



# OIL ANALYSIS REPORT

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



Machine Id  
**F17**  
Component  
**Diesel Engine**  
Fluid  
**DIESEL ENGINE OIL SAE 15W40 (--- GAL)**

## RECOMMENDATION

Resample at the next service interval to monitor.

| Test           | UOM | Method      | Limit/Abn | Current            | History1    | History2 |
|----------------|-----|-------------|-----------|--------------------|-------------|----------|
| Sample Number  |     | Client Info |           | <b>WC0874282</b>   | WC0758917   | ---      |
| Sample Date    |     | Client Info |           | <b>07 Feb 2024</b> | 13 Jul 2023 | ---      |
| Machine Age    | hrs | Client Info |           | <b>13976</b>       | 220669      | ---      |
| Oil Age        | hrs | Client Info |           | <b>546</b>         | 644         | ---      |
| Filter Age     | hrs | Client Info |           | <b>546</b>         | 0           | ---      |
| Oil Changed    |     | Client Info |           | <b>Changed</b>     | N/A         | ---      |
| Filter Changed |     | Client Info |           | <b>N/A</b>         | N/A         | ---      |
| Sample Status  |     |             |           | <b>NORMAL</b>      | NORMAL      | ---      |

## WEAR

All component wear rates are normal.

|              |        |             |      |              |      |     |
|--------------|--------|-------------|------|--------------|------|-----|
| Iron         | ppm    | ASTM D5185m | >120 | <b>14</b>    | 29   | --- |
| Chromium     | ppm    | ASTM D5185m | >20  | <b>&lt;1</b> | <1   | --- |
| Nickel       | ppm    | ASTM D5185m | >5   | <b>0</b>     | 0    | --- |
| Titanium     | ppm    | ASTM D5185m | >2   | <b>&lt;1</b> | <1   | --- |
| Silver       | ppm    | ASTM D5185m | >2   | <b>0</b>     | 0    | --- |
| Aluminum     | ppm    | ASTM D5185m | >20  | <b>20</b>    | 6    | --- |
| Lead         | ppm    | ASTM D5185m | >40  | <b>0</b>     | <1   | --- |
| Copper       | ppm    | ASTM D5185m | >330 | <b>3</b>     | 3    | --- |
| Tin          | ppm    | ASTM D5185m | >15  | <b>&lt;1</b> | <1   | --- |
| Vanadium     | ppm    | ASTM D5185m |      | <b>&lt;1</b> | <1   | --- |
| White Metal  | scalar | *Visual     | NONE | <b>NONE</b>  | NONE | --- |
| Yellow Metal | scalar | *Visual     | NONE | <b>NONE</b>  | NONE | --- |

## CONTAMINATION

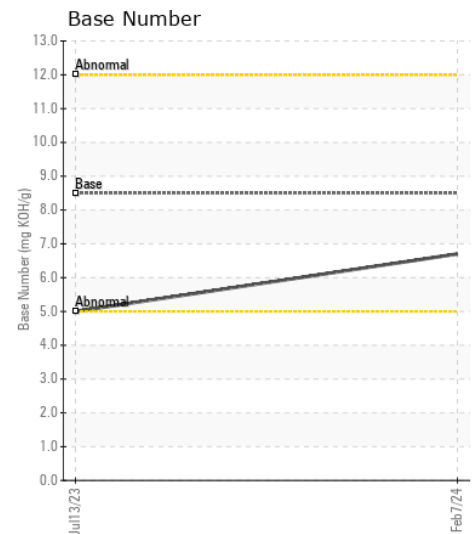
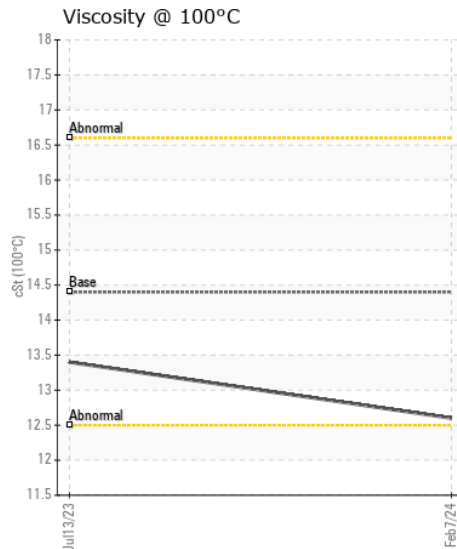
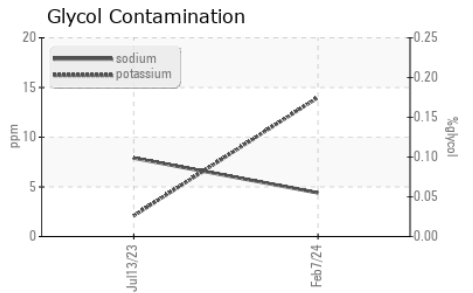
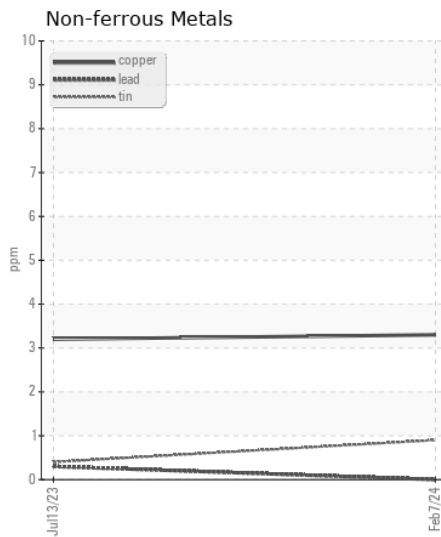
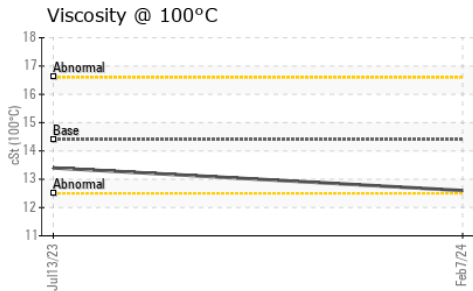
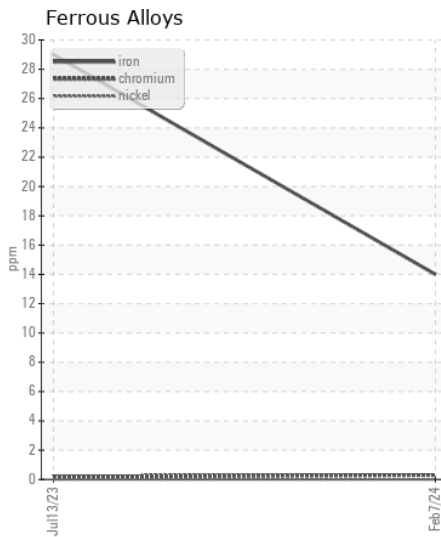
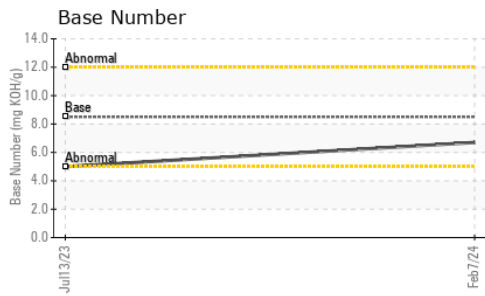
There is no indication of any contamination in the oil.

|                  |          |             |       |                |       |     |
|------------------|----------|-------------|-------|----------------|-------|-----|
| Silicon          | ppm      | ASTM D5185m | >25   | <b>4</b>       | 8     | --- |
| Potassium        | ppm      | ASTM D5185m | >20   | <b>14</b>      | 2     | --- |
| Fuel             |          | WC Method   | >3.0  | <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 | >4    | <b>0.4</b>     | 0.7   | --- |
| Nitration        | Abs/cm   | *ASTM D7624 | >20   | <b>9.1</b>     | 10.2  | --- |
| Sulfation        | Abs/.1mm | *ASTM D7415 | >30   | <b>19.6</b>    | 23.8  | --- |
| 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. The condition of the oil is suitable for further service.

|                  |          |             |      |              |      |     |
|------------------|----------|-------------|------|--------------|------|-----|
| Sodium           | ppm      | ASTM D5185m | >158 | <b>4</b>     | 8    | --- |
| Boron            | ppm      | ASTM D5185m | 250  | <b>8</b>     | 20   | --- |
| Barium           | ppm      | ASTM D5185m | 10   | <b>0</b>     | 0    | --- |
| Molybdenum       | ppm      | ASTM D5185m | 100  | <b>63</b>    | 85   | --- |
| Manganese        | ppm      | ASTM D5185m |      | <b>&lt;1</b> | <1   | --- |
| Magnesium        | ppm      | ASTM D5185m | 450  | <b>892</b>   | 154  | --- |
| Calcium          | ppm      | ASTM D5185m | 3000 | <b>1164</b>  | 2170 | --- |
| Phosphorus       | ppm      | ASTM D5185m | 1150 | <b>1008</b>  | 1008 | --- |
| Zinc             | ppm      | ASTM D5185m | 1350 | <b>1218</b>  | 1246 | --- |
| Sulfur           | ppm      | ASTM D5185m | 4250 | <b>3078</b>  | 4017 | --- |
| Oxidation        | Abs/.1mm | *ASTM D7414 | >25  | <b>14.6</b>  | 18.0 | --- |
| Base Number (BN) | mg KOH/g | ASTM D2896  | 8.5  | <b>6.7</b>   | 5.0  | --- |
| Visc @ 100°C     | cSt      | ASTM D445   | 14.4 | <b>12.6</b>  | 13.4 | --- |



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0874282 **Received** : 08 Feb 2024  
**Lab Number** : 06084250 **Tested** : 12 Feb 2024  
**Unique Number** : 10871695 **Diagnosed** : 12 Feb 2024 - Don Baldrige  
**Test Package** : CONST ( Additional Tests: Glycol, TBN )

**Apple Valley Waste - EHT Location**  
 6626 Delilah Road  
 Egg Harbor Township, NJ  
 US 08234  
 Contact: Service Manager

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:  
F: