



CONSTRUCTION EQUIPMENT

SPM565866 VOLVO EC380EL 310775 - DIESEL ENGINE



Sample No: VCP382782
Oil Type: DIESEL ENGINE OIL SAE 15W40
Job No: SPM565866



SAMPLE INFORMATION

Sample Number	VCP382782	VCP421922	VCP383232	VCP387488
Sample Date	10 Jul 2023	26 Apr 2023	22 Feb 2023	16 Nov 2022
Machine Hours	21778	21313	20570	19763
Oil Hours	0	0	0	0
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	NORMAL	NORMAL	ABNORMAL	NORMAL

UNITED SCRAP

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OIL CONDITION

Visc @ 100°C	cSt	12.5	12.4	12.5	12.4
Base Number (BN)	mg KOH/g	6.4	5.6	5.3	8.0
Oxidation (PA)	%	88	77	86	84

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 suitable for further service.



CONTAMINATION

Water	%	---	---	▲ 0.155	---
Soot %	%	■ 0.1	■ 0.1	■ 0.1	■ 0.1
Nitration (PA)	%	■ 83	78	97	79
Sulfation (PA)	%	■ 64	56	69	64
Glycol	%	■ NEG	NEG	NEG	NEG
Fuel	%	■ <1.0	<1.0	<1.0	<1.0
Silicon	ppm	■ 7	■ 6	■ 7	■ 9
Sodium	ppm	■ 3	■ 2	■ 0	■ 0
Potassium	ppm	■ 0	■ <1	■ 4	■ 2



WEAR METALS

Iron	ppm	■ 7	■ 7	■ 11	■ 8
Copper	ppm	■ <1	■ <1	■ 3	■ 4
Lead	ppm	■ 0	■ 0	■ 2	■ 1
Tin	ppm	■ <1	■ <1	■ 1	■ 1
Aluminum	ppm	■ <1	■ <1	■ 2	■ 2
Chromium	ppm	■ 0	■ 0	■ 0	■ <1
Molybdenum	ppm	■ 60	■ 60	■ 63	■ 58
Nickel	ppm	■ 0	■ 0	■ 0	■ 0
Titanium	ppm	■ <1	■ 0	■ <1	■ 0
Silver	ppm	■ 0	■ 0	■ 0	■ <1
Manganese	ppm	■ <1	■ <1	■ <1	■ <1
Vanadium	ppm	■ <1	0	0	<1



ADDITIVES

Calcium	ppm	■ 1208	■ 1192	■ 1164	■ 1224
Magnesium	ppm	■ 972	■ 992	■ 878	■ 829
Zinc	ppm	■ 1245	■ 1348	■ 1195	■ 1216
Phosphorus	ppm	■ 1027	■ 1040	■ 946	■ 1014
Barium	ppm	■ 0	■ 0	■ 0	■ 2
Boron	ppm	■ 6	■ 3	■ <1	■ 6

Depot: UNICICIL
Unique No: 10573985
Signed: Wes Davis
Report Date: 27 Jul 2023



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GRAPHS

