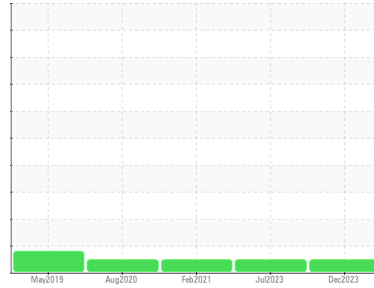


# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Machine Id  
**1926715**

Component  
**Diesel Engine**

Fluid  
**PETRO CANADA DURON SHP 10W30 (--- QTS)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

### Wear

All component wear rates are normal.

### Contamination

There is no indication of any contamination in the oil.

### Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

## SAMPLE INFORMATION

|               | method      | limit/base  | current            | history1    | history2    |
|---------------|-------------|-------------|--------------------|-------------|-------------|
| Sample Number | Client Info |             | <b>PCA0113307</b>  | PCA0098170  | PCA05182217 |
| Sample Date   | Client Info |             | <b>05 Dec 2023</b> | 16 Jul 2023 | 13 Feb 2021 |
| Machine Age   | mls         | Client Info | <b>447585</b>      | 0           | 0           |
| Oil Age       | mls         | Client Info | <b>0</b>           | 0           | 0           |
| Oil Changed   | Client Info |             | <b>N/A</b>         | Changed     | N/A         |
| Sample Status |             |             | <b>NORMAL</b>      | NORMAL      | NORMAL      |

## CONTAMINATION

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

## WEAR METALS

|          | method | limit/base       | current      | history1 | history2 |
|----------|--------|------------------|--------------|----------|----------|
| Iron     | ppm    | ASTM D5185m >100 | <b>28</b>    | 49       | 24       |
| Chromium | ppm    | ASTM D5185m >20  | <b>&lt;1</b> | <1       | <1       |
| Nickel   | ppm    | ASTM D5185m >4   | <b>0</b>     | <1       | <1       |
| Titanium | ppm    | ASTM D5185m      | <b>&lt;1</b> | 0        | <1       |
| Silver   | ppm    | ASTM D5185m >3   | <b>0</b>     | 0        | <1       |
| Aluminum | ppm    | ASTM D5185m >20  | <b>1</b>     | 2        | 2        |
| Lead     | ppm    | ASTM D5185m >40  | <b>1</b>     | 2        | 1        |
| Copper   | ppm    | ASTM D5185m >330 | <b>3</b>     | 7        | 12       |
| Tin      | ppm    | ASTM D5185m >15  | <b>&lt;1</b> | 1        | 2        |
| Antimony | ppm    | ASTM D5185m      | <b>---</b>   | ---      | 0        |
| Vanadium | ppm    | ASTM D5185m      | <b>0</b>     | 0        | 0        |
| Cadmium  | ppm    | ASTM D5185m      | <b>&lt;1</b> | 0        | 0        |

## ADDITIVES

|            | method | limit/base       | current      | history1 | history2 |
|------------|--------|------------------|--------------|----------|----------|
| Boron      | ppm    | ASTM D5185m 2    | <b>0</b>     | 0        | 3        |
| Barium     | ppm    | ASTM D5185m 0    | <b>10</b>    | 0        | 0        |
| Molybdenum | ppm    | ASTM D5185m 50   | <b>45</b>    | 57       | 60       |
| Manganese  | ppm    | ASTM D5185m 0    | <b>&lt;1</b> | <1       | <1       |
| Magnesium  | ppm    | ASTM D5185m 950  | <b>669</b>   | 861      | 913      |
| Calcium    | ppm    | ASTM D5185m 1050 | <b>1161</b>  | 1046     | 1136     |
| Phosphorus | ppm    | ASTM D5185m 995  | <b>474</b>   | 934      | 978      |
| Zinc       | ppm    | ASTM D5185m 1180 | <b>1416</b>  | 1160     | 1203     |
| Sulfur     | ppm    | ASTM D5185m 2600 | <b>2261</b>  | 2461     | 2393     |

## CONTAMINANTS

|           | method | limit/base      | current   | history1 | history2 |
|-----------|--------|-----------------|-----------|----------|----------|
| Silicon   | ppm    | ASTM D5185m >25 | <b>2</b>  | 6        | 3        |
| Sodium    | ppm    | ASTM D5185m     | <b>11</b> | 16       | 6        |
| Potassium | ppm    | ASTM D5185m >20 | <b>8</b>  | 2        | <1       |

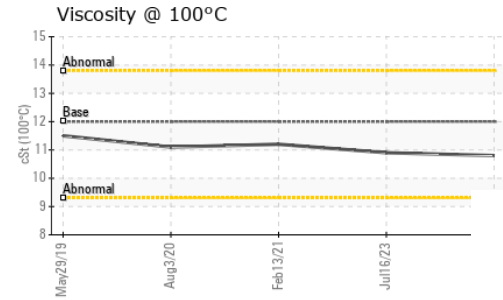
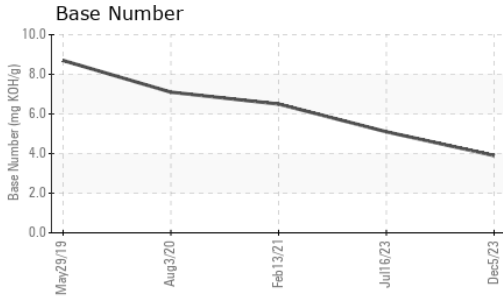
## INFRA-RED

|           | method   | limit/base      | current     | history1 | history2 |
|-----------|----------|-----------------|-------------|----------|----------|
| Soot %    | %        | *ASTM D7844 >3  | <b>0.8</b>  | 0.8      | 0.8      |
| Nitration | Abs/cm   | *ASTM D7624 >20 | <b>10.6</b> | 11.1     | 10.2     |
| Sulfation | Abs/.1mm | *ASTM D7415 >30 | <b>23.9</b> | 23.3     | 22.9     |

## FLUID DEGRADATION

|                  | method   | limit/base      | current     | history1 | history2 |
|------------------|----------|-----------------|-------------|----------|----------|
| Oxidation        | Abs/.1mm | *ASTM D7414 >25 | <b>20.2</b> | 20.0     | 18.2     |
| Base Number (BN) | mg KOH/g | ASTM D2896      | <b>3.9</b>  | 5.1      | 6.5      |

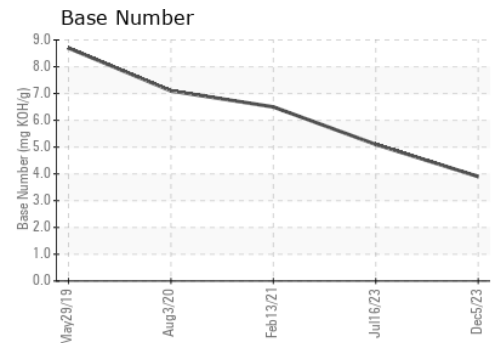
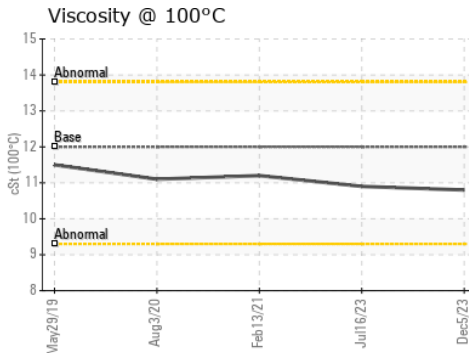
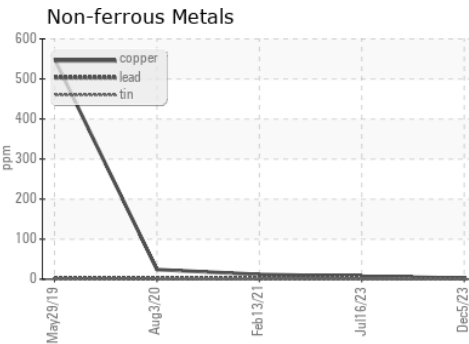
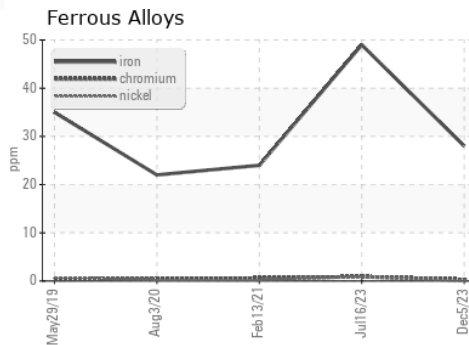
# OIL ANALYSIS REPORT



| VISUAL           | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| White Metal      | scalar | *Visual    | NONE    | NONE     | NONE     |
| Yellow Metal     | scalar | *Visual    | NONE    | NONE     | NONE     |
| Precipitate      | scalar | *Visual    | NONE    | NONE     | NONE     |
| Silt             | scalar | *Visual    | NONE    | NONE     | NONE     |
| Debris           | scalar | *Visual    | NONE    | NONE     | NONE     |
| Sand/Dirt        | scalar | *Visual    | NONE    | NONE     | NONE     |
| Appearance       | scalar | *Visual    | NORML   | NORML    | NORML    |
| Odor             | scalar | *Visual    | NORML   | NORML    | NORML    |
| Emulsified Water | scalar | *Visual    | >0.2    | NEG      | NEG      |
| Free Water       | scalar | *Visual    |         | NEG      | NEG      |

| FLUID PROPERTIES | method | limit/base | current | history1    | history2 |      |
|------------------|--------|------------|---------|-------------|----------|------|
| Visc @ 100°C     | cSt    | ASTM D445  | 12.00   | <b>10.8</b> | 10.9     | 11.2 |

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PCA0113307 **Received** : 13 Dec 2023  
**Lab Number** : **06033279** **Diagnosed** : 14 Dec 2023  
**Unique Number** : 10783070 **Diagnostician** : Wes Davis  
**Test Package** : FLEET

**PERDUE FARMS - PRINCE GEORGE**  
 6012 HARDWARE DR  
 PRINCE GEORGE, VA  
 US 23875  
 Contact: MICHAEL DAVIS  
 MICHAELP.DAVIS@PERDUE.COM

To discuss this sample report, contact Customer Service at 1-800-237-1369.

\* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

T:  
F: