



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



Machine Id  
**MACK 919012**  
Component  
**Diesel Engine**  
Fluid  
**PETRO CANADA DURON HP 15W40 (--- GAL)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

| Test           | UOM | Method      | Limit/Abn | Current            | History1    | History2    |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number  |     | Client Info |           | <b>GFL0056385</b>  | GFL0056297  | GFL0056286  |
| Sample Date    |     | Client Info |           | <b>02 Apr 2024</b> | 26 Sep 2023 | 17 Aug 2023 |
| Machine Age    | kms | Client Info |           | <b>300696</b>      | 303830      | 296104      |
| 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>     | Changed     | Changed     |
| Filter Changed |     | Client Info |           | <b>Changed</b>     | Changed     | Changed     |
| Sample Status  |     |             |           | <b>NORMAL</b>      | ATTENTION   | ABNORMAL    |

**WEAR**

All component wear rates are normal.

|              |        |               |      |              |     |     |
|--------------|--------|---------------|------|--------------|-----|-----|
| Iron         | ppm    | ASTM D5185(m) | >120 | <b>15</b>    | 45  | 44  |
| Chromium     | ppm    | ASTM D5185(m) | >20  | <b>&lt;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  | <1  |
| Aluminum     | ppm    | ASTM D5185(m) | >20  | <b>2</b>     | 7   | 4   |
| Lead         | ppm    | ASTM D5185(m) | >40  | <b>0</b>     | <1  | 3   |
| Copper       | ppm    | ASTM D5185(m) | >330 | <b>1</b>     | 3   | 4   |
| Tin          | ppm    | ASTM D5185(m) | >15  | <b>0</b>     | <1  | 1   |
| Vanadium     | ppm    | ASTM D5185(m) |      | <b>0</b>     | 0   | 0   |
| White Metal  | scalar | Visual*       | NONE | <b>NONE</b>  | --- | --- |
| Yellow Metal | scalar | Visual*       | NONE | <b>NONE</b>  | --- | --- |

**CONTAMINATION**

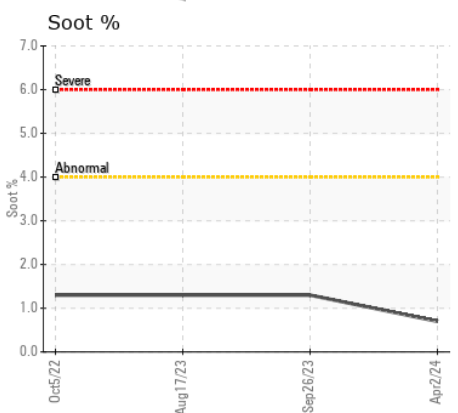
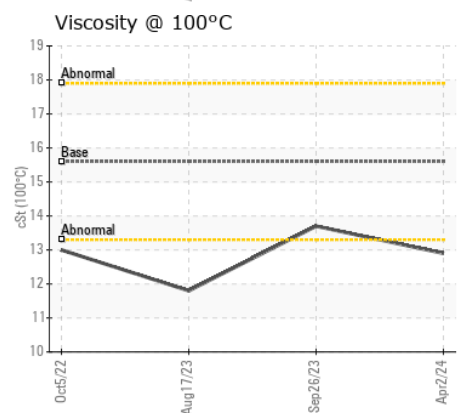
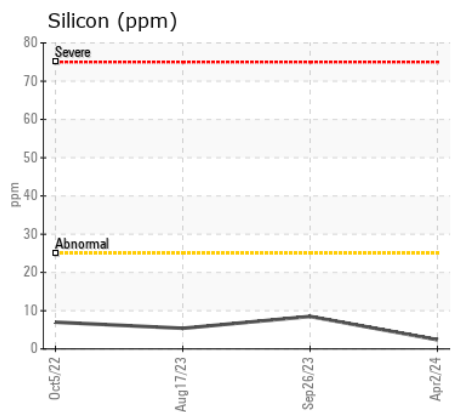
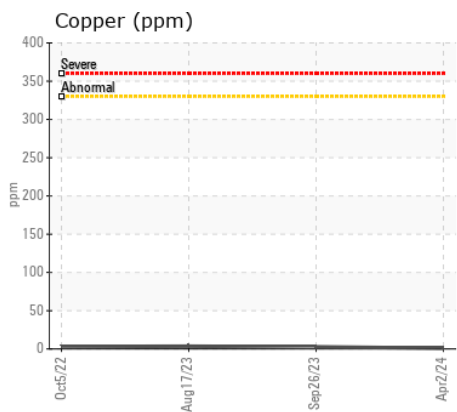
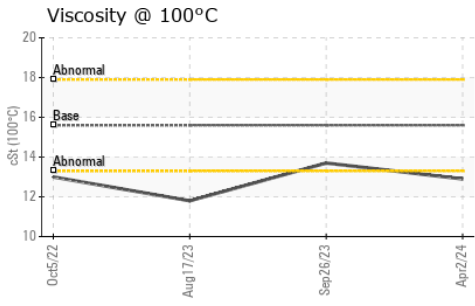
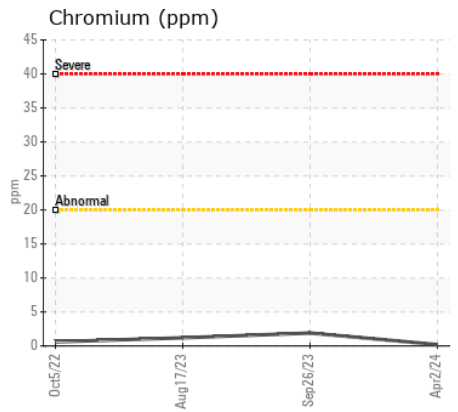
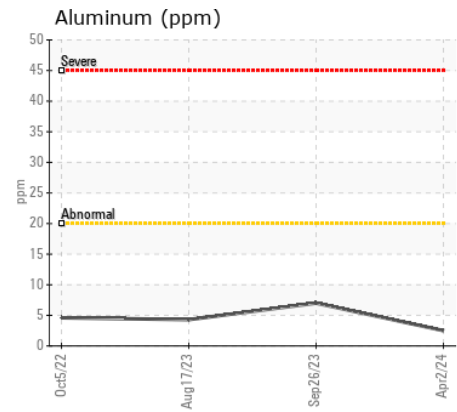
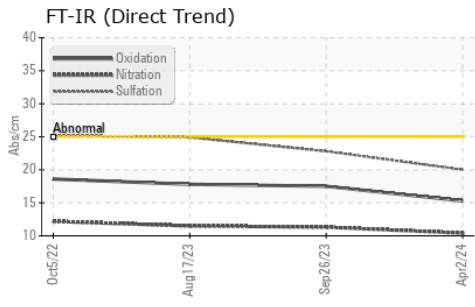
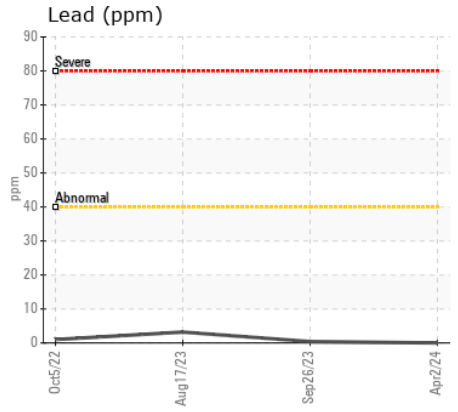
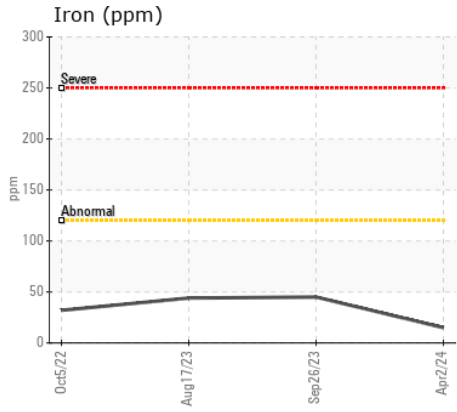
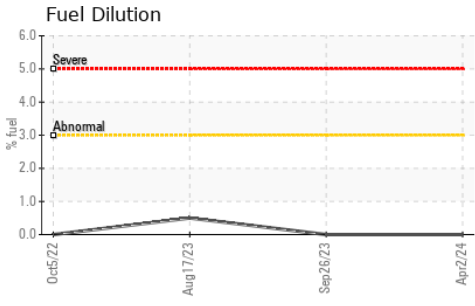
Tests indicate that there is no fuel present in the oil. There is no indication of any contamination in the oil.

|                  |          |               |       |              |       |       |
|------------------|----------|---------------|-------|--------------|-------|-------|
| Silicon          | ppm      | ASTM D5185(m) | >25   | <b>2</b>     | 8     | 5     |
| Potassium        | ppm      | ASTM D5185(m) | >20   | <b>&lt;1</b> | 56    | 2     |
| Fuel             | %        | ASTM D7593*   | >3.0  | <b>0.0</b>   | <1.0  | 0.5   |
| Water            |          | WC Method     | >0.2  | <b>NEG</b>   | NEG   | NEG   |
| Glycol           |          | WC Method     |       | <b>NEG</b>   | 0.0   | NEG   |
| Soot %           | %        | ASTM D7844*   | >4    | <b>0.7</b>   | 1.3   | 1.3   |
| Nitration        | Abs/cm   | ASTM D7624*   | >20   | <b>10.4</b>  | 11.3  | 11.5  |
| Sulfation        | Abs/.1mm | ASTM D7415*   | >30   | <b>20.0</b>  | 22.8  | 24.9  |
| Silt             | scalar   | Visual*       | NONE  | <b>NONE</b>  | ---   | ---   |
| Debris           | scalar   | Visual*       | NONE  | <b>NONE</b>  | ---   | ---   |
| Sand/Dirt        | scalar   | Visual*       | NONE  | <b>NONE</b>  | ---   | ---   |
| Appearance       | scalar   | Visual*       | NORML | <b>NORML</b> | ---   | ---   |
| Odor             | scalar   | Visual*       | NORML | <b>NORML</b> | NORML | NORML |
| 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>5</b>     | ● 212 | 8      |
| Boron        | ppm      | ASTM D5185(m) | 0    | <b>10</b>    | 7     | 6      |
| Barium       | ppm      | ASTM D5185(m) | 0    | <b>0</b>     | 0     | 0      |
| Molybdenum   | ppm      | ASTM D5185(m) | 60   | <b>64</b>    | 69    | 66     |
| Manganese    | ppm      | ASTM D5185(m) | 0    | <b>&lt;1</b> | 0     | <1     |
| Magnesium    | ppm      | ASTM D5185(m) | 1010 | <b>925</b>   | 936   | 876    |
| Calcium      | ppm      | ASTM D5185(m) | 1070 | <b>1062</b>  | 1076  | 1142   |
| Phosphorus   | ppm      | ASTM D5185(m) | 1150 | <b>922</b>   | 968   | 973    |
| Zinc         | ppm      | ASTM D5185(m) | 1270 | <b>1122</b>  | 1173  | 1135   |
| Sulfur       | ppm      | ASTM D5185(m) | 2060 | <b>2370</b>  | 2579  | 2203   |
| Oxidation    | Abs/.1mm | ASTM D7414*   | >25  | <b>15.3</b>  | 17.5  | 17.8   |
| Visc @ 100°C | cSt      | ASTM D7279(m) | 15.6 | <b>12.9</b>  | 13.7  | ▲ 11.8 |



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : GFL0056385 **Received** : 24 Apr 2024  
**Lab Number** : 02631085 **Tested** : 25 Apr 2024  
**Unique Number** : 5772238 **Diagnosed** : 25 Apr 2024 - Wes Davis  
**Test Package** : MOB 1 ( Additional Tests: FuelDilution, PercentFuel, Visual )

**GFL Environmental - 255 - Blind River**  
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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.