

## **OIL ANALYSIS REPORT**

# **[W46760]** HITACHI 470 HCMJAA70K00030813

#### Component **Right Swing Drive Gear Case**

JOHN DEERE GL-5 80W90 (--- QTS)

#### Recommendation

Resample at the next service interval to monitor.

#### Wear

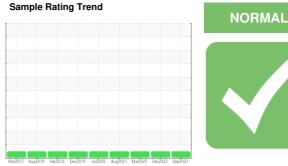
All component wear rates are normal.

#### Contamination

There is no indication of any contamination in the oil.

### Fluid Condition

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

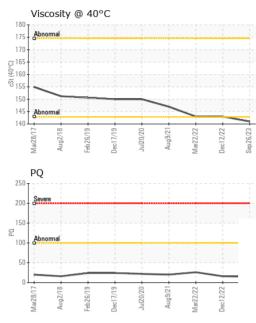




| SAMPLE INFORM    | IATION | method      | limit/base | current     | history1    | history2    |
|------------------|--------|-------------|------------|-------------|-------------|-------------|
| Sample Number    |        | Client Info |            | JR0180030   | JR0147339   | JR0125427   |
| Sample Date      |        | Client Info |            | 26 Sep 2023 | 12 Dec 2022 | 22 Mar 2022 |
| Machine Age      | hrs    | Client Info |            | 12978       | 11953       | 10953       |
| Oil Age          | hrs    | Client Info |            | 0           | 0           | 0           |
| Oil Changed      |        | Client Info |            | Changed     | Changed     | Changed     |
| Sample Status    |        |             |            | NORMAL      | NORMAL      | NORMAL      |
| WEAR METALS      |        | method      | limit/base | current     | history1    | history2    |
| PQ               |        | ASTM D8184  | innibado   | 15          | 16          | 26          |
| Iron             | ppm    | ASTM D5185m | >200       | 27          | 36          | 48          |
| Chromium         | ppm    | ASTM D5185m | >10        | _:<br><1    | <1          | <1          |
| Nickel           | ppm    | ASTM D5185m |            | 0           | 0           | 0           |
| Titanium         | ppm    | ASTM D5185m | 210        | 0           | 0           | <1          |
| Silver           | ppm    | ASTM D5185m |            | 0           | 0           | 0           |
| Aluminum         | ppm    | ASTM D5185m |            | ۰<br><1     | 2           | 2           |
| Lead             | ppm    | ASTM D5185m |            | 0           | 0           | 0           |
| Copper           | ppm    | ASTM D5185m |            | ۰<br><1     | <1          | <1          |
| Tin              | ppm    | ASTM D5185m |            | 0           | 0           | 0           |
| Antimony         | ppm    | ASTM D5185m | >5         |             | 0           |             |
| Vanadium         | ppm    | ASTM D5185m | >0         | 0           | 0           | 0           |
| Cadmium          |        | ASTM D5185m |            | 0           | 0           | 0           |
|                  | ppm    |             |            | 0           | -           | 0           |
| ADDITIVES        |        | method      | limit/base | current     | history1    | history2    |
| Boron            | ppm    | ASTM D5185m |            | 49          | 138         | 90          |
| Barium           | ppm    | ASTM D5185m |            | 2           | 0           | 0           |
| Molybdenum       | ppm    | ASTM D5185m |            | 0           | 0           | <1          |
| Manganese        | ppm    | ASTM D5185m |            | <1          | <1          | <1          |
| Magnesium        | ppm    | ASTM D5185m |            | <1          | 2           | 3           |
| Calcium          | ppm    | ASTM D5185m |            | 15          | 16          | 77          |
| Phosphorus       | ppm    | ASTM D5185m |            | 622         | 875         | 919         |
| Zinc             | ppm    | ASTM D5185m |            | 18          | 14          | 19          |
| Sulfur           | ppm    | ASTM D5185m |            | 21635       | 25056       | 21844       |
| CONTAMINANTS     |        | method      | limit/base | current     | history1    | history2    |
| Silicon          | ppm    | ASTM D5185m |            | 4           | 7           | 7           |
| Sodium           | ppm    | ASTM D5185m |            | 0           | <1          | 0           |
| Potassium        | ppm    | ASTM D5185m | >20        | <1          | 0           | 1           |
| VISUAL           |        | method      | limit/base | current     | history1    | history2    |
| White Metal      | scalar | *Visual     | NONE       | MODER       | LIGHT       | NONE        |
| Yellow Metal     | scalar | *Visual     | NONE       | NONE        | NONE        | NONE        |
| Precipitate      | scalar | *Visual     | NONE       | NONE        | NONE        | NONE        |
| Silt             | scalar | *Visual     | NONE       | NONE        | NONE        | NONE        |
| Debris           | scalar | *Visual     | NONE       | NONE        | LIGHT       | 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     | >0.2       | NEG         | NEG         | NEG         |
| Free Water       | scalar | *Visual     |            | NEG         | NEG         | NEG         |
|                  |        |             |            |             |             |             |



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Certificate L2367

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