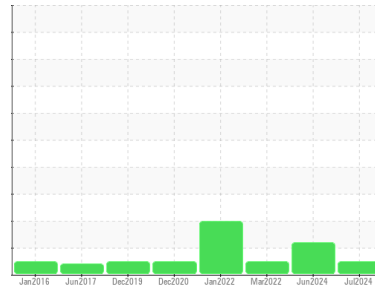




FUEL REPORT

Sample Rating Trend



NORMAL



Machine Id

NC SPECIALTY HOSPITAL

Component

Diesel Fuel

Fluid

No.2 DIESEL FUEL (LOW-SULPHUR) (--- GAL)

DIAGNOSIS

Recommendation

All laboratory tests indicate that this sample meets specifications for No.2 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.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		WC06237471	WC0949582	WC05497527
Sample Date	Client Info		15 Jul 2024	25 Jun 2024	21 Mar 2022
Machine Age	hrs	Client Info	0	0	0
Sample Status			NORMAL	ABNORMAL	NORMAL

PHYSICAL PROPERTIES

	method	limit/base	current	history1	history2
Specific Gravity	*ASTM D1298	0.839	---	---	0.843
Fuel Color	text	*Visual Screen	Red	Red	Red
ASTM Color	scalar	*ASTM D1500	L5.0	L4.5	L5.5
Visc @ 40°C	cSt	ASTM D445	2.5	2.46	2.46
Pensky-Martens Flash Point	°C	*PMCC Calculated	61.1	60.9	65

SULFUR CONTENT

	method	limit/base	current	history1	history2
Sulfur	ppm	ASTM D5185m	0	0	31
Sulfur (UVF)	ppm	ASTM D5453	16	19	145

DISTILLATION

	method	limit/base	current	history1	history2	
Initial Boiling Point	°C	ASTM D86	165	172	171	168
5% Distillation Point	°C	ASTM D86		194	194	190
10% Distill Point	°C	ASTM D86	201	204	203	200
15% Distillation Point	°C	ASTM D86		212	211	209
20% Distill Point	°C	ASTM D86	216	219	219	217
30% Distill Point	°C	ASTM D86	230	234	234	232
40% Distill Point	°C	ASTM D86	243	248	247	247
50% Distill Point	°C	ASTM D86	255	261	261	262
60% Distill Point	°C	ASTM D86	267	276	275	276
70% Distill Point	°C	ASTM D86	280	290	289	291
80% Distill Point	°C	ASTM D86	295	306	306	308
85% Distillation Point	°C	ASTM D86		317	316	317
90% Distill Point	°C	ASTM D86	310	327	326	328
95% Distillation Point	°C	ASTM D86		344	343	344
Final Boiling Point	°C	ASTM D86	341	358	356	350
Distillation Residue	%	ASTM D86	3.0	---	---	1.4
Distillation Loss	%	ASTM D86	3.0	---	---	0.6

IGNITION QUALITY

	method	limit/base	current	history1	history2
API Gravity	ASTM D7777	37.7	36	36	36.4
Cetane Index	ASTM D4737	<40.0	48	48	47.6

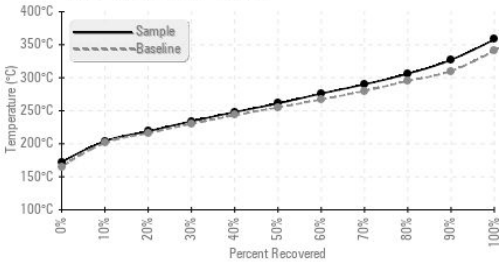
CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m	<1.0	0	0	<1
Sodium	ppm	ASTM D5185m	<0.1	2	0	0
Potassium	ppm	ASTM D5185m	<0.1	0	0	0
Water	%	ASTM D6304	<0.05	0.002	0.004	0.002
ppm Water	ppm	ASTM D6304	<500	25	42	24.3
% Gasoline	%	*In-House	<0.50	0.0	0.0	0.0
% Biodiesel	%	*In-House	<20.0	1.7	1.5	1.8

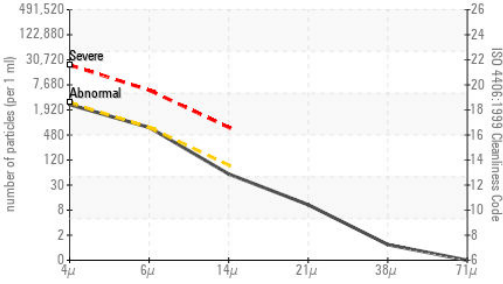


FUEL REPORT

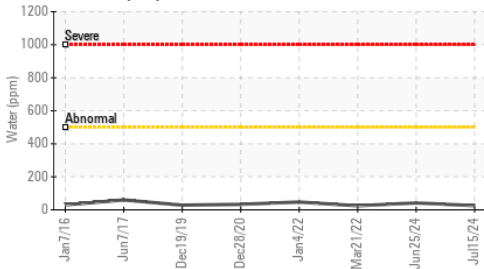
Fuel Distillation Curve



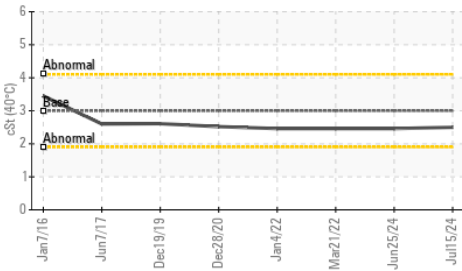
Particle Count



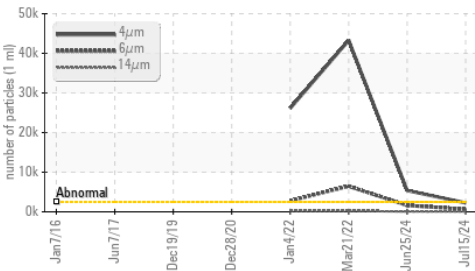
Water (KF)



Viscosity @ 40°C



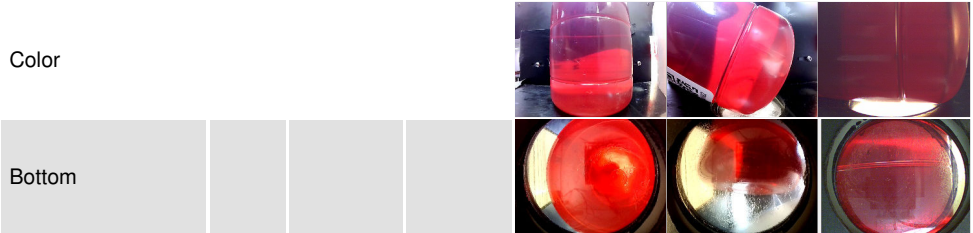
Particle Trend



FLUID CLEANLINESS	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>2500	2250	▲ 5385	43262
Particles >6µm	ASTM D7647	>640	638	▲ 1625	6467
Particles >14µm	ASTM D7647	>80	49	78	227
Particles >21µm	ASTM D7647	>20	9	14	25
Particles >38µm	ASTM D7647	>4	1	2	0
Particles >71µm	ASTM D7647	>3	0	0	0
Oil Cleanliness	ISO 4406 (c)	>18/16/13	18/16/13	▲ 20/18/13	23/20/15

HEAVY METALS	method	limit/base	current	history1	history2
Aluminum	ppm	ASTM D5185m <0.1	0	0	0
Nickel	ppm	ASTM D5185m <0.1	0	0	0
Lead	ppm	ASTM D5185m <0.1	0	0	0
Vanadium	ppm	ASTM D5185m <0.1	0	0	0
Iron	ppm	ASTM D5185m <0.1	0	0	<1
Calcium	ppm	ASTM D5185m <0.1	0	0	<1
Magnesium	ppm	ASTM D5185m <0.1	0	0	0
Phosphorus	ppm	ASTM D5185m <0.1	0	0	3
Zinc	ppm	ASTM D5185m <0.1	0	0	0

SAMPLE IMAGES	method	limit/base	current	history1	history2
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Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC06237471 **Received** : 15 Jul 2024
Lab Number : **06237471** **Tested** : 18 Jul 2024
Unique Number : 11126305 **Diagnosed** : 18 Jul 2024 - Elizabeth Valachovic
Test Package : DF-2 (Additional Tests: Fuel, Screen)

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 US 27705
 Contact: JESSE BROWN
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 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)