



CALA

Canadian Association for
Laboratory Accreditation Inc.

CALA Directory of Laboratories

Membership Number: 3990
Laboratory Name: Paracel Laboratories Ltd. (Calgary)
Parent Institution: Paracel Laboratories Ltd.
Address: 1423 45 Avenue NE, Unit F Calgary AB T2E 2P3
Contact: Mr. Alex Enfield
Phone: (403) 776-4443
Fax: (613) 731-9064
Email: aenfield@paracellabs.com

Standard: Conforms with requirements of ISO/IEC 17025
Clients Served: All Interested Parties
Revised On: May 9, 2017
Valid To: January 27, 2019

Scope of Accreditation

Air

Asbestos and Other Fibres - Air (001)
PM-003; modified from NIOSH 7400
PCM FIBRE COUNTING
Asbestos

Air

Fungi - Air (002)
PM-002; modified from ASTM D7391
MICROSCOPIC
Fungal Propagule ID - Genus (Air-O-Cell)

Paint (Inorganic)

Metals - Paint (038)
PI-020; modified from EPA 6020 A
ICP/MS - DIGESTION
Lead

Soil (Inorganic)

Conductivity - Soil (008)
PI-006; modified from MOE E3138 AND EPA 120.1
CONDUCTIVITY METER
Conductivity (saturated paste)

Soil (Inorganic)

Hot Water Soluble Boron - Soils (031)
PI-025; modified from EPA 6020 A
ICP/MS - HOT WATER EXTRACTION
Boron (hot water soluble)

† "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)

Metals - Soils (028)

PI-020; modified from EPA 6020 A

ICP/MS - DIGESTION

Antimony

Arsenic

Barium

Beryllium

Boron

Cadmium

Calcium

Chromium

Cobalt

Copper

Iron

Lead

Magnesium

Manganese

Nickel

Potassium

Selenium

Sodium

Strontium

Thallium

Tin

Uranium

Vanadium

Zinc

Soil (Inorganic)

Particle Size - Soil (019)

PI-036; modified from CARTER METHOD

HYDROMETER

Clay

Sand

Silt

Soil (Inorganic)

pH - Soil (020)

PI-010; modified from MOE E3137 AND EPA 150.1

pH METER

pH

Soil (Organic)

Petroleum Hydrocarbons (PHC) - Soil (013)

PO-007; CCME PHC TIER 1

GC/FID - EXTRACTION

F2: C10-C16

F3: C16-C34

F4: C34-C50

Soil (Organic)

PHC Heavy Oil - Soil (015)

PO-009; CCME PHC TIER 1

GRAVIMETRIC - EXTRACTION

F4: Gravimetric

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Soil (Organic)

Volatile Organic Compounds (VOC) - Soil (024)

PO-001; modified from EPA 8260 C

GC/MS - HEADSPACE

1,1-Dichloroethane
1,1-Dichloroethylene
1,1,1-Trichloroethane
1,1,1,2-Tetrachloroethane
1,1,2-Trichloroethane
1,1,2,2-Tetrachloroethane
1,2-Dichlorobenzene
1,2-Dichloroethane
1,2-Dichloropropane
1,3-Dichlorobenzene
1,3,5-Trimethylbenzene
1,4-Dichlorobenzene
Acetone (2-Propanone)
Benzene
Bromodichloromethane
Bromoform
Bromomethane
Carbon Tetrachloride
Chlorobenzene
Chlorodibromomethane
Chloroethane
Chloroform
Chloromethane
cis-1,2-Dichloroethylene
cis-1,3-Dichloropropene
Dichlorodifluoromethane
Dichloromethane
Ethylbenzene
Ethylene Dibromide
Hexane
m/p-xylene
Methyl isobutyl ketone
Methyl t-butyl ether
o-xylene
Styrene
Tetrachloroethylene
Toluene
trans-1,2-Dichloroethylene
trans-1,3-Dichloropropene
Trichloroethylene
Trichlorofluoromethane
Vinyl Chloride

Soil (Organic)

Volatile Petroleum Hydrocarbons (VPH) - Soil (011)

PO-006; CCME PHC TIER 1

GC/FID - HEADSPACE

F1: C6-C10

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Solids

Fungi - Solids (003)
PM-002; modified from ASTM D7391
MICROSCOPIC
Fungal Propagule - Genus

Water (Inorganic)

Alkalinity - Water (004)
PI-003; modified from EPA 310.1
TITRIMETRIC
Alkalinity (pH 4.5)

Water (Inorganic)

Biochemical Oxygen Demand (BOD) - Water (005)
PI-014; modified from SM 5210 B
D.O. METER
BOD (5 day)
CBOD (5 day)

Water (Inorganic)

Chloride - Water (037)
PI-040; SM 4500-Cl- B
TITRATION
Chloride

Water (Inorganic)

Chlorine - Water (006)
PI-005; modified from SM 4500-CL G
COLORIMETRIC
Free Chlorine
Total Chlorine

Water (Inorganic)

Colour - Water (026)
PI-019; modified from HACH 8025
SPECTROPHOTOMETRIC
True Colour

Water (Inorganic)

Conductivity - Water (009)
PI-006; modified from SM 2510 B
CONDUCTIVITY METER
Conductivity (25°C)

Water (Inorganic)

Dissolved and Extractable Metals - Water (029)
PI-020; modified from EPA 200.8
ICP/MS
Aluminum
Antimony
Arsenic
Barium
Beryllium
Boron
Cadmium
Calcium
Chromium
Cobalt
Copper

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Iron
Lead
Magnesium
Manganese
Molybdenum
Nickel
Potassium
Selenium
Silver
Sodium
Thallium
Tin
Uranium
Vanadium
Zinc

Water (Inorganic)

Dissolved Oxygen (DO) - Water (010)
PI-037; modified from SM 4500-O C
TITRATION
Dissolved Oxygen (DO)

Water (Inorganic)

Fluoride - Water (034)
PI-007; modified from EPA 340.2
ION SELECTIVE ELECTRODE
Fluoride

Water (Inorganic)

Hexavalent Chromium - Water (007)
PI-013; modified from MOE E3056A.1
COLORIMETRIC
Hexavalent Chromium

Water (Inorganic)

Nitrate & Nitrite Nitrogen - Water (036)
PI-039; modified from HACH 8171 & 8507
COLORIMETRIC
Nitrate
Nitrate plus Nitrite

Water (Inorganic)

pH - Water (021)
PI-010; modified from EPA 150.1
pH METER
pH

Water (Inorganic)

Solids - Water (022)
PI-012; modified from SM 2450 C, D
GRAVIMETRIC
Total Dissolved Solids
Total Suspended Solids

Water (Inorganic)

Sulphate - Water (035)
PI-041; modified from HACH 8051
TURBIDIMETRIC
Sulfate

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Water (Inorganic)

Sulphide - Water (023)

PI-001; modified from SM 4500-S2D

COLORIMETRIC (METHYLENE BLUE)

Sulphide

Water (Inorganic)

Total Metals - Water (033)

PI-020; modified from EPA 200.8

ICP/MS - DIGESTION

Aluminum

Antimony

Arsenic

Barium

Beryllium

Boron

Cadmium

Calcium

Chromium

Cobalt

Copper

Iron

Lead

Magnesium

Manganese

Molybdenum

Nickel

Potassium

Selenium

Silver

Sodium

Strontium

Thallium

Tl

Uranium

Vanadium

Zinc

Water (Inorganic)

Turbidity - Water (027)

PI-017; modified from SM 2130 B

NEPHELOMETRY

Turbidity

Water (Microbiology)

Coliforms - Water (018)

PW-005; modified from HACH 10029

MEMBRANE FILTRATION (mCOLIBLUE)

Background Counts

Escherichia coli (E. coli)

Total Coliforms

Water (Microbiology)

Fecal (Thermotolerant) Coliforms - Water (016)

PW-006; modified from SM 9222 D

MEMBRANE FILTRATION (mFC)

Fecal (Thermotolerant) Coliforms

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Water (Microbiology)

Heterotrophic Plate Count (HPC) - Water (017)

PW-007; modified from SM 9215 E

IDEXX (SIMPLATE)

Heterotrophic Plate Count (HPC)

Water (Organic)

Petroleum Hydrocarbons (PHC) - Water (014)

PO-007; PREP: modified from MOE E3421 AND QUANT: CCME PHC TIER 1

GC/FID - EXTRACTION

F2: C10-C16

F3: C16-C34

F4: C34-C50

Water (Organic)

Volatile Organic Compounds (VOC) - Water (025)

PO-001; modified from EPA 624

GC/MS - HEADSPACE

1,1-Dichloroethane

1,1-Dichloroethylene

1,1,1-Trichloroethane

1,1,1,2-Tetrachloroethane

1,1,2-Trichloroethane

1,1,2,2-Tetrachloroethane

1,2-Dichlorobenzene

1,2-Dichloroethane

1,2-Dichloropropane

1,3-Dichlorobenzene

1,3,5-Trimethylbenzene

1,4-Dichlorobenzene

Acetone (2-Propanone)

Benzene

Bromodichloromethane

Bromoform

Bromomethane

Carbon Tetrachloride

Chlorobenzene

Chlorodibromomethane

Chloroethane

Chloroform

Chloromethane

cis-1,2-Dichloroethylene

cis-1,3-Dichloropropene

Dichlorodifluoromethane

Dichloromethane

Ethylbenzene

Ethylene Dibromide

Hexane

m/p-xylene

Methyl isobutyl ketone

Methyl t-butyl ether

o-xylene

Styrene

Tetrachloroethylene

Toluene

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trans-1,2-Dichloroethylene
trans-1,3-Dichloropropene
Trichloroethylene
Trichlorofluoromethane
Vinyl Chloride

Water (Organic)

Volatile Petroleum Hydrocarbons (VPH) - Water (012)

PO-006; PREP: modified from MOE E3421 AND QUANT: CCME PHC TIER 1
GC/FID - HEADSPACE

F1: C6-C10

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