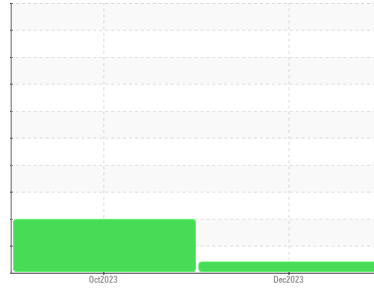




# PROBLEM SUMMARY

Sample Rating Trend



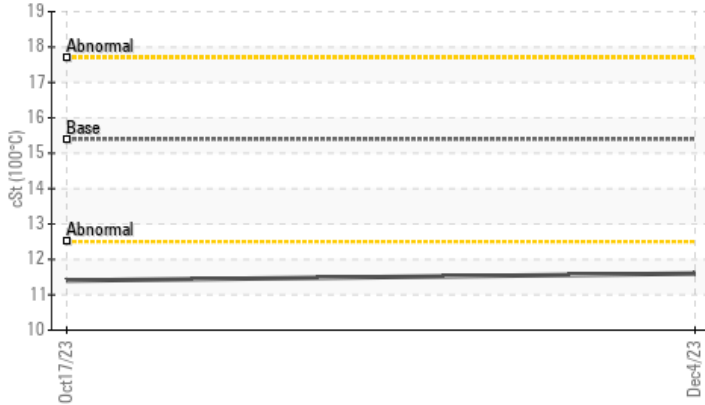
## VISCOSITY



Machine Id  
**414123**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON SHP 15W40 (--- GAL)**

### COMPONENT CONDITION SUMMARY

▲ Viscosity @ 100°C



### RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. ( Customer Sample Comment: Engine )

### PROBLEMATIC TEST RESULTS

Sample Status				ATTENTION	ABNORMAL	---
Visc @ 100°C	cSt	ASTM D445	15.4	▲ 11.6	▲ 11.4	---

Customer Id: GFL983  
 Sample No.: GFL0094062  
 Lab Number: 06029143  
 Test Package: FLEET



To manage this report scan the QR code

To discuss the diagnosis or test data:  
 Don Baldrige +1  
[don.b505@comcast.net](mailto:don.b505@comcast.net)

To change component or sample information:  
 Customer Service +1 1-800-237-1369  
[customerservice@wearcheck.com](mailto:customerservice@wearcheck.com)

## RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Fluid	---	---	?	Oil and filter change at the time of sampling has been noted.
Change Filter	---	---	?	Oil and filter change at the time of sampling has been noted.

## HISTORICAL DIAGNOSIS

17 Oct 2023 Diag: Wes Davis

### FUEL



Resample at the next service interval to monitor. Metal levels are typical for a new component breaking in. Light fuel dilution occurring. The BN result indicates that there is suitable alkalinity remaining in the oil. Fuel is present in the oil and is lowering the viscosity. The condition of the oil is suitable for further service.

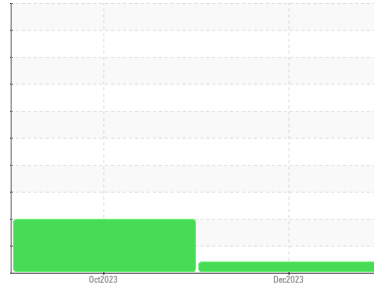
view report





# OIL ANALYSIS REPORT

Sample Rating Trend



## VISCOSITY



Machine Id  
**414123**

Component  
**Diesel Engine**

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

### DIAGNOSIS

#### ▲ Recommendation

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. ( Customer Sample Comment: Engine )

#### Wear

All component wear rates are normal.

#### Contamination

There is no indication of any contamination in the oil.

#### ▲ Fluid Condition

The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

### SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>GFL0094062</b>	GFL0094135	---
Sample Date	Client Info		<b>04 Dec 2023</b>	17 Oct 2023	---
Machine Age	mls	Client Info	<b>9412</b>	3829	---
Oil Age	mls	Client Info	<b>9412</b>	0	---
Oil Changed	Client Info		<b>Changed</b>	N/A	---
Sample Status			<b>ATTENTION</b>	ABNORMAL	---

### CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>5	<b>&lt;1.0</b>	▲ 2.2	---
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 >110	<b>42</b>	16	---
Chromium	ppm	ASTM D5185m >4	<b>&lt;1</b>	<1	---
Nickel	ppm	ASTM D5185m >2	<b>&lt;1</b>	0	---
Titanium	ppm	ASTM D5185m	<b>&lt;1</b>	0	---
Silver	ppm	ASTM D5185m >2	<b>0</b>	0	---
Aluminum	ppm	ASTM D5185m >25	<b>9</b>	6	---
Lead	ppm	ASTM D5185m >45	<b>0</b>	0	---
Copper	ppm	ASTM D5185m >85	<b>12</b>	11	---
Tin	ppm	ASTM D5185m >4	<b>&lt;1</b>	0	---
Vanadium	ppm	ASTM D5185m	<b>0</b>	<1	---
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	---

### ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	<b>26</b>	▲ 49	---
Barium	ppm	ASTM D5185m 0	<b>&lt;1</b>	3	---
Molybdenum	ppm	ASTM D5185m 60	<b>20</b>	▲ 16	---
Manganese	ppm	ASTM D5185m 0	<b>5</b>	5	---
Magnesium	ppm	ASTM D5185m 1010	<b>594</b>	677	---
Calcium	ppm	ASTM D5185m 1070	<b>1553</b>	1415	---
Phosphorus	ppm	ASTM D5185m 1150	<b>767</b>	783	---
Zinc	ppm	ASTM D5185m 1270	<b>945</b>	915	---
Sulfur	ppm	ASTM D5185m 2060	<b>2900</b>	2919	---

### CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >30	<b>18</b>	20	---
Sodium	ppm	ASTM D5185m	<b>4</b>	2	---
Potassium	ppm	ASTM D5185m >20	<b>30</b>	20	---

### INFRA-RED

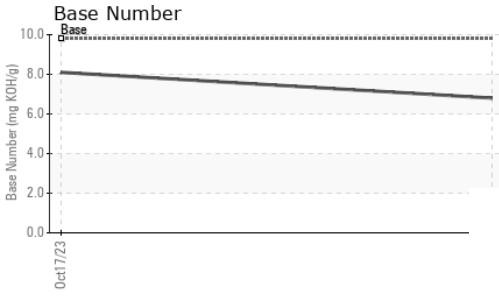
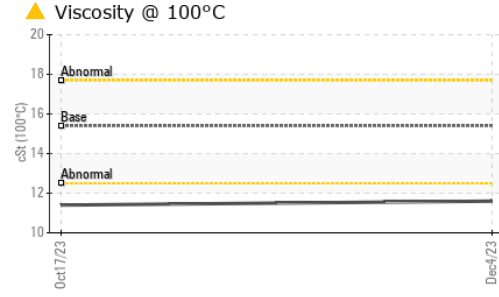
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	<b>0.7</b>	0.3	---
Nitration	Abs/cm	*ASTM D7624 >20	<b>10.5</b>	8.9	---
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>21.2</b>	18.9	---

### FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>16.8</b>	14.7	---
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>6.8</b>	8.1	---



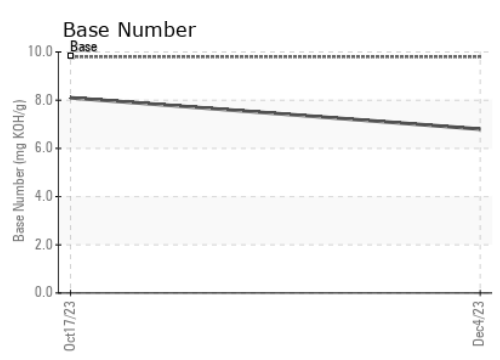
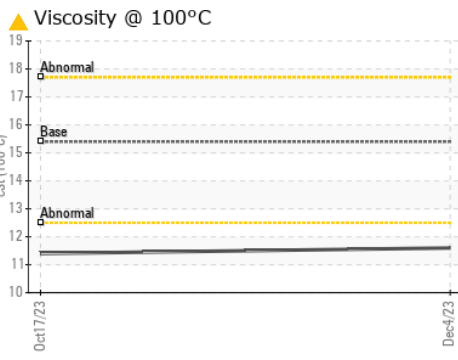
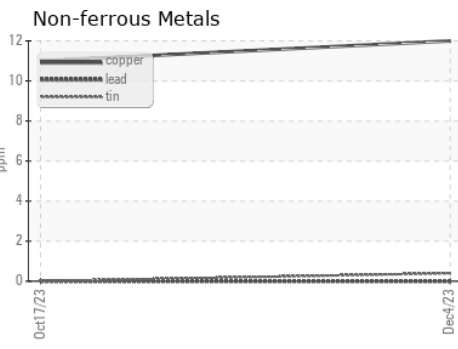
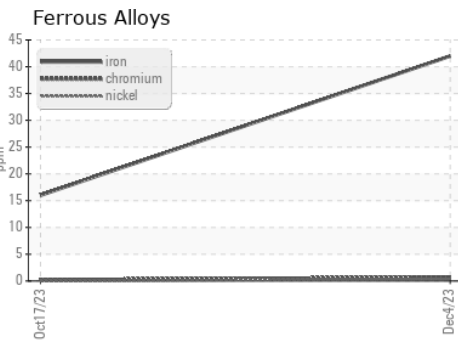
# OIL ANALYSIS REPORT



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 ▲ 11.6	▲ 11.4	---

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0094062 **Received** : 08 Dec 2023  
**Lab Number** : 06029143 **Diagnosed** : 11 Dec 2023  
**Unique Number** : 10778934 **Diagnostician** : Don Baldrige  
**Test Package** : FLEET

**GFL Environmental - 983 - Sugar Land Hauling**  
 16011 West Belfort Street  
 Sugar Land, TX  
 US 77498  
 Contact: Gino Griego  
 ggriego@gflenv.com  
 T: (720)999-0726  
 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)