



CONSTRUCTION EQUIPMENT

SW1028515 VOLVO EC220EL 314053 - DIESEL ENGINE



Sample No: VCP444482
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No: SW1028515



SAMPLE INFORMATION

Sample Number	VCP444482	VCP319105	VCP300109	VCP313993
Sample Date	06 Feb 2024	17 Sep 2021	25 May 2021	07 Apr 2021
Machine Hours	0	2358	1913	1869
Oil Hours	0	500	500	0
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

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OIL CONDITION

Visc @ 100°C	cSt	16.1	14.0	13.4	15.2
Base Number (BN)	mg KOH/g	7.4	---	---	---
Oxidation (PA)	%	127	96	67	112

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

Water	%	NEG	NEG	NEG	NEG
Soot %	%	1	0.5	0.2	1
Nitration (PA)	%	135	84	51	121
Sulfation (PA)	%	81	68	59	85
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	14	8	6	14
Sodium	ppm	4	2	3	6
Potassium	ppm	0	0	1	4



WEAR METALS

Iron	ppm	37	12	9	66
Copper	ppm	2	1	1	8
Lead	ppm	0	<1	1	3
Tin	ppm	1	<1	<1	3
Aluminum	ppm	10	6	2	10
Chromium	ppm	2	<1	<1	3
Molybdenum	ppm	57	44	50	12
Nickel	ppm	0	0	<1	3
Titanium	ppm	0	0	<1	<1
Silver	ppm	0	<1	<1	<1
Manganese	ppm	1	<1	<1	2
Vanadium	ppm	0	0	<1	<1



ADDITIVES

Calcium	ppm	1701	1700	1378	1861
Magnesium	ppm	856	567	816	607
Zinc	ppm	1376	1162	1246	1064
Phosphorus	ppm	1147	947	1032	841
Barium	ppm	0	0	0	0
Boron	ppm	19	28	32	24

Depot: VOLVO8770
Unique No: 10873263
Signed: Don Baldrige
Report Date: 13 Feb 2024



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GRAPHS

