



# OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Area

**ROB BRADISH**

Machine Id

**JOHN DEERE 3032E 1LV3032EVMM140911**

Component

**Hydraulic System**

Fluid

**JOHN DEERE HY-GARD HYD/TRANS LOW VIS (--- QTS)**

## DIAGNOSIS

### ▲ Recommendation

We recommend you service the filters on this component. Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### ▲ Contamination

There is a high amount of particulates present in the oil.

### Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.

## SAMPLE INFORMATION

|               | method      | limit/base  | current            | history1 | history2 |
|---------------|-------------|-------------|--------------------|----------|----------|
| Sample Number | Client Info |             | <b>WC06181938</b>  | ---      | ---      |
| Sample Date   | Client Info |             | <b>08 May 2024</b> | ---      | ---      |
| Machine Age   | hrs         | Client Info | <b>142</b>         | ---      | ---      |
| Oil Age       | hrs         | Client Info | <b>0</b>           | ---      | ---      |
| Oil Changed   | Client Info |             | <b>N/A</b>         | ---      | ---      |
| Sample Status |             |             | <b>ABNORMAL</b>    | ---      | ---      |

## CONTAMINATION

|       | method    | limit/base | current    | history1 | history2 |
|-------|-----------|------------|------------|----------|----------|
| Water | WC Method | >0.1       | <b>NEG</b> | ---      | ---      |

## WEAR METALS

|          | method     | limit/base      | current      | history1 | history2 |
|----------|------------|-----------------|--------------|----------|----------|
| PQ       | ASTM D8184 |                 | <b>26</b>    | ---      | ---      |
| Iron     | ppm        | ASTM D5185m >20 | <b>19</b>    | ---      | ---      |
| Chromium | ppm        | ASTM D5185m >10 | <b>&lt;1</b> | ---      | ---      |
| Nickel   | ppm        | ASTM D5185m >10 | <b>0</b>     | ---      | ---      |
| Titanium | ppm        | ASTM D5185m     | <b>&lt;1</b> | ---      | ---      |
| Silver   | ppm        | ASTM D5185m     | <b>&lt;1</b> | ---      | ---      |
| Aluminum | ppm        | ASTM D5185m >10 | <b>3</b>     | ---      | ---      |
| Lead     | ppm        | ASTM D5185m >10 | <b>2</b>     | ---      | ---      |
| Copper   | ppm        | ASTM D5185m >75 | <b>15</b>    | ---      | ---      |
| Tin      | ppm        | ASTM D5185m >10 | <b>&lt;1</b> | ---      | ---      |
| Vanadium | ppm        | ASTM D5185m     | <b>&lt;1</b> | ---      | ---      |
| Cadmium  | ppm        | ASTM D5185m     | <b>0</b>     | ---      | ---      |

## ADDITIVES

|            | method | limit/base  | current      | history1 | history2 |
|------------|--------|-------------|--------------|----------|----------|
| Boron      | ppm    | ASTM D5185m | <b>0</b>     | ---      | ---      |
| Barium     | ppm    | ASTM D5185m | <b>0</b>     | ---      | ---      |
| Molybdenum | ppm    | ASTM D5185m | <b>&lt;1</b> | ---      | ---      |
| Manganese  | ppm    | ASTM D5185m | <b>1</b>     | ---      | ---      |
| Magnesium  | ppm    | ASTM D5185m | <b>57</b>    | ---      | ---      |
| Calcium    | ppm    | ASTM D5185m | <b>2490</b>  | ---      | ---      |
| Phosphorus | ppm    | ASTM D5185m | <b>730</b>   | ---      | ---      |
| Zinc       | ppm    | ASTM D5185m | <b>834</b>   | ---      | ---      |
| Sulfur     | ppm    | ASTM D5185m | <b>2697</b>  | ---      | ---      |

## CONTAMINANTS

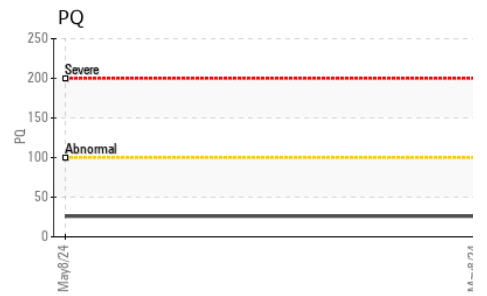
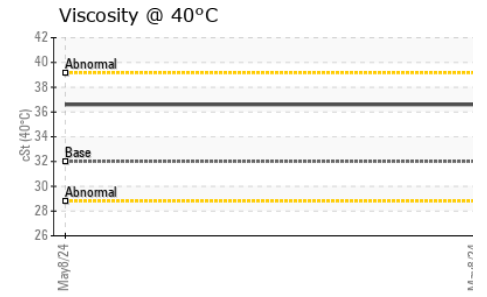
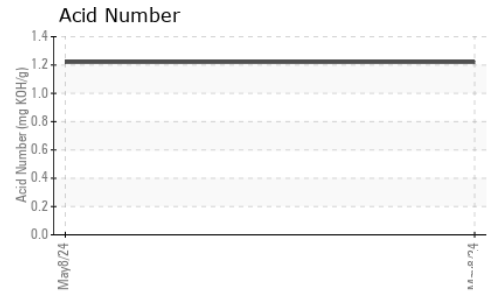
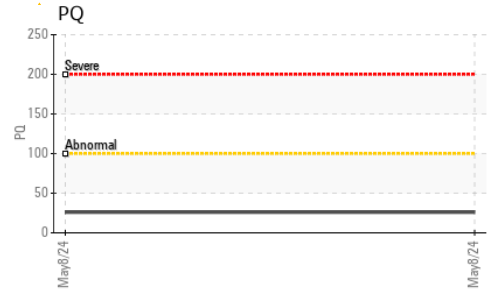
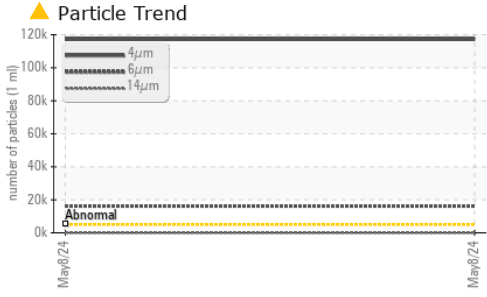
|           | method | limit/base      | current   | history1 | history2 |
|-----------|--------|-----------------|-----------|----------|----------|
| Silicon   | ppm    | ASTM D5185m >20 | <b>12</b> | ---      | ---      |
| Sodium    | ppm    | ASTM D5185m     | <b>4</b>  | ---      | ---      |
| Potassium | ppm    | ASTM D5185m >20 | <b>3</b>  | ---      | ---      |

## FLUID CLEANLINESS

|                 | method       | limit/base | current           | history1 | history2 |
|-----------------|--------------|------------|-------------------|----------|----------|
| Particles >4µm  | ASTM D7647   | >5000      | ▲ <b>117178</b>   | ---      | ---      |
| Particles >6µm  | ASTM D7647   | >1300      | ▲ <b>16195</b>    | ---      | ---      |
| Particles >14µm | ASTM D7647   | >160       | <b>13</b>         | ---      | ---      |
| Particles >21µm | ASTM D7647   | >40        | <b>2</b>          | ---      | ---      |
| Particles >38µm | ASTM D7647   | >10        | <b>0</b>          | ---      | ---      |
| Particles >71µm | ASTM D7647   | >3         | <b>0</b>          | ---      | ---      |
| Oil Cleanliness | ISO 4406 (c) | >19/17/14  | ▲ <b>24/21/11</b> | ---      | ---      |



# OIL ANALYSIS REPORT



| FLUID DEGRADATION | method   | limit/base | current     | history1 | history2 |
|-------------------|----------|------------|-------------|----------|----------|
| Acid Number (AN)  | mg KOH/g | ASTM D8045 | <b>1.22</b> | ---      | ---      |

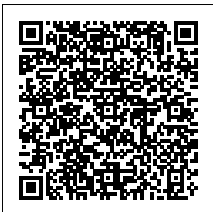
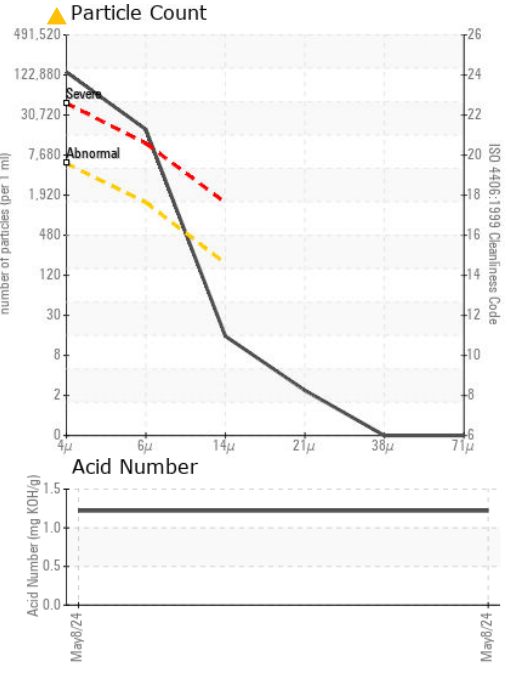
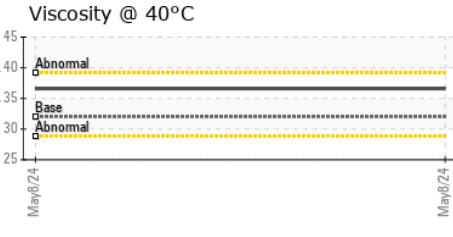
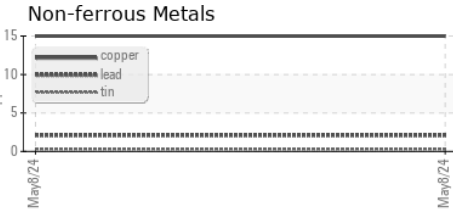
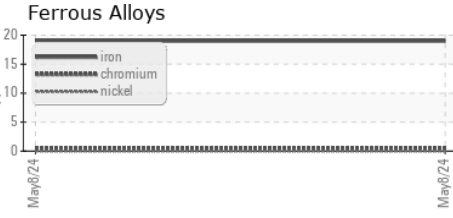
| VISUAL           | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| White Metal      | scalar | *Visual    | NONE    | NONE     | ---      |
| Yellow Metal     | scalar | *Visual    | NONE    | NONE     | ---      |
| 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    | >0.1    | NEG      | ---      |
| Free Water       | scalar | *Visual    |         | NEG      | ---      |

| FLUID PROPERTIES | method | limit/base | current | history1    | history2 |
|------------------|--------|------------|---------|-------------|----------|
| Visc @ 40°C      | cSt    | ASTM D445  | 32      | <b>36.6</b> | ---      |

### SAMPLE IMAGES

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

### GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC06181938 **Received** : 16 May 2024  
**Lab Number** : **06181938** **Tested** : 17 May 2024  
**Unique Number** : 11033264 **Diagnosed** : 20 May 2024 - Angela Borella  
**Test Package** : CONST ( Additional Tests: PQ )

**QUALITY EQUIPMENT LLC**  
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 SMITHFIELD, NC  
 US 27577  
 Contact: COY STANLEY  
 cstanley@qualityequip.com  
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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)