



SCOPE OF ACCREDITATION TO ISO 17034:2016

ASTM INTERNATIONAL
100 Barr Harbor Drive
West Conshohocken, PA 19428
Jeremy Bond 610 832 9500

REFERENCE MATERIALS PRODUCER

Valid To: May 31, 2027

Certificate Number: 4209.02

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this Reference Material Producer for the production of Certified Reference Materials and Reference Materials in the following categories:

Certified Reference Materials and Reference Materials ¹ / Matrix or Artifact	Properties Characterized ²	Standard Test Methods
Petroleum Crude Oils	Acidity	ASTM D664
	Carbon Residue	ASTM D4530
	Chloride	ASTM D4929
	Density	ASTM D287, ASTM D1298, ASTM D5002
	Distillation - Simulated	ASTM D7169
	Heptane Insolubles	ASTM D6560
	Metals	ASTM D5708, ASTM D5863
	Nitrogen	ASTM D4629, ASTM D5762
	Pour Point	ASTM D97, ASTM D5853
	Salt	ASTM D3230
	Sediment	ASTM D473, ASTM D4807
	Sediment and Water	ASTM D4007
	Sulfur	ASTM D2622, ASTM D4294
	Vapor Pressure	ASTM D323, ASTM D5191, ASTM D6377
	Viscosity	ASTM D445, ASTM D7042
	Water	ASTM D4006, ASTM D4377, ASTM D4928
Volatile Liquid Fuels, including: Motor Gasoline, Reformulated Gasoline,	Acidity	ASTM D1613, ASTM D7795
	Benzene and Aromatics	ASTM D3606, ASTM D5580, ASTM D5769
	Bromine Number	ASTM D1159
	Chloride and Sulfate	ASTM D7319

Certified Reference Materials and Reference Materials ¹ / Matrix or Artifact	Properties Characterized ²	Standard Test Methods
Naphtha, Fuel Ethanol	Density	ASTM D287, ASTM D1298, ASTM D4052
	Distillation	ASTM D86
	Ethanol	ASTM D5501
	Gum	ASTM D381
	Hydrocarbon Types	ASTM D1319, ASTM D5443, ASTM D6730, ASTM D6839
	Lead	ASTM D3237
	Mercaptan Sulfur	ASTM D3227
	Nitrogen	ASTM D4629
	Octane Number	ASTM D2699, ASTM D2700
	Olefins	ASTM D6550
	Oxygenates	ASTM D4815, ASTM D5599
	pH	ASTM D6423
	Sulfur	ASTM D2622, ASTM D5453, ASTM D7039
	V/L Ratio	ASTM D5188
	Vapor Pressure	ASTM D5191
	Water	ASTM E203, ASTM E1064
Non-Volatile Liquid Fuels, including: Diesel Fuel, Aviation Jet Fuel, F24 Jet Fuel, Fuel Oil, General Gas Oil, Biodiesel	Acidity	ASTM D664, ASTM D974, ASTM D3242
	Aromatics	ASTM D5186, ASTM D6379, ASTM D6591
	Ash	ASTM D482, ASTM D874
	Bromine Number	ASTM D1159
	Carbon and Hydrogen	ASTM D5291
	Carbon Residue	ASTM D189, ASTM D524, ASTM D4530
	Cetane Number	ASTM D613, ASTM D6890, ASTM D7668
	Cloud Point	ASTM D2500, ASTM D5771, ASTM D5773, ASTM D7689
	Cold Filter Plugging Point	ASTM D6371
	Density	ASTM D287, ASTM D1298, ASTM D4052, ASTM D7777
	Distillation	ASTM D86, ASTM D7345
	Distillation - Simulated	ASTM D2887
	Distillation - Vacuum	ASTM D1160
	Electrical Conductivity	ASTM D2624
	FAME	EN 14078, EN 14103
	Filter Blocking Potential	ASTM D7501
	Flash Point	ASTM D56, ASTM D93, ASTM D3828, ASTM D7094

Certified Reference Materials and Reference Materials ¹ / Matrix or Artifact	Properties Characterized ²	Standard Test Methods
	Freeze Point	ASTM D2386, ASTM D5972, ASTM D7153
	Glycerides	ASTM D6584
	Gum	IP 540
	Heat of Combustion	ASTM D240, ASTM D4809
	Heptane Insolubles	ASTM D3279, ASTM D6560
	Hydrocarbon Types	ASTM D1319
	Mercaptan Sulfur	ASTM D3227
	Metals	ASTM D4951, ASTM D5184, ASTM D5185, ASTM D5708, ASTM D5863, ASTM D8110, EN 14538
	Methanol	EN 14110
	MSEP Rating	ASTM D3948, ASTM D7224
	Naphthalenes	ASTM D1840
	Nitrogen	ASTM D4629, ASTM D5762
	Oxidation Stability	ASTM D3241, ASTM D6468, ASTM D7545, EN 14112, EN 15751
	Particulate Contamination	ASTM D5452, ASTM D6217, ASTM D7321
	Pour Point	ASTM D97, ASTM D5949, ASTM D5950
	Sediment	ASTM D473, ASTM D4870
	Sediment and Water	ASTM D1796
	Smoke Point	ASTM D1322
	Sulfur	ASTM D2622, ASTM D4294, ASTM D5453, ASTM D7039
	Viscosity	ASTM D445, ASTM D7042
	Water	ASTM D95, ASTM D6304, ASTM E203
	Wear Scar Diameter	ASTM D5001, ASTM D6079, ASTM D7688
Lubricants, including: Base Oil, Automotive Lubricant Additives, Auto Transmission Fluid, Gear Oil, Industrial Gear Oil, Engine Lubricating Oil, In-Service Engine Oil, Hydraulic Fluid, In-Service Hydraulic Fluid, Turbine Oil	Acidity and Alkalinity	ASTM D664, ASTM D974, ASTM D2896, ASTM D4739
	Aniline Point	ASTM D611
	Ash	ASTM D482, ASTM D874
	Carbon and Hydrogen	ASTM D5291
	Carbon Residue	ASTM D189
	Density	ASTM D1298, ASTM D4052
	Distillation - Simulated	ASTM D2887
	Evaporation Loss	ASTM D5800, ASTM D6375
	Flash Point	ASTM D92, ASTM D93, ASTM D3828
	Metals	ASTM D4951, ASTM D5184, ASTM D5185, ASTM D6481, ASTM D6595

Certified Reference Materials and Reference Materials ¹ / Matrix or Artifact	Properties Characterized ²	Standard Test Methods
	Nitrogen	ASTM D4629, ASTM D5762
	Oxidation Stability	ASTM D2272
	Particle Count	ASTM D7647
	Pentane Insolubles	ASTM D4055, ASTM D893
	Pour Point	ASTM D97, ASTM D5949, ASTM D5950, ASTM D6749, ASTM D7346
	Saponification Number	ASTM D94
	Sheer Stability	ASTM D6278
	Sulfur	ASTM D2622, ASTM D4294, ASTM D5453
	Viscosity	ASTM D445, ASTM D2983, ASTM D4684, ASTM D5133, ASTM D5293, ASTM D5481, ASTM D7042, ASTM D7279
	Volatility	ASTM D6417
	Water	ASTM D1744, ASTM D6304, ASTM E203
	Water Separability	ASTM D1401
	Wear Characteristics	ASTM D2783, ASTM D4172
Petrochemicals, including: Benzene, Mixed Xylene, para-Xylene	Acidity	ASTM D847
	Bromine Index	ASTM D5776
	Density	ASTM D4052
	Distillation	ASTM D850
	Hydrocarbon Types	ASTM D4492, ASTM D7504
	Nitrogen	ASTM D4629
	Sulfur	ASTM D7183
	Water	ASTM D6304, ASTM E1064
Insulating Fluids	Acidity	ASTM D664, ASTM D974, IEC 62021-1
	Density	ASTM D1298, ASTM D4052
	Dielectric Breakdown	ASTM D877, ASTM D1816, IEC 60156
	Dissipation Factor	IEC 60247
	Flash Point	ASTM D92, ASTM D93
	Particle Count	ASTM D6786
	Pour Point	ASTM D97
	Power Factor	ASTM D924
	Resistivity	ASTM D1169
	Viscosity	ASTM D445, ASTM D7042
	Water	ASTM D1533, ASTM D6304, IEC 60814

Certified Reference Materials and Reference Materials¹ / Matrix or Artifact	Properties Characterized²	Standard Test Methods
Engine Coolants	Ash	ASTM D1119
	Chloride	ASTM D3634
	Chloride and Anions	ASTM D5827
	Density	ASTM D1122, ASTM D5931
	Distillation	ASTM D1120
	Freeze Point	ASTM D1177, ASTM D3321
	Metals	ASTM D6130
	pH	ASTM D1287
	Reserve Alkalinity	ASTM D1121
	Water	ASTM D1123

¹ Availability as Certified Reference Material, Reference Material, or both, depends on whether the candidate batch meets necessary performance criteria.

² Measurements are carried out by consensus-based laboratory proficiency testing program participants, using specified standardized test methods that are appropriate for the analytes of concern in the corresponding matrix, and are of demonstrable accuracy.



Accredited Reference Material Producer

A2LA has accredited

ASTM INTERNATIONAL

West Conshohocken, PA

This accreditation covers the specific materials listed on the agreed upon Scope of Accreditation.

This producer meets the requirements of ISO 17034:2016 *General Requirements for the Competence of Reference Material Producers*. This accreditation demonstrates technical competence for a defined scope and the operation of a quality management system.

Presented this 20th day of August 2025.

A blue ink signature of Trace McInturff, written in a cursive style.

Trace McInturff, Vice President, Accreditation Services
For the Accreditation Council
Certificate Number: 4209.02
Valid to: May 31, 2027



For reference materials to which this accreditation applies, please refer to the reference material producer's Scope of Accreditation.