



CONSTRUCTION EQUIPMENT

W05003850 VOLVO L220H 3377 - DIESEL ENGINE



Sample No: VCP419600
Oil Type: MOBIL 15W40
Job No: W05003850



SAMPLE INFORMATION

Sample Number	VCP419600	VCP419860	VCP384409	VCP386333
Sample Date	11 Sep 2023	14 Apr 2023	08 Jan 2023	27 Oct 2022
Machine Hours	2993	2174	1705	1108
Oil Hours	500	500	500	500
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	NORMAL	NORMAL	ABNORMAL	ABNORMAL

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OIL CONDITION

Visc @ 100°C	cSt	12.4	12.8	12.7	12.9
Base Number (BN)	mg KOH/g	6.1	7.3	3.6	9.5
Oxidation (PA)	%	69	61	70	66

Diagnosis

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 BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.



CONTAMINATION

Soot %	%	0.2	0.1	0.1	0.2
Nitration (PA)	%	70	57	93	68
Sulfation (PA)	%	61	57	67	59
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	6	6	7	7
Sodium	ppm	2	<1	<1	1
Potassium	ppm	0	0	2	2



WEAR METALS

Iron	ppm	9	4	6	6
Copper	ppm	4	6	34	175
Lead	ppm	<1	0	<1	<1
Tin	ppm	<1	<1	<1	1
Aluminum	ppm	1	<1	2	4
Chromium	ppm	0	<1	<1	<1
Molybdenum	ppm	121	113	111	51
Nickel	ppm	<1	<1	0	0
Titanium	ppm	0	<1	1	12
Silver	ppm	0	0	0	<1
Manganese	ppm	<1	1	<1	<1
Vanadium	ppm	<1	0	0	<1



ADDITIVES

Calcium	ppm	1525	1457	1530	1309
Magnesium	ppm	630	627	614	671
Zinc	ppm	839	833	897	1136
Phosphorus	ppm	694	667	740	947
Barium	ppm	0	0	0	0
Boron	ppm	233	290	288	31

Depot: VOLVO0002
Unique No: 10673378
Signed: Don Baldrige
Report Date: 04 Oct 2023



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VOLVO GRAPHS

