



FUEL REPORT

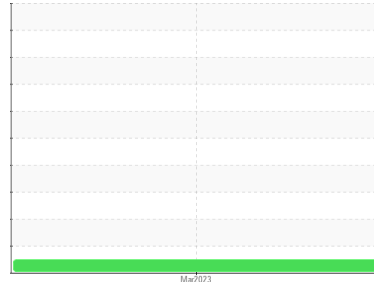
Sample Rating Trend

NORMAL



Machine Id
HF PAIN MANAGEMENT GEN

Component
Tank Diesel Fuel
Fluid
DDSL (--- GAL)



DIAGNOSIS

Recommendation

All laboratory tests indicate that this sample meets specifications for No.2 ultra-low-sulfur diesel fuel.

Corrosion

All metal levels are normal indicating no corrosion in the system.

Contaminants

There is no bacteria or fungus (yeast and/or mold) indicated in the sample. The water content is negligible. There is no indication of any contamination in the fuel.

Fuel Condition

Sulfur value derived by ASTM D5453 method for ULSD validation. Sulfur level is acceptable for ULSD specification.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		WCDF4353	---	---
Sample Date	Client Info		20 Mar 2023	---	---
Machine Age	mls	Client Info	0	---	---
Sample Status			NORMAL	---	---

PHYSICAL PROPERTIES

	method	limit/base	current	history1	history2
Specific Gravity	*ASTM D1298		0.834	---	---
Fuel Color	text	*Visual Screen	Red	---	---
ASTM Color	scalar	*ASTM D1500	L4.5	---	---
Visc @ 40°C	cSt	ASTM D445	2.2	---	---
Pensky-Martens Flash Point	°C	*PMCC Calculated	57	---	---
Cloud Point	°C	ASTM D5771	-13	---	---

SULFUR CONTENT

	method	limit/base	current	history1	history2
Sulfur	ppm	ASTM D5185m	0	---	---
Sulfur (UVF)	ppm	ASTM D5453	9	---	---

DISTILLATION

	method	limit/base	current	history1	history2
Initial Boiling Point	°C	ASTM D86	158	---	---
5% Distillation Point	°C	ASTM D86	180	---	---
10% Distill Point	°C	ASTM D86	189	---	---
15% Distillation Point	°C	ASTM D86	197	---	---
20% Distill Point	°C	ASTM D86	204	---	---
30% Distill Point	°C	ASTM D86	221	---	---
40% Distill Point	°C	ASTM D86	237	---	---
50% Distill Point	°C	ASTM D86	254	---	---
60% Distill Point	°C	ASTM D86	268	---	---
70% Distill Point	°C	ASTM D86	282	---	---
80% Distill Point	°C	ASTM D86	298	---	---
85% Distillation Point	°C	ASTM D86	307	---	---
90% Distill Point	°C	ASTM D86	318	---	---
95% Distillation Point	°C	ASTM D86	334	---	---
Final Boiling Point	°C	ASTM D86	344	---	---
Distillation Residue	%	ASTM D86	1.4	---	---
Distillation Loss	%	ASTM D86	0.5	---	---

IGNITION QUALITY

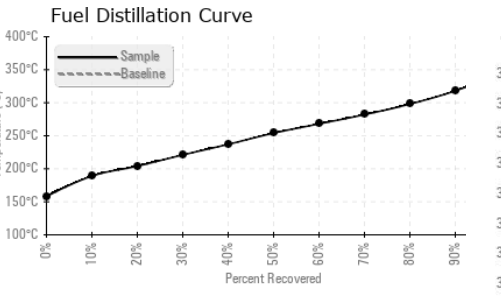
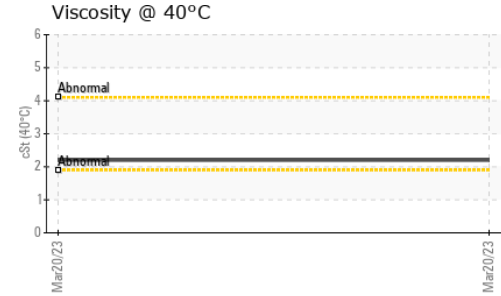
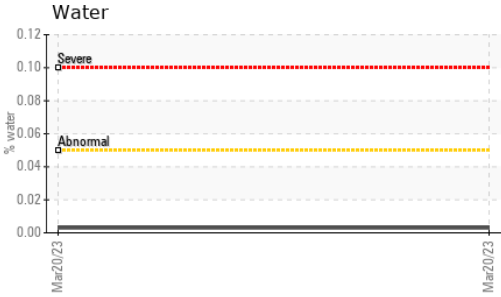
	method	limit/base	current	history1	history2
API Gravity	ASTM D7777		38.2	---	---
Cetane Index	ASTM D4737	<40.0	48.6	---	---

CONTAMINANTS

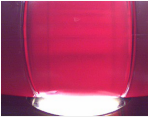

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	<1.0	<1	---
Sodium	ppm	ASTM D5185m	<0.1	<1	---
Potassium	ppm	ASTM D5185m	<0.1	0	---
Water	%	ASTM D6304	<0.05	0.003	---
ppm Water	ppm	ASTM D6304	<500	29.6	---
% Gasoline	%	*In-House	<0.50	0.0	---
% Biodiesel	%	*In-House	<20.0	0.0	---



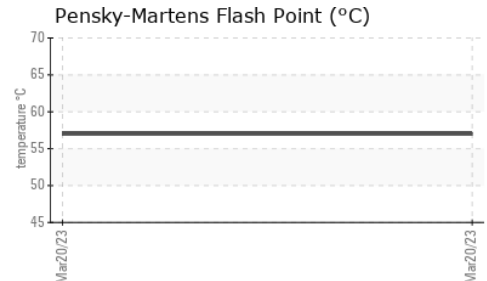
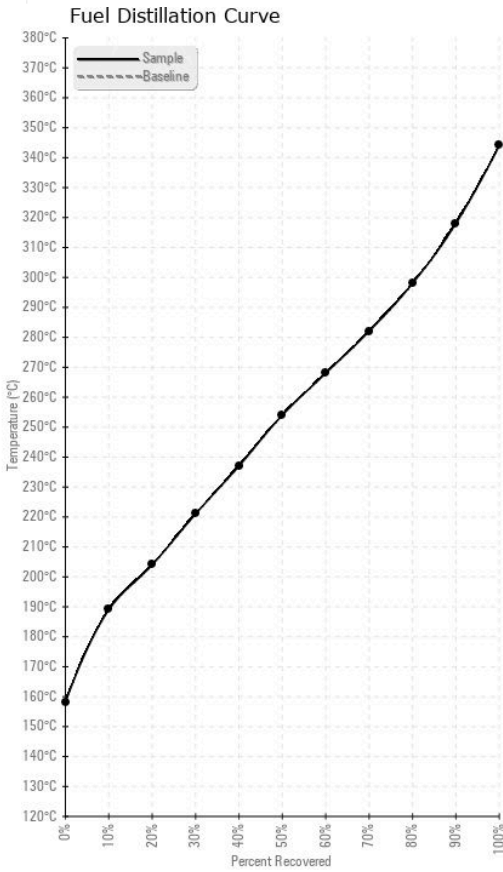
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HEAVY METALS		method	limit/base	current	history1	history2
Aluminum	ppm	ASTM D5185m	<0.1	<1	---	---
Nickel	ppm	ASTM D5185m	<0.1	0	---	---
Lead	ppm	ASTM D5185m	<0.1	0	---	---
Vanadium	ppm	ASTM D5185m	<0.1	<1	---	---
Iron	ppm	ASTM D5185m	<0.1	0	---	---
Calcium	ppm	ASTM D5185m	<0.1	0	---	---
Magnesium	ppm	ASTM D5185m	<0.1	4	---	---
Phosphorus	ppm	ASTM D5185m	<0.1	7	---	---
Zinc	ppm	ASTM D5185m	<0.1	0	---	---

SAMPLE IMAGES		method	limit/base	current	history1	history2
Color				no image	no image	
Bottom				no image	no image	

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WCDF4353 **Received** : 20 Mar 2023
Lab Number : **05796426** **Diagnosed** : 28 Mar 2023
Unique Number : 10386110 **Diagnostician** : Doug Bogart
Test Package : DF-2 (Additional Tests: CLDPT, Screen)

To discuss this sample report, contact Customer Service at 1-800-237-1369.

* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

TANK WIZARDS
 1511 MASTERS RD NW
 PALM BAY, FL
 US 32907
 Contact: WENDALL STRODERD
 wendall@tankwizards.com
 T: (321)427-5149
 F: (321)574-4131