



CONSTRUCTION EQUIPMENT

23-04 VOLVO A45G 342634 - DIESEL ENGINE



Sample No: VCP217327
Oil Type: DIESEL ENGINE OIL SAE 40
Job No: 23-04



SAMPLE INFORMATION

Sample Number	VCP217327	VCP149476	VCP216303	VCP150388
Sample Date	05 Jun 2024	18 Oct 2023	16 Jun 2022	15 Feb 2022
Machine Hours	3519	3010	1946	1517
Oil Hours	509	606	429	515
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

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OIL CONDITION

Visc @ 100°C	cSt	12.4	12.3	13.0	12.6
Base Number (BN)	mg KOH/g	8.3	7.1	7.0	7.2
Oxidation (PA)	%	52	52	41	47



CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Soot %	%	0.3	0.4	0.3	0.4
Nitration (PA)	%	62	68	64	70
Sulfation (PA)	%	51	53	52	57
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	0.6	<1.0	<1.0
Silicon	ppm	5	4	4	5
Sodium	ppm	1	<1	1	2
Potassium	ppm	2	2	0	0



WEAR METALS

Iron	ppm	13	16	11	16
Copper	ppm	3	6	27	93
Lead	ppm	<1	<1	1	5
Tin	ppm	1	<1	1	1
Aluminum	ppm	2	3	2	2
Chromium	ppm	<1	<1	<1	<1
Molybdenum	ppm	55	41	6	10
Nickel	ppm	2	2	1	<1
Titanium	ppm	<1	<1	<1	<1
Silver	ppm	<1	0	0	0
Manganese	ppm	<1	0	<1	<1
Vanadium	ppm	<1	<1	0	0



ADDITIVES

Calcium	ppm	1244	1569	2244	2368
Magnesium	ppm	761	565	81	148
Zinc	ppm	1148	1155	994	1043
Phosphorus	ppm	952	976	818	951
Barium	ppm	<1	7	0	0
Boron	ppm	5	4	5	4

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.

Depot: GLOPLE
Unique No: 11085934
Signed: Wes Davis
Report Date: 19 Jun 2024



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GRAPHS

