



OIL ANALYSIS REPORT

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

Machine Id
12381
Component
Diesel Engine
Fluid
SAE 0W40 (--- QTS)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

WEAR

Metal levels are typical for a new component breaking in.

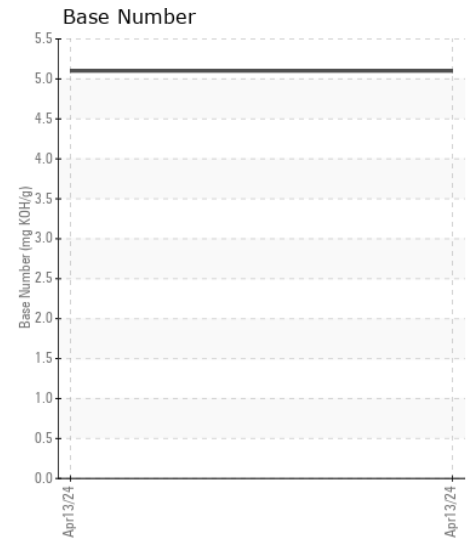
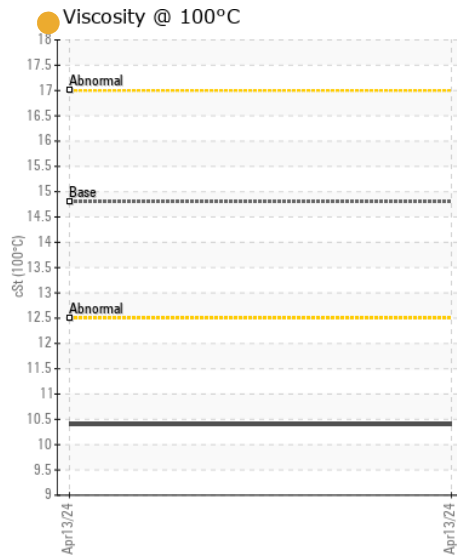
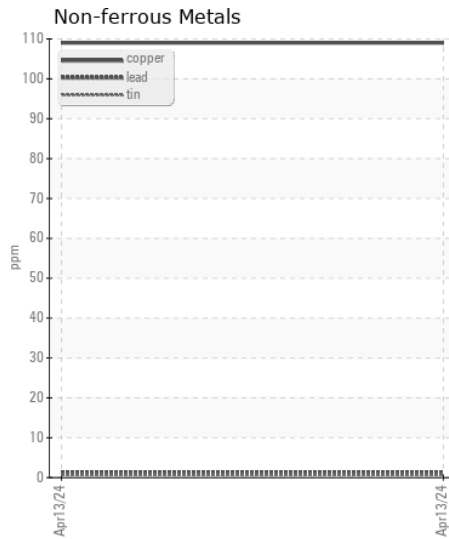
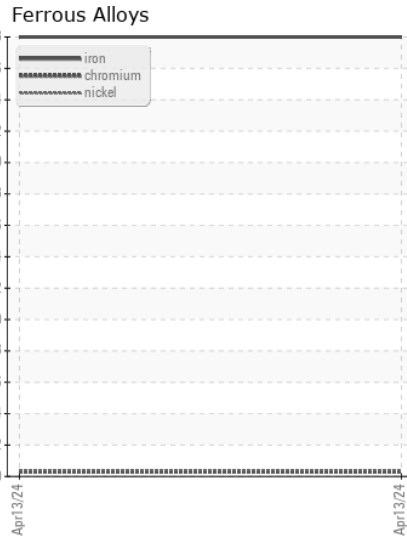
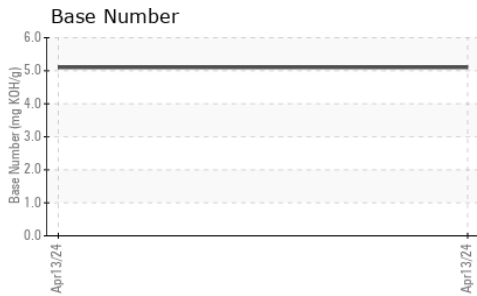
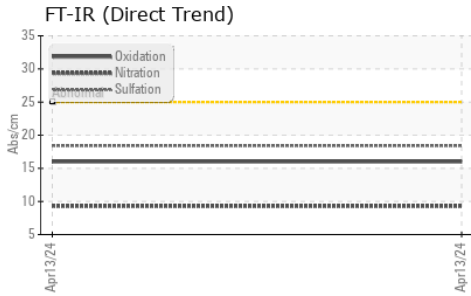
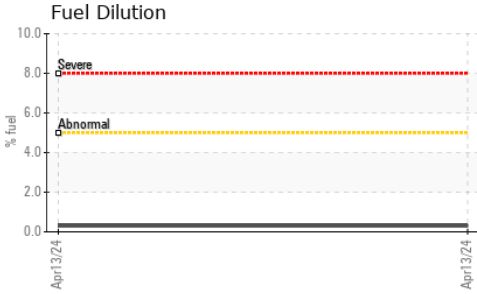
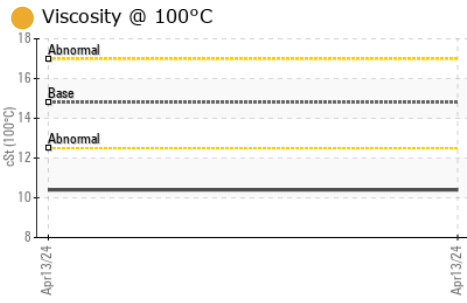
CONTAMINATION

Fuel content negligible. There is no indication of any contamination in the oil.

FLUID CONDITION

The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|------------------|----------|-------------|-----------|-------------|----------|----------|
| Sample Number | | Client Info | | WC0924506 | --- | --- |
| Sample Date | | Client Info | | 13 Apr 2024 | --- | --- |
| Machine Age | mls | Client Info | | 8352 | --- | --- |
| Oil Age | mls | Client Info | | 0 | --- | --- |
| Filter Age | mls | Client Info | | 0 | --- | --- |
| Oil Changed | | Client Info | | Changed | --- | --- |
| Filter Changed | | Client Info | | Changed | --- | --- |
| Sample Status | | | | ATTENTION | --- | --- |
| Iron | ppm | ASTM D5185m | >100 | 28 | --- | --- |
| Chromium | ppm | ASTM D5185m | >20 | <1 | --- | --- |
| Nickel | ppm | ASTM D5185m | >4 | <1 | --- | --- |
| Titanium | ppm | ASTM D5185m | | <1 | --- | --- |
| Silver | ppm | ASTM D5185m | >3 | 0 | --- | --- |
| Aluminum | ppm | ASTM D5185m | >20 | 5 | --- | --- |
| Lead | ppm | ASTM D5185m | >40 | 1 | --- | --- |
| Copper | ppm | ASTM D5185m | >330 | 109 | --- | --- |
| Tin | ppm | ASTM D5185m | >15 | <1 | --- | --- |
| Vanadium | ppm | ASTM D5185m | | <1 | --- | --- |
| White Metal | scalar | *Visual | NONE | NONE | --- | --- |
| Yellow Metal | scalar | *Visual | NONE | NONE | --- | --- |
| Silicon | ppm | ASTM D5185m | >25 | 11 | --- | --- |
| Potassium | ppm | ASTM D5185m | >20 | 17 | --- | --- |
| Fuel | % | ASTM D3524 | >5 | 0.3 | --- | --- |
| Water | | WC Method | >0.2 | NEG | --- | --- |
| Glycol | | WC Method | | NEG | --- | --- |
| Soot % | % | *ASTM D7844 | >3 | 0 | --- | --- |
| Nitration | Abs/cm | *ASTM D7624 | >20 | 9.3 | --- | --- |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30 | 18.4 | --- | --- |
| 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 | >0.2 | NEG | --- | --- |
| Sodium | ppm | ASTM D5185m | | 7 | --- | --- |
| Boron | ppm | ASTM D5185m | | 14 | --- | --- |
| Barium | ppm | ASTM D5185m | | 3 | --- | --- |
| Molybdenum | ppm | ASTM D5185m | | 71 | --- | --- |
| Manganese | ppm | ASTM D5185m | | 9 | --- | --- |
| Magnesium | ppm | ASTM D5185m | | 555 | --- | --- |
| Calcium | ppm | ASTM D5185m | | 1053 | --- | --- |
| Phosphorus | ppm | ASTM D5185m | | 672 | --- | --- |
| Zinc | ppm | ASTM D5185m | | 820 | --- | --- |
| Sulfur | ppm | ASTM D5185m | | 2260 | --- | --- |
| Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 16.0 | --- | --- |
| Base Number (BN) | mg KOH/g | ASTM D2896 | | 5.1 | --- | --- |
| Visc @ 100°C | cSt | ASTM D445 | 14.8 | 10.4 | --- | --- |



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0924506 **Received** : 16 Apr 2024
Lab Number : 06150972 **Tested** : 22 Apr 2024
Unique Number : 10981050 **Diagnosed** : 22 Apr 2024 - Jonathan Hester
Test Package : CONST (Additional Tests: FuelDilution, PercentFuel, TBN)

SULLIVAN EASTERN INC
 2860 C SLATER RD
 MORRISVILLE, NC
 US 27560

Contact: SCOTT SULLIVAN
 ssullivan@sullivan-eastern.com

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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