



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

POLARIS LABORATORIES, LLC
3060 California Ave., Suite B
Salt Lake City, UT 84104
David Swanson Phone: 317 808 3750 Ext. 1302

CHEMICAL

Valid To: June 30, 2020

Certificate Number: 2145.03

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to 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>
Lubricants / Oils	
Acid Number	WI-0175 (Based on Modified ASTM D664)
Base Number	WI-0195 (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 D2982)
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-0322; ASTM D7647; ISO 4406 (Based on Modified ISO 11500)
Particle Quantifier	WI-0255
Viscosity @ 40° C or 100° C	WI-0061 (Based on Modified ASTM D445)

<u>Test</u>	<u>Test Method(s)</u>
Viscosity Index (Calculation)	WI-0234; ASTM D2270 X2
Water % (Estimate) (FTIR)	WI-0157; ASTM E2412
Water % by Crackle (Estimate)	WI-0012
Water by Karl Fischer (% or ppm)	WI-0259 (Based on Modified ASTM D6304C)
Coolants	
Antifreeze % Refractometer	WI-0087
Conductivity & Total Dissolved Solids (Calculation)	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 Modified ASTM D6130)
Nitrites	WI-0276
pH Waters	WI-0023; ASTM D1287
SCA Number	WI-0127
Visual Coolant Testing	WI-0053
Fuels	
Aerobic Bacteria	WI-0036
Bacteria, Fungi, Mold	WI-0037

Key: WI = Laboratory Internal SOP





Accredited Laboratory

A2LA has accredited

POLARIS LABORATORIES, LLC

Salt Lake City, UT

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 15th day of May 2018.

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

President and CEO
For the Accreditation Council
Certificate Number 2145.03
Valid to June 30, 2020

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