



CONSTRUCTION EQUIPMENT

VOLVO A40F 12386 - DIESEL ENGINE



Sample No: VCP331517
Oil Type: MOBIL 15W40
Job No:



SAMPLE INFORMATION

Sample Number	VCP331517	VCP362810	VCP393270	VCP402928
Sample Date	05 Feb 2024	19 Oct 2023	29 Aug 2023	19 Jul 2023
Machine Hours	12336	11856	11652	11382
Oil Hours	480	204	270	251
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

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OIL CONDITION

Visc @ 100°C	cSt	12.5	13.0	12.6	12.7
Base Number (BN)	mg KOH/g	6.7	8.7	9.7	10.7
Oxidation (PA)	%	59	68	75	78

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

Water	%	NEG	NEG	NEG	NEG
Soot %	%	0.5	0.3	0.4	0.4
Nitration (PA)	%	76	55	50	49
Sulfation (PA)	%	51	56	59	61
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	13	10	9	9
Sodium	ppm	5	5	4	11
Potassium	ppm	3	3	1	15



WEAR METALS

Iron	ppm	9	6	5	6
Copper	ppm	1	<1	<1	<1
Lead	ppm	<1	0	<1	<1
Tin	ppm	<1	<1	<1	<1
Aluminum	ppm	7	5	3	3
Chromium	ppm	<1	<1	0	0
Molybdenum	ppm	115	78	39	43
Nickel	ppm	1	<1	0	<1
Titanium	ppm	<1	<1	<1	<1
Silver	ppm	0	0	0	0
Manganese	ppm	<1	0	<1	<1
Vanadium	ppm	<1	<1	0	0



ADDITIVES

Calcium	ppm	1144	1440	1661	1663
Magnesium	ppm	600	575	530	482
Zinc	ppm	827	903	908	889
Phosphorus	ppm	658	749	779	761
Barium	ppm	34	<1	0	2
Boron	ppm	95	78	41	46

Depot: SCHGRE
Unique No: 10898196
Signed: Don Baldrige
Report Date: 27 Feb 2024



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VOLVO GRAPHS

