



PERRY JOHNSON LABORATORY ACCREDITATION, INC.

Certificate of Accreditation

Perry Johnson Laboratory Accreditation, Inc. has assessed the Laboratory of:

Texas Oil Tech Laboratories, Inc.
10630 Fallstone Road, Houston, TX 77099

*(Hereinafter called the Organization) and hereby declares that Organization is accredited
in accordance with the recognized International Standard:*

ISO/IEC 17025:2005

This accreditation demonstrates technical competence for a defined scope and
the operation of a laboratory quality management system
(as outlined by the joint ISO-ILAC-IAF Communiqué dated January 2009):

Petroleum, Fuel, Lubricant & Chemical Testing
(As detailed in the supplement)

Accreditation claims for such testing and/or calibration services shall only be made from addresses referenced within this certificate. This Accreditation is granted subject to the system rules governing the Accreditation referred to above, and the Organization hereby covenants with the Accreditation body's duty to observe and comply with the said rules.

For PJLA:

Tracy Szerszen
President/Operations Manager

Perry Johnson Laboratory
Accreditation, Inc. (PJLA)
755 W. Big Beaver, Suite 1325
Troy, Michigan 48084

Initial Accreditation Date:

November 18, 2011

Issue Date:

April 3, 2016

Expiration Date:

April 3, 2018

Revision Date.:

January 30, 2017

Accreditation No.:

72003

Certificate No.:

L16-147-R1

*The validity of this certificate is maintained through ongoing assessments based
on a continuous accreditation cycle. The validity of this certificate should be
confirmed through the PJLA website: www.pjllabs.com*



Certificate of Accreditation: Supplement

Texas Oil Tech Laboratories, Inc.

10630 Fallstone Road, Houston, TX 77099

Phil Sorubakhsh Phone: 281-495-2400

Accreditation is granted to the facility to perform the following testing:

FIELD OF TEST	ITEMS, MATERIALS OR PRODUCTS TESTED	SPECIFIC TESTS OR PROPERTIES MEASURED	SPECIFICATION, STANDARD METHOD OR TECHNIQUE USED	RANGE (WHERE APPROPRIATE) AND DETECTION LIMIT
Chemical Testing ^F	Petroleum Hydrocarbon Oils, Fuels	Viscosity at 40°C	ASTM D445	0.2 mm ² /s to 300 000 mm ² /s
		Density @ 15°C	ASTM D4052	0.6 g/cm ³ to 1.1 g/cm ³
			ASTM D1298	0.65 g/cm ³ to 1.5 g/cm ³
		Cetane Index	ASTM D976 ASTM D86 ASTM D2887	30 to 60 cetane number, the expected correlation of the Calculated Cetane Index with the ASTM cetane number will be somewhat < ± cetane number for 75 % of the distillate fuels evaluated.
		Sulfur	ASTM D2622	0.000 3 % wt to 4.6 % wt total sulfur
			ASTM D4294	0.01 % wt to 4.6 % wt total sulfur
		Flash Point	ASTM D93 D92	40 °C to 360 °C
		Acid Number	ASTM D664	0.1 mg KOH/g to 150 mg KOH/g
		Total Sediment by Hot Filtration	ASTM D4870	0.01 % wt to 0.5% wt
		Oxidation Stability	ASTM D2274	No detection limit report will be to the nearest 0.1 mg/100 mL
		Carbon Residue: Micro Method on the 10 % Volume Distillation	ASTM D4530 ASTM D524	0.10 % wt to 30.0 % wt
		Cloud Point	ASTM D2500	40 °C to -150 °C
		Pour Point	ASTM D97	40 °C to -150 °C
		Appearance	ASTM D4176	Clear and Bright (pass/fail) Rating Chart
		Water	ASTM D95	0 % to 25 %
		ASH	ASTM D482	0.001 % to 0.18 % mass
		Lubricity, Corrected Wear Scar Diameter	ASTM D6079	A Quality Control Standard is used to Confirm the Analysis
		Hydrogen Sulfide	ASTM D7621	0.4 mg/kg to 15 mg/kg
	Petroleum Products	BTU	ASTM 240	No Detection Limit
			ASTM 4809	Detection Limit > 1 BTU



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Chemical and Mechanical Testing ^F	Petroleum	Metals: Sodium & Vanadium	ASTM D5708-05	DL = 0.075 mg/kg
		Aluminum & Silicon	ASTM D5184-01	
		Zinc, Phosphorus & Calcium	ASTM D5185	
		Calcium, Lead, Vanadium, Silicon, Iron, Magnesium, Sodium, Nickel	ASTM D7111	
		FAME (Fatty Acid Methyl Esters)	ASTM D7371-07	0.01 % to 20 %
		Oxidation Stability	ASTM D5304-06	0.1 mg/100 mL
		Dielectric Breakdown Voltage & Disc Electrodes	ASTM D877-02 ASTM D1816	55 Hz to 2 000 V
		Calc Carbon Aromaticity Index (CCAI)	Calculation	No Unit
Chemical and Environmental Testing ^{FO}	Gas Components	Gas	ASTM D1945	0.01 mol % to 100 mol %
			ASTM D1946	0.01 mol % to 100 mol %
	Metals by ICP-AES	See Metal list	ASTM D1976	DL = 0.075 ppm
	Fuels, oils, Petroleum	Metals - Spectro	ASTM D 6595	0.01 ppm to 100 ppm (24) and 900 ppm (5)
	Cleaner linen	Particle Size	NAS 1638 and ISO 4406	Code 0-10 and ISO Code 1-24
Chemical and Environmental Testing ^F	Fuels, Oils, Petroleum, Aqueous and Non Aqueous	Anions Inorganic	ASTM D4327	1 ppm to 10 ppm
		Anions Inorganic Organic acids	TOL – 6055 (ASTM 5560M)	1 ppm to 10 ppm

1. The presence of a superscript F means that the laboratory performs testing of the indicated parameter at its fixed location. Example: Outside Micrometer^F would mean that the laboratory performs this testing at its fixed location.
2. The presence of a superscript FO means that the laboratory performs calibration of the indicated parameter both at its fixed location and onsite at customer locations. Example: Outside Micrometer^{FO} would mean that the laboratory performs this calibration at its fixed location and onsite at customer locations.