# PROBLEM SUMMARY

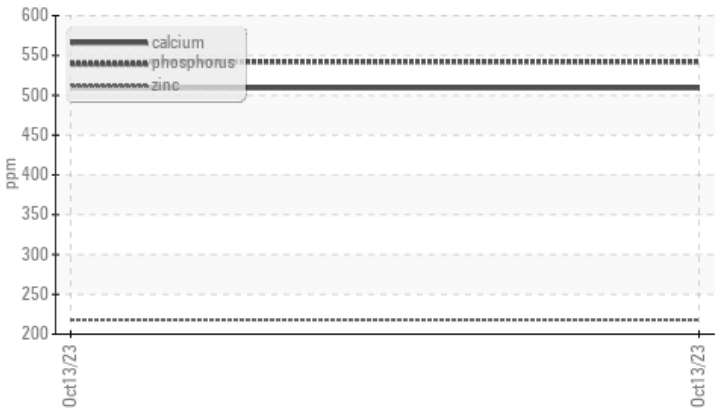
Sample Rating Trend

**ADDITIVES**

Area
**[W46597]**
Machine Id
**JOHN DEERE 26G 1FF026GXLML267055**
Component
**Hydraulic System**
Fluid
**AW HYDRAULIC OIL ISO 46 (--- GAL)**

## COMPONENT CONDITION SUMMARY

Additives




Particle Trend


## RECOMMENDATION

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

## PROBLEMATIC TEST RESULTS

| | | | | | | |
|---|---|---|---|---|---|---|
| Sample Status | | | | **ABNORMAL** | --- | --- |
| Zinc | ppm | ASTM D5185m | 370 | ▲ **218** | --- | --- |
| Particles >4µm | | ASTM D7647 | >80000 | ▲ **96990** | --- | --- |
| Oil Cleanliness | | ISO 4406 (c) | >23/21/16 | ▲ **24/21/15** | --- | --- |


**Customer Id:** JAMASH
**Sample No.:** JR0179175
**Lab Number:** 05979523
**Test Package:** CONST

*To manage this report scan the QR code*

*To discuss the diagnosis or test data:*
Don Baldridge +1
don.b505@comcast.net

*To change component or sample information:*
Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

## RECOMMENDED ACTIONS

| Action | Status | Date | Done By | Description |
|---|---|---|---|---|
| Change Fluid | --- | --- | ? | Recommend drain oil if not already done. Reduce drain interval to 2000 hours or drain and flush and use recommended zinc free oil. |
| Flush System | --- | --- | ? | Recommend drain oil if not already done. Reduce drain interval to 2000 hours or drain and flush and use recommended zinc free oil. |

## HISTORICAL DIAGNOSIS

JAMES RIVER EQUIPMENT

# OIL ANALYSIS REPORT

Sample Rating Trend


**ADDITIVES**

Area
**[W46597]**
Machine Id
## JOHN DEERE 26G 1FF026GXLML267055
Component
**Hydraulic System**
Fluid
**AW HYDRAULIC OIL ISO 46 (--- GAL)**

## DIAGNOSIS

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

**Wear**
All component wear rates are normal.

**Contamination**
There is a moderate amount of silt (particulates < 14 microns in size) present in the oil.

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

| SAMPLE INFORMATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Sample Number | | Client Info | | **JR0179175** | --- | --- |
| Sample Date | | Client Info | | **13 Oct 2023** | --- | --- |
| Machine Age | hrs | Client Info | | **463** | --- | --- |
| Oil Age | hrs | Client Info | | **463** | --- | --- |
| Oil Changed | | Client Info | | **N/A** | --- | --- |
| Sample Status | | | | **ABNORMAL** | --- | --- |

| WEAR METALS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| PQ | | ASTM D8184 | >50 | **13** | --- | --- |
| Iron | ppm | ASTM D5185m | >32 | **9** | --- | --- |
| Chromium | ppm | ASTM D5185m | >9 | **<1** | --- | --- |
| Nickel | ppm | ASTM D5185m | >5 | **0** | --- | --- |
| Titanium | ppm | ASTM D5185m | | **<1** | --- | --- |
| Silver | ppm | ASTM D5185m | | **0** | --- | --- |
| Aluminum | ppm | ASTM D5185m | >9 | **<1** | --- | --- |
| Lead | ppm | ASTM D5185m | >28 | **0** | --- | --- |
| Copper | ppm | ASTM D5185m | >50 | **10** | --- | --- |
| Tin | ppm | ASTM D5185m | >5 | **0** | --- | --- |
| Vanadium | ppm | ASTM D5185m | | **<1** | --- | --- |
| Cadmium | ppm | ASTM D5185m | | **0** | --- | --- |

| ADDITIVES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Boron | ppm | ASTM D5185m | 5 | **0** | --- | --- |
| Barium | ppm | ASTM D5185m | 5 | **0** | --- | --- |
| Molybdenum | ppm | ASTM D5185m | 5 | **<1** | --- | --- |
| Manganese | ppm | ASTM D5185m | | **<1** | --- | --- |
| Magnesium | ppm | ASTM D5185m | 25 | **20** | --- | --- |
| Calcium | ppm | ASTM D5185m | 200 | **509** | --- | --- |
| Phosphorus | ppm | ASTM D5185m | 300 | **542** | --- | --- |
| Zinc | ppm | ASTM D5185m | 370 | ▲ **218** | --- | --- |
| Sulfur | ppm | ASTM D5185m | 2500 | **1184** | --- | --- |

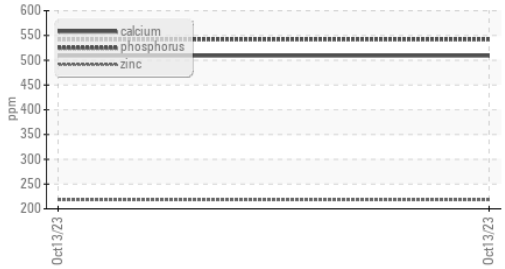
| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Silicon | ppm | ASTM D5185m | >11 | **2** | --- | --- |
| Sodium | ppm | ASTM D5185m | >21 | **2** | --- | --- |
| Potassium | ppm | ASTM D5185m | >20 | **0** | --- | --- |

| FLUID CLEANLINESS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Particles >4µm | | ASTM D7647 | >80000 | ▲ **96990** | --- | --- |
| Particles >6µm | | ASTM D7647 | >20000 | **16589** | --- | --- |
| Particles >14µm | | ASTM D7647 | >640 | **246** | --- | --- |
| Particles >21µm | | ASTM D7647 | >160 | **44** | --- | --- |
| Particles >38µm | | ASTM D7647 | >40 | **4** | --- | --- |
| Particles >71µm | | ASTM D7647 | >10 | **1** | --- | --- |
| Oil Cleanliness | | ISO 4406 (c) | >23/21/16 | ▲ **24/21/15** | --- | --- |

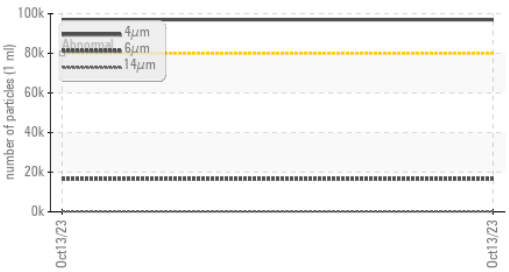
| FLUID DEGRADATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Acid Number (AN) | mg KOH/g | ASTM D8045 | 0.57 | **0.36** | --- | --- |

# OIL ANALYSIS REPORT

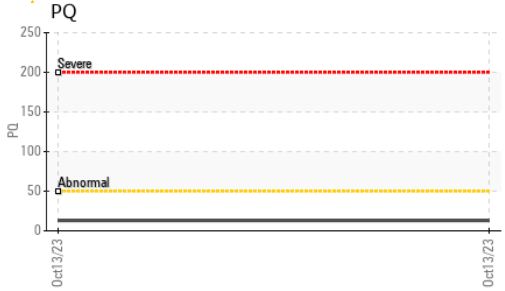
Additives



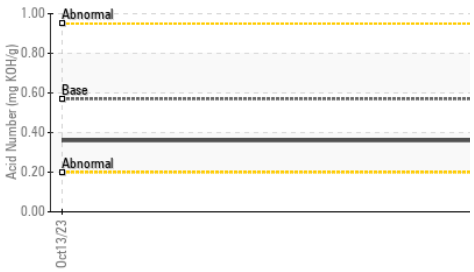

Particle Trend



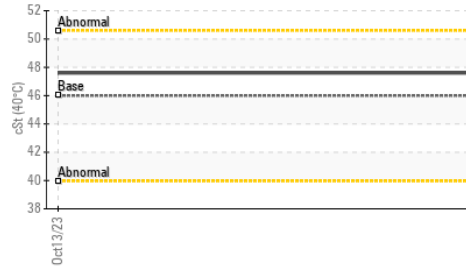

PQ




Acid Number




Viscosity @ 40°C



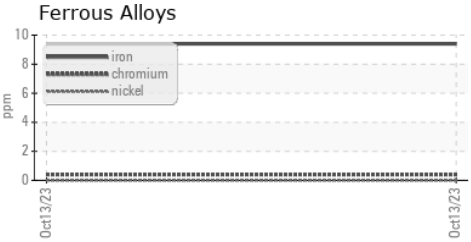

| VISUAL | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| White Metal | scalar | *Visual | NONE | **NONE** | --- | --- |
| Yellow Metal | scalar | *Visual | NONE | **NONE** | --- | --- |
| Precipitate | scalar | *Visual | NONE | **NONE** | --- | --- |
| Silt | scalar | *Visual | NONE | **NONE** | --- | --- |
| Debris | scalar | *Visual | NONE | **NONE** | --- | --- |
| Sand/Dirt | scalar | *Visual | NONE | **NONE** | --- | --- |
| Appearance | scalar | *Visual | NORML | **NORML** | --- | --- |
| Odor | scalar | *Visual | NORML | **NORML** | --- | --- |
| Emulsified Water | scalar | *Visual | >0.075 | **NEG** | --- | --- |
| Free Water | scalar | *Visual | | **NEG** | --- | --- |

| FLUID PROPERTIES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Visc @ 40°C | cSt | ASTM D445 | 46 | **47.6** | --- | --- |

| SAMPLE IMAGES | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|
| Color | | |  | *no image* | *no image* |
| Bottom | | |  | *no image* | *no image* |

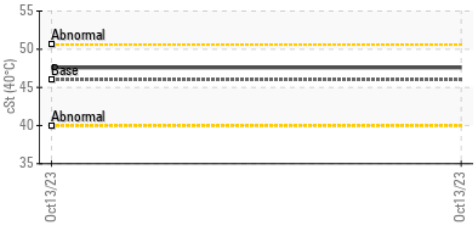
GRAPHS

Ferrous Alloys

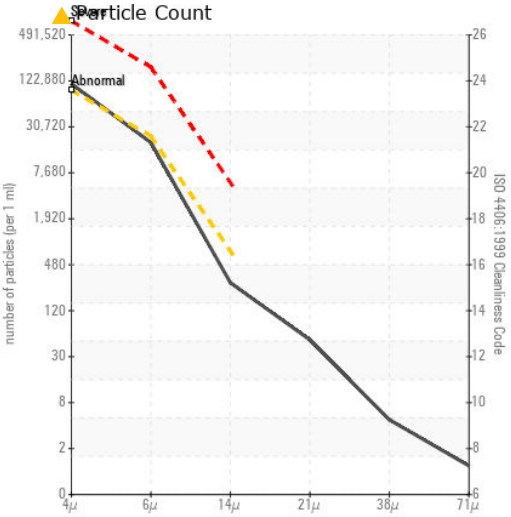



Non-ferrous Metals


Viscosity @ 40°C




Particle Count




Acid Number


Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513
**Sample No.** : JR0179175 **Received** : 16 Oct 2023
**Lab Number** : 05979523 **Diagnosed** : 17 Oct 2023
**Unique Number** : 10696818 **Diagnostician** : Don Baldridge
**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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