



CONSTRUCTION EQUIPMENT

3025 VOLVO EC460CL 110315 - DIESEL ENGINE



Sample No: VCP396808
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No: 3025



SAMPLE INFORMATION

Sample Number	VCP396808	VCP385011	VCP393286	VCP379128
Sample Date	20 Feb 2024	06 Oct 2023	23 May 2023	08 Nov 2022
Machine Hours	11690	11370	11000	10650
Oil Hours	0	0	0	500
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	ABNORMAL	NORMAL	NORMAL	NORMAL

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OIL CONDITION

Visc @ 100°C	cSt	▲ 11.7	■ 12.3	■ 12.0	■ 12.6
Base Number (BN)	mg KOH/g	■ 10.5	■ 10.5	■ 10.3	■ 11.8
Oxidation (PA)	%	77	80	80	86

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. All component wear rates are normal. Light fuel dilution occurring. No other contaminants were detected in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. Fuel is present in the oil and is lowering the viscosity.

CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Soot %	%	■ 0.3	■ 0.9	■ 0.5	■ 1
Nitration (PA)	%	53	60	58	68
Sulfation (PA)	%	61	64	63	70
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	▲ 4.1	■ 3.5	■ 4.2	<1.0
Silicon	ppm	■ 5	■ 5	■ 4	■ 6
Sodium	ppm	■ <1	■ 3	■ 0	■ 1
Potassium	ppm	■ 1	■ <1	■ 1	■ 0

WEAR METALS

Iron	ppm	■ 6	■ 8	■ 6	■ 9
Copper	ppm	■ <1	■ <1	■ 2	■ 3
Lead	ppm	■ <1	■ 2	■ <1	■ 2
Tin	ppm	■ <1	■ 1	■ <1	■ <1
Aluminum	ppm	■ 2	■ 2	■ <1	■ 2
Chromium	ppm	■ <1	■ <1	■ 0	■ <1
Molybdenum	ppm	■ 41	■ 42	■ 43	■ 37
Nickel	ppm	■ <1	■ <1	■ <1	■ <1
Titanium	ppm	<1	0	0	0
Silver	ppm	■ 0	■ 0	■ 0	■ 0
Manganese	ppm	■ 0	■ <1	■ <1	■ <1
Vanadium	ppm	0	0	0	0

ADDITIVES

Calcium	ppm	■ 1686	■ 1763	■ 1702	■ 1564
Magnesium	ppm	■ 504	■ 560	■ 495	■ 473
Zinc	ppm	■ 1148	■ 1263	■ 1120	■ 1037
Phosphorus	ppm	■ 989	■ 1025	■ 955	■ 885
Barium	ppm	■ 0	■ 0	■ 0	■ 8
Boron	ppm	■ 65	■ 45	■ 54	■ 42

Depot: LEOMAD
Unique No: 10940241
Signed: Sean Felton
Report Date: 26 Mar 2024



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VOLVO GRAPHS

