**WEAR** CONTAMINATION **FLUID CONDITION**  **NORMAL NORMAL NORMAL** 



## Machine Id **JOHN DEERE 310E 1DW310EXJNF714367**

Center Axle

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

| JOHN DEEKE HY-GARD HYD/   | I HAINS ( G      | IAL)   |             |            |             |              |          |
|---|------------------|--------|-------------|------------|-------------|--------------|----------|
| RECOMMENDATION  | Test             | UOM    | Method      | Limit/Abn  | Current     | History1     | History2 |
| Resample at the next service interval to monitor.                           | Sample Number    |        | Client Info |            | JR0209699   | JR0168246    |          |
| nesample at the next service interval to monitor.                           | Sample Date      |        | Client Info |            | 14 Jun 2024 | 08 May 2023  |          |
|   | Machine Age      | hrs    | Client Info |            | 1681        | 1021         |          |
|   | Oil Age          | hrs    | Client Info |            | 1681        | 1021         |          |
|   | Filter Age       | hrs    | Client Info |            | 0           | 0            |          |
|   | Oil Changed      |        | Client Info |            | Not Changd  | Not Changd   |          |
|   | Filter Changed   |        | Client Info |            | Not Changd  | Changed      |          |
|   | Sample Status    |        |             |            | NORMAL      | NORMAL       |          |
| WEAR  | PQ               |        | ASTM D8184  |            | 66          | 81           |          |
| All component wear rates are normal.  | Iron             | ppm    | ASTM D5185m | >1501      | 121         | 112          |          |
|   | Chromium         | ppm    | ASTM D5185m |            | <1<br><1    | 1            |          |
|   | Nickel           | ppm    | ASTM D5185m |            | 1           | 1            |          |
|   | Titanium         | ppm    | ASTM D5185m | 210        | 0           | <1           |          |
|   | Silver           | ppm    | ASTM D5185m |            | <1          | 0            |          |
|   | Aluminum         | ppm    | ASTM D5185m | <b>\21</b> | 3           | 8            |          |
|   | Lead             | ppm    | ASTM D5185m |            | 13          | 10           |          |
|   | Copper           | ppm    | ASTM D5185m |            | 91          | 92           |          |
|   | Tin              | ppm    | ASTM D5185m |            | 5           | 5            |          |
|   | Vanadium         | ppm    | ASTM D5185m | >10        | 0           | 0            |          |
|   | White Metal      | scalar | *Visual     | NONE       | NONE        | MODER        |          |
|   | Yellow Metal     | scalar | *Visual     | NONE       | NONE        | NONE         |          |
| <u></u>   |                  |        | v isuai     |            |             |              |          |
| CONTAMINATION   | Silicon          | ppm    | ASTM D5185m | >31        | 10          | 15           |          |
| There is no indication of any contamination in the oil.                     | Potassium        | ppm    | ASTM D5185m | >20        | 3           | 2            |          |
|   | Water            |        | WC Method   | >0.1       | NEG         | NEG          |          |
|   | 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     | >0.1       | NEG         | NEG          |          |
| FLUID CONDITION   | Sodium           | ppm    | ASTM D5185m | >51        | 9           | 12           |          |
|   | Boron            | ppm    | ASTM D5185m | 6          | 20          | 49           |          |
| The condition of the oil is acceptable for the time in service.             | Barium           | ppm    | ASTM D5185m |            | 3           | 0            |          |
|   | Molybdenum       | ppm    | ASTM D5185m |            | 0           | <1           |          |
|   | Manganese        | ppm    | ASTM D5185m |            | 3           | 4            |          |
|   | Magnesium        | ppm    | ASTM D5185m | 145        | 86          | 66           |          |
|   | Calcium          | ppm    | ASTM D5185m |            | 3483        | 3564         |          |
|   | Phosphorus       | ppm    | ASTM D5185m |            | 1080        | 1084         |          |
|   | Zinc             | ppm    | ASTM D5185m |            | 1268        | 1378         |          |
|   | Sulfur           | ppm    | ASTM D5185m |            | 4165        | 4564         |          |
|   | Visc @ 40°C      | cSt    | ASTM D445   | 57.0       | 55.3        | 57.1         |          |
| Report Id: RWMGAR [WUSCAR] 06212029 (Generated: 06/21/2024 22:03:29) Rev: 1 |                  |        |             |            |             | mitted By: S |          |
|   |                  |        |             |            |             | , -          | 3.00     |







Certificate L2367

Report Id: RWMGAR [WUSCAR] 06212029 (Generated: 06/21/2024 22:03:32) Rev: 1

Laboratory Sample No.

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Lab Number : 06212029

: JR0209699

Received **Tested** Unique Number : 11084893

: 17 Jun 2024 : 18 Jun 2024 Diagnosed

: 19 Jun 2024 - Sean Felton

JRE - GARNER 4161 AUBURN CHURCH RD GARNER, NC

US 27529 Contact: RALEIGH SHOP

Test Package : CONST ( Additional Tests: PQ ) 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.

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