



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

Machine Id
JOHN DEERE 245GLC 1FF245GXHNF802498
 Component
Hydraulic System
 Fluid
HITACHI HYDRAULIC SUPER EX 46HN (34 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number | | Client Info | | JR0214239 | JR0201027 | JR0189504 |
| Sample Date | | Client Info | | 17 May 2024 | 23 Jan 2024 | 26 Sep 2023 |
| Machine Age | hrs | Client Info | | 2970 | 2518 | 2164 |
| Oil Age | hrs | Client Info | | 2970 | 2518 | 2164 |
| Filter Age | hrs | Client Info | | 1000 | 0 | 1000 |
| Oil Changed | | Client Info | | Not Changed | Not Changed | Not Changed |
| Filter Changed | | Client Info | | Changed | N/A | Changed |
| Sample Status | | | | NORMAL | NORMAL | NORMAL |

WEAR

All component wear rates are normal.

| | | | | | | |
|--------------|--------|-------------|------|--------------|------|------|
| PQ | | ASTM D8184 | >50 | 17 | 15 | 13 |
| Iron | ppm | ASTM D5185m | >32 | 12 | 8 | 8 |
| Chromium | ppm | ASTM D5185m | >9 | 0 | 0 | 0 |
| Nickel | ppm | ASTM D5185m | >5 | 0 | 0 | 0 |
| Titanium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Silver | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >9 | <1 | 0 | <1 |
| Lead | ppm | ASTM D5185m | >28 | <1 | 0 | 0 |
| Copper | ppm | ASTM D5185m | >50 | 3 | 2 | 2 |
| Tin | ppm | ASTM D5185m | >5 | <1 | <1 | 0 |
| Vanadium | ppm | ASTM D5185m | | 0 | <1 | 0 |
| White Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |

CONTAMINATION

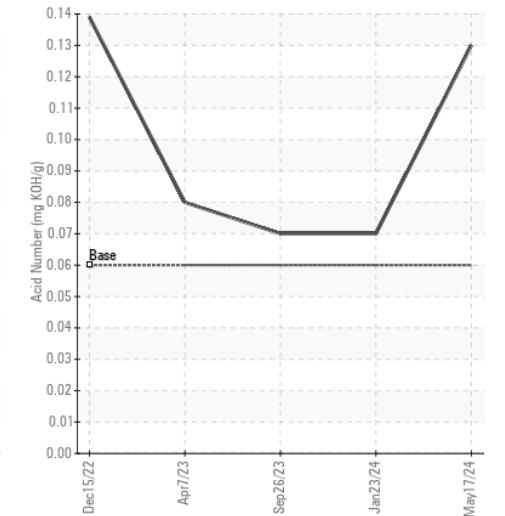
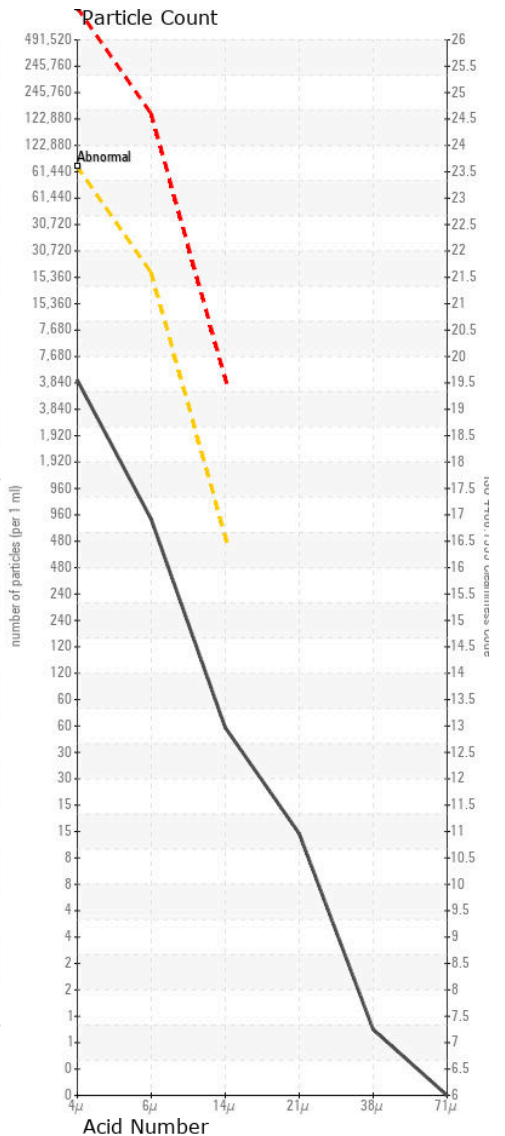
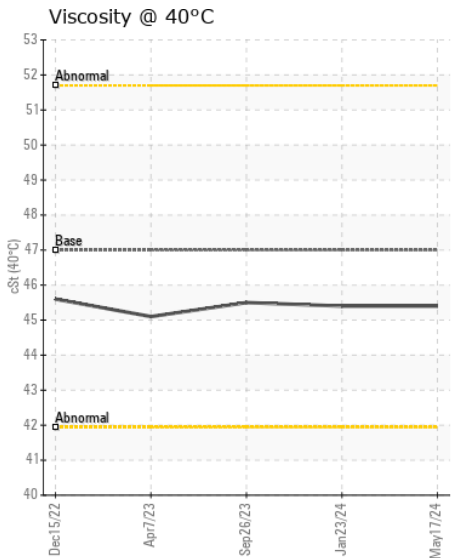
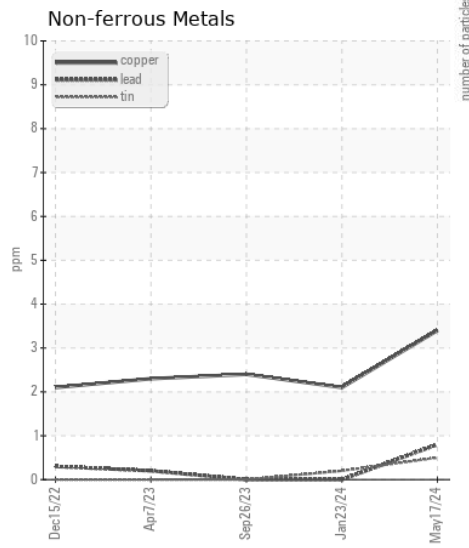
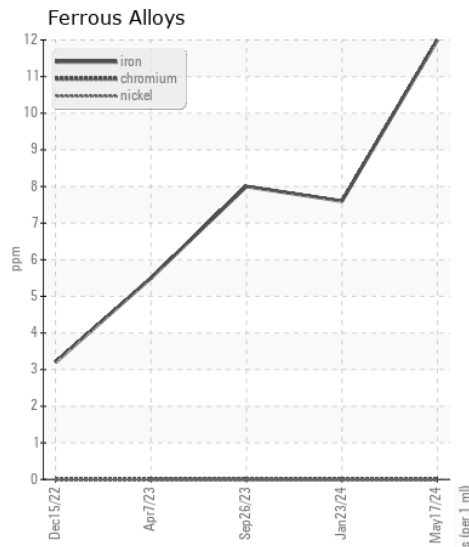
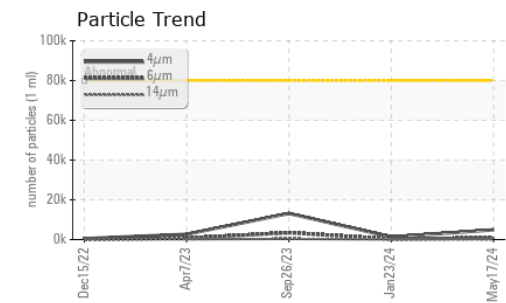
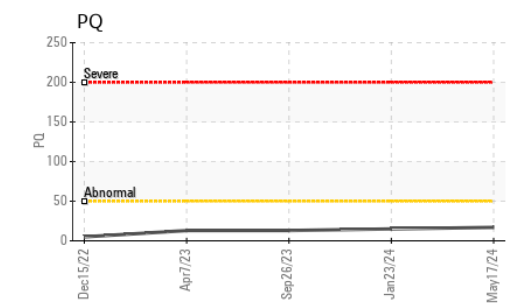
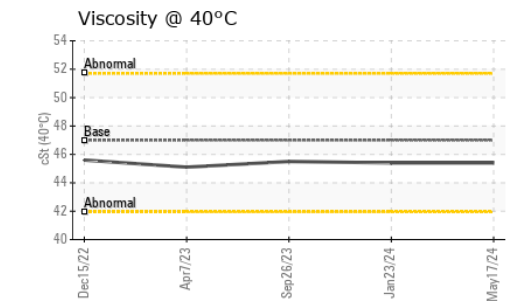
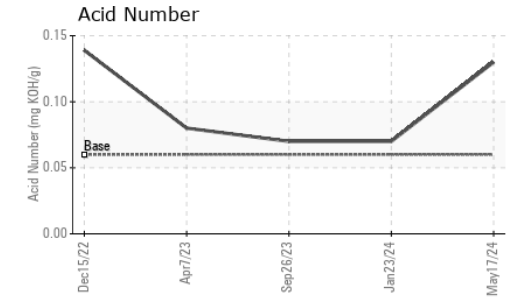
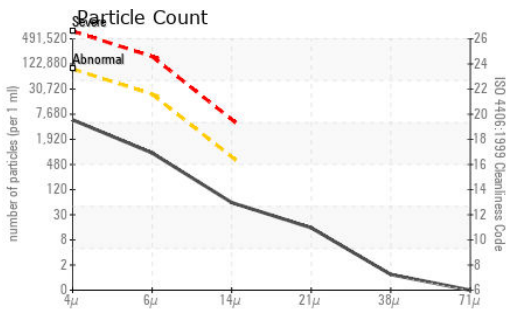
The amount and size of particulates present in the system are acceptable. There is no indication of any contamination in the oil.

| | | | | | | |
|------------------|--------|--------------|-----------|-----------------|----------|----------|
| Silicon | ppm | ASTM D5185m | >11 | 3 | <1 | 1 |
| Potassium | ppm | ASTM D5185m | >20 | 1 | 0 | <1 |
| Water | | WC Method | >0.075 | NEG | NEG | NEG |
| Particles >4µm | | ASTM D7647 | >80000 | 4906 | 1314 | 13174 |
| Particles >6µm | | ASTM D7647 | >20000 | 793 | 289 | 3447 |
| Particles >14µm | | ASTM D7647 | >640 | 52 | 40 | 329 |
| Particles >21µm | | ASTM D7647 | >160 | 13 | 16 | 79 |
| Particles >38µm | | ASTM D7647 | >40 | 1 | 1 | 0 |
| Particles >71µm | | ASTM D7647 | >10 | 0 | 0 | 0 |
| Oil Cleanliness | | ISO 4406 (c) | >23/21/16 | 19/17/13 | 18/15/12 | 21/19/16 |
| 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 | 2 | 2 |
| Boron | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Barium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | | <1 | 0 | 0 |
| Manganese | ppm | ASTM D5185m | | <1 | <1 | <1 |
| Magnesium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Calcium | ppm | ASTM D5185m | | 101 | 0 | 0 |
| Phosphorus | ppm | ASTM D5185m | 827 | 564 | 519 | 559 |
| Zinc | ppm | ASTM D5185m | 0 | 84 | 23 | 38 |
| Sulfur | ppm | ASTM D5185m | 13 | 296 | 114 | 141 |
| Acid Number (AN) | mg KOH/g | ASTM D8045 | 0.06 | 0.13 | 0.07 | 0.07 |
| Visc @ 40°C | cSt | ASTM D445 | 47 | 45.4 | 45.4 | 45.5 |



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : JR0214239

Lab Number : 06186036

Unique Number : 11042788

Test Package : CONST (Additional Tests: PQ)

Received : 21 May 2024

Tested : 23 May 2024

Diagnosed : 23 May 2024 - Jonathan Hester

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 - NEW BERN
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