



CONSTRUCTION EQUIPMENT

SWA399456 VOLVO A40 353380 - DIESEL ENGINE



Sample No: VCP393320
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No: SWA399456



SAMPLE INFORMATION

Sample Number	VCP393320	VCP435463	---	---
Sample Date	31 Oct 2023	11 Sep 2023	---	---
Machine Hours	733	554	---	---
Oil Hours	0	554	---	---
Oil Changed	Changed	Changed	---	---
Sample Status	SEVERE	ABNORMAL	---	---

ALTA EQUIPMENT COMPANY - METRO WEST
 56195 PONTIAC TRAIL
 NEW HUDSON, MI
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OIL CONDITION

Visc @ 100°C	cSt	█ 12.9	▲ 11.0	---	---
Base Number (BN)	mg KOH/g	█ 9.9	█ 5.7	---	---
Oxidation (PA)	%	66	57	---	---



CONTAMINATION

Soot %	%	█ 0.1	█ 0.2	---	---
Nitration (PA)	%	46	79	---	---
Sulfation (PA)	%	55	53	---	---
Glycol	%	█ 0.20	█ 0.0	---	---
Fuel	%	<1.0	█ 0.6	---	---
Silicon	ppm	█ 8	█ 33	---	---
Sodium	ppm	▲ 63	█ 4	---	---
Potassium	ppm	█ 3	█ 4	---	---

Diagnosis

We advise that you check for the source of the coolant leak. Check for low coolant level. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition. The copper level is abnormal. Sodium and/or potassium levels are high. Test for glycol is positive. The BN result indicates that there is suitable alkalinity remaining in the oil.



WEAR METALS

Iron	ppm	█ 6	█ 20	---	---
Copper	ppm	▲ 67	▲ 278	---	---
Lead	ppm	█ <1	█ 1	---	---
Tin	ppm	█ 0	█ 3	---	---
Aluminum	ppm	█ <1	█ 6	---	---
Chromium	ppm	█ <1	█ <1	---	---
Molybdenum	ppm	█ 53	█ 90	---	---
Nickel	ppm	█ 2	█ 2	---	---
Titanium	ppm	0	0	---	---
Silver	ppm	█ 0	█ 0	---	---
Manganese	ppm	█ <1	█ 4	---	---
Vanadium	ppm	0	0	---	---



ADDITIVES

Calcium	ppm	█ 1371	█ 2303	---	---
Magnesium	ppm	█ 638	19	---	---
Zinc	ppm	█ 1051	█ 1316	---	---
Phosphorus	ppm	█ 873	█ 1073	---	---
Barium	ppm	█ 0	█ 0	---	---
Boron	ppm	█ 30	█ 50	---	---

Depot: VOLVO2990
Unique No: 10724884
Signed: Jonathan Hester
Report Date: 08 Nov 2023



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GRAPHS

