



CONSTRUCTION EQUIPMENT

SPM580157 VOLVO EC380E 315082 - DIESEL ENGINE



Sample No: VCP420645
Oil Type: DIESEL ENGINE OIL SAE 15W40
Job No: SPM580157



SAMPLE INFORMATION

Sample Number	VCP420645	VCP418538	VCP405711	VCP387435
Sample Date	13 Jul 2023	02 May 2023	16 Mar 2023	11 Jan 2023
Machine Hours	3213	2700	2412	2708
Oil Hours	0	0	0	0
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	ATTENTION	ATTENTION	ATTENTION	ATTENTION

UNITED SCRAP

1545 S CICERO AVE
 CICERO, IL
 US 60804
 Contact: RON LUCHTENBURG
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OIL CONDITION

Visc @ 100°C	cSt	▲ 12.1	▲ 12.3	▲ 12.1	▲ 10.1
Base Number (BN)	mg KOH/g	■ 8.2	■ 8.9	■ 7.8	■ 8.2
Oxidation (PA)	%	65	61	64	75

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)	%	63	55	69	80
Sulfation (PA)	%	55	53	55	58
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	■ 0.4	<1.0
Silicon	ppm	■ 5	■ 4	■ 4	■ 4
Sodium	ppm	■ 3	■ 2	■ 2	■ 1
Potassium	ppm	■ 0	■ <1	■ 0	■ 0



WEAR METALS

Iron	ppm	■ 8	■ 5	■ 5	■ 5
Copper	ppm	■ 3	■ 2	■ 8	■ 2
Lead	ppm	■ 0	■ 0	■ 0	■ 1
Tin	ppm	■ 0	■ <1	■ 0	■ <1
Aluminum	ppm	■ <1	■ <1	■ <1	■ <1
Chromium	ppm	■ <1	■ 0	■ 0	■ <1
Molybdenum	ppm	■ 62	■ 60	■ 55	■ 60
Nickel	ppm	■ 0	■ 0	■ 0	■ 0
Titanium	ppm	■ <1	■ 0	■ 0	■ 0
Silver	ppm	■ 0	■ 0	■ 0	■ 0
Manganese	ppm	■ <1	■ 0	■ <1	■ <1
Vanadium	ppm	<1	0	0	0



ADDITIVES

Calcium	ppm	■ 1152	■ 1131	■ 1101	■ 1156
Magnesium	ppm	■ 1007	■ 1008	■ 843	■ 932
Zinc	ppm	■ 1267	■ 1300	■ 1104	■ 1251
Phosphorus	ppm	■ 1061	■ 1052	■ 922	■ 1000
Barium	ppm	■ 0	■ 0	■ 0	■ 0
Boron	ppm	■ 3	■ 0	■ 3	■ 2

Depot: UNICICIL
Unique No: 10573981
Signed: Don Baldrige
Report Date: 27 Jul 2023



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GRAPHS

