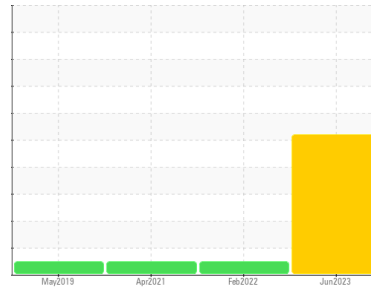




FUEL REPORT

Sample Rating Trend



WATER



Machine Id
PAVILION HEALTH CENTER

Component
Diesel Fuel

Fluid
No.2 DIESEL FUEL (ULTRALOW SULPHUR) (--- GAL)

DIAGNOSIS

Recommendation

We advise that you follow the water drain-off procedure for this component, and use off-line filtration to improve the cleanliness of the system fluid.

Corrosion

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

Contaminants

Excessive free water present. There is a light concentration of water present in the fuel. High concentration of visible dirt/debris present in the fuel. There is a moderate amount of visible silt present in the sample. There is no bacteria or fungus (yeast and/or mold) present 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	history 1	history 2
Sample Number	Client Info		WC0829191	WC0658736	WCDF02559
Sample Date	Client Info		15 Jun 2023	17 Feb 2022	14 Apr 2021
Machine Age	hrs	Client Info	360	360	306
Sample Status			ABNORMAL	NORMAL	NORMAL

PHYSICAL PROPERTIES

	method	limit/base	current	history 1	history 2
Specific Gravity	*ASTM D1298	0.839	0.839	0.839	0.841
Fuel Color	text *Visual Screen	Yellow	Red	Red	Red
ASTM Color	scalar *ASTM D1500		L4.0	L5.0	L6.0
Visc @ 40°C	cSt ASTM D445	3.0	2.45	2.44	2.46
Pensky-Martens Flash Point	°C *PMCC Calculated	52	---	59	62
Cloud Point	°C ASTM D5771		-12	-12	---
Pour Point	°C ASTM D5950		-22	-24	---

SULFUR CONTENT

	method	limit/base	current	history 1	history 2
Sulfur	ppm ASTM D5185m	10	3	0	0
Sulfur (UVF)	ppm ASTM D5453		11	8	10

DISTILLATION

	method	limit/base	current	history 1	history 2
Initial Boiling Point	°C ASTM D86	165	162	167	164
5% Distillation Point	°C ASTM D86		190	190	189
10% Distill Point	°C ASTM D86	201	200	200	200
15% Distillation Point	°C ASTM D86		209	210	210
20% Distill Point	°C ASTM D86	216	217	218	218
30% Distill Point	°C ASTM D86	230	231	232	233
40% Distill Point	°C ASTM D86	243	244	246	247
50% Distill Point	°C ASTM D86	255	258	260	260
60% Distill Point	°C ASTM D86	267	272	273	274
70% Distill Point	°C ASTM D86	280	287	288	288
80% Distill Point	°C ASTM D86	295	303	304	304
85% Distillation Point	°C ASTM D86		313	313	314
90% Distill Point	°C ASTM D86	310	325	325	325
95% Distillation Point	°C ASTM D86		342	342	342
Final Boiling Point	°C ASTM D86	341	351	350	352
Distillation Residue	% ASTM D86	3.0	1.4	1.4	1.4
Distillation Loss	% ASTM D86	3.0	0.8	0.7	0.7

IGNITION QUALITY

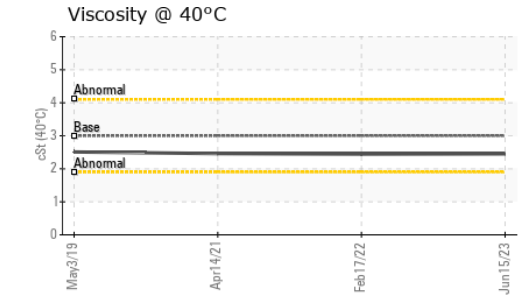
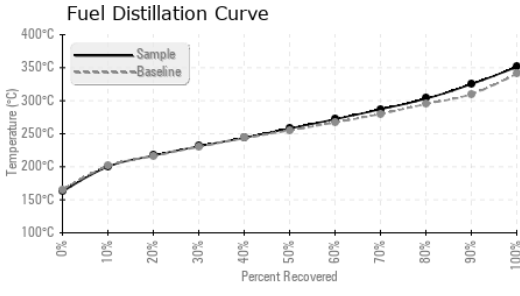
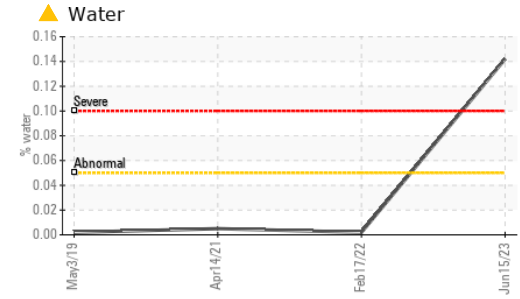
	method	limit/base	current	history 1	history 2
API Gravity	ASTM D7777	37.7	37.2	37.2	36.8
Cetane Index	ASTM D4737	<40.0	48.3	48.7	47.9

CONTAMINANTS

	method	limit/base	current	history 1	history 2
Silicon	ppm ASTM D5185m	<1.0	0	0	0
Sodium	ppm ASTM D5185m	<0.1	0	0	0
Potassium	ppm ASTM D5185m	<0.1	<1	0	0
Water	% ASTM D6304	<0.05	▲ 0.142	0.002	0.005
ppm Water	ppm ASTM D6304	<500	▲ 1426.8	24.6	50.7
% Gasoline	% *In-House	<0.50	0.0	0.0	0.0
% Biodiesel	% *In-House	<20.0	0.0	0.0	0.0





FUEL REPORT



FLUID CLEANLINESS	method	limit/base	current	history 1	history 2
Particles >4µm	ASTM D7647	>2500	---	287	813
Particles >6µm	ASTM D7647	>640	---	89	263
Particles >14µm	ASTM D7647	>80	---	15	37
Particles >21µm	ASTM D7647	>20	---	3	10
Particles >38µm	ASTM D7647	>4	---	0	0
Particles >71µm	ASTM D7647	>3	---	0	0
Oil Cleanliness	ISO 4406 (c)	>18/16/13	---	15/14/11	17/15/12

MICROBIAL	method	limit/base	current	history 1	history 2
Bacteria	CFU/ml WC-Method	>=100000	0	---	---
Yeast	CFU/ml WC-Method	>=100000	0	---	---
Mold	Colonies WC-Method	MODER	---	---	---

HEAVY METALS	method	limit/base	current	history 1	history 2
Aluminum	ppm ASTM D5185m	<0.1	0	1	<1
Nickel	ppm ASTM D5185m	<0.1	<1	0	<1
Lead	ppm ASTM D5185m	<0.1	0	<1	0
Vanadium	ppm ASTM D5185m	<0.1	0	0	0
Iron	ppm ASTM D5185m	<0.1	<1	0	0
Calcium	ppm ASTM D5185m	<0.1	<1	0	0
Magnesium	ppm ASTM D5185m	<0.1	0	0	0
Phosphorus	ppm ASTM D5185m	<0.1	1	1	2
Zinc	ppm ASTM D5185m	<0.1	0	0	2

SAMPLE IMAGES	method	limit/base	current	history 1	history 2
Color					 <i>no image</i>
Bottom					 <i>no image</i>



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0829191 **Received** : 21 Jun 2023
Lab Number : 05880412 **Diagnosed** : 05 Jul 2023
Unique Number : 10525515 **Diagnostician** : Doug Bogart
Test Package : DF-3 (Additional Tests: Bacteria, 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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 teresa.chester@bittingelectric.com

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 F: