



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

Machine Id
JOHN DEERE 35G 1FF035GXHMK295913
 Component
Diesel Engine
 Fluid
JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|----------------|-----|-------------|-----------|--------------------|-------------|----------|
| Sample Number | | Client Info | | JR0212762 | JR0181348 | --- |
| Sample Date | | Client Info | | 28 May 2024 | 02 Aug 2023 | --- |
| Machine Age | hrs | Client Info | | 1206 | 562 | --- |
| Oil Age | hrs | Client Info | | 644 | 562 | --- |
| Filter Age | hrs | Client Info | | 0 | 562 | --- |
| Oil Changed | | Client Info | | N/A | Changed | --- |
| Filter Changed | | Client Info | | N/A | Changed | --- |
| Sample Status | | | | NORMAL | ABNORMAL | --- |

WEAR

All component wear rates are normal.

| | | | | | | |
|--------------|--------|-------------|------|--------------|------|-----|
| Iron | ppm | ASTM D5185m | >51 | 28 | 66 | --- |
| Chromium | ppm | ASTM D5185m | >11 | <1 | <1 | --- |
| Nickel | ppm | ASTM D5185m | >5 | <1 | 0 | --- |
| Titanium | ppm | ASTM D5185m | | <1 | <1 | --- |
| Silver | ppm | ASTM D5185m | >3 | 1 | 0 | --- |
| Aluminum | ppm | ASTM D5185m | >31 | 7 | 4 | --- |
| Lead | ppm | ASTM D5185m | >26 | 3 | 2 | --- |
| Copper | ppm | ASTM D5185m | >26 | 5 | 16 | --- |
| Tin | ppm | ASTM D5185m | >4 | <1 | <1 | --- |
| Vanadium | ppm | ASTM D5185m | | <1 | 0 | --- |
| White Metal | scalar | *Visual | NONE | NONE | NONE | --- |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | --- |

CONTAMINATION

There is no indication of any contamination in the oil.

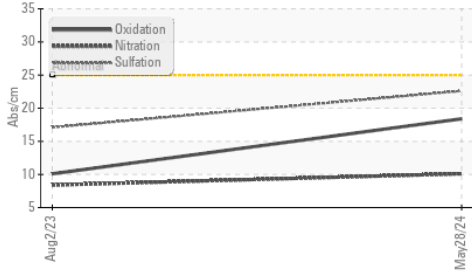
| | | | | | | |
|------------------|----------|-------------|-------|----------------|-------|-----|
| Silicon | ppm | ASTM D5185m | >22 | 19 | 60 | --- |
| Potassium | ppm | ASTM D5185m | >20 | 3 | 2 | --- |
| Fuel | % | ASTM D3524 | >2.1 | <1.0 | ▲ 3.4 | --- |
| Water | | WC Method | >0.21 | NEG | NEG | --- |
| Glycol | | WC Method | | NEG | NEG | --- |
| Soot % | % | *ASTM D7844 | >3 | 0.6 | 0.3 | --- |
| Nitration | Abs/cm | *ASTM D7624 | >20 | 10.1 | 8.4 | --- |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30 | 22.6 | 17.1 | --- |
| Silt | scalar | *Visual | NONE | NONE | NONE | --- |
| Debris | scalar | *Visual | NONE | NONE | NONE | --- |
| Sand/Dirt | scalar | *Visual | NONE | NONE | NONE | --- |
| Appearance | scalar | *Visual | NORML | NORML | NORML | --- |
| Odor | scalar | *Visual | NORML | NORML | NORML | --- |
| Emulsified Water | scalar | *Visual | >0.21 | NEG | NEG | --- |

FLUID CONDITION

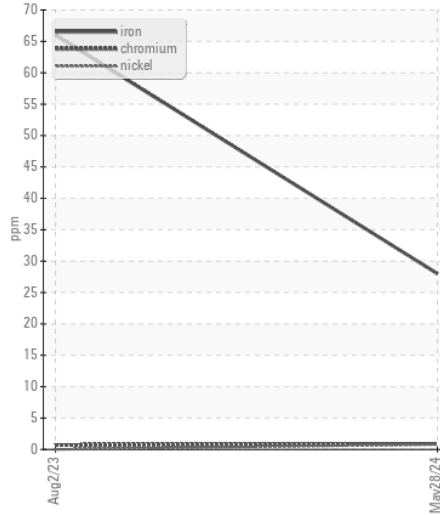
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

| | | | | | | |
|------------------|----------|-------------|------|--------------|-------|-----|
| Sodium | ppm | ASTM D5185m | >31 | 2 | 19 | --- |
| Boron | ppm | ASTM D5185m | | 258 | 51 | --- |
| Barium | ppm | ASTM D5185m | | <1 | 17 | --- |
| Molybdenum | ppm | ASTM D5185m | | 259 | 121 | --- |
| Manganese | ppm | ASTM D5185m | | 1 | 2 | --- |
| Magnesium | ppm | ASTM D5185m | | 793 | 46 | --- |
| Calcium | ppm | ASTM D5185m | | 1558 | 4204 | --- |
| Phosphorus | ppm | ASTM D5185m | | 935 | 1145 | --- |
| Zinc | ppm | ASTM D5185m | | 1124 | 1369 | --- |
| Sulfur | ppm | ASTM D5185m | | 3690 | 7613 | --- |
| Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 18.4 | 10.1 | --- |
| Base Number (BN) | mg KOH/g | ASTM D2896 | 13.6 | 9.0 | 12.7 | --- |
| Visc @ 100°C | cSt | ASTM D445 | 15.4 | 13.7 | ▲ 9.6 | --- |

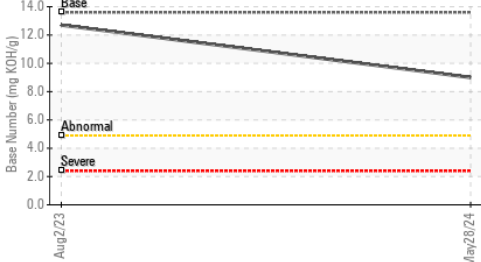
FT-IR (Direct Trend)



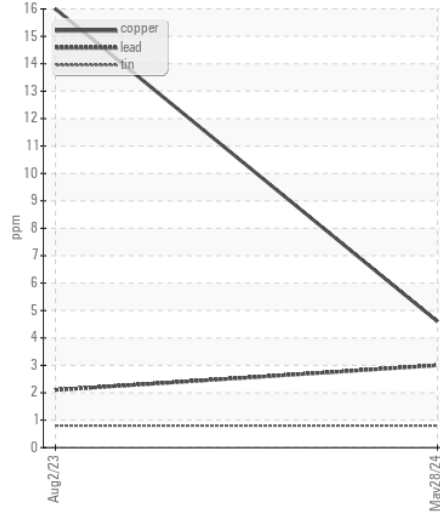
Ferrous Alloys



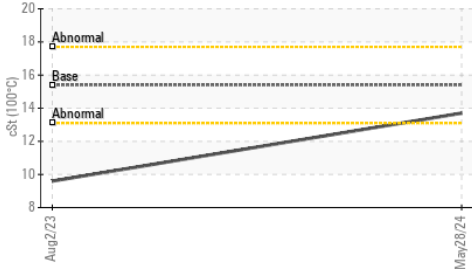
Base Number



Non-ferrous Metals



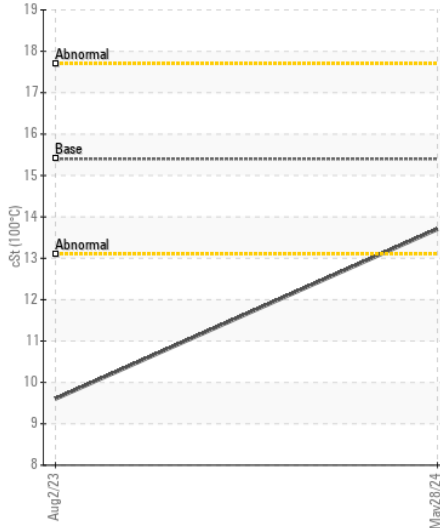
Viscosity @ 100°C



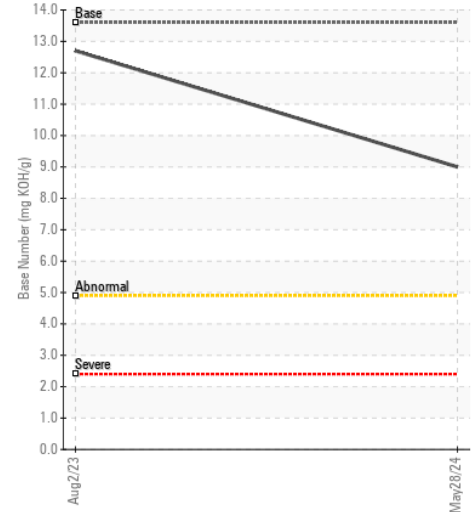
Fuel Dilution



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0212762 **Received** : 29 May 2024
Lab Number : 06193615 **Tested** : 30 May 2024
Unique Number : 11050367 **Diagnosed** : 30 May 2024 - Sean Felton
Test Package : CONST (Additional Tests: TBN)

JRE - GARNER
 4161 AUBURN CHURCH RD
 GARNER, NC
 US 27529

Contact: RALEIGH SHOP
 sean.betts@jamesriverequipment.com; catherine.anastasio@wearcheck.com

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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