



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

POLARIS LABORATORIES, ULC  
5140 75<sup>th</sup> Street  
Edmonton, AB Canada T6E 6W2  
David Swanson Phone: 317 808 3750 Ext. 1302

CHEMICAL

Valid To: June 30, 2020

Certificate Number: 2145.04

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted this laboratory to perform the following tests on petroleum products including oil, fuel, hydraulic fluid, lubricants and coolants:

<u>Test</u>	<u>Test Method(s)</u>
<b><u>Lubricants/Oil</u></b>	
Acid Number	WI-0175 (Based on Modified ASTM D664)
Base Number	WI-0046 (Based on Modified ASTM D4739)
Fuel Dilution by Gas Chromatography	WI-0086; ASTM D7593
Fuel Soot % (FTIR)	WI-0157; ASTM E2412
Glycol	WI-0024 (Based on Modified ASTM D2982A)
ICP Elemental Analysis Ag, Al, B, Ba, Ca, Cd, Cr, Cu, Fe, K, Li, Mg, Mn, Mo, Na, Ni, P, Pb, Sb, Si, Sn, Ti, V, Zn	WI-0121 (Based on Modified ASTM D5185)
i-pH	WI-0175 (Based on Modified ASTM D7946)
Oxidation/Nitration (FTIR)	WI-0157; ASTM E2412
Particle Count	WI-0004 (Based on Modified ISO 11500)
Particle Quantifier	WI-0041
Viscosity @ 40° C or 100° C	WI-0061 (Based on Modified ASTM D445)
Viscosity Index (Calculation)	WI-0234; ASTM D2270
Water % (Estimate) (FTIR)	WI-0157; ASTM E2412
Water % by Crackle	WI-0012
Water by Karl Fischer (% or ppm)	WI-0259 (Based on ASTM D6304C)

<b><u>Test</u></b>	<b><u>Test Method(s)</u></b>
<b><u>Coolants</u></b>	
Antifreeze % Refractometer	WI-0087
Conductivity & Total Dissolved Solids	WI-0056
Freeze Point & Boil Point (Calculation)	WI-0126
Hardness % Calcium Carbonate(Calculation)	WI-0127
ICP Elemental Analysis Ag, Al, B, Ca, Cu, Fe, K, Mg, Mo, Na, P, Pb, Si, Sn, Zn	WI-0120 (Based on ASTM D6130)
Ion Chromatography	WI-0209 (Based on ASTM D5827)
Nitrites	WI-0276
pH Waters	WI-0023; ASTM D1287
SCA Number (Calculation)	WI-0127
Visual Coolant Testing	WI-0053
<b><u>Fuels</u></b>	
Aerobic Bacteria	WI-0036
Bacteria, Fungi, Mold	WI-0037



## *Accredited Laboratory*

A2LA has accredited

### **POLARIS LABORATORIES, ULC**

*Edmonton, AB Canada T6E 6W2*

for technical competence in the field of

### Chemical Testing

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005 *General requirements for the competence of testing and calibration laboratories*. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (*refer to joint ISO-ILAC-IAF Communiqué dated April 2017*).



Presented this 31<sup>ST</sup> day of May 2018.

A handwritten signature in black ink, written over a horizontal line.

President and CEO  
For the Accreditation Council  
Certificate Number 2145.04  
Valid to June 30, 2020

*For the tests to which this accreditation applies, please refer to the laboratory's Chemical Scope of Accreditation.*