



TRAAP

Texas Refinery Advanced Analysis Program

OIL ANALYSIS REPORT

WEAR	ATTENTION
CONTAMINATION	ABNORMAL
FLUID CONDITION	ABNORMAL

Machine Id

FORD 56

Component

Gasoline Engine

Fluid

TRC MOLY XL PRO-SPEC III SYNTHETIC15W40 (5 QTS)

RECOMMENDATION

We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. The oil is near the end of it's useful service life, recommend schedule an oil change. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		TR06155277	TR05848248	---
Sample Date		Client Info		21 Mar 2024	25 Apr 2023	---
Machine Age	mls	Client Info		86325	76407	---
Oil Age	mls	Client Info		15528	5600	---
Filter Age	mls	Client Info		0	0	---
Oil Changed		Client Info		N/A	N/A	---
Filter Changed		Client Info		N/A	N/A	---
Sample Status				ABNORMAL	NORMAL	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>150	60	18	---
Chromium	ppm	ASTM D5185m	>20	2	<1	---
Nickel	ppm	ASTM D5185m	>5	1	0	---
Titanium	ppm	ASTM D5185m		<1	0	---
Silver	ppm	ASTM D5185m	>2	0	0	---
Aluminum	ppm	ASTM D5185m	>40	6	1	---
Lead	ppm	ASTM D5185m	>50	13	14	---
Copper	ppm	ASTM D5185m	>155	6	3	---
Tin	ppm	ASTM D5185m	>10	<1	0	---
Vanadium	ppm	ASTM D5185m		0	<1	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

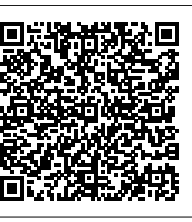
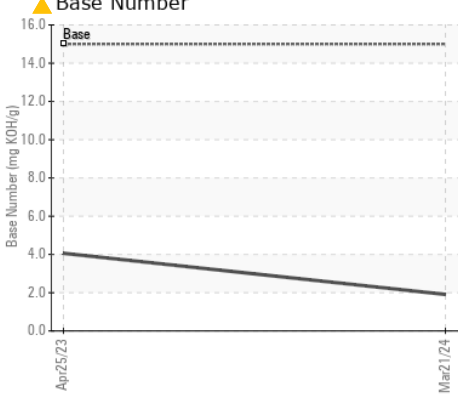
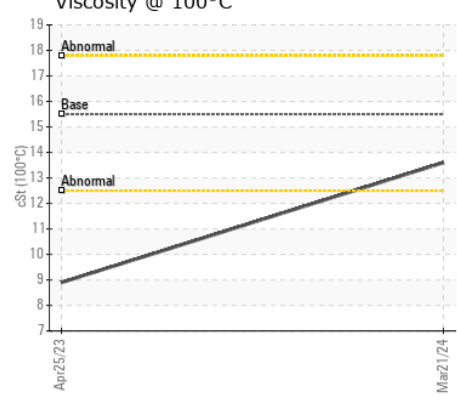
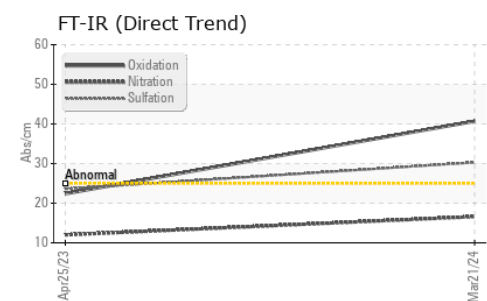
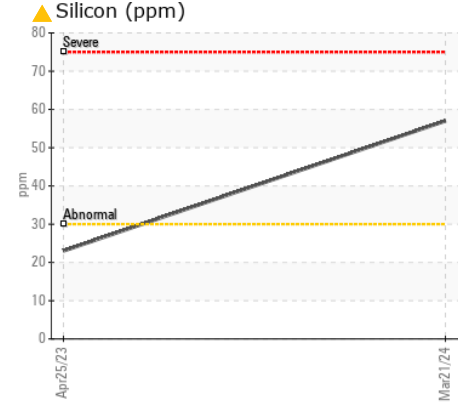
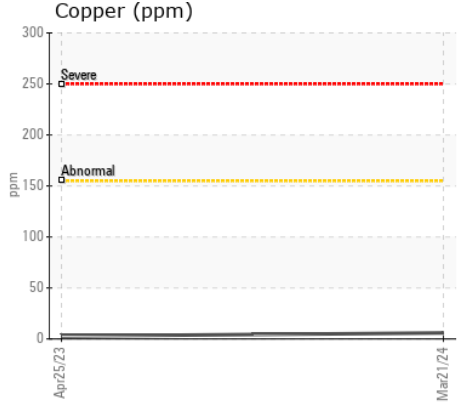
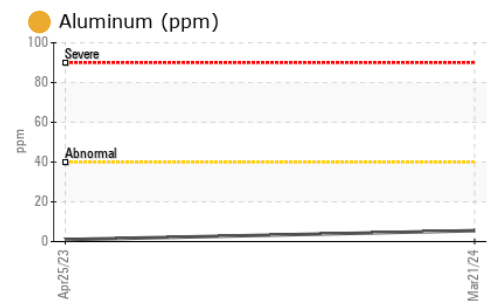
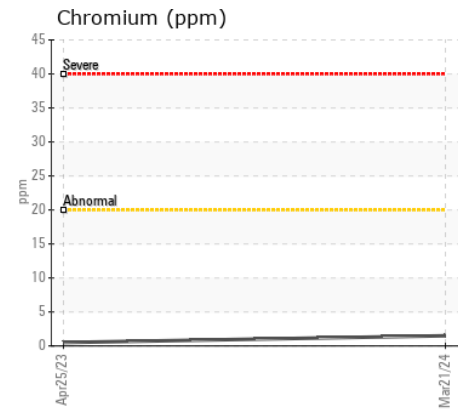
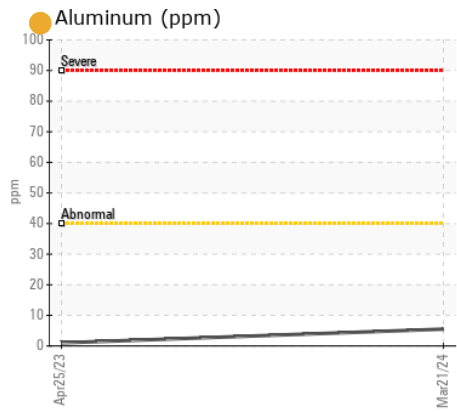
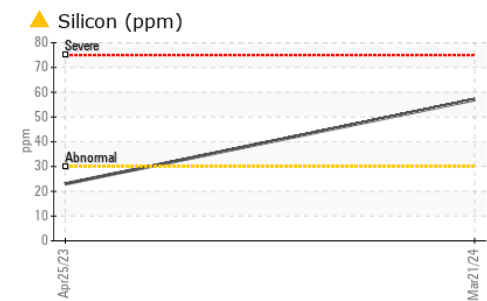
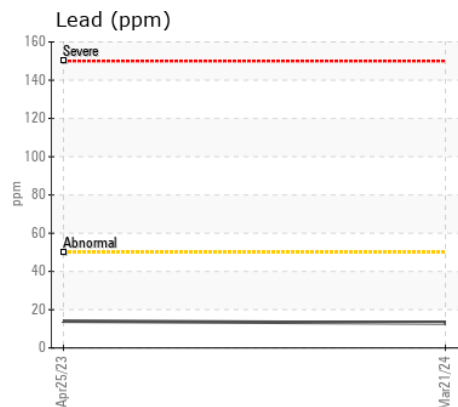
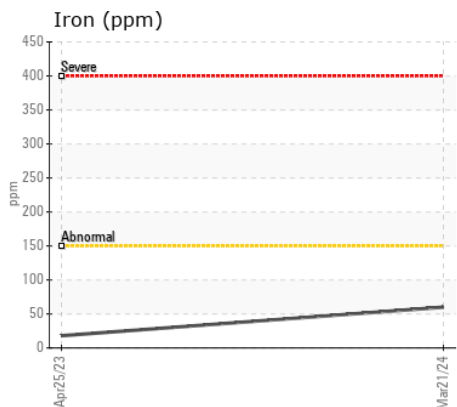
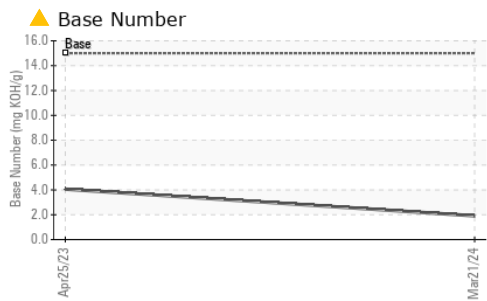
Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

Silicon	ppm	ASTM D5185m	>30	57	23	---
Potassium	ppm	ASTM D5185m	>20	3	2	---
Fuel		WC Method	>4.0	<1.0	2.6	---
Water		WC Method	>0.2	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	*ASTM D7844		0.1	0	---
Nitration	Abs/cm	*ASTM D7624	>20	16.6	12.0	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	30.3	23.6	---
Silt	scalar	*Visual	NONE	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	---

FLUID CONDITION

The BN level is low.

Sodium	ppm	ASTM D5185m	>400	2	4	---
Boron	ppm	ASTM D5185m		14	14	---
Barium	ppm	ASTM D5185m		0	0	---
Molybdenum	ppm	ASTM D5185m		98	114	---
Manganese	ppm	ASTM D5185m		2	1	---
Magnesium	ppm	ASTM D5185m		56	65	---
Calcium	ppm	ASTM D5185m	4500	1207	1465	---
Phosphorus	ppm	ASTM D5185m		442	495	---
Zinc	ppm	ASTM D5185m	1400	532	643	---
Sulfur	ppm	ASTM D5185m		1557	1852	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	40.7	22.4	---
Base Number (BN)	mg KOH/g	ASTM D2896	15	1.91	4.06	---
Visc @ 100°C	cSt	ASTM D445	15.5	13.6	8.9	---



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TR06155277
Lab Number : 06155277
Unique Number : 10990700
Test Package : MOB 2
Received : 19 Apr 2024
Tested : 24 Apr 2024
Diagnosed : 24 Apr 2024 - Sean Felton

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Certificate L2367
 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)