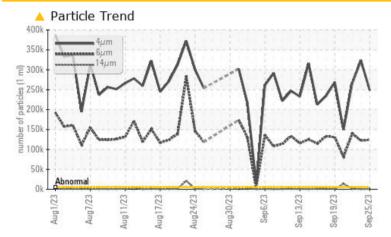


PROBLEM SUMMARY

Area WCLSNC Machine Id QC230801HY

Component Hydraulic System Fluid JOHN DEERE HY-GARD HYD/TRANS (--- GAL)

COMPONENT CONDITION SUMMARY



RECOMMENDATION

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

Sample Rating Trend

| PROBLEMATIC TEST RESULTS | | | | | | | |
|--------------------------|--------------|-----------|-------------------|----------------|-----------------|--|--|
| Sample Status | | | ABNORMAL | ABNORMAL | ABNORMAL | | |
| Particles >4µm | ASTM D7647 | >5000 | 🔺 248411 | ▲ 323289 | A 266073 | | |
| Particles >6µm | ASTM D7647 | >1300 | 🔺 124286 | 1 22055 | 🔺 139979 | | |
| Particles >14µm | ASTM D7647 | >160 | <u> </u> | A 327 | 1 345 | | |
| Oil Cleanliness | ISO 4406 (c) | >19/17/14 | A 25/24/17 | 🔺 26/24/16 | 🔺 25/24/18 | | |

Customer Id: WEACARQA Sample No.: WC0855415 Lab Number: 05959784 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data: Jonathan Hester +1 919-379-4092 x4092 <u>jhester@wearcheckusa.com</u>

To change component or sample information: Customer Service +1 1-800-237-1369 <u>customerservice@wearcheck.com</u>

| RECOMMENDED A | CTIONS | | | |
|---------------|--------|-------------|---------|---|
| Action | Status | Date | Done By | Description |
| Change Filter | MISSED | Sep 29 2023 | ? | We recommend you service the filters on this component. |

| HISTORICAL D | DIAGNOSIS |
|--------------|---|
| | 22 Sep 2023 Diag: Jonathan Hester |
| | We recommend you service the filters on this component. Resample at the next service interval to monitor.All component wear rates are normal. There is a high amount of particulates present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service. |
| ISO | 21 Sep 2023 Diag: Jonathan Hester |
| | We recommend you service the filters on this component. Resample at the next service interval to monitor.All component wear rates are normal. There is a high amount of particulates present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service. |
| VIS DEBRIS | 20 Sep 2023 Diag: |
| | |



view report





OIL ANALYSIS REPORT

WCLSNC QC230801HY

Component **Hydraulic System**

JOHN DEERE HY-GARD HYD/TRANS (--- GAL)

DIAGNOSIS

Recommendation

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

Wear

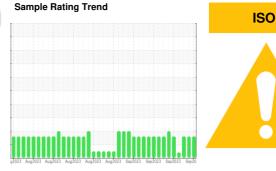
All component wear rates are normal.

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 suitable for further service.



| SAMPLE INFORM | IATION | method | limit/base | current | history1 | history2 |
|------------------|------------|-----------------|------------|-----------------|-------------|-------------|
| Sample Number | | Client Info | | WC0855415 | WC0855412 | WC0855411 |
| Sample Date | | Client Info | | 25 Sep 2023 | 22 Sep 2023 | 21 Sep 2023 |
| Machine Age | hrs | Client Info | | 0 | 0 | 0 |
| Oil Age | hrs | Client Info | | 0 | 0 | 0 |
| Oil Changed | | Client Info | | N/A | N/A | N/A |
| Sample Status | | | | ABNORMAL | ABNORMAL | ABNORMAL |
| WEAR METALS | | method | limit/base | current | history1 | history2 |
| PQ | | ASTM D8184 | >47 | 24 | 31 | 31 |
| Iron | ppm | ASTM D5185m | | 59 | 58 | 64 |
| Chromium | ppm | ASTM D5185m | >2 | <1 | <1 | <1 |
| Nickel | ppm | ASTM D5185m | >3 | 2 | <1 | 1 |
| Titanium | ppm | ASTM D5185m | >2 | 0 | 0 | <1 |
| Silver | ppm | ASTM D5185m | >2 | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >5 | 3 | 1 | 2 |
| Lead | ppm | ASTM D5185m | >11 | 10 | 9 | 9 |
| Copper | | ASTM D5185m | >84 | 81 | 9 69 | 73 |
| Tin | ppm ppm | ASTM D5185m | >04 | 2 | 2 | 2 |
| Vanadium | | ASTM D5185m | 24 | 2 | 0 | 0 |
| | ppm | | | | | |
| Cadmium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| ADDITIVES | | method | limit/base | current | history1 | history2 |
| Boron | ppm | ASTM D5185m | 6 | 119 | 97 | 92 |
| Barium | ppm | ASTM D5185m | 0 | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | 0 | <1 | 0 | <1 |
| Manganese | ppm | ASTM D5185m | | 16 | 16 | 18 |
| Magnesium | ppm | ASTM D5185m | 145 | 24 | 26 | 21 |
| Calcium | ppm | ASTM D5185m | 3570 | 3690 | 3563 | 3429 |
| Phosphorus | ppm | ASTM D5185m | 1290 | 1201 | 1136 | 1102 |
| Zinc | ppm | ASTM D5185m | 1640 | 1509 | 1439 | 1378 |
| Sulfur | ppm | ASTM D5185m | | 4074 | 3995 | 3564 |
| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
| Silicon | ppm | ASTM D5185m | >11 | 8 | 8 | 9 |
| Sodium | ppm | ASTM D5185m | >23 | 16 | 18 | 16 |
| Potassium | ppm | ASTM D5185m | >20 | 3 | 2 | 2 |
| Water | % | ASTM D6304 | >0.1669 | 0.063 | 0.056 | 0.063 |
| ppm Water | ppm | ASTM D6304 | >1669 | 639.4 | 564.5 | 634.6 |
| FLUID CLEANLIN | ESS | method | limit/base | current | history1 | history2 |
| Particles >4µm | | ASTM D7647 | >5000 | 4 248411 | ▲ 323289 | ▲ 266073 |
| Particles >6µm | | ASTM D7647 | >1300 | A 124286 | ▲ 122055 | ▲ 139979 |
| Particles >14µm | | ASTM D7647 | >160 | <u> </u> | ▲ 327 | ▲ 1345 |
| Particles >21µm | | ASTM D7647 | >40 | 18 | 15 | 34 |
| Particles >38µm | | ASTM D7647 | >10 | 1 | 2 | 0 |
| Particles >71µm | | ASTM D7647 | >3 | 0 | - | 0 |
| Oil Cleanliness | | ISO 4406 (c) | >19/17/14 | A 25/24/17 | <u> </u> | ▲ 25/24/18 |
| FLUID DEGRADA | TION | method | limit/base | current | history1 | history2 |
| Acid Number (AN) | mg KOH/g | ASTM D8045 | 1.8 | 1.15 | 0.91 | 0.837 |
| | ing itoriy | . 10 1 11 00040 | | | 0.01 | 0.007 |

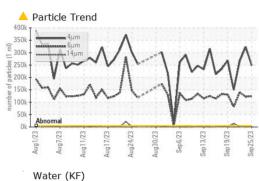
Acid Number (AN) Report Id: WEACARQA [WUSCAR] 05959784 (Generated: 09/30/2023 00:41:19) Rev: 1

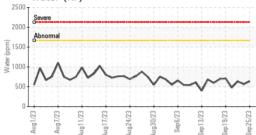


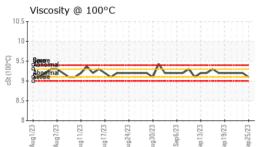
OIL ANALYSIS REPORT

Color

Bottom

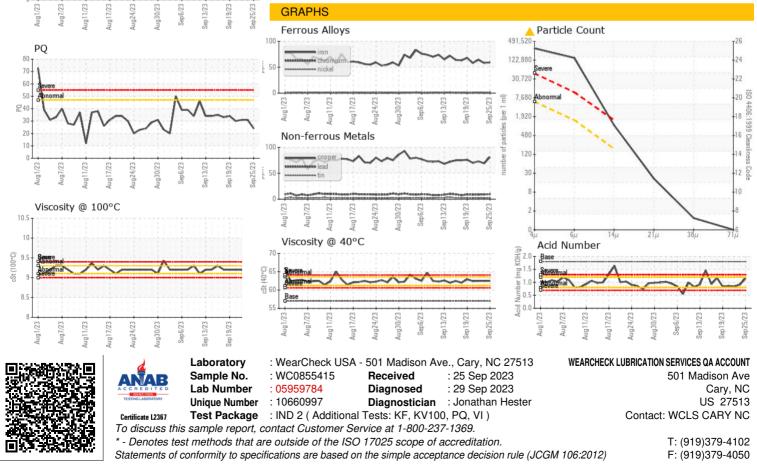






| VISUAL | | method | limit/base | current | history1 | history2 |
|----------------------|--------|------------|------------|---------|----------|----------|
| White Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Precipitate | scalar | *Visual | NONE | NONE | NONE | NONE |
| Silt | scalar | *Visual | NONE | MODER | MODER | MODER |
| Debris | scalar | *Visual | NONE | NONE | NONE | NONE |
| Sand/Dirt | scalar | *Visual | NONE | NONE | NONE | NONE |
| Appearance | scalar | *Visual | NORML | NORML | NORML | NORML |
| Odor | scalar | *Visual | NORML | NORML | NORML | NORML |
| Emulsified Water | scalar | *Visual | >0.1669 | NEG | NEG | NEG |
| Free Water | scalar | *Visual | | NEG | NEG | NEG |
| FLUID PROPERT | IES | method | limit/base | current | history1 | history2 |
| Visc @ 40°C | cSt | ASTM D445 | 57.0 | 62.5 | 62.5 | 62.5 |
| Visc @ 100°C | cSt | ASTM D445 | 9.4 | 9.1 | 9.2 | 9.2 |
| Viscosity Index (VI) | Scale | ASTM D2270 | 147 | 122 | 125 | 125 |
| SAMPLE IMAGES | 6 | method | limit/base | current | history1 | history2 |
| | | | | | | |





Report Id: WEACARQA [WUSCAR] 05959784 (Generated: 09/30/2023 00:41:19) Rev: 1

Submitted By: ?