



CONSTRUCTION EQUIPMENT

24282 VOLVO EC350E 314526 - DIESEL ENGINE



Sample No: VCP420538
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No: 24282



SAMPLE INFORMATION

Sample Number	VCP420538	VCP404417	---	---
Sample Date	10 Nov 2023	10 Mar 2023	---	---
Machine Hours	1305	400	---	---
Oil Hours	1000	400	---	---
Oil Changed	Changed	Changed	---	---
Sample Status	ABNORMAL	ABNORMAL	---	---

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OIL CONDITION

Visc @ 100°C	cSt	▲ 11.9	▲ 10.1	---	---
Base Number (BN)	mg KOH/g	■ 6.1	■ 6.1	---	---
Oxidation (PA)	%	84	62	---	---

Diagnosis

No corrective action is recommended at this time. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. The copper level has decreased, but is still abnormal. All other component wear rates are normal. There is no indication of any contamination in the oil. The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.



CONTAMINATION

Soot %	%	■ 0.1	■ 0.1	---	---
Nitration (PA)	%	82	83	---	---
Sulfation (PA)	%	62	54	---	---
Glycol	%	NEG	NEG	---	---
Fuel	%	<1.0	■ 0.8	---	---
Silicon	ppm	■ 12	■ 30	---	---
Sodium	ppm	■ 3	■ <1	---	---
Potassium	ppm	■ 0	■ 4	---	---



WEAR METALS

Iron	ppm	■ 6	■ 9	---	---
Copper	ppm	▲ 50	▲ 446	---	---
Lead	ppm	■ <1	■ 2	---	---
Tin	ppm	■ 1	■ 2	---	---
Aluminum	ppm	■ 3	■ 3	---	---
Chromium	ppm	■ 0	■ <1	---	---
Molybdenum	ppm	■ 46	■ 87	---	---
Nickel	ppm	■ <1	■ 1	---	---
Titanium	ppm	<1	0	---	---
Silver	ppm	■ 0	■ 0	---	---
Manganese	ppm	■ 2	■ 3	---	---
Vanadium	ppm	0	<1	---	---



ADDITIVES

Calcium	ppm	■ 1669	■ 2226	---	---
Magnesium	ppm	■ 404	11	---	---
Zinc	ppm	■ 1072	■ 1149	---	---
Phosphorus	ppm	■ 816	■ 952	---	---
Barium	ppm	■ 0	■ 3	---	---
Boron	ppm	■ 28	■ 39	---	---

Depot: VOLVO3387
Unique No: 10743047
Signed: Don Baldrige
Report Date: 19 Nov 2023



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GRAPHS

