



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

Machine Id  
**949003-205303**

Component  
**Natural Gas Engine**

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

**RECOMMENDATION**

Resample at the next service interval to monitor.

| Test           | UOM | Method      | Limit/Abn | Current            | History1    | History2    |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number  |     | Client Info |           | <b>GFL0114400</b>  | GFL0104013  | GFL0083485  |
| Sample Date    |     | Client Info |           | <b>13 Mar 2024</b> | 22 Feb 2024 | 12 Jun 2023 |
| Machine Age    | mls | Client Info |           | <b>148822</b>      | 19597       | 19578       |
| Oil Age        | mls | Client Info |           | <b>0</b>           | 19597       | 19578       |
| Filter Age     | mls | Client Info |           | <b>0</b>           | 0           | 0           |
| Oil Changed    |     | Client Info |           | <b>Not Changd</b>  | Not Changd  | Changed     |
| Filter Changed |     | Client Info |           | <b>Not Changd</b>  | Not Changd  | Changed     |
| Sample Status  |     |             |           | <b>NORMAL</b>      | NORMAL      | NORMAL      |

**WEAR**

All component wear rates are normal.

|              |        |             |      |              |      |      |
|--------------|--------|-------------|------|--------------|------|------|
| Iron         | ppm    | ASTM D5185m | >50  | <b>22</b>    | 17   | 2    |
| Chromium     | ppm    | ASTM D5185m | >4   | <b>&lt;1</b> | <1   | <1   |
| Nickel       | ppm    | ASTM D5185m | >2   | <b>1</b>     | <1   | 0    |
| Titanium     | ppm    | ASTM D5185m |      | <b>&lt;1</b> | 0    | 0    |
| Silver       | ppm    | ASTM D5185m | >3   | <b>&lt;1</b> | 0    | 0    |
| Aluminum     | ppm    | ASTM D5185m | >9   | <b>3</b>     | 2    | <1   |
| Lead         | ppm    | ASTM D5185m | >30  | <b>1</b>     | 1    | 0    |
| Copper       | ppm    | ASTM D5185m | >35  | <b>10</b>    | 9    | 0    |
| Tin          | ppm    | ASTM D5185m | >4   | <b>&lt;1</b> | 0    | <1   |
| Vanadium     | ppm    | ASTM D5185m |      | <b>&lt;1</b> | <1   | 0    |
| White Metal  | scalar | *Visual     | NONE | <b>NONE</b>  | NONE | NONE |
| Yellow Metal | scalar | *Visual     | NONE | <b>NONE</b>  | NONE | NONE |

**CONTAMINATION**

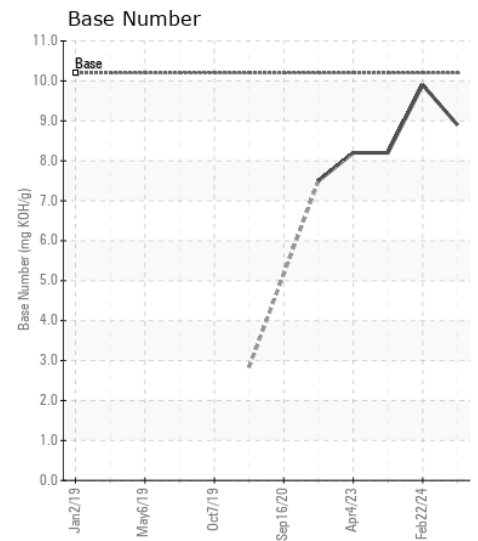
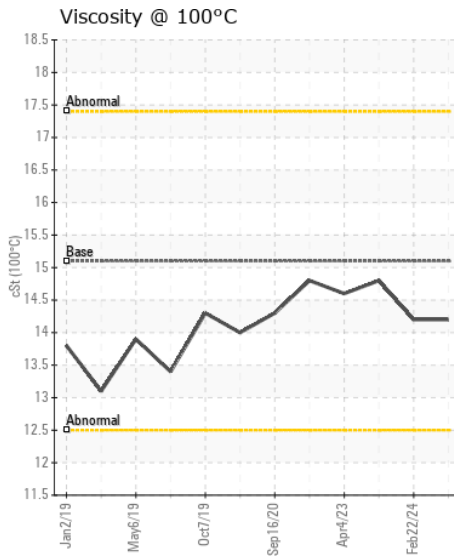
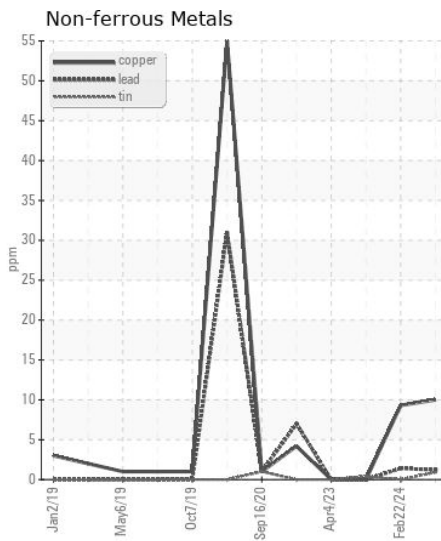
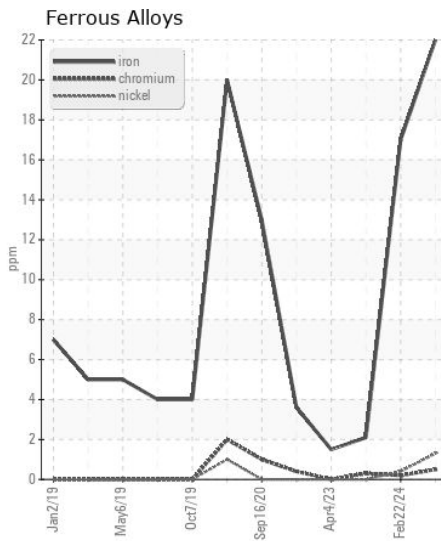
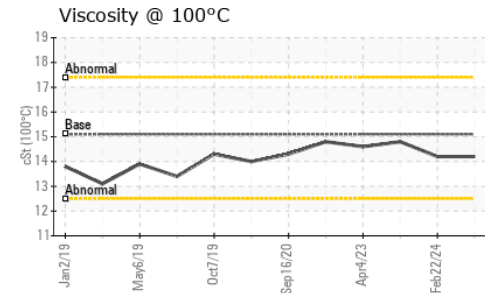
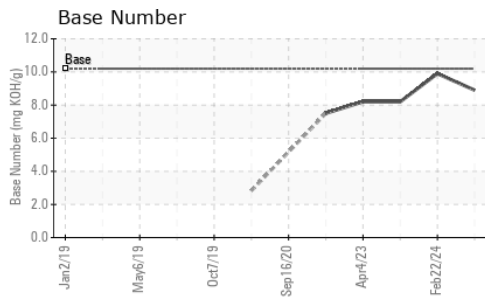
There is no indication of any contamination in the oil.

|                  |          |             |       |              |       |       |
|------------------|----------|-------------|-------|--------------|-------|-------|
| Silicon          | ppm      | ASTM D5185m | >+100 | <b>62</b>    | 58    | 5     |
| Potassium        | ppm      | ASTM D5185m | >20   | <b>6</b>     | 4     | 1     |
| Water            |          | WC Method   | >0.1  | <b>NEG</b>   | NEG   | NEG   |
| Soot %           | %        | *ASTM D7844 |       | <b>0.1</b>   | 0.1   | 0.1   |
| Nitration        | Abs/cm   | *ASTM D7624 | >20   | <b>7.7</b>   | 6.2   | 6.6   |
| Sulfation        | Abs/.1mm | *ASTM D7415 | >30   | <b>19.2</b>  | 18.9  | 19.8  |
| 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>3</b>    | 4    | 2    |
| Boron            | ppm      | ASTM D5185m | 50   | <b>35</b>   | 38   | 46   |
| Barium           | ppm      | ASTM D5185m | 5    | <b>8</b>    | 8    | 0    |
| Molybdenum       | ppm      | ASTM D5185m | 50   | <b>50</b>   | 47   | 46   |
| Manganese        | ppm      | ASTM D5185m | 0    | <b>3</b>    | 3    | <1   |
| Magnesium        | ppm      | ASTM D5185m | 560  | <b>774</b>  | 934  | 573  |
| Calcium          | ppm      | ASTM D5185m | 1510 | <b>1373</b> | 1269 | 1532 |
| Phosphorus       | ppm      | ASTM D5185m | 780  | <b>734</b>  | 858  | 757  |
| Zinc             | ppm      | ASTM D5185m | 870  | <b>982</b>  | 1041 | 922  |
| Sulfur           | ppm      | ASTM D5185m | 2040 | <b>2729</b> | 3275 | 2850 |
| Oxidation        | Abs/.1mm | *ASTM D7414 | >25  | <b>16.6</b> | 15.7 | 17.2 |
| Base Number (BN) | mg KOH/g | ASTM D2896  | 10.2 | <b>8.9</b>  | 9.9  | 8.2  |
| Visc @ 100°C     | cSt      | ASTM D445   | 15.1 | <b>14.2</b> | 14.2 | 14.8 |



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0114400  
**Lab Number** : 06125406  
**Unique Number** : 10939557  
**Test Package** : FLEET

**Received** : 21 Mar 2024  
**Tested** : 22 Mar 2024  
**Diagnosed** : 25 Mar 2024 - Don Baldrige

**GFL Environmental - 865 - East Mount Hauling**  
 7213 East Mount Houston Road  
 Houston, TX  
 US 77050  
 Contact: Saul Castillo  
 saul.castillo@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)

T:  
F: