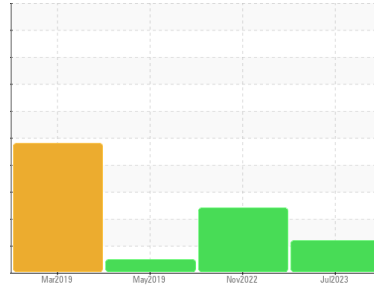




# PROBLEM SUMMARY

Sample Rating Trend



GLYCOL



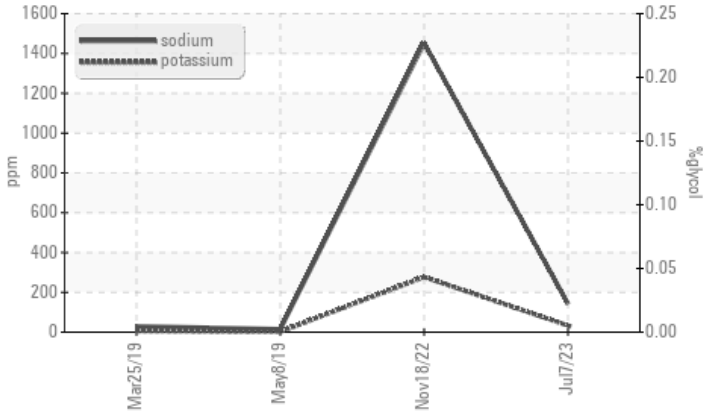
Machine Id  
**924022-260240**

Component  
**Diesel Engine**

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

## COMPONENT CONDITION SUMMARY

### ▲ Glycol Contamination



## RECOMMENDATION

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

## PROBLEMATIC TEST RESULTS

Sample Status			ATTENTION	ABNORMAL	NORMAL
Sodium	ppm	ASTM D5185m	▲ 143	▲ 1452	15

Customer Id: GFL820  
Sample No.: GFL0067731  
Lab Number: 05897187  
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

**18 Nov 2022 Diag: Jonathan Hester**

### GLYCOL



We advise that you check for the source of the coolant leak. Check for low coolant level. We recommend that you drain the oil and perform a filter service on this component if not already done. We recommend an early resample to monitor this condition. All component wear rates are normal. Sodium and/or potassium levels are high. The BN result indicates that there is suitable alkalinity remaining in the oil.

[view report](#)



**08 May 2019 Diag: Wes Davis**

### NORMAL



Resample at the next service interval to monitor. No other corrective action is recommended at this time. All component wear rates are normal. Fuel content negligible. There is no indication of any contamination in the oil. The condition of the oil is acceptable for the time in service.

[view report](#)



**25 Mar 2019 Diag: Wes Davis**

### FUEL



We advise that you check for faulty combustion and a possible overheat condition. We advise that you check the fuel injection system. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition. Please specify the brand, type, and viscosity of the oil on your next sample. All component wear rates are normal. There is a high amount of fuel present in the oil. Tests confirm the presence of fuel in the oil. A small degree of oil oxidation was indicated. Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable.

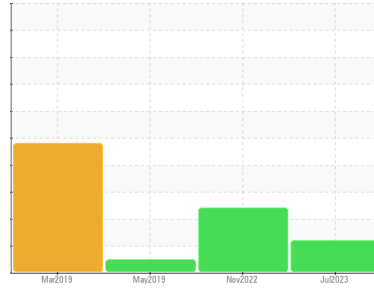
[view report](#)





# OIL ANALYSIS REPORT

Sample Rating Trend



GLYCOL



Machine Id  
**924022-260240**

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

Sodium and/or potassium levels remain elevated. Test for glycol is negative.

### 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>GFL0067731</b>	GFL0054063	GFLI-X37881
Sample Date	Client Info	<b>07 Jul 2023</b>	18 Nov 2022	08 May 2019
Machine Age	hrs	Client Info	0	11489
Oil Age	hrs	Client Info	0	450
Oil Changed	Client Info	<b>N/A</b>	Not Changd	Changed
Sample Status		<b>ATTENTION</b>	ABNORMAL	NORMAL

## CONTAMINATION

method	limit/base	current	history1	history2
Fuel	WC Method >5	<b>&lt;1.0</b>	<1.0	0.5

## WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185m >100	<b>15</b>	54	6
Chromium	ppm ASTM D5185m >20	<b>&lt;1</b>	2	0
Nickel	ppm ASTM D5185m >4	<b>0</b>	0	0
Titanium	ppm ASTM D5185m	<b>&lt;1</b>	<1	0
Silver	ppm ASTM D5185m >3	<b>0</b>	0	0
Aluminum	ppm ASTM D5185m >20	<b>4</b>	14	3
Lead	ppm ASTM D5185m >40	<b>&lt;1</b>	5	0
Copper	ppm ASTM D5185m >330	<b>&lt;1</b>	3	1
Tin	ppm ASTM D5185m >15	<b>0</b>	<1	0
Antimony	ppm ASTM D5185m	<b>---</b>	---	0
Vanadium	ppm ASTM D5185m	<b>&lt;1</b>	0	0
Cadmium	ppm ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 0	<b>&lt;1</b>	4	200
Barium	ppm ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm ASTM D5185m 60	<b>66</b>	198	113
Manganese	ppm ASTM D5185m 0	<b>&lt;1</b>	<1	0
Magnesium	ppm ASTM D5185m 1010	<b>916</b>	808	677
Calcium	ppm ASTM D5185m 1070	<b>1035</b>	1203	1465
Phosphorus	ppm ASTM D5185m 1150	<b>976</b>	945	699
Zinc	ppm ASTM D5185m 1270	<b>1195</b>	1232	812
Sulfur	ppm ASTM D5185m 2060	<b>3584</b>	3577	---
Lithium	ppm ASTM D5185m	<b>---</b>	---	0

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	<b>4</b>	21	6
Sodium	ppm ASTM D5185m	<b>▲ 143</b>	▲ 1452	15
Potassium	ppm ASTM D5185m >20	<b>33</b>	▲ 277	2
Glycol	% *ASTM D2982	<b>NEG</b>	NEG	NEG

## INFRA-RED

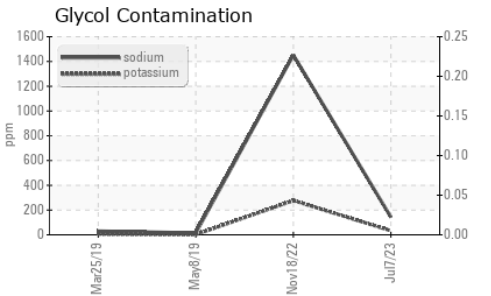
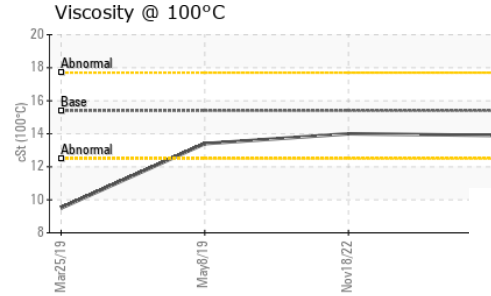
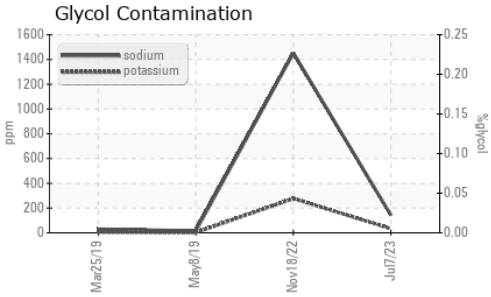
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >3	<b>0.3</b>	0.7	0.3
Nitration	Abs/cm *ASTM D7624 >20	<b>6.4</b>	13.8	8
Sulfation	Abs/.1mm *ASTM D7415 >30	<b>18.6</b>	23.4	---

## FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	<b>13.7</b>	17.4	13
Base Number (BN)	mg KOH/g ASTM D2896 9.8	<b>9.7</b>	12.2	5.58



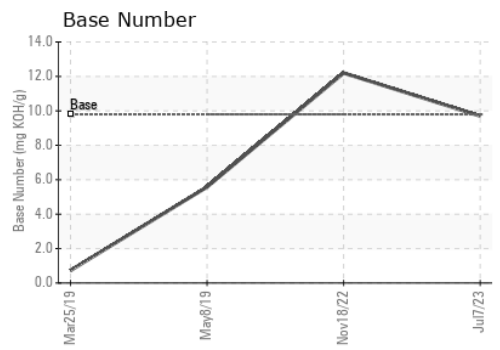
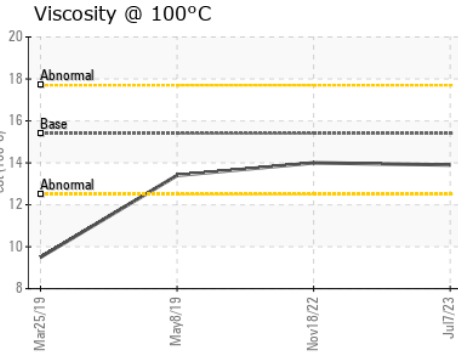
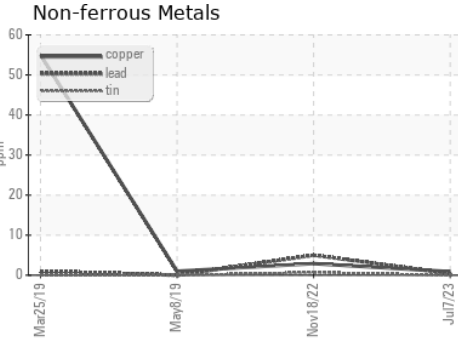
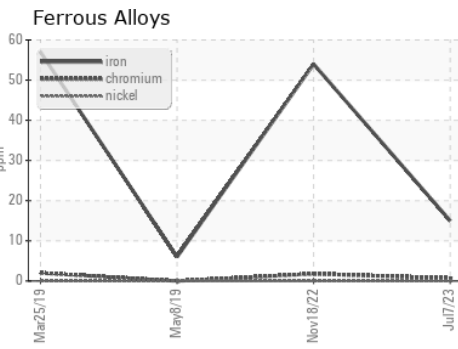
# OIL ANALYSIS REPORT



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	13.9	14.0

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0067731 **Received** : 13 Jul 2023  
**Lab Number** : 05897187 **Diagnosed** : 17 Jul 2023  
**Unique Number** : 10552997 **Diagnostician** : Jonathan Hester  
**Test Package** : FLEET ( Additional Tests: Glycol )

**GFL Environmental - 820 - Joplin Hauling**  
 3700 West 7th Street  
 Joplin, MO  
 US 64801  
 Contact: James Jarrett  
 jjarrett@gflenv.com  
 T: (417)310-2802  
 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)