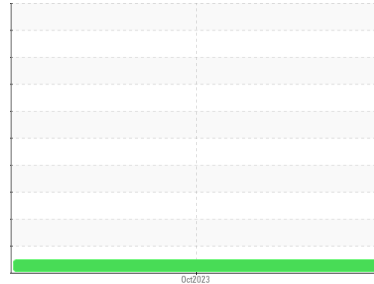


Area  
**SHARP BUS LINES**  
Machine Id  
**INTERNATIONAL 1182**  
Component  
**Diesel Engine**  
Fluid  
**PETRO CANADA DURON HP 15W40 (--- GAL)**



**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 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>PC0081534</b>   | ---      | ---      |
| Sample Date        | Client Info |             |            | <b>25 Oct 2023</b> | ---      | ---      |
| Machine Age        | kms         | Client Info |            | <b>161622</b>      | ---      | ---      |
| Oil Age            | kms         | Client Info |            | <b>2639</b>        | ---      | ---      |
| Oil Changed        | Client Info |             |            | <b>Changed</b>     | ---      | ---      |
| Sample Status      |             |             |            | <b>NORMAL</b>      | ---      | ---      |

| CONTAMINATION |           | method | limit/base | current        | history1 | history2 |
|---------------|-----------|--------|------------|----------------|----------|----------|
| Fuel          | WC Method | >2.0   |            | <b>&lt;1.0</b> | ---      | ---      |
| Water         | WC Method | >0.2   |            | <b>NEG</b>     | ---      | ---      |
| Glycol        | WC Method |        |            | <b>NEG</b>     | ---      | ---      |

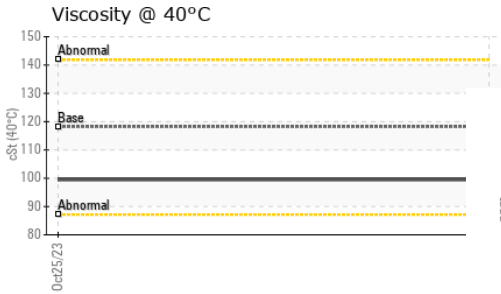
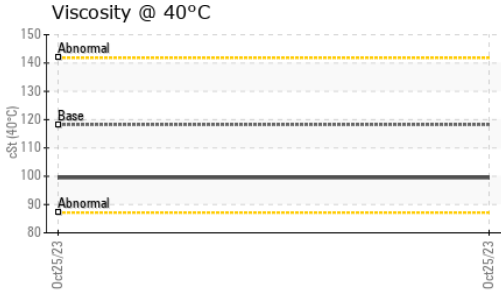
| WEAR METALS |     | method        | limit/base | current      | history1 | history2 |
|-------------|-----|---------------|------------|--------------|----------|----------|
| Iron        | ppm | ASTM D5185(m) | >127       | <b>5</b>     | ---      | ---      |
| Chromium    | ppm | ASTM D5185(m) | >3         | <b>0</b>     | ---      | ---      |
| Nickel      | ppm | ASTM D5185(m) | >30        | <b>0</b>     | ---      | ---      |
| Titanium    | ppm | ASTM D5185(m) | >2         | <b>0</b>     | ---      | ---      |
| Silver      | ppm | ASTM D5185(m) | >2         | <b>&lt;1</b> | ---      | ---      |
| Aluminum    | ppm | ASTM D5185(m) | >59        | <b>1</b>     | ---      | ---      |
| Lead        | ppm | ASTM D5185(m) | >29        | <b>&lt;1</b> | ---      | ---      |
| Copper      | ppm | ASTM D5185(m) | >135       | <b>&lt;1</b> | ---      | ---      |
| Tin         | ppm | ASTM D5185(m) | >2         | <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) | 0          | <b>2</b>     | ---      | ---      |
| Barium     | ppm | ASTM D5185(m) | 0          | <b>&lt;1</b> | ---      | ---      |
| Molybdenum | ppm | ASTM D5185(m) | 60         | <b>57</b>    | ---      | ---      |
| Manganese  | ppm | ASTM D5185(m) | 0          | <b>0</b>     | ---      | ---      |
| Magnesium  | ppm | ASTM D5185(m) | 1010       | <b>925</b>   | ---      | ---      |
| Calcium    | ppm | ASTM D5185(m) | 1070       | <b>1031</b>  | ---      | ---      |
| Phosphorus | ppm | ASTM D5185(m) | 1150       | <b>979</b>   | ---      | ---      |
| Zinc       | ppm | ASTM D5185(m) | 1270       | <b>1148</b>  | ---      | ---      |
| Sulfur     | ppm | ASTM D5185(m) | 2060       | <b>2480</b>  | ---      | ---      |
| Lithium    | ppm | ASTM D5185(m) |            | <b>&lt;1</b> | ---      | ---      |

| CONTAMINANTS |     | method        | limit/base | current  | history1 | history2 |
|--------------|-----|---------------|------------|----------|----------|----------|
| Silicon      | ppm | ASTM D5185(m) | >18        | <b>2</b> | ---      | ---      |
| Sodium       | ppm | ASTM D5185(m) |            | <b>2</b> | ---      | ---      |
| Potassium    | ppm | ASTM D5185(m) | >20        | <b>0</b> | ---      | ---      |

| INFRA-RED |          | method      | limit/base | current     | history1 | history2 |
|-----------|----------|-------------|------------|-------------|----------|----------|
| Soot %    | %        | ASTM D7844* | >3         | <b>0.1</b>  | ---      | ---      |
| Nitration | Abs/cm   | ASTM D7624* | >20        | <b>6.8</b>  | ---      | ---      |
| Sulfation | Abs./1mm | ASTM D7415* | >30        | <b>19.8</b> | ---      | ---      |

# OIL ANALYSIS REPORT

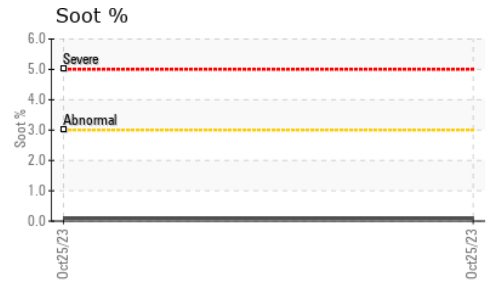
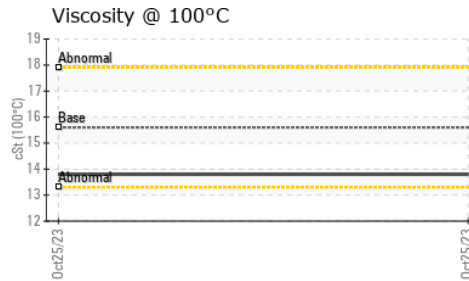
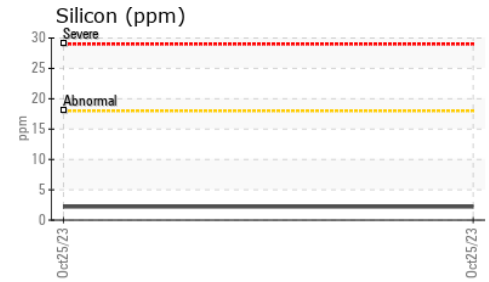
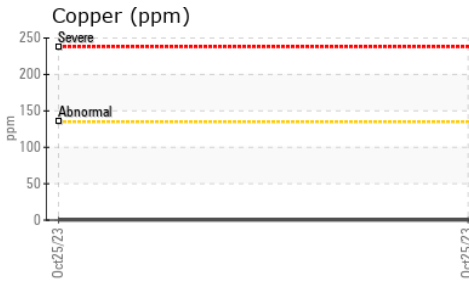
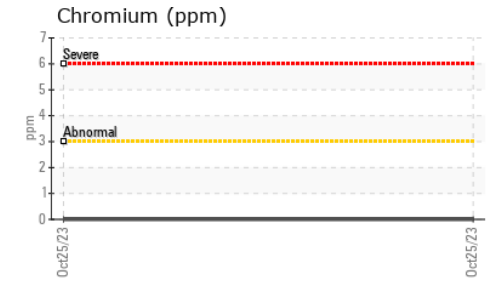
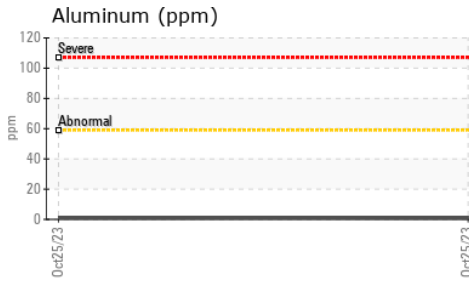
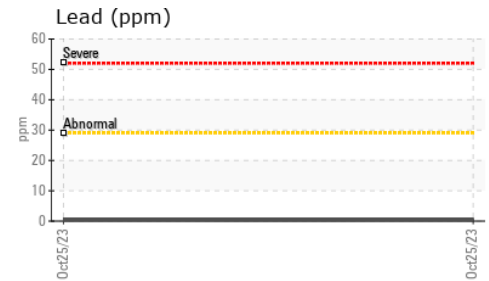
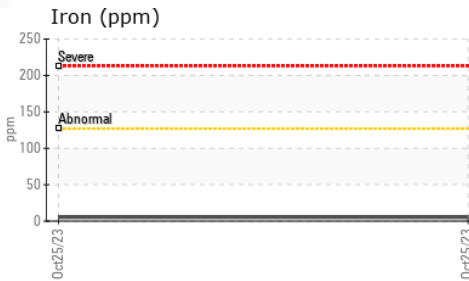


| FLUID DEGRADATION |          | method      | limit/base | current     | history1 | history2 |
|-------------------|----------|-------------|------------|-------------|----------|----------|
| Oxidation         | Abs./1mm | ASTM D7414* | >25        | <b>15.5</b> | ---      | ---      |

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

| FLUID PROPERTIES     |       | method        | limit/base | current     | history1 | history2 |
|----------------------|-------|---------------|------------|-------------|----------|----------|
| Visc @ 40°C          | cSt   | ASTM D7279(m) | 118.2      | <b>99.5</b> | ---      | ---      |
| Visc @ 100°C         | cSt   | ASTM D7279(m) | 15.6       | <b>13.8</b> | ---      | ---      |
| Viscosity Index (VI) | Scale | ASTM D2270*   | 139        | <b>140</b>  | ---      | ---      |

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : PC0081534 **Received** : 22 Nov 2023  
**Lab Number** : **02598156** **Diagnosed** : 22 Nov 2023  
**Unique Number** : 5683236 **Diagnostician** : Wes Davis  
**Test Package** : MOB 1 ( Additional Tests: KV40, VI )

**ICSB - Brantford**  
 567 Oak Park Rd.  
 Brantford, ON  
 CA N3T 5L8  
 Contact: Doug Hall  
 Djhall@sharpbus.com  
 T: (519)751-3434  
 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.