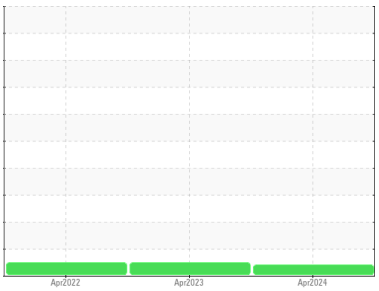
FUEL REPORT

Sample Rating Trend



VIS DEBRIS

Area
[PMOAS3372447]
Machine Id
WGD709410070
Component
Diesel Fuel
Fluid
No.2 DIESEL FUEL (ULTRALOW SULPHUR) (--- QTS)

DIAGNOSIS

Recommendation
We recommend you service and check the fuel filters for mucous-like deposits. Check with fuel supplier for biocides available to destroy the microorganisms in the fuel system.

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

Contaminants
Moderate concentration of visible dirt/debris present in the fuel. There is a light concentration of Bacteria, Yeast and/or Fungus present in the sample.

Fuel Condition
Sulfur value derived by ASTM D5453 method for ULSD validation.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**DC0034024**	DC0029070	DC0019549
Sample Date		Client Info		**18 Apr 2024**	11 Apr 2023	29 Apr 2022
Machine Age	hrs	Client Info		**138**	101	94
Sample Status				**ABNORMAL**	NORMAL	NORMAL

PHYSICAL PROPERTIES		method	limit/base	current	history1	history2
ASTM Color	scalar	*ASTM D1500		**L4.5**	L1.5	L1.5
Visc @ 40°C	cSt	ASTM D445	3.0	**2.4**	2.4	2.4

SULFUR CONTENT		method	limit/base	current	history1	history2
Sulfur	ppm	ASTM D5185m	10	**0**	0	21
Sulfur (UVF)	ppm	ASTM D5453		**30**	11	9

IGNITION QUALITY		method	limit/base	current	history1	history2
API Gravity		ASTM D7777	37.7	**37.0**	37.4	37.6

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	<1.0	**<1**	<1	7
Sodium	ppm	ASTM D5185m	<0.1	**0**	<1	0
Potassium	ppm	ASTM D5185m	<0.1	**0**	<1	0
Water	%	ASTM D6304	<0.05	**0.008**	0.003	0.001
ppm Water	ppm	ASTM D6304	<500	**89**	38.6	12.8
% Gasoline	%	*In-House	<0.50	**0.0**	0.0	0.0
% Biodiesel	%	*In-House	<20.0	**0.0**	1.1	0.0

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>2500	**---**	1338	22164
Particles >6µm		ASTM D7647	>640	**---**	289	3958
Particles >14µm		ASTM D7647	>80	**---**	26	364
Particles >21µm		ASTM D7647	>20	**---**	7	100
Particles >38µm		ASTM D7647	>4	**---**	0	2
Particles >71µm		ASTM D7647	>3	**---**	0	0
Oil Cleanliness		ISO 4406 (c)	>18/16/13	**---**	18/15/12	22/19/16

MICROBIAL		method	limit/base	current	history1	history2
Bacteria	CFU/ml	WC-Method	>=100000	**0**	---	---
Yeast	CFU/ml	WC-Method	>=100000	**10**	---	---
Mold	Colonies	WC-Method	MODER	**---**	---	---

HEAVY METALS		method	limit/base	current	history1	history2
Aluminum	ppm	ASTM D5185m	<0.1	**0**	0	0
Nickel	ppm	ASTM D5185m	<0.1	**0**	<1	<1
Lead	ppm	ASTM D5185m	<0.1	**0**	0	0
Vanadium	ppm	ASTM D5185m	<0.1	**0**	<1	0
Iron	ppm	ASTM D5185m	<0.1	**0**	1	1
Calcium	ppm	ASTM D5185m	<0.1	**0**	<1	18
Magnesium	ppm	ASTM D5185m	<0.1	**0**	6	0
Phosphorus	ppm	ASTM D5185m	<0.1	**0**	3	4
Zinc	ppm	ASTM D5185m	<0.1	**0**	0	0

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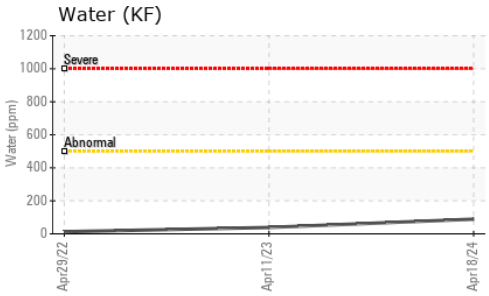
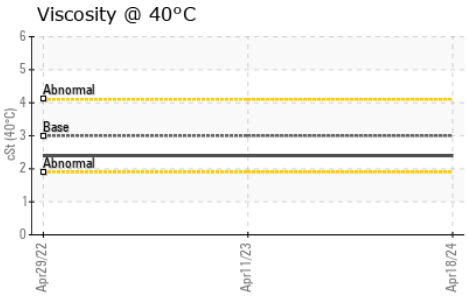
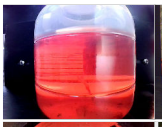
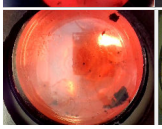
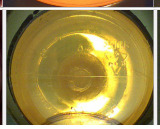
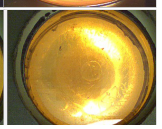
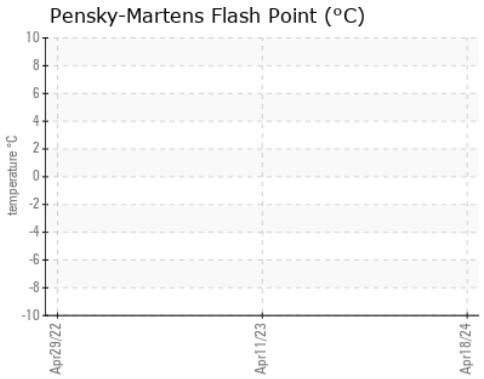




SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : DC0034024
Lab Number : 06159983
Unique Number : 10995406
Test Package : DF-5 (Additional Tests: API, BACTERIA, Cetane, Fuel, PrtCount, Screen)

Received : 24 Apr 2024
Tested : 06 May 2024
Diagnosed : 06 May 2024 - Doug Bogart

Certificate L2367

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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