



# OIL ANALYSIS REPORT

WEAR	<b>ABNORMAL</b>
CONTAMINATION	<b>ABNORMAL</b>
FLUID CONDITION	<b>ABNORMAL</b>

Machine Id  
**PETERBILT 827993**

Component  
**Diesel Engine**

Fluid  
**CHEVRON DELO 400 SAE 10W30 (44 QTS)**

## RECOMMENDATION

We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		RPL0004731	---	---
Sample Date		Client Info		01 Jul 2024	---	---
Machine Age	mls	Client Info		229810	---	---
Oil Age	mls	Client Info		57157	---	---
Filter Age	mls	Client Info		57157	---	---
Oil Changed		Client Info		Changed	---	---
Filter Changed		Client Info		Changed	---	---
Sample Status				ABNORMAL	---	---

## WEAR

Cylinder, crank, or cam shaft wear is indicated.

Iron	ppm	ASTM D5185m	>165	▲ 200	---	---
Chromium	ppm	ASTM D5185m	>5	5	---	---
Nickel	ppm	ASTM D5185m	>4	2	---	---
Titanium	ppm	ASTM D5185m	>2	<1	---	---
Silver	ppm	ASTM D5185m	>2	<1	---	---
Aluminum	ppm	ASTM D5185m	>20	● 19	---	---
Lead	ppm	ASTM D5185m	>150	11	---	---
Copper	ppm	ASTM D5185m	>90	11	---	---
Tin	ppm	ASTM D5185m	>5	4	---	---
Vanadium	ppm	ASTM D5185m		<1	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---

## CONTAMINATION

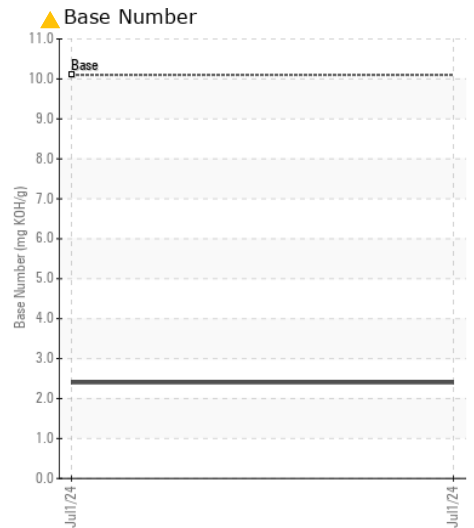
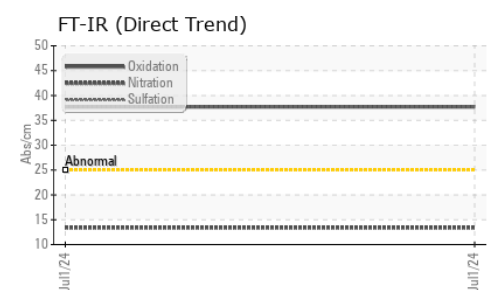
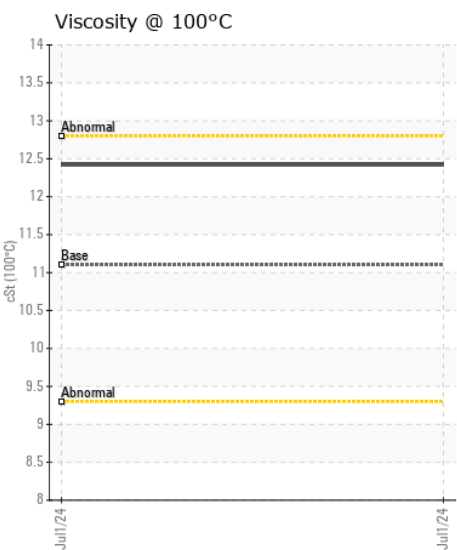
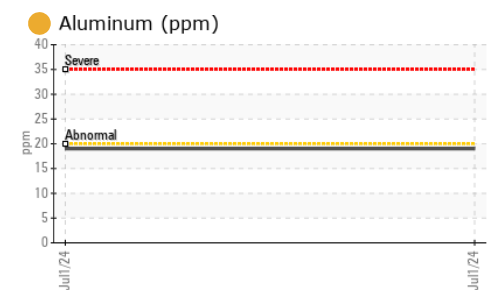
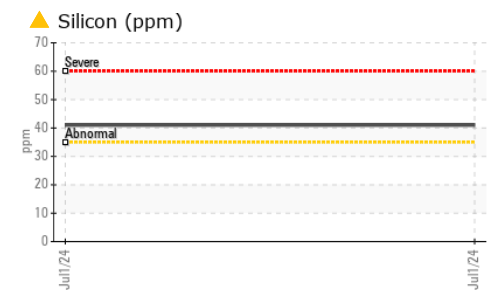
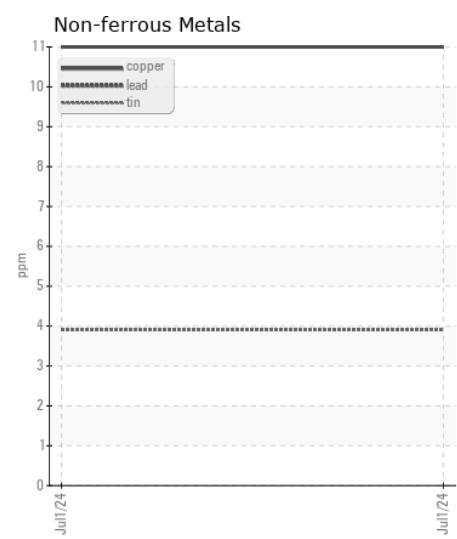
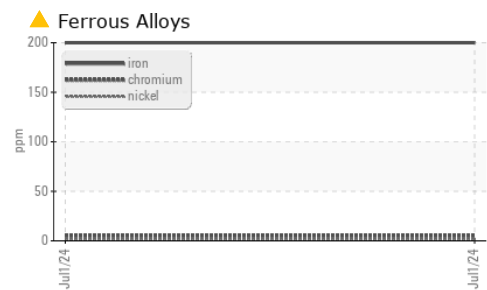
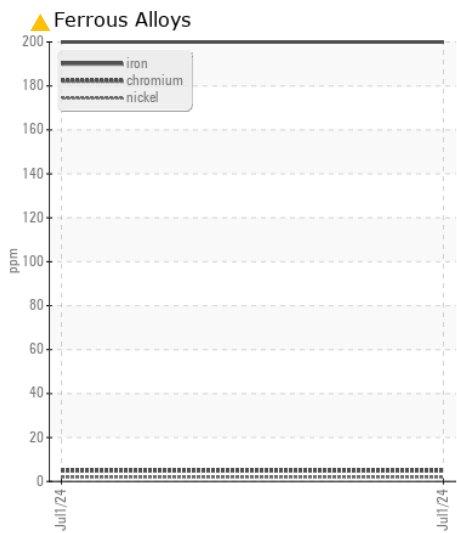
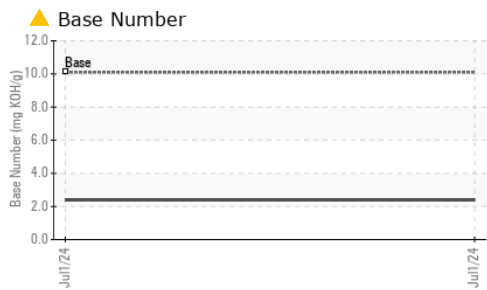
Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

Silicon	ppm	ASTM D5185m	>35	▲ 41	---	---
Potassium	ppm	ASTM D5185m	>20	25	---	---
Fuel		WC Method	>3.0	<1.0	---	---
Water		WC Method	>0.2	NEG	---	---
Glycol		WC Method		NEG	---	---
Soot %	%	*ASTM D7844	>7.5	1.6	---	---
Nitration	Abs/cm	*ASTM D7624	>20	13.4	---	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	37.7	---	---
Silt	scalar	*Visual	NONE	NONE	---	---
Debris	scalar	*Visual	NONE	NONE	---	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---	---
Appearance	scalar	*Visual	NORML	NORML	---	---
Odor	scalar	*Visual	NORML	NORML	---	---
Emulsified Water	scalar	*Visual	>0.2	NEG	---	---

## FLUID CONDITION

The BN level is low. The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m		9	---	---
Boron	ppm	ASTM D5185m		12	---	---
Barium	ppm	ASTM D5185m		0	---	---
Molybdenum	ppm	ASTM D5185m		51	---	---
Manganese	ppm	ASTM D5185m		4	---	---
Magnesium	ppm	ASTM D5185m		604	---	---
Calcium	ppm	ASTM D5185m		1632	---	---
Phosphorus	ppm	ASTM D5185m	1260	1012	---	---
Zinc	ppm	ASTM D5185m	1400	1211	---	---
Sulfur	ppm	ASTM D5185m		3419	---	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	37.7	---	---
Base Number (BN)	mg KOH/g	ASTM D2896	10.1	▲ 2.4	---	---
Visc @ 100°C	cSt	ASTM D445	11.1	12.42	---	---



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : RPL0004731  
**Lab Number** : 06231241  
**Unique Number** : 11114734  
**Test Package** : FLEET  
**Received** : 09 Jul 2024  
**Tested** : 11 Jul 2024  
**Diagnosed** : 12 Jul 2024 - Don Baldridge

**RTL PACLEASE - 7009 - Nashville**  
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 Smyrna, TN  
 US 37167  
 Contact: TECHNICIAN ACCOUNT  
 catherine.anastasio@wearcheck.com  
 T:  
 F:

Certificate L2367  
 To discuss this sample report, contact Customer Service at 1-800-237-1369.  
 \* - 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)