



|                 |                 |
|-----------------|-----------------|
| WEAR            | <b>ABNORMAL</b> |
| CONTAMINATION   | <b>NORMAL</b>   |
| FLUID CONDITION | <b>NORMAL</b>   |

Machine Id  
**9116595**  
Component  
**Diesel Engine**  
Fluid  
**DIESEL ENGINE OIL SAE 10W30 (--- GAL)**

### RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor.

| Test           | UOM | Method      | Limit/Abn | Current            | History1    | History2    |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number  |     | Client Info |           | <b>IL0030995</b>   | IL0034836   | IL06019330  |
| Sample Date    |     | Client Info |           | <b>15 Mar 2024</b> | 07 Feb 2024 | 13 Nov 2023 |
| Machine Age    | mls | Client Info |           | <b>525332</b>      | 510474      | 486299      |
| Oil Age        | mls | Client Info |           | <b>40000</b>       | 40000       | 40000       |
| Filter Age     | mls | Client Info |           | <b>0</b>           | 0           | 0           |
| Oil Changed    |     | Client Info |           | <b>N/A</b>         | N/A         | N/A         |
| Filter Changed |     | Client Info |           | <b>N/A</b>         | N/A         | N/A         |
| Sample Status  |     |             |           | <b>ABNORMAL</b>    | NORMAL      | NORMAL      |

### WEAR

The aluminum level is abnormal. All other component wear rates are normal.

|              |        |             |      |             |      |      |
|--------------|--------|-------------|------|-------------|------|------|
| Iron         | ppm    | ASTM D5185m | >100 | <b>40</b>   | 19   | 45   |
| Chromium     | ppm    | ASTM D5185m | >20  | <b>2</b>    | 1    | 2    |
| Nickel       | ppm    | ASTM D5185m | >4   | <b>0</b>    | 0    | 0    |
| Titanium     | ppm    | ASTM D5185m |      | <b>0</b>    | 0    | 0    |
| Silver       | ppm    | ASTM D5185m | >3   | <b>0</b>    | 0    | 0    |
| Aluminum     | ppm    | ASTM D5185m | >20  | <b>▲ 27</b> | 11   | 15   |
| Lead         | ppm    | ASTM D5185m | >40  | <b>4</b>    | <1   | 3    |
| Copper       | ppm    | ASTM D5185m | >330 | <b>1</b>    | <1   | 1    |
| Tin          | ppm    | ASTM D5185m | >15  | <b>1</b>    | <1   | <1   |
| Vanadium     | ppm    | ASTM D5185m |      | <b>0</b>    | 0    | <1   |
| 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.

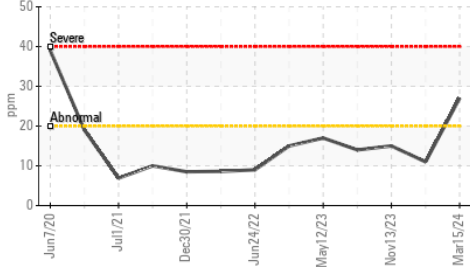
|                  |          |             |       |                |       |       |
|------------------|----------|-------------|-------|----------------|-------|-------|
| Silicon          | ppm      | ASTM D5185m | >25   | <b>9</b>       | 8     | 11    |
| Potassium        | ppm      | ASTM D5185m | >20   | <b>20</b>      | 4     | 15    |
| Fuel             |          | WC Method   | >5    | <b>&lt;1.0</b> | <1.0  | <1.0  |
| Water            |          | WC Method   | >0.2  | <b>NEG</b>     | NEG   | NEG   |
| Glycol           | %        | *ASTM D2982 |       | <b>NEG</b>     | NEG   | NEG   |
| Soot %           | %        | *ASTM D7844 | >3    | <b>1</b>       | 0.5   | 0.9   |
| Nitration        | Abs/cm   | *ASTM D7624 | >20   | <b>13.8</b>    | 10.0  | 14.4  |
| Sulfation        | Abs/.1mm | *ASTM D7415 | >30   | <b>27.3</b>    | 23.9  | 27.7  |
| 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

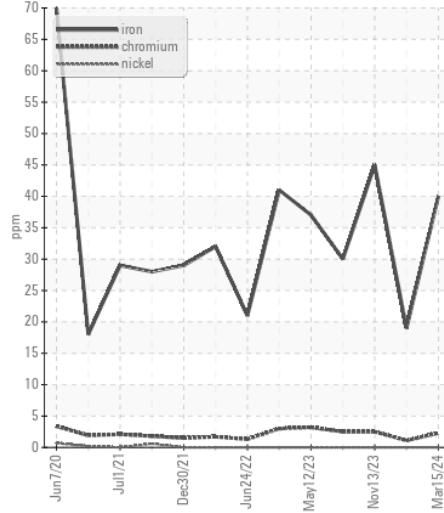
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

|                  |          |             |      |             |      |      |
|------------------|----------|-------------|------|-------------|------|------|
| Sodium           | ppm      | ASTM D5185m |      | <b>4</b>    | 3    | 4    |
| Boron            | ppm      | ASTM D5185m | 250  | <b>26</b>   | 42   | 16   |
| Barium           | ppm      | ASTM D5185m | 10   | <b>0</b>    | 0    | 0    |
| Molybdenum       | ppm      | ASTM D5185m | 100  | <b>46</b>   | 43   | 43   |
| Manganese        | ppm      | ASTM D5185m |      | <b>1</b>    | <1   | <1   |
| Magnesium        | ppm      | ASTM D5185m | 450  | <b>547</b>  | 529  | 524  |
| Calcium          | ppm      | ASTM D5185m | 3000 | <b>1769</b> | 1697 | 1789 |
| Phosphorus       | ppm      | ASTM D5185m | 1150 | <b>801</b>  | 781  | 796  |
| Zinc             | ppm      | ASTM D5185m | 1350 | <b>953</b>  | 932  | 939  |
| Sulfur           | ppm      | ASTM D5185m | 4250 | <b>2688</b> | 2305 | 2229 |
| Oxidation        | Abs/.1mm | *ASTM D7414 | >25  | <b>28.7</b> | 23.4 | 30.8 |
| Base Number (BN) | mg KOH/g | ASTM D2896  | 8.5  | <b>5.7</b>  | 8.0  | 5.8  |
| Visc @ 100°C     | cSt      | ASTM D445   | 10.9 | <b>11.6</b> | 11.3 | 11.3 |

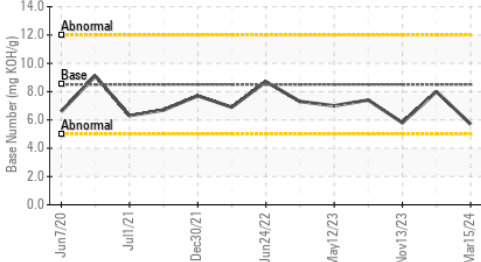
▲ Aluminum (ppm)



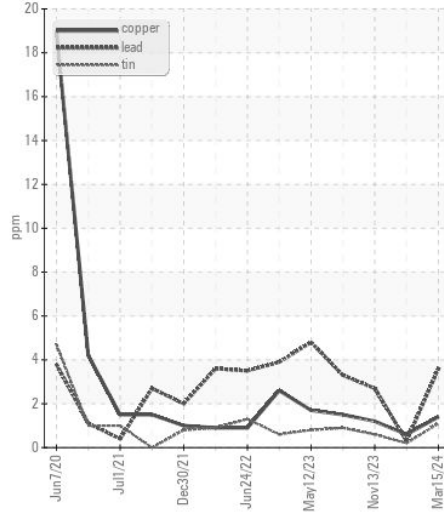
Ferrous Alloys



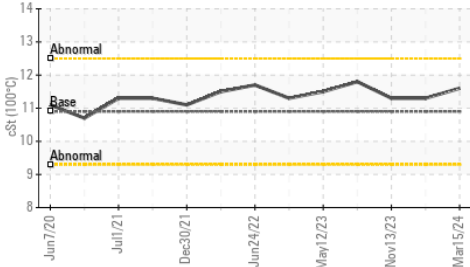
Base Number



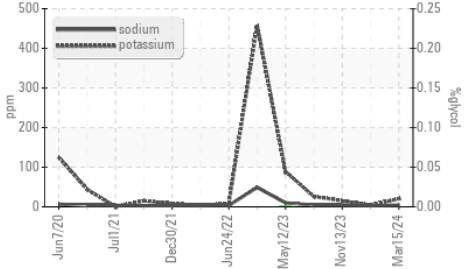
Non-ferrous Metals



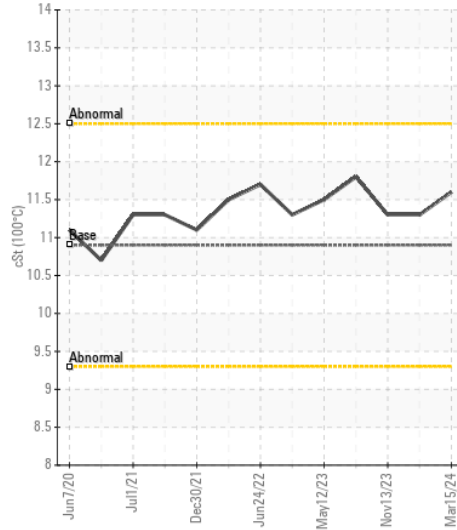
Viscosity @ 100°C



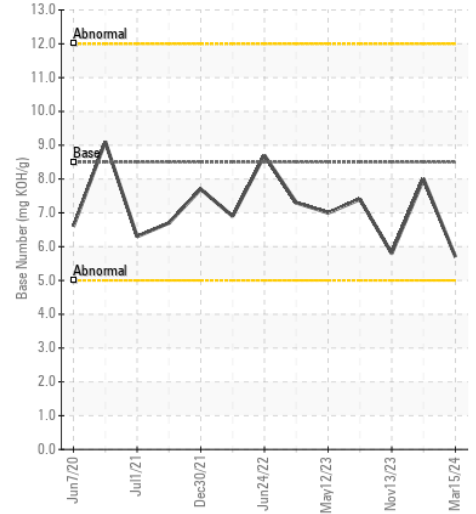
Glycol Contamination



Viscosity @ 100°C



Base Number



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : IL0030995 **Received** : 20 Mar 2024  
**Lab Number** : 06124147 **Tested** : 23 Mar 2024  
**Unique Number** : 10938298 **Diagnosed** : 23 Mar 2024 - Don Baldrige  
**Test Package** : FLEET ( Additional Tests: Glycol )

**IDEALISE OF ATLANTA - FULTON**  
 4675 BAKERS FERRY ROAD  
 ATLANTA, GA  
 US 30331

Contact: DAVID JOHNS  
 davidjohns@idealease.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: (404)699-5571  
 F: (404)699-7420