



TRAAP

Texas Refinery Advanced Analysis Program

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
FORD 2022 FORD F-250
 Component
Gasoline Engine
 Fluid
TRC PRO-SPEC SYNTHETIC 5W30 (8 QTS)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		TR06104520	TR06029610	TR05822878
Sample Date		Client Info		19 Dec 2023	09 Nov 2023	14 Jan 2023
Machine Age	mls	Client Info		19017	9301	1258
Oil Age	mls	Client Info		9716	7481	1258
Filter Age	mls	Client Info		9716	7481	1258
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	ABNORMAL	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>150	12	17	17
Chromium	ppm	ASTM D5185m	>20	<1	<1	1
Nickel	ppm	ASTM D5185m	>5	<1	1	1
Titanium	ppm	ASTM D5185m		0	<1	1
Silver	ppm	ASTM D5185m	>2	0	0	<1
Aluminum	ppm	ASTM D5185m	>40	4	6	5
Lead	ppm	ASTM D5185m	>50	1	1	<1
Copper	ppm	ASTM D5185m	>155	6	16	19
Tin	ppm	ASTM D5185m	>10	<1	<1	1
Vanadium	ppm	ASTM D5185m		<1	0	1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

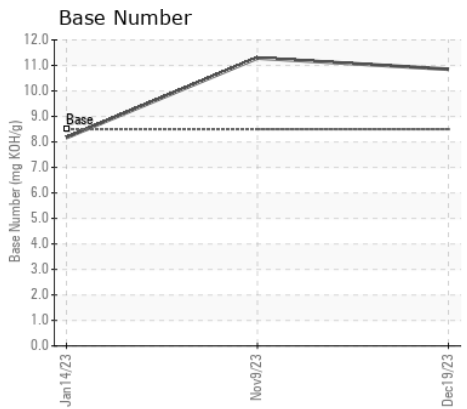
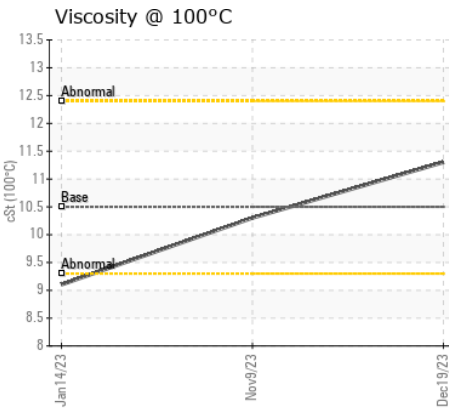
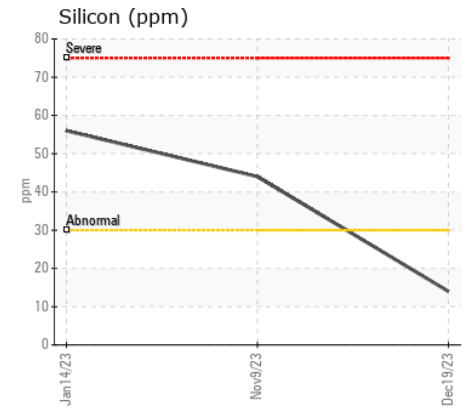
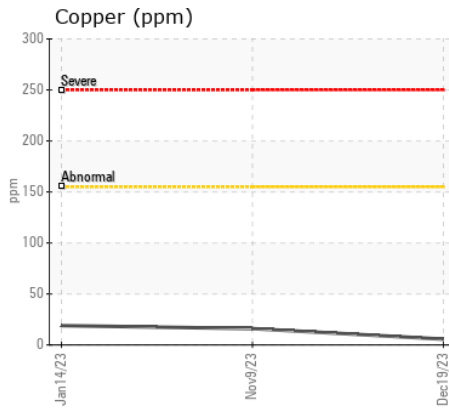
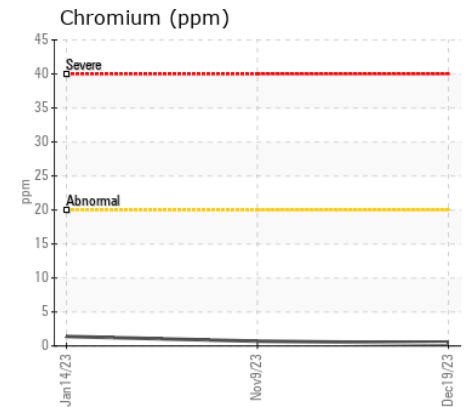
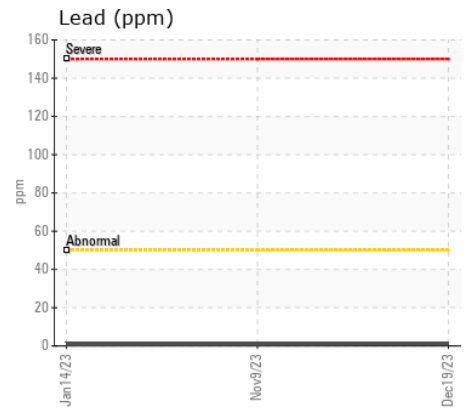
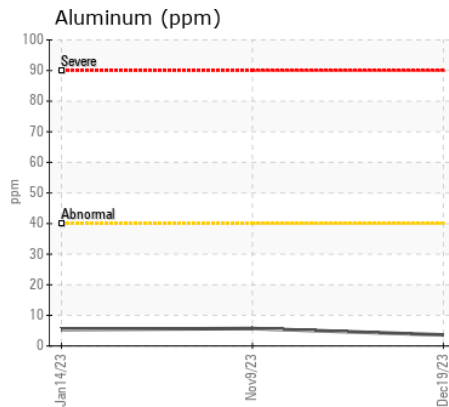
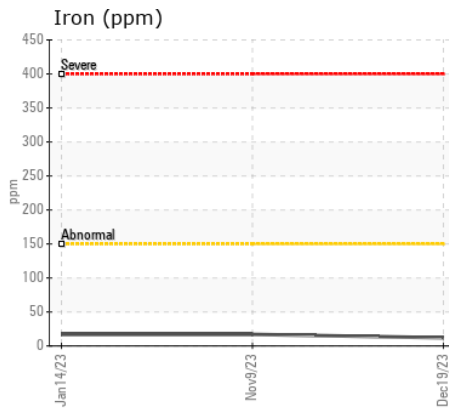
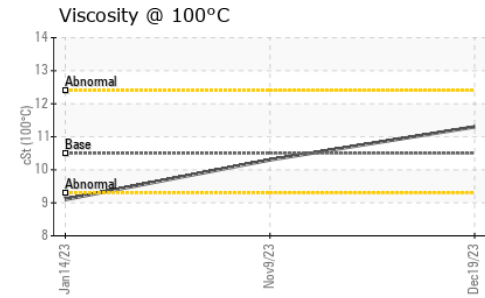
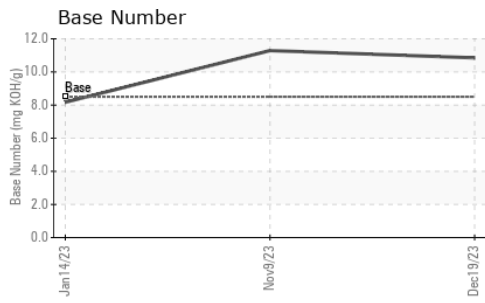
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>30	14	▲ 44	▲ 56
Potassium	ppm	ASTM D5185m	>20	2	4	6
Fuel		WC Method	>4.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844		0	0	0
Nitration	Abs/cm	*ASTM D7624	>20	12.9	11.7	5.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	26.5	25.1	14.1
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

FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>400	2	<1	6
Boron	ppm	ASTM D5185m		3	8	149
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m	400	4	17	118
Manganese	ppm	ASTM D5185m		<1	2	5
Magnesium	ppm	ASTM D5185m	600	23	42	341
Calcium	ppm	ASTM D5185m	1500	5107	3998	1201
Phosphorus	ppm	ASTM D5185m	800	1124	1100	600
Zinc	ppm	ASTM D5185m	900	1540	1326	742
Sulfur	ppm	ASTM D5185m		4682	4121	3048
Oxidation	Abs/.1mm	*ASTM D7414	>25	16.4	16.3	7.7
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	10.85	11.29	8.17
Visc @ 100°C	cSt	ASTM D445	10.5	11.3	10.3	9.1



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TR06104520 **Received** : 29 Feb 2024
Lab Number : 06104520 **Tested** : 01 Mar 2024
Unique Number : 10902750 **Diagnosed** : 04 Mar 2024 - Don Baldrige
Test Package : MOB 2

CALEB BROWN
 502 12TH AVE
 CANYON, TX
 US
 Contact: MIKE LEWIS

To discuss this sample report, contact Customer Service at 1-800-827-0711.

* - 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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F: