



TRAAP

Texas Refinery Advanced Analysis Program

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
CASE 9280 JEE0032690

Component
Diesel Engine

Fluid
TRC PRO-SPEC III SYNTHETIC BLEND 15W40 (8 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		TR06225353	TR05816258	TR05514429
Sample Date		Client Info		27 Jun 2024	07 Apr 2023	07 Apr 2022
Machine Age	hrs	Client Info		0	87	3500
Oil Age	hrs	Client Info		110	0	100
Filter Age	hrs	Client Info		10	0	100
Oil Changed		Client Info		Not Changd	Not Changd	Changed
Filter Changed		Client Info		Not Changd	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	3	4	5
Chromium	ppm	ASTM D5185m	>20	0	<1	<1
Nickel	ppm	ASTM D5185m	>4	0	<1	0
Titanium	ppm	ASTM D5185m		0	<1	<1
Silver	ppm	ASTM D5185m	>3	0	<1	<1
Aluminum	ppm	ASTM D5185m	>20	1	2	<1
Lead	ppm	ASTM D5185m	>40	0	<1	<1
Copper	ppm	ASTM D5185m	>330	0	<1	<1
Tin	ppm	ASTM D5185m	>15	0	0	<1
Vanadium	ppm	ASTM D5185m		0	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

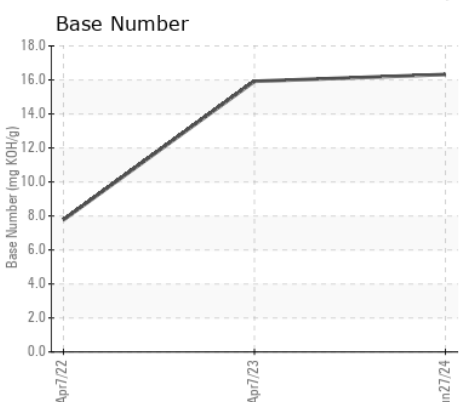
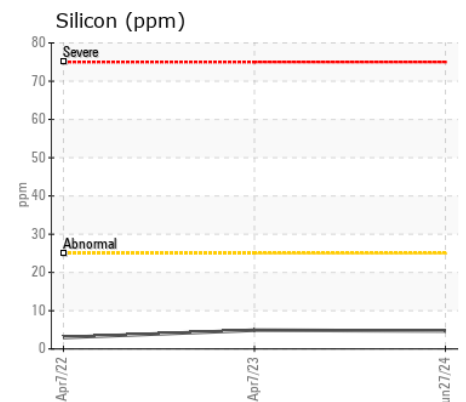
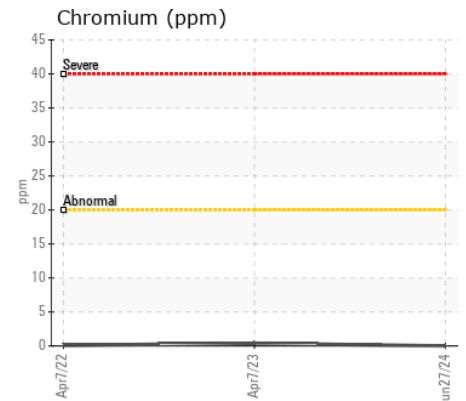
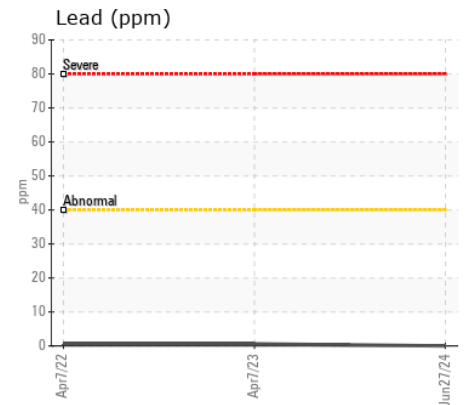
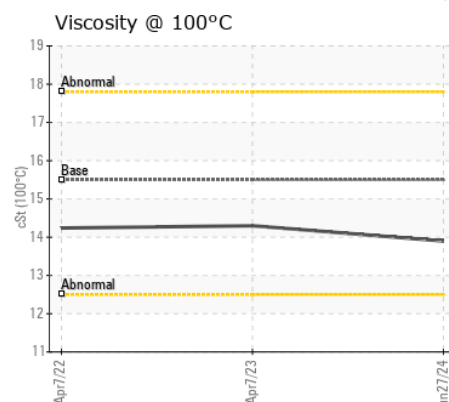
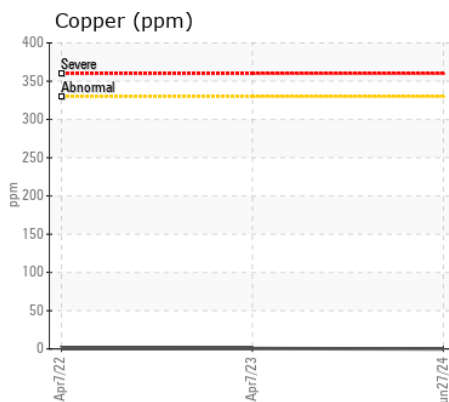
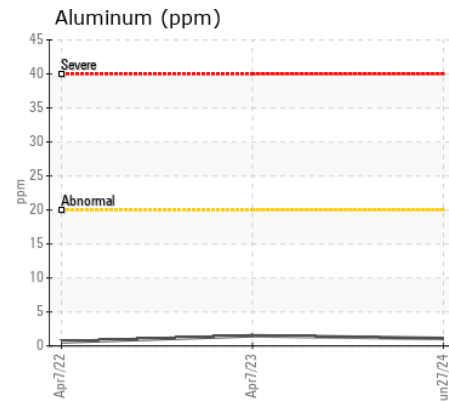
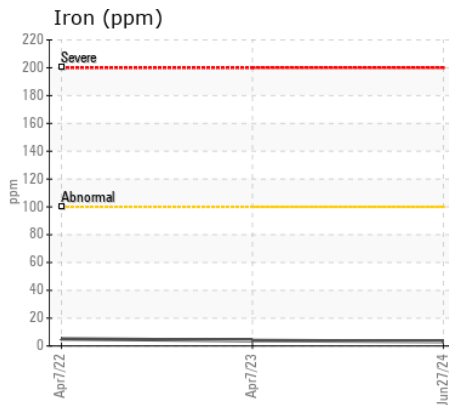
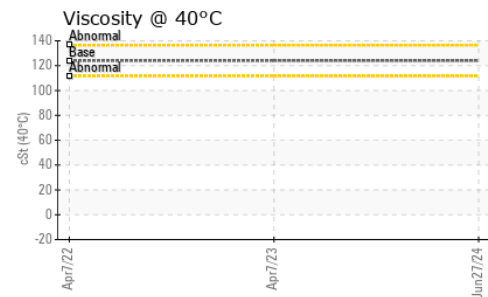
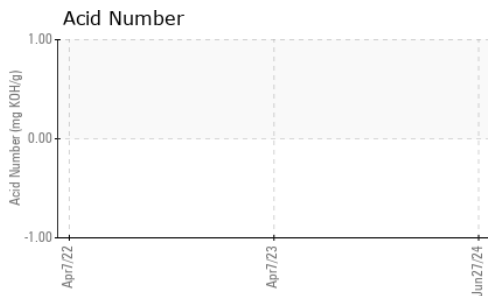
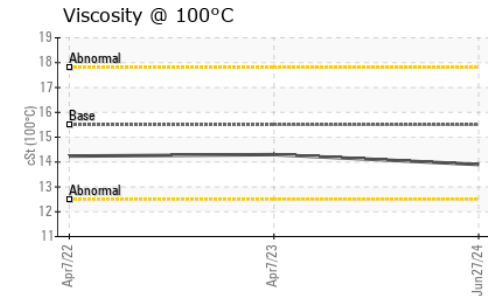
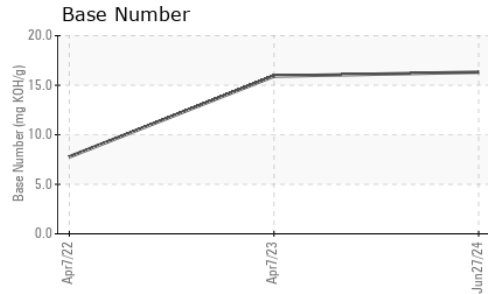
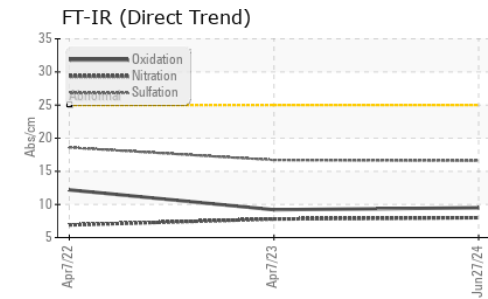
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	5	5	3
Potassium	ppm	ASTM D5185m	>20	0	3	3
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.1	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	8.0	7.8	6.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	16.6	16.7	18.6
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

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		2	2	2
Boron	ppm	ASTM D5185m		7	11	93
Barium	ppm	ASTM D5185m		<1	<1	0
Molybdenum	ppm	ASTM D5185m		104	106	3
Manganese	ppm	ASTM D5185m		0	<1	<1
Magnesium	ppm	ASTM D5185m		57	67	745
Calcium	ppm	ASTM D5185m		4511	4553	1424
Phosphorus	ppm	ASTM D5185m		951	982	1098
Zinc	ppm	ASTM D5185m		1060	1152	1282
Sulfur	ppm	ASTM D5185m		5171	5869	3388
Oxidation	Abs/.1mm	*ASTM D7414	>25	9.5	9.2	12.2
Base Number (BN)	mg KOH/g	ASTM D2896		16.32	15.92	7.77
Visc @ 100°C	cSt	ASTM D445	15.5	13.9	14.3	14.24



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TR06225353 **Received** : 01 Jul 2024
Lab Number : 06225353 **Tested** : 03 Jul 2024
Unique Number : 11103550 **Diagnosed** : 03 Jul 2024 - Don Baldridge
Test Package : MOB 2 (Additional Tests: KV40, TAN Man)

WERNZ FARMING
 34111 S DUNN RD
 FAIRFIELD, WA
 US 99012
 Contact: RON GROGAN

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)

T:
F: