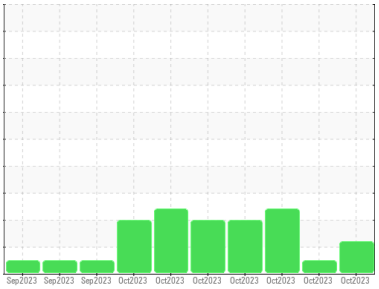
FUEL REPORT

Sample Rating Trend



ISO

Area
[CP29159]
Machine Id
T3Y00201 - DELIVERY TRUCK
Component
Diesel Fuel
Fluid
DIESEL FUEL No. 2 (--- QTS)

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. Appended normal tests performed at subcontracted ISO 17025 laboratory.

Corrosion

All metal levels are normal indicating no corrosion in the system.

Contaminants

There is a high amount of silt (particulates < 14 microns in size) 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		**WC0863801**	WC0863799	WC0863793
Sample Date		Client Info		**26 Oct 2023**	25 Oct 2023	23 Oct 2023
Machine Age	hrs	Client Info		**0**	0	0
Sample Status				**ATTENTION**	NORMAL	ATTENTION

PHYSICAL PROPERTIES		method	limit/base	current	history1	history2
Specific Gravity		*ASTM D1298		**0.838**	0.838	0.838
Fuel Color	text	*Visual Screen		**YIlow**	Red	Red
ASTM Color	scalar	*ASTM D1500		**L3.0**	L4.0	L5.0
Visc @ 40°C	cSt	ASTM D445	4.1	**2.4**	2.43	2.34
Pensky-Martens Flash Point	°C	*PMCC Calculated		**58**	57	55

SULFUR CONTENT		method	limit/base	current	history1	history2
Sulfur	ppm	ASTM D5185m		**0**	0	0
Sulfur (UVF)	ppm	ASTM D5453		**11**	10	12

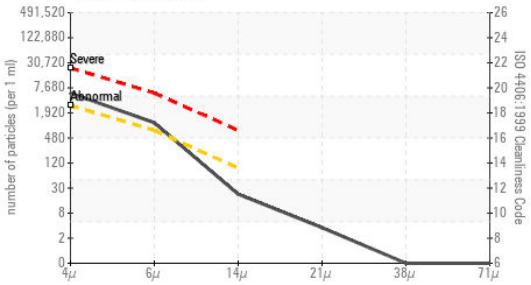
DISTILLATION		method	limit/base	current	history1	history2
Initial Boiling Point	°C	ASTM D86		**161**	160	154
5% Distillation Point	°C	ASTM D86		**185**	184	187
10% Distill Point	°C	ASTM D86		**196**	195	196
15% Distillation Point	°C	ASTM D86		**206**	204	205
20% Distill Point	°C	ASTM D86		**214**	213	213
30% Distill Point	°C	ASTM D86		**230**	229	228
40% Distill Point	°C	ASTM D86		**243**	243	243
50% Distill Point	°C	ASTM D86		**257**	257	257
60% Distill Point	°C	ASTM D86		**271**	271	270
70% Distill Point	°C	ASTM D86		**286**	286	286
80% Distill Point	°C	ASTM D86		**302**	303	302
85% Distillation Point	°C	ASTM D86		**311**	312	311
90% Distill Point	°C	ASTM D86		**323**	324	323
95% Distillation Point	°C	ASTM D86		**339**	341	341
Final Boiling Point	°C	ASTM D86		**350**	351	350
Distillation Residue	%	ASTM D86		**1.4**	1.4	1.4
Distillation Loss	%	ASTM D86		**0.5**	0.5	0.9

IGNITION QUALITY		method	limit/base	current	history1	history2
API Gravity		ASTM D7777		**37.4**	37.4	37.4
Cetane Index		ASTM D4737	<40.0	**48.2**	48.3	48.2

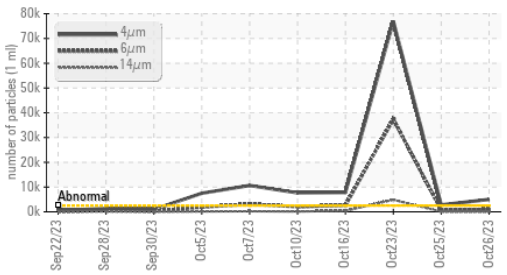
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	<1.0	**<1**	<1	0
Sodium	ppm	ASTM D5185m	<0.1	**2**	2	0
Potassium	ppm	ASTM D5185m	<0.1	**<1**	<1	2
Water	%	ASTM D6304	<0.05	**0.002**	0.003	0.003
ppm Water	ppm	ASTM D6304	<500	**24.3**	31.1	36.1
% Gasoline	%	*In-House	<0.50	**0.0**	0.0	0.0
% Biodiesel	%	*In-House	<20.0	**0.0**	0.0	0.0

FUEL REPORT

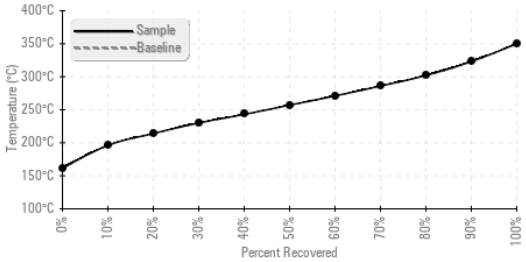
Particle Count



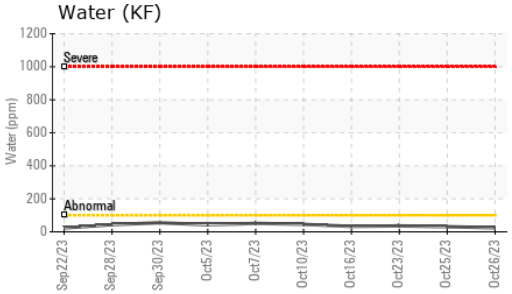
Particle Trend



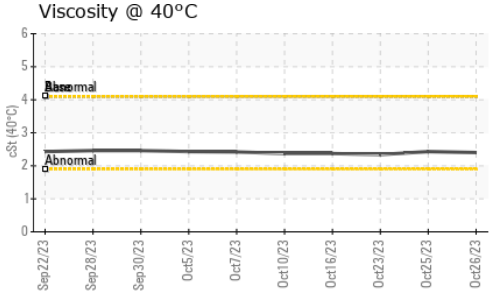
Fuel Distillation Curve



Water (KF)

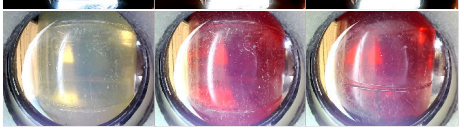


Viscosity @ 40°C



FLUID CLEANLINESS	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>2500	▲ **5001**	2808	▲ 76997
Particles >6µm	ASTM D7647	>640	▲ **978**	696	▲ 37437
Particles >14µm	ASTM D7647	>80	**19**	37	▲ 4882
Particles >21µm	ASTM D7647	>20	**3**	7	▲ 1272
Particles >38µm	ASTM D7647	>4	**0**	1	▲ 32
Particles >71µm	ASTM D7647	>3	**0**	0	1
Oil Cleanliness	ISO 4406 (c)	>18/16/13	▲ **20/17/11**	19/17/12	▲ 23/22/19

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

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0863801 **Received** : 31 Oct 2023
Lab Number : 05994828 **Diagnosed** : 28 Nov 2023
Unique Number : 10723188 **Diagnostician** : Doug Bogart
Test Package : DF-2 (Additional Tests: Screen)

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)

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