



# OIL ANALYSIS REPORT

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



Area  
**Mobile Fleet**  
Machine Id  
**5001 5001**  
Component  
**Front Differential**  
Fluid  
**MOBIL MOBILUBE XFD 60 (30 GAL)**

## RECOMMENDATION

Resample at the next service interval to monitor.

| Test           | UOM | Method      | Limit/Abn | Current            | History1    | History2    |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number  |     | Client Info |           | <b>WC0956037</b>   | WC0918726   | WC0867154   |
| Sample Date    |     | Client Info |           | <b>11 Jul 2024</b> | 05 Apr 2024 | 19 Oct 2023 |
| Machine Age    | hrs | Client Info |           | <b>21151</b>       | 20693       | 20016       |
| Oil Age        | hrs | Client Info |           | <b>3693</b>        | 3235        | 2558        |
| Filter Age     | hrs | Client Info |           | <b>3693</b>        | 0           | 0           |
| Oil Changed    |     | Client Info |           | <b>Not Changd</b>  | Not Changd  | Not Changd  |
| Filter Changed |     | Client Info |           | <b>Not Changd</b>  | Not Changd  | Not Changd  |
| Sample Status  |     |             |           | <b>NORMAL</b>      | ATTENTION   | ABNORMAL    |

## WEAR

All component wear rates are normal.

|              |        |             |      |              |      |      |
|--------------|--------|-------------|------|--------------|------|------|
| Iron         | ppm    | ASTM D5185m | >500 | <b>143</b>   | 143  | 105  |
| Chromium     | ppm    | ASTM D5185m | >3   | <b>&lt;1</b> | 1    | <1   |
| Nickel       | ppm    | ASTM D5185m | >3   | <b>2</b>     | 2    | 2    |
| Titanium     | ppm    | ASTM D5185m | >2   | <b>4</b>     | 4    | 4    |
| Silver       | ppm    | ASTM D5185m | >2   | <b>&lt;1</b> | 0    | 0    |
| Aluminum     | ppm    | ASTM D5185m | >30  | <b>7</b>     | 8    | 5    |
| Lead         | ppm    | ASTM D5185m | >13  | <b>1</b>     | <1   | 1    |
| Copper       | ppm    | ASTM D5185m | >103 | <b>11</b>    | 8    | 9    |
| Tin          | ppm    | ASTM D5185m | >5   | <b>&lt;1</b> | <1   | <1   |
| Vanadium     | ppm    | ASTM D5185m |      | <b>&lt;1</b> | <1   | 0    |
| White Metal  | scalar | *Visual     | NONE | <b>NONE</b>  | NONE | NONE |
| Yellow Metal | scalar | *Visual     | NONE | <b>NONE</b>  | NONE | NONE |

## CONTAMINATION

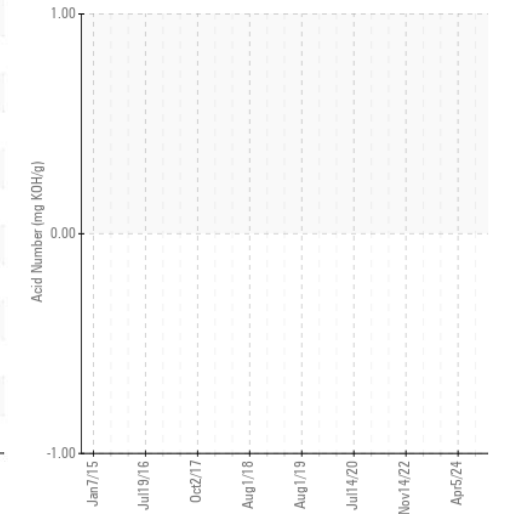
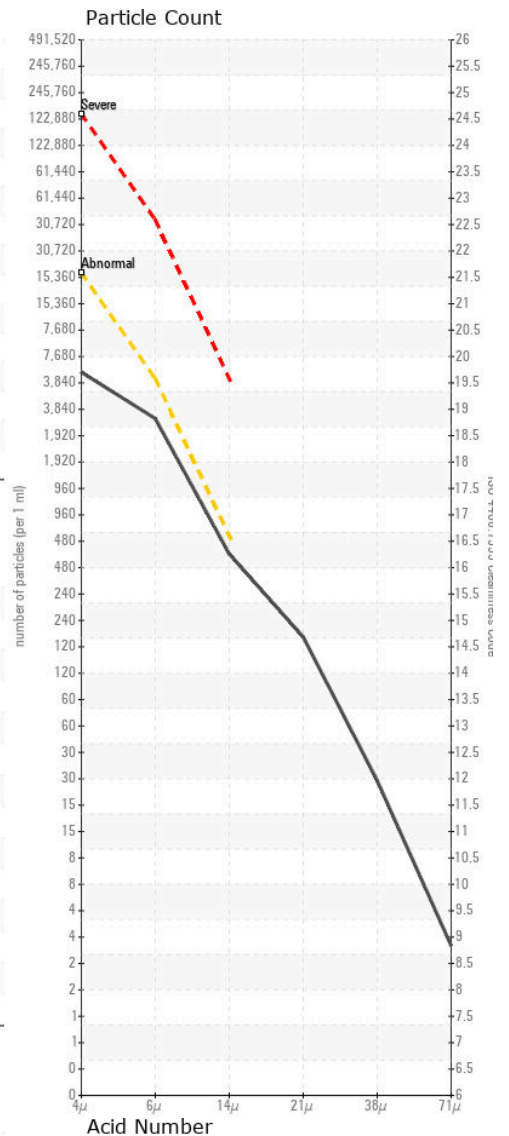
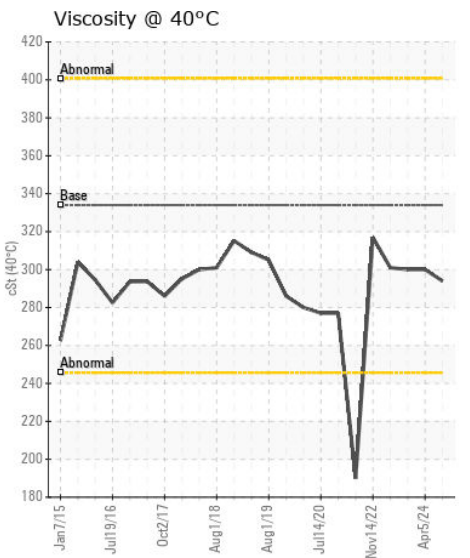
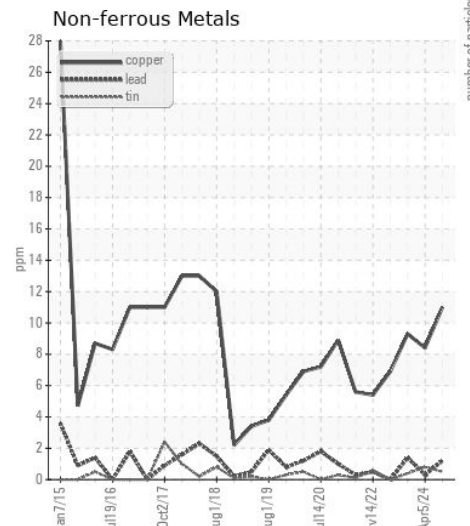
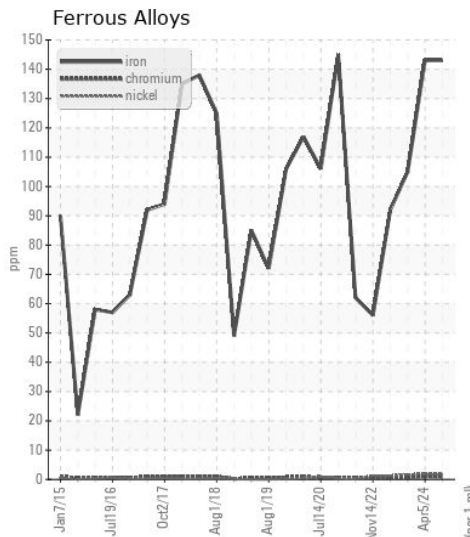
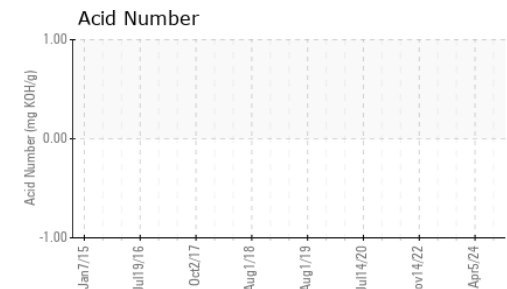
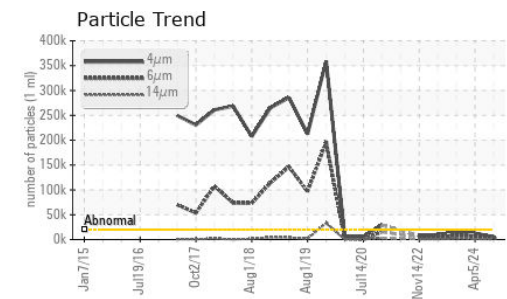
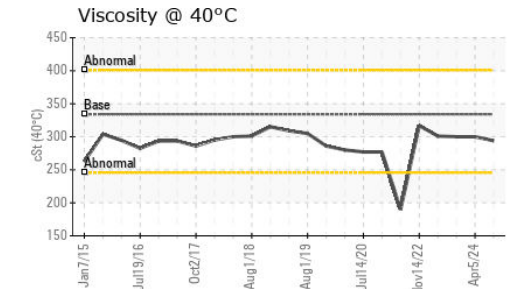
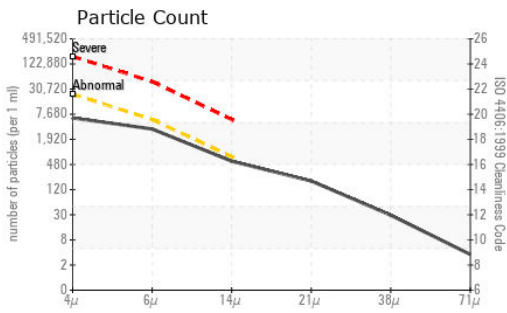
The amount and size of particulates present in the system are acceptable. There is no indication of any contamination in the oil.

|                  |        |              |           |                 |          |          |
|------------------|--------|--------------|-----------|-----------------|----------|----------|
| Silicon          | ppm    | ASTM D5185m  | >100      | <b>45</b>       | 43       | 39       |
| Potassium        | ppm    | ASTM D5185m  | >20       | <b>12</b>       | 9        | 11       |
| Water            |        | WC Method    | >.2       | <b>NEG</b>      | NEG      | NEG      |
| Particles >4µm   |        | ASTM D7647   | >20000    | <b>5446</b>     | 12449    | 14241    |
| Particles >6µm   |        | ASTM D7647   | >5000     | <b>2967</b>     | 6782     | 7758     |
| Particles >14µm  |        | ASTM D7647   | >640      | <b>505</b>      | 1154     | 1320     |
| Particles >21µm  |        | ASTM D7647   | >160      | <b>170</b>      | 389      | 445      |
| Particles >38µm  |        | ASTM D7647   | >40       | <b>26</b>       | 60       | 69       |
| Particles >71µm  |        | ASTM D7647   | >10       | <b>3</b>        | 6        | 7        |
| Oil Cleanliness  |        | ISO 4406 (c) | >21/19/16 | <b>20/19/16</b> | 21/20/17 | 21/20/18 |
| 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      | >.2       | <b>NEG</b>      | NEG      | NEG      |

## FLUID CONDITION

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

|             |     |             |     |              |       |       |
|-------------|-----|-------------|-----|--------------|-------|-------|
| Sodium      | ppm | ASTM D5185m |     | <b>6</b>     | 11    | 6     |
| Boron       | ppm | ASTM D5185m |     | <b>117</b>   | 108   | 111   |
| Barium      | ppm | ASTM D5185m |     | <b>&lt;1</b> | 0     | 9     |
| Molybdenum  | ppm | ASTM D5185m |     | <b>&lt;1</b> | <1    | <1    |
| Manganese   | ppm | ASTM D5185m |     | <b>1</b>     | 2     | 1     |
| Magnesium   | ppm | ASTM D5185m |     | <b>8</b>     | 6     | 7     |
| Calcium     | ppm | ASTM D5185m |     | <b>426</b>   | 409   | 385   |
| Phosphorus  | ppm | ASTM D5185m |     | <b>323</b>   | 354   | 346   |
| Zinc        | ppm | ASTM D5185m |     | <b>57</b>    | 48    | 51    |
| Sulfur      | ppm | ASTM D5185m |     | <b>11348</b> | 13295 | 12164 |
| Visc @ 40°C | cSt | ASTM D445   | 334 | <b>294</b>   | 300   | 300   |



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0956037  
**Lab Number** : 06235748  
**Unique Number** : 11124582  
**Test Package** : CONST ( Additional Tests: PrtCount )

**Received** : 15 Jul 2024  
**Tested** : 16 Jul 2024  
**Diagnosed** : 16 Jul 2024 - Don Baldridge

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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