



# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id

**Hino**

Component

**1 Diesel Engine**

Fluid

**PETRO CANADA 10W30 (26 LTR)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

Metal levels are typical for a new component breaking in.

### Contamination

There is no indication of any contamination in the oil.

### Fluid Condition

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

## SAMPLE INFORMATION

|               | method      | limit/base  | current            | history1 | history2 |
|---------------|-------------|-------------|--------------------|----------|----------|
| Sample Number | Client Info |             | <b>GFL0064777</b>  | ---      | ---      |
| Sample Date   | Client Info |             | <b>03 Oct 2023</b> | ---      | ---      |
| Machine Age   | kms         | Client Info | <b>30000</b>       | ---      | ---      |
| Oil Age       | kms         | Client Info | <b>10000</b>       | ---      | ---      |
| Oil Changed   | Client Info |             | <b>Changed</b>     | ---      | ---      |
| Sample Status |             |             | <b>NORMAL</b>      | ---      | ---      |

## CONTAMINATION

|        | method    | limit/base | current        | history1 | history2 |
|--------|-----------|------------|----------------|----------|----------|
| Fuel   | WC Method | >5         | <b>&lt;1.0</b> | ---      | ---      |
| Glycol | WC Method |            | <b>NEG</b>     | ---      | ---      |

## WEAR METALS

|           | method | limit/base         | current      | history1 | history2 |
|-----------|--------|--------------------|--------------|----------|----------|
| Iron      | ppm    | ASTM D5185(m) >100 | <b>16</b>    | ---      | ---      |
| Chromium  | ppm    | ASTM D5185(m) >20  | <b>&lt;1</b> | ---      | ---      |
| Nickel    | ppm    | ASTM D5185(m) >4   | <b>0</b>     | ---      | ---      |
| Titanium  | ppm    | ASTM D5185(m)      | <b>0</b>     | ---      | ---      |
| Silver    | ppm    | ASTM D5185(m) >3   | <b>1</b>     | ---      | ---      |
| Aluminum  | ppm    | ASTM D5185(m) >20  | <b>3</b>     | ---      | ---      |
| Lead      | ppm    | ASTM D5185(m) >40  | <b>1</b>     | ---      | ---      |
| Copper    | ppm    | ASTM D5185(m) >330 | <b>26</b>    | ---      | ---      |
| Tin       | ppm    | ASTM D5185(m) >15  | <b>0</b>     | ---      | ---      |
| Antimony  | ppm    | ASTM D5185(m)      | <b>0</b>     | ---      | ---      |
| Vanadium  | ppm    | ASTM D5185(m)      | <b>0</b>     | ---      | ---      |
| Beryllium | ppm    | ASTM D5185(m)      | <b>0</b>     | ---      | ---      |
| Cadmium   | ppm    | ASTM D5185(m)      | <b>0</b>     | ---      | ---      |

## ADDITIVES

|            | method | limit/base    | current      | history1 | history2 |
|------------|--------|---------------|--------------|----------|----------|
| Boron      | ppm    | ASTM D5185(m) | <b>26</b>    | ---      | ---      |
| Barium     | ppm    | ASTM D5185(m) | <b>&lt;1</b> | ---      | ---      |
| Molybdenum | ppm    | ASTM D5185(m) | <b>88</b>    | ---      | ---      |
| Manganese  | ppm    | ASTM D5185(m) | <b>0</b>     | ---      | ---      |
| Magnesium  | ppm    | ASTM D5185(m) | <b>56</b>    | ---      | ---      |
| Calcium    | ppm    | ASTM D5185(m) | <b>2116</b>  | ---      | ---      |
| Phosphorus | ppm    | ASTM D5185(m) | <b>949</b>   | ---      | ---      |
| Zinc       | ppm    | ASTM D5185(m) | <b>1127</b>  | ---      | ---      |
| Sulfur     | ppm    | ASTM D5185(m) | <b>3047</b>  | ---      | ---      |
| Lithium    | ppm    | ASTM D5185(m) | <b>&lt;1</b> | ---      | ---      |

## CONTAMINANTS

|           | method | limit/base        | current  | history1 | history2 |
|-----------|--------|-------------------|----------|----------|----------|
| Silicon   | ppm    | ASTM D5185(m) >25 | <b>5</b> | ---      | ---      |
| Sodium    | ppm    | ASTM D5185(m)     | <b>3</b> | ---      | ---      |
| Potassium | ppm    | ASTM D5185(m) >20 | <b>2</b> | ---      | ---      |

## INFRA-RED

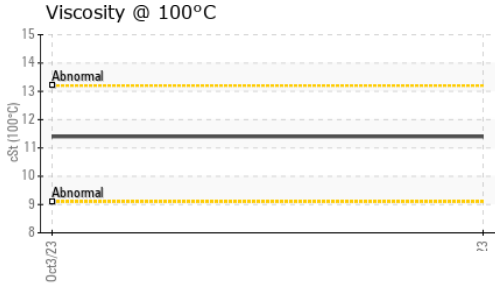
|           | method   | limit/base      | current     | history1 | history2 |
|-----------|----------|-----------------|-------------|----------|----------|
| Soot %    | %        | ASTM D7844* >3  | <b>0.5</b>  | ---      | ---      |
| Nitration | Abs/cm   | ASTM D7624* >20 | <b>10.5</b> | ---      | ---      |
| Sulfation | Abs/.1mm | ASTM D7415* >30 | <b>20.1</b> | ---      | ---      |

## FLUID DEGRADATION

|           | method   | limit/base      | current     | history1 | history2 |
|-----------|----------|-----------------|-------------|----------|----------|
| Oxidation | Abs/.1mm | ASTM D7414* >25 | <b>16.1</b> | ---      | ---      |



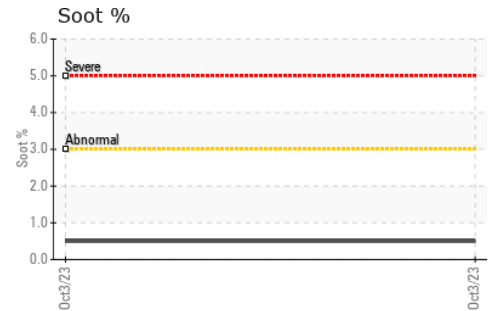
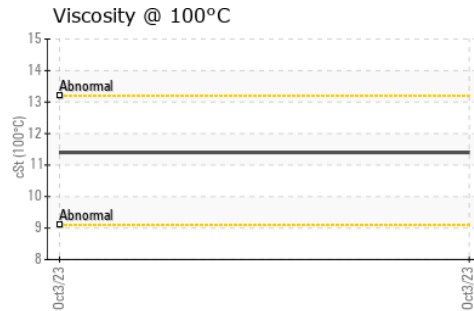
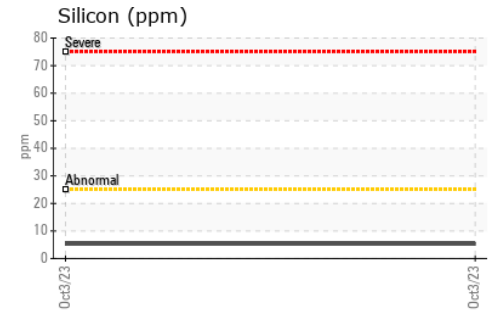
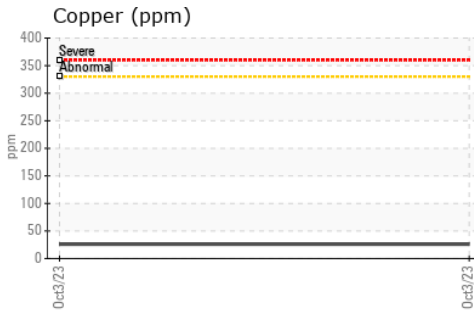
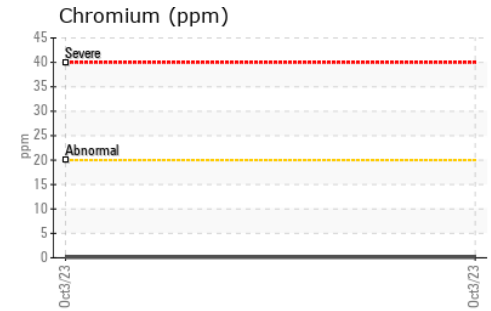
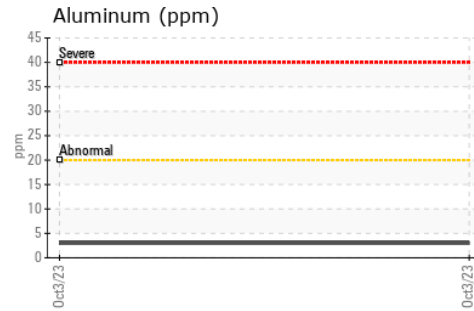
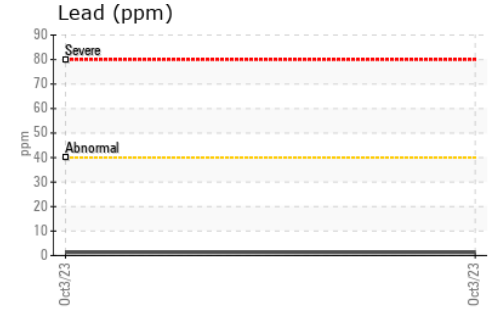
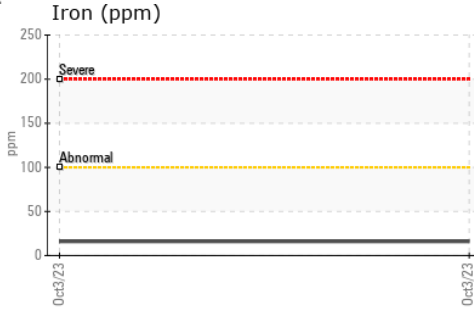
# OIL ANALYSIS REPORT



| VISUAL           | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| Emulsified Water | scalar | Visual*    | >0.2    | NEG      | ---      |
| Free Water       | scalar | Visual*    |         | NEG      | ---      |

| FLUID PROPERTIES | method | limit/base    | current | history1 | history2 |
|------------------|--------|---------------|---------|----------|----------|
| Visc @ 100°C     | cSt    | ASTM D7279(m) | 11.4    | ---      | ---      |

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **GFL Environmental - 213 - Kitchener**  
**Sample No.** : GFL0064777 **Received** : 04 Oct 2023 16 Centennial Road, Kitchener Yard  
**Lab Number** : 02586699 **Diagnosed** : 04 Oct 2023 Kitchener, ON  
**Unique Number** : 5655765 **Diagnostician** : Wes Davis CA N2B 3G1  
**Test Package** : MOB 1

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.

Contact: Keith Zehr  
 kzehr@gflenv.com  
 T: (226)751-4416  
 F: x: