



CONSTRUCTION EQUIPMENT

A10550 VOLVO L110H 632554 - DIESEL ENGINE



Sample No: VCP421956
Oil Type: MOBIL 15W40
Job No: A10550



SAMPLE INFORMATION

Sample Number	VCP421956	---	---	---
Sample Date	23 Jun 2023	---	---	---
Machine Hours	610	---	---	---
Oil Hours	610	---	---	---
Oil Changed	Changed	---	---	---
Sample Status	ABNORMAL	---	---	---

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



OIL CONDITION

Visc @ 100°C	cSt	█ 12.4	---	---	---
Base Number (BN)	mg KOH/g	█ 9.8	---	---	---
Oxidation (PA)	%	77	---	---	---

T:
 F: (610)268-2225

Diagnosis

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. The aluminum level is abnormal. All other metal levels are typical for a new component breaking in. 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 %	%	█ 0.3	---	---	---
Nitration (PA)	%	59	---	---	---
Sulfation (PA)	%	61	---	---	---
Glycol	%	NEG	---	---	---
Fuel	%	<1.0	---	---	---
Silicon	ppm	█ 12	---	---	---
Sodium	ppm	█ 6	---	---	---
Potassium	ppm	█ 4	---	---	---



WEAR METALS

Iron	ppm	█ 34	---	---	---
Copper	ppm	█ 14	---	---	---
Lead	ppm	█ 2	---	---	---
Tin	ppm	█ 3	---	---	---
Aluminum	ppm	▲ 57	---	---	---
Chromium	ppm	█ 4	---	---	---
Molybdenum	ppm	█ 44	---	---	---
Nickel	ppm	█ 0	---	---	---
Titanium	ppm	<1	---	---	---
Silver	ppm	█ <1	---	---	---
Manganese	ppm	█ 2	---	---	---
Vanadium	ppm	0	---	---	---



ADDITIVES

Calcium	ppm	█ 1640	---	---	---
Magnesium	ppm	█ 683	---	---	---
Zinc	ppm	█ 1222	---	---	---
Phosphorus	ppm	█ 1005	---	---	---
Barium	ppm	█ 0	---	---	---
Boron	ppm	█ 46	---	---	---

Depot: HMRTOU
Unique No: 10536803
Signed: Jonathan Hester
Report Date: 03 Jul 2023



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GRAPHS

