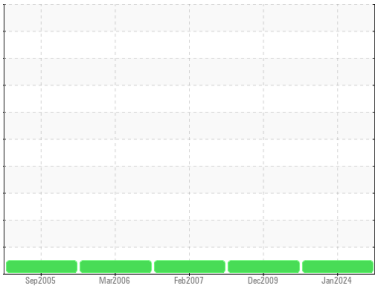
# OIL ANALYSIS REPORT

Sample Rating Trend




NORMAL

Machine Id
## JOHN DEERE 672D DW672DX600342
Component
**Diesel Engine**
Fluid
**JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (20 QTS)**

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

| SAMPLE INFORMATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Sample Number | | Client Info | | **JR0200324** | JRMC255671 | JRMC013901 |
| Sample Date | | Client Info | | **10 Jan 2024** | 30 Dec 2009 | 05 Feb 2007 |
| Machine Age | hrs | Client Info | | **6932** | 4239 | 1669 |
| Oil Age | hrs | Client Info | | **0** | 300 | 500 |
| Oil Changed | | Client Info | | **Changed** | Changed | Changed |
| Sample Status | | | | **NORMAL** | NORMAL | NORMAL |

| CONTAMINATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Fuel | | WC Method | >2.1 | **<1.0** | <1.0 | <1.0 |
| Water | | WC Method | >0.21 | **NEG** | NEG | NEG |
| Glycol | | WC Method | | **NEG** | NEG | NEG |

| WEAR METALS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Iron | ppm | ASTM D5185m | >51 | **40** | 13 | 10 |
| Chromium | ppm | ASTM D5185m | >11 | **2** | <1 | <1 |
| Nickel | ppm | ASTM D5185m | >5 | **3** | 0 | <1 |
| Titanium | ppm | ASTM D5185m | | **0** | 0 | 0 |
| Silver | ppm | ASTM D5185m | >3 | **0** | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >31 | **5** | 4 | 2 |
| Lead | ppm | ASTM D5185m | >26 | **2** | 0 | 0 |
| Copper | ppm | ASTM D5185m | >26 | **<1** | <1 | 3 |
| Tin | ppm | ASTM D5185m | >4 | **<1** | <1 | 0 |
| Antimony | ppm | ASTM D5185m | | **---** | <1 | 0 |
| Vanadium | ppm | ASTM D5185m | | **<1** | <1 | 0 |
| Cadmium | ppm | ASTM D5185m | | **0** | 0 | 0 |

| ADDITIVES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Boron | ppm | ASTM D5185m | | **205** | 223 | 97 |
| Barium | ppm | ASTM D5185m | | **0** | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | | **193** | 66 | 81 |
| Manganese | ppm | ASTM D5185m | | **<1** | 0 | 3 |
| Magnesium | ppm | ASTM D5185m | | **691** | 352 | 50 |
| Calcium | ppm | ASTM D5185m | | **1499** | 2002 | 2959 |
| Phosphorus | ppm | ASTM D5185m | | **858** | 1070 | 1056 |
| Zinc | ppm | ASTM D5185m | | **1074** | 1258 | 1212 |
| Sulfur | ppm | ASTM D5185m | | **3044** | 4257 | 4393 |

| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Silicon | ppm | ASTM D5185m | >22 | **6** | 5 | 0 |
| Sodium | ppm | ASTM D5185m | >31 | **0** | 13 | 2 |
| Potassium | ppm | ASTM D5185m | >20 | **0** | 2 | 1 |

| INFRA-RED | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Soot % | % | *ASTM D7844 | >3 | **0.8** | 0.3 | 0.1 |
| Nitration | Abs/cm | *ASTM D7624 | >20 | **8.3** | 5. | 4. |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30 | **21.5** | 17. | 15. |

| FLUID DEGRADATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Oxidation | Abs/.1mm | *ASTM D7414 | >25 | **15.1** | 11. | 10. |
| Base Number (BN) | mg KOH/g | ASTM D2896 | 13.6 | **8.3** | 10.75 | 10.05 |

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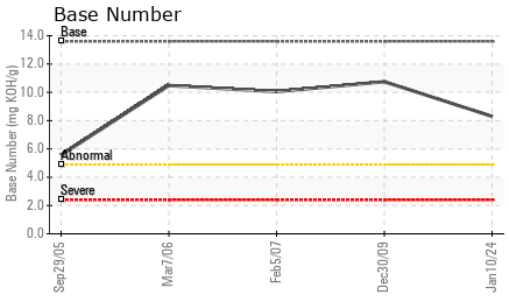
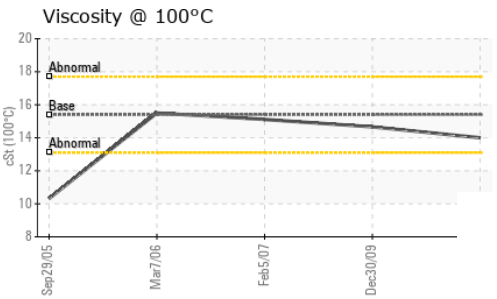
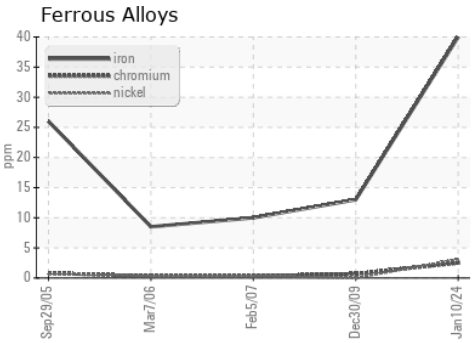


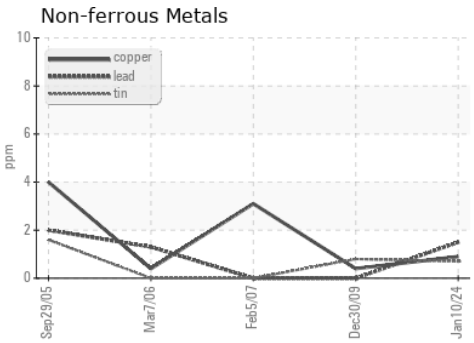



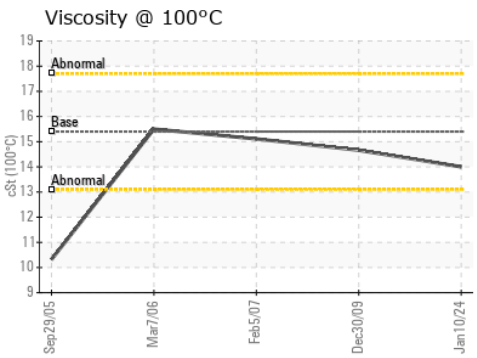

| VISUAL | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| White Metal | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| Precipitate | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| 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 | >0.21 | **NEG** | NEG | NEG |
| Free Water | scalar | *Visual | | **NEG** | NEG | NEG |

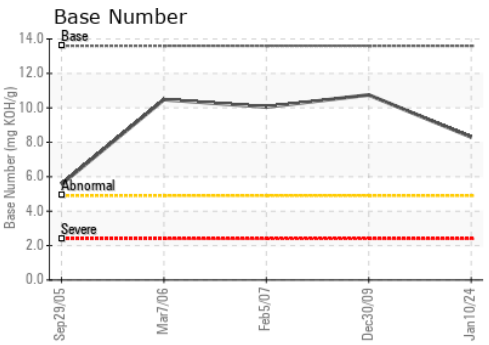
| FLUID PROPERTIES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Visc @ 100°C | cSt | ASTM D445 | 15.4 | **14.0** | 14.66 | 15.11 |

## GRAPHS




Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513
**Sample No.** : JR0200324 **Recieved** : 11 Jan 2024
**Lab Number** : 06057930 **Diagnosed** : 12 Jan 2024
**Unique Number** : 10829312 **Diagnostician** : Wes Davis
**Test Package** : CONST ( Additional Tests: TBN )

*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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