



# OIL ANALYSIS REPORT

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



Area  
**Store 4 - Fairmont**  
Machine Id  
**JOHN DEERE 210G 1FF210GXCKF527836**  
Component  
**Diesel Engine**  
Fluid  
**JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (6 GAL)**

## RECOMMENDATION

Resample at the next service interval to monitor.

| Test           | UOM | Method      | Limit/Abn | Current            | History1    | History2    |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number  |     | Client Info |           | <b>LEC0051047</b>  | LEC0045362  | LEC0039602  |
| Sample Date    |     | Client Info |           | <b>20 Jun 2024</b> | 28 Sep 2023 | 03 Mar 2023 |
| Machine Age    | hrs | Client Info |           | <b>3579</b>        | 2878        | 2404        |
| Oil Age        | hrs | Client Info |           | <b>701</b>         | 474         | 1122        |
| Filter Age     | hrs | Client Info |           | <b>701</b>         | 474         | 1122        |
| Oil Changed    |     | Client Info |           | <b>Changed</b>     | Changed     | Changed     |
| Filter Changed |     | Client Info |           | <b>Changed</b>     | Changed     | Changed     |
| Sample Status  |     |             |           | <b>NORMAL</b>      | NORMAL      | NORMAL      |

## WEAR

All component wear rates are normal.

|              |        |             |      |              |      |      |
|--------------|--------|-------------|------|--------------|------|------|
| Iron         | ppm    | ASTM D5185m | >51  | <b>31</b>    | 36   | 22   |
| Chromium     | ppm    | ASTM D5185m | >11  | <b>&lt;1</b> | 1    | <1   |
| Nickel       | ppm    | ASTM D5185m | >5   | <b>2</b>     | 2    | <1   |
| Titanium     | ppm    | ASTM D5185m |      | <b>&lt;1</b> | <1   | 0    |
| Silver       | ppm    | ASTM D5185m | >3   | <b>&lt;1</b> | 0    | 0    |
| Aluminum     | ppm    | ASTM D5185m | >31  | <b>5</b>     | 5    | 4    |
| Lead         | ppm    | ASTM D5185m | >26  | <b>1</b>     | 1    | <1   |
| Copper       | ppm    | ASTM D5185m | >26  | <b>4</b>     | 9    | 5    |
| Tin          | ppm    | ASTM D5185m | >4   | <b>&lt;1</b> | 1    | <1   |
| Vanadium     | ppm    | ASTM D5185m |      | <b>&lt;1</b> | <1   | <1   |
| White Metal  | scalar | *Visual     | NONE | <b>NONE</b>  | NONE | NONE |
| Yellow Metal | scalar | *Visual     | NONE | <b>NONE</b>  | NONE | NONE |

## CONTAMINATION

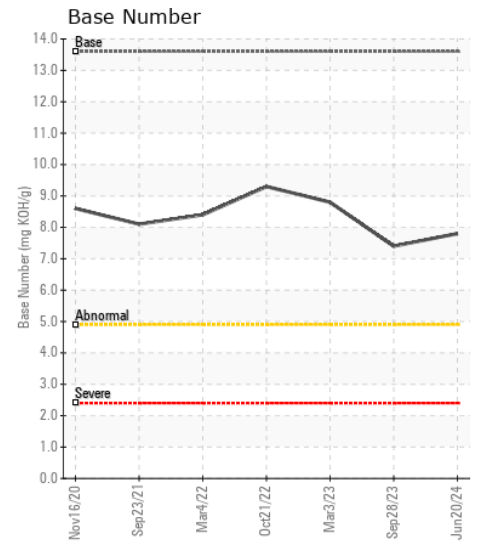
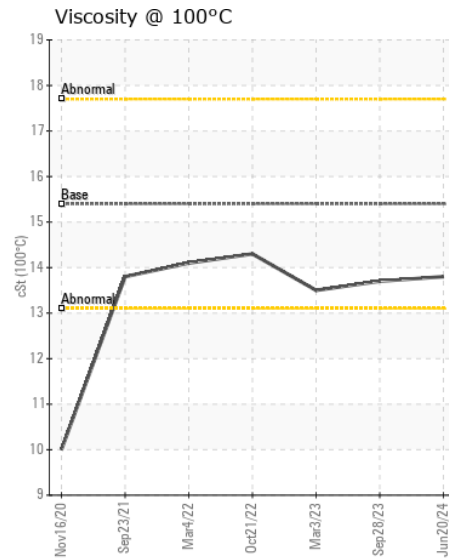
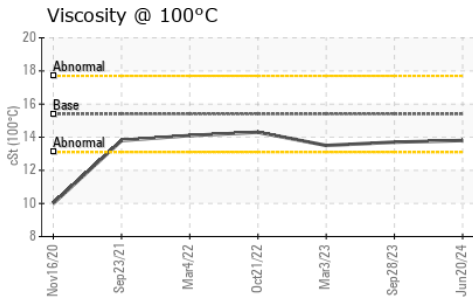
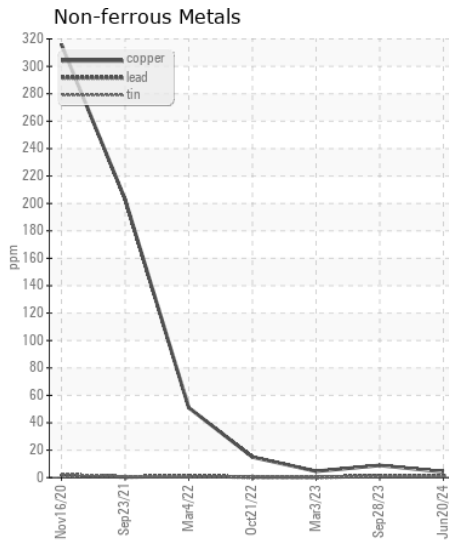
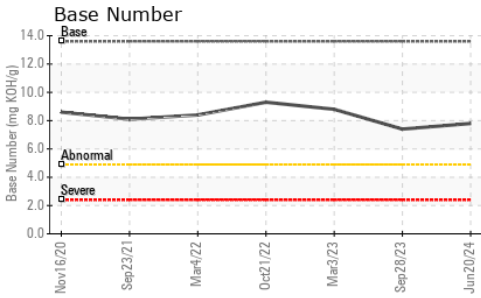
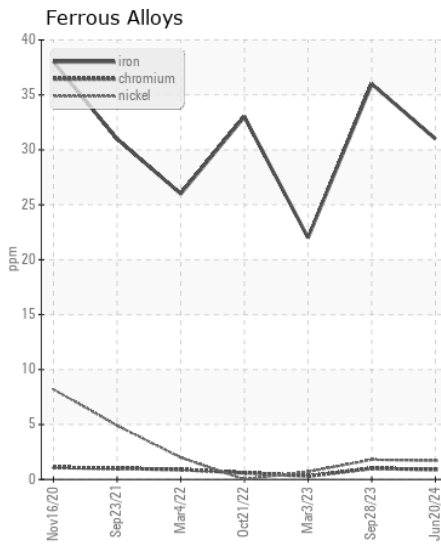
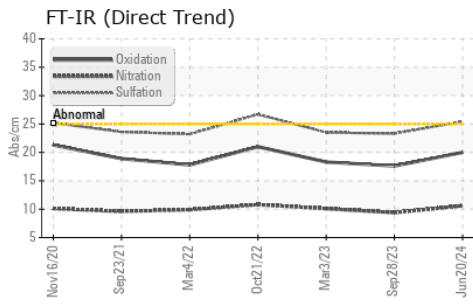
There is no indication of any contamination in the oil.

|                  |          |             |       |                |       |       |
|------------------|----------|-------------|-------|----------------|-------|-------|
| Silicon          | ppm      | ASTM D5185m | >120  | <b>8</b>       | 10    | 7     |
| Potassium        | ppm      | ASTM D5185m | >20   | <b>3</b>       | 5     | 2     |
| Fuel             |          | WC Method   | >2.1  | <b>&lt;1.0</b> | <1.0  | <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>0.6</b>     | 0.6   | 0.5   |
| Nitration        | Abs/cm   | *ASTM D7624 | >20   | <b>10.6</b>    | 9.4   | 10.1  |
| Sulfation        | Abs/.1mm | *ASTM D7415 | >30   | <b>25.4</b>    | 23.3  | 23.5  |
| 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>2</b>    | 8    | 2    |
| Boron            | ppm      | ASTM D5185m |      | <b>78</b>   | 233  | 157  |
| Barium           | ppm      | ASTM D5185m |      | <b>2</b>    | <1   | 0    |
| Molybdenum       | ppm      | ASTM D5185m |      | <b>231</b>  | 335  | 235  |
| Manganese        | ppm      | ASTM D5185m |      | <b>1</b>    | 2    | 1    |
| Magnesium        | ppm      | ASTM D5185m |      | <b>749</b>  | 1106 | 807  |
| Calcium          | ppm      | ASTM D5185m |      | <b>1492</b> | 1939 | 1587 |
| Phosphorus       | ppm      | ASTM D5185m |      | <b>879</b>  | 1171 | 883  |
| Zinc             | ppm      | ASTM D5185m |      | <b>1118</b> | 1472 | 1154 |
| Sulfur           | ppm      | ASTM D5185m |      | <b>2934</b> | 3923 | 3292 |
| Oxidation        | Abs/.1mm | *ASTM D7414 | >25  | <b>20.0</b> | 17.6 | 18.3 |
| Base Number (BN) | mg KOH/g | ASTM D2896  | 13.6 | <b>7.8</b>  | 7.4  | 8.8  |
| Visc @ 100°C     | cSt      | ASTM D445   | 15.4 | <b>13.8</b> | 13.7 | 13.5 |



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : LEC0051047 **Received** : 25 Jun 2024  
**Lab Number** : 06219475 **Tested** : 26 Jun 2024  
**Unique Number** : 11097672 **Diagnosed** : 26 Jun 2024 - Wes Davis  
**Test Package** : CONST ( Additional Tests: TBN )

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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)