



TRAAP

Texas Refinery Advanced Analysis Program

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
FORD F-150 T-504
 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		TR06212591	TR06119053	TR05932959
Sample Date		Client Info		06 Jun 2024	04 Mar 2024	15 Jul 2023
Machine Age	mls	Client Info		204703	195847	180909
Oil Age	mls	Client Info		8000	8000	9000
Filter Age	mls	Client Info		8000	8000	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	23	45
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>5	1	<1	<1
Titanium	ppm	ASTM D5185m		0	<1	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>40	4	4	3
Lead	ppm	ASTM D5185m	>50	0	<1	0
Copper	ppm	ASTM D5185m	>155	3	2	3
Tin	ppm	ASTM D5185m	>10	<1	<1	<1
Vanadium	ppm	ASTM D5185m		<1	1	2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

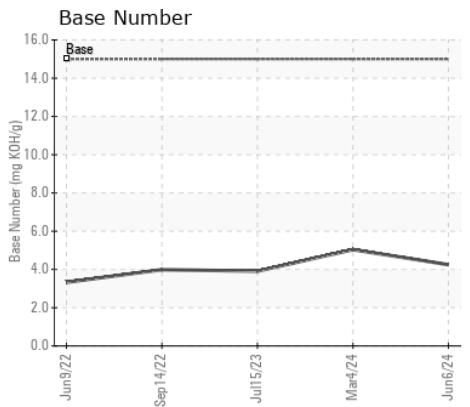
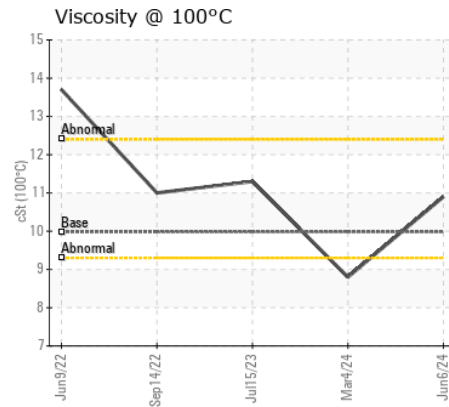
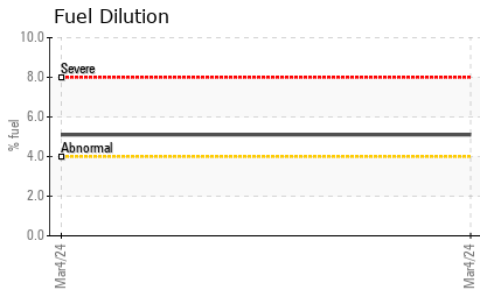
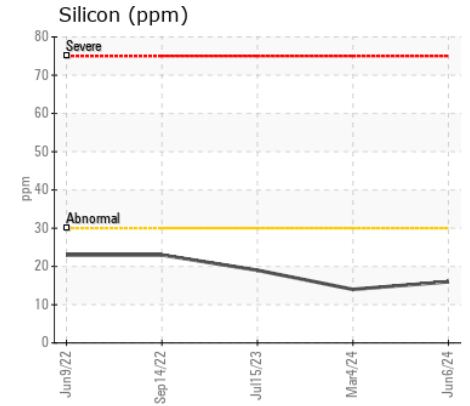
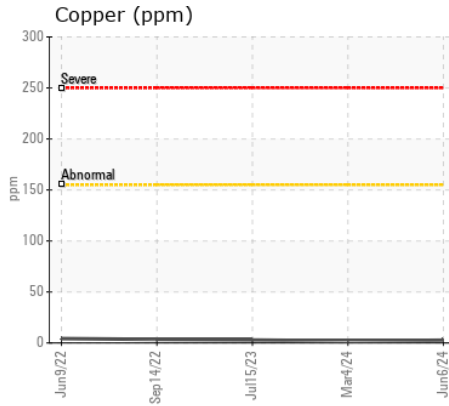
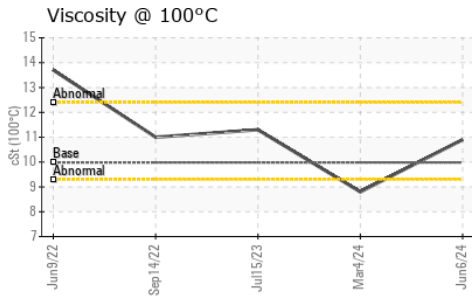
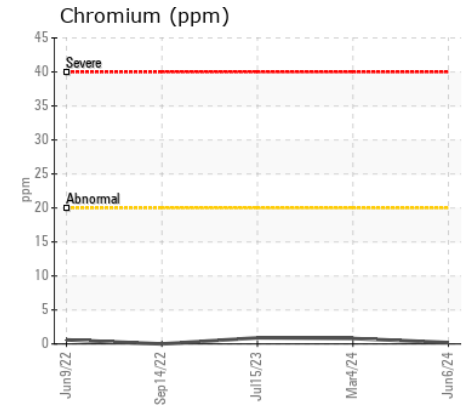
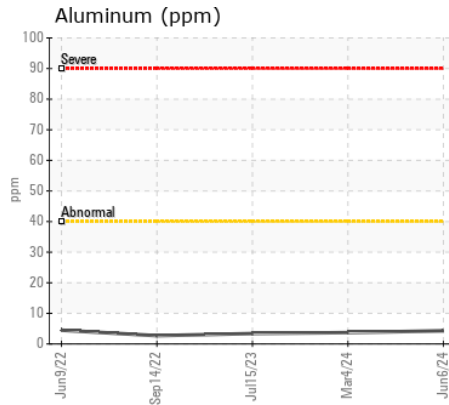
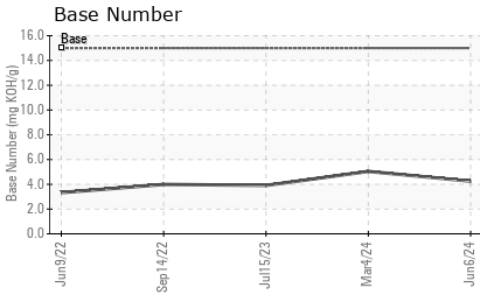
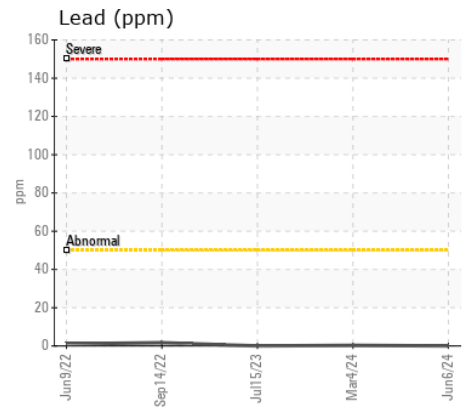
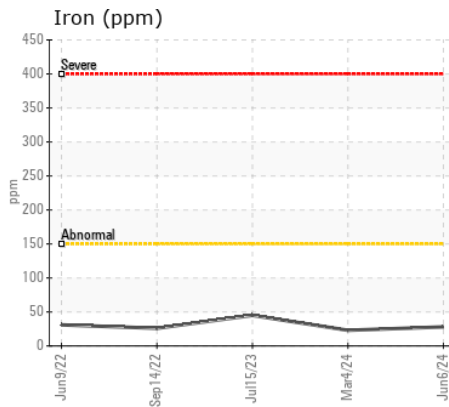
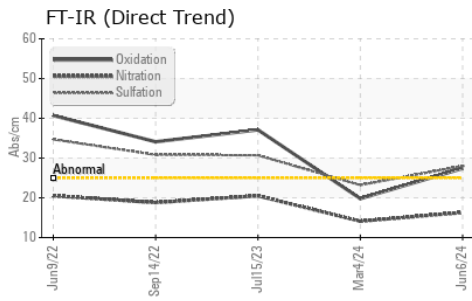
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>30	16	14	19
Potassium	ppm	ASTM D5185m	>20	4	2	2
Fuel	%	ASTM D3524	>4.0	<1.0	▲ 5.1	<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	14.1	20.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	28.0	23.2	30.7
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	10	7	6
Boron	ppm	ASTM D5185m		22	22	23
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		157	152	149
Manganese	ppm	ASTM D5185m		1	<1	1
Magnesium	ppm	ASTM D5185m		493	412	483
Calcium	ppm	ASTM D5185m	4200	1332	1321	1345
Phosphorus	ppm	ASTM D5185m	800	717	647	678
Zinc	ppm	ASTM D5185m	800	830	764	835
Sulfur	ppm	ASTM D5185m		2365	2142	2345
Oxidation	Abs/.1mm	*ASTM D7414	>25	27.4	19.8	37.1
Base Number (BN)	mg KOH/g	ASTM D2896	15	4.25	5.04	3.91
Visc @ 100°C	cSt	ASTM D445	9.98	10.9	▲ 8.8	11.3



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TR06212591 **Received** : 17 Jun 2024
Lab Number : 06212591 **Tested** : 19 Jun 2024
Unique Number : 11085455 **Diagnosed** : 19 Jun 2024 - Angela Borella
Test Package : MOB 2 (Additional Tests: PercentFuel)

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)

T:
F: