



# OIL ANALYSIS REPORT

Sample Rating Trend

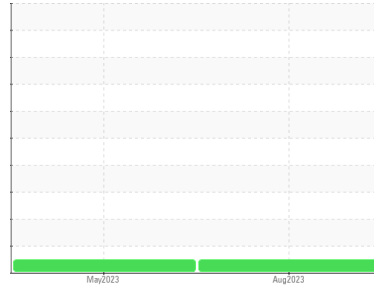
**NORMAL**



Machine Id  
**426147 - SW4626**

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>GFL0089464</b>	GFL0075384	---
Sample Date	Client Info	<b>25 Aug 2023</b>	31 May 2023	---
Machine Age	mls	Client Info	<b>306883</b>	291871
Oil Age	mls	Client Info	<b>306883</b>	0
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	---
Glycol	WC Method	<b>NEG</b>	NEG	---

## WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185m >100	<b>20</b>	35	---
Chromium	ppm ASTM D5185m >20	<b>&lt;1</b>	1	---
Nickel	ppm ASTM D5185m >4	<b>0</b>	<1	---
Titanium	ppm ASTM D5185m	<b>0</b>	0	---
Silver	ppm ASTM D5185m >3	<b>0</b>	0	---
Aluminum	ppm ASTM D5185m >20	<b>&lt;1</b>	3	---
Lead	ppm ASTM D5185m >40	<b>0</b>	<1	---
Copper	ppm ASTM D5185m >330	<b>4</b>	6	---
Tin	ppm ASTM D5185m >15	<b>0</b>	<1	---
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>	0	---
Barium	ppm ASTM D5185m 0	<b>0</b>	0	---
Molybdenum	ppm ASTM D5185m 60	<b>48</b>	57	---
Manganese	ppm ASTM D5185m 0	<b>&lt;1</b>	<1	---
Magnesium	ppm ASTM D5185m 1010	<b>80</b>	871	---
Calcium	ppm ASTM D5185m 1070	<b>2393</b>	1363	---
Phosphorus	ppm ASTM D5185m 1150	<b>1088</b>	1043	---
Zinc	ppm ASTM D5185m 1270	<b>1287</b>	1440	---
Sulfur	ppm ASTM D5185m 2060	<b>3778</b>	4129	---

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	<b>8</b>	8	---
Sodium	ppm ASTM D5185m	<b>3</b>	2	---
Potassium	ppm ASTM D5185m >20	<b>0</b>	3	---

## INFRA-RED

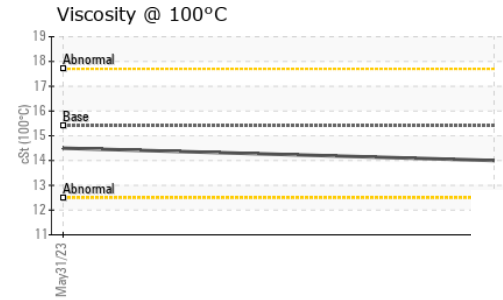
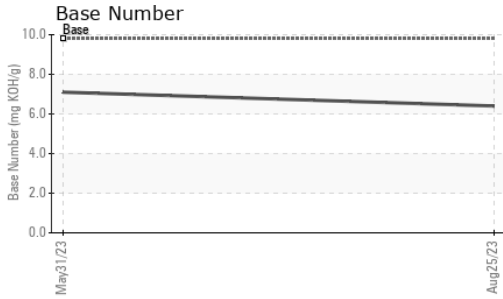
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >3	<b>1.1</b>	1.5	---
Nitration	Abs/cm *ASTM D7624 >20	<b>11.4</b>	15.7	---
Sulfation	Abs/.1mm *ASTM D7415 >30	<b>23.0</b>	29.4	---

## FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	<b>14.8</b>	31.0	---
Base Number (BN)	mg KOH/g ASTM D2896 9.8	<b>6.4</b>	7.1	---



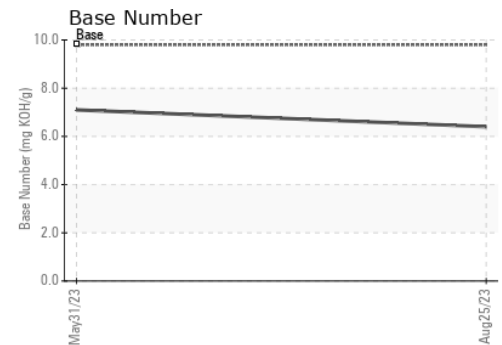
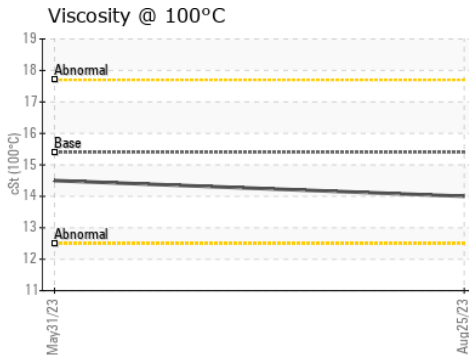
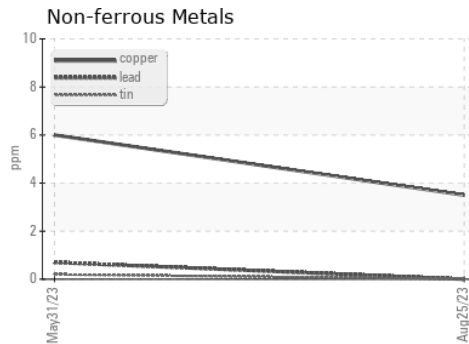
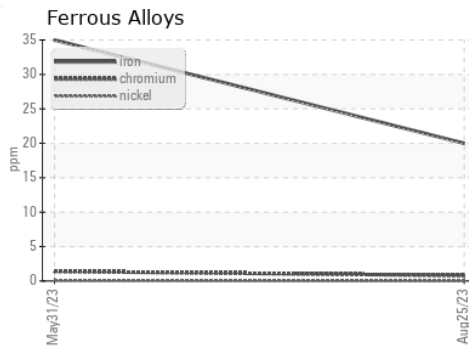
# OIL ANALYSIS REPORT



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	15.4	<b>14.0</b>	14.5	---

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0089464 **Received** : 31 Aug 2023  
**Lab Number** : **05940074** **Diagnosed** : 05 Sep 2023  
**Unique Number** : 10630686 **Diagnostician** : Sean Felton  
**Test Package** : FLEET

**GFL Environmental - 983 - Sugar Land Hauling**  
 16011 West Belfort Street  
 Sugar Land, TX  
 US 77498  
 Contact: Gino Griego  
 ggriego@gflenv.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)

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F: