



CONSTRUCTION EQUIPMENT

A10552 VOLVO L110H 632441 - DIESEL ENGINE



Sample No: VCP404459
Oil Type: MOBIL 15W40
Job No: A10552



SAMPLE INFORMATION

Sample Number	VCP404459	VCP404047	VCP399152	---
Sample Date	23 Jun 2023	05 Apr 2023	13 Jan 2023	---
Machine Hours	1800	1280	680	---
Oil Hours	500	500	500	---
Oil Changed	Changed	Changed	Changed	---
Sample Status	NORMAL	ABNORMAL	ABNORMAL	---

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



OIL CONDITION

Visc @ 100°C	cSt	13.5	13.5	12.7	---
Base Number (BN)	mg KOH/g	7.1	7.6	10.0	---
Oxidation (PA)	%	47	52	73	---

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

Soot %	%	0.2	0.2	0.2	---
Nitration (PA)	%	63	62	59	---
Sulfation (PA)	%	51	51	58	---
Glycol	%	NEG	NEG	NEG	---
Fuel	%	<1.0	<1.0	<1.0	---
Silicon	ppm	4	5	13	---
Sodium	ppm	2	2	4	---
Potassium	ppm	2	0	2	---



WEAR METALS

Iron	ppm	12	15	29	---
Copper	ppm	4	6	10	---
Lead	ppm	0	0	3	---
Tin	ppm	<1	<1	3	---
Aluminum	ppm	3	▲ 12	▲ 73	---
Chromium	ppm	<1	<1	5	---
Molybdenum	ppm	15	29	39	---
Nickel	ppm	0	0	<1	---
Titanium	ppm	<1	<1	<1	---
Silver	ppm	0	0	<1	---
Manganese	ppm	0	<1	2	---
Vanadium	ppm	0	0	0	---



ADDITIVES

Calcium	ppm	2246	1743	1499	---
Magnesium	ppm	177	418	636	---
Zinc	ppm	1168	1082	1133	---
Phosphorus	ppm	939	907	942	---
Barium	ppm	0	0	4	---
Boron	ppm	4	8	43	---

Depot: HMRTOU
Unique No: 10536809
Signed: Wes Davis
Report Date: 02 Jul 2023



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GRAPHS

