



CONSTRUCTION EQUIPMENT

SW0066114 VOLVO EC350 314624 - DIESEL ENGINE



Sample No: VCP421722
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No: SWO066114



SAMPLE INFORMATION

Sample Number	VCP421722	---	---	---
Sample Date	20 Sep 2023	---	---	---
Machine Hours	531	---	---	---
Oil Hours	0	---	---	---
Oil Changed	Changed	---	---	---
Sample Status	ABNORMAL	---	---	---

COWIN EQUIPMENT COMPANY

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OIL CONDITION

Visc @ 100°C	cSt	▲ 11.8	---	---	---
Base Number (BN)	mg KOH/g	■ 5.1	---	---	---
Oxidation (PA)	%	47	---	---	---

Diagnosis

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor. The copper level is abnormal. In the absence of other significant wear metals, suspect copper due to sources other than wear (i.e. cooling core). All other metal levels are typical for a new component breaking in. Fuel content negligible. Elemental level of silicon (Si) above normal indicating ingress of seal material. 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	---	---	---
Nitration (PA)	%	59	---	---	---
Sulfation (PA)	%	52	---	---	---
Glycol	%	NEG	---	---	---
Fuel	%	■ 1.0	---	---	---
Silicon	ppm	▲ 32	---	---	---
Sodium	ppm	■ 5	---	---	---
Potassium	ppm	■ 4	---	---	---



WEAR METALS

Iron	ppm	■ 15	---	---	---
Copper	ppm	▲ 416	---	---	---
Lead	ppm	■ <1	---	---	---
Tin	ppm	■ 2	---	---	---
Aluminum	ppm	■ 1	---	---	---
Chromium	ppm	■ <1	---	---	---
Molybdenum	ppm	■ 21	---	---	---
Nickel	ppm	■ <1	---	---	---
Titanium	ppm	<1	---	---	---
Silver	ppm	■ 0	---	---	---
Manganese	ppm	■ 3	---	---	---
Vanadium	ppm	0	---	---	---



ADDITIVES

Calcium	ppm	■ 2457	---	---	---
Magnesium	ppm	20	---	---	---
Zinc	ppm	■ 1105	---	---	---
Phosphorus	ppm	■ 947	---	---	---
Barium	ppm	■ 0	---	---	---
Boron	ppm	■ 5	---	---	---

Depot: VOLVO8247
Unique No: 10662255
Signed: Don Baldrige
Report Date: 27 Sep 2023



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VOLVO GRAPHS

