



CONSTRUCTION EQUIPMENT

A12261 VOLVO L110H 632554 - DIESEL ENGINE



Sample No: VCP407251
Oil Type: MOBIL 15W40
Job No: A12261



SAMPLE INFORMATION

Sample Number	VCP407251	VCP432250	VCP425919	VCP421956
Sample Date	16 Mar 2024	20 Dec 2023	06 Oct 2023	23 Jun 2023
Machine Hours	2725	2100	1475	610
Oil Hours	500	500	500	610
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	NORMAL	NORMAL	ABNORMAL	ABNORMAL

HMR ASSOCIATES
 PO BOX 485
 TOUGHKENAMON, PA
 US 19374
 Contact: SERVICE MANAGER



OIL CONDITION

Visc @ 100°C	cSt	13.3	13.1	13.3	12.4
Base Number (BN)	mg KOH/g	6.4	6.3	5.6	9.8
Oxidation (PA)	%	46	47	55	77

T:
 F: (610)268-2225

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.



CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Soot %	%	0.3	0.3	0.5	0.3
Nitration (PA)	%	62	58	64	59
Sulfation (PA)	%	51	51	54	61
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	5	4	6	12
Sodium	ppm	2	1	<1	6
Potassium	ppm	2	1	2	4



WEAR METALS

Iron	ppm	11	11	25	34
Copper	ppm	2	5	▲ 24	14
Lead	ppm	<1	0	<1	2
Tin	ppm	1	1	2	3
Aluminum	ppm	4	4	5	▲ 57
Chromium	ppm	<1	<1	1	4
Molybdenum	ppm	8	13	23	44
Nickel	ppm	<1	0	<1	0
Titanium	ppm	1	<1	<1	<1
Silver	ppm	0	<1	<1	<1
Manganese	ppm	<1	<1	<1	2
Vanadium	ppm	<1	0	0	0



ADDITIVES

Calcium	ppm	2181	2033	1824	1640
Magnesium	ppm	90	178	272	683
Zinc	ppm	1078	1098	1050	1222
Phosphorus	ppm	895	917	847	1005
Barium	ppm	0	0	3	0
Boron	ppm	5	6	5	46

Depot: HMRTOU
Unique No: 10937580
Signed: Wes Davis
Report Date: 21 Mar 2024



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GRAPHS

