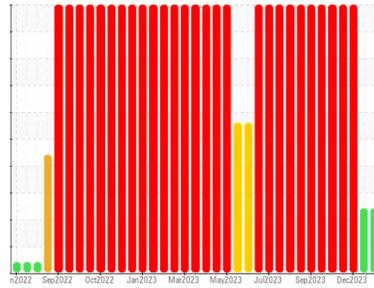




# OIL ANALYSIS REPORT

Sample Rating Trend



Area  
**Building 12**  
 Machine Id  
**Cone 2A**  
 Component  
**Bulk Tank Lube System**  
 Fluid  
**MOBIL MOBILGEAR 600 XP 320 (105 GAL)**

## DIAGNOSIS

- Recommendation**  
No corrective action is recommended at this time. Resample at the next service interval to monitor.
- Wear**  
Gear wear is indicated. Bearing and/or bushing wear is indicated.
- Contamination**  
There is no indication of any contamination in the oil.
- Fluid Condition**  
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

## SAMPLE INFORMATION

| method        | limit/base  | current            | history1    | history2    |
|---------------|-------------|--------------------|-------------|-------------|
| Sample Number | Client Info | <b>WC0901962</b>   | WC0901965   | WC0882554   |
| Sample Date   | Client Info | <b>05 Feb 2024</b> | 24 Jan 2024 | 14 Dec 2023 |
| Machine Age   | hrs         | <b>735</b>         | 735         | 735         |
| Oil Age       | hrs         | <b>735</b>         | 735         | 416         |
| Oil Changed   | Client Info | <b>Filtered</b>    | Filtered    | Changed     |
| Sample Status |             | <b>ABNORMAL</b>    | ABNORMAL    | SEVERE      |

## CONTAMINATION

| method | limit/base      | current    | history1 | history2 |
|--------|-----------------|------------|----------|----------|
| Water  | WC Method >0.05 | <b>NEG</b> | NEG      | NEG      |

## WEAR METALS

| method       | limit/base      | current      | history1 | history2 |
|--------------|-----------------|--------------|----------|----------|
| Iron ppm     | ASTM D5185m >20 | <b>▲ 88</b>  | ▲ 80     | ▲ 211    |
| Chromium ppm | ASTM D5185m >20 | <b>0</b>     | 0        | 2        |
| Nickel ppm   | ASTM D5185m >20 | <b>&lt;1</b> | 0        | 5        |
| Titanium ppm | ASTM D5185m     | <b>0</b>     | 0        | 2        |
| Silver ppm   | ASTM D5185m     | <b>0</b>     | 0        | 0        |
| Aluminum ppm | ASTM D5185m >20 | <b>3</b>     | 3        | ● 27     |
| Lead ppm     | ASTM D5185m >20 | <b>▲ 35</b>  | ▲ 28     | ▲ 75     |
| Copper ppm   | ASTM D5185m >20 | <b>▲ 38</b>  | ▲ 31     | ▲ 391    |
| Tin ppm      | ASTM D5185m >20 | <b>6</b>     | 5        | ▲ 41     |
| Vanadium ppm | ASTM D5185m     | <b>0</b>     | 0        | <1       |
| Cadmium ppm  | ASTM D5185m     | <b>0</b>     | 0        | 0        |

## ADDITIVES

| method         | limit/base  | current      | history1 | history2 |
|----------------|-------------|--------------|----------|----------|
| Boron ppm      | ASTM D5185m | <b>25</b>    | 26       | 25       |
| Barium ppm     | ASTM D5185m | <b>0</b>     | 0        | 0        |
| Molybdenum ppm | ASTM D5185m | <b>0</b>     | 0        | 0        |
| Manganese ppm  | ASTM D5185m | <b>1</b>     | 1        | 2        |
| Magnesium ppm  | ASTM D5185m | <b>2</b>     | 2        | 14       |
| Calcium ppm    | ASTM D5185m | <b>1</b>     | <1       | 14       |
| Phosphorus ppm | ASTM D5185m | <b>270</b>   | 278      | 257      |
| Zinc ppm       | ASTM D5185m | <b>0</b>     | <1       | 0        |
| Sulfur ppm     | ASTM D5185m | <b>16355</b> | 16574    | 11678    |

## CONTAMINANTS

| method        | limit/base      | current      | history1 | history2 |
|---------------|-----------------|--------------|----------|----------|
| Silicon ppm   | ASTM D5185m >15 | <b>7</b>     | 8        | ▲ 76     |
| Sodium ppm    | ASTM D5185m     | <b>2</b>     | 2        | 11       |
| Potassium ppm | ASTM D5185m >20 | <b>&lt;1</b> | 0        | 4        |

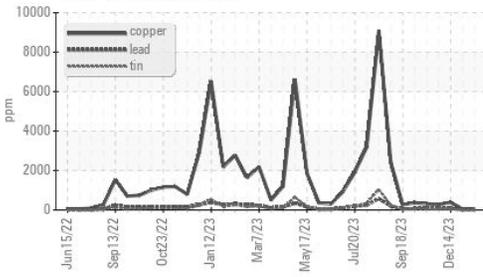
## FLUID DEGRADATION

| method                    | limit/base | current     | history1 | history2 |
|---------------------------|------------|-------------|----------|----------|
| Acid Number (AN) mg KOH/g | ASTM D8045 | <b>0.72</b> | 0.84     | 0.72     |

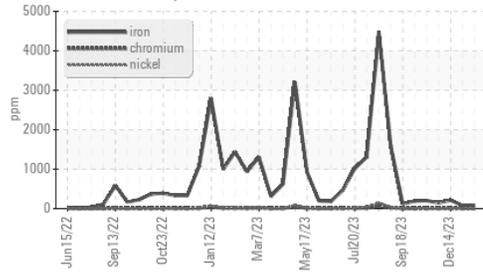


# OIL ANALYSIS REPORT

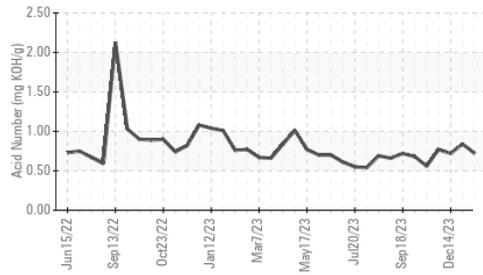
## Non-ferrous Metals



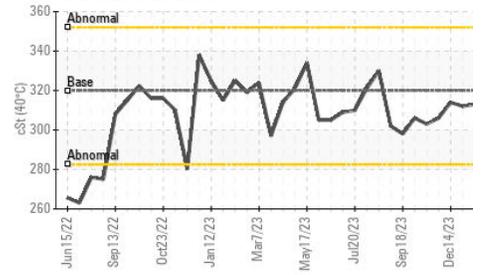
## Ferrous Alloys



## Acid Number



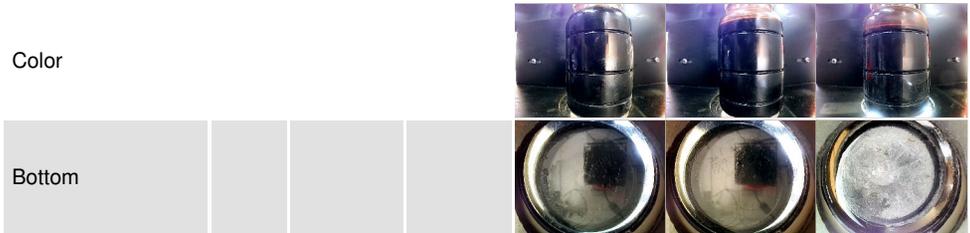
## Viscosity @ 40°C



| VISUAL           | method | limit/base | current | history1     | history2 |         |
|------------------|--------|------------|---------|--------------|----------|---------|
| White Metal      | scalar | *Visual    | NONE    | <b>LIGHT</b> | NONE     | NONE    |
| Yellow Metal     | scalar | *Visual    | NONE    | <b>NONE</b>  | NONE     | NONE    |
| Precipitate      | scalar | *Visual    | NONE    | <b>NONE</b>  | NONE     | NONE    |
| Silt             | scalar | *Visual    | NONE    | <b>NONE</b>  | NONE     | ▲ MODER |
| 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    | >0.05   | <b>NEG</b>   | NEG      | NEG     |
| Free Water       | scalar | *Visual    |         | <b>NEG</b>   | NEG      | NEG     |

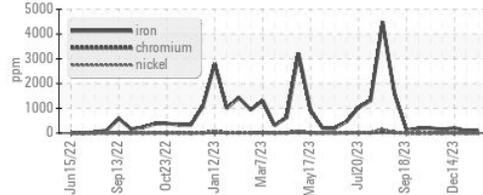
| FLUID PROPERTIES | method | limit/base | current | history1   | history2 |     |
|------------------|--------|------------|---------|------------|----------|-----|
| Visc @ 40°C      | cSt    | ASTM D445  | 320     | <b>313</b> | 312      | 314 |

| SAMPLE IMAGES | method | limit/base | current | history1 | history2 |
|---------------|--------|------------|---------|----------|----------|
|---------------|--------|------------|---------|----------|----------|

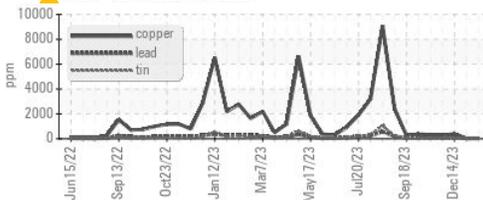


## GRAPHS

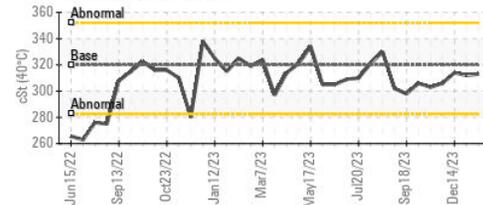
### Ferrous Alloys



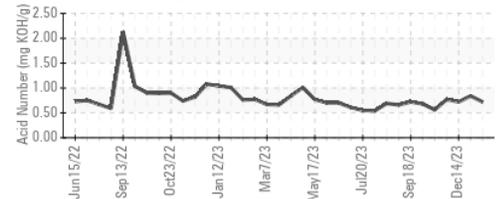
### Non-ferrous Metals



### Viscosity @ 40°C



### Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : WC0901962

Lab Number : 06140070

Unique Number : 10964878

Test Package : IND 2

Received : 05 Apr 2024

Tested : 08 Apr 2024

Diagnosed : 08 Apr 2024 - Don Baldrige

3M - PITTSBORO

4191 NC 87 S

MONCURE, NC

US 27559

Contact: CHARLES JARRELL

cjarrell@mmm.com

T:

F:

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)