

# Follow Up Report: #20-405 October 20<sup>th</sup>, 2020 – 3000L Treated Sewage Water

The following information refers to a spill reported by Agnico Eagle Mines Ltd. October 20<sup>th</sup>, 2020, and is being provided in accordance with:

- the Nunavut Water Board License 2BB-MEL1424 Water License, part H, item 4c
- Subsection 38(7) of the Fisheries Act

#### **Description of Incident**

At 11:00 am Environment personnel responded to a call regarding release of treated water from the sewage treatment plant retention tank at the exploration camp. The operator of the water truck failed to close the outlet valve on the truck after his previous discharge to CP1. Upon returning to the retention tank to retrieve another load, pumping was initiated, and the operator sat in the truck to wait for it to fill. Five minutes later, the operator noticed the issue and shut off the pump. When the Environment Department arrived, they observed that a portion of the water had made its way into Meliadine Lake. A sample of this water was taken on 2020-10-19, the results (provided in Appendix A) were below the effluent quality limits established in Part D, Section 11 of the 2BB-MEL1424 license. The coordinates of the spill were 63° 01'43"N, 92°10'10"W (Figure 1).



Figure 1: Location of Treated Water Spill

#### Spill Response & Cleanup

The water from the sewage treatment plant is sampled on a weekly basis (sample location MEL-7). The results from previous weeks (water chemistry and fecal coliforms) had all been below the effluent quality limits established in Part D, Section 11 of the 2BB-MEL1424 license. As this water met discharge requirements, excavating the tundra or building berms to recover a portion of the water would have caused unnecessary damage. The water was permitted to disperse naturally.



Figure 2: Treated Water Migrating Downhill

#### **Cause of Incident and Corrective Measures**

The root cause of this spill was human error, the drain valve on the water truck should have been closed before the truck was filled. The spill volume was increased due to the operator returning to the cab of the truck to warm up while the truck was filling.

To ensure this event is not repeated, multiple corrective actions are being put into place. A new procedure will be written for the task and reviewed with the workers. A heated shelter is to be installed where the operators can stand and monitor the truck loading. Finally, the pad will be extended to allow better access for trucks. The pad extension will be graded at an angle to direct any water in the area towards exploration camp and away from Meliadine lake.



Bethany Hodgins | Environment Technician | Direct 819.759.3555 x4603202 | Agnico Eagle Mines Limited - Meliadine Mine, Suite 879 - Rankin Inlet, Nunavut, Canada XOC 0G0

agnicoeagle.com 
Sent from Meliadine

# Appendix A – Water Sample Results



900, 5th Avenue Val-d'Or (Quebec) J9P 1B9 Phone: 819 874-0350 Toll Free: 1 877 326-8690 www.h2lab.ca

Certificate #: VD06635 Client #: 1353

Client Reference # : MEL-7

#### **CERTIFICATE OF ANALYSIS**

Agnico Eagle Meliadine

Meliadine Rankin Inlet Nunavut X0C 0A0 Received on: 2020/10/20

Sampled on: 2020/10/19 07:00

Matrix: Waste Water

Sampling site code: MEL-7

Customer information Rush 2 JRS

Proyect #: Meliadine Project

Order #: OL-664692

Samples: MEL-7

Sampler: RS/AL

The sample's appreciation and conformity towards established norms, if applicable, is based and limited to analyzed parameters. This report can't be reproduced, unless in whole, without prior written autorization from the laboratory. The results are related only to samples submitted for testing.



Green Jatrana Jan

Signataire, Rouyn-Noranda



900, 5th Avenue Val-d'Or (Quebec) J9P 1B9 Phone: 819 874-0350 Toll Free: 1 877 326-8690 www.h2lab.ca

Certificate #: VD06635 Client #: 1353

Client Reference # : MEL-7

# **CERTIFICATE OF ANALYSIS**

#### **RESULTS**

Laboratory ID		102859
Client ID		MEL-7
Matrix		Waste Water
Sampling site		MEL-7
Sampled on	unit	2020/10/19 07:00
B.H.A.A. <b>a 2</b>	UFC/m L	1 364
Fecal coliforms a 2	UFC/1 00 mL	2
Total coliforms a 2	UFC/1 00 mL	290
Atypical colonies 2	UFC/1 00 mL	270
E.coli a 2	UFC/1 00 mL	< 2

Certificate emission date : 2020-10-26

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900, 5th Avenue Val-d'Or (Quebec) J9P 1B9 Phone: 819 874-0350 Toll Free: 1 877 326-8690

www.h2lab.ca

Certificate #: VD06635 Client #: 1353

Client Reference # : MEL-7

#### **CERTIFICATE OF ANALYSIS**

# **Quality control**

					andard		Dupl	licate	Analyzed on	
Parameter (method)	*LDR	Unit	Blank	Name	Value	Expected	Interval	#1	#2	
B.H.A.A. (M-BHAA-1,0) <i>a</i>	0	UFC/mL						1	-	2020-10-21
Fecal coliforms (M-COLI-1.0) a	0	UFC/100 mL								2020-10-21
E.coli (M-COLI-1.0) a	0	UFC/100 mL						-1		2020-10-21
Total coliforms (M-COLI-2.0) a	0	UFC/100 mL						1		2020-10-21
Atypical colonies (M-COLI-2.0) 2	0	UFC/100 mL								2020-10-21

#### Legend:

a: Accredited parameter UFC: Colony forming unit

2 : analysis made by H2Lab Laboratory at Rouyn-Noranda \*LDR : Limit of detection reported

The sample's appreciation and conformity towards established norms, if applicable, is based and limited to anaalyzed parameters. This report can't be reproduced, unless in whole, without prior written autorization from the laboratory. The results are related only to samples submitted for testing.

#### **END OF CERTIFICATE**

Certificate emission date: 2020-10-26

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Your P.O. #: OL-891917 Site Location: MELIADINE

Your C.O.C. #: na

**Attention: Reporting** 

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

Report Date: 2020/10/29

Report #: R6390439 Version: 1 - Final

#### **CERTIFICATE OF ANALYSIS**

BV LABS JOB #: COR7767 Received: 2020/10/21, 13:34 Sample Matrix: Waste Water # Samples Received: 12

·		Date	Date		
Analyses	Quantity	Extracted	Analyzed	<b>Laboratory Method</b>	<b>Analytical Method</b>
Alkalinity (1)	12	N/A	2020/10/24	CAM SOP-00448	SM 23 2320 B m
Biochemical Oxygen Demand (BOD) (1)	9	2020/10/23	2020/10/28	CAM SOP-00427	SM 23 5210B m
Chemical Oxygen Demand (1)	9	N/A	2020/10/26	CAM SOP-00416	SM 23 5220 D m
Conductivity (1)	12	N/A	2020/10/24	CAM SOP-00414	SM 23 2510 m
Total Ammonia-N (1)	8	N/A	2020/10/28	CAM SOP-00441	USGS I-2522-90 m
Total Ammonia-N (1)	1	N/A	2020/10/29	CAM SOP-00441	USGS I-2522-90 m
Nitrate (NO3) and Nitrite (NO2) in Water (1, 2)	8	N/A	2020/10/27	CAM SOP-00440	SM 23 4500-NO3I/NO2B
Nitrate (NO3) and Nitrite (NO2) in Water (1, 2)	1	N/A	2020/10/28	CAM SOP-00440	SM 23 4500-NO3I/NO2B
Total Oil and Grease (1)	3	2020/10/26	2020/10/26	CAM SOP-00326	EPA1664B m,SM5520B m
pH (1)	12	2020/10/23	2020/10/24	CAM SOP-00413	SM 4500H+ B m
Total Kjeldahl Nitrogen in Water (1)	7	2020/10/26	2020/10/27	CAM SOP-00938	OMOE E3516 m
Total Kjeldahl Nitrogen in Water (1)	2	2020/10/26	2020/10/28	CAM SOP-00938	OMOE E3516 m
Total Phosphorus (Colourimetric) (1)	9	2020/10/26	2020/10/26	CAM SOP-00407	SM 23 4500 P B H m
Total Suspended Solids (1)	5	2020/10/24	2020/10/26	CAM SOP-00428	SM 23 2540D m
Low Level Total Suspended Solids (1)	7	2020/10/23	2020/10/26	CAM SOP-00428	SM 23 2540D m
Volatile Suspended Solids (1)	5	2020/10/24	2020/10/26	CAM SOP-00428	SM 23 2540 m
Low Level Volatile Suspended Solids (1)	7	2020/10/23	2020/10/26	CAM SOP-00428	SM 23 2540

#### **Remarks:**

Bureau Veritas Laboratories are accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by BV Labs are based upon recognized Provincial, Federal or US method compendia such as CCME, MELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in BV Labs profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and BV Labs 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.

BV Labs liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. BV Labs 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 BV Labs, unless otherwise agreed in writing. BV Labs is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.



Your P.O. #: OL-891917 Site Location: MELIADINE

Your C.O.C. #: na

**Attention: Reporting** 

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

Report Date: 2020/10/29

Report #: R6390439 Version: 1 - Final

#### **CERTIFICATE OF ANALYSIS**

#### BV LABS JOB #: COR7767 Received: 2020/10/21, 13:34

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 BV Labs, 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) This test was performed by Bureau Veritas Laboratories Mississauga
- (2) Values for calculated parameters may not appear to add up due to rounding of raw data and significant figures.

#### **Encryption Key**

Please direct all questions regarding this Certificate of Analysis to your Project Manager. Katherine Szozda, Project Manager Email: Katherine.Szozda@bvlabs.com Phone# (613)274-0573 Ext:7063633

BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation please refer to the Validation Signature Page.



Agnico-Eagle

Site Location: MELIADINE Your P.O. #: OL-891917 Sampler Initials: RS

#### **RESULTS OF ANALYSES OF WASTE WATER**

BV Labs ID		NYM342			NYM342		
Sampling Date		2020/10/19 07:00			2020/10/19 07:00		
COC Number		na			na		
	UNITS	H20I-STP-FINAL	RDL	QC Batch	H20I-STP-FINAL Lab-Dup	RDL	QC Batch
Inorganics							
Total Ammonia-N	mg/L	0.21	0.050	7020619			
Total BOD	mg/L	<2	2	7016359	<2	2	7016359
Total Chemical Oxygen Demand (COD)	mg/L	24	4.0	7020198	22	4.0	7020198
Conductivity	umho/cm	870	1.0	7017287			
Total Kjeldahl Nitrogen (TKN)	mg/L	<2.0 (1)	2.0	7020226			
рН	рН	7.15		7017291			
Total Phosphorus	mg/L	6.4	0.020	7020043			
Total Suspended Solids	mg/L	<1	1	7016824			
Volatile Suspended Solids	mg/L	<1	1	7016831			
Alkalinity (Total as CaCO3)	mg/L	35	1.0	7017281			
Nitrite (N)	mg/L	0.022	0.010	7018596			
Nitrate (N)	mg/L	47.7	0.50	7018596			
Nitrate + Nitrite (N)	mg/L	47.7	0.50	7018596			

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

Lab-Dup = Laboratory Initiated Duplicate

(1) Due to a high concentration of NOX, the sample required dilution. Detection limits were adjusted accordingly.



Agnico-Eagle

Site Location: MELIADINE Your P.O. #: OL-891917 Sampler Initials: RS

# **RESULTS OF ANALYSES OF WASTE WATER**

	NYM343			NYM344		
	2020/10/19 07:00			2020/10/19 07:00		
	na			na		
UNITS	H20I-STP-FINAL DUP	RDL	QC Batch	H20I-STP-FINAL FB	RDL	QC Batch
-					*	
mg/L	0.096	0.050	7020619	0.14	0.050	7026794
mg/L	<2	2	7016359	<2	2	7016359
mg/L	27	4.0	7020198	<4.0	4.0	7020198
umho/cm	870	1.0	7017287	1.3	1.0	7017287
mg/L	2.4	2.0	7020226	<0.10	0.10	7020226
рН	7.23		7017291	5.86		7017291
mg/L	6.4	0.020	7020043	0.044	0.020	7020043
mg/L	<1	1	7016824	<1	1	7016824
mg/L	<1	1	7016831	<1	1	7016831
mg/L	34	1.0	7017281	<1.0	1.0	7017281
mg/L	0.023	0.010	7018596	<0.010	0.010	7018596
mg/L	47.8	0.50	7018596	<0.10	0.10	7018596
mg/L	47.8	0.50	7018596	<0.10	0.10	7018596
	mg/L mg/L umho/cm mg/L pH mg/L mg/L mg/L mg/L mg/L mg/L mg/L	07:00   na	07:00           na         na           UNITS         H20I-STP-FINAL DUP         RDL           mg/L         0.096         0.050           mg/L         <2	ma         O7:00         Company           UNITS         H20I-STP-FINAL DUP         RDL         QC Batch           mg/L         0.096         0.050         7020619           mg/L         <2	O7:00         O7:00           na         na           UNITS         H20I-STP-FINAL DUP         RDL         QC Batch         H20I-STP-FINAL FB           mg/L         0.096         0.050         7020619         0.14           mg/L         <2	O7:00         O7:00           na         na           UNITS         H20I-STP-FINAL DUP         RDL         QC Batch         H20I-STP-FINAL FB         RDL           mg/L         0.096         0.050         7020619         0.14         0.050           mg/L         2         2 7016359         <2 2

QC Batch = Quality Control Batch



Agnico-Eagle

Site Location: MELIADINE Your P.O. #: OL-891917 Sampler Initials: RS

# **RESULTS OF ANALYSES OF WASTE WATER**

BV Labs ID		NYM345	NYM346			NYM347		
Sampling Date		2020/10/19 06:25	2020/10/19 06:25			2020/10/19 06:25		
COC Number		na	na			na		
	UNITS	H20I-STP-IN	H20I-STP-IN DUP	RDL	QC Batch	H20I-STP-IN FB	RDL	QC Batch
Inorganics								
Total Ammonia-N	mg/L	51	51	0.25	7020619	<0.050	0.050	7020619
Total BOD	mg/L	520	490	2	7016359	<2	2	7016359
Total Chemical Oxygen Demand (COD)	mg/L	540	620	32	7020198	<4.0	4.0	7020198
Conductivity	umho/cm	930	920	1.0	7017287	1.3	1.0	7017287
Total Kjeldahl Nitrogen (TKN)	mg/L	63	65	2.0	7020226	<0.10	0.10	7020226
рН	рН	7.43	7.44		7017291	5.82		7017291
Total Phosphorus	mg/L	9.1	9.3	0.040	7020043	0.042	0.020	7020043
Total Suspended Solids	mg/L	420	300	25	7018887	<1	1	7016824
Volatile Suspended Solids	mg/L	300	220	50	7018900	<1	1	7016831
Alkalinity (Total as CaCO3)	mg/L	260	260	1.0	7017281	1.2	1.0	7017281
Nitrite (N)	mg/L	0.016	0.011	0.010	7018596	<0.010	0.010	7018596
Nitrate (N)	mg/L	<0.10	<0.10	0.10	7018596	<0.10	0.10	7018596
Nitrate + Nitrite (N)	mg/L	<0.10	<0.10	0.10	7018596	<0.10	0.10	7018596
RDL = Reportable Detection Limit								

QC Batch = Quality Control Batch



Site Location: MELIADINE Your P.O. #: OL-891917 Sampler Initials: RS

#### **RESULTS OF ANALYSES OF WASTE WATER**

BV Labs ID		NYM347			NYM348	NYM349					
Sampling Date		2020/10/19			2020/10/19	2020/10/19					
		06:25			07:10	07:10					
COC Number		na			na	na					
	UNITS	H20I-STP-IN FB	RDL	QC Batch	STP LIQUOR	STP LIQUOR MIXED	RDL	QC Batch			
		Lab-Dup			MIXED	DUP					
Inorganics											
Conductivity	umho/cm				920	920	1.0	7017287			
рН	рН				7.52	7.53		7017291			
Total Suspended Solids	mg/L				13000	12000	100	7018887			
Volatile Suspended Solids	mg/L				8000	7900	100	7018900			
Alkalinity (Total as CaCO3)	mg/L				240	240	1.0	7017281			
Nitrite (N)	mg/L	<0.010	0.010	7018596							
Nitrate (N)	mg/L	<0.10	0.10	7018596							
Nitrate + Nitrite (N)	mg/L	<0.10	0.10	7018596		_					

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

	NYM350			NYM350		
	2020/10/19 07:10			2020/10/19 07:10		
	na			na		
UNITS	STP LIQUOR MIXED FB	RDL	QC Batch	STP LIQUOR MIXED FB Lab-Dup	RDL	QC Batch
umho/cm	1.2	1.0	7017287			
рН	5.82		7017291			
mg/L	<10	10	7018887	<10	10	7018887
mg/L	<10	10	7018900	<10	10	7018900
,			7017281			
	umho/cm pH mg/L mg/L	2020/10/19   07:10   na	2020/10/19   07:10   na	2020/10/19   07:10	2020/10/19   2020/10/19   07:10     07:10	2020/10/19   2020/10/19   07:10     07:10

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



Agnico-Eagle

Site Location: MELIADINE Your P.O. #: OL-891917 Sampler Initials: RS

#### **RESULTS OF ANALYSES OF WASTE WATER**

BV Labs ID		NYM351		NYM352			NYM352		
Sampling Date		2020/10/19		2020/10/19			2020/10/19		
		06:58		06:58			06:58		
COC Number		na		na			na		
							MEL-7		
	UNITS	MEL-7	QC Batch	MEL-7 DUP	RDL	QC Batch	DUP	RDL	QC Batch
							Lab-Dup		
Inorganics									
Total Ammonia-N	mg/L	12	7020619	12	0.050	7020619			
Total BOD	mg/L	6	7016359	5	2	7016359			
Total Chemical Oxygen Demand (COD)	mg/L	66	7020198	67	4.0	7020198			
Conductivity	umho/cm	510	7017287	510	1.0	7017287			
Total Kjeldahl Nitrogen (TKN)	mg/L	13	7020226	13	2.0	7020226			
рН	рН	7.48	7017291	7.50		7017291			
Total Phosphorus	mg/L	7.9	7020043	8.1	0.020	7020043			
Total Suspended Solids	mg/L	6	7016824	6	1	7016824	6	1	7016824
Volatile Suspended Solids	mg/L	6	7016831	6	1	7016831	6	1	7016831
Alkalinity (Total as CaCO3)	mg/L	66	7017281	66	1.0	7017281			
Nitrite (N)	mg/L	0.469	7018596	0.297	0.010	7018595			
Nitrate (N)	mg/L	10.7	7018596	11.0	0.10	7018595			
Nitrate + Nitrite (N)	mg/L	11.1	7018596	11.3	0.10	7018595			
Petroleum Hydrocarbons	•							•	,
Total Oil & Grease	mg/L	0.80	7019659	0.60	0.50	7019659			

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

Lab-Dup = Laboratory Initiated Duplicate



Site Location: MELIADINE Your P.O. #: OL-891917 Sampler Initials: RS

# **RESULTS OF ANALYSES OF WASTE WATER**

BV Labs ID		NYM353		
Sampling Date		2020/10/19 06:58		
COC Number		na		
	UNITS	MEL-7 FB	RDL	QC Batch
Inorganics				
Total Ammonia-N	mg/L	<0.050	0.050	7020619
Total BOD	mg/L	<2	2	7016359
Total Chemical Oxygen Demand (COD)	mg/L	<4.0	4.0	7020198
Conductivity	umho/cm	1.2	1.0	7017287
Total Kjeldahl Nitrogen (TKN)	mg/L	0.38	0.10	7020226
рН	рН	5.88		7017291
Total Phosphorus	mg/L	0.054	0.020	7020043
Total Suspended Solids	mg/L	<1	1	7016824
Volatile Suspended Solids	mg/L	<1	1	7016831
Alkalinity (Total as CaCO3)	mg/L	<1.0	1.0	7017281
Nitrite (N)	mg/L	<0.010	0.010	7018596
Nitrate (N)	mg/L	<0.10	0.10	7018596
Nitrate + Nitrite (N)	mg/L	<0.10	0.10	7018596
Petroleum Hydrocarbons				
Total Oil & Grease	mg/L	0.90	0.50	7019659
RDL = Reportable Detection Limit				
QC Batch = Quality Control Batch				



Site Location: MELIADINE Your P.O. #: OL-891917 Sampler Initials: RS

#### **TEST SUMMARY**

**BV Labs ID:** NYM342

Sample ID: H20I-STP-FINAL

Matrix: Waste Water

Collected: 2020/10/19

Shipped:

**Received:** 2020/10/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7017281	N/A	2020/10/24	Surinder Rai
Biochemical Oxygen Demand (BOD)	DO	7016359	2020/10/23	2020/10/28	Navjot Kaur Gill
Chemical Oxygen Demand	SPEC	7020198	N/A	2020/10/26	Nimarta Singh
Conductivity	AT	7017287	N/A	2020/10/24	Surinder Rai
Total Ammonia-N	LACH/NH4	7020619	N/A	2020/10/28	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7018596	N/A	2020/10/27	Chandra Nandlal
рН	AT	7017291	2020/10/23	2020/10/24	Surinder Rai
Total Kjeldahl Nitrogen in Water	SKAL	7020226	2020/10/26	2020/10/27	Louise Harding
Total Phosphorus (Colourimetric)	LACH/P	7020043	2020/10/26	2020/10/26	Shivani Shivani
Low Level Total Suspended Solids	BAL	7016824	2020/10/23	2020/10/26	Massarat Jan
Low Level Volatile Suspended Solids	BAL	7016831	2020/10/23	2020/10/26	Massarat Jan

BV Labs ID: NYM342 Dup Sample ID: H20I-STP-FINAL

Matrix: Waste Water

**Collected:** 2020/10/19 Shipped:

**Received:** 2020/10/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Biochemical Oxygen Demand (BOD)	DO	7016359	2020/10/23	2020/10/28	Navjot Kaur Gill
Chemical Oxygen Demand	SPEC	7020198	N/A	2020/10/26	Nimarta Singh

BV Labs ID: NYM343

Sample ID: H20I-STP-FINAL DUP

Matrix: Waste Water

Collected: 2020/10/19 Shipped:

**Received:** 2020/10/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7017281	N/A	2020/10/24	Surinder Rai
Biochemical Oxygen Demand (BOD)	DO	7016359	2020/10/23	2020/10/28	Navjot Kaur Gill
Chemical Oxygen Demand	SPEC	7020198	N/A	2020/10/26	Nimarta Singh
Conductivity	AT	7017287	N/A	2020/10/24	Surinder Rai
Total Ammonia-N	LACH/NH4	7020619	N/A	2020/10/28	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7018596	N/A	2020/10/27	Chandra Nandlal
рН	AT	7017291	2020/10/23	2020/10/24	Surinder Rai
Total Kjeldahl Nitrogen in Water	SKAL	7020226	2020/10/26	2020/10/27	Louise Harding
Total Phosphorus (Colourimetric)	LACH/P	7020043	2020/10/26	2020/10/26	Shivani Shivani
Low Level Total Suspended Solids	BAL	7016824	2020/10/23	2020/10/26	Massarat Jan
Low Level Volatile Suspended Solids	BAL	7016831	2020/10/23	2020/10/26	Massarat Jan

BV Labs ID: NYM344

Sample ID: H20I-STP-FINAL FB

Matrix: Waste Water

**Collected:** 2020/10/19 Shipped:

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7017281	N/A	2020/10/24	Surinder Rai
Biochemical Oxygen Demand (BOD)	DO	7016359	2020/10/23	2020/10/28	Navjot Kaur Gill
Chemical Oxygen Demand	SPEC	7020198	N/A	2020/10/26	Nimarta Singh



Agnico-Eagle

Site Location: MELIADINE Your P.O. #: OL-891917 Sampler Initials: RS

#### **TEST SUMMARY**

BV Labs ID: NYM344

Sample ID: H20I-STP-FINAL FB Matrix: Waste Water

**Collected:** 2020/10/19

Shipped:

**Received:** 2020/10/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Conductivity	AT	7017287	N/A	2020/10/24	Surinder Rai
Total Ammonia-N	LACH/NH4	7026794	N/A	2020/10/29	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7018596	N/A	2020/10/27	Chandra Nandlal
рН	AT	7017291	2020/10/23	2020/10/24	Surinder Rai
Total Kjeldahl Nitrogen in Water	SKAL	7020226	2020/10/26	2020/10/28	Louise Harding
Total Phosphorus (Colourimetric)	LACH/P	7020043	2020/10/26	2020/10/26	Shivani Shivani
Low Level Total Suspended Solids	BAL	7016824	2020/10/23	2020/10/26	Massarat Jan
Low Level Volatile Suspended Solids	BAL	7016831	2020/10/23	2020/10/26	Massarat Jan

**BV Labs ID:** NYM345 Sample ID: H20I-STP-IN Matrix: Waste Water Collected: 2020/10/19

Shipped:

**Received:** 2020/10/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7017281	N/A	2020/10/24	Surinder Rai
Biochemical Oxygen Demand (BOD)	DO	7016359	2020/10/23	2020/10/28	Navjot Kaur Gill
Chemical Oxygen Demand	SPEC	7020198	N/A	2020/10/26	Nimarta Singh
Conductivity	AT	7017287	N/A	2020/10/24	Surinder Rai
Total Ammonia-N	LACH/NH4	7020619	N/A	2020/10/28	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7018596	N/A	2020/10/27	Chandra Nandlal
рН	AT	7017291	2020/10/23	2020/10/24	Surinder Rai
Total Kjeldahl Nitrogen in Water	SKAL	7020226	2020/10/26	2020/10/27	Louise Harding
Total Phosphorus (Colourimetric)	LACH/P	7020043	2020/10/26	2020/10/26	Shivani Shivani
Total Suspended Solids	BAL	7018887	2020/10/24	2020/10/26	Margesh Majmunda
Volatile Suspended Solids	BAL	7018900	2020/10/24	2020/10/26	Margesh Majmunda

BV Labs ID: NYM346

Sample ID: H20I-STP-IN DUP

Matrix: Waste Water

**Collected:** 2020/10/19 Shipped:

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7017281	N/A	2020/10/24	Surinder Rai
Biochemical Oxygen Demand (BOD)	DO	7016359	2020/10/23	2020/10/28	Navjot Kaur Gill
Chemical Oxygen Demand	SPEC	7020198	N/A	2020/10/26	Nimarta Singh
Conductivity	AT	7017287	N/A	2020/10/24	Surinder Rai
Total Ammonia-N	LACH/NH4	7020619	N/A	2020/10/28	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7018596	N/A	2020/10/27	Chandra Nandlal
рН	AT	7017291	2020/10/23	2020/10/24	Surinder Rai
Total Kjeldahl Nitrogen in Water	SKAL	7020226	2020/10/26	2020/10/27	Louise Harding
Total Phosphorus (Colourimetric)	LACH/P	7020043	2020/10/26	2020/10/26	Shivani Shivani
Total Suspended Solids	BAL	7018887	2020/10/24	2020/10/26	Margesh Majmunda
Volatile Suspended Solids	BAL	7018900	2020/10/24	2020/10/26	Margesh Majmunda



Site Location: MELIADINE Your P.O. #: OL-891917 Sampler Initials: RS

#### **TEST SUMMARY**

**BV Labs ID:** NYM347

Collected: 2020/10/19 Shipped:

Sample ID: H20I-STP-IN FB Matrix: Waste Water

**Received:** 2020/10/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7017281	N/A	2020/10/24	Surinder Rai
Biochemical Oxygen Demand (BOD)	DO	7016359	2020/10/23	2020/10/28	Navjot Kaur Gill
Chemical Oxygen Demand	SPEC	7020198	N/A	2020/10/26	Nimarta Singh
Conductivity	AT	7017287	N/A	2020/10/24	Surinder Rai
Total Ammonia-N	LACH/NH4	7020619	N/A	2020/10/28	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7018596	N/A	2020/10/27	Chandra Nandlal
рН	AT	7017291	2020/10/23	2020/10/24	Surinder Rai
Total Kjeldahl Nitrogen in Water	SKAL	7020226	2020/10/26	2020/10/28	Louise Harding
Total Phosphorus (Colourimetric)	LACH/P	7020043	2020/10/26	2020/10/26	Shivani Shivani
Low Level Total Suspended Solids	BAL	7016824	2020/10/23	2020/10/26	Massarat Jan
Low Level Volatile Suspended Solids	BAL	7016831	2020/10/23	2020/10/26	Massarat Jan

BV Labs ID: NYM347 Dup Sample ID: H20I-STP-IN FB Matrix: Waste Water

**Collected:** 2020/10/19

Shipped:

**Received:** 2020/10/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7018596	N/A	2020/10/27	Chandra Nandlal

**BV Labs ID:** NYM348

Sample ID: STP LIQUOR MIXED

Matrix: Waste Water

Collected:

2020/10/19

Shipped:

**Received:** 2020/10/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7017281	N/A	2020/10/24	Surinder Rai
Conductivity	AT	7017287	N/A	2020/10/24	Surinder Rai
рН	AT	7017291	2020/10/23	2020/10/24	Surinder Rai
Total Suspended Solids	BAL	7018887	2020/10/24	2020/10/26	Margesh Majmunda
Volatile Suspended Solids	BAL	7018900	2020/10/24	2020/10/26	Margesh Majmunda

BV Labs ID: NYM349

Matrix: Waste Water

Sample ID: STP LIQUOR MIXED DUP

**Collected:** 2020/10/19

Shipped:

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7017281	N/A	2020/10/24	Surinder Rai
Conductivity	AT	7017287	N/A	2020/10/24	Surinder Rai
рН	AT	7017291	2020/10/23	2020/10/24	Surinder Rai
Total Suspended Solids	BAL	7018887	2020/10/24	2020/10/26	Margesh Majmunda
Volatile Suspended Solids	BAL	7018900	2020/10/24	2020/10/26	Margesh Majmunda



Site Location: MELIADINE Your P.O. #: OL-891917 Sampler Initials: RS

#### **TEST SUMMARY**

BV Labs ID: NYM350

Sample ID: STP LIQUOR MIXED FB

Matrix: Waste Water

**Collected:** 2020/10/19

**Received:** 2020/10/21

Shipped:

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7017281	N/A	2020/10/24	Surinder Rai
Conductivity	AT	7017287	N/A	2020/10/24	Surinder Rai
рН	AT	7017291	2020/10/23	2020/10/24	Surinder Rai
Total Suspended Solids	BAL	7018887	2020/10/24	2020/10/26	Margesh Majmunda
Volatile Suspended Solids	BAL	7018900	2020/10/24	2020/10/26	Margesh Majmunda

BV Labs ID: NYM350 Dup

Sample ID: STP LIQUOR MIXED FB

Matrix: Waste Water

Collected: 2020/10/19 Shipped:

**Received:** 2020/10/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Total Suspended Solids	BAL	7018887	2020/10/24	2020/10/26	Margesh Majmunda
Volatile Suspended Solids	BAL	7018900	2020/10/24	2020/10/26	Margesh Majmunda

BV Labs ID: NYM351

Sample ID: MEL-7

Matrix: Waste Water

**Collected:** 2020/10/19

Shipped:

**Received:** 2020/10/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7017281	N/A	2020/10/24	Surinder Rai
Biochemical Oxygen Demand (BOD)	DO	7016359	2020/10/23	2020/10/28	Navjot Kaur Gill
Chemical Oxygen Demand	SPEC	7020198	N/A	2020/10/26	Nimarta Singh
Conductivity	AT	7017287	N/A	2020/10/24	Surinder Rai
Total Ammonia-N	LACH/NH4	7020619	N/A	2020/10/28	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7018596	N/A	2020/10/27	Chandra Nandlal
Total Oil and Grease	BAL	7019659	2020/10/26	2020/10/26	Francis Afonso
рН	AT	7017291	2020/10/23	2020/10/24	Surinder Rai
Total Kjeldahl Nitrogen in Water	SKAL	7020226	2020/10/26	2020/10/27	Louise Harding
Total Phosphorus (Colourimetric)	LACH/P	7020043	2020/10/26	2020/10/26	Shivani Shivani
Low Level Total Suspended Solids	BAL	7016824	2020/10/23	2020/10/26	Massarat Jan
Low Level Volatile Suspended Solids	BAL	7016831	2020/10/23	2020/10/26	Massarat Jan

BV Labs ID: NYM352 Sample ID: MEL-7 DUP

Matrix: Waste Water

**Collected:** 2020/10/19

Shipped:

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7017281	N/A	2020/10/24	Surinder Rai
Biochemical Oxygen Demand (BOD)	DO	7016359	2020/10/23	2020/10/28	Navjot Kaur Gill
Chemical Oxygen Demand	SPEC	7020198	N/A	2020/10/26	Nimarta Singh
Conductivity	AT	7017287	N/A	2020/10/24	Surinder Rai
Total Ammonia-N	LACH/NH4	7020619	N/A	2020/10/28	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7018595	N/A	2020/10/28	Chandra Nandlal
Total Oil and Grease	BAL	7019659	2020/10/26	2020/10/26	Francis Afonso
рН	AT	7017291	2020/10/23	2020/10/24	Surinder Rai



Site Location: MELIADINE Your P.O. #: OL-891917 Sampler Initials: RS

#### **TEST SUMMARY**

BV Labs ID: NYM352 Sample ID: MEL-7 DUP

Matrix: Waste Water

**Collected:** 2020/10/19

Shipped:

Received: 2020/10/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Total Kjeldahl Nitrogen in Water	SKAL	7020226	2020/10/26	2020/10/27	Louise Harding
Total Phosphorus (Colourimetric)	LACH/P	7020043	2020/10/26	2020/10/26	Shivani Shivani
Low Level Total Suspended Solids	BAL	7016824	2020/10/23	2020/10/26	Massarat Jan
Low Lovel Valatile Suspended Solids	DAI	7016021	2020/10/22	2020/10/26	Massarat lan

BV Labs ID: NYM352 Dup Sample ID: MEL-7 DUP

Matrix: Waste Water

**Collected:** 2020/10/19

Shipped:

**Received:** 2020/10/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Low Level Total Suspended Solids	BAL	7016824	2020/10/23	2020/10/26	Massarat Jan
Low Level Volatile Suspended Solids	BAL	7016831	2020/10/23	2020/10/26	Massarat Jan

BV Labs ID: NYM353 Sample ID: MEL-7 FB

Matrix: Waste Water

**Collected:** 2020/10/19

Shipped:

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7017281	N/A	2020/10/24	Surinder Rai
Biochemical Oxygen Demand (BOD)	DO	7016359	2020/10/23	2020/10/28	Navjot Kaur Gill
Chemical Oxygen Demand	SPEC	7020198	N/A	2020/10/26	Nimarta Singh
Conductivity	AT	7017287	N/A	2020/10/24	Surinder Rai
Total Ammonia-N	LACH/NH4	7020619	N/A	2020/10/28	Amanpreet Sappal
Nitrate (NO3) and Nitrite (NO2) in Water	LACH	7018596	N/A	2020/10/27	Chandra Nandlal
Total Oil and Grease	BAL	7019659	2020/10/26	2020/10/26	Francis Afonso
рН	AT	7017291	2020/10/23	2020/10/24	Surinder Rai
Total Kjeldahl Nitrogen in Water	SKAL	7020226	2020/10/26	2020/10/27	Louise Harding
Total Phosphorus (Colourimetric)	LACH/P	7020043	2020/10/26	2020/10/26	Shivani Shivani
Low Level Total Suspended Solids	BAL	7016824	2020/10/23	2020/10/26	Massarat Jan
Low Level Volatile Suspended Solids	BAL	7016831	2020/10/23	2020/10/26	Massarat Jan



Site Location: MELIADINE Your P.O. #: OL-891917 Sampler Initials: RS

#### **GENERAL COMMENTS**

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

Package 1 9.0°C

Sample NYM344 [H20I-STP-FINAL FB]: TKN < Ammonia: Both values fall within the method uncertainty for duplicates and are likely equivalent.

The Ammonia results were reported by analysing sample from TKN bottle.

Results relate only to the items tested.



**QUALITY ASSURANCE REPORT** 

Agnico-Eagle

Site Location: MELIADINE Your P.O. #: OL-891917 Sampler Initials: RS

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
7016359	Total BOD	2020/10/28					<2	mg/L	NC	30	98	80 - 120
7016824	Total Suspended Solids	2020/10/26					<1	mg/L	3.3	25	100	85 - 115
7016831	Volatile Suspended Solids	2020/10/26					<1	mg/L	3.5	25		
7017281	Alkalinity (Total as CaCO3)	2020/10/24			97	85 - 115	<1.0	mg/L	0.29	20		
7017287	Conductivity	2020/10/24			101	85 - 115	<1.0	umho/c m	1.7	25		
7017291	рН	2020/10/24			101	98 - 103			0.67	N/A		
7018595	Nitrate (N)	2020/10/28	112	80 - 120	97	80 - 120	<0.10	mg/L	NC	20		
7018595	Nitrite (N)	2020/10/28	116	80 - 120	106	80 - 120	<0.010	mg/L	NC	20		
7018596	Nitrate (N)	2020/10/27	96	80 - 120	98	80 - 120	<0.10	mg/L	NC	20		
7018596	Nitrite (N)	2020/10/27	104	80 - 120	105	80 - 120	<0.010	mg/L	NC	20		
7018887	Total Suspended Solids	2020/10/26					<10	mg/L	NC	25	97	85 - 115
7018900	Volatile Suspended Solids	2020/10/26					<10	mg/L	NC	25		
7019659	Total Oil & Grease	2020/10/26			99	85 - 115	<0.50	mg/L	1.5	25		
7020043	Total Phosphorus	2020/10/26	98	80 - 120	101	80 - 120	<0.020	mg/L	1.9	20	95	80 - 120
7020198	Total Chemical Oxygen Demand (COD)	2020/10/26	94	80 - 120	105	80 - 120	<4.0	mg/L	8.9	20		
7020226	Total Kjeldahl Nitrogen (TKN)	2020/10/27	113	80 - 120	102	80 - 120	<0.10	mg/L	3.0	20	102	80 - 120
7020619	Total Ammonia-N	2020/10/28	100	75 - 125	101	80 - 120	<0.050	mg/L	2.2	20		
7026794	Total Ammonia-N	2020/10/29	97	75 - 125	98	80 - 120	<0.050	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.

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).



Site Location: MELIADINE Your P.O. #: OL-891917 Sampler Initials: RS

#### **VALIDATION SIGNATURE PAGE**

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



BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation please refer to the Validation Signature Page.



applicable regulatory guidelines.

Agnico-Eagle

Site Location: MELIADINE Your P.O. #: OL-891917 Sampler Initials: RS

# Exceedance Summary Table – Metal Mining Effluent Reg Result Exceedances

Sample ID	BV Labs ID	Parameter	Criteria	Result	DL	UNITS
No Exceedances						
The exceedance summar	ry table is for information r	urnoses only and should no	t he considered a comprehe	ensive listing or	statement of c	onformance to