



CONSTRUCTION EQUIPMENT

SWA329522 VOLVO EC350E 314471 - DIESEL ENGINE



Sample No: VCP434825
Oil Type: VOLVO VDS-4.5 Premium Motor Oil 15W40
Job No: SWA329522



SAMPLE INFORMATION

Sample Number	VCP434825	VCP385503	VCP278987	---
Sample Date	19 Aug 2023	09 May 2023	06 Dec 2022	---
Machine Hours	1649	1001	577	---
Oil Hours	0	500	577	---
Oil Changed	Changed	Changed	N/A	---
Sample Status	ATTENTION	ATTENTION	ABNORMAL	---

CALLANAN INDUSTRIES
 93 SULLIVAN RD
 MONTICELLO, NY
 US 12701
 Contact: Service Manager



OIL CONDITION

Visc @ 100°C	cSt	▲ 12.3	▲ 12.1	▲ 10.3	---
Base Number (BN)	mg KOH/g	■ 8.5	■ 8.4	■ 5.7	---
Oxidation (PA)	%	86	84	63	---

T:
F:

Diagnosis

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. All 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	■ 0.1	---
Nitration (PA)	%	72	68	86	---
Sulfation (PA)	%	63	64	57	---
Glycol	%	NEG	NEG	NEG	---
Fuel	%	<1.0	<1.0	■ 0.7	---
Silicon	ppm	■ 8	■ 8	■ 27	---
Sodium	ppm	■ 3	■ 2	■ 5	---
Potassium	ppm	■ 0	■ 2	■ 4	---



WEAR METALS

Iron	ppm	■ 7	■ 6	■ 12	---
Copper	ppm	■ 18	▲ 114	▲ 402	---
Lead	ppm	■ <1	■ 2	■ 2	---
Tin	ppm	■ <1	■ 2	■ 3	---
Aluminum	ppm	■ 2	■ 3	■ 2	---
Chromium	ppm	■ 0	■ <1	■ <1	---
Molybdenum	ppm	■ 44	■ 47	■ 87	---
Nickel	ppm	■ 0	■ 1	■ <1	---
Titanium	ppm	<1	0	<1	---
Silver	ppm	■ 0	■ 0	■ 0	---
Manganese	ppm	■ <1	■ 1	■ 3	---
Vanadium	ppm	<1	<1	0	---



ADDITIVES

Calcium	ppm	■ 1697	■ 1756	■ 2186	---
Magnesium	ppm	■ 567	■ 515	■ 77	---
Zinc	ppm	■ 1126	■ 1219	■ 1188	---
Phosphorus	ppm	■ 942	■ 985	■ 984	---
Barium	ppm	■ 0	■ 0	■ 0	---
Boron	ppm	■ 23	■ 41	■ 36	---

Depot: CALMONNY
Unique No: 10617102
Signed: Don Baldrige
Report Date: 24 Aug 2023



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GRAPHS

