



FUEL REPORT

Sample Rating Trend



ISO



Area

[MERCK]

Machine Id

GEN 5 BASE TANK - MERCK

Component

Diesel Fuel

Fluid

DIESEL FUEL No. 2 (--- GAL)

DIAGNOSIS

Recommendation

We advise that you filter this fluid before use. 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 a high amount of particulates present in the fuel. The water content is negligible. There is no bacteria or fungus (yeast and/or mold) present in the sample.

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			WC0914151	---	---
Sample Date	Client Info			10 May 2024	---	---
Machine Age	hrs	Client Info		0	---	---
Sample Status				ABNORMAL	---	---

PHYSICAL PROPERTIES		method	limit/base	current	history1	history2
Fuel Color	text	*Visual Screen		Red	---	---
ASTM Color	scalar	*ASTM D1500		L4.5	---	---
Visc @ 40°C	cSt	ASTM D445	4.1	2.49	---	---
Pensky-Martens Flash Point	°C	*PMCC Calculated		59.3	---	---

SULFUR CONTENT		method	limit/base	current	history1	history2
Sulfur	ppm	ASTM D5185m		50	---	---
Sulfur (UVF)	ppm	ASTM D5453		14	---	---

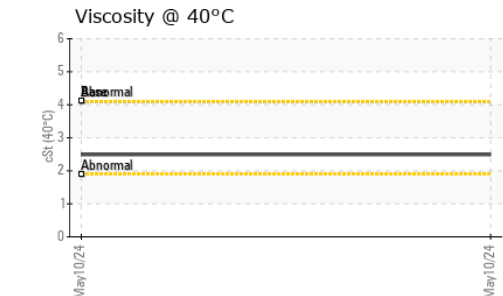
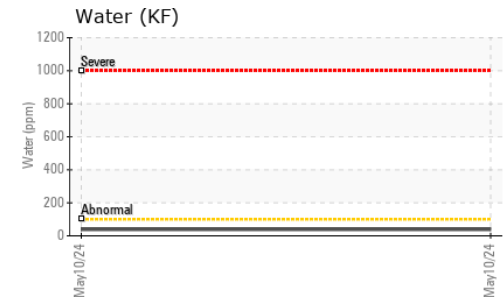
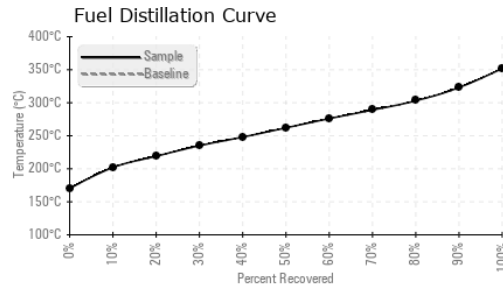
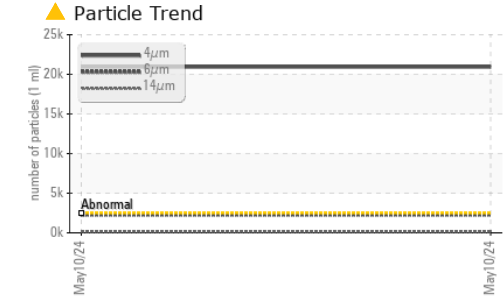
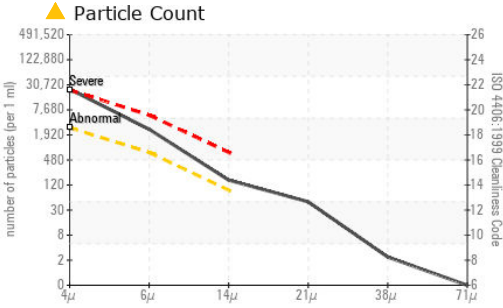
DISTILLATION		method	limit/base	current	history1	history2
Initial Boiling Point	°C	ASTM D86		170	---	---
5% Distillation Point	°C	ASTM D86		192	---	---
10% Distill Point	°C	ASTM D86		202	---	---
15% Distillation Point	°C	ASTM D86		211	---	---
20% Distill Point	°C	ASTM D86		219	---	---
30% Distill Point	°C	ASTM D86		235	---	---
40% Distill Point	°C	ASTM D86		248	---	---
50% Distill Point	°C	ASTM D86		262	---	---
60% Distill Point	°C	ASTM D86		276	---	---
70% Distill Point	°C	ASTM D86		289	---	---
80% Distill Point	°C	ASTM D86		303	---	---
85% Distillation Point	°C	ASTM D86		313	---	---
90% Distill Point	°C	ASTM D86		323	---	---
95% Distillation Point	°C	ASTM D86		339	---	---
Final Boiling Point	°C	ASTM D86		352	---	---

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

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	39	---	---
% Gasoline	%	*In-House	<0.50	0.0	---	---
% Biodiesel	%	*In-House	<20.0	0.0	---	---




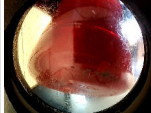
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FLUID CLEANLINESS	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>2500	▲ 20934	---	---
Particles >6µm	ASTM D7647	>640	▲ 2292	---	---
Particles >14µm	ASTM D7647	>80	▲ 139	---	---
Particles >21µm	ASTM D7647	>20	▲ 42	---	---
Particles >38µm	ASTM D7647	>4	2	---	---
Particles >71µm	ASTM D7647	>3	0	---	---
Oil Cleanliness	ISO 4406 (c)	>18/16/13	▲ 22/18/14	---	---

MICROBIAL	method	limit/base	current	history1	history2
Bacteria	CFU/ml WC-Method	≥100000	0	---	---
Yeast	CFU/ml WC-Method	≥100000	0	---	---
Mold	Colonies WC-Method	MODER	---	---	---

HEAVY METALS	method	limit/base	current	history1	history2
Aluminum	ppm ASTM D5185m	<0.1	0	---	---
Nickel	ppm ASTM D5185m	<0.1	0	---	---
Lead	ppm ASTM D5185m	<0.1	<1	---	---
Vanadium	ppm ASTM D5185m	<0.1	0	---	---
Iron	ppm ASTM D5185m	<0.1	0	---	---
Calcium	ppm ASTM D5185m	<0.1	0	---	---
Magnesium	ppm ASTM D5185m	<0.1	0	---	---
Phosphorus	ppm ASTM D5185m	<0.1	2	---	---
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



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0914151 **Received** : 15 May 2024
Lab Number : 06180602 **Tested** : 23 May 2024
Unique Number : 11031928 **Diagnosed** : 23 May 2024 - Doug Bogart
Test Package : DF-2 (Additional Tests: Bacteria, Fuel, Screen)

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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)