



**Standards Council of Canada**  
**Conseil canadien des normes**

## TESTING AND CALIBRATION LABORATORY ACCREDITATION PROGRAM (LAP)

### Scope of Accreditation

Accredited Laboratory No. 604

**Legal Name of Accredited Laboratory:** **Element Materials Technology Canada Inc.**

Location Name: FORT ST. JOHN LABORATORY

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<b>SCC File Number:</b>	15741
<b>Accreditation Standard(s):</b>	ISO/IEC 17025:2017 General requirements for the competence of testing and calibration laboratories
<b>Fields of Testing:</b>	Chemical/Physical
<b>Program Specialty Area:</b>	Environmental Testing (ET)
<b>Initial Accreditation:</b>	2006-07-05
<b>Most Recent Accreditation:</b>	2020-10-05
<b>Accreditation Valid to:</b>	2022-07-05

**SCC Group Accreditation:**

This laboratory is a part of a Group Accreditation with the following facilities in accordance with SCC's policy on Group Accreditation documented in the Accreditation Services Accreditation Program Overview.

- 15031 - Element Materials Technology Canada Inc. - EDMONTON LABORATORY, 7217 Roper Road, Edmonton, AB, T6B 3J4, Accredited Laboratory No. 18
- 15258 - Element Materials Technology Canada Inc. -VANCOUVER LABORATORY, #104-19575-55A Avenue, Surrey, BC, V3S 8P8, Accredited Laboratory No. 188
- 15352 - Element Materials Technology Canada Inc. -CALGARY LABORATORY, Bay 5, 2712 - 37th Avenue N.E., Calgary, AB, T1Y 5L3, Accredited Laboratory No. 272



*Remarque: La présente portée d'accréditation existe également en français, sous la forme d'un document distinct.*

*Note: This scope of accreditation is also available in French as a separately issued document.*

## **ENVIRONMENTAL AND OCCUPATIONAL HEALTH AND SAFETY**

### **Environmental**

#### **Soil**

##### **(Barium -Soil)**

B.C. Environmental Lab Manual, Section C: Metals  
Soluble Barium by Calcium Chloride Extraction (Prescriptive) (TM DW 007-93) Soluble Barium

TM DW 007-93  
Barium in Soil by ICP-MS (Alberta Environment Soil Remediation Guidelines for Barite Modified) Extractable Barium

#### **Soil/Sediment**

##### **(BTEX/VPH - Soil)**

TM ORG 001-93  
BTEX/VPH in Soil & Water by GC FID/MSD (B.C. Environmental Lab Manual, Monocyclic Aromatic Hydrocarbons /Volatile Hydrocarbons in Solids Modified)

Benzene  
Ethylbenzene  
m/p - Xylene  
Methyl tert butyl ether (MTBE)  
O - Xylene  
Styrene  
Toluene  
Volatile Hydrocarbons (C6-C10)  
Volatile Petroleum Hydrocarbons (C6-C10 - BTEX)

##### **(Extractable Petroleum Hydrocarbons-Soil)**

TM TEH 001-93  
Extractable Petroleum Hydrocarbons in Soil and Water by GC FID (BC Environmental Lab Manual, Extractable Petroleum Hydrocarbons in Solids Modified)

EPH 10-19  
EPH 19-32



**(Metals - Soil)**

B.C. Environmental Lab Manual, Section C: Metals Strong Acid Leachable Metals (SALM) in Soil – Prescriptive (TM MET 001-93)

- Aluminum
- Antimony
- Arsenic
- Barium
- Beryllium
- Cadmium
- Chromium
- Cobalt
- Copper
- Iron
- Lead
- Lithium
- Manganese
- Mercury
- Molybdenum
- Nickel
- Selenium
- Silver
- Strontium
- Thallium
- Tin
- Uranium
- Vanadium
- Zinc

B.C. Environmental Lab Manual, Section C: Metals Boron, Hot Water Soluble (Prescriptive) (TM MET 001-93)

- Boron

**(Polycyclic Aromatic Hydrocarbons (PAH) - Soil)**

TM ORG 002-93 Polycyclic Aromatic Hydrocarbons in Soil and Water by GC MSD (B.C. Environmental Lab Manual, PAH Solids Modified)

- 1-Methylnaphthalene
- 2-Methylnaphthalene
- Acenaphthene
- Acenaphthylene



Anthracene  
Benzo (a) anthracene  
Benzo (a) pyrene  
Benzo (b) fluoranthene  
Benzo (g,h,i) perylene  
Benzo (j) fluoranthene  
Benzo (b+j) fluoranthene  
Benzo (k) fluoranthene  
Chrysene  
Dibenzo (a,h) anthracene  
Fluoranthene  
Fluorene  
Indeno (1,2,3-cd) pyrene  
Naphthalene  
Phenanthrene  
Pyrene  
Quinoline

**Waste**

**(Bulk Density - Waste and Soil)**

TM DW 001-93      Bulk Density and Specific Gravity in Drilling Waste and Soil (American Society of Agronomy No.9. Method 13-2, AER Directive 050 and SSMA 57.1 Modified)  
Bulk Density  
Specific Gravity

**(Flash Point - Waste)**

TM LAND 007-93      Flash Point in Liquid and Soil by Pensky-Martens Closed Cup Tester (ASTM D93 Modified)  
Flash Point

**(Free Liquids - Waste)**

TM LAND 009-93      Paint Filter Test (EPA 9095B Modified)  
Free Liquids - Waste

**(Leachable BTEX - Waste)**

EPA 1311      Toxicity Characteristic Leachate Procedure  
Benzene



TM ORG 001-93 Ethylbenzene  
 m/p-xylene  
 o-xylene  
 Toluene  
 BTEX/VPH in Soil, Water and Solids by GC FID/MSD (EPA 1311, 5021A/8260C Modified)  
 Benzene  
 Ethylbenzene  
 m/p-xylene  
 o-xylene  
 Toluene

**Commented [SM1]:** 1.Editorial Change

**(Leachate - Waste)**

See Salinity – Waste & Soil Non-metals in Water, Soil and Solids by Spectrophotometer (HACH Method 8027, 10020, 8153)  
 Cyanide  
 Nitrate + Nitrite

TM INORG 002-93\* Non-metals in Water, Soil and Solids by Colorimetric Discrete Analyzer (EPA 335.4, 353.2)  
 Cyanide  
 Nitrate + Nitrite

TM LAND 003-93 Fluoride in Soil and Solid Waste Extract (APHA 4500-F- C Ion-Selective Electrode Method Modified), Selective ion electrode analysis  
 Fluoride

**(pH - Waste and Soil)**

TM INORG 003-93 pH, Electrical Conductivity, Total and Phenolphthalein Alkalinity in Water and Soil (MSS 4.12 and MSS 3.11 Modified)  
 EC  
 pH

**Commented [SM2]:** 2.Editorial change and TM AG 004-93 included here.

**(Salinity - Waste and Soil)**

TM DW 004-93 Salinity, pH and EC in Water and in Soil & Waste by Saturated Paste (SSMA Ch 15, EPA 3005A Modified)  
 % Saturation



Calcium  
EC  
Magnesium  
pH  
Potassium  
SAR  
Sodium  
Sulfate

- TM INORG 001-93\*      Non-metals in Water Soil and Solids by Spectrophotometer (HACH Method 10031 and APHA 4500-Cl E)  
Chloride  
Ammonia
- See Leachate - Waste      Non-metals in Water Soil and Solids by Colorimetric Discrete Analyzer (APHA 4500-NH3 G, 4500-Cl E)  
Chloride  
Ammonia

**(Special Waste Oil & Grease - Waste)**

- TM LAND 011-93      Special Waste Oil Determination by Petroleum Ether Extraction (Special Waste Regulations Act, BCMOE Determination of Waste Oil Content Modified)  
Oil and Grease Dried Basis  
Oil as Received

**(SWEP Modified Leachate -Waste)**

- TM LAND 012-93      Metals by ICP-MS as prepared by SWEP (Modified SWEP) (Hazardous Waste Regulation, Reg 63/88, Modified Leachate Extraction Procedure Modified, APHA 3120 B Modified), ICP analysis  
Arsenic  
Barium  
Boron  
Cadmium  
Chromium  
Copper  
Lead  
Mercury  
Selenium  
Silver  
Uranium



Zinc

**(TCLP Leachate - Waste)**

EPA 1311	Toxicity Characteristic Leachate Procedure Antimony Arsenic Barium Beryllium Boron Cadmium Chromium Cobalt Copper Iron Lead Mercury Nickel Selenium Silver Thallium Uranium Vanadium Zinc Zirconium
TM LAND 013-93	Metals by ICP-MS as prepared by TCLP in Liquid, Solid and Waste Samples (EPA 1311 Toxicity Characteristic Leachate Procedure Modified), ICP analysis Antimony Arsenic Barium Beryllium Boron Cadmium Chromium Cobalt Copper Iron Lead Mercury Nickel Selenium



Silver  
Thallium  
Uranium  
Vanadium  
Zinc  
Zirconium

**Water (Inorganic)**

**(pH - Water)**

See pH – Waste and Soil  
pH and Electrical Conductivity, Total and Phenolphthalein Alkalinity in Water and Soil (APHA 4500-H<sup>+</sup> B, APHA 2510 B, BCMOE Alkalinity, Total, Titrimetric pH 4.5 Modified)  
Alkalinity  
EC  
pH

**(Salinity - Water)**

TM DW 004-93  
Salinity, pH and EC in Water and in Soil & Waste by Saturated Paste (SSMA Ch 15, EPA 3005A Modified)  
% Saturation  
Calcium  
EC  
Magnesium  
pH  
Potassium  
SAR  
Sodium  
Sulfate

**Water (Organic)**

**(Extractable Petroleum Hydrocarbons - Water)**

TM TEH001-93  
Extractable Petroleum Hydrocarbons in Soil and Water by GC FID (BC Environmental Lab Manual, Extractable Petroleum Hydrocarbons in Water Modified)  
EPH 10-19  
EPH 19-32

**(Petroleum Hydrocarbon (PHC/BTEX) - Water)**





TM ORG 001-93      BTEX/VPH in Soil & Water by GC FID/MSD (B.C. Environmental Lab Manual, Monocyclic Aromatic Hydrocarbons /Volatile Hydrocarbons in Water, Modified)  
Benzene  
Ethylbenzene  
m/p - Xylene  
Methyl tert butyl Ether (MTBE)  
o - Xylene  
Styrene  
Toluene  
Volatile Hydrocarbons (C6-C10)  
Volatile Petroleum Hydrocarbons (C6-C10 - BTEX)

**(Polycyclic Hydrocarbons (PAH) - Water)**

TM ORG 002-93      Polycyclic Aromatic Hydrocarbons in Soil and Water by GC MS (B.C. Environmental Lab Manual, PAH in Water, Modified)  
1-Methylnaphthalene  
2-Methylnaphthalene  
Acenaphthalene  
Acenaphthylene  
Acridine  
Anthracene  
Benzo (a) anthracene  
Benzo (a) pyrene  
Benzo (b) fluoranthene  
Benzo(b+j) fluoranthene  
Benzo (g,h,i) perylene  
Benzo (j) fluoranthene  
Benzo (k) fluoranthene  
Chrysene  
Dibenzo (a,h) anthracene  
Fluoranthene  
Fluorene  
Indeno (1,2,3 - cd) pyrene  
Naphthalene  
Phenanthrene  
Pyrene  
Quinoline

Number of Scope Listings: 28



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**Notes:**

ASTM: American Society of Testing and Materials  
ISO/IEC 17025: General Requirements for the Competence of Testing and Calibration Laboratories  
TM XXXX #: Exova in-house Test Methods.  
MSA: Methods of Soil Analysis, SSSA Book Series no. 5, 1996  
MSS: Manual on Soil Sampling and Methods of Analysis - J.A. McKeague, 1978  
SSMA: Soil Sampling and Methods of Analysis, Martin R. Carter, 2008  
EPA: Environmental Protection Agency  
BCMEOE: British Columbia Ministry of Environment  
EPS: Environmental Protection Series  
APHA: American Public Health Association  
AER: Alberta Energy Regulator

\*TM INORG 001-93 and TM INORG 002-93 are the same methods, but analysis is done with two different instrument techniques.

This document forms part of the Certificate of Accreditation issued by the Standards Council of Canada (SCC). The original version is available in the Directory of Accredited Laboratories on the SCC website at [www.scc.ca](http://www.scc.ca).

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