



CALA

Canadian Association for
Laboratory Accreditation Inc.

CALA Directory of Laboratories

Membership Number: 3915
Laboratory Name: AGAT Laboratories - Lloydminster
Parent Institution: AGAT Laboratories Ltd.
Address: 5921B 50th Ave. Lloydminster SK S9V 2A4
Contact: Ms. Sandra Ortiz
Phone: (780) 469-0106
Fax: (780) 468-2887
Email: Ortiz@agatlabs.com; jroberts@agatlabs.com; vhill@agatlabs.com

Standard: Conforms with requirements of ISO/IEC 17025
Clients Served: All Interested Parties
Revised On: August 10, 2018
Valid To: October 3, 2019

Scope of Accreditation

Soil (Inorganic)

Ammonia - Solids [Soil] (010)
INOR-190-6012; modified from SM 4500-NH3 F
SPECTROPHOTOMETRIC
Ammonia

Soil (Inorganic)

Anions - Solids [Soil] (001)
INOR-190-6008, INOR-190-6002; modified from MANUAL ON SOIL SAMPLING & METHODS OF ANALYSIS,
MCKEAGUE 3.21 and SM 4110 B
IC - SATURATED PASTE EXTRACTION
Chloride
Fluoride
Nitrate
Nitrite
Sulfate

Soil (Inorganic)

Chromium - Solids [Soil] (029)
INOR-190-6016; modified from BARTLETT, R.J., JAMES, B.R. (1996), CHROMIUM PP. 683-701
COLORIMETRIC - DIGESTION
Chromium

Soil (Inorganic)

Conductivity - Solids [Sediment, Soil] (004)
INOR-190-6011, INOR-190-6002; modified from MANUAL ON SOIL SAMPLING & METHODS OF ANALYSIS,
MCKEAGUE 3.21 and MANUAL ON SOIL SAMPLING & METHODS OF ANALYSIS, MCKEAGUE 4.12 and
MANUAL ON SOIL SAMPLING & METHODS OF ANALYSIS, MCKEAGUE 4.13
CONDUCTIVITY METER
Conductivity (saturated paste)

† "OSDWA" indicates the appendix is used for the analysis of Ontario drinking water samples, which is subject to the rules and related regulations under the Ontario "Safe Drinking Water Act" (2002).

The list of tests and measurement capabilities for which a laboratory is accredited can change at any time due to circumstances such as scope extensions, voluntary withdrawal of tests by the laboratory and suspension. Scopes are published by the CALA via the Internet at http://www.cala.ca/cala_directories.html

Soil (Inorganic)

Flashpoint - Solids [Ash, Soil] (009)
ORG-190-5100; modified from ASTM D93-02A
PENSKY MARTENS CLOSED CUP
Flashpoint

Soil (Inorganic)

Hot Water Soluble Boron - Solids [Soil] (028)
INOR-190-6009, INOR-190-6014; modified from SOIL SAMPLING & METHODS OF ANALYSIS, CARTER, 2008
ICP/OES
Boron

Soil (Inorganic)

Metals - Solids [Soil] (030)
INOR-190-6017; modified from SM 3125 B
ICP/MS
Antimony
Arsenic
Barium
Beryllium
Cadmium
Chromium
Cobalt
Copper
Lead
Mercury (Parameter suspended on 8/11/2018)
Molybdenum
Nickel
Selenium
Silver
Thallium
Tin
Uranium
Vanadium
Zinc

Soil (Inorganic)

Particle Size Analysis (PSA) - Solids [Soil] (006)
INOR-190-6004; modified from SHELDRIK, B.H. & WANG, C, CARTER MO ED. 1993
SIEVE ANALYSIS
Particle Size (75um)

Soil (Inorganic)

Particle Size Analysis (PSA) - Solids [Soil] (022)
INOR-190-6013; modified from SHELDRIK, B.H. & WANG, C, CARTER MO ED. 1993
HYDROMETER (2 PT)
% clay
% Sand
% silt

Soil (Inorganic)

Percent Saturation - Solids [Soil] (002)
INOR-190-6002; modified from MANUAL ON SOIL SAMPLING & METHODS OF ANALYSIS, MCKEAGUE 3.21
GRAVIMETRIC - SATURATED
Percent Saturation (Saturated Paste)

† “OSDWA” indicates the appendix is used for the analysis of Ontario drinking water samples, which is subject to the rules and related regulations under the Ontario “Safe Drinking Water Act” (2002).

The list of tests and measurement capabilities for which a laboratory is accredited can change at any time due to circumstances such as scope extensions, voluntary withdrawal of tests by the laboratory and suspension. Scopes are published by the CALA via the Internet at http://www.cala.ca/cala_directories.html

Soil (Inorganic)

pH - Solids [Sediment, Soil] (007)

INOR-190-6010, INOR-190-6002; modified from SOIL SAMPLING & METHODS OF ANALYSIS, CARTER, 2ND ED.

pH METER

pH (1:1) Soil: Water

pH (Saturated Paste)

Soil (Inorganic)

Soluble Cations - Solids [Soil] (013)

INOR-190-6009, INOR-190-6002; modified from SM 3120 B and SOIL SAMPLING & METHODS OF ANALYSIS CHAPTER 15

ICP/OES - SATURATED PASTE EXTRACTION

Boron

Calcium

Magnesium

Potassium

Sodium

Sulphur

Soil (Inorganic)

Specific Gravity - Solids [Soil] (003)

INOR-190-6003; modified from ASTM D4380, G50 and BAROID MUD BALANCE and DRILLING WASTE MANAGEMENT

MUD BALANCE

Specific Gravity

Soil (Organic)

Petroleum Hydrocarbons (PHC) - Solids [Soil] (012)

ORG-190-5103; modified from EPA 5030C and EPA 8260

GC/MS

Benzene

Ethylbenzene

m/p-xylene

o-xylene

Toluene

Soil (Organic)

Petroleum Hydrocarbons (PHC) - Solids [Soil] (014)

ORG-190-5102; CCME CWS PETROLEUM HYDROCARBONS IN SOIL - TIER 1 METHOD

GC/FID - EXTRACTION COLD SHAKE

F2: C10-C16

F3: C16-C34

F4: C34-C50

Soil (Organic)

Petroleum Hydrocarbons (PHC) - Solids [Soil] (015)

ORG-190-5102; CCME CWS PETROLEUM HYDROCARBONS IN SOIL - TIER 1 METHOD

GRAVIMETRIC - EXTRACTION COLD SHAKE

F4: Gravimetric

Soil (Organic)

Petroleum Hydrocarbons (PHC) - Solids [Soil] (027)

ORG-190-5103; modified from CCME CWS PETROLEUM HYDROCARBONS IN SOIL - TIER 1 METHOD

GC/FID - PURGE AND TRAP

F1: C6-C10

† "OSDWA" indicates the appendix is used for the analysis of Ontario drinking water samples, which is subject to the rules and related regulations under the Ontario "Safe Drinking Water Act" (2002).

Soil (Organic)

Total Extractable Hydrocarbons (TEH) - Solids [Soil] (023)

ORG-190-5104; modified from AEC V92-G108 and AEC V92-M2 and BC MOE CONTAMINATED SITES

REGULATION (CSR) and EPA CH.4

GC/FID - EXTRACTION

EPH C10-C19

EPH C19-C32

SASK (C10-C22)

SASK (C23-C60)

Total Extractable Hydrocarbons (TEH): C11-C30

Soil (Organic)

Total Purgeable Hydrocarbons (TPH) - Solids [Soil] (025)

ORG-190-5103; BC MOE LABORATORY MANUAL

GC/FID

TPqH (C5-C10)

VH: C6-C10

Solids (Organic)

BTEX - Solids [Soil] (011)

ORG-190-5101; IN-HOUSE

GC/MS - LEACHATE PURGE AND TRAP

Benzene

Ethylbenzene

m,p-Xylene

o-Xylene

Toluene

Waste (Inorganic)

Free Liquid - Waste [Liquid] (005)

INOR-190-6006; modified from EPA 9095

PAINT FILTER TEST

Free Liquid

Waste (Organic)

Metals - Waste (008)

INOR-190-6005, INOR-190-6009; IN-HOUSE

ICP/OES - EXTRACTION

Antimony

Arsenic

Barium

Boron

Cadmium

Chromium

Copper

Iron

Lead

Mercury

Selenium

Silver

Thallium

Uranium

Vanadium

Zinc

Zirconium

† "OSDWA" indicates the appendix is used for the analysis of Ontario drinking water samples, which is subject to the rules and related regulations under the Ontario "Safe Drinking Water Act" (2002).

The list of tests and measurement capabilities for which a laboratory is accredited can change at any time due to circumstances such as scope extensions, voluntary withdrawal of tests by the laboratory and suspension. Scopes are published by the CALA via the Internet at http://www.cala.ca/cala_directories.html

Water (Inorganic)

Ammonia - Water (017)

INOR-190-6012; modified from SM 4500-NH3 F
SPECTROPHOTOMETRIC

Ammonia

Water (Inorganic)

Anions - Water (016)

INOR-190-6008; modified from SM 4110 B
ION CHROMATOGRAPHY

Chloride

Fluoride

Nitrate

Nitrite

Sulfate

Water (Inorganic)

Soluble Cations - Water (018)

INOR-190-6009; modified from SM 3120 B
ICP/OES

Calcium

Magnesium

Potassium

Sodium

Water (Organic)

Petroleum Hydrocarbons (PHC) - Water (019)

ORG-190-5106; modified from EPA 5030C and EPA 8260
GC/MS

Benzene

Ethylbenzene

m/p-xylene

o-xylene

Toluene

Water (Organic)

Petroleum Hydrocarbons (PHC) - Water (020)

ORG-190-5102; IN-HOUSE

GC/FID - EXTRACTION COLD SHAKE

F2: C10-C16

F3: C16-C34

F4: C34-C50

Water (Organic)

Total Extractable Hydrocarbons (TEH) - Water (024)

ORG-190-5105; modified from AECV92-M2 and BC MOE CONTAMINATED SITES REGULATION (CSR) and
EPA -3510

GC/FID - EXTRACTION

EPH C10-C19

EPH C19-C32

SASK (C10-C22)

SASK (C23-C60)

Total Extractable Hydrocarbons (TEH): C11-C30

† "OSDWA" indicates the appendix is used for the analysis of Ontario drinking water samples, which is subject to the rules and related regulations under the Ontario "Safe Drinking Water Act" (2002).

Water (Organic)

Total Petroleum Hydrocarbons (TPH) - Water (026)
ORG-190-5106; modified from EPA 5021 and EPA 8015B
GC/MS - PURGE AND TRAP
F1: C6-C10
TPgH (C5-C10)
Volatile Hydrocarbons (VH): C6-C10

Water (Toxicology)

Microtox - Water (021)
TOX-190-19000; modified from EPS 1/RM/24
BIOLUMINESCENCE
Microtox IC50 (15 min)

† "OSDWA" indicates the appendix is used for the analysis of Ontario drinking water samples, which is subject to the rules and related regulations under the Ontario "Safe Drinking Water Act" (2002).

The list of tests and measurement capabilities for which a laboratory is accredited can change at any time due to circumstances such as scope extensions, voluntary withdrawal of tests by the laboratory and suspension. Scopes are published by the CALA via the Internet at http://www.cala.ca/cala_directories.html