



# FUEL REPORT

Sample Rating Trend



ISO



Area

[LNR B2B CUMMINS]

Machine Id

C-2-I

Component

Bulk Tank Diesel Fuel

Fluid

DISESEL FUEL No. 2 (--- GAL)

## DIAGNOSIS

### Recommendation

No corrective action is recommended at this time. 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 moderate amount of particulates present in the fuel. The water content is negligible. There is no bacteria or fungus (yeast and/or mold) indicated 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			WC0914206	---	---
Sample Date	Client Info			27 Mar 2024	---	---
Machine Age	hrs	Client Info		0	---	---
Sample Status				ATTENTION	---	---

PHYSICAL PROPERTIES		method	limit/base	current	history1	history2
Fuel Color	text	*Visual Screen		Red	---	---
ASTM Color	scalar	*ASTM D1500		L4.0	---	---
Visc @ 40°C	cSt	ASTM D445	4.1	2.46	---	---
Pensky-Martens Flash Point	°C	*PMCC Calculated		62.1	---	---

SULFUR CONTENT		method	limit/base	current	history1	history2
Sulfur	ppm	ASTM D5185m		0	---	---
Sulfur (UVF)	ppm	ASTM D5453		8	---	---

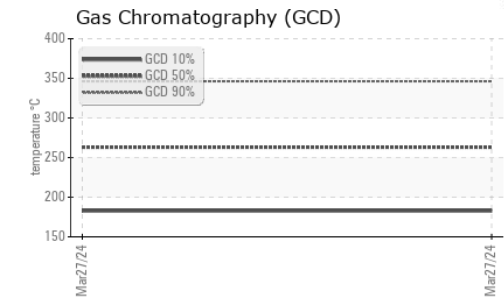
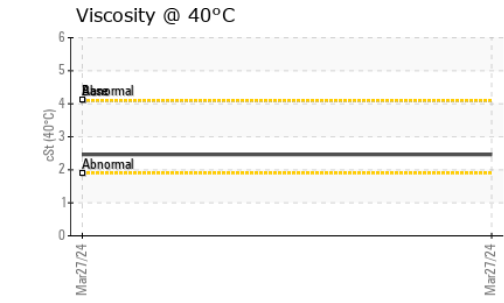
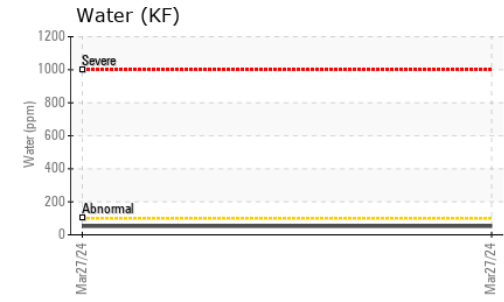
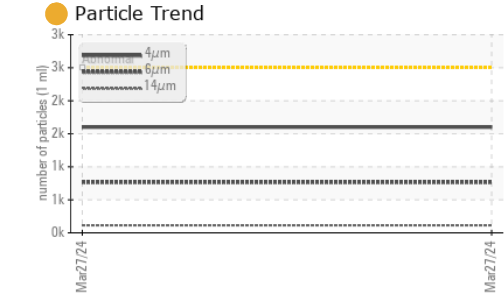
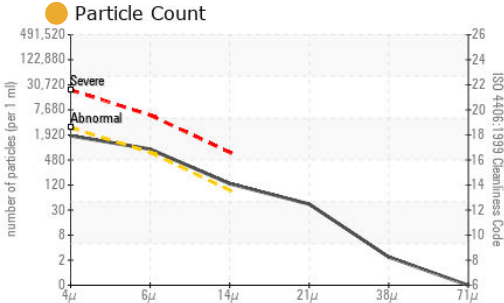
DISTILLATION		method	limit/base	current	history1	history2
Initial Boiling Point	°C	ASTM D86		174	---	---
5% Distillation Point	°C	ASTM D86		195	---	---
10% Distill Point	°C	ASTM D86		205	---	---
15% Distillation Point	°C	ASTM D86		212	---	---
20% Distill Point	°C	ASTM D86		220	---	---
30% Distill Point	°C	ASTM D86		234	---	---
40% Distill Point	°C	ASTM D86		247	---	---
50% Distill Point	°C	ASTM D86		260	---	---
60% Distill Point	°C	ASTM D86		274	---	---
70% Distill Point	°C	ASTM D86		288	---	---
80% Distill Point	°C	ASTM D86		304	---	---
85% Distillation Point	°C	ASTM D86		315	---	---
90% Distill Point	°C	ASTM D86		326	---	---
95% Distillation Point	°C	ASTM D86		344	---	---
Final Boiling Point	°C	ASTM D86		359	---	---

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	0	---	---
Sodium	ppm	ASTM D5185m	<0.1	1	---	---
Potassium	ppm	ASTM D5185m	<0.1	0	---	---
Water	%	ASTM D6304	<0.05	0.005	---	---
ppm Water	ppm	ASTM D6304	<500	52	---	---
% Gasoline	%	*In-House	<0.50	0.0	---	---
% Biodiesel	%	*In-House	<20.0	0.0	---	---



# FUEL REPORT

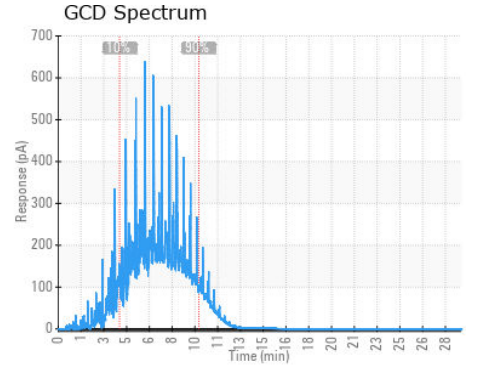
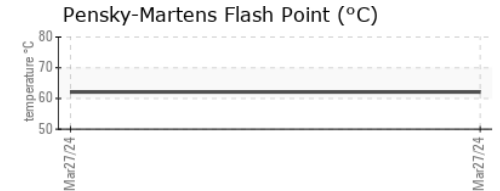
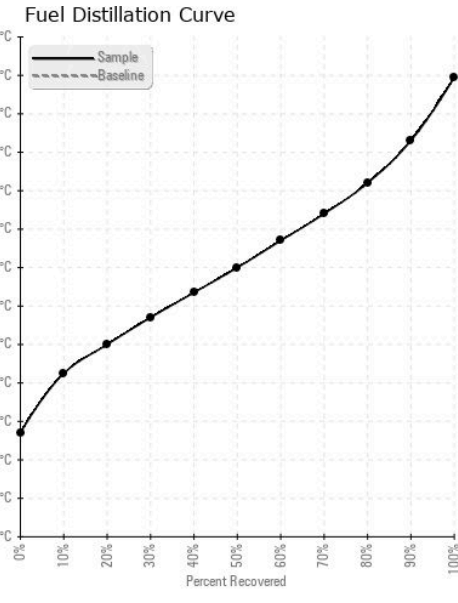


FLUID CLEANLINESS	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>2500	<b>1600</b>	---	---
Particles >6µm	ASTM D7647	>640	<b>766</b>	---	---
Particles >14µm	ASTM D7647	>80	<b>114</b>	---	---
Particles >21µm	ASTM D7647	>20	<b>37</b>	---	---
Particles >38µm	ASTM D7647	>4	<b>2</b>	---	---
Particles >71µm	ASTM D7647	>3	<b>0</b>	---	---
Oil Cleanliness	ISO 4406 (c)	>18/16/13	<b>18/17/14</b>	---	---

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

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0914206      **Received** : 03 Apr 2024  
**Lab Number** : **06138198**      **Tested** : 15 Apr 2024  
**Unique Number** : 10963006      **Diagnosed** : 15 Apr 2024 - Doug Bogart  
**Test Package** : DF-2 ( Additional Tests: Fuel, Screen )

**VITAL FUEL SYSTEMS**  
 1076 CLASSIC RD  
 APEX, NC  
 US 27539  
 Contact: SERVICE  
 service@vitalfuelsystems.com  
 T: (919)629-8180  
 F: (919)303-7399

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)