



SCOPE OF ACCREDITATION TO ISO/IEC 17043:2010

ASTM INTERNATIONAL
 100 Barr Harbor Drive
 West Conshohocken, PA 19428
 Amy Meacock 610 832 9688

PROFICIENCY TESTING PROVIDER

Valid To: May 31, 2021

Certificate Number: 4209.01

In recognition of the successful completion of the A2LA evaluation process, this proficiency testing provider has been found to meet ISO/IEC 17043:2010, “Conformity Assessment-General Requirements for Proficiency Testing”. Accreditation is granted to this provider to provide proficiency testing samples in the following programs:

<u>PROGRAM</u>	<u>ANALYTES MEASURED¹</u>
<u>Automatic Lubricant Additives</u>	
D664	Acid Number - Total
D4628, D4951, D5185	Additive Elements
D482	Ash
D874	Ash Sulfated
D2896, D4739	Base Number
D1298, D4052	Density
D92, D93	Flash Point
D5291	Nitrogen
D1552	Sulfur Content
D445	Viscosity, Kinematic
D6304	Water by KF
<u>Automatic Transmission Fluid</u>	
D974	Acidity
D664	Acid Number - Total
D4951, D5185	Additive Elements
D287	API Gravity
D2896, D4739	Base Number
D1500	Color
D130	Copper Corrosion
D1298, D4052	Density
D93, D92	Flash Point
D665	Rust Prevention
D445	Viscosity Kinematic
D2983	Viscosity, Low Temperature

<u>PROGRAM</u>	<u>ANALYTES MEASURED¹</u>
<u>Base Oil</u>	
D664, D974	Acid Number
D611	Aniline Point
D482	Ash Content
D2007	Clay-Gel Absorption
D1500, D6045	Color
D130	Copper Strip
D1298, D4052	Density
D2887	Distillation
D5800	Evaporation Loss
D92, D93	Flash Point
D5762	Nitrogen by Boat Inlet
D97, D5950, D5985, D5949	Pour Point
D1218	Refractive Index
D2622, D4294	Sulfur
D5293	Viscosity/Cold Crank Simulator
D445, D2270, D7042	Viscosity, Kinematic
D6417	Volatility
D6304, D1401	Water
<u>Biodiesel</u>	
D664, D974	Acidity
D482, D874	Ash
D4530, D189	Carbon Residue
D2500, D5771, D5773, D3117	Cloud Point
D6371	Cold Filter Plugging Point
D130	Corrosion
D1298, D4052	Density
D1160	Distillation
EN14538	FAME: Ca, Mg, Na, K by ICP
EN14103	FAME: Linolenic Methyl Ester
EN14110	FAME: Methanol Content
EN14112	FAME: Oxidation Stability
EN15751	FAME: Oxidation Stability
D7501	Filtration, Cold Soak (CSFT)
D93, D3828	Flash Point
D6584	Glycerin
D6079, D7688	Lubricity
D7321	Particulate Contamination
D4951	Phosphorus
D6428, D5453, D1266, D7039	Sulfur
D6468	Thermal Stability
D445, D2270, D7042	Viscosity, Kinematic
D2709	Water and Sediment
D6304	Water by KF



<u>PROGRAM</u>	<u>ANALYTES MEASURED¹</u>
<u>Diesel Fuel</u>	
D974, D664	Acid and Base Number
D482	Ash
D5291	Carbon, Hydrogen and Nitrogen
D189, D524, D4530	Carbon Residue
D2500, D5771, D5772, D5773	Cloud Point
D1500	Color
D6371	Cold Filter Plugging Point
D130	Copper Corrosion
D1298, D4052	Density
D86, D7345	Distillation
D2624	Electrical Conductivity
D93	Flash Point
D240	Heat Content
D6468	High Temp Stability
D1319, D5186, D6591	Hydrocarbon Type
D6079, D7688	Lubricity (HFRR)
D4629, D5762	Nitrogen
D6217	Particulate Contamination by Filtration
D97, D5949, D5950	Pour Point
D2622, D4294, D5453, D7039	Sulfur Content
D445, D7042	Viscosity, Kinematic
D1796, D2709	Water and Sediment
D6304	Water by KF
<u>Engine Oil Lubricants</u>	
D6278	Shear Stability
D664, D974	Acid Number
D4628, D4927, D4951, D5185, D6443, D6481	Additive Elements
D482	Ash
D874	Ash Sulfated
D2896, D4739	Base Number
D1298, D4052	Density
D5800	Evaporating Loss
D92, D93	Flash Point
D5481	HTHS Viscosity
D3228, D4629, D5291, D5762	Nitrogen
D6749, D97, D5949, D5950, D6892	Pour Point
D94	Saponification Number
D129, D5453	Sulfur Content
D445, D7042, D7279	Viscosity, Kinematic
D4741	Viscosity, Tapered Plug
D4683	Viscosity, Tapered Bearing
D4684, D5133, D5293	Viscosity, Low Temperature
D6417	Volatility
D6304	Water



<u>PROGRAM</u>	<u>ANALYTES MEASURED¹</u>
D1744	Water Content
D1500, D6045 (D1500)	Color
D6375	Evaporation Loss by TGA Noack Method
D7346	Pour Point, No Flow Point
<u>Fuel Ethanol</u>	
D1613, D7795	Acidity
D1688 per D4806	Copper Content
D5501	Ethanol/Methanol
D7319, D7328	Inorganic Chloride
D6423	pH
D381	Solvent Washed Gum
D4052	Specific Gravity
D7319, D7328	Sulfate Content
D5453, D7039	Sulfur
E203, E1064	Water
<u>Gear Oil</u>	
D4951, D5185	Additive Elements
D287	API Gravity
D874	Ash Sulfated
D130	Copper Corrosion
D92, D93	Flash Point
D97, D5950	Pour Point
D4294	Sulfur Content
D445	Viscosity, Kinematic
D2983	Viscosity, Low Temperature
<u>General Gas Oil</u>	
D664	Acid Number
D611	Aniline Point
D482	Ash
D1159	Bromine Number
D1500, D6045	Color
D4530, D189	CCR - Carbon Residue
D4052, D287, D1298	Density/API
D1160, D2887, D6352	Distillation
D93	Flash Point
D5863, D5708	Metals, V, Ni, Fe, Na
D97, D5950	Pour Point
D2622, D4294, D1552	Sulfur
D4629, D5762	Total Nitrogen
D445	Viscosity, Kinematic @ 100°C
<u>Hydraulic Fluids & Oils</u>	
D1121	Acid Number
D664, D974	Acid Number
D3427	Air Release



<u>PROGRAM</u>	<u>ANALYTES MEASURED¹</u>
D130	Cu+ Corrosion
D5185, D4951, D6130	Elements by ICP
D92	Flash Point
D892	Foaming Characteristics
D2272	Oxidation Stability
E70	pH @ 25°C
D665	Rust Prevention
D2619	Stability, Hydrolytic
D445	Viscosity, Kinematic
D2070	Thermal Stability
D2983	Viscosity, Low Temperature
D1401	Water Separability
D97, D5950, D6749	Pour Point
<u>Industrial Gear Oil</u>	
D2711	Demulsibility
D92, D93	Flash Point
D2783	4-Ball EP
D4172	4-Ball Wear
D3233	Pin and V-block
D97	Pour Point
D665	Rust Preventions
D2782	Timken EP
D445	Viscosity, Kinematic
D1401	Water Separability
D130	Cu+ Corrosion
<u>Jet Fuel (Aviation Turbine Fuel)</u>	
D3242	Acidity
D5001	BOCLE Lubricity
D976	Calculated Cetane Index
D156, D6045	Color
D3338, D4529, D4809	Combustion, Net Heat
D130	Copper Corrosion
D1298, D4052	Density
D86, D2887, D7345	Distillation
D2624	Electrical Conductivity
D56, D93, D3828	Flash Point
D2386, D5972, D7153	Freeze Point
D5006	Fuel System Icing Inhibitors (FSII)
D381	Gum
D1319, D6379	Hydrocarbon Type
D3701, D3343	Hydrogen Content
D3227	Mercaptan Sulfur
D1840	Naphthalenes
D1322	Smoke Point
D2622, D4294, D5453, D1266, D127	Sulfur Content
D3241	Thermal Stability



<u>PROGRAM</u>	<u>ANALYTES MEASURED¹</u>
D445, D7042	Viscosity, Kinematic
D3948	Water Separation
<u>Jet Military Fuel F24</u>	
D3242	Acidity
D5001	BOCLE Lubricity
D976, D4737	Calculated Cetane Index
D130	Copper Strip Corrosion
D1298, D4052	Density, or API Gravity
D86, D2887, D7345	Distillation
D4952	Doctor Test
D2624	Electrical Conductivity
D93, D3828, D56	Flash Point
D4176	Free Water Particulate Contamination
D2386, D5972, D7153, D7154	Freezing Point
D5006	Fuel Systems Icing Inhibitor (Ether Type)
D381	Gum Content in Fuels by Jet Evaporation
D1319	Hydrocarbon Types
D3701, D3343	Hydrogen Content
D445, D7042	Kinematic Viscosity at -20°C
D1840	Naphthalenes Hydrocarbons
D3338, D4809, D4529	Net Heat of Combustion, MJ/kg BTU/lb
D2276, D5452	Particulate Contaminant
D156, D6045	Saybolt Color of Petroleum Products
D1322	Smoke Point
D6227	Sulfur, Mercaptan
D129, D1266, D2622, D3120, D4294, D5453, D7039	Sulfur, Total Percent
D3241	Thermal Oxidation Stability
D1094	Water Reaction, Interface Rating
D3948, D7224	Water Separation Index
<u>Lubricating Grease</u>	
D217, D1403	Cone Penetration (¼ & ½ scale)
D4048	Copper Corrosion
D1743	Corrosion Preventative Properties
D566, D2265	Dropping Point (Wide temperature range)
D6138	Dynamic Rust Test (Emcor)
D972	Evaporation Loss
D2596	Extreme Pressure Prop. (Timken, 4-Ball)
D4170	Fretting Wear Protection
D3527	High Temp Life Performance
D4290	Leakage Tendencies
D2509	Load Carry Capacity
D1742, D6184	Oil Separations
D5483	Oxidation Induction Time
D942	Oxidation Stability
D1831	Roll Stability



<u>PROGRAM</u>	<u>ANALYTES MEASURED¹</u>
D4049	Water Spray
D1264	Water Washout
D2266, D4170	Wear, 4-Ball
<u>Motor Gasoline</u>	
D3606, D4053, D5580, D5769	Benzene, Toluene, C9, Aromatics
D130	Copper Corrosion
D1298, D4052	Density
D86, D7096	Distillation
D381	Gum
D1319, D6839	Hydrocarbon Type
D3237	Lead Content
D3227	Mercaptan Sulfur
D6550	Olefin Content
D525	Oxidation Stability
D5599, D5845, D4815	Oxygenates
D3231	Phosphorus Content
D2622, D4294, D5453, D7039	Sulfur Content
D5188	Vapor/Liquid Ratio
D5191	Vapor Pressure
<u>Naphtha</u>	
D1159	Bromine Number
D5194, D5808	Chloride in Aromatic Hydrocarbons
D6045	Color
D130	Copper Strip Corrosion
D4052	Density, API Gravity
D5134	Detailed Hydrocarbon Analysis
D86	Distillation
D1319	Hydrocarbon Types
D6729, D6730	Individual Components by GC
D3227	Mercaptan Sulfur
D4629	Nitrogen, Trace
D5443	Aromatic Hydrocarbon Type
D2887	Simulated Distillation
D2622, D4294, D5453, D7039	Sulfur, Total Percent
D5191	Vapor Pressure
<u>Petroleum Wax</u>	
D5442	Gas Chromatography
D4419	Calorimetry, Differential Scanning
D156, D6045, D1500, D2008	Color
D938	Congealing Point
D1298, D4052	Density
D92	Flash Point
D87, D127	Melting Point
D1321	Needle Penetration @ 25 and 40°C
D721	Oil Content



<u>PROGRAM</u>	<u>ANALYTES MEASURED¹</u>
D445	Viscosity, Kinematic @ 100°C
D1833	Odor
D3235	Solvent Extractables
<u>Reformulated Gasoline</u>	
D287	API Gravity
D3606, D5580, D5769	Benzene, Toulene, C ₉ Plus Aromatics
D1298, D4052	Density
D86	Distillation
D381	Gum
D1319	Hydrocarbon Type
D6550	Olefin Content
D4815, D5599, D5845	Oxygenates
D2622, D5453, D7039	Sulfur Content
D5188	Vapor/Liquid Ratio
D5191	Vapor Pressure
<u>Turbine Oil</u>	
D974	Acidity
D3427	Air Release
D130	Copper Corrosion
D2711	Demulsibility
D92, D93	Flash Point
D892	Foam
D4172	4-Ball Wear
D2272	Oxidation Stability
D97, D5949, D5950, D7346	Pour Point
D665	Rust Prevention
D445	Viscosity, Kinematic
D1401	Water Separability
D6304	Water Content

¹Assigned values and associated uncertainties determined via consensus values.





Accredited Proficiency Testing Provider

A2LA has accredited

ASTM INTERNATIONAL *West Conshohocken, PA*

This accreditation covers the specific proficiency testing schemes listed on the agreed upon Scope of Accreditation.

This provider is accredited in accordance with the recognized International Standard ISO/IEC 17043: 2010 *Conformity assessment - General requirements for proficiency testing*. This accreditation demonstrates technical competence for a defined scope and the operation of a quality management system.



Presented this 17th day of April 2017.

President and CEO
For the Accreditation Council
Certificate Number 4209.01
Valid to May 31, 2021

For the proficiency testing schemes to which this accreditation applies, please refer to the provider's Scope of Accreditation.