



CONSTRUCTION EQUIPMENT

VOLVO L150H 6991 - DIESEL ENGINE



Sample No: VCP449230
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No:



SAMPLE INFORMATION

Sample Number	VCP449230	VCP385825	VCP372233	---
Sample Date	11 Jan 2024	28 Nov 2022	04 Jun 2022	---
Machine Hours	2001	1459	991	---
Oil Hours	0	500	500	---
Oil Changed	N/A	Changed	Changed	---
Sample Status	ABNORMAL	ABNORMAL	ABNORMAL	---

RIPA AND ASSOCIATES

10149 FISHER AVENUE
TAMPA, FL
US 33619
Contact: PM Services
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T:
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OIL CONDITION

Visc @ 100°C	cSt	▲ 12.0	■ 12.8	▲ 11.4	---
Base Number (BN)	mg KOH/g	■ 8.5	■ 9.5	■ 7.2	---
Oxidation (PA)	%	80	65	73	---

Diagnosis

No corrective action is recommended at this time. Resample at the next service interval to monitor. The copper level is abnormal. All other component wear rates are normal. Fuel content negligible. There is no indication of any contamination in the oil. The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.



CONTAMINATION

Water	%	NEG	NEG	NEG	---
Soot %	%	■ 0.2	■ 0.3	■ 0.4	---
Nitration (PA)	%	67	68	78	---
Sulfation (PA)	%	63	61	61	---
Glycol	%	NEG	NEG	NEG	---
Fuel	%	■ 0.6	<1.0	■ 1.0	---
Silicon	ppm	■ 4	■ 5	■ 18	---
Sodium	ppm	■ 0	■ 2	■ 1	---
Potassium	ppm	■ 3	■ 2	■ 3	---



WEAR METALS

Iron	ppm	■ 8	■ 8	■ 24	---
Copper	ppm	▲ 71	▲ 67	▲ 268	---
Lead	ppm	■ 0	■ <1	■ 4	---
Tin	ppm	■ <1	■ 2	■ 4	---
Aluminum	ppm	■ 2	■ 0	■ 3	---
Chromium	ppm	■ <1	■ <1	■ <1	---
Molybdenum	ppm	103	■ 62	■ 55	---
Nickel	ppm	■ <1	■ 0	■ 2	---
Titanium	ppm	0	0	0	---
Silver	ppm	■ 0	■ 0	<1	---
Manganese	ppm	■ 0	■ <1	■ 2	---
Vanadium	ppm	0	0	0	---



ADDITIVES

Calcium	ppm	■ 1490	■ 1188	■ 1692	---
Magnesium	ppm	■ 558	■ 904	■ 404	---
Zinc	ppm	■ 1128	■ 1288	■ 1100	---
Phosphorus	ppm	■ 812	■ 1072	■ 902	---
Barium	ppm	■ 5	■ 0	■ 0	---
Boron	ppm	■ 39	■ 4	■ 55	---

Depot: RIPTAM
Unique No: 10863262
Signed: Don Baldrige
Report Date: 08 Feb 2024



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GRAPHS

