

Appendix 59

Meadowbank and Whale Tail Quality Assurance Quality Control (QAQC) Plan, Version 5



MEADOWBANK COMPLEX

Quality Assurance / Quality Control (QA/QC) Plan

In Accordance with Water License 2AM-MEA1526 and 2AM-WTP1826

Prepared by:
Agnico Eagle Mines Limited – Meadowbank Division

Version 5
March 2020

EXECUTIVE SUMMARY

This document presents the Meadowbank and Whale Tail Sites Quality Assurance / Quality Control (QA/QC) Plan, a requirement of the Meadowbank Type A Water License No. 2AM-MEA1526 Part I Item 16 and 2AM-WTP1826 Part I Item 19. This Plan also supports the following conditions of the Meadowbank Project Certificate No. 004 Condition 6 and 23 and the Project Certificate No.008 Condition 8, issued by the Nunavut Impact Review Board (NIRB). The plan has been developed in accordance with the current standard method and with the Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC) 1996 *'Guidelines for Use by Class "A" Licensees in Meeting SNP Requirements and for Submission of a QA/QC Plan'*

The objective of quality assurance and quality control (QA/QC) program is to assure that the chemical data collected are representative of the material being sampled, are of known quality, are properly documented, and are scientifically defensible. Data quality was assured throughout the collection and analysis of samples using specified standardized procedures, by the employment of accredited laboratories, and by staffing the program with experienced technicians.

IMPLEMENTATION SCHEDULE

As required by Water License 2AM-MEA1526 and 2AM-WTP1826 Part B, Item 11, the proposed implementation schedule for this Plan is outlined below.

This Plan will be immediately implemented (March 2020) subject to any modifications proposed by the Analyst or the NWB as a result of the review and approval process.

DISTRIBUTION LIST

Agnico Eagle Mines – Environment Superintendent
Agnico Eagle Mines – Environment General Supervisor
Agnico Eagle Mines – Environmental Coordinator
Agnico Eagle Mines – Environmental Technician

DOCUMENT CONTROL

Version	Date (YMD)	Section	Page	Revision
1	09/01/01			Comprehensive plan for Meadowbank Project
2	14/06/20			Comprehensive update of the plan for Meadowbank Project
3	15/09	2.2.4	4	Modify Preservation section
		2.2.5	5	Add trip blank and field blank
4	2019/03	All	All	Integration of Whale Tail Site
5	2020/03	All	All	Comprehensive review

Prepared By: Environmental Department



Approved by: _____

Robin Allard
Environment General Supervisor

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SECTION 1. INTRODUCTION

The objective of quality assurance and quality control (QA/QC) program is to assure that the chemical data collected are representative of the material being sampled, are of known quality, are properly documented, and are scientifically defensible. Data quality was assured throughout the collection and analysis of samples using specified standardized procedures, by the employment of accredited laboratories, and by staffing the program with experienced technicians.

This Plan documents the QA/QC program for the Meadowbank Project required by Type A Water License 2AM-MEA1526 and 2AM-WTP1826. It has been developed in accordance with the current standard method and with the Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC) 1996 '*Guidelines for Use by Class "A" Licensees in Meeting SNP Requirements and for Submission of a QA/QC Plan*', which includes the following definitions:

*Quality Assurance: the system of activities designed to better ensure that quality control is done effectively;
and*

Quality Control: the use of established procedures to achieve standards of measurement for the three principal components of quality – precision, accuracy and reliability.

This QA/QC Plan sets out standard procedures for sample and data collection with respect to surface water and groundwater sampling in support of monitoring programs outlined in the *Water Quality and Flow Monitoring Plan*, *Groundwater Monitoring Plan* and *Core Receiving Environment Monitoring Program (CREMP)*. The QA/QC plan will be reviewed as needed and updated as required by the Environment General Supervisor.

Section 2 includes procedures for field sample collection and handling, Section 3 outlines external and internal laboratory requirements and Section 4 sets out data verification procedures and regulatory reporting requirements.

SECTION 2. FIELD SAMPLING

Sampling stations, frequency and parameters are set out in Type A Water License 2AM-MEA1526 and 2AM-WTP1826 Schedule I – Conditions Applying to General and Aquatic Effects Monitoring¹ and Metal and Diamond Mining Effluent Regulations (MDMER). All sampling stations are associated with a GPS location and are landmarked. All stations are used repeatedly with the same qualified personnel and techniques to reduce operational error. The following sections outline the standard procedures for collection and handling of all surface water and groundwater samples.

2.1 SAMPLING EQUIPMENT

New laboratory supplied containers are used for sample collection. The bottles are either polyethylene plastic or glass, dependent on the specific parameter being analyzed.

Different handheld instruments are used to collect, as required, field parameters such as turbidity, temperature, pH, conductivity and dissolved oxygen. Instruments are calibrated before each sample event to ensure optimal performance and calibration results are recorded for future reference, if needed. Calibration and maintenance procedures are followed as set out by the supplier's operation manual. Equipment and bottles are selected so that they do not contaminate or alter the concentrations of parameters of interest according to laboratory standards.

For the groundwater sampling, CREMP sampling and to collect water samples at depth from the surrounding lake receiving and references environments, a pump with tubing is used. Low Density Poly Ethylene (LDPE) tubing (groundwater only), filter apparatus, manual pump and tubing, ash less filter paper are used to filter water for chlorophyll and inline filter for dissolved metal and/or for depth integrated sampling (i.e. chlorophyll a, phytoplankton or biological oxygen demand).

2.2 SAMPLING METHODS AND HANDLING

2.2.1 Sample Identification

All samples have a unique sample identification name based on a station identifier, date and time of collection. For duplicate, field blank and trip blank, the sample identification are still based on the station identifier, date and time but followed by DUP (duplicate), FB (field blank) or TB (trip blank).

All sample bottles are identified with the sample identification and date of collection. This information is marked on a label with a water resistant pen and affixed to the sample bottle. Additional information like time of sampling and parameters to analyses are included in the analysis request that will be sent to the accredited laboratory.

¹ Refer to Meadowbank Water Quality Flow and Monitoring Plan Section 2.3 and Whale Tail Water Quality and Flow Monitoring Plan Section 2.3 for more detailed description of station locations and both Meadowbank and Whale Tail Type A License Schedule I – Tables 1 and 2. The actual location of each sampling site will be marked with a highly visible stake with appropriate signage attached that will define the exact location of the collection point

2.2.2 Surface Water Sampling

The bottles are pre-labelled with the required sample identification before going on the field. Surface grab samples are collected by submerging the sample bottle to the stream/lake. For sumps, diversion ditches and piped discharge points, sample are collected below the surface of the water.

Samples bottles are provided by the accredited laboratory. Bottles are received pre-rinsed and pre-preserved or pre-rinsed with vials of preservative that are added in the field by qualified technicians or biologists. In the case that bottles are not pre-preserved, bottles are rinsed three times with sample water before filling. When sampling bottle contains preservative, the bottle is filled by using another clean bottle to avoid any release of preservative. Sometimes, a preservative is added after filling as directed by the laboratory; see Section 2.2.4 for more detail on preservation. The bottles are filled properly to allow mixing, preservative addition and thermal expansion.

Samples analyzed for dissolved metals are filtered through ash less filter paper at the time of collection when the delay before analysis will exceed the parameter holding time. However, when the delay before analyses is potentially within the holding time, the accredited laboratory will filter the sample before analyses. For chlorophyll A analysis, the sample is filtered through the ash less filter paper or send directly to the laboratory if within the holding time. If needed, samples can be frozen to prevent parameter degradation.

2.2.3 Groundwater Well Sampling

Well Preparation for Sampling

At the time of purging and sampling the heat trace cables are activated to warm the well pipe. Once the well has been thawed the well is purged.

Well Purging

Depending on the depth of the well, purging is performed by inserting a ¾" Low Density Polyethylene (LDPE) Waterra tube to approximately 20 meters below the water surface and to use a compressor to push the water out. The wells are purged to remove standing water inside the well and to induce the flow of fresh groundwater from the rock formation. The Waterra tube is lowered to 20 meters below the remaining water and a compressor is used to completely dry the well. The quality of the purged water is monitored for pH, conductivity, temperature, water clarity and color (visual observation) during this activity. Three (3) well volumes of water between the in-well packer and bottom of screened interval) are removed prior to sampling or until the monitored parameters stabilize (values remaining within 10% for three consecutive readings).

Groundwater Sampling

Groundwater is sampled immediately after purging by lowering the intake of the DVP tubing to 3 to 5 meters above the screened interval.

A groundwater sample is collected in clean, laboratory-supplied containers as per the instructions in the previous section. Samples analyzed for dissolved metals are filtered through a 45 µm inline filter.

Samples are collected in duplicate (see Section 2.2.5) and submitted to the analytical accredited laboratory. Duplicate samples are collected.

Measurements of groundwater temperature, pH, electrical conductivity, turbidity and salinity are obtained in the field during purging and sampling. Measurements are recorded for future reference and to check against laboratory data.

The following procedures are followed to provide data quality control on the samples:

- Measurement of field parameters at selected intervals until stable readings (within 10% of each other);
- Minimization of the exposure of the sampled water to the atmosphere;
- Use of compressed, inert gas (nitrogen) to evacuate water for sample collection;
- In-situ measurement of sensitive chemical parameters (pH, conductivity, where applicable); and
- Abiding by sample preservation methods (refrigeration and use of preservatives where needed); and specified holding times.

Bottles are labelled with required information.

2.2.4 Preservation

Preservatives, if required, are added to sample bottles by the laboratory or added by the technician after filling, as directed by the analytical laboratory. Table 2.1 summarizes the minimum sample volumes, preservation and holding times for each analysis. This information was provided by the accredited laboratory H2Lab and revised with them in compliance with their protocol. It should be noted that pH, temperature, conductivity, turbidity and dissolved oxygen are parameters taken on the field.

Table 2-1: Summary of Sampling Requirements

Parameter	Minimum Volume (mL)	Bottle Type	Preservation	Holding Time
pH	250	250 mL, glass or plastic, filled to the top	4°C	Analyze immediately
Conductivity	125	250 mL, glass or plastic	4°C	28 days
Hardness	250	250 mL plastic, filled to the top	4°C, HNO ₃	6 months
Oil and Grease (total)	1000	1 L amber glass	4°C, H ₂ SO ₄	28 days
Turbidity	125	250 mL, glass or plastic	4°C	48 hours
Total Dissolved Solids (TDS)	125	250 mL glass	4°C	7 days
Total Suspended Solids (TSS)	125	250 mL glass	4°C	7 days
Total Alkalinity	250	250 mL, glass or plastic, filled to the top	4°C	14 days
Bicarbonate Alkalinity	250	250 mL, glass or plastic, filled to the top	4°C	14 days
Carbonate Alkalinity	250	250 mL, glass or plastic, filled to the top	4°C	14 days
Total Cyanide	125	250 mL, glass or plastic	4°C, NaOH	14 days
Free Cyanide	125	250 mL, glass or plastic	4°C, NaOH	14 days

Parameter	Minimum Volume (mL)	Bottle Type	Preservation	Holding Time
Benzene, Toluene, Ethylbenzene & Xylene (BTEX)	40 (per vial)	3 X 40 mL, glass, filled to the top	4°C	7 days
Total Petroleum Hydrocarbons(TPH)	1000	1L, glass	4°C, H ₂ SO ₄	28 days
<u>Total Metals (ICP-MS)</u> (Aluminum, Antimony, Arsenic, Boron, Barium, Beryllium, Cadmium, Cobalt, Copper, Chromium, Iron, Lithium, Manganese, Mercury, Molybdenum, Nickel, Lead, Selenium, Tin, Strontium, Titanium, Thallium, Uranium, Vanadium, Zinc, Potassium, Magnesium, Sodium)	125	250 mL plastic	4°C, HNO ₃	6 months
<u>Dissolved Metals</u> (Aluminum, Antimony, Arsenic, Boron, Barium, Beryllium, Cadmium, Cobalt, Copper, Chromium, Iron, Lithium, Manganese, Mercury, Molybdenum, Nickel, Lead, Selenium, Tin, Strontium, Titanium, Thallium, Uranium, Vanadium, Zinc)	125	250 mL plastic	4°C, Filtered on-site, HNO ₃	6 months
Ammonia-nitrogen	250	250 mL, glass or plastic, filled to the top	4°C, H ₂ SO ₄	28 days
Total kjeldahl nitrogen	250	250 mL, glass or plastic, filled to the top	4°C, H ₂ SO ₄	28 days
Nitrate nitrogen	125	250 mL, glass or plastic	4°C	48 hours
Nitrite nitrogen	125	250 mL, glass or plastic	4°C	48 hours
Ortho-phosphate	125	250 mL, glass or plastic	4°C	14 days
Total phosphorous	125	250 mL, glass or plastic	4°C, H ₂ SO ₄	28 days
Total organic carbon	125	250 mL glass	4°C, H ₂ SO ₄	28 days
Dissolved organic carbon	125	250 mL glass	4°C, H ₂ SO ₄	28 days
Chloride	125	250 mL, glass or plastic	4°C	28 days
Fluoride	125	250 mL plastic	4°C	28 days
Sulphate	125	250 mL, glass or plastic	4°C	28 days
Radium 226	500	1L plastic	4°C, HNO ₃	1 month
Reactive Silica	250	500 mL, plastic	4°C	28 days

2.2.5 Field Duplicates, Field Blanks and Trip Blanks

One field duplicate, one filter blank, and one field blank are collected for a) every 10 samples (i.e. randomness duplicate samples are taken for 10% of the samples), b) each sampling event or c) once per year as shown in Table 2.2. Field duplicates and filter blanks are collected and handled in the same manner as the other samples in the field. Field blanks are samples of deionized (DI) water handled concurrently and in the same manner as the other samples in the field. Trip blank, laboratory pre-filled bottles with DI water are carried to the sampling location and are left unopened, will be collected for a total of 10% annually.

Table 2-2: Quality Control Sample Frequency

Sampling Site	QA/QC Sampling Frequency
Compliance Monitoring Program	
Attenuation and reclaim ponds	1 field duplicate and 1 field blank per 10 samples
Mine facilities - operations	1 field duplicate and 1 field blank per year
Mine facilities - closure	1 field duplicate and 1 field blank per year
Mine facilities - post-closure	1 field duplicate and 1 field blank per year
Seep water chemistry	1 field duplicate and 1 field blank per 10 samples
Groundwater chemistry	1 field duplicate per groundwater sampling event. One field blank and 1 trip blank per year
Receiving water chemistry	Blind field duplicates, laboratory and field blanks, sediment cleaning swipes, laboratory matrix spike duplicates per 10 samples (CREMP)
Event Monitoring Program	
Each event	1 field duplicate and 1 field blank per 10 samples

2.2.6 SAMPLE TRANSPORT

All water samples are stored upright in coolers with ice packs and preserved as specified by the laboratory. Samples are shipped to the external laboratory as soon as possible via chartered aircraft and dedicated ground transportation to ensure arrival in a safe and timely manner. If sample can't be shipped the same day, there are conserved in a refrigerator at 4°C until shipping.

A Chain of Custody form with the following information is completed for every shipment of samples:

- Company name and sampler's name;
- Sample identification name;
- Time and date of sampling;
- Presence and type of preservative and whether the sample was filtered or not;
- Requested analytical parameters for each bottle;
- Time and date of shipping; and
- Analytical laboratory address and contact person.

One electronic or PDF copy is send by email to the laboratory and one electronically copy is kept at the mine site for reference.

SECTION 3. LABORATORY ANALYSIS

3.1 EXTERNAL LABORATORY

All analytical chemistry analyses are performed by an accredited laboratory.

In many cases these analyses are performed by H2Lab, an accredited facility (see Appendix A) that is located in Val D'Or, Quebec. This ensures that samples collected meet holding time requirements for all regulatory sampling. All data from H2Lab undergoes a rigorous internal QA/QC process, including the use of spiked samples and duplicate samples. All QA/QC data passed the laboratories acceptable limits.

All toxicity tests were performed by an accredited laboratory, generally Bureau Veritas in Quebec City and/or Aquatox in Puslinch, ON. Testing was conducted as stipulated in the corresponding Environment Canada Biological Test Methods.

Agnico also require the services of laboratory as Bureau Veritas in Edmonton, Alberta, and SGS in Lake Field, Ontario for some parameters that H2Lab is not accredited for. Agnico also uses the services of ALS for many of the CREMP and AEMP water quality analysis.

3.2 INTERNAL LABORATORY

The assay lab at the Meadowbank site is not an accredited laboratory but is periodically used for "real-time" results for some parameters like TSS, copper and WAD cyanide. These results are for observational purposes and do not meet the standards of an accredited laboratory.

SECTION 4. DATA REQUIREMENTS

4.1 DATA COLLECTION

Agnico has implemented at the end of 2018 and was fully operational in 2019 a database called EQuIS. Water sampling results from the Meadowbank and Whale Tail sites are maintained in the environmental database, including historical data.

The database has been designed based on the sampling stations in order to be compliant with the monitoring program of the Water Licenses 2AM-MEA1526 and 2AM-WTP1826 (Schedule I), the MDMER regulation and CCME guideline. To enhance the effectiveness of the QA/QC program, the database functionalities include trend analysis and flagging out in case of a non-compliance sampling parameters. All the regulated sampling results are included in the annual report.

The following data is collected for each sample in the field and will be entered into the database by the sampler for the corresponding sampling station:

- a) Sample identification name;
- b) Name of sampler;
- c) Date and time of sampling or measurement; and
- d) Physical characteristics (pH, temperature etc.), if required.

Upon receipt of sample results from the laboratory, the data will be input into the database by the sample identification name.

The analysis certificate for each sample from the accredited laboratory will include but not limited to:

- a) Analytical methods or techniques used;
- b) Date of analysis;
- c) Name of the person(s) / laboratory that approved the certificate; and
- d) Analysis results.

4.2 DATA VERIFICATION

Upon reception of analytical results, the field blank and duplicate analyses will be verified for potential contamination and accuracy, respectively. Results will be interpreted and recommended actions will be taken if results are not accurate.

4.3 EXCEEDENCE REPORTING

Any measured concentration at a sample station exceeding a regulated discharge criteria stipulated in Water License 2AM-MEA1526, 2AM-WTP1826 or the Metal and Diamond Mining Effluent Regulations (MDMER) will be reported to the NWB, ECCC and CIRNAC water inspector as soon as the analysis result is received. In addition, results of the action plan will be reported and, where necessary, mitigation options identified within 90 days after receipt of the analyses.

Appendix A

H2Lab Accreditation Certificate

H2Lab's Laboratories

Matrix legend:

DW: Drinking Water
 WW: waste water, GW: Ground water, SW: Surface water
 S: Soil, SO: Solid, Lix: Lixiat
 MD: Dangerous mannor

Location legend :

RN : Rouyn-Noranda
 VD : Val-d'Or
 SAM : Sainte-Agathe-des-Monts
 Jol: Joliette

Dom	Parameters	Matrix	Method	location
1	Total and fecal coliforms or <i>Escherichia coli</i>	DW, GW	Membrane filtration	RN, SAM, JOL
2	AAHB, Enterococcus	DW, GW	Culture, Membrane filtration	RN, SAM, JOL
3	<i>Pseudomonas aeruginosa</i> , <i>Staphylococcus aureus</i>	DW, GW	Culture, Membrane filtration	SAM, JOL
4	Total coliforms (presence/absence), <i>Escherichia coli</i> (presence/absence)	DW, GW	Presence/Absence	RN, SAM, JOL
6	Coliphage virus (presence/absence)	DW, GW	Presence/Absence	SAM, JOL
11	Ba, B, Cd, Cr, Pb, Cu	DW, GW	ICP-MS	RN
12	Hg	DW, GW	Mercury analyser	RN
13	As, Se	DW, GW	ICP-MS	RN
14	U	DW, Lix	ICP-MS	RN
15	CN, F, NO2-NO3, Turbidity	DW, GW, SW	Colorimetry, ionic chromatography, ion analyzer, turbidimeter	RN
17	NH3-NH4, dissolved Bromine, CNd, NO2, NO3, Ptot, H2S	DW, GW, SW, Lix	Ion analyzer, ICP-MS, Colorimetry, ion analyzer, Optique-ICP, Colorimetry	RN
18	Turbidity	DW, GW, SW	Turbidimeter	SAM, JOL
20	T.O.C.	WW, SW	Infrared	VD
21	Nitrites-Nitrates	DW, GW, SW	Colorimetry	SAM
23	Ca, Fe, Mg, Mn, Na	GW	ICP-MS	RN, SAM
26	Cl, SO4	GW	Ion analyzer	SAM
28	Sb	DW, GW	ICP-MS	RN
29	Fluoride	DW, GW	Ion analyzer	SAM
30	Fecal coliforms	DW, GW, SW, Lix	Membrane filtration	RN, SAM, JOL
31	Total coliforms	WW, SW	Membrane filtration	RN, SAM, JOL
40	BOD5, COD	DW, WW	Specific electrode, Colorimetry	RN, SAM
41	TSS (total suspended solids), VSS (Volatil suspended solids)	WW	Gravimetry	SAM
42	NH3-NH4, NTK, OPO4, Ptot	WW, SW	Colorimetry, ICP	RN, SAM
43	Total solids	WW	Gravimetry	VD, RN
49	Phenol index (colorimetric)	WW, GW, SW, Lix	Colorimetry	VD
50	TSS (total suspended solids)	WW, GW, Lix	Gravimetry	RN
58	Conductivity	WW, GW	Automatic Titration	VD, RN, SAM
60	Chloride, color, pH, SO4	WW, Lix	Ion analyzer, Colorimetry, automatic titration, ion analyzer	RN
63	As, Hg, Se	WW, Lix	ICP-MS	RN
64	Cd, Cr, Cu, Fe, Ni, Pb, Zn	WW, Lix	ICP-MS	RN
66	Oils and greases	WW	Gravimetry	VD
77	Al, Sb, Ag, As, Ba, Be, Ca, Co, Mg, Mn	WW, Lix	ICP-MS	RN
86	pH	DW, WW, GW, Lix	Automatic Titration	VD, SAM
88	Al, Ag, As, Cd, Cr, Cu, Fe, Mn, Hg, Ni, Pb, Se, Na, V, Zn (mining metals)	WW, Lix	ICP-MS	RN
91	NH3-NH4, CNO, Cn, NO2+NO3, MES, H2S, SCN, S2O3	WW, SW	Colorimetry, Ionic Chromatography, Gravimetry	RN
92	TSS (Total suspended solids)	WW	Gravimetry	VD
95	Ptot, TSS (total suspended solids)	DW, SW	Colorimetry, gravimetry	SAM
96	Ptot	WW	Colorimetry	SAM
97	Ba, Sn, Mo	WW	ICP-MS	RN
109	C10-C50 (Petroleum hydrocarbon)	DW, WW, SW, Lix	GC-FID	VD
120	Polycyclic aromatic hydrocarbon (PAH) <i>Benzo (a) pyrene</i>	DW, WW, GW	GC-MS	VD
123	PAH	WW	GC-MS	VD
124	PAH	WW, GW, Lix	GC-MS	VD
131	Phenolic compounds (GC-MS)	GW	GC-MS	VD
140	VOC (MAH,CAH, BTEX)	DW, GW, WW, Lix	GC-MS	VD
150	Trihalomethane (THM)	GW	GC-MS	VD
209	C10-C50 petroleum hydrocarbons	S, MD, SO	GC-FID	VD
210	Leaching	SO	Leaching	RN
213	As, Hg, Se	S,MD,SO	Optic-ICP, Mercury analyzer	RN
214	Ag, Ba, Cd, Cr,Co, Cu, Sn,Mo, Ni, Pb, Zn	S, SO,MD	Optic-ICP	RN
215	Al, Ca, Mg, Mn, K	S, SO, MD	Optic-ICP	RN
217	pH, TSS (total suspended solids), VSS (Volatil suspended solids)	SO	Electrode, gravimetry	SAM
222	Sulfur	S, SO	Thermal decomposition, Infrared	RN
226	Acid generating potential	S, SO	Titration, Thermal decomposition, Infrared	RN
227	Water Leaching	SO	Leaching	RN
228	Acetic acid Leaching	SO	Leaching	RN
229	Acid rain simulation Leaching	SO	Leaching	RN
320	PAH	MD, SO	GC-MS	VD
330	Phenolic compounds (GC-MS)	S, So, MD	GC-MS	VD
342	VOC (MAH,CAH, BTEX)	S, MD, SO	GC-MS	VD
700	Sampling	DW	Sampling	RN, SAM
800	Radium	DW	Scintillation	VD
802	Tritium	DW	Scintillation	VD
850	Radium	WW	Scintillation	VD

Dom	Parameters	Matrix	Method	location
	Alcalinity		Automatic Titration	VD, RN
	Carbonate		Automatic Titration	VD, RN
	Bicarbonate		Automatic Titration	VD, RN
	Dissolved parameters		Same as for total method with filtration	RN
	Carbonated BOD5		Selective electrode	RN, SAM
	Chlorophyll A, Pheophytin A		Spectrophotometer	SAM
	DOC, TIC, DIC		Infrared	VD
	Petroleum product identification		GC-FID	VD

For other analysis please contact the lab manager

Sub-contractant will be chosen upon the accreditation domain requested if necessary.

Adresses

H2Lab Rouyn-Noranda

125 boul. Industriel
 Rouyn-Noranda, Qc.
 J9X 6P2
 tel: 819-797-0550

H2Lab Val-d'Or

900 5^{me} avenue
 Val-D'Or, Qc.
 J9P 1B2
 Tel: 819-874-0350

H2Lab Sainte-Agathe-des-Monts

180 Boul. Norbert-Morin
 Sainte-Agathe-des-Monts, QC
 J8C 2W5
 tel: 819 328-8690

H2Lab Joliette

963, rue Papineau
 Joliette, QC
 J6E 2L8
 tel: 450 753-1118