



| | |
|-----------------|---------------|
| WEAR | NORMAL |
| CONTAMINATION | NORMAL |
| FLUID CONDITION | NORMAL |

Area

[16W15833]

Machine Id

JOHN DEERE 350P 1FF350PALPF000976

Component

Hydraulic System

Fluid

JOHN DEERE ZINC-FREE HYDRAULIC OIL 46 (51 GAL)

RECOMMENDATION

Resample at the next service interval to monitor. (Customer Sample Comment: 16W15833)

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number | | Client Info | | JR0207030 | JR0202505 | JR0194083 |
| Sample Date | | Client Info | | 19 Mar 2024 | 15 Feb 2024 | 18 Dec 2023 |
| Machine Age | hrs | Client Info | | 1991 | 1609 | 1031 |
| Oil Age | hrs | Client Info | | 1991 | 578 | 1031 |
| Filter Age | hrs | Client Info | | 960 | 600 | 0 |
| Oil Changed | | Client Info | | Not Changed | Not Changed | Changed |
| Filter Changed | | Client Info | | Changed | Not Changed | Changed |
| Sample Status | | | | NORMAL | NORMAL | ABNORMAL |

WEAR

All component wear rates are normal.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|--------------|--------|-------------|-----------|--------------|----------|----------|
| PQ | | ASTM D8184 | >50 | 13 | 13 | 9 |
| Iron | ppm | ASTM D5185m | >32 | 2 | <1 | 3 |
| Chromium | ppm | ASTM D5185m | >9 | <1 | 0 | <1 |
| Nickel | ppm | ASTM D5185m | >5 | 0 | <1 | 0 |
| Titanium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Silver | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >9 | 0 | <1 | 2 |
| Lead | ppm | ASTM D5185m | >28 | 0 | <1 | 0 |
| Copper | ppm | ASTM D5185m | >50 | 1 | <1 | <1 |
| Tin | ppm | ASTM D5185m | >5 | <1 | <1 | 0 |
| Vanadium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| White Metal | scalar | *Visual | NONE | NONE | NONE | LIGHT |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |

CONTAMINATION

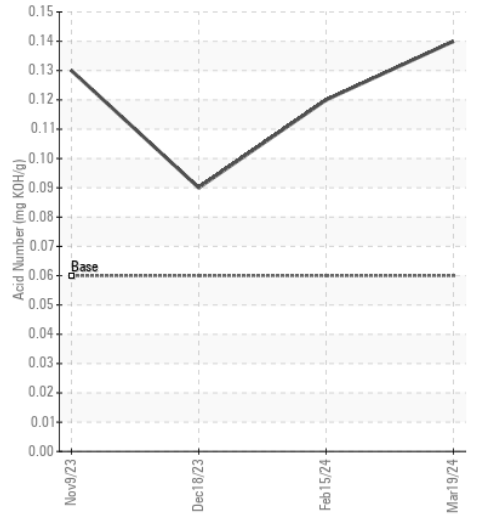
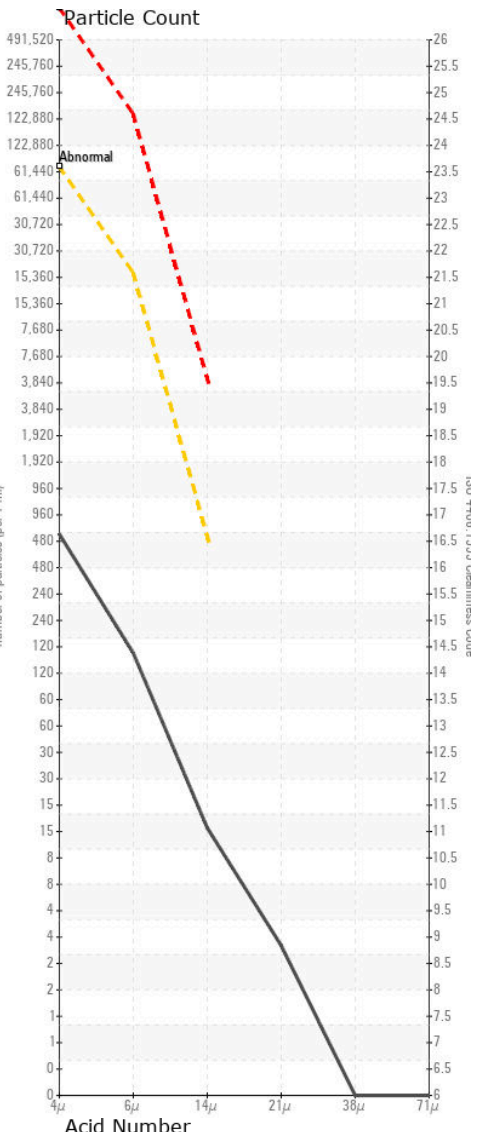
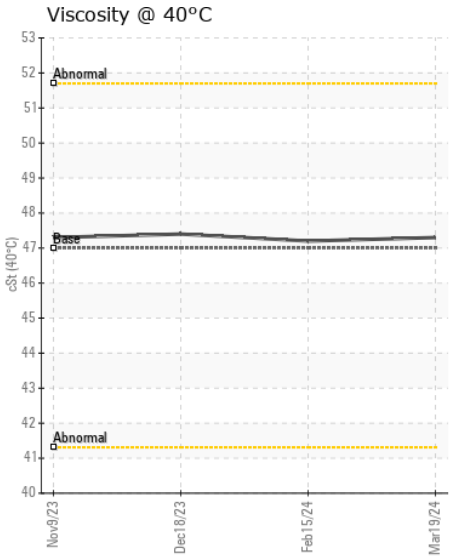
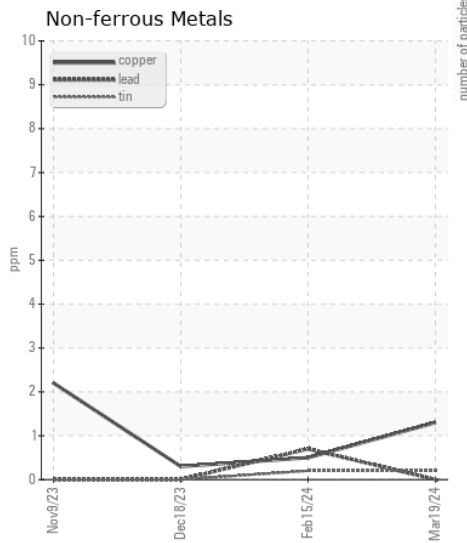
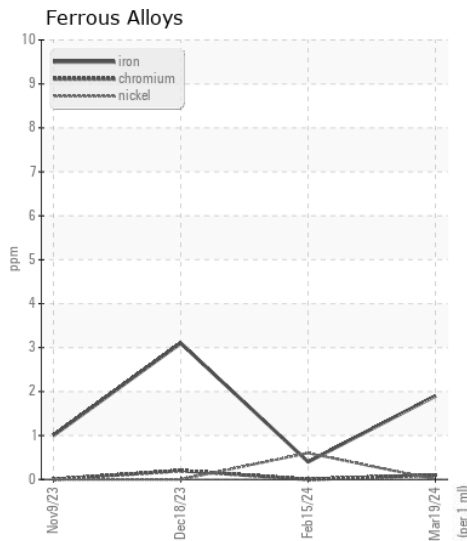
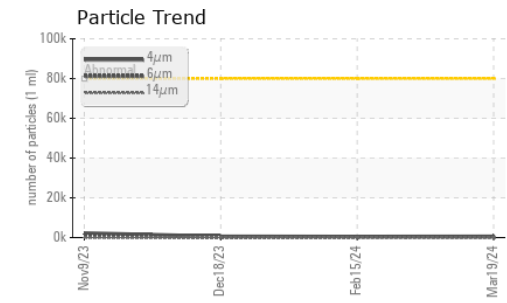
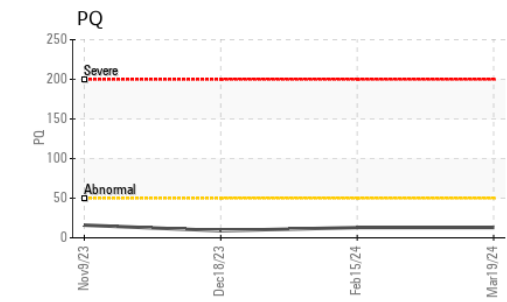
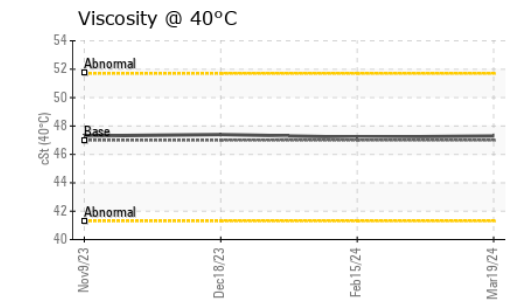
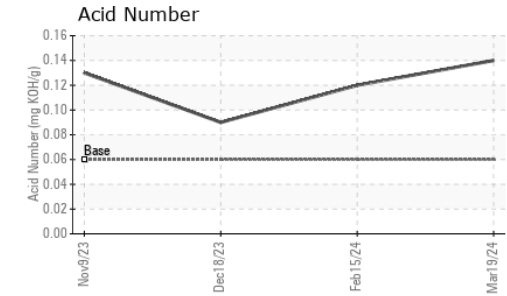
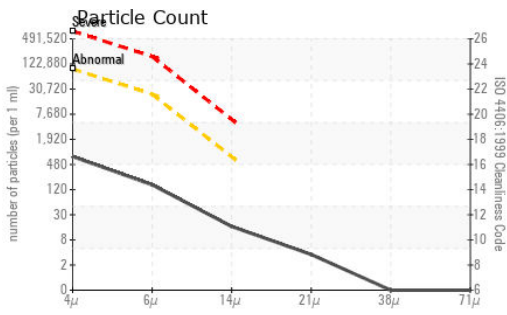
The amount and size of particulates present in the system are acceptable. There is no indication of any contamination in the oil.

| | | | | | | |
|------------------|--------|--------------|-----------|-----------------|----------|----------|
| Silicon | ppm | ASTM D5185m | >11 | <1 | <1 | 2 |
| Potassium | ppm | ASTM D5185m | >20 | <1 | 3 | 2 |
| Water | | WC Method | >0.075 | NEG | NEG | NEG |
| Particles >4µm | | ASTM D7647 | >80000 | 654 | 570 | 655 |
| Particles >6µm | | ASTM D7647 | >20000 | 138 | 178 | 125 |
| Particles >14µm | | ASTM D7647 | >640 | 14 | 24 | 8 |
| Particles >21µm | | ASTM D7647 | >160 | 3 | 7 | 2 |
| Particles >38µm | | ASTM D7647 | >40 | 0 | 0 | 0 |
| Particles >71µm | | ASTM D7647 | >10 | 0 | 0 | 0 |
| Oil Cleanliness | | ISO 4406 (c) | >23/21/16 | 17/14/11 | 16/15/12 | 17/14/10 |
| 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 | >0.075 | NEG | NEG | NEG |

FLUID CONDITION

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

| | | | | | | |
|------------------|----------|-------------|------|--------------|------|-------|
| Sodium | ppm | ASTM D5185m | >21 | <1 | <1 | 0 |
| Boron | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Barium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | | <1 | 0 | 1 |
| Manganese | ppm | ASTM D5185m | | <1 | 0 | 0 |
| Magnesium | ppm | ASTM D5185m | | 0 | 2 | 45 |
| Calcium | ppm | ASTM D5185m | | 0 | 17 | 425 |
| Phosphorus | ppm | ASTM D5185m | | 560 | 588 | 342 |
| Zinc | ppm | ASTM D5185m | | 8 | 17 | ▲ 206 |
| Sulfur | ppm | ASTM D5185m | | 8 | 57 | 839 |
| Acid Number (AN) | mg KOH/g | ASTM D8045 | 0.06 | 0.14 | 0.12 | 0.09 |
| Visc @ 40°C | cSt | ASTM D445 | 47 | 47.3 | 47.2 | 47.4 |



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0207030 **Received** : 21 Mar 2024
Lab Number : 06124785 **Tested** : 22 Mar 2024
Unique Number : 10938936 **Diagnosed** : 24 Mar 2024 - Don Baldrige
Test Package : CONST (Additional Tests: PQ)

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)

JRE - CASTLE HAYNE
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