



Machine Id  
**731128**  
Component  
**Diesel 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>GFL0112543</b>  | GFL0097595  | GFL0072813  |
| Sample Date    |     | Client Info |           | <b>03 Apr 2024</b> | 02 Nov 2023 | 04 Jun 2023 |
| Machine Age    | hrs | Client Info |           | <b>0</b>           | 0           | 4166        |
| Oil Age        | hrs | Client Info |           | <b>0</b>           | 0           | 0           |
| Filter Age     | hrs | Client Info |           | <b>0</b>           | 0           | 0           |
| Oil Changed    |     | Client Info |           | <b>N/A</b>         | N/A         | N/A         |
| Filter Changed |     | Client Info |           | <b>N/A</b>         | N/A         | N/A         |
| Sample Status  |     |             |           | <b>NORMAL</b>      | NORMAL      | NORMAL      |

### WEAR

All component wear rates are normal.

|          |     |               |      |              |    |    |
|----------|-----|---------------|------|--------------|----|----|
| Iron     | ppm | ASTM D5185(m) | >120 | <b>19</b>    | 21 | 12 |
| Chromium | ppm | ASTM D5185(m) | >20  | <b>1</b>     | 2  | <1 |
| Nickel   | ppm | ASTM D5185(m) | >5   | <b>&lt;1</b> | <1 | <1 |
| Titanium | ppm | ASTM D5185(m) | >2   | <b>0</b>     | 0  | 0  |
| Silver   | ppm | ASTM D5185(m) | >2   | <b>0</b>     | <1 | 0  |
| Aluminum | ppm | ASTM D5185(m) | >20  | <b>3</b>     | 9  | 3  |
| Lead     | ppm | ASTM D5185(m) | >40  | <b>10</b>    | 15 | 2  |
| Copper   | ppm | ASTM D5185(m) | >330 | <b>2</b>     | 2  | 1  |
| Tin      | ppm | ASTM D5185(m) | >15  | <b>&lt;1</b> | 1  | <1 |
| Vanadium | ppm | ASTM D5185(m) |      | <b>0</b>     | 0  | 0  |

### CONTAMINATION

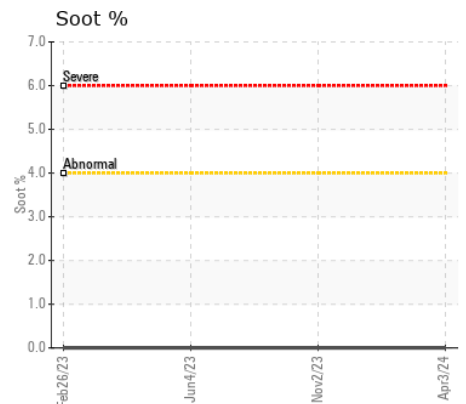
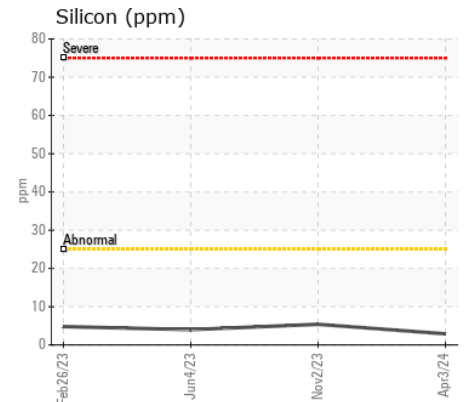
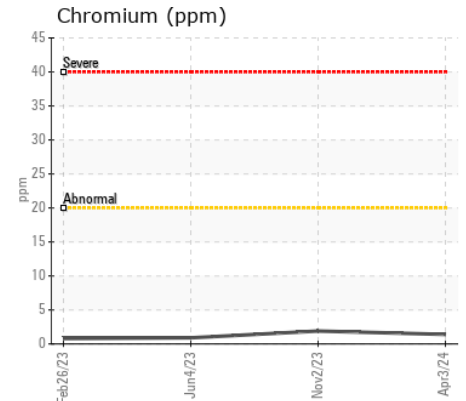
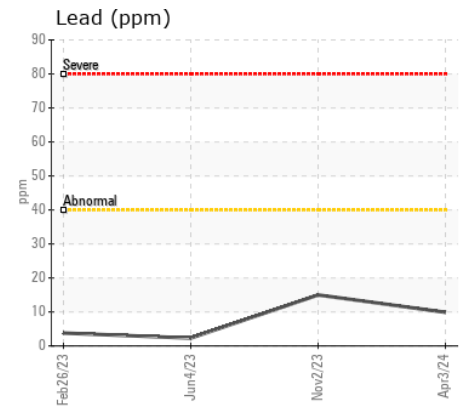
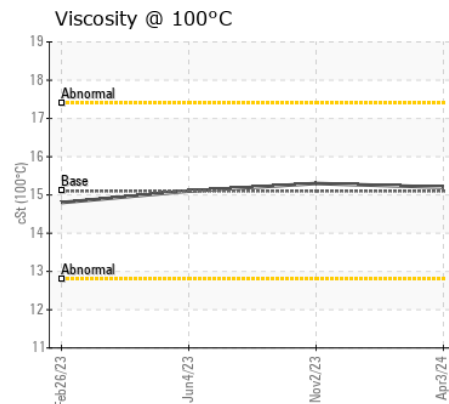
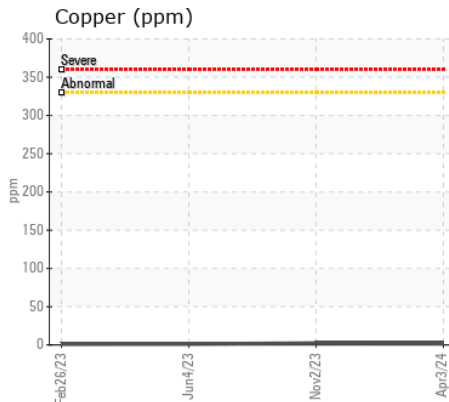
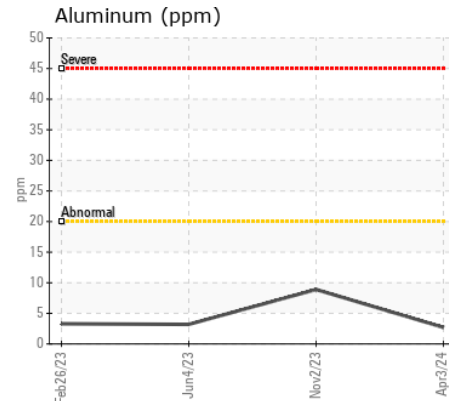
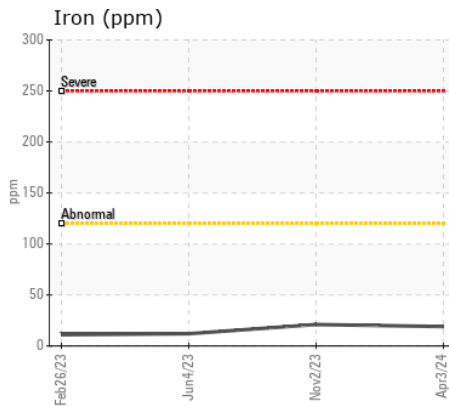
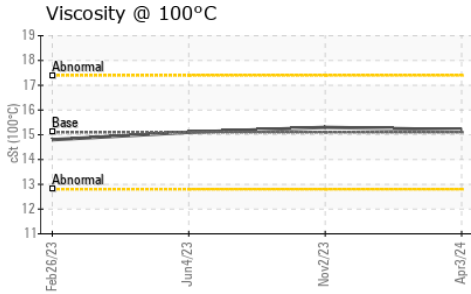
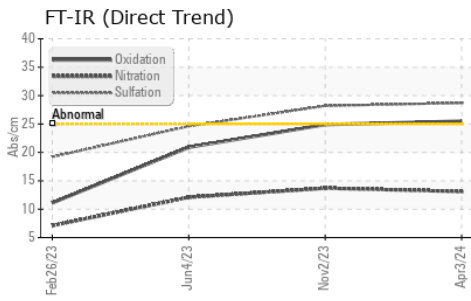
There is no indication of any contamination in the oil.

|                  |          |               |      |                |      |      |
|------------------|----------|---------------|------|----------------|------|------|
| Silicon          | ppm      | ASTM D5185(m) | >25  | <b>3</b>       | 5    | 4    |
| Potassium        | ppm      | ASTM D5185(m) | >20  | <b>4</b>       | 17   | 4    |
| Fuel             |          | WC Method     | >3.0 | <b>&lt;1.0</b> | <1.0 | <1.0 |
| Water            |          | WC Method     | >0.2 | <b>NEG</b>     | NEG  | NEG  |
| Glycol           |          | WC Method     |      | <b>NEG</b>     | 0.0  | NEG  |
| Soot %           | %        | ASTM D7844*   | >4   | <b>0</b>       | 0    | 0    |
| Nitration        | Abs/cm   | ASTM D7624*   | >20  | <b>13.1</b>    | 13.7 | 12.1 |
| Sulfation        | Abs/.1mm | ASTM D7415*   | >30  | <b>28.7</b>    | 28.2 | 24.6 |
| Emulsified Water | scalar   | Visual*       | >0.2 | <b>NEG</b>     | NEG  | NEG  |

### FLUID CONDITION

The condition of the oil is acceptable for the time in service.

|              |          |               |      |             |      |      |
|--------------|----------|---------------|------|-------------|------|------|
| Sodium       | ppm      | ASTM D5185(m) |      | <b>12</b>   | 14   | 10   |
| Boron        | ppm      | ASTM D5185(m) | 50   | <b>9</b>    | 10   | 6    |
| Barium       | ppm      | ASTM D5185(m) | 5    | <b>0</b>    | <1   | 0    |
| Molybdenum   | ppm      | ASTM D5185(m) | 50   | <b>60</b>   | 65   | 55   |
| Manganese    | ppm      | ASTM D5185(m) | 0    | <b>0</b>    | <1   | <1   |
| Magnesium    | ppm      | ASTM D5185(m) | 560  | <b>639</b>  | 692  | 561  |
| Calcium      | ppm      | ASTM D5185(m) | 1510 | <b>1852</b> | 1973 | 1686 |
| Phosphorus   | ppm      | ASTM D5185(m) | 780  | <b>780</b>  | 843  | 715  |
| Zinc         | ppm      | ASTM D5185(m) | 870  | <b>994</b>  | 1099 | 878  |
| Sulfur       | ppm      | ASTM D5185(m) | 2040 | <b>2013</b> | 2187 | 1923 |
| Oxidation    | Abs/.1mm | ASTM D7414*   | >25  | <b>25.5</b> | 24.9 | 20.9 |
| Visc @ 100°C | cSt      | ASTM D7279(m) | 15.1 | <b>15.2</b> | 15.3 | 15.1 |



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **GFL Environmental - 554 - Edmonton SW**  
**Sample No.** : GFL0112543 **Received** : 04 Apr 2024 **8409 -15th Street NW**  
**Lab Number** : 02626536 **Tested** : 04 Apr 2024 **Edmonton, AB**  
**Unique Number** : 5759668 **Diagnosed** : 04 Apr 2024 - Kevin Marson **CA T6P 0B8**  
**Test Package** : MOB 1 **Contact:** Jennifer Walker  
**jenniferwalker@gflenv.com**

To discuss this sample report, contact Customer Service at 1-800-268-2131.  
 Test denoted (\*) outside scope of accreditation, (m) method modified, (e) tested at external lab.  
 Validity of results and interpretation are based on the sample and information as supplied.