



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

Machine Id  
**9131**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON SHP 10W30 (--- GAL)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

| Test           | UOM | Method      | Limit/Abn | Current            | History1    | History2    |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number  |     | Client Info |           | <b>GFL0118960</b>  | GFL0102669  | GFL0093915  |
| Sample Date    |     | Client Info |           | <b>03 May 2024</b> | 05 Mar 2024 | 21 Sep 2023 |
| Machine Age    | kms | Client Info |           | <b>21574</b>       | 0           | 0           |
| Oil Age        | kms | Client Info |           | <b>0</b>           | 0           | 0           |
| Filter Age     | kms | Client Info |           | <b>0</b>           | 0           | 0           |
| Oil Changed    |     | Client Info |           | <b>Changed</b>     | N/A         | N/A         |
| Filter Changed |     | Client Info |           | <b>Changed</b>     | N/A         | N/A         |
| Sample Status  |     |             |           | <b>NORMAL</b>      | ABNORMAL    | NORMAL      |

**WEAR**

Metal levels are typical for a new component breaking in.

|          |     |               |      |           |     |    |
|----------|-----|---------------|------|-----------|-----|----|
| Iron     | ppm | ASTM D5185(m) | >110 | <b>64</b> | 61  | 51 |
| Chromium | ppm | ASTM D5185(m) | >4   | <b>4</b>  | ▲ 4 | 2  |
| Nickel   | ppm | ASTM D5185(m) | >2   | <b>1</b>  | 1   | <1 |
| Titanium | ppm | ASTM D5185(m) |      | <b>0</b>  | 0   | 0  |
| Silver   | ppm | ASTM D5185(m) | >2   | <b>0</b>  | 0   | 0  |
| Aluminum | ppm | ASTM D5185(m) | >25  | <b>8</b>  | 8   | 8  |
| Lead     | ppm | ASTM D5185(m) | >45  | <b>0</b>  | <1  | <1 |
| Copper   | ppm | ASTM D5185(m) | >85  | <b>17</b> | 3   | 5  |
| Tin      | ppm | ASTM D5185(m) | >4   | <b>0</b>  | <1  | <1 |
| Vanadium | ppm | ASTM D5185(m) |      | <b>0</b>  | 0   | 0  |

**CONTAMINATION**

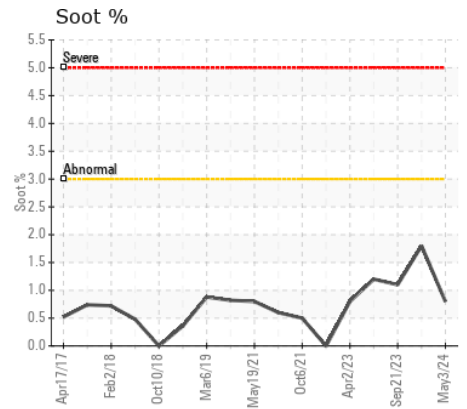
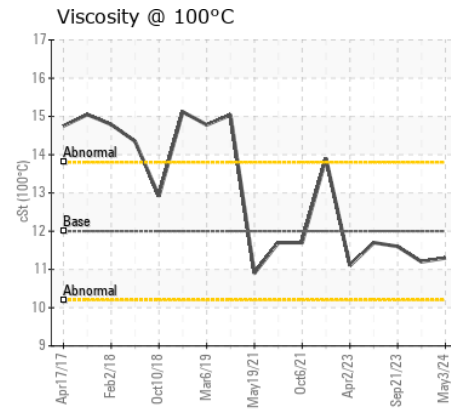
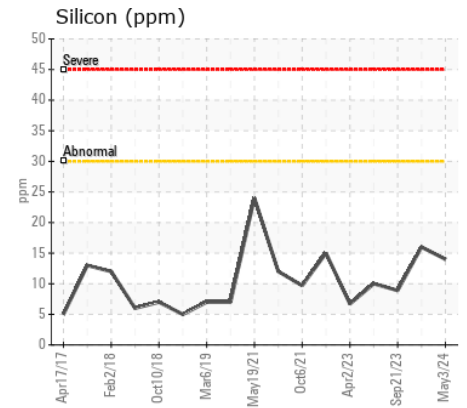
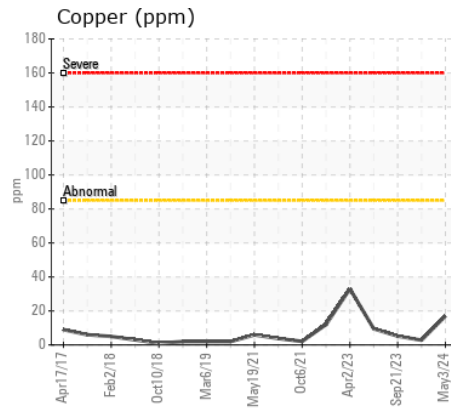
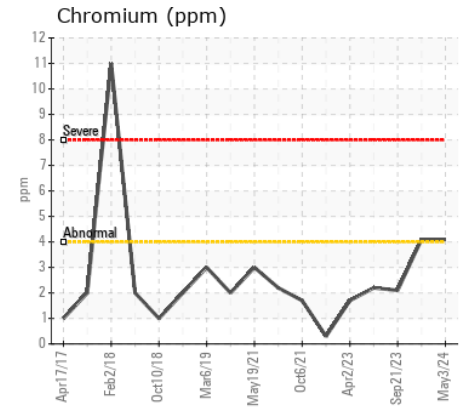
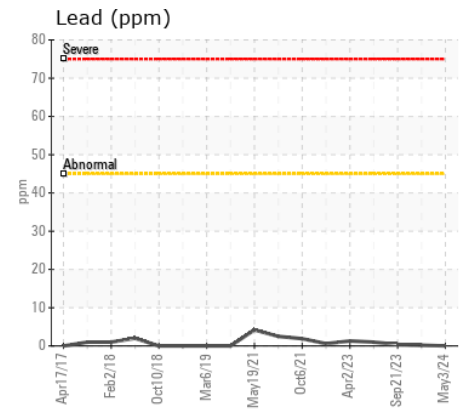
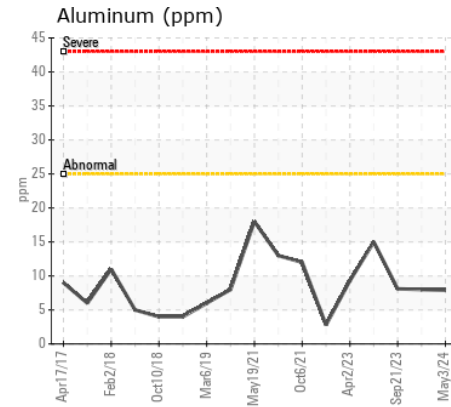
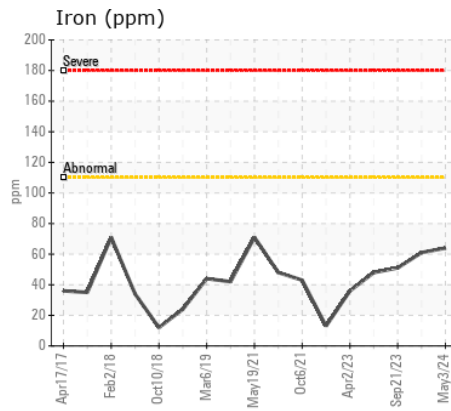
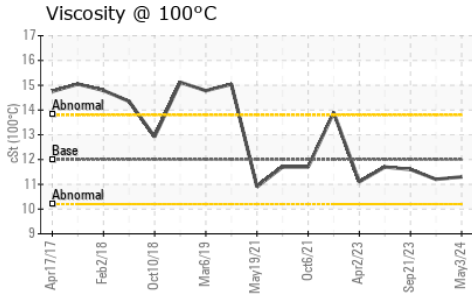
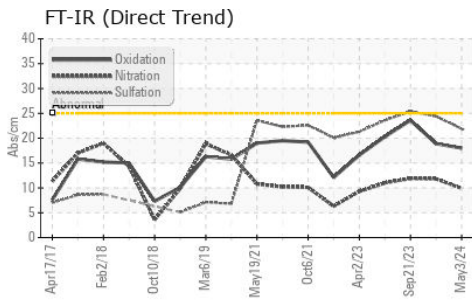
There is no indication of any contamination in the oil.

|                  |          |               |      |                |      |      |
|------------------|----------|---------------|------|----------------|------|------|
| Silicon          | ppm      | ASTM D5185(m) | >30  | <b>14</b>      | 16   | 9    |
| Potassium        | ppm      | ASTM D5185(m) | >20  | <b>3</b>       | 3    | 0    |
| Fuel             |          | WC Method     | >5   | <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>     | NEG  | NEG  |
| Soot %           | %        | ASTM D7844*   | >3   | <b>0.8</b>     | 1.8  | 1.1  |
| Nitration        | Abs/cm   | ASTM D7624*   | >20  | <b>9.9</b>     | 11.8 | 11.9 |
| Sulfation        | Abs/.1mm | ASTM D7415*   | >30  | <b>21.9</b>    | 24.4 | 25.4 |
| 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>8</b>     | 10   | 9    |
| Boron        | ppm      | ASTM D5185(m) | 2     | <b>3</b>     | 2    | 1    |
| Barium       | ppm      | ASTM D5185(m) | 0     | <b>&lt;1</b> | 0    | 0    |
| Molybdenum   | ppm      | ASTM D5185(m) | 50    | <b>60</b>    | 58   | 58   |
| Manganese    | ppm      | ASTM D5185(m) | 0     | <b>&lt;1</b> | <1   | <1   |
| Magnesium    | ppm      | ASTM D5185(m) | 950   | <b>977</b>   | 930  | 961  |
| Calcium      | ppm      | ASTM D5185(m) | 1050  | <b>1095</b>  | 1036 | 1046 |
| Phosphorus   | ppm      | ASTM D5185(m) | 995   | <b>965</b>   | 950  | 975  |
| Zinc         | ppm      | ASTM D5185(m) | 1180  | <b>1155</b>  | 1124 | 1171 |
| Sulfur       | ppm      | ASTM D5185(m) | 2600  | <b>2281</b>  | 2448 | 2343 |
| Oxidation    | Abs/.1mm | ASTM D7414*   | >25   | <b>18.0</b>  | 18.9 | 23.6 |
| Visc @ 100°C | cSt      | ASTM D7279(m) | 12.00 | <b>11.3</b>  | 11.2 | 11.6 |



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : GFL0118960  
**Lab Number** : 02634076  
**Unique Number** : 5775229  
**Test Package** : MOB 1

**GFL Environmental - 554 - Edmonton SW**  
 8409 - 15th Street NW  
 Edmonton, AB  
 CA T6P 0B8  
 Contact: Tim Greig  
 tgreig@gflenv.com  
 T: (780)231-0521  
 F:

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.