



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

Area

[16W16286]

Machine Id

JOHN DEERE 325G 1T0325GMPNJ413418

Component

Diesel Engine

Fluid

JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (3 GAL)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor. (Customer Sample Comment: 16W16286)

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|----------------|-----|-------------|-----------|--------------------|----------|----------|
| Sample Number | | Client Info | | JR0207182 | --- | --- |
| Sample Date | | Client Info | | 21 May 2024 | --- | --- |
| Machine Age | hrs | Client Info | | 336 | --- | --- |
| Oil Age | hrs | Client Info | | 336 | --- | --- |
| Filter Age | hrs | Client Info | | 336 | --- | --- |
| Oil Changed | | Client Info | | Changed | --- | --- |
| Filter Changed | | Client Info | | Changed | --- | --- |
| Sample Status | | | | ABNORMAL | --- | --- |

WEAR

Metal levels are typical for a new component breaking in.

| | | | | | | |
|--------------|--------|-------------|------|--------------|-----|-----|
| Iron | ppm | ASTM D5185m | >51 | 21 | --- | --- |
| Chromium | ppm | ASTM D5185m | >11 | 0 | --- | --- |
| Nickel | ppm | ASTM D5185m | >5 | 0 | --- | --- |
| Titanium | ppm | ASTM D5185m | | 0 | --- | --- |
| Silver | ppm | ASTM D5185m | >3 | <1 | --- | --- |
| Aluminum | ppm | ASTM D5185m | >31 | 4 | --- | --- |
| Lead | ppm | ASTM D5185m | >26 | <1 | --- | --- |
| Copper | ppm | ASTM D5185m | >26 | 61 | --- | --- |
| Tin | ppm | ASTM D5185m | >4 | 0 | --- | --- |
| Vanadium | ppm | ASTM D5185m | | 0 | --- | --- |
| White Metal | scalar | *Visual | NONE | NONE | --- | --- |
| Yellow Metal | scalar | *Visual | NONE | NONE | --- | --- |

CONTAMINATION

Elemental level of silicon (Si) above normal indicating ingress of seal material.

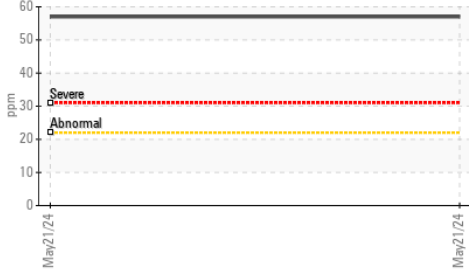
| | | | | | | |
|------------------|----------|-------------|-------|----------------|-----|-----|
| Silicon | ppm | ASTM D5185m | >22 | ▲ 57 | --- | --- |
| Potassium | ppm | ASTM D5185m | >20 | 0 | --- | --- |
| Fuel | % | ASTM D3524 | >2.1 | <1.0 | --- | --- |
| Water | | WC Method | >0.21 | NEG | --- | --- |
| Glycol | | WC Method | | NEG | --- | --- |
| Soot % | % | *ASTM D7844 | >3 | 0.4 | --- | --- |
| Nitration | Abs/cm | *ASTM D7624 | >20 | 8.6 | --- | --- |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30 | 25.0 | --- | --- |
| 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 | >0.21 | NEG | --- | --- |

FLUID CONDITION

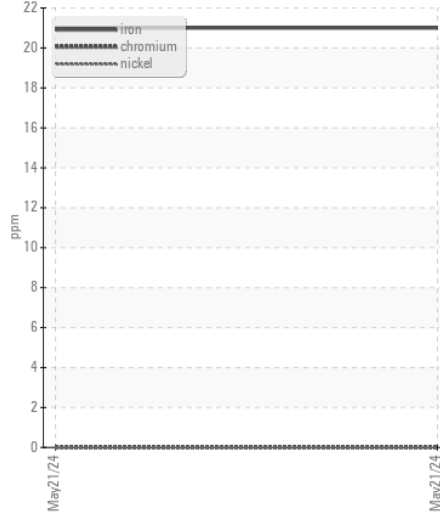
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

| | | | | | | |
|------------------|----------|-------------|------|-------------|-----|-----|
| Sodium | ppm | ASTM D5185m | >31 | 9 | --- | --- |
| Boron | ppm | ASTM D5185m | | 237 | --- | --- |
| Barium | ppm | ASTM D5185m | | 1 | --- | --- |
| Molybdenum | ppm | ASTM D5185m | | 249 | --- | --- |
| Manganese | ppm | ASTM D5185m | | 0 | --- | --- |
| Magnesium | ppm | ASTM D5185m | | 748 | --- | --- |
| Calcium | ppm | ASTM D5185m | | 1777 | --- | --- |
| Phosphorus | ppm | ASTM D5185m | | 886 | --- | --- |
| Zinc | ppm | ASTM D5185m | | 1106 | --- | --- |
| Sulfur | ppm | ASTM D5185m | | 3649 | --- | --- |
| Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 22.8 | --- | --- |
| Base Number (BN) | mg KOH/g | ASTM D2896 | 13.6 | 7.4 | --- | --- |
| Visc @ 100°C | cSt | ASTM D445 | 15.4 | 12.6 | --- | --- |

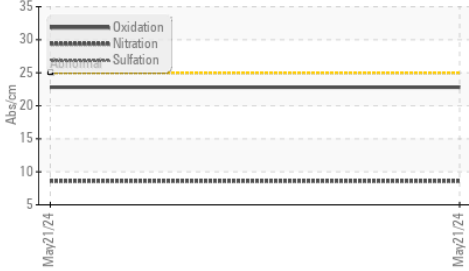
▲ Silicon (ppm)



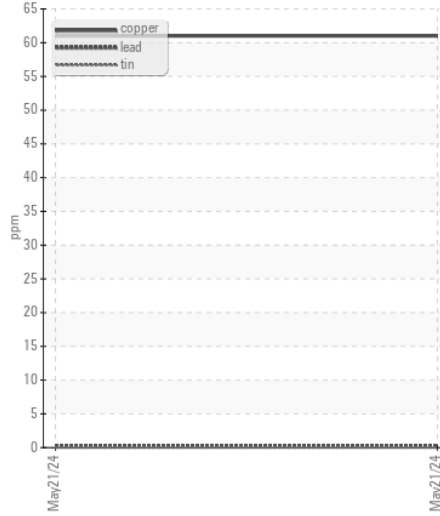
Ferrous Alloys



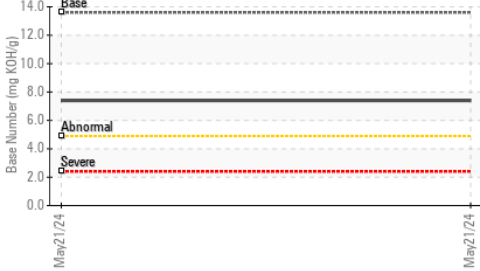
FT-IR (Direct Trend)



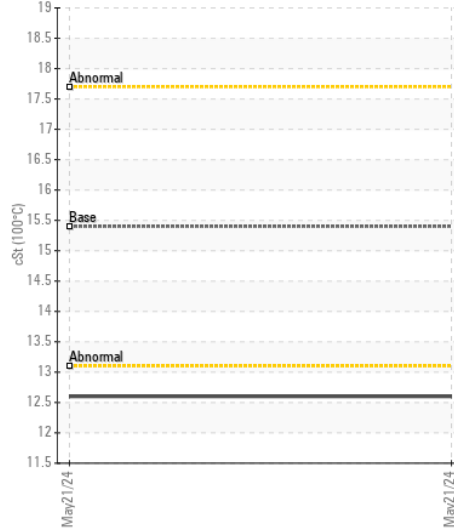
Non-ferrous Metals



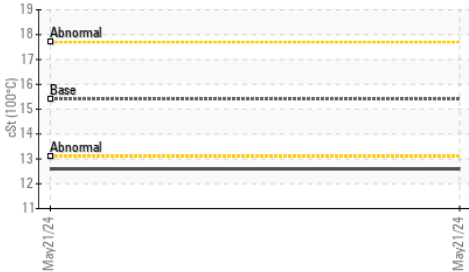
Base Number



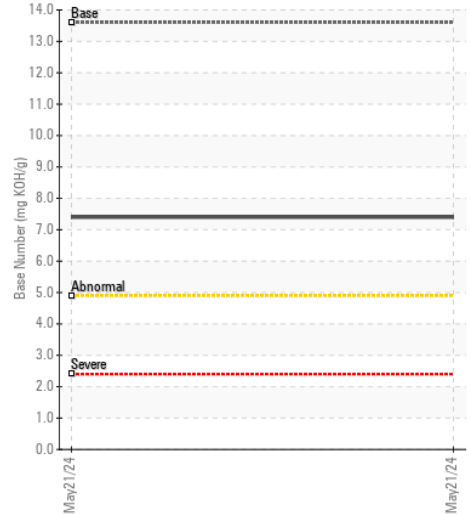
Viscosity @ 100°C



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0207182 **Received** : 22 May 2024
Lab Number : 06187464 **Tested** : 23 May 2024
Unique Number : 11044216 **Diagnosed** : 24 May 2024 - Don Baldrige
Test Package : CONST (Additional Tests: FuelDilution, TBN)

JRE - CASTLE HAYNE
 113 CROWATAN ROAD
 CASTLE HAYNE, NC
 US 28429-5819

Contact: WILMINGTON SHOP

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T: (910)675-9211

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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