

Store 4 - Fairmont [RO# 151570] PRINOTH T12 935300140 **Diesel Engine**

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

| RECOMMENDATION | Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|---|------------------|----------|-------------|-----------|--------------|-------------|------------|
| Check for low coolant level. We advise that you check for the source of the coolant leak. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition. | Sample Number | | Client Info | | LEC0048303 | LEC0032219 | LEC0013712 |
| | Sample Date | | Client Info | | 10 Jun 2024 | 08 Jun 2022 | 15 Jun 202 |
| | Machine Age | hrs | Client Info | | 2770 | 0 | 1670 |
| | Oil Age | hrs | Client Info | | 500 | 400 | 1237 |
| | Filter Age | hrs | Client Info | | 500 | 400 | 1237 |
| | Oil Changed | | Client Info | | Changed | Not Changd | Changed |
| | Filter Changed | | Client Info | | Changed | Not Changd | Changed |
| | Sample Status | | | | ABNORMAL | NORMAL | NORMAL |
| WEAR | Iron | ppm | ASTM D5185m | >100 | 115 | 35 | 91 |
| | Chromium | ppm | ASTM D5185m | >20 | 4 | 1 | 3 |
| Piston, ring and cylinder wear is indicated. | Nickel | ppm | ASTM D5185m | >4 | 1 | 0 | <1 |
| | Titanium | ppm | ASTM D5185m | | <1 | <1 | <1 |
| | Silver | ppm | ASTM D5185m | >3 | 0 | <1 | 0 |
| | Aluminum | ppm | ASTM D5185m | >20 | A 30 | 8 | 13 |
| | Lead | ppm | ASTM D5185m | >40 | 0 | <1 | <1 |
| | Copper | ppm | ASTM D5185m | >330 | 20 | 2 | 43 |
| | Tin | ppm | ASTM D5185m | >15 | 0 | <1 | <1 |
| | Vanadium | ppm | ASTM D5185m | | <1 | <1 | 0 |
| | White Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| | Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| CONTAMINATION | Silicon | ppm | ASTM D5185m | >!20 | 16 | 8 | 13 |
| | Potassium | ppm | ASTM D5185m | >20 | 4 3 | 3 | 12 |
| Sodium and/or potassium levels are high. | Fuel | | WC Method | >5 | <1.0 | <1.0 | <1.0 |
| | Water | | WC Method | >0.2 | NEG | NEG | NEG |
| | Glycol | % | *ASTM D2982 | | NEG | NEG | NEG |
| | Soot % | % | *ASTM D7844 | >3 | 0.3 | 0.1 | 0.4 |
| | Nitration | Abs/cm | *ASTM D7624 | >20 | 12.3 | 8.1 | 14 |
| | Sulfation | Abs/.1mm | *ASTM D7415 | >30 | 25.4 | 20.6 | 30.9 |
| | 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 | NORM |
| | Odor | scalar | *Visual | NORML | NORML | NORML | NORM |
| | Emulsified Water | scalar | *Visual | >0.2 | NEG | NEG | NEG |
| FLUID CONDITION | Sodium | ppm | ASTM D5185m | | e 106 | 2 | 5 |
| The BN result indicates that there is suitable alkalinity remaining in the oil. | Boron | ppm | ASTM D5185m | | 32 | 215 | 32 |
| | Barium | ppm | ASTM D5185m | | 0 | 0 | <1 |
| | Molybdenum | ppm | ASTM D5185m | | 183 | 187 | 171 |
| | Manganese | ppm | ASTM D5185m | | 2 | <1 | 2 |
| | Magnesium | ppm | ASTM D5185m | | 604 | 623 | 615 |
| | Calcium | ppm | ASTM D5185m | | 1634 | 1578 | 1747 |
| | Phosphorus | ppm | ASTM D5185m | | 857 | 961 | 921 |
| | Zinc | ppm | ASTM D5185m | | 1078 | 1166 | 1132 |
| | Sulfur | ppm | ASTM D5185m | | 3501 | 3233 | 2579 |
| | Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 20.7 | 16.0 | 28.8 |
| | | | | | | | |

Visc @ 100°C cSt

Base Number (BN) mg KOH/g ASTM D2896 13.6

ASTM D445 15.4

10.2

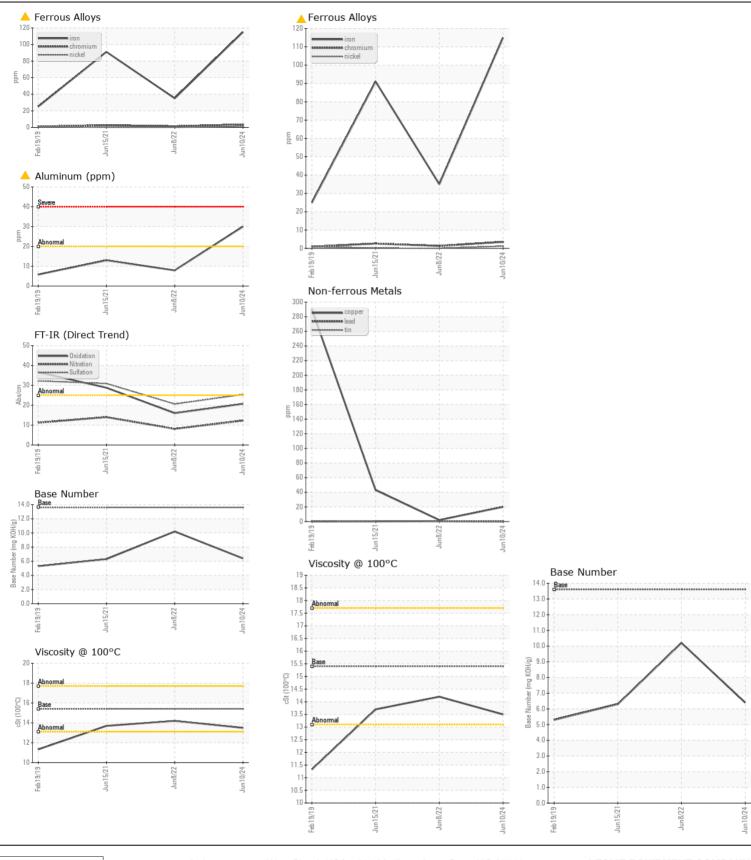
14.2

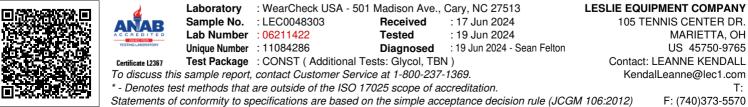
6.3

13.7

6.4

13.5





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

Submitted By: APRIL TREADWAY Page 2 of 2