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

Machine Id
JOHN DEERE 85G 1FF085GXCGJ018780

Component
Hydraulic System

Fluid
JOHN DEERE ZINC-FREE HYDRAULIC OIL 46 (--- LTR)

RECOMMENDATION

Recommend drain oil if not already done. Reduce drain interval to 2000 hours or drain and flush and use recommended zinc free oil.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number | | Client Info | | JR0224519 | JR0147740 | JR0105694 |
| Sample Date | | Client Info | | 09 Jul 2024 | 08 May 2023 | 18 Oct 2021 |
| Machine Age | hrs | Client Info | | 6912 | 5814 | 4259 |
| Oil Age | hrs | Client Info | | 0 | 0 | 0 |
| Filter Age | hrs | Client Info | | 0 | 0 | 0 |
| Oil Changed | | Client Info | | N/A | N/A | Not Changd |
| Filter Changed | | Client Info | | N/A | N/A | Not Changd |
| Sample Status | | | | ABNORMAL | ABNORMAL | ABNORMAL |

WEAR

All component wear rates are normal.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|--------------|--------|-------------|-----------|--------------|----------|----------|
| PQ | | ASTM D8184 | >50 | 14 | 11 | 19 |
| Iron | ppm | ASTM D5185m | >32 | 6 | 7 | 14 |
| Chromium | ppm | ASTM D5185m | >9 | <1 | 3 | 5 |
| 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 | <1 | 0 | 5 |
| Lead | ppm | ASTM D5185m | >28 | 0 | <1 | <1 |
| Copper | ppm | ASTM D5185m | >50 | 5 | 7 | 9 |
| Tin | ppm | ASTM D5185m | >5 | 0 | 0 | 0 |
| Vanadium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| White Metal | scalar | *Visual | NONE | NONE | NONE | ▲ MODER |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |

CONTAMINATION

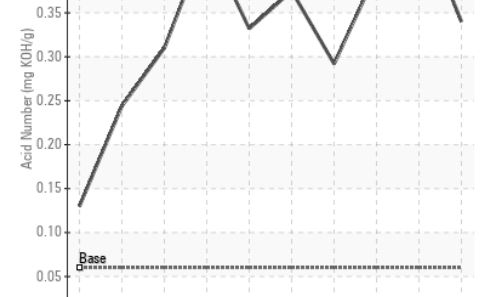
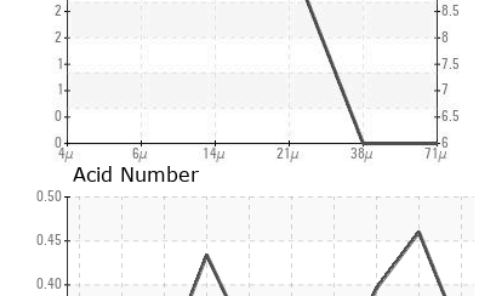
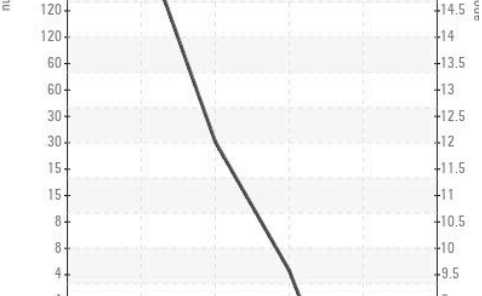
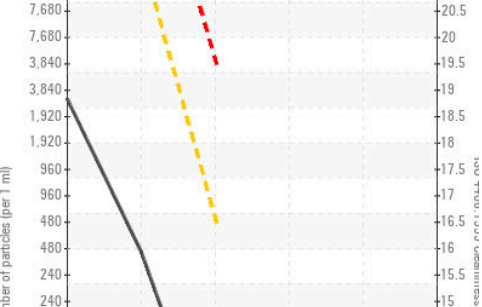
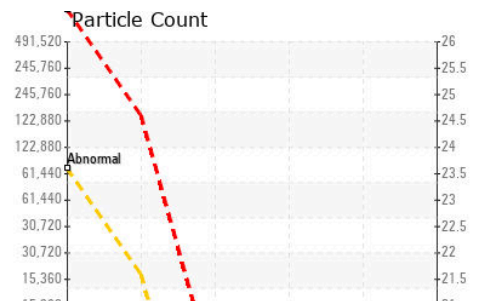
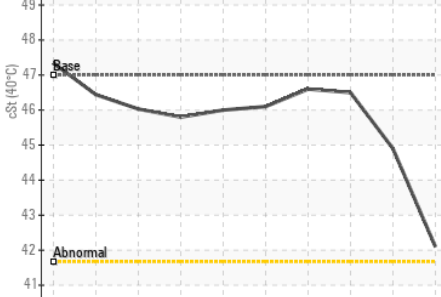
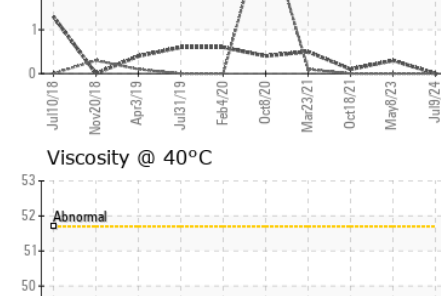
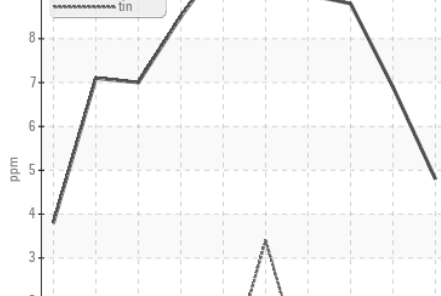
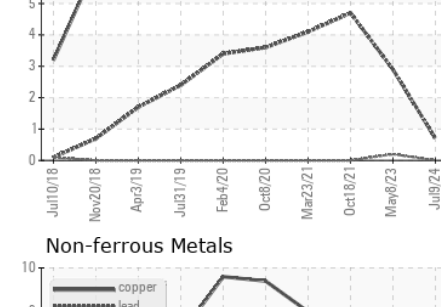
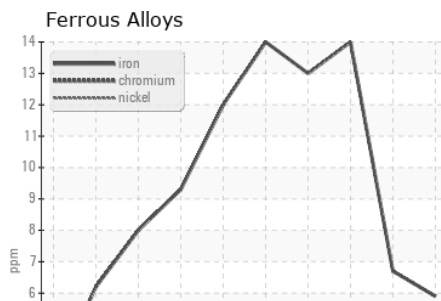
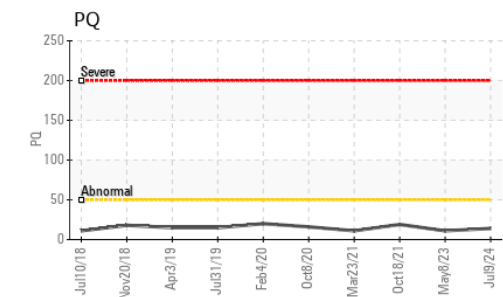
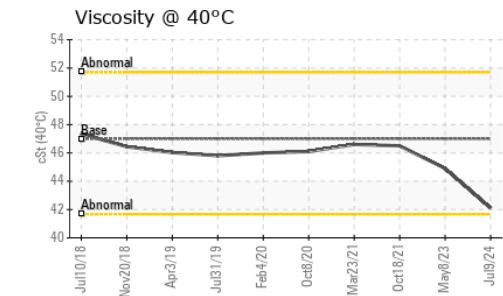
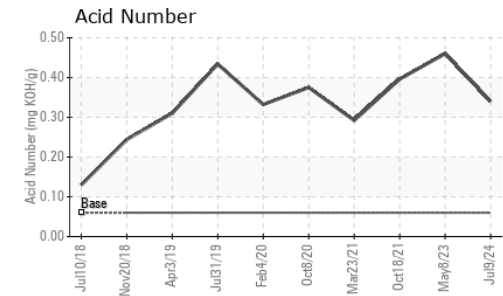
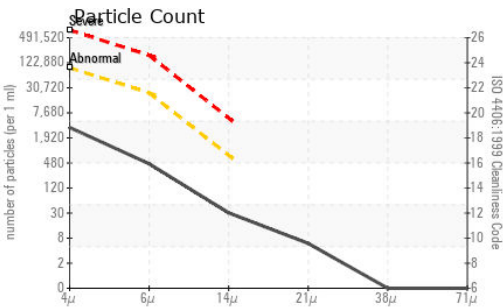
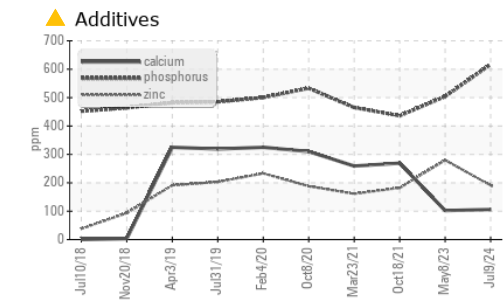
The amount and size of particulates present in the system are acceptable.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|------------------|--------|--------------|-----------|-----------------|----------|----------|
| Silicon | ppm | ASTM D5185m | >11 | 3 | 3 | 5 |
| Potassium | ppm | ASTM D5185m | >20 | 4 | <1 | 0 |
| Water | | WC Method | >0.075 | NEG | NEG | NEG |
| Particles >4µm | | ASTM D7647 | >80000 | 2986 | 17965 | --- |
| Particles >6µm | | ASTM D7647 | >20000 | 404 | 4382 | --- |
| Particles >14µm | | ASTM D7647 | >640 | 27 | 118 | --- |
| Particles >21µm | | ASTM D7647 | >160 | 5 | 13 | --- |
| Particles >38µm | | ASTM D7647 | >40 | 0 | 0 | --- |
| Particles >71µm | | ASTM D7647 | >10 | 0 | 0 | --- |
| Oil Cleanliness | | ISO 4406 (c) | >23/21/16 | 19/16/12 | 21/19/14 | --- |
| 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

Zinc level above manufacturer's recommendations. The AN level is acceptable for this fluid.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|------------------|----------|-------------|-----------|--------------|----------|----------|
| Sodium | ppm | ASTM D5185m | >21 | 4 | 0 | 1 |
| Boron | ppm | ASTM D5185m | | 3 | 0 | 0 |
| Barium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | | 4 | <1 | 0 |
| Manganese | ppm | ASTM D5185m | | 0 | 0 | <1 |
| Magnesium | ppm | ASTM D5185m | | 52 | 9 | 25 |
| Calcium | ppm | ASTM D5185m | | 106 | 102 | 269 |
| Phosphorus | ppm | ASTM D5185m | | 617 | 504 | 436 |
| Zinc | ppm | ASTM D5185m | | ▲ 191 | ▲ 280 | ▲ 182 |
| Sulfur | ppm | ASTM D5185m | | 1124 | 929 | 775 |
| Acid Number (AN) | mg KOH/g | ASTM D8045 | 0.06 | 0.34 | 0.46 | 0.396 |
| Visc @ 40°C | cSt | ASTM D445 | 47 | 42.1 | 44.9 | 46.5 |



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0224519 **Received** : 10 Jul 2024
Lab Number : 06232195 **Tested** : 11 Jul 2024
Unique Number : 11115688 **Diagnosed** : 11 Jul 2024 - Don Baldridge
Test Package : CONST (Additional Tests: PQ)

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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)