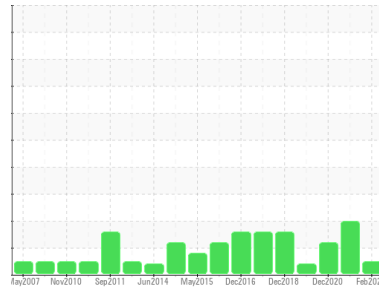




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Area  
**Molding**  
 Machine Id  
**PRESS 20 (S/N 61004468)**  
 Component  
**Hydraulic System**  
 Fluid  
**SHELL TELLUS S3 M 46 (91 GAL)**

## DIAGNOSIS

**Recommendation**  
 Resample at the next service interval to monitor.

**Wear**  
 All component wear rates are normal.

**Contamination**  
 The amount and size of particulates present in the system are acceptable. 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>ST44412</b>     | ST44357     | ST40896     |
| Sample Date        | Client Info |             |            | <b>06 Feb 2023</b> | 01 Dec 2022 | 07 Dec 2020 |
| Machine Age        | hrs         | Client Info |            | <b>0</b>           | 0           | 0           |
| Oil Age            | hrs         | Client Info |            | <b>0</b>           | 0           | 0           |
| Oil Changed        | Client Info |             |            | <b>N/A</b>         | N/A         | N/A         |
| Sample Status      |             |             |            | <b>NORMAL</b>      | ABNORMAL    | ABNORMAL    |

| WEAR METALS |     | method      | limit/base | current      | history1 | history2 |
|-------------|-----|-------------|------------|--------------|----------|----------|
| Iron        | ppm | ASTM D5185m | >40        | <b>10</b>    | 9        | 11       |
| Chromium    | ppm | ASTM D5185m | >4         | <b>0</b>     | 0        | <1       |
| Nickel      | ppm | ASTM D5185m | >20        | <b>0</b>     | 0        | 0        |
| Titanium    | ppm | ASTM D5185m |            | <b>0</b>     | 0        | 0        |
| Silver      | ppm | ASTM D5185m |            | <b>&lt;1</b> | 0        | 0        |
| Aluminum    | ppm | ASTM D5185m | >4         | <b>0</b>     | <1       | 0        |
| Lead        | ppm | ASTM D5185m | >10        | <b>0</b>     | 0        | 0        |
| Copper      | ppm | ASTM D5185m | >60        | <b>1</b>     | 2        | 2        |
| Tin         | ppm | ASTM D5185m | >4         | <b>0</b>     | 0        | <1       |
| Antimony    | ppm | ASTM D5185m |            | <b>---</b>   | ---      | 0        |
| Vanadium    | ppm | ASTM D5185m |            | <b>0</b>     | 0        | 0        |
| Cadmium     | ppm | ASTM D5185m |            | <b>0</b>     | 0        | 0        |

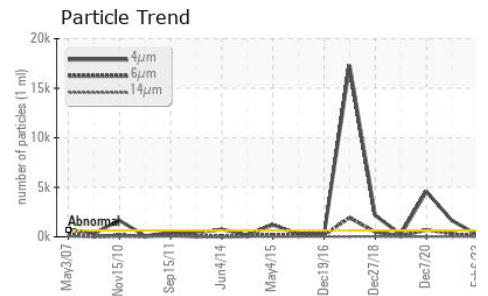
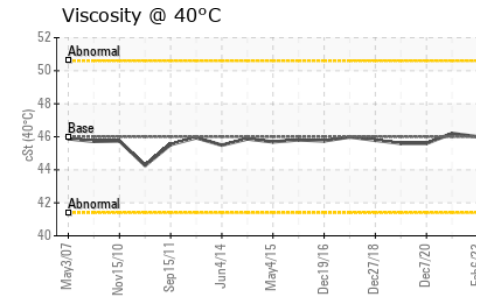
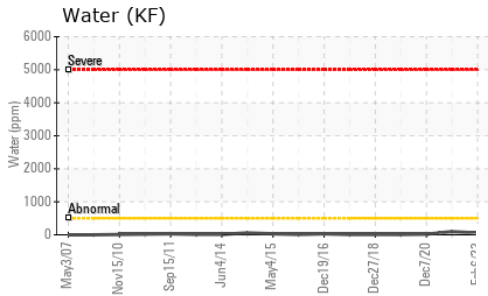
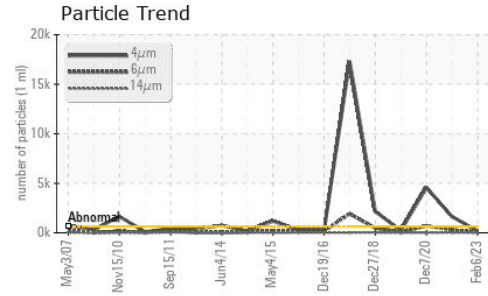
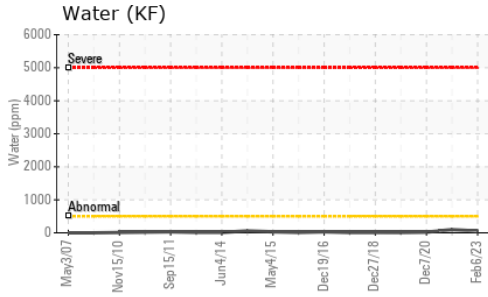
| ADDITIVES  |     | method      | limit/base | current      | history1 | history2 |
|------------|-----|-------------|------------|--------------|----------|----------|
| Boron      | ppm | ASTM D5185m | 0          | <b>0</b>     | 0        | 0        |
| Barium     | ppm | ASTM D5185m | 3          | <b>0</b>     | 0        | 0        |
| Molybdenum | ppm | ASTM D5185m | 0          | <b>0</b>     | 0        | 0        |
| Manganese  | ppm | ASTM D5185m |            | <b>&lt;1</b> | <1       | <1       |
| Magnesium  | ppm | ASTM D5185m | 0          | <b>0</b>     | 0        | <1       |
| Calcium    | ppm | ASTM D5185m | 0          | <b>23</b>    | 26       | 27       |
| Phosphorus | ppm | ASTM D5185m | 106        | <b>58</b>    | 71       | 77       |
| Zinc       | ppm | ASTM D5185m | 0          | <b>19</b>    | 28       | 27       |
| Sulfur     | ppm | ASTM D5185m |            | <b>190</b>   | 442      | 374      |

| CONTAMINANTS |     | method      | limit/base | current      | history1 | history2 |
|--------------|-----|-------------|------------|--------------|----------|----------|
| Silicon      | ppm | ASTM D5185m | >20        | <b>0</b>     | 0        | <1       |
| Sodium       | ppm | ASTM D5185m |            | <b>3</b>     | 3        | <1       |
| Potassium    | ppm | ASTM D5185m | >20        | <b>0</b>     | 0        | 0        |
| Water        | %   | ASTM D6304  | >0.05      | <b>0.005</b> | 0.009    | 0.002    |
| ppm Water    | ppm | ASTM D6304  | >500       | <b>52.3</b>  | 99.0     | 18.6     |

| FLUID CLEANLINESS |  | method       | limit/base | current         | history1   | history2   |
|-------------------|--|--------------|------------|-----------------|------------|------------|
| Particles >4µm    |  | ASTM D7647   | >640       | <b>191</b>      | ▲ 1631     | ▲ 4575     |
| Particles >6µm    |  | ASTM D7647   | >80        | <b>61</b>       | ▲ 280      | ▲ 703      |
| Particles >14µm   |  | ASTM D7647   | >10        | <b>9</b>        | ▲ 25       | ● 14       |
| Particles >21µm   |  | ASTM D7647   | >3         | <b>2</b>        | ▲ 7        | 3          |
| Particles >38µm   |  | ASTM D7647   | >3         | <b>0</b>        | 1          | 0          |
| Particles >71µm   |  | ASTM D7647   | >3         | <b>0</b>        | 0          | 0          |
| Oil Cleanliness   |  | ISO 4406 (c) | >16/13/10  | <b>15/13/10</b> | ▲ 18/15/12 | ▲ 19/17/11 |

| FLUID DEGRADATION |          | method     | limit/base | current     | history1 | history2 |
|-------------------|----------|------------|------------|-------------|----------|----------|
| Acid Number (AN)  | mg KOH/g | ASTM D8045 |            | <b>0.29</b> | 0.19     | 0.168    |

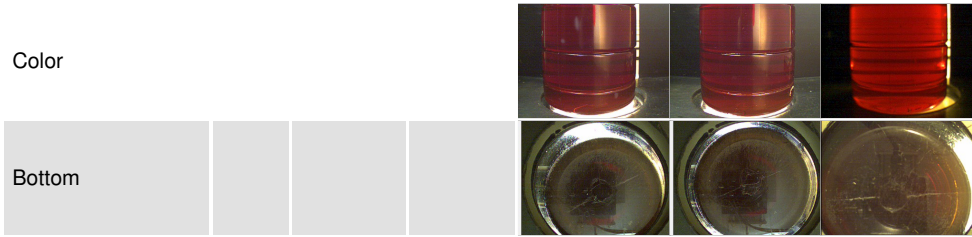
# OIL ANALYSIS REPORT



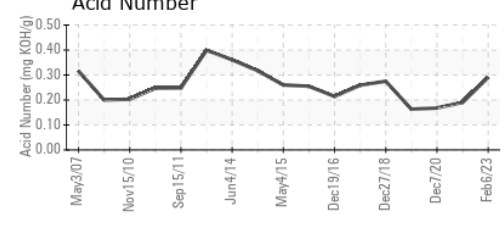
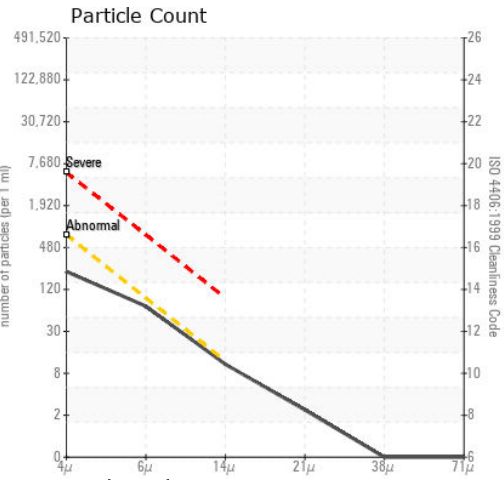
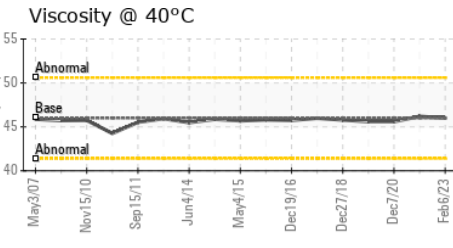
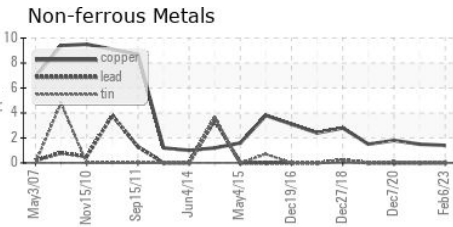
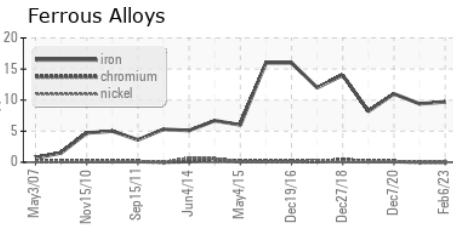
| VISUAL           | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| White Metal      | scalar | *Visual    | NONE    | NONE     | NONE     |
| Yellow Metal     | scalar | *Visual    | NONE    | NONE     | NONE     |
| Precipitate      | scalar | *Visual    | NONE    | NONE     | NONE     |
| Silt             | scalar | *Visual    | NONE    | NONE     | NONE     |
| Debris           | scalar | *Visual    | NONE    | NONE     | NONE     |
| Sand/Dirt        | scalar | *Visual    | NONE    | NONE     | NONE     |
| Appearance       | scalar | *Visual    | NORML   | NORML    | NORML    |
| Odor             | scalar | *Visual    | NORML   | NORML    | NORML    |
| Emulsified Water | scalar | *Visual    | >0.05   | NEG      | NEG      |
| Free Water       | scalar | *Visual    |         | NEG      | NEG      |

| FLUID PROPERTIES | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| Visc @ 40°C      | cSt    | ASTM D445  | 46.0    | 46.2     | 45.6     |

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



## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : ST44412  
**Lab Number** : 05769512  
**Unique Number** : 10339120  
**Test Package** : IND 2 ( Additional Tests: KF )  
**Received** : 16 Feb 2023  
**Tested** : 17 Feb 2023  
**Diagnosed** : 17 Feb 2023 - Don Baldrige

**MENSHEN PACKAGING USA INC.**  
 21 INDUSTRIAL PARK  
 WALDWICK, NJ  
 US 07463  
 Contact: Jonathan Vanbeekum  
 jonathan.vanbeekum@menshen.com

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)