



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

Machine Id  
**7850L**  
 Component  
**Diesel Engine**  
 Fluid  
**{not provided} (--- GAL)**

### RECOMMENDATION

The oil is near the end of its useful service life, recommend schedule an oil change. Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

| Test           | UOM | Method      | Limit/Abn | Current            | History1 | History2 |
|----------------|-----|-------------|-----------|--------------------|----------|----------|
| Sample Number  |     | Client Info |           | <b>IL06175094</b>  | ---      | ---      |
| Sample Date    |     | Client Info |           | <b>02 Apr 2024</b> | ---      | ---      |
| Machine Age    | mls | Client Info |           | <b>40000</b>       | ---      | ---      |
| Oil Age        | mls | Client Info |           | <b>0</b>           | ---      | ---      |
| Filter Age     | mls | Client Info |           | <b>0</b>           | ---      | ---      |
| Oil Changed    |     | Client Info |           | <b>N/A</b>         | ---      | ---      |
| Filter Changed |     | Client Info |           | <b>N/A</b>         | ---      | ---      |
| Sample Status  |     |             |           | <b>ABNORMAL</b>    | ---      | ---      |

### WEAR

All component wear rates are normal.

|              |        |             |      |              |     |     |
|--------------|--------|-------------|------|--------------|-----|-----|
| Iron         | ppm    | ASTM D5185m | >100 | <b>76</b>    | --- | --- |
| Chromium     | ppm    | ASTM D5185m | >20  | <b>4</b>     | --- | --- |
| Nickel       | ppm    | ASTM D5185m | >4   | <b>&lt;1</b> | --- | --- |
| Titanium     | ppm    | ASTM D5185m |      | <b>0</b>     | --- | --- |
| Silver       | ppm    | ASTM D5185m | >3   | <b>0</b>     | --- | --- |
| Aluminum     | ppm    | ASTM D5185m | >20  | <b>17</b>    | --- | --- |
| Lead         | ppm    | ASTM D5185m | >40  | <b>10</b>    | --- | --- |
| Copper       | ppm    | ASTM D5185m | >330 | <b>19</b>    | --- | --- |
| Tin          | ppm    | ASTM D5185m | >15  | <b>5</b>     | --- | --- |
| Vanadium     | ppm    | ASTM D5185m |      | <b>0</b>     | --- | --- |
| White Metal  | scalar | *Visual     | NONE | <b>NONE</b>  | --- | --- |
| Yellow Metal | scalar | *Visual     | NONE | <b>NONE</b>  | --- | --- |

### CONTAMINATION

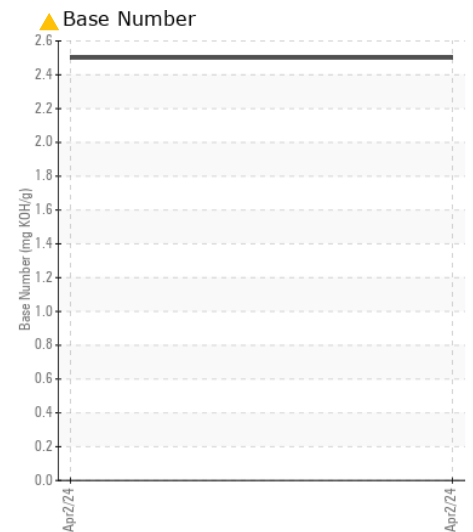
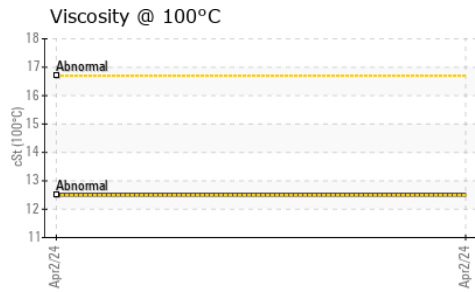
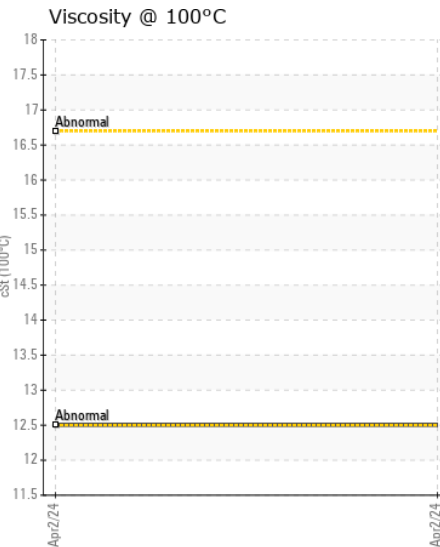
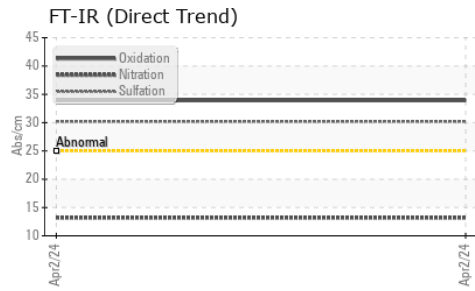
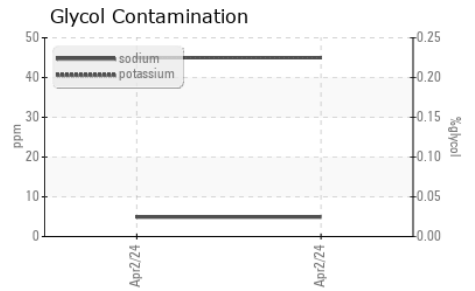
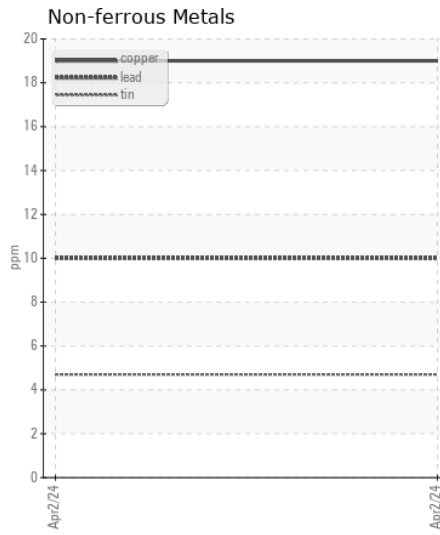
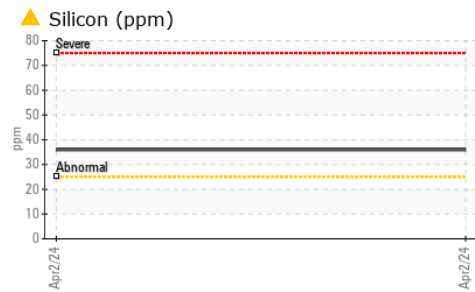
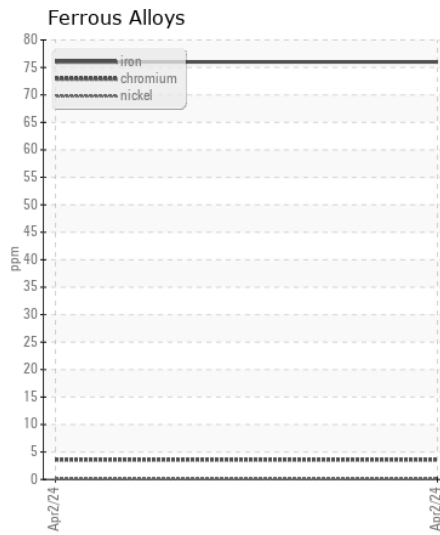
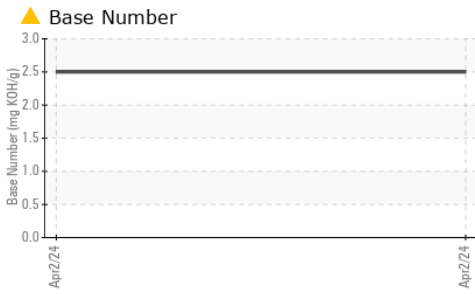
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. Elemental level of silicon (Si) above normal indicating ingress of seal material.

|                  |          |             |       |                |     |     |
|------------------|----------|-------------|-------|----------------|-----|-----|
| Silicon          | ppm      | ASTM D5185m | >25   | <b>▲ 36</b>    | --- | --- |
| Potassium        | ppm      | ASTM D5185m | >20   | <b>45</b>      | --- | --- |
| Fuel             |          | WC Method   | >5    | <b>&lt;1.0</b> | --- | --- |
| Water            |          | WC Method   | >0.2  | <b>NEG</b>     | --- | --- |
| Glycol           |          | WC Method   |       | <b>NEG</b>     | --- | --- |
| Soot %           | %        | *ASTM D7844 | >3    | <b>0.5</b>     | --- | --- |
| Nitration        | Abs/cm   | *ASTM D7624 | >20   | <b>13.2</b>    | --- | --- |
| Sulfation        | Abs/.1mm | *ASTM D7415 | >30   | <b>30.2</b>    | --- | --- |
| Silt             | scalar   | *Visual     | NONE  | <b>NONE</b>    | --- | --- |
| Debris           | scalar   | *Visual     | NONE  | <b>NONE</b>    | --- | --- |
| Sand/Dirt        | scalar   | *Visual     | NONE  | <b>NONE</b>    | --- | --- |
| Appearance       | scalar   | *Visual     | NORML | <b>NORML</b>   | --- | --- |
| Odor             | scalar   | *Visual     | NORML | <b>NORML</b>   | --- | --- |
| Emulsified Water | scalar   | *Visual     | >0.2  | <b>NEG</b>     | --- | --- |

### FLUID CONDITION

The BN level is low. The condition of the oil is acceptable for the time in service.

|                  |          |             |     |              |     |     |
|------------------|----------|-------------|-----|--------------|-----|-----|
| Sodium           | ppm      | ASTM D5185m |     | <b>5</b>     | --- | --- |
| Boron            | ppm      | ASTM D5185m |     | <b>28</b>    | --- | --- |
| Barium           | ppm      | ASTM D5185m |     | <b>6</b>     | --- | --- |
| Molybdenum       | ppm      | ASTM D5185m |     | <b>63</b>    | --- | --- |
| Manganese        | ppm      | ASTM D5185m |     | <b>5</b>     | --- | --- |
| Magnesium        | ppm      | ASTM D5185m |     | <b>439</b>   | --- | --- |
| Calcium          | ppm      | ASTM D5185m |     | <b>1767</b>  | --- | --- |
| Phosphorus       | ppm      | ASTM D5185m |     | <b>969</b>   | --- | --- |
| Zinc             | ppm      | ASTM D5185m |     | <b>1184</b>  | --- | --- |
| Sulfur           | ppm      | ASTM D5185m |     | <b>2998</b>  | --- | --- |
| Oxidation        | Abs/.1mm | *ASTM D7414 | >25 | <b>33.9</b>  | --- | --- |
| Base Number (BN) | mg KOH/g | ASTM D2896  |     | <b>▲ 2.5</b> | --- | --- |
| Visc @ 100°C     | cSt      | ASTM D445   |     | <b>12.5</b>  | --- | --- |



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : IL06175094  
**Lab Number** : 06175094  
**Unique Number** : 11021147  
**Test Package** : FLEET

**Received** : 10 May 2024  
**Tested** : 10 May 2024  
**Diagnosed** : 13 May 2024 - Don Baldrige

**RUSH TRUCK CENTER - CHICAGO IDEALEASE**  
 4655 SOUTH CENTRAL AVENUE  
 CHICAGO, IL  
 US 60638

Contact: MIKE LINLEY  
 linleym@rushtruckcenters.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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