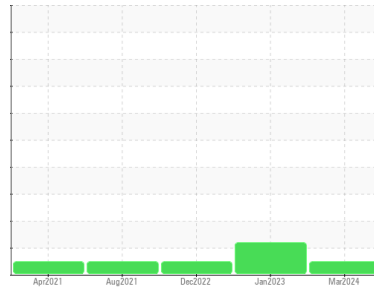




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**945007-260239**

Component  
**Natural Gas Engine**

Fluid  
**PETRO CANADA DURON GEO LD 15W40 (7 GAL)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

There is no indication of any contamination 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            | history1    | history2    |
|---------------|-------------|--------------------|-------------|-------------|
| Sample Number | Client Info | <b>GFL0114561</b>  | GFL0050195  | GFL0050198  |
| Sample Date   | Client Info | <b>04 Mar 2024</b> | 04 Jan 2023 | 27 Dec 2022 |
| Machine Age   | hrs         | <b>5503</b>        | 3034        | 2962        |
| Oil Age       | hrs         | <b>2542</b>        | 800         | 900         |
| Oil Changed   | Client Info | <b>Changed</b>     | Not Changd  | Changed     |
| Sample Status |             | <b>NORMAL</b>      | ATTENTION   | NORMAL      |

## CONTAMINATION

| method | limit/base     | current    | history1 | history2 |
|--------|----------------|------------|----------|----------|
| Water  | WC Method >0.1 | <b>NEG</b> | NEG      | NEG      |

## WEAR METALS

| method   | limit/base          | current    | history1 | history2 |
|----------|---------------------|------------|----------|----------|
| Iron     | ppm ASTM D5185m >50 | <b>7</b>   | 10       | 7        |
| Chromium | ppm ASTM D5185m >4  | <b>0</b>   | <1       | <1       |
| Nickel   | ppm ASTM D5185m >2  | <b>0</b>   | 0        | <1       |
| Titanium | ppm ASTM D5185m     | <b>0</b>   | 0        | 0        |
| Silver   | ppm ASTM D5185m >3  | <b>0</b>   | 0        | 0        |
| Aluminum | ppm ASTM D5185m >9  | <b>2</b>   | 2        | 2        |
| Lead     | ppm ASTM D5185m >30 | <b>0</b>   | <1       | 2        |
| Copper   | ppm ASTM D5185m >35 | <b>0</b>   | <1       | <1       |
| Tin      | ppm ASTM D5185m >4  | <b>0</b>   | <1       | <1       |
| Antimony | ppm ASTM D5185m     | <b>---</b> | ---      | ---      |
| Vanadium | ppm ASTM D5185m     | <b>0</b>   | 0        | <1       |
| Cadmium  | ppm ASTM D5185m     | <b>0</b>   | 0        | 0        |

## ADDITIVES

| method     | limit/base           | current     | history1 | history2 |
|------------|----------------------|-------------|----------|----------|
| Boron      | ppm ASTM D5185m 50   | <b>9</b>    | 22       | 10       |
| Barium     | ppm ASTM D5185m 5    | <b>1</b>    | 0        | 0        |
| Molybdenum | ppm ASTM D5185m 50   | <b>50</b>   | 59       | 58       |
| Manganese  | ppm ASTM D5185m 0    | <b>0</b>    | <1       | <1       |
| Magnesium  | ppm ASTM D5185m 560  | <b>559</b>  | 580      | 557      |
| Calcium    | ppm ASTM D5185m 1510 | <b>1530</b> | 1693     | 1544     |
| Phosphorus | ppm ASTM D5185m 780  | <b>718</b>  | 868      | 750      |
| Zinc       | ppm ASTM D5185m 870  | <b>935</b>  | 1013     | 988      |
| Sulfur     | ppm ASTM D5185m 2040 | <b>2061</b> | 3073     | 2687     |

## CONTAMINANTS

| method    | limit/base            | current  | history1 | history2 |
|-----------|-----------------------|----------|----------|----------|
| Silicon   | ppm ASTM D5185m >+100 | <b>3</b> | 7        | 5        |
| Sodium    | ppm ASTM D5185m       | <b>2</b> | 121      | 304      |
| Potassium | ppm ASTM D5185m >20   | <b>0</b> | <1       | 2        |

## INFRA-RED

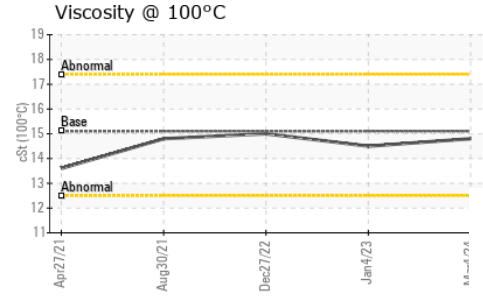
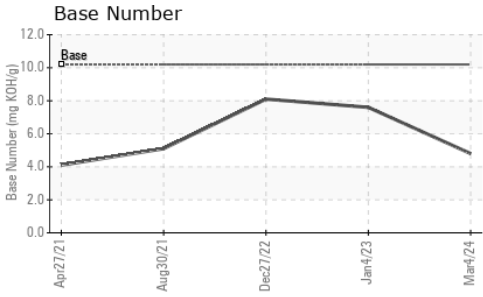
| method    | limit/base               | current     | history1 | history2 |
|-----------|--------------------------|-------------|----------|----------|
| Soot %    | % *ASTM D7844            | <b>0</b>    | 0.1      | 0.1      |
| Nitration | Abs/cm *ASTM D7624 >20   | <b>10.5</b> | 8.2      | 9.8      |
| Sulfation | Abs/.1mm *ASTM D7415 >30 | <b>21.5</b> | 19.4     | 21.1     |

## FLUID DEGRADATION

| method           | limit/base               | current     | history1 | history2 |
|------------------|--------------------------|-------------|----------|----------|
| Oxidation        | Abs/.1mm *ASTM D7414 >25 | <b>18.3</b> | 16.2     | 17.4     |
| Base Number (BN) | mg KOH/g ASTM D2896 10.2 | <b>4.8</b>  | 7.6      | 8.1      |



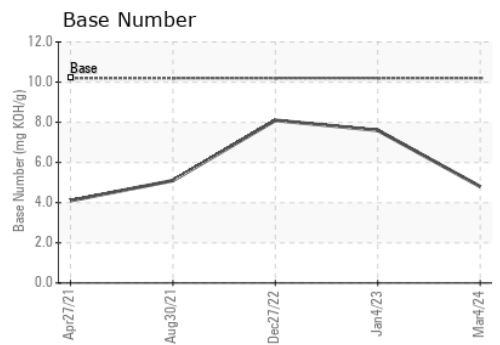
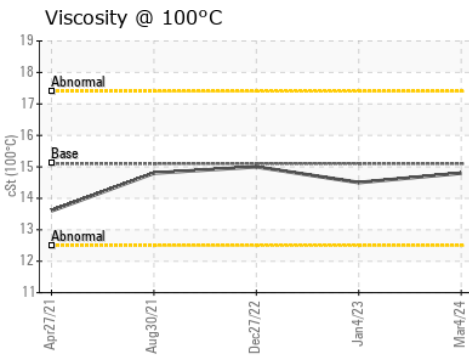
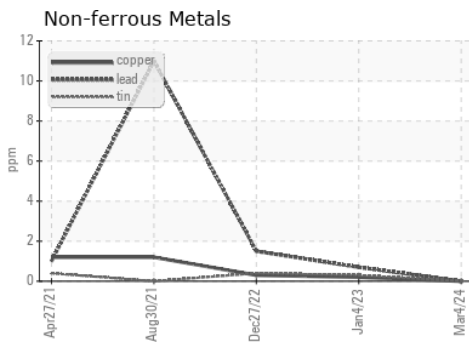
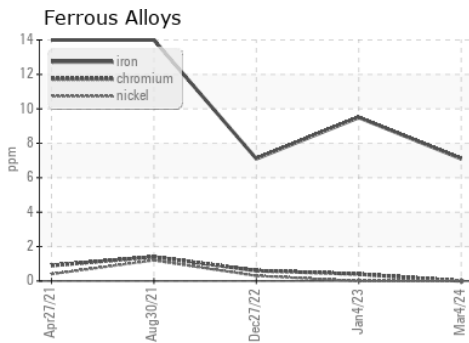
# OIL ANALYSIS REPORT



| 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    | >0.1    | NEG      | NEG      |
| Free Water       | scalar | *Visual    |         | NEG      | NEG      |

| FLUID PROPERTIES | method | limit/base | current | history1    | history2 |      |
|------------------|--------|------------|---------|-------------|----------|------|
| Visc @ 100°C     | cSt    | ASTM D445  | 15.1    | <b>14.8</b> | 14.5     | 15.0 |

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0114561  
**Lab Number** : **06109144**  
**Unique Number** : 10912641  
**Test Package** : FLEET

**Received** : 05 Mar 2024  
**Tested** : 06 Mar 2024  
**Diagnosed** : 06 Mar 2024 - Wes Davis

**GFL Environmental - 884 - Lake County - Tavares**  
 321 Southridge Industrial Way  
 Tavares, FL  
 US 32778  
 Contact: RON FERAGOTTI

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)

T:  
F: