



CONSTRUCTION EQUIPMENT

SW-24421-2 CASTLE VA VOLVO EC350EL 310786 - DIESEL ENGINE



Sample No: VCP432504
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No: SW-24421-2 CASTLE VA



SAMPLE INFORMATION

Sample Number	VCP432504	VCP419289	VCP400933	VCP383484
Sample Date	20 Sep 2023	06 Jul 2023	20 Apr 2023	06 Jan 2023
Machine Hours	7914	7380	6846	6328
Oil Hours	520	540	518	460
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

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OIL CONDITION

Visc @ 100°C	cSt	12.3	12.3	12.3	12.5
Base Number (BN)	mg KOH/g	8.4	8.9	8.4	9.2
Oxidation (PA)	%	65	62	60	65

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 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 %	%	0.1	0.2	0.2	0.1
Nitration (PA)	%	63	63	66	65
Sulfation (PA)	%	55	53	52	54
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	3	3	4	4
Sodium	ppm	1	2	2	<1
Potassium	ppm	1	<1	<1	0



WEAR METALS

Iron	ppm	3	5	6	4
Copper	ppm	<1	2	2	1
Lead	ppm	<1	<1	0	<1
Tin	ppm	0	<1	0	<1
Aluminum	ppm	<1	<1	<1	<1
Chromium	ppm	0	<1	0	<1
Molybdenum	ppm	60	63	67	53
Nickel	ppm	0	0	0	<1
Titanium	ppm	0	0	0	0
Silver	ppm	0	0	0	0
Manganese	ppm	0	<1	<1	<1
Vanadium	ppm	0	0	0	0



ADDITIVES

Calcium	ppm	1132	1201	1181	1218
Magnesium	ppm	1034	1005	1008	821
Zinc	ppm	1312	1346	1316	1125
Phosphorus	ppm	1052	1089	1023	903
Barium	ppm	0	0	0	0
Boron	ppm	1	7	9	9

Depot: VOLVO8770
Unique No: 10669726
Signed: Sean Felton
Report Date: 29 Sep 2023



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GRAPHS

