



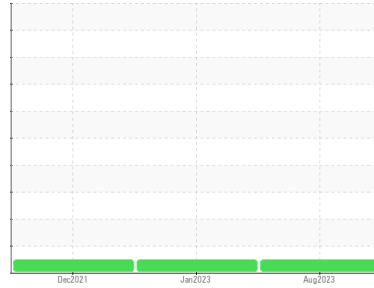
# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Machine Id  
**819000**  
 Component  
**Transmission (Auto)**  
 Fluid  
**PETRO CANADA DuraDrive HD Synthetic 668 (--- 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 fluid.

### Fluid Condition

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

## SAMPLE INFORMATION

|               | method      | limit/base  | current            | history1    | history2    |
|---------------|-------------|-------------|--------------------|-------------|-------------|
| Sample Number | Client Info |             | <b>GFL0084158</b>  | GFL0063612  | GFL0039309  |
| Sample Date   | Client Info |             | <b>15 Aug 2023</b> | 16 Jan 2023 | 27 Dec 2021 |
| Machine Age   | hrs         | Client Info | <b>10392</b>       | 8787        | 6038        |
| Oil Age       | hrs         | Client Info | <b>0</b>           | 1200        | 3000        |
| Oil Changed   | Client Info |             | <b>N/A</b>         | N/A         | Changed     |
| Sample Status |             |             | <b>NORMAL</b>      | NORMAL      | NORMAL      |

## WEAR METALS

|           | method | limit/base         | current      | history1 | history2 |
|-----------|--------|--------------------|--------------|----------|----------|
| Iron      | ppm    | ASTM D5185(m) >160 | <b>51</b>    | 93       | 102      |
| Chromium  | ppm    | ASTM D5185(m) >5   | <b>&lt;1</b> | 0        | <1       |
| Nickel    | ppm    | ASTM D5185(m) >5   | <b>0</b>     | <1       | <1       |
| Titanium  | ppm    | ASTM D5185(m)      | <b>&lt;1</b> | <1       | 0        |
| Silver    | ppm    | ASTM D5185(m) >5   | <b>0</b>     | 0        | <1       |
| Aluminum  | ppm    | ASTM D5185(m) >50  | <b>14</b>    | 19       | 19       |
| Lead      | ppm    | ASTM D5185(m) >50  | <b>14</b>    | 27       | 29       |
| Copper    | ppm    | ASTM D5185(m) >225 | <b>4</b>     | 15       | 19       |
| Tin       | ppm    | ASTM D5185(m) >10  | <b>&lt;1</b> | 1        | 2        |
| Antimony  | ppm    | ASTM D5185(m)      | <b>0</b>     | <1       | <1       |
| Vanadium  | ppm    | ASTM D5185(m)      | <b>0</b>     | 0        | 0        |
| Beryllium | ppm    | ASTM D5185(m)      | <b>0</b>     | 0        | 0        |
| Cadmium   | ppm    | ASTM D5185(m)      | <b>0</b>     | 0        | 0        |

## ADDITIVES

|            | method | limit/base         | current      | history1 | history2 |
|------------|--------|--------------------|--------------|----------|----------|
| Boron      | ppm    | ASTM D5185(m) 78   | <b>74</b>    | 94       | 184      |
| Barium     | ppm    | ASTM D5185(m)      | <b>0</b>     | 0        | 0        |
| Molybdenum | ppm    | ASTM D5185(m) 0    | <b>&lt;1</b> | 0        | <1       |
| Manganese  | ppm    | ASTM D5185(m)      | <b>&lt;1</b> | <1       | 1        |
| Magnesium  | ppm    | ASTM D5185(m) 0    | <b>8</b>     | 11       | 9        |
| Calcium    | ppm    | ASTM D5185(m) 113  | <b>130</b>   | 133      | 142      |
| Phosphorus | ppm    | ASTM D5185(m) 222  | <b>250</b>   | 298      | 492      |
| Zinc       | ppm    | ASTM D5185(m)      | <b>19</b>    | 20       | 26       |
| Sulfur     | ppm    | ASTM D5185(m) 1326 | <b>1425</b>  | 1529     | 2375     |
| Lithium    | ppm    | ASTM D5185(m)      | <b>&lt;1</b> | <1       | <1       |

## CONTAMINANTS

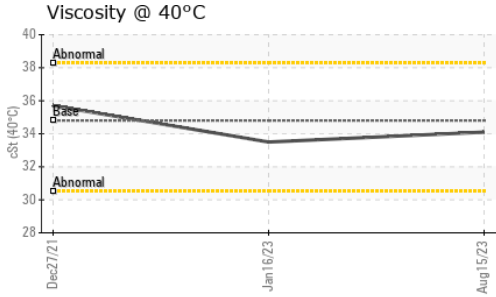
|           | method | limit/base        | current  | history1 | history2 |
|-----------|--------|-------------------|----------|----------|----------|
| Silicon   | ppm    | ASTM D5185(m) >20 | <b>9</b> | 10       | 10       |
| Sodium    | ppm    | ASTM D5185(m)     | <b>6</b> | 10       | 11       |
| Potassium | ppm    | ASTM D5185(m) >20 | <b>2</b> | 2        | 2        |

## VISUAL

|                  | method | limit/base    | current      | history1 | history2 |
|------------------|--------|---------------|--------------|----------|----------|
| White Metal      | scalar | Visual* NONE  | <b>NONE</b>  | NONE     | NONE     |
| Yellow Metal     | scalar | Visual* NONE  | <b>NONE</b>  | NONE     | NONE     |
| Precipitate      | scalar | Visual* NONE  | <b>NONE</b>  | NONE     | NONE     |
| Silt             | scalar | Visual* NONE  | <b>VLITE</b> | NONE     | LIGHT    |
| Debris           | scalar | Visual* NONE  | <b>VLITE</b> | NONE     | VLITE    |
| 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      |
| Free Water       | scalar | Visual*       | <b>NEG</b>   | NEG      | NEG      |

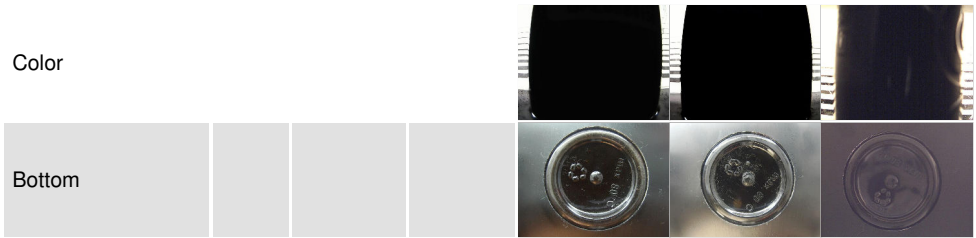


# OIL ANALYSIS REPORT

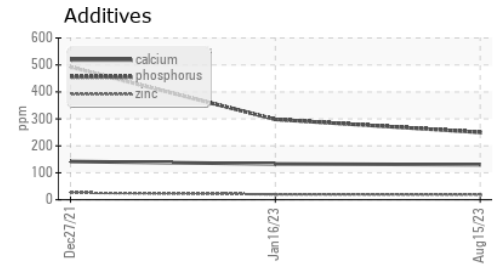
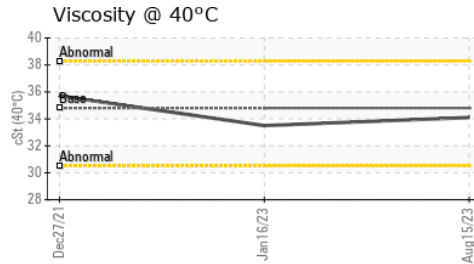
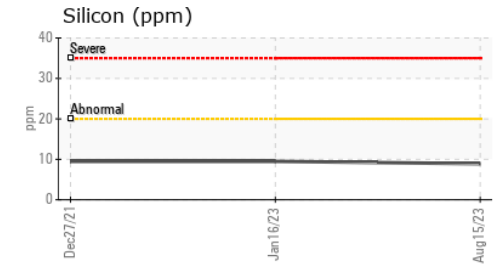
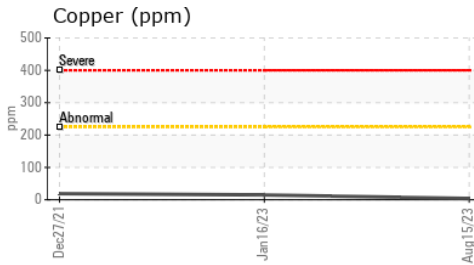
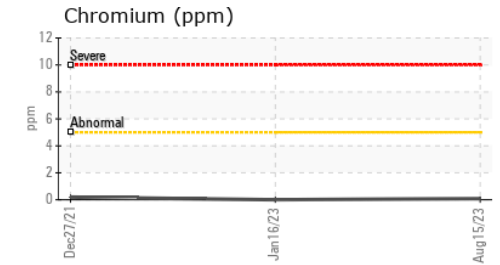
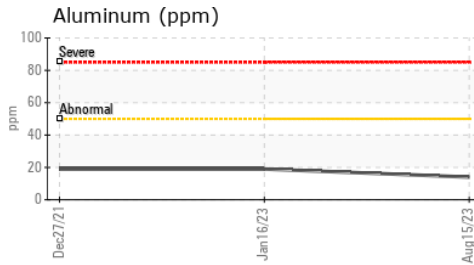
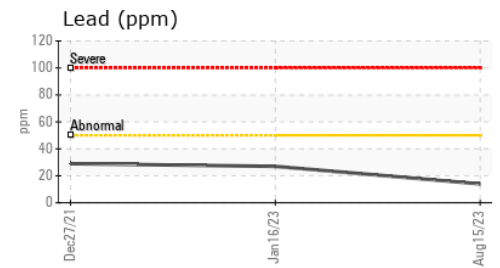
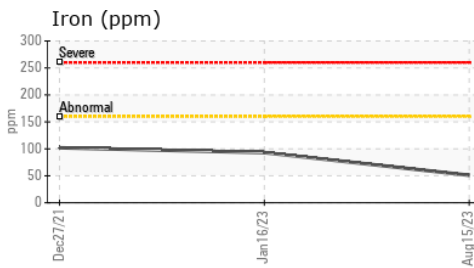


| FLUID PROPERTIES |     | method        | limit/base | current | history1 | history2 |
|------------------|-----|---------------|------------|---------|----------|----------|
| Visc @ 40°C      | cSt | ASTM D7279(m) | 34.8       | 34.1    | 33.5     | 35.7     |

| SAMPLE IMAGES |  | method | limit/base | current | history1 | history2 |
|---------------|--|--------|------------|---------|----------|----------|
|---------------|--|--------|------------|---------|----------|----------|



## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 GFL Environmental - 573 - Vancouver Hauling  
**Sample No.** : GFL0084158 **Received** : 08 Sep 2023 70 Golden Drive,  
**Lab Number** : 02581184 **Diagnosed** : 08 Sep 2023 Coquitlam, BC  
**Unique Number** : 5642249 **Diagnostician** : Wes Davis CA V3K 6B5  
**Test Package** : MOB 1 Contact: Catia Klagenberg Alves  
cklagenbergalves@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.