



TRAAP

Texas Refinery Advanced Analysis Program

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
THOMAS 23

Component
Diesel Engine

Fluid
TRC MOLY XL PRO-SPEC IV XP 15W40 (18 QTS)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		TR06102554	TR06046348	TR06004503
Sample Date		Client Info		26 Jan 2024	08 Dec 2023	05 Oct 2023
Machine Age	hrs	Client Info		5851	5700	5517
Oil Age	hrs	Client Info		816	666	483
Filter Age	hrs	Client Info		151	183	182
Oil Changed		Client Info		Not Chngd	Not Chngd	Not Chngd
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>130	109	92	88
Chromium	ppm	ASTM D5185m	>10	1	1	1
Nickel	ppm	ASTM D5185m	>4	<1	0	<1
Titanium	ppm	ASTM D5185m	>2	0	<1	<1
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>20	21	20	27
Lead	ppm	ASTM D5185m	>20	1	0	0
Copper	ppm	ASTM D5185m	>125	3	2	4
Tin	ppm	ASTM D5185m	>4	1	1	<1
Vanadium	ppm	ASTM D5185m		<1	0	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

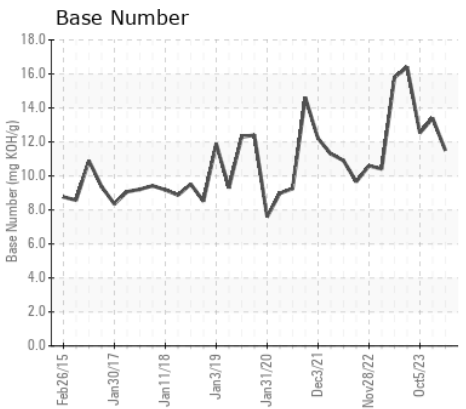
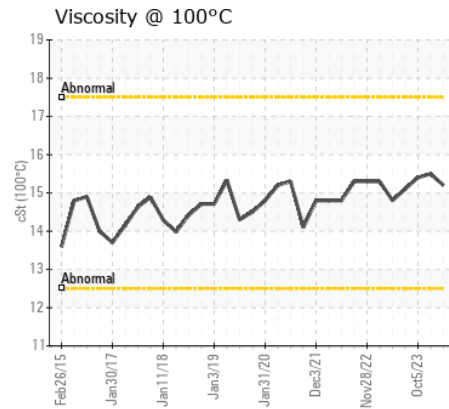
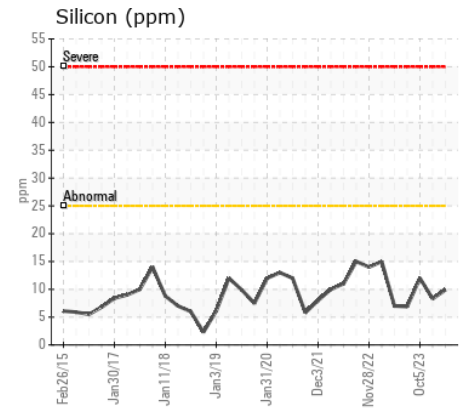
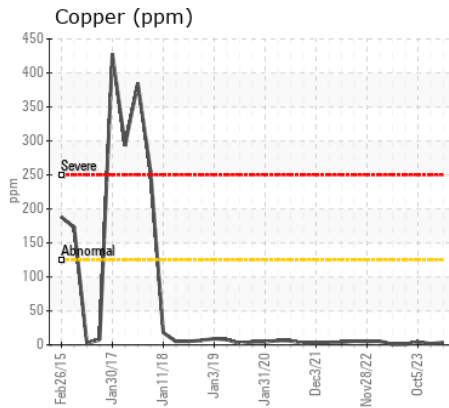
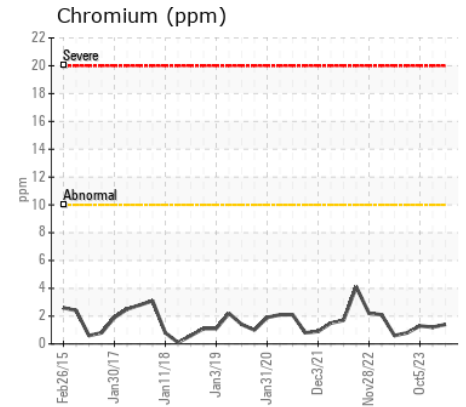
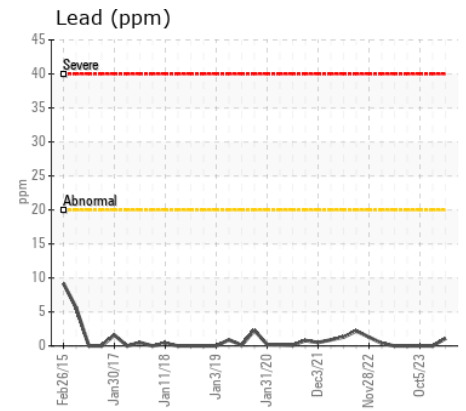
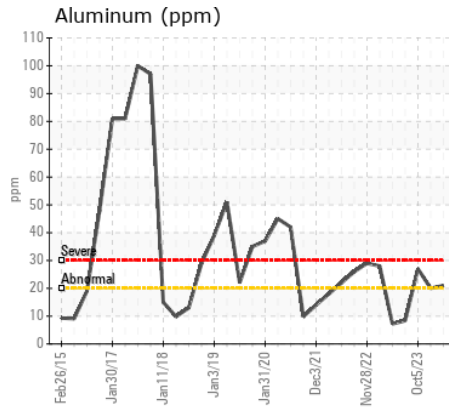
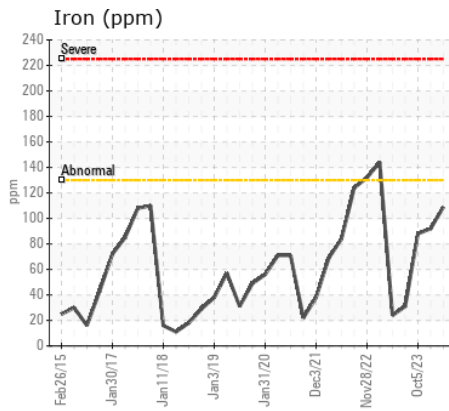
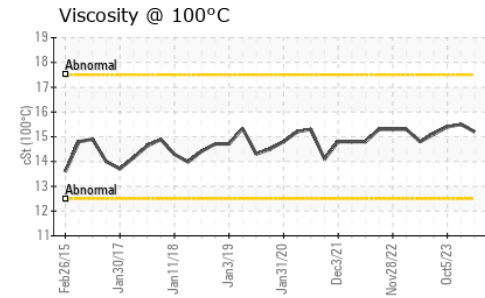
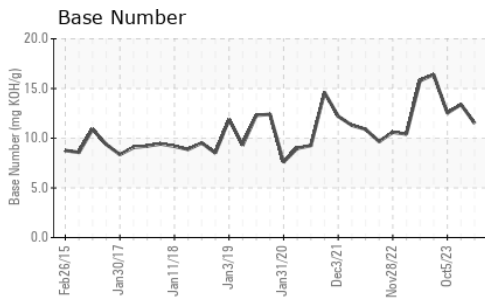
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	10	8	12
Potassium	ppm	ASTM D5185m	>20	24	22	33
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>6	2.3	2.2	1.7
Nitration	Abs/cm	*ASTM D7624	>20	14.8	14.3	13.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	29.4	28.7	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		4	2	4
Boron	ppm	ASTM D5185m		2	2	0
Barium	ppm	ASTM D5185m		0	0	7
Molybdenum	ppm	ASTM D5185m		123	124	172
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		23	23	26
Calcium	ppm	ASTM D5185m		4712	4302	5707
Phosphorus	ppm	ASTM D5185m		954	886	1341
Zinc	ppm	ASTM D5185m		1215	1091	1442
Sulfur	ppm	ASTM D5185m		4591	3955	6256
Oxidation	Abs/.1mm	*ASTM D7414	>25	19.3	18.6	15.9
Base Number (BN)	mg KOH/g	ASTM D2896		11.50	13.39	12.53
Visc @ 100°C	cSt	ASTM D445		15.2	15.5	15.4



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TR06102554
Lab Number : 06102554
Unique Number : 10900784
Test Package : MOB 2

Received : 27 Feb 2024
Tested : 29 Feb 2024
Diagnosed : 29 Feb 2024 - Don Baldrige

BOW SCHOOL DIST BUS GARAGE
 12 RODINSON RD
 BOW, NH
 US 03304
 Contact: DON PERCY

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: