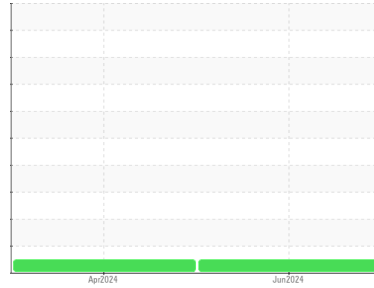




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Area

[WO36108]

Machine Id

**FREIGHTLINER FREIGHTLINER TRK 2008**

Component

**Diesel Engine**

Fluid

**PETRO CANADA DURON SHP 15W40 (--- GAL)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

There is no indication of any contamination in the oil.

### 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.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>WC0903646</b>	WC0903645	---
Sample Date	Client Info		<b>05 Jun 2024</b>	19 Apr 2024	---
Machine Age	mls	Client Info	<b>159632</b>	125770	---
Oil Age	mls	Client Info	<b>33862</b>	36101	---
Oil Changed	Client Info		<b>Changed</b>	Changed	---
Sample Status			<b>NORMAL</b>	NORMAL	---

## CONTAMINATION

	method	limit/base	current	history1	history2
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	---

## WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m	>80	<b>16</b>	18	---
Chromium	ppm	ASTM D5185m	>5	<b>&lt;1</b>	<1	---
Nickel	ppm	ASTM D5185m	>2	<b>0</b>	0	---
Titanium	ppm	ASTM D5185m		<b>0</b>	0	---
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	---
Aluminum	ppm	ASTM D5185m	>30	<b>4</b>	4	---
Lead	ppm	ASTM D5185m	>30	<b>0</b>	0	---
Copper	ppm	ASTM D5185m	>150	<b>6</b>	12	---
Tin	ppm	ASTM D5185m	>5	<b>0</b>	0	---
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	---
Cadmium	ppm	ASTM D5185m		<b>0</b>	0	---

## ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m	0	<b>0</b>	4	---
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	---
Molybdenum	ppm	ASTM D5185m	60	<b>54</b>	53	---
Manganese	ppm	ASTM D5185m	0	<b>0</b>	0	---
Magnesium	ppm	ASTM D5185m	1010	<b>856</b>	789	---
Calcium	ppm	ASTM D5185m	1070	<b>1180</b>	1219	---
Phosphorus	ppm	ASTM D5185m	1150	<b>966</b>	953	---
Zinc	ppm	ASTM D5185m	1270	<b>1180</b>	1165	---
Sulfur	ppm	ASTM D5185m	2060	<b>2900</b>	2874	---

## CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m	>20	<b>4</b>	4	---
Sodium	ppm	ASTM D5185m		<b>&lt;1</b>	1	---
Potassium	ppm	ASTM D5185m	>20	<b>6</b>	6	---

## INFRA-RED

	method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844	>3	<b>0.6</b>	0.5	---
Nitration	Abs/cm	*ASTM D7624	>20	<b>8.7</b>	9.0	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>21.0</b>	20.5	---

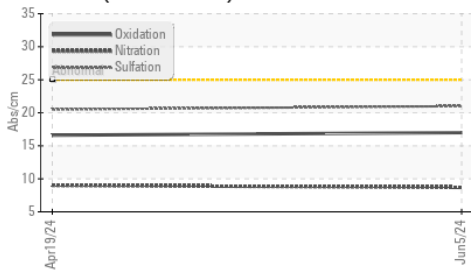
## FLUID DEGRADATION

	method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>17.0</b>	16.6	---
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>6.4</b>	6.8	---

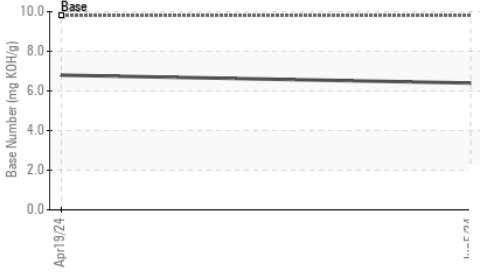


# OIL ANALYSIS REPORT

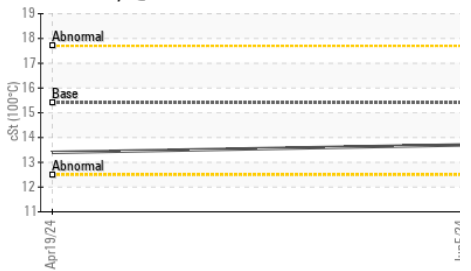
FT-IR (Direct Trend)



Base Number



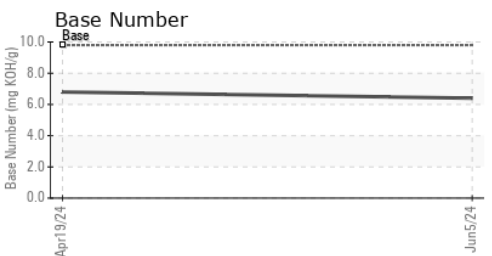
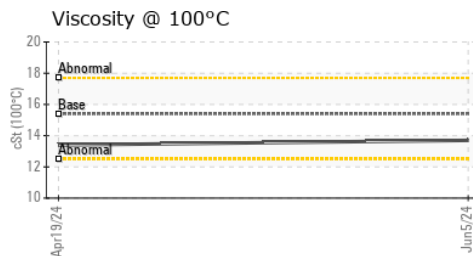
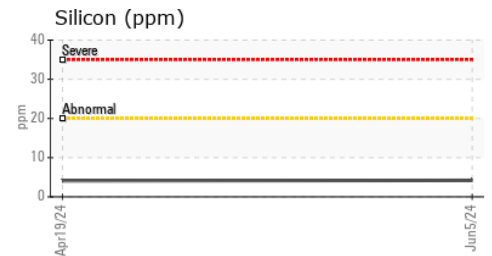
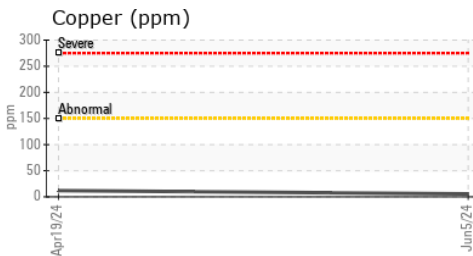
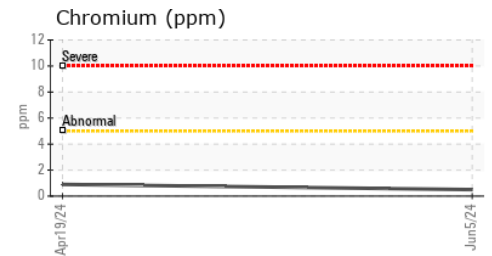
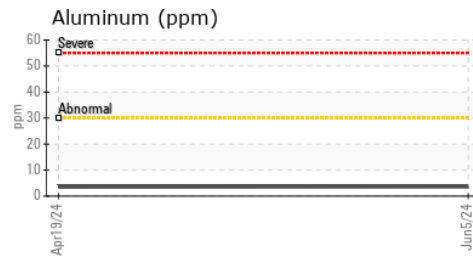
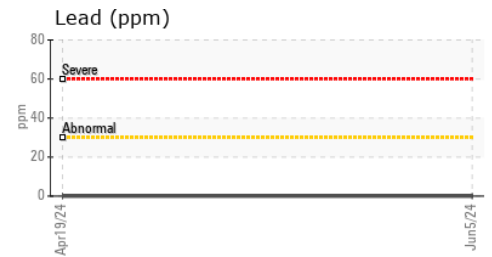
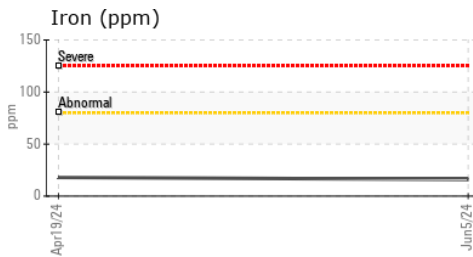
Viscosity @ 100°C



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
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	---
Free Water	scalar	*Visual		NEG	---

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.4	13.7	13.4

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0903646 **Received** : 19 Jun 2024  
**Lab Number** : 06214293 **Tested** : 20 Jun 2024  
**Unique Number** : 11087157 **Diagnosed** : 20 Jun 2024 - Wes Davis  
**Test Package** : MOB 1 ( Additional Tests: TBN )

**CAMPBELL OIL COMPANY**  
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 ELIZABETHTOWN, NC  
 US 28337  
 Contact: Cassie Priest  
 cassiep@campbelloilcompany.com

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)

F: (910)862-4344