



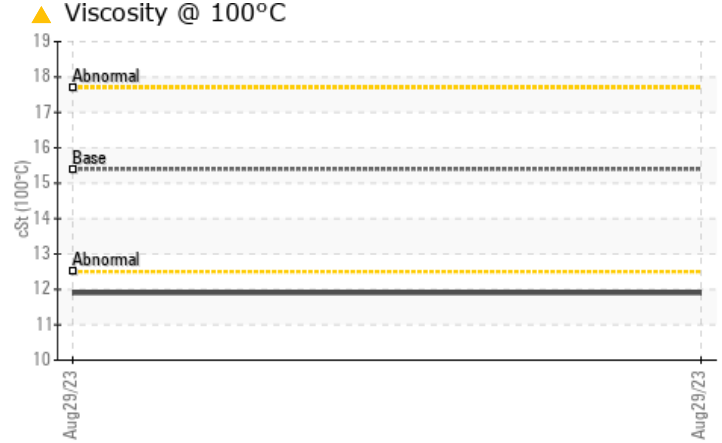
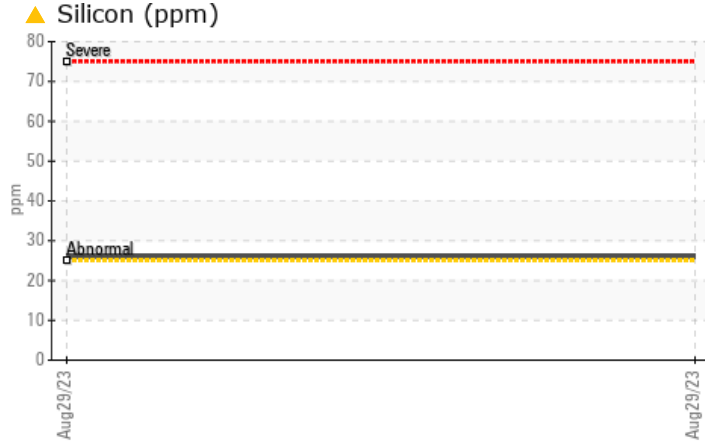
# PROBLEM SUMMARY

Sample Rating Trend



Machine Id  
**426158**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON SHP 15W40 (--- GAL)**

## COMPONENT CONDITION SUMMARY



## RECOMMENDATION

No corrective action is recommended at this time.  
 Resample at the next service interval to monitor.

## PROBLEMATIC TEST RESULTS

Sample Status				ABNORMAL	---	---
Silicon	ppm	ASTM D5185m	>25	▲ 26	---	---
Visc @ 100°C	cSt	ASTM D445	15.4	▲ 11.9	---	---

Customer Id: GFL413  
 Sample No.: GFL0093034  
 Lab Number: 05958499  
 Test Package: FLEET



To manage this report scan the QR code

To discuss the diagnosis or test data:  
 Jonathan Hester +1 919-379-4092 x4092  
[jhester@wearcheckusa.com](mailto:jhester@wearcheckusa.com)

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

## RECOMMENDED ACTIONS

*There are no recommended actions for this sample.*

## HISTORICAL DIAGNOSIS



# OIL ANALYSIS REPORT

Sample Rating Trend



**DIRT**



Machine Id  
**426158**

Component  
**Diesel Engine**

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

## DIAGNOSIS

### ▲ Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### ▲ Contamination

Fuel content negligible. Elemental level of silicon (Si) above normal indicating ingress of seal material.

### ▲ 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>GFL0093034</b>	---	---
Sample Date	Client Info	<b>29 Aug 2023</b>	---	---
Machine Age	mls	Client Info	<b>289944</b>	---
Oil Age	mls	Client Info	<b>0</b>	---
Oil Changed	Client Info	<b>N/A</b>	---	---
Sample Status		<b>ABNORMAL</b>	---	---

## CONTAMINATION

method	limit/base	current	history1	history2
Glycol	WC Method	<b>NEG</b>	---	---

## WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >100	<b>25</b>	---
Chromium	ppm	ASTM D5185m >20	<b>&lt;1</b>	---
Nickel	ppm	ASTM D5185m >4	<b>0</b>	---
Titanium	ppm	ASTM D5185m	<b>0</b>	---
Silver	ppm	ASTM D5185m >3	<b>0</b>	---
Aluminum	ppm	ASTM D5185m >20	<b>0</b>	---
Lead	ppm	ASTM D5185m >40	<b>&lt;1</b>	---
Copper	ppm	ASTM D5185m >330	<b>&lt;1</b>	---
Tin	ppm	ASTM D5185m >15	<b>&lt;1</b>	---
Vanadium	ppm	ASTM D5185m	<b>0</b>	---
Cadmium	ppm	ASTM D5185m	<b>0</b>	---

## ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	<b>57</b>	---
Barium	ppm	ASTM D5185m 0	<b>0</b>	---
Molybdenum	ppm	ASTM D5185m 60	<b>62</b>	---
Manganese	ppm	ASTM D5185m 0	<b>&lt;1</b>	---
Magnesium	ppm	ASTM D5185m 1010	<b>465</b>	---
Calcium	ppm	ASTM D5185m 1070	<b>1882</b>	---
Phosphorus	ppm	ASTM D5185m 1150	<b>1072</b>	---
Zinc	ppm	ASTM D5185m 1270	<b>1325</b>	---
Sulfur	ppm	ASTM D5185m 2060	<b>3998</b>	---

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<b>▲ 26</b>	---
Sodium	ppm	ASTM D5185m	<b>3</b>	---
Potassium	ppm	ASTM D5185m >20	<b>1</b>	---
Fuel	%	ASTM D3524 >5	<b>0.2</b>	---

## INFRA-RED

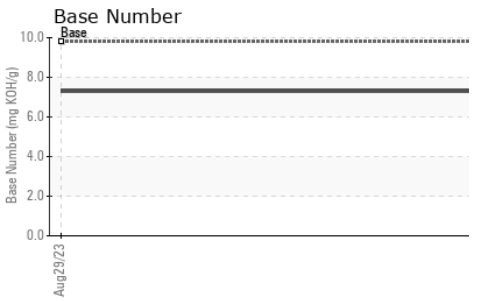
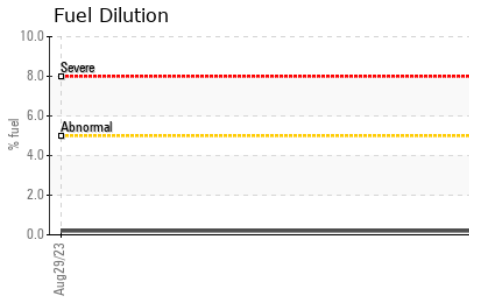
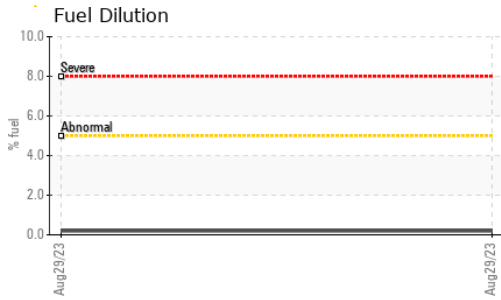
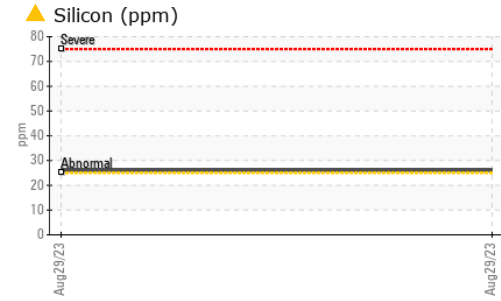
method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	<b>0.2</b>	---
Nitration	Abs/cm	*ASTM D7624 >20	<b>9.0</b>	---
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>20.8</b>	---

## FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>16.4</b>	---
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>7.3</b>	---



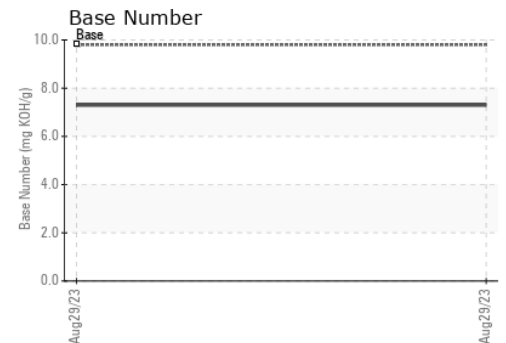
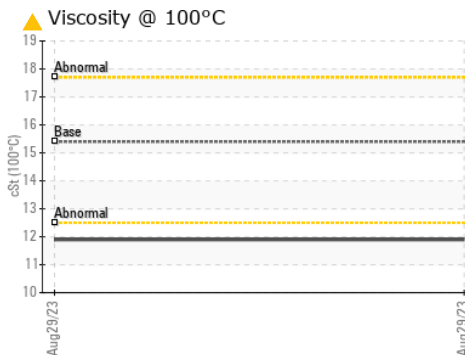
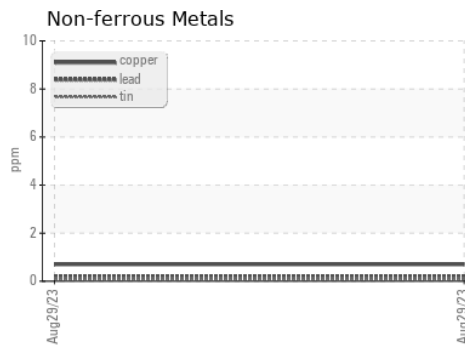
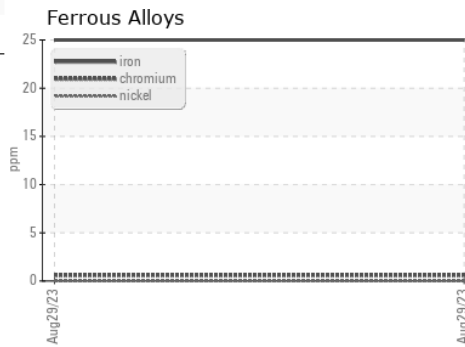
# OIL ANALYSIS REPORT



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	▲ 11.9	---

## GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
 Sample No. : GFL0093034 Received : 22 Sep 2023  
 Lab Number : 05958499 Diagnosed : 26 Sep 2023  
 Unique Number : 10659712 Diagnostician : Jonathan Hester  
 Test Package : FLEET ( Additional Tests: FuelDilution, PercentFuel )

GFL Environmental - 413 - Whiteland Hauling  
 2959 S EMERSON AVE  
 WHITELAND, IN  
 US 46184  
 Contact: Christyan Trent-Proctor  
 ctrentproctor@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: