



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

Machine Id
JOHN DEERE 75G E197
 Component
Hydraulic System
 Fluid
HITACHI HYDRAULIC SUPER EX 46HN (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number | | Client Info | | JR0198986 | JR0144803 | JR0143731 |
| Sample Date | | Client Info | | 10 Jan 2024 | 24 Oct 2023 | 14 Sep 2022 |
| Machine Age | hrs | Client Info | | 6674 | 0 | 5822 |
| Oil Age | hrs | Client Info | | 1360 | 1101 | 508 |
| Filter Age | hrs | Client Info | | 257 | 0 | 508 |
| Oil Changed | | Client Info | | Not Changed | Not Changed | Not Changed |
| Filter Changed | | Client Info | | Changed | Changed | Not Changed |
| Sample Status | | | | NORMAL | ATTENTION | ABNORMAL |

WEAR

All component wear rates are normal.

| PQ | UOM | Method | Limit/Abn | Current | History1 | History2 |
|--------------|--------|-------------|-----------|--------------|----------|----------|
| Iron | ppm | ASTM D5185m | >20 | 3 | 3 | 3 |
| Chromium | ppm | ASTM D5185m | >10 | <1 | <1 | <1 |
| Nickel | ppm | ASTM D5185m | >10 | 0 | 0 | 0 |
| Titanium | ppm | ASTM D5185m | | 0 | <1 | 0 |
| Silver | ppm | ASTM D5185m | | 0 | 0 | <1 |
| Aluminum | ppm | ASTM D5185m | >10 | 1 | 2 | 1 |
| Lead | ppm | ASTM D5185m | >10 | 0 | <1 | <1 |
| Copper | ppm | ASTM D5185m | >75 | 1 | 2 | <1 |
| Tin | ppm | ASTM D5185m | >10 | 0 | 0 | <1 |
| Vanadium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| White Metal | scalar | *Visual | NONE | NONE | NONE | VLITE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |

CONTAMINATION

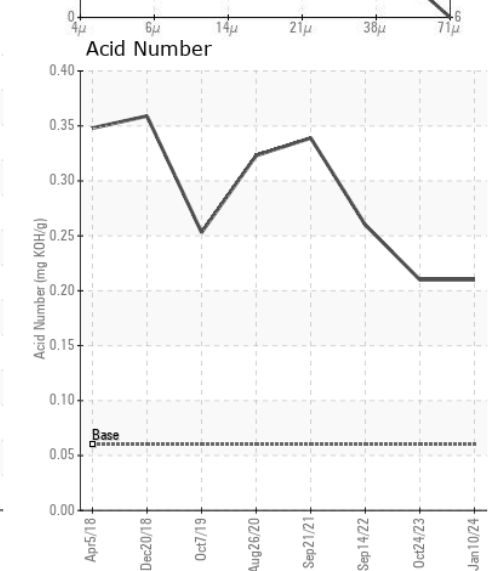
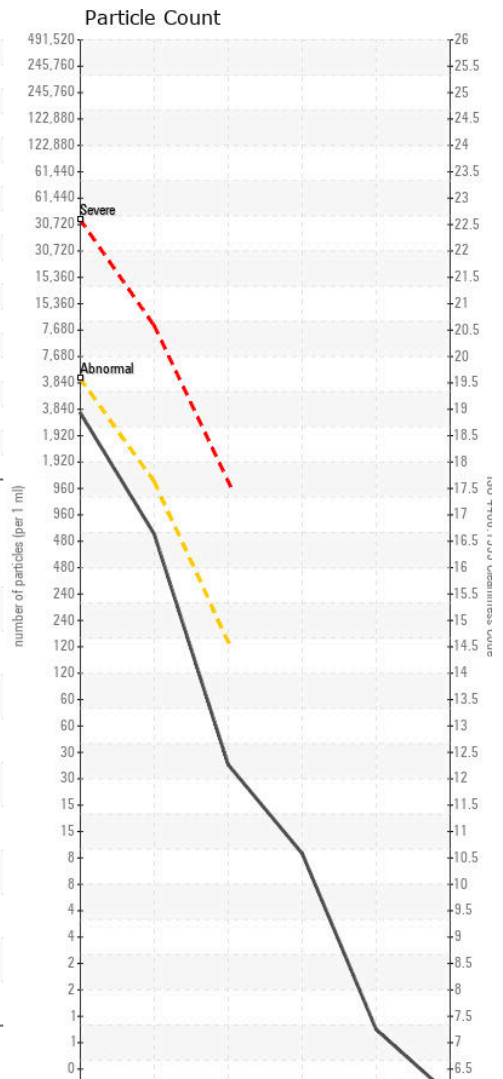
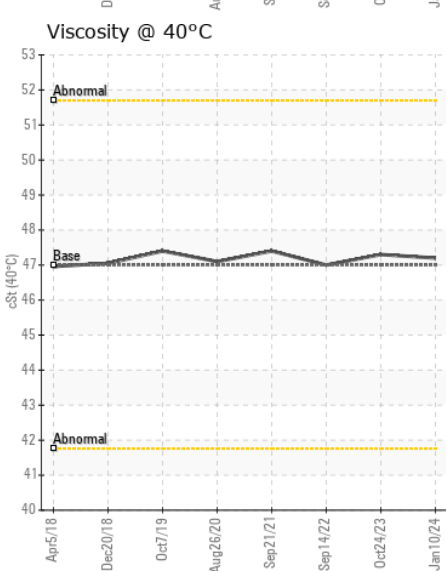
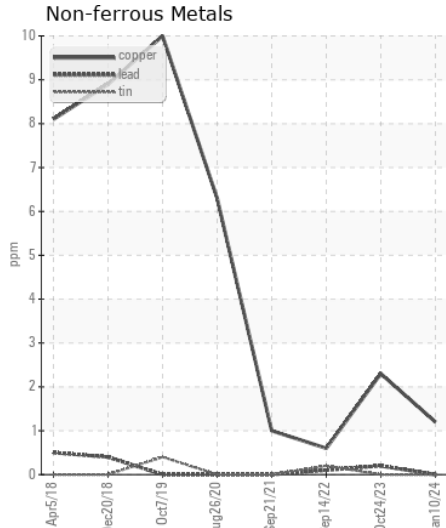
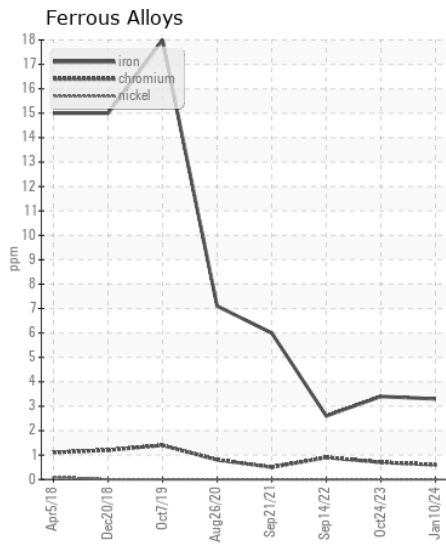
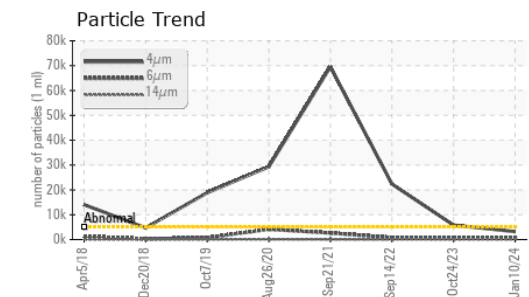
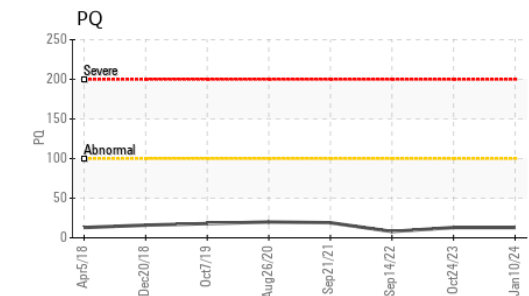
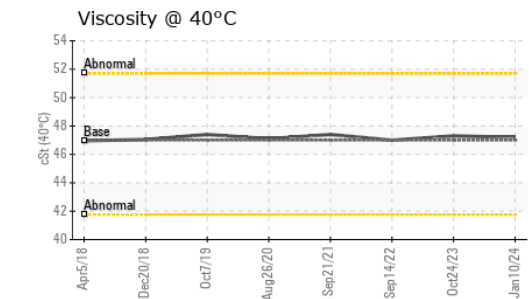
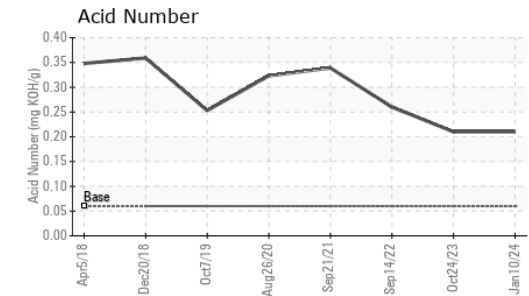
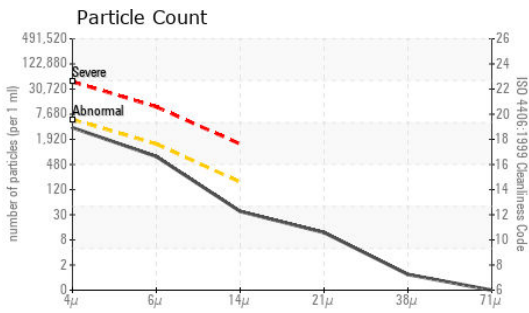
The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

| | | | | | | |
|------------------|--------|--------------|-----------|-----------------|------------|------------|
| Silicon | ppm | ASTM D5185m | >20 | 2 | 1 | <1 |
| Potassium | ppm | ASTM D5185m | >20 | <1 | 1 | 1 |
| Water | | WC Method | >0.1 | NEG | NEG | NEG |
| Particles >4µm | | ASTM D7647 | >5000 | 3193 | ▲ 5831 | ▲ 22348 |
| Particles >6µm | | ASTM D7647 | >1300 | 653 | 630 | 810 |
| Particles >14µm | | ASTM D7647 | >160 | 32 | 31 | 15 |
| Particles >21µm | | ASTM D7647 | >40 | 10 | 9 | 3 |
| Particles >38µm | | ASTM D7647 | >10 | 1 | 1 | 0 |
| Particles >71µm | | ASTM D7647 | >3 | 0 | 0 | 0 |
| Oil Cleanliness | | ISO 4406 (c) | >19/17/14 | 19/17/12 | ▲ 20/16/12 | ▲ 22/17/11 |
| 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 | >0.1 | 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 | | 2 | 0 | 0 |
| Boron | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Barium | ppm | ASTM D5185m | | 0 | 3 | 0 |
| Molybdenum | ppm | ASTM D5185m | | 0 | <1 | <1 |
| Manganese | ppm | ASTM D5185m | | 0 | 0 | <1 |
| Magnesium | ppm | ASTM D5185m | | 1 | 2 | 2 |
| Calcium | ppm | ASTM D5185m | | 44 | 44 | 43 |
| Phosphorus | ppm | ASTM D5185m | 827 | 591 | 560 | 498 |
| Zinc | ppm | ASTM D5185m | 0 | 46 | 57 | 73 |
| Sulfur | ppm | ASTM D5185m | 13 | 114 | 83 | 208 |
| Acid Number (AN) | mg KOH/g | ASTM D8045 | 0.06 | 0.21 | 0.21 | 0.26 |
| Visc @ 40°C | cSt | ASTM D445 | 47 | 47.2 | 47.3 | 47.0 |



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0198986 **Received** : 17 Jan 2024
Lab Number : 06062549 **Diagnosed** : 18 Jan 2024
Unique Number : 10833931 **Diagnostician** : Wes Davis
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)

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