



CONSTRUCTION EQUIPMENT

W02007292 VOLVO EC35D 314263 - DIESEL ENGINE



Sample No: VCP418024
Oil Type: MOBIL 15W40
Job No: W02007292



SAMPLE INFORMATION

Sample Number	VCP418024	VCP390786	VCP377287	VCP319131
Sample Date	07 Jul 2023	24 Jan 2023	04 Aug 2022	03 Nov 2021
Machine Hours	2458	1954	1447	536
Oil Hours	500	500	500	536
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	ATTENTION	ATTENTION	ATTENTION	ATTENTION

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OIL CONDITION

Visc @ 100°C	cSt	▲ 11.6	▲ 11.5	▲ 12.0	▲ 10.8
Base Number (BN)	mg KOH/g	■ 8.2	■ 8.7	■ 9.4	---
Oxidation (PA)	%	71	66	72	83

Diagnosis

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. 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	■ 0.1	■ 0.1
Nitration (PA)	%	68	68	67	60
Sulfation (PA)	%	63	55	68	61
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	■ 0.7
Silicon	ppm	■ 4	■ 4	■ 9	■ 21
Sodium	ppm	■ 1	■ <1	■ 2	■ 2
Potassium	ppm	■ 1	■ 0	■ 4	■ 6



WEAR METALS

Iron	ppm	■ 0	■ 5	■ 0	■ 12
Copper	ppm	■ <1	■ 2	■ 2	■ 22
Lead	ppm	■ <1	■ <1	■ 1	■ <1
Tin	ppm	■ 0	■ 1	■ 2	■ <1
Aluminum	ppm	■ 6	■ <1	■ 2	■ 4
Chromium	ppm	■ 0	■ <1	■ <1	■ <1
Molybdenum	ppm	124	■ 58	■ 122	■ 34
Nickel	ppm	■ 0	■ 0	■ <1	■ <1
Titanium	ppm	0	0	<1	<1
Silver	ppm	■ 0	■ 0	0	0
Manganese	ppm	■ 0	■ <1	■ <1	■ 3
Vanadium	ppm	0	0	0	0



ADDITIVES

Calcium	ppm	■ 1802	■ 1397	■ 1400	■ 1747
Magnesium	ppm	■ 763	■ 666	■ 611	■ 435
Zinc	ppm	■ 1040	■ 1080	■ 818	■ 1003
Phosphorus	ppm	■ 880	■ 899	■ 670	■ 851
Barium	ppm	13	■ 0	■ 0	■ 0
Boron	ppm	■ 293	■ 36	■ 284	■ 34

Depot: VOLVO0002
Unique No: 10551657
Signed: Don Baldrige
Report Date: 13 Jul 2023



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GRAPHS

