OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	SEVERE
FLUID CONDITION	ABNORMAL

Machine Id
FORD 8464942
Component
Diesel Engine
Fluid
MOTORCRAFT SUPER PREMIUM SAE 10W30 (14 QTS)

RECOMMENDATION

We advise that you check the fuel injection system. We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition.

WEAR

Metal levels are typical for a new component breaking in.

CONTAMINATION

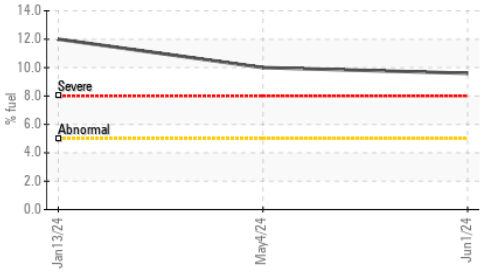
There is a high amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

FLUID CONDITION

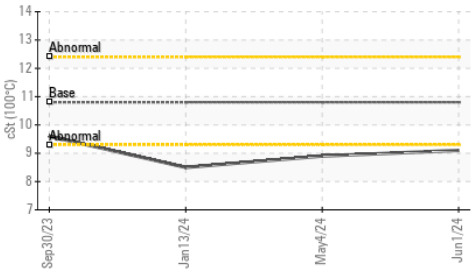
The BN result indicates that there is suitable alkalinity remaining in the oil. Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		RPL0021004	RPL0020447	RPL0017395
Sample Date		Client Info		01 Jun 2024	04 May 2024	13 Jan 2024
Machine Age	mls	Client Info		21941	19945	15242
Oil Age	mls	Client Info		6699	4703	15242
Filter Age	mls	Client Info		6699	0	15242
Oil Changed		Client Info		Not Changd	Not Changd	Changed
Filter Changed		Client Info		Not Changd	Changed	Changed
Sample Status				SEVERE	SEVERE	SEVERE
Iron	ppm	ASTM D5185m	>100	15	11	18
Chromium	ppm	ASTM D5185m	>20	1	1	1
Nickel	ppm	ASTM D5185m	>2	0	0	0
Titanium	ppm	ASTM D5185m	>2	<1	<1	<1
Silver	ppm	ASTM D5185m	>2	<1	1	2
Aluminum	ppm	ASTM D5185m	>25	<1	2	3
Lead	ppm	ASTM D5185m	>40	0	<1	<1
Copper	ppm	ASTM D5185m	>330	2	2	9
Tin	ppm	ASTM D5185m	>15	0	<1	<1
Vanadium	ppm	ASTM D5185m		0	<1	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>25	7	7	8
Potassium	ppm	ASTM D5185m	>20	3	4	4
Fuel	%	ASTM D3524	>5	▲ 9.6	▲ 10.0	▲ 12.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.2	0.2	0.1
Nitration	Abs/cm	*ASTM D7624	>20	8.1	8.0	7.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.2	19.8	20.6
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
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
Sodium	ppm	ASTM D5185m		2	2	<1
Boron	ppm	ASTM D5185m		40	55	42
Barium	ppm	ASTM D5185m		0	0	3
Molybdenum	ppm	ASTM D5185m		<1	2	2
Manganese	ppm	ASTM D5185m		<1	<1	1
Magnesium	ppm	ASTM D5185m		743	633	603
Calcium	ppm	ASTM D5185m		1363	1151	1096
Phosphorus	ppm	ASTM D5185m		1076	1028	892
Zinc	ppm	ASTM D5185m		1245	1057	1017
Sulfur	ppm	ASTM D5185m		4261	3525	3489
Oxidation	Abs/.1mm	*ASTM D7414	>25	14.1	15.4	16.2
Base Number (BN)	mg KOH/g	ASTM D2896	6.7	4.5	7.5	6.0
Visc @ 100°C	cSt	ASTM D445	10.8	▲ 9.1	▲ 8.9	▲ 8.5

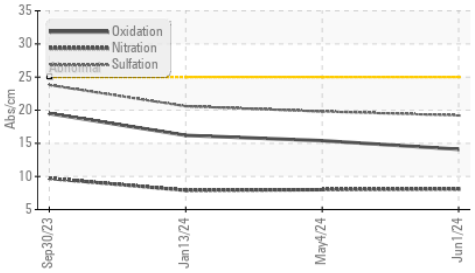
Fuel Dilution



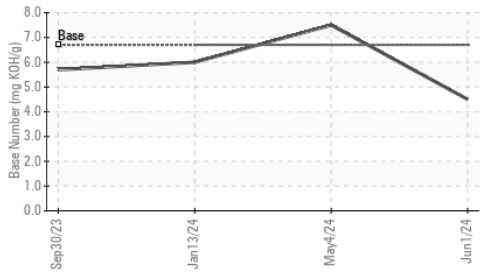
Viscosity @ 100°C



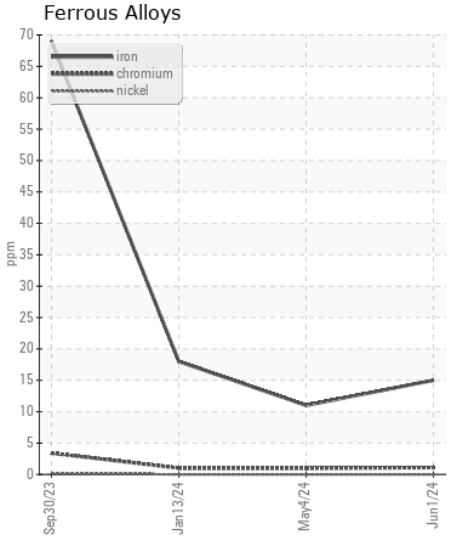
FT-IR (Direct Trend)



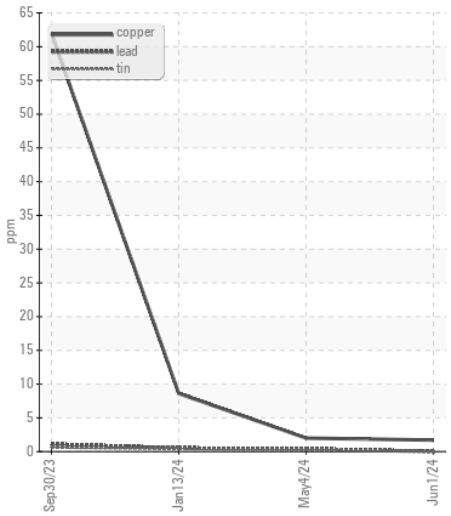
Base Number



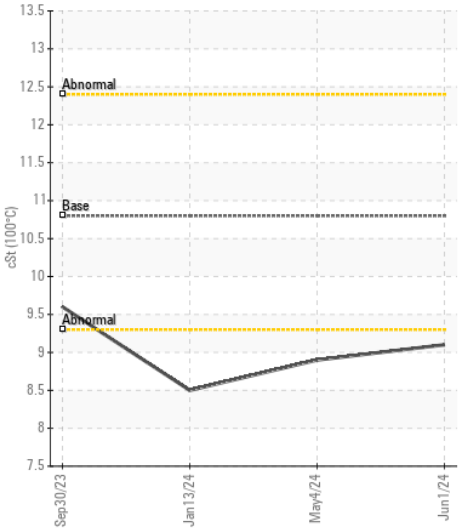
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 100°C



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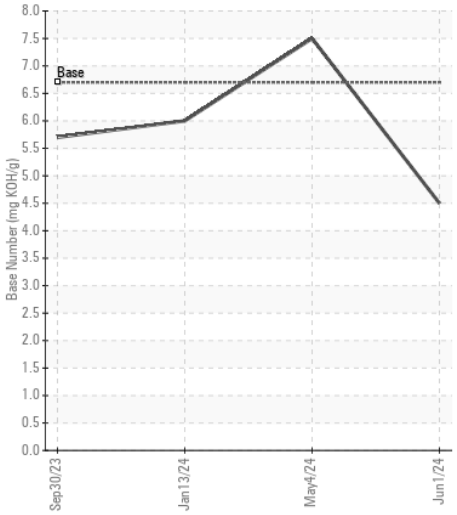

Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : RPL0021004
Lab Number : 06213160
Unique Number : 11086024
Test Package : FLEET (Additional Tests: PercentFuel)

Received : 18 Jun 2024
Tested : 20 Jun 2024
Diagnosed : 20 Jun 2024 - Wes Davis

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)

RTL PACLEASE - 7006 - Pico Rivera
7837 Telegraph Rd
Pico Rivera, CA
US 90660
Contact: FRANK MARIN
Marinf@RushEnterprises.Com
T:
F: