



CONSTRUCTION EQUIPMENT

S525 SIMS RANCHO COR SENNEBOGEN 835E 835.0.2517 - DIESEL ENGINE



Sample No: VCP424101
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No: S525 SIMS RANCHO COR



SAMPLE INFORMATION

| | | | | |
|---------------|--------------------|-------------|-------------|-------------|
| Sample Number | VCP424101 | VCP368424 | VCP325622 | VCP307438 |
| Sample Date | 19 Jun 2023 | 23 Jan 2023 | 21 Jan 2022 | 22 Jul 2021 |
| Machine Hours | 5999 | 5445 | 4097 | 3449 |
| Oil Hours | 0 | 0 | 0 | 0 |
| Oil Changed | Changed | Changed | Not Changd | Not Changd |
| Sample Status | MARGINAL | ABNORMAL | NORMAL | ABNORMAL |

VCES- VOLVO CONSTRUCTION EQUIPMENT

8594 FRUITRIDGE ROAD
 SACRAMENTO, CA
 US 95826

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 F:



OIL CONDITION

| | | | | | |
|------------------|----------|-------------|------|------|------|
| Visc @ 100°C | cSt | 13.1 | 12.1 | 14.8 | 16.6 |
| Base Number (BN) | mg KOH/g | 7.4 | 5.7 | 7.9 | --- |
| Oxidation (PA) | % | 104 | 98 | 127 | 181 |

Diagnosis

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor. All component wear rates are normal. Light fuel dilution occurring. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.



CONTAMINATION

| | | | | | |
|----------------|-----|------------|-----|------|------|
| Soot % | % | 0.2 | 0.2 | 0.3 | 1 |
| Nitration (PA) | % | 94 | 98 | 113 | 146 |
| Sulfation (PA) | % | 68 | 70 | 82 | 104 |
| Glycol | % | NEG | NEG | NEG | NEG |
| Fuel | % | 2.1 | 5.0 | <1.0 | <1.0 |
| Silicon | ppm | 6 | 6 | 8 | 10 |
| Sodium | ppm | 3 | 2 | 3 | 4 |
| Potassium | ppm | 9 | 20 | 30 | 32 |



WEAR METALS

| | | | | | |
|------------|-----|--------------|----|----|-----|
| Iron | ppm | 12 | 21 | 35 | 131 |
| Copper | ppm | 2 | 5 | 2 | 8 |
| Lead | ppm | 0 | 0 | 0 | 0 |
| Tin | ppm | <1 | <1 | <1 | <1 |
| Aluminum | ppm | 5 | 7 | 16 | 9 |
| Chromium | ppm | <1 | <1 | <1 | 3 |
| Molybdenum | ppm | 50 | 60 | 49 | 87 |
| Nickel | ppm | 0 | 0 | 0 | <1 |
| Titanium | ppm | 4 | 10 | 3 | 6 |
| Silver | ppm | 0 | 0 | 0 | 0 |
| Manganese | ppm | <1 | <1 | <1 | 1 |
| Vanadium | ppm | 0 | <1 | 0 | <1 |



ADDITIVES

| | | | | | |
|------------|-----|-------------|------|------|------|
| Calcium | ppm | 1747 | 1441 | 1681 | 2004 |
| Magnesium | ppm | 616 | 586 | 578 | 840 |
| Zinc | ppm | 1138 | 781 | 1055 | 1083 |
| Phosphorus | ppm | 894 | 658 | 878 | 940 |
| Barium | ppm | 0 | 0 | 0 | 0 |
| Boron | ppm | 80 | 100 | 70 | 105 |

Depot: VOLVO4485
Unique No: 10550009
Signed: Angela Borella
Report Date: 12 Jul 2023



CONSTRUCTION EQUIPMENT



GRAPHS

