WEAR CONTAMINATION FLUID CONDITION

ABNORMAL
NORMAL
ATTENTION



[W05004053]
Machine Id
VOLVO EC750 314245

Diesel Engine

MOBIL 15W40 (15 GAL)

| RECC | MMENDA | ATION |
|------|--------|--------|
| | | 711011 |

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: W05004053 1000 hour service)

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|----------------|-----|-------------|-----------|-------------|-------------|----------|
| Sample Number | | Client Info | | ML0886273 | VCP420906 | |
| Sample Date | | Client Info | | 09 Feb 2024 | 11 Sep 2023 | |
| Machine Age | hrs | Client Info | | 1022 | 915 | |
| Oil Age | hrs | Client Info | | 500 | 915 | |
| Filter Age | hrs | Client Info | | 500 | 0 | |
| Oil Changed | | Client Info | | Changed | Changed | |
| Filter Changed | | Client Info | | Changed | Changed | |
| Sample Status | | | | ABNORMAL | ABNORMAL | |
| | | AOTM DEADE | 400 | 44 | 05 | |
| Iron | ppm | ASTM D5185m | >100 | 11 | 25 | |
| Chromium | ppm | ASTM D5185m | >10 | 1 | 2 | |
| Nickel | mag | ASTM D5185m | >10 | 2 | 3 | |

WEAR

The copper level has decreased, but is still abnormal. All other component wear rates are normal.

| Nickel | ppm | ASTM D5185m | >10 | 2 | 3 | |
|--------------|--------|-------------|------|-------------|--------------|---|
| Titanium | ppm | ASTM D5185m | | 0 | 0 | |
| Silver | ppm | ASTM D5185m | >2 | 0 | 0 | |
| Aluminum | ppm | ASTM D5185m | >10 | 4 | 2 | |
| Lead | ppm | ASTM D5185m | >20 | 0 | 5 | |
| Copper | ppm | ASTM D5185m | >15 | 4 92 | △ 376 | |
| Tin | ppm | ASTM D5185m | >10 | 2 | 7 | |
| Vanadium | ppm | ASTM D5185m | | 0 | <1 | |
| White Metal | scalar | *Visual | NONE | NONE | NONE | |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | |
| Silicon | ppm | ASTM D5185m | >20 | 11 | 30 | - |

CONTAMINATION

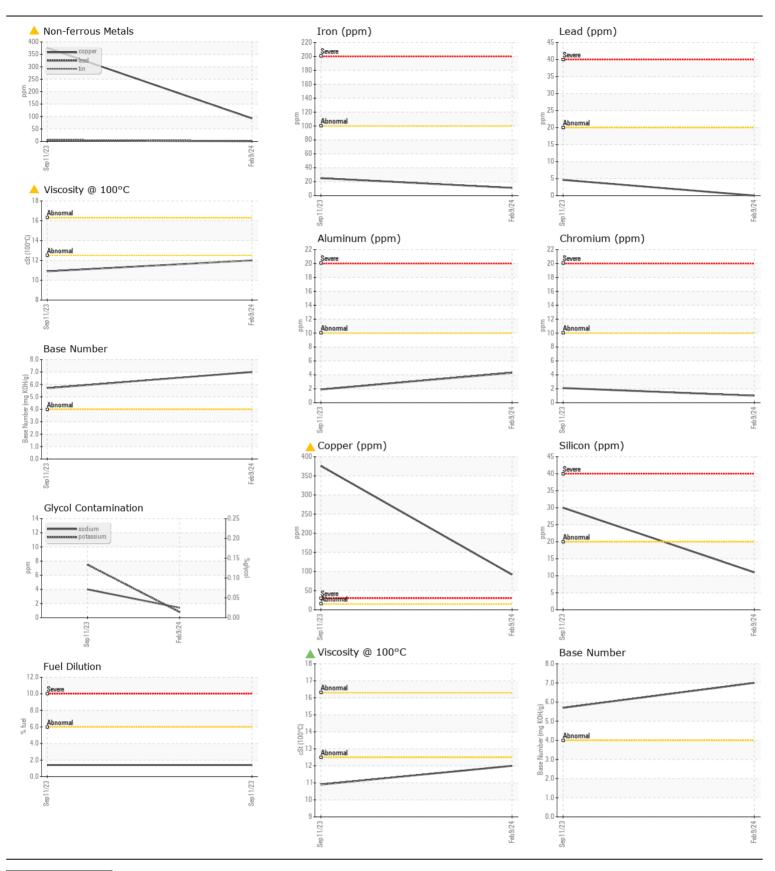
There is no indication of any contamination in the oil.

| Silicon | ppm | ASTM D5185m | >20 | 11 | 30 | |
|------------------|----------|--------------|-------|-------|-------|--|
| Potassium | ppm | ASTM D5185m | >20 | <1 | 8 | |
| Fuel | % | ASTM D3524 | >6.0 | <1.0 | 1.4 | |
| Water | | WC Method | >0.1 | NEG | NEG | |
| Glycol | % | *ASTM D2982 | | NEG | NEG | |
| Soot % | % | *ASTM D7844 | >3 | 0.4 | 0.4 | |
| Nitration | Abs/cm | *ASTM D7624 | >20 | 8.4 | 9.5 | |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30 | 23.5 | 19.0 | |
| 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 | >0.1 | NEG | NEG | |
| | | | | | | |
| Codium | nnm | A CTM DE195m | <11Q | 1 | 1 | |

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.

| Odor | scalar | *Visual | NORML | NORML | NORML | |
|-------------------------|----------|-------------|-------|-------------|--------------|--|
| Emulsified Water | scalar | *Visual | >0.1 | NEG | NEG | |
| | | | | | | |
| Sodium | ppm | ASTM D5185m | >118 | 1 | 4 | |
| Boron | ppm | ASTM D5185m | | 249 | 27 | |
| Barium | ppm | ASTM D5185m | | 0 | 0 | |
| Molybdenum | ppm | ASTM D5185m | | 122 | 84 | |
| Manganese | ppm | ASTM D5185m | | <1 | 2 | |
| Magnesium | ppm | ASTM D5185m | | 600 | 22 | |
| Calcium | ppm | ASTM D5185m | | 1582 | 2119 | |
| Phosphorus | ppm | ASTM D5185m | | 757 | 942 | |
| Zinc | ppm | ASTM D5185m | | 905 | 1141 | |
| Sulfur | ppm | ASTM D5185m | | 2456 | 3538 | |
| Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 17.0 | 14.4 | |
| Base Number (BN) | mg KOH/g | ASTM D2896 | | 7.0 | 5.7 | |
| Visc @ 100°C | cSt | ASTM D445 | | 12.0 | 1 0.9 | |





Certificate L2367

Report Id: VOLVO0002 [WUSCAR] 06087944 (Generated: 02/22/2024 17:23:22) Rev: 1

Laboratory Sample No.

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Lab Number : 06087944

: ML0886273

To discuss this sample report, contact Customer Service at 1-800-237-1369.

Received **Tested** Unique Number: 10875389 Diagnosed

: 13 Feb 2024 : 15 Feb 2024

: 15 Feb 2024 - Don Baldridge Test Package : MOBCE (Additional Tests: FuelDilution, Glycol, TBN)

MCCLUNG-LOGAN EQUIPMENT CO - MANASSAS 8450 QUARRY ROAD

MANASSAS, VA US 20110

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* - 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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