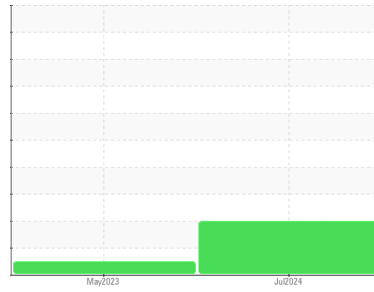




FUEL REPORT

Machine Id
CATERPILLAR 00C32HJSJ04338
 Component
Diesel Fuel
 Fluid
No.2 DIESEL FUEL (ULTRALOW SULPHUR) (--- GAL)

Sample Rating Trend



ISO



DIAGNOSIS

Recommendation

We advise that you filter this fluid before use. All 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. 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			WC06235310	AOL05866011	---
Sample Date	Client Info			05 Jul 2024	25 May 2023	---
Machine Age	hrs	Client Info		142	120	---
Sample Status				ABNORMAL	NORMAL	---

PHYSICAL PROPERTIES		method	limit/base	current	history1	history2
ASTM Color	scalar	*ASTM D1500		L4.5	L4.0	---
Visc @ 40°C	cSt	ASTM D445	3.0	2.56	2.6	---

SULFUR CONTENT		method	limit/base	current	history1	history2
Sulfur	ppm	ASTM D5185m	10	0	0	---
Sulfur (UVF)	ppm	ASTM D5453		12	7	---

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	<1.0	<1	0	---
Sodium	ppm	ASTM D5185m	<0.1	1	0	---
Potassium	ppm	ASTM D5185m	<0.1	0	1	---
Water	%	ASTM D6304	<0.05	0.003	0.001	---
ppm Water	ppm	ASTM D6304	<500	39	14.5	---
% Gasoline	%	*In-House	<0.50	0.0	0.0	---
% Biodiesel	%	*In-House	<20.0	0.0	0.0	---

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>2500	▲ 22281	2422	---
Particles >6µm		ASTM D7647	>640	▲ 9523	782	---
Particles >14µm		ASTM D7647	>80	▲ 347	74	---
Particles >21µm		ASTM D7647	>20	▲ 42	19	---
Particles >38µm		ASTM D7647	>4	1	0	---
Particles >71µm		ASTM D7647	>3	0	0	---
Oil Cleanliness		ISO 4406 (c)	>18/16/13	▲ 22/20/16	18/17/13	---

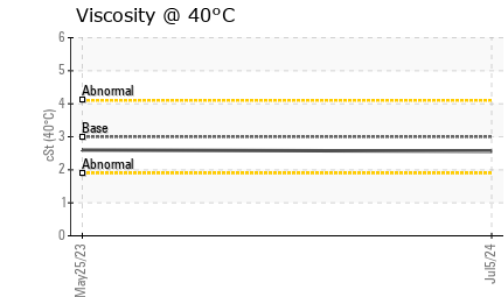
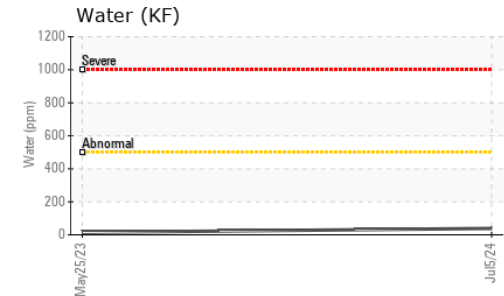
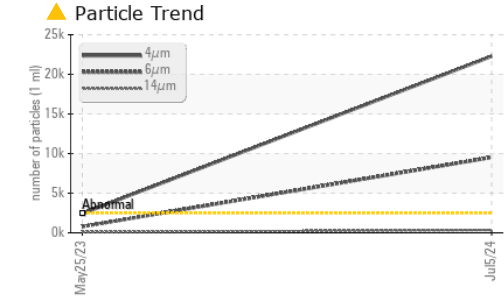
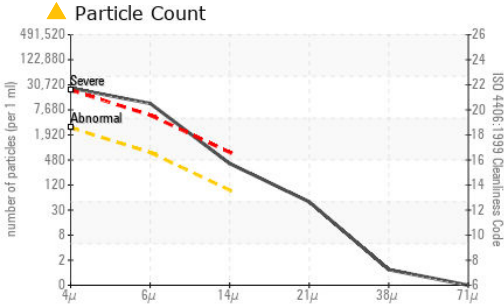
HEAVY METALS		method	limit/base	current	history1	history2
Aluminum	ppm	ASTM D5185m	<0.1	0	0	---
Nickel	ppm	ASTM D5185m	<0.1	0	0	---
Lead	ppm	ASTM D5185m	<0.1	0	0	---
Vanadium	ppm	ASTM D5185m	<0.1	0	0	---
Iron	ppm	ASTM D5185m	<0.1	0	0	---
Calcium	ppm	ASTM D5185m	<0.1	0	0	---
Magnesium	ppm	ASTM D5185m	<0.1	2	0	---
Phosphorus	ppm	ASTM D5185m	<0.1	0	0	---
Zinc	ppm	ASTM D5185m	<0.1	0	0	---

SAMPLE IMAGES		method	limit/base	current	history1	history2
---------------	--	--------	------------	---------	----------	----------

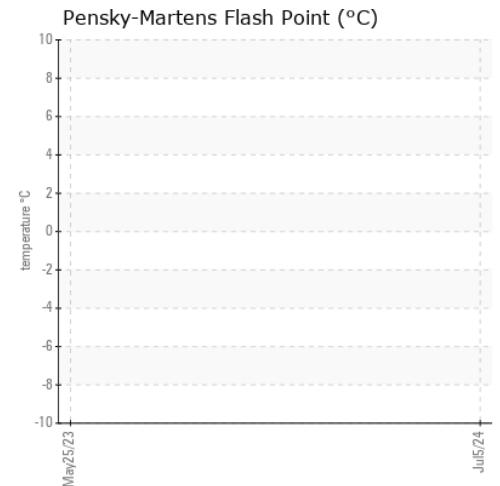
Color						no image
Bottom						no image



FUEL REPORT



GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC06235310 **Received** : 12 Jul 2024
Lab Number : 06235310 **Tested** : 18 Jul 2024
Unique Number : 11124144 **Diagnosed** : 18 Jul 2024 - Elizabeth Valachovic
Test Package : DF-5 (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)

APEX OIL LAB
 3956 44th STREET SE
 GRAND RAPIDS, MI
 US 49512
 Contact: JASON RAINEY
 jrainey@apexoillab.com
 T: (616)328-6672
 F: (616)828-1791