



TRAAP

Texas Refinery Advanced Analysis Program

# OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id

**01**

Component

**Diesel Engine**

Fluid

**TRC MOLY XL PRO-SPEC SYN BLEND 15W40 (10 GAL)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>TR0000685</b>	TR0000189	TR05166841
Sample Date		Client Info		<b>16 May 2022</b>	22 Sep 2021	18 Jan 2021
Machine Age	mls	Client Info		<b>1891</b>	165813	1402
Oil Age	mls	Client Info		<b>1</b>	0	0
Filter Age	mls	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Not Changd</b>	N/A	Not Changd
Filter Changed		Client Info		<b>Not Changd</b>	N/A	Not Changd
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

## WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185m	>100	<b>13</b>	4	12
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m	>2	<b>&lt;1</b>	<1	<1
Silver	ppm	ASTM D5185m	>2	<b>0</b>	<1	0
Aluminum	ppm	ASTM D5185m	>25	<b>2</b>	1	4
Lead	ppm	ASTM D5185m	>40	<b>&lt;1</b>	<1	3
Copper	ppm	ASTM D5185m	>330	<b>6</b>	3	7
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	<1	0
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

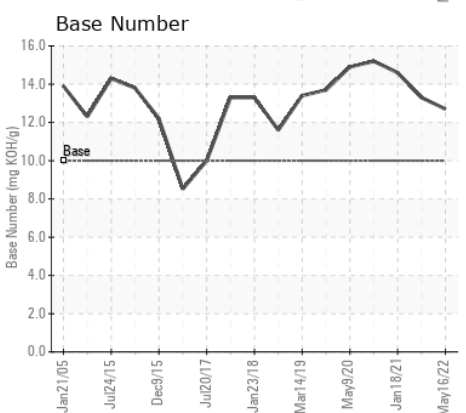
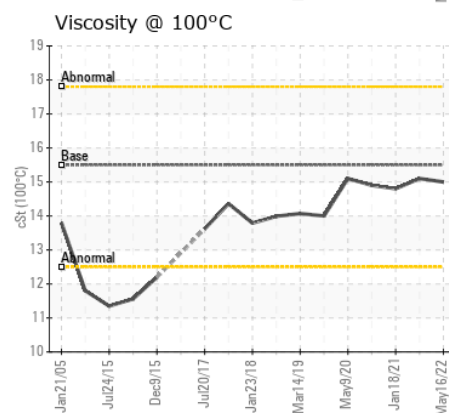
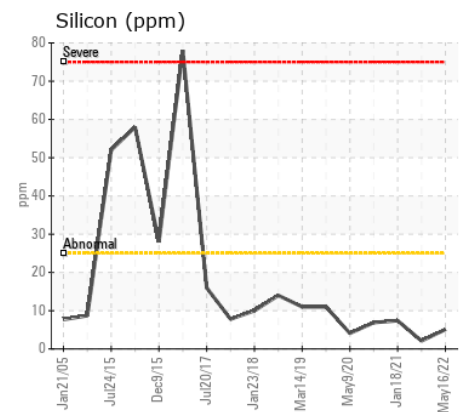
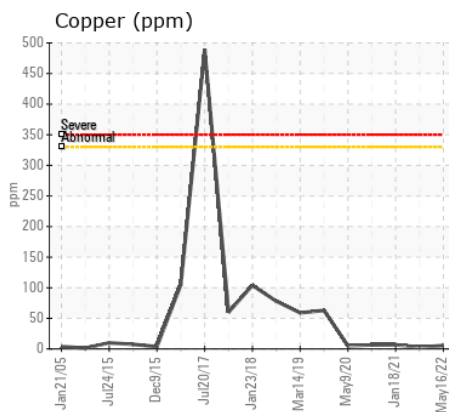
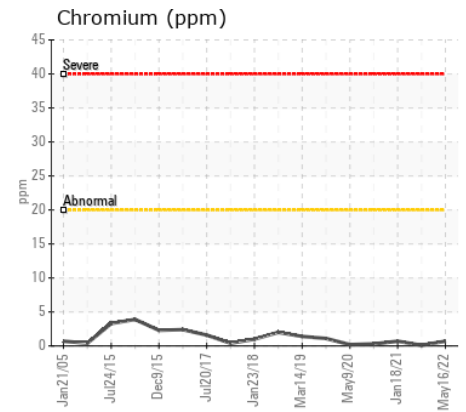
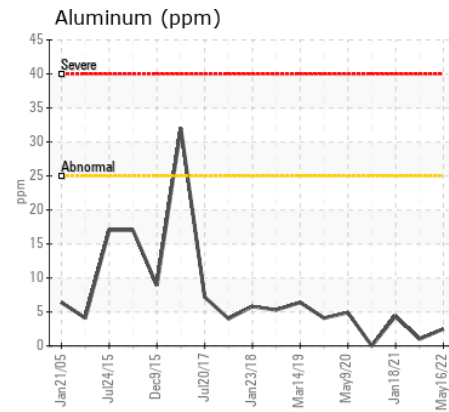
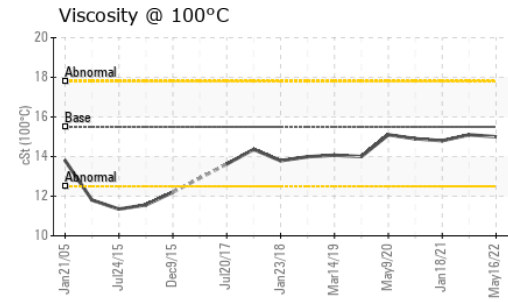
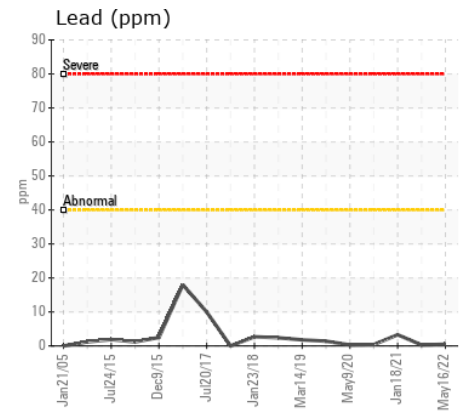
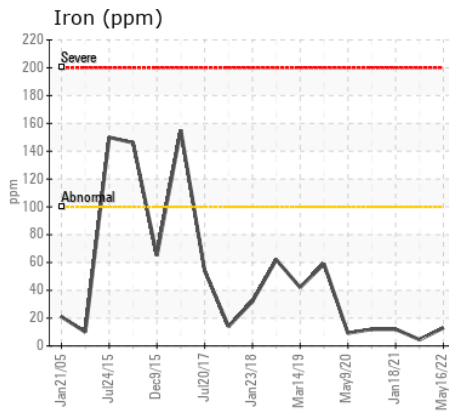
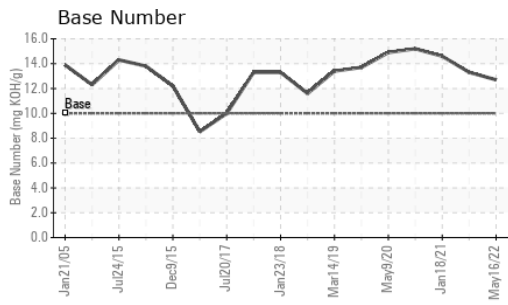
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>5</b>	2	7
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	<1	<1
Fuel		WC Method	>5	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.2</b>	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	<b>11.1</b>	8.1	6.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>19.0</b>	17.1	19.4
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	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		<b>3</b>	3	3
Boron	ppm	ASTM D5185m		<b>5</b>	9	154
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>109</b>	107	174
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>21</b>	26	359
Calcium	ppm	ASTM D5185m	2300	<b>4220</b>	4060	4142
Phosphorus	ppm	ASTM D5185m		<b>895</b>	867	810
Zinc	ppm	ASTM D5185m	1200	<b>1092</b>	988	931
Sulfur	ppm	ASTM D5185m		<b>4074</b>	3552	3014
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>11.0</b>	9.6	12.3
Base Number (BN)	mg KOH/g	ASTM D2896	10	<b>12.7</b>	13.3	14.6
Visc @ 100°C	cSt	ASTM D445	15.5	<b>15.0</b>	15.1	14.8



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : TR0000685 **Received** : 23 May 2022  
**Lab Number** : 05551578 **Diagnosed** : 24 May 2022  
**Unique Number** : 9985945 **Diagnostician** : Wes Davis  
**Test Package** : MOB 2

**S S CONCRETE MATERIALS LLC**  
 P.O. BOX 23283  
 BULLHEAD CITY, AZ  
 US 86439  
 Contact: MARK OPHEIM

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)

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