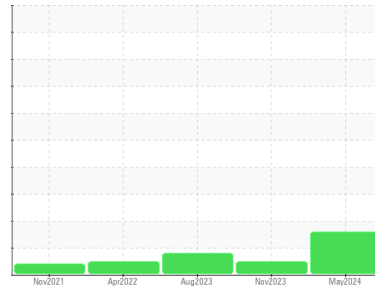


OIL ANALYSIS REPORT

Sample Rating Trend


WEAR


Machine Id

JOHN DEERE 843L 1DW843LBKMF710421

Component

Hydraulic System

Fluid

JOHN DEERE HYDRAU (--- GAL)

DIAGNOSIS

▲ Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

▲ Wear

The iron level is abnormal. The chromium level is abnormal.

Contamination

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

Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION

| | method | limit/base | current | history1 | history2 |
|---------------|-------------|-------------|--------------------|-------------|-------------|
| Sample Number | Client Info | | JR0211467 | JR0179125 | JR0164946 |
| Sample Date | Client Info | | 24 May 2024 | 02 Nov 2023 | 11 Aug 2023 |
| Machine Age | hrs | Client Info | 3095 | 3451 | 3194 |
| Oil Age | hrs | Client Info | 0 | 0 | 3194 |
| Oil Changed | Client Info | | Not Changed | Not Changed | Not Changed |
| Sample Status | | | ABNORMAL | NORMAL | ABNORMAL |

CONTAMINATION

| | method | limit/base | current | history1 | history2 |
|-------|-----------|------------|------------|----------|----------|
| Water | WC Method | >0.1 | NEG | NEG | NEG |

WEAR METALS

| | method | limit/base | current | history1 | history2 |
|----------|------------|-----------------|--------------|----------|----------|
| PQ | ASTM D8184 | | 19 | 15 | 15 |
| Iron | ppm | ASTM D5185m >20 | ▲ 25 | 21 | ▲ 23 |
| Chromium | ppm | ASTM D5185m >10 | ▲ 12 | 1 | <1 |
| Nickel | ppm | ASTM D5185m >10 | 2 | 0 | <1 |
| Titanium | ppm | ASTM D5185m | <1 | <1 | 0 |
| Silver | ppm | ASTM D5185m | 1 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m >10 | 2 | <1 | <1 |
| Lead | ppm | ASTM D5185m >10 | 1 | 0 | <1 |
| Copper | ppm | ASTM D5185m >75 | 5 | 11 | 10 |
| Tin | ppm | ASTM D5185m >10 | <1 | <1 | <1 |
| Vanadium | ppm | ASTM D5185m | <1 | <1 | 0 |
| Cadmium | ppm | ASTM D5185m | <1 | 0 | 0 |

ADDITIVES

| | method | limit/base | current | history1 | history2 |
|------------|--------|------------------|--------------|----------|----------|
| Boron | ppm | ASTM D5185m | 2 | 8 | 9 |
| Barium | ppm | ASTM D5185m | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | 4 | 13 | 13 |
| Manganese | ppm | ASTM D5185m | <1 | <1 | <1 |
| Magnesium | ppm | ASTM D5185m | 14 | 18 | 25 |
| Calcium | ppm | ASTM D5185m 87 | 185 | 325 | 328 |
| Phosphorus | ppm | ASTM D5185m 727 | 616 | 709 | 674 |
| Zinc | ppm | ASTM D5185m 900 | 954 | 925 | 885 |
| Sulfur | ppm | ASTM D5185m 1500 | 2286 | 1885 | 1871 |

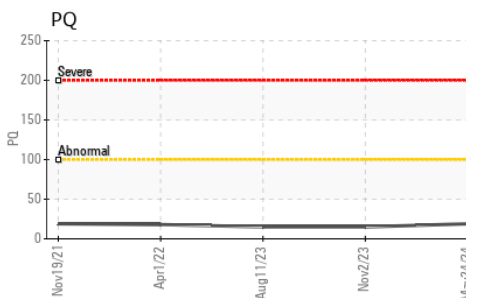
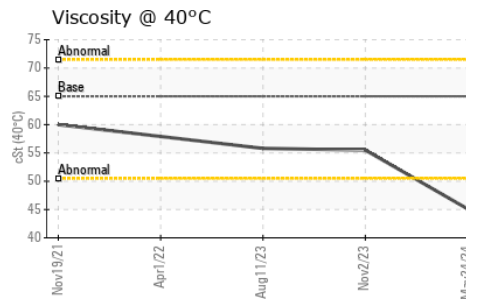
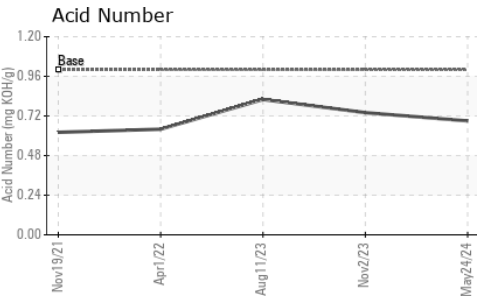
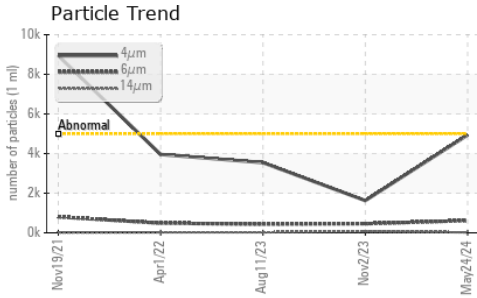
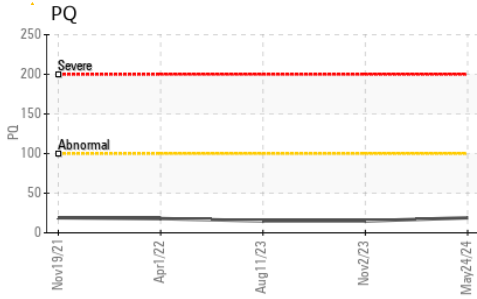
CONTAMINANTS

| | method | limit/base | current | history1 | history2 |
|-----------|--------|-----------------|----------|----------|----------|
| Silicon | ppm | ASTM D5185m >20 | 8 | 6 | 7 |
| Sodium | ppm | ASTM D5185m | 2 | 2 | 0 |
| Potassium | ppm | ASTM D5185m >20 | 4 | 4 | 5 |

FLUID CLEANLINESS

| | method | limit/base | current | history1 | history2 |
|-----------------|--------------|------------|-----------------|----------|----------|
| Particles >4µm | ASTM D7647 | >5000 | 4940 | 1627 | 3544 |
| Particles >6µm | ASTM D7647 | >1300 | 619 | 458 | 433 |
| Particles >14µm | ASTM D7647 | >160 | 21 | 70 | 25 |
| Particles >21µm | ASTM D7647 | >40 | 4 | 23 | 6 |
| Particles >38µm | ASTM D7647 | >10 | 0 | 2 | 1 |
| Particles >71µm | ASTM D7647 | >3 | 0 | 0 | 0 |
| Oil Cleanliness | ISO 4406 (c) | >19/17/14 | 19/16/12 | 18/16/13 | 19/16/12 |

OIL ANALYSIS REPORT

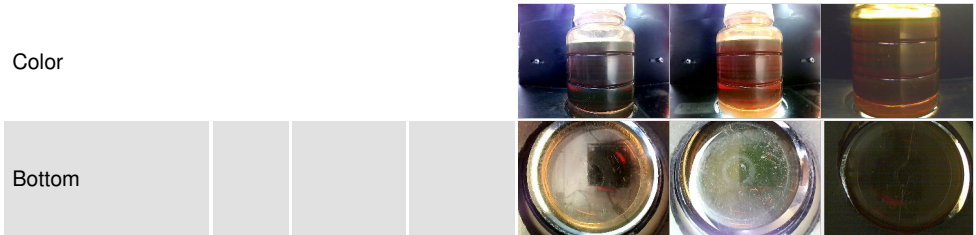


| FLUID DEGRADATION | | method | limit/base | current | history1 | history2 |
|-------------------|----------|------------|------------|-------------|----------|----------|
| Acid Number (AN) | mg KOH/g | ASTM D8045 | 1.0 | 0.69 | 0.74 | 0.82 |

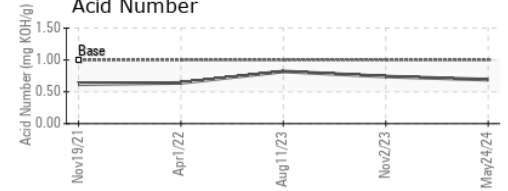
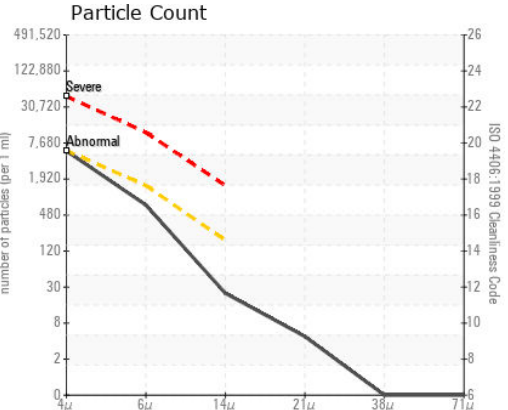
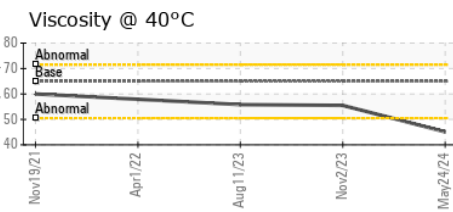
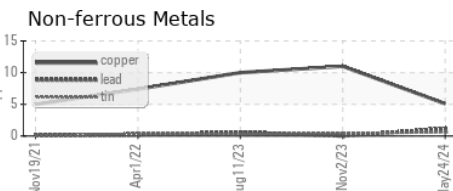
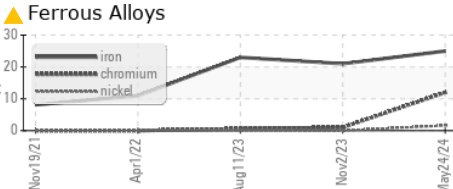
| VISUAL | | method | limit/base | current | history1 | history2 |
|------------------|--------|---------|------------|--------------|----------|----------|
| White Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Precipitate | scalar | *Visual | NONE | NONE | NONE | NONE |
| 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 |
| Free Water | scalar | *Visual | | NEG | NEG | NEG |

| FLUID PROPERTIES | | method | limit/base | current | history1 | history2 |
|------------------|-----|-----------|------------|-------------|----------|----------|
| Visc @ 40°C | cSt | ASTM D445 | 65 | 45.1 | 55.5 | 55.8 |

| SAMPLE IMAGES | | method | limit/base | current | history1 | history2 |
|---------------|--|--------|------------|---------|----------|----------|
|---------------|--|--------|------------|---------|----------|----------|



GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0211467
Lab Number : **06194610**
Unique Number : 11056733
Test Package : CONST (Additional Tests: PQ)
Received : 29 May 2024
Tested : 30 May 2024
Diagnosed : 31 May 2024 - Don Baldrige

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 - ASHLAND
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 US 23005

Contact: DAVID ZIEG
 dzieg@jamesriverequipment.com

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F: (804)798-0292