



# OIL ANALYSIS REPORT

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

Area  
**Store 9 - Marietta**  
Machine Id  
**PRINOTH T14R 935310196**  
Component  
**Diesel Engine**  
Fluid  
**JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (5 GAL)**

## RECOMMENDATION

Resample at the next service interval to monitor.

| Test           | UOM | Method      | Limit/Abn | Current            | History1    | History2    |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number  |     | Client Info |           | <b>LEC0043202</b>  | LEC0035472  | LEC0028355  |
| Sample Date    |     | Client Info |           | <b>07 Jul 2023</b> | 30 Dec 2022 | 07 Feb 2022 |
| Machine Age    | hrs | Client Info |           | <b>1986</b>        | 1574        | 1114        |
| Oil Age        | hrs | Client Info |           | <b>412</b>         | 460         | 585         |
| Filter Age     | hrs | Client Info |           | <b>412</b>         | 460         | 585         |
| Oil Changed    |     | Client Info |           | <b>Changed</b>     | Changed     | Changed     |
| Filter Changed |     | Client Info |           | <b>Changed</b>     | Changed     | Changed     |
| Sample Status  |     |             |           | <b>NORMAL</b>      | ABNORMAL    | ABNORMAL    |

## WEAR

All component wear rates are normal.

|              |        |             |      |              |      |       |
|--------------|--------|-------------|------|--------------|------|-------|
| Iron         | ppm    | ASTM D5185m | >100 | <b>76</b>    | 81   | ▲ 109 |
| Chromium     | ppm    | ASTM D5185m | >20  | <b>2</b>     | 3    | 4     |
| Nickel       | ppm    | ASTM D5185m | >4   | <b>&lt;1</b> | 2    | <1    |
| Titanium     | ppm    | ASTM D5185m |      | <b>&lt;1</b> | <1   | <1    |
| Silver       | ppm    | ASTM D5185m | >3   | <b>0</b>     | 0    | 0     |
| Aluminum     | ppm    | ASTM D5185m | >20  | <b>20</b>    | ▲ 18 | ▲ 22  |
| Lead         | ppm    | ASTM D5185m | >40  | <b>0</b>     | 0    | 3     |
| Copper       | ppm    | ASTM D5185m | >330 | <b>14</b>    | 48   | 212   |
| Tin          | ppm    | ASTM D5185m | >15  | <b>0</b>     | <1   | <1    |
| Vanadium     | ppm    | ASTM D5185m |      | <b>0</b>     | <1   | <1    |
| White Metal  | scalar | *Visual     | NONE | <b>NONE</b>  | NONE | NONE  |
| Yellow Metal | scalar | *Visual     | NONE | <b>NONE</b>  | NONE | NONE  |

## CONTAMINATION

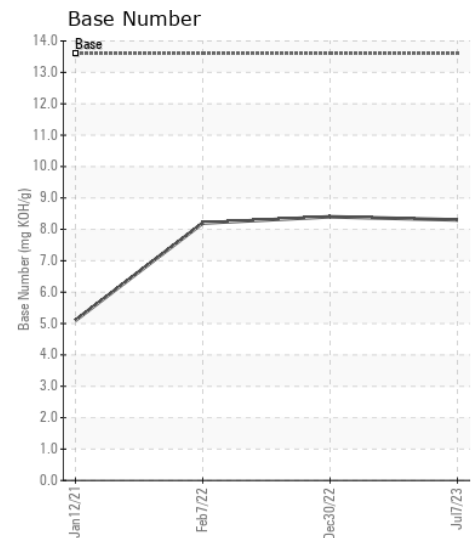
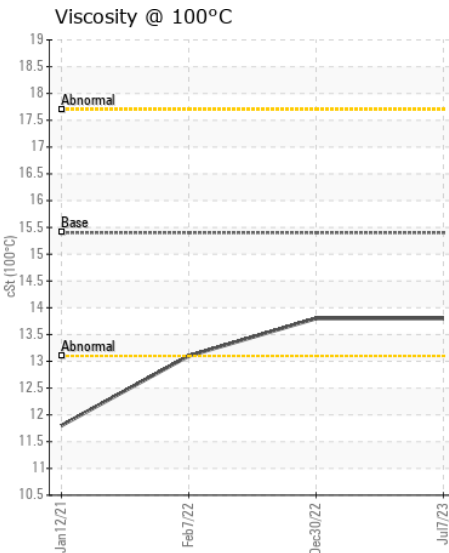
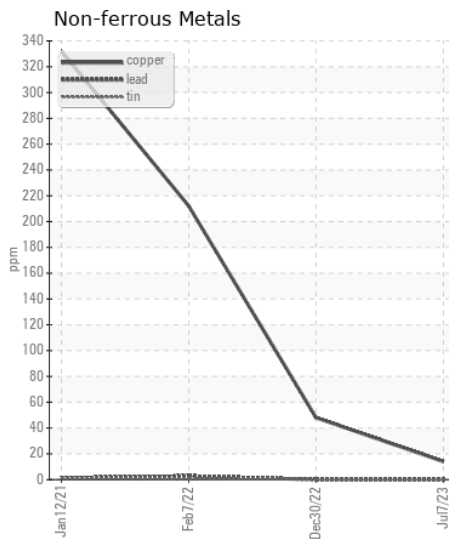
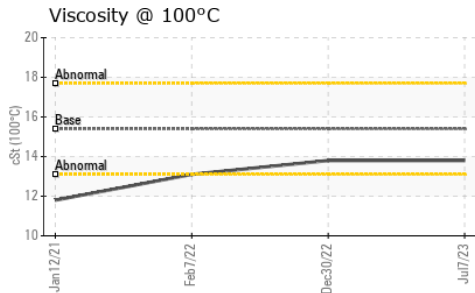
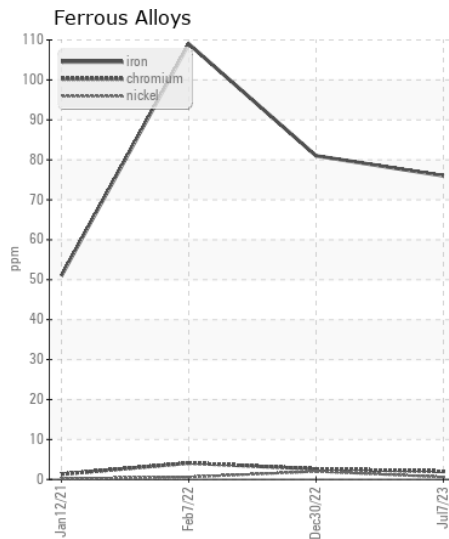
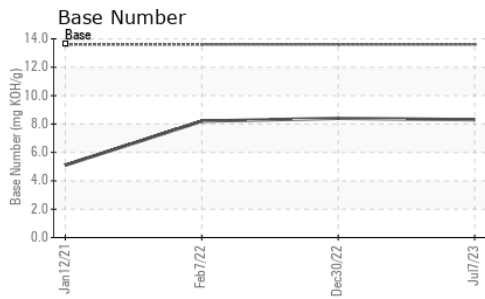
There is no indication of any contamination in the oil.

|                  |          |             |       |                |       |       |
|------------------|----------|-------------|-------|----------------|-------|-------|
| Silicon          | ppm      | ASTM D5185m | >120  | <b>16</b>      | ▲ 17  | ▲ 22  |
| Potassium        | ppm      | ASTM D5185m | >20   | <b>5</b>       | 4     | 3     |
| Fuel             |          | WC Method   | >5    | <b>&lt;1.0</b> | <1.0  | <1.0  |
| Water            |          | WC Method   | >0.2  | <b>NEG</b>     | NEG   | NEG   |
| Glycol           |          | WC Method   |       | <b>NEG</b>     | NEG   | NEG   |
| Soot %           | %        | *ASTM D7844 | >3    | <b>0.4</b>     | 0.3   | 0.5   |
| Nitration        | Abs/cm   | *ASTM D7624 | >20   | <b>9.2</b>     | 8.7   | 11.8  |
| Sulfation        | Abs/.1mm | *ASTM D7415 | >30   | <b>23.1</b>    | 22.3  | 26.9  |
| 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     | >0.2  | <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 |      | <b>2</b>     | 2    | 2    |
| Boron            | ppm      | ASTM D5185m |      | <b>168</b>   | 94   | 77   |
| Barium           | ppm      | ASTM D5185m |      | <b>0</b>     | 0    | 0    |
| Molybdenum       | ppm      | ASTM D5185m |      | <b>237</b>   | 144  | 200  |
| Manganese        | ppm      | ASTM D5185m |      | <b>&lt;1</b> | 1    | 2    |
| Magnesium        | ppm      | ASTM D5185m |      | <b>728</b>   | 513  | 677  |
| Calcium          | ppm      | ASTM D5185m |      | <b>1451</b>  | 1518 | 1663 |
| Phosphorus       | ppm      | ASTM D5185m |      | <b>886</b>   | 902  | 851  |
| Zinc             | ppm      | ASTM D5185m |      | <b>1083</b>  | 1106 | 1074 |
| Sulfur           | ppm      | ASTM D5185m |      | <b>3189</b>  | 3345 | 2477 |
| Oxidation        | Abs/.1mm | *ASTM D7414 | >25  | <b>18.4</b>  | 17.0 | 22.9 |
| Base Number (BN) | mg KOH/g | ASTM D2896  | 13.6 | <b>8.3</b>   | 8.4  | 8.2  |
| Visc @ 100°C     | cSt      | ASTM D445   | 15.4 | <b>13.8</b>  | 13.8 | 13.1 |



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : LEC0043202 **Received** : 11 Jul 2023  
**Lab Number** : 05894857 **Tested** : 11 Jul 2023  
**Unique Number** : 10550667 **Diagnosed** : 12 Jul 2023 - Don Baldridge  
**Test Package** : CONST ( Additional Tests: TBN )

**LESLIE EQUIPMENT COMPANY**  
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 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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