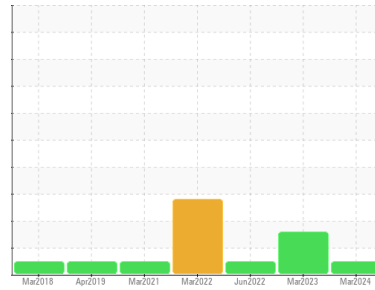




FUEL REPORT

Sample Rating Trend



NORMAL



Machine Id
HF DIST 200
 Component
Diesel Fuel
 Fluid
DDSL (200 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			WCDF4547	WCDF4359	WCDF04651
Sample Date	Client Info			12 Mar 2024	16 Mar 2023	06 Jun 2022
Machine Age	mls	Client Info		0	0	0
Sample Status				NORMAL	ABNORMAL	NORMAL

PHYSICAL PROPERTIES		method	limit/base	current	history1	history2
Specific Gravity		*ASTM D1298		---	0.838	---
Fuel Color	text	*Visual Screen		Red	Red	---
ASTM Color	scalar	*ASTM D1500		L4.5	L4.5	L5.5
Visc @ 40°C	cSt	ASTM D445		2.53	2.57	2.73
Pensky-Martens Flash Point	°C	*PMCC Calculated		62.1	63	---
Cloud Point	°C	ASTM D5771		-13	-11	---

SULFUR CONTENT		method	limit/base	current	history1	history2
Sulfur	ppm	ASTM D5185m		20	0	17
Sulfur (UVF)	ppm	ASTM D5453		14	86	18

DISTILLATION		method	limit/base	current	history1	history2
Initial Boiling Point	°C	ASTM D86		173	172	---
5% Distillation Point	°C	ASTM D86		193	194	---
10% Distill Point	°C	ASTM D86		203	204	---
15% Distillation Point	°C	ASTM D86		211	213	---
20% Distill Point	°C	ASTM D86		219	220	---
30% Distill Point	°C	ASTM D86		235	235	---
40% Distill Point	°C	ASTM D86		249	249	---
50% Distill Point	°C	ASTM D86		263	264	---
60% Distill Point	°C	ASTM D86		277	278	---
70% Distill Point	°C	ASTM D86		291	293	---
80% Distill Point	°C	ASTM D86		307	309	---
85% Distillation Point	°C	ASTM D86		317	318	---
90% Distill Point	°C	ASTM D86		327	329	---
95% Distillation Point	°C	ASTM D86		341	344	---
Final Boiling Point	°C	ASTM D86		354	352	---
Distillation Residue	%	ASTM D86		---	1.4	---
Distillation Loss	%	ASTM D86		---	0.6	---

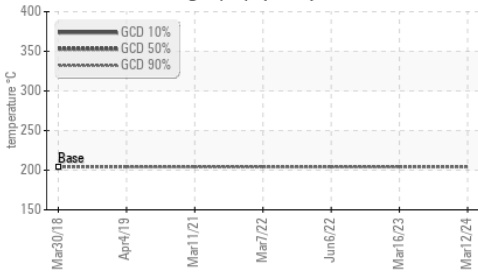
IGNITION QUALITY		method	limit/base	current	history1	history2
API Gravity		ASTM D7777		37	37.4	---
Cetane Index		ASTM D4737	<40.0	49	50.1	---

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	<1.0	0	1	0
Sodium	ppm	ASTM D5185m	<0.1	<1	<1	0
Potassium	ppm	ASTM D5185m	<0.1	<1	<1	0
Water	%	ASTM D6304	<0.05	0.002	0.005	0.008
ppm Water	ppm	ASTM D6304	<500	20	56.8	84.7
% Gasoline	%	*In-House	<0.50	0.0	0.0	0.0
% Biodiesel	%	*In-House	<20.0	1.5	2.6	0.0

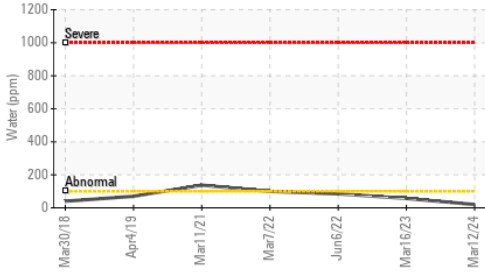


FUEL REPORT

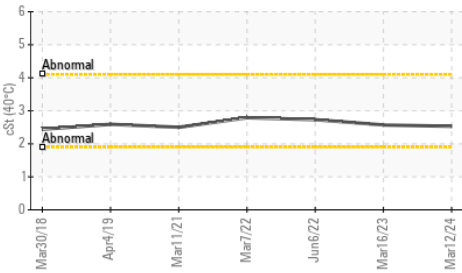
Gas Chromatography (GCD)



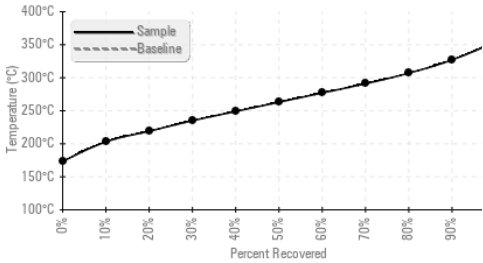
Water (KF)



Viscosity @ 40°C

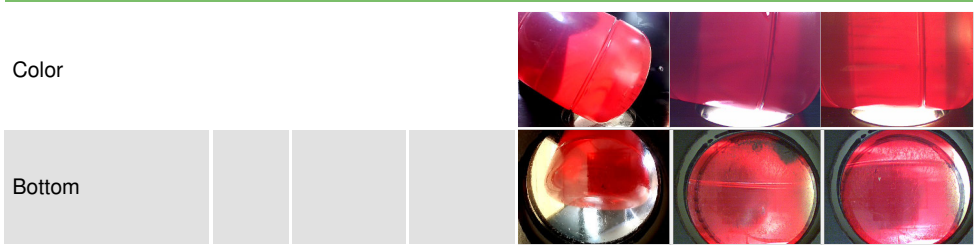


Fuel Distillation Curve



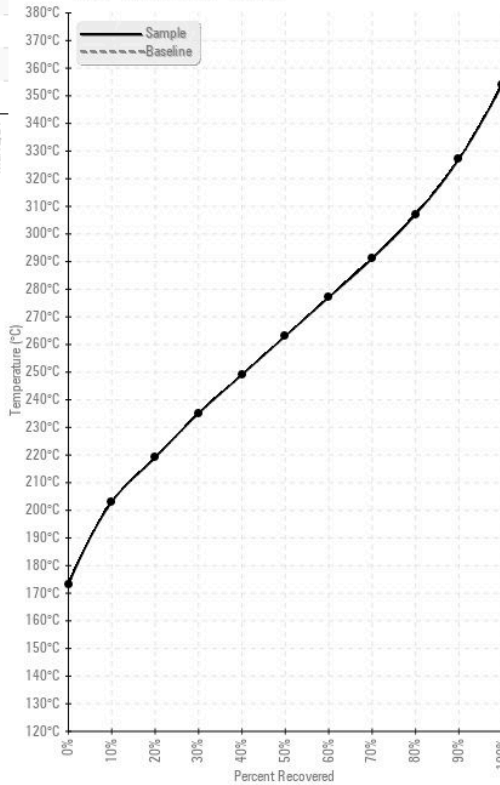
HEAVY METALS	method	limit/base	current	history1	history2	
Aluminum	ppm	ASTM D5185m	<0.1	0	<1	0
Nickel	ppm	ASTM D5185m	<0.1	0	0	0
Lead	ppm	ASTM D5185m	<0.1	0	0	0
Vanadium	ppm	ASTM D5185m	<0.1	0	<1	0
Iron	ppm	ASTM D5185m	<0.1	0	0	0
Calcium	ppm	ASTM D5185m	<0.1	0	0	0
Magnesium	ppm	ASTM D5185m	<0.1	0	3	0
Phosphorus	ppm	ASTM D5185m	<0.1	0	7	0
Zinc	ppm	ASTM D5185m	<0.1	0	0	0

SAMPLE IMAGES

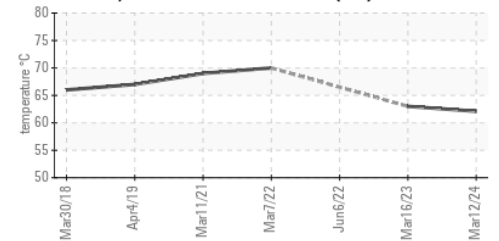


GRAPHS

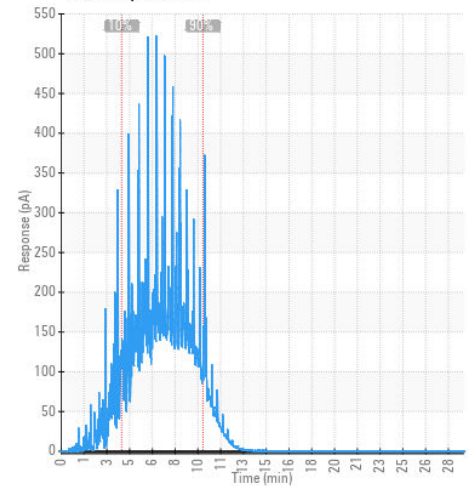
Fuel Distillation Curve



Pensky-Martens Flash Point (°C)



GCD Spectrum



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WCDF4547 **Received** : 18 Mar 2024
Lab Number : 06121298 **Tested** : 01 Apr 2024
Unique Number : 10930131 **Diagnosed** : 01 Apr 2024 - Doug Bogart
Test Package : DF-2 (Additional Tests: CldPt, Fuel, Screen)

TANK WIZARDS
 1511 MASTERS RD NW
 PALM BAY, FL
 US 32907

Contact: WENDALL STRODERD
 wendall@tankwizards.com

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)

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