

Machine Id VOLVO L60H 621299 Component Diesel Engine Fluid CHEVRON 15W40 (5 GAL)

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

| | W | EAR | |
|--|---|-----|--|
|--|---|-----|--|

All component wear rates are normal.

RECOMMENDATION

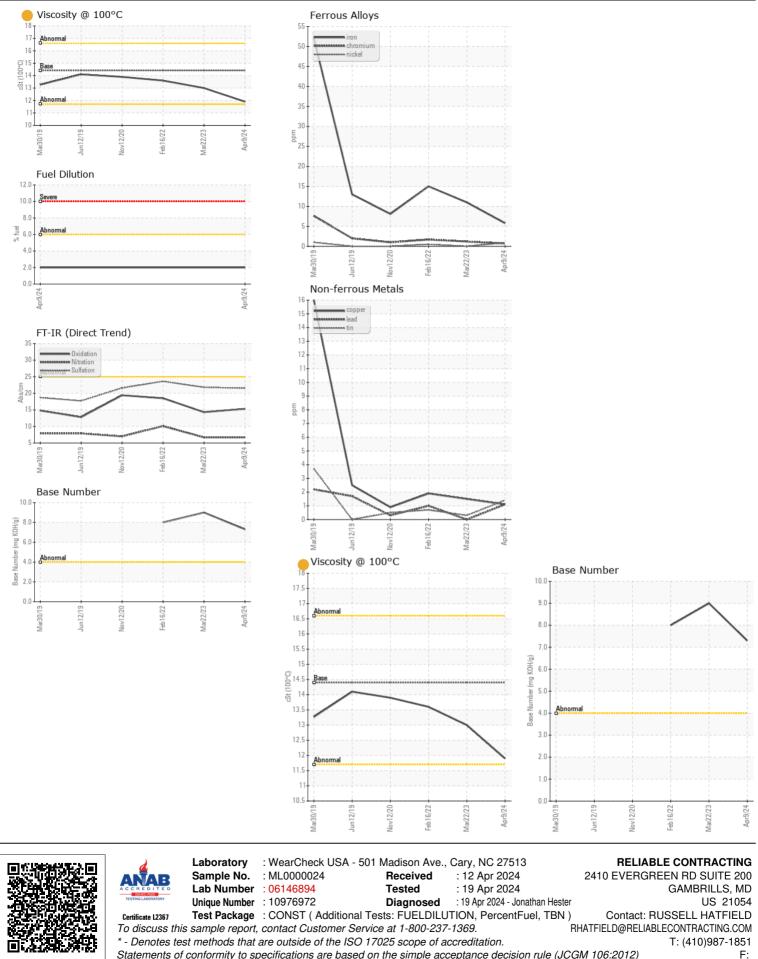
CONTAMINATION

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

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

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|------------------|----------|-------------|-----------|-------------|-------------|-------------|
| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
| Sample Number | | Client Info | | ML0000024 | VCP387984 | VCP344982 |
| Sample Date | | Client Info | | 09 Apr 2024 | 22 Mar 2023 | 16 Feb 2022 |
| Machine Age | hrs | Client Info | | 4503 | 3890 | 3273 |
| Oil Age | hrs | Client Info | | 613 | 0 | 0 |
| Filter Age | hrs | Client Info | | 613 | 0 | 0 |
| Oil Changed | | Client Info | | Changed | Changed | Changed |
| Filter Changed | | Client Info | | Changed | Changed | Changed |
| Sample Status | | | | ATTENTION | NORMAL | NORMAL |
| | | | | | | |
| Iron | ppm | ASTM D5185m | >100 | 6 | 11 | 15 |
| Chromium | ppm | ASTM D5185m | >10 | <1 | 1 | 2 |
| Nickel | ppm | ASTM D5185m | >10 | <1 | 0 | <1 |
| Titanium | ppm | ASTM D5185m | | 2 | <1 | 5 |
| Silver | ppm | ASTM D5185m | >2 | 0 | 0 | <1 |
| Aluminum | ppm | ASTM D5185m | >10 | 3 | 10 | 11 |
| Lead | ppm | ASTM D5185m | >20 | 1 | 0 | 1 |
| Copper | ppm | ASTM D5185m | >15 | 1 | 2 | 2 |
| Tin | ppm | ASTM D5185m | >10 | 1 | <1 | <1 |
| Vanadium | ppm | ASTM D5185m | | <1 | 0 | <1 |
| White Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| | | | | _ | | _ |
| Silicon | ppm | ASTM D5185m | >20 | 5 | 8 | 7 |
| Potassium | ppm | ASTM D5185m | >20 | 1 | 2 | 2 |
| Fuel | % | ASTM D3524 | >6.0 | 2.0 | <1.0 | <1.0 |
| Water | | WC Method | >0.1 | NEG | NEG | NEG |
| Glycol | | WC Method | - | NEG | NEG | NEG |
| Soot % | % | *ASTM D7844 | >3 | 0.2 | 1 | 0.3 |
| Nitration | Abs/cm | *ASTM D7624 | >20 | 6.7 | 6.7 | 10.1 |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30 | 21.5 | 21.8 | 23.6 |
| 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 | >0.1 | NEG | NEG | NEG |
| Sodium | ppm | ASTM D5185m | >50 | 0 | 1 | 2 |
| Boron | ppm | ASTM D5185m | | 478 | 295 | 219 |
| Barium | ppm | ASTM D5185m | | <1 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | | 98 | 121 | 98 |
| Manganese | ppm | ASTM D5185m | | 1 | 1 | <1 |
| Magnesium | ppm | ASTM D5185m | | 395 | 687 | 742 |
| Calcium | ppm | ASTM D5185m | | 1387 | 1643 | 1693 |
| Phosphorus | ppm | ASTM D5185m | | 1028 | 717 | 784 |
| Zinc | ppm | ASTM D5185m | | 1084 | 891 | 901 |
| Sulfur | ppm | ASTM D5185m | | 3219 | 2733 | 2682 |
| Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 15.3 | 14.3 | 18.5 |
| Base Number (BN) | mg KOH/g | ASTM D2896 | - 20 | 7.3 | 9.0 | 8.0 |
| Visc @ 100°C | cSt | ASTM D2000 | 14.4 | 11.9 | 13.0 | 13.6 |
| | 001 | 10 HM D440 | 1-7.97 | - 11.9 | 10.0 | 10.0 |



Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)