



# OIL ANALYSIS REPORT

|                 |                 |
|-----------------|-----------------|
| WEAR            | <b>NORMAL</b>   |
| CONTAMINATION   | <b>NORMAL</b>   |
| FLUID CONDITION | <b>ABNORMAL</b> |

Machine Id  
**PETERBILT 846-4602**  
 Component  
**1 Diesel Engine**  
 Fluid  
**MOBIL DELVAC 1300 SUPER15W40 (--- GAL)**

## RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

| Test           | UOM | Method      | Limit/Abn | Current            | History1    | History2    |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number  |     | Client Info |           | <b>RPL0019497</b>  | RPL0012330  | RPL0009102  |
| Sample Date    |     | Client Info |           | <b>14 Dec 2023</b> | 12 Jun 2023 | 20 Mar 2023 |
| Machine Age    | mls | Client Info |           | <b>238381</b>      | 210627      | 210600      |
| Oil Age        | mls | Client Info |           | <b>43892</b>       | 16138       | 16111       |
| Filter Age     | mls | Client Info |           | <b>43892</b>       | 16138       | 16111       |
| Oil Changed    |     | Client Info |           | <b>Changed</b>     | Not Changd  | Not Changd  |
| Filter Changed |     | Client Info |           | <b>Changed</b>     | Not Changd  | Not Changd  |
| Sample Status  |     |             |           | <b>ABNORMAL</b>    | NORMAL      | NORMAL      |

## WEAR

All component wear rates are normal.

|              |        |             |      |             |      |      |
|--------------|--------|-------------|------|-------------|------|------|
| Iron         | ppm    | ASTM D5185m | >110 | <b>97</b>   | 32   | 21   |
| Chromium     | ppm    | ASTM D5185m | >4   | <b>3</b>    | 1    | 1    |
| Nickel       | ppm    | ASTM D5185m | >2   | <b>0</b>    | <1   | 0    |
| Titanium     | ppm    | ASTM D5185m |      | <b>0</b>    | <1   | 0    |
| Silver       | ppm    | ASTM D5185m | >2   | <b>0</b>    | 0    | 0    |
| Aluminum     | ppm    | ASTM D5185m | >25  | <b>9</b>    | 7    | 2    |
| Lead         | ppm    | ASTM D5185m | >45  | <b>4</b>    | 3    | 2    |
| Copper       | ppm    | ASTM D5185m | >85  | <b>6</b>    | 1    | 1    |
| Tin          | ppm    | ASTM D5185m | >4   | <b>2</b>    | 1    | <1   |
| Vanadium     | ppm    | ASTM D5185m |      | <b>0</b>    | <1   | 0    |
| White Metal  | scalar | *Visual     | NONE | <b>NONE</b> | NONE | NONE |
| Yellow Metal | scalar | *Visual     | NONE | <b>NONE</b> | NONE | NONE |

## CONTAMINATION

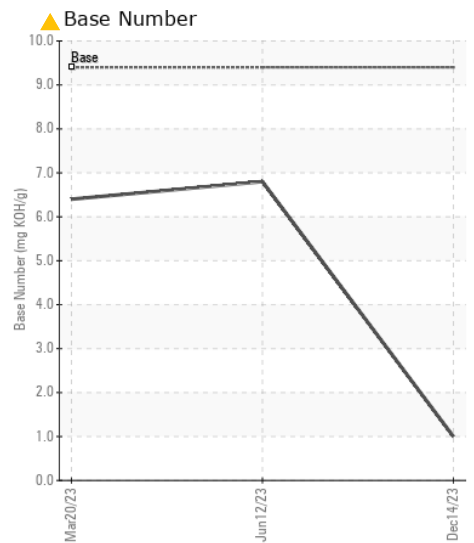
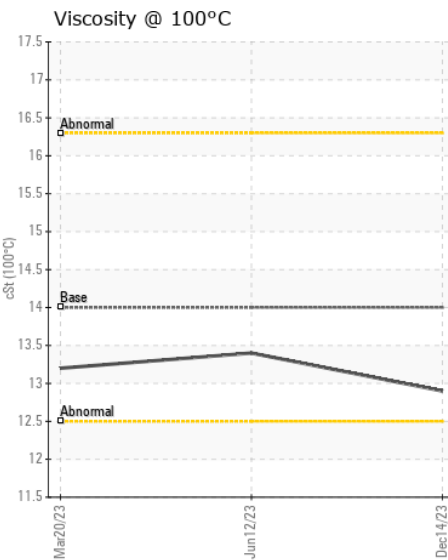
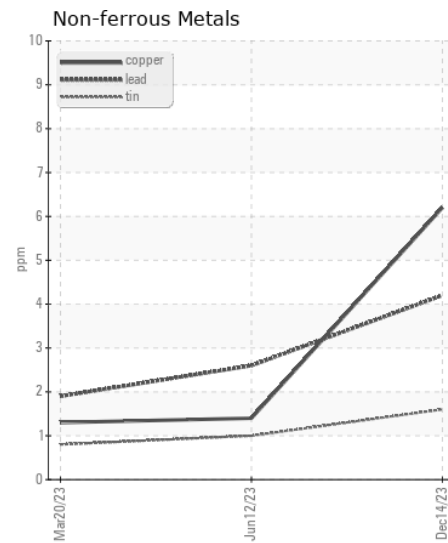
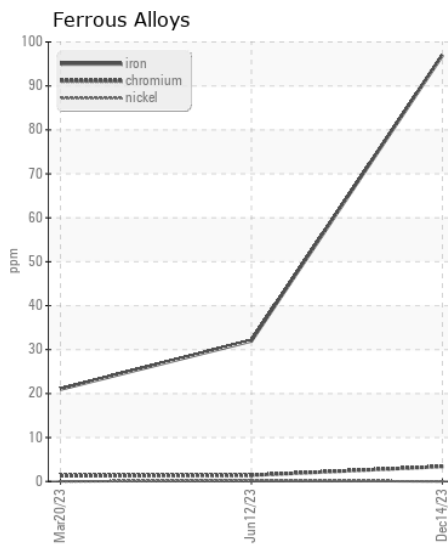
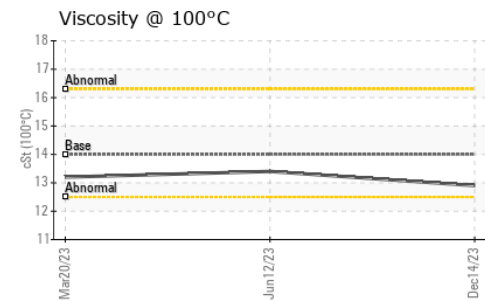
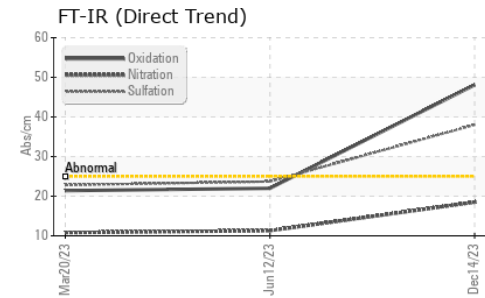
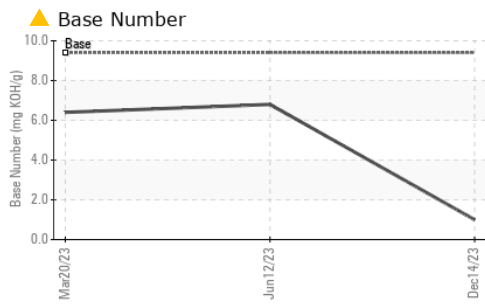
There is no indication of any contamination in the oil.

|                  |          |             |       |                |       |       |
|------------------|----------|-------------|-------|----------------|-------|-------|
| Silicon          | ppm      | ASTM D5185m | >30   | <b>10</b>      | 6     | 6     |
| Potassium        | ppm      | ASTM D5185m | >20   | <b>20</b>      | 12    | 9     |
| 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   |
| Soot %           | %        | *ASTM D7844 | >3    | <b>0.8</b>     | 0.4   | 0.3   |
| Nitration        | Abs/cm   | *ASTM D7624 | >20   | <b>18.5</b>    | 11.3  | 10.8  |
| Sulfation        | Abs/.1mm | *ASTM D7415 | >30   | <b>38.0</b>    | 23.7  | 22.8  |
| Silt             | scalar   | *Visual     | NONE  | <b>NONE</b>    | NONE  | NONE  |
| Debris           | scalar   | *Visual     | NONE  | <b>NONE</b>    | NONE  | NONE  |
| Sand/Dirt        | scalar   | *Visual     | NONE  | <b>NONE</b>    | NONE  | NONE  |
| Appearance       | scalar   | *Visual     | NORML | <b>NORML</b>   | NORML | NORML |
| Odor             | scalar   | *Visual     | NORML | <b>NORML</b>   | NORML | NORML |
| Emulsified Water | scalar   | *Visual     | >0.2  | <b>NEG</b>     | NEG   | NEG   |

## FLUID CONDITION

The BN level is low. The oil is no longer serviceable.

|                  |          |             |     |              |      |      |
|------------------|----------|-------------|-----|--------------|------|------|
| Sodium           | ppm      | ASTM D5185m |     | <b>4</b>     | 2    | 2    |
| Boron            | ppm      | ASTM D5185m | 0   | <b>6</b>     | 4    | 5    |
| Barium           | ppm      | ASTM D5185m | 0   | <b>1</b>     | 0    | 0    |
| Molybdenum       | ppm      | ASTM D5185m | 0   | <b>59</b>    | 61   | 66   |
| Manganese        | ppm      | ASTM D5185m |     | <b>2</b>     | <1   | <1   |
| Magnesium        | ppm      | ASTM D5185m | 0   | <b>841</b>   | 929  | 957  |
| Calcium          | ppm      | ASTM D5185m |     | <b>1072</b>  | 1178 | 1127 |
| Phosphorus       | ppm      | ASTM D5185m |     | <b>908</b>   | 964  | 1035 |
| Zinc             | ppm      | ASTM D5185m |     | <b>1101</b>  | 1258 | 1249 |
| Sulfur           | ppm      | ASTM D5185m |     | <b>3814</b>  | 3978 | 3449 |
| Oxidation        | Abs/.1mm | *ASTM D7414 | >25 | <b>48.1</b>  | 22.0 | 21.4 |
| Base Number (BN) | mg KOH/g | ASTM D2896  | 9.4 | <b>▲ 1.0</b> | 6.8  | 6.4  |
| Visc @ 100°C     | cSt      | ASTM D445   | 14  | <b>12.9</b>  | 13.4 | 13.2 |



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513

**Sample No.** : RPL0019497

**Lab Number** : 06155691

**Unique Number** : 10991114

**Test Package** : FLEET

**Received** : 22 Apr 2024

**Tested** : 23 Apr 2024

**Diagnosed** : 24 Apr 2024 - Don Baldrige

**RTL PACLEASE - 7011 - El Cajon**

275 Vernon Way

El Cajon, CA

US 92020

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F:

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)