



# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Machine Id  
**NOT GIVEN ML0000549 (S/N NO INFO ON SIF/BOTTLE)**

Component  
**Diesel Engine**  
Fluid  
**{not provided} (--- GAL)**



## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

### Wear

All component wear rates are normal.

### Contamination

Fuel content negligible. 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>ML0000549</b>   | ---      | ---      |
| Sample Date        | Client Info |             |            | <b>25 Feb 2024</b> | ---      | ---      |
| Machine Age        | hrs         | Client Info |            | <b>0</b>           | ---      | ---      |
| Oil Age            | hrs         | Client Info |            | <b>0</b>           | ---      | ---      |
| Oil Changed        | Client Info |             |            | <b>N/A</b>         | ---      | ---      |
| Sample Status      |             |             |            | <b>NORMAL</b>      | ---      | ---      |

| CONTAMINATION |           | method | limit/base | current    | history1 | history2 |
|---------------|-----------|--------|------------|------------|----------|----------|
| Water         | WC Method |        | >0.2       | <b>NEG</b> | ---      | ---      |
| Glycol        | WC Method |        |            | <b>NEG</b> | ---      | ---      |

| WEAR METALS |     | method      | limit/base | current      | history1 | history2 |
|-------------|-----|-------------|------------|--------------|----------|----------|
| Iron        | ppm | ASTM D5185m | >100       | <b>10</b>    | ---      | ---      |
| Chromium    | ppm | ASTM D5185m | >20        | <b>&lt;1</b> | ---      | ---      |
| Nickel      | ppm | ASTM D5185m | >4         | <b>0</b>     | ---      | ---      |
| Titanium    | ppm | ASTM D5185m |            | <b>0</b>     | ---      | ---      |
| Silver      | ppm | ASTM D5185m | >3         | <b>0</b>     | ---      | ---      |
| Aluminum    | ppm | ASTM D5185m | >20        | <b>2</b>     | ---      | ---      |
| Lead        | ppm | ASTM D5185m | >40        | <b>0</b>     | ---      | ---      |
| Copper      | ppm | ASTM D5185m | >330       | <b>42</b>    | ---      | ---      |
| Tin         | ppm | ASTM D5185m | >15        | <b>0</b>     | ---      | ---      |
| Vanadium    | ppm | ASTM D5185m |            | <b>0</b>     | ---      | ---      |
| Cadmium     | ppm | ASTM D5185m |            | <b>0</b>     | ---      | ---      |

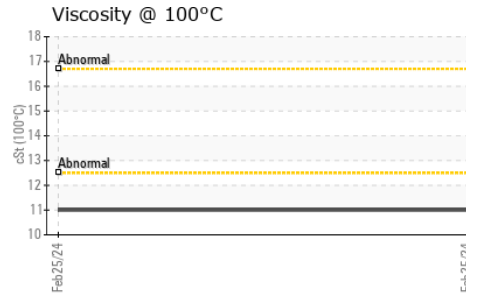
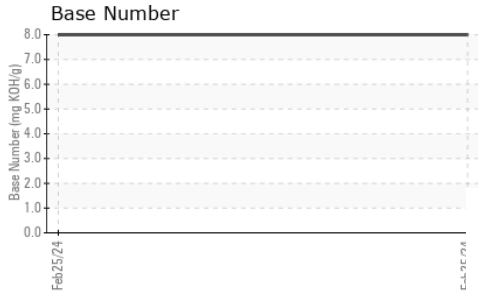
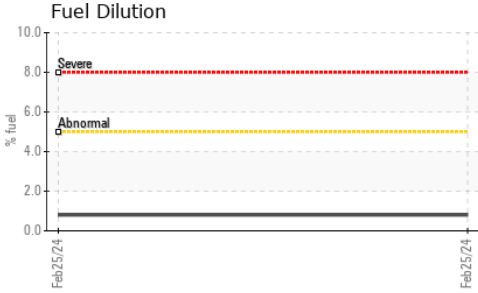
| ADDITIVES  |     | method      | limit/base | current     | history1 | history2 |
|------------|-----|-------------|------------|-------------|----------|----------|
| Boron      | ppm | ASTM D5185m |            | <b>3</b>    | ---      | ---      |
| Barium     | ppm | ASTM D5185m |            | <b>11</b>   | ---      | ---      |
| Molybdenum | ppm | ASTM D5185m |            | <b>5</b>    | ---      | ---      |
| Manganese  | ppm | ASTM D5185m |            | <b>2</b>    | ---      | ---      |
| Magnesium  | ppm | ASTM D5185m |            | <b>62</b>   | ---      | ---      |
| Calcium    | ppm | ASTM D5185m |            | <b>2056</b> | ---      | ---      |
| Phosphorus | ppm | ASTM D5185m |            | <b>830</b>  | ---      | ---      |
| Zinc       | ppm | ASTM D5185m |            | <b>921</b>  | ---      | ---      |
| Sulfur     | ppm | ASTM D5185m |            | <b>4011</b> | ---      | ---      |

| CONTAMINANTS |     | method      | limit/base | current    | history1 | history2 |
|--------------|-----|-------------|------------|------------|----------|----------|
| Silicon      | ppm | ASTM D5185m | >25        | <b>15</b>  | ---      | ---      |
| Sodium       | ppm | ASTM D5185m |            | <b>1</b>   | ---      | ---      |
| Potassium    | ppm | ASTM D5185m | >20        | <b>5</b>   | ---      | ---      |
| Fuel         | %   | ASTM D3524  | >5         | <b>0.8</b> | ---      | ---      |

| INFRA-RED |          | method      | limit/base | current     | history1 | history2 |
|-----------|----------|-------------|------------|-------------|----------|----------|
| Soot %    | %        | *ASTM D7844 | >3         | <b>0.1</b>  | ---      | ---      |
| Nitration | Abs/cm   | *ASTM D7624 | >20        | <b>5.7</b>  | ---      | ---      |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30        | <b>15.8</b> | ---      | ---      |

| FLUID DEGRADATION |          | method      | limit/base | current    | history1 | history2 |
|-------------------|----------|-------------|------------|------------|----------|----------|
| Oxidation         | Abs/.1mm | *ASTM D7414 | >25        | <b>9.6</b> | ---      | ---      |
| Base Number (BN)  | mg KOH/g | ASTM D2896  |            | <b>8.0</b> | ---      | ---      |

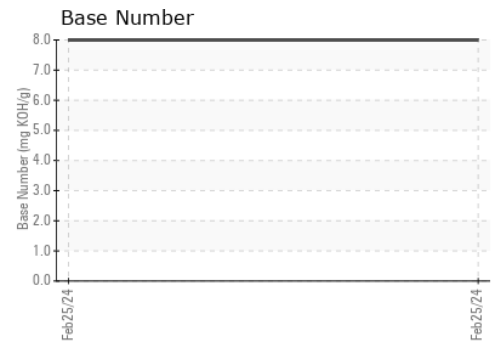
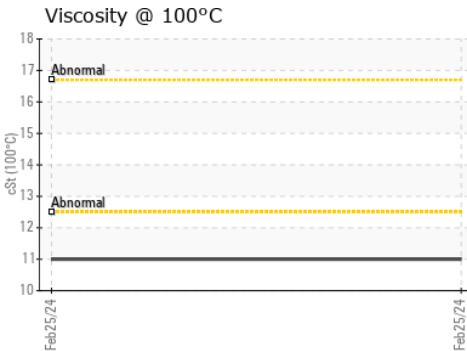
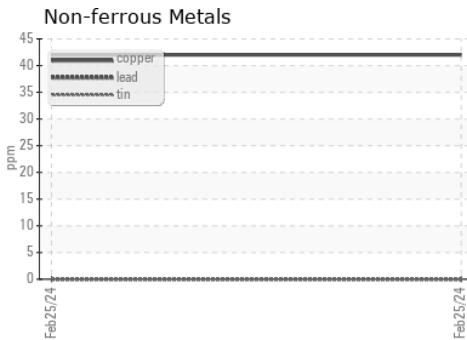
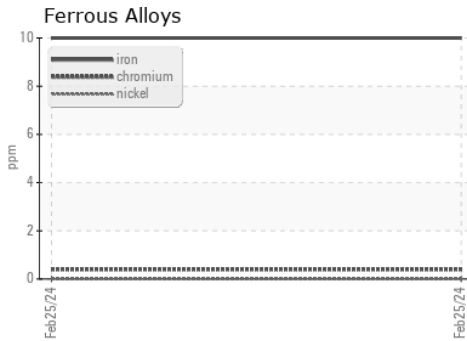
# OIL ANALYSIS REPORT



| VISUAL           | method | limit/base | current | history1 | history2 |     |
|------------------|--------|------------|---------|----------|----------|-----|
| White Metal      | scalar | *Visual    | NONE    | NONE     | ---      | --- |
| Yellow Metal     | scalar | *Visual    | NONE    | NONE     | ---      | --- |
| Precipitate      | scalar | *Visual    | NONE    | NONE     | ---      | --- |
| 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 | scalar | *Visual    | >0.2    | NEG      | ---      | --- |
| Free Water       | scalar | *Visual    |         | NEG      | ---      | --- |

| FLUID PROPERTIES | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| Visc @ 100°C     | cSt    | ASTM D445  | 11.0    | ---      | ---      |

### GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : ML0000549 **Received** : 26 Feb 2024  
**Lab Number** : 06100018 **Tested** : 28 Feb 2024  
**Unique Number** : 10898248 **Diagnosed** : 28 Feb 2024 - Don Baldrige  
**Test Package** : CONST ( Additional Tests: FuelDilution, PercentFuel, TBN )

**McCLUNG-LOGAN EQUIPMENT CO - RICHMOND**  
 1345 MOUNTAIN ROAD  
 GLEN ALLEN, VA  
 US 23060  
 Contact: KYLE RATLIFFE  
 KRATLIFFE@MCCLUNG-LOGAN.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: (804)266-1611