



# OIL ANALYSIS REPORT

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

Machine Id  
**021-0145**

Component  
**Diesel Engine**

Fluid  
**SCHAEFFER SUPREME 7000 (--- GAL)**

## 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>WC0903850</b>   | WC0814973   | WC0750737   |
| Sample Date    |     | Client Info |           | <b>21 Feb 2024</b> | 31 Aug 2023 | 02 Feb 2023 |
| Machine Age    | hrs | Client Info |           | <b>2327</b>        | 1983        | 1590        |
| Oil Age        | hrs | Client Info |           | <b>0</b>           | 0           | 0           |
| Filter Age     | hrs | Client Info |           | <b>0</b>           | 0           | 0           |
| Oil Changed    |     | Client Info |           | <b>Changed</b>     | Changed     | Changed     |
| Filter Changed |     | Client Info |           | <b>Changed</b>     | Changed     | Changed     |
| Sample Status  |     |             |           | <b>NORMAL</b>      | NORMAL      | NORMAL      |

## WEAR

All component wear rates are normal.

|              |        |             |      |              |      |      |
|--------------|--------|-------------|------|--------------|------|------|
| Iron         | ppm    | ASTM D5185m | >100 | <b>6</b>     | 4    | 3    |
| 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>&lt;1</b> | 0    | 0    |
| Silver       | ppm    | ASTM D5185m | >3   | <b>0</b>     | 0    | 0    |
| Aluminum     | ppm    | ASTM D5185m | >20  | <b>4</b>     | 2    | 2    |
| Lead         | ppm    | ASTM D5185m | >40  | <b>&lt;1</b> | 0    | 0    |
| Copper       | ppm    | ASTM D5185m | >330 | <b>&lt;1</b> | <1   | <1   |
| Tin          | ppm    | ASTM D5185m | >15  | <b>&lt;1</b> | 0    | 0    |
| Vanadium     | ppm    | ASTM D5185m |      | <b>&lt;1</b> | 0    | 0    |
| White Metal  | scalar | *Visual     | NONE | <b>NONE</b>  | NONE | NONE |
| Yellow Metal | scalar | *Visual     | NONE | <b>NONE</b>  | NONE | NONE |

## CONTAMINATION

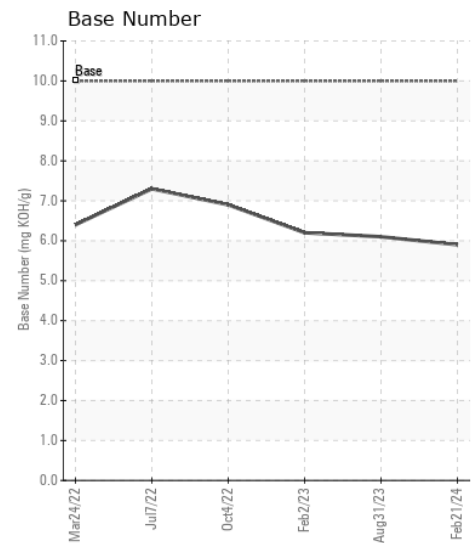
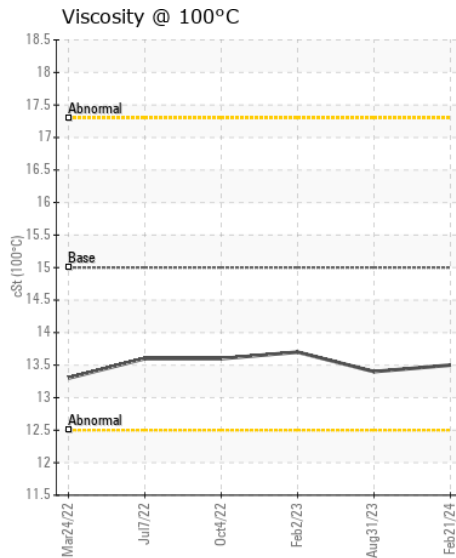
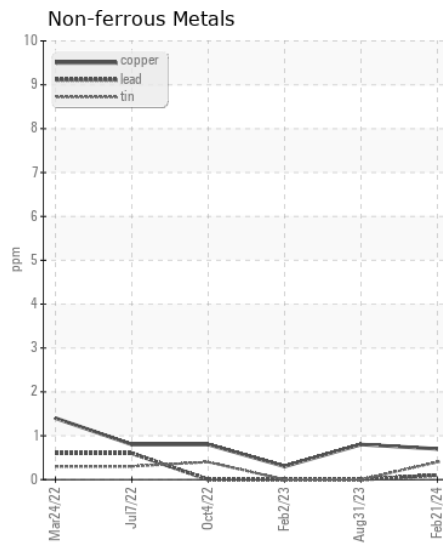
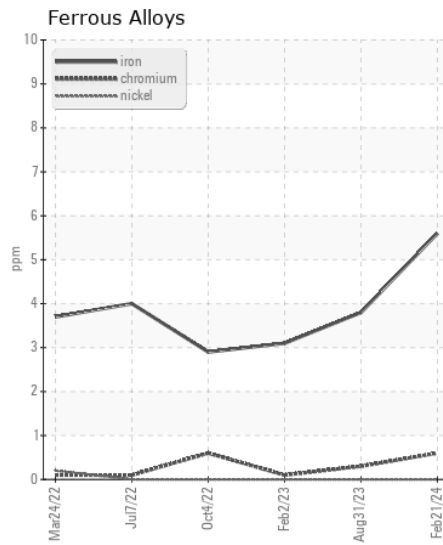
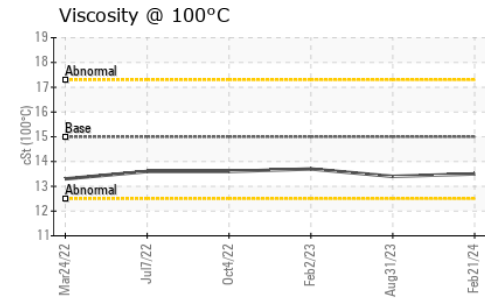
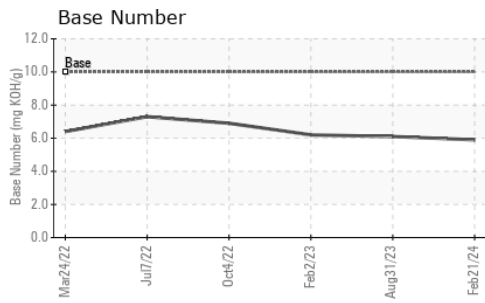
There is no indication of any contamination in the oil.

|                  |          |             |       |                |       |       |
|------------------|----------|-------------|-------|----------------|-------|-------|
| Silicon          | ppm      | ASTM D5185m | >25   | <b>10</b>      | 9     | 9     |
| Potassium        | ppm      | ASTM D5185m | >20   | <b>2</b>       | 2     | 2     |
| 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>0.1</b>     | 0.1   | 0.1   |
| Nitration        | Abs/cm   | *ASTM D7624 | >20   | <b>8.7</b>     | 9.2   | 9.0   |
| Sulfation        | Abs/.1mm | *ASTM D7415 | >30   | <b>17.7</b>    | 18.0  | 17.6  |
| 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>1</b>     | 3    | 1    |
| Boron            | ppm      | ASTM D5185m |      | <b>90</b>    | 90   | 99   |
| Barium           | ppm      | ASTM D5185m |      | <b>0</b>     | 0    | 0    |
| Molybdenum       | ppm      | ASTM D5185m | 50   | <b>81</b>    | 73   | 75   |
| Manganese        | ppm      | ASTM D5185m |      | <b>&lt;1</b> | <1   | <1   |
| Magnesium        | ppm      | ASTM D5185m | 1000 | <b>55</b>    | 20   | 10   |
| Calcium          | ppm      | ASTM D5185m | 1400 | <b>2251</b>  | 2344 | 2163 |
| Phosphorus       | ppm      | ASTM D5185m | 985  | <b>1154</b>  | 1109 | 1001 |
| Zinc             | ppm      | ASTM D5185m | 1060 | <b>1323</b>  | 1351 | 1146 |
| Sulfur           | ppm      | ASTM D5185m | 4000 | <b>5673</b>  | 6394 | 4974 |
| Oxidation        | Abs/.1mm | *ASTM D7414 | >25  | <b>14.2</b>  | 14.3 | 14.0 |
| Base Number (BN) | mg KOH/g | ASTM D2896  | 10   | <b>5.9</b>   | 6.1  | 6.2  |
| Visc @ 100°C     | cSt      | ASTM D445   | 15   | <b>13.5</b>  | 13.4 | 13.7 |



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0903850 **Received** : 29 Feb 2024  
**Lab Number** : 06104761 **Tested** : 01 Mar 2024  
**Unique Number** : 10902991 **Diagnosed** : 01 Mar 2024 - Wes Davis  
**Test Package** : CONST ( Additional Tests: TBN )

**SHIMMICK CONSTRUCTION**  
 5535 TRAILHEAD DRIVE  
 CHATTANOOGA, TN  
 US 37415  
 Contact: DANIEL LISELLA  
 daniel.lisella@shimmick.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)

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F: