



FUEL REPORT

Sample Rating Trend



NORMAL



Area
QTS CHICAGO
 Machine Id
[QTS CHICAGO] GEN E4
 Component
Diesel Fuel
 Fluid
No.2 DIESEL FUEL (ULTRALOW SULPHUR) (5000 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

The water content is negligible. There is no bacteria or fungus (yeast and/or mold) indicated in the sample. There is no indication of any contamination in the fuel. The amount and size of particulates present in the system are acceptable.

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			WC06185721	---	---
Sample Date	Client Info			20 May 2024	---	---
Machine Age	hrs	Client Info		0	---	---
Sample Status				NORMAL	---	---

PHYSICAL PROPERTIES		method	limit/base	current	history1	history2
Specific Gravity		*ASTM D1298	0.839	0.863	---	---
Fuel Color	text	*Visual Screen	Yellow	Red	---	---
ASTM Color	scalar	*ASTM D1500		L4.5	---	---
Visc @ 40°C	cSt	ASTM D445	3.0	3.05	---	---
Pensky-Martens Flash Point	°C	*PMCC Calculated	52	71	---	---

SULFUR CONTENT		method	limit/base	current	history1	history2
Sulfur	ppm	ASTM D5185m	10	0	---	---
Sulfur (UVF)	ppm	ASTM D5453		7	---	---

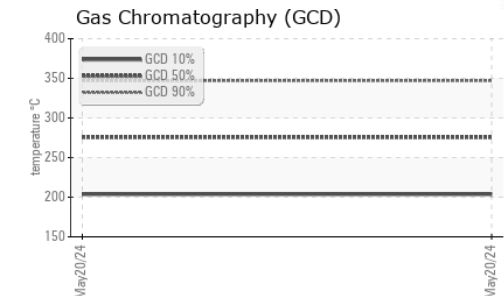
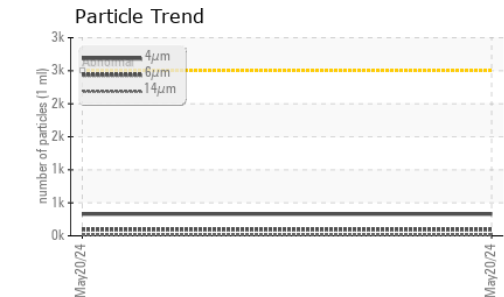
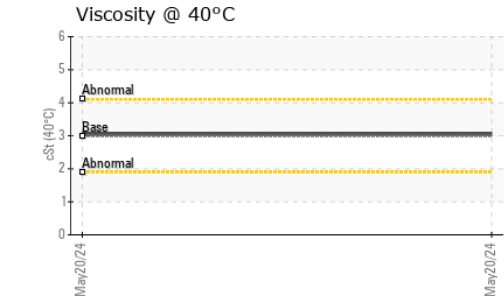
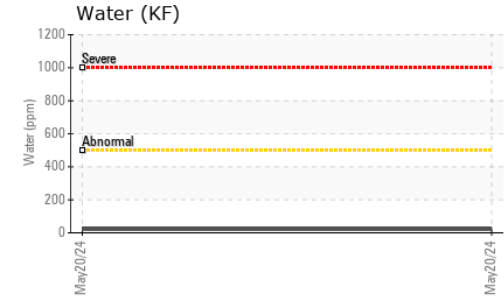
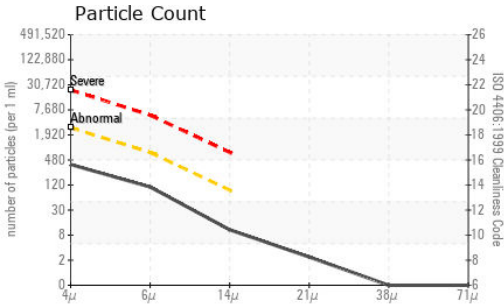
DISTILLATION		method	limit/base	current	history1	history2
Initial Boiling Point	°C	ASTM D86	165	178	---	---
5% Distillation Point	°C	ASTM D86		209	---	---
10% Distill Point	°C	ASTM D86	201	222	---	---
15% Distillation Point	°C	ASTM D86		231	---	---
20% Distill Point	°C	ASTM D86	216	238	---	---
30% Distill Point	°C	ASTM D86	230	250	---	---
40% Distill Point	°C	ASTM D86	243	260	---	---
50% Distill Point	°C	ASTM D86	255	271	---	---
60% Distill Point	°C	ASTM D86	267	283	---	---
70% Distill Point	°C	ASTM D86	280	295	---	---
80% Distill Point	°C	ASTM D86	295	309	---	---
85% Distillation Point	°C	ASTM D86		317	---	---
90% Distill Point	°C	ASTM D86	310	327	---	---
95% Distillation Point	°C	ASTM D86		342	---	---
Final Boiling Point	°C	ASTM D86	341	349	---	---
Distillation Residue	%	ASTM D86	3.0	1.4	---	---
Distillation Loss	%	ASTM D86	3.0	0.8	---	---

IGNITION QUALITY		method	limit/base	current	history1	history2
API Gravity		ASTM D7777	37.7	32.5	---	---
Cetane Index		ASTM D4737	<40.0	43.3	---	---

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	<1.0	0	---	---
Sodium	ppm	ASTM D5185m	<0.1	0	---	---
Potassium	ppm	ASTM D5185m	<0.1	0	---	---
Water	%	ASTM D6304	<0.05	0.002	---	---
ppm Water	ppm	ASTM D6304	<500	22	---	---
% Gasoline	%	*In-House	<0.50	0.0	---	---
% Biodiesel	%	*In-House	<20.0	0.0	---	---



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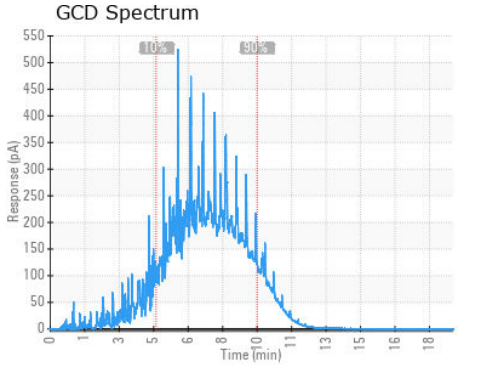
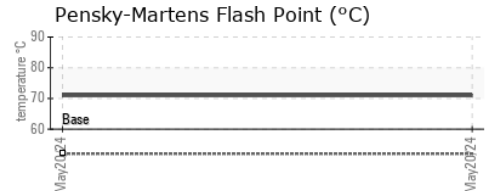
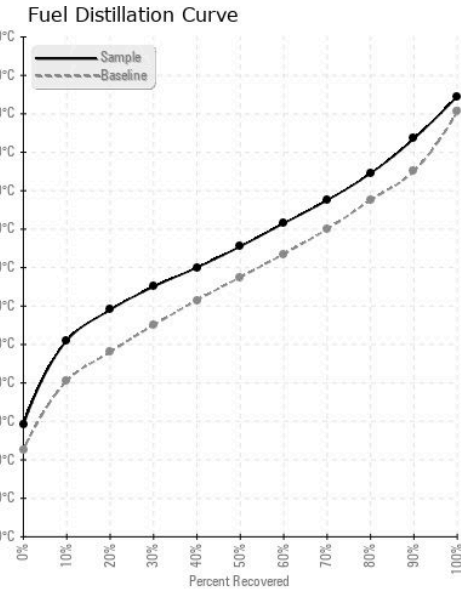


FLUID CLEANLINESS	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>2500	329	---	---
Particles >6µm	ASTM D7647	>640	95	---	---
Particles >14µm	ASTM D7647	>80	9	---	---
Particles >21µm	ASTM D7647	>20	2	---	---
Particles >38µm	ASTM D7647	>4	0	---	---
Particles >71µm	ASTM D7647	>3	0	---	---
Oil Cleanliness	ISO 4406 (c)	>18/16/13	16/14/10	---	---

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	0	---	---
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	0	---	---
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



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC06185721 **Received** : 20 May 2024
Lab Number : **06185721** **Tested** : 28 May 2024
Unique Number : 11037047 **Diagnosed** : 28 May 2024 - Doug Bogart
Test Package : DF-2 (Additional Tests: 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)