

Machine Id VOLVO A25G 752571

Diesel Engine

VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3 (--- GAL)

| RECOMMENDATION | Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|---|------------------|----------|-------------|-----------|-------------|--------------|----------|
| 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. | Sample Number | | Client Info | | VCP443314 | VCP430704 | |
| | Sample Date | | Client Info | | 29 May 2024 | 24 Aug 2023 | |
| | Machine Age | hrs | Client Info | | 1522 | 1011 | |
| | Oil Age | hrs | Client Info | | 0 | 0 | |
| | Filter Age | hrs | Client Info | | 0 | 0 | |
| | Oil Changed | | Client Info | | Changed | Changed | |
| | Filter Changed | | Client Info | | Changed | Changed | |
| | Sample Status | | | | ABNORMAL | ABNORMAL | |
| WEAR | Iron | ppm | ASTM D5185m | >100 | 12 | 11 | |
| | Chromium | ppm | ASTM D5185m | | <1 | <1 | |
| Valve wear is indicated. | Nickel | ppm | ASTM D5185m | | ▲ 4 | <1 | |
| | Titanium | ppm | ASTM D5185m | ~ _ | <1 | 0 | |
| | Silver | ppm | ASTM D5185m | >2 | <1 | <1 | |
| | Aluminum | ppm | ASTM D5185m | | 1 | 1 | |
| | Lead | ppm | ASTM D5185m | | 0 | 1 | |
| | Copper | ppm | ASTM D5185m | | 84 | ▲ 143 | |
| | Tin | ppm | ASTM D5185m | | 1 | <1 | |
| | Vanadium | ppm | ASTM D5185m | 210 | ۰ <1 | <1 | |
| | White Metal | scalar | *Visual | NONE | NONE | NONE | |
| | Yellow Metal | scalar | *Visual | NONE | NONE | NONE | |
| | | Scalal | visuai | | NONE | NONL | |
| CONTAMINATION | Silicon | ppm | ASTM D5185m | >25 | 4 | 7 | |
| | Potassium | ppm | ASTM D5185m | >20 | 2 | 0 | |
| Tests indicate that there is no fuel present in the oil. There is no indication of any contamination in the oil. | Fuel | % | ASTM D3524 | >6.0 | 0.3 | <1.0 | |
| | 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 | 7.8 | 6.9 | |
| | Sulfation | Abs/.1mm | *ASTM D7415 | >30 | 21.4 | 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 | >0.2 | NEG | NEG | |
| | | | | | | | |
| LUID CONDITION | Sodium | ppm | ASTM D5185m | | 1 | 2 | |
| The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type. | Boron | ppm | ASTM D5185m | | 20 | 3 | |
| | Barium | ppm | ASTM D5185m | | 0 | 0 | |
| | Molybdenum | ppm | ASTM D5185m | | 52 | 64 | |
| | Manganese | ppm | ASTM D5185m | | 1 | 2 | |
| | Magnesium | ppm | ASTM D5185m | | 658 | 881 | |
| | Calcium | ppm | ASTM D5185m | | 1474 | 1275 | |
| | Phosphorus | ppm | ASTM D5185m | | 1056 | 1055 | |
| | Zinc | ppm | ASTM D5185m | | 1212 | 1239 | |
| | Sulfur | ppm | ASTM D5185m | 4079 | 3350 | 3679 | |
| | Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 18.7 | 14.0 | |
| | | | | | | | |

8.3

12.8

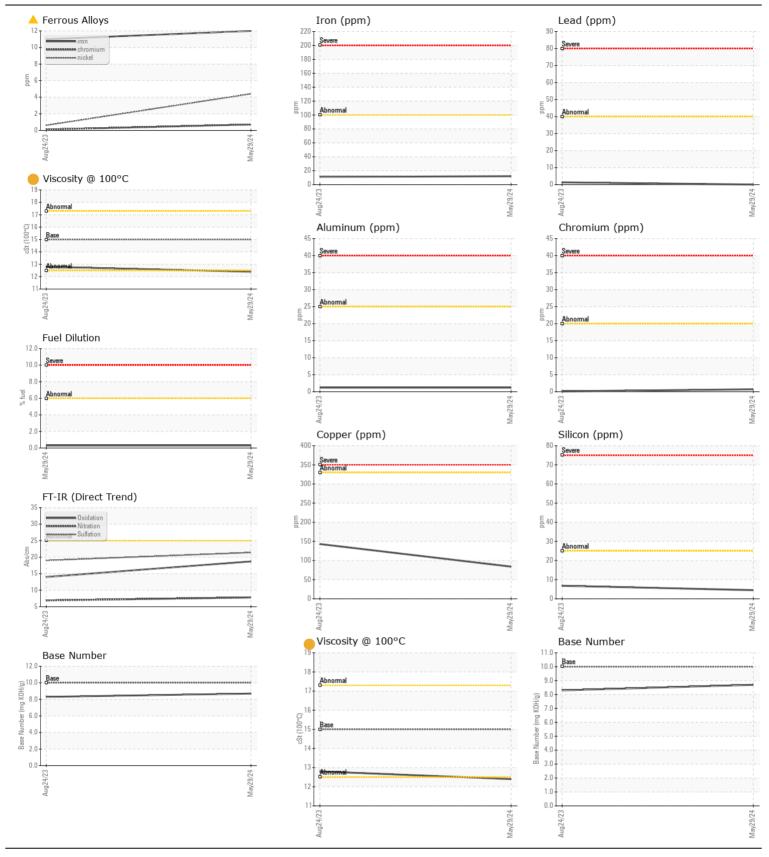
8.7

12.4

Base Number (BN) mg KOH/g ASTM D2896 10

ASTM D445 15.0

Visc @ 100°C cSt



ALTA EQUIPMENT COMPANY Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 Sample No. Received : 03 Jun 2024 5151 DR MARTIN LUTHER KING BLVD : VCP443314 Lab Number : 06197403 Tested : 05 Jun 2024 FORT MYERS, FL Unique Number : 11059526 Diagnosed : 05 Jun 2024 - Sean Felton US 33905 Test Package : MOB 1 (Additional Tests: FuelDilution, PercentFuel, TBN) Contact: TODD LARK Certificate L2367 tlark@altaequipfl.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. T: Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012) F: (239)481-3302

Contact/Location: TODD LARK - VOLVO0090 Page 2 of 2