



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

Machine Id
INTERNATIONAL 441432

Component
Diesel Engine

Fluid
DIESEL ENGINE OIL SAE 30 (18 QTS)

RECOMMENDATION

Resample at the next service interval to monitor. The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) DIESEL ENGINE OIL SAE 30. Please confirm.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|----------------|-----|-------------|-----------|--------------------|-------------|----------|
| Sample Number | | Client Info | | IL0030602 | IL0030516 | --- |
| Sample Date | | Client Info | | 11 Feb 2024 | 13 Nov 2023 | --- |
| Machine Age | hrs | Client Info | | 487 | 252 | --- |
| Oil Age | hrs | Client Info | | 0 | 0 | --- |
| Filter Age | hrs | Client Info | | 0 | 0 | --- |
| Oil Changed | | Client Info | | N/A | N/A | --- |
| Filter Changed | | Client Info | | N/A | N/A | --- |
| Sample Status | | | | NORMAL | NORMAL | --- |

WEAR

Metal levels are typical for a new component breaking in.

| | | | | | | |
|--------------|--------|-------------|------|--------------|------|-----|
| Iron | ppm | ASTM D5185m | >100 | 16 | 33 | --- |
| Chromium | ppm | ASTM D5185m | >20 | <1 | 1 | --- |
| Nickel | ppm | ASTM D5185m | >4 | <1 | 0 | --- |
| Titanium | ppm | ASTM D5185m | | <1 | 0 | --- |
| Silver | ppm | ASTM D5185m | >3 | 0 | 0 | --- |
| Aluminum | ppm | ASTM D5185m | >20 | 4 | 4 | --- |
| Lead | ppm | ASTM D5185m | >40 | <1 | 0 | --- |
| Copper | ppm | ASTM D5185m | >330 | 4 | 19 | --- |
| Tin | ppm | ASTM D5185m | >15 | 1 | <1 | --- |
| Vanadium | ppm | ASTM D5185m | | 0 | <1 | --- |
| White Metal | scalar | *Visual | NONE | NONE | NONE | --- |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | --- |

CONTAMINATION

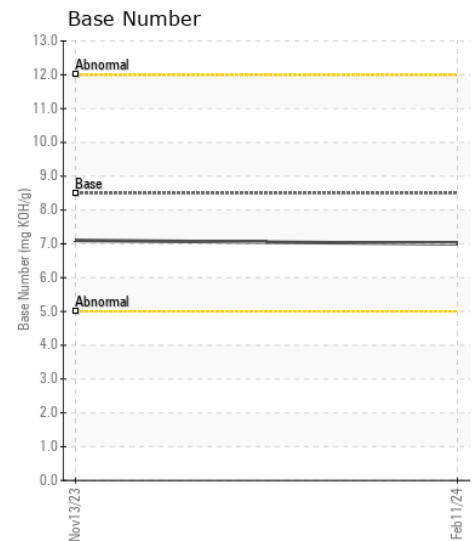
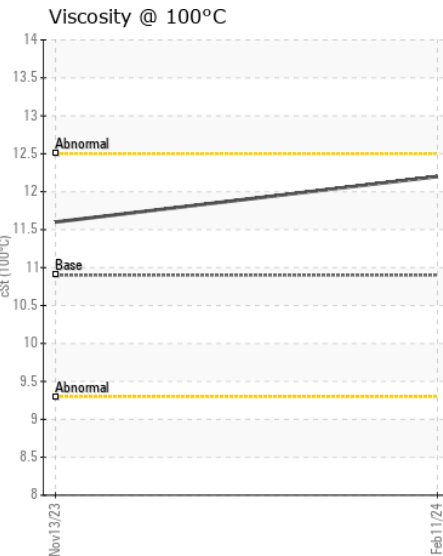
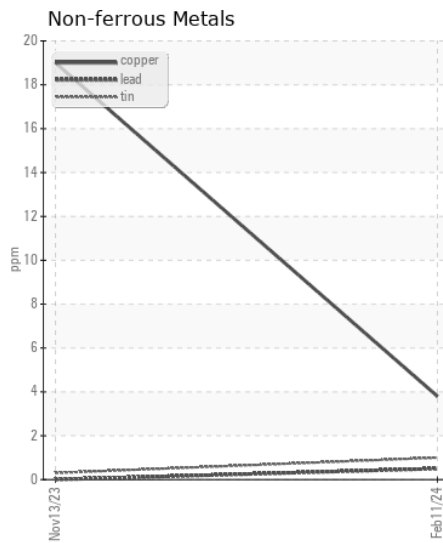
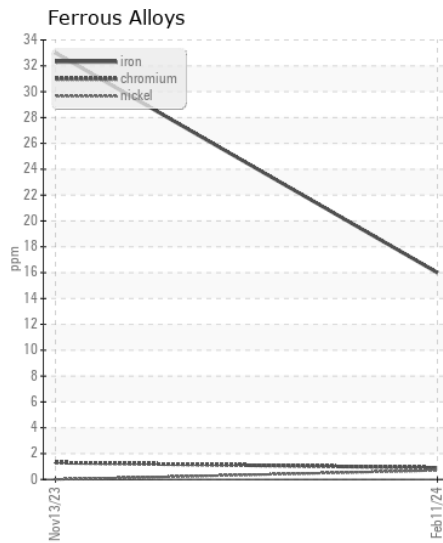
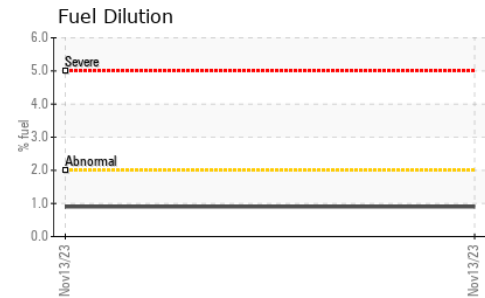
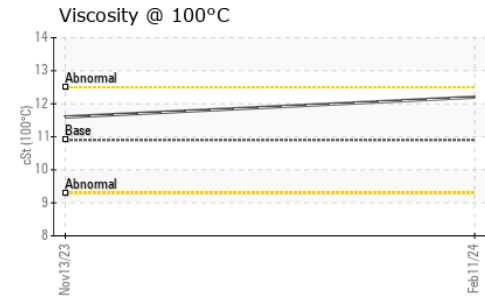
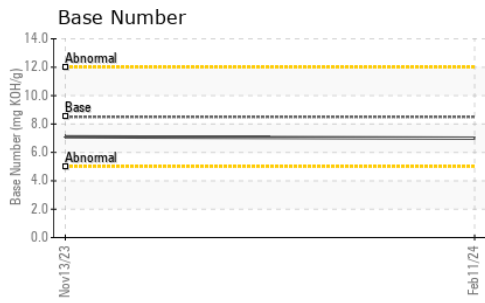
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

| | | | | | | |
|------------------|----------|-------------|-------|----------------|-------|-----|
| Silicon | ppm | ASTM D5185m | >25 | 8 | 19 | --- |
| Potassium | ppm | ASTM D5185m | >20 | 13 | 3 | --- |
| Fuel | % | ASTM D3524 | >2.0 | <1.0 | 0.9 | --- |
| Water | | WC Method | >0.2 | NEG | NEG | --- |
| Glycol | | WC Method | | NEG | NEG | --- |
| Soot % | % | *ASTM D7844 | >3 | 0.2 | 0.2 | --- |
| Nitration | Abs/cm | *ASTM D7624 | >20 | 7.5 | 10.5 | --- |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30 | 19.0 | 21.9 | --- |
| 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 | >0.2 | 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 | >75 | 0 | 6 | --- |
| Boron | ppm | ASTM D5185m | 250 | 10 | 27 | --- |
| Barium | ppm | ASTM D5185m | 10 | 14 | 4 | --- |
| Molybdenum | ppm | ASTM D5185m | 100 | 65 | 46 | --- |
| Manganese | ppm | ASTM D5185m | | 1 | 4 | --- |
| Magnesium | ppm | ASTM D5185m | 450 | 882 | 815 | --- |
| Calcium | ppm | ASTM D5185m | 3000 | 1118 | 1273 | --- |
| Phosphorus | ppm | ASTM D5185m | 1150 | 983 | 734 | --- |
| Zinc | ppm | ASTM D5185m | 1350 | 1149 | 916 | --- |
| Sulfur | ppm | ASTM D5185m | 4250 | 3445 | 2161 | --- |
| Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 15.8 | 21.8 | --- |
| Base Number (BN) | mg KOH/g | ASTM D2896 | 8.5 | 7.0 | 7.1 | --- |
| Visc @ 100°C | cSt | ASTM D445 | 10.9 | 12.2 | 11.6 | --- |



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : IL0030602

Lab Number : 06086554

Unique Number : 10873999

Test Package : FLEET (Additional Tests: FuelDilution)

Received : 12 Feb 2024

Tested : 13 Feb 2024

Diagnosed : 13 Feb 2024 - Wes Davis

RUSH TRUCK LEASING - CHARLOTTE IDEALEASE

1333 AMERON DR

CHARLOTTE, NC

US 28206

Contact: JERRY DIXON

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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)