



CONSTRUCTION EQUIPMENT

3039 VOLVO EC220EL 314926 - EC220EL - DIESEL ENGINE



Sample No: VCP434845
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No: 3039



SAMPLE INFORMATION

Sample Number	VCP434845	VCP401517	VCP384268	---
Sample Date	01 Jul 2024	22 Aug 2023	06 Feb 2023	---
Machine Hours	1575	1030	575	---
Oil Hours	0	0	575	---
Oil Changed	Changed	Changed	Changed	---
Sample Status	NORMAL	NORMAL	NORMAL	---

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OIL CONDITION

Visc @ 100°C	cSt	13.0	13.3	13.5	---
Base Number (BN)	mg KOH/g	10.0	9.9	6.7	---
Oxidation (PA)	%	88	89	61	---

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

Water	%	NEG	NEG	NEG	---
Soot %	%	0.1	0.1	0.1	---
Nitration (PA)	%	73	73	76	---
Sulfation (PA)	%	63	64	56	---
Glycol	%	NEG	NEG	NEG	---
Fuel	%	<1.0	<1.0	<1.0	---
Silicon	ppm	8	9	14	---
Sodium	ppm	3	4	3	---
Potassium	ppm	2	<1	2	---



WEAR METALS

Iron	ppm	25	32	82	---
Copper	ppm	2	2	8	---
Lead	ppm	0	0	1	---
Tin	ppm	1	1	2	---
Aluminum	ppm	3	2	3	---
Chromium	ppm	<1	2	3	---
Molybdenum	ppm	43	41	11	---
Nickel	ppm	<1	1	5	---
Titanium	ppm	0	0	0	---
Silver	ppm	0	0	0	---
Manganese	ppm	<1	1	4	---
Vanadium	ppm	0	0	0	---



ADDITIVES

Calcium	ppm	1911	1964	2130	---
Magnesium	ppm	530	550	164	---
Zinc	ppm	1233	1267	1045	---
Phosphorus	ppm	1044	1022	854	---
Barium	ppm	0	0	0	---
Boron	ppm	45	41	11	---

Depot: LEOMAD
Unique No: 11113286
Signed: Wes Davis
Report Date: 09 Jul 2024



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GRAPHS

