



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

Machine Id  
**442017**  
 Component  
**Diesel Engine**  
 Fluid  
**DIESEL ENGINE OIL SAE 15W40 (20 QTS)**

### RECOMMENDATION

Resample at the next service interval to monitor.

| Test           | UOM | Method      | Limit/Abn | Current            | History1    | History2    |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number  |     | Client Info |           | <b>IL0036519</b>   | IL0031133   | IL0028243   |
| Sample Date    |     | Client Info |           | <b>01 Apr 2024</b> | 22 Jun 2023 | 19 Dec 2022 |
| Machine Age    | mls | Client Info |           | <b>240001</b>      | 192500      | 158664      |
| Oil Age        | mls | Client Info |           | <b>21272</b>       | 17919       | 13104       |
| Filter Age     | mls | Client Info |           | <b>21272</b>       | 17919       | 13104       |
| 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>57</b>    | 28   | 30   |
| Chromium     | ppm    | ASTM D5185m | >20  | <b>2</b>     | <1   | 1    |
| Nickel       | ppm    | ASTM D5185m | >4   | <b>&lt;1</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>16</b>    | 5    | 13   |
| Lead         | ppm    | ASTM D5185m | >40  | <b>&lt;1</b> | 0    | 0    |
| Copper       | ppm    | ASTM D5185m | >330 | <b>3</b>     | 1    | 2    |
| Tin          | ppm    | ASTM D5185m | >15  | <b>&lt;1</b> | 0    | <1   |
| 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

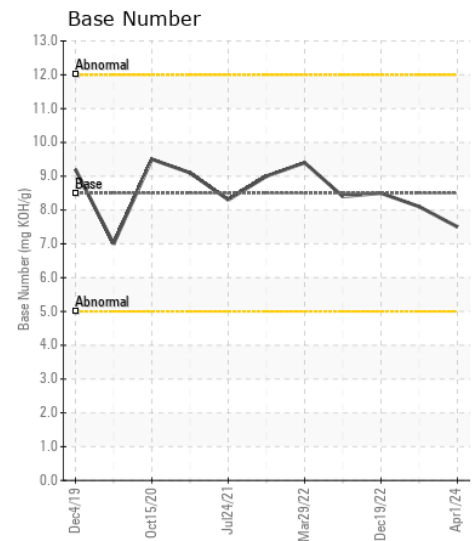
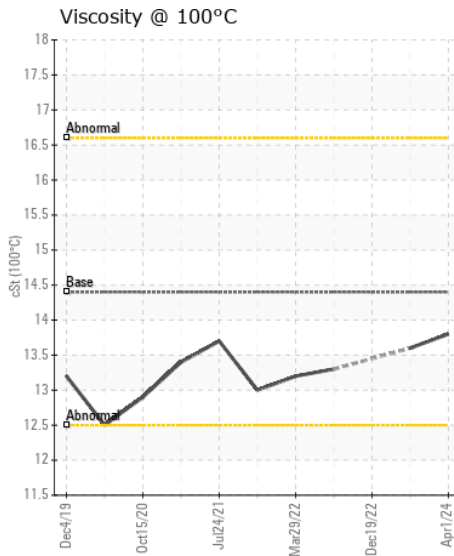
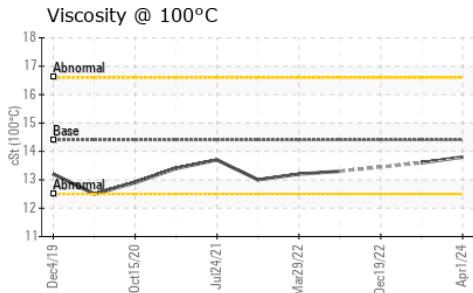
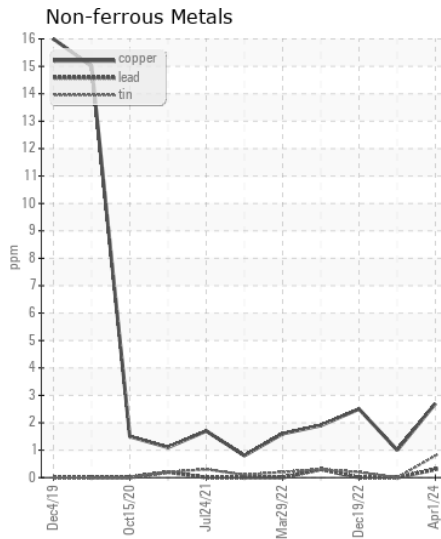
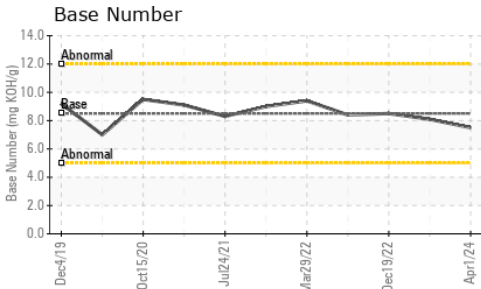
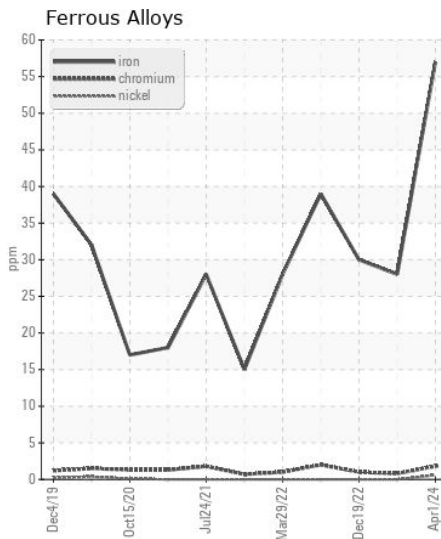
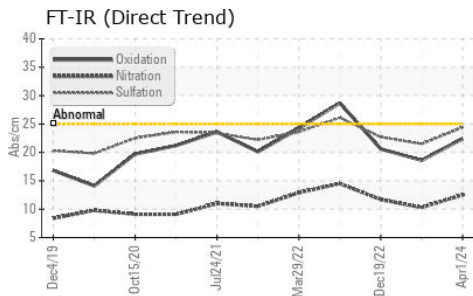
There is no indication of any contamination in the oil.

|                  |          |             |       |                |       |       |
|------------------|----------|-------------|-------|----------------|-------|-------|
| Silicon          | ppm      | ASTM D5185m | >25   | <b>9</b>       | 4     | 2     |
| Potassium        | ppm      | ASTM D5185m | >20   | <b>9</b>       | 4     | 10    |
| 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>1</b>       | 0.7   | 0.9   |
| Nitration        | Abs/cm   | *ASTM D7624 | >20   | <b>12.5</b>    | 10.3  | 11.7  |
| Sulfation        | Abs/.1mm | *ASTM D7415 | >30   | <b>24.4</b>    | 21.5  | 22.7  |
| 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 | >158 | <b>2</b>     | 3    | <1   |
| Boron            | ppm      | ASTM D5185m | 250  | <b>6</b>     | 7    | 7    |
| Barium           | ppm      | ASTM D5185m | 10   | <b>2</b>     | <1   | 0    |
| Molybdenum       | ppm      | ASTM D5185m | 100  | <b>103</b>   | 72   | 59   |
| Manganese        | ppm      | ASTM D5185m |      | <b>&lt;1</b> | <1   | <1   |
| Magnesium        | ppm      | ASTM D5185m | 450  | <b>1427</b>  | 1077 | 834  |
| Calcium          | ppm      | ASTM D5185m | 3000 | <b>1643</b>  | 1225 | 1248 |
| Phosphorus       | ppm      | ASTM D5185m | 1150 | <b>1594</b>  | 1140 | 969  |
| Zinc             | ppm      | ASTM D5185m | 1350 | <b>1826</b>  | 1394 | 1175 |
| Sulfur           | ppm      | ASTM D5185m | 4250 | <b>5006</b>  | 3767 | 3413 |
| Oxidation        | Abs/.1mm | *ASTM D7414 | >25  | <b>22.4</b>  | 18.6 | 20.6 |
| Base Number (BN) | mg KOH/g | ASTM D2896  | 8.5  | <b>7.5</b>   | 8.1  | 8.5  |
| Visc @ 100°C     | cSt      | ASTM D445   | 14.4 | <b>13.8</b>  | 13.6 | ---  |



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : IL0036519  
**Lab Number** : 06176498  
**Unique Number** : 11022551  
**Test Package** : FLEET

**Received** : 10 May 2024  
**Tested** : 13 May 2024  
**Diagnosed** : 14 May 2024 - Sean Felton

**RUSH TRUCK LEASING - CLEVELAND IDEALEASE**  
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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)