (HCO3)	20.6			1.2	mg/L		29-AUG-18	
Alkalinity, Carbonate								
Carbonate (CO3)	<0.60			0.60	mg/L		29-AUG-18	
Alkalinity, Hydroxide								
Hydroxide (OH)	<0.34			0.34	mg/L		29-AUG-18	
Alkalinity, Total (as CaCO3)								
Alkalinity, Total (as CaCO3)	16.9			1.0	mg/L		28-AUG-18	R4190248
Chloride in Water by IC (Low Level)								
Chloride (Cl)	8.29			0.10	mg/L		28-AUG-18	R4203645
Conductivity								
Conductivity	73.0			1.0	umhos/cm		28-AUG-18	R4190248
Fluoride in Water by IC								
Fluoride (F)	0.026			0.020	mg/L		28-AUG-18	R4203645
Hardness Calculated								
Hardness (as CaCO3)	20.9			0.20			27-AUG-18	
Ion Balance Calculation								
Ion Balance	Low EC				%		06-SEP-18	
TDS (Calculated)	35.3				mg/L		06-SEP-18	
Nitrate in Water by IC (Low Level)								
Nitrate (as N)	<0.0050			0.0050	mg/L		28-AUG-18	R4203645
Nitrate+Nitrite								
Nitrate and Nitrite as N	<0.0051			0.0051	mg/L		06-SEP-18	
Nitrite in Water by IC (Low Level)								
Nitrite (as N)	<0.0010			0.0010	mg/L		28-AUG-18	R4203645
Sulfate in Water by IC								
Sulfate (SO4)	3.83			0.30	mg/L		28-AUG-18	R4203645
Total Dissolved Solids (TDS)								
Total Dissolved Solids	35			13	mg/L		27-AUG-18	R4188028
Turbidity								
Turbidity	0.27			0.10	NTU		27-AUG-18	R4187547
pH								
pH	7.38			0.10	pH units		28-AUG-18	R4190248
Miscellaneous Parameters								
Ammonia, Total (as N)	<0.0050			0.0050	mg/L		30-AUG-18	R4194571
Dissolved Organic Carbon	2.25			0.50	mg/L		30-AUG-18	R4202908
Cyanide, Free	<0.0010			0.0010	mg/L		04-SEP-18	R4203591
Mercury (Hg)-Total	0.70			0.50	ng/L	13-SEP-18	13-SEP-18	R4216542
Orthophosphate-Dissolved (as P)	<0.0010			0.0010	mg/L		27-AUG-18	R4188130
Phosphorus (P)-Total	0.0045			0.0010	mg/L		12-SEP-18	R4214816
Phosphorus (P)-Total Dissolved	0.0021			0.0010	mg/L		12-SEP-18	R4214816
Ra-226	<0.0057			0.0057	Bq/L	20-SEP-18	30-SEP-18	R4252755
Silica, Reactive (as SiO2)	0.234			0.010	mg/L		31-AUG-18	R4195637
Total Kjeldahl Nitrogen	0.276			0.050	mg/L	13-SEP-18	14-SEP-18	R4216576
Cyanide, Total	<0.0010			0.0010	mg/L		29-AUG-18	R4194160
Total Organic Carbon	2.24			0.50	mg/L		30-AUG-18	R4202702
Total Suspended Solids	<1.0			1.0	mg/L		28-AUG-18	R4190906
Cyanide, Weak Acid Diss	<0.0010			0.0010	mg/L		29-AUG-18	R4194160
Metals in Water by CRC ICPMS (No Digest)								
Aluminum (Al)-Total	0.00328			0.00030	mg/L		28-SEP-18	R4251701
Antimony (Sb)-Total	<0.000020			0.000020	mg/L		28-SEP-18	R4251701

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2153439-1 R-18-08-01							
Sampled By: CLIENT on 20-AUG-18 @ 10:00							
Matrix: WATER							
Metals in Water by CRC ICPMS (No Digest)							
Arsenic (As)-Total	0.000213		0.000020	mg/L		28-SEP-18	R4251701
Barium (Ba)-Total	0.00736		0.000050	mg/L		28-SEP-18	R4251701
Beryllium (Be)-Total	<0.000010		0.000010	mg/L		28-SEP-18	R4251701
Bismuth (Bi)-Total	<0.000010		0.000010	mg/L		28-SEP-18	R4251701
Boron (B)-Total	0.0032		0.0010	mg/L		28-SEP-18	R4251701
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L		28-SEP-18	R4251701
Calcium (Ca)-Total	6.61		0.020	mg/L		28-SEP-18	R4251701
Chromium (Cr)-Total	<0.000060		0.000060	mg/L		28-SEP-18	R4251701
Cobalt (Co)-Total	0.000011		0.000010	mg/L		28-SEP-18	R4251701
Copper (Cu)-Total	0.00063		0.00010	mg/L		28-SEP-18	R4251701
Iron (Fe)-Total	0.0120		0.0010	mg/L		28-SEP-18	R4251701
Lead (Pb)-Total	<0.000010		0.000010	mg/L		28-SEP-18	R4251701
Lithium (Li)-Total	0.00070		0.00050	mg/L		28-SEP-18	R4251701
Magnesium (Mg)-Total	1.10		0.0040	mg/L		28-SEP-18	R4251701
Manganese (Mn)-Total	0.00266		0.000050	mg/L		28-SEP-18	R4251701
Molybdenum (Mo)-Total	0.000073		0.000050	mg/L		28-SEP-18	R4251701
Nickel (Ni)-Total	0.000394		0.000060	mg/L		28-SEP-18	R4251701
Potassium (K)-Total	0.900		0.020	mg/L		28-SEP-18	R4251701
Selenium (Se)-Total	<0.000040		0.000040	mg/L		28-SEP-18	R4251701
Silver (Ag)-Total	<0.0000050		0.0000050	mg/L		28-SEP-18	R4251701
Sodium (Na)-Total	4.47		0.0050	mg/L		28-SEP-18	R4251701
Strontium (Sr)-Total	0.0321		0.000050	mg/L		28-SEP-18	R4251701
Thallium (Tl)-Total	<0.0000050		0.0000050	mg/L		28-SEP-18	R4251701
Tin (Sn)-Total	<0.000050		0.000050	mg/L		28-SEP-18	R4251701
Titanium (Ti)-Total	<0.00010		0.00010	mg/L		28-SEP-18	R4251701
Uranium (U)-Total	0.000013		0.000010	mg/L		28-SEP-18	R4251701
Vanadium (V)-Total	<0.00010	DLB	0.00010	mg/L		28-SEP-18	R4251701
Zinc (Zn)-Total	<0.00080		0.00080	mg/L		28-SEP-18	R4251701
Diss. Metals in Water by CRC ICPMS (Ult)							
Dissolved Metals Filtration Location	FIELD					28-SEP-18	R4250254
Aluminum (Al)-Dissolved	0.00134		0.00030	mg/L		28-SEP-18	R4251701
Antimony (Sb)-Dissolved	<0.000020		0.000020	mg/L		28-SEP-18	R4251701
Arsenic (As)-Dissolved	0.000201		0.000020	mg/L		28-SEP-18	R4251701
Barium (Ba)-Dissolved	0.00743		0.000050	mg/L		28-SEP-18	R4251701
Beryllium (Be)-Dissolved	<0.000010		0.000010	mg/L		28-SEP-18	R4251701
Bismuth (Bi)-Dissolved	<0.000010		0.000010	mg/L		28-SEP-18	R4251701
Boron (B)-Dissolved	0.0030		0.0010	mg/L		28-SEP-18	R4251701
Cadmium (Cd)-Dissolved	<0.0000050		0.0000050	mg/L		28-SEP-18	R4251701
Calcium (Ca)-Dissolved	6.56		0.020	mg/L		28-SEP-18	R4251701
Chromium (Cr)-Dissolved	0.000173		0.000060	mg/L		28-SEP-18	R4251701
Cobalt (Co)-Dissolved	<0.000010		0.000010	mg/L		28-SEP-18	R4251701
Copper (Cu)-Dissolved	0.00062		0.00010	mg/L		28-SEP-18	R4251701
Iron (Fe)-Dissolved	0.0061		0.0010	mg/L		28-SEP-18	R4251701
Lead (Pb)-Dissolved	<0.000010		0.000010	mg/L		28-SEP-18	R4251701
Lithium (Li)-Dissolved	0.00078		0.00050	mg/L		28-SEP-18	R4251701
Magnesium (Mg)-Dissolved	1.09		0.0040	mg/L		28-SEP-18	R4251701
Manganese (Mn)-Dissolved	0.000453		0.000050	mg/L		28-SEP-18	R4251701
Molybdenum (Mo)-Dissolved	0.000081		0.000050	mg/L		28-SEP-18	R4251701
Nickel (Ni)-Dissolved	0.000406		0.000060	mg/L		28-SEP-18	R4251701
Potassium (K)-Dissolved	0.914		0.020	mg/L		28-SEP-18	R4251701
Selenium (Se)-Dissolved	<0.000040		0.000040	mg/L		28-SEP-18	R4251701

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters		Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2153439-1	R-18-08-01							
Sampled By: CLIENT on 20-AUG-18 @ 10:00								
Matrix: WATER								
Diss. Metals in Water by CRC ICPMS (Ult)								
Silver (Ag)-Dissolved		<0.0000050		0.0000050	mg/L		28-SEP-18	R4251701
Sodium (Na)-Dissolved		4.47		0.0050	mg/L		28-SEP-18	R4251701
Strontium (Sr)-Dissolved		0.0326		0.000050	mg/L		28-SEP-18	R4251701
Thallium (Tl)-Dissolved		<0.0000050		0.0000050	mg/L		28-SEP-18	R4251701
Tin (Sn)-Dissolved		<0.000050		0.000050	mg/L		28-SEP-18	R4251701
Titanium (Ti)-Dissolved		<0.00010		0.00010	mg/L		28-SEP-18	R4251701
Uranium (U)-Dissolved		0.000014		0.000010	mg/L		28-SEP-18	R4251701
Vanadium (V)-Dissolved		<0.00010	DLB	0.00010	mg/L		28-SEP-18	R4251701
Zinc (Zn)-Dissolved		<0.00080		0.00080	mg/L		28-SEP-18	R4251701
Mercury, Dissolved								
Dissolved Mercury Filtration Location		FIELD					30-AUG-18	R4216464
Mercury (Hg)-Dissolved		<0.50		0.50	ng/L		13-SEP-18	R4216539
L2153439-2	MEL-03-01							
Sampled By: CLIENT on 20-AUG-18 @ 08:45								
Matrix: WATER								
Agnico-Golder Routine parameters								
Alkalinity, Bicarbonate								
Bicarbonate (HCO3)		21.4		1.2	mg/L		29-AUG-18	
Alkalinity, Carbonate								
Carbonate (CO3)		<0.60		0.60	mg/L		29-AUG-18	
Alkalinity, Hydroxide								
Hydroxide (OH)		<0.34		0.34	mg/L		29-AUG-18	
Alkalinity, Total (as CaCO3)								
Alkalinity, Total (as CaCO3)		17.5		1.0	mg/L		28-AUG-18	R4190248
Chloride in Water by IC (Low Level)								
Chloride (Cl)		8.28		0.10	mg/L		28-AUG-18	R4203645
Conductivity								
Conductivity		71.7		1.0	umhos/cm		28-AUG-18	R4190248
Fluoride in Water by IC								
Fluoride (F)		0.024		0.020	mg/L		28-AUG-18	R4203645
Hardness Calculated								
Hardness (as CaCO3)		20.4		0.20			27-AUG-18	
Ion Balance Calculation								
Ion Balance		Low EC			%		06-SEP-18	
TDS (Calculated)		35.6			mg/L		06-SEP-18	
Nitrate in Water by IC (Low Level)								
Nitrate (as N)		<0.0050		0.0050	mg/L		28-AUG-18	R4203645
Nitrate+Nitrite								
Nitrate and Nitrite as N		<0.0051		0.0051	mg/L		06-SEP-18	
Nitrite in Water by IC (Low Level)								
Nitrite (as N)		<0.0010		0.0010	mg/L		28-AUG-18	R4203645
Sulfate in Water by IC								
Sulfate (SO4)		3.75		0.30	mg/L		28-AUG-18	R4203645
Total Dissolved Solids (TDS)								
Total Dissolved Solids		48		13	mg/L		10-SEP-18	R4214384
Turbidity								
Turbidity		0.23		0.10	NTU		27-AUG-18	R4187547
pH								
pH		7.42		0.10	pH units		28-AUG-18	R4190248
Miscellaneous Parameters								
Ammonia, Total (as N)		<0.0050		0.0050	mg/L		30-AUG-18	R4194571
Dissolved Organic Carbon		2.32		0.50	mg/L		30-AUG-18	R4202908

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2153439-2 MEL-03-01							
Sampled By: CLIENT on 20-AUG-18 @ 08:45							
Matrix: WATER							
Cyanide, Free	<0.0010		0.0010	mg/L		04-SEP-18	R4203591
Mercury (Hg)-Total	0.60		0.50	ng/L	13-SEP-18	13-SEP-18	R4216542
Orthophosphate-Dissolved (as P)	<0.0010		0.0010	mg/L		27-AUG-18	R4188130
Phosphorus (P)-Total	0.0042		0.0010	mg/L		12-SEP-18	R4214816
Phosphorus (P)-Total Dissolved	0.0021		0.0010	mg/L		12-SEP-18	R4214816
Ra-226	<0.0074		0.0074	Bq/L	20-SEP-18	30-SEP-18	R4252755
Silica, Reactive (as SiO2)	0.233		0.010	mg/L		31-AUG-18	R4195637
Total Kjeldahl Nitrogen	0.226		0.050	mg/L	13-SEP-18	14-SEP-18	R4216576
Cyanide, Total	<0.0010		0.0010	mg/L		29-AUG-18	R4194160
Total Organic Carbon	2.20		0.50	mg/L		30-AUG-18	R4202702
Total Suspended Solids	<1.0		1.0	mg/L		28-AUG-18	R4190906
Cyanide, Weak Acid Diss	<0.0010		0.0010	mg/L		29-AUG-18	R4194160
Metals in Water by CRC ICPMS (No Digest)							
Aluminum (Al)-Total	0.00283		0.00030	mg/L		28-SEP-18	R4251701
Antimony (Sb)-Total	<0.000020		0.000020	mg/L		28-SEP-18	R4251701
Arsenic (As)-Total	0.000209		0.000020	mg/L		28-SEP-18	R4251701
Barium (Ba)-Total	0.00821		0.000050	mg/L		28-SEP-18	R4251701
Beryllium (Be)-Total	<0.000010		0.000010	mg/L		28-SEP-18	R4251701
Bismuth (Bi)-Total	<0.000010		0.000010	mg/L		28-SEP-18	R4251701
Boron (B)-Total	0.0030		0.0010	mg/L		28-SEP-18	R4251701
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L		28-SEP-18	R4251701
Calcium (Ca)-Total	6.40		0.020	mg/L		28-SEP-18	R4251701
Chromium (Cr)-Total	0.000555		0.000060	mg/L		28-SEP-18	R4251701
Cobalt (Co)-Total	0.000015		0.000010	mg/L		28-SEP-18	R4251701
Copper (Cu)-Total	0.00064		0.00010	mg/L		28-SEP-18	R4251701
Iron (Fe)-Total	0.0178		0.0010	mg/L		28-SEP-18	R4251701
Lead (Pb)-Total	0.000010		0.000010	mg/L		28-SEP-18	R4251701
Lithium (Li)-Total	0.00064		0.00050	mg/L		28-SEP-18	R4251701
Magnesium (Mg)-Total	1.09		0.0040	mg/L		28-SEP-18	R4251701
Manganese (Mn)-Total	0.00258		0.000050	mg/L		28-SEP-18	R4251701
Molybdenum (Mo)-Total	0.000064		0.000050	mg/L		28-SEP-18	R4251701
Nickel (Ni)-Total	0.000412		0.000060	mg/L		28-SEP-18	R4251701
Potassium (K)-Total	0.902		0.020	mg/L		28-SEP-18	R4251701
Selenium (Se)-Total	<0.000040		0.000040	mg/L		28-SEP-18	R4251701
Silver (Ag)-Total	<0.0000050		0.0000050	mg/L		28-SEP-18	R4251701
Sodium (Na)-Total	4.50		0.0050	mg/L		28-SEP-18	R4251701
Strontium (Sr)-Total	0.0305		0.000050	mg/L		28-SEP-18	R4251701
Thallium (Tl)-Total	<0.0000050		0.0000050	mg/L		28-SEP-18	R4251701
Tin (Sn)-Total	<0.000050		0.000050	mg/L		28-SEP-18	R4251701
Titanium (Ti)-Total	<0.00010		0.00010	mg/L		28-SEP-18	R4251701
Uranium (U)-Total	0.000014		0.000010	mg/L		28-SEP-18	R4251701
Vanadium (V)-Total	<0.00010	DLB	0.00010	mg/L		28-SEP-18	R4251701
Zinc (Zn)-Total	<0.00080		0.00080	mg/L		28-SEP-18	R4251701
Diss. Metals in Water by CRC ICPMS (Ult)							
Dissolved Metals Filtration Location	FIELD					28-SEP-18	R4250254
Aluminum (Al)-Dissolved	0.00143		0.00030	mg/L		28-SEP-18	R4251701
Antimony (Sb)-Dissolved	<0.000020		0.000020	mg/L		28-SEP-18	R4251701
Arsenic (As)-Dissolved	0.000204		0.000020	mg/L		28-SEP-18	R4251701
Barium (Ba)-Dissolved	0.00770		0.000050	mg/L		28-SEP-18	R4251701
Beryllium (Be)-Dissolved	<0.000010		0.000010	mg/L		28-SEP-18	R4251701
Bismuth (Bi)-Dissolved	<0.000010		0.000010	mg/L		28-SEP-18	R4251701

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

Reference Information

Sample Parameter Qualifier Key:

Qualifier	Description
DLB	Detection Limit Raised. Analyte detected at comparable level in Method Blank.
MB-LOR	Method Blank exceeds ALS DQO. Limits of Reporting have been adjusted for samples with positive hits below 5x blank level.
MS-B	Matrix Spike recovery could not be accurately calculated due to high analyte background in sample.

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
ALK-CO3CO3-CALC-WP	Water	Alkalinity, Carbonate	CALCULATION
The Alkalinity of water is a measure of its acid neutralizing capacity. Alkalinity is imparted by bicarbonate, carbonate and hydroxide components of water. The fraction of alkalinity contributed by carbonate is calculated and reported as mg CO3 2-/L.			
ALK-HCO3HCO3-CALC-WP	Water	Alkalinity, Bicarbonate	CALCULATION
The Alkalinity of water is a measure of its acid neutralizing capacity. Alkalinity is imparted by bicarbonate, carbonate and hydroxide components of water. The fraction of alkalinity contributed by bicarbonate is calculated and reported as mg HCO3-/L			
ALK-OHOH-CALC-WP	Water	Alkalinity, Hydroxide	CALCULATION
The Alkalinity of water is a measure of its acid neutralizing capacity. Alkalinity is imparted by bicarbonate, carbonate and hydroxide components of water. The fraction of alkalinity contributed by hydroxide is calculated and reported as mg OH-/L.			
ALK-TITR-WP	Water	Alkalinity, Total (as CaCO3)	APHA 2320B
The Alkalinity of water is a measure of its acid neutralizing capacity. Alkalinity is imparted by bicarbonate, carbonate and hydroxide components of water. Total alkalinity is determined by titration with a strong standard mineral acid to the successive HCO3- and H2CO3 endpoints indicated electrometrically.			
C-DOC-HTC-WP	Water	Dissolved Organic Carbon by Combustion	APHA 5310 B-WP
Filtered (0.45 um) sample is acidified and purged to remove inorganic carbon, then injected into a heated reaction chamber where organic carbon is oxidized to CO2 which is then transported in the carrier gas stream and measured via a non-dispersive infrared analyzer.			
C-TOC-HTC-WP	Water	Total Organic Carbon by Combustion	APHA 5310 B-WP
Sample is acidified and purged to remove inorganic carbon, then injected into a heated reaction chamber where organic carbon is oxidized to CO2 which is then transported in the carrier gas stream and measured via a non-dispersive infrared analyzer.			
CL-L-IC-N-WP	Water	Chloride in Water by IC (Low Level)	EPA 300.1 (mod)
Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.			
CN-FREE-CFA-WP	Water	Free Cyanide in water by CFA	ASTM D7237
This analysis is carried out using procedures adapted from ASTM Method 7237 "Free Cyanide with Flow Injection Analysis (FIA) Utilizing Gas Diffusion Separation and Amperometric Detection". Free cyanide is determined by in-line gas diffusion at pH 6 with final determination by colourimetric analysis.			
CN-T-CFA-WP	Water	Total Cyanide in water by CFA	ISO 14403-2
This analysis is carried out using procedures adapted from ISO Method 14403-2:2012 "Determination of Total Cyanide using Flow Analysis (FIA and CFA)". Total or strong acid dissociable (SAD) cyanide is determined by in-line UV digestion along with sample distillation and final determination by colourimetric analysis.			
CN-WAD-CFA-WP	Water	Weak Acid Diss. Cyanide in water by CFA	APHA 4500-CN I
This analysis is carried out using procedures adapted from APHA Method 4500-CN I. "Weak Acid Dissociable Cyanide". Weak acid dissociable (WAD) cyanide is determined by in-line sample distillation and final determination by colourimetric analysis.			
EC-WP	Water	Conductivity	APHA 2510B
Conductivity of an aqueous solution refers to its ability to carry an electric current. Conductance of a solution is measured between two spatially fixed and chemically inert electrodes.			
F-IC-N-WP	Water	Fluoride in Water by IC	EPA 300.1 (mod)
Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.			
HARDNESS-CALC-WP	Water	Hardness Calculated	APHA 2340B
Hardness (also known as Total Hardness) is calculated from the sum of Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. Dissolved Calcium and Magnesium concentrations are preferentially used for the hardness calculation.			
HG-D-L-CVAF-WP	Water	Mercury, Dissolved	EPA 1631 D (modified)

Reference Information

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
Mercury in filtered aqueous matrices is oxidized with bromine monochloride and analyzed by cold-vapor atomic fluorescence spectrometer.			
HG-T-L-CVAF-WP	Water	Mercury, Total	EPA 1631 T (modified)
Mercury in unfiltered aqueous matrices is oxidized with bromine monochloride and analyzed by cold-vapor atomic fluorescence spectrometer.			
IONBALANCE-CALC-WP	Water	Ion Balance Calculation	APHA 1030E
Cation Sum, Anion Sum, and Ion Balance (as % difference) are calculated based on guidance from APHA Standard Methods (1030E Checking Correctness of Analysis). Because all aqueous solutions are electrically neutral, the calculated ion balance (% difference of cations minus anions) should be near-zero.			
Cation and Anion Sums are the total meq/L concentration of major cations and anions. Dissolved species are used where available. Minor ions are included where data is present. Ion Balance (as % difference) cannot be calculated accurately for waters with very low electrical conductivity (EC), and is reported as "Low EC" where EC < 100 uS/cm (umhos/cm). Ion Balance is calculated as:			
Ion Balance (%) = [Cation Sum-Anion Sum] / [Cation Sum+Anion Sum]			
MET-D-NP-U-CCMS-ED	Water	Diss. Metals in Water by CRC ICPMS (Ult)	APHA 3125-ICP-MS
Ultra trace metals in water are analyzed by ICPMS, based on US EPA Method 6020A (Jan 1998). This procedure is intended for pristine field-filtered acid-preserved water samples. ALS recommends that filtration blanks be submitted for this test to aid with interpretation of results.			
MET-T-NP-U-CCMS-ED	Water	Metals in Water by CRC ICPMS (No Digest)	APHA 3125-ICP-MS
Ultra trace metals in water are analyzed by ICPMS, based on US EPA Method 6020A (Jan 1998). The detection limits provided can only be met for undigested samples. This procedure is intended for pristine, non-turbid, acid-preserved water samples, where sample turbidity is < 1 NTU. Where turbidity exceeds 1 NTU, results may be biased low compared to true Total Metals concentrations. ALS recommends that turbidity analysis be requested on samples submitted for this test to aid with interpretation of results.			
NH3-L-CFA-ED	Water	Ammonia in Water by Colour	APHA 4500 NH3-NITROGEN (AMMONIA)
This analysis is carried out using procedures adapted from APHA Method 4500 NH3 "NITROGEN (AMMONIA)". Ammonia is determined using the automated phenate colourimetric method.			
NO2+NO3-CALC-L-WP	Water	Nitrate+Nitrite	CALCULATION
NO2-L-IC-N-WP	Water	Nitrite in Water by IC (Low Level)	EPA 300.1 (mod)
Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.			
NO3-L-IC-N-WP	Water	Nitrate in Water by IC (Low Level)	EPA 300.1 (mod)
Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.			
P-T-L-COL-WP	Water	Phosphorus, Total	APHA 4500 P PHOSPHORUS-L
This analysis is carried out using procedures adapted from APHA Method 4500-P "Phosphorus". Total Phosphorous is determined colourimetrically after persulphate digestion of the sample.			
P-TD-L-COL-WP	Water	Phosphorus, Total Dissolved	APHA 4500 P PHOSPHORUS-L
This analysis is carried out using procedures adapted from APHA Method 4500-P "Phosphorus". Total Dissolved Phosphorous is determined colourimetrically after persulphate digestion of a sample that has been lab or field filtered through a 0.45 micron membrane filter.			
PH-WP	Water	pH	APHA 4500H
The pH of a sample is the determination of the activity of the hydrogen ions by potentiometric measurement using a standard hydrogen electrode and a reference electrode.			
PO4-DO-L-COL-WP	Water	Phosphate Ortho Dissolved in Water	APHA 4500 P PHOSPHORUS-L
This analysis is carried out using procedures adapted from APHA Method 4500-P "Phosphorus". Dissolved Orthophosphate is determined colourimetrically on a sample that has been lab or field filtered through a 0.45 micron membrane filter.			
RA226-MMER-FC	Water	Ra226 by Alpha Scint, MDC=0.01 Bq/L	EPA 903.1
SIO2-L-COL-WP	Water	Reactive Silica by colour	APHA 4500 SIO2
This analysis is carried out using procedures adapted from APHA Method 4500-SiO2 "Silica". Molybdate Reactive Silica is determined by analysis of the sample using the heteropoly blue colourimetric method.			
SO4-IC-N-WP	Water	Sulfate in Water by IC	EPA 300.1 (mod)
Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.			
TDS-WP	Water	Total Dissolved Solids (TDS)	APHA 2540 SOLIDS C,E
A well-mixed sample is filtered through a glass fiber filter paper. The filtrate is then evaporated to dryness in a pre-weighed vial and dried at 180 – 2C. The increase in vial weight represents the total dissolved solids.			

Reference Information

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
TKN-L-CFA-ED	Water	TKN in Water by Colour	APHA 4500-NORG (TKN)
This analysis is carried out using procedures adapted from APHA Method 4500-Norg "Nitrogen (Organic)". Total Kjeldahl Nitrogen is determined by sample digestion at 380 celcius with analysis using an automated colourimetric finish.			
TSS-LOW-VA	Water	Total Suspended Solids by Grav. (1 mg/L)	APHA 2540D
This analysis is carried out using procedures adapted from APHA Method 2540 "Solids". Solids are determined gravimetrically. Total suspended solids (TSS) are determined by filtering a sample through a glass fibre filter, TSS is determined by drying the filter at 104 degrees celsius. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.			
TURBIDITY-WP	Water	Turbidity	APHA 2130B (modified)
Turbidity in aqueous matrices is determined by the nephelometric method.			

** ALS test methods may incorporate modifications from specified reference methods to improve performance.

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location
WP	ALS ENVIRONMENTAL - WINNIPEG, MANITOBA, CANADA
ED	ALS ENVIRONMENTAL - EDMONTON, ALBERTA, CANADA
VA	ALS ENVIRONMENTAL - VANCOUVER, BRITISH COLUMBIA, CANADA
FC	ALS ENVIRONMENTAL - FORT COLLINS, COLORADO, USA

Chain of Custody Numbers:

GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.

mg/kg - milligrams per kilogram based on dry weight of sample

mg/kg ww - milligrams per kilogram based on wet weight of sample

mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight

mg/L - unit of concentration based on volume, parts per million.

< - Less than.

D.L. - The reporting limit.

N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.

Quality Control Report

Workorder: L2153439

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Client: Agnico-Eagle - Meliadine Gold Project

PO Box 99

Rankin Inlet NU X0C 0G0

Contact: JENNIFER BROWN

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
ALK-TITR-WP		Water						
Batch	R4190248							
WG2862592-4	LCS							
Alkalinity, Total (as CaCO ₃)			101.5		%		85-115	28-AUG-18
WG2862592-1	MB							
Alkalinity, Total (as CaCO ₃)			<1.0		mg/L		1	28-AUG-18
C-DOC-HTC-WP		Water						
Batch	R4202908							
WG2867914-2	LCS							
Dissolved Organic Carbon			99.9		%		80-120	30-AUG-18
WG2867914-1	MB							
Dissolved Organic Carbon			<0.50		mg/L		0.5	30-AUG-18
C-TOC-HTC-WP		Water						
Batch	R4202702							
WG2867990-2	LCS							
Total Organic Carbon			98.9		%		80-120	30-AUG-18
WG2867990-1	MB							
Total Organic Carbon			<0.50		mg/L		0.5	30-AUG-18
CL-L-IC-N-WP		Water						
Batch	R4203645							
WG2861445-2	LCS							
Chloride (Cl)			99.4		%		90-110	28-AUG-18
WG2861445-1	MB							
Chloride (Cl)			<0.10		mg/L		0.1	28-AUG-18
CN-FREE-CFA-WP		Water						
Batch	R4203591							
WG2869163-2	LCS							
Cyanide, Free			99.0		%		80-120	04-SEP-18
WG2869163-1	MB							
Cyanide, Free			<0.0010		mg/L		0.001	04-SEP-18
CN-T-CFA-WP		Water						
Batch	R4194160							
WG2863860-8	DUP	L2153439-2						
Cyanide, Total		<0.0010	<0.0010	RPD-NA	mg/L	N/A	20	29-AUG-18
WG2863860-7	LCS							
Cyanide, Total			87.8		%		80-120	29-AUG-18
WG2863860-6	MB							
Cyanide, Total			<0.0010		mg/L		0.001	29-AUG-18
WG2863860-9	MS	L2153439-2						

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Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CN-T-CFA-WP								
Batch R4194160								
WG2863860-9 MS		L2153439-2						
Cyanide, Total			96.5		%		75-125	29-AUG-18
CN-WAD-CFA-WP								
Batch R4194160								
WG2863860-8 DUP		L2153439-2						
Cyanide, Weak Acid Diss		<0.0010	<0.0010	RPD-NA	mg/L	N/A	20	29-AUG-18
WG2863860-7 LCS								
Cyanide, Weak Acid Diss			103.7		%		80-120	29-AUG-18
WG2863860-6 MB								
Cyanide, Weak Acid Diss			<0.0010		mg/L		0.001	29-AUG-18
WG2863860-9 MS		L2153439-2						
Cyanide, Weak Acid Diss			105.8		%		75-125	29-AUG-18
EC-WP								
Batch R4190248								
WG2862592-3 LCS								
Conductivity			98.2		%		90-110	28-AUG-18
WG2862592-1 MB								
Conductivity			<1.0		umhos/cm		1	28-AUG-18
F-IC-N-WP								
Batch R4203645								
WG2861445-2 LCS								
Fluoride (F)			103.2		%		90-110	28-AUG-18
WG2861445-1 MB								
Fluoride (F)			<0.020		mg/L		0.02	28-AUG-18
HG-D-L-CVAF-WP								
Batch R4216539								
WG2877100-2 LCS								
Mercury (Hg)-Dissolved			100.6		%		80-120	13-SEP-18
WG2877100-1 MB								
Mercury (Hg)-Dissolved			<0.50		ng/L		0.5	13-SEP-18
HG-T-L-CVAF-WP								
Batch R4216542								
WG2877115-2 LCS								
Mercury (Hg)-Total			104.8		%		80-120	13-SEP-18
WG2877115-1 MB								
Mercury (Hg)-Total			<0.50		ng/L		0.5	13-SEP-18

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Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-NP-U-CCMS-ED		Water						
Batch	R4251701							
WG2889727-3	DUP	L2153439-1						
Aluminum (Al)-Dissolved		0.00134	0.00137		mg/L	2.3	20	28-SEP-18
Antimony (Sb)-Dissolved		<0.000020	<0.000020	RPD-NA	mg/L	N/A	20	28-SEP-18
Arsenic (As)-Dissolved		0.000201	0.000188		mg/L	6.6	20	28-SEP-18
Barium (Ba)-Dissolved		0.00743	0.00746		mg/L	0.3	20	28-SEP-18
Beryllium (Be)-Dissolved		<0.000010	<0.000010	RPD-NA	mg/L	N/A	20	28-SEP-18
Bismuth (Bi)-Dissolved		<0.000010	<0.000010	RPD-NA	mg/L	N/A	20	28-SEP-18
Boron (B)-Dissolved		0.0030	0.0030		mg/L	0.7	20	28-SEP-18
Cadmium (Cd)-Dissolved		<0.0000050	<0.0000050	RPD-NA	mg/L	N/A	20	28-SEP-18
Calcium (Ca)-Dissolved		6.56	6.64		mg/L	1.3	20	28-SEP-18
Chromium (Cr)-Dissolved		0.000173	0.000174		mg/L	0.6	20	28-SEP-18
Cobalt (Co)-Dissolved		<0.000010	<0.000010	RPD-NA	mg/L	N/A	20	28-SEP-18
Copper (Cu)-Dissolved		0.00062	0.00061		mg/L	1.4	20	28-SEP-18
Iron (Fe)-Dissolved		0.0061	0.0060		mg/L	2.2	20	28-SEP-18
Lead (Pb)-Dissolved		<0.000010	<0.000010	RPD-NA	mg/L	N/A	20	28-SEP-18
Lithium (Li)-Dissolved		0.00078	0.00073		mg/L	6.9	20	28-SEP-18
Magnesium (Mg)-Dissolved		1.09	1.09		mg/L	0.7	20	28-SEP-18
Manganese (Mn)-Dissolved		0.000453	0.000393		mg/L	14	20	28-SEP-18
Molybdenum (Mo)-Dissolved		0.000081	0.000081		mg/L	0.3	20	28-SEP-18
Nickel (Ni)-Dissolved		0.000406	0.000372		mg/L	8.9	20	28-SEP-18
Potassium (K)-Dissolved		0.914	0.917		mg/L	0.3	20	28-SEP-18
Selenium (Se)-Dissolved		<0.000040	<0.000040	RPD-NA	mg/L	N/A	20	28-SEP-18
Silver (Ag)-Dissolved		<0.0000050	<0.0000050	RPD-NA	mg/L	N/A	20	28-SEP-18
Sodium (Na)-Dissolved		4.47	4.42		mg/L	1.1	20	28-SEP-18
Strontium (Sr)-Dissolved		0.0326	0.0326		mg/L	0.1	20	28-SEP-18
Thallium (Tl)-Dissolved		<0.0000050	<0.0000050	RPD-NA	mg/L	N/A	20	28-SEP-18
Tin (Sn)-Dissolved		<0.000050	<0.000050	RPD-NA	mg/L	N/A	20	28-SEP-18
Titanium (Ti)-Dissolved		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	28-SEP-18
Uranium (U)-Dissolved		0.000014	0.000013		mg/L	5.8	20	28-SEP-18
Vanadium (V)-Dissolved		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	28-SEP-18
Zinc (Zn)-Dissolved		<0.00080	<0.00080	RPD-NA	mg/L	N/A	20	28-SEP-18
WG2889727-2	LCS							
Aluminum (Al)-Dissolved			104.6		%		80-120	28-SEP-18
Antimony (Sb)-Dissolved			99.3		%		80-120	28-SEP-18
Arsenic (As)-Dissolved			98.4		%		80-120	28-SEP-18

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Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-NP-U-CCMS-ED		Water						
Batch	R4251701							
WG2889727-2		LCS						
Barium (Ba)-Dissolved			107.7		%		80-120	28-SEP-18
Beryllium (Be)-Dissolved			95.5		%		80-120	28-SEP-18
Bismuth (Bi)-Dissolved			99.9		%		80-120	28-SEP-18
Boron (B)-Dissolved			96.6		%		80-120	28-SEP-18
Cadmium (Cd)-Dissolved			98.3		%		80-120	28-SEP-18
Calcium (Ca)-Dissolved			97.5		%		80-120	28-SEP-18
Chromium (Cr)-Dissolved			102.1		%		80-120	28-SEP-18
Cobalt (Co)-Dissolved			99.1		%		80-120	28-SEP-18
Copper (Cu)-Dissolved			99.0		%		80-120	28-SEP-18
Iron (Fe)-Dissolved			96.9		%		80-120	28-SEP-18
Lead (Pb)-Dissolved			97.1		%		80-120	28-SEP-18
Lithium (Li)-Dissolved			94.1		%		80-120	28-SEP-18
Magnesium (Mg)-Dissolved			103.6		%		80-120	28-SEP-18
Manganese (Mn)-Dissolved			97.0		%		80-120	28-SEP-18
Molybdenum (Mo)-Dissolved			96.3		%		80-120	28-SEP-18
Nickel (Ni)-Dissolved			96.3		%		80-120	28-SEP-18
Potassium (K)-Dissolved			104.6		%		80-120	28-SEP-18
Selenium (Se)-Dissolved			98.7		%		80-120	28-SEP-18
Silver (Ag)-Dissolved			100.9		%		80-120	28-SEP-18
Sodium (Na)-Dissolved			104.7		%		80-120	28-SEP-18
Strontium (Sr)-Dissolved			97.4		%		80-120	28-SEP-18
Thallium (Tl)-Dissolved			95.8		%		80-120	28-SEP-18
Tin (Sn)-Dissolved			96.6		%		80-120	28-SEP-18
Titanium (Ti)-Dissolved			95.4		%		80-120	28-SEP-18
Uranium (U)-Dissolved			99.0		%		80-120	28-SEP-18
Vanadium (V)-Dissolved			100.0		%		80-120	28-SEP-18
Zinc (Zn)-Dissolved			97.4		%		80-120	28-SEP-18
WG2889727-1		MB						
Aluminum (Al)-Dissolved			<0.00030		mg/L		0.0003	28-SEP-18
Antimony (Sb)-Dissolved			<0.000020		mg/L		0.00002	28-SEP-18
Arsenic (As)-Dissolved			<0.000020		mg/L		0.00002	28-SEP-18
Barium (Ba)-Dissolved			<0.000050		mg/L		0.00005	28-SEP-18
Beryllium (Be)-Dissolved			<0.000010		mg/L		0.00001	28-SEP-18
Bismuth (Bi)-Dissolved			<0.000010		mg/L		0.00001	28-SEP-18

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Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-NP-U-CCMS-ED		Water						
Batch	R4251701							
WG2889727-1	MB							
Boron (B)-Dissolved			<0.0010		mg/L		0.001	28-SEP-18
Cadmium (Cd)-Dissolved			<0.000005C		mg/L		0.000005	28-SEP-18
Calcium (Ca)-Dissolved			<0.020		mg/L		0.02	28-SEP-18
Chromium (Cr)-Dissolved			<0.000060		mg/L		0.00006	28-SEP-18
Cobalt (Co)-Dissolved			<0.000010		mg/L		0.00001	28-SEP-18
Copper (Cu)-Dissolved			<0.00010		mg/L		0.0001	28-SEP-18
Iron (Fe)-Dissolved			<0.0010		mg/L		0.001	28-SEP-18
Lead (Pb)-Dissolved			<0.000010		mg/L		0.00001	28-SEP-18
Lithium (Li)-Dissolved			<0.00050		mg/L		0.0005	28-SEP-18
Magnesium (Mg)-Dissolved			<0.0040		mg/L		0.004	28-SEP-18
Manganese (Mn)-Dissolved			<0.000050		mg/L		0.00005	28-SEP-18
Molybdenum (Mo)-Dissolved			<0.000050		mg/L		0.00005	28-SEP-18
Nickel (Ni)-Dissolved			<0.000060		mg/L		0.00006	28-SEP-18
Potassium (K)-Dissolved			<0.020		mg/L		0.02	28-SEP-18
Selenium (Se)-Dissolved			<0.000040		mg/L		0.00004	28-SEP-18
Silver (Ag)-Dissolved			<0.000005C		mg/L		0.000005	28-SEP-18
Sodium (Na)-Dissolved			<0.0050		mg/L		0.005	28-SEP-18
Strontium (Sr)-Dissolved			<0.000050		mg/L		0.00005	28-SEP-18
Thallium (Tl)-Dissolved			<0.000005C		mg/L		0.000005	28-SEP-18
Tin (Sn)-Dissolved			<0.000050		mg/L		0.00005	28-SEP-18
Titanium (Ti)-Dissolved			<0.00010		mg/L		0.0001	28-SEP-18
Uranium (U)-Dissolved			<0.000010		mg/L		0.00001	28-SEP-18
Vanadium (V)-Dissolved			0.000062	MB-LOR	mg/L		0.00005	28-SEP-18
Zinc (Zn)-Dissolved			<0.00080		mg/L		0.0008	28-SEP-18
MET-T-NP-U-CCMS-ED		Water						
Batch	R4251701							
WG2889736-3	DUP	L2153439-2						
Aluminum (Al)-Total		0.00283	0.00259		mg/L	8.9	20	28-SEP-18
Antimony (Sb)-Total		<0.000020	<0.000020	RPD-NA	mg/L	N/A	20	28-SEP-18
Arsenic (As)-Total		0.000209	0.000191		mg/L	8.9	20	28-SEP-18
Barium (Ba)-Total		0.00821	0.00727		mg/L	12	20	28-SEP-18
Beryllium (Be)-Total		<0.000010	<0.000010	RPD-NA	mg/L	N/A	20	28-SEP-18
Bismuth (Bi)-Total		<0.000010	<0.000010	RPD-NA	mg/L	N/A	20	28-SEP-18
Boron (B)-Total		0.0030	0.0031		mg/L	4.3	20	28-SEP-18

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Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-NP-U-CCMS-ED		Water						
Batch	R4251701							
WG2889736-3	DUP	L2153439-2						
Cadmium (Cd)-Total		<0.0000050	<0.0000050	RPD-NA	mg/L	N/A	20	28-SEP-18
Calcium (Ca)-Total		6.40	6.54		mg/L	2.2	20	28-SEP-18
Chromium (Cr)-Total		0.000555	0.000559		mg/L	0.6	20	28-SEP-18
Cobalt (Co)-Total		0.000015	0.000013		mg/L	16	20	28-SEP-18
Copper (Cu)-Total		0.00064	0.00060		mg/L	6.6	20	28-SEP-18
Iron (Fe)-Total		0.0178	0.0183		mg/L	2.7	25	28-SEP-18
Lead (Pb)-Total		0.000010	0.000010		mg/L	3.5	20	28-SEP-18
Lithium (Li)-Total		0.00064	0.00065		mg/L	1.0	20	28-SEP-18
Magnesium (Mg)-Total		1.09	1.08		mg/L	1.1	20	28-SEP-18
Manganese (Mn)-Total		0.00258	0.00247		mg/L	4.4	20	28-SEP-18
Molybdenum (Mo)-Total		0.000064	0.000082	J	mg/L	0.000018	0.0001	28-SEP-18
Nickel (Ni)-Total		0.000412	0.000380		mg/L	8.2	20	28-SEP-18
Potassium (K)-Total		0.902	0.881		mg/L	2.4	20	28-SEP-18
Selenium (Se)-Total		<0.000040	<0.000040	RPD-NA	mg/L	N/A	20	28-SEP-18
Silver (Ag)-Total		<0.0000050	<0.0000050	RPD-NA	mg/L	N/A	20	28-SEP-18
Sodium (Na)-Total		4.50	4.39		mg/L	2.4	20	28-SEP-18
Strontium (Sr)-Total		0.0305	0.0321		mg/L	5.2	20	28-SEP-18
Thallium (Tl)-Total		<0.0000050	<0.0000050	RPD-NA	mg/L	N/A	20	28-SEP-18
Tin (Sn)-Total		<0.000050	<0.000050	RPD-NA	mg/L	N/A	20	28-SEP-18
Titanium (Ti)-Total		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	28-SEP-18
Uranium (U)-Total		0.000014	0.000015		mg/L	3.1	20	28-SEP-18
Vanadium (V)-Total		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	28-SEP-18
Zinc (Zn)-Total		<0.00080	<0.00080	RPD-NA	mg/L	N/A	20	28-SEP-18
WG2889736-2	LCS							
Aluminum (Al)-Total			103.9		%		80-120	28-SEP-18
Antimony (Sb)-Total			100.3		%		80-120	28-SEP-18
Arsenic (As)-Total			100.2		%		80-120	28-SEP-18
Barium (Ba)-Total			105.0		%		80-120	28-SEP-18
Beryllium (Be)-Total			95.3		%		80-120	28-SEP-18
Bismuth (Bi)-Total			101.6		%		80-120	28-SEP-18
Boron (B)-Total			95.0		%		80-120	28-SEP-18
Cadmium (Cd)-Total			100.4		%		80-120	28-SEP-18
Calcium (Ca)-Total			94.4		%		80-120	28-SEP-18
Chromium (Cr)-Total			101.0		%		80-120	28-SEP-18

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Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-NP-U-CCMS-ED		Water						
Batch	R4251701							
WG2889736-2	LCS							
Cobalt (Co)-Total			98.3		%		80-120	28-SEP-18
Copper (Cu)-Total			99.0		%		80-120	28-SEP-18
Iron (Fe)-Total			95.5		%		80-120	28-SEP-18
Lead (Pb)-Total			94.9		%		80-120	28-SEP-18
Lithium (Li)-Total			92.4		%		80-120	28-SEP-18
Magnesium (Mg)-Total			97.6		%		80-120	28-SEP-18
Manganese (Mn)-Total			99.8		%		80-120	28-SEP-18
Molybdenum (Mo)-Total			95.3		%		80-120	28-SEP-18
Nickel (Ni)-Total			97.4		%		80-120	28-SEP-18
Potassium (K)-Total			104.6		%		80-120	28-SEP-18
Selenium (Se)-Total			95.0		%		80-120	28-SEP-18
Silver (Ag)-Total			105.2		%		80-120	28-SEP-18
Sodium (Na)-Total			101.7		%		80-120	28-SEP-18
Strontium (Sr)-Total			95.7		%		80-120	28-SEP-18
Thallium (Tl)-Total			95.4		%		80-120	28-SEP-18
Tin (Sn)-Total			98.0		%		80-120	28-SEP-18
Titanium (Ti)-Total			95.0		%		80-120	28-SEP-18
Uranium (U)-Total			95.4		%		80-120	28-SEP-18
Vanadium (V)-Total			100.2		%		80-120	28-SEP-18
Zinc (Zn)-Total			99.3		%		80-120	28-SEP-18
WG2889736-1	MB							
Aluminum (Al)-Total			<0.00030		mg/L		0.0003	28-SEP-18
Antimony (Sb)-Total			<0.000020		mg/L		0.00002	28-SEP-18
Arsenic (As)-Total			<0.000020		mg/L		0.00002	28-SEP-18
Barium (Ba)-Total			<0.000050		mg/L		0.00005	28-SEP-18
Beryllium (Be)-Total			<0.000010		mg/L		0.00001	28-SEP-18
Bismuth (Bi)-Total			<0.000010		mg/L		0.00001	28-SEP-18
Boron (B)-Total			<0.0010		mg/L		0.001	28-SEP-18
Cadmium (Cd)-Total			<0.0000050		mg/L		0.000005	28-SEP-18
Calcium (Ca)-Total			<0.020		mg/L		0.02	28-SEP-18
Chromium (Cr)-Total			<0.000060		mg/L		0.00006	28-SEP-18
Cobalt (Co)-Total			<0.000010		mg/L		0.00001	28-SEP-18
Copper (Cu)-Total			<0.00010		mg/L		0.0001	28-SEP-18
Iron (Fe)-Total			<0.0010		mg/L		0.001	28-SEP-18



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Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-NP-U-CCMS-ED		Water						
Batch	R4251701							
WG2889736-1		MB						
Lead (Pb)-Total			<0.000010		mg/L		0.00001	28-SEP-18
Lithium (Li)-Total			<0.00050		mg/L		0.0005	28-SEP-18
Magnesium (Mg)-Total			<0.0040		mg/L		0.004	28-SEP-18
Manganese (Mn)-Total			<0.000050		mg/L		0.00005	28-SEP-18
Molybdenum (Mo)-Total			<0.000050		mg/L		0.00005	28-SEP-18
Nickel (Ni)-Total			<0.000060		mg/L		0.00006	28-SEP-18
Potassium (K)-Total			<0.020		mg/L		0.02	28-SEP-18
Selenium (Se)-Total			<0.000040		mg/L		0.00004	28-SEP-18
Silver (Ag)-Total			<0.000005C		mg/L		0.000005	28-SEP-18
Sodium (Na)-Total			<0.0050		mg/L		0.005	28-SEP-18
Strontium (Sr)-Total			<0.000050		mg/L		0.00005	28-SEP-18
Thallium (Tl)-Total			<0.000005C		mg/L		0.000005	28-SEP-18
Tin (Sn)-Total			<0.000050		mg/L		0.00005	28-SEP-18
Titanium (Ti)-Total			<0.00010		mg/L		0.0001	28-SEP-18
Uranium (U)-Total			<0.000010		mg/L		0.00001	28-SEP-18
Vanadium (V)-Total			0.000083	MB-LOR	mg/L		0.00005	28-SEP-18
Zinc (Zn)-Total			<0.00080		mg/L		0.0008	28-SEP-18
NH3-L-CFA-ED		Water						
Batch	R4194571							
WG2864356-5		LCS						
Ammonia, Total (as N)			99.8		%		85-115	30-AUG-18
WG2864356-6		LCS						
Ammonia, Total (as N)			101.2		%		85-115	30-AUG-18
WG2864356-7		LCS						
Ammonia, Total (as N)			103.0		%		85-115	30-AUG-18
WG2864356-8		LCS						
Ammonia, Total (as N)			107.8		%		85-115	30-AUG-18
WG2864356-1		MB						
Ammonia, Total (as N)			<0.0050		mg/L		0.005	30-AUG-18
WG2864356-2		MB						
Ammonia, Total (as N)			<0.0050		mg/L		0.005	30-AUG-18
WG2864356-3		MB						
Ammonia, Total (as N)			<0.0050		mg/L		0.005	30-AUG-18
WG2864356-4		MB						
Ammonia, Total (as N)			<0.0050		mg/L		0.005	30-AUG-18
NO2-L-IC-N-WP		Water						

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Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
NO2-L-IC-N-WP	Water							
Batch	R4203645							
WG2861445-2	LCS							
Nitrite (as N)			100.8		%		90-110	28-AUG-18
WG2861445-1	MB							
Nitrite (as N)			<0.0010		mg/L		0.001	28-AUG-18
NO3-L-IC-N-WP	Water							
Batch	R4203645							
WG2861445-2	LCS							
Nitrate (as N)			98.7		%		90-110	28-AUG-18
WG2861445-1	MB							
Nitrate (as N)			<0.0050		mg/L		0.005	28-AUG-18
P-T-L-COL-WP	Water							
Batch	R4214816							
WG2874214-7	DUP	L2153439-1						
Phosphorus (P)-Total		0.0045	0.0052		mg/L	14	20	12-SEP-18
WG2874214-6	LCS							
Phosphorus (P)-Total			101.3		%		80-120	12-SEP-18
WG2874214-5	MB							
Phosphorus (P)-Total			<0.0010		mg/L		0.001	12-SEP-18
WG2874214-8	MS	L2153439-2						
Phosphorus (P)-Total			109.4		%		70-130	12-SEP-18
P-TD-L-COL-WP	Water							
Batch	R4214816							
WG2874203-6	LCS							
Phosphorus (P)-Total Dissolved			101.3		%		80-120	12-SEP-18
WG2874203-5	MB							
Phosphorus (P)-Total Dissolved			<0.0010		mg/L		0.001	12-SEP-18
PH-WP	Water							
Batch	R4190248							
WG2862592-2	LCS							
pH			7.40		pH units		7.3-7.5	28-AUG-18
PO4-DO-L-COL-WP	Water							
Batch	R4188130							
WG2861898-6	LCS							
Orthophosphate-Dissolved (as P)			99.6		%		80-120	27-AUG-18
WG2861898-5	MB							
Orthophosphate-Dissolved (as P)			<0.0010		mg/L		0.001	27-AUG-18



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Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
SIO2-L-COL-WP		Water						
Batch	R4195637							
WG2865613-3	DUP	L2153439-1						
Silica, Reactive (as SiO2)		0.234	0.234		mg/L	0.2	20	31-AUG-18
WG2865613-2	LCS							
Silica, Reactive (as SiO2)			102.1		%		85-115	31-AUG-18
WG2865613-1	MB							
Silica, Reactive (as SiO2)			<0.010		mg/L		0.01	31-AUG-18
WG2865613-4	MS	L2153439-1						
Silica, Reactive (as SiO2)			N/A	MS-B	%		-	31-AUG-18
SO4-IC-N-WP		Water						
Batch	R4203645							
WG2861445-2	LCS							
Sulfate (SO4)			99.4		%		90-110	28-AUG-18
WG2861445-1	MB							
Sulfate (SO4)			<0.30		mg/L		0.3	28-AUG-18
TDS-WP		Water						
Batch	R4188028							
WG2860866-2	LCS							
Total Dissolved Solids			99.3		%		85-115	27-AUG-18
WG2860866-1	MB							
Total Dissolved Solids			<4.0		mg/L		4	27-AUG-18
Batch	R4214384							
WG2872151-3	DUP	L2153439-2						
Total Dissolved Solids		48	45		mg/L	5.0	20	10-SEP-18
WG2872151-2	LCS							
Total Dissolved Solids			100.4		%		85-115	10-SEP-18
WG2872151-1	MB							
Total Dissolved Solids			<4.0		mg/L		4	10-SEP-18
TKN-L-CFA-ED		Water						
Batch	R4216576							
WG2876119-3	DUP	L2153439-1						
Total Kjeldahl Nitrogen		0.276	0.302		mg/L	9.1	20	14-SEP-18
WG2876119-2	LCS							
Total Kjeldahl Nitrogen			105		%		75-125	14-SEP-18
WG2876119-1	MB							
Total Kjeldahl Nitrogen			<0.050		mg/L		0.05	14-SEP-18
TSS-LOW-VA		Water						

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Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
TSS-LOW-VA	Water							
Batch	R4190906							
WG2862134-2	LCS							
Total Suspended Solids			101.6		%		85-115	28-AUG-18
WG2862134-1	MB							
Total Suspended Solids			<1.0		mg/L		1	28-AUG-18
TURBIDITY-WP	Water							
Batch	R4187547							
WG2861799-2	LCS							
Turbidity			100.0		%		85-115	27-AUG-18
WG2861799-1	MB							
Turbidity			<0.10		NTU		0.1	27-AUG-18

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Legend:

Limit	ALS Control Limit (Data Quality Objectives)
DUP	Duplicate
RPD	Relative Percent Difference
N/A	Not Available
LCS	Laboratory Control Sample
SRM	Standard Reference Material
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ADE	Average Desorption Efficiency
MB	Method Blank
IRM	Internal Reference Material
CRM	Certified Reference Material
CCV	Continuing Calibration Verification
CVS	Calibration Verification Standard
LCSD	Laboratory Control Sample Duplicate

Sample Parameter Qualifier Definitions:

Qualifier	Description
J	Duplicate results and limits are expressed in terms of absolute difference.
MB-LOR	Method Blank exceeds ALS DQO. Limits of Reporting have been adjusted for samples with positive hits below 5x blank level.
MS-B	Matrix Spike recovery could not be accurately calculated due to high analyte background in sample.
RPD-NA	Relative Percent Difference Not Available due to result(s) being less than detection limit.

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Hold Time Exceedances:

ALS Product Description	Sample ID	Sampling Date	Date Processed	Rec. HT	Actual HT	Units	Qualifier
Physical Tests							
Total Dissolved Solids (TDS)	2	20-AUG-18 08:45	10-SEP-18 10:00	7	21	days	EHTR
Total Suspended Solids by Grav. (1 mg/L)	1	20-AUG-18 10:00	28-AUG-18 14:33	7	8	days	EHTL
	2	20-AUG-18 08:45	28-AUG-18 14:33	7	8	days	EHTR
Turbidity	1	20-AUG-18 10:00	27-AUG-18 15:30	3	7	days	EHTR
	2	20-AUG-18 08:45	27-AUG-18 15:30	3	7	days	EHTR
pH	1	20-AUG-18 10:00	28-AUG-18 12:00	0.25	194	hours	EHTR-FM
	2	20-AUG-18 08:45	28-AUG-18 12:00	0.25	195	hours	EHTR-FM
Anions and Nutrients							
Nitrate in Water by IC (Low Level)	1	20-AUG-18 10:00	28-AUG-18 10:45	3	8	days	EHTR
	2	20-AUG-18 08:45	28-AUG-18 10:45	3	8	days	EHTR
Nitrite in Water by IC (Low Level)	1	20-AUG-18 10:00	28-AUG-18 10:45	3	8	days	EHTR
	2	20-AUG-18 08:45	28-AUG-18 10:45	3	8	days	EHTR
Phosphate Ortho Dissolved in Water	1	20-AUG-18 10:00	27-AUG-18 15:30	3	7	days	EHTR
	2	20-AUG-18 08:45	27-AUG-18 15:30	3	7	days	EHTR
Cyanides							
Free Cyanide in water by CFA	1	20-AUG-18 10:00	04-SEP-18 12:00	14	15	days	EHT
	2	20-AUG-18 08:45	04-SEP-18 12:00	14	15	days	EHT

Legend & Qualifier Definitions:

EHTR-FM: Exceeded ALS recommended hold time prior to sample receipt. Field Measurement recommended.
 EHTR: Exceeded ALS recommended hold time prior to sample receipt.
 EHTL: Exceeded ALS recommended hold time prior to analysis. Sample was received less than 24 hours prior to expiry.
 EHT: Exceeded ALS recommended hold time prior to analysis.
 Rec. HT: ALS recommended hold time (see units).

Notes*:

Where actual sampling date is not provided to ALS, the date (& time) of receipt is used for calculation purposes.
 Where actual sampling time is not provided to ALS, the earlier of 12 noon on the sampling date or the time (& date) of receipt is used for calculation purposes. Samples for L2153439 were received on 27-AUG-18 09:00.

ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where available). For more information, please contact ALS.

The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against pre-determined data quality objectives to provide confidence in the accuracy of associated test results.

Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.



Sunday, September 30, 2018

Judy Dalmaijer
ALS Environmental
1329 Niakwa Road East, Unit 12
Winnipeg, MB R2J 3T4

Re: ALS Workorder: 1808541
Project Name:
Project Number: L2153439

Dear Ms. Dalmaijer:

Two water samples were received from ALS Environmental, on 8/28/2018. The samples were scheduled for the following analysis:

Radium-226

The results for these analyses are contained in the enclosed reports.

The data contained in the following report have been reviewed and approved by the personnel listed below. In addition, ALS certifies that the analyses reported herein are true, complete and correct within the limits of the methods employed.

Thank you for your confidence in ALS Environmental. Should you have any questions, please call.

Sincerely,

ALS Environmental
Katie M. O'Brien
Project Manager

ALS Environmental – Fort Collins is accredited by the following accreditation bodies for various testing scopes in accordance with requirements of each accreditation body. All testing is performed under the laboratory management system, which is maintained to meet these requirement and regulations. Please contact the laboratory or accreditation body for the current scope testing parameters.

ALS Environmental – Fort Collins	
Accreditation Body	License or Certification Number
AIHA	214884
Alaska (AK)	UST-086
Arizona (AZ)	AZ0742
California (CA)	06251CA
Colorado (CO)	CO01099
Florida (FL)	E87914
Idaho (ID)	CO01099
Kansas (KS)	E-10381
Kentucky (KY)	90137
PJ-LA (DoD ELAP/ISO 170250)	95377
Maryland (MD)	285
Missouri (MO)	175
Nebraska(NE)	NE-OS-24-13
Nevada (NV)	CO000782008A
New York (NY)	12036
North Dakota (ND)	R-057
Oklahoma (OK)	1301
Pennsylvania (PA)	68-03116
Tennessee (TN)	2976
Texas (TX)	T104704241
Utah (UT)	CO01099
Washington (WA)	C1280



1808541

Radium-226:

The samples were prepared and analyzed according to the current revision of SOP 783.

All acceptance criteria were met.

ALS -- Fort Collins

Sample Number(s) Cross-Reference Table

OrderNum: 1808541

Client Name: ALS Environmental

Client Project Name:

Client Project Number: L2153439

Client PO Number: L2153439

Client Sample Number	Lab Sample Number	COC Number	Matrix	Date Collected	Time Collected
L2153439-1	1808541-1		WATER	20-Aug-18	
L2153439-2	1808541-2		WATER	20-Aug-18	

**L2153439**

WINNIPEG

1808541

Subcontract Request Form**Subcontract To:****ALS ENVIRONMENTAL - FORT COLLINS, COLORADO, USA**225 COMMERCE DRIVE
FORT COLLINS, CO 80524**NOTES:** Please reference on final report and invoice: PO# L2153439
ALS requires QC data to be provided with your final results.

Please see enclosed 2 sample(s) in 2 Container(s)

SAMPLE NUMBER	ANALYTICAL REQUIRED	DATE SAMPLED	Priority Flag
		DUE DATE	
① ② L2153439-1 R-18-08-01		8/20/2018	
	Ra226 by Alpha Scint, MDC=0.01 Bq/L (RA226-MMER-FC 1)	9/17/2018	
L2153439-2 MEL-03-01		8/20/2018	
	Ra226 by Alpha Scint, MDC=0.01 Bq/L (RA226-MMER-FC 1)	9/17/2018	

Subcontract Info Contact: Judy Dalmaijer (204) 255-9749

Analysis and reporting info contact: Judy Dalmaijer
12-1329 NIAKWA ROAD E
WINNIPEG, MB R2J3T4

Phone: (204) 255-9749

Email: Judy.Dalmaijer@alsglobal.com

Please email confirmation of receipt to: Judy.Dalmaijer@alsglobal.comShipped By: D/L Date Shipped: 08/27/18Received By: KELI-JEAN SMITH Date Received: 8-28-18 0940Verified By: [Signature] Date Verified: _____Temperature: 16°

Sample Integrity Issues: _____



ALS Environmental - Fort Collins
CONDITION OF SAMPLE UPON RECEIPT FORM

Client: ALS WINNIPEG
Project Manager: KMO

Workorder No: 1808541
Initials: Ka Date: 8/28/18

1. Are airbills / shipping documents present and/or removable?	DROP OFF	<u>YES</u>	NO
2. Are custody seals on shipping containers intact?	<u>NONE</u>	YES	NO
3. Are custody seals on sample containers intact?	<u>NONE</u>	YES	NO
4. Is there a COC (chain-of-custody) present?		<u>YES</u>	NO
5. Is the COC in agreement with samples received? (IDs, dates, times, # of samples, # of containers, matrix, requested analyses, etc.)		<u>YES</u>	NO
6. Are short-hold samples present?		YES	<u>NO</u>
7. Are all samples within holding times for the requested analyses?		<u>YES</u>	NO
8. Were all sample containers received intact? (not broken or leaking)		<u>YES</u>	NO
9. Is there sufficient sample for the requested analyses?		<u>YES</u>	NO
10. Are all samples in the proper containers for the requested analyses?		<u>YES</u>	NO
11. Are all aqueous samples preserved correctly, if required? (excluding volatiles)	N/A	<u>YES</u>	NO
12. Are all aqueous non-preserved samples pH 4-9?	<u>N/A</u>	YES	NO
13. Are all samples requiring no headspace (VOC, GRO, RSK/MEE, Rx CN/S, radon) free of bubbles > 6 mm (1/4 inch) diameter? (i.e. size of green pea)	<u>N/A</u>	YES	NO
14. Were the samples shipped on ice?		<u>YES</u>	<u>NO</u>
15. Were cooler temperatures measured at 0.1-6.0°C?	IR gun used*: #1 <u>#3</u> #4	RAD ONLY	YES <u>NO</u>
Cooler #: <u>1</u>			
Temperature (°C): <u>9.1</u>			
No. of custody seals on cooler: <u>0</u>			
External µR/hr reading: <u>10</u>			
Background µR/hr reading: <u>10</u>			
Were external µR/hr readings ≤ two times background and within DOT acceptance criteria? <u>YES</u> / NO / NA (If no, see Form 008.)			

Additional Information: Please provide details here for any NO responses to gray-shaded boxes above, or any other issues noted:

14, 15) ice blocks included but warm upon arrival.

If applicable, was the client contacted? YES / NO / NA Contact: _____ Date/Time: _____

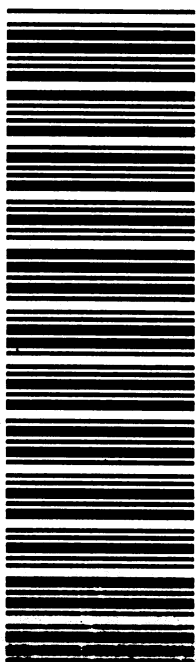
Project Manager Signature / Date: [Signature] 8/29/18

1808541

Purulator Express U.S.

FROM/DE
ALS Laboratory Group
Shipping/Receiving
1329 Nankwa RD E
SUITE 12
WINNIPEG, MB
R2J 3T4
Canada
204-255-9764

TO/A
LOGIN
ALS ENVIRO
225 COMMERCE DRIVE
FORT COLLINS, CO, 80524
United States



PUROLATOR PIN: 6920119124

NON DOCS

DESC: water samples
VALUE: \$ 4.00 CAD
IMPEXP TYPE: PERMANENT
COUNTRY OF MFG: Canada

DUTIES/TAX

DDU: []
DDP: [X]

DESTINATION

DATE: 27 AUG 2018
PIECES: 1 of/de 1
WEIGHT/POIDS: 5 LB

FNL

EXP

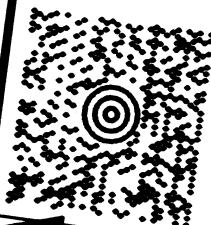
ESD - PDF
Purulator's published terms and conditions apply. Warsaw Convention, 1924, as amended or supplemented, including liability limits thereon, may also apply if shipment crosses international border(s). Les modalités et conditions publiées par Purulator s'appliquent. La Convention de Varsovie de 1924, dans sa version modifiée ou étendue (y compris les limites de responsabilité qui y sont prévues), peut également s'appliquer si l'envoi franchit une ou plusieurs frontières.

EXPRESS 12 662 F45 66 6682 9078

SHIPPING/RECIE VING
ALS LABORATORY GROUP
1329 NANKWA RD E
SUITE 12
WINNIPEG MB R2J 3T4
CANADA

SHIP TO
LOGIN
ALS ENVIRO
225 COMMERCE DRIVE
FORT COLLINS CO
UNITED STATES 80524

20 LBS 1 OF 1
SHIP#: 662F 45MP BYX
SHIP WT: 20 LBS
DATE: 27 AUG 2018



UPS EXPRESS
TRACKING #: 12 662 F45 66 6682 9078



BILLING: F/D
DESC:

at the shipper's
mail and on behalf of the U.S.

1 subject to the
Purulator Inc.'s
jurisdiction where
an ultimate
may apply and
the Convention
and 12 October
at Montreal.
to the carriage
name and address
consignee's name
place of destination,
ing places which are
at the carrier deems
lading and on any
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d to indicate same on
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incorporated herein by
his bill of lading, and no
x otherwise modify any
nsignor agrees to these
aiming an interest in this

Client: ALS Environmental

Date: 30-Sep-18

Project: L2153439

Work Order: 1808541

Sample ID: L2153439-1

Lab ID: 1808541-1

Legal Location:

Matrix: WATER

Collection Date: 8/20/2018

Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Radium-226 by Radon Emanation - Method 903.1			SOP 783		Prep Date: 9/20/2018	PrepBy: CXW
Ra-226	0.0013 (+/- 0.0032)	U	0.0057	BQ/l	NA	9/30/2018 12:37
Carr: BARIUM	85.1		40-110	%REC	DL = NA	9/30/2018 12:37

Client: ALS Environmental

Date: 30-Sep-18

Project: L2153439

Work Order: 1808541

Sample ID: L2153439-2

Lab ID: 1808541-2

Legal Location:

Matrix: WATER

Collection Date: 8/20/2018

Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Radium-226 by Radon Emanation - Method 903.1			SOP 783		Prep Date: 9/20/2018	PrepBy: CXW
Ra-226	0.0069 (+/- 0.0055)	U	0.0074	BQ/l	NA	9/30/2018 12:37
Carr: BARIUM	88.1		40-110	%REC	DL = NA	9/30/2018 12:37

Client: ALS Environmental

Date: 30-Sep-18

Project: L2153439

Work Order: 1808541

Sample ID: L2153439-2

Lab ID: 1808541-2

Legal Location:

Matrix: WATER

Collection Date: 8/20/2018

Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed

Explanation of Qualifiers**Radiochemistry:**

- "Report Limit" is the MDC

U or ND - Result is less than the sample specific MDC.

Y1 - Chemical Yield is in control at 100-110%. Quantitative yield is assumed.

Y2 - Chemical Yield outside default limits.

W - DER is greater than Warning Limit of 1.42

* - Aliquot Basis is 'As Received' while the Report Basis is 'Dry Weight'.

- Aliquot Basis is 'Dry Weight' while the Report Basis is 'As Received'.

G - Sample density differs by more than 15% of LCS density.

D - DER is greater than Control Limit

M - Requested MDC not met.

LT - Result is less than requested MDC but greater than achieved MDC.

M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.

L - LCS Recovery below lower control limit.

H - LCS Recovery above upper control limit.

P - LCS, Matrix Spike Recovery within control limits.

N - Matrix Spike Recovery outside control limits

NC - Not Calculated for duplicate results less than 5 times MDC

B - Analyte concentration greater than MDC.

B3 - Analyte concentration greater than MDC but less than Requested MDC.

Inorganics:

B - Result is less than the requested reporting limit but greater than the instrument method detection limit (MDL).

U or ND - Indicates that the compound was analyzed for but not detected.

E - The reported value is estimated because of the presence of interference. An explanatory note may be included in the narrative.

M - Duplicate injection precision was not met.

N - Spiked sample recovery not within control limits. A post spike is analyzed for all ICP analyses when the matrix spike and or spike duplicate fail and the native sample concentration is less than four times the spike added concentration.

Z - Spiked recovery not within control limits. An explanatory note may be included in the narrative.

* - Duplicate analysis (relative percent difference) not within control limits.

S - SAR value is estimated as one or more analytes used in the calculation were not detected above the detection limit.

Organics:

U or ND - Indicates that the compound was analyzed for but not detected.

B - Analyte is detected in the associated method blank as well as in the sample. It indicates probable blank contamination and warns the data user.

E - Analyte concentration exceeds the upper level of the calibration range.

J - Estimated value. The result is less than the reporting limit but greater than the instrument method detection limit (MDL).

A - A tentatively identified compound is a suspected aldol-condensation product.

X - The analyte was diluted below an accurate quantitation level.

* - The spike recovery is equal to or outside the control criteria used.

+ - The relative percent difference (RPD) equals or exceeds the control criteria.

G - A pattern resembling gasoline was detected in this sample.

D - A pattern resembling diesel was detected in this sample.

M - A pattern resembling motor oil was detected in this sample.

C - A pattern resembling crude oil was detected in this sample.

4 - A pattern resembling JP-4 was detected in this sample.

5 - A pattern resembling JP-5 was detected in this sample.

H - Indicates that the fuel pattern was in the heavier end of the retention time window for the analyte of interest.

L - Indicates that the fuel pattern was in the lighter end of the retention time window for the analyte of interest.

Z - This flag indicates that a significant fraction of the reported result did not resemble the patterns of any of the following petroleum hydrocarbon products:

- gasoline

- JP-8

- diesel

- mineral spirits

- motor oil

- Stoddard solvent

- bunker C

ALS -- Fort Collins

Client: ALS Environmental
Work Order: 1808541
Project: L2153439

Date: 9/30/2018 3:09:

QC BATCH REPORT

Batch ID: **RE180920-1-1** Instrument ID **Alpha Scin** Method: **Radium-226 by Radon Emanation**

LCS	Sample ID: RE180920-1			Units: BQ/l			Analysis Date: 9/30/2018 13:56					
Client ID:	Run ID: RE180920-1A			Prep Date: 9/20/2018			DF: NA					
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	DER Ref	DER	DER Limit	Qual	
Ra-226	1.94 (+/- 0.484)	0.0224	1.771		110	67-120						P,M3
Carr: BARIUM	16100		17490		92.3	40-110						

MB	Sample ID: RE180920-1			Units: BQ/l			Analysis Date: 9/30/2018 13:56					
Client ID:	Run ID: RE180920-1A			Prep Date: 9/20/2018			DF: NA					
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	DER Ref	DER	DER Limit	Qual	
Ra-226	0.00094 (+/- 0.0042)	0.0078										U
Carr: BARIUM	17100		17490		97.7	40-110						

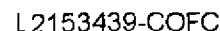
The following samples were analyzed in this batch:

1808541-1	1808541-2



Canada Toll Free: 1 800 668 9878

www.alsglobal.com



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L2153439

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

1. If any water samples are taken from a **Regulated Drinking Water (DW) System**, please submit using an **Authorized DW CQC form**.

OCTOBER 2015 FROM



Agnico-Eagle - Meliadine Gold Project
ATTN: JENNIFER BROWN
PO Box 99
Rankin Inlet NU X0C 0G0

Date Received: 21-SEP-18
Report Date: 18-OCT-18 14:47 (MT)
Version: FINAL

Client Phone: 819-759-3555

Certificate of Analysis

Lab Work Order #: L2168402
Project P.O. #: NOT SUBMITTED
Job Reference: MEL
C of C Numbers:
Legal Site Desc:



Hua Wo
Chemistry Laboratory Manager

[This report shall not be reproduced except in full without the written authority of the Laboratory.]

ADDRESS: 1329 Niakwa Road East, Unit 12, Winnipeg, MB R2J 3T4 Canada | Phone: +1 204 255 9720 | Fax: +1 204 255 9721
ALS CANADA LTD Part of the ALS Group An ALS Limited Company

ALS ENVIRONMENTAL ANALYTICAL REPORT

		Sample ID Description Sampled Date Sampled Time Client ID	L2168402-1 WATER 15-SEP-18 11:30 MEL-03-01				
Grouping	Analyte						
WATER							
Physical Tests	Conductivity (umhos/cm)	74.5					
	Hardness (as CaCO3)	38.7					
	pH (pH units)	7.40					
	Total Suspended Solids (mg/L)	<1.0					
	Total Dissolved Solids (mg/L)	54					
	Turbidity (NTU)	0.23					
Anions and Nutrients	Alkalinity, Total (as CaCO3) (mg/L)	17.9					
	Ammonia, Total (as N) (mg/L)	<0.0050					
	Bicarbonate (HCO3) (mg/L)	21.8					
	Carbonate (CO3) (mg/L)	<0.60					
	Chloride (Cl) (mg/L)	8.66					
	Fluoride (F) (mg/L)	0.026					
	Hydroxide (OH) (mg/L)	<0.34					
	Ion Balance (%)	Low EC					
	Nitrate and Nitrite as N (mg/L)	0.0073					
	Nitrate (as N) (mg/L)	0.0073					
	Nitrite (as N) (mg/L)	<0.0010					
	Total Kjeldahl Nitrogen (mg/L)	0.155					
	Orthophosphate-Dissolved (as P) (mg/L)	<0.0010					
	Phosphorus (P)-Total Dissolved (mg/L)	0.0028					
	Phosphorus (P)-Total (mg/L)	0.0044					
	Silica, Reactive (as SiO2) (mg/L)	0.215					
	TDS (Calculated) (mg/L)	37.1					
	Sulfate (SO4) (mg/L)	3.84					
Cyanides	Cyanide, Weak Acid Diss (mg/L)	<0.0010					
	Cyanide, Total (mg/L)	<0.0010					
	Cyanide, Free (mg/L)	<0.0010					
Organic / Inorganic Carbon	Dissolved Organic Carbon (mg/L)	2.66					
	Total Organic Carbon (mg/L)	2.33					
Total Metals	Mercury (Hg)-Total (ng/L)	<0.50					
Total Metals (Undigested)	Aluminum (Al)-Total (mg/L)	0.00291					
	Antimony (Sb)-Total (mg/L)	<0.000020					
	Arsenic (As)-Total (mg/L)	0.000186					
	Barium (Ba)-Total (mg/L)	0.00748					
	Beryllium (Be)-Total (mg/L)	<0.000010					
	Bismuth (Bi)-Total (mg/L)	<0.000010					

* Please refer to the Reference Information section for an explanation of any qualifiers detected.

ALS ENVIRONMENTAL ANALYTICAL REPORT

		Sample ID Description Sampled Date Sampled Time Client ID				
		L2168402-1 WATER 15-SEP-18 11:30 MEL-03-01				
Grouping	Analyte					
WATER						
Total Metals (Undigested)	Boron (B)-Total (mg/L)	0.0028				
	Cadmium (Cd)-Total (mg/L)	<0.0000050				
	Calcium (Ca)-Total (mg/L)	6.86				
	Chromium (Cr)-Total (mg/L)	<0.000060				
	Cobalt (Co)-Total (mg/L)	0.000024				
	Copper (Cu)-Total (mg/L)	0.00088				
	Iron (Fe)-Total (mg/L)	0.0071				
	Lead (Pb)-Total (mg/L)	<0.000010				
	Lithium (Li)-Total (mg/L)	<0.00050				
	Magnesium (Mg)-Total (mg/L)	1.40				
	Manganese (Mn)-Total (mg/L)	0.00335				
	Molybdenum (Mo)-Total (mg/L)	0.000067				
	Nickel (Ni)-Total (mg/L)	0.000535				
	Potassium (K)-Total (mg/L)	0.942				
	Selenium (Se)-Total (mg/L)	<0.000040				
	Silver (Ag)-Total (mg/L)	<0.0000050				
	Sodium (Na)-Total (mg/L)	4.58				
	Strontium (Sr)-Total (mg/L)	0.0334				
	Thallium (Tl)-Total (mg/L)	<0.0000050				
	Tin (Sn)-Total (mg/L)	<0.000050				
	Titanium (Ti)-Total (mg/L)	<0.00010				
	Uranium (U)-Total (mg/L)	0.000048				
	Vanadium (V)-Total (mg/L)	<0.000050				
	Zinc (Zn)-Total (mg/L)	<0.00080				
Dissolved Metals	Dissolved Mercury Filtration Location	FIELD				
	Aluminum (Al)-Dissolved (mg/L)	0.00165				
	Antimony (Sb)-Dissolved (mg/L)	<0.000020				
	Arsenic (As)-Dissolved (mg/L)	0.000238				
	Barium (Ba)-Dissolved (mg/L)	0.0105				
	Beryllium (Be)-Dissolved (mg/L)	<0.000010				
	Bismuth (Bi)-Dissolved (mg/L)	<0.000010				
	Boron (B)-Dissolved (mg/L)	0.0095				
	Cadmium (Cd)-Dissolved (mg/L)	<0.0000050				
	Calcium (Ca)-Dissolved (mg/L)	11.9				
	Chromium (Cr)-Dissolved (mg/L)	<0.000060				
	Cobalt (Co)-Dissolved (mg/L)	0.000076				
	Copper (Cu)-Dissolved (mg/L)	0.00082				

* Please refer to the Reference Information section for an explanation of any qualifiers detected.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample ID Description Sampled Date Sampled Time Client ID		L2168402-1 WATER 15-SEP-18 11:30 MEL-03-01				
Grouping	Analyte					
WATER						
Dissolved Metals	Iron (Fe)-Dissolved (mg/L)	0.0074				
	Lead (Pb)-Dissolved (mg/L)	0.000012				
	Lithium (Li)-Dissolved (mg/L)	0.00440				
	Magnesium (Mg)-Dissolved (mg/L)	2.15				
	Manganese (Mn)-Dissolved (mg/L)	0.0155				
	Mercury (Hg)-Dissolved (ng/L)	0.80				
	Molybdenum (Mo)-Dissolved (mg/L)	0.000181				
	Nickel (Ni)-Dissolved (mg/L)	0.000669				
	Potassium (K)-Dissolved (mg/L)	1.32				
	Selenium (Se)-Dissolved (mg/L)	0.000042				
	Silver (Ag)-Dissolved (mg/L)	<0.0000050				
	Sodium (Na)-Dissolved (mg/L)	8.54				
	Strontium (Sr)-Dissolved (mg/L)	0.122				
	Thallium (Tl)-Dissolved (mg/L)	<0.0000050				
	Tin (Sn)-Dissolved (mg/L)	0.000334				
	Titanium (Ti)-Dissolved (mg/L)	<0.00010				
	Uranium (U)-Dissolved (mg/L)	0.000113				
	Vanadium (V)-Dissolved (mg/L)	0.000087				
	Zinc (Zn)-Dissolved (mg/L)	0.00291				
Radiological Parameters	Ra-226 (Bq/L)	<0.0097				

* Please refer to the Reference Information section for an explanation of any qualifiers detected.

Reference Information

QC Samples with Qualifiers & Comments:

QC Type Description	Parameter	Qualifier	Applies to Sample Number(s)
Matrix Spike	Magnesium (Mg)-Dissolved	MS-B	L2168402-1
Matrix Spike	Calcium (Ca)-Total	MS-B	L2168402-1
Matrix Spike	Magnesium (Mg)-Total	MS-B	L2168402-1
Matrix Spike	Strontium (Sr)-Total	MS-B	L2168402-1
Matrix Spike	Silica, Reactive (as SiO ₂)	MS-B	L2168402-1

Qualifiers for Individual Parameters Listed:

Qualifier	Description
MS-B	Matrix Spike recovery could not be accurately calculated due to high analyte background in sample.

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
ALK-CO3CO3-CALC-WP	Water	Alkalinity, Carbonate	CALCULATION
The Alkalinity of water is a measure of its acid neutralizing capacity. Alkalinity is imparted by bicarbonate, carbonate and hydroxide components of water. The fraction of alkalinity contributed by carbonate is calculated and reported as mg CO ₃ 2-/L.			
ALK-HCO3HCO3-CALC-WP	Water	Alkalinity, Bicarbonate	CALCULATION
The Alkalinity of water is a measure of its acid neutralizing capacity. Alkalinity is imparted by bicarbonate, carbonate and hydroxide components of water. The fraction of alkalinity contributed by bicarbonate is calculated and reported as mg HCO ₃ -/L			
ALK-OHOH-CALC-WP	Water	Alkalinity, Hydroxide	CALCULATION
The Alkalinity of water is a measure of its acid neutralizing capacity. Alkalinity is imparted by bicarbonate, carbonate and hydroxide components of water. The fraction of alkalinity contributed by hydroxide is calculated and reported as mg OH-/L.			
ALK-TITR-WP	Water	Alkalinity, Total (as CaCO ₃)	APHA 2320B
The Alkalinity of water is a measure of its acid neutralizing capacity. Alkalinity is imparted by bicarbonate, carbonate and hydroxide components of water. Total alkalinity is determined by titration with a strong standard mineral acid to the successive HCO ₃ - and H ₂ CO ₃ endpoints indicated electrometrically.			
C-DOC-HTC-WP	Water	Dissolved Organic Carbon by Combustion	APHA 5310 B-WP
Filtered (0.45 um) sample is acidified and purged to remove inorganic carbon, then injected into a heated reaction chamber where organic carbon is oxidized to CO ₂ which is then transported in the carrier gas stream and measured via a non-dispersive infrared analyzer.			
C-TOC-HTC-WP	Water	Total Organic Carbon by Combustion	APHA 5310 B-WP
Sample is acidified and purged to remove inorganic carbon, then injected into a heated reaction chamber where organic carbon is oxidized to CO ₂ which is then transported in the carrier gas stream and measured via a non-dispersive infrared analyzer.			
CL-L-IC-N-WP	Water	Chloride in Water by IC (Low Level)	EPA 300.1 (mod)
Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.			
CN-FREE-CFA-WP	Water	Free Cyanide in water by CFA	ASTM D7237
This analysis is carried out using procedures adapted from ASTM Method 7237 "Free Cyanide with Flow Injection Analysis (FIA) Utilizing Gas Diffusion Separation and Amperometric Detection". Free cyanide is determined by in-line gas diffusion at pH 6 with final determination by colourimetric analysis.			
CN-T-CFA-WP	Water	Total Cyanide in water by CFA	ISO 14403-2
This analysis is carried out using procedures adapted from ISO Method 14403-2:2012 "Determination of Total Cyanide using Flow Analysis (FIA and CFA)". Total or strong acid dissociable (SAD) cyanide is determined by in-line UV digestion along with sample distillation and final determination by colourimetric analysis.			
CN-WAD-CFA-WP	Water	Weak Acid Diss. Cyanide in water by CFA	APHA 4500-CN I
This analysis is carried out using procedures adapted from APHA Method 4500-CN I. "Weak Acid Dissociable Cyanide". Weak acid dissociable (WAD) cyanide is determined by in-line sample distillation and final determination by colourimetric analysis.			
EC-WP	Water	Conductivity	APHA 2510B
Conductivity of an aqueous solution refers to its ability to carry an electric current. Conductance of a solution is measured between two spatially fixed and chemically inert electrodes.			
F-IC-N-WP	Water	Fluoride in Water by IC	EPA 300.1 (mod)
Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.			
HARDNESS-CALC-WP	Water	Hardness Calculated	APHA 2340B

Reference Information

Hardness (also known as Total Hardness) is calculated from the sum of Calcium and Magnesium concentrations, expressed in CaCO₃ equivalents. Dissolved Calcium and Magnesium concentrations are preferentially used for the hardness calculation.

HG-D-L-CVAF-WP Water Mercury, Dissolved EPA 1631 D (modified)

Mercury in filtered aqueous matrices is oxidized with bromine monochloride and analyzed by cold-vapor atomic fluorescence spectrometer.

HG-T-L-CVAF-WP Water Mercury, Total EPA 1631 T (modified)

Mercury in unfiltered aqueous matrices is oxidized with bromine monochloride and analyzed by cold-vapor atomic fluorescence spectrometer.

IONBALANCE-CALC-WP Water Ion Balance Calculation APHA 1030E

Cation Sum, Anion Sum, and Ion Balance (as % difference) are calculated based on guidance from APHA Standard Methods (1030E Checking Correctness of Analysis). Because all aqueous solutions are electrically neutral, the calculated ion balance (% difference of cations minus anions) should be near-zero.

Cation and Anion Sums are the total meq/L concentration of major cations and anions. Dissolved species are used where available. Minor ions are included where data is present. Ion Balance (as % difference) cannot be calculated accurately for waters with very low electrical conductivity (EC), and is reported as "Low EC" where EC < 100 uS/cm (umhos/cm). Ion Balance is calculated as:

$$\text{Ion Balance (\%)} = [\text{Cation Sum} - \text{Anion Sum}] / [\text{Cation Sum} + \text{Anion Sum}]$$

MET-D-NP-U-CCMS-ED Water Diss. Metals in Water by CRC ICPMS (Ult) APHA 3125-ICP-MS

Ultra trace metals in water are analyzed by ICPMS, based on US EPA Method 6020A (Jan 1998). This procedure is intended for pristine field-filtered acid-preserved water samples. ALS recommends that filtration blanks be submitted for this test to aid with interpretation of results.

MET-T-NP-U-CCMS-ED Water Metals in Water by CRC ICPMS (No Digest) APHA 3125-ICP-MS

Ultra trace metals in water are analyzed by ICPMS, based on US EPA Method 6020A (Jan 1998). The detection limits provided can only be met for undigested samples. This procedure is intended for pristine, non-turbid, acid-preserved water samples, where sample turbidity is < 1 NTU. Where turbidity exceeds 1 NTU, results may be biased low compared to true Total Metals concentrations. ALS recommends that turbidity analysis be requested on samples submitted for this test to aid with interpretation of results.

NH3-L-CFA-ED Water Ammonia in Water by Colour APHA 4500 NH₃-NITROGEN (AMMONIA)

This analysis is carried out using procedures adapted from APHA Method 4500 NH₃ "NITROGEN (AMMONIA)". Ammonia is determined using the automated phenate colourimetric method.

NO2+NO3-CALC-L-WP Water Nitrate+Nitrite CALCULATION

NO2-L-IC-N-WP Water Nitrite in Water by IC (Low Level) EPA 300.1 (mod)

Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.

NO3-L-IC-N-WP Water Nitrate in Water by IC (Low Level) EPA 300.1 (mod)

Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.

P-T-L-COL-WP Water Phosphorus, Total APHA 4500 P PHOSPHORUS-L

This analysis is carried out using procedures adapted from APHA Method 4500-P "Phosphorus". Total Phosphorous is determined colourimetrically after persulphate digestion of the sample.

P-TD-L-COL-WP Water Phosphorus, Total Dissolved APHA 4500 P PHOSPHORUS-L

This analysis is carried out using procedures adapted from APHA Method 4500-P "Phosphorus". Total Dissolved Phosphorous is determined colourimetrically after persulphate digestion of a sample that has been lab or field filtered through a 0.45 micron membrane filter.

PH-WP Water pH APHA 4500H

The pH of a sample is the determination of the activity of the hydrogen ions by potentiometric measurement using a standard hydrogen electrode and a reference electrode.

PO4-DO-L-COL-WP Water Phosphate Ortho Dissolved in Water APHA 4500 P PHOSPHORUS-L

This analysis is carried out using procedures adapted from APHA Method 4500-P "Phosphorus". Dissolved Orthophosphate is determined colourimetrically on a sample that has been lab or field filtered through a 0.45 micron membrane filter.

RA226-MMER-FC Water Ra226 by Alpha Scint, MDC=0.01 Bq/L EPA 903.1

SIO2-L-COL-WP Water Reactive Silica by colour APHA 4500 SIO₂

This analysis is carried out using procedures adapted from APHA Method 4500-SiO₂ "Silica". Molybdate Reactive Silica is determined by analysis of the sample using the heteropoly blue colourimetric method.

SO4-IC-N-WP Water Sulfate in Water by IC EPA 300.1 (mod)

Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.

TDS-WP Water Total Dissolved Solids (TDS) APHA 2540 SOLIDS C,E

Reference Information

A well-mixed sample is filtered through a glass fiber filter paper. The filtrate is then evaporated to dryness in a pre-weighed vial and dried at 180 – 2C. The increase in vial weight represents the total dissolved solids.

TKN-L-CFA-ED Water TKN in Water by Colour APHA 4500-NORG (TKN)

This analysis is carried out using procedures adapted from APHA Method 4500-Norg "Nitrogen (Organic)". Total Kjeldahl Nitrogen is determined by sample digestion at 380 celcius with analysis using an automated colourimetric finish.

TSS-LOW-VA Water Total Suspended Solids by Grav. (1 mg/L) APHA 2540D

This analysis is carried out using procedures adapted from APHA Method 2540 "Solids". Solids are determined gravimetrically. Total suspended solids (TSS) are determined by filtering a sample through a glass fibre filter, TSS is determined by drying the filter at 104 degrees celsius.

Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.

TURBIDITY-WP Water Turbidity APHA 2130B (modified)

Turbidity in aqueous matrices is determined by the nephelometric method.

** ALS test methods may incorporate modifications from specified reference methods to improve performance.

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location
FC	ALS ENVIRONMENTAL - FORT COLLINS, COLORADO, USA
WP	ALS ENVIRONMENTAL - WINNIPEG, MANITOBA, CANADA
ED	ALS ENVIRONMENTAL - EDMONTON, ALBERTA, CANADA
VA	ALS ENVIRONMENTAL - VANCOUVER, BRITISH COLUMBIA, CANADA

Chain of Custody Numbers:

GLOSSARY OF REPORT TERMS

Surrogate - A compound that is similar in behaviour to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

mg/kg - milligrams per kilogram based on dry weight of sample.

mg/kg ww - milligrams per kilogram based on wet weight of sample.

mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight of sample.

mg/L - milligrams per litre.

< - Less than.

D.L. - The reported Detection Limit, also known as the Limit of Reporting (LOR).

N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.

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Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CN-T-CFA-WP								
Batch R4241968								
WG2887010-12 LCS								
Cyanide, Total			87.9		%		80-120	25-SEP-18
WG2887010-11 MB								
Cyanide, Total			<0.0010		mg/L		0.001	25-SEP-18
WG2887010-14 MS		L2168402-1						
Cyanide, Total			90.6		%		75-125	25-SEP-18
CN-WAD-CFA-WP								
Batch R4241968								
WG2887010-13 DUP		L2168402-1						
Cyanide, Weak Acid Diss		<0.0010	<0.0010	RPD-NA	mg/L	N/A	20	25-SEP-18
WG2887010-12 LCS								
Cyanide, Weak Acid Diss			106.0		%		80-120	25-SEP-18
WG2887010-11 MB								
Cyanide, Weak Acid Diss			<0.0010		mg/L		0.001	25-SEP-18
WG2887010-14 MS		L2168402-1						
Cyanide, Weak Acid Diss			103.6		%		75-125	25-SEP-18
EC-WP								
Batch R4234949								
WG2884637-13 LCS								
Conductivity			100.9		%		90-110	21-SEP-18
WG2884637-11 MB								
Conductivity			<1.0		umhos/cm		1	21-SEP-18
F-IC-N-WP								
Batch R4242273								
WG2883596-6 LCS								
Fluoride (F)			107.2		%		90-110	21-SEP-18
WG2883596-5 MB								
Fluoride (F)			<0.020		mg/L		0.02	21-SEP-18
HG-D-L-CVAF-WP								
Batch R4250268								
WG2889627-2 LCS								
Mercury (Hg)-Dissolved			95.6		%		80-120	27-SEP-18
WG2889627-1 MB								
Mercury (Hg)-Dissolved			<0.50		ng/L		0.5	27-SEP-18
HG-T-L-CVAF-WP								
Batch R4250268								

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Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
HG-T-L-CVAF-WP		Water						
Batch	R4258332							
WG2893941-2	LCS							
Mercury (Hg)-Total			103.6		%		80-120	02-OCT-18
WG2893941-1	MB							
Mercury (Hg)-Total			<0.50		ng/L		0.5	02-OCT-18
MET-D-NP-U-CCMS-ED		Water						
Batch	R4244190							
WG2884857-9	MB							
Aluminum (Al)-Dissolved			<0.00030		mg/L		0.0003	25-SEP-18
Antimony (Sb)-Dissolved			<0.000020		mg/L		0.00002	25-SEP-18
Arsenic (As)-Dissolved			<0.000020		mg/L		0.00002	25-SEP-18
Barium (Ba)-Dissolved			<0.000050		mg/L		0.00005	25-SEP-18
Beryllium (Be)-Dissolved			<0.000010		mg/L		0.00001	25-SEP-18
Bismuth (Bi)-Dissolved			<0.000010		mg/L		0.00001	25-SEP-18
Boron (B)-Dissolved			<0.0010		mg/L		0.001	25-SEP-18
Cadmium (Cd)-Dissolved			<0.0000050		mg/L		0.000005	25-SEP-18
Calcium (Ca)-Dissolved			<0.020		mg/L		0.02	25-SEP-18
Chromium (Cr)-Dissolved			<0.000060		mg/L		0.00006	25-SEP-18
Cobalt (Co)-Dissolved			<0.000010		mg/L		0.00001	25-SEP-18
Copper (Cu)-Dissolved			<0.00010		mg/L		0.0001	25-SEP-18
Iron (Fe)-Dissolved			<0.0010		mg/L		0.001	25-SEP-18
Lead (Pb)-Dissolved			<0.000010		mg/L		0.00001	25-SEP-18
Lithium (Li)-Dissolved			<0.00050		mg/L		0.0005	25-SEP-18
Magnesium (Mg)-Dissolved			<0.0040		mg/L		0.004	25-SEP-18
Manganese (Mn)-Dissolved			<0.000050		mg/L		0.00005	25-SEP-18
Molybdenum (Mo)-Dissolved			<0.000050		mg/L		0.00005	25-SEP-18
Nickel (Ni)-Dissolved			<0.000060		mg/L		0.00006	25-SEP-18
Potassium (K)-Dissolved			<0.020		mg/L		0.02	25-SEP-18
Selenium (Se)-Dissolved			<0.000040		mg/L		0.00004	25-SEP-18
Silver (Ag)-Dissolved			<0.0000050		mg/L		0.000005	25-SEP-18
Sodium (Na)-Dissolved			<0.0050		mg/L		0.005	25-SEP-18
Strontium (Sr)-Dissolved			<0.000050		mg/L		0.00005	25-SEP-18
Thallium (Tl)-Dissolved			<0.0000050		mg/L		0.000005	25-SEP-18
Tin (Sn)-Dissolved			<0.000050		mg/L		0.00005	25-SEP-18
Titanium (Ti)-Dissolved			<0.00010		mg/L		0.0001	25-SEP-18
Uranium (U)-Dissolved			<0.000010		mg/L		0.00001	25-SEP-18

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Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-NP-U-CCMS-ED		Water						
Batch R4244190								
WG2884857-9 MB								
Vanadium (V)-Dissolved			<0.000050		mg/L		0.00005	25-SEP-18
Zinc (Zn)-Dissolved			<0.00080		mg/L		0.0008	25-SEP-18
Batch R4251701								
WG2884857-10 LCS								
Aluminum (Al)-Dissolved			103.4		%		80-120	28-SEP-18
Antimony (Sb)-Dissolved			95.7		%		80-120	28-SEP-18
Arsenic (As)-Dissolved			97.0		%		80-120	28-SEP-18
Barium (Ba)-Dissolved			98.9		%		80-120	28-SEP-18
Beryllium (Be)-Dissolved			96.8		%		80-120	28-SEP-18
Bismuth (Bi)-Dissolved			102.2		%		80-120	28-SEP-18
Boron (B)-Dissolved			98.6		%		80-120	28-SEP-18
Cadmium (Cd)-Dissolved			97.5		%		80-120	28-SEP-18
Calcium (Ca)-Dissolved			99.7		%		80-120	28-SEP-18
Chromium (Cr)-Dissolved			98.1		%		80-120	28-SEP-18
Cobalt (Co)-Dissolved			97.0		%		80-120	28-SEP-18
Copper (Cu)-Dissolved			95.3		%		80-120	28-SEP-18
Iron (Fe)-Dissolved			97.6		%		80-120	28-SEP-18
Lead (Pb)-Dissolved			99.0		%		80-120	28-SEP-18
Lithium (Li)-Dissolved			93.1		%		80-120	28-SEP-18
Magnesium (Mg)-Dissolved			95.1		%		80-120	28-SEP-18
Manganese (Mn)-Dissolved			95.7		%		80-120	28-SEP-18
Molybdenum (Mo)-Dissolved			94.3		%		80-120	28-SEP-18
Nickel (Ni)-Dissolved			95.2		%		80-120	28-SEP-18
Potassium (K)-Dissolved			99.2		%		80-120	28-SEP-18
Selenium (Se)-Dissolved			96.3		%		80-120	28-SEP-18
Silver (Ag)-Dissolved			99.3		%		80-120	28-SEP-18
Sodium (Na)-Dissolved			103.4		%		80-120	28-SEP-18
Strontium (Sr)-Dissolved			95.5		%		80-120	28-SEP-18
Thallium (Tl)-Dissolved			98.3		%		80-120	28-SEP-18
Tin (Sn)-Dissolved			97.3		%		80-120	28-SEP-18
Titanium (Ti)-Dissolved			94.8		%		80-120	28-SEP-18
Uranium (U)-Dissolved			98.6		%		80-120	28-SEP-18
Vanadium (V)-Dissolved			96.6		%		80-120	28-SEP-18
Zinc (Zn)-Dissolved			94.7		%		80-120	28-SEP-18

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Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-NP-U-CCMS-ED		Water						
Batch	R4239307							
WG2884841-18	LCS							
Aluminum (Al)-Total			98.1		%		80-120	24-SEP-18
Antimony (Sb)-Total			95.3		%		80-120	24-SEP-18
Arsenic (As)-Total			96.7		%		80-120	24-SEP-18
Barium (Ba)-Total			98.1		%		80-120	24-SEP-18
Beryllium (Be)-Total			91.6		%		80-120	24-SEP-18
Bismuth (Bi)-Total			89.9		%		80-120	24-SEP-18
Boron (B)-Total			92.8		%		80-120	24-SEP-18
Cadmium (Cd)-Total			95.5		%		80-120	24-SEP-18
Calcium (Ca)-Total			92.6		%		80-120	24-SEP-18
Chromium (Cr)-Total			98.0		%		80-120	24-SEP-18
Cobalt (Co)-Total			96.9		%		80-120	24-SEP-18
Copper (Cu)-Total			95.1		%		80-120	24-SEP-18
Iron (Fe)-Total			92.5		%		80-120	24-SEP-18
Lead (Pb)-Total			92.6		%		80-120	24-SEP-18
Lithium (Li)-Total			91.6		%		80-120	24-SEP-18
Magnesium (Mg)-Total			98.7		%		80-120	24-SEP-18
Manganese (Mn)-Total			99.8		%		80-120	24-SEP-18
Molybdenum (Mo)-Total			94.1		%		80-120	24-SEP-18
Nickel (Ni)-Total			95.4		%		80-120	24-SEP-18
Potassium (K)-Total			97.7		%		80-120	24-SEP-18
Selenium (Se)-Total			96.8		%		80-120	24-SEP-18
Silver (Ag)-Total			97.0		%		80-120	24-SEP-18
Sodium (Na)-Total			93.4		%		80-120	24-SEP-18
Strontium (Sr)-Total			95.8		%		80-120	24-SEP-18
Thallium (Tl)-Total			94.3		%		80-120	24-SEP-18
Tin (Sn)-Total			94.5		%		80-120	24-SEP-18
Titanium (Ti)-Total			95.8		%		80-120	24-SEP-18
Uranium (U)-Total			91.5		%		80-120	24-SEP-18
Vanadium (V)-Total			97.7		%		80-120	24-SEP-18
Zinc (Zn)-Total			92.4		%		80-120	24-SEP-18
WG2884841-17	MB							
Antimony (Sb)-Total			<0.000020		mg/L		0.00002	24-SEP-18
Arsenic (As)-Total			<0.000020		mg/L		0.00002	24-SEP-18
Barium (Ba)-Total			<0.000050		mg/L		0.00005	24-SEP-18

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Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-NP-U-CCMS-ED		Water						
Batch R4239307								
WG2884841-17 MB								
Beryllium (Be)-Total			<0.000010		mg/L		0.00001	24-SEP-18
Bismuth (Bi)-Total			<0.000010		mg/L		0.00001	24-SEP-18
Boron (B)-Total			<0.0010		mg/L		0.001	24-SEP-18
Cadmium (Cd)-Total			<0.0000050		mg/L		0.000005	24-SEP-18
Calcium (Ca)-Total			<0.020		mg/L		0.02	24-SEP-18
Cobalt (Co)-Total			<0.000010		mg/L		0.00001	24-SEP-18
Copper (Cu)-Total			<0.00010		mg/L		0.0001	24-SEP-18
Lead (Pb)-Total			<0.000010		mg/L		0.00001	24-SEP-18
Lithium (Li)-Total			<0.00050		mg/L		0.0005	24-SEP-18
Molybdenum (Mo)-Total			<0.000050		mg/L		0.00005	24-SEP-18
Potassium (K)-Total			<0.020		mg/L		0.02	24-SEP-18
Selenium (Se)-Total			<0.000040		mg/L		0.00004	24-SEP-18
Silver (Ag)-Total			<0.0000050		mg/L		0.000005	24-SEP-18
Sodium (Na)-Total			<0.0050		mg/L		0.005	24-SEP-18
Strontium (Sr)-Total			<0.000050		mg/L		0.00005	24-SEP-18
Thallium (Tl)-Total			<0.0000050		mg/L		0.000005	24-SEP-18
Tin (Sn)-Total			<0.000050		mg/L		0.00005	24-SEP-18
Titanium (Ti)-Total			<0.00010		mg/L		0.0001	24-SEP-18
Uranium (U)-Total			<0.000010		mg/L		0.00001	24-SEP-18
Vanadium (V)-Total			<0.000050		mg/L		0.00005	24-SEP-18
Zinc (Zn)-Total			<0.00080		mg/L		0.0008	24-SEP-18
Batch R4243667								
WG2884841-17 MB								
Aluminum (Al)-Total			<0.00030		mg/L		0.0003	25-SEP-18
Chromium (Cr)-Total			<0.000060		mg/L		0.00006	25-SEP-18
Iron (Fe)-Total			<0.0010		mg/L		0.001	25-SEP-18
Magnesium (Mg)-Total			<0.0040		mg/L		0.004	25-SEP-18
Manganese (Mn)-Total			<0.000050		mg/L		0.00005	25-SEP-18
Nickel (Ni)-Total			<0.000060		mg/L		0.00006	25-SEP-18
NH3-L-CFA-ED		Water						
Batch R4247048								
WG2888753-2 LCS								
Ammonia, Total (as N)			98.1		%		85-115	27-SEP-18
WG2888753-1 MB								
Ammonia, Total (as N)			<0.0050		mg/L		0.005	27-SEP-18

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Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
NO2-L-IC-N-WP		Water						
Batch	R4242273							
WG2883596-6	LCS							
Nitrite (as N)			102.5		%		90-110	21-SEP-18
WG2883596-5	MB							
Nitrite (as N)			<0.0010		mg/L		0.001	21-SEP-18
NO3-L-IC-N-WP		Water						
Batch	R4242273							
WG2883596-6	LCS							
Nitrate (as N)			102.4		%		90-110	21-SEP-18
WG2883596-5	MB							
Nitrate (as N)			<0.0050		mg/L		0.005	21-SEP-18
P-T-L-COL-WP		Water						
Batch	R4271118							
WG2898927-3	DUP	L2168402-1						
Phosphorus (P)-Total		0.0044	0.0039		mg/L	11	20	10-OCT-18
WG2898927-2	LCS							
Phosphorus (P)-Total			101.9		%		80-120	10-OCT-18
WG2898927-1	MB							
Phosphorus (P)-Total			<0.0010		mg/L		0.001	10-OCT-18
P-TD-L-COL-WP		Water						
Batch	R4277387							
WG2901662-3	DUP	L2168402-1						
Phosphorus (P)-Total	Dissolved	0.0028	0.0024		mg/L	13	20	12-OCT-18
WG2901662-2	LCS							
Phosphorus (P)-Total	Dissolved		95.3		%		80-120	12-OCT-18
WG2901662-1	MB							
Phosphorus (P)-Total	Dissolved		<0.0010		mg/L		0.001	12-OCT-18
PH-WP		Water						
Batch	R4234949							
WG2884637-12	LCS							
pH			7.43		pH units		7.3-7.5	21-SEP-18
PO4-DO-L-COL-WP		Water						
Batch	R4236292							
WG2884908-6	LCS							
Orthophosphate-Dissolved	(as P)		100.7		%		80-120	21-SEP-18
WG2884908-5	MB							
Orthophosphate-Dissolved	(as P)		<0.0010		mg/L		0.001	21-SEP-18

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Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
SIO2-L-COL-WP	Water							
Batch	R4251251							
WG2890134-2 LCS								
Silica, Reactive (as SiO2)			103.1		%		85-115	28-SEP-18
WG2890134-1 MB								
Silica, Reactive (as SiO2)			<0.010		mg/L		0.01	28-SEP-18
SO4-IC-N-WP	Water							
Batch	R4242273							
WG2883596-6 LCS								
Sulfate (SO4)			100.1		%		90-110	21-SEP-18
WG2883596-5 MB								
Sulfate (SO4)			<0.30		mg/L		0.3	21-SEP-18
TDS-WP	Water							
Batch	R4239552							
WG2883912-10 LCS								
Total Dissolved Solids			105.1		%		85-115	22-SEP-18
WG2883912-9 MB								
Total Dissolved Solids			<4.0		mg/L		4	22-SEP-18
TKN-L-CFA-ED	Water							
Batch	R4281869							
WG2904296-18 LCS								
Total Kjeldahl Nitrogen			104		%		75-125	17-OCT-18
WG2904296-17 MB								
Total Kjeldahl Nitrogen			<0.050		mg/L		0.05	17-OCT-18
TSS-LOW-VA	Water							
Batch	R4235274							
WG2884147-6 LCS								
Total Suspended Solids			99.1		%		85-115	22-SEP-18
WG2884147-5 MB								
Total Suspended Solids			<1.0		mg/L		1	22-SEP-18
TURBIDITY-WP	Water							
Batch	R4235929							
WG2884948-2 LCS								
Turbidity			98.0		%		85-115	21-SEP-18
WG2884948-1 MB								
Turbidity			<0.10		NTU		0.1	21-SEP-18

Quality Control Report

Workorder: L2168402

Report Date: 18-OCT-18

Page 9 of 10

Legend:

Limit	ALS Control Limit (Data Quality Objectives)
DUP	Duplicate
RPD	Relative Percent Difference
N/A	Not Available
LCS	Laboratory Control Sample
SRM	Standard Reference Material
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ADE	Average Desorption Efficiency
MB	Method Blank
IRM	Internal Reference Material
CRM	Certified Reference Material
CCV	Continuing Calibration Verification
CVS	Calibration Verification Standard
LCSD	Laboratory Control Sample Duplicate

Sample Parameter Qualifier Definitions:

Qualifier	Description
RPD-NA	Relative Percent Difference Not Available due to result(s) being less than detection limit.

Quality Control Report

Workorder: L2168402

Report Date: 18-OCT-18

Page 10 of 10

Hold Time Exceedances:

ALS Product Description	Sample ID	Sampling Date	Date Processed	Rec. HT	Actual HT	Units	Qualifier
Physical Tests							
Turbidity	1	15-SEP-18 11:30	21-SEP-18 12:00	3	6	days	EHTR
pH	1	15-SEP-18 11:30	21-SEP-18 12:00	0.25	144	hours	EHTR-FM
Anions and Nutrients							
Nitrate in Water by IC (Low Level)	1	15-SEP-18 11:30	21-SEP-18 16:00	3	6	days	EHTR
Nitrite in Water by IC (Low Level)	1	15-SEP-18 11:30	21-SEP-18 16:00	3	6	days	EHTR
Phosphate Ortho Dissolved in Water	1	15-SEP-18 11:30	21-SEP-18 15:00	3	6	days	EHTR
TKN in Water by Colour	1	15-SEP-18 11:30	17-OCT-18 00:00	28	32	days	EHT

Legend & Qualifier Definitions:

EHTR-FM: Exceeded ALS recommended hold time prior to sample receipt. Field Measurement recommended.
EHTR: Exceeded ALS recommended hold time prior to sample receipt.
EHTL: Exceeded ALS recommended hold time prior to analysis. Sample was received less than 24 hours prior to expiry.
EHT: Exceeded ALS recommended hold time prior to analysis.
Rec. HT: ALS recommended hold time (see units).

Notes*:

Where actual sampling date is not provided to ALS, the date (& time) of receipt is used for calculation purposes.
Where actual sampling time is not provided to ALS, the earlier of 12 noon on the sampling date or the time (& date) of receipt is used for calculation purposes. Samples for L2168402 were received on 21-SEP-18 09:20.

ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where available). For more information, please contact ALS.

The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against pre-determined data quality objectives to provide confidence in the accuracy of associated test results.

Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.



Wednesday, October 17, 2018

Judy Dalmaijer
ALS Environmental
1329 Niakwa Road East, Unit 12
Winnipeg, MB R2J 3T4

Re: ALS Workorder: 1809488
Project Name:
Project Number: L2168402

Dear Ms. Dalmaijer:

One water sample was received from ALS Environmental, on 9/24/2018. The sample was scheduled for the following analysis:

Radium-226

The results for these analyses are contained in the enclosed reports.

The data contained in the following report have been reviewed and approved by the personnel listed below. In addition, ALS certifies that the analyses reported herein are true, complete and correct within the limits of the methods employed.

Thank you for your confidence in ALS Environmental. Should you have any questions, please call.

Sincerely,

ALS Environmental
Katie M. O'Brien
Project Manager

ALS Environmental – Fort Collins is accredited by the following accreditation bodies for various testing scopes in accordance with requirements of each accreditation body. All testing is performed under the laboratory management system, which is maintained to meet these requirement and regulations. Please contact the laboratory or accreditation body for the current scope testing parameters.

ALS Environmental – Fort Collins	
Accreditation Body	License or Certification Number
AIHA	214884
Alaska (AK)	UST-086
Arizona (AZ)	AZ0742
California (CA)	06251CA
Colorado (CO)	CO01099
Florida (FL)	E87914
Idaho (ID)	CO01099
Kansas (KS)	E-10381
Kentucky (KY)	90137
PJ-LA (DoD ELAP/ISO 170250)	95377
Maryland (MD)	285
Missouri (MO)	175
Nebraska(NE)	NE-OS-24-13
Nevada (NV)	CO000782008A
New York (NY)	12036
North Dakota (ND)	R-057
Oklahoma (OK)	1301
Pennsylvania (PA)	68-03116
Tennessee (TN)	2976
Texas (TX)	T104704241
Utah (UT)	CO01099
Washington (WA)	C1280



1809488

Radium-226:

The sample was prepared and analyzed according to the current revision of SOP 783.

All acceptance criteria were met.

ALS -- Fort Collins

Sample Number(s) Cross-Reference Table

OrderNum: 1809488

Client Name: ALS Environmental

Client Project Name:

Client Project Number: L2168402

Client PO Number: L2168402

Client Sample Number	Lab Sample Number	COC Number	Matrix	Date Collected	Time Collected
L2168402-1	1809488-1		WATER	15-Sep-18	

**L2168402**

WINNIPEG

1809488

Subcontract Request Form**Subcontract To:**

ALS ENVIRONMENTAL - FORT COLLINS, COLORADO,
225 COMMERCE DRIVE
FORT COLLINS, CO 80524

WP-SHIPTO-FC-FRI



NOTES: Please reference on final report and invoice: PO# L2168402
ALS requires QC data to be provided with your final results.

Please see enclosed 1 sample(s) in 1 Container(s)

**SAMPLE
NUMBER****ANALYTICAL REQUIRED****DATE SAMPLED****DUE DATE****Priority
Flag**

\ L2168402-1 MEL-03-01

9/ 15/ 2018

Ra226 by Alpha Scint, MDC=0.01 Bq/L (RA226-MMER-FC 1) 10/12/2018

Subcontract Info Contact:

Judy Dalmaijer (204) 255-9749

Analysis and reporting info contact:

Judy Dalmaijer

12-1329 NIAKWA ROAD E

WINNIPEG, MB R2J3T4

Phone: (204) 255-9749

Email: Judy.Dalmaijer@alsglobal.com

Please email confirmation of receipt to:**Judy.Dalmaijer@alsglobal.com**Shipped By: KLDate Shipped: 21stReceived By: JBDate Received: 9/24/18 9:15Verified By: JB

Date Verified: _____

Temperature: _____

Sample Integrity Issues: _____



ALS Environmental - Fort Collins
CONDITION OF SAMPLE UPON RECEIPT FORM

Client: ALS Winnipeg

Workorder No: 1809488

Project Manager: KNO

Initials: SE

Date: 9/29/18

1. Are airbills / shipping documents present and/or removable?	DROP OFF	<u>YES</u>	NO
2. Are custody seals on shipping containers intact?	<u>NONE</u>	YES	NO
3. Are custody seals on sample containers intact?	<u>NONE</u>	YES	NO
4. Is there a COC (chain-of-custody) present?		<u>YES</u>	NO
5. Is the COC in agreement with samples received? (IDs, dates, times, # of samples, # of containers, matrix, requested analyses, etc.)		<u>YES</u>	NO
6. Are short-hold samples present?		YES	<u>NO</u>
7. Are all samples within holding times for the requested analyses?		<u>YES</u>	NO
8. Were all sample containers received intact? (not broken or leaking)		<u>YES</u>	NO
9. Is there sufficient sample for the requested analyses?		<u>YES</u>	NO
10. Are all samples in the proper containers for the requested analyses?		<u>YES</u>	NO
11. Are all aqueous samples preserved correctly, if required? (excluding volatiles)	N/A	YES	<u>NO</u>
12. Are all aqueous non-preserved samples pH 4-9?	<u>N/A</u>	YES	NO
13. Are all samples requiring no headspace (VOC, GRO, RSK/MEE, Rx CN/S, radon) free of bubbles > 6 mm (1/4 inch) diameter? (i.e. size of green pea)	<u>N/A</u>	YES	NO
14. Were the samples shipped on ice?		<u>YES</u>	NO
15. Were cooler temperatures measured at 0.1-6.0°C?	IR gun used*: #1 <u>#3</u> #4	<u>RAD ONLY</u>	YES <u>NO</u>
Cooler #: <u>1</u>			
Temperature (°C): <u>15.6</u>			
No. of custody seals on cooler: <u>0</u>			
External µR/hr reading: <u>12</u>			
Background µR/hr reading: <u>11</u>			
Were external µR/hr readings ≤ two times background and within DOT acceptance criteria? YES / NO / NA (If no, see Form 008.)			

Additional Information: Please provide details here for any NO responses to gray-shaded boxes above, or any other issues noted:

Sample pH was ~7. 1ml conc HNO₃ added
Final pH < 2

If applicable, was the client contacted? YES / NO / NA Contact: _____ Date/Time: _____

Project Manager Signature / Date: [Signature] 9/25/18

1809488
1809489
1809490
1809491
12-0

Purolator Purolator Express U.S.

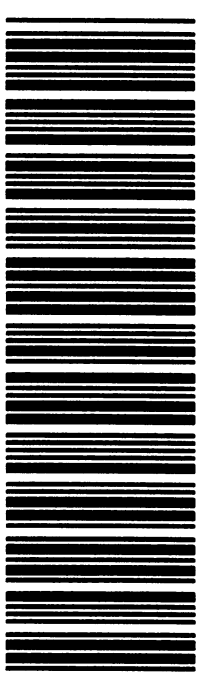
FROM DE

ALS Laboratory Group
Shipping/Receiving
1328 Nakwa RD E
SUITE 12
WINNIPEG, MB
R2J 3T4
Canada
204-255-9764

TO A

LOGIN
ALS ENVIRO
225 COMMERCE DRIVE
FORT COLLINS, CO, 80524
United States

15.6



PURULATOR PIN: 6920353285

NON DOCS

DESC: water samples
VALUE: \$ 10.00 CAD
IMPEXP TYPE: PERMANENT
COUNTRY OF MFG: Canada

DUTIES/TAX

DDU: []
DDP: [X]

DESTINATION

FNL

DATE: 21 SEP 2018
PIECES: 1 of/de 1 WEIGHT/POIDS: 50 LB

EXP

ESD - PDF
Purolator's published terms and conditions apply. Warsaw Convention, 1929, as amended or supplemented (including liability limits therein), may also apply if shipment crosses international border(s). Les modalités et conditions publiées par Purolator s'appliquent. La Convention de Varsovie de 1929, dans sa version modifiée ou étendue (y compris les limites de responsabilité qui y sont prévues), peut également s'appliquer si l'envoi franchit une ou plusieurs frontières.

Veuillez plier ce connaissement sur la ligne pointillée et l'insérer dans la pochette adhésive. Veuillez joindre un connaissement à chaque colis.
Fold the Bill of Lading on the dotted line and insert into the adhesive pouch. Attach a Bill of Lading to each package.

No Declared Value Entered By Sender / Aucune valeur déclarée entrée par

CONDITIONS OF CARRIAGE

IMPORTANT - PLEASE READ: The consignor agrees that the act of tendering the shipment to the carrier for transportation shall be sufficient to constitute signature of this bill of lading by the consignor and shall bind the consignor to the conditions of carriage stated below.

RECEIPT Carrier acknowledges receiving from the shipper, at the point of origin and on the date specified, the shipment described in this bill of lading in apparent good order, except as noted (contents and conditions of contents of shipment unknown), and agrees to carry and deliver the shipment to the receiver at the destination set out in this bill of lading, subject to payment of all lawful charges. "Carrier" refers to Purolator Inc. and any connecting and/or successive carriers involved in the transportation of the shipment herein described, including any of their respective subsidiaries, controlled entities, and their respective employees, agents and independent contractors.

LIMITATION ON LIABILITY Carrier's liability in respect of the shipment described in this bill of lading (including for any loss, damage, delay, misdelivery, non-delivery or failure to deliver) is limited to \$2.00 per pound (\$4.41 per kilogram) computed on the total weight of the shipment, unless a higher value is declared in the specially marked Purolator Online Shipping user entry field, "Declared Value for Insurance (\$)". Notwithstanding any disclosure of the nature or value of the goods carried or any special agreement to the contrary, carrier is not liable under any circumstances for the consequences of delay, or for any indirect or consequential damages (including lost profits) howsoever caused.

NOTICE OF CLAIM Carrier is not liable for any loss, damage or delay to any goods carried under this bill of lading unless notice of the claim setting out particulars of the origin, destination and date of shipment of the goods and the estimated amount claimed in respect of such loss, damage or delay is given in writing to the carrier within sixty (60) days after the delivery of the goods, or, in the case of failure to make delivery, within nine (9) months from the date of shipment. Subject to any overriding statutory provisions, the final settlement of the claim must be filed within nine (9) months from the date of shipment, together with a copy of the paid freight bill. If the Convention applies, other notice periods may govern. No claim will be entertained until all transportation charges due in connection with this bill of lading have been paid in full. All claims are subject to proof of amount of loss.

TERMS INCORPORATED BY REFERENCE Every service to be performed under this bill of lading is subject to the conditions of carriage contained in this bill of lading, including the terms and conditions contained in Purolator Inc.'s published terms and conditions of carriage and the terms and conditions prescribed by the law of the jurisdiction where the goods originate (including the uniform conditions of carriage thereunder, if any). If the carriage involves an ultimate destination or a stop in a country other than the country of departure, the Convention (as defined below) may apply and limit the liability of the carrier in respect of loss of, damage to or delay of cargo. "Convention" means the Convention for the Unification of Certain Rules relating to International Carriage by Air, signed at Warsaw, Poland, 12 October, 1929, or the Convention for the Unification of Certain Rules for International Carriage by Air, signed at Montreal, Canada, 28 May, 1999, or those Conventions as amended or supplemented as may be applicable to the carriage hereunder.

MISCELLANEOUS Unless otherwise indicated, the consignor's name and address is the sender's name and address indicated on this bill of lading, and the latter is the place of execution and the place of departure; the consignee's name and address is the receiver's name and address indicated on this bill of lading, and the latter is the place of destination; and the date indicated on this bill of lading is the date of execution. There are no specific stopping places which are agreed to, and the carrier reserves the right to select the route and the mode of transportation that the carrier deems appropriate. The consignor warrants that the shipment is properly described on this bill of lading and on any accompanying documentation, and that the shipment is properly marked, addressed and packed to ensure safe transportation in accordance with the carrier's ordinary care in handling. Unless otherwise indicated on this bill of lading, the consignor waives its right to determine the volume or dimensions of the shipment, and to indicate same on this bill of lading. The consignor appoints the carrier as its agent for the performance of customs clearance and selecting a customs broker.

ENTIRE AGREEMENT The terms and conditions contained in this bill of lading, including those incorporated herein by reference, constitute the entire agreement relating to the carriage of the shipment described in this bill of lading, and no agent, servant or representative of the carrier or consignor has the authority to alter, waive or otherwise modify any provision of this agreement, in tendering the shipment described herein for carriage, the consignor agrees to these terms and conditions on his own behalf and on behalf of the consignee and any other party claiming an interest in this shipment.

Client: ALS Environmental

Date: 17-Oct-18

Project: L2168402

Work Order: 1809488

Sample ID: L2168402-1

Lab ID: 1809488-1

Legal Location:

Matrix: WATER

Collection Date: 9/15/2018

Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed

Radium-226 by Radon Emanation - Method 903.1**SOP 783**

Prep Date: 10/3/2018

PrepBy: CMW

Ra-226 -0.0021 (+/- 0.0042)

U

0.0097 BQ/l

NA

10/16/2018 11:57

Carr: BARIUM

78.7

40-110 %REC

DL = NA

10/16/2018 11:57

Client: ALS Environmental

Date: 17-Oct-18

Project: L2168402

Work Order: 1809488

Sample ID: L2168402-1

Lab ID: 1809488-1

Legal Location:

Matrix: WATER

Collection Date: 9/15/2018

Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed

Explanation of Qualifiers**Radiochemistry:**

- "Report Limit" is the MDC

U or ND - Result is less than the sample specific MDC.

Y1 - Chemical Yield is in control at 100-110%. Quantitative yield is assumed.

Y2 - Chemical Yield outside default limits.

W - DER is greater than Warning Limit of 1.42

* - Aliquot Basis is 'As Received' while the Report Basis is 'Dry Weight'.

- Aliquot Basis is 'Dry Weight' while the Report Basis is 'As Received'.

G - Sample density differs by more than 15% of LCS density.

D - DER is greater than Control Limit

M - Requested MDC not met.

LT - Result is less than requested MDC but greater than achieved MDC.

M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.

L - LCS Recovery below lower control limit.

H - LCS Recovery above upper control limit.

P - LCS, Matrix Spike Recovery within control limits.

N - Matrix Spike Recovery outside control limits

NC - Not Calculated for duplicate results less than 5 times MDC

B - Analyte concentration greater than MDC.

B3 - Analyte concentration greater than MDC but less than Requested MDC.

Inorganics:

B - Result is less than the requested reporting limit but greater than the instrument method detection limit (MDL).

U or ND - Indicates that the compound was analyzed for but not detected.

E - The reported value is estimated because of the presence of interference. An explanatory note may be included in the narrative.

M - Duplicate injection precision was not met.

N - Spiked sample recovery not within control limits. A post spike is analyzed for all ICP analyses when the matrix spike and or spike duplicate fail and the native sample concentration is less than four times the spike added concentration.

Z - Spiked recovery not within control limits. An explanatory note may be included in the narrative.

* - Duplicate analysis (relative percent difference) not within control limits.

S - SAR value is estimated as one or more analytes used in the calculation were not detected above the detection limit.

Organics:

U or ND - Indicates that the compound was analyzed for but not detected.

B - Analyte is detected in the associated method blank as well as in the sample. It indicates probable blank contamination and warns the data user.

E - Analyte concentration exceeds the upper level of the calibration range.

J - Estimated value. The result is less than the reporting limit but greater than the instrument method detection limit (MDL).

A - A tentatively identified compound is a suspected aldol-condensation product.

X - The analyte was diluted below an accurate quantitation level.

* - The spike recovery is equal to or outside the control criteria used.

+ - The relative percent difference (RPD) equals or exceeds the control criteria.

G - A pattern resembling gasoline was detected in this sample.

D - A pattern resembling diesel was detected in this sample.

M - A pattern resembling motor oil was detected in this sample.

C - A pattern resembling crude oil was detected in this sample.

4 - A pattern resembling JP-4 was detected in this sample.

5 - A pattern resembling JP-5 was detected in this sample.

H - Indicates that the fuel pattern was in the heavier end of the retention time window for the analyte of interest.

L - Indicates that the fuel pattern was in the lighter end of the retention time window for the analyte of interest.

Z - This flag indicates that a significant fraction of the reported result did not resemble the patterns of any of the following petroleum hydrocarbon products:

- gasoline

- JP-8

- diesel

- mineral spirits

- motor oil

- Stoddard solvent

- bunker C

ALS -- Fort Collins

Date: 10/17/2018 3:57

Client: ALS Environmental

QC BATCH REPORT

Work Order: 1809488

Project: L2168402

Batch ID: RE181002-4-1

Instrument ID Alpha Scin

Method: Radium-226 by Radon Emanation

LCS	Sample ID: RE181002-4				Units: BQ/I		Analysis Date: 10/16/2018 11:57				
Client ID:		Run ID: RE181002-4A				Prep Date: 10/3/2018			DF: NA		
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	DER Ref	DER	DER Limit	Qual
Ra-226	1.64 (+/- 0.410)	0.00938	1.771		92.5	67-120					P
Carr: BARIUM	16000		17430		91.7	40-110					

LCSD	Sample ID: RE181002-4				Units: BQ/l		Analysis Date: 10/16/2018 11:57				
Client ID:	Run ID: RE181002-4A				Prep Date: 10/3/2018			DF: NA			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	DER Ref	DER	DER Limit	Qual
Ra-226	1.89 (+/- 0.470)	0.0136	1.771		106	67-120		1.64	0.4	2.1	P,M3
Carr: BARIUM	16800		17430		96.4	40-110		16000			

MB	Sample ID: RE181002-4				Units: BQ/I		Analysis Date: 10/16/2018 11:57				
Client ID:		Run ID: RE181002-4A				Prep Date: 10/3/2018			DF: NA		
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	DER Ref	DER	DER Limit	Qual
Ra-226	0.0013 (+/- 0.0029)		0.0051								U
Carr: BARIUM	16700		17440		95.6	40-110					

The following samples were analyzed in this batch:

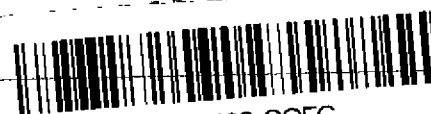
1809488-1



Canada Toll Free: 1 800 668 9878

COC Number: 15 -

Page of



L2168402-COFC

Report To Contact and company name below will appear on the final report			Report Format Select Report Format: ☒ PDF ☐ EXCEL ☐ EDD (DIGITAL) Quality Control (QC) Report with Report ☒ YES ☐ NO ☐ Compare Results to Criteria on Report - provide details below if box checked Select Distribution: ☒ EMAIL ☐ MAIL ☐ FAX			Select Service Level Below - Please confirm all E&P TATs with your AM - surcharges will apply Regular [R] ☐ Standard TAT if received by 3 pm - business days - no surcharges apply <table border="1"><tr><td rowspan="3">PRIORITY (Business Days)</td><td>4 day [P4]</td><td>☐</td><td rowspan="3">EMERGENCY</td><td>1 Business day [E1]</td><td>☐</td></tr><tr><td>3 day [P3]</td><td>☐</td><td>Same Day, Weekend or Statutory holiday [E0]</td><td>☐</td></tr><tr><td>2 day [P2]</td><td>☐</td><td></td><td></td></tr></table> Date and Time Required for all E&P TATs: _____ For tests that can not be performed according to the service level selected, you will be contacted.												PRIORITY (Business Days)	4 day [P4]	☐	EMERGENCY	1 Business day [E1]	☐	3 day [P3]	☐	Same Day, Weekend or Statutory holiday [E0]	☐	2 day [P2]	☐																																																																																																																																																																																											
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	3 day [P3]	☐		Same Day, Weekend or Statutory holiday [E0]	☐																																																																																																																																																																																																																			
	2 day [P2]	☐																																																																																																																																																																																																																						
Company: AGNICO EAGLE Contact: JENNIFER BROWN Phone: 1-819-759-3555 x3996 Company address below will appear on the final report Street: _____ City/Province: _____ Postal Code: _____			Email 1 or Fax jeffrey.pratt@agnicoeagle.com Email 2 zcraciunescu@golder.com,kelly_hille@golder.com Email 3 colleen_prather@golder.com, erichard@golder.com			Analysis Request Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below <table border="1"><tr><td>C-TOC-HTC-WP, P-T-L-COL-WP</td><td>C-DOC-HTC-WP, P-ID-L-COL-WP</td><td>CYANIDE - FREE, TOTAL AND WAO</td><td>HG-TL-CVAF-WP, HG-D-L-CVAF-WP</td><td>MET-D-NP-U-CCMS-ED</td><td>MET-T-NP-U-CCMS-ED</td><td>AEG-ROLL-LOW-WP</td><td>SIO2-L-COL-WP</td><td>PO4-DO-L-COL-WP</td><td>TKN-L-CFA-ED</td><td>NH3-L-CFA-ED</td><td>TSS-LOW-VA</td><td>RA22B-MMER-FC</td><td rowspan="10">Number of Containers</td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table>												C-TOC-HTC-WP, P-T-L-COL-WP	C-DOC-HTC-WP, P-ID-L-COL-WP	CYANIDE - FREE, TOTAL AND WAO	HG-TL-CVAF-WP, HG-D-L-CVAF-WP	MET-D-NP-U-CCMS-ED	MET-T-NP-U-CCMS-ED	AEG-ROLL-LOW-WP	SIO2-L-COL-WP	PO4-DO-L-COL-WP	TKN-L-CFA-ED	NH3-L-CFA-ED	TSS-LOW-VA	RA22B-MMER-FC	Number of Containers																																																																																																																																																																																									
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Project Information ALS Account # / Quote #: Q57496 Job #: MEL PO / AFE: _____ LSD: _____			Oil and Gas Required Fields (client use) AFE/Cost Center: _____ PO# _____ Major/Minor Code: _____ Routing Code: _____ Requisitioner: _____ Location: _____ ALS Contact: _____ Sampler: _____																																																																																																																																																																																																																					
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Drinking Water (DW) Samples¹ (client use) Are samples taken from a Regulated DW System? ☐ YES ☐ NO Are samples for human drinking water use? ☐ YES ☐ NO			Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)			SAMPLE CONDITION AS RECEIVED (lab use only) Frozen ☐ SIF Observations Yes ☐ No ☐ Ice Packs ☐ Ice Cubes ☐ Custody seal intact Yes ☐ No ☐ Cooling Initiated ☐ INITIAL COOLER TEMPERATURES °C _____ FINAL COOLER TEMPERATURES °C _____ 12-9																																																																																																																																																																																																																		
SHIPMENT RELEASE (client use) Released by: _____ Date: _____ Time: _____			INITIAL SHIPMENT RECEPTION (lab use only) Received by: MH Date: 21-9-19 Time: 9:10			FINAL SHIPMENT RECEPTION (lab use only) Received by: _____ Date: _____ Time: _____																																																																																																																																																																																																																		

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

1. If any water samples are taken from a Regulated Drinking Water (DW) System, please submit using an Authorized DW COC form.

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

OCTOBER 2015 FROM



AquaTox Testing & Consulting Inc.
B-11 Nicholas Beaver Rd.
Puslinch ON N0B 2J0
Tel: (519) 763-4412 Fax: (519) 763-4419

September 07, 2018

Jennifer Brown
Agnico Eagle Mines Limited - Meliadine Project
Meliadine Division
Rankin Inlet NU
X0C 0G0

Dear Jennifer,

Re: Report on Sublethal Toxicity Analysis of Wastewater for MMER - August 2018

Enclosed are the reports for sublethal testing conducted on the sample of MEL-14 collected 2018-08-07. Data are presented in electronic format.

As you are aware, submission of sublethal toxicity data via RISS is a requirement of the MMER regulation. We would be pleased to enter this information on your behalf, for a fee. Please review the attached reports, and in an e-mail to reporter@aquatox.ca, provide us with your RISS user name and password (supplied to you by ECCC), along with written permission for AquaTox to access RISS on your behalf. We will then enter your results. In the future, if you would prefer us to enter the data automatically at the time the reports are issued, please indicate this in writing.

If you have any questions about the results, do not hesitate to contact me.

Sincerely,

AQUATOX TESTING & CONSULTING INC.

A handwritten signature in black ink, appearing to read "Martina Rendas", written in a cursive style.

Martina Rendas
Project Manager

MR/jl



AquaTox Testing & Consulting Inc.
B-11 Nicholas Beaver Road
Puslinch ON N0B 2J0
Tel: (519) 763-4412 Fax: (519) 763-4419

TOXICITY TEST REPORT

Fathead minnow

EPS 1/RM/22

Page 1 of 5

Work Order : 236864

Sample Number : 55841

SAMPLE IDENTIFICATION

Company :	Agnico Eagle Mines Limited - Meliadine Project	Date Collected :	2018-08-07
Location :	Rankin Inlet NU	Time Collected :	07:00
GPS Coordinates :	63° 02' 15.5"N 92° 13' 06.3"W	Date Received :	2018-08-09
Substance :	MEL-14	Time Received :	10:45
Sampling Method :	Grab	Temperature upon Receipt :	23.0 °C
Sampled By :	J. Brown	Date Tested :	2018-08-09
Sample Description :	Clear, yellow, odourless.		
Test Method :	Test of Larval Growth and Survival Using Fathead Minnows. Environment Canada, Conservation and Protection. Ottawa, Ontario. Report EPS 1/RM/22 , 2nd ed. (February 2011).		

7-DAY TEST RESULTS

Effect	Value	95% Confidence Limits	Statistical Method
IC25 (Growth from Biomass)	>100%	—	—
LC50	>100%	—	—

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

POTASSIUM CHLORIDE REFERENCE TOXICANT DATA

Date Tested :	2018-07-31	Analyst(s) :	MV, RD, MR
Test Duration :	7 days	LC50 :	1.00 g/L
IC25 Growth (from Biomass) :	0.87 g/L	95% Confidence Limits :	0.93 - 1.07 g/L
95% Confidence Limits :	0.78 - 0.93 g/L	Statistical Method :	Linear Regression (MLE) (CETIS) ^a
Statistical Method :	Non-Linear Regression (CETIS) ^a	Historical Mean LC50 :	1.10 g/L
Historical Mean IC25 :	0.94 g/L	Warning Limits (± 2SD) :	0.92 - 1.31 g/L
Warning Limits (± 2SD) :	0.71 - 1.24 g/L		

The reference toxicity test was performed under the same experimental conditions as those used with the test sample.

TEST CONDITIONS

Test Organism :	<i>Pimephales promelas</i>	Test Type :	Static Renewal
Organism Batch :	Fm18-08	Control/Dilution Water :	Well water (no additional chemicals)
Organism Age :	~07:00 - 21:15 h at start of test	Test Volume / Replicate :	300 mL
Source :	In-house culture	Test Vessel :	420 mL polystyrene beaker
Culture Mortality/Diseased :	0.38 % (previous 7 days)	Depth of Test Solution :	8 cm
pH Adjustment :	None	Organisms per Replicate :	10
Sample Filtration :	None	Number of Replicates :	3
Hardness Adjustment :	None	Daily Renewal Method :	80-85% syphoned and replaced
Test Aeration :	None	Test Method Deviation(s) :	None

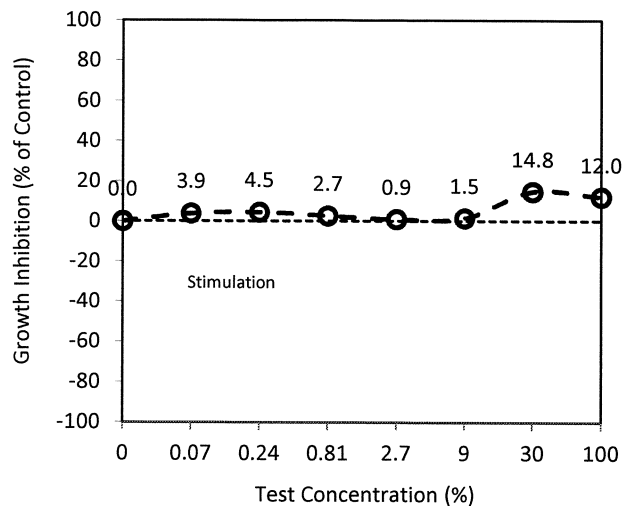
COMMENTS

- All test validity criteria as specified in the test method cited above were satisfied.
- No organisms exhibiting unusual appearance, behaviour, or undergoing unusual treatment were used in the test.
- Inflated swim bladders were confirmed in all test organisms used in this test.

Work Order : 236864

Sample Number : 55841

Fathead Minnow Growth Inhibition (based on Biomass)



REFERENCES

^a CETIS™, © 2000-2018. V.1.9.4.7. Comprehensive Environmental Toxicity Information System. Tidepool Scientific Software, LLC, McKinleyville, CA 95519 [Program on disk and printed User's Guide].

^b Grubbs, F.E., 1969. Procedures for detecting outlying observations in samples. *Technometrics*, 11:1-21.

Date :

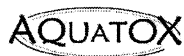
2018-09-07

yyyy-mm-dd

Approved By :

[Signature]

Project Manager



TOXICITY TEST REPORT

Fathead minnow

EPS 1/RM/22

3 of 5

Work Order : 236864
Sample Number : 55841

CUMULATIVE DAILY CONTROL MORTALITY AND IMPAIRMENT (±SD)

Date : 2018-08-09 2018-08-10 2018-08-11 2018-08-12 2018-08-13 2018-08-14 2018-08-15 2018-08-16
0.00% (±0.0) 0.00% (±0.0) 0.00% (±0.0) 0.00% (±0.0) 0.00% (±0.0) 0.00% (±0.0) 0.00% (±0.0) 0.00% (±0.0)

FATHEAD MINNOW CUMULATIVE DAILY MORTALITY

Initiation Time : 13:45
Initiation Date : 2018-08-09
Completion Date : 2018-08-16

		Day 0		Day 1		Day 2		Day 3		Day 4		Day 5		Day 6		Day 7		Treatment
Date :		2018-08-09		2018-08-10		2018-08-11		2018-08-12		2018-08-13		2018-08-14		2018-08-15		2018-08-16		Mean Mortality
Analyst(s):		CZN		XD		MW		MV(CG)		CCM		CCM		CCM		XD		(± SD)
Concentration		Number Dead	% Dead	Number Dead	% Dead	Number Dead	% Dead	Number Dead	% Dead	Number Dead	% Dead	Number Dead	% Dead	Number Dead	% Dead	Number Dead	% Dead	%
(%)	Replicate																	
Control	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00 (±0.00)
	B	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	C	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.07	A	0	0	0	0	0	0	0	0	1	10	1	10	1	10	1	10	3.33 (±5.77)
	B	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	C	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.24	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3.33 (±5.77)
	B	0	0	0	0	0	0	0	0	1	10	1	10	1	10	1	10	
	C	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.81	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00 (±0.00)
	B	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	C	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
2.7	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00 (±0.00)
	B	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	C	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
9	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6.67 (±5.77)
	B	0	0	0	0	0	0	0	0	0	0	1	10	1	10	1	10	
	C	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	10	
30	A	0	0	0	0	0	0	0	0	1	10	1	10	1	10	1	10	10.00 (±0.00)
	B	0	0	0	0	0	0	1	10	1	10	1	10	1	10	1	10	
	C	0	0	0	0	0	0	0	0	1	10	1	10	1	10	1	10	
100	A	0	0	0	0	0	0	1	10	1	10	1	10	1	10	1	10	16.67 (±11.55)
	B	0	0	0	0	0	0	2	20	3	30	3	30	3	30	3	30	
	C	0	0	0	0	1	10	1	10	1	10	1	10	1	10	1	10	

Aberrant behaviour or swimming impairment : None

Data Reviewed By: *π*
Date : 2018-09-07

Work Order : 236864

Sample Number : 55841

FATHEAD MINNOW DRY WEIGHT AND BIOMASS DATA

Concentration (%)	Replicate	Number of Larvae Exposed	Replicate Mean Dry Weight (mg)	Treatment Mean Biomass (mg)	Standard Deviation
Control	A	10	0.960	0.979	0.031
	B	10	0.962		
	C	10	1.015		
0.07	A	10	0.884	0.941	0.079
	B	10	0.908		
	C	10	1.031		
0.24	A	10	0.987	0.935	0.101
	B	10	0.819		
	C	10	1.000		
0.81	A	10	1.070	0.953	0.102
	B	10	0.888		
	C	10	0.901		
2.7	A	10	0.853 ¹	0.970	0.101
	B	10	1.026		
	C	10	1.031		
9	A	10	0.998	0.964	0.049
	B	10	0.986		
	C	10	0.908		
30	A	10	0.706	0.834	0.134
	B	10	0.822		
	C	10	0.974		
100	A	10	0.884	0.861	0.077
	B	10	0.776		
	C	10	0.924		

NOTES :

- ¹Outlier according to Grubbs Test^b. Outlying data points were not excluded from statistical analysis, since they could not be attributed to error.
- Control average dry weight per surviving organism = 0.979 mg

Data Reviewed By: IC

Date : 208-09-07

Work Order : 236864

Sample Number: 55841

Fathead Minnow Water Chemistry Data

		Initial Chemistry:	Temp. (°C)	DO (mg/L)	pH	Conductivity (µmhos/cm)	Hardness (mg/L as CaCO ₃)	
			25.0	7.9	7.2	2033	520	
		Day 0 - 1 2018-08-09	Day 1 - 2 2018-08-10	Day 2 - 3 2018-08-11	Day 3 - 4 2018-08-12	Day 4 - 5 2018-08-13	Day 5 - 6 2018-08-14	Day 6 - 7 2018-08-15
Sub-sample Used		1	1	1	2	2	3	3
Temperature (°C)		25.0	24.0	24.0	24.0	24.0	25.0	24.0
Dissolved Oxygen (mg/L)		7.9	8.1	9.1	9.4	9.6	9.4	9.7
Dissolved Oxygen % Sat. ²		99	98	110	113	116	114	117
pH		7.2	7.2	7.3	7.2	7.2	7.2	7.2
Pre-aeration Time (min) ³		0	0	20	20	20	20	20
Analyst(s) : Initial		SK	CCM	MV(CG)	MA	MW	TZL(CG)	TZL(CG)
Final		XD	MA	MA	CCM	CCM	CCM	XD
Control (0%)								
Temp.(°C)	Initial	24.0	25.0	24.0	24.0	24.5	25.0	24.0
	Final	25.0	25.0	25.0	25.0	25.0	25.0	25.0
DO % Sat.	Initial	99	100	99	99	100	98	100
DO (mg/L)	Initial	8.2	8.1	8.2	8.2	8.3	8.1	8.3
	Final	7.6	7.5	7.1	6.4	6.5	6.8	6.9
pH	Initial	8.3	8.3	8.3	8.4	8.3	8.3	8.4
	Final	8.2	8.2	8.0	7.9	8.0	8.1	8.0
Cond. (µmhos/cm)	Initial	690	695	694	693	690	732	686
0.07 %								
Temp.(°C)	Initial	24.0	25.0	24.0	24.0	24.5	25.0	24.0
	Final	25.0	25.0	25.0	25.0	25.0	25.0	25.0
DO (mg/L)	Initial	8.0	8.3	8.2	8.2	8.4	8.2	8.3
	Final	7.6	7.5	7.1	6.6	6.8	6.7	6.9
pH	Initial	8.3	8.4	8.2	8.3	8.3	8.3	8.4
	Final	8.2	8.2	8.0	8.0	8.0	8.0	8.0
Cond. (µmhos/cm)	Initial	696	696	698	700	695	738	691
9 %								
Temp.(°C)	Initial	24.0	25.0	24.0	24.0	24.5	25.0	24.0
	Final	25.0	25.0	25.0	25.0	25.0	25.0	25.0
DO (mg/L)	Initial	8.0	8.3	8.3	8.3	8.4	8.1	8.3
	Final	7.6	7.5	6.7	6.6	6.5	6.7	6.9
pH	Initial	8.2	8.3	8.3	8.3	8.3	8.3	8.3
	Final	8.1	8.1	7.9	7.9	7.9	8.0	7.9
Cond. (µmhos/cm)	Initial	822	819	821	824	820	854	806
100 %								
Temp.(°C)	Initial	24.0	25.0	24.0	24.0	24.5	25.0	24.0
	Final	25.0	25.0	25.0	25.0	25.0	25.0	25.0
DO (mg/L)	Initial	7.8	8.2	8.5	8.7	8.7	8.5	8.8
	Final	7.4	7.5	6.7	6.6	6.5	6.8	6.8
pH	Initial	7.4	7.5	7.5	7.5	7.4	7.4	7.4
	Final	7.4	7.5	7.3	7.2	7.2	7.3	7.3
Cond. (µmhos/cm)	Initial	2052	2044	2039	2050	2045	2041	1917

"-" = not measured

² % saturation (adjusted for actual temperature and barometric pressure)

³ ≤100 bubbles/minute



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TOXICITY TEST REPORT

Ceriodaphnia dubia

EPS 1/RM/21

Page 1 of 4

Work Order : 236864

Sample Number : 55841

SAMPLE IDENTIFICATION

Company :	Agnico Eagle Mines Limited - Meliadine Project	Date Collected :	2018-08-07
Location :	Rankin Inlet NU	Time Collected :	07:00
GPS Coordinates :	63° 02' 15.5"N 92° 13' 06.3"W	Date Received :	2018-08-09
Substance :	MEL-14	Time Received :	10:45
Sampling Method :	Grab	Temperature upon Receipt :	23.0 °C
Sampled By :	J. Brown	Date Tested :	2018-08-09
Sample Description :	Clear, yellow, odourless.		

Test Method : Test of Reproduction and Survival using the Cladoceran *Ceriodaphnia dubia*. Environment Canada, Conservation and Protection. Ottawa, Ontario. Report EPS 1/RM/21, 2nd ed. (February 2007).

6-DAY TEST RESULTS

Effect	Value	95% Confidence Limits	Statistical Method
IC25 (Reproduction)	>100 %	—	—
LC50	>100 %	—	—

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

SODIUM CHLORIDE REFERENCE TOXICANT DATA

Date Tested :	2018-07-31	Analyst(s) :	MW, MR
Test Duration :	6 days	LC50 :	2.74 g/L ²
IC25 Reproduction :	1.09 g/L	95% Confidence Limits :	2.17 - 3.68 g/L
95% Confidence Limits :	0.90 - 1.30 g/L	Statistical Method :	Linear Regression (MLE) (CETIS) ^a
Statistical Method :	Non-linear Regression ¹ (CETIS) ^a	Historical Mean LC50 :	2.21 g/L
Historical Mean IC25 :	1.31 g/L	Warning Limits (± 2SD) :	1.87 - 2.61 g/L
Warning Limits (± 2SD) :	1.00 - 1.72 g/L		

The reference toxicity test was performed under the same experimental conditions as those used with the test sample.

TEST CONDITIONS

Sample Filtration :	None	Test Volume per Replicate :	15 mL
Test Aeration :	None	Test Vessel :	19 mL polystyrene vial
pH Adjustment :	None	Depth of Test Solution :	4.8 cm
Hardness Adjustment :	None	Number of Replicates :	10
Renewal Frequency :	Once daily (≤24 h)	Organisms per Replicate :	1
Renewal Method :	Transferred to fresh solutions	Number of Concentrations :	7 + 1 Control
Control/Dilution Water :	Well water (no chemicals added)	Test Method Deviation(s) :	None

COMMENTS

¹Poisson weighting (CETIS)^a was applied.

²Note: The reference toxicant LC50 test result exceeded the 95% warning limits for historical data. No other unusual circumstances were observed and therefore the test result is considered acceptable.

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

**TOXICITY TEST REPORT***Ceriodaphnia dubia*

EPS 1/RM/21

2 of 4

Work Order : 236864
Sample Number : 55841

TEST ORGANISMS

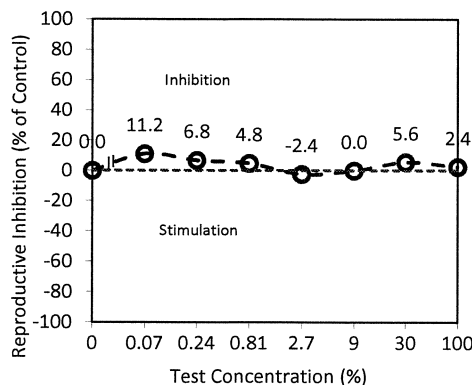
Test Organism : *Ceriodaphnia dubia*
Organism Batch : Cd18-08
Organism Origin : Single in-house mass culture
Test Organism Origin : Individual in-house cultures

Range of Age (at start of test) : 07:50 h - 19:50 h
Mean Brood Organism Mortality : 0%
Ephippia in Culture : No

Brood Organism Neonate Production

Replicate :	1	2	3	4	5	6	7	8	9	10	Mean
Total (third or subsequent brood):	12	18	15	12	16	12	12	14	12	15	13.8
Total (first three broods):	25	28	27	25	23	26	27	23	26	25	25.5

No organisms exhibiting unusual appearance, behaviour, or undergoing unusual treatment were used in the test.

TEST DATA***Ceriodaphnia dubia* Reproductive Inhibition****Cumulative Daily Test Organism Mortality (%)**

Date	Test Day	Test Concentration (%)							
		Control	0.07	0.24	0.81	2.7	9	30	100
2018-08-10	1	0	0	0	0	0	0	0	0
2018-08-11	2	0	0	0	0	0	0	0	0
2018-08-12	3	0	0	0	0	0	0	0	0
2018-08-13	4	0	0	0	0	0	0	0	0
2018-08-14	5	0	0	0	0	0	0	0	0
2018-08-15	6	0	0	0	0	0	0	0	0
Total Mortality (%)		0	0	0	0	0	0	0	0

REFERENCES

^a CETIS™, © 2000-2018. V.1.9.4.7. Comprehensive Environmental Toxicity Information System. Tidepool Scientific Software, LLC, McKinleyville, CA 95519 [Program on disk and printed User's Guide].

^b Grubbs, F.E., 1969. Procedures for detecting outlying observations in samples. *Technometrics*, 11 :1-21.

Date :

2018-09-07
yyyy-mm-dd

Approved By :

[Signature]
Project Manager



TOXICITY TEST REPORT

Ceriodaphnia dubia

EPS 1/RM/21

3 of 4

Work Order : 236864

Sample Number : 55841

Ceriodaphnia dubia Survival and Reproduction

Test Initiation Date : 2018-08-09

Initiation Time : 13:50

Test Completion Date : 2018-08-15

Concentration (%)													Analyst(s)	Concentration (%)													Mean Young (±SD)
Control	Day	1	2	3	4	5	6	7	8	9	10			2.7	Day	1	2	3	4	5	6	7	8	9	10		
2018-08-10	1	0	0	0	0	0	0	0	0	0	0	0	XD	2018-08-10	1	0	0	0	0	0	0	0	0	0	0	0	
2018-08-11	2	0	0	0	0	0	0	0	0	0	0	0	SEW	2018-08-11	2	0	0	0	0	0	0	0	0	0	0	0	
2018-08-12	3	5	3	0	0	0	0	0	6	0	2	1.6	SEW	2018-08-12	3	0	5	5	0	0	5	0	0	0	0	1.5	
2018-08-13	4	0	0	5	5	4	6	3	0	4	0	2.7	RK	2018-08-13	4	5	0	0	4	7	0	3	3	1	2	2.5	
2018-08-14	5	0	9	8	6	9	10	4	8	10	8	7.2	CG	2018-08-14	5	11	9	10	8	11	7	10	6	8	10	9	
2018-08-15	6	14	12	14	14	13	14	11	14	15	15	13.6	MA	2018-08-15	6	13	12	12	11	13	14	13	12	13	14	12.7	
Total		19	24	27	25	26	30	18	28	29	25	25.1 (±4.0)		Total		29	26	27	23	31	26	26	21	22	26	25.7 (±3.1)	

Concentration (%)												Mean Young (±SD)
0.07	Day	1	2	3	4	Replicate						
						5	6	7	8	9	10	
2018-08-10	1	0	0	0	0	0	0	0	0	0	0	0
2018-08-11	2	0	0	0	0	0	0	0	0	0	0	0
2018-08-12	3	0	0	0	0	0	3	5	0	0	0	0.8
2018-08-13	4	5	6	4	3	3	0	5	6	1	2	3.5
2018-08-14	5	10	7	7	5	10	5	0	6	6	4	6
2018-08-15	6	14	14	10	11	12	12	13	10	11	13	12
Total		29	27	21	19	25	20	23	22	18	19	22.3 (±3.7)

Concentration (%)													Mean Young (±SD)
9	Day	1	2	3	4	5	6	7	8	9	10		
2018-08-10	1	0	0	0	0	0	0	0	0	0	0	0	
2018-08-11	2	0	0	0	0	0	0	0	0	0	0	0	
2018-08-12	3	3	0	0	0	0	0	0	0	0	5	0.8	
2018-08-13	4	1	2	5	0	4	4	4	3	5	0	2.8	
2018-08-14	5	10	8	9	7	8	8	5	5	6	10	7.6	
2018-08-15	6	16	16	11	14	14	13	12	13	14	16	13.9	
Total		30	26	25	21	26	25	21	21	25	31	25.1 (±3.5)	

Concentration (%)												Mean Young (±SD)
0.24	Day	1	2	3	4	Replicate						
						5	6	7	8	9	10	
2018-08-10	1	0	0	0	0	0	0	0	0	0	0	0
2018-08-11	2	0	0	0	0	0	0	0	0	0	0	0
2018-08-12	3	2	0	0	0	2	6	0	3	3	4	2
2018-08-13	4	4	5	4	7	0	10	5	0	0	0	3.5
2018-08-14	5	6	6	10	10	7	0	10	5	10	5	6.9
2018-08-15	6	—	11	13	15	12	14	11	11	14	9	11
Total		12	22	27	32	21	30	26	19	27	18	23.4 (±6.1)

Concentration (%)													Mean Young (±SD)
30	Day	1	2	3	4	5	6	7	8	9	10		
2018-08-10	1	0	0	0	0	0	0	0	0	0	0	0	
2018-08-11	2	0	0	0	0	0	0	0	0	0	0	0	
2018-08-12	3	0	4	0	0	0	0	5	0	0	0	0.9	
2018-08-13	4	3	0	4	3	2	0	1	7	2	4	2.6	
2018-08-14	5	9	7	5	0	10	6	9	12	5	10	7.3	
2018-08-15	6	16	14	9	15	16	7	13	13	12	14	12.9	
Total		28	25	18	18	28	13	28	32	19	28	23.7 (±6.2)	

Concentration (%)												Mean Young (±SD)
0.81	Day	1	2	3	4	5	6	7	8	9	10	
2018-08-10	1	0	0	0	0	0	0	0	0	0	0	0
2018-08-11	2	0	0	0	0	0	0	0	0	0	0	0
2018-08-12	3	2	0	2	0	0	5	4	0	2	0	1.5
2018-08-13	4	0	5	2	6	5	0	0	5	0	3	2.6
2018-08-14	5	7	9	7	6	8	10	6	12	10	9	8.4
2018-08-15	6	14	13	—	12	13	11	12	15	13	11	11.4
Total		23	27	11 ³	24	26	26	22	32	25	23	23.9 (±5.3)

Concentration (%)												Mean Young (±SD)
100	Day	1	2	3	4	5	6	7	8	9	10	
2018-08-10	1	0	0	0	0	0	0	0	0	0	0	0
2018-08-11	2	0	0	0	0	0	0	0	0	0	0	0
2018-08-12	3	0	0	0	3	5	0	0	0	0	0	0.8
2018-08-13	4	6	4	5	0	0	4	5	4	2	5	3.5
2018-08-14	5	11	8	10	9	10	8	9	3	8	10	8.6
2018-08-15	6	10	10	9	11	13	12	14	12	11	14	11.6
Total		27	22	24	23	28	24	28	19	21	29	24.5 (±3.4)

NOTES : •All young produced by a test organism during its fourth and subsequent broods were discarded and not included in the above counts. The presence of two or more neonates in any test chamber, during any given day of the test, constitutes a brood.

•³ Outlier according to Grubbs Test ^b. Outlying data points were not excluded from statistical analysis, since they could not be attributed to error.

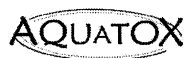
"x"= test organism mortality

"*"= accidental test organism mortality

"—"=4th brood (see 'NOTES')

Data Reviewed By : J

Date : 2018-09-07

**TOXICITY TEST REPORT***Ceriodaphnia dubia*

EPS 1/RM/21

4 of 4

Work Order : 236864

Sample Number: 55841

***Ceriodaphnia dubia* Water Chemistry Data**

		Initial Chemistry:	Temp. (°C)	DO (mg/L)	pH	Conductivity (µmhos/cm)	Hardness (mg/L as CaCO ₃)
			25.0	7.9	7.2	2033	520
Date :		Day 0 - 1 2018-08-09	Day 1 - 2 2018-08-10	Day 2 - 3 2018-08-11	Day 3 - 4 2018-08-12	Day 4 - 5 2018-08-13	Day 5 - 6 2018-08-14
Sub-sample Used		1	1	1	2	2	3
Temperature (°C)		25.0	24.0	24.0	24.0	24.0	25.0
Dissolved Oxygen (mg/L)		7.9	8.1	9.1	9.4	9.6	9.4
Dissolved Oxygen % Sat. ³		99	98	110	113	116	114
pH		7.2	7.2	7.3	7.2	7.2	7.2
Pre-aeration Time (min) ⁴		0	0	20	20	20	20
Analyst(s)	Initial	SK	CCM	MV(CG)	MA	MW	TZL(CG)
	Final	XD	MA	MA	RK	AS	TZL(CG)
Control (0%)							
Temp. (°C)	Initial	24.0	25.0	24.0	24.0	24.5	25.0
	Final	24.0	25.0	25.0	25.0	25.0	25.0
DO % Sat. ³	Initial	99	100	99	99	100	98
	Final	99	100	99	99	100	98
DO (mg/L)	Initial	8.2	8.1	8.2	8.2	8.3	8.1
	Final	7.3	7.4	7.7	7.4	7.3	7.4
pH	Initial	8.3	8.3	8.3	8.4	8.3	8.3
	Final	8.2	8.2	8.1	8.2	8.1	8.1
Cond. (µmhos/cm)	Initial	690	695	694	693	690	732
0.07 %							
Temp. (°C)	Initial	24.0	25.0	24.0	24.0	24.5	25.0
	Final	24.0	25.0	25.0	25.0	25.0	25.0
DO (mg/L)	Initial	8.0	8.3	8.2	8.2	8.4	8.2
	Final	7.4	7.4	7.8	7.5	7.3	7.4
pH	Initial	8.3	8.4	8.2	8.3	8.3	8.3
	Final	8.2	8.2	8.2	8.2	8.1	8.2
Cond. (µmhos/cm)	Initial	696	696	698	700	695	738
9 %							
Temp. (°C)	Initial	24.0	25.0	24.0	24.0	24.5	25.0
	Final	24.0	25.0	25.0	25.0	25.0	25.0
DO (mg/L)	Initial	8.0	8.3	8.3	8.3	8.4	8.1
	Final	7.4	7.4	7.8	7.5	7.3	7.3
pH	Initial	8.2	8.3	8.3	8.3	8.3	8.3
	Final	8.1	8.1	8.1	8.1	8.0	8.1
Cond. (µmhos/cm)	Initial	822	819	821	824	820	854
100 %							
Temp. (°C)	Initial	24.0	25.0	24.0	24.0	24.5	25.0
	Final	24.0	25.0	25.0	25.0	25.0	25.0
DO (mg/L)	Initial	7.8	8.2	8.5	8.7	8.7	8.5
	Final	7.2	7.5	7.8	7.5	7.1	7.3
pH	Initial	7.4	7.5	7.5	7.5	7.4	7.4
	Final	7.5	7.5	7.5	7.5	7.4	7.4
Cond. (µmhos/cm)	Initial	2052	2044	2039	2050	2045	2041

"—" = not measured

³ % saturation (adjusted for actual temperature and barometric pressure)⁴ ≤100 bubbles/minute



Work Order : 236864

Sample Number : 55841

SAMPLE IDENTIFICATION

Company :	Agnico Eagle Mines Limited - Meliadine Project	Date Collected :	2018-08-07
Location :	Rankin Inlet NU	Time Collected :	07:00
GPS Coordinates :	63° 02' 15.5"N 92° 13' 06.3"W	Date Received :	2018-08-09
Substance :	MEL-14	Time Received :	10:45
Sampling Method :	Grab	Temperature upon Receipt :	23.0 °C
Sampled By :	J. Brown	Date Tested :	2018-08-09
Sample Description :	Clear, yellow, odourless.		

Test Method : Test for Measuring the Inhibition of Growth using the Freshwater Macrophyte, *Lemna minor*. Method Development and Application Section, Environmental Technology Centre, Environment Canada. Ottawa, Ontario. Report EPS 1/RM/37, 2nd ed. (January 2007).

7-DAY TEST RESULTS

Effect	Value (%)	95% Confidence Limits	Statistical Method
IC25 (FronD Yield)	72.3%	36.4 - 86.5	Linear Interpolation (CETIS) ^a
IC25 (Weight)	>97.0	—	—

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

POTASSIUM CHLORIDE REFERENCE TOXICANT DATA

Date Tested :	2018-08-15	Historical Geometric Mean IC25 :	2.04 g/L
Test Duration :	7 days	Warning Limits (± 2SD) :	1.52 - 2.74 g/L
IC25 (FronD Production) :	2.16 g/L	Growth Medium :	Modified APHA
95% Confidence Limits :	1.95 - 2.39 g/L	Analyst(s) :	MA, CZN
Statistical Method :	Non-Linear Regression (CETIS) ^a		

The reference toxicant test was performed under the same experimental conditions as those used with the test sample.

TEST CONDITIONS

Test Organism :	<i>Lemna minor</i> L., Strain 7730	Test Type :	Static (no sub-samples required)
Organism Batch :	Lm18-07	Control/Dilution Medium :	Modified APHA
Culture Origin :	UTCC 492	Medium Preparation Water :	Distilled Water
Test Organism Source :	Axenic in-house culture	Source of Water :	Morning Mist
Culture Medium :	Modified Hoaglands E+	Medium Preparation Chemicals :	Modified APHA stocks A, B, C (10 mL/L)
Age (on Test Day 0) :	10 days	Nutrient Spiking of Sample :	Modified APHA stocks A, B, C (10 mL/L)
Health Criteria (in APHA) :	13.33-fold frond increase in 7 days	Replicates per Concentration :	4
Organism Acclimation :	21:15 h in APHA medium	Test Volume per Replicate :	100 mL
Inoculum (Test Day 0) :	2 plants (3 fronds per plant)	Test Vessel :	250 mL glass Erlenmeyer flask
Sample Filtration :	1 µm (Whatman GF/C)	Depth of Test Solution :	4.0 cm
Sample Pre-aeration :	20 min. at ≤100 bubbles/min.	Photoperiod/Light Intensity :	Continuous, 4460 - 5250 lux
pH Adjustment :	None	Test Method Deviation(s) :	None
Hardness Adjustment :	None		

COMMENTS

- All test validity criteria as specified in the test method cited above were satisfied.
- Statistical analysis could not be performed using non linear regression, since a suitable model could not be found. Therefore, test results were calculated using Linear Interpolation (CETIS)^a. In test concentrations where frond production/weights were stimulated (greater than the control), data were replaced with control values for the purposes of statistical analysis, as recommended by Environment Canada (2005).



TOXICITY TEST REPORT

Lemna minor

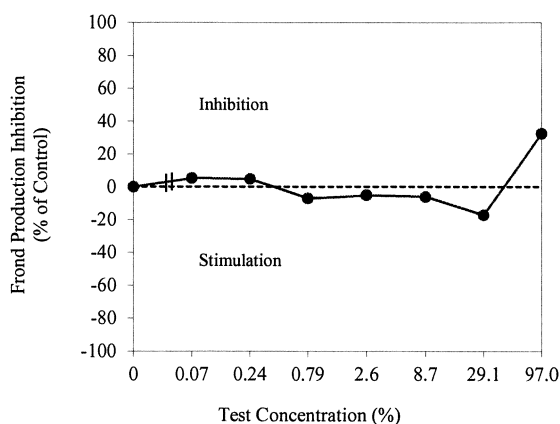
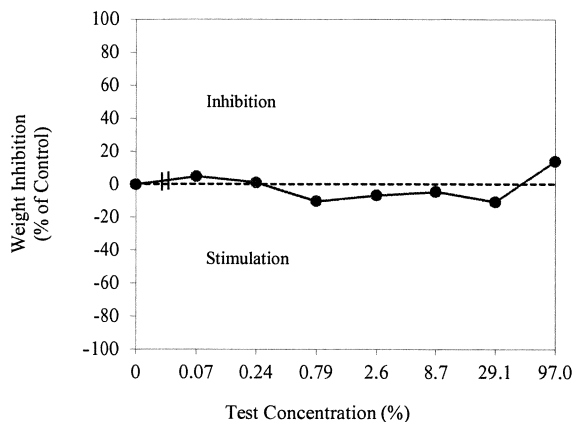
EPS 1/RM/37

Page 2 of 4

Work Order : 236864

Sample Number : 55841

Lemna minor Growth Inhibition



TEST MONITORING

Initiation Date : 2018-08-10

Initiation Time : 13:30

Initiated By : MDS

Termination Date : 2018-08-17

Termination Time : 14:00

Terminated By : NK

Temperature Monitoring

Test Day	Date	Temperature (°C)
0 (unmodified sample)	2018-08-10	25.0
0	2018-08-10	24.5
1	2018-08-11	25.0
2	2018-08-12	25.0
3	2018-08-13	25.0
4	2018-08-14	25.0
5	2018-08-15	25.0
6	2018-08-16	25.0
7	2018-08-17	25.0

pH Monitoring

Concentration (%)	Day 0	Day 7
100 (unmodified sample)	7.0	—
Control	8.3	8.4
0.07	8.3	8.4
0.24	—	—
0.79	—	—
2.6	8.3	8.5
8.7	—	—
29.1	—	—
97.0	8.0	8.4

"—" = not required

REFERENCES

^a CETIS™, © 2000-2018. V.1.9.4.7. Comprehensive Environmental Toxicity Information System. Tidepool Scientific Software, LLC, McKinleyville, CA 95519 [Program on disk and printed User's Guide].

Environment Canada, 2005. Guidance Document on Statistical Methods for Environmental Toxicity Tests. Environmental Protection Series, Ottawa, Ont., Rept. EPS 1/RM/46.

Date :

2018-09-07
yyyy-mm-dd

Approved By:

[Signature]
Project Manager

Work Order : 236864

Sample Number : 55841

***Lemna minor* Frond Increase**

Test Concentration (%)	Replicate	Frond Count Day 0*	Frond Count Day 7	Frond Increase	Mean Frond Increase	Standard Deviation	CV (%)	Frond/Root Appearance (Day 7)
Control	A	6	98	92	79.00	8.87	11.2	Fronds healthy, appearance normal in all replicates.
	B	6	82	76				
	C	6	82	76				
	D	6	78	72				
0.07	A	6	80	74	74.75	0.96	1.3	Fronds healthy, appearance normal in all replicates.
	B	6	81	75				
	C	6	82	76				
	D	6	80	74				
0.24	A	6	83	77	75.25	3.59	4.8	Fronds healthy, appearance normal in all replicates.
	B	6	76	70				
	C	6	84	78				
	D	6	82	76				
0.79	A	6	94	88	84.50	16.60	19.6	Fronds healthy, appearance normal in all replicates.
	B	6	108	102				
	C	6	92	86				
	D	6	68	62				
2.6	A	6	76	70	83.00	15.19	18.3	Fronds healthy, appearance normal in all replicates.
	B	6	110	104				
	C	6	90	84				
	D	6	80	74				
8.7	A	6	102	96	83.75	8.81	10.5	Fronds healthy, appearance normal in all replicates.
	B	6	82	76				
	C	6	85	79				
	D	6	90	84				
29.1	A	6	105	99	92.50	7.51	8.1	Fronds healthy, appearance normal in all replicates.
	B	6	89	83				
	C	6	96	90				
	D	6	104	98				
97.0	A	6	59	53	53.25	1.71	3.2	Fronds healthy, appearance normal in all replicates.
	B	6	57	51				
	C	6	60	54				
	D	6	61	55				

NOTES: *No unusual appearance or treatment of culture prior to testing. Test inoculated with healthy plants.

•No significant stimulation ($\alpha=0.05$) of frond increase was detected by ANOVA-Dunnett Multiple Comparison Test (CETIS)^a at any test level compared to the control.

•A 14.2-fold increase in frond number was observed in the control over the testing period.

•No outlying data points were detected according to Grubbs Test (CETIS)^a.

"—" = not available/not required

 Test Data Reviewed By : J

 Date : 2018-09-07

Work Order : 236864
Sample Number : 55841

***Lemna minor* Frond Weight Data**

Test Concentration (%)	Replicate	Dry Weight of Fronds (mg)	Treatment Mean Dry Weight (mg)	Standard Deviation
Control	A	9.41	8.53	0.95
	B	7.22		
	C	9.01		
	D	8.47		
0.07	A	7.66	8.12	0.57
	B	8.51		
	C	7.61		
	D	8.72		
0.24	A	8.62	8.45	0.21
	B	8.35		
	C	8.19		
	D	8.62		
0.79	A	9.75	9.40	1.73
	B	11.49		
	C	9.06		
	D	7.31		
2.6	A	8.68	9.10	0.57
	B	9.93		
	C	8.93		
	D	8.84		
8.7	A	9.54	8.92	0.62
	B	8.23		
	C	8.56		
	D	9.33		
29.1	A	10.37	9.44	1.00
	B	8.27		
	C	8.95		
	D	10.15		
97.0	A	7.41	7.34	0.17
	B	7.27		
	C	7.54		
	D	7.15		

NOTES : •No significant stimulation ($\alpha=0.05$) of frond weight was detected by ANOVA-Dunnett Multiple Comparison Test (CETIS)^a at any test level compared to the control.

•No outlying data points were detected according to Grubbs Test (CETIS)^a.

"-" = not available/not required

Test Data Reviewed By : π
Date : 2018-09-07



AquaTox Testing & Consulting Inc.
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TOXICITY TEST REPORT

Pseudokirchneriella subcapitata

EPS 1/RM/25

1 of 2

Work Order : 236864
Sample Number : 55841

SAMPLE IDENTIFICATION

Company :	Agnico Eagle Mines Limited - Meliadine Project	Date Collected :	2018-08-07
Location :	Rankin Inlet NU	Time Collected :	07:00
GPS Coordinates :	63° 02' 15.5"N 92° 13' 06.3"W	Date Received :	2018-08-09
Substance :	MEL-14	Time Received :	10:45
Sampling Method :	Grab	Temperature upon Receipt :	23.0 °C
Sampled By :	J. Brown	Date Tested :	2018-08-09
Sample Description :	Clear, yellow, odourless.		
Test Method :	Growth Inhibition Test Using a Freshwater Alga. Environment Canada, Conservation and Protection. Ottawa, Ontario. Report EPS 1/RM/25, 2nd ed. (March 2007).		

72-h TEST RESULTS

Effect	Value	95% Confidence Limits	Statistical Method
IC25 (Growth)	>90.91 %	—	—

The results reported relate only to the sample tested.

ZINC (AS ZINC SULPHATE) REFERENCE TOXICANT DATA

Date Tested :	2018-08-21	Statistical Method :	Non-Linear Regression (CETIS) ^a
Organism Batch :	Ps18-08	Historical Mean IC25 :	10.4 µg/L
Test Duration :	72 hours	Warning Limits (± 2SD) :	4.9 - 22.3 µg/L
IC25 Growth :	8.8 µg/L	Analyst(s) :	AS, MDS, CZN
95% Confidence Limits :	7.5 - 10.2 µg/L		

The reference toxicity test was performed under the same experimental conditions as those used with the test sample.

TEST ORGANISM

Test Organism :	<i>Pseudokirchneriella subcapitata</i>	Source :	In-house culture
Culture Origin :	University of Waterloo, Waterloo ON	Cell Density at 0-h :	9818 cells/mL
Strain Number :	CPCC 37	Inoculum Prepared :	00:05 h prior to test initiation
Organism Batch :	Ps18-08	Age (at start of test) :	3 days (in exponential growth)

- Algal growth curve is determined at least twice per year as required by the test method cited above.
- No unusual appearance or treatment of culture prior to testing.

TEST CONDITIONS

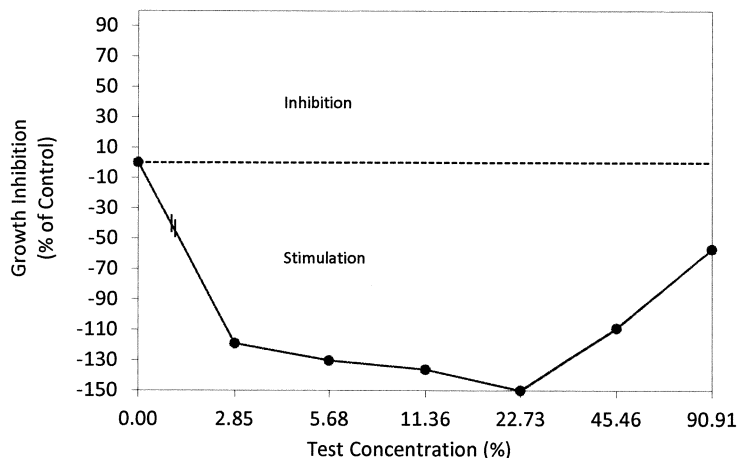
Test Type :	Static	Volume per Replicate :	220 µL
Test Duration :	72 hours	Control Replicates :	10
Mean Temperature (± SD):	24.3°C (± 0.3)	Test Replicates :	4
Sample Pre-aeration :	None	Concentrations Tested :	10 + Control
Sample Filtration :	0.45 µm preconditioned filter	Photoperiod :	Continuous light
Volume Filtered:	≥10 mL	Light Intensity :	3800-4320 lux
Control/Dilution Water :	Millipore Milli-Q (no chemicals added)	pH Adjustment :	None
Enrichment Medium :	Stock 2B: EDTA reduced to 25%	Hardness Adjustment :	None
Test Vessel :	U-shaped polystyrene microplate	Test Method Deviation(s) :	None

COMMENTS

- All test validity criteria as specified in the test method cited above were satisfied.

Work Order : 236864

Sample Number : 55841

***Pseudokirchneriella subcapitata* Growth Inhibition**

CELL ENUMERATION AT 72-HOURS

Initiated By :	SEW	Sample pH (at 0 hours) :	7.0
Completion/Enumeration Date :	2018-08-12	Control pH (at 0 hours) :	7.0
Enumerated By :	RD	Control pH (at 72 hours) :	7.0
Enumeration Method :	Manual (haemocytometer)	Control Cell Increase Factor :	63.2 times growth

Concentration (%)	Cell Concentration (x 10000 cells/mL)								Cell Yield (x 10000 cells/mL)			
	Replicate								Mean	Standard Deviation	CV (%)	Stimulation (% of control)**
Control	1	2	3	4	7	8	9	10				
0.18	60.5	59.0	68.5	67.5	62.5	64.5	58.0	56.0	61.08	4.51	7.38	—
0.35	—	—	—	—	—	—	—	—	—	—	—	—
0.71	—	—	—	—	—	—	—	—	—	—	—	—
1.42	—	—	—	—	—	—	—	—	—	—	—	—
2.85	136.0	125.5	143.0	—	—	—	—	—	133.85	8.81	6.58	119.14
5.68	139.0	144.0	142.0	—	—	—	—	—	140.68	2.52	1.79	130.33
11.36	153.5	138.0	144.5	—	—	—	—	—	144.35	7.78	5.39	136.33
22.73	150.0	153.0	158.0	—	—	—	—	—	152.68	4.04	2.65	149.97
45.46	126.5	128.0	131.5	—	—	—	—	—	127.68	2.57	2.01	109.04
90.91	104.5	95.0	91.0	—	—	—	—	—	95.85	6.93	7.23	56.93

 NOTES : **Statistically significant stimulation, according to ANOVA/Dunnett Multiple Comparison Test (CETIS)^a, ($\alpha=0.0$:

•Control replicates 5 and 6 used for pH measurement.

 •The Mann-Kendall test shows that there is no inhibitory gradient ($\alpha=0.05$).

 •No outlying data points were detected according to Grubbs Test (CETIS)^a.

"—" = not enumerated/not required

 Data Reviewed By : J
 Date : 2018-09-07
REFERENCES
^a CETIS™, © 2000-2018. V.1.9.4.7. Comprehensive Environmental Toxicity Information System. Tidepool Scientific Software LLC, McKinleyville, CA 95519 [Program on disk and printed User's Guide].

Date :

2018-09-07
 yyyy-mm-dd

Approved By :

[Signature]
 Project Manager

AQUATOX

Fax: (519) 763-4419

Mining COC rev 1 2008 07 07 TC



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September 28, 2018

Jennifer Brown
Agnico Eagle Mines Limited - Meliadine Project
Meliadine Division
Rankin Inlet NU
X0C 0G0

Dear Jennifer,

Re: Report on Sublethal Toxicity Analysis of Wastewater for MMER - August 2018

Enclosed are the reports for sublethal testing conducted with Fathead Minnow, *Lemna minor*, and *Pseudokirchneriella subcapitata* on the sample of MEL-14 collected 2018-08-13. Data are presented in electronic format. The corresponding test with *Ceriodaphnia dubia* was unsuccessful, and requested submission of a sample to retest. Our understanding resampling was not possible at the time of notification.

As you are aware, submission of sublethal toxicity data via RISS is a requirement of the MMER regulation. We would be pleased to enter this information on your behalf, for a fee. Please review the attached reports, and in an e-mail to reporter@aquatox.ca, provide us with your RISS user name and password (supplied to you by ECCC), along with written permission for AquaTox to access RISS on your behalf. We will then enter your results. In the future, if you would prefer us to enter the data automatically at the time the reports are issued, please indicate this in writing.

If you have any questions about the results, do not hesitate to contact me.

Sincerely,

AQUATOX TESTING & CONSULTING INC.

A handwritten signature in black ink, appearing to read "Martina Rendas", with a stylized flourish at the end.

Martina Rendas
Project Manager

MR/jl



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TOXICITY TEST REPORT

Fathead minnow

EPS 1/RM/22

Page 1 of 5

Work Order : 236923

Sample Number : 55913

SAMPLE IDENTIFICATION

Company :	Agnico Eagle Mines Limited - Meliadine Project	Date Collected :	2018-08-13
Location :	Rankin Inlet NU	Time Collected :	07:00
GPS Coordinates :	63° 02' 15.5"N 92° 13' 06.3"W	Date Received :	2018-08-15
Substance :	MEL-14	Time Received :	10:45
Sampling Method :	Grab	Temperature upon Receipt :	21.0 °C
Sampled By :	D. Gorton	Date Tested :	2018-08-16
Sample Description :	Clear, light yellow, odourless.		
Test Method :	Test of Larval Growth and Survival Using Fathead Minnows. Environment Canada, Conservation and Protection. Ottawa, Ontario. Report EPS 1/RM/22, 2nd ed. (February 2011).		

7-DAY TEST RESULTS

Effect	Value	95% Confidence Limits	Statistical Method
IC25 (Growth from Biomass)	>100%	—	—
LC50	>100%	—	—

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

POTASSIUM CHLORIDE REFERENCE TOXICANT DATA

Date Tested :	2018-08-28	Analyst(s) :	MV, RD, MA
Organism Batch :	Fm18-08	Test Duration :	7 days
IC25 Growth (from Biomass) :	0.90 g/L	LC50 :	1.03 g/L
95% Confidence Limits :	0.81 - 0.97 g/L	95% Confidence Limits :	0.96 - 1.11 g/L
Statistical Method :	Non-Linear Regression (CETIS) ^a	Statistical Method :	Linear Regression (MLE) (CETIS) ^a
Historical Mean IC25 :	0.93 g/L	Historical Mean LC50 :	1.09 g/L
Warning Limits (± 2SD) :	0.71 - 1.23 g/L	Warning Limits (± 2SD) :	0.91 - 1.30 g/L

The reference toxicity test was performed under the same experimental conditions as those used with the test sample.

TEST CONDITIONS

Test Organism :	<i>Pimephales promelas</i>	Test Type :	Static Renewal
Organism Batch :	Fm18-08	Control/Dilution Water :	Well water (no additional chemicals)
Organism Age :	~07:00 - 20:35 h at start of test	Test Volume / Replicate :	300 mL
Source :	In-house culture	Test Vessel :	420 mL polystyrene beaker
Culture Mortality/Diseased :	0.77 % (previous 7 days)	Depth of Test Solution :	8 cm
pH Adjustment :	None	Organisms per Replicate :	10
Sample Filtration :	None	Number of Replicates :	3
Hardness Adjustment :	None	Daily Renewal Method :	80-85% syphoned and replaced
Test Aeration :	None	Test Method Deviation(s) :	None

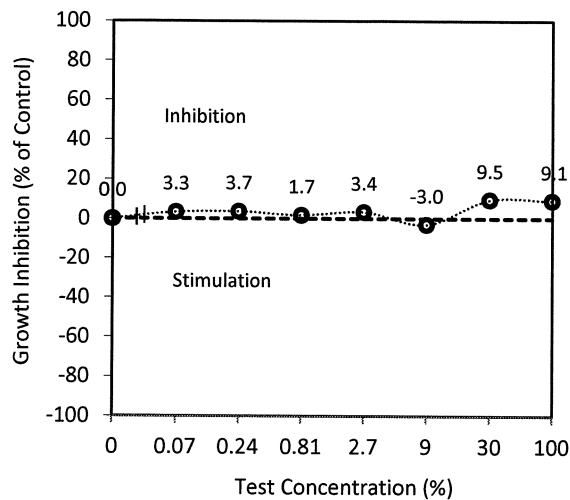
COMMENTS

- All test validity criteria as specified in the test method cited above were satisfied.
- No organisms exhibiting unusual appearance, behaviour, or undergoing unusual treatment were used in the test.
- Inflated swim bladders were confirmed in all test organisms used in this test.

Work Order : 236923

Sample Number : 55913

Fathead Minnow Growth Inhibition (based on Biomass)



REFERENCES

^a CETISTM, © 2000-2018. V.1.9.4.7. Comprehensive Environmental Toxicity Information System. Tidepool Scientific Software, LLC, McKinleyville, CA 95519 [Program on disk and printed User's Guide].

^b Grubbs, F.E., 1969. Procedures for detecting outlying observations in samples. *Technometrics*, 11:1-21.

Date :

2018-07-27

yyyy-mm-dd

Approved By :


Project Manager



TOXICITY TEST REPORT

Fathead minnow

EPS 1/RM/22

3 of 5

Work Order : 236923
Sample Number : 55913

CUMULATIVE DAILY CONTROL MORTALITY AND IMPAIRMENT (±SD)

Date : 2018-08-16 2018-08-17 2018-08-18 2018-08-19 2018-08-20 2018-08-21 2018-08-22 2018-08-23
0.00% (±0.0) 0.00% (±0.0) 0.00% (±0.0) 0.00% (±0.0) 0.00% (±0.0) 0.00% (±0.0) 0.00% (±0.0) 0.00% (±0.0)

FATHEAD MINNOW CUMULATIVE DAILY MORTALITY

Initiation Time : 12:15
Initiation Date : 2018-08-16
Completion Date : 2018-08-23

		Day 0		Day 1		Day 2		Day 3		Day 4		Day 5		Day 6		Day 7		Treatment
Date :		2018-08-16		2018-08-17		2018-08-18		2018-08-19		2018-08-20		2018-08-21		2018-08-22		2018-08-23		Mean Mortality
Analyst(s):		CCM(VC)		CCM(VC)		SEW		CG		SEW		SEW		RK(VC)		CCM(VC)		(± SD)
Concentration		Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	%
(%)	Replicate	Dead	Dead	Dead	Dead	Dead	Dead	Dead	Dead	Dead	Dead	Dead	Dead	Dead	Dead	Dead	Dead	
Control	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00 (±0.00)
	B	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	C	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.07	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00 (±0.00)
	B	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	C	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.24	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00 (±0.00)
	B	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	C	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.81	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00 (±0.00)
	B	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	C	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
2.7	A	0	0	0	0	0	0	0	0	0	0	1	10	1	10	1	10	3.33 (±5.77)
	B	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	C	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
9	A	0	0	0	0	0	0	0	0	0	0	0	0	1	10	1	10	3.33 (±5.77)
	B	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	C	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
30	A	0	0	0	0	0	0	0	0	0	0	1	10	1	10	1	10	3.33 (±5.77)
	B	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	C	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
100	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00 (±0.00)
	B	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	C	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

Aberrant behaviour or swimming impairment : None

Data Reviewed By: VC
Date : 2018-09-10

Work Order : 236923

Sample Number : 55913

FATHEAD MINNOW DRY WEIGHT AND BIOMASS DATA

Concentration (%)	Replicate	Number of Larvae Exposed	Replicate Mean Dry Weight (mg)	Treatment Mean Biomass (mg)	Standard Deviation
Control	A	10	0.955	0.940	0.015
	B	10	0.926		
	C	10	0.938		
0.07	A	10	0.886	0.909	0.027
	B	10	0.938		
	C	10	0.902		
0.24	A	10	0.871	0.905	0.036
	B	10	0.902		
	C	10	0.943		
0.81	A	10	1.018	0.923	0.085
	B	10	0.897		
	C	10	0.855		
2.7	A	10	0.899	0.908	0.031
	B	10	0.882		
	C	10	0.943		
9	A	10	0.919	0.968	0.045
	B	10	1.007		
	C	10	0.977		
30	A	10	0.799	0.850	0.045
	B	10	0.869		
	C	10	0.883		
100	A	10	0.866	0.854	0.027
	B	10	0.824		
	C	10	0.873		

NOTES :

- No outlying data points were detected according to Grubbs Test^b.
- Control average dry weight per surviving organism = 0.940 mg

Data Reviewed By: VCDate : 2018-09-10

**TOXICITY TEST REPORT**

Work Order : 236923
 Sample Number: 55913

Fathead minnow

EPS 1/RM/22

5 of 5

Fathead Minnow Water Chemistry Data

		Initial Chemistry:	Temp. (°C)	DO (mg/L)	pH	Conductivity (µmhos/cm)	Hardness (mg/L as CaCO ₃)	
			25.0	8.0	7.2	2021	530	
		Day 0 - 1 2018-08-16	Day 1 - 2 2018-08-17	Day 2 - 3 2018-08-18	Day 3 - 4 2018-08-19	Day 4 - 5 2018-08-20	Day 5 - 6 2018-08-21	Day 6 - 7 2018-08-22
Sub-sample Used		1	1	1	2	2	3	3
Temperature (°C)		25.0	24.0	24.0	24.0	25.0	24.0	24.0
Dissolved Oxygen (mg/L)		8.0	8.9	9.2	9.0	9.3	8.9	9.6
Dissolved Oxygen % Sat. ¹		98	109	112	110	112	108	118
pH		7.2	7.3	7.2	7.2	7.2	7.3	7.2
Pre-aeration Time (min) ²		0	20	20	20	20	20	20
Analyst(s) : Initial		CCM(VC)	CCM(VC)	RK(VC)	RK(VC)	CCM(VC)	CCM(VC)	SEW
Final		CCM(VC)	RK(VC)	CG	SEW	SEW	RK(VC)	XD
Control (0%)								
Temp.(°C)	Initial	25.0	25.0	25.0	25.0	24.0	24.0	24.0
	Final	25.0	25.0	25.0	25.0	25.0	24.0	24.0
DO % Sat. ¹	Initial	100	102	100	102	100	100	100
	Final	100	102	100	102	100	100	100
DO (mg/L)	Initial	8.2	8.5	8.2	8.5	8.3	8.3	8.2
	Final	7.0	6.4	7.1	6.6	6.8	6.8	7.0
pH	Initial	8.3	8.4	8.3	8.4	8.4	8.4	8.4
	Final	8.1	8.0	8.0	7.9	8.1	8.1	8.0
Cond. (µmhos/cm)	Initial	615	611	705	703	615	615	634
0.07 %								
Temp.(°C)	Initial	25.0	25.0	25.0	25.0	24.0	24.0	24.0
	Final	25.0	25.0	25.0	25.0	25.0	24.0	24.0
DO (mg/L)	Initial	8.3	8.4	8.2	8.4	8.1	8.3	8.2
	Final	6.9	6.5	7.0	6.4	6.8	6.9	7.0
pH	Initial	8.4	8.4	8.4	8.4	8.3	8.4	8.4
	Final	8.1	8.0	8.0	7.9	8.0	8.1	8.0
Cond. (µmhos/cm)	Initial	612	612	710	709	615	614	635
9 %								
Temp.(°C)	Initial	25.0	25.0	25.0	25.0	24.0	24.0	24.0
	Final	25.0	25.0	25.0	25.0	25.0	24.0	24.0
DO (mg/L)	Initial	8.2	8.6	8.2	8.6	8.3	8.5	8.4
	Final	7.0	6.6	6.9	6.5	6.7	6.8	7.1
pH	Initial	8.3	8.3	8.3	8.3	8.3	8.4	8.3
	Final	8.1	8.0	7.9	7.8	7.9	8.0	8.0
Cond. (µmhos/cm)	Initial	743	739	828	835	746	744	756
100 %								
Temp.(°C)	Initial	25.0	25.0	25.0	25.0	24.0	24.0	24.0
	Final	25.0	25.0	25.0	25.0	25.0	24.0	24.0
DO (mg/L)	Initial	8.1	8.6	8.9	8.8	8.5	8.6	9.1
	Final	7.3	6.8	7.1	6.5	6.8	7.1	7.1
pH	Initial	7.4	7.5	7.5	7.5	7.4	7.6	7.6
	Final	7.5	7.3	7.4	7.3	7.3	7.4	7.5
Cond. (µmhos/cm)	Initial	2034	2021	2012	2035	2024	1999	1987

"_" = not measured

¹ % saturation (adjusted for actual temperature and barometric pressure)² ≤100 bubbles/minute



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TOXICITY TEST REPORT

Lemna minor

EPS 1/RM/37

Page 1 of 4

Work Order : 236923

Sample Number : 55913

SAMPLE IDENTIFICATION

Company :	Agnico Eagle Mines Limited - Meliadine Project	Date Collected :	2018-08-13
Location :	Rankin Inlet NU	Time Collected :	07:00
GPS Coordinates :	63° 02' 15.5"N 92° 13' 06.3"W	Date Received :	2018-08-15
Substance :	MEL-14	Time Received :	10:45
Sampling Method :	Grab	Temperature upon Receipt :	21.0 °C
Sampled By :	D. Gorton	Date Tested :	2018-08-16
Sample Description :	Clear, light yellow, odourless.		

Test Method : Test for Measuring the Inhibition of Growth using the Freshwater Macrophyte, *Lemna minor*.
Method Development and Application Section, Environmental Technology Centre, Environment Canada.
Ottawa, Ontario. Report EPS 1/RM/37, 2nd ed. (January 2007).

7-DAY TEST RESULTS

Effect	Value	95% Confidence Limits	Statistical Method
IC25 (Fronde Yield)	38.2%	26.6 - 52.1	Non-Linear Regression* (CETIS) ^a
IC25 (Weight)	42.0%	26.5 - 63.2	Non-Linear Regression (CETIS) ^a

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

POTASSIUM CHLORIDE REFERENCE TOXICANT DATA

Date Tested :	2018-08-15	Statistical Method :	Non-Linear Regression (CETIS) ^a
Organism Batch :	Lm18-08	Historical Geometric Mean IC25 :	2.04 g/L
Test Duration :	7 days	Warning Limits (± 2SD) :	1.52 - 2.74 g/L
IC25 (Fronde Production) :	2.16 g/L	Growth Medium :	Modified APHA
95% Confidence Limits :	1.95 - 2.39 g/L	Analyst(s) :	MA, CZN

The reference toxicant test was performed under the same experimental conditions as those used with the test sample.

TEST CONDITIONS

Test Organism :	<i>Lemna minor</i> L., Strain 7730	Test Type :	Static (no sub-samples required)
Organism Batch :	Lm18-08	Control/Dilution Medium :	Modified APHA
Culture Origin :	UTCC 492	Medium Preparation Water :	Distilled Water
Test Organism Source :	Axenic in-house culture	Source of Water :	Morning Mist
Culture Medium :	Modified Hoaglands E+	Medium Preparation Chemicals :	Modified APHA stocks A, B, C (10 mL/L)
Age (on Test Day 0) :	9 days	Nutrient Spiking of Sample :	Modified APHA stocks A, B, C (10 mL/L)
Health Criteria (in APHA) :	22.2-fold fronde increase in 7 days	Replicates per Concentration :	4
Organism Acclimation :	23:20 h in APHA medium	Test Volume per Replicate :	100 mL
Inoculum (Test Day 0) :	2 plants (3 fronds per plant)	Test Vessel :	250 mL glass Erlenmeyer flask
Sample Filtration :	1 µm (Whatman GF/C)	Depth of Test Solution :	4.0 cm
Sample Pre-aeration :	20 min. at ≤100 bubbles/min.	Photoperiod/Light Intensity :	Continuous, 4100 - 5290 lux
pH Adjustment :	None	Test Method Deviation(s) :	None
Hardness Adjustment :	None		

COMMENTS

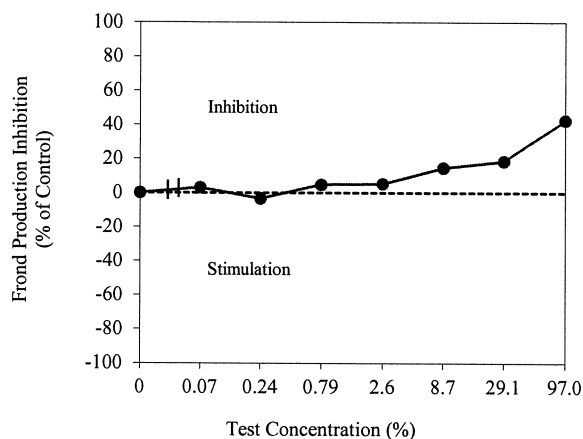
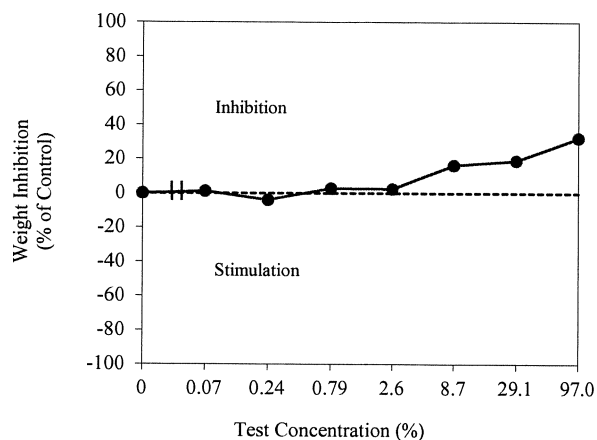
•All test validity criteria as specified in the test method cited above were satisfied.

*Box-Cox weighting (CETIS)^a was applied.

Work Order : 236923

Sample Number : 55913

Lemna minor Growth Inhibition



TEST MONITORING

Initiation Date : 2018-08-16

Initiation Time : 14:20

Initiated By : CG/MDS

Termination Date : 2018-08-23

Termination Time : 15:00

Terminated By : NK

Temperature Monitoring

Test Day	Date	Temperature (°C)
0 (unmodified sample)	2018-08-16	25.0
0	2018-08-16	24.5
1	2018-08-17	24.5
2	2018-08-18	24.0
3	2018-08-19	24.0
4	2018-08-20	24.0
5	2018-08-21	24.0
6	2018-08-22	24.5
7	2018-08-23	24.0

pH Monitoring

Concentration (%)	Day 0	Day 7
100 (unmodified sample)	7.2	—
Control	8.3	8.5
0.07	8.3	8.6
0.24	—	—
0.79	—	—
2.6	8.3	8.6
8.7	—	—
29.1	—	—
97.0	8.0	8.6

"—" = not required

REFERENCES

^a CETIS™, © 2000-2018. V.1.9.4.7. Comprehensive Environmental Toxicity Information System. Tidepool Scientific Software, LLC, McKinleyville, CA 95519 [Program on disk and printed User's Guide].

Date :

201809-27

yyyy-mm-dd

Approved By:

[Signature]

Project Manager

Work Order : 236923

Sample Number : 55913

***Lemna minor* Frond Increase**

Test Concentration (%)	Replicate	Frond Count Day 0*	Frond Count Day 7	Frond Increase	Mean Frond Increase	Standard Deviation	CV (%)	Frond/Root Appearance (Day 7)
Control	A	6	152	146	125.50	21.67	17.3	Fronds healthy, appearance normal in all replicates.
	B	6	127	121				
	C	6	144	138				
	D	6	103	97 ¹				
0.07	A	6	131	125	121.75	2.22	1.8	Fronds healthy, appearance normal in all replicates.
	B	6	127	121				
	C	6	127	121				
	D	6	126	120				
0.24	A	6	139	133	129.75	5.25	4.0	Fronds healthy, appearance normal in all replicates.
	B	6	128	122				
	C	6	139	133				
	D	6	137	131				
0.79	A	6	122	116	119.50	10.91	9.1	Fronds healthy, appearance normal in all replicates.
	B	6	131	125				
	C	6	112	106				
	D	6	137	131				
2.6	A	6	120	114	119.00	5.94	5.0	Fronds healthy, appearance normal in all replicates.
	B	6	133	127				
	C	6	121	115				
	D	6	126	120				
8.7	A	6	120	114	107.25	7.63	7.1	Fronds healthy, appearance normal in all replicates.
	B	6	110	104				
	C	6	119	113				
	D	6	104	98				
29.1	A	6	121	115	102.25	10.24	10.0	Fronds healthy, appearance normal in all replicates.
	B	6	107	101				
	C	6	96	90				
	D	6	109	103				
97.0	A	6	82	76	72.00	6.78	9.4	Fronds healthy, appearance normal in all replicates.
	B	6	85	79				
	C	6	70	64				
	D	6	75	69				

NOTES: *No unusual appearance or treatment of culture prior to testing. Test inoculated with healthy plants.

•No significant stimulation ($\alpha=0.05$) of frond increase was detected by ANOVA-Dunnett Multiple Comparison Test (CETIS)^a at any test level compared to the control.

•A 21.9-fold increase in frond number was observed in the control over the testing period.

•¹Outlier according to Grubbs Test (CETIS)^a. Outlying data points were not excluded from statistical analysis, since they could not be attributed to error.

Work Order : 236923

Sample Number : 55913

***Lemna minor* Frond Weight Data**

Test Concentration (%)	Replicate	Dry Weight of Fronds (mg)	Treatment Mean Dry Weight (mg)	Standard Deviation
Control	A	13.11	12.54	0.72
	B	12.06		
	C	13.19		
	D	11.79		
0.07	A	13.01	12.41	0.65
	B	11.61		
	C	12.14		
	D	12.87		
0.24	A	13.41	13.03	0.54
	B	12.23		
	C	13.17		
	D	13.30		
0.79	A	12.62	12.19	1.27
	B	12.72		
	C	10.31		
	D	13.12		
2.6	A	12.10	12.23	0.87
	B	13.33		
	C	11.20		
	D	12.29		
8.7	A	11.33	10.49	0.72
	B	10.11		
	C	10.82		
	D	9.71		
29.1	A	11.66	10.16	1.15
	B	9.60		
	C	9.00		
	D	10.39		
97.0	A	9.20	8.49	0.53
	B	8.49		
	C	7.94		
	D	8.32		

NOTES :

•No significant stimulation ($\alpha=0.05$) of frond weight was detected by ANOVA-Dunnett Multiple Comparison Test (CETIS)^a at any test level compared to the control.

•No outlying data points were detected according to Grubbs Test (CETIS)^a.

"—" = not available/not required

Test Data Reviewed By : VC

Date : 2018-09-10



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Tel: (519) 763-4412 Fax: (519) 763-4419

TOXICITY TEST REPORT

Pseudokirchneriella subcapitata

EPS 1/RM/25

1 of 2

Work Order : 236923
Sample Number : 55913

SAMPLE IDENTIFICATION

Company :	Agnico Eagle Mines Limited - Meliadine Project	Date Collected :	2018-08-13
Location :	Rankin Inlet NU	Time Collected :	7:00
GPS Coordinates :	63° 02' 15.5"N 92° 13' 06.3"W	Date Received :	2018-08-15
Substance :	MEL-14	Time Received :	11:00
Sampling Method :	Grab	Temperature upon Receipt :	21.0 °C
Sampled By :	D. Gorton	Date Tested :	2018-08-16
Sample Description :	Clear, light yellow, odourless.		
Test Method :	Growth Inhibition Test Using a Freshwater Alga. Environment Canada, Conservation and Protection. Ottawa, Ontario. Report EPS 1/RM/25, 2nd ed. (March 2007).		

72-h TEST RESULTS

Effect	Value	95% Confidence Limits	Statistical Method
IC25 (Growth)	>90.91 %	—	—

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

ZINC (AS ZINC SULPHATE) REFERENCE TOXICANT DATA

Date Tested :	2018-08-21	Statistical Method :	Non-Linear Regression (CETIS) ^a
Organism Batch :	Ps18-08	Historical Mean IC25 :	10.4 µg/L
Test Duration :	72 hours	Warning Limits (± 2SD) :	4.9 - 22.3 µg/L
IC25 Growth :	8.8 µg/L	Analyst(s) :	AS, MDS, CZN
95% Confidence Limits :	7.5 - 10.2 µg/L		

The reference toxicity test was performed under the same experimental conditions as those used with the test sample.

TEST ORGANISM

Test Organism :	<i>Pseudokirchneriella subcapitata</i>	Source :	In-house culture
Culture Origin :	University of Waterloo, Waterloo ON	Cell Density at 0-h :	10955 cells/mL
Strain Number :	CPCC 37	Inoculum Prepared :	00:10 h prior to test initiation
Organism Batch :	Ps18-08	Age (at start of test) :	3 days (in exponential growth)

•Algal growth curve is determined at least twice per year as required by the test method cited above.

•No unusual appearance or treatment of culture prior to testing.

TEST CONDITIONS

Test Type :	Static	Volume per Replicate :	220 µL
Test Duration :	72 hours	Control Replicates :	10
Mean Temperature (± SD):	24.1°C (± 0.3)	Test Replicates :	4
Sample Pre-aeration :	None	Concentrations Tested :	10 + Control
Sample Filtration :	0.45 µm preconditioned filter	Photoperiod :	Continuous light
Volume Filtered:	≥10 mL	Light Intensity :	3810-4160 lux
Control/Dilution Water :	Millipore Milli-Q (no chemicals added)	pH Adjustment :	None
Enrichment Medium :	Stock 2B: EDTA reduced to 25%	Hardness Adjustment :	None
Test Vessel :	U-shaped polystyrene microplate	Test Method Deviation(s) :	None

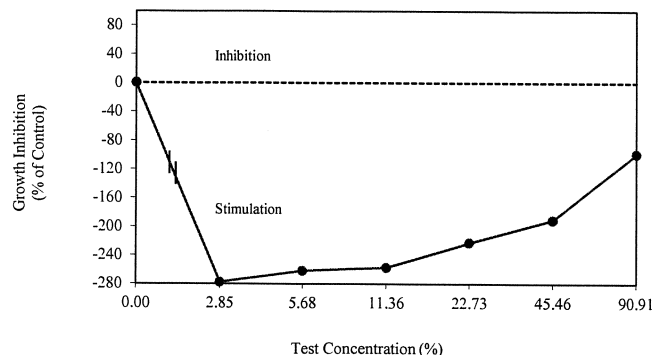
COMMENTS

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

Work Order : 236923

Sample Number : 55913

***Pseudokirchneriella subcapitata* Growth Inhibition**



CELL ENUMERATION AT 72-HOURS

Initiated By : CG/MA
 Completion/Enumeration Date : 2018-08-19
 Enumerated By : CG
 Enumeration Method : Manual (haemocytometer)

Sample pH (at 0 hours) : 7.2
 Control pH (at 0 hours) : 7.0
 Control pH (at 72 hours) : 7.0
 Control Cell Increase Factor : 29.4 times growth

Concentration (%)	Cell Concentration (x 10000 cells/mL)								Cell Yield (x 10000 cells/mL)			
	1	2	3	Replicate 4	7	8	9	10	Mean	Standard Deviation	CV (%)	Stimulation (% of control)**
Control	26.5	30.5	31.5	38.0	35.5	34.0	30.5	31.0	31.09	3.54	11.40	—
0.18	—	—	—	—	—	—	—	—	—	—	—	—
0.35	—	—	—	—	—	—	—	—	—	—	—	—
0.71	—	—	—	—	—	—	—	—	—	—	—	—
1.42	—	—	—	—	—	—	—	—	—	—	—	—
2.85	122.5	118.5	115.0	—	—	—	—	—	117.57	3.75	3.19	278.14
5.68	116.5	109.0	115.5	—	—	—	—	—	112.57	4.07	3.62	262.06
11.36	118.0	109.0	110.0	—	—	—	—	—	111.24	4.93	4.43	257.77
22.73	96.5	101.0	107.0	—	—	—	—	—	100.40	5.27	5.25	222.93
45.46	101.5	85.0	88.5	—	—	—	—	—	90.57	8.69	9.60	191.30
90.91	54.0	63.5	71.5	—	—	—	—	—	61.90	8.76	14.15	99.10

NOTES : **Statistically significant stimulation, according to ANOVA/Dunnett Multiple Comparison Test (CETIS)^a, ($\alpha=0.05$).

- Control replicates 5 and 6 used for pH measurement.
- The Mann-Kendall test shows that there is no inhibitory gradient ($\alpha=0.05$).
- No outlying data points were detected according to Grubbs Test (CETIS)^a.

"—" = not enumerated/not required

Data Reviewed By : VC

Date : 2018-09-10

REFERENCES

^a CETIS™, © 2000-2018. V.1.9.4.7. Comprehensive Environmental Toxicity Information System. Tidepool Scientific Software, LLC, McKinleyville, CA 95519 [Program on disk and printed User's Guide].

Date :

2018-09-27
 yyyy-mm-dd

Approved By :

[Signature]
 Project Manager

AQUATOX

236923

Voice: (519) 763-4412 **Fax:** (519) 763-4419

Client:	Agnico Eagle Mines Limited Melladine Project Rankin Inlet, Nunavut, Canada X0C 0G0
Phone:	(819) 759-3555
Fax:	
Contact:	Dan Gorton

[illegible]

For Lab Use Only	NK / RK
Received By:	2018-08-15
Date:	11:00
Time:	
Storage Location:	
Storage Temp (°C)	

Phone number: 819-759-3555 ext 3996



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October 16, 2018

Jennifer Brown
Agnico Eagle Mines Limited - Meliadine Project
Meliadine Division
Rankin Inlet NU
X0C 0G0

Dear Jennifer,

Re: Report on Sublethal Toxicity Analysis of Wastewater for MMER - September 2018

Enclosed are the reports for sublethal testing conducted on the sample of MEL-14 collected 2018-09-03. Data are presented in electronic format.

As you are aware, submission of sublethal toxicity data via RISS is a requirement of the MMER regulation. We would be pleased to enter this information on your behalf, for a fee. Please review the attached reports, and in an e-mail to reporter@aquatox.ca, provide us with your RISS user name and password (supplied to you by ECCC), along with written permission for AquaTox to access RISS on your behalf. We will then enter your results. In the future, if you would prefer us to enter the data automatically at the time the reports are issued, please indicate this in writing.

If you have any questions about the results, do not hesitate to contact me.

Sincerely,

AQUATOX TESTING & CONSULTING INC.

A handwritten signature in black ink, appearing to read "Martina Rendas", is written over the printed name.

Martina Rendas
Project Manager

MR/jl



AquaTox Testing & Consulting Inc.
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TOXICITY TEST REPORT

Fathead minnow
EPS 1/RM/22
1 of 5

Work Order : 237106
Sample Number : 56153

SAMPLE IDENTIFICATION

Company :	Agnico Eagle Mines Limited - Meliadine Project	Date Collected :	2018-09-03
Location :	Rankin Inlet NU	Time Collected :	07:00
Substance :	MEL-14	Date Received :	2018-09-06
Sampling Method :	Grab	Time Received :	09:45
Sampled By :	J. Brown	Date Tested :	2018-09-06
Temp. on arrival :	22.0°C		
Sample Description :	Clear, yellow, odourless		
Test Method :	Test of Larval Growth and Survival Using Fathead Minnows. Environment Canada, Conservation and Protection. Ottawa, Ontario. Report EPS 1/RM/22 , 2nd ed. (February 2011).		

TEST RESULTS

Effect	Value	95% Confidence Limits	Statistical Method
IC25 (Growth from Biomass)	>100%	-	-
LC50	>100%	-	-

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

POTASSIUM CHLORIDE REFERENCE TOXICANT DATA

Date Tested :	2018-08-28	Analyst(s) :	MV, RD, MA
Test Duration :	7 days	LC50 :	1.03 g/L
IC25 Growth (from Biomass) :	0.90 g/L	95% Confidence Limits :	0.96 - 1.11 g/L
95% Confidence Limits :	0.81 - 0.97 g/L	Statistical Method :	Linear Regression (MLE) (CETIS) ^a
Statistical Method :	Non-Linear Regression (CETIS) ^a	Historical Mean LC50 :	1.09 g/L
Historical Mean IC25 :	0.93 g/L	Warning Limits (± 2SD) :	0.91 - 1.30 g/L
Warning Limits (± 2SD) :	0.71 - 1.23 g/L		

The reference toxicity test was performed under the same experimental conditions as those used with the test sample.

TEST CONDITIONS

Test Organism :	<i>Pimephales promelas</i>	Test Type :	Static Renewal
Organism Batch :	Fm18-09	Control/Dilution Water :	Well water (no chemicals added)
Organism Age :	~07:00 - 23:35 h at start of test	Test Volume / Replicate :	300 mL
Source :	In-house culture	Test Vessel :	420 mL polystyrene beaker
Culture Mortality/Diseased :	1.54 % (previous 7 days)	Depth of Test Solution :	8 cm
pH Adjustment :	None	Organisms per Replicate :	10
Sample Filtration :	None	Number of Replicates :	3
Hardness Adjustment :	None	Daily Renewal Method :	80-85% syphoned and replaced
Test Aeration :	None	Test Method Deviation(s):	None

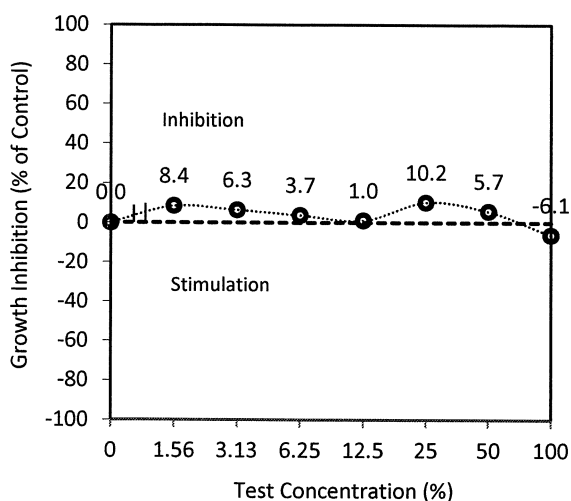
COMMENTS

- All test validity criteria as specified in the test method cited above were satisfied.
- No organisms exhibiting unusual appearance, behaviour, or undergoing unusual treatment were used in the test.
- Inflated swim bladders were confirmed in all test organisms used in this test.

Work Order : 237106

Sample Number : 56153

Fathead Minnow Growth Inhibition (based on Biomass)



REFERENCES

^a CETIS™, © 2000-2018. V.1.9.4.7. Comprehensive Environmental Toxicity Information System. Tidepool Scientific Software, LLC, McKinleyville, CA 95519 [Program on disk and printed User's Guide].

^b Grubbs, F.E., 1969. Procedures for detecting outlying observations in samples. *Technometrics*, 11:1-21.

Date : 2018-10-16
yyyy-mm-dd

Approved By : [Signature]
Project Manager



TOXICITY TEST REPORT

Fathead minnow

EPS 1/RM/22

3 of 5

Work Order : 237106

Sample Number : 56153

CUMULATIVE DAILY CONTROL MORTALITY AND IMPAIRMENT (±SD)

Date : 2018-09-06 2018-09-07 2018-09-08 2018-09-09 2018-09-10 2018-09-11 2018-09-12 2018-09-13
0.00% (±0.0) 0.00% (±0.0) 0.00% (±0.0) 0.00% (±0.0) 0.00% (±0.0) 0.00% (±0.0) 0.00% (±0.0) 0.00% (±0.0)

FATHEAD MINNOW CUMULATIVE DAILY MORTALITY

Initiation Time : 15:45

Initiation Date : 2018-09-06

Completion Date : 2018-09-13

Date :	Day 0	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7	Treatment
2018-09-06	2018-09-07	2018-09-08	2018-09-09	2018-09-10	2018-09-11	2018-09-12	2018-09-13	2018-09-13	Mean Mortality
Analyst(s):	NK	MV(VC)	RK(VC)	MV(VC)	TL	CCM(VC)	TL	SD(RD)	(± SD)
Concentration	Number	%	Number	%	Number	%	Number	%	%
(%)	Dead	Dead	Dead	Dead	Dead	Dead	Dead	Dead	
Replicate	Dead	Dead	Dead	Dead	Dead	Dead	Dead	Dead	
Control	A	0	0	0	0	0	0	0	0
	B	0	0	0	0	0	0	0	0
	C	0	0	0	0	0	0	0	0
1.56	A	0	0	0	0	0	0	0	2*
	B	0	0	0	0	0	0	0	0
	C	0	0	0	0	0	0	0	0
3.13	A	0	0	0	0	0	0	0	0
	B	0	0	0	0	0	0	0	0
	C	0	0	0	0	0	0	0	0
6.25	A	0	0	0	0	0	0	0	0
	B	0	0	0	0	0	0	0	0
	C	0	0	0	0	0	0	0	0
12.5	A	0	0	0	0	0	0	0	0
	B	0	0	0	0	0	0	0	0
	C	0	0	0	0	0	0	0	0
25	A	0	0	0	0	0	0	0	0
	B	0	0	0	0	0	0	0	0
	C	0	0	0	0	0	0	0	0
50	A	0	0	0	0	0	0	0	0
	B	0	0	0	0	0	0	0	0
	C	0	0	0	0	2	20	2	20
100	A	0	0	0	0	0	0	0	0
	B	0	0	0	0	0	0	0	0
	C	0	0	0	0	0	0	0	0

Aberrant behaviour or swimming impairment : None

NOTES : *2018-09-13: Replicate 1.56-A was accidentally spilled. Two test organisms were lost from the test vessel, resulting in accidental mortalities (SD/RD). The test organisms that suffered accidental mortalities were excluded from statistical analysis. All test endpoints were calculated from a total of 8 test organisms exposed in replicate 1.56-A (VC).

Test Data Reviewed By: VC

Date : 2018-10-04

Work Order : 237106

Sample Number : 56153

FATHEAD MINNOW DRY WEIGHT AND BIOMASS DATA

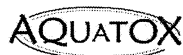
Concentration (%)	Replicate	Number of Larvae Exposed	Replicate Mean Dry Weight (mg)	Treatment Mean Biomass (mg)	Standard Deviation
Control	A	10	0.806	0.817	0.022
	B	10	0.802		
	C	10	0.842		
1.56	A	8*	0.758	0.748	0.014
	B	10	0.732		
	C	10	0.755		
3.13	A	10	0.769	0.765	0.042
	B	10	0.805		
	C	10	0.721		
6.25	A	10	0.764	0.786	0.032
	B	10	0.823		
	C	10	0.772		
12.5	A	10	0.843	0.809	0.077
	B	10	0.862		
	C	10	0.721		
25	A	10	0.714 ¹	0.733	0.016
	B	10	0.742		
	C	10	0.743		
50	A	10	0.797	0.770	0.070
	B	10	0.823		
	C	10	0.691		
100	A	10	0.875	0.867	0.024
	B	10	0.840		
	C	10	0.885		

NOTES :

- ¹Outlier according to Grubbs Test^b. Outlying data points were not excluded from statistical analysis, since they could not be attributed to error.
- Control average dry weight per surviving organism = 0.817 mg
- *Two accidental mortalities (see note on pg. 3).

 Test Data Reviewed By: VC

 Date : 2018-10-04

**TOXICITY TEST REPORT**

Fathead minnow

EPS 1/RM/22

5 of 5

Work Order : 237106

Sample Number: 56153

WATER CHEMISTRY DATA

		Initial Chemistry:	Temp. (°C)	DO (mg/L)	pH	Conductivity (µmhos/cm)	Hardness (mg/L as CaCO ₃)	
			24.0	8.7	6.8	2184	540	
		Day 0 - 1	Day 1 - 2	Day 2 - 3	Day 3 - 4	Day 4 - 5	Day 5 - 6	Day 6 - 7
		2018-09-06	2018-09-07	2018-09-08	2018-09-09	2018-09-10	2018-09-11	2018-09-12
Sub-sample Used		1	1	1	2	2	3	3
Temperature (°C)		24.0	24.0	24.0	24.0	25.0	25.0	24.0
Dissolved Oxygen (mg/L)		8.7	8.5	9.1	9.5	9.4	8.9	9.8
Dissolved Oxygen % Sat. ²		105	103	109	114	113	108	118
pH		6.8	6.9	6.9	6.9	7.0	6.8	6.9
Pre-aeration Time (min) ³		20	20	20	20	20	20	20
Analyst(s) : Initial		SD(RD)	SD(RD)	RK(VC)	RK(VC)	SD(RD)	SD(RD)	SD(RD)
Final		MV(VC)	RK(VC)	MV(VC)	TL	CCM(VC)	SD(RD)	SD(RD)
Control (0%)								
Temp.(°C)	Initial	25.0	24.0	24.0	24.0	25.0	24.0	25.0
	Final	24.5	24.5	25.0	24.0	24.0	25.0	25.0
DO % Sat. ²	Initial	100	100	101	100	100	100	98
DO (mg/L)	Initial	8.2	8.3	8.3	8.4	8.4	8.2	8.1
	Final	7.4	7.3	7.1	6.8	6.6	7.0	7.5
pH	Initial	8.4	8.3	8.3	8.3	8.4	8.4	8.4
	Final	8.1	8.0	8.2	8.1	8.0	8.0	8.1
Cond. (µmhos/cm)	Initial	681	678	677	702	693	669	703
1.56 %								
Temp.(°C)	Initial	25.0	24.0	24.0	24.0	25.0	24.0	25.0
	Final	24.5	24.5	25.0	24.0	24.0	25.0	25.0
DO (mg/L)	Initial	8.4	8.4	8.3	8.4	8.2	8.2	8.2
	Final	7.5	7.5	6.9	6.7	6.7	7.1	7.5
pH	Initial	8.3	8.3	8.3	8.4	8.3	8.4	8.3
	Final	8.1	8.1	8.1	8.0	8.0	8.1	8.1
Cond. (µmhos/cm)	Initial	708	705	698	728	717	746	715
25 %								
Temp.(°C)	Initial	25.0	24.0	24.0	24.0	25.0	24.0	25.0
	Final	24.5	24.5	25.0	24.0	24.0	25.0	25.0
DO (mg/L)	Initial	8.4	8.4	8.4	8.5	8.3	8.3	8.3
	Final	7.5	7.4	7.2	6.8	6.7	7.0	7.5
pH	Initial	8.1	8.1	8.2	8.2	8.1	8.2	8.2
	Final	8.0	8.0	8.0	7.9	7.9	7.9	8.0
Cond. (µmhos/cm)	Initial	1062	1067	1065	1086	1070	1137	1093
100 %								
Temp.(°C)	Initial	25.0	24.0	24.0	24.0	25.0	24.0	25.0
	Final	24.5	24.5	25.0	24.0	24.0	25.0	25.0
DO (mg/L)	Initial	8.5	8.5	8.8	8.9	9.0	8.8	9.2
	Final	7.6	7.7	7.3	7.0	6.8	7.6	7.5
pH	Initial	7.1	7.1	7.2	7.2	7.2	7.3	7.1
	Final	7.3	7.3	7.2	7.1	7.0	7.0	7.2
Cond. (µmhos/cm)	Initial	2185	2188	2188	2188	2183	2330	2222

"- " = not measured

² % saturation (adjusted for actual temperature and barometric pressure)³ ≤100 bubbles/minuteTest Data Reviewed By : VCDate: 2018-10-04



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TOXICITY TEST REPORT

Ceriodaphnia dubia
EPS 1/RM/21
1 of 4

Work Order : 237106
Sample Number : 56153

SAMPLE IDENTIFICATION

Company :	Agnico Eagle Mines Limited - Meliadine Project	Date Collected :	2018-09-03
Location :	Rankin Inlet NU	Time Collected :	07:00
Substance :	MEL-14	Date Received :	2018-09-06
Sampling Method :	Grab	Time Received :	09:45
Sampled By :	J. Brown	Date Tested :	2018-09-06
Temp. on arrival :	22.0°C		
Sample Description :	Clear, yellow, odourless		
Test Method :	Test of Reproduction and Survival using the Cladoceran <i>Ceriodaphnia dubia</i> . Environment Canada, Conservation and Protection. Ottawa, Ontario. Report EPS 1/RM/21, 2nd ed. (February 2007).		

TEST RESULTS

Effect	Value	95% Confidence Limits	Statistical Method
LC50	>100%	-	-
IC25 (Reproduction)	90.1%	23.3-96.3	Linear Interpolation (TOXSTAT) d

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

SODIUM CHLORIDE REFERENCE TOXICANT DATA

Date Tested :	2018-08-28	Analyst(s) :	MW, MA
Test Duration :	6 days	LC50 :	2.32 g/L
IC25 Reproduction :	1.46 g/L	95% Confidence Limits :	1.80 - 3.00 g/L
95% Confidence Limits :	0.98 - 1.82 g/L	Statistical Method :	Binomial (CETIS) ^a
Statistical Method :	Linear Interpolation (CETIS) ^a	Historical Mean LC50 :	2.23 g/L
Historical Mean IC25 :	1.30 g/L	Warning Limits (± 2SD) :	1.84 - 2.70 g/L
Warning Limits (± 2SD) :	0.98 - 1.73 g/L		

The reference toxicity test was performed under the same experimental conditions as those used with the test sample.

TEST CONDITIONS

Sample Filtration :	None	Test Volume per Replicate :	15 mL
Test Aeration :	None	Test Vessel :	19 mL polystyrene vial
pH Adjustment :	None	Depth of Test Solution :	4.8 cm
Hardness Adjustment :	None	Organisms per Replicate :	1
Daily Renewal Method :	Transferred to fresh solutions	Number of Replicates :	10
Control/Dilution Water :	Well water (no chemicals added)	Test Method Deviation(s) :	None

COMMENTS

- All test validity criteria as specified in the test method cited above were satisfied.
- Statistical analysis could not be performed using non linear regression, since a suitable model could not be found. Therefore, test results were calculated using Linear Interpolation (Toxstat)^d. In test concentrations where reproduction was stimulated (greater than the control), data were replaced with control values for the purposes of statistical analysis, as recommended by Environment Canada (2005).

Work Order : 237106
Sample Number : 56153

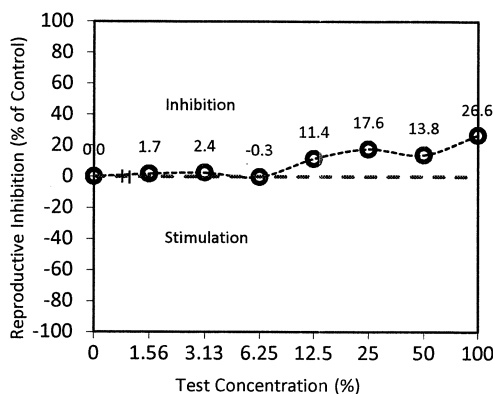
TEST ORGANISMS

Test Organism :	<i>Ceriodaphnia dubia</i>	Range of Age (at start of test) :	19:40 h - 23:40 h
Organism Batch :	Cd18-09	Mean Brood Organism Mortality :	3.3%
Organism Origin :	Single in-house mass culture	Ephippia in Culture :	No
Test Organism Origin :	Individual in-house cultures		

Brood Organism Neonate Production

Replicate :	1	2	3	4	5	6	7	8	9	10	Mean
Total (third or subsequent brood):	16	9	15	15	15	17	12	17	16	15	14.7
Total (first three broods):	23	19	23	19	21	23	21	25	20	23	21.7

No organisms exhibiting unusual appearance, behaviour, or undergoing unusual treatment were used in the test.

TEST DATA
***Ceriodaphnia dubia* Reproductive Inhibition**
Cumulative Daily Test Organism Mortality (%)


Date	Test Day	Test Concentration (%)							
		Control	1.56	3.13	6.25	12.5	25	50	100
2018-09-07	1	0	0	0	0	0	0	0	0
2018-09-08	2	0	0	0	0	0	0	0	0
2018-09-09	3	0	0	0	0	0	0	0	0
2018-09-10	4	0	0	0	0	0	0	10	10
2018-09-11	5	0	0	0	0	10	0	10	10
2018-09-12	6	0	0	0	0	10	0	20	10
Total Mortality (%)		0	0	0	0	10	0	20	10

REFERENCES

^a CETISTM, © 2000-2018. V.1.9.4.7. Comprehensive Environmental Toxicity Information System. Tidepool Scientific Software, LLC, McKinleyville, CA 95519 [Program on disk and printed User's Guide].

^d West, Inc. and D. Gulley. 1996. Toxstat Release 3.5. Western Ecosystems Technology. Cheyenne, WY, U.S.A.

Environment Canada, 2005. Guidance Document on Statistical Methods for Environmental Toxicity Tests. Environmental Protection Series, Ottawa, Ont., Rept. EPS 1/RM/46.

Date :

2018-10-16
yyyy-mm-dd

Approved By :

[Signature]
Project Manager



TOXICITY TEST REPORT

Ceriodaphnia dubia

EPS 1/RM/21

3 of 4

Work Order : 237106

Sample Number : 56153

Ceriodaphnia dubia Survival and Reproduction

Test Initiation Date : 2018-09-06

Initiation Time : 13:40

Test Completion Date : 2018-09-12

Concentration (%)		Replicate										Mean Young (±SD)	Analyst(s)
Control	Day	1	2	3	4	5	6	7	8	9	10		
2018-09-07	1	0	0	0	0	0	0	0	0	0	0	0	RD
2018-09-08	2	0	0	0	0	0	0	0	0	0	0	0	HR
2018-09-09	3	5	5	6	6	3	6	4	5	7	6	5.3	AW
2018-09-10	4	9	8	8	10	0	12	12	11	8	0	7.8	SK
2018-09-11	5	0	0	0	0	8	0	0	0	0	14	2.2	SK
2018-09-12	6	13	11	11	13	11	14	16	16	14	17	13.6	CCM(VC)
Total		27	24	25	29	22	32	32	32	29	37	28.9 (±4.5)	

Concentration (%)		Replicate										Mean Young (±SD)
12.5	Day	1	2	3	4	5	6	7	8	9	10	
2018-09-07	1	0	0	0	0	0	0	0	0	0	0	0
2018-09-08	2	0	0	0	0	0	0	0	0	0	0	0
2018-09-09	3	5	5	5	4	4	4	5	6	5	4	4.7
2018-09-10	4	10	8	10	8	0	11	9	11	10	0	7.7
2018-09-11	5	0	0	0	0	9	0	0	0	0	x 12	2.1
2018-09-12	6	10	12	11	12	11	13	15	14	0	13	11.1
Total		25	25	26	24	24	28	29	31	15	29	25.6 (±4.4)

Concentration (%)		Replicate										Mean Young (±SD)
1.56	Day	1	2	3	4	5	6	7	8	9	10	
2018-09-07	1	0	0	0	0	0	0	0	0	0	0	0
2018-09-08	2	0	0	0	0	0	0	0	0	0	0	0
2018-09-09	3	4	3	3	6	5	6	5	5	4	5	4.6
2018-09-10	4	0	8	10	7	13	12	13	8	9	1	8.1
2018-09-11	5	11	0	0	0	0	0	0	0	0	11	2.2
2018-09-12	6	12	12	12	13	16	16	11	13	14	16	13.5
Total		27	23	25	26	34	34	29	26	27	33	28.4 (±3.9)

Concentration (%)		Replicate										Mean Young (±SD)
25	Day	1	2	3	4	5	6	7	8	9	10	
2018-09-07	1	0	0	0	0	0	0	0	0	0	0	0
2018-09-08	2	0	0	0	0	0	0	0	0	0	0	0
2018-09-09	3	0	6	3	6	2	1	4	2	4	2	3
2018-09-10	4	9	7	7	10	0	7	10	10	5	12	7.7
2018-09-11	5	0	0	0	0	8	0	0	0	0	0	0.8
2018-09-12	6	14	12	12	15	11	15	13	11	8	12	12.3
Total		23	25	22	31	21	23	27	23	17	26	23.8 (±3.8)

Concentration (%)		Replicate										Mean Young (±SD)
3.13	Day	1	2	3	4	5	6	7	8	9	10	
2018-09-07	1	0	0	0	0	0	0	0	0	0	0	0
2018-09-08	2	0	0	0	0	0	0	0	0	0	0	0
2018-09-09	3	2	6	5	4	4	5	5	4	6	5	4.6
2018-09-10	4	9	10	10	7	0	11	10	11	13	9	9
2018-09-11	5	0	0	0	0	8	0	0	0	0	0	0.8
2018-09-12	6	14	11	14	13	13	16	13	15	16	13	13.8
Total		25	27	29	24	25	32	28	30	35	27	28.2 (±3.4)

Concentration (%)		Replicate										Mean Young (±SD)
50	Day	1	2	3	4	5	6	7	8	9	10	
2018-09-07	1	0	0	0	0	0	0	0	0	0	0	0
2018-09-08	2	0	0	0	0	0	0	0	0	0	0	0
2018-09-09	3	5	2	5	6	4	4	5	4	3	3	4.1
2018-09-10	4	8	11	7	10	8	14	10	9	x 10	11	9.8
2018-09-11	5	0	0	0	0	0	0	0	0	0	0	0
2018-09-12	6	14	15	11	14	12	13	2	x 0	14	15	11
Total		27	28	23	30	24	31	17	13	27	29	24.9 (±5.8)

Concentration (%)		Replicate										Mean Young (±SD)
6.25	Day	1	2	3	4	5	6	7	8	9	10	
2018-09-07	1	0	0	0	0	0	0	0	0	0	0	0
2018-09-08	2	0	0	0	0	0	0	0	0	0	0	0
2018-09-09	3	5	4	3	6	1	5	6	5	4	4	4.3
2018-09-10	4	11	10	9	10	2	13	11	9	11	9	9.5
2018-09-11	5	0	0	0	0	8	0	0	0	0	0	0.8
2018-09-12	6	14	12	15	14	13	14	15	17	14	16	14.4
Total		30	26	27	30	24	32	32	31	29	29	29.0 (±2.6)

Concentration (%)		Replicate										Mean Young (±SD)
100	Day	1	2	3	4	5	6	7	8	9	10	
2018-09-07	1	0	0	0	0	0	0	0	0	0	0	0
2018-09-08	2	0	0	0	0	0	0	0	0	0	0	0
2018-09-09	3	2	6	4	4	4	3	4	4	3	4	3.8
2018-09-10	4	10	10	7	11	12	10	9	0	x 11	12	9.2
2018-09-11	5	0	0	0	0	0	0	0	0	0	0	0
2018-09-12	6	7	3	7	11	13	10	12	0	9	10	8.2
Total		19	19	18	26	29	23	25	4 ¹	23	26	21.2 (±7.0)

NOTES : *All young produced by a test organism during its fourth and subsequent broods were discarded and not included in the above counts. The presence of two or more neonates in any test chamber, during any given day of the test, constitutes a brood.

¹ Outlier according to Grubbs Test (CETIS)^a. Outlying data points were not excluded from statistical analysis, since they could not be attributed to error.

"x"= test organism mortality

"*"= accidental test organism mortality

"—"=4th brood (see 'NOTES')

Data Reviewed By : VC

Date : 2018-10-04

Work Order : 237106

Sample Number: 56153

***Ceriodaphnia dubia* Water Chemistry Data**

Initial Chemistry:		Temp. (°C)	DO (mg/L)	pH	Conductivity (µmhos/cm)	Hardness (mg/L as CaCO ₃)
		24.0	8.7	6.8	2184	540

		Day 0 - 1 2018-09-06	Day 1 - 2 2018-09-07	Day 2 - 3 2018-09-08	Day 3 - 4 2018-09-09	Day 4 - 5 2018-09-10	Day 5 - 6 2018-09-11
Date :							
Sub-sample Used		1	1	1	2	2	3
Temperature (°C)		24.0	24.0	24.0	24.0	25.0	25.0
Dissolved Oxygen (mg/L)		8.7	8.5	9.1	9.5	9.4	8.9
Dissolved Oxygen % Sat. ²		105	103	109	114	113	108
pH		6.8	6.9	6.9	6.9	7.0	6.8
Pre-aeration Time (min) ³		20	20	20	20	20	20
Analyst(s)	Initial Final	SD(RD) SD(RD)	SD(RD) HR	RK(VC) AW	RK(VC) SK	SD(RD) SK	SD(RD) CCM(VC)
Control (0%)							
Temp. (°C)	Initial	25.0	24.0	24.0	24.0	25.0	24.0
	Final	24.0	24.0	24.5	24.0	24.0	24.5
DO % Sat. ²	Initial	100	100	101	100	100	100
DO (mg/L)	Initial	8.2	8.3	8.3	8.4	8.4	8.2
	Final	7.7	7.7	7.4	7.1	6.8	7.2
pH	Initial	8.4	8.3	8.3	8.3	8.4	8.4
	Final	8.2	8.2	8.2	8.2	8.2	8.1
Cond. (µmhos/cm)	Initial	681	678	677	702	693	669
1.56 %							
Temp. (°C)	Initial	25.0	24.0	24.0	24.0	25.0	24.0
	Final	24.0	24.0	24.5	24.0	24.0	24.5
DO (mg/L)	Initial	8.4	8.4	8.3	8.4	8.2	8.2
	Final	7.7	7.6	7.5	7.2	7.1	7.3
pH	Initial	8.3	8.3	8.3	8.4	8.3	8.4
	Final	8.2	8.2	8.2	8.2	8.2	8.2
Cond. (µmhos/cm)	Initial	708	705	698	728	717	746
25 %							
Temp. (°C)	Initial	25.0	24.0	24.0	24.0	25.0	24.0
	Final	24.0	24.0	24.5	24.0	24.0	24.5
DO (mg/L)	Initial	8.4	8.4	8.4	8.5	8.3	8.3
	Final	7.6	7.7	7.4	7.2	6.9	7.2
pH	Initial	8.1	8.1	8.2	8.2	8.1	8.2
	Final	8.1	8.0	8.1	8.0	8.0	8.0
Cond. (µmhos/cm)	Initial	1062	1067	1065	1086	1070	1137
100 %							
Temp. (°C)	Initial	25.0	24.0	24.0	24.0	25.0	24.0
	Final	24.0	24.0	24.5	24.0	24.0	24.5
DO (mg/L)	Initial	8.5	8.5	8.8	8.9	9.0	8.8
	Final	7.8	7.9	7.6	7.5	7.2	7.5
pH	Initial	7.1	7.1	7.2	7.2	7.2	7.3
	Final	7.5	7.5	7.5	7.4	7.4	7.3
Cond. (µmhos/cm)	Initial	2185	2188	2188	2188	2183	2330

"_" = not measured

² % saturation (adjusted for actual temperature and barometric pressure)

³ ≤100 bubbles/minute



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TOXICITY TEST REPORT

Lemna minor

EPS 1/RM/37

Page 1 of 4

Work Order : 237106

Sample Number : 56153

SAMPLE IDENTIFICATION

Company :	Agnico Eagle Mines Limited - Meliadine Project	Date Collected :	2018-09-03
Location :	Rankin Inlet NU	Time Collected :	07:00
Substance :	MEL-14	Date Received :	2018-09-06
Sampling Method :	Grab	Time Received :	09:45
Sampled By :	J. Brown	Date Tested :	2018-09-06
Temp. on arrival :	22.0°C		
Sample Description :	Clear, yellow, odourless		
Test Method :	Test for Measuring the Inhibition of Growth using the Freshwater Macrophyte, <i>Lemna minor</i> . Method Development and Application Section, Environmental Technology Centre, Environment Canada. Ottawa, Ontario. Report EPS 1/RM/37, 2nd ed. (January 2007).		

TEST RESULTS

Effect	Value	95% Confidence Limits	Statistical Method
IC25 (Weight)	>97.0%	-	-
IC25 (Frond Production)	>97.0%	-	-

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

POTASSIUM CHLORIDE REFERENCE TOXICANT DATA

Date Tested :	2018-09-12	Statistical Method :	Non-Linear Regression (CETIS) ^a
Test Duration :	7 days	Historical Geometric Mean IC25 :	2.11 g/L
IC25 (Frond Production) :	2.45 g/L	Warning Limits ($\pm$ 2SD) :	1.57 - 2.85 g/L
95% Confidence Limits :	1.99 - 2.90 g/L	Growth Medium :	Modified APHA
		Analyst(s) :	MDS

The reference toxicant test was performed under the same experimental conditions as those used with the test sample.

TEST CONDITIONS

Test Organism :	<i>Lemna minor</i> L., Strain 7730	Test Type :	Static (no sub-samples required)
Organism Batch :	Lm18-08	Control/Dilution Medium :	Modified APHA
Culture Origin :	UTCC 492	Medium Preparation Water :	Distilled Water
Test Organism Source :	Axenic in-house culture	Source of Water :	Morning Mist
Culture Medium :	Modified Hoaglands E+	Medium Preparation Chemicals :	Modified APHA stocks A, B, C (10 mL/L)
Age (on Test Day 0) :	9 days	Nutrient Spiking of Sample :	Modified APHA stocks A, B, C (10 mL/L)
Health Criteria (in APHA) :	16.16-fold frond increase in 7 days	Replicates per Concentration :	4
Organism Acclimation :	19:50 h in APHA medium	Test Volume per Replicate :	100 mL
Inoculum (Test Day 0) :	2 plants (3 fronds per plant)	Test Vessel :	250 mL glass Erlenmeyer flask
Sample Filtration :	1 μ m (Whatman GF/C)	Depth of Test Solution :	4.0 cm
Sample Pre-aeration :	20 min. at $\leq$ 100 bubbles/min.	Photoperiod/Light Intensity :	Continuous, 4290 - 5440 lux
pH Adjustment :	None	Test Method Deviation(s) :	None
Hardness Adjustment :	None		

COMMENTS

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



TOXICITY TEST REPORT

Lemna minor

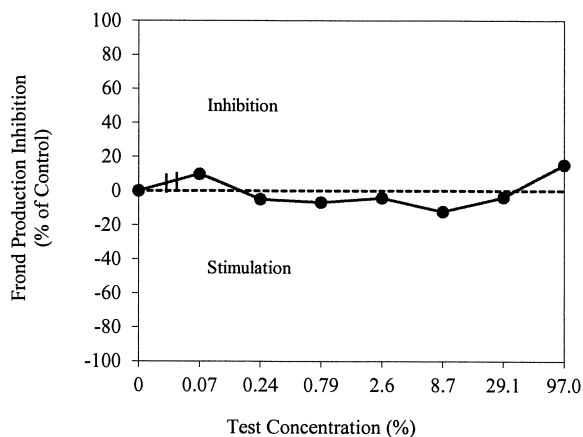
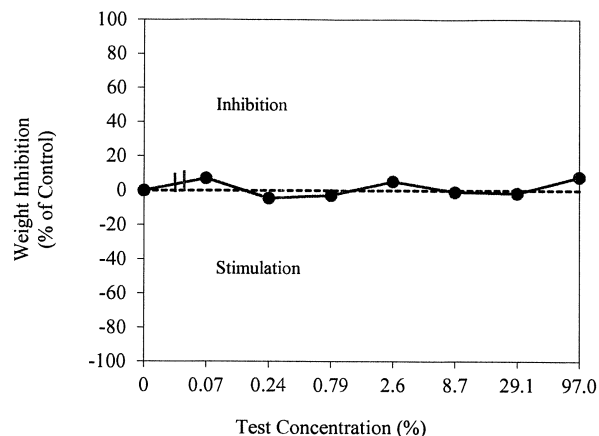
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Page 2 of 4

Work Order : 237106

Sample Number : 56153

Lemna minor Growth Inhibition



TEST MONITORING

Initiation Date : 2018-09-06

Initiation Time : 13:15

Initiated By : SEW

Termination Date : 2018-09-13

Termination Time : 13:10

Terminated By : MDS

Temperature Monitoring

Test Day	Date	Temperature (°C)
0 (unmodified sample)	2018-09-06	25.0
0	2018-09-06	25.0
1	2018-09-07	24.0
2	2018-09-08	24.0
3	2018-09-09	24.0
4	2018-09-10	24.0
5	2018-09-11	24.0
6	2018-09-12	24.0
7	2018-09-13	24.0

pH Monitoring

Concentration (%)	Day 0	Day 7
100 (unmodified sample)	6.8	—
Control	8.3	8.4
0.07	8.2	8.4
0.24	—	—
0.79	—	—
2.6	8.3	8.4
8.7	—	—
29.1	—	—
97.0	7.8	9.2

"—" = not required

REFERENCES

^a CETIS™, © 2000-2018. V.1.9.4.7. Comprehensive Environmental Toxicity Information System. Tidepool Scientific Software, LLC, McKinleyville, CA 95519 [Program on disk and printed User's Guide].

Date :

2018-10-16

yyyy-mm-dd

Approved By:


Project Manager

Work Order : 237106

Sample Number : 56153

***Lemna minor* Frond Increase**

Test Concentration (%)	Replicate	Frond Count Day 0*	Frond Count Day 7	Frond Increase	Mean Frond Increase	Standard Deviation	CV (%)	Frond/Root Appearance (Day 7)
Control	A	6	69	63	66.25	8.06	12.2	Fronds healthy, appearance normal in all replicates.
	B	6	83	77				
	C	6	73	67				
	D	6	64	58				
0.07	A	6	77	71	59.75	9.00	15.1	Fronds healthy, appearance normal in all replicates.
	B	6	58	52				
	C	6	69	63				
	D	6	59	53				
0.24	A	6	65	59	69.50	8.23	11.8	Fronds healthy, appearance normal in all replicates.
	B	6	75	69				
	C	6	77	71				
	D	6	85	79				
0.79	A	6	87	81	70.75	10.01	14.2	Fronds healthy, appearance normal in all replicates.
	B	6	79	73				
	C	6	78	72				
	D	6	63	57				
2.6	A	6	68	62	69.00	11.49	16.7	Fronds healthy, appearance normal in all replicates.
	B	6	68	62				
	C	6	92	86				
	D	6	72	66				
8.7	A	6	78	72	74.25	11.15	15.0	Fronds healthy, appearance normal in all replicates. Solutions very pale green in colour.
	B	6	82	76				
	C	6	67	61				
	D	6	94	88				
29.1	A	6	64	58	68.75	13.20	19.2	Fronds healthy, appearance normal in all replicates. Solutions light green in colour.
	B	6	94	88				
	C	6	70	64				
	D	6	71	65				
97.0	A	6	63	57	56.25	7.50	13.3	Fronds healthy, appearance normal in all replicates. Solutions green in colour with some settled solids.
	B	6	72	66				
	C	6	60	54				
	D	6	54	48				

NOTES: *No unusual appearance or treatment of culture prior to testing. Test inoculated with healthy plants.

•No significant stimulation ($\alpha=0.05$) of frond increase was detected by ANOVA-Dunnett Multiple Comparison Test (CETIS)^a at any test level compared to the control.

•A 12.0-fold increase in frond number was observed in the control over the testing period.

•No outlying data points were detected according to Grubbs Test (CETIS)^a.

Work Order : 237106

Sample Number : 56153

***Lemna minor* Frond Weight Data**

Test Concentration (%)	Replicate	Dry Weight of Fronds (mg)	Treatment Mean Dry Weight (mg)	Standard Deviation
Control	A	7.26	7.63	0.85
	B	8.85		
	C	7.52		
	D	6.89		
0.07	A	7.20	7.09	0.55
	B	6.54		
	C	7.80		
	D	6.82		
0.24	A	7.10	7.97	0.80
	B	7.80		
	C	7.94		
	D	9.04		
0.79	A	8.39	7.85	0.70
	B	8.02		
	C	8.16		
	D	6.83		
2.6	A	7.00	7.23	1.01
	B	6.22		
	C	8.63		
	D	7.07		
8.7	A	8.05	7.70	1.45
	B	6.79		
	C	6.36		
	D	9.59		
29.1	A	7.29	7.76	0.62
	B	8.56		
	C	7.25		
	D	7.94		
97.0	A	6.70	7.03	0.75
	B	8.10		
	C	6.96		
	D	6.37		

NOTES :

•No significant stimulation ($\alpha=0.05$) of frond weight was detected by ANOVA-Dunnett Multiple Comparison Test (CETIS)^a at any test level compared to the control.

•No outlying data points were detected according to Grubbs Test (CETIS)^a.

"-" = not available/not required

Test Data Reviewed By : VC

Date : 2018-10-04



AquaTox Testing & Consulting Inc.
B-11 Nicholas Beaver Rd.
Puslinch ON N0B 2J0
Tel: (519) 763-4412 Fax: (519) 763-4419

TOXICITY TEST REPORT

Pseudokirchneriella subcapitata
EPS 1/RM/25
1 of 2

Work Order : 237106
Sample Number : 56153

SAMPLE IDENTIFICATION

Company :	Agnico Eagle Mines Limited - Meliadine Project	Date Collected :	2018-09-03
Location :	Rankin Inlet NU	Time Collected :	07:00
Substance :	MEL-14	Date Received :	2018-09-06
Sampling Method :	Grab	Time Received :	09:45
Sampled By :	J. Brown	Date Tested :	2018-09-06
Temp. on arrival :	22.0°C		
Sample Description :	Clear, yellow, odourless		
Test Method :	Growth Inhibition Test Using a Freshwater Alga. Environment Canada, Conservation and Protection. Ottawa, Ontario. Report EPS 1/RM/25, 2nd ed. (March 2007), with deviation(s) as noted below.		

72-h TEST RESULTS

Effect	Value	95% Confidence Limits	Statistical Method
IC25 (Growth)	>90.91%	-	-

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

ZINC (AS ZINC SULPHATE) REFERENCE TOXICANT DATA

Date Tested :	2018-09-24	Statistical Method :	Nonlinear Regression* (CETIS) ^a
Organism Batch :	Ps18-09	Historical Mean IC25 :	10.4 µg/L
Test Duration :	72 hours	Warning Limits (± 2SD) :	4.8 - 22.3 µg/L
IC25 Growth :	10.3 µg/L	Analyst(s) :	MA
95% Confidence Limits :	8.6 - 11.9 µg/L		

The reference toxicity test was performed under the same experimental conditions as those used with the test sample.

TEST ORGANISM

Test Organism :	<i>Pseudokirchneriella subcapitata</i>	Source :	In-house culture
Culture Origin :	University of Waterloo, Waterloo ON	Cell Density at 0-h :	10409 cells/mL
Strain Number :	CPCC 37	Inoculum Prepared :	00:10 h prior to test initiation
Organism Batch :	Ps18-09	Age (at start of test) :	3 days (in exponential growth)

*Algal growth curve is determined at least twice per year as required by the test method cited above.

*No unusual appearance or treatment of culture prior to testing.

TEST CONDITIONS

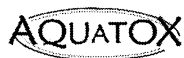
Test Type :	Static	Volume per Replicate :	220 µL
Test Duration :	72 hours	Control Replicates:	10
Mean Temperature (± SD):	24.0°C (± 0.0)	Test Replicates :	4
Sample Pre-aeration :	None	Concentrations Tested :	10 + Control
Sample Filtration :	0.45 µm preconditioned filter	Photoperiod :	Continuous light
Volume Filtered:	≥10 mL	Light Intensity :	4160-4350 lux
Control/Dilution Water :	Millipore Milli-Q (no chemicals added)	pH Adjustment :	None
Enrichment Medium :	Stock 2B: EDTA reduced to 25%	Hardness Adjustment :	None
Test Vessel :	U-shaped polystyrene microplate	Test Method Deviation(s) :	None

COMMENTS

Noted Deviation(s) : A reference toxicant test was not started within 14 days of the toxicity test, as required by the test method.

*All test validity criteria as specified in the test method cited above were satisfied.

*Box Cox weighting (CETIS)^a was applied.



TOXICITY TEST REPORT

Pseudokirchneriella subcapitata

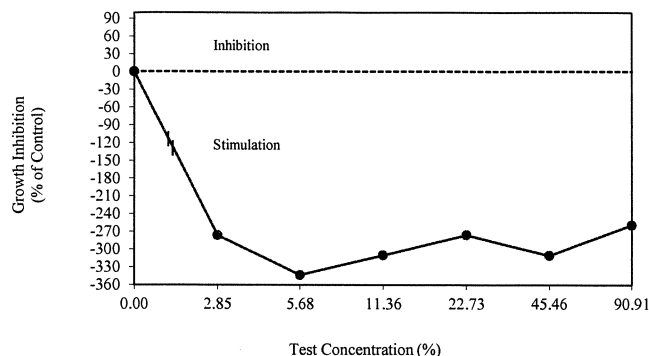
EPS 1/RM/25

2 of 2

Work Order : 237106

Sample Number : 56153

Pseudokirchneriella subcapitata Growth Inhibition



CELL ENUMERATION AT 72-HOURS

Initiated By : SEW
Completion/Enumeration Date : 2018-09-09
Enumerated By : SF
Enumeration Method : Manual (haemocytometer)

Sample pH (at 0 hours) : 6.8
Control pH (at 0 hours) : 7.0
Control pH (at 72 hours) : 7.0
Control Cell Increase Factor : 27.6 times growth

Concentration (%)	Cell Concentration (x 10000 cells/mL)								Cell Yield (x 10000 cells/mL)			
	1	2	3	4	7	8	9	10	Mean	Standard Deviation	CV (%)	Stimulation (% of control)**
Control	30.5	22.0	23.5	37.5	27.5	24.5	32.5	32.0	27.71	5.30	19.15	—
0.18	—	—	—	—	—	—	—	—	—	—	—	—
0.35	—	—	—	—	—	—	—	—	—	—	—	—
0.71	—	—	—	—	—	—	—	—	—	—	—	—
1.42	—	—	—	—	—	—	—	—	—	—	—	—
2.85	107.0	110.0	99.0	—	—	—	—	—	104.29	5.69	5.45	276.38
5.68	128.0	123.5	120.5	—	—	—	—	—	122.96	3.77	3.07	343.75
11.36	117.0	118.0	109.0	—	—	—	—	—	113.63	4.93	4.34	310.07
22.73	126.5	111.0	78.0 ¹	—	—	—	—	—	104.13	24.77	23.79	275.78
45.46	132.0	107.0	105.5	—	—	—	—	—	113.79	14.89	13.08	310.67
90.91	110.0	94.5	97.0	—	—	—	—	—	99.46	8.32	8.37	258.94

NOTES : **Statistically significant stimulation, according to ANOVA/Dunnett Multiple Comparison Test (CETIS)^a, ($\alpha=0.05$).

•Control replicates 5 and 6 used for pH measurement.

•The Mann-Kendall test shows that there is no inhibitory gradient ($\alpha=0.05$).

•¹Outlier according to Grubbs Test (CETIS)^a. Outlying data points were not excluded from statistical analysis, since they could not be attributed to error.

"—" = not enumerated/not required

Data Reviewed By : VC

Date : 2018-10-04

REFERENCES

^a CETIS™, © 2000-2018. V.1.9.4.7. Comprehensive Environmental Toxicity Information System. Tidepool Scientific Software, LLC, McKinleyville, CA 95519 [Program on disk and printed User's Guide].

Date :

2018-10-16

yyyy-mm-dd

Approved By :

[Signature]
Project Manager

CHAIN OF CUSTODY RECORD

AQUATOX

AquaTox Work Order No.

237106

Shipping Address: AquaTox Testing & Consulting Inc.
11B Nicholas Beaver Road, RR #3
Guelph, Ontario Canada N1H 6H9

Voice: (519) 763-4412 **Fax:** (519) 763-4419

P.O. Number:	580278
Field Sampler Name (print):	Jennifer Brown
Signature:	
Affiliation:	Agnico Eagle Mines Ltd. - Meliadine Division
Sample Storage (prior to shipping):	Shipped immediately after sampling
Custody Relinquished by:	Jennifer Brown
Date/Time Shipped:	2018-09-03 - 08:00

Client:	Agnico Eagle Mines Limited Meliadine Project Rankin Inlet, Nunavut, Canada X0C 0G0
Phone:	(819) 759-3555
Fax:	
Contact:	Jennifer Brown

Sample Identification				Analyses Requested										Sample Method and Volume			
Date Collected (yyyy-mm-dd)	Time Collected (e.g. 14:30, 24 hr clock)	Sample Name	AquaTox 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	Pseudokirchnerella subcapitata Growth	RISS Data Entry	Other (please specify below)	Grab	Composite	# of Containers and Volume (eg. 2 x 1L, 3 x 10L, etc.)
2018-09-03	07:00	EWTP MEL-14b (Post-treatment)	56153	22.0					✓	✓	✓	✓			✓		3 x 20L

For Lab Use Only	
Received By:	EJS/MJT
Date:	2018-09-06
Time:	09:45
Storage Location:	
Storage Temp. (°C):	

Please list any special requests or instructions:
TOXICOLOGY analysis required
Phone number: 819-759-3555 ext 3996