



# OIL ANALYSIS REPORT

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

Machine Id  
**859-1721**  
 Component  
**Diesel Engine**  
 Fluid  
**MOBIL DELVAC 1300 SUPER15W40 (--- GAL)**

## RECOMMENDATION

We advise that you check for possible coolant leak. Check for low coolant level. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

| Test           | UOM | Method      | Limit/Abn | Current            | History1    | History2 |
|----------------|-----|-------------|-----------|--------------------|-------------|----------|
| Sample Number  |     | Client Info |           | <b>RPL0012754</b>  | RPL0009472  | ---      |
| Sample Date    |     | Client Info |           | <b>24 May 2023</b> | 23 Dec 2022 | ---      |
| Machine Age    | mls | Client Info |           | <b>430664</b>      | 395928      | ---      |
| Oil Age        | mls | Client Info |           | <b>0</b>           | 0           | ---      |
| Filter Age     | mls | Client Info |           | <b>0</b>           | 0           | ---      |
| Oil Changed    |     | Client Info |           | <b>Changed</b>     | Not Changd  | ---      |
| Filter Changed |     | Client Info |           | <b>Changed</b>     | Not Changd  | ---      |
| Sample Status  |     |             |           | <b>ABNORMAL</b>    | NORMAL      | ---      |

## WEAR

All component wear rates are normal.

|              |        |             |      |              |      |     |
|--------------|--------|-------------|------|--------------|------|-----|
| Iron         | ppm    | ASTM D5185m | >100 | <b>20</b>    | 6    | --- |
| Chromium     | ppm    | ASTM D5185m | >20  | <b>0</b>     | <1   | --- |
| Nickel       | ppm    | ASTM D5185m | >4   | <b>0</b>     | <1   | --- |
| Titanium     | ppm    | ASTM D5185m |      | <b>8</b>     | 7    | --- |
| Silver       | ppm    | ASTM D5185m | >3   | <b>0</b>     | 0    | --- |
| Aluminum     | ppm    | ASTM D5185m | >20  | <b>7</b>     | 4    | --- |
| Lead         | ppm    | ASTM D5185m | >40  | <b>0</b>     | <1   | --- |
| Copper       | ppm    | ASTM D5185m | >330 | <b>3</b>     | <1   | --- |
| Tin          | ppm    | ASTM D5185m | >15  | <b>&lt;1</b> | <1   | --- |
| Vanadium     | ppm    | ASTM D5185m |      | <b>0</b>     | <1   | --- |
| White Metal  | scalar | *Visual     | NONE | <b>NONE</b>  | NONE | --- |
| Yellow Metal | scalar | *Visual     | NONE | <b>NONE</b>  | NONE | --- |

## CONTAMINATION

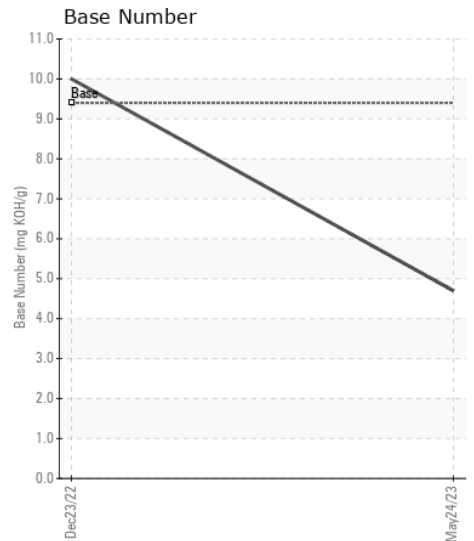
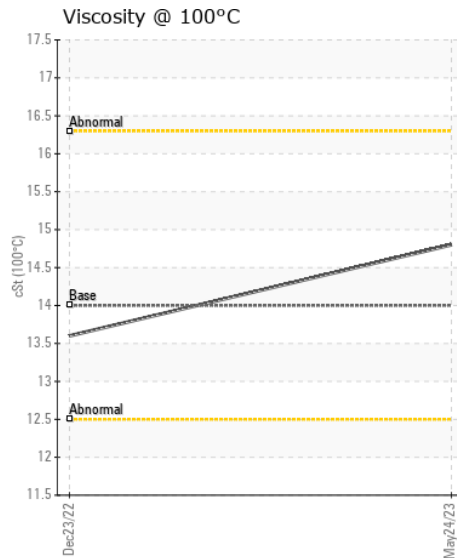
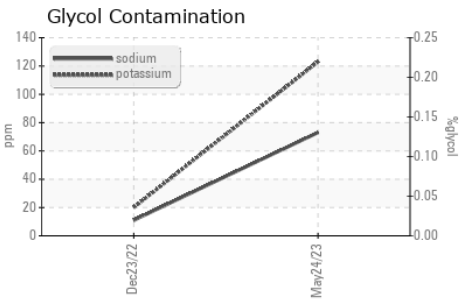
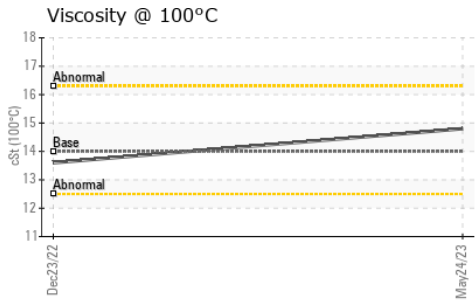
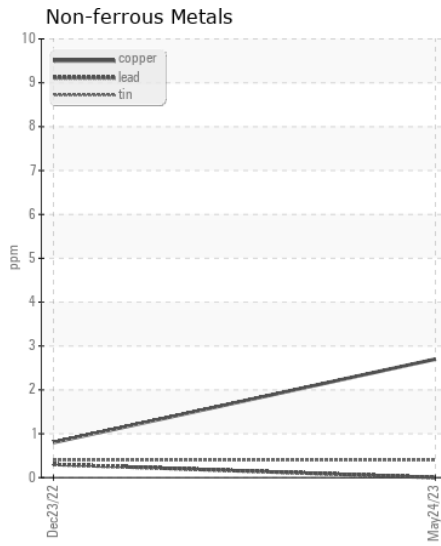
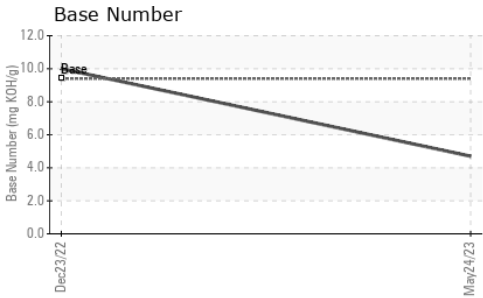
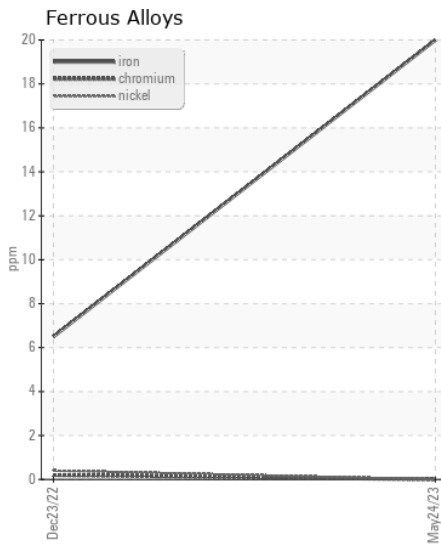
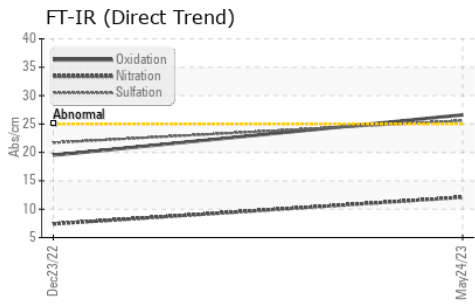
Sodium and/or potassium levels are high.

|                  |          |             |       |                |       |     |
|------------------|----------|-------------|-------|----------------|-------|-----|
| Silicon          | ppm      | ASTM D5185m | >25   | <b>10</b>      | 7     | --- |
| Potassium        | ppm      | ASTM D5185m | >20   | <b>▲ 123</b>   | 20    | --- |
| Fuel             |          | WC Method   | >5    | <b>&lt;1.0</b> | <1.0  | --- |
| Water            |          | WC Method   | >0.2  | <b>NEG</b>     | NEG   | --- |
| Glycol           | %        | *ASTM D2982 |       | <b>NEG</b>     | NEG   | --- |
| Soot %           | %        | *ASTM D7844 | >3    | <b>0.8</b>     | 0.2   | --- |
| Nitration        | Abs/cm   | *ASTM D7624 | >20   | <b>12.1</b>    | 7.4   | --- |
| Sulfation        | Abs/.1mm | *ASTM D7415 | >30   | <b>25.6</b>    | 21.7  | --- |
| Silt             | scalar   | *Visual     | NONE  | <b>NONE</b>    | NONE  | --- |
| Debris           | scalar   | *Visual     | NONE  | <b>NONE</b>    | NONE  | --- |
| Sand/Dirt        | scalar   | *Visual     | NONE  | <b>NONE</b>    | NONE  | --- |
| Appearance       | scalar   | *Visual     | NORML | <b>NORML</b>   | NORML | --- |
| Odor             | scalar   | *Visual     | NORML | <b>NORML</b>   | NORML | --- |
| Emulsified Water | scalar   | *Visual     | >0.2  | <b>NEG</b>     | NEG   | --- |

## FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil.

|                  |          |             |     |              |      |     |
|------------------|----------|-------------|-----|--------------|------|-----|
| Sodium           | ppm      | ASTM D5185m |     | <b>▲ 73</b>  | 11   | --- |
| Boron            | ppm      | ASTM D5185m | 0   | <b>9</b>     | 38   | --- |
| Barium           | ppm      | ASTM D5185m | 0   | <b>0</b>     | 0    | --- |
| Molybdenum       | ppm      | ASTM D5185m | 0   | <b>56</b>    | 47   | --- |
| Manganese        | ppm      | ASTM D5185m |     | <b>&lt;1</b> | <1   | --- |
| Magnesium        | ppm      | ASTM D5185m | 0   | <b>477</b>   | 458  | --- |
| Calcium          | ppm      | ASTM D5185m |     | <b>1924</b>  | 1808 | --- |
| Phosphorus       | ppm      | ASTM D5185m |     | <b>788</b>   | 824  | --- |
| Zinc             | ppm      | ASTM D5185m |     | <b>1017</b>  | 1007 | --- |
| Sulfur           | ppm      | ASTM D5185m |     | <b>2922</b>  | 3211 | --- |
| Oxidation        | Abs/.1mm | *ASTM D7414 | >25 | <b>26.6</b>  | 19.5 | --- |
| Base Number (BN) | mg KOH/g | ASTM D2896  | 9.4 | <b>4.7</b>   | 10.0 | --- |
| Visc @ 100°C     | cSt      | ASTM D445   | 14  | <b>14.8</b>  | 13.6 | --- |



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : RPL0012754 **Received** : 01 Jun 2023  
**Lab Number** : 05861697 **Tested** : 05 Jun 2023  
**Unique Number** : 10496162 **Diagnosed** : 05 Jun 2023 - Jonathan Hester  
**Test Package** : FLEET ( Additional Tests: Glycol )

**RTL PACLEASE - 7051 -Las Vegas**  
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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)