



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

Area

[W9159]

Machine Id

BOMAG BC973RB-5 101930611002

Component

Diesel Engine

Fluid

JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (13 GAL)

RECOMMENDATION

Resample at the next service interval to monitor. (Customer Sample Comment: W9159)

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number | | Client Info | | JR0224135 | JR0197212 | JR0183096 |
| Sample Date | | Client Info | | 12 Jul 2024 | 24 Apr 2024 | 02 Feb 2024 |
| Machine Age | hrs | Client Info | | 4008 | 3531 | 3002 |
| Oil Age | hrs | Client Info | | 477 | 529 | 488 |
| Filter Age | hrs | Client Info | | 477 | 529 | 488 |
| Oil Changed | | Client Info | | Changed | Changed | Changed |
| Filter Changed | | Client Info | | Changed | Changed | Changed |
| Sample Status | | | | NORMAL | NORMAL | NORMAL |

WEAR

All component wear rates are normal.

| | | | | | | |
|--------------|--------|-------------|------|--------------|------|------|
| Iron | ppm | ASTM D5185m | >100 | 17 | 15 | 9 |
| Chromium | ppm | ASTM D5185m | >20 | <1 | 1 | <1 |
| Nickel | ppm | ASTM D5185m | >4 | 0 | <1 | 0 |
| Titanium | ppm | ASTM D5185m | | 0 | <1 | 0 |
| Silver | ppm | ASTM D5185m | >3 | 0 | <1 | 0 |
| Aluminum | ppm | ASTM D5185m | >20 | 6 | 8 | 5 |
| Lead | ppm | ASTM D5185m | >40 | 4 | 4 | <1 |
| Copper | ppm | ASTM D5185m | >330 | <1 | 2 | <1 |
| Tin | ppm | ASTM D5185m | >15 | 0 | 2 | <1 |
| Vanadium | ppm | ASTM D5185m | | 0 | <1 | 0 |
| White Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |

CONTAMINATION

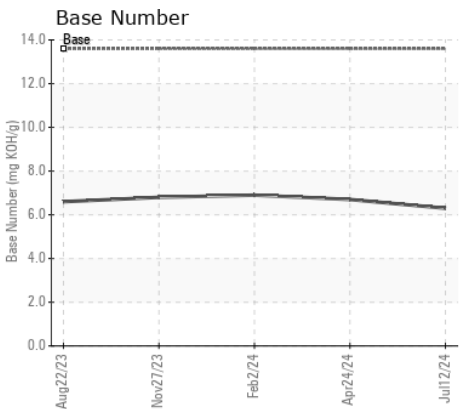
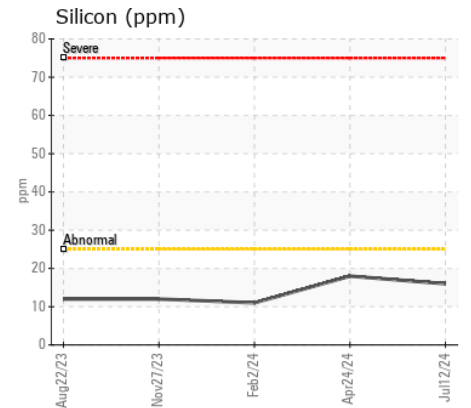
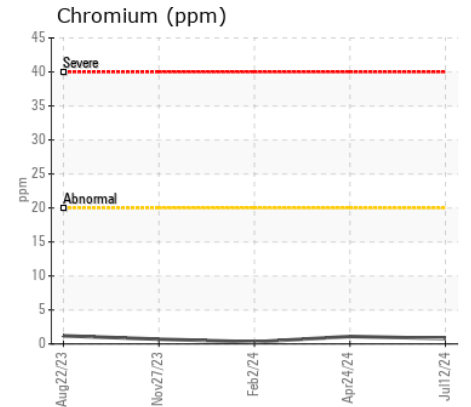
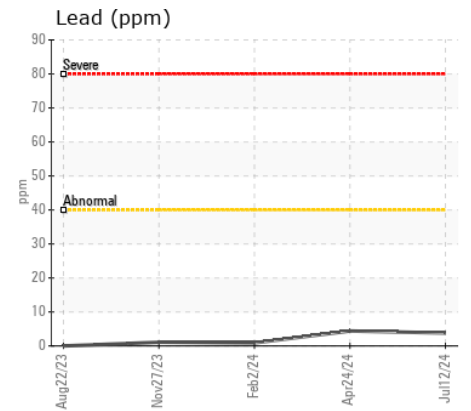
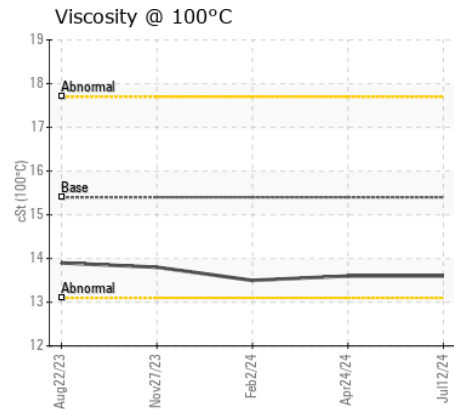
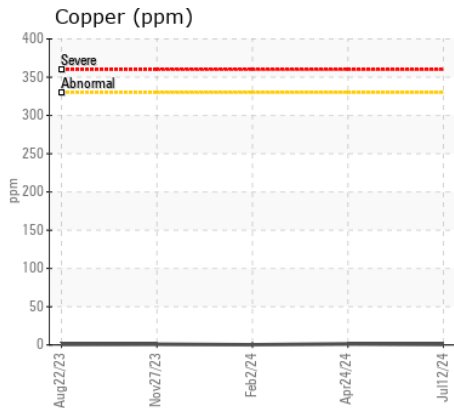
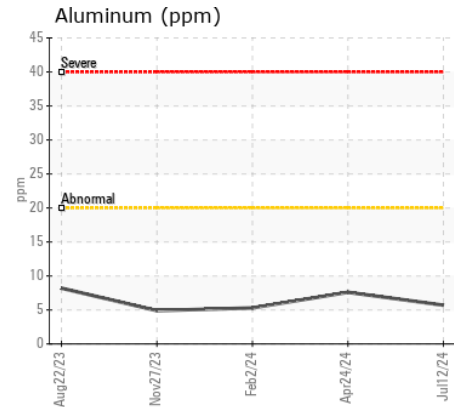
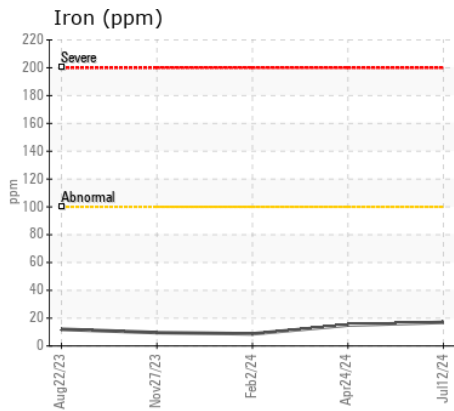
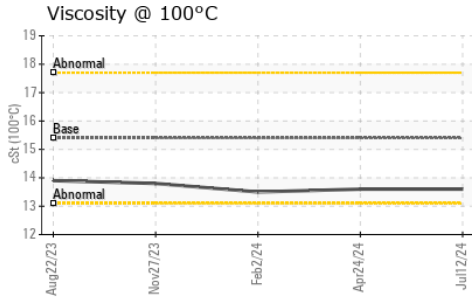
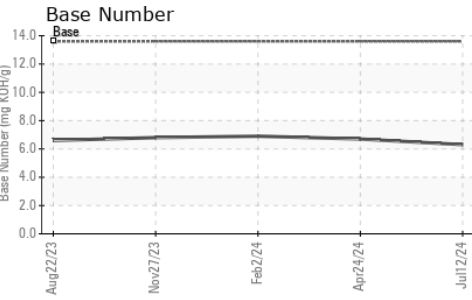
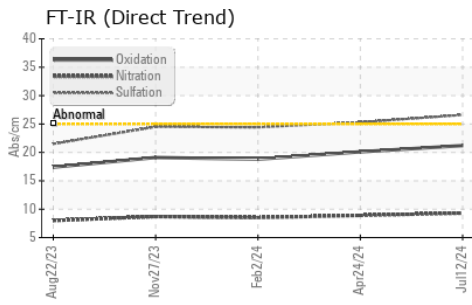
There is no indication of any contamination in the oil.

| | | | | | | |
|------------------|----------|-------------|-------|----------------|-------|-------|
| Silicon | ppm | ASTM D5185m | >25 | 16 | 18 | 11 |
| Potassium | ppm | ASTM D5185m | >20 | 6 | 6 | 2 |
| Fuel | | WC Method | >5 | <1.0 | <1.0 | <1.0 |
| Water | | WC Method | >0.2 | NEG | NEG | NEG |
| Glycol | | WC Method | | NEG | NEG | NEG |
| Soot % | % | *ASTM D7844 | >3 | 0.4 | 0.3 | 0.3 |
| Nitration | Abs/cm | *ASTM D7624 | >20 | 9.3 | 8.9 | 8.5 |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30 | 26.6 | 25.3 | 24.4 |
| 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 | >0.2 | NEG | 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 | | 2 | 0 | 1 |
| Boron | ppm | ASTM D5185m | | 43 | 94 | 134 |
| Barium | ppm | ASTM D5185m | | <1 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | | 246 | 281 | 248 |
| Manganese | ppm | ASTM D5185m | | <1 | <1 | <1 |
| Magnesium | ppm | ASTM D5185m | | 896 | 881 | 801 |
| Calcium | ppm | ASTM D5185m | | 1719 | 1655 | 1362 |
| Phosphorus | ppm | ASTM D5185m | | 1030 | 1119 | 958 |
| Zinc | ppm | ASTM D5185m | | 1257 | 1244 | 1130 |
| Sulfur | ppm | ASTM D5185m | | 3612 | 3241 | 2818 |
| Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 21.2 | 20.1 | 18.8 |
| Base Number (BN) | mg KOH/g | ASTM D2896 | 13.6 | 6.3 | 6.7 | 6.9 |
| Visc @ 100°C | cSt | ASTM D445 | 15.4 | 13.6 | 13.6 | 13.5 |



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0224135 **Received** : 16 Jul 2024
Lab Number : 06237569 **Tested** : 17 Jul 2024
Unique Number : 11126403 **Diagnosed** : 18 Jul 2024 - Sean Felton
Test Package : MOBCE (Additional Tests: TBN)

JRE - HOPE MILLS/FAYETTEVILLE
 5039 HWY 301 SOUTH
 HOPE MILLS, NC
 US 28348

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)

Contact: FAYETTEVILLE SHOP
 stephen.mullis@jamesriverequipment.com; panastasio@wearcheck.com
 T:
 F: