



# OIL ANALYSIS REPORT

Sample Rating Trend

VISUAL METAL

Area  
**WALPOLE**  
 Machine Id  
**941 - WALPOLE**  
 Component  
**Front Differential**  
 Fluid  
**NOT GIVEN (--- GAL)**



## DIAGNOSIS

### Recommendation

We recommend you service the filters on this component if applicable. Resample at the next service interval to monitor. We were unable to perform a particle count due to metal particles present in this sample.

### Wear

Moderate concentration of visible metal present. All component wear rates are normal.

### 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>WC0828730</b>   | ---      | ---      |
| Sample Date   | Client Info |             | <b>11 Jul 2023</b> | ---      | ---      |
| Machine Age   | mls         | Client Info | <b>118161</b>      | ---      | ---      |
| Oil Age       | mls         | Client Info | <b>0</b>           | ---      | ---      |
| Oil Changed   | Client Info |             | <b>N/A</b>         | ---      | ---      |
| Sample Status |             |             | <b>ABNORMAL</b>    | ---      | ---      |

## WEAR METALS

|          | method | limit/base       | current      | history1 | history2 |
|----------|--------|------------------|--------------|----------|----------|
| Iron     | ppm    | ASTM D5185m >500 | <b>238</b>   | ---      | ---      |
| Chromium | ppm    | ASTM D5185m >10  | <b>3</b>     | ---      | ---      |
| Nickel   | ppm    | ASTM D5185m >10  | <b>&lt;1</b> | ---      | ---      |
| Titanium | ppm    | ASTM D5185m      | <b>0</b>     | ---      | ---      |
| Silver   | ppm    | ASTM D5185m      | <b>0</b>     | ---      | ---      |
| Aluminum | ppm    | ASTM D5185m >25  | <b>4</b>     | ---      | ---      |
| Lead     | ppm    | ASTM D5185m >25  | <b>3</b>     | ---      | ---      |
| Copper   | ppm    | ASTM D5185m >100 | <b>41</b>    | ---      | ---      |
| Tin      | ppm    | ASTM D5185m >10  | <b>4</b>     | ---      | ---      |
| Vanadium | ppm    | ASTM D5185m      | <b>0</b>     | ---      | ---      |
| Cadmium  | ppm    | ASTM D5185m      | <b>0</b>     | ---      | ---      |

## ADDITIVES

|            | method | limit/base  | current      | history1 | history2 |
|------------|--------|-------------|--------------|----------|----------|
| Boron      | ppm    | ASTM D5185m | <b>57</b>    | ---      | ---      |
| Barium     | ppm    | ASTM D5185m | <b>0</b>     | ---      | ---      |
| Molybdenum | ppm    | ASTM D5185m | <b>&lt;1</b> | ---      | ---      |
| Manganese  | ppm    | ASTM D5185m | <b>10</b>    | ---      | ---      |
| Magnesium  | ppm    | ASTM D5185m | <b>171</b>   | ---      | ---      |
| Calcium    | ppm    | ASTM D5185m | <b>7</b>     | ---      | ---      |
| Phosphorus | ppm    | ASTM D5185m | <b>1657</b>  | ---      | ---      |
| Zinc       | ppm    | ASTM D5185m | <b>10</b>    | ---      | ---      |
| Sulfur     | ppm    | ASTM D5185m | <b>24278</b> | ---      | ---      |

## CONTAMINANTS

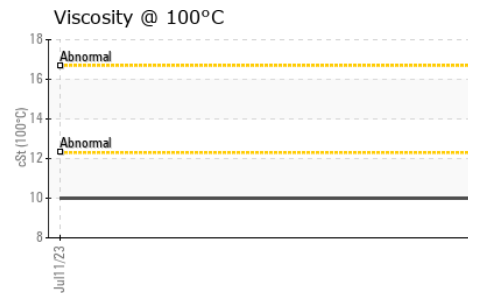
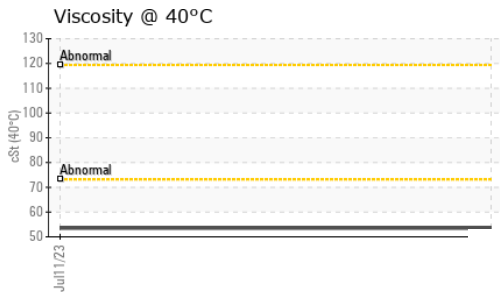
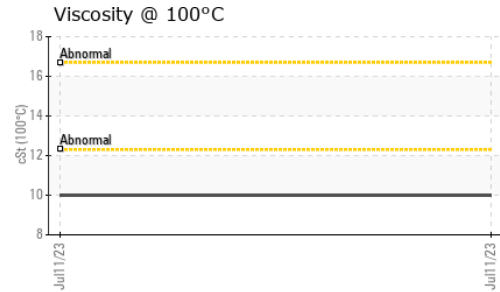
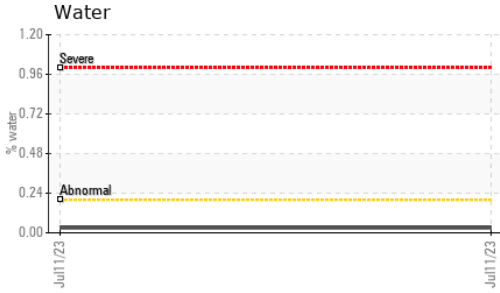
|           | method | limit/base       | current      | history1 | history2 |
|-----------|--------|------------------|--------------|----------|----------|
| Silicon   | ppm    | ASTM D5185m >75  | <b>47</b>    | ---      | ---      |
| Sodium    | ppm    | ASTM D5185m      | <b>&lt;1</b> | ---      | ---      |
| Potassium | ppm    | ASTM D5185m >20  | <b>1</b>     | ---      | ---      |
| Water     | %      | ASTM D6304 >.2   | <b>0.030</b> | ---      | ---      |
| ppm Water | ppm    | ASTM D6304 >2000 | <b>301.8</b> | ---      | ---      |

## FLUID DEGRADATION

|                  | method   | limit/base | current     | history1 | history2 |
|------------------|----------|------------|-------------|----------|----------|
| Acid Number (AN) | mg KOH/g | ASTM D8045 | <b>0.63</b> | ---      | ---      |



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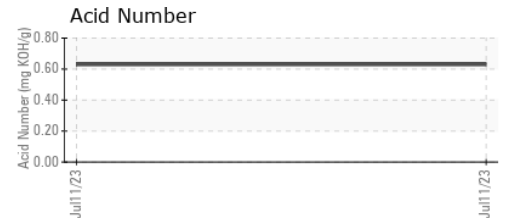
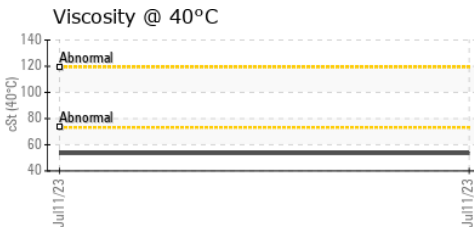
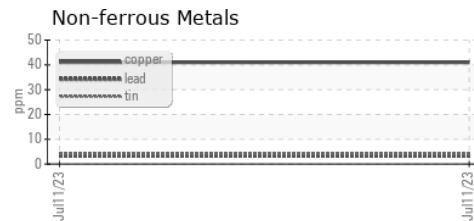
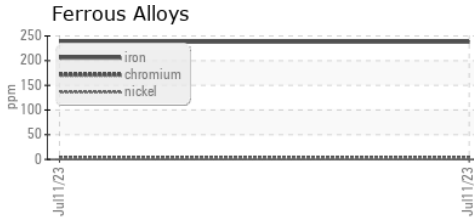
| VISUAL           | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| White Metal      | scalar | *Visual    | NONE    | ▲ MODER  | ---      |
| Yellow Metal     | scalar | *Visual    | NONE    | NONE     | ---      |
| Precipitate      | scalar | *Visual    | NONE    | NONE     | ---      |
| Silt             | scalar | *Visual    | NONE    | NONE     | ---      |
| Debris           | scalar | *Visual    | NONE    | NONE     | ---      |
| Sand/Dirt        | scalar | *Visual    | NONE    | NONE     | ---      |
| Appearance       | scalar | *Visual    | NORML   | NORML    | ---      |
| Odor             | scalar | *Visual    | NORML   | NORML    | ---      |
| Emulsified Water | scalar | *Visual    | >.2     | NEG      | ---      |
| Free Water       | scalar | *Visual    |         | NEG      | ---      |

| FLUID PROPERTIES     | method | limit/base | current | history1 | history2 |
|----------------------|--------|------------|---------|----------|----------|
| Visc @ 40°C          | cSt    | ASTM D445  | 53.5    | ---      | ---      |
| Visc @ 100°C         | cSt    | ASTM D445  | 10.0    | ---      | ---      |
| Viscosity Index (VI) | Scale  | ASTM D2270 | 176     | ---      | ---      |

### SAMPLE IMAGES

|        | method | limit/base | current | history1 | history2 |
|--------|--------|------------|---------|----------|----------|
| Color  |        |            |         | no image | no image |
| Bottom |        |            |         | no image | no image |

### GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0828730 **Received** : 19 Jul 2023  
**Lab Number** : 05902281 **Diagnosed** : 21 Jul 2023  
**Unique Number** : 10563637 **Diagnostician** : Jonathan Hester  
**Test Package** : MOB 2 ( Additional Tests: KF, KV100, PrtCount, VI )

**BASF - GIANNA CREDAROLI**  
 500 WHITE PLAINS RD  
 TARRYTOWN, NY  
 US 10591  
 Contact: GIANNA CREDAROLI  
 gianna.credaroli@basf.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)

T:  
F: