



OIL ANALYSIS REPORT

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

Machine Id
46486
 Component
Diesel Engine
 Fluid
{not provided} (--- QTS)

RECOMMENDATION

Resample at the next service interval to monitor. Please specify the component make and model with your next sample. Please specify the brand, type, and viscosity of the oil on your next sample.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number | | Client Info | | WC0939014 | WC0829602 | WC0829611 |
| Sample Date | | Client Info | | 03 Jun 2024 | 16 Apr 2024 | 24 Oct 2023 |
| Machine Age | mls | Client Info | | 54295 | 30090 | 6613 |
| Oil Age | mls | Client Info | | 54295 | 0 | 0 |
| Filter Age | mls | Client Info | | 54295 | 0 | 0 |
| Oil Changed | | Client Info | | Changed | Changed | Changed |
| Filter Changed | | Client Info | | Changed | Changed | Changed |
| Sample Status | | | | NORMAL | NORMAL | NORMAL |

WEAR

Metal levels are typical for a new component breaking in.

| | | | | | | |
|--------------|--------|-------------|------|--------------|------|------|
| Iron | ppm | ASTM D5185m | >100 | 34 | 53 | 16 |
| Chromium | ppm | ASTM D5185m | >20 | 2 | 3 | <1 |
| Nickel | ppm | ASTM D5185m | >4 | <1 | 0 | <1 |
| Titanium | ppm | ASTM D5185m | | 0 | <1 | 0 |
| Silver | ppm | ASTM D5185m | >3 | <1 | 0 | 1 |
| Aluminum | ppm | ASTM D5185m | >20 | 56 | 86 | 34 |
| Lead | ppm | ASTM D5185m | >40 | 0 | 3 | <1 |
| Copper | ppm | ASTM D5185m | >330 | 278 | 187 | 78 |
| Tin | ppm | ASTM D5185m | >15 | 2 | 3 | 3 |
| Vanadium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| White Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |

CONTAMINATION

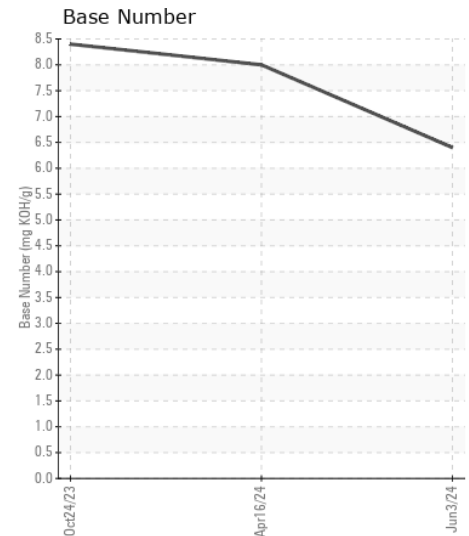
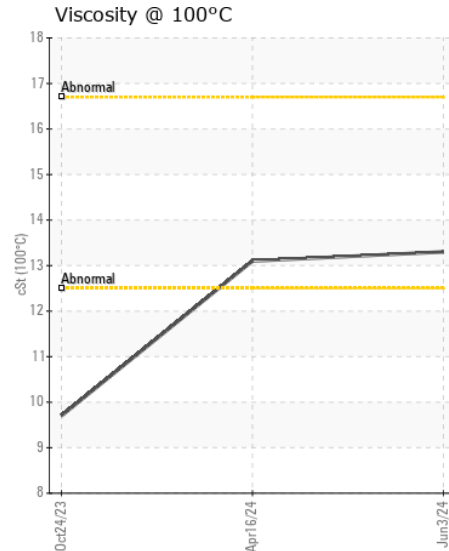
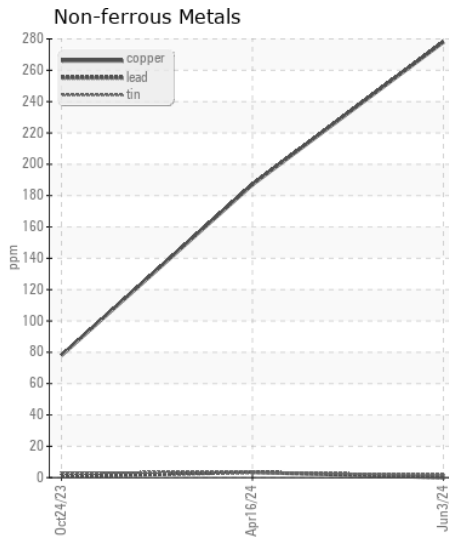
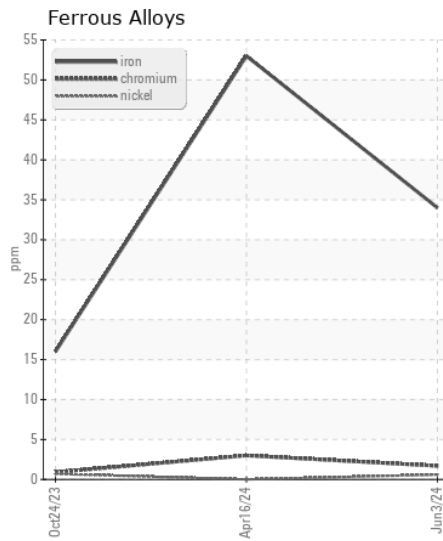
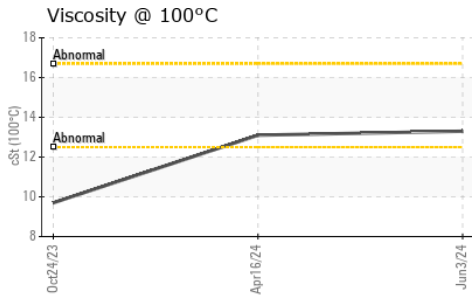
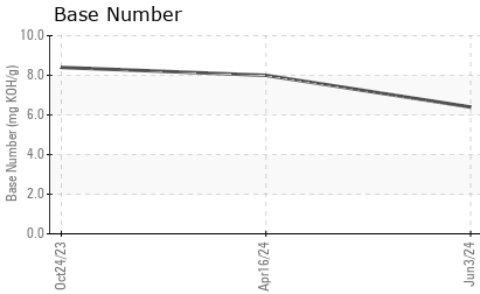
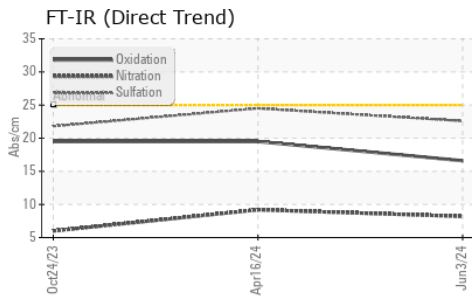
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

| | | | | | | |
|------------------|----------|-------------|-------|----------------|-------|-------|
| Silicon | ppm | ASTM D5185m | >25 | 7 | 8 | 7 |
| Potassium | ppm | ASTM D5185m | >20 | 129 | 195 | 103 |
| Fuel | | WC Method | >5 | <1.0 | <1.0 | 0.1 |
| Water | | WC Method | >0.2 | NEG | NEG | NEG |
| Glycol | | WC Method | | NEG | NEG | NEG |
| Soot % | % | *ASTM D7844 | >3 | 0.5 | 0.5 | 0.2 |
| Nitration | Abs/cm | *ASTM D7624 | >20 | 8.2 | 9.2 | 6.0 |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30 | 22.6 | 24.5 | 21.8 |
| 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 | | 4 | 4 | 4 |
| Boron | ppm | ASTM D5185m | | 189 | 214 | 44 |
| Barium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | | 91 | 117 | 39 |
| Manganese | ppm | ASTM D5185m | | 2 | 2 | 3 |
| Magnesium | ppm | ASTM D5185m | | 479 | 745 | 513 |
| Calcium | ppm | ASTM D5185m | | 1459 | 1678 | 1466 |
| Phosphorus | ppm | ASTM D5185m | | 973 | 793 | 778 |
| Zinc | ppm | ASTM D5185m | | 1163 | 894 | 896 |
| Sulfur | ppm | ASTM D5185m | | 3186 | 2807 | 2304 |
| Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 16.6 | 19.5 | 19.5 |
| Base Number (BN) | mg KOH/g | ASTM D2896 | | 6.4 | 8.0 | 8.4 |
| Visc @ 100°C | cSt | ASTM D445 | | 13.3 | 13.1 | 9.7 |



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0939014
Lab Number : 06217530
Unique Number : 11090394
Test Package : FLEET

Received : 21 Jun 2024
Tested : 24 Jun 2024
Diagnosed : 24 Jun 2024 - Wes Davis

SALEM NATIONALEASE CORPORATION
 198 PARK PLAZA DRIVE
 WINSTON SALEM, NC
 US 27105

Contact: Audrey Hopkins
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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)

F: x: