



CONSTRUCTION EQUIPMENT

VOLVO A45G 79 (S/N 342558) - DIESEL ENGINE



Sample No: VCP423719
Oil Type: SHELL ROTELLA T 15W40
Job No:



SAMPLE INFORMATION

Sample Number	VCP423719	VCP397444	VCP324499	VCP294494
Sample Date	01 Jun 2023	04 Feb 2023	25 Apr 2022	03 Aug 2021
Machine Hours	0	10737	0	7401
Oil Hours	0	0	0	0
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	NORMAL	NORMAL	ABNORMAL	NORMAL

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OIL CONDITION

Visc @ 100°C	cSt	12.9	13.5	12.7	12.2
Base Number (BN)	mg KOH/g	6.1	7.5	11.4	---
Oxidation (PA)	%	78	87	76	55

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 acceptable for the time in service.



CONTAMINATION

Soot %	%	1.6	1.2	0.5	0.4
Nitration (PA)	%	101	94	65	74
Sulfation (PA)	%	73	70	65	67
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	5	5	4	2
Sodium	ppm	10	9	26	64
Potassium	ppm	13	14	62	23



WEAR METALS

Iron	ppm	33	23	9	14
Copper	ppm	5	12	11	3
Lead	ppm	4	3	1	1
Tin	ppm	<1	<1	<1	<1
Aluminum	ppm	13	8	2	3
Chromium	ppm	2	1	<1	<1
Molybdenum	ppm	64	46	48	43
Nickel	ppm	5	3	2	<1
Titanium	ppm	<1	0	0	0
Silver	ppm	0	0	0	0
Manganese	ppm	<1	<1	<1	<1
Vanadium	ppm	<1	0	0	0



ADDITIVES

Calcium	ppm	1791	1668	1751	1757
Magnesium	ppm	368	477	536	419
Zinc	ppm	1231	1116	1087	1125
Phosphorus	ppm	1069	863	972	929
Barium	ppm	0	0	0	0
Boron	ppm	18	17	47	23

Depot: JMHMAR
Unique No: 10713541
Signed: Don Baldrige
Report Date: 30 Oct 2023



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GRAPHS

