



TRAAP

Texas Refinery Advanced Analysis Program

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
FORD F150 T-513

Component
Gasoline Engine

Fluid
TRC PRO-SPEC MULTI VISC 5W30 (--- QTS)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		TR06212590	TR06000036	TR05850287
Sample Date		Client Info		08 Jun 2024	26 Oct 2023	11 May 2023
Machine Age	mls	Client Info		71130	60803	50225
Oil Age	mls	Client Info		8000	8500	9000
Filter Age	mls	Client Info		8000	8500	9000
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	ABNORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>150	28	22	22
Chromium	ppm	ASTM D5185m	>20	<1	<1	1
Nickel	ppm	ASTM D5185m	>5	<1	0	<1
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>2	<1	0	0
Aluminum	ppm	ASTM D5185m	>40	6	3	3
Lead	ppm	ASTM D5185m	>50	0	0	0
Copper	ppm	ASTM D5185m	>155	3	1	1
Tin	ppm	ASTM D5185m	>10	<1	0	0
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

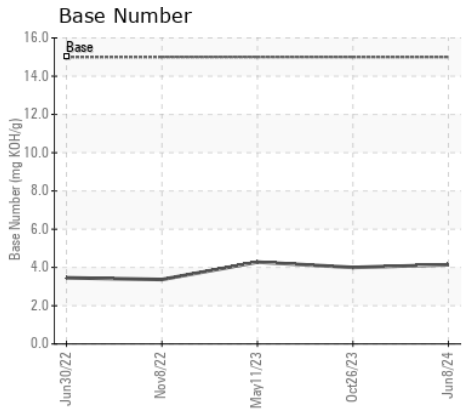
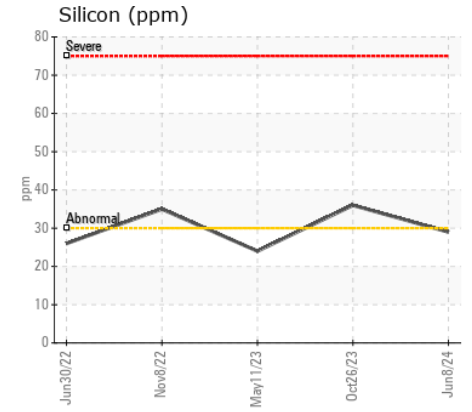
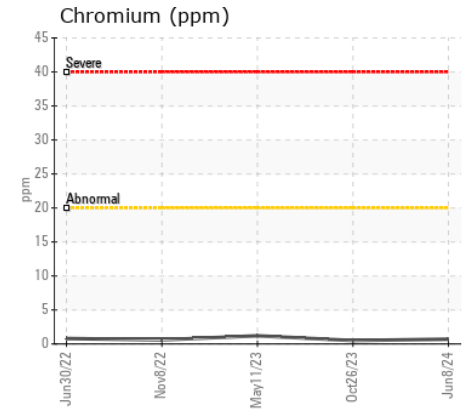
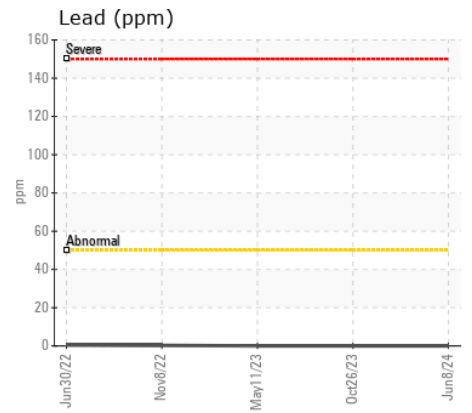
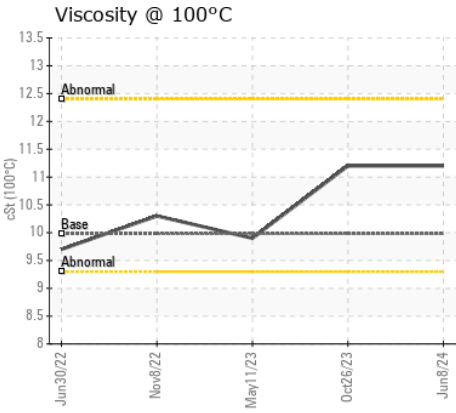
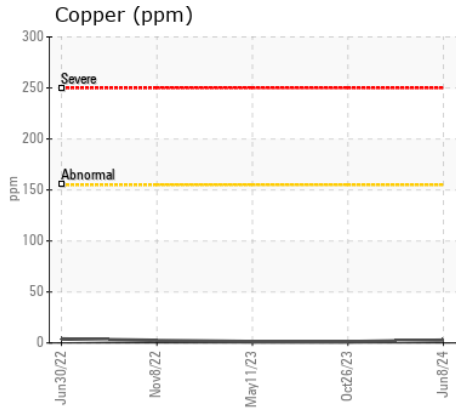
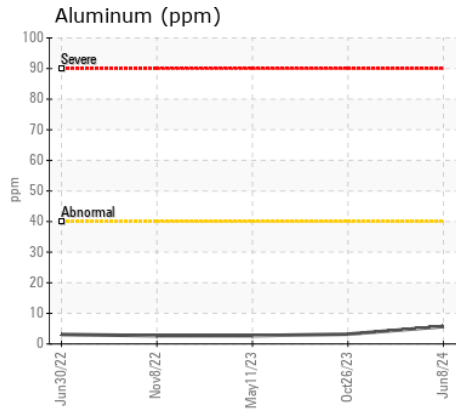
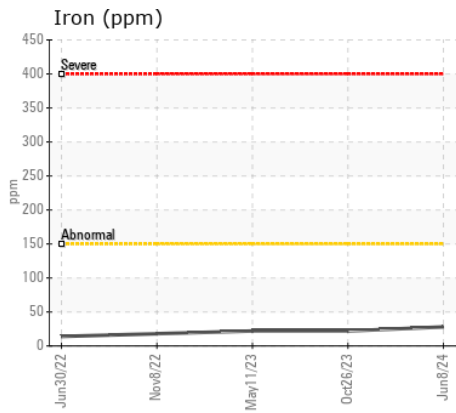
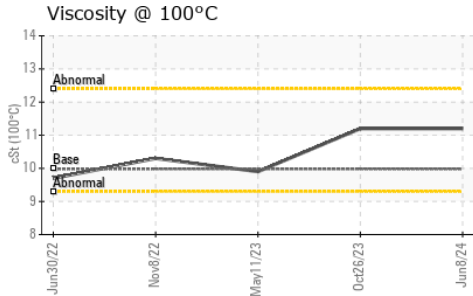
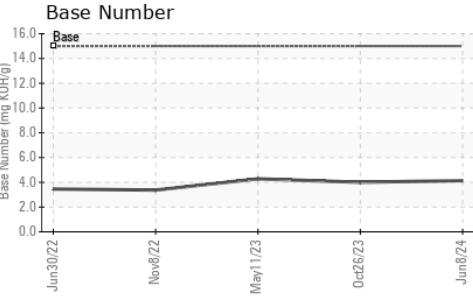
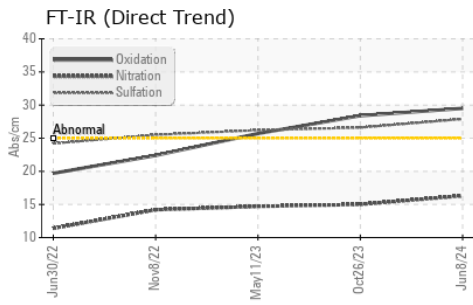
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>30	29	▲ 36	24
Potassium	ppm	ASTM D5185m	>20	4	2	2
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		0.1	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	16.3	15.0	14.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	27.9	26.6	26.2
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	11	4	4
Boron	ppm	ASTM D5185m		24	17	22
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		162	146	139
Manganese	ppm	ASTM D5185m		2	<1	<1
Magnesium	ppm	ASTM D5185m		498	458	448
Calcium	ppm	ASTM D5185m	4200	1359	1274	1237
Phosphorus	ppm	ASTM D5185m	800	727	623	625
Zinc	ppm	ASTM D5185m	800	858	841	790
Sulfur	ppm	ASTM D5185m		2323	1901	2132
Oxidation	Abs/.1mm	*ASTM D7414	>25	29.5	28.4	25.7
Base Number (BN)	mg KOH/g	ASTM D2896	15	4.14	4.00	4.28
Visc @ 100°C	cSt	ASTM D445	9.98	11.2	11.2	9.9



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TR06212590
Lab Number : 06212590
Unique Number : 11085454
Test Package : MOB 2
Received : 17 Jun 2024
Tested : 19 Jun 2024
Diagnosed : 19 Jun 2024 - Angela Borella

CHERRY HILL FARMS
 PO BOX 308
 SANTAQUIN, UT
 US 84655
 Contact: JOHN AAGARD

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: