



|                 |               |
|-----------------|---------------|
| WEAR            | <b>NORMAL</b> |
| CONTAMINATION   | <b>NORMAL</b> |
| FLUID CONDITION | <b>NORMAL</b> |

Area

(PO552E)

Machine Id

931015-205338

Component

Natural Gas Engine

Fluid

PETRO CANADA DURON GEO LD 15W40 (11 LTR)

**RECOMMENDATION**

Resample at the next service interval to monitor.

| Test           | UOM | Method      | Limit/Abn | Current            | History1    | History2    |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number  |     | Client Info |           | <b>GFL0096069</b>  | GFL0096015  | GFL0096040  |
| Sample Date    |     | Client Info |           | <b>17 Jun 2024</b> | 11 Mar 2024 | 19 Jan 2024 |
| Machine Age    | hrs | Client Info |           | <b>6455</b>        | 5734        | 5364        |
| Oil Age        | hrs | Client Info |           | <b>600</b>         | 600         | 600         |
| Filter Age     | hrs | Client Info |           | <b>600</b>         | 600         | 600         |
| Oil Changed    |     | Client Info |           | <b>Changed</b>     | Changed     | Changed     |
| Filter Changed |     | Client Info |           | <b>Changed</b>     | Changed     | Changed     |
| Sample Status  |     |             |           | <b>NORMAL</b>      | NORMAL      | NORMAL      |

**WEAR**

All component wear rates are normal.

|              |        |             |      |              |      |      |
|--------------|--------|-------------|------|--------------|------|------|
| Iron         | ppm    | ASTM D5185m | >50  | <b>4</b>     | 6    | 6    |
| Chromium     | ppm    | ASTM D5185m | >4   | <b>&lt;1</b> | <1   | <1   |
| Nickel       | ppm    | ASTM D5185m | >2   | <b>&lt;1</b> | 0    | 0    |
| Titanium     | ppm    | ASTM D5185m |      | <b>0</b>     | 0    | <1   |
| Silver       | ppm    | ASTM D5185m | >3   | <b>0</b>     | 0    | 0    |
| Aluminum     | ppm    | ASTM D5185m | >9   | <b>2</b>     | 1    | 1    |
| Lead         | ppm    | ASTM D5185m | >30  | <b>2</b>     | 9    | 11   |
| Copper       | ppm    | ASTM D5185m | >35  | <b>2</b>     | 5    | 5    |
| Tin          | ppm    | ASTM D5185m | >4   | <b>&lt;1</b> | 0    | <1   |
| Vanadium     | ppm    | ASTM D5185m |      | <b>0</b>     | 0    | <1   |
| White Metal  | scalar | *Visual     | NONE | <b>NONE</b>  | NONE | NONE |
| Yellow Metal | scalar | *Visual     | NONE | <b>NONE</b>  | NONE | NONE |

**CONTAMINATION**

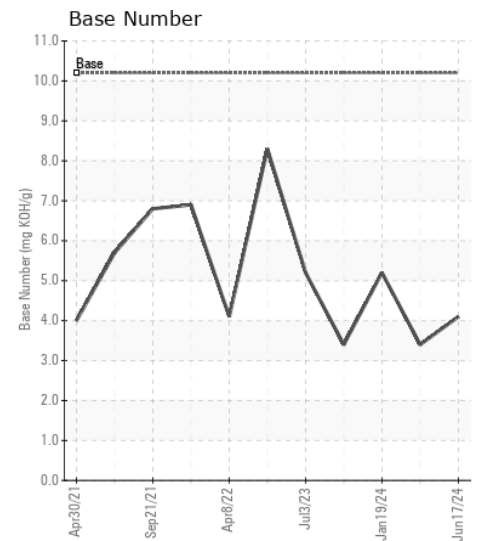
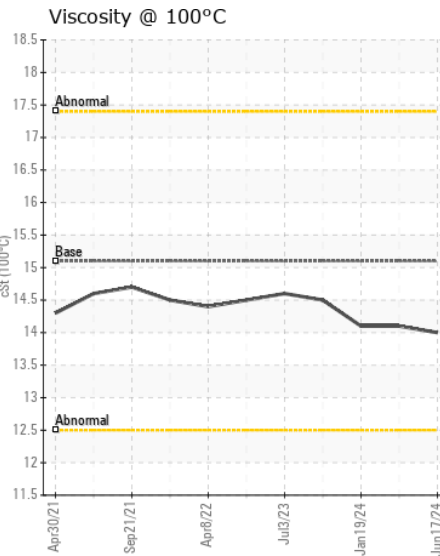
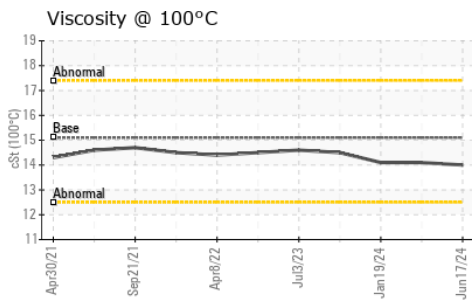
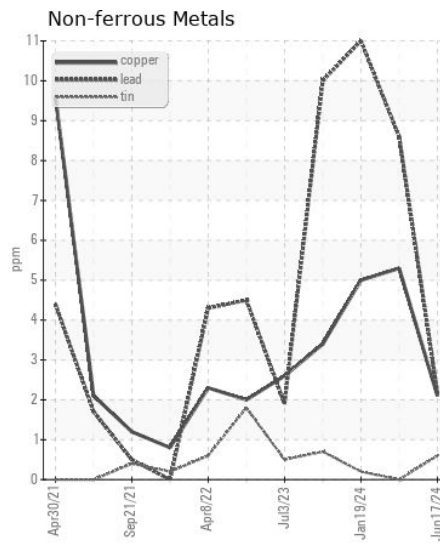
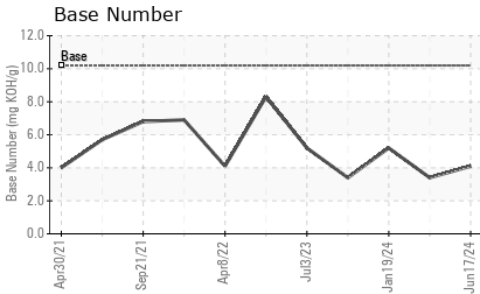
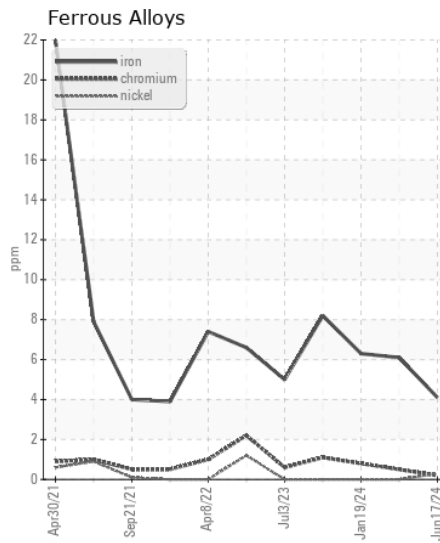
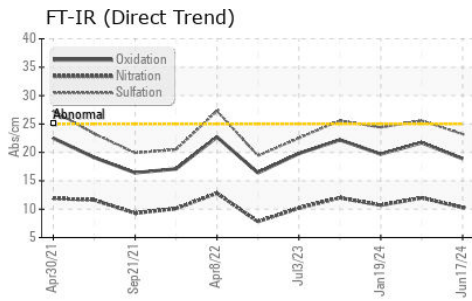
There is no indication of any contamination in the oil.

|                  |          |             |       |              |       |       |
|------------------|----------|-------------|-------|--------------|-------|-------|
| Silicon          | ppm      | ASTM D5185m | >+100 | <b>5</b>     | 6     | 5     |
| Potassium        | ppm      | ASTM D5185m | >20   | <b>3</b>     | 0     | 0     |
| Water            |          | WC Method   | >0.1  | <b>NEG</b>   | NEG   | NEG   |
| Soot %           | %        | *ASTM D7844 |       | <b>0</b>     | 0.1   | 0.1   |
| Nitration        | Abs/cm   | *ASTM D7624 | >20   | <b>10.3</b>  | 12.0  | 10.7  |
| Sulfation        | Abs/.1mm | *ASTM D7415 | >30   | <b>23.2</b>  | 25.6  | 24.4  |
| Silt             | scalar   | *Visual     | NONE  | <b>NONE</b>  | NONE  | NONE  |
| Debris           | scalar   | *Visual     | NONE  | <b>NONE</b>  | NONE  | NONE  |
| Sand/Dirt        | scalar   | *Visual     | NONE  | <b>NONE</b>  | NONE  | NONE  |
| Appearance       | scalar   | *Visual     | NORML | <b>NORML</b> | NORML | NORML |
| Odor             | scalar   | *Visual     | NORML | <b>NORML</b> | NORML | NORML |
| Emulsified Water | scalar   | *Visual     | >0.1  | <b>NEG</b>   | NEG   | NEG   |

**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.

|                  |          |             |      |              |      |      |
|------------------|----------|-------------|------|--------------|------|------|
| Sodium           | ppm      | ASTM D5185m |      | <b>5</b>     | 7    | 8    |
| Boron            | ppm      | ASTM D5185m | 50   | <b>11</b>    | 6    | 15   |
| Barium           | ppm      | ASTM D5185m | 5    | <b>0</b>     | 0    | 0    |
| Molybdenum       | ppm      | ASTM D5185m | 50   | <b>49</b>    | 51   | 54   |
| Manganese        | ppm      | ASTM D5185m | 0    | <b>&lt;1</b> | 0    | <1   |
| Magnesium        | ppm      | ASTM D5185m | 560  | <b>543</b>   | 562  | 627  |
| Calcium          | ppm      | ASTM D5185m | 1510 | <b>1554</b>  | 1599 | 1679 |
| Phosphorus       | ppm      | ASTM D5185m | 780  | <b>799</b>   | 758  | 848  |
| Zinc             | ppm      | ASTM D5185m | 870  | <b>987</b>   | 938  | 1069 |
| Sulfur           | ppm      | ASTM D5185m | 2040 | <b>2940</b>  | 2665 | 2617 |
| Oxidation        | Abs/.1mm | *ASTM D7414 | >25  | <b>18.9</b>  | 21.7 | 19.7 |
| Base Number (BN) | mg KOH/g | ASTM D2896  | 10.2 | <b>4.1</b>   | 3.4  | 5.2  |
| Visc @ 100°C     | cSt      | ASTM D445   | 15.1 | <b>14.0</b>  | 14.1 | 14.1 |



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0096069  
**Lab Number** : 06213270  
**Unique Number** : 11086134  
**Test Package** : FLEET

**Received** : 18 Jun 2024  
**Tested** : 19 Jun 2024  
**Diagnosed** : 19 Jun 2024 - Wes Davis

**GFL Environmental - 883 - Orange City**  
 1378 South Volusia Ave  
 Orange City, FL  
 US 32763

Contact: JEFF COOPERSMITH  
 JCOOPERSMITH@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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