



TRAAP

Texas Refinery Advanced Analysis Program

# OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id  
**KENWORTH 9800 274**

Component  
**Diesel Engine**

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

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		TR06077837	TR05879064	---
Sample Date		Client Info		19 Jan 2024	15 Jun 2023	---
Machine Age	mls	Client Info		19291	0	---
Oil Age	mls	Client Info		5753	6000	---
Filter Age	mls	Client Info		5753	0	---
Oil Changed		Client Info		Not Changd	Not Changd	---
Filter Changed		Client Info		Not Changd	N/A	---
Sample Status				NORMAL	NORMAL	---

## WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185m	>86	45	33	---
Chromium	ppm	ASTM D5185m	>3	<1	<1	---
Nickel	ppm	ASTM D5185m	>3	<1	<1	---
Titanium	ppm	ASTM D5185m	>2	<1	<1	---
Silver	ppm	ASTM D5185m	>2	0	0	---
Aluminum	ppm	ASTM D5185m	>15	2	<1	---
Lead	ppm	ASTM D5185m	>16	<1	<1	---
Copper	ppm	ASTM D5185m	>250	6	4	---
Tin	ppm	ASTM D5185m	>2	<1	<1	---
Vanadium	ppm	ASTM D5185m		0	0	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

## CONTAMINATION

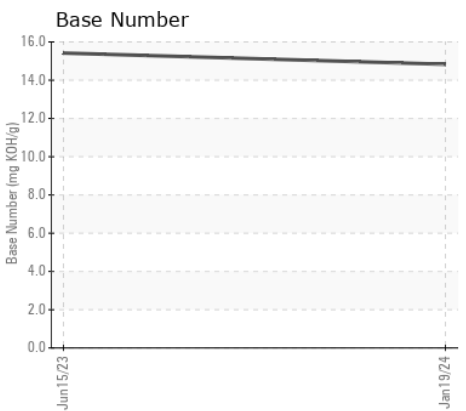
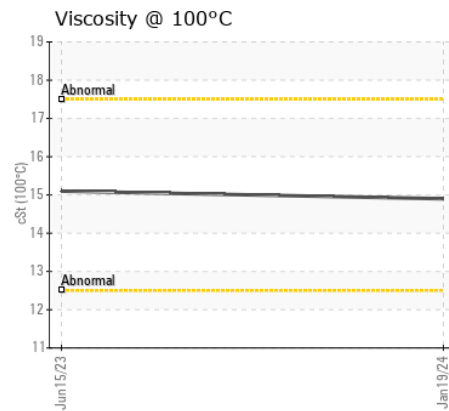
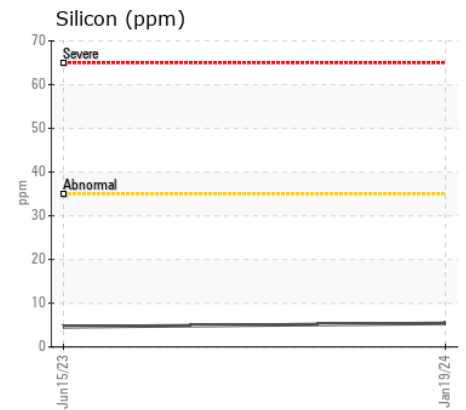
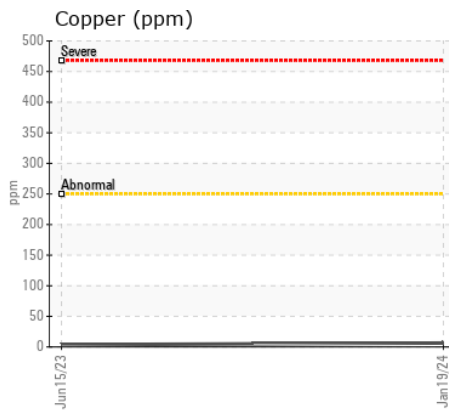
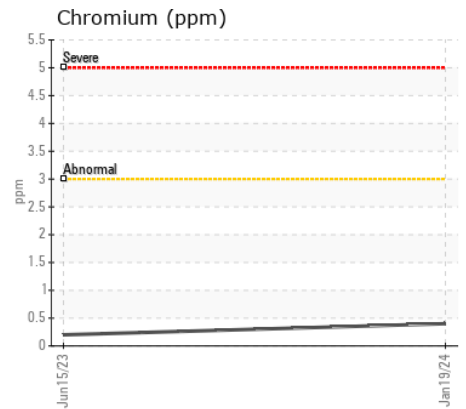
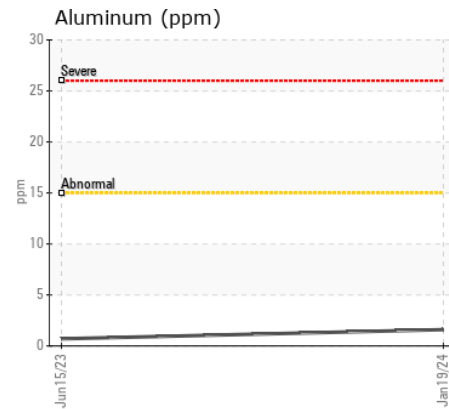
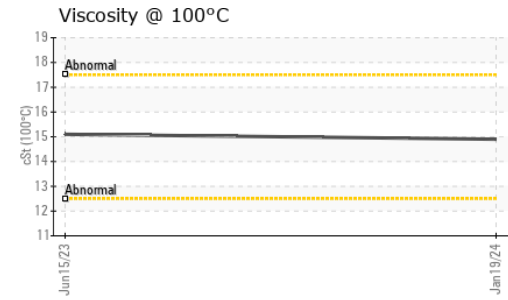
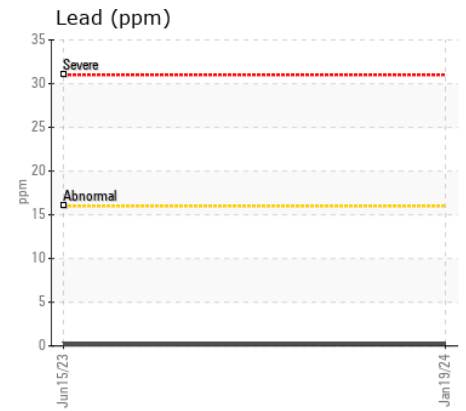
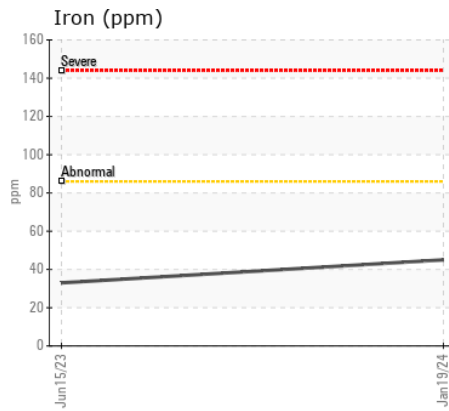
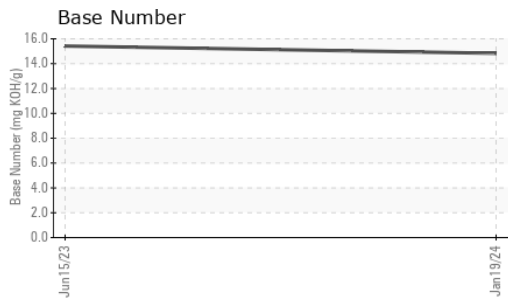
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>35	5	5	---
Potassium	ppm	ASTM D5185m	>20	3	2	---
Fuel		WC Method	>5	<1.0	<1.0	---
Water		WC Method	>0.2	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	*ASTM D7844	>3	0.7	0.6	---
Nitration	Abs/cm	*ASTM D7624	>20	9.1	8.2	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	18.9	18.6	---
Silt	scalar	*Visual	NONE	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.2	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		0	0	---
Boron	ppm	ASTM D5185m		6	2	---
Barium	ppm	ASTM D5185m		<1	0	---
Molybdenum	ppm	ASTM D5185m		98	100	---
Manganese	ppm	ASTM D5185m		<1	<1	---
Magnesium	ppm	ASTM D5185m		77	74	---
Calcium	ppm	ASTM D5185m		3971	4174	---
Phosphorus	ppm	ASTM D5185m		899	877	---
Zinc	ppm	ASTM D5185m		1002	1041	---
Sulfur	ppm	ASTM D5185m		4321	4533	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	10.9	11.7	---
Base Number (BN)	mg KOH/g	ASTM D2896		14.83	15.42	---
Visc @ 100°C	cSt	ASTM D445		14.9	15.1	---



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : TR06077837 **Received** : 01 Feb 2024  
**Lab Number** : 06077837 **Diagnosed** : 02 Feb 2024  
**Unique Number** : 10859928 **Diagnostician** : Wes Davis  
**Test Package** : MOB 2

**WALLOWA COUNTY GRAIN GROWERS**  
 911 S RIVER ST  
 ENTERPRISE, OR  
 US 97828  
 Contact: RON GROGAN

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: