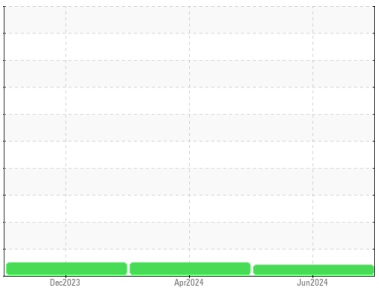
# OIL ANALYSIS REPORT

Sample Rating Trend




VISCOSITY

Machine Id
**D-238**
Component
**Right Final Drive**
Fluid
**JOHN DEERE HY-GARD HYD/TRANS (--- GAL)**

## DIAGNOSIS

**Recommendation**
Resample at the next service interval to monitor.

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

**Contamination**
There is no indication of any contamination in the oil.

**Fluid Condition**
The oil viscosity is lower than normal. The condition of the oil is acceptable for the time in service.

| SAMPLE INFORMATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Sample Number | | Client Info | | **WC0900281** | WC0878641 | WC0878702 |
| Sample Date | | Client Info | | **14 Jun 2024** | 25 Apr 2024 | 05 Dec 2023 |
| Machine Age | hrs | Client Info | | **1603** | 1219 | 577 |
| Oil Age | hrs | Client Info | | **384** | 1219 | 577 |
| Oil Changed | | Client Info | | **Not Changd** | Changed | Not Changd |
| Sample Status | | | | **ATTENTION** | NORMAL | NORMAL |

| CONTAMINATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Water | | WC Method | >0.2 | **NEG** | NEG | NEG |

| WEAR METALS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Iron | ppm | ASTM D5185m | >500 | **32** | 150 | 85 |
| Chromium | ppm | ASTM D5185m | >10 | **<1** | 1 | 1 |
| Nickel | ppm | ASTM D5185m | >10 | **0** | 0 | 0 |
| Titanium | ppm | ASTM D5185m | | **<1** | <1 | 0 |
| Silver | ppm | ASTM D5185m | | **0** | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >25 | **2** | 6 | <1 |
| Lead | ppm | ASTM D5185m | >25 | **0** | 0 | 0 |
| Copper | ppm | ASTM D5185m | >50 | **<1** | 0 | <1 |
| Tin | ppm | ASTM D5185m | >10 | **0** | 0 | 0 |
| Vanadium | ppm | ASTM D5185m | | **0** | 0 | 0 |
| Cadmium | ppm | ASTM D5185m | | **0** | 0 | 0 |

| ADDITIVES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Boron | ppm | ASTM D5185m | 6 | **97** | <1 | 3 |
| Barium | ppm | ASTM D5185m | 0 | **0** | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | 0 | **0** | 0 | 0 |
| Manganese | ppm | ASTM D5185m | | **0** | 3 | 3 |
| Magnesium | ppm | ASTM D5185m | 145 | **20** | 92 | 105 |
| Calcium | ppm | ASTM D5185m | 3570 | **3224** | 3582 | 3404 |
| Phosphorus | ppm | ASTM D5185m | 1290 | **1096** | 993 | 1049 |
| Zinc | ppm | ASTM D5185m | 1640 | **1340** | 1249 | 1283 |
| Sulfur | ppm | ASTM D5185m | | **3187** | 3956 | 3723 |

| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Silicon | ppm | ASTM D5185m | >75 | **18** | 51 | 15 |
| Sodium | ppm | ASTM D5185m | | **3** | 4 | 4 |
| Potassium | ppm | ASTM D5185m | >20 | **2** | 1 | 3 |

| VISUAL | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| White Metal | scalar | *Visual | NONE | **NONE** | NONE | MODER |
| Yellow Metal | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| Precipitate | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| Silt | scalar | *Visual | NONE | **NONE** | LIGHT | 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 | >0.2 | **NEG** | NEG | NEG |
| Free Water | scalar | *Visual | | **NEG** | NEG | NEG |

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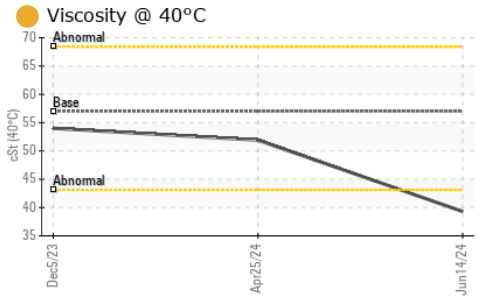
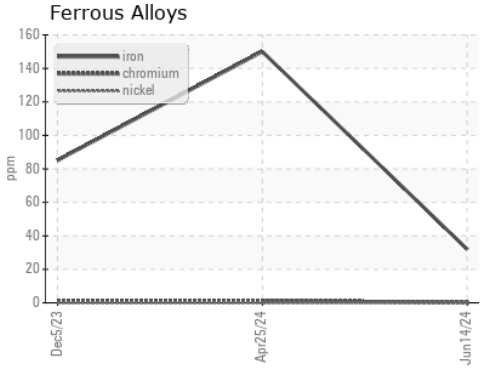



| FLUID PROPERTIES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Visc @ 40°C | cSt | ASTM D445 | 57.0 | **39.3** | 51.9 | 54.0 |

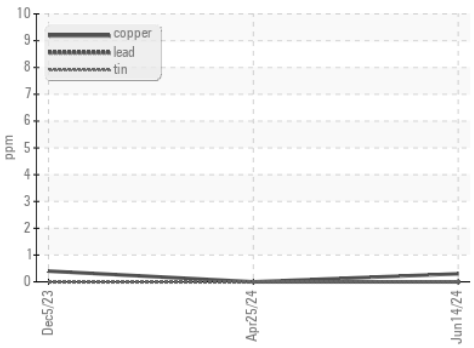
| SAMPLE IMAGES | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|
| Color | | | *no image* | *no image* | *no image* |
| Bottom | | | *no image* | *no image* | *no image* |

## GRAPHS

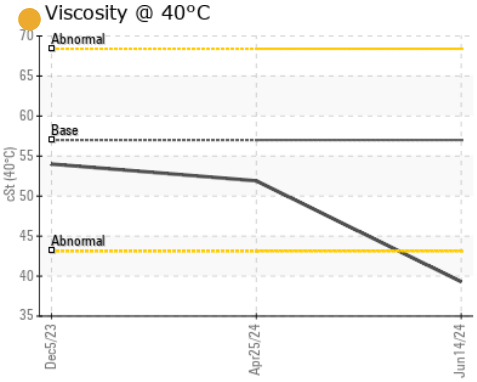
Ferrous Alloys




Non-ferrous Metals




Viscosity @ 40°C





**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513
**Sample No.** : WC0900281
**Lab Number** : 06213870
**Unique Number** : 11086734
**Test Package** : CONST

**Received** : 18 Jun 2024
**Tested** : 20 Jun 2024
**Diagnosed** : 20 Jun 2024 - Don Baldridge

Certificate L2367


*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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