

## SCOPE OF ACCREDITATION

**Exova Canada Inc.**  
**DRAYTON VALLEY LABORATORY**  
**7407 Twp Road 485 P.O. Box 7706**  
**Drayton Valley, AB**  
**T7A 1R7**

Accredited Laboratory No. 296  
(Conforms with requirements of CAN-P-4E (ISO/IEC 17025:2005))

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CLIENTS SERVED: All interested parties

FIELDS OF TESTING: Chemical/Physical

PROGRAM SPECIALTY AREA: Environmental

ISSUED ON: 2010-10-29

VALID TO: 2015-07-07

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

#### **Environmental**

#### **Soil/Sludge**

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

TM GC 050-28

LEACHABLE BTEX IN SOLIDS AND WASTE BY  
GAS CHROMATOGRAPHY (EPA, SW-846 Extraction,  
EPA 5021A, EPA 8021B, EPA 8015D for Analysis  
Modified)

Benzene  
Ethyl Benzene  
m,p-xylene  
o-xylene  
Toluene

**(Metals - Soil/Sludge)**

TM SC 075-28

TOXICITY CHARACTERISTIC LEACHING  
PROCEDURE IN SOLID SAMPLES (EPA 1311  
Modified)

Antimony  
Arsenic  
Barium  
Beryllium  
Boron  
Cadmium  
Chromium  
Cobalt  
Copper  
Iron  
Lead  
Mercury  
Nickel  
Selenium  
Silver  
Thallium  
Uranium  
Vanadium  
Zinc  
Zirconium

**(Microtox - Soil/Sludge)**

TM WC 065-28

Microtox - 15 Minute Multiple Concentration Acute,  
Static, EC50 Bioassays (EPS1/RM/24 Modified)

Microtox EC20 (15 min)  
Microtox EC20 (5 min)  
Microtox EC50 (5 min)  
Microtox EC50( 15 min)

**(pH - Soil/Sludge)**

TM SC 006-28                      pH 1:1 IN WASTE (EPA 9045C Modified)  
pH

**Water (Inorganic)**

**(Alkalinity - Water)**

TM WC 005-28                      ALKALINITY IN WATER BY AUTOTITRATOR  
(APHA 2320 B Modified)  
Alkalinity (pH 4.5)

**(Ammonium - Water)**

TM WC 020-28                      AMMONIUM IN AQUEOUS SOLUTIONS BY  
COLORIMETRY (HACH Method 8038 Modified)

**(Chemical Oxygen Demand (COD) - Water)**

TM WC 060-28                      CHEMICAL OXYGEN DEMAND IN WATER AND  
WASTE WATER BY BLOCK DIGESTION (HACH  
Method 8000 Modified)  
COD

**(Conductivity - Water)**

TM WC 015-28                      ELECTRICAL CONDUCTIVITY IN AQUEOUS  
SOLUTIONS (APHA 2510 B Modified)  
Conductivity (25°C)

**(Major Ions - Water)**

TM WC 025-28                      ANIONS IN AQUEOUS SOLUTIONS BY ION  
CHROMATOGRAPHY (APHA 4110 B Modified)  
Chloride  
Nitrate-N  
Nitrite-N  
Sulfate

**(Metals - Water)**

TM WC 080-28                      METALS IN AQUEOUS SOLUTIONS BY ICP (APHA  
3120 B Modified)  
Calcium  
Iron

Magnesium  
Manganese  
Potassium  
Sodium

**(pH - Water)**

TM WC 010-28                      pH IN AQUEOUS SOLUTIONS (APHA 4500-H+B  
Modified)  
pH

**(Total Oil And Grease - Water)**

TM WC 095-28                      TOTAL OIL & GREASE IN WATER BY  
GRAVIMETRIC ANALYSIS (EPA 1664 Modified)  
Total Oil And Grease

**(Total Suspended Solids (TSS) - Water)**

TM WC 035-28                      TOTAL SUSPENDED SOLIDS IN WATER AND  
WASTEWATER DRIED AT 104 oC (APHA 2540 D  
Modified)  
Total Suspended Solids

**Water (Toxicology)**

**(Microtox - Water)**

TM WC 065-28                      Microtox - 15 Minute Multiple Concentration Acute,  
Static, EC50 Bioassays (EPS1/RM/24 Modified)  
Microtox EC 20 (15min.)  
Microtox EC 20 (5min.)  
Microtox EC 50 (15min.)  
Microtox EC 50 (5min.)

**NON METALLIC MINERALS AND PRODUCTS**

**Petroleum Crudes and Natural Gas:**

**(Glycol)**

TM GC 065-28                      Analysis of Glycol Compounds by Gas Chromatography  
(ASTM E202-94a Modified)  
Di-ethylene Glycol  
Ethylene Glycol

TM OC 058-28      Tetra-ethylene Glycol  
Tri-ethylene Glycol  
Anions in Glycol by Ion Chromatography (APHA 4110 B Modified)  
Chloride  
Nitrite-N  
Phosphate-P  
Sulfate

**(Natural Gas)**

TM GC 095-28      Gas Analysis by Gas Chromatography (GPA 2261-95 Modified)  
Air  
Carbon Dioxide  
Ethane  
Helium  
Heptane  
Hexane  
i-Butane  
i-Pentane  
Methane  
n-butane  
Nitrogen  
n-Pentane  
Oxygen  
Propane

**(Oil)**

ASTM D 4052      Oil Density by Digital Density Meter (TM OC-010-28)  
TM OC 005-28      Basic Sediments and Water (BS&W): Sediment %; Water % (ASTM D4007 Modified)  
TM OC 015-28      Total Sulfur Content in Oil (ASTM 4294 Modified)  
TM OC 040-28      Ashpaltenes Content of Crude Oil, Condensated and Bitumen (Syncrude 5.1 Modified)  
TM OC 080-28      Organic Phosphorus in Light Crude Oil by ICP (CAPP Orano-Phosphorus modified)  
TM OC 085-28      Organic Chloride in Crude Oil by Titration (ASTM D4929-07 modified)

**(Soil Sludge)**

TM SC 051-28      Flash Point of Liquid and Soil Samples by Closed Cup Tester (ASTM-D93 Modified)

**(Water, Oil)**

TM SC 051-28

Flash Point of Liquid and Soil Samples by Closed Cup  
Tester (ASTM D93 Modified)

**Notes:**

***CAN-P-4E (ISO/IEC 17025):*** General Requirements for the Competence of Testing and Calibration Laboratories (ISO/IEC 17025-2005)

***CAN-P-1585*** - Requirements for the Accreditation of Environmental Testing Laboratories

***TM GC-#, TM OC-#, TM WC-#, TM SC-#:*** Subject Laboratory in-house Test Methods.

***APHA:*** American Public Health Association, Standard Methods for the Examination of Water and Wastewater, 21st Ed.

***ASTM:*** American Society of Testing and Materials

***CAPP:*** Canadian Association of Petroleum Producers

***EPS:*** Environment Canada, Environmental Protection Series

***GPA:*** Gas Processors Association

***HACH:*** HACH Analytical Procedures for DR/200 and DR/300 Instruments

***Syncrude:*** Syncrude Analytical Methods

***EPA:*** Environmental Protection Agency

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S. Cross, Director, Conformity Assessment

Date: 2010-10-29

Number of Scope Listings: 25

SCC 1003-15/361

Partner File #0

Partner: SCC