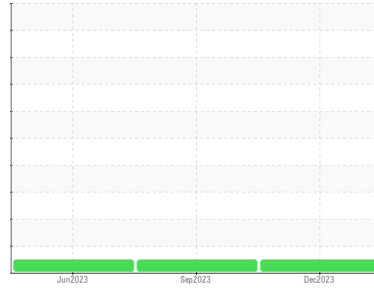


# OIL ANALYSIS REPORT

## Sample Rating Trend



**NORMAL**



Machine Id  
**130532**  
 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>PCA0113413</b>  | PCA0106256  | PCA0092336  |
| Sample Date        | Client Info |             |            | <b>11 Dec 2023</b> | 21 Sep 2023 | 21 Jun 2023 |
| Machine Age        | mls         | Client Info |            | <b>50026</b>       | 0           | 29357       |
| Oil Age            | mls         | Client Info |            | <b>0</b>           | 0           | 0           |
| Oil Changed        | Client Info |             |            | <b>Changed</b>     | N/A         | 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>28</b>    | 50       | 68       |
| Chromium    | ppm | ASTM D5185m | >20        | <b>&lt;1</b> | 1        | 2        |
| Nickel      | ppm | ASTM D5185m | >4         | <b>0</b>     | <1       | <1       |
| Titanium    | ppm | ASTM D5185m |            | <b>0</b>     | <1       | 0        |
| Silver      | ppm | ASTM D5185m | >3         | <b>0</b>     | <1       | 0        |
| Aluminum    | ppm | ASTM D5185m | >20        | <b>2</b>     | 5        | 8        |
| Lead        | ppm | ASTM D5185m | >40        | <b>0</b>     | 2        | 3        |
| Copper      | ppm | ASTM D5185m | >330       | <b>27</b>    | 90       | 137      |
| Tin         | ppm | ASTM D5185m | >15        | <b>1</b>     | 2        | 4        |
| Vanadium    | ppm | ASTM D5185m |            | <b>0</b>     | <1       | 0        |
| Cadmium     | ppm | ASTM D5185m |            | <b>0</b>     | 0        | 0        |

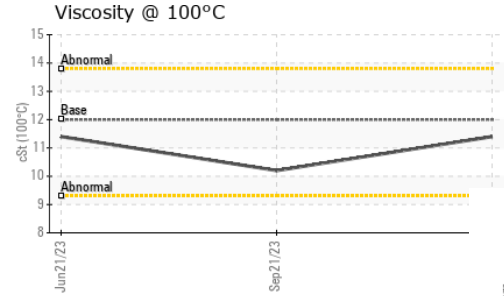
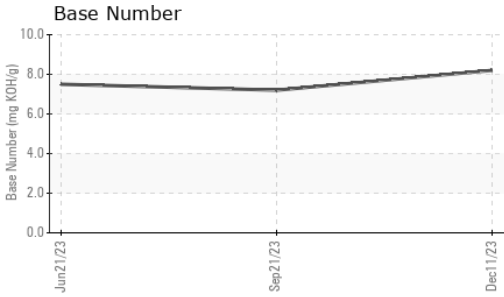
| ADDITIVES  |     | method      | limit/base | current      | history1 | history2 |
|------------|-----|-------------|------------|--------------|----------|----------|
| Boron      | ppm | ASTM D5185m | 2          | <b>5</b>     | 15       | 9        |
| Barium     | ppm | ASTM D5185m | 0          | <b>0</b>     | 3        | 0        |
| Molybdenum | ppm | ASTM D5185m | 50         | <b>69</b>    | 63       | 66       |
| Manganese  | ppm | ASTM D5185m | 0          | <b>&lt;1</b> | 1        | 2        |
| Magnesium  | ppm | ASTM D5185m | 950        | <b>1049</b>  | 1022     | 831      |
| Calcium    | ppm | ASTM D5185m | 1050       | <b>1168</b>  | 1203     | 1203     |
| Phosphorus | ppm | ASTM D5185m | 995        | <b>1169</b>  | 1173     | 1033     |
| Zinc       | ppm | ASTM D5185m | 1180       | <b>1416</b>  | 1510     | 1293     |
| Sulfur     | ppm | ASTM D5185m | 2600       | <b>3089</b>  | 3173     | 2753     |

| CONTAMINANTS |     | method      | limit/base | current  | history1 | history2 |
|--------------|-----|-------------|------------|----------|----------|----------|
| Silicon      | ppm | ASTM D5185m | >25        | <b>6</b> | 13       | 15       |
| Sodium       | ppm | ASTM D5185m |            | <b>1</b> | 4        | 2        |
| Potassium    | ppm | ASTM D5185m | >20        | <b>0</b> | 2        | 2        |

| INFRA-RED |          | method      | limit/base | current     | history1 | history2 |
|-----------|----------|-------------|------------|-------------|----------|----------|
| Soot %    | %        | *ASTM D7844 | >3         | <b>0.6</b>  | 0.7      | 0.8      |
| Nitration | Abs/cm   | *ASTM D7624 | >20        | <b>9.4</b>  | 10.0     | 11.7     |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30        | <b>20.8</b> | 20.6     | 23.2     |

| FLUID DEGRADATION |          | method      | limit/base | current     | history1 | history2 |
|-------------------|----------|-------------|------------|-------------|----------|----------|
| Oxidation         | Abs/.1mm | *ASTM D7414 | >25        | <b>17.4</b> | 17.8     | 21.0     |
| Base Number (BN)  | mg KOH/g | ASTM D2896  |            | <b>8.2</b>  | 7.2      | 7.5      |

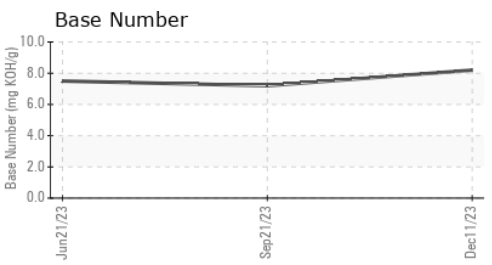
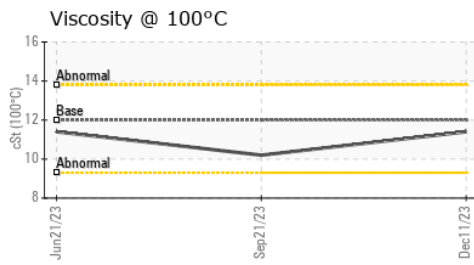
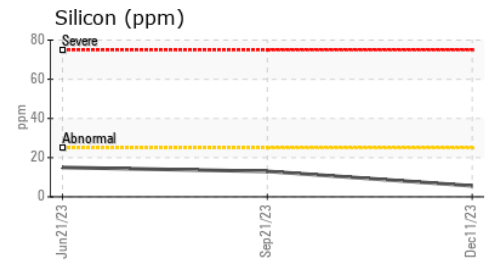
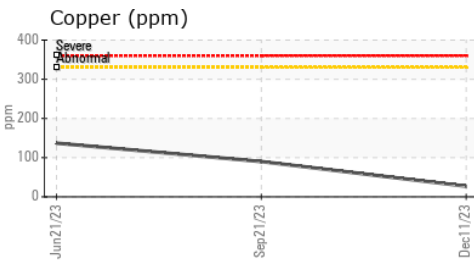
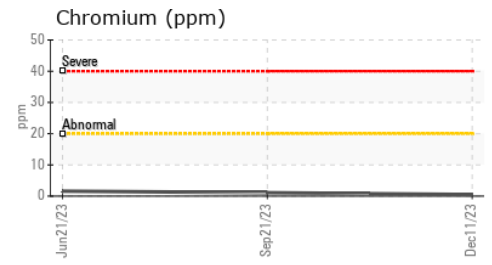
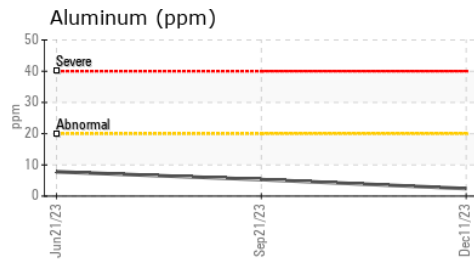
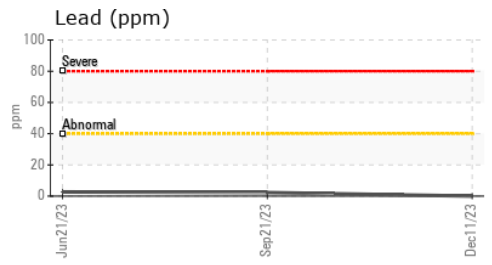
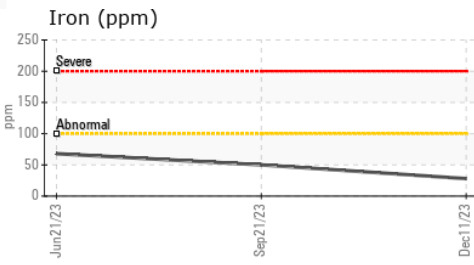
# OIL ANALYSIS REPORT



| 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   | 11.4     | 10.2     |

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PCA0113413 **Received** : 21 Dec 2023  
**Lab Number** : 06042568 **Diagnosed** : 22 Dec 2023  
**Unique Number** : 10803176 **Diagnostician** : Wes Davis  
**Test Package** : MOB 1 ( Additional Tests: TBN )

**MILLER TRUCK LEASING #119**  
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 HASBROUCK HEIGHTS, NJ  
 US 07604  
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 mlongette@millertransgroup.com  
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 F: (201)528-7053

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)