

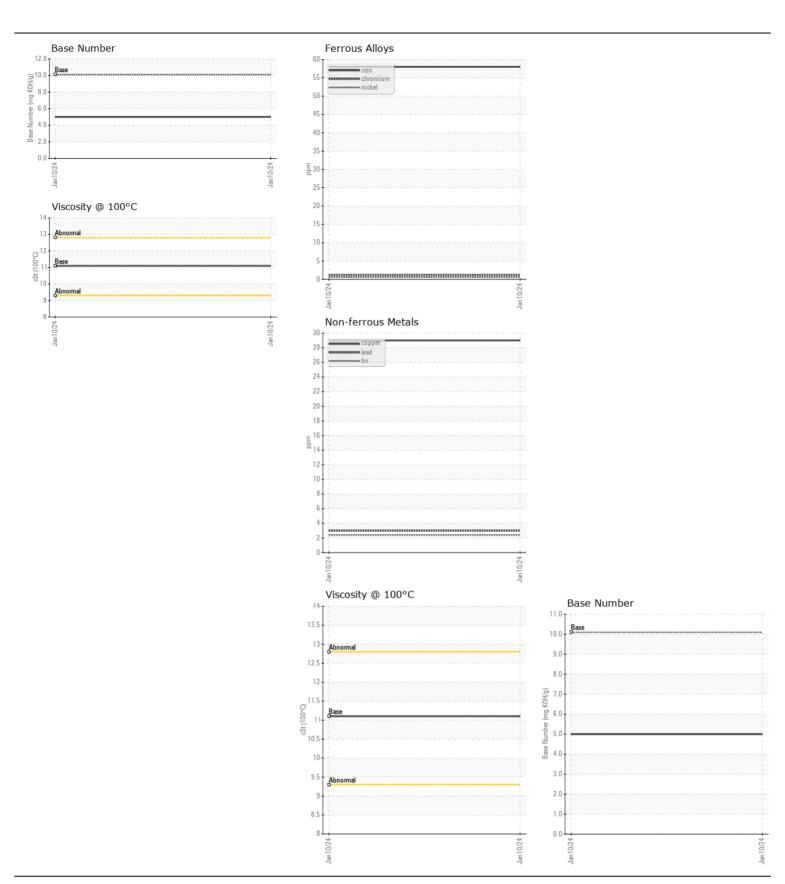
**WEAR** CONTAMINATION **FLUID CONDITION** 

**NORMAL NORMAL NORMAL** 

Machine Id **857-5146** 

Component Diesel Engine

| ECOMMENDATION   | Test             | UOM                  | Method       | Limit/Abn   | Current     | History1 | History2 |
|---|------------------|----------------------|--------------|-------------|-------------|----------|----------|
| Resample at the next service interval to monitor. Please specify the component make and model with your next sample.  | Sample Number    |                      | Client Info  | 21111071011 | RPL0013916  |          |          |
|   | Sample Date      |                      | Client Info  |             | 10 Jan 2024 |          |          |
|   | Machine Age      | hrs                  | Client Info  |             | 791         |          |          |
|   | Oil Age          | hrs                  | Client Info  |             | 0           |          |          |
|   | Filter Age       | hrs                  | Client Info  |             | 0           |          |          |
|   | Oil Changed      | 1110                 | Client Info  |             | Changed     |          |          |
|   | Filter Changed   |                      | Client Info  |             | Changed     |          |          |
|   | Sample Status    |                      |              |             | NORMAL      |          |          |
| /EAR  | Iron             | ppm                  | ASTM D5185m  | >100        | 58          |          |          |
| Metal levels are typical for a new component breaking in.   | Chromium         | ppm                  | ASTM D5185m  | >20         | 1           |          |          |
|   | Nickel           | ppm                  | ASTM D5185m  |             | <1          |          |          |
|   | Titanium         | ppm                  | ASTM D5185m  |             | <1          |          |          |
|   | Silver           | ppm                  | ASTM D5185m  | >3          | 0           |          |          |
|   | Aluminum         | ppm                  | ASTM D5185m  |             | 33          |          |          |
|   | Lead             | ppm                  |              | >40         | 3           |          |          |
|   | Copper           | ppm                  | ASTM D5185m  |             | 29          |          |          |
|   | Tin              | ppm                  | ASTM D5185m  |             | 2           |          |          |
|   | Vanadium         | ppm                  | ASTM D5185m  |             | 0           |          |          |
|   | White Metal      | scalar               | *Visual      | NONE        | NONE        |          |          |
|   | Yellow Metal     | scalar               | *Visual      | NONE        | NONE        |          |          |
| Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil. | Silicon          | ppm                  | ASTM D5185m  | >25         | 48          |          |          |
|   | Potassium        | ppm                  | ASTM D5185m  |             | 131         |          |          |
|   | Fuel             | pp                   | WC Method    |             | <1.0        |          |          |
|   | Water            |                      | WC Method    |             | NEG         |          |          |
|   | Glycol           |                      | WC Method    |             | NEG         |          |          |
|   | Soot %           | %                    | *ASTM D7844  | >3          | 0.3         |          |          |
|   | Nitration        | Abs/cm               | *ASTM D7624  | >20         | 10.9        |          |          |
|   | Sulfation        | Abs/.1mm             | *ASTM D7415  |             | 23.4        |          |          |
|   | Silt             | scalar               | *Visual      | NONE        | NONE        |          |          |
|   | Debris           | scalar               | *Visual      | NONE        | NONE        |          |          |
|   | Sand/Dirt        | scalar               | *Visual      | NONE        | NONE        |          |          |
|   | Appearance       | scalar               | *Visual      | NORML       | NORML       |          |          |
|   | Odor             | scalar               | *Visual      | NORML       | NORML       |          |          |
|   | Emulsified Water |                      | *Visual      | >0.2        | 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           | nnm                  | ASTM D5185m  |             | 6           |          |          |
|   | Boron            | ppm                  | ASTM D5185m  |             | 27          |          |          |
|   | Barium           | ppm                  | ASTM D5185m  |             | 0           |          |          |
|   | Molybdenum       | ppm                  | ASTM D5185m  |             | 11          |          |          |
|   | Manganese        | ppm                  | ASTM D5185m  |             | 7           |          |          |
|   | Magnesium        |                      | ASTM D5185m  |             | 699         |          |          |
|   | Calcium          | ppm                  | ASTM D5185m  |             | 1308        |          |          |
|   | Phosphorus       | ppm                  | ASTM D5185m  | 1260        | 668         |          |          |
|   | Zinc             |                      | ASTM D5185m  |             | 776         |          |          |
|   | Sulfur           | ppm<br>ppm           | ASTM D5185m  | 1400        | 2515        |          |          |
|   | Oxidation        |                      | *ASTM D7414  | > 2F        | 2515        |          |          |
|   |                  | Abs/.1mm<br>mg KOH/g |              |             | 5.0         |          |          |
|   | Base Number (BN) | illy NOR/g           | M3 1 W D2096 | 10.1        | 5.0         |          |          |







Certificate L2367

Laboratory Sample No. Lab Number **Unique Number** 

: RPL0013916 : 06073546 : 10850223 Test Package : FLEET

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Recieved : 30 Jan 2024 : 30 Jan 2024 Diagnosed

Diagnostician : Wes Davis

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)

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