



OIL ANALYSIS REPORT

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

Area  
**Store 9 - Marietta**  
Machine Id  
**JOHN DEERE 624P 1DW624PAJNLZ15746**  
Component  
**Diesel Engine**  
Fluid  
**JOHN DEERE ENGINE OIL PLUS 50 II 10W30 (5 GAL)**

**RECOMMENDATION**

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. ( Customer Sample Comment: PLUS 50 II 10/30 BREAK IN OIL )

| Test           | UOM | Method      | Limit/Abn | Current            | History1 | History2 |
|----------------|-----|-------------|-----------|--------------------|----------|----------|
| Sample Number  |     | Client Info |           | <b>LEC0050232</b>  | ---      | ---      |
| Sample Date    |     | Client Info |           | <b>26 Jun 2024</b> | ---      | ---      |
| Machine Age    | hrs | Client Info |           | <b>354</b>         | ---      | ---      |
| Oil Age        | hrs | Client Info |           | <b>354</b>         | ---      | ---      |
| Filter Age     | hrs | Client Info |           | <b>354</b>         | ---      | ---      |
| Oil Changed    |     | Client Info |           | <b>Changed</b>     | ---      | ---      |
| Filter Changed |     | Client Info |           | <b>Changed</b>     | ---      | ---      |
| Sample Status  |     |             |           | <b>ABNORMAL</b>    | ---      | ---      |

**WEAR**

The copper level is abnormal. In the absence of other significant wear metals, suspect copper due to sources other than wear (i.e. cooling core).

|              |        |             |      |              |     |     |
|--------------|--------|-------------|------|--------------|-----|-----|
| Iron         | ppm    | ASTM D5185m | >51  | <b>31</b>    | --- | --- |
| Chromium     | ppm    | ASTM D5185m | >11  | <b>1</b>     | --- | --- |
| Nickel       | ppm    | ASTM D5185m | >5   | <b>6</b>     | --- | --- |
| Titanium     | ppm    | ASTM D5185m |      | <b>&lt;1</b> | --- | --- |
| Silver       | ppm    | ASTM D5185m | >3   | <b>&lt;1</b> | --- | --- |
| Aluminum     | ppm    | ASTM D5185m | >31  | <b>6</b>     | --- | --- |
| Lead         | ppm    | ASTM D5185m | >26  | <b>1</b>     | --- | --- |
| Copper       | ppm    | ASTM D5185m | >26  | <b>▲ 411</b> | --- | --- |
| Tin          | ppm    | ASTM D5185m | >4   | <b>2</b>     | --- | --- |
| Vanadium     | ppm    | ASTM D5185m |      | <b>&lt;1</b> | --- | --- |
| White Metal  | scalar | *Visual     | NONE | <b>NONE</b>  | --- | --- |
| Yellow Metal | scalar | *Visual     | NONE | <b>NONE</b>  | --- | --- |

**CONTAMINATION**

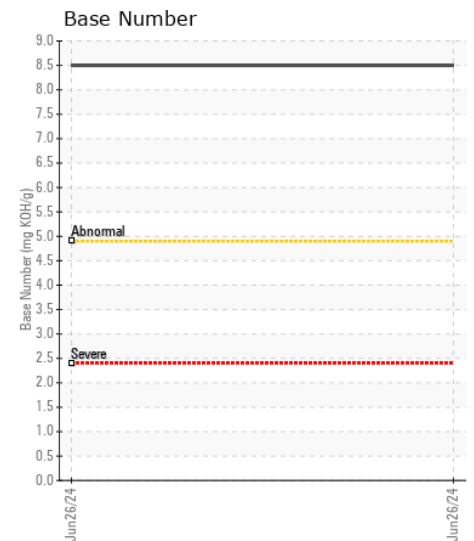
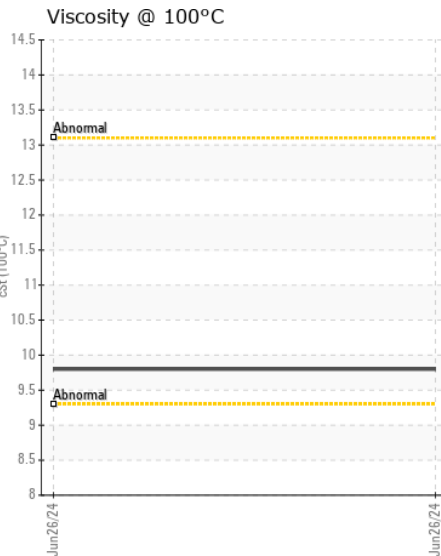
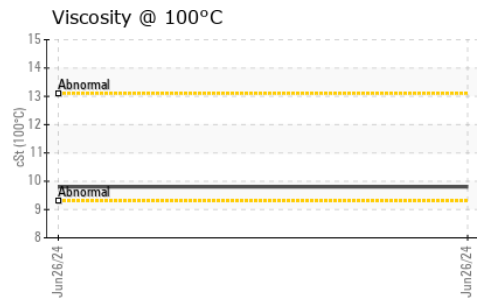
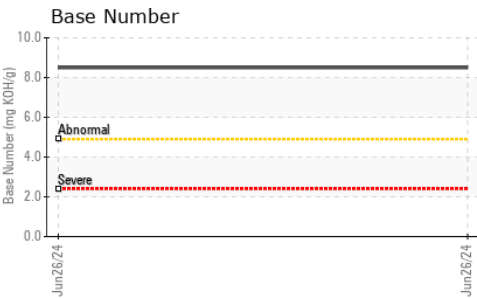
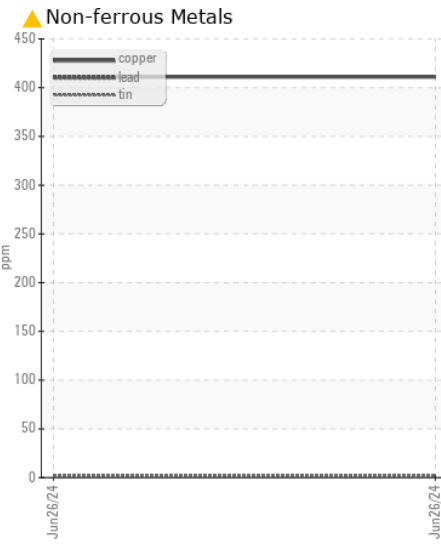
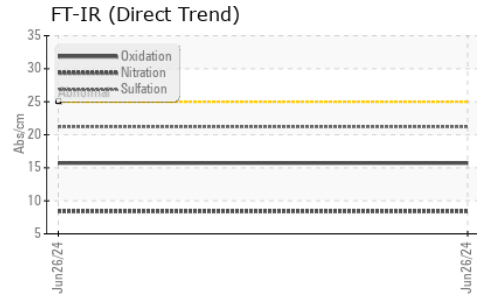
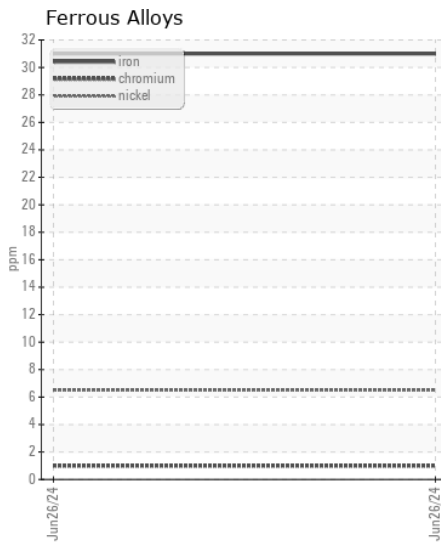
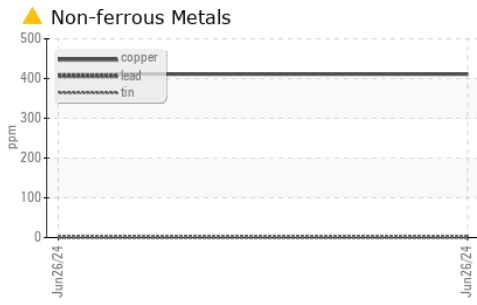
There is no indication of any contamination in the oil.

|                  |          |             |       |                |     |     |
|------------------|----------|-------------|-------|----------------|-----|-----|
| Silicon          | ppm      | ASTM D5185m | >120  | <b>12</b>      | --- | --- |
| Potassium        | ppm      | ASTM D5185m | >20   | <b>6</b>       | --- | --- |
| Fuel             |          | WC Method   | >2.1  | <b>&lt;1.0</b> | --- | --- |
| Water            |          | WC Method   | >0.21 | <b>NEG</b>     | --- | --- |
| Glycol           |          | WC Method   |       | <b>NEG</b>     | --- | --- |
| Soot %           | %        | *ASTM D7844 | >3    | <b>0.2</b>     | --- | --- |
| Nitration        | Abs/cm   | *ASTM D7624 | >20   | <b>8.4</b>     | --- | --- |
| Sulfation        | Abs/.1mm | *ASTM D7415 | >30   | <b>21.2</b>    | --- | --- |
| Silt             | scalar   | *Visual     | NONE  | <b>NONE</b>    | --- | --- |
| Debris           | scalar   | *Visual     | NONE  | <b>NONE</b>    | --- | --- |
| Sand/Dirt        | scalar   | *Visual     | NONE  | <b>NONE</b>    | --- | --- |
| Appearance       | scalar   | *Visual     | NORML | <b>NORML</b>   | --- | --- |
| Odor             | scalar   | *Visual     | NORML | <b>NORML</b>   | --- | --- |
| Emulsified Water | scalar   | *Visual     | >0.21 | <b>NEG</b>     | --- | --- |

**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>4</b>    | --- | --- |
| Boron            | ppm      | ASTM D5185m |     | <b>247</b>  | --- | --- |
| Barium           | ppm      | ASTM D5185m |     | <b>4</b>    | --- | --- |
| Molybdenum       | ppm      | ASTM D5185m |     | <b>268</b>  | --- | --- |
| Manganese        | ppm      | ASTM D5185m |     | <b>6</b>    | --- | --- |
| Magnesium        | ppm      | ASTM D5185m |     | <b>793</b>  | --- | --- |
| Calcium          | ppm      | ASTM D5185m |     | <b>1405</b> | --- | --- |
| Phosphorus       | ppm      | ASTM D5185m |     | <b>898</b>  | --- | --- |
| Zinc             | ppm      | ASTM D5185m |     | <b>1074</b> | --- | --- |
| Sulfur           | ppm      | ASTM D5185m |     | <b>2798</b> | --- | --- |
| Oxidation        | Abs/.1mm | *ASTM D7414 | >25 | <b>15.7</b> | --- | --- |
| Base Number (BN) | mg KOH/g | ASTM D2896  |     | <b>8.5</b>  | --- | --- |
| Visc @ 100°C     | cSt      | ASTM D445   |     | <b>9.8</b>  | --- | --- |



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : LEC0050232 **Received** : 02 Jul 2024  
**Lab Number** : 06225832 **Tested** : 03 Jul 2024  
**Unique Number** : 11109325 **Diagnosed** : 03 Jul 2024 - Jonathan Hester  
**Test Package** : CONST ( Additional Tests: TBN )

**LESLIE EQUIPMENT COMPANY**  
 105 TENNIS CENTER DR.  
 MARIETTA, OH  
 US 45750-9765  
 Contact: LEANNE KENDALL  
 KendalLeanne@lec1.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.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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