



|                 |                 |
|-----------------|-----------------|
| WEAR            | <b>NORMAL</b>   |
| CONTAMINATION   | <b>ABNORMAL</b> |
| FLUID CONDITION | <b>NORMAL</b>   |



Area  
**[ENERGY ERECTORS]**  
 Machine Id  
**JOHN DEERE 310SG T0310SG959732**  
 Component  
**Transmission**  
 Fluid  
**JOHN DEERE HY-GARD HYD/TRANS (--- QTS)**

### RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor.

| Test           | UOM | Method      | Limit/Abn | Current            | History1 | History2 |
|----------------|-----|-------------|-----------|--------------------|----------|----------|
| Sample Number  |     | Client Info |           | <b>JR0218331</b>   | ---      | ---      |
| Sample Date    |     | Client Info |           | <b>16 Jun 2024</b> | ---      | ---      |
| Machine Age    | hrs | Client Info |           | <b>3337</b>        | ---      | ---      |
| Oil Age        | hrs | Client Info |           | <b>3337</b>        | ---      | ---      |
| Filter Age     | hrs | Client Info |           | <b>3337</b>        | ---      | ---      |
| Oil Changed    |     | Client Info |           | <b>Not Changed</b> | ---      | ---      |
| Filter Changed |     | Client Info |           | <b>Changed</b>     | ---      | ---      |
| Sample Status  |     |             |           | <b>ABNORMAL</b>    | ---      | ---      |

### WEAR

All component wear rates are normal.

|              |        |             |      |              |     |     |
|--------------|--------|-------------|------|--------------|-----|-----|
| PQ           |        | ASTM D8184  | >100 | <b>28</b>    | --- | --- |
| Iron         | ppm    | ASTM D5185m | >61  | <b>34</b>    | --- | --- |
| Chromium     | ppm    | ASTM D5185m | >10  | <b>0</b>     | --- | --- |
| Nickel       | ppm    | ASTM D5185m |      | <b>0</b>     | --- | --- |
| Titanium     | ppm    | ASTM D5185m |      | <b>0</b>     | --- | --- |
| Silver       | ppm    | ASTM D5185m |      | <b>&lt;1</b> | --- | --- |
| Aluminum     | ppm    | ASTM D5185m | >20  | <b>2</b>     | --- | --- |
| Lead         | ppm    | ASTM D5185m | >9   | <b>8</b>     | --- | --- |
| Copper       | ppm    | ASTM D5185m | >100 | <b>95</b>    | --- | --- |
| Tin          | ppm    | ASTM D5185m | >3   | <b>1</b>     | --- | --- |
| Vanadium     | ppm    | ASTM D5185m |      | <b>&lt;1</b> | --- | --- |
| White Metal  | scalar | *Visual     | NONE | <b>NONE</b>  | --- | --- |
| Yellow Metal | scalar | *Visual     | NONE | <b>NONE</b>  | --- | --- |

### CONTAMINATION

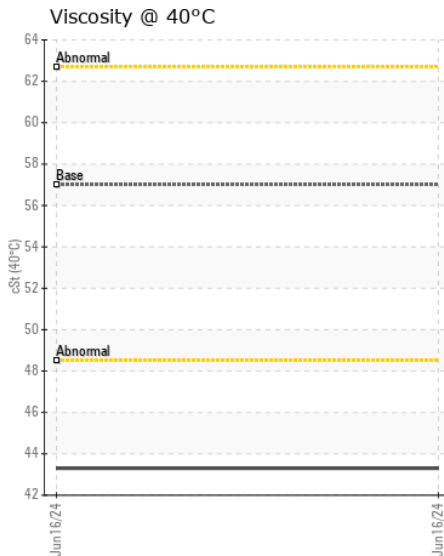
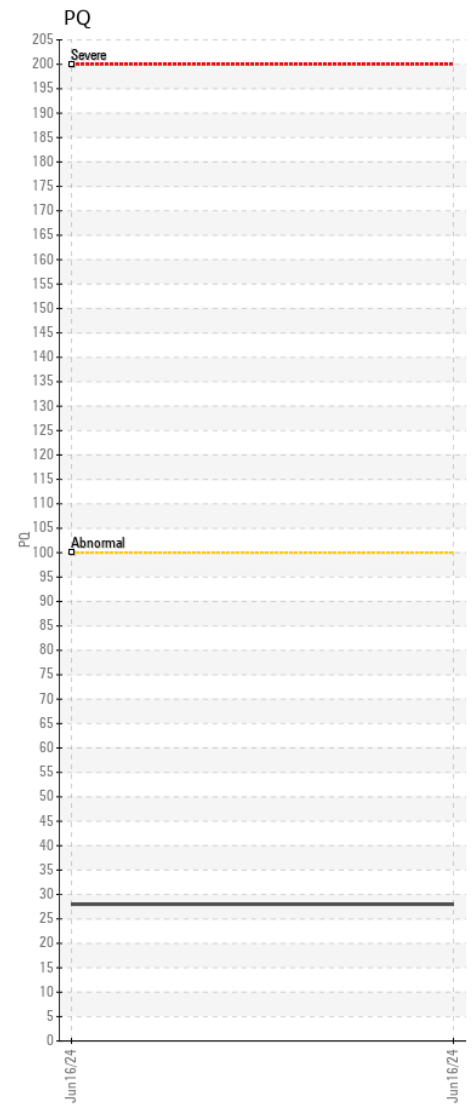
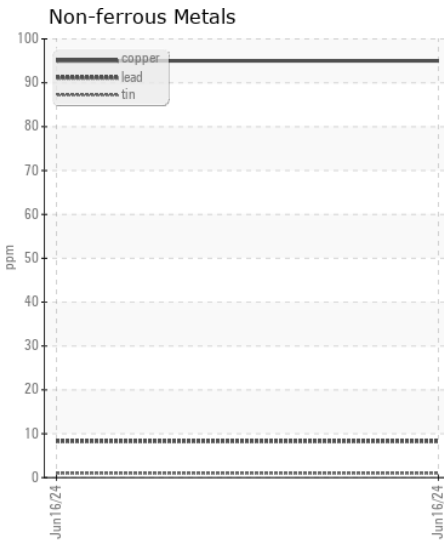
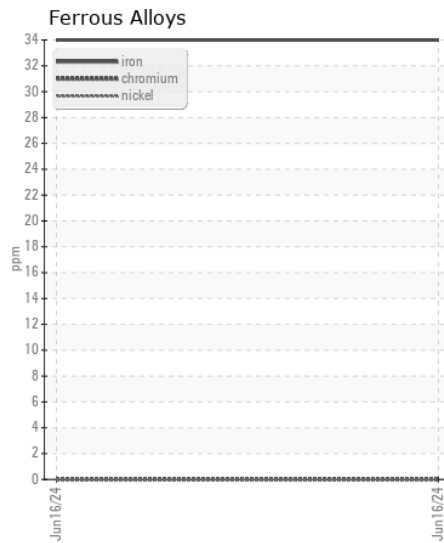
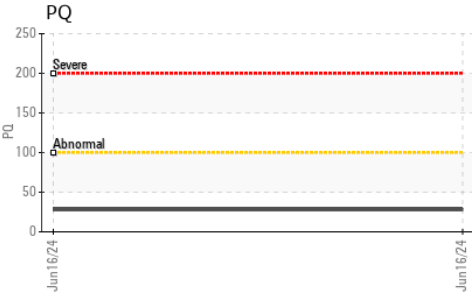
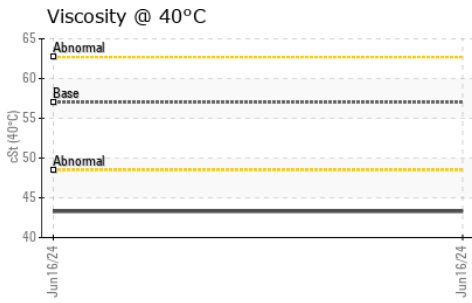
Moderate concentration of visible dirt/debris present in the fluid.

|                  |        |             |        |                |     |     |
|------------------|--------|-------------|--------|----------------|-----|-----|
| Silicon          | ppm    | ASTM D5185m | >21    | <b>3</b>       | --- | --- |
| Potassium        | ppm    | ASTM D5185m | >20    | <b>0</b>       | --- | --- |
| Water            |        | WC Method   | >0.075 | <b>NEG</b>     | --- | --- |
| Silt             | scalar | *Visual     | NONE   | <b>NONE</b>    | --- | --- |
| Debris           | scalar | *Visual     | NONE   | <b>▲ MODER</b> | --- | --- |
| Sand/Dirt        | scalar | *Visual     | NONE   | <b>NONE</b>    | --- | --- |
| Appearance       | scalar | *Visual     | NORML  | <b>NORML</b>   | --- | --- |
| Odor             | scalar | *Visual     | NORML  | <b>NORML</b>   | --- | --- |
| Emulsified Water | scalar | *Visual     | >0.075 | <b>NEG</b>     | --- | --- |

### FLUID CONDITION

The condition of the fluid is acceptable for the time in service.

|             |     |             |      |              |     |     |
|-------------|-----|-------------|------|--------------|-----|-----|
| Sodium      | ppm | ASTM D5185m | >30  | <b>2</b>     | --- | --- |
| Boron       | ppm | ASTM D5185m | 6    | <b>3</b>     | --- | --- |
| Barium      | ppm | ASTM D5185m | 0    | <b>0</b>     | --- | --- |
| Molybdenum  | ppm | ASTM D5185m | 0    | <b>0</b>     | --- | --- |
| Manganese   | ppm | ASTM D5185m |      | <b>&lt;1</b> | --- | --- |
| Magnesium   | ppm | ASTM D5185m | 145  | <b>83</b>    | --- | --- |
| Calcium     | ppm | ASTM D5185m | 3570 | <b>2904</b>  | --- | --- |
| Phosphorus  | ppm | ASTM D5185m | 1290 | <b>858</b>   | --- | --- |
| Zinc        | ppm | ASTM D5185m | 1640 | <b>1090</b>  | --- | --- |
| Sulfur      | ppm | ASTM D5185m |      | <b>3659</b>  | --- | --- |
| Visc @ 40°C | cSt | ASTM D445   | 57.0 | <b>43.3</b>  | --- | --- |



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : JR0218331 **Received** : 14 Jun 2024  
**Lab Number** : 06210922 **Tested** : 18 Jun 2024  
**Unique Number** : 11083786 **Diagnosed** : 18 Jun 2024 - Sean Felton  
**Test Package** : CONST ( Additional Tests: PQ )

**JRE - MANASSAS PARK**  
 9107 OWENS DRIVE  
 MANASSAS PARK, VA  
 US 20111

Contact: DON VEST  
 dvest@jamesriverequipment.com  
 T: (703)631-8500  
 F: (703)631-4715

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)