



CONSTRUCTION EQUIPMENT

VOLVO A40G 342373 - DIESEL ENGINE



Sample No: VCP402950
Oil Type: MOBIL 15W40
Job No:



SAMPLE INFORMATION

| Sample Number | VCP402950 | VCP402902 | VCP402415 | VCP404503 |
|---------------|-------------|-------------|-------------|-------------|
| Sample Date | 29 Aug 2023 | 19 Jul 2023 | 16 May 2023 | 02 May 2023 |
| Machine Hours | 11645 | 11379 | 10962 | 10860 |
| Oil Hours | 266 | 417 | 102 | 304 |
| Oil Changed | Changed | Changed | Changed | Changed |
| Sample Status | NORMAL | NORMAL | NORMAL | ABNORMAL |

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OIL CONDITION

| Visc @ 100°C | cSt | 12.4 | 12.6 | 12.9 | 12.8 |
|------------------|----------|------|------|------|------|
| Base Number (BN) | mg KOH/g | 10.4 | 9.9 | 10.3 | 9.5 |
| Oxidation (PA) | % | 80 | 80 | 78 | 72 |



CONTAMINATION

| | | | | | |
|----------------|-----|-----|------|------|------|
| Soot % | % | 0.1 | 0.2 | 0.1 | 0.2 |
| Nitration (PA) | % | 51 | 56 | 44 | 53 |
| Sulfation (PA) | % | 61 | 60 | 61 | 55 |
| Glycol | % | NEG | NEG | NEG | NEG |
| Fuel | % | 0.4 | <1.0 | <1.0 | <1.0 |
| Silicon | ppm | 4 | 3 | 4 | 4 |
| Sodium | ppm | 4 | 8 | 16 | 119 |
| Potassium | ppm | 3 | 10 | 16 | 118 |

Diagnosis

Resample at the next service interval to monitor. All component wear rates are normal. Fuel content negligible. There is no indication of any contamination 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.



WEAR METALS

| | | | | | |
|------------|-----|----|----|----|----|
| Iron | ppm | 3 | 4 | 3 | 5 |
| Copper | ppm | 0 | <1 | <1 | 2 |
| Lead | ppm | 0 | 0 | 1 | 0 |
| Tin | ppm | <1 | 0 | <1 | <1 |
| Aluminum | ppm | 2 | 3 | 2 | 3 |
| Chromium | ppm | <1 | 0 | <1 | <1 |
| Molybdenum | ppm | 31 | 42 | 38 | 47 |
| Nickel | ppm | 0 | <1 | <1 | 2 |
| Titanium | ppm | 0 | 0 | <1 | <1 |
| Silver | ppm | 0 | 0 | 0 | 0 |
| Manganese | ppm | <1 | <1 | <1 | <1 |
| Vanadium | ppm | 0 | 0 | <1 | 0 |



ADDITIVES

| | | | | | |
|------------|-----|------|------|------|------|
| Calcium | ppm | 1494 | 1688 | 1718 | 1795 |
| Magnesium | ppm | 435 | 486 | 522 | 544 |
| Zinc | ppm | 770 | 915 | 938 | 922 |
| Phosphorus | ppm | 620 | 772 | 731 | 818 |
| Barium | ppm | 2 | 2 | 0 | 0 |
| Boron | ppm | 38 | 48 | 65 | 50 |

Depot: SCHGRE
Unique No: 10633954
Signed: Jonathan Hester
Report Date: 11 Sep 2023



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GRAPHS

