

# CALA Scope of Accreditation

**Laboratory Name:** Fluid Life Ltd. - Bloomington Laboratory

**Client ID:** 1003822

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**Standard:** Conforms with requirements of ISO/IEC 17025:2017

**Clients Served:**

**Revised On:** 08/17/2021

**Valid To:** 02/17/2024

## 001 - Nitration and Oxidation and Sulphation and Soot

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**Field of Accreditation:** Petroleum

**Matrix:** Oil

**Analytical Method:** FTIR

**Preparation Method:**

**Lab Method ID(s):** LAB-030

Method Reference	Modified From	Analytical Method	Preparation Method
ASTM E2412	Yes	Yes	No

**Parameter**

Nitration  
Oxidation  
Soot (%) Loading  
Sulphation

## 002 - Kinematic Viscosity

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**Field of Accreditation:** Petroleum

**Matrix:** Oil

**Analytical Method:** VISCOMETER

**Preparation Method:**

**Lab Method ID(s):** LAB-027

Method Reference	Modified From	Analytical Method	Preparation Method
ASTM D445	Yes	Yes	No

**Parameter**

Viscosity at 100 degrees C  
Viscosity at 40 degrees C

## 003 - Kinematic Viscosity

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**Field of Accreditation:** Petroleum

**Matrix:** Oil

**Analytical Method:** VISCOMETER

**Preparation Method:**

**Lab Method ID(s):** LAB-011, LAB-012

Method Reference	Modified From	Analytical Method	Preparation Method
ASTM D445	Yes	Yes	No

**Parameter**

Viscosity at 100 degrees C  
Viscosity at 40 degrees C

## 004 - Water Content

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**Field of Accreditation:** Petroleum

**Matrix:** Oil

**Analytical Method:** KARL FISCHER TITRATION

**Preparation Method:**

**Lab Method ID(s):** LAB-018

Method Reference	Modified From	Analytical Method	Preparation Method
ASTM D6304	Yes	Yes	No

**Parameter**

Water Content

## 005 - Acid Number

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Field of Accreditation: Petroleum

Matrix: Oil

Analytical Method: AUTOMATED TITRIMETRIC

Preparation Method:

Lab Method ID(s): LAB-008

Method Reference	Modified From	Analytical Method	Preparation Method
ASTM D664	Yes	Yes	No

**Parameter**  
Acid Number

## 006 - Base Number

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Field of Accreditation: Petroleum

Matrix: Oil

Analytical Method: AUTOMATED TITRIMETRIC

Preparation Method:

Lab Method ID(s): LAB-044

Method Reference	Modified From	Analytical Method	Preparation Method
ASTM D4739	Yes	Yes	No

**Parameter**  
Base Number

## 007 - Water Content

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Field of Accreditation: Petroleum

Matrix: Oil

Analytical Method: CRACKLE

Preparation Method:

Lab Method ID(s): LAB-009

Method Reference	Modified From	Analytical Method	Preparation Method
IN-HOUSE	No	Yes	No
"THE VISUAL CRACKLE" PRACTICING OIL ANALYSIS MAGAZINE SEPT 1998	No	Yes	No

**Parameter**  
Crackle

## 008 - Metals

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Field of Accreditation: Petroleum

Matrix: Oil

Analytical Method: ICP

Preparation Method:

Lab Method ID(s): LAB-029

Method Reference	Modified From	Analytical Method	Preparation Method
ASTM D5185	Yes	Yes	No

**Parameter**  
Aluminum  
Antimony  
Barium  
Beryllium  
Boron  
Cadmium  
Calcium  
Chromium  
Copper  
Iron  
Lead  
Lithium  
Magnesium  
Manganese  
Molybdenum  
Nickel  
Phosphorus  
Potassium  
Silicon  
Silver  
Sodium  
Tin  
Titanium  
Vanadium

**Parameter**

Zinc

**009 - Particle Count**

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**Field of Accreditation:** Petroleum**Matrix:** Oil**Analytical Method:** PARTICLE COUNTER**Preparation Method:****Lab Method ID(s):** LAB-051

Method Reference	Modified From	Analytical Method	Preparation Method
ISO 11500	Yes	Yes	No
ISO 4406	Yes	Yes	No

**Parameter**

Particle Count (4, 6, 14um)

**010 - Fuels**

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**Field of Accreditation:** Petroleum**Matrix:** Oil**Analytical Method:** GC/FID**Preparation Method:****Lab Method ID(s):** LAB-017

Method Reference	Modified From	Analytical Method	Preparation Method
ASTM D7593	Yes	Yes	No

**Parameter**

Fuel

**011 - Glycols**

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**Field of Accreditation:** Petroleum**Matrix:** Oil**Analytical Method:** GC/FID**Preparation Method:****Lab Method ID(s):** LAB-017

Method Reference	Modified From	Analytical Method	Preparation Method
ASTM D7922	Yes	Yes	No

**Parameter**

Ethylene glycol

Propylene glycol

**012 - Optical Particle Count**

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**Field of Accreditation:** Petroleum**Matrix:** Oil**Analytical Method:** PARTICLE COUNTER**Preparation Method:****Lab Method ID(s):** LAB-015

Method Reference	Modified From	Analytical Method	Preparation Method
IN-HOUSE	Yes	Yes	No
ISO 4406	Yes	Yes	No

**Parameter**

Particle Count (4, 6, 14um)

† "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](http://www.cala.ca/cala_directories.html)