

NVFEL Fuel Analysis Report

26864

Tier 2 gasoline

Batch#

Facility Name: US EPA NVFEL Testing Fuel Group Facility Type: In House

Owner: USEPA Phone: (734) 214-4881

2565 Plymouth Road

Ann Arbor MI 48105-2425 Washtenaw County

US

Inspector: Nancy Tschirhart Inspection Date : 10/23/2013

Time In: 00:00 Time Out: 00:00

Samples Type: Test Fuel

VOC

Inspection information logged in by NST on 7/24/2017.

Season:

Tier 2 gasoline-tank 32C 7-24 FTAG: 26864 Comments: Fuel moved from tank 21 to 32C

Test Code	Test Method	Results	Units	Fuel Code:	3	Analyst	Analysis Date
5808	Total Oxygenate Weight Percent by D5599	0.00	Weight Percent			HS	7/25/2017
552	Oxygen in MTBE by D5599	0.00	Oxygen Weight Percent			HS	7/25/2017
562	Oxygen in ETBE by D5599	0.00	Oxygen Weight Percent			HS	7/25/2017
534	Oxygen in Ethanol by D5599	0.00	Oxygen Weight Percent			HS	7/25/2017
572	Oxygen in TAME by D5599	0.00	Oxygen Weight Percent			HS	7/25/2017
421	Sulfur in Gasoline D2622	40.0	Parts Per Million			NST	8/14/2017
62	Vapor Pressure by D5191 (Modified)	9.07	PS I			NST	7/24/2017
65	Percent Evaporated at 200 Degrees F D86	42.5	Volume Percent			RG	7/26/2017
66	Percent Evaporated at 300 Degrees F D86	88.1	Volume Percent			RG	7/26/2017
49	Olefins in by FIA D1319	0.6	Volume Percent			RCG	7/25/2017
64	Benzene in Gasoline D3606	0.04	Volume Percent			TW	7/31/2017
64	Benzene in Gasoline D3606	0.04	Volume Percent			TW	7/31/2017
532	Ethanol in Fuel by D5599	0.00	Volume Percent			HS	7/25/2017
55	MTBE in Fuel by D5599	0.00	Volume Percent			HS	7/25/2017
59	Total Oxygen Weight Percent by D5599	0.00	Oxygen Weight Percent			HS	7/25/2017
593	Total Oxygenates Volume Percent from D5599	0.00	Volume Percent			HS	7/25/2017
57	TAME in Fuel by D5599	0.00	Volume Percent			HS	7/25/2017
56	ETBE in Fuel by D5599	0.00	Volume Percent			HS	7/25/2017
46	Aromatics by FIA D1319	30.2	Volume Percent			RCG	7/25/2017
69	Specific Gravity @ 60 deg F D4052	0.74320	60/60F			NT	7/24/2017
692	Degrees API D4052	58.89	Degrees API			NT	7/24/2017
691	Density @ 60 deg F D4052	0.74246	g/cm-03 @ 60 deg F			NT	7/24/2017
101	Initial Boiling Point D86	90.7	Degrees F			RG	7/26/2017
110	10 Percent D86	123.1	Degrees F			RG	7/26/2017
150	50 Percent D86	218.8	Degrees F			RG	7/26/2017
190	90 Percent D86	315.0	Degrees F			RG	7/26/2017
200	End Point D86	397.4	Degrees F			RG	7/26/2017
201	Residue D86	1.1	mL			RG	7/26/2017
202	Total Recovery D86	97.7	mL			RG	7/26/2017
203	Loss D86	1.2	mL			RG	7/26/2017

NVFEL Fuel Analysis Report

26864

543	Methanol in Fuel by D5599	0.00 Volume Percent	HS	7/25/2017
584	Iso-Propanol in Fuel by D5599	0.00 Volume Percent	HS	7/25/2017
585	t-Butanol in Fuel by D5599	0.00 Volume Percent	HS	7/25/2017
586	n-Propanol in Fuel by D5599	0.00 Volume Percent	HS	7/25/2017
587	sec-Butanol in Fuel by D5599	0.00 Volume Percent	HS	7/25/2017
588	DIPE in Fuel by D5599	0.00 Volume Percent	HS	7/25/2017
589	Iso-Butanol in Fuel by D5599	0.00 Volume Percent	HS	7/25/2017
5801	t-Amyl Alcohol in Fuel by D5599	0.00 Volume Percent	HS	7/25/2017
5802	n-Butanol in Fuel by D5599	0.00 Volume Percent	HS	7/25/2017
30	Lead in Gasoline by D3237	0.00 Gram Pb per Gallon	Paragon	8/7/2017
32	Weight Fraction Carbon D3343	0.86633 Weight Fraction	CPU	
991	Phosphorus in Gasoline by D3231	0.0008 Grams per Gallon	Paragon	8/8/2017
221	Motor Octane	89.0 Motor Octane Number	Paragon	8/10/2017
218	Sensitivity	8.6 RON-MON	CPU	8/10/2017
219	Antiknock	93.30 (RON+MON)/2	CPU	8/10/2017
220	Research Octane	97.6 Research Octane Number	Paragon	8/10/2017
73	Net Heat of Combustion D3338	18447 BTU per Pound	CPU	

SUGGESTED CITATION: 2016 Mazda 2.5L Turbo Skyactiv-G Engine Tier 2 Fuel – Test Data Package. Version 2019-02.

Ann Arbor, MI: US EPA, National Vehicle and Fuel Emissions Laboratory, National Center for Advanced Technology, 2019.