AGNICO EAGLE

MELIADINE GOLD PROJECT

Quality Assurance/Quality Control Plan

APRIL 2015
VERSION 1
6513-QQY-01

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EXECUTIVE SUMMARY

This document presents the Meliadine Mine Quality Assurance / Quality Control (QA/QC) Plan. It summarizes the field sampling equipment, and methods, as well as laboratory and data requirements.

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DOCUMENT CONTROL

Version	Date	Section	Page	Revision	Author
1	April 2015			This is the first version of this Plan, developed for the Type A Water Licence Application	Golder Associates Ltd.

ACRONYMS

AANDC	Aboriginal Affairs and Northern Development Canada
Agnico Eagle	Agnico Eagle Mines Limited
AEMP	Aquatic Effects Monitoring Program
Mine	Proposed Meliadine Gold Mine
MMER	Metal Mining Effluent Regulations
NWB	Nunavut Water Board
Project	Meliadine Gold Project
QA/QC	Quality Assurance and Quality Control
SNP	Surveillance Network Program

SECTION 1 • INTRODUCTION

Agnico Eagle Mines Limited (Agnico Eagle) is developing the Meliadine Gold Project (Project), located approximately 25 kilometres north from Rankin Inlet, and 80 kilometres southwest from Chesterfield Inlet in the Kivalliq Region of Nunavut. Situated on the western shore of Hudson's Bay, the proposed Project site is located on a peninsula (the Peninsula) between the east, south, and west basins of Meliadine Lake (63°01'23.8"N, 92°13'6.42"W), on Inuit Owned Land.

This report presents the Quality Assurance/Quality Control (QA/QC) Plan for the Project. The Plan was prepared in accordance with the requirements of Type A Water Licence Application and the Supplementary Information Guidelines for Mining and Water Works, issued by Nunavut Water Board (NWB 2010a, b, c). It has been developed in accordance with the Aboriginal Affairs and Northern Development Canada (AANDC) 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.

The mine plan proposes open pit and underground mining methods for the development of the Tiriganiaq gold deposit, with two open pits (Tiriganiaq Pit 1 and Tiriganiaq Pit 2) and one underground mine. The proposed mine will produce approximately 12.1 million tonnes (Mt) of ore, 31.8 Mt of waste rock, 7.4 Mt of overburden waste, and 12.1 Mt of tailings. There are four phases to the development of Tiriganiaq: just over 4 years construction (Q4 Year -5 to Year -1), 8 years mine operation (Year 1 to Year 8), 3 years closure (Year 9 to Year 11), and post-closure (Year 11 forwards).

A general location plan of the proposed Mine is shown in Figure A-1.

This Plan, which is part of the Environmental Management System for the proposed Mine, is divided into the following components:

- procedures for field sample collection (Section 2);
- external and internal laboratory requirements (Section 3); and
- data verification procedures and regulatory reporting requirements (Section 4).

The objective of the 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 is 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 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 Management Plan and the Aquatic Effects Monitoring Program (AEMP) Design Plan.

SECTION 2 • FIELD SAMPLING

Water quality monitoring will be initiated at the pre-development stage and will continue during construction, operations, and closure. Proposed sampling stations, frequency, and parameters are listed Appendix A, Table A-1. Table A-2 provides supporting definitions. The stations and their requirements may be adjusted based on the requirements of the Type A Water Licence and/or any updates to the Mine management plans over the life of the Mine. Proposed sampling stations are shown in Appendix A, Figure A-2.

Aquatic monitoring consists of three forms as follows:

- Regulated discharge monitoring occurs at monitoring points specified in licences or regulations. It includes discharge limits that must be achieved to maintain compliance with an authorization (i.e., water licence) or regulation (i.e., Metal Mining Effluent Regulations). Enforcement action may be taken if discharge limits are exceeded for a parameter.
- Verification monitoring is carried out for operational and management purposes by Agnico Eagle. This type of monitoring provides data for decision making and builds confidence in the success of processes being used. There is no obligation to report verification monitoring results, although some monitoring locations and these results can be mentioned in environmental management plans (i.e., sampling to verify soil remediation in the landfarm).
- General monitoring is commonly included in a water licence specifying what is to be monitored according to a schedule. It covers all types of monitoring (i.e., geotechnical, lake levels, etc.). This monitoring is subject to compliance assessment to confirm sampling was carried out using established protocols, included QA/QC provisions, and addresses identified issues. General monitoring is subject to change as directed by an Inspector, or by the Licensee, subject to approval by the Water Board.

All sampling stations will have a GPS location and be landmarked. All stations will be used repeatedly with qualified personnel, using the same 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 will be used for sample collection. The bottles will be either polyethylene plastic or glass, dependent on the specific parameter being analyzed.

Equipment, such as the Analite NEP 160 Meter (turbidity), Oakton PCS35 Meter (pH and conductivity), and Hanna Multi-Parameter Meter (pH, dissolved oxygen and conductivity) are handheld instruments that can be used to collect, as required, field parameters. The YSI 6-series MPS (multiprobe system) can also be used to measure parameters in field like pH, temperature,

conductivity, dissolved oxygen, and oxidation reduction potential data as required. The instruments are to be calibrated before each sample event to ensure optimal performance. Calibration and maintenance procedures will be followed as set out by the supplier's operation manual. Equipment and bottles will be selected so that they do not contaminate or alter the concentrations of parameters of interest according to laboratory standards.

For groundwater sampling, and to collect water samples at depth from the surrounding lake receiving environments, a pump with tubing will be used. Low Density Polyethylene tubing, filter apparatus, manual pump, and ashless filter paper will be used to filter water for specific analyses (e.g., dissolved metals, chlorophyll *a*) and/or for depth integrated sampling (e.g., chlorophyll *a*, phytoplankton, or biological oxygen demand).

2.2 Sampling Methods and Handling

2.2.1 Sampling Identification

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

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

2.2.2 Surface Water Sampling

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

Samples bottles will be provided by the accredited laboratory. They will be received pre-rinsed and pre-preserved or pre-rinsed with vials of preservative to be added in the field by qualified technicians or biologists. In the case that bottles are not pre-preserved, bottles will be rinsed three times with sample water before filling. When the sampling bottle contains preservative, the bottle will be 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 details on preservation. The bottles will be filled properly to allow mixing, preservative addition, and thermal expansion.

Samples analyzed for dissolved metals and chlorophyll *a* are filtered through ashless filter paper at the time of collection when the delay before analyses is long. However, when the delay before

analyses is short, the accredited laboratory filters the sample before analyses. In some cases, when the analysis delay is long, the sample will be frozen to prevent parameter degradation.

2.2.3 Groundwater Sampling

Well Preparation for Sampling

At the time of purging and sampling, if necessary, any heat trace cables will be activated to warm the well pipe. The well is only purged once the well is thawed.

Well Purging

Purging is performed by inserting a ¾'' Low Density Polyethylene Waterra tube to approximately 20 metres below the water surface and using a compressor to completely dry the well. The wells are purged to remove standing water inside the well and to induce the flow of fresh groundwater from the rock formation. The quality of the purged water is monitored for pH, conductivity, temperature, water clarity, and colour (visual observation) during this activity. Sampling occurs after three well volumes of water (between the in-well packer and bottom of screened interval) have been removed or once 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 Double Valve Pumping tubing to 3 to 5 metres 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 micrometre inline filter.

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

Measurements of groundwater temperature, pH, electrical conductivity, and salinity are obtained in the field during the 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:

- measuring field parameters at selected intervals until stable readings (within 10% of each other);
- minimizing the exposure of the sampled water to the atmosphere;
- using compressed, inert gas (nitrogen) to evacuate water for sample collection;
- measuring, in-situ, 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 A-3 summarizes the minimum sample volumes, preservation, and holding times for select parameters. This information was provided by the accredited laboratory Multilab Direct for the Meadowbank Mine; however, they are also applicable to the Project.

2.2.5 Field Duplicates and Blanks

One field duplicate, one filter blank, and one field blank will be collected for a) every 10 samples (i.e., duplicate samples are taken for 10% of the samples); b) each sampling event; or c) once per year (Table A-4). Field duplicates and filter blanks will be collected and handled in the same manner as the other samples in the field. Field blanks are samples of distilled water handled concurrently and in the same manner as the other samples in the field.

The duplicate samples will be given sample identification numbers and included in the sample stream. The indication of the sample as a duplicate is maintained in the data records at site.

2.2.6 Sample Transport

All water samples will be stored upright in coolers with ice packs and preserved as specified by the laboratory. Samples are to be shipped to the external laboratory as soon as possible via Rankin Inlet and dedicated ground transportation to ensure arrival in a safe and timely manner. If the sample cannot be shipped the same day, they are to be stored 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 will be sent by email to the laboratory; an electronic copy will be 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 most cases, these analyses will be performed by MultiLab Direct, an accredited facility (see Appendix B) located in Val D'Or, Quebec. This ensures that samples collected meet holding time requirements for all regulatory sampling. All data from MultiLab undergoes a rigorous internal QA/QC process, including the use of spiked samples and duplicate samples. Toxicity tests will be performed by either Maxxam Analytique in Quebec City or Exova in Saint-Augustin-de-Desmaures, Quebec. Testing will be conducted as stipulated by Environment Canada's Biological Test Methods.

Agnico Eagle may also require the services of laboratory, such as Maxxam in Edmonton, Alberta, or SGS in Lakefield, Ontario for parameters for which Multilab Direct is not accredited. Agnico Eagle may also use the services of ALS Global for some of the AEMP water quality analysis.

3.2 Internal Laboratory

The assay lab at the Mine site is not an accredited laboratory but will be used periodically for "real-time" results for some parameters like pH, total suspended solids, and Weak Acid Dissociable 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

A database of all water sampling data is to be maintained at the Mine site. The database should be designed based on the various discharge limits designated in the Water Licence. The database functionality will include event scheduling, trend analysis, and flagging out-of-compliance samples, all to enhance the effectiveness of the QA/QC program. The database information will be presented to regulators 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:

- sample identification name;
- name of sampler;
- date and time of sampling or measurement; and
- physical characteristics (pH, temperature, etc.), if required.

Upon receipt of sample results from the laboratory, the data will be input to the database and matched to the sample identification name. The analysis certificate for each sample from the accredited laboratory will include but is not limited to:

- analytical methods or techniques used;
- date of analysis;
- name of the person(s) / laboratory that approved the certificate; and
- results of any analysis.

4.2 Data Verification

Upon receipt 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 necessary.

4.3 Exceedance Reporting

Any measured concentration at a sample station exceeding a regulated discharge criterion stipulated in the Water Licence or the Metal Mining Effluent Regulations will be reported to the Nunavut Water Board, Environment Canada, and AANDC water inspector within 30 days of the receipt of the analysis. In addition, results of the action plan, where required, will be reported and, where necessary, mitigation options identified within 90 days after receipt of the analyses.

SECTION 5 • REFERENCES

AANDC (Aboriginal Affairs and Northern Development Canada). 1996. Quality Assurance (QA) and Quality Control (QC) Guidelines for Use by Class "A" Licensees in Meeting SNP Requirements and for Submission of a QA/QC Plan.

NWB (Nunavut Water Board). 2010a. Guide 4: Completing and Submitting a Water Licence Application for a New Licence. April 2010.

NWB. 2010b. Supplemental Information Guideline (SIG) for General Water Works (M1). Issued February 2010.

NWB. 2010c. Supplemental Information Guideline (SIG) for Mine Development (MM3). Issued February 2010.

APPENDIX A • TABLES AND FIGURES

Table A-1: Proposed Water Quality Regulated, General Aquatic, and Verification Monitoring for the Project during Construction, Operations, and Closure

Monitoring Type	Mine Development Phase	Monitoring Station Number	Station Description	Purpose of Station	UTM Zone 11		Sampling Depth	Sample Type	Number of Samples per Station	Monitoring Parameters/Sampling Group (see Table A-2)
					Easting	Northing				
Verification	Construction (prior to release), Operations, and Closure	MEL_02	Water treatment plant (pre-treatment) coming from CP1 station will be off the pipe and not in the pond	Test quality of water before treatment (required to evaluate treatment efficiency)	TBD (in plant area)		From pipe	Grab	1	1
Regulated	Construction (upon effluent release), Operations, and Closure	MEL_01[a]	Water treatment plant (post-treatment), end of pipe (before offsite release) in the plant before release.	Test quality of final effluent before release	TBD (in plant area)		From pipe	Grab	1	Full Suite, 3 (MMER), flow
General Aquatic	Construction (upon effluent release), Operations, and Closure	MEL_03	Mixing zone in Meliadine lake, station 1; and MMER exposure stations for final discharge point within mixing zone	Test mixing of effluent in the receiving environment; sample at varied distances and directions from pipe; MMER exposure for final discharge point	TBD	TBD	Depends on presence of a vertical conductivity gradient	Discrete	1 (depth of maximum conductivity, or mid-depth if no conductivity gradient is present)	Full Suite
General Aquatic	Construction, Operations, and Closure	MEL_04	Water intake from Meliadine Lake	Quality of intake water	TBD	TBD	Depth Integrated or from Intake Pipe	Composite	1	Full Suite, flow
Verification	Operations, Closure	MEL_05	Local Lake, E3	Confirm no leakage/runoff from Emulsion Plant	-	-	-	Composite	1	2
Verification	Construction, Operations, Closure	MEL_06	Local Lake G2	Possible seepage or dust loadings from site infrastructure	-	-	-	Composite	1	2
Verification	Construction, Operations, Closure	MEL_07	Local Pond, H1	Possible seepage or dust loadings	-	-	-	Composite	1	2
Verification	Construction, Operations, Closure	MEL_08	Local Lake, B5		-	-	-	Composite	1	2
Verification	Construction, Operations, Closure	MEL_09	CP2	Collection of natural catchment drainage from the outer berm slopes of the Landfarm and industrial pad	-	-	-	Grab	1	1
Verification	Operations, Closure	MEL_10	CP3	Collection of drainage from dry stacked tailings	-	-	-	Grab	1	1
Verification	Operations, Closure	MEL_11	CP4	Collection of drainage from WRSF1	-	-	-	Grab	1	1
Verification	Construction, Operations, Closure	MEL_12	CP5	Collection of drainage from WRSF1 and WRSF2	-	-	-	Grab	1	1
Verification	Operations, Closure	MEL_13	CP6	Collection of drainage from WRSF3	-	-	-	Grab	1	1
Verification	Construction, Operations, Closure	MEL_14	Landfill	Located between the landfill and Pond H3 to monitor seepage from the landfill	-	-	-	Grab	1	1
Verification	Construction, Operations, Closure	MEL_15	Tankfarm at the Itivia Oil Handling Facility	Located in the secondary containment area of the tankfarm at Itivia to monitor water quality prior to discharge to land	-	-	-	Grab	1	4

Notes: as per Metal Mining Effluent Regulations (MMER), samples for effluent characterization and receiving environment must be collected quarterly, or at least one month apart while effluent is being deposited.

Grey shading indicates that verification monitoring parameters and locations are internal for Agnico Eagle. A systematic approach will be used in communicating inspections results, likely on an annual basis. This will allow Agnico Eagle to inform government, Inuit associations, and the public of inspection outcomes.

[(a)] Sampling may not occur during break-up (June)

CP = collection pond; WRSF = waste rock storage facility; TBD = to be determined

Table A-2: List of Constituents in Each Parameter Group

Parameter Group	Parameters
1	pH, turbidity, hardness, alkalinity, chloride, fluoride, sulphate, total dissolved solids (TDS), total suspended solids (TSS), total cyanide, ammonia nitrogen, nitrate, nitrite, phosphorus, ortho-phosphate, total metals (aluminum, arsenic; barium, cadmium, chromium, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, silver, thallium, and zinc).
2	**Total and dissolved metals**: aluminum, antimony, arsenic, barium, beryllium, boron cadmium, chromium, copper, iron, lead, lithium, manganese, mercury, molybdenum, nickel, selenium, silver, strontium, thallium, tin, titanium, uranium, vanadium, and zinc. **Nutrients**: ammonia-nitrogen, total Kjeldahl nitrogen, nitrate-nitrogen, nitrite-nitrogen, ortho-phosphate, total phosphorus, total organic carbon, dissolved organic carbon, and reactive silica. **Conventional Parameters**: bicarbonate alkalinity, chloride, carbonate alkalinity, turbidity, conductivity, hardness, calcium, potassium, magnesium, sodium, sulphate, pH, total alkalinity, TDS, TSS, total cyanide, free cyanide, and weak acid dissociable (WAD) cyanide.
3	**MMER parameters**: total cyanide, arsenic, copper, lead, nickel, zinc, radium-226, TSS, pH, sulphate, turbidity, and aluminum. Effluent volumes and flow rate of discharge, acute toxicity (Rainbow Trout and *Daphnia magna*) and environmental effects monitoring (EEM).
4	Total arsenic, total copper, total lead, total nickel, TSS, ammonia, benzene, toluene, ethylbenzene, xylene, total petroleum hydrocarbons (TPH), and pH.
Full Suite	Group 2, TPH, and turbidity.
Flow	Flow datalogger
Field measurements	Field pH, specific conductivity, dissolved oxygen, and temperature.

MMER = Metal Mining Effluent Regulations.

Table A-3: Sampling Requirements for Potential Parameters

Parameters	Matrix				Type of Bottle	Preservative	Volume
	Drinking Water	Waste Water	Surface Water	Ground Water (1)			
Microbiology							
Escherichia coli, total coliforms, A.A.H.B	48[h]	48[h]	48[h]	48[h]	PPS	TS, E	250[ml]
Enterococcus	48[h]	48[h]	48[h]	48[h]	PPS	TS, E	250[ml]
Thermo tolerant coliforms (fecal)	48[h]	48[h]	48[h]	48[h]	PPS	TS, E	250[ml]
Inorganic Chemistry							
Absorbance UV, Transmittance UV	24[h]			24[h]	P. T. V	N	125[ml]
Alkalinity, Acidity, Bicarbonates, Carbonates	14[d]	14[d]	14[d]	14[d]	P, T, V	N	250[ml]
Ammonia nitrogen (NH3-NH4)	28[d]	28[d]	28[d]	28[d]	P, T, V	AS	125[ml]
Kjeldahl ammonia (NTK)		28[d]	28[d]	28[d]	P, T, V	AS	125[ml]
Anions (Cl, F,SO4)	28[d]	28[d]	28[d]	28[d]	P, T, V	N	250[ml]
Color, Free & total Chlorine	48[h]	48[h]	48[h]	48[h]	P, T, V	N	125[ml]
Conductivity	28[d]	28[d]	28[d]	28[d]	P, T, V	N	250[ml]
Cyanides total/available, Cyanides	14[d]	14[d]	14[d]	14[d]	P, T, V	NaOH	250[ml]
BOD5/Carbonated BOD5 (2)		48[h]/4°	48[h]/4°		P, T, V	N	250[ml]
COD (chemical oxygen demand)		28[d]	28[d]		P, T, V	AS	125[ml]
Mercury (Hg)	28[d]	28[d]	28[d]	28[d]	P, T, V	AN	250[ml]
Total/dissolved metals (filtered on field)	180[d]	180[d]	180[d]	180[d]	P, T, V	AN	250[ml]
Dissolved metals (filtered in the laboratory)	24[h]	24[h]	24[h]	24[h]	P, T, V	N	250[ml]
Total suspended solids & volatile TSS		7[d]	7[d]	7[d]	P. T. V	N	500[ml]
NH3 or NH4		24[h]	24[h]	24[h]	P.T.V	N+AS	2/125[ml]
Nitrites (NO2), Nitrates (NO3), Turbidity	48[h]	48[h]	48[h]	48[h]	P, T, V	N	250[ml]
Nitrites-Nitrates (NO2-NO3)	28[d]	28[d]	28[d]	28[d]	P, T, V	AS	250[ml]
O-Phosphates (O-PO4)	48[h]	48[h]	48[h]	48[h]	P, T, V	N	500[ml]
pH	24[h]	24[h]	24[h]	24[h]	P, T, V	N	125[ml]
Total Phosphorus (P-tot)	28[d]	28[d]	28[d]	28[d]	P, T, V	AS	125[ml]
Dissolved solids (TDS)		7[d]	7[d]	7[d]	P. T. V	N	250[ml]

Parameters	Matrix				Type of Bottle	Preservative	Volume
	Drinking Water	Waste Water	Surface Water	Ground Water (1)			
Total solids		7[d]	7[d]	7[d]	P. T. V	N	250[ml]
Sulphides (H2S) (3)	28[d]	28[d]	28[d]	28[d]	P. T. V	E.D.T.A	125[ml]
Thiosulfates	48[h]	48[h]	48[h]	48[h]	P. T. V	N	125[ml]
Radioactive & Organic Chemistry							
Fatty resin acids (S-T)	-	28[d]	28[d]	-	VA, VT	AS	1[L]
Congeners PCB (S-T)	28[d]	28[d]	28[d]	28[d]	VA, VT	N	1[L]
Chlorobenzene	28[d]	28[d]	28[d]	28[d]	2 Vial+1 blank	TSS	2/40[ml]
Total organic carbon (TOC)	28[d]	28[d]	28[d]	28[d]	P, T, V (B)	AC	100[ml]
Dissolved organic carbon (DOC)	48[h]	48[h]	48[h]	48[h]	P, T, V (B)	N	100[ml]
Total inorganic carbon (TIC)	48[h]	48[h]	48[h]	48[h]	P, T, V (B)	N	100[ml]
Phenolic compound (GC-MS)	28[d]	28[d]	28[d]	28[d]	VA, VT	AS	1[L]
Glyphosate (S-T)	14[d]	14[d]	14[d]	14[d]	P.T	N	500[ml]
PAH	28[d]	28[d]	28[d]	28[d]	VB	AS	1[L]
Oil & greases (total and non-polar)	28[d]	28[d]	28[d]	28[d]	VA, VT	AS	1[L]
C10-C50 HP and/or Petroleum product identification	28[d]	28[d]	28[d]	28[d]	VA, VT	AS	1[L]
Phenol index	28[d]	28[d]	28[d]	28[d]	VA, VT	AS	500[ml]
Radium-226	180[d]	180[d]	180[d]	180[d]	P, T. V	AN	1[L]
VOC (MAH, CAH, THM, BTEX) (3)	28[d]	28[d]	28[d]	28[d]	2 Vial+1 blank	TSS	2/40[ml]

Notes:

Type of Bottle:

- = non-applicable; P.S.V.T. = plastic bottle, bag or glass bottle with Teflon cap; P, T = Plastic bottle or plastic bottle with Teflon cap; P.T.V. = Plastic bottle or glass bottle with plastic or Teflon cap; PPS = Sterile propyl ethylene bottle; VA = Clear or amber glass with aluminium or Teflon seal; VB = Amber glass (or clear glass covered with aluminium paper) aluminium seal of Teflon; *VT = Clear or amber glass bottle with Teflon seal*

Preservative:

AC = 0.1ml (100 µl) of HCl per 100 ml of sample; AcZn = 0.2 ml zinc acetate 2 N per 100 ml of sample and NaOH 10 N to pH >9; AN = HNO3 to pH <2; AS = H2SO4 to pH <2; E = 2.5 ml EDTA 1.5% (p/v) per 100 ml of sample if heavy metals are suspected; ED = 0.1 ml diamine ethylene 45 mg/l per 100 ml of sample; EDTA = 1 ml EDTA 0.25 M per 100 ml of sample; N = No preservative; NaOH = NaOH 10 N to >12; TS = Sodium thiosulfate final concentration in the sample of 0.1% (p/v); TSS = about 40 mg of thiosulfate sodium

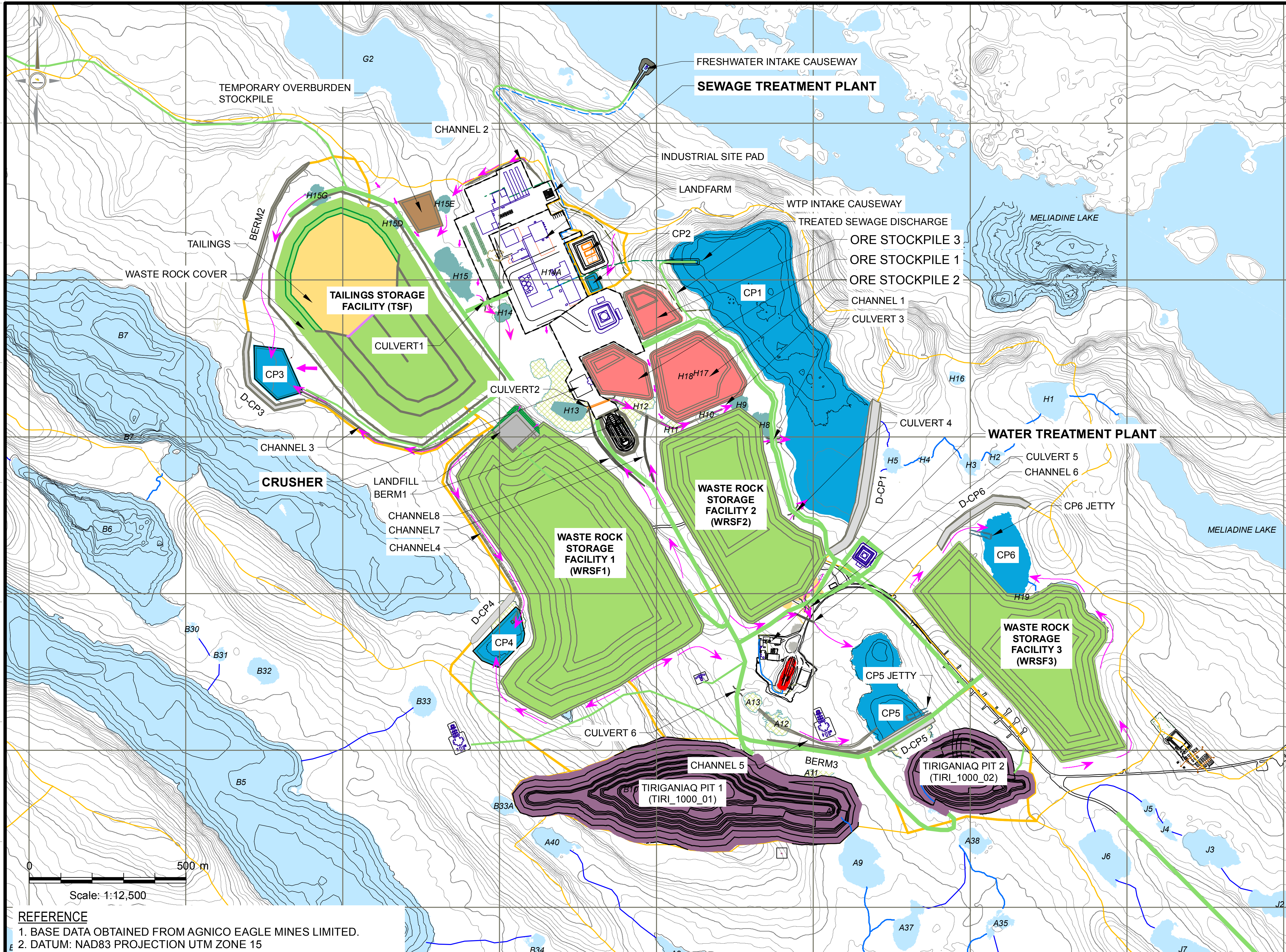
Table A-4: Quality Control Sample Frequency

Sampling Site	QA/QC Sampling Frequency
Regulated and General Aquatic Monitoring	
Collection Pond 1 [a]	1 field duplicate and 1 field blank per year
Mine facilities - operations	1 field duplicate per year
Mine facilities - closure	1 field duplicate per year
Mine facilities - post-closure	1 field duplicate per year
Receiving water chemistry	Blind field duplicates, laboratory and field blanks, sediment cleaning swipes, laboratory matrix spike duplicates per 10 samples
Event Monitoring Program	
Each event	One field duplicate per 10 samples

[a] Collection Pond 1 is the Water Management Pond for the Project

NO. DESSIN
DRAWING NO.

FORMAT ANSI B-11x17



REFERENCE
1. BASE DATA OBTAINED FROM AGNICO EAGLE MINES LIMITED.
2. DATUM: NAD83 PROJECTION UTM ZONE 15

LEGEND

- CATCHMENT BOUNDARY
- SERVICE ROAD
- HAUL ROAD
- NON CONTACT WATERBODY
- CONTACT WATERBODY
- WATER COLLECTION POND
- DRAINED POND AREA
- OPEN PIT
- OVERBURDEN
- WASTE ROCK
- ORE
- TAILINGS
- INDUSTRIAL SITE PAD
- STREAM

AGNICO EAGLE

Golder Associates

TITRE / TITLE	# DWG
–	–
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DESSINS EN RÉFÉRENCE/REFERENCE DRAWINGS

REV	DESCRIPTION	DATE	PAR BY
–	–	–	–
–	–	–	–
–	–	–	–
–	–	–	–
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REVISIONS

DESSINÉ PAR / DRAWN BY	CDB	DATE	05-12-2014
VÉRIFIÉ PAR / CHECKED BY	LY		24-03-2015
APPROUVÉ PAR / APPROVED BY	DRW		24-03-2015
No. PROJET / PROJECT NO.	1405283		
DATE	–		

TITRE / TITLE

AGNICO EAGLE – MELIADINE DIVISION
FIGURE A-1 GENERAL SITE PLAN

ÉCHELLE/SCALE	FICHIER FILE
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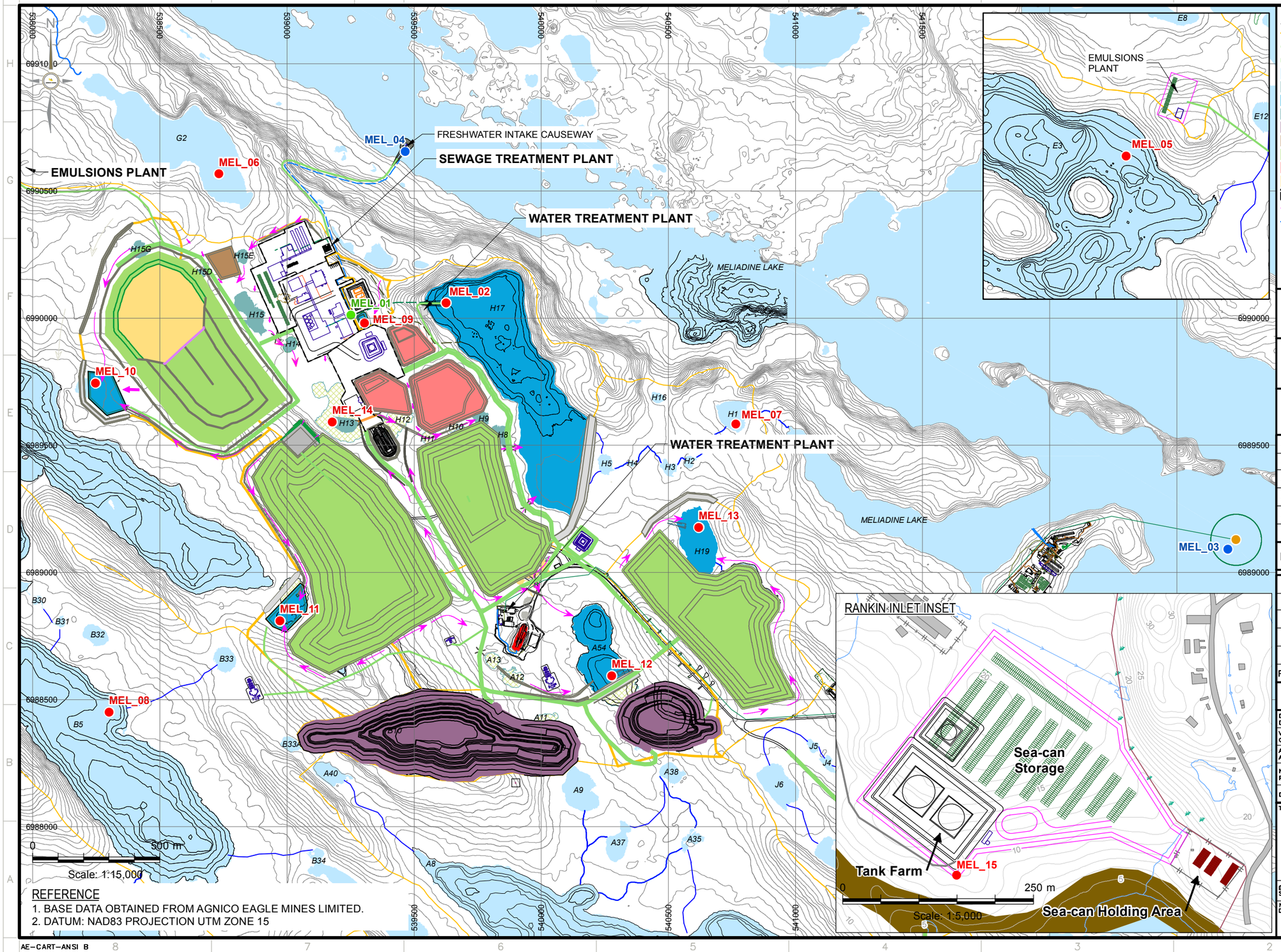
NO. DESSIN
DRAWING NO.

FORMAT ANSI B – 11x17



LEGEND

- CATCHMENT BOUNDARY
- SERVICE ROAD
- HAUL ROAD
- NON CONTACT WATERBODY
- CONTACT WATERBODY
- WATER COLLECTION POND
- DRAINED POND AREA
- OPEN PIT
- OVERBURDEN
- WASTE ROCK
- ORE
- TAILINGS
- INDUSTRIAL SITE PAD
- CONTACT WATER FLOW DIRECTION
- STREAM
- DIFFUSER LOCATION
- GENERAL AQUATIC MONITORING LOCATION
- REGULATED MONITORING LOCATION
- VERIFICATION MONITORING LOCATION

AGNICO EAGLE

Golder Associates

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TITRE / TITLE	# DWG

DESSINS EN RÉFÉRENCE/REFERENCE DRAWINGS

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REV	DESCRIPTION	DATE	PAR BY

REVISIONS

DESSINÉ PAR DRAWN BY	CDB	DATE 05-12-2014
VÉRIFIÉ PAR CHECKED BY	LY	24-03-2015
APPROUVÉ PAR APPROVED BY	DRW	24-03-2015
No. PROJET PROJECT NO.	1405283	
DATE	–	

TITRE / TITLE

AGNICO EAGLE – MELIADINE DIVISION
FIGURE A-2 PROPOSED REGULATED GENERAL AQUATIC MONITORING LOCATIONS

ÉCHELLE/ SCALE	1:12500	FICHIER FILE	.DWG
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AE-CART-ANSI B

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APPENDIX B • MULTILAB DIRECT ACCREDITED CERTIFICATE

Multilab's Rouyn-Noranda and Val-D'Or Laboratories

Matrix legend:
EP: Drinking Water
EU: waste water, ES: Ground water, EA: Surface water
S: Soil, SO: Solid, Lix: Lixiat
MD: Dangerous mannor

Location legend :
R-N : Rouyn-Noranda
V-D : Val-d'Or
Color Legend:
Aaccreditation in wait
To remove wen acceditation will be received

Dom	Parameters	Matrix	Method	location
1	Total and fecal coliforms oru *Escherichia coli*	EP, ES	Membrane filtration	R-N
2	AAHB, Enterococcus	EP, ES	Culture, Membrane filtration	R-N
4	Total coliforms (presence/abscence), Escheria coli (presence/abscence)	EP, ES	Presence/Absence	R-N
11	Ba, B, Cd, Cr, Pb, Cu	EP,ES	ICP-MS	R-N
12	Hg	EP,ES	Mercury analysor	R-N
13	As, Se	EP,ES	ICP-MS	R-N
14	U	EP, Lix	ICP-MS	R-N
15	CN, F, NO2-NO3, Turbidity	EP, ES, EA	Colorimetry, ionic chromatography, ion analyzer, turbidimetor	R-N
17	Nh3-NH4, dissolved bromine, CNd, NO2, NO3, Ptot, H2S	ES, EP, EA, Lix	Ion analyzer, ICP-MS, Colorimetry, Ion analysor, Optiquc-ICP, Colorimetry	R-N
20	T.O.C.	EU, EA		V-D
23	Ca, Fe, Mg, Mn, Na	ES	ICP-MS	R-N
28	Sb	ES, EP	ICP-MS	R-N
30	Fecal coliforms	ES, EA, EU, lix	Membrane filtration	R-N
31	Total coliforms	EU	Membrane filtration	R-N
40	BOD5, COD	EP, EU	Specific electrod, Colorimetry	R-N
42	NH3-NH4, NTK, OPO4, Ptot	EU, EA		R-N
43	Total solids	EU	Gravimetry	V-D, R-N
49	Phenol index (colorimetric)	EU, ES, EA, Lix	Colorimetry	V-D
50	TSS (total suspended solids)	EU, ES, lix	Gravimetry	R-N
58	Conductivity	ES, EU	Automatic Titration	V-D, R-N
60	Chloride, color, pH, SO4	EU, lix	Ion analyzer, Colorimetry, automatic titration, ion analyzer	R-N
63	As, Hg, Se	EU, lix	ICP-MS	R-N
64	Cd, Cr, Cu, Fe, Ni, Pb, Zn	EU, lix	ICP-MS	R-N
66	Oils and greases	EU	Gravimetry	V-D
77	Al, Sb, Ag, As, Ba, Be, Ca, Co, Mg, Mn	EU, lix	ICP-MS	R-N
86	pH	EP, EU, ES, lix	Automatic Titration	V-D
88	Al, Ag, As, Cd, Cr, Cu, Fe, Mn, Hg, Ni, Pb, Se, Na, V, Zn (métaux pour mines)	EU, lix	ICP-MS	R-N
91	NH3-NH4, CNO, Cn, NO2+NO3, MES, H2S, SCN, S2O3	EU, EA		R-N
92	Cyanid, TSS	EU	Colorimetry, gravimetry	V-D, R-N
97	Ba, Sn, Mo	EU	ICP-MS	R-N
109	C10-C50 (hydrocarbures pétroliers)	EP, EU, EA, lix	GC-FID	V-D
120	Policyclic aromatic hydrocarbon (PAH) *Benzo (a) pyrène*	EP, EU, ES	GC-MS	V-D