

#### Machine Id JOHN DEERE 850L 1T0850LXVPF446530 Component Left Outer Final Drive Fluid JOHN DEERE HY-GARD HYD/TRANS (--- GAL)

### RECOMMENDATION

We advise that you check all areas where dirt can enter the system. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

### **WEAR**

All component wear rates are normal.

# CONTAMINATION

Elemental levels of silicon (Si) and aluminum (Al) indicate aluminasilicate (coarse dirt) ingress.

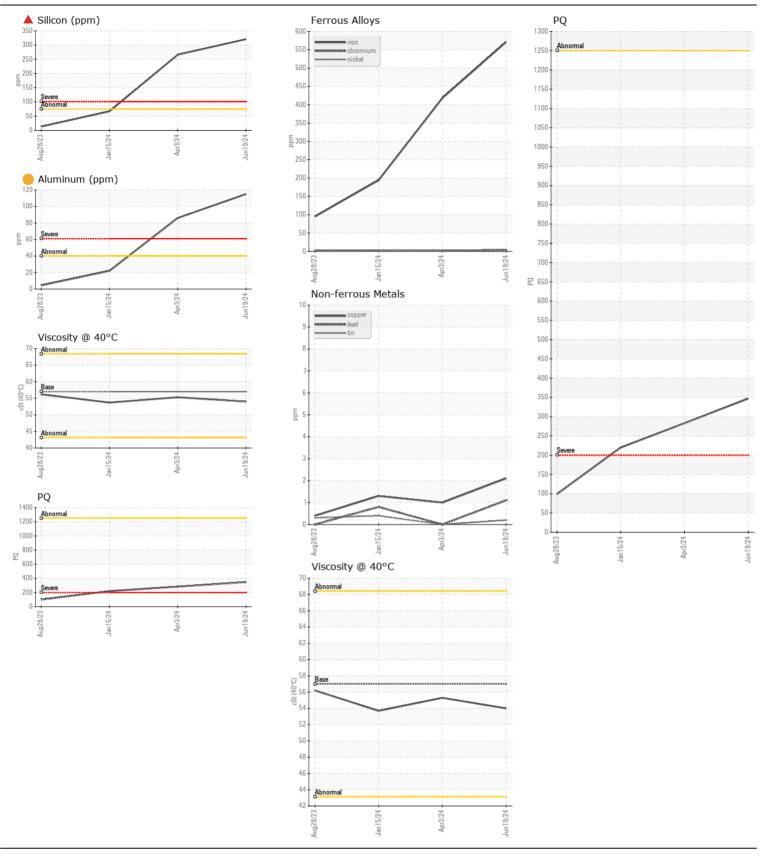
# FLUID CONDITION

The oil is no longer serviceable due to the presence of contaminants.

| Test  | UOM   | Method  | Limit/Abn   | Current   | History1   | History2   |
|---|---|---|---|---|--|--|
| Sample Number   |   | Client Info   |   | JR0218586   | JR0211069  | JR0199097  |
| Sample Date   |   | Client Info   |   | 19 Jun 2024   | 03 Apr 2024  | 15 Jan 2024  |
| Machine Age   | hrs   | Client Info   |   | 1987  | 1449   | 983  |
| Oil Age   | hrs   | Client Info   |   | 1521  | 466  | 983  |
| Filter Age  | hrs   | Client Info   |   | 0   | 0  | 0  |
| Oil Changed   |   | Client Info   |   | Changed   | Not Changd   | Changed  |
| Filter Changed  |   | Client Info   |   | None  | N/A  | N/A  |
| Sample Status   |   |   |   | SEVERE  | ABNORMAL   | NORMAL   |
| DO  |   |   | . 1050  | 0.47  | 000  |  |
| PQ  | 10.10.100   | ASTM D8184  | >1250   | 347   | 283  | 220  |
| Iron  | ppm   | ASTM D5185m   | >750  | 571   | 418  | 194  |
| Chromium  | ppm   | ASTM D5185m   | >9  | 3   | 2  | 2  |
| Nickel  | ppm   | ASTM D5185m   | >10   | 5   | <1   | 1  |
| Titanium  | ppm   | ASTM D5185m   |   | 8   | 6  | 1  |
| Silver  | ppm   | ASTM D5185m   | 40  | <1  | 0  | <1   |
| Aluminum  | ppm   | ASTM D5185m   |   | 115   | 86   | 22   |
| Lead  | ppm   | ASTM D5185m   | >15   | 1   | 0  | <1   |
| Copper  | ppm   | ASTM D5185m   | >40   | 2   | 1  | 1  |
| Tin   | ppm   | ASTM D5185m   | >10   | <1  | 0  | <1   |
| Vanadium  | ppm   | ASTM D5185m   |   | <1  | 0  | <1   |
| White Metal   | scalar  | *Visual   | NONE  | NONE  | NONE   | NONE   |
| Yellow Metal  | scalar  | *Visual   | NONE  | NONE  | NONE   | NONE   |
| Silicon   |   |   |   |   |  |  |
| Shicon  | ppm   | ASTM D5185m   | >75   | <b>A</b> 321  | 🔺 266  | 67   |
| Potassium   | ppm<br>ppm  | ASTM D5185m<br>ASTM D5185m  | >75<br>>20  | ▲ 321<br>33   | ▲ 266<br>21  | 67<br>5  |
|   |   |   | -   | -   |  |  |
| Potassium   |   | ASTM D5185m   | >20   | 33  | 21   | 5  |
| Potassium<br>Water  | ppm   | ASTM D5185m<br>WC Method  | >20<br>>0.075   | 33<br>NEG   | 21<br>NEG  | 5<br>NEG   |
| Potassium<br>Water<br>Silt  | ppm<br>scalar   | ASTM D5185m<br>WC Method<br>*Visual   | >20<br>>0.075<br>NONE   | 33<br>NEG<br>MODER  | 21<br>NEG<br>MODER   | 5<br>NEG<br>LIGHT  |
| Potassium<br>Water<br>Silt<br>Debris  | ppm<br>scalar<br>scalar   | ASTM D5185m<br>WC Method<br>*Visual<br>*Visual  | >20<br>>0.075<br>NONE<br>NONE   | 33<br>NEG<br>MODER<br>NONE  | 21<br>NEG<br>MODER<br>NONE   | 5<br>NEG<br>LIGHT<br>NONE  |
| Potassium<br>Water<br>Silt<br>Debris<br>Sand/Dirt   | ppm<br>scalar<br>scalar<br>scalar   | ASTM D5185m<br>WC Method<br>*Visual<br>*Visual<br>*Visual   | >20<br>>0.075<br>NONE<br>NONE<br>NONE   | 33<br>NEG<br>MODER<br>NONE<br>NONE  | 21<br>NEG<br>MODER<br>NONE<br>NONE   | 5<br>NEG<br>LIGHT<br>NONE<br>NONE  |
| Potassium<br>Water<br>Silt<br>Debris<br>Sand/Dirt<br>Appearance   | ppm<br>scalar<br>scalar<br>scalar<br>scalar   | ASTM D5185m<br>WC Method<br>*Visual<br>*Visual<br>*Visual<br>*Visual  | >20<br>>0.075<br>NONE<br>NONE<br>NONE   | 33<br>NEG<br>MODER<br>NONE<br>NONE<br>NORML   | 21<br>NEG<br>MODER<br>NONE<br>NONE<br>NORML  | 5<br>NEG<br>LIGHT<br>NONE<br>NONE<br>NORML   |
| Potassium<br>Water<br>Silt<br>Debris<br>Sand/Dirt<br>Appearance<br>Odor<br>Emulsified Water   | ppm<br>scalar<br>scalar<br>scalar<br>scalar<br>scalar   | ASTM D5185m<br>WC Method<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>*Visual  | >20<br>>0.075<br>NONE<br>NONE<br>NONE<br>NORML<br>>0.075  | 33<br>NEG<br>MODER<br>NONE<br>NONE<br>NORML<br>NORML<br>NEG   | 21<br>NEG<br>MODER<br>NONE<br>NONE<br>NORML<br>NORML<br>NEG  | 5<br>NEG<br>LIGHT<br>NONE<br>NORML<br>NORML<br>NEG   |
| Potassium<br>Water<br>Silt<br>Debris<br>Sand/Dirt<br>Appearance<br>Odor<br>Emulsified Water<br>Sodium   | ppm<br>scalar<br>scalar<br>scalar<br>scalar<br>scalar<br>scalar   | ASTM D5185m<br>WC Method<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>ASTM D5185m  | >20<br>>0.075<br>NONE<br>NONE<br>NORML<br>NORML<br>>0.075   | 33<br>NEG<br>MODER<br>NONE<br>NORE<br>NORML<br>NEG<br>11  | 21<br>NEG<br>MODER<br>NONE<br>NORE<br>NORML<br>NEG<br>9  | 5<br>NEG<br>LIGHT<br>NONE<br>NORML<br>NORML<br>NEG<br>3  |
| Potassium<br>Water<br>Silt<br>Debris<br>Sand/Dirt<br>Appearance<br>Odor<br>Emulsified Water<br>Sodium<br>Boron  | ppm<br>scalar<br>scalar<br>scalar<br>scalar<br>scalar<br>scalar<br>ppm  | ASTM D5185m<br>WC Method<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>ASTM D5185m   | >20<br>>0.075<br>NONE<br>NONE<br>NORML<br>>0.075<br>>51   | 33<br>NEG<br>MODER<br>NONE<br>NORML<br>NORML<br>NEG<br>11<br>9  | 21<br>NEG<br>MODER<br>NONE<br>NORML<br>NORML<br>NEG<br>9<br>6  | 5<br>NEG<br>LIGHT<br>NONE<br>NORML<br>NORML<br>NEG<br>3<br>1   |
| Potassium<br>Water<br>Silt<br>Debris<br>Sand/Dirt<br>Appearance<br>Odor<br>Emulsified Water<br>Sodium<br>Boron<br>Barium  | ppm<br>scalar<br>scalar<br>scalar<br>scalar<br>scalar<br>scalar<br>ppm<br>ppm                                 | ASTM D5185m<br>WC Method<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>ASTM D5185m<br>ASTM D5185m  | >20<br>>0.075<br>NONE<br>NONE<br>NORML<br>>0.075<br>>51<br>6<br>0                                   | 33<br>NEG<br>MODER<br>NONE<br>NORML<br>NORML<br>NEG<br>11<br>9<br>2   | 21<br>NEG<br>MODER<br>NONE<br>NORML<br>NORML<br>NEG<br>9<br>6<br>0   | 5<br>NEG<br>LIGHT<br>NONE<br>NORML<br>NORML<br>NEG<br>3<br>1<br>4  |
| Potassium<br>Water<br>Silt<br>Debris<br>Sand/Dirt<br>Appearance<br>Odor<br>Emulsified Water<br>Sodium<br>Boron<br>Barium<br>Molybdenum  | ppm<br>scalar<br>scalar<br>scalar<br>scalar<br>scalar<br>ppm<br>ppm<br>ppm                                    | ASTM D5185m<br>WC Method<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m  | >20<br>>0.075<br>NONE<br>NONE<br>NORML<br>>0.075<br>>51   | 33<br>NEG<br>MODER<br>NONE<br>NORML<br>NORML<br>NEG<br>11<br>9<br>2<br>6  | 21<br>NEG<br>MODER<br>NONE<br>NORML<br>NORML<br>NEG<br>9<br>6<br>0<br>0<br>5                               | 5<br>NEG<br>LIGHT<br>NONE<br>NORML<br>NORML<br>NEG<br>3<br>1<br>4<br>4<br>0                                |
| Potassium<br>Water<br>Silt<br>Debris<br>Sand/Dirt<br>Appearance<br>Odor<br>Emulsified Water<br>Sodium<br>Boron<br>Barium<br>Molybdenum<br>Manganese   | ppm<br>scalar<br>scalar<br>scalar<br>scalar<br>scalar<br>ppm<br>ppm<br>ppm<br>ppm                             | ASTM D5185m<br>WC Method<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m   | >20<br>>0.075<br>NONE<br>NONE<br>NORML<br>>0.075<br>>51<br>6<br>0                                   | 33<br>NEG<br>MODER<br>NONE<br>NORE<br>NORML<br>NEG<br>11<br>9<br>2<br>6<br>6                                      | 21<br>NEG<br>MODER<br>NONE<br>NORML<br>NORML<br>NEG<br>9<br>6<br>0<br>5<br>4                               | 5<br>NEG<br>LIGHT<br>NONE<br>NORML<br>NORML<br>NEG<br>3<br>1<br>4<br>0<br>2                                |
| Potassium<br>Water<br>Silt<br>Debris<br>Sand/Dirt<br>Appearance<br>Odor<br>Emulsified Water<br>Sodium<br>Boron<br>Barium<br>Malybdenum<br>Manganese<br>Magnesium                                  | ppm<br>scalar<br>scalar<br>scalar<br>scalar<br>scalar<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm                      | ASTM D5185m<br>WC Method<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m                               | >20<br>>0.075<br>NONE<br>NONE<br>NORML<br>>0.075<br>>51<br>6<br>0<br>0                              | 33<br>NEG<br>MODER<br>NONE<br>NORML<br>NORML<br>NEG<br>11<br>9<br>2<br>6<br>6<br>6<br>6<br>132                    | 21<br>NEG<br>MODER<br>NONE<br>NORML<br>NORML<br>NEG<br>9<br>6<br>0<br>5<br>4<br>131                        | 5<br>NEG<br>LIGHT<br>NONE<br>NORML<br>NORML<br>NEG<br>3<br>1<br>4<br>0<br>2<br>103                         |
| Potassium<br>Water<br>Silt<br>Debris<br>Sand/Dirt<br>Appearance<br>Odor<br>Emulsified Water<br>Sodium<br>Boron<br>Barium<br>Malybdenum<br>Manganese<br>Magnesium                                  | ppm<br>scalar<br>scalar<br>scalar<br>scalar<br>scalar<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm               | ASTM D5185m<br>WC Method<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m  | >20<br>>0.075<br>NONE<br>NONE<br>NORML<br>NORML<br>>0.075<br>>51<br>6<br>0<br>0<br>0<br>145<br>3570 | 33<br>NEG<br>MODER<br>NONE<br>NORML<br>NORML<br>NEG<br>11<br>9<br>2<br>6<br>6<br>6<br>132<br>3575                 | 21<br>NEG<br>NONE<br>NONE<br>NORML<br>NORML<br>NEG<br>9<br>6<br>0<br>0<br>5<br>4<br>131<br>3561            | 5<br>NEG<br>LIGHT<br>NONE<br>NORML<br>NORML<br>NEG<br>3<br>1<br>4<br>0<br>2<br>103<br>3377                 |
| Potassium<br>Water<br>Silt<br>Debris<br>Sand/Dirt<br>Appearance<br>Odor<br>Emulsified Water<br>Sodium<br>Boron<br>Barium<br>Molybdenum<br>Manganese<br>Magnesium<br>Calcium                       | ppm<br>scalar<br>scalar<br>scalar<br>scalar<br>scalar<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm        | ASTM D5185m<br>WC Method<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m            | >20<br>>0.075<br>NONE<br>NONE<br>NORML<br>>0.075<br>>51<br>6<br>0<br>0<br>0<br>145<br>3570<br>1290  | 33<br>NEG<br>MODER<br>NONE<br>NORE<br>NORML<br>NEG<br>11<br>9<br>2<br>6<br>6<br>6<br>132<br>3575<br>1091          | 21<br>NEG<br>NONE<br>NONE<br>NORML<br>NORML<br>NEG<br>9<br>6<br>0<br>5<br>4<br>131<br>3561<br>1066         | 5<br>NEG<br>LIGHT<br>NONE<br>NORML<br>NORML<br>NEG<br>3<br>1<br>4<br>0<br>2<br>103<br>3377<br>1008         |
| Potassium<br>Water<br>Silt<br>Debris<br>Sand/Dirt<br>Appearance<br>Odor<br>Emulsified Water<br>Sodium<br>Boron<br>Barium<br>Molybdenum<br>Manganese<br>Magnesium<br>Calcium<br>Phosphorus<br>Zinc | ppm<br>scalar<br>scalar<br>scalar<br>scalar<br>scalar<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm | ASTM D5185m<br>WC Method<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m | >20<br>>0.075<br>NONE<br>NONE<br>NORML<br>NORML<br>>0.075<br>>51<br>6<br>0<br>0<br>0<br>145<br>3570 | 33<br>NEG<br>MODER<br>NONE<br>NORML<br>NORML<br>NEG<br>11<br>9<br>2<br>6<br>6<br>6<br>132<br>3575<br>1091<br>1254 | 21<br>NEG<br>NONE<br>NONE<br>NORML<br>NORML<br>NEG<br>9<br>6<br>0<br>5<br>4<br>131<br>3561<br>1066<br>1242 | 5<br>NEG<br>LIGHT<br>NONE<br>NORML<br>NORML<br>NEG<br>3<br>1<br>4<br>0<br>2<br>103<br>3377<br>1008<br>1190 |
| Potassium<br>Water<br>Silt<br>Debris<br>Sand/Dirt<br>Appearance<br>Odor<br>Emulsified Water<br>Sodium<br>Boron<br>Barium<br>Molybdenum<br>Manganese<br>Magnesium<br>Calcium                       | ppm<br>scalar<br>scalar<br>scalar<br>scalar<br>scalar<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm        | ASTM D5185m<br>WC Method<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m            | >20<br>>0.075<br>NONE<br>NONE<br>NORML<br>>0.075<br>>51<br>6<br>0<br>0<br>0<br>145<br>3570<br>1290  | 33<br>NEG<br>MODER<br>NONE<br>NORE<br>NORML<br>NEG<br>11<br>9<br>2<br>6<br>6<br>6<br>132<br>3575<br>1091          | 21<br>NEG<br>NONE<br>NONE<br>NORML<br>NORML<br>NEG<br>9<br>6<br>0<br>5<br>4<br>131<br>3561<br>1066         | 5<br>NEG<br>LIGHT<br>NONE<br>NORML<br>NORML<br>NEG<br>3<br>1<br>4<br>0<br>2<br>103<br>3377<br>1008         |

Report Id: BSSWAR [WUSCAR] 06218571 (Generated: 06/29/2024 20:58:32) Rev: 1

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: WearCheck USA - 501 Madison Ave., Cary, NC 27513 **B & S SITE DEVLEOPMENT** Laboratory Sample No. : JR0218586 Received : 24 Jun 2024 7800 PINEY BRANCH LANE Lab Number : 06218571 Tested BRISTOW, VA : 25 Jun 2024 Unique Number : 11096768 : 26 Jun 2024 - Sean Felton US 20136 Diagnosed Test Package : CONST (Additional Tests: PQ) Contact: DANNY HUFF Certificate L2367 dhuff@bandssite.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. T: (540)270-3203 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012) F: (703)753-0605

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