



TRAAP

Texas Refinery Advanced Analysis Program

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
6996
 Component
Diesel Engine
 Fluid
TRC MOLY XL PRO-SPEC IV XP 15W40 (3 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		TR06212596	TR06045123	TR05923619
Sample Date		Client Info		12 Jun 2024	19 Dec 2023	02 Aug 2023
Machine Age	mls	Client Info		216923	211914	206580
Oil Age	mls	Client Info		5000	5000	5000
Filter Age	mls	Client Info		5000	5000	5000
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	11	8	13
Chromium	ppm	ASTM D5185m	>20	0	<1	<1
Nickel	ppm	ASTM D5185m	>4	<1	0	0
Titanium	ppm	ASTM D5185m		<1	<1	<1
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	4	3	2
Lead	ppm	ASTM D5185m	>40	1	0	<1
Copper	ppm	ASTM D5185m	>330	6	7	23
Tin	ppm	ASTM D5185m	>15	<1	<1	<1
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

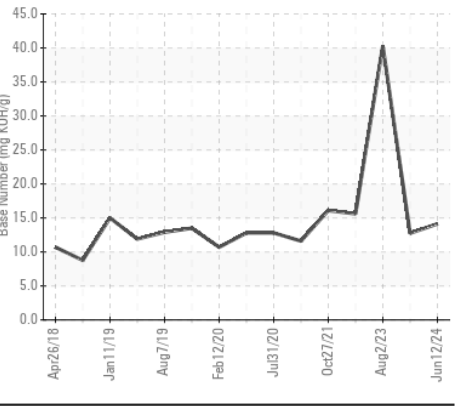
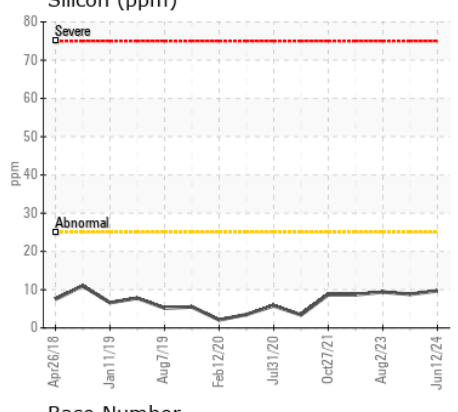
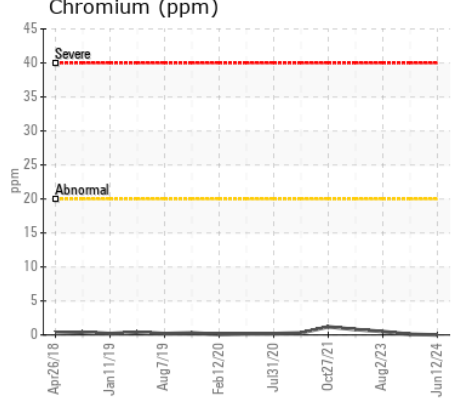
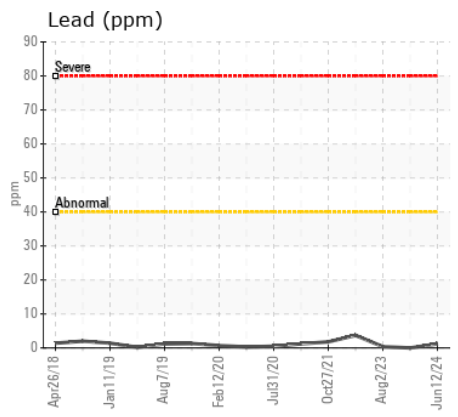
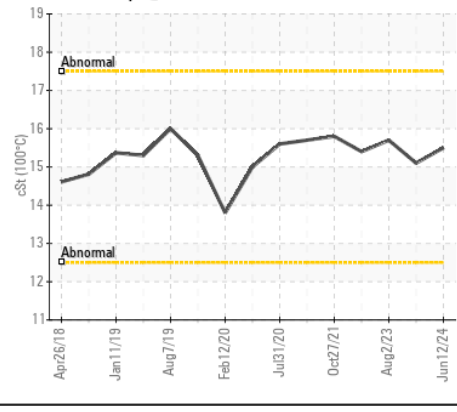
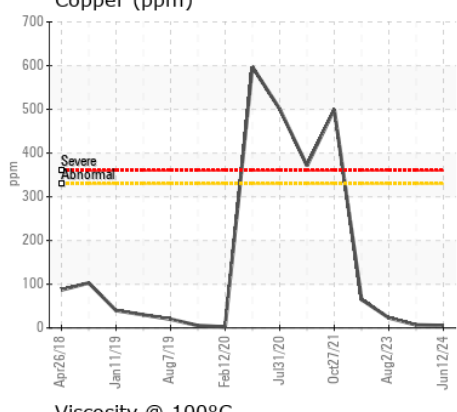
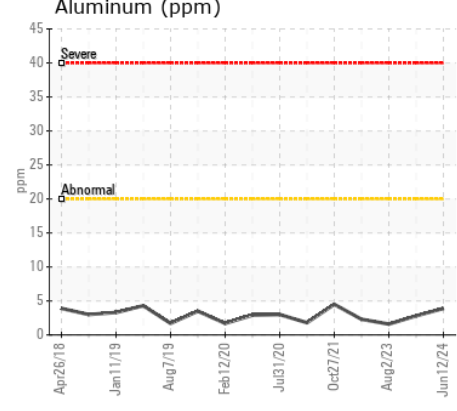
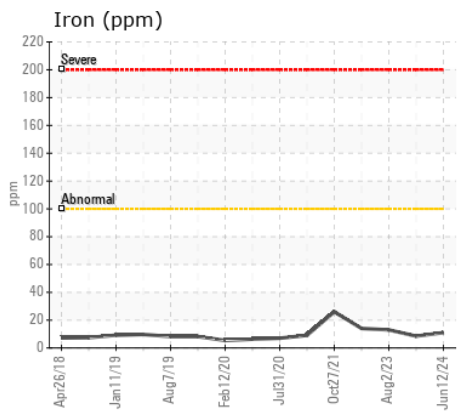
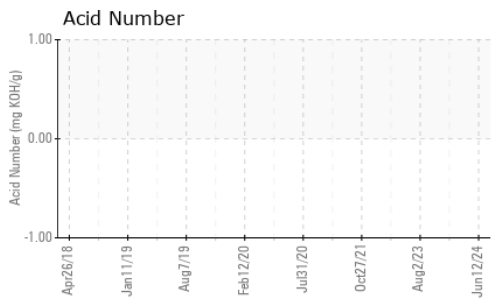
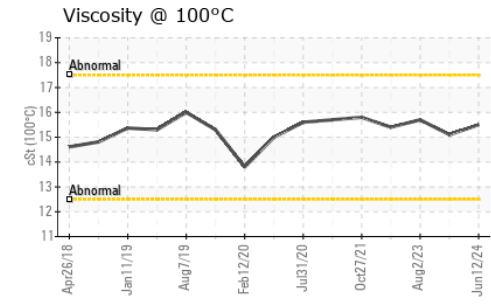
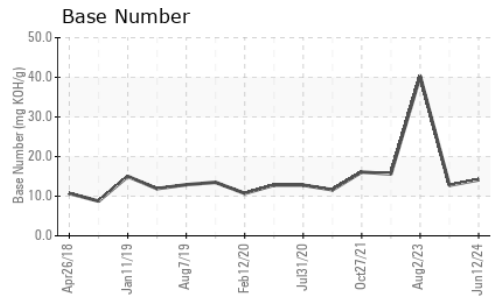
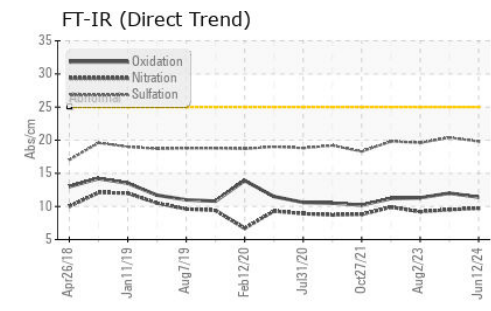
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	10	9	9
Potassium	ppm	ASTM D5185m	>20	4	<1	<1
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	0.3	0.4	0.2
Nitration	Abs/cm	*ASTM D7624	>20	9.7	9.5	9.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.8	20.4	19.6
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		4	<1	4
Boron	ppm	ASTM D5185m		6	14	4
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		133	124	135
Manganese	ppm	ASTM D5185m		<1	0	<1
Magnesium	ppm	ASTM D5185m		29	63	26
Calcium	ppm	ASTM D5185m		4270	3896	4628
Phosphorus	ppm	ASTM D5185m		971	876	936
Zinc	ppm	ASTM D5185m		1087	1037	1114
Sulfur	ppm	ASTM D5185m		5132	4003	5328
Oxidation	Abs/.1mm	*ASTM D7414	>25	11.4	12.0	11.3
Base Number (BN)	mg KOH/g	ASTM D2896		14.13	12.75	40.30
Visc @ 100°C	cSt	ASTM D445		15.5	15.1	15.7



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TR06212596
Lab Number : 06212596
Unique Number : 11085460
Test Package : MOB 2 (Additional Tests: TAN Man)

Received : 17 Jun 2024
Tested : 19 Jun 2024
Diagnosed : 19 Jun 2024 - Angela Borella

MITCHELL EXCAVATING - BODI MITCHELL
 200 SOUTH 1455 WEST
 LINDON, UT
 US 84042
 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: