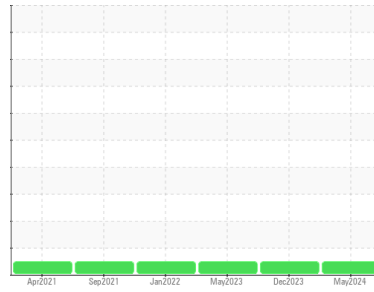


# OIL ANALYSIS REPORT

## Sample Rating Trend



**NORMAL**



Machine Id  
**2026830**  
 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>PCA0120143</b>  | PCA0108059  | PCA0097137  |
| Sample Date        | Client Info |             |            | <b>17 May 2024</b> | 26 Dec 2023 | 02 May 2023 |
| Machine Age        | mls         | Client Info |            | <b>334387</b>      | 295674      | 256717      |
| Oil Age            | mls         | Client Info |            | <b>40000</b>       | 40000       | 20000       |
| Oil Changed        | Client Info |             |            | <b>Changed</b>     | Changed     | Changed     |
| 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>52</b>    | 50       | 50       |
| Chromium    | ppm | ASTM D5185m | >20        | <b>1</b>     | <1       | <1       |
| Nickel      | ppm | ASTM D5185m | >4         | <b>1</b>     | <1       | <1       |
| Titanium    | ppm | ASTM D5185m |            | <b>&lt;1</b> | <1       | <1       |
| Silver      | ppm | ASTM D5185m | >3         | <b>1</b>     | 0        | 0        |
| Aluminum    | ppm | ASTM D5185m | >20        | <b>5</b>     | 6        | 6        |
| Lead        | ppm | ASTM D5185m | >40        | <b>3</b>     | 2        | 1        |
| Copper      | ppm | ASTM D5185m | >330       | <b>9</b>     | 14       | 12       |
| Tin         | ppm | ASTM D5185m | >15        | <b>2</b>     | 2        | 1        |
| Antimony    | ppm | ASTM D5185m |            | <b>---</b>   | ---      | ---      |
| Vanadium    | ppm | ASTM D5185m |            | <b>&lt;1</b> | 0        | 0        |
| Cadmium     | ppm | ASTM D5185m |            | <b>&lt;1</b> | 0        | 0        |

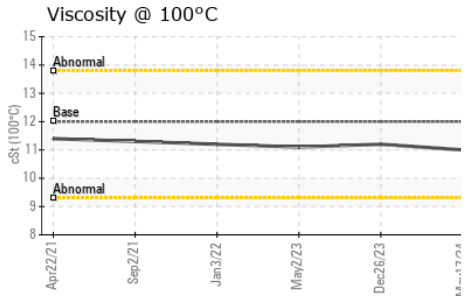
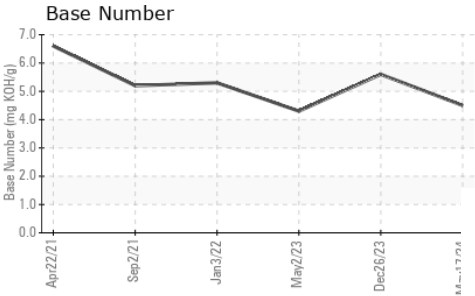
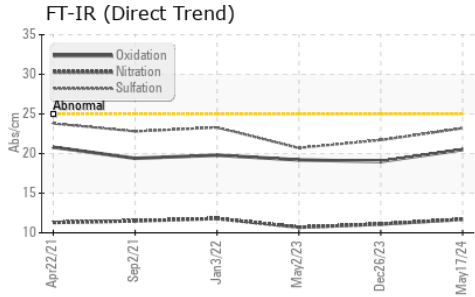
| ADDITIVES  |     | method      | limit/base | current     | history1 | history2 |
|------------|-----|-------------|------------|-------------|----------|----------|
| Boron      | ppm | ASTM D5185m | 2          | <b>0</b>    | <1       | 4        |
| Barium     | ppm | ASTM D5185m | 0          | <b>1</b>    | 0        | 0        |
| Molybdenum | ppm | ASTM D5185m | 50         | <b>64</b>   | 62       | 61       |
| Manganese  | ppm | ASTM D5185m | 0          | <b>1</b>    | 1        | 1        |
| Magnesium  | ppm | ASTM D5185m | 950        | <b>970</b>  | 1028     | 993      |
| Calcium    | ppm | ASTM D5185m | 1050       | <b>1114</b> | 1177     | 1188     |
| Phosphorus | ppm | ASTM D5185m | 995        | <b>990</b>  | 1064     | 980      |
| Zinc       | ppm | ASTM D5185m | 1180       | <b>1252</b> | 1271     | 1251     |
| Sulfur     | ppm | ASTM D5185m | 2600       | <b>2841</b> | 2969     | 2984     |

| CONTAMINANTS |     | method      | limit/base | current  | history1 | history2 |
|--------------|-----|-------------|------------|----------|----------|----------|
| Silicon      | ppm | ASTM D5185m | >25        | <b>7</b> | 7        | 6        |
| Sodium       | ppm | ASTM D5185m |            | <b>2</b> | 2        | 1        |
| Potassium    | ppm | ASTM D5185m | >20        | <b>4</b> | 4        | 4        |

| INFRA-RED |          | method      | limit/base | current     | history1 | history2 |
|-----------|----------|-------------|------------|-------------|----------|----------|
| Soot %    | %        | *ASTM D7844 | >3         | <b>0.6</b>  | 0.6      | 0.4      |
| Nitration | Abs/cm   | *ASTM D7624 | >20        | <b>11.7</b> | 11.1     | 10.7     |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30        | <b>23.2</b> | 21.7     | 20.7     |

| FLUID DEGRADATION |          | method      | limit/base | current     | history1 | history2 |
|-------------------|----------|-------------|------------|-------------|----------|----------|
| Oxidation         | Abs/.1mm | *ASTM D7414 | >25        | <b>20.5</b> | 19.0     | 19.2     |
| Base Number (BN)  | mg KOH/g | ASTM D2896  |            | <b>4.5</b>  | 5.6      | 4.3      |

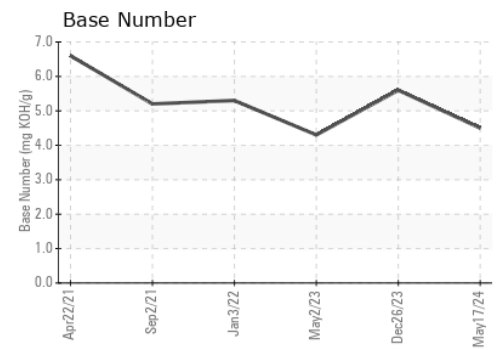
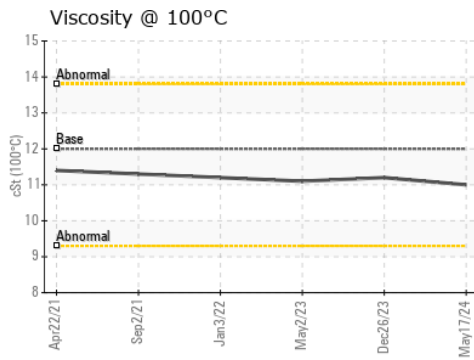
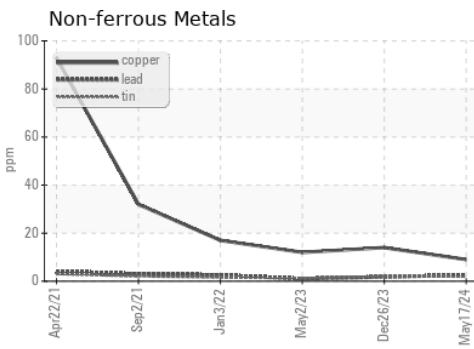
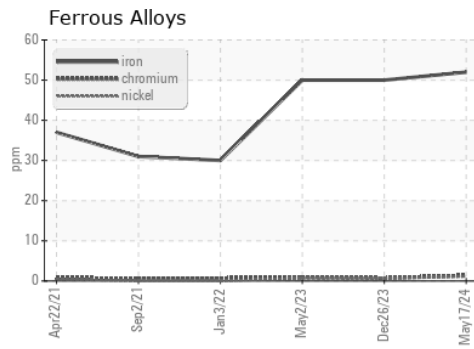
# OIL ANALYSIS REPORT



| PARAMETER        | 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>11.0</b> | 11.2     | 11.1 |

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PCA0120143      **Received** : 28 May 2024  
**Lab Number** : **06191849**      **Tested** : 29 May 2024  
**Unique Number** : 11048601      **Diagnosed** : 30 May 2024 - Sean Felton  
**Test Package** : FLEET

**PERDUE FARMS - Lewiston**  
 210 GRIFFINS QUARTER RD  
 LEWISTON, NC  
 US 27849  
 Contact: NELSON WALLACE  
 nelson.wallace2@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)