



CONSTRUCTION EQUIPMENT

24414 VOLVO L350H 1048 - DIESEL ENGINE



Sample No: VCP420557
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No: 24414



SAMPLE INFORMATION

| | | | | |
|---------------|--------------------|-------------|-------------|-------------|
| Sample Number | VCP420557 | VCP426998 | VCP401777 | VCP398954 |
| Sample Date | 18 Nov 2023 | 12 Aug 2023 | 29 Apr 2023 | 26 Jan 2023 |
| Machine Hours | 11100 | 9846 | 9091 | 8223 |
| Oil Hours | 0 | 0 | 1000 | 1000 |
| Oil Changed | Changed | Changed | Changed | Changed |
| Sample Status | NORMAL | ABNORMAL | NORMAL | NORMAL |

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OIL CONDITION

| | | | | | |
|------------------|----------|-------------|------|------|------|
| Visc @ 100°C | cSt | 12.5 | 11.3 | 13.2 | 13.4 |
| Base Number (BN) | mg KOH/g | 8.2 | 8.7 | 8.4 | 8.8 |
| Oxidation (PA) | % | 84 | 64 | 80 | 80 |



CONTAMINATION

| | | | | | |
|----------------|-----|------------|-----|------|------|
| Water | % | NEG | NEG | NEG | NEG |
| Soot % | % | 0.6 | 0.5 | 0.3 | 0.4 |
| Nitration (PA) | % | 78 | 73 | 66 | 74 |
| Sulfation (PA) | % | 61 | 58 | 57 | 61 |
| Glycol | % | NEG | NEG | NEG | NEG |
| Fuel | % | 1.4 | 4.5 | <1.0 | <1.0 |
| Silicon | ppm | 4 | 5 | 3 | 4 |
| Sodium | ppm | 3 | 2 | 2 | 2 |
| Potassium | ppm | 7 | 6 | 2 | <1 |



WEAR METALS

| | | | | | |
|------------|-----|--------------|----|----|----|
| Iron | ppm | 10 | 8 | 5 | 7 |
| Copper | ppm | 3 | 7 | 8 | 15 |
| Lead | ppm | 3 | 2 | 0 | 3 |
| Tin | ppm | 1 | <1 | <1 | <1 |
| Aluminum | ppm | 4 | 4 | 2 | 2 |
| Chromium | ppm | 1 | <1 | <1 | <1 |
| Molybdenum | ppm | 35 | 26 | 38 | 35 |
| Nickel | ppm | 1 | <1 | <1 | <1 |
| Titanium | ppm | 1 | 2 | <1 | 3 |
| Silver | ppm | <1 | <1 | 0 | 0 |
| Manganese | ppm | 1 | <1 | <1 | <1 |
| Vanadium | ppm | <1 | <1 | 0 | <1 |



ADDITIVES

| | | | | | |
|------------|-----|-------------|------|------|------|
| Calcium | ppm | 1639 | 2171 | 1731 | 1603 |
| Magnesium | ppm | 443 | 366 | 514 | 532 |
| Zinc | ppm | 1085 | 1138 | 1152 | 1115 |
| Phosphorus | ppm | 827 | 935 | 948 | 890 |
| Barium | ppm | 0 | 0 | 0 | 0 |
| Boron | ppm | 21 | 26 | 35 | 40 |

Diagnosis

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor. No other corrective action is recommended at this time. All component wear rates are normal. Light fuel dilution occurring. No other contaminants were detected in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Depot: VOLVO3387
Unique No: 10754002
Signed: Wes Davis
Report Date: 27 Nov 2023



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VOLVO GRAPHS

