



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

ALS OIL & LUBRICANTS (TRIBOLOGY)

3319 West Earll Drive

Phoenix, AZ 85017

Madison Dawn

Phone: 602-253-6515

CHEMICAL

Valid To: October 31, 2026

Certificate Number: 5681.03

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following tests on Lubricants and Oils:

Test:

Test Method(s):

Acid Number by Potentiometric Titration

ASTM D664 (Modified); ALS SOP 6003

Base Number by Potentiometric Titration

ASTM D4739 (Modified); ALS SOP 6004

FTIR (general setup and use)

ASTM D7418, E2412

Oxidation

ASTM D7414, E2412

Sulphation

ASTM D7415, E2412

Nitration

ASTM E2412

Soot

ASTM D7844, E2412

Fuel Dilution by Gas Chromatography

ASTM D7593

Particle Count by Light Extinction

ASTM D7647

Particle Count Coding

ISO 4406

Viscosity, Kinematic

ASTM D445 (Modified); ALS SOP 5011

Water by Karl Fischer, Coulometric Titration

ASTM D6304B

Water by Karl Fischer Oven, Volumetric Titration

ASTM E203 (Modified); ALS SOP 6001

Wear, Additive, and Contaminant Metals by ICP/OES
(Al, Sb, Ba, B, Ca, Cr, Cu, Fe, Pb, Mg, Mn, Mo, Ni,
P, K, Si, Ag, Na, Sn, Ti, V, Zn)

ASTM D5185 (Modified); ALS SOP 3006



Accredited Laboratory

A2LA has accredited

ALS OIL & LUBRICANTS (TRIBOLOGY)

Phoenix, AZ

for technical competence in the field of

Chemical Testing

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017 *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 20th day of August 2024.

A blue ink signature of Mr. Trace McInturff.

Mr. Trace McInturff, Vice President, Accreditation Services
For the Accreditation Council
Certificate Number 5681.03
Valid to October 31, 2026
Revised September 4, 2024

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