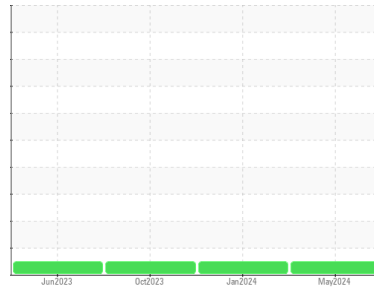


# OIL ANALYSIS REPORT

## Sample Rating Trend



**NORMAL**



Machine Id  
**226649**  
 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

Metal levels are typical for a new component breaking in.

### 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>PCA0127022</b>  | PCA0117039  | PCA0106283  |
| Sample Date   | Client Info |             | <b>24 May 2024</b> | 19 Jan 2024 | 12 Oct 2023 |
| Machine Age   | mls         | Client Info | <b>32468</b>       | 24481       | 18369       |
| Oil Age       | mls         | Client Info | <b>0</b>           | 0           | 0           |
| Oil Changed   | Client Info |             | <b>N/A</b>         | Changed     | Not Chngd   |
| 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>61</b>    | 94       | 125      |
| Chromium | ppm    | ASTM D5185m >20  | <b>2</b>     | 3        | 4        |
| Nickel   | ppm    | ASTM D5185m >4   | <b>1</b>     | 1        | 1        |
| Titanium | ppm    | ASTM D5185m      | <b>0</b>     | <1       | <1       |
| Silver   | ppm    | ASTM D5185m >3   | <b>0</b>     | 0        | 0        |
| Aluminum | ppm    | ASTM D5185m >20  | <b>13</b>    | 17       | 24       |
| Lead     | ppm    | ASTM D5185m >40  | <b>&lt;1</b> | 0        | 0        |
| Copper   | ppm    | ASTM D5185m >330 | <b>21</b>    | 35       | 55       |
| Tin      | ppm    | ASTM D5185m >15  | <b>3</b>     | 4        | 6        |
| Vanadium | ppm    | ASTM D5185m      | <b>0</b>     | 0        | 0        |
| Cadmium  | ppm    | ASTM D5185m      | <b>0</b>     | 0        | 0        |

## ADDITIVES

|            | method | limit/base       | current     | history1 | history2 |
|------------|--------|------------------|-------------|----------|----------|
| Boron      | ppm    | ASTM D5185m 2    | <b>8</b>    | 14       | 24       |
| Barium     | ppm    | ASTM D5185m 0    | <b>0</b>    | 3        | 0        |
| Molybdenum | ppm    | ASTM D5185m 50   | <b>60</b>   | 56       | 45       |
| Manganese  | ppm    | ASTM D5185m 0    | <b>3</b>    | 7        | 12       |
| Magnesium  | ppm    | ASTM D5185m 950  | <b>865</b>  | 770      | 575      |
| Calcium    | ppm    | ASTM D5185m 1050 | <b>1270</b> | 1546     | 1864     |
| Phosphorus | ppm    | ASTM D5185m 995  | <b>997</b>  | 1014     | 839      |
| Zinc       | ppm    | ASTM D5185m 1180 | <b>1188</b> | 1167     | 1002     |
| Sulfur     | ppm    | ASTM D5185m 2600 | <b>2924</b> | 2892     | 2137     |

## CONTAMINANTS

|           | method | limit/base      | current   | history1 | history2 |
|-----------|--------|-----------------|-----------|----------|----------|
| Silicon   | ppm    | ASTM D5185m >25 | <b>10</b> | 10       | 17       |
| Sodium    | ppm    | ASTM D5185m     | <b>2</b>  | <1       | 9        |
| Potassium | ppm    | ASTM D5185m >20 | <b>31</b> | 47       | 57       |

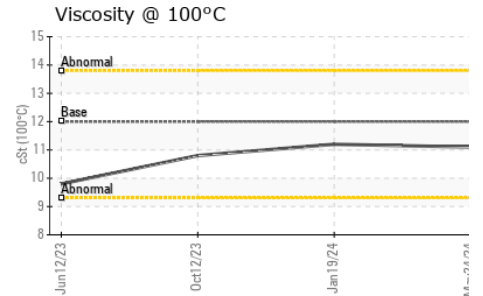
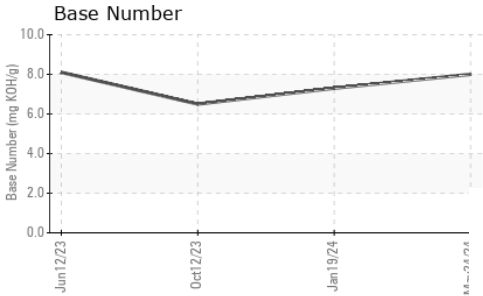
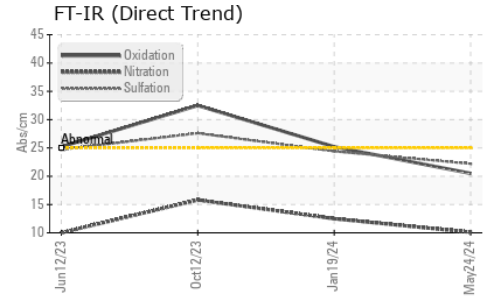
## INFRA-RED

|           | method   | limit/base      | current     | history1 | history2 |
|-----------|----------|-----------------|-------------|----------|----------|
| Soot %    | %        | *ASTM D7844 >3  | <b>0.6</b>  | 0.8      | 1.1      |
| Nitration | Abs/cm   | *ASTM D7624 >20 | <b>10.1</b> | 12.5     | 15.8     |
| Sulfation | Abs/.1mm | *ASTM D7415 >30 | <b>22.2</b> | 24.4     | 27.6     |

## FLUID DEGRADATION

|                  | method   | limit/base      | current     | history1 | history2 |
|------------------|----------|-----------------|-------------|----------|----------|
| Oxidation        | Abs/.1mm | *ASTM D7414 >25 | <b>20.5</b> | 25.2     | 32.5     |
| Base Number (BN) | mg KOH/g | ASTM D2896      | <b>8.0</b>  | 7.3      | 6.5      |

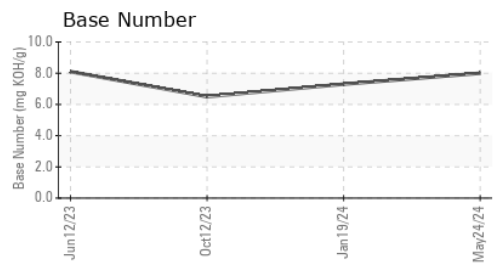
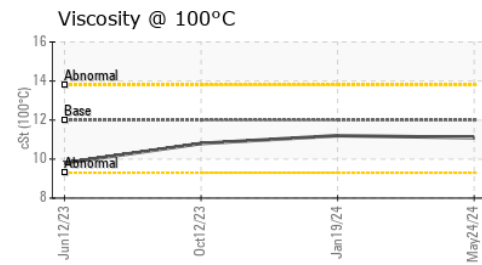
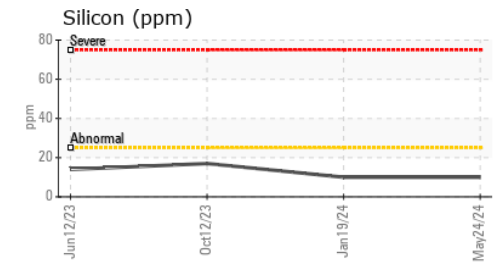
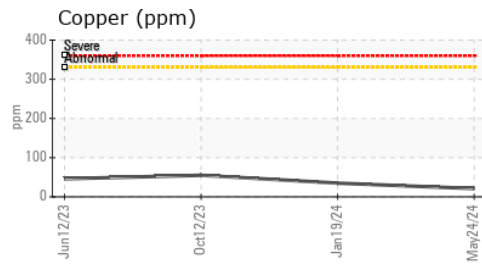
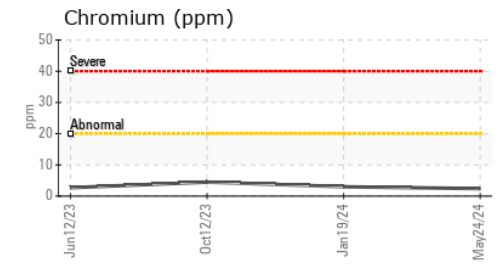
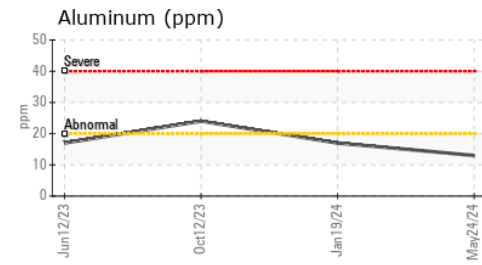
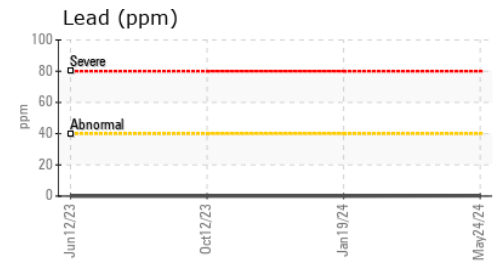
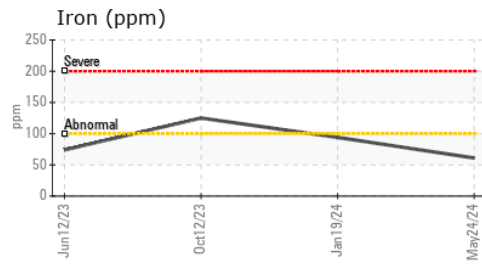
# OIL ANALYSIS REPORT



| 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   | 11.1     | 11.2     |

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PCA0127022      **Received** : 30 May 2024  
**Lab Number** : 06195026      **Tested** : 31 May 2024  
**Unique Number** : 11057149      **Diagnosed** : 31 May 2024 - Wes Davis  
**Test Package** : MOB 1 ( Additional Tests: TBN )

**MILLER TRUCK LEASING #119**  
 39 INDUSTRIAL AVE  
 HASBROUCK HEIGHTS, NJ  
 US 07604  
 Contact: MIKE LONGETTE  
 mlongette@millertransgroup.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)      F: (201)528-7053