

Area



JOHN DEERE 770GP 1DW770GPEEF665757

Component Diesel Engine

JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (7 GAL)

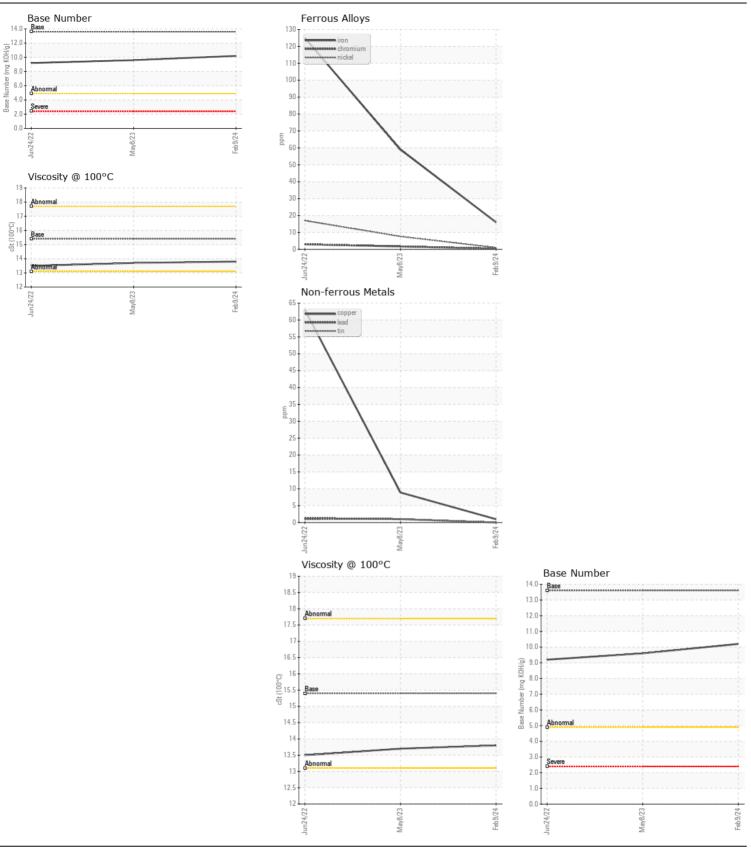
| RECOMMENDATION | Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|---|------------------|---------------|----------------------------|-------------|-------------|-------------|-------------|
| Resample at the next service interval to monitor. (Customer Sample Comment: W63939) | Sample Number | | Client Info | | JR0203552 | JR0161483 | JR0133622 |
| | Sample Date | | Client Info | | 09 Feb 2024 | 08 May 2023 | 24 Jun 2022 |
| | Machine Age | hrs | Client Info | | 2000 | 1527 | 1026 |
| | Oil Age | hrs | Client Info | | 1026 | 0 | 561 |
| | Filter Age | hrs | Client Info | | 0 | 0 | 561 |
| | Oil Changed | | Client Info | | Changed | Changed | Changed |
| | Filter Changed | | Client Info | | Changed | Changed | Changed |
| | Sample Status | | | | NORMAL | ABNORMAL | ABNORMAL |
| | | | | | | | 4.05 |
| WEAR All component wear rates are normal. | Iron | ppm | ASTM D5185m | | 16 | 59 | ▲ 125 0 |
| | Chromium | ppm | ASTM D5185m | | <1 | 2 | 3 |
| | Nickel | ppm | ASTM D5185m | >5 | 1 | ▲ 8 0 | ▲ 17 |
| | Titanium | ppm | ASTM D5185m | 0 | <1 | 0 | <1 |
| | Silver | ppm | ASTM D5185m | | 0 | 0 | 0 |
| | Aluminum | ppm | ASTM D5185m | | 2 | 5 | 8 |
| | Lead | ppm | ASTM D5185m | | 0 | 1 | 1 63 |
| | Copper Tin | ppm | ASTM D5185m ASTM D5185m | | 1 | 9 | <1 |
| | Vanadium | ppm | ASTM D5185m | >4 | 0 | <1 | 0 |
| | White Metal | ppm scalar | *Visual | NONE | NONE | NONE | NONE |
| | Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| | | Scalal | visuai | | | NONL | NONL |
| CONTAMINATION | Silicon | ppm | ASTM D5185m | >22 | 6 | 8 | 8 |
| | Potassium | ppm | ASTM D5185m | >20 | 2 | 4 | <1 |
| There is no indication of any contamination in the oil. | Fuel | | WC Method | >2.1 | <1.0 | <1.0 | <1.0 |
| | Water | | WC Method | >0.21 | NEG | NEG | NEG |
| | Glycol | | WC Method | | NEG | NEG | NEG |
| | Soot % | % | *ASTM D7844 | >3 | 0.1 | 0.1 | 0.2 |
| | Nitration | Abs/cm | *ASTM D7624 | >20 | 4.7 | 7.5 | 7.7 |
| | Sulfation | Abs/.1mm | *ASTM D7415 | >30 | 18.6 | 20.6 | 20.3 |
| | Silt | scalar | *Visual | NONE | NONE | NONE | NONE |
| | Debris | scalar | *Visual | NONE | NONE | NONE | NONE |
| | Sand/Dirt | scalar | *Visual | NONE | NONE | NONE | NONE |
| | Appearance | scalar | *Visual | NORML | NORML | NORML | NORML |
| | Odor | scalar | *Visual | NORML | NORML | NORML | NORML |
| | Emulsified Water | scalar | *Visual | >0.21 | NEG | NEG | NEG |
| FLUID CONDITION | Sodium | ppm | ASTM D5185m | <u>_</u> 31 | 0 | 2 | 2 |
| | Boron | ppm | ASTM D5185m | 201 | 47 | 231 | 219 |
| The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service. | Barium | ppm | ASTM D5185m | | 12 | 0 | 0 |
| | Molybdenum | ppm | ASTM D5185m | | 110 | 246 | 221 |
| | Manganese | ppm | ASTM D5185m | | 0 | 1 | 2 |
| | Magnesium | ppm | ASTM D5185m | | 1271 | 822 | 725 |
| | Calcium | ppm | ASTM D5185m | | 1435 | 1377 | 1488 |
| | Phosphorus | ppm | ASTM D5185m | | 1472 | 899 | 839 |
| | Zinc | ppm | ASTM D5185m | | 1600 | 1095 | 1037 |
| | Sulfur | ppm | ASTM D5185m | | 5258 | 3687 | 3390 |
| | Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 13.7 | 15.0 | 15.3 |
| | Base Number (BN) | | ASTM D2896 | | 10.2 | 9.6 | 9.2 |
| | | - 01 | | 1 - 4 | 10.0 | 10.7 | 10.5 |

Visc @ 100°C cSt ASTM D445 15.4

13.7

13.8

13.5



JRE - CHARLOTTE Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 Sample No. : JR0203552 Received 9550 STATESVILLE ROAD : 14 Feb 2024 Lab Number : 06088639 Tested : 15 Feb 2024 CHARLOTTE, NC : 15 Feb 2024 - Sean Felton US 28269 Unique Number : 10876084 Diagnosed Test Package : CONST (Additional Tests: TBN) Contact: CHARLOTTE SHOP Certificate L2367 To discuss this sample report, contact Customer Service at 1-800-237-1369. myoung@jamesriverequipment.com * - Denotes test methods that are outside of the ISO 17025 scope of accreditation. T: (704)597-0211 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012) F: (704)596-6198