



CONSTRUCTION EQUIPMENT

SW-35752 CF OLSEN VOLVO EC 160EL 314098 - DIESEL ENGINE



Sample No: VCP454265
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No: SW-35752 CF OLSEN



SAMPLE INFORMATION

Sample Number	VCP454265	VCP345571	VCP299743	---
Sample Date	12 Jun 2024	08 Jul 2022	09 Dec 2021	---
Machine Hours	1717	605	792	---
Oil Hours	480	605	600	---
Oil Changed	Changed	Changed	Changed	---
Sample Status	ABNORMAL	ABNORMAL	NORMAL	---

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OIL CONDITION

Visc @ 100°C	cSt	12.9	13.6	12.7	---
Base Number (BN)	mg KOH/g	10.8	10.8	10.6	---
Oxidation (PA)	%	83	76	80	---

Diagnosis

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor. The aluminum level is abnormal. All other 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 acceptable for the time in service.



CONTAMINATION

Water	%	NEG	NEG	NEG	---
Soot %	%	0.4	0.5	0.5	---
Nitration (PA)	%	71	76	70	---
Sulfation (PA)	%	61	63	61	---
Glycol	%	NEG	NEG	NEG	---
Fuel	%	<1.0	<1.0	<1.0	---
Silicon	ppm	10	25	13	---
Sodium	ppm	2	2	3	---
Potassium	ppm	2	2	2	---



WEAR METALS

Iron	ppm	47	79	35	---
Copper	ppm	2	23	4	---
Lead	ppm	<1	2	<1	---
Tin	ppm	1	4	2	---
Aluminum	ppm	29	38	7	---
Chromium	ppm	4	7	3	---
Molybdenum	ppm	51	2	37	---
Nickel	ppm	<1	2	4	---
Titanium	ppm	<1	<1	<1	---
Silver	ppm	0	<1	0	---
Manganese	ppm	<1	5	2	---
Vanadium	ppm	0	0	<1	---



ADDITIVES

Calcium	ppm	1784	2343	1799	---
Magnesium	ppm	572	79	463	---
Zinc	ppm	1176	1064	1142	---
Phosphorus	ppm	930	885	942	---
Barium	ppm	0	0	0	---
Boron	ppm	41	4	39	---

Depot: VOLVO8770
Unique No: 11089400
Signed: Sean Felton
Report Date: 24 Jun 2024



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GRAPHS

