



CALA

Canadian Association for
Laboratory Accreditation Inc.

CALA Directory of Laboratories

Membership Number: 3915
Laboratory Name: AGAT Laboratories - Lloydminster
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Standard: Conforms with requirements of ISO/IEC 17025
Clients Served: All Interested Parties
Revised On: October 18, 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).

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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)

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)

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

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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-190-5110, ORG-190-5111; 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-190-5110, ORG-190-5111; 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

Soil (Organic)

Total Extractable Hydrocarbons (TEH) - Solids [Soil] (023)
ORG-190-5110, ORG-190-5111; 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
TPGH (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

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Waste (Inorganic)

Free Liquid - Waste [Liquid] (005)
INOR-190-6006; modified from EPA 9095
PAINT FILTER TEST
Free Liquid

Waste (Inorganic)

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

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-190-5103; modified from EPA 5030C and EPA 8260
GC/MS
Benzene

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Ethylbenzene
m/p-xylene
o-xylene
Toluene

Water (Organic)

Petroleum Hydrocarbons (PHC) - Water (020)
ORG-190-5110, ORG-190-5111; 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-190-5110, ORG-190-5111; 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

Water (Organic)

Total Petroleum Hydrocarbons (TPH) - Water (026)
ORG-190-5103; 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)

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