



CONSTRUCTION EQUIPMENT

19593 VOLVO EC140 31556 - DIESEL ENGINE



Sample No: VCP434704
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No: 19593



SAMPLE INFORMATION

Sample Number	VCP434704	VCP412249	VCP381098	---
Sample Date	28 Sep 2023	23 Jul 2023	24 Feb 2023	---
Machine Hours	2743	2129	651	---
Oil Hours	614	0	0	---
Oil Changed	Changed	Changed	Changed	---
Sample Status	NORMAL	ABNORMAL	MARGINAL	---

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OIL CONDITION

Visc @ 100°C	cSt	12.9	12.8	12.4	---
Base Number (BN)	mg KOH/g	8.6	6.7	6.9	---
Oxidation (PA)	%	56	73	48	---

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 acceptable for the time in service.

CONTAMINATION

Soot %	%	0.2	0.3	0.1	---
Nitration (PA)	%	62	78	66	---
Sulfation (PA)	%	50	60	49	---
Glycol	%	NEG	NEG	NEG	---
Fuel	%	<1.0	<1.0	▲ 2.4	---
Silicon	ppm	17	▲ 28	15	---
Sodium	ppm	<1	2	<1	---
Potassium	ppm	1	<1	2	---

WEAR METALS

Iron	ppm	8	29	17	---
Copper	ppm	2	6	6	---
Lead	ppm	0	0	1	---
Tin	ppm	1	2	2	---
Aluminum	ppm	2	5	12	---
Chromium	ppm	<1	2	2	---
Molybdenum	ppm	44	54	3	---
Nickel	ppm	<1	<1	5	---
Titanium	ppm	24	13	18	---
Silver	ppm	0	0	0	---
Manganese	ppm	<1	1	3	---
Vanadium	ppm	<1	<1	0	---

ADDITIVES

Calcium	ppm	1291	1381	2243	---
Magnesium	ppm	854	922	162	---
Zinc	ppm	1301	1339	1094	---
Phosphorus	ppm	1092	1049	882	---
Barium	ppm	0	0	0	---
Boron	ppm	35	21	19	---

Depot: HILGREVC
Unique No: 10701638
Signed: Don Baldrige
Report Date: 21 Oct 2023



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GRAPHS

