



CONSTRUCTION EQUIPMENT

12427 CWS VOLVO L180H 4720 - DIESEL ENGINE



Sample No: VCP370929
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No: 12427 CWS



SAMPLE INFORMATION

Sample Number	VCP370929	VCP370926	VCP335593	VCP335596
Sample Date	18 Jul 2023	06 Mar 2023	27 Jan 2022	20 Nov 2021
Machine Hours	17565	16497	13087	12444
Oil Hours	17565	16497	0	0
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	ATTENTION	ABNORMAL	NORMAL	NORMAL



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OIL CONDITION

Visc @ 100°C	cSt	▲ 11.2	■ 12.4	■ 12.6	■ 12.3
Base Number (BN)	mg KOH/g	■ 6.8	■ 7.0	■ 10.8	■ 10.3
Oxidation (PA)	%	84	97	88	86



CONTAMINATION

Soot %	%	■ 0.2	■ 0.3	■ 0.1	■ 0.1
Nitration (PA)	%	67	90	63	62
Sulfation (PA)	%	60	65	66	64
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	■ 0.9	<1.0	<1.0	<1.0
Silicon	ppm	■ 12	▲ 24	■ 9	■ 11
Sodium	ppm	■ 4	■ 4	■ 2	■ 2
Potassium	ppm	■ 0	■ 0	■ 0	■ <1



WEAR METALS

Iron	ppm	■ 11	■ 9	■ 4	■ 4
Copper	ppm	■ 2	■ 1	■ <1	■ <1
Lead	ppm	■ 0	■ <1	■ 0	■ <1
Tin	ppm	■ <1	■ 0	■ 0	■ <1
Aluminum	ppm	■ <1	■ <1	■ 2	■ <1
Chromium	ppm	■ 0	■ <1	■ <1	■ <1
Molybdenum	ppm	■ 38	■ 39	■ 42	■ 40
Nickel	ppm	■ 0	■ 0	■ 0	■ 0
Titanium	ppm	<1	0	0	<1
Silver	ppm	■ 0	■ 0	<1	0
Manganese	ppm	■ <1	■ <1	■ <1	■ <1
Vanadium	ppm	<1	0	0	0



ADDITIVES

Calcium	ppm	■ 1454	■ 1567	■ 1759	■ 1814
Magnesium	ppm	■ 491	■ 458	■ 537	■ 501
Zinc	ppm	■ 989	■ 977	■ 1149	■ 1104
Phosphorus	ppm	■ 844	■ 775	■ 984	■ 996
Barium	ppm	■ 0	■ 0	■ 0	■ 0
Boron	ppm	■ 22	■ 14	■ 58	■ 37

Diagnosis

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor. All component wear rates are normal. Fuel content negligible. 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.

Depot: VOLVO0117
Unique No: 10565414
Signed: Don Baldrige
Report Date: 25 Jul 2023



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VOLVO GRAPHS

