



TRAAP

Texas Refinery Advanced Analysis Program

WEAR

NORMAL

CONTAMINATION

NORMAL

FLUID CONDITION

NORMAL

### OIL ANALYSIS REPORT

Area

**DIEMAR**

Machine Id

**TRACTOR 0662**

Component

**Diesel Engine**

Fluid

**TRC MOLY XL PRO-SPEC IV 15W40 (--- GAL)**

#### RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>TR05782589</b>	TR05154021	---
Sample Date		Client Info		<b>23 Feb 2023</b>	18 Dec 2020	---
Machine Age	hrs	Client Info		<b>3702</b>	2800	---
Oil Age	hrs	Client Info		<b>2543</b>	849	---
Filter Age	hrs	Client Info		<b>902</b>	849	---
Oil Changed		Client Info		<b>Not Changd</b>	Not Changd	---
Filter Changed		Client Info		<b>Not Changd</b>	Changed	---
Sample Status				<b>NORMAL</b>	NORMAL	---

#### WEAR

All component wear rates are normal for time on oil.

Iron	ppm	ASTM D5185m	>100	<b>105</b>	13	---
Chromium	ppm	ASTM D5185m	>20	<b>5</b>	<1	---
Nickel	ppm	ASTM D5185m	>4	<b>&lt;1</b>	0	---
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	---
Silver	ppm	ASTM D5185m	>3	<b>0</b>	2	---
Aluminum	ppm	ASTM D5185m	>20	<b>5</b>	2	---
Lead	ppm	ASTM D5185m	>40	<b>8</b>	0	---
Copper	ppm	ASTM D5185m	>330	<b>172</b>	236	---
Tin	ppm	ASTM D5185m	>15	<b>4</b>	<1	---
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	---
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---

#### CONTAMINATION

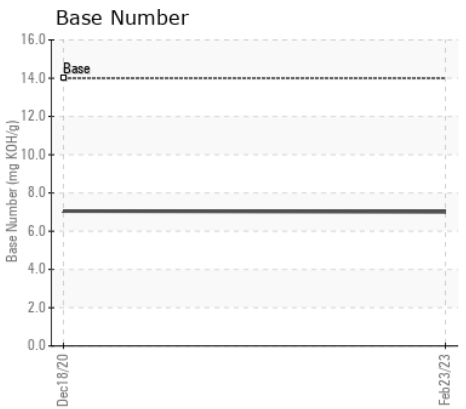
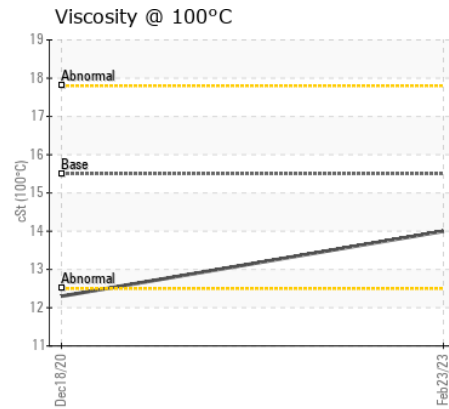
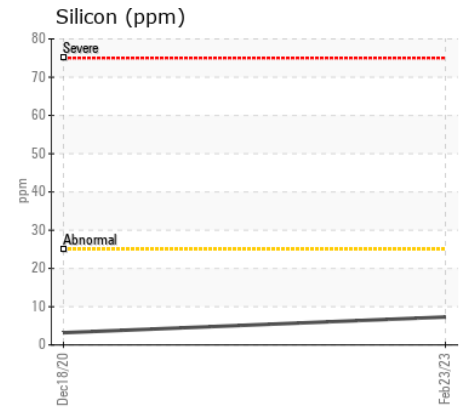
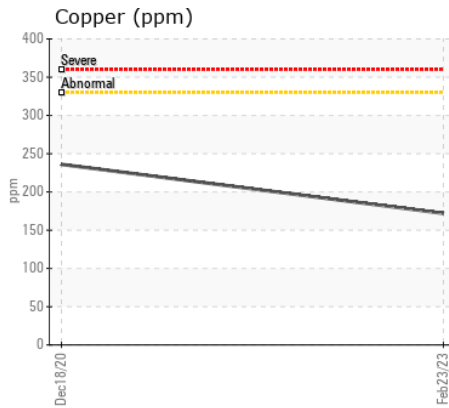
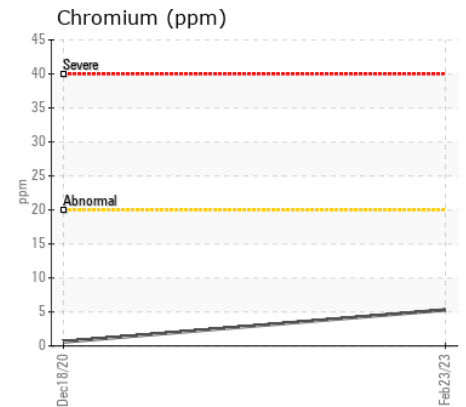
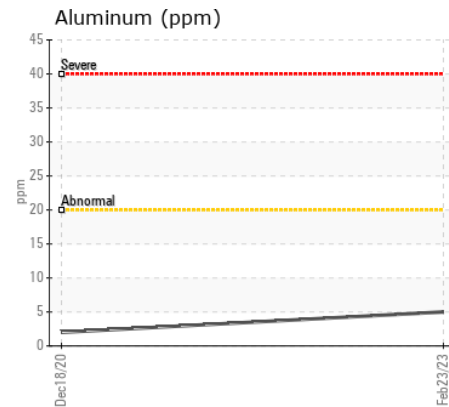
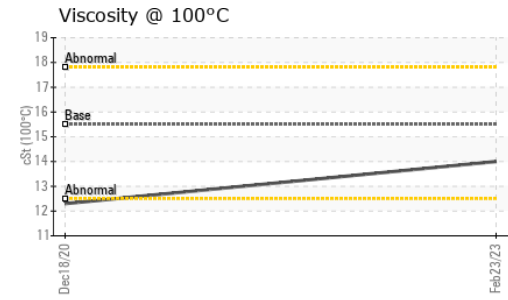
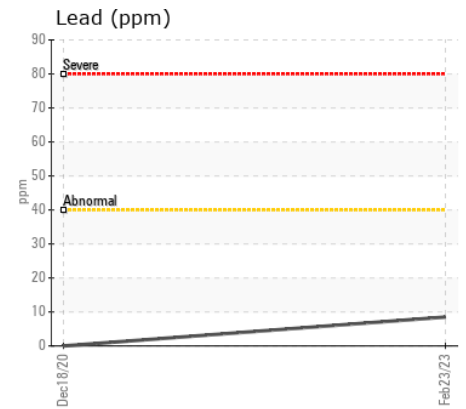
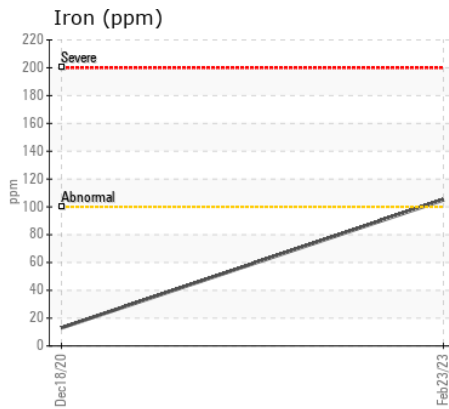
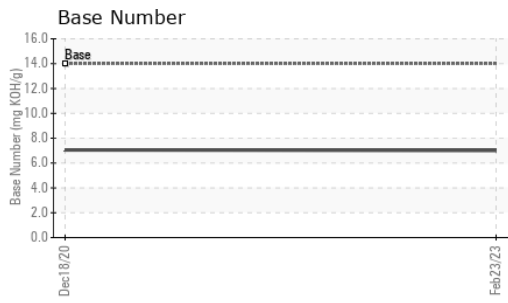
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>7</b>	3	---
Potassium	ppm	ASTM D5185m	>20	<b>4</b>	1	---
Fuel		WC Method	>5	<b>&lt;1.0</b>	<1.0	---
Water		WC Method	>0.2	<b>NEG</b>	NEG	---
Glycol		WC Method		<b>NEG</b>	NEG	---
Soot %	%	*ASTM D7844	>3	<b>1.1</b>	0.3	---
Nitration	Abs/cm	*ASTM D7624	>20	<b>14.9</b>	8	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>31.6</b>	19.6	---
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	---
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	---
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	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		<b>6</b>	3	---
Boron	ppm	ASTM D5185m		<b>22</b>	60	---
Barium	ppm	ASTM D5185m		<b>0</b>	0	---
Molybdenum	ppm	ASTM D5185m		<b>61</b>	44	---
Manganese	ppm	ASTM D5185m		<b>4</b>	<1	---
Magnesium	ppm	ASTM D5185m		<b>271</b>	229	---
Calcium	ppm	ASTM D5185m	1300	<b>2870</b>	2323	---
Phosphorus	ppm	ASTM D5185m		<b>914</b>	916	---
Zinc	ppm	ASTM D5185m	1300	<b>1158</b>	1057	---
Sulfur	ppm	ASTM D5185m		<b>3345</b>	2989	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>25.5</b>	11.8	---
Base Number (BN)	mg KOH/g	ASTM D2896	14	<b>7.01</b>	7.05	---
Visc @ 100°C	cSt	ASTM D445	15.5	<b>14.0</b>	12.3	---



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : TR05782589 **Received** : 03 Mar 2023  
**Lab Number** : 05782589 **Diagnosed** : 06 Mar 2023  
**Unique Number** : 10362259 **Diagnostician** : Don Baldrige  
**Test Package** : MOB 2

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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)