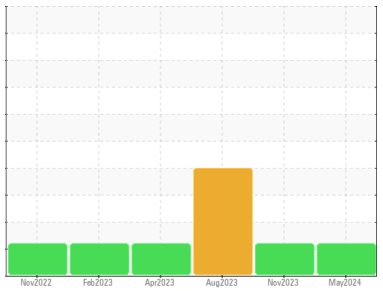
OIL ANALYSIS REPORT

Sample Rating Trend



ISO

Machine Id
FORD 2015 FORD F-250 XL (S/N 1FT7X2B68FEA58618)
Component
Gasoline Engine
Fluid
GASOLINE ENGINE OIL SAE 5W20 (7 QTS)

DIAGNOSIS

Recommendation
Resample at the next service interval to monitor.

Wear
All component wear rates are normal.

Contamination
There is a high amount of silt (particulates < 14 microns in size) present in the oil.

Fluid Condition
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**USP201500**	USP242220	USP242366
Sample Date		Client Info		**06 May 2024**	21 Nov 2023	20 Aug 2023
Machine Age	mls	Client Info		**0**	122879	0
Oil Age	mls	Client Info		**0**	5247	0
Oil Changed		Client Info		**N/A**	N/A	N/A
Sample Status				**ABNORMAL**	ABNORMAL	ABNORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Fuel		WC Method	>4.0	**<1.0**	<1.0	<1.0
Glycol		WC Method		**NEG**	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>150	**41**	19	18
Chromium	ppm	ASTM D5185m	>20	**1**	1	<1
Nickel	ppm	ASTM D5185m	>5	**<1**	<1	0
Titanium	ppm	ASTM D5185m		**<1**	<1	<1
Silver	ppm	ASTM D5185m	>2	**<1**	0	0
Aluminum	ppm	ASTM D5185m	>40	**5**	4	4
Lead	ppm	ASTM D5185m	>50	**<1**	0	0
Copper	ppm	ASTM D5185m	>155	**1**	1	<1
Tin	ppm	ASTM D5185m	>10	**<1**	<1	0
Vanadium	ppm	ASTM D5185m		**<1**	0	<1
Cadmium	ppm	ASTM D5185m		**<1**	<1	0

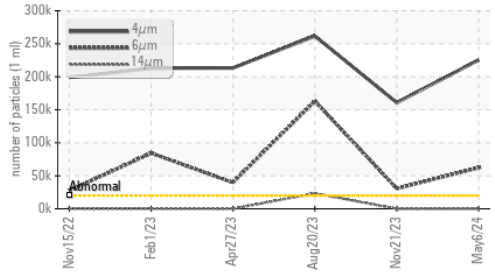
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	75	**28**	18	19
Barium	ppm	ASTM D5185m	5	**0**	<1	0
Molybdenum	ppm	ASTM D5185m	100	**73**	41	73
Manganese	ppm	ASTM D5185m		**<1**	<1	<1
Magnesium	ppm	ASTM D5185m	12	**472**	479	492
Calcium	ppm	ASTM D5185m	2100	**913**	937	929
Phosphorus	ppm	ASTM D5185m	650	**631**	588	581
Zinc	ppm	ASTM D5185m	850	**712**	703	694
Sulfur	ppm	ASTM D5185m	2500	**2804**	2565	2867

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>30	**14**	11	13
Sodium	ppm	ASTM D5185m	>50	**3**	1	5
Potassium	ppm	ASTM D5185m	>20	**2**	2	2
Water	%	ASTM D6304	>0.2	**0.084**	0.048	▲ 0.121
ppm Water	ppm	ASTM D6304	>2000	**847**	490	▲ 1219.9

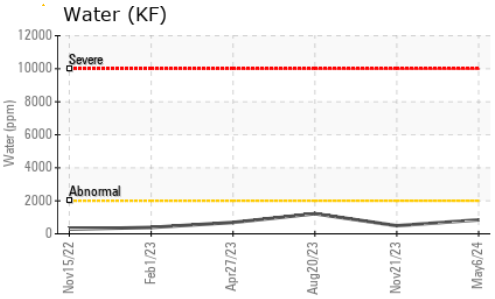
FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>20000	▲ **225211**	▲ 160755	▲ 261596
Particles >6µm		ASTM D7647	>5000	▲ **62285**	▲ 30713	▲ 163108
Particles >14µm		ASTM D7647	>640	**72**	6	▲ 23277
Particles >21µm		ASTM D7647	>160	**6**	2	▲ 7890
Particles >38µm		ASTM D7647	>40	**0**	0	▲ 183
Particles >71µm		ASTM D7647	>10	**0**	0	1
Oil Cleanliness		ISO 4406 (c)	>21/19/16	▲ **25/23/13**	▲ 25/22/10	▲ 25/25/22

OIL ANALYSIS REPORT

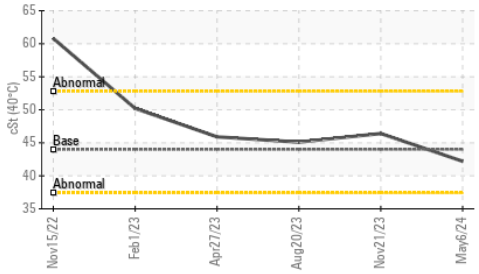
Particle Trend



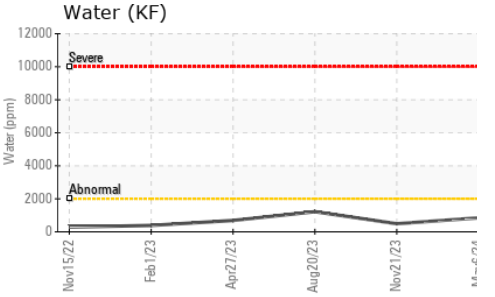
Water (KF)



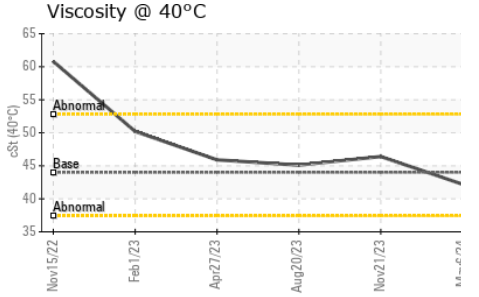
Viscosity @ 40°C



Water (KF)



Viscosity @ 40°C



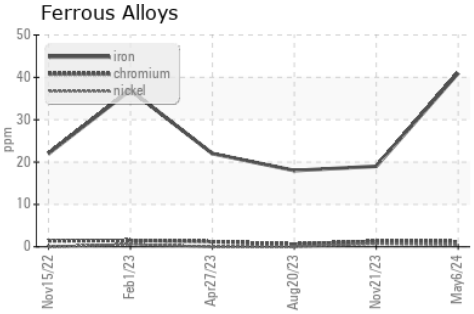
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		**1.84**	1.55	2.18

VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	LIGHT
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Appearance	scalar	*Visual	NORML	**NORML**	NORML	NORML
Odor	scalar	*Visual	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	**NEG**	NEG	NEG
Free Water	scalar	*Visual		**NEG**	NEG	NEG

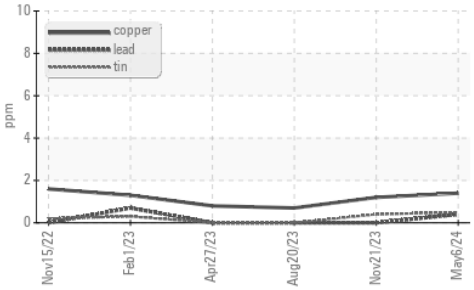
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	44	**42.2**	46.4	45.1

GRAPHS

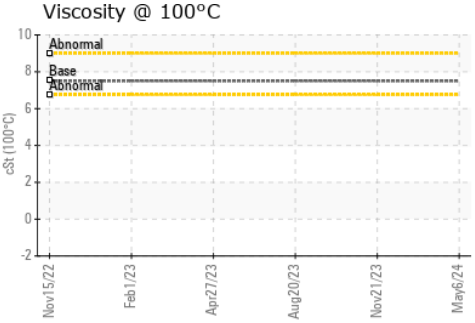
Ferrous Alloys



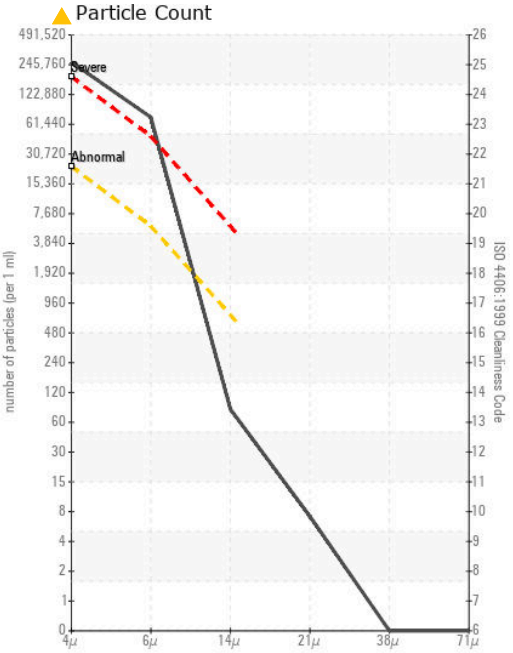
Non-ferrous Metals



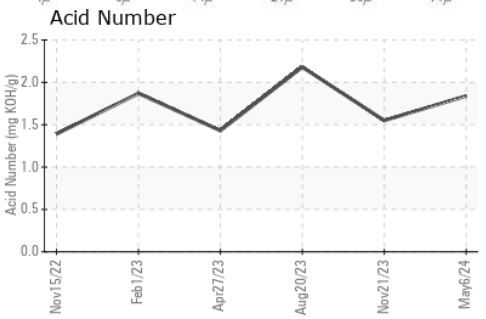
Viscosity @ 100°C



Particle Count



Acid Number



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : USP201500
Lab Number : 06180170
Unique Number : 11031496
Test Package : IND 2

Received : 15 May 2024
Tested : 16 May 2024
Diagnosed : 17 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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