



# WEAR CHECK

## OIL ANALYSIS REPORT

|                 |        |
|-----------------|--------|
| WEAR            | NORMAL |
| CONTAMINATION   | NORMAL |
| FLUID CONDITION | NORMAL |

Machine Id

**181**

Component

**Diesel Engine**

Fluid

**VALVOLINE PREMIUM BLUE 2000 15W40 (--- QTS)**

### RECOMMENDATION

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

| Test           | UOM | Method      | Limit/Abn | Current            | History1    | History2    |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number  |     | Client Info |           | <b>WC0811876</b>   | WC0863924   | WC0811886   |
| Sample Date    |     | Client Info |           | <b>24 Feb 2024</b> | 02 Dec 2023 | 15 Jul 2023 |
| Machine Age    | mls | Client Info |           | <b>0</b>           | 0           | 0           |
| Oil Age        | mls | Client Info |           | <b>15000</b>       | 15000       | 15000       |
| Filter Age     | mls | Client Info |           | <b>0</b>           | 0           | 0           |
| Oil Changed    |     | Client Info |           | <b>Changed</b>     | N/A         | N/A         |
| Filter Changed |     | Client Info |           | <b>Changed</b>     | N/A         | N/A         |
| Sample Status  |     |             |           | <b>NORMAL</b>      | NORMAL      | NORMAL      |

### WEAR

All component wear rates are normal.

|              |        |             |      |              |      |      |
|--------------|--------|-------------|------|--------------|------|------|
| Iron         | ppm    | ASTM D5185m | >100 | <b>31</b>    | 55   | 31   |
| Chromium     | ppm    | ASTM D5185m | >20  | <b>&lt;1</b> | 1    | <1   |
| Nickel       | ppm    | ASTM D5185m | >4   | <b>0</b>     | 0    | 0    |
| Titanium     | ppm    | ASTM D5185m |      | <b>0</b>     | 0    | 0    |
| Silver       | ppm    | ASTM D5185m | >3   | <b>0</b>     | 0    | 0    |
| Aluminum     | ppm    | ASTM D5185m | >20  | <b>3</b>     | 4    | 5    |
| Lead         | ppm    | ASTM D5185m | >40  | <b>1</b>     | 3    | 3    |
| Copper       | ppm    | ASTM D5185m | >330 | <b>&lt;1</b> | 2    | <1   |
| Tin          | ppm    | ASTM D5185m | >15  | <b>&lt;1</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

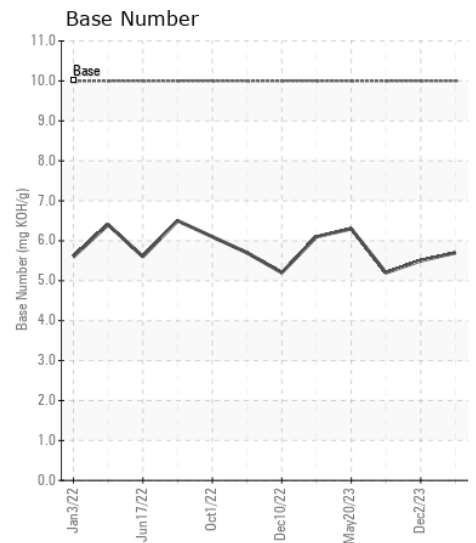
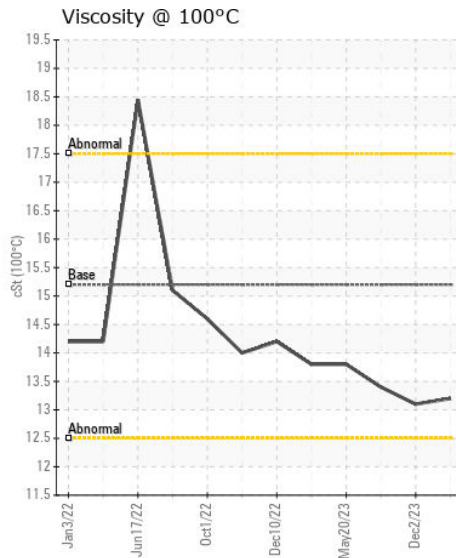
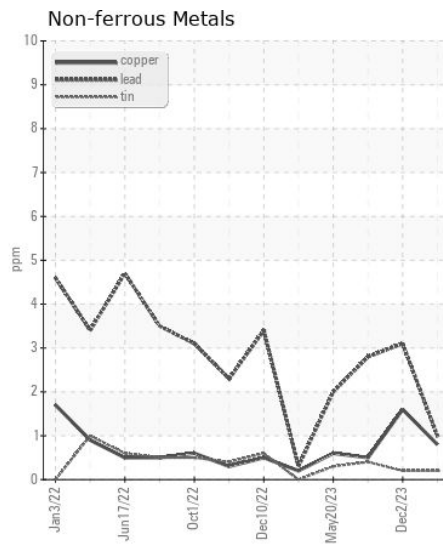
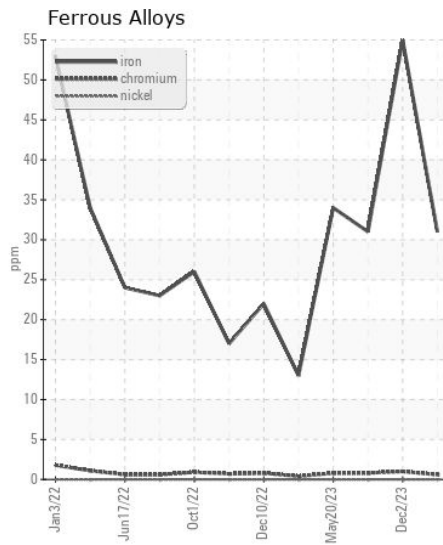
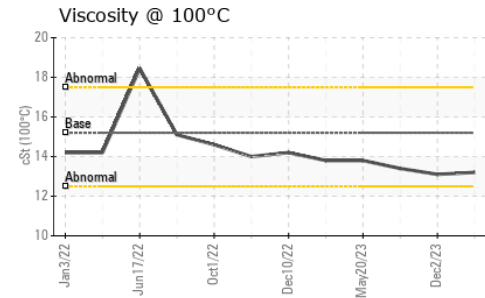
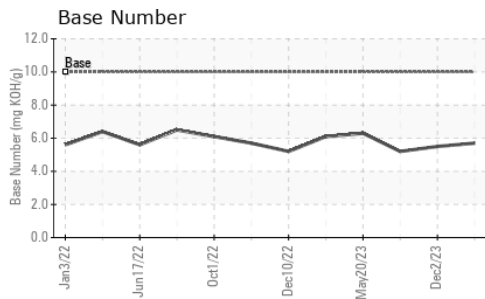
There is no indication of any contamination in the oil.

|                  |          |             |       |                |       |       |
|------------------|----------|-------------|-------|----------------|-------|-------|
| Silicon          | ppm      | ASTM D5185m | >25   | <b>7</b>       | 8     | 9     |
| Potassium        | ppm      | ASTM D5185m | >20   | <b>2</b>       | 2     | 1     |
| 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>0.6</b>     | 0.5   | 0.6   |
| Nitration        | Abs/cm   | *ASTM D7624 | >20   | <b>12.1</b>    | 12.4  | 13.6  |
| Sulfation        | Abs/.1mm | *ASTM D7415 | >30   | <b>23.0</b>    | 23.6  | 25.0  |
| 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 result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

|                  |          |             |      |              |      |      |
|------------------|----------|-------------|------|--------------|------|------|
| Sodium           | ppm      | ASTM D5185m |      | <b>4</b>     | 2    | 4    |
| Boron            | ppm      | ASTM D5185m |      | <b>27</b>    | 25   | 17   |
| Barium           | ppm      | ASTM D5185m |      | <b>0</b>     | 0    | 0    |
| Molybdenum       | ppm      | ASTM D5185m |      | <b>77</b>    | 83   | 84   |
| Manganese        | ppm      | ASTM D5185m |      | <b>&lt;1</b> | <1   | <1   |
| Magnesium        | ppm      | ASTM D5185m |      | <b>883</b>   | 777  | 861  |
| Calcium          | ppm      | ASTM D5185m |      | <b>1477</b>  | 1281 | 1502 |
| Phosphorus       | ppm      | ASTM D5185m |      | <b>893</b>   | 730  | 876  |
| Zinc             | ppm      | ASTM D5185m |      | <b>1070</b>  | 953  | 1072 |
| Sulfur           | ppm      | ASTM D5185m |      | <b>2707</b>  | 2341 | 3063 |
| Oxidation        | Abs/.1mm | *ASTM D7414 | >25  | <b>22.2</b>  | 23.1 | 24.8 |
| Base Number (BN) | mg KOH/g | ASTM D2896  | 10.0 | <b>5.7</b>   | 5.5  | 5.2  |
| Visc @ 100°C     | cSt      | ASTM D445   | 15.2 | <b>13.2</b>  | 13.1 | 13.4 |



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0811876  
**Lab Number** : 06103536  
**Unique Number** : 10901766  
**Test Package** : FLEET

**Received** : 28 Feb 2024  
**Tested** : 01 Mar 2024  
**Diagnosed** : 01 Mar 2024 - Wes Davis

**TALLEN TRANSPORT**  
 262 COUNTY ROAD 580  
 MADISONVILLE, TN  
 US 37303  
 Contact: COBY JOHNSON  
 tallenttransport@gmail.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: