



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

Area  
**SOUTH RICHMOND [W45733]**  
Machine Id  
**JOHN DEERE 370E M01-0318 1DW370ETVCE647304**  
Component  
**Diesel Engine**  
Fluid  
**JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (--- GAL)**

### RECOMMENDATION

Resample at the next service interval to monitor.

| Test           | UOM | Method      | Limit/Abn | Current            | History1    | History2    |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number  |     | Client Info |           | <b>JR0180848</b>   | JR0180897   | JR05855852  |
| Sample Date    |     | Client Info |           | <b>13 Sep 2023</b> | 21 Aug 2023 | 23 May 2023 |
| Machine Age    | hrs | Client Info |           | <b>7554</b>        | 7550        | 0           |
| Oil Age        | hrs | Client Info |           | <b>2</b>           | 0           | 0           |
| Filter Age     | hrs | Client Info |           | <b>2</b>           | 0           | 0           |
| Oil Changed    |     | Client Info |           | <b>Not Changd</b>  | Not Changd  | N/A         |
| Filter Changed |     | Client Info |           | <b>Not Changd</b>  | Not Changd  | N/A         |
| Sample Status  |     |             |           | <b>NORMAL</b>      | ABNORMAL    | ATTENTION   |

### WEAR

All component wear rates are normal.

|              |        |             |      |              |      |      |
|--------------|--------|-------------|------|--------------|------|------|
| Iron         | ppm    | ASTM D5185m | >51  | <b>4</b>     | 9    | 3    |
| Chromium     | ppm    | ASTM D5185m | >11  | <b>0</b>     | <1   | <1   |
| Nickel       | ppm    | ASTM D5185m | >5   | <b>0</b>     | 0    | 0    |
| Titanium     | ppm    | ASTM D5185m |      | <b>0</b>     | <1   | <1   |
| Silver       | ppm    | ASTM D5185m | >3   | <b>0</b>     | 0    | 0    |
| Aluminum     | ppm    | ASTM D5185m | >31  | <b>3</b>     | 1    | 1    |
| Lead         | ppm    | ASTM D5185m | >26  | <b>&lt;1</b> | 1    | <1   |
| Copper       | ppm    | ASTM D5185m | >26  | <b>2</b>     | 7    | 4    |
| Tin          | ppm    | ASTM D5185m | >4   | <b>&lt;1</b> | <1   | <1   |
| Vanadium     | ppm    | ASTM D5185m |      | <b>&lt;1</b> | 0    | 0    |
| White Metal  | scalar | *Visual     | NONE | <b>NONE</b>  | NONE | NONE |
| Yellow Metal | scalar | *Visual     | NONE | <b>NONE</b>  | NONE | NONE |

### CONTAMINATION

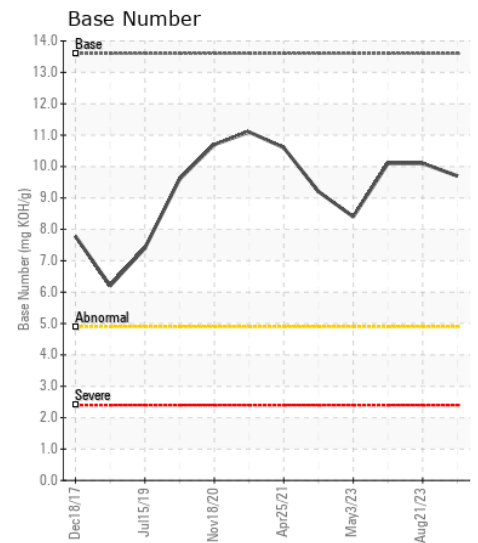
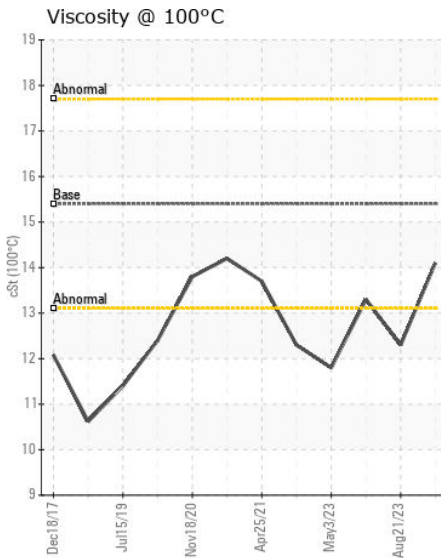
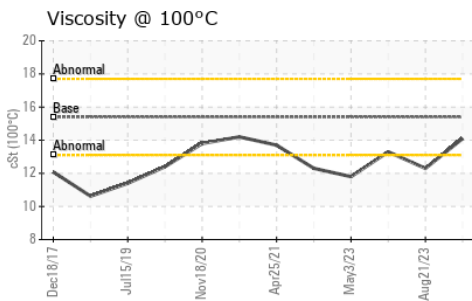
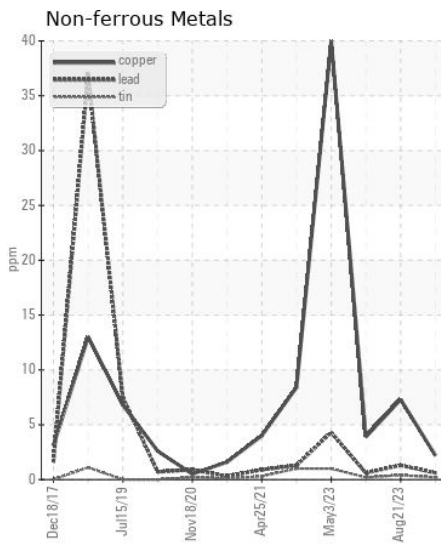
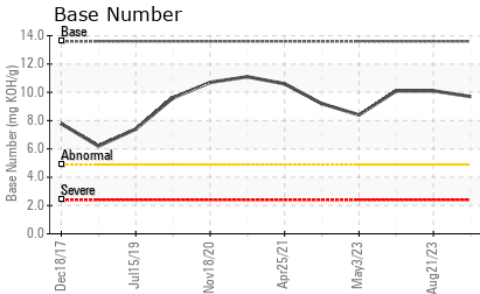
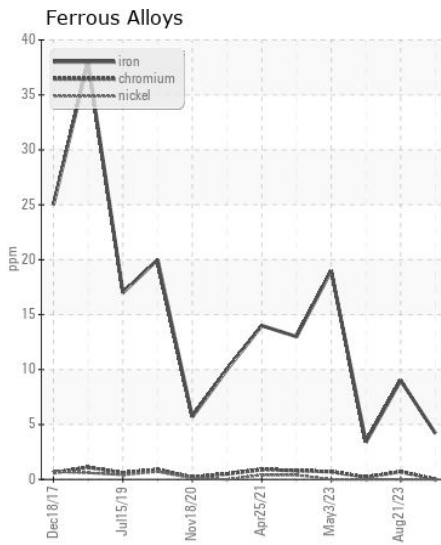
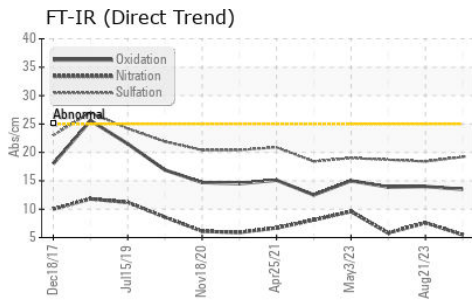
There is no indication of any contamination in the oil.

|                  |          |             |       |                |       |       |
|------------------|----------|-------------|-------|----------------|-------|-------|
| Silicon          | ppm      | ASTM D5185m | >22   | <b>8</b>       | 9     | 5     |
| Potassium        | ppm      | ASTM D5185m | >20   | <b>4</b>       | ▲ 16  | 5     |
| Fuel             |          | WC Method   | >2.1  | <b>&lt;1.0</b> | 3.1   | <1.0  |
| Water            |          | WC Method   | >0.21 | <b>NEG</b>     | NEG   | NEG   |
| Glycol           |          | WC Method   |       | <b>NEG</b>     | NEG   | NEG   |
| Soot %           | %        | *ASTM D7844 | >3    | <b>0.1</b>     | 0.2   | 0.1   |
| Nitration        | Abs/cm   | *ASTM D7624 | >20   | <b>5.5</b>     | 7.6   | 5.8   |
| Sulfation        | Abs/.1mm | *ASTM D7415 | >30   | <b>19.2</b>    | 18.4  | 18.7  |
| Silt             | scalar   | *Visual     | NONE  | <b>NONE</b>    | NONE  | NONE  |
| Debris           | scalar   | *Visual     | NONE  | <b>NONE</b>    | NONE  | NONE  |
| Sand/Dirt        | scalar   | *Visual     | NONE  | <b>NONE</b>    | NONE  | NONE  |
| Appearance       | scalar   | *Visual     | NORML | <b>NORML</b>   | NORML | NORML |
| Odor             | scalar   | *Visual     | NORML | <b>NORML</b>   | NORML | NORML |
| Emulsified Water | scalar   | *Visual     | >0.21 | <b>NEG</b>     | NEG   | NEG   |

### FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

|                  |          |             |      |              |        |      |
|------------------|----------|-------------|------|--------------|--------|------|
| Sodium           | ppm      | ASTM D5185m | >31  | <b>24</b>    | ▲ 234  | ● 68 |
| Boron            | ppm      | ASTM D5185m |      | <b>284</b>   | 54     | 97   |
| Barium           | ppm      | ASTM D5185m |      | <b>0</b>     | 0      | 0    |
| Molybdenum       | ppm      | ASTM D5185m |      | <b>229</b>   | 68     | 66   |
| Manganese        | ppm      | ASTM D5185m |      | <b>&lt;1</b> | <1     | 0    |
| Magnesium        | ppm      | ASTM D5185m |      | <b>861</b>   | 1006   | 994  |
| Calcium          | ppm      | ASTM D5185m |      | <b>1428</b>  | 1051   | 1081 |
| Phosphorus       | ppm      | ASTM D5185m |      | <b>914</b>   | 1027   | 1035 |
| Zinc             | ppm      | ASTM D5185m |      | <b>1118</b>  | 1191   | 1228 |
| Sulfur           | ppm      | ASTM D5185m |      | <b>3888</b>  | 3226   | 3896 |
| Oxidation        | Abs/.1mm | *ASTM D7414 | >25  | <b>13.5</b>  | 14.0   | 13.9 |
| Base Number (BN) | mg KOH/g | ASTM D2896  | 13.6 | <b>9.7</b>   | 10.1   | 10.1 |
| Visc @ 100°C     | cSt      | ASTM D445   | 15.4 | <b>14.1</b>  | ● 12.3 | 13.3 |



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : JR0180848 **Received** : 14 Sep 2023  
**Lab Number** : 05951163 **Tested** : 16 Sep 2023  
**Unique Number** : 10647122 **Diagnosed** : 16 Sep 2023 - Wes Davis  
**Test Package** : CONST ( Additional Tests: TBN )

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)

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