



# OIL ANALYSIS REPORT

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

Area **Store 6 - Ashland [SOUTHERN OH TRENCHIN]**

Machine Id **JOHN DEERE 245G 1FF245GXELF801565**

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>LEC0047918</b>  | LEC0028382  | ---      |
| Sample Date    |     | Client Info |           | <b>10 Mar 2024</b> | 22 Apr 2022 | ---      |
| Machine Age    | hrs | Client Info |           | <b>2358</b>        | 509         | ---      |
| Oil Age        | hrs | Client Info |           | <b>0</b>           | 509         | ---      |
| Filter Age     | hrs | Client Info |           | <b>0</b>           | 509         | ---      |
| Oil Changed    |     | Client Info |           | <b>Changed</b>     | Changed     | ---      |
| Filter Changed |     | Client Info |           | <b>Changed</b>     | Changed     | ---      |
| Sample Status  |     |             |           | <b>NORMAL</b>      | ABNORMAL    | ---      |

## WEAR

All component wear rates are normal.

|              |        |             |      |              |      |     |
|--------------|--------|-------------|------|--------------|------|-----|
| Iron         | ppm    | ASTM D5185m | >51  | <b>17</b>    | 34   | --- |
| Chromium     | ppm    | ASTM D5185m | >11  | <b>&lt;1</b> | <1   | --- |
| Nickel       | ppm    | ASTM D5185m | >5   | <b>&lt;1</b> | <1   | --- |
| Titanium     | ppm    | ASTM D5185m |      | <b>&lt;1</b> | 0    | --- |
| Silver       | ppm    | ASTM D5185m | >3   | <b>0</b>     | <1   | --- |
| Aluminum     | ppm    | ASTM D5185m | >31  | <b>9</b>     | 5    | --- |
| Lead         | ppm    | ASTM D5185m | >26  | <b>2</b>     | 2    | --- |
| Copper       | ppm    | ASTM D5185m | >26  | <b>19</b>    | 11   | --- |
| Tin          | ppm    | ASTM D5185m | >4   | <b>3</b>     | 6    | --- |
| Vanadium     | ppm    | ASTM D5185m |      | <b>&lt;1</b> | 0    | --- |
| White Metal  | scalar | *Visual     | NONE | <b>NONE</b>  | NONE | --- |
| Yellow Metal | scalar | *Visual     | NONE | <b>NONE</b>  | NONE | --- |

## CONTAMINATION

There is no indication of any contamination in the oil.

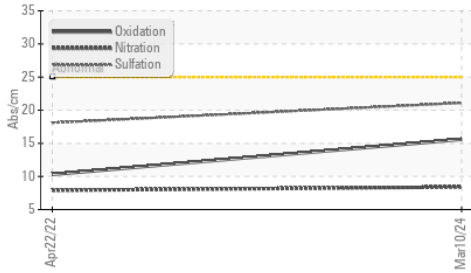
|                  |          |             |       |                |       |     |
|------------------|----------|-------------|-------|----------------|-------|-----|
| Silicon          | ppm      | ASTM D5185m | >120  | <b>12</b>      | ▲ 29  | --- |
| Potassium        | ppm      | ASTM D5185m | >20   | <b>3</b>       | 3     | --- |
| Fuel             |          | WC Method   | >2.1  | <b>&lt;1.0</b> | <1.0  | --- |
| Water            |          | WC Method   | >0.21 | <b>NEG</b>     | NEG   | --- |
| Glycol           |          | WC Method   |       | <b>NEG</b>     | NEG   | --- |
| Soot %           | %        | *ASTM D7844 | >3    | <b>0.3</b>     | 0.2   | --- |
| Nitration        | Abs/cm   | *ASTM D7624 | >20   | <b>8.4</b>     | 7.9   | --- |
| Sulfation        | Abs/.1mm | *ASTM D7415 | >30   | <b>21.1</b>    | 18.1  | --- |
| Silt             | scalar   | *Visual     | NONE  | <b>NONE</b>    | NONE  | --- |
| Debris           | scalar   | *Visual     | NONE  | <b>NONE</b>    | NONE  | --- |
| Sand/Dirt        | scalar   | *Visual     | NONE  | <b>NONE</b>    | NONE  | --- |
| Appearance       | scalar   | *Visual     | NORML | <b>NORML</b>   | NORML | --- |
| Odor             | scalar   | *Visual     | NORML | <b>NORML</b>   | NORML | --- |
| Emulsified Water | scalar   | *Visual     | >0.21 | <b>NEG</b>     | NEG   | --- |

## FLUID CONDITION

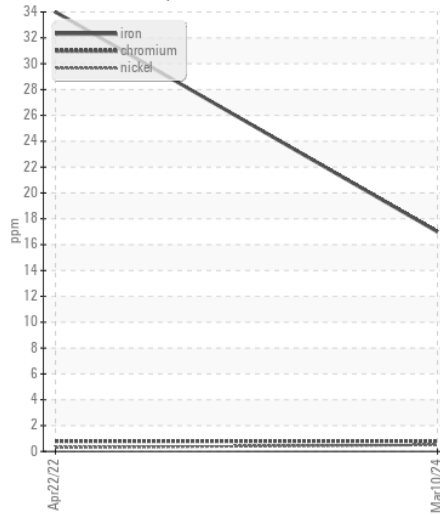
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

|                  |          |             |      |              |      |     |
|------------------|----------|-------------|------|--------------|------|-----|
| Sodium           | ppm      | ASTM D5185m | >31  | <b>&lt;1</b> | 2    | --- |
| Boron            | ppm      | ASTM D5185m |      | <b>281</b>   | 161  | --- |
| Barium           | ppm      | ASTM D5185m |      | <b>3</b>     | 0    | --- |
| Molybdenum       | ppm      | ASTM D5185m |      | <b>269</b>   | 1    | --- |
| Manganese        | ppm      | ASTM D5185m |      | <b>1</b>     | 4    | --- |
| Magnesium        | ppm      | ASTM D5185m |      | <b>794</b>   | 16   | --- |
| Calcium          | ppm      | ASTM D5185m |      | <b>1410</b>  | 2311 | --- |
| Phosphorus       | ppm      | ASTM D5185m |      | <b>916</b>   | 1040 | --- |
| Zinc             | ppm      | ASTM D5185m |      | <b>1075</b>  | 1215 | --- |
| Sulfur           | ppm      | ASTM D5185m |      | <b>3045</b>  | 2711 | --- |
| Oxidation        | Abs/.1mm | *ASTM D7414 | >25  | <b>15.6</b>  | 10.3 | --- |
| Base Number (BN) | mg KOH/g | ASTM D2896  | 13.6 | <b>9.4</b>   | 9.7  | --- |
| Visc @ 100°C     | cSt      | ASTM D445   | 15.4 | <b>13.5</b>  | 13.3 | --- |

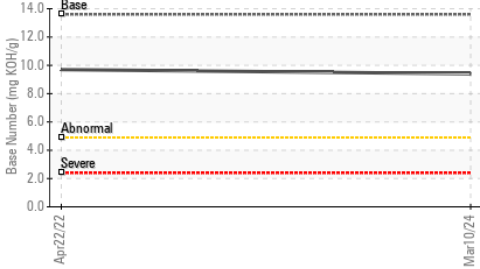
FT-IR (Direct Trend)



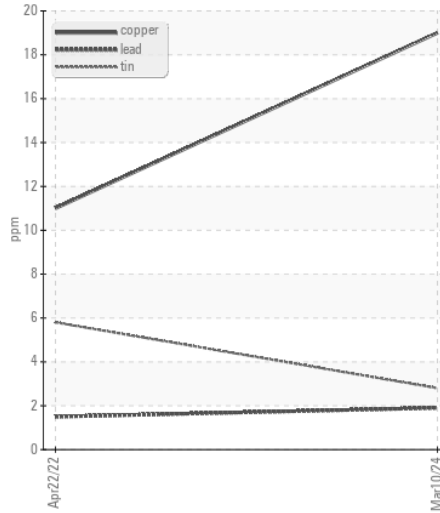
Ferrous Alloys



Base Number



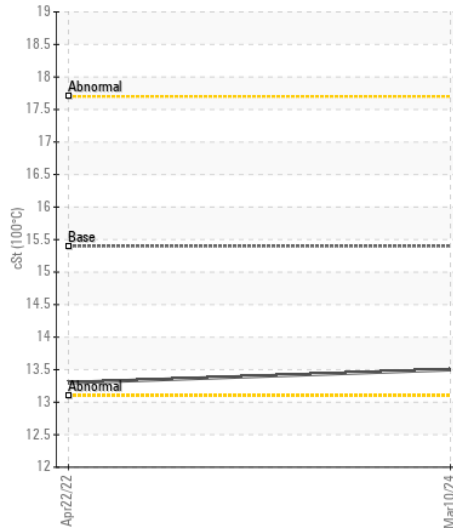
Non-ferrous Metals



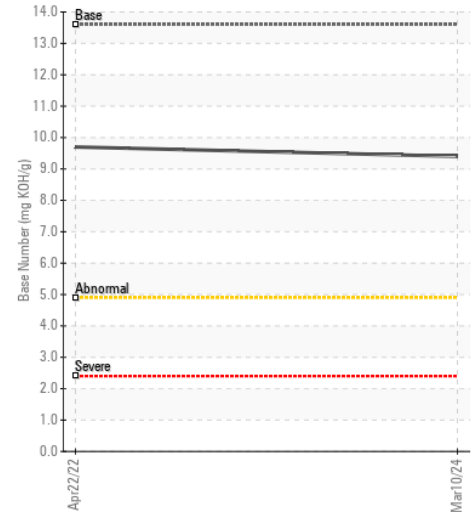
Viscosity @ 100°C



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
 Sample No. : LEC0047918 Received : 26 Apr 2024  
 Lab Number : 06161315 Tested : 29 Apr 2024  
 Unique Number : 10996738 Diagnosed : 29 Apr 2024 - Wes Davis  
 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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