

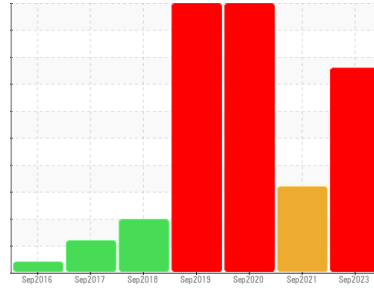


# PROBLEM SUMMARY

Area  
**ACRYLIC**  
Machine Id  
**MT A - AGITATOR**

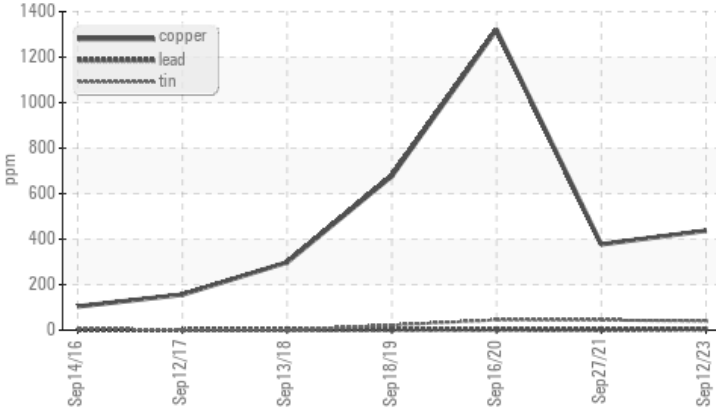
Component  
**Gearbox**  
Fluid  
**SHELL OMALA S2 G 220 (5 GAL)**

Sample Rating Trend



## COMPONENT CONDITION SUMMARY

### Non-ferrous Metals



## RECOMMENDATION

We recommend you service the filters on this component if applicable. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition. We were unable to perform a particle count due to a high concentration of particles present in this sample.

## PROBLEMATIC TEST RESULTS

| Sample Status |        |             |      | SEVERE | ABNORMAL | SEVERE |
|---------------|--------|-------------|------|--------|----------|--------|
| Copper        | ppm    | ASTM D5185m | >200 | 437    | 377      | 1320   |
| Tin           | ppm    | ASTM D5185m | >25  | 41     | 44       | 45     |
| Silt          | scalar | *Visual     | NONE | HEAVY  | NONE     | NONE   |

Customer Id: LUBGAS  
Sample No.: WC0855211  
Lab Number: 05965336  
Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:  
Don Baldrige +1  
[don.b505@comcast.net](mailto:don.b505@comcast.net)

To change component or sample information:  
Customer Service +1 1-800-237-1369  
[customerservice@wearcheck.com](mailto:customerservice@wearcheck.com)

## RECOMMENDED ACTIONS

| Action              | Status | Date | Done By | Description   |
|---------------------|--------|------|---------|---|
| Inspect Wear Source | ---    | ---  | ?       | We advise that you inspect for the source(s) of wear.   |
| Change Filter       | ---    | ---  | ?       | We recommend you service the filters on this component if applicable.                                       |
| Resample            | ---    | ---  | ?       | We recommend an early resample to monitor this condition.   |
| Alert               | ---    | ---  | ?       | We were unable to perform a particle count due to a high concentration of particles present in this sample. |

## HISTORICAL DIAGNOSIS

### 27 Sep 2021 Diag: Jonathan Hester

#### VISUAL METAL



We recommend you service the filters on this component if applicable. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition. We were unable to perform a particle count due to metal particles present in this sample. High concentration of visible metal present. Bearing and/or bushing wear is indicated. There is no indication of any contamination in the oil. The oil viscosity is higher than normal. Confirm oil type. The AN level is acceptable for this fluid.

[view report](#)



### 16 Sep 2020 Diag: Don Baldrige

#### VISUAL METAL



We recommend you service the filters on this component if applicable. We advise that you inspect for the source(s) of wear. We were unable to perform a particle count due to metal particles present in this sample. Bearing and/or bushing wear is indicated. High concentration of visible yellow metal present. There is no indication of any contamination in the oil. The AN level is acceptable for this fluid.

[view report](#)



### 18 Sep 2019 Diag: Doug Bogart

#### VISUAL METAL



We recommend you service the filters on this component if applicable. We advise that you inspect for the source(s) of wear. We were unable to perform a particle count due to metal particles present in this sample. Bearing and/or gear wear is indicated. High concentration of visible metal present. There is no indication of any contamination in the oil. The AN level is acceptable for this fluid.

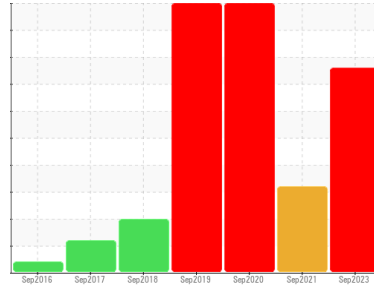
[view report](#)





# OIL ANALYSIS REPORT

Sample Rating Trend



WEAR



Area  
**ACRYLIC**  
Machine Id  
**MT A - AGITATOR**

Component  
**Gearbox**  
Fluid  
**SHELL OMALA S2 G 220 (5 GAL)**

## DIAGNOSIS

### Recommendation

We recommend you service the filters on this component if applicable. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition. We were unable to perform a particle count due to a high concentration of particles present in this sample.

### Wear

Bearing and/or bushing wear is indicated.

### Contamination

There is a high amount of visible silt present in the sample.

### Fluid Condition

The AN level is acceptable for this fluid.

## SAMPLE INFORMATION

|               | method      | limit/base  | current            | history1    | history2    |
|---------------|-------------|-------------|--------------------|-------------|-------------|
| Sample Number | Client Info |             | <b>WC0855211</b>   | WC0619213   | WC0507828   |
| Sample Date   | Client Info |             | <b>12 Sep 2023</b> | 27 Sep 2021 | 16 Sep 2020 |
| Machine Age   | mths        | Client Info | <b>0</b>           | 0           | 0           |
| Oil Age       | mths        | Client Info | <b>0</b>           | 0           | 0           |
| Oil Changed   | Client Info |             | <b>N/A</b>         | N/A         | N/A         |
| Sample Status |             |             | <b>SEVERE</b>      | ABNORMAL    | SEVERE      |

## WEAR METALS

|          | method | limit/base       | current      | history1 | history2 |
|----------|--------|------------------|--------------|----------|----------|
| Iron     | ppm    | ASTM D5185m >200 | <b>73</b>    | 33       | 83       |
| Chromium | ppm    | ASTM D5185m >15  | <b>0</b>     | <1       | <1       |
| Nickel   | ppm    | ASTM D5185m >15  | <b>&lt;1</b> | <1       | <1       |
| Titanium | ppm    | ASTM D5185m      | <b>0</b>     | 0        | <1       |
| Silver   | ppm    | ASTM D5185m      | <b>0</b>     | <1       | <1       |
| Aluminum | ppm    | ASTM D5185m >25  | <b>&lt;1</b> | 0        | 0        |
| Lead     | ppm    | ASTM D5185m >100 | <b>4</b>     | <1       | 2        |
| Copper   | ppm    | ASTM D5185m >200 | <b>437</b>   | 377      | 1320     |
| Tin      | ppm    | ASTM D5185m >25  | <b>41</b>    | 44       | 45       |
| Antimony | ppm    | ASTM D5185m >5   | <b>---</b>   | 0        | 0        |
| Vanadium | ppm    | ASTM D5185m      | <b>0</b>     | 0        | 0        |
| Cadmium  | ppm    | ASTM D5185m      | <b>0</b>     | 0        | 0        |

## ADDITIVES

|            | method | limit/base       | current      | history1 | history2 |
|------------|--------|------------------|--------------|----------|----------|
| Boron      | ppm    | ASTM D5185m 4.4  | <b>0</b>     | 9        | 3        |
| Barium     | ppm    | ASTM D5185m 0.0  | <b>0</b>     | 0        | 0        |
| Molybdenum | ppm    | ASTM D5185m 0    | <b>0</b>     | <1       | <1       |
| Manganese  | ppm    | ASTM D5185m      | <b>&lt;1</b> | <1       | <1       |
| Magnesium  | ppm    | ASTM D5185m 0    | <b>2</b>     | <1       | <1       |
| Calcium    | ppm    | ASTM D5185m 0    | <b>&lt;1</b> | 0        | 2        |
| Phosphorus | ppm    | ASTM D5185m 215  | <b>174</b>   | 313      | 121      |
| Zinc       | ppm    | ASTM D5185m 0    | <b>0</b>     | 0        | 0        |
| Sulfur     | ppm    | ASTM D5185m 7039 | <b>6539</b>  | 239      | 7773     |

## CONTAMINANTS

|           | method | limit/base      | current      | history1 | history2 |
|-----------|--------|-----------------|--------------|----------|----------|
| Silicon   | ppm    | ASTM D5185m >50 | <b>2</b>     | 3        | 3        |
| Sodium    | ppm    | ASTM D5185m     | <b>&lt;1</b> | 8        | 0        |
| Potassium | ppm    | ASTM D5185m >20 | <b>0</b>     | <1       | <1       |

## FLUID DEGRADATION

|                  | method   | limit/base | current     | history1 | history2 |
|------------------|----------|------------|-------------|----------|----------|
| Acid Number (AN) | mg KOH/g | ASTM D8045 | <b>0.22</b> | 0.053    | 0.243    |

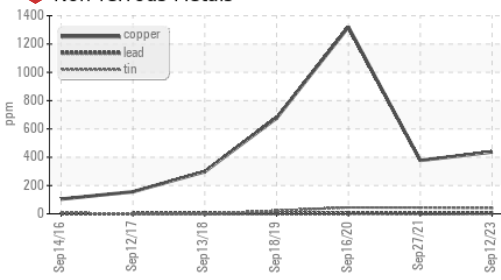
## VISUAL

|                  | method | limit/base    | current      | history1 | history2 |
|------------------|--------|---------------|--------------|----------|----------|
| White Metal      | scalar | *Visual NONE  | <b>NONE</b>  | NONE     | NONE     |
| Yellow Metal     | scalar | *Visual NONE  | <b>NONE</b>  | HEAVY    | HEAVY    |
| Precipitate      | scalar | *Visual NONE  | <b>NONE</b>  | NONE     | NONE     |
| Silt             | scalar | *Visual NONE  | <b>HEAVY</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> | HAZY     | NORML    |
| Odor             | scalar | *Visual NORML | <b>NORML</b> | NORML    | NORML    |
| Emulsified Water | scalar | *Visual >0.2  | <b>NEG</b>   | NEG      | NEG      |
| Free Water       | scalar | *Visual       | <b>NEG</b>   | NEG      | NEG      |

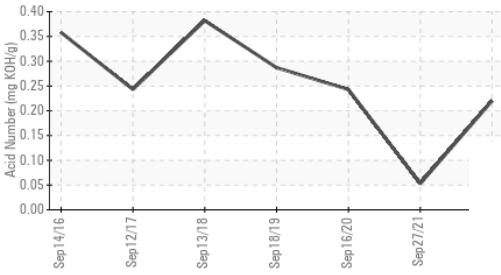


# OIL ANALYSIS REPORT

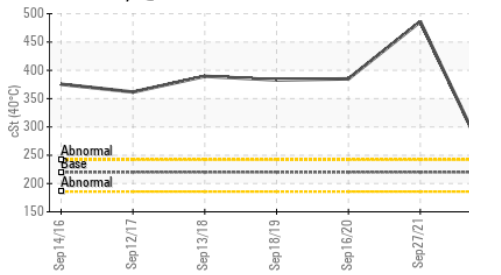
## Non-ferrous Metals



## Acid Number



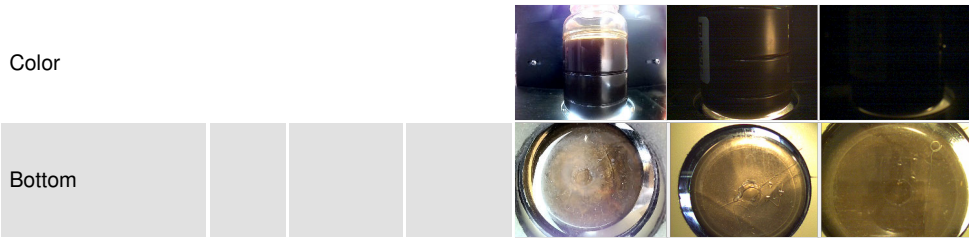
## Viscosity @ 40°C



## FLUID PROPERTIES

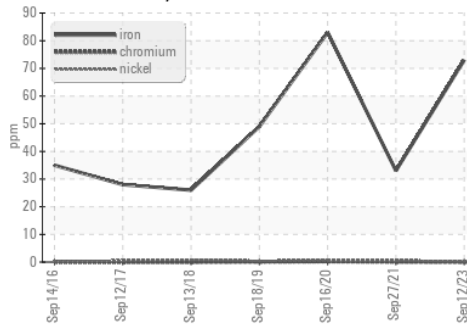
| method      | limit/base | current   | history1 | history2 |     |     |     |     |     |
|-------------|------------|-----------|----------|----------|-----|-----|-----|-----|-----|
| Visc @ 40°C | cSt        | ASTM D445 | 220      | 220      | 220 | 220 | 220 | 220 | 220 |

## SAMPLE IMAGES

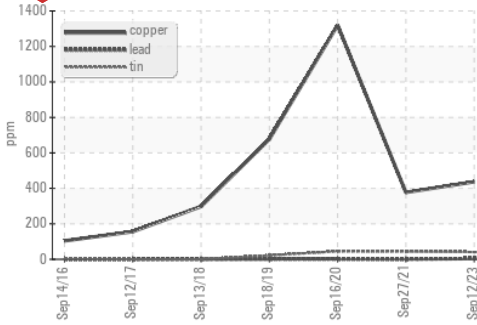


## GRAPHS

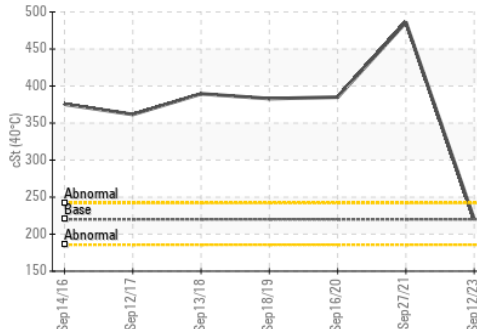
### Ferrous Alloys



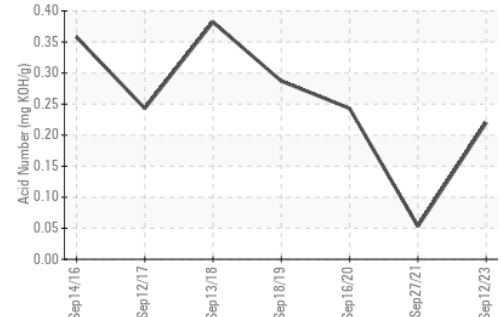
## Non-ferrous Metals



## Viscosity @ 40°C



## Acid Number



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0855211 **Received** : 29 Sep 2023  
**Lab Number** : 05965336 **Diagnosed** : 02 Oct 2023  
**Unique Number** : 10671887 **Diagnostician** : Don Baldrige  
**Test Package** : IND 2 ( Additional Tests: PrtCount )

**LUBRIZOL ADVANCED MATERIALS INC**  
 207 TELEGRAPH DR  
 GASTONIA, NC  
 US 28056  
 Contact: TIMOTHY DAVIS  
 timothy.davis@lubrizol.com  
 T: (704)915-4131  
 F: x:

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)