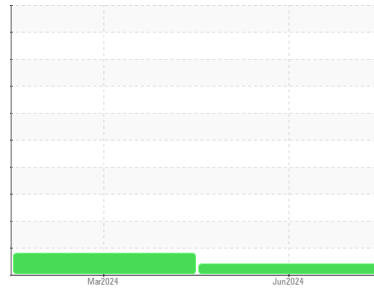




FUEL REPORT

Sample Rating Trend



OFF SPEC



Area

Carilion Roanoke Memorial Hospital [17692]

Machine Id

[Carilion Roanoke Memorial Hospital] CANCER CTR 1

Component

Diesel Fuel

Fluid

No.2 DIESEL FUEL (ULTRALOW SULPHUR) (20000 GAL)

DIAGNOSIS

Recommendation

We advise an early resample to confirm this situation.

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

The Cetane Number is lower than normal. Sulfur value derived by ASTM D5453 method for ULSD validation.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	WC0957803	WC06139084	---
Sample Date	Client Info	23 Jun 2024	21 Mar 2024	---
Machine Age	hrs	Client Info	0	---
Sample Status		ABNORMAL	ABNORMAL	---

PHYSICAL PROPERTIES

method	limit/base	current	history1	history2
Specific Gravity	*ASTM D1298	0.839	---	0.868
Fuel Color	text	*Visual Screen	Yellow	Red
ASTM Color	scalar	*ASTM D1500	L5.0	L4.5
Visc @ 40°C	cSt	ASTM D445	3.0	2.37
Pensky-Martens Flash Point	°C	*PMCC Calculated	52	69.4

SULFUR CONTENT

method	limit/base	current	history1	history2
Sulfur	ppm	ASTM D5185m	10	2947
Sulfur (UVF)	ppm	ASTM D5453		2387

DISTILLATION

method	limit/base	current	history1	history2
Initial Boiling Point	°C	ASTM D86	165	180
5% Distillation Point	°C	ASTM D86		201
10% Distill Point	°C	ASTM D86	201	212
15% Distillation Point	°C	ASTM D86		220
20% Distill Point	°C	ASTM D86	216	227
30% Distill Point	°C	ASTM D86	230	240
40% Distill Point	°C	ASTM D86	243	251
50% Distill Point	°C	ASTM D86	255	261
60% Distill Point	°C	ASTM D86	267	272
70% Distill Point	°C	ASTM D86	280	282
80% Distill Point	°C	ASTM D86	295	293
85% Distillation Point	°C	ASTM D86		303
90% Distill Point	°C	ASTM D86	310	312
95% Distillation Point	°C	ASTM D86		330
Final Boiling Point	°C	ASTM D86	341	346
Distillation Residue	%	ASTM D86	3.0	---
Distillation Loss	%	ASTM D86	3.0	---

IGNITION QUALITY

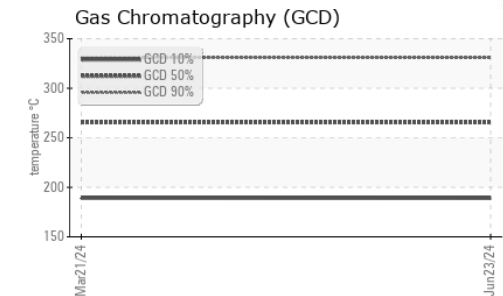
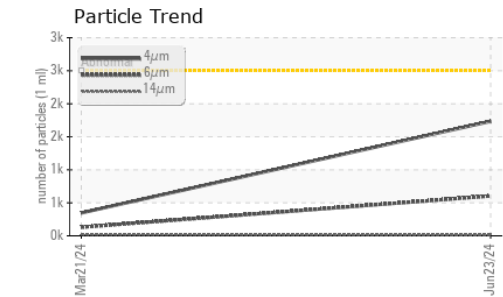
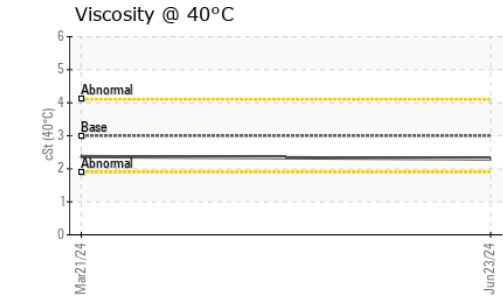
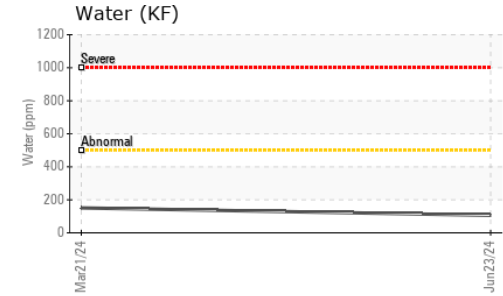
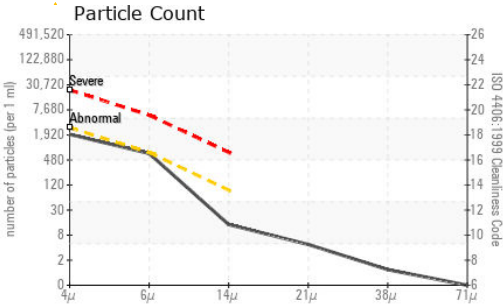
method	limit/base	current	history1	history2
API Gravity	ASTM D7777	37.7	31	31.5
Cetane Index	ASTM D4737	<40.0	▲ 36	▲ 35.6

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	<1.0	0
Sodium	ppm	ASTM D5185m	<0.1	2
Potassium	ppm	ASTM D5185m	<0.1	<1
Water	%	ASTM D6304	<0.05	0.010
ppm Water	ppm	ASTM D6304	<500	106
% 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	1735	347	---
Particles >6µm	ASTM D7647	>640	604	130	---
Particles >14µm	ASTM D7647	>80	12	19	---
Particles >21µm	ASTM D7647	>20	4	6	---
Particles >38µm	ASTM D7647	>4	1	1	---
Particles >71µm	ASTM D7647	>3	0	0	---
Oil Cleanliness	ISO 4406 (c)	>18/16/13	18/16/11	16/14/11	---

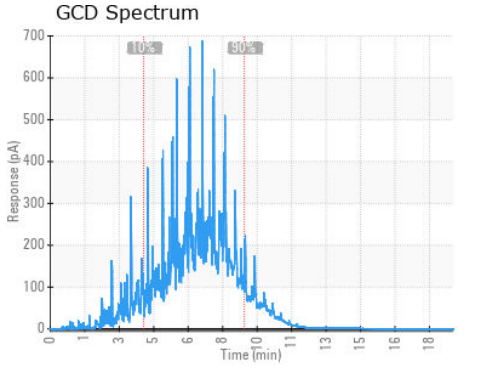
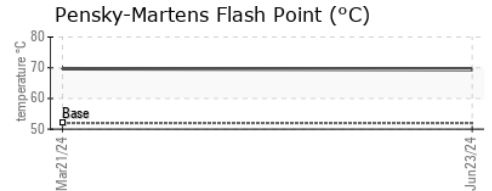
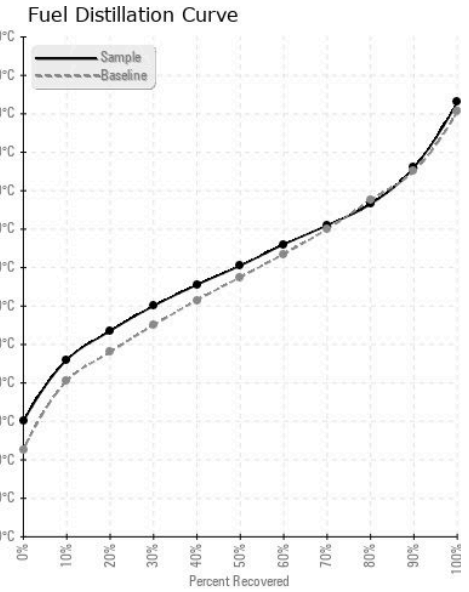
HEAVY METALS	method	limit/base	current	history1	history2
Aluminum	ppm	ASTM D5185m <0.1	0	0	---
Nickel	ppm	ASTM D5185m <0.1	0	0	---
Lead	ppm	ASTM D5185m <0.1	0	0	---
Vanadium	ppm	ASTM D5185m <0.1	0	0	---
Iron	ppm	ASTM D5185m <0.1	0	0	---
Calcium	ppm	ASTM D5185m <0.1	0	0	---
Magnesium	ppm	ASTM D5185m 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

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

no image

no image

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0957803 **Received** : 24 Jun 2024
Lab Number : **06218715** **Tested** : 01 Jul 2024
Unique Number : 11096912 **Diagnosed** : 01 Jul 2024 - Doug Bogart
Test Package : DF-2 (Additional Tests: Fuel, Screen)

PETROLEUM RECOVERY SERVICES
 210 POWELL DR
 SUMMERVILLE, SC
 US 29483
 Contact: AJAY EL
 Ajay@prsfuel.com
 T: (843)225-1777
 F:

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)