



CONSTRUCTION EQUIPMENT

23824 VOLVO EC350 314419 - DIESEL ENGINE



Sample No: VCP405861
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No: 23824



SAMPLE INFORMATION

Sample Number	VCP405861	VCP404419	---	---
Sample Date	02 Aug 2023	21 Feb 2023	---	---
Machine Hours	977	477	---	---
Oil Hours	1000	500	---	---
Oil Changed	Changed	Changed	---	---
Sample Status	ATTENTION	ABNORMAL	---	---

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OIL CONDITION

Visc @ 100°C	cSt	▲ 12.1	▲ 9.3	---	---
Base Number (BN)	mg KOH/g	■ 7.5	■ 6.1	---	---
Oxidation (PA)	%	74	60	---	---

Diagnosis

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. 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)	%	66	89	---	---
Sulfation (PA)	%	59	53	---	---
Glycol	%	NEG	NEG	---	---
Fuel	%	<1.0	■ 0.9	---	---
Silicon	ppm	■ 8	■ 29	---	---
Sodium	ppm	■ 0	■ <1	---	---
Potassium	ppm	■ 2	■ 5	---	---



WEAR METALS

Iron	ppm	■ 6	■ 11	---	---
Copper	ppm	▲ 92	▲ 471	---	---
Lead	ppm	■ <1	■ 2	---	---
Tin	ppm	■ 1	■ 3	---	---
Aluminum	ppm	■ 1	■ 4	---	---
Chromium	ppm	■ 0	■ 0	---	---
Molybdenum	ppm	■ 53	■ 95	---	---
Nickel	ppm	■ <1	■ 0	---	---
Titanium	ppm	0	0	---	---
Silver	ppm	■ <1	■ 0	---	---
Manganese	ppm	■ <1	■ 2	---	---
Vanadium	ppm	0	0	---	---



ADDITIVES

Calcium	ppm	■ 1727	■ 2217	---	---
Magnesium	ppm	■ 435	■ 38	---	---
Zinc	ppm	■ 1151	■ 1149	---	---
Phosphorus	ppm	■ 956	■ 982	---	---
Barium	ppm	■ 0	■ <1	---	---
Boron	ppm	■ 84	■ 63	---	---

Depot: VOLVO3387
Unique No: 10589102
Signed: Jonathan Hester
Report Date: 08 Aug 2023



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GRAPHS

