



Machine Id  
**FREIGHTLINER 184**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON SHP 10W30 (--- GAL)**

**DIAGNOSIS**

**Recommendation**

Resample at the next service interval to monitor.

**Wear**

Metal levels are typical for a new component breaking in.

**Contamination**

Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. 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	PCA0097551	---	---
Sample Date	Client Info	14 Jul 2023	---	---
Machine Age	mls	Client Info	49000	---
Oil Age	mls	Client Info	0	---
Oil Changed	Client Info	Changed	---	---
Sample Status		NORMAL	---	---

**CONTAMINATION** method limit/base current history1 history2

Fuel	WC Method	>3.0	<1.0	---	---
Glycol	WC Method		NEG	---	---

**WEAR METALS** method limit/base current history1 history2

Iron	ppm	ASTM D5185m	>200	56	---	---
Chromium	ppm	ASTM D5185m	>6	4	---	---
Nickel	ppm	ASTM D5185m	>3	<1	---	---
Titanium	ppm	ASTM D5185m	>2	<1	---	---
Silver	ppm	ASTM D5185m	>2	0	---	---
Aluminum	ppm	ASTM D5185m	>50	21	---	---
Lead	ppm	ASTM D5185m	>10	1	---	---
Copper	ppm	ASTM D5185m	>50	149	---	---
Tin	ppm	ASTM D5185m	>6	2	---	---
Vanadium	ppm	ASTM D5185m		<1	---	---
Cadmium	ppm	ASTM D5185m		0	---	---

**ADDITIVES** method limit/base current history1 history2

Boron	ppm	ASTM D5185m	2	0	---	---
Barium	ppm	ASTM D5185m	0	0	---	---
Molybdenum	ppm	ASTM D5185m	50	65	---	---
Manganese	ppm	ASTM D5185m	0	1	---	---
Magnesium	ppm	ASTM D5185m	950	1053	---	---
Calcium	ppm	ASTM D5185m	1050	1178	---	---
Phosphorus	ppm	ASTM D5185m	995	1028	---	---
Zinc	ppm	ASTM D5185m	1180	1278	---	---
Sulfur	ppm	ASTM D5185m	2600	2776	---	---

**CONTAMINANTS** method limit/base current history1 history2

Silicon	ppm	ASTM D5185m	>50	4	---	---
Sodium	ppm	ASTM D5185m		2	---	---
Potassium	ppm	ASTM D5185m	>20	42	---	---

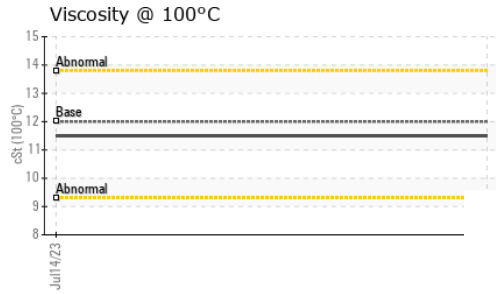
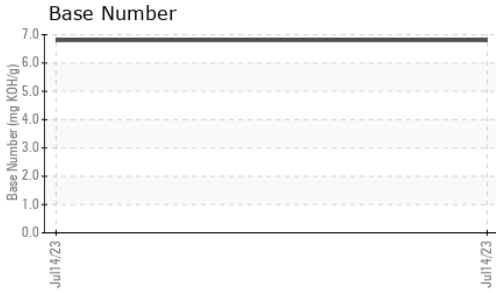
**INFRA-RED** method limit/base current history1 history2

Soot %	%	*ASTM D7844	>3	0.3	---	---
Nitration	Abs/cm	*ASTM D7624	>20	9.0	---	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.1	---	---

**FLUID DEGRADATION** method limit/base current history1 history2

Oxidation	Abs/.1mm	*ASTM D7414	>25	17.9	---	---
Base Number (BN)	mg KOH/g	ASTM D2896		6.8	---	---

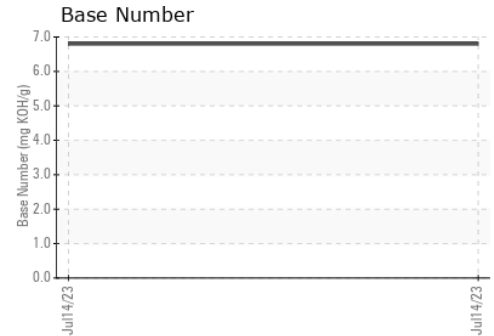
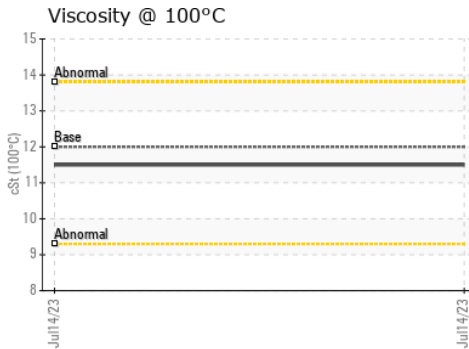
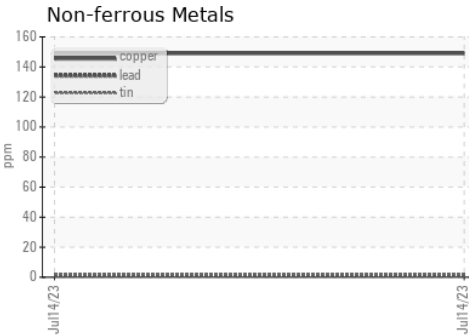
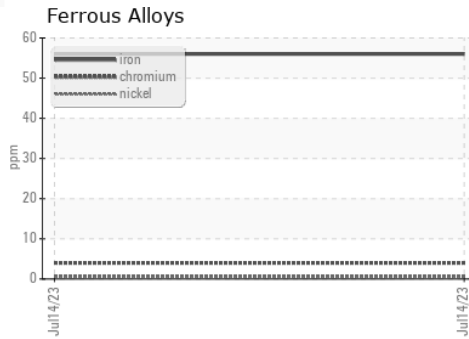
# OIL ANALYSIS REPORT



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	12.00	11.5	---

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PCA0097551 **Received** : 24 Jul 2023  
**Lab Number** : 05905110 **Diagnosed** : 24 Jul 2023  
**Unique Number** : 10566466 **Diagnostician** : Wes Davis  
**Test Package** : FLEET

**TVA REPAIR LLC**  
 13915 W ROUTE 30  
 PLAINFIELD, IL  
 US 60544

Contact: JOSHUA HUBBARD  
 joshua@tvarepairllc.com  
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 F:

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)