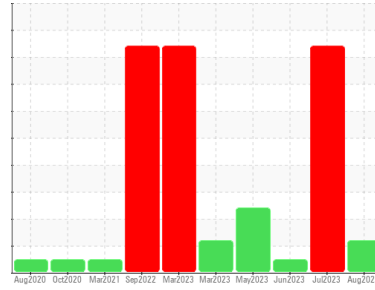




# PROBLEM SUMMARY

Sample Rating Trend



GLYCOL



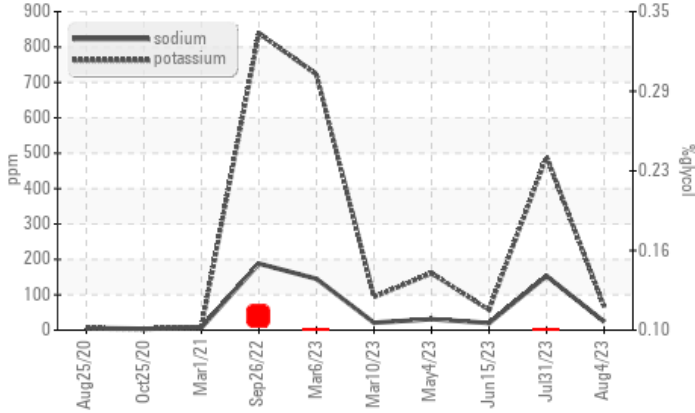
Machine Id  
**523004-704**

Component  
**Diesel Engine**

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

## 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	SEVERE	NORMAL
Potassium	ppm	ASTM D5185m	>20	▲ 67	▲ 490	57

Customer Id: GFL654  
Sample No.: GFL0086574  
Lab Number: 05920041  
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

**31 Jul 2023 Diag: Jonathan Hester**

GLYCOL



We advise that you check for the source of the coolant leak. Check for low coolant level. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition. All component wear rates are normal. Sodium and/or potassium levels are high. Test for glycol is positive. The BN result indicates that there is suitable alkalinity remaining in the oil.

view report



**15 Jun 2023 Diag: Jonathan Hester**

NORMAL



Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

view report



**04 May 2023 Diag: Jonathan Hester**

GLYCOL



We advise that you check for the source of the coolant leak. Check for low coolant level. 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.

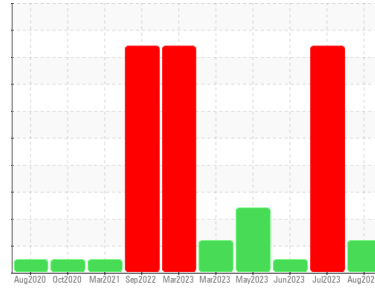
view report





# OIL ANALYSIS REPORT

Sample Rating Trend



GLYCOL



Machine Id  
**523004-704**

Component  
**Diesel Engine**

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

## 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 high. 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>GFL0086574</b>	GFL0086559	GFL0086524	
Sample Date	Client Info	<b>04 Aug 2023</b>	31 Jul 2023	15 Jun 2023	
Machine Age	hrs	Client Info	<b>21883</b>	21883	21760
Oil Age	hrs	Client Info	<b>0</b>	0	0
Oil Changed	Client Info	<b>Not Changed</b>	Changed	Not Changed	
Sample Status		<b>ATTENTION</b>	SEVERE	NORMAL	

## CONTAMINATION

method	limit/base	current	history1	history2
Fuel	WC Method >3.0	<b>&lt;1.0</b>	<1.0	<1.0

## WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185m >120	<b>4</b>	17	9
Chromium	ppm ASTM D5185m >20	<b>&lt;1</b>	<1	<1
Nickel	ppm ASTM D5185m >5	<b>0</b>	<1	<1
Titanium	ppm ASTM D5185m >2	<b>0</b>	<1	0
Silver	ppm ASTM D5185m >2	<b>&lt;1</b>	0	0
Aluminum	ppm ASTM D5185m >20	<b>1</b>	6	3
Lead	ppm ASTM D5185m >40	<b>&lt;1</b>	<1	0
Copper	ppm ASTM D5185m >330	<b>&lt;1</b>	2	5
Tin	ppm ASTM D5185m >15	<b>0</b>	0	<1
Vanadium	ppm ASTM D5185m	<b>0</b>	<1	0
Cadmium	ppm ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 0	<b>3</b>	1	5
Barium	ppm ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm ASTM D5185m 60	<b>71</b>	118	72
Manganese	ppm ASTM D5185m 0	<b>&lt;1</b>	<1	<1
Magnesium	ppm ASTM D5185m 1010	<b>945</b>	966	986
Calcium	ppm ASTM D5185m 1070	<b>1104</b>	1073	1155
Phosphorus	ppm ASTM D5185m 1150	<b>1060</b>	953	1098
Zinc	ppm ASTM D5185m 1270	<b>1230</b>	1206	1336
Sulfur	ppm ASTM D5185m 2060	<b>3319</b>	3478	4042

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	<b>5</b>	9	5
Sodium	ppm ASTM D5185m	<b>24</b>	▲ 153	20
Potassium	ppm ASTM D5185m >20	▲ <b>67</b>	▲ 490	57
Glycol	% *ASTM D2982	<b>NEG</b>	◆ 0.10	NEG

## INFRA-RED

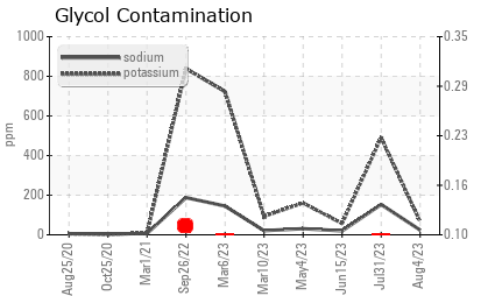
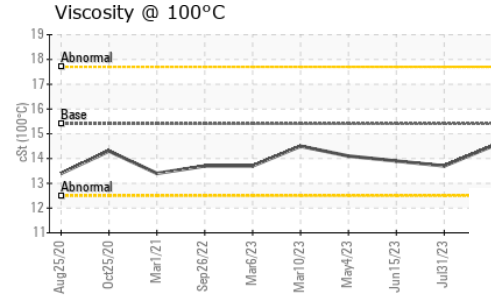
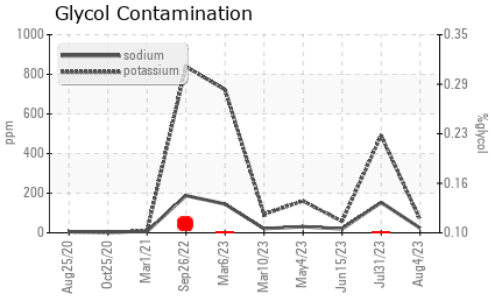
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >4	<b>0.1</b>	0.7	0.2
Nitration	Abs/cm *ASTM D7624 >20	<b>4.9</b>	9.5	7.0
Sulfation	Abs/.1mm *ASTM D7415 >30	<b>17.4</b>	20.8	18.8

## FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	<b>13.3</b>	16.0	15.8
Base Number (BN)	mg KOH/g ASTM D2896 9.8	<b>8.9</b>	7.0	8.6



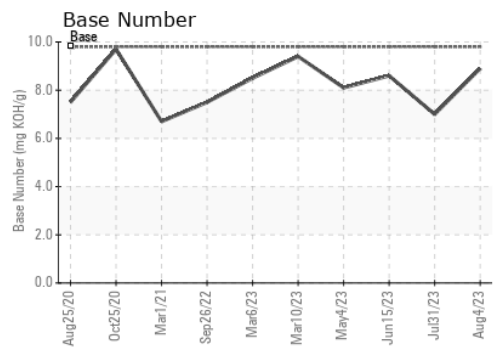
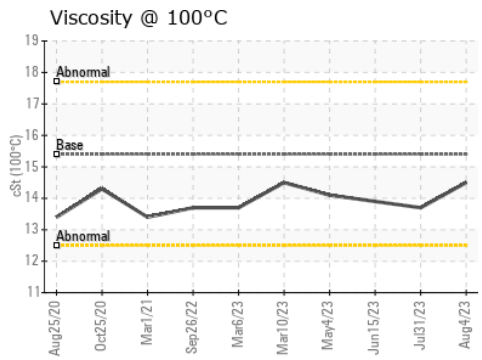
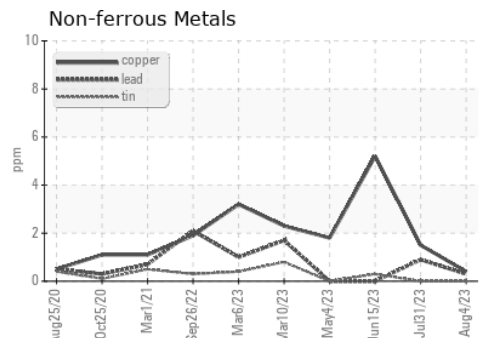
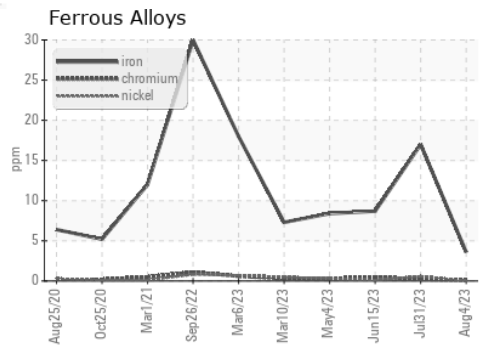
# OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 100°C	cSt	ASTM D445	15.4	<b>14.5</b>	13.7	13.9

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0086574  
**Lab Number** : 05920041  
**Unique Number** : 10591955  
**Test Package** : FLEET

**GFL Environmental - 654 - Richmond Hauling**  
 11800 Lewis Road  
 Chester, VA  
 US 23831  
 Contact: Steven Palmore  
 spalmore@gflenv.com  
 T:  
 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)