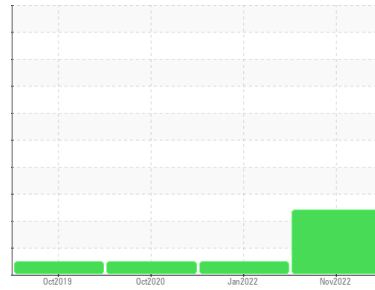




FUEL REPORT

Sample Rating Trend



ISO



Area
HOSPITAL
 Machine Id
DUKE NORTH GEN 2 DAY TANK
 Component
Diesel Fuel
 Fluid
No.2 DIESEL FUEL (LOW-SULPHUR) (100 GAL)

DIAGNOSIS

Recommendation

We recommend you service the filters on this component if applicable. All other 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. There is no bacteria or fungus (yeast and/or mold) indicated in the sample. The water content is negligible.

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			WC05687545	WC05437432	WC05088151
Sample Date	Client Info			07 Nov 2022	04 Jan 2022	11 Oct 2020
Machine Age	hrs	Client Info		0	0	0
Sample Status				ABNORMAL	NORMAL	NORMAL

PHYSICAL PROPERTIES		method	limit/base	current	history1	history2
Specific Gravity		*ASTM D1298	0.839	0.840	0.841	0.842
Fuel Color	text	*Visual Screen	Yellow	Red	Red	Red
ASTM Color	scalar	*ASTM D1500		L4.0	L5.5	L5.5
Visc @ 40°C	cSt	ASTM D445	3.0	2.34	2.25	2.51
Pensky-Martens Flash Point	°C	*PMCC Calculated	52	61	62	62

SULFUR CONTENT		method	limit/base	current	history1	history2
Sulfur	ppm	ASTM D5185m	250	0	30	27
Sulfur (UVF)	ppm	ASTM D5453		7	33	35

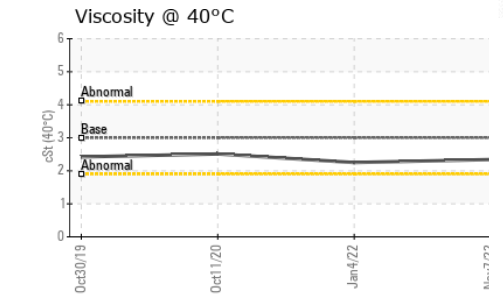
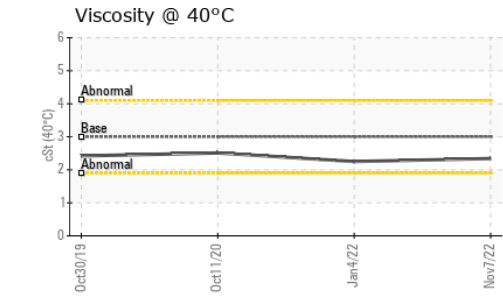
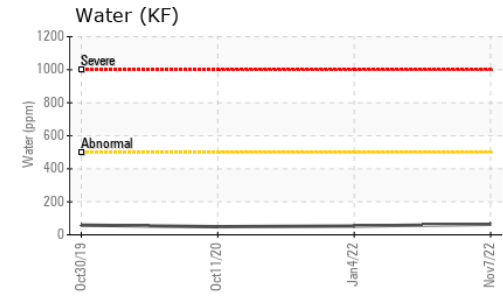
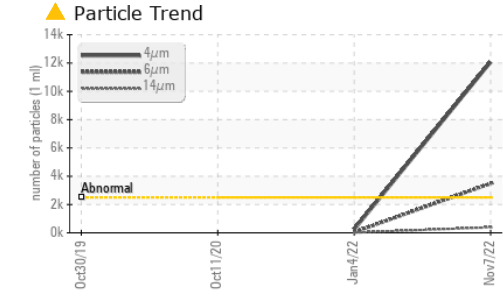
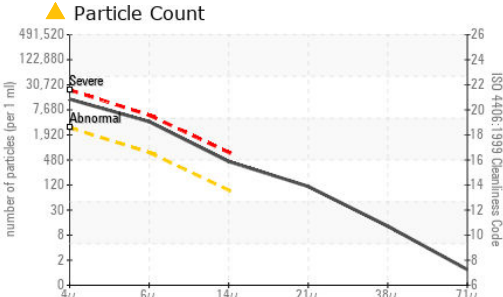
DISTILLATION		method	limit/base	current	history1	history2
Initial Boiling Point	°C	ASTM D86	165	165	160	154
5% Distillation Point	°C	ASTM D86		189	188	184
10% Distill Point	°C	ASTM D86	201	200	199	198
15% Distillation Point	°C	ASTM D86		209	208	208
20% Distill Point	°C	ASTM D86	216	216	216	216
30% Distill Point	°C	ASTM D86	230	229	231	232
40% Distill Point	°C	ASTM D86	243	243	246	246
50% Distill Point	°C	ASTM D86	255	256	260	261
60% Distill Point	°C	ASTM D86	267	270	275	275
70% Distill Point	°C	ASTM D86	280	285	290	290
80% Distill Point	°C	ASTM D86	295	302	307	306
85% Distillation Point	°C	ASTM D86		313	316	316
90% Distill Point	°C	ASTM D86	310	325	327	327
95% Distillation Point	°C	ASTM D86		343	343	342
Final Boiling Point	°C	ASTM D86	341	353	350	350
Distillation Residue	%	ASTM D86	3.0	1.4	1.4	1.4
Distillation Loss	%	ASTM D86	3.0	0.7	0.5	0.7

IGNITION QUALITY		method	limit/base	current	history1	history2
API Gravity		ASTM D7777	37.7	37.0	36.8	36.6
Cetane Index		ASTM D4737	<40.0	47.6	47.8	47.6

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	<1.0	0	0	<1
Sodium	ppm	ASTM D5185m	<0.1	0	0	0
Potassium	ppm	ASTM D5185m	<0.1	0	0	0
Water	%	ASTM D6304	<0.05	0.006	0.005	0.004
ppm Water	ppm	ASTM D6304	<500	63.8	53.4	49.1
% Gasoline	%	*In-House	<0.50	0.0	0.0	0.0
% Biodiesel	%	*In-House	<20.0	0.0	1.3	1.3



FUEL REPORT

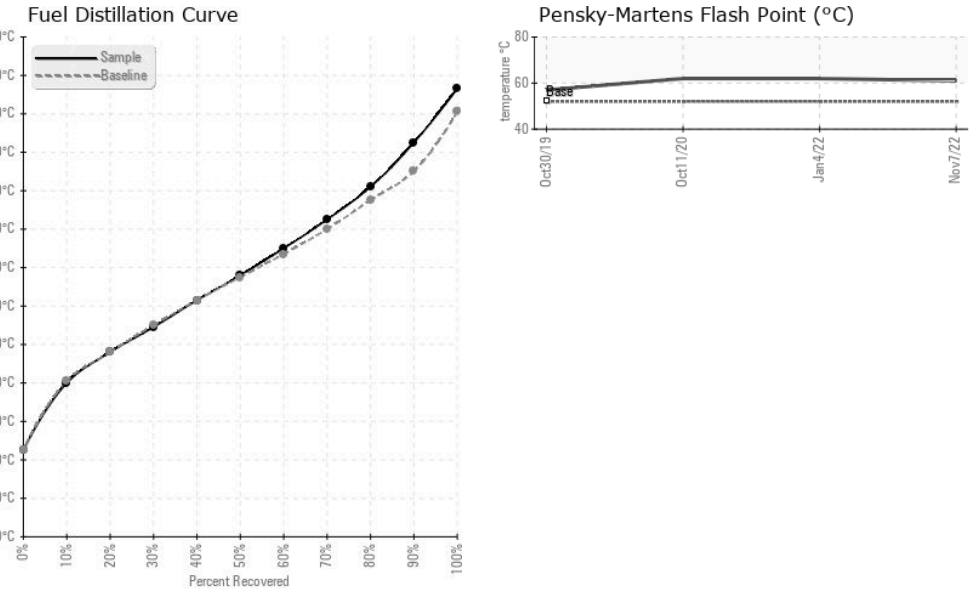


FLUID CLEANLINESS	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>2500	▲ 12062	226	---
Particles >6µm	ASTM D7647	>640	▲ 3491	45	---
Particles >14µm	ASTM D7647	>80	▲ 388	8	---
Particles >21µm	ASTM D7647	>20	▲ 98	3	---
Particles >38µm	ASTM D7647	>4	▲ 11	0	---
Particles >71µm	ASTM D7647	>3	1	0	---
Oil Cleanliness	ISO 4406 (c)	>18/16/13	▲ 21/19/16	15/13/10	---

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	1
Vanadium	ppm	ASTM D5185m <0.1	0	0	0
Iron	ppm	ASTM D5185m <0.1	0	0	0
Calcium	ppm	ASTM D5185m <0.1	0	<1	2
Magnesium	ppm	ASTM D5185m <0.1	0	0	<1
Phosphorus	ppm	ASTM D5185m <0.1	<1	1	1
Zinc	ppm	ASTM D5185m <0.1	0	0	0

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC05687545 **Received** : 07 Nov 2022
Lab Number : **05687545** **Tested** : 11 Nov 2022
Unique Number : 10207117 **Diagnosed** : 14 Nov 2022 - Doug Bogart
Test Package : DF-2 (Additional Tests: Screen)

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 2907 HILLSBOROUGH RD
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 US 27705
 Contact: JESSE BROWN
 jesse@couchoilcompany.com
 T: (919)285-5408
 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)