



CONSTRUCTION EQUIPMENT

VOLVO EC350EL 310454 - DIESEL ENGINE



Sample No: VCP435913
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No:



SAMPLE INFORMATION

Sample Number	VCP435913	VCP346654	VCP321741	---
Sample Date	11 Dec 2023	28 Jan 2022	10 Sep 2021	---
Machine Hours	4889	3378	2815	---
Oil Hours	533	0	0	---
Oil Changed	Changed	Changed	N/A	---
Sample Status	ATTENTION	ATTENTION	NORMAL	---

VCES- VOLVO CONSTRUCTION EQUIPMENT
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OIL CONDITION

Visc @ 100°C	cSt	▲ 12.1	▲ 12.3	■ 12.5	---
Base Number (BN)	mg KOH/g	■ 9.1	■ 10.0	---	---
Oxidation (PA)	%	85	90	84	---

Diagnosis

Oil and filter change at the time of sampling has been noted. 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 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 %	%	■ 0.1	■ 0.1	■ 0.1	---
Nitration (PA)	%	61	70	56	---
Sulfation (PA)	%	61	66	63	---
Glycol	%	NEG	NEG	NEG	---
Fuel	%	<1.0	■ 1.6	<1.0	---
Silicon	ppm	■ 6	■ 5	■ 6	---
Sodium	ppm	■ 0	■ 0	■ 2	---
Potassium	ppm	■ 2	■ <1	■ 0	---



WEAR METALS

Iron	ppm	■ 4	■ 4	■ 3	---
Copper	ppm	■ 1	■ 1	■ 2	---
Lead	ppm	■ <1	■ <1	■ 0	---
Tin	ppm	■ <1	■ <1	■ 0	---
Aluminum	ppm	■ 2	■ 2	■ <1	---
Chromium	ppm	■ <1	■ <1	■ 0	---
Molybdenum	ppm	■ 39	■ 39	■ 38	---
Nickel	ppm	■ <1	■ 0	■ <1	---
Titanium	ppm	<1	■ <1	■ <1	---
Silver	ppm	■ 0	0	0	---
Manganese	ppm	■ <1	■ <1	■ <1	---
Vanadium	ppm	0	0	0	---



ADDITIVES

Calcium	ppm	■ 1649	■ 1666	■ 1732	---
Magnesium	ppm	■ 479	■ 510	■ 530	---
Zinc	ppm	■ 1091	■ 1025	■ 1035	---
Phosphorus	ppm	■ 953	■ 894	■ 939	---
Barium	ppm	■ 12	■ 0	■ 0	---
Boron	ppm	■ 36	■ 35	■ 44	---

Depot: VOLVO4486
Unique No: 10790348
Signed: Don Baldrige
Report Date: 18 Dec 2023



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GRAPHS

