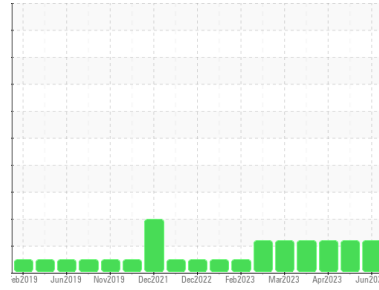




# PROBLEM SUMMARY

Sample Rating Trend



GLYCOL



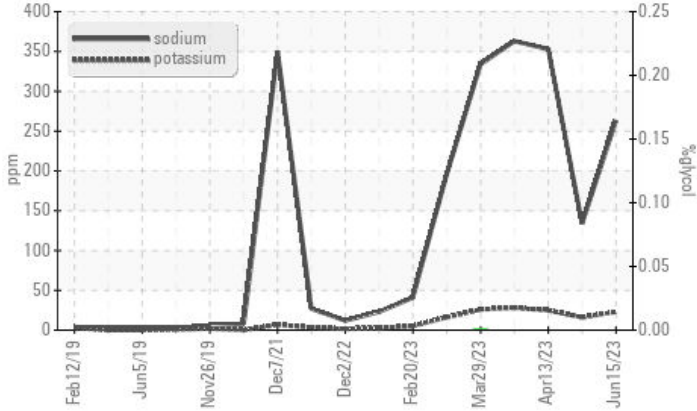
Machine Id  
**929086-205277**

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 | ATTENTION | ATTENTION |
|---------------|-----|-------------|-----------|-----------|-----------|
| Sodium        | ppm | ASTM D5185m | ▲ 263     | ▲ 134     | ▲ 353     |

Customer Id: GFL814  
Sample No.: GFL0074754  
Lab Number: 05876094  
Test Package: FLEET



To manage this report scan the QR code

To discuss the diagnosis or test data:  
Sean Felton +1 919-379-4092  
[sfelton@wearcheckusa.com](mailto:sfelton@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

### 02 May 2023 Diag: Don Baldrige

#### GLYCOL



Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. All component wear rates are normal. Sodium and/or potassium levels are high. Test for glycol is negative. No other contaminants were detected 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



### 13 Apr 2023 Diag: Jonathan Hester

#### GLYCOL



Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. All component wear rates are normal. Sodium and/or potassium levels are high. Test for glycol is negative. No other contaminants were detected 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



### 12 Apr 2023 Diag: Jonathan Hester

#### GLYCOL



Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. All component wear rates are normal. Sodium and/or potassium levels are high. Test for glycol is negative. No other contaminants were detected 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





# OIL ANALYSIS REPORT

Sample Rating Trend

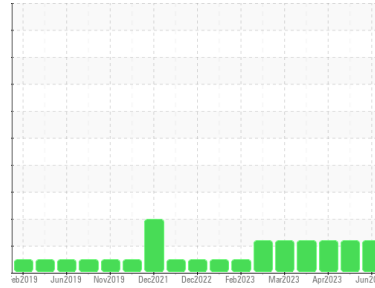
GLYCOL



Machine Id  
**929086-205277**

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 are high. Test for glycol is negative. No other contaminants were detected 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            | history 1   | history 2   |
|---------------|-------------|--------------------|-------------|-------------|
| Sample Number | Client Info | <b>GFL0074754</b>  | GFL0064683  | GFL0074684  |
| Sample Date   | Client Info | <b>15 Jun 2023</b> | 02 May 2023 | 13 Apr 2023 |
| Machine Age   | hrs         | Client Info        | 52748       | 52596       |
| Oil Age       | hrs         | Client Info        | 152         | 129         |
| Oil Changed   | Client Info | <b>N/A</b>         | Changed     | Changed     |
| Sample Status |             | <b>ATTENTION</b>   | ATTENTION   | ATTENTION   |

## CONTAMINATION

| method | limit/base   | current        | history 1 | history 2 |
|--------|--------------|----------------|-----------|-----------|
| Fuel   | WC Method >5 | <b>&lt;1.0</b> | <1.0      | <1.0      |

## WEAR METALS

| method   | limit/base | current          | history 1    | history 2 |    |
|----------|------------|------------------|--------------|-----------|----|
| Iron     | ppm        | ASTM D5185m >100 | <b>11</b>    | 6         | 25 |
| Chromium | ppm        | ASTM D5185m >20  | <b>1</b>     | <1        | 3  |
| Nickel   | ppm        | ASTM D5185m >4   | <b>&lt;1</b> | <1        | 1  |
| Titanium | ppm        | ASTM D5185m      | <b>&lt;1</b> | 0         | <1 |
| Silver   | ppm        | ASTM D5185m >3   | <b>0</b>     | 0         | 0  |
| Aluminum | ppm        | ASTM D5185m >20  | <b>&lt;1</b> | <1        | <1 |
| Lead     | ppm        | ASTM D5185m >40  | <b>&lt;1</b> | 0         | 6  |
| Copper   | ppm        | ASTM D5185m >330 | <b>4</b>     | 3         | 6  |
| Tin      | ppm        | ASTM D5185m >15  | <b>&lt;1</b> | 0         | <1 |
| Vanadium | ppm        | ASTM D5185m      | <b>&lt;1</b> | 0         | 0  |
| Cadmium  | ppm        | ASTM D5185m      | <b>&lt;1</b> | 0         | 0  |

## ADDITIVES

| method     | limit/base | current          | history 1    | history 2 |      |
|------------|------------|------------------|--------------|-----------|------|
| Boron      | ppm        | ASTM D5185m 0    | <b>12</b>    | 14        | 6    |
| Barium     | ppm        | ASTM D5185m 0    | <b>0</b>     | 0         | 0    |
| Molybdenum | ppm        | ASTM D5185m 60   | <b>88</b>    | 88        | 75   |
| Manganese  | ppm        | ASTM D5185m 0    | <b>&lt;1</b> | <1        | 1    |
| Magnesium  | ppm        | ASTM D5185m 1010 | <b>920</b>   | 938       | 956  |
| Calcium    | ppm        | ASTM D5185m 1070 | <b>1077</b>  | 1115      | 1074 |
| Phosphorus | ppm        | ASTM D5185m 1150 | <b>968</b>   | 968       | 957  |
| Zinc       | ppm        | ASTM D5185m 1270 | <b>1202</b>  | 1212      | 1268 |
| Sulfur     | ppm        | ASTM D5185m 2060 | <b>3405</b>  | 3175      | 2658 |

## CONTAMINANTS

| method    | limit/base | current         | history 1    | history 2 |       |
|-----------|------------|-----------------|--------------|-----------|-------|
| Silicon   | ppm        | ASTM D5185m >25 | <b>11</b>    | 8         | 15    |
| Sodium    | ppm        | ASTM D5185m     | <b>▲ 263</b> | ▲ 134     | ▲ 353 |
| Potassium | ppm        | ASTM D5185m >20 | <b>23</b>    | 16        | 25    |
| Glycol    | %          | *ASTM D2982     | <b>NEG</b>   | NEG       | NEG   |

## INFRA-RED

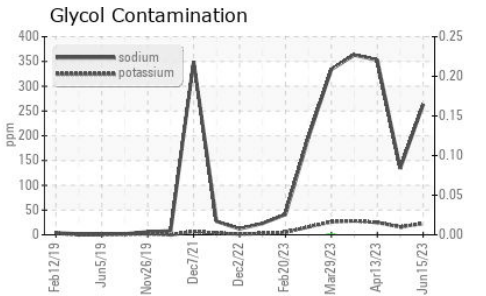
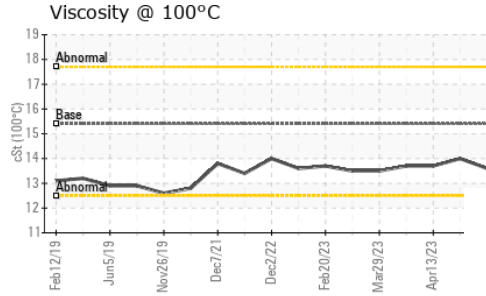
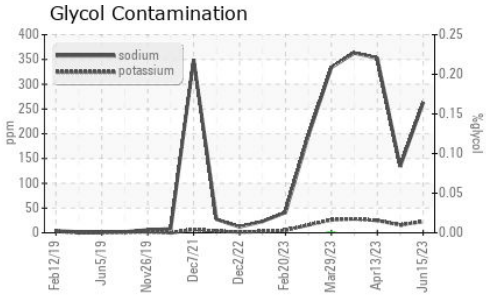
| method    | limit/base | current         | history 1   | history 2 |      |
|-----------|------------|-----------------|-------------|-----------|------|
| Soot %    | %          | *ASTM D7844 >3  | <b>0.2</b>  | 0.1       | 0.3  |
| Nitration | Abs/cm     | *ASTM D7624 >20 | <b>7.8</b>  | 6.1       | 9.1  |
| Sulfation | Abs/.1mm   | *ASTM D7415 >30 | <b>19.8</b> | 17.2      | 19.6 |

## FLUID DEGRADATION

| method           | limit/base | current         | history 1   | history 2 |      |
|------------------|------------|-----------------|-------------|-----------|------|
| Oxidation        | Abs/.1mm   | *ASTM D7414 >25 | <b>14.7</b> | 13.8      | 16.8 |
| Base Number (BN) | mg KOH/g   | ASTM D2896 9.8  | <b>7.8</b>  | 7.4       | 6.5  |



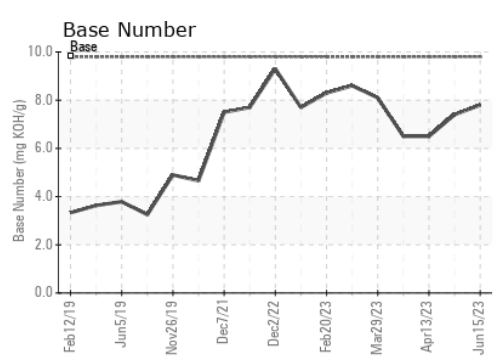
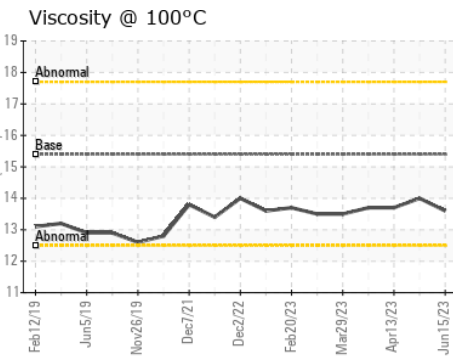
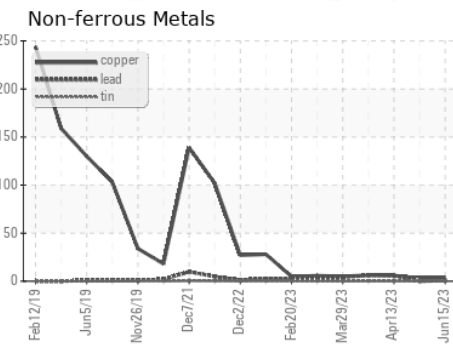
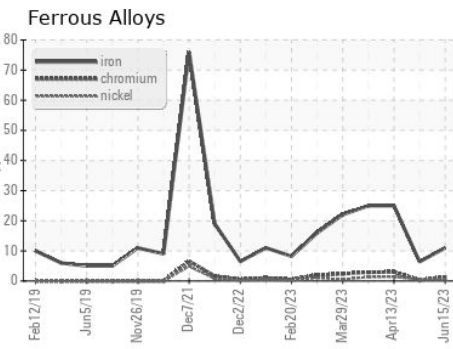
# OIL ANALYSIS REPORT



| VISUAL           | method | limit/base | current | history 1 | history 2 |
|------------------|--------|------------|---------|-----------|-----------|
| 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 | history 1   | history 2 |      |
|------------------|--------|------------|---------|-------------|-----------|------|
| Visc @ 100°C     | cSt    | ASTM D445  | 15.4    | <b>13.6</b> | 14.0      | 13.7 |

### GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0074754  
**Lab Number** : 05876094  
**Unique Number** : 10521197  
**Test Package** : FLEET ( Additional Tests: Glycol )

**GFL Environmental - 814 - Little Rock Hauling**  
 4005 Hwy 161 N.  
 Little Rock, AR  
 US 72117  
 Contact: Brad Manager

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)