|  |  |  |  | V | JEAR | NOR | AL |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| WARRIOR |  |  |  |  | TION | NOR | AL |
| OIL ANALYSIS REPORT |  |  | FLUID C | NDI | ION | NOR | L |
| [G14050] |  |  |  |  |  |  |  |
| JOHN DEERE 340488 <br> Component |  |  |  |  |  |  |  |
| Diesel Engine |  |  |  |  |  |  |  |
| JOHN DEERE ENGINE OIL PLUS 50 II 15W40 | GAL) |  |  |  |  |  |  |
| RECOMMENDATION | Test | UOM | Method | LimitAbn | Current | History1 | History2 |
|  | Sample Number |  | Client Info |  | WE0006220 | --- | --- |
| Resample at the next service interval to monitor. | Sample Date |  | Client Info |  | 09 Jan 2024 | --- | --- |
|  | Machine Age | hrs | Client Info |  | 5490 | --- | --- |
|  | Oil Age | hrs | Client Info |  | 0 | --- | --- |
|  | Filter Age | hrs | Client Info |  | 0 | --- | --- |
|  | Oil Changed |  | Client Info |  | Changed | --- | --- |
|  | Filter Changed |  | Client Info |  | Changed | --- | --- |
|  | Sample Status |  |  |  | NORMAL | --- | --- |
| WEAR | Iron | ppm | ASTM D5185m | >51 | 11 | --- | --- |
|  | Chromium | ppm | ASTM D5185m | $>11$ | <1 | --- | --- |
| All component wear rates are normal. | Nickel | ppm | ASTM D5185m | >5 | 0 | --- | --- |
|  | Titanium | ppm | ASTM D5185m |  | 0 | --- | --- |
|  | Silver | ppm | ASTM D5185m | >3 | 0 | --- | --- |
|  | Aluminum | ppm | ASTM D5185m | >31 | 9 | --- | --- |
|  | Lead | ppm | ASTM D5185m | >26 | <1 | --- | --- |
|  | Copper | ppm | ASTM D5185m | >26 | <1 | --- | --- |
|  | Tin | ppm | ASTM D5185m | >4 | <1 | --- | --- |
|  | Vanadium | ppm | ASTM D5185m |  | <1 | --- | --- |
|  | White Metal | scalar | *Visual | NONE | NONE | --- | --- |
|  | Yellow Metal | scalar | *Visual | NONE | NONE | --- | --- |
| CONTAMNATION | Silicon | ppm | ASTM D5185m | >22 | 8 | --- | --- |
|  | Potassium | ppm | ASTM D5185m | >20 | 1 | --- | --- |
| There is no indication of any contamination in the oil. | Fuel |  | WC Method | >2.1 | <1.0 | --- | --- |
|  | Water |  | WC Method | $>0.21$ | NEG | --- | --- |
|  | Glycol |  | WC Method |  | NEG | --- | --- |
|  | Soot \% | \% | *ASTM D7844 | >3 | 0.6 | --- | --- |
|  | Nitration | Abs/cm | *ASTM D7624 | >20 | 8.2 | --- | --- |
|  | Sulfation | Abs. 1 mm | *ASTM D7415 | >30 | 21.8 | --- | --- |
|  | Silt | scalar | *Visual | NONE | NONE | --- | --- |
|  | Debris | scalar | *Visual | NONE | NONE | --- | --- |
|  | Sand/Dirt | scalar | *Visual | NONE | NONE | --- | --- |
|  | Appearance | scalar | *Visual | NORML | NORML | --- | --- |
|  | Odor | scalar | *Visual | NORML | NORML | --- | --- |
|  | Emulsified Water | scalar | *Visual | >0.21 | NEG | --- | --- |
| FLUID CONDITION | Sodium | ppm | ASTM D5185m | >31 | <1 | --- | --- |
|  | Boron | ppm | ASTM D5185m |  | 216 | --- | --- |
| oil. The condition of the oil is suitable for further service. | Barium | ppm | ASTM D5185m |  | 0 | --- | --- |
|  | Molybdenum | ppm | ASTM D5185m |  | 251 | --- | --- |
|  | Manganese | ppm | ASTM D5185m |  | <1 | --- | --- |
|  | Magnesium | ppm | ASTM D5185m |  | 841 | --- | --- |
|  | Calcium | ppm | ASTM D5185m |  | 1366 | --- | --- |
|  | Phosphorus | ppm | ASTM D5185m |  | 943 | --- | --- |
|  | Zinc | ppm | ASTM D5185m |  | 1091 | --- | --- |
|  | Sulfur | ppm | ASTM D5185m |  | 3006 | --- | --- |
|  | Oxidation | Abs. 1 mm | *ASTM D7414 | >25 | 15.1 | --- | --- |
|  | Base Number (BN) | $\mathrm{mg} \mathrm{KOH/g}$ | ASTM D2896 | 13.6 | 8.4 | --- | --- |
|  | Visc @ 100 ${ }^{\circ} \mathrm{C}$ | cSt | ASTM D445 | 15.4 | 14.2 | --- | --- |




| Sample No. | : WE0006220 | Recieved | $: 16$ Jan 2024 |
| :--- | :--- | :--- | :--- |
| Lab Number | $: 06060849$ | Diagnosed | $: 17$ Jan 2024 |
| Unique Number | $: 10832231$ | Diagnostician | : Wes Davis |

4308 WATER TRAIL GRAYSVILLE, AL

