



CONSTRUCTION EQUIPMENT

VOLVO EC220EL 310769 - DIESEL ENGINE



Sample No: VCP424052
Oil Type: VOLVO VDS-4.5 Premium Motor Oil 15W40
Job No:



SAMPLE INFORMATION

Sample Number	VCP424052	VCP306238	VCP385540	VCP323109
Sample Date	07 Nov 2023	15 Apr 2023	12 Jan 2023	26 Aug 2021
Machine Hours	7834	6569	6114	4369
Oil Hours	0	0	600	500
Oil Changed	N/A	N/A	Changed	Changed
Sample Status	ABNORMAL	NORMAL	NORMAL	NORMAL

ULSTER COUNTY RESOURCE RECOVERY AGENCY
 999 FLATBUSH AVE
 KINGSTON, NY
 US 12401
 Contact: CHARLES WHITTAKER
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 T: (845)399-2686
 F:

OIL CONDITION

Visc @ 100°C	cSt	▲ 11.6	■ 14.0	■ 15.2	■ 15.3
Base Number (BN)	mg KOH/g	■ 6.7	■ 8.1	■ 6.5	---
Oxidation (PA)	%	100	110	111	119

Diagnosis

CONTAMINATION

Soot %	%	■ 0.2	■ 0.1	■ 0.2	■ 0.2
Nitration (PA)	%	77	91	98	103
Sulfation (PA)	%	70	71	73	72
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	■ 0.2	<1.0	<1.0	<1.0
Silicon	ppm	■ 21	■ 11	■ 18	■ 17
Sodium	ppm	■ <1	■ 3	■ 3	■ 4
Potassium	ppm	■ 2	■ <1	■ <1	■ <1

WEAR METALS

Iron	ppm	■ 14	■ 14	■ 23	■ 23
Copper	ppm	■ 4	■ 1	■ 3	■ 2
Lead	ppm	■ <1	■ 0	■ 2	■ 2
Tin	ppm	■ 0	■ <1	■ 1	■ 1
Aluminum	ppm	■ 3	■ 3	■ 4	■ 3
Chromium	ppm	■ 3	■ 1	■ 2	■ 2
Molybdenum	ppm	■ 38	■ 51	■ 74	■ 49
Nickel	ppm	■ 0	■ <1	■ <1	■ 1
Titanium	ppm	0	0	0	<1
Silver	ppm	■ 0	■ 0	■ 0	0
Manganese	ppm	■ 0	■ <1	■ <1	■ <1
Vanadium	ppm	0	0	0	0

ADDITIVES

Calcium	ppm	■ 1496	■ 1845	■ 1688	■ 1802
Magnesium	ppm	■ 427	■ 589	873	■ 646
Zinc	ppm	■ 1064	■ 1249	■ 1437	■ 1041
Phosphorus	ppm	■ 776	■ 980	■ 1113	■ 847
Barium	ppm	■ 0	■ 0	■ 0	■ <1
Boron	ppm	■ 18	■ 42	■ 50	■ 36

Depot: ULSKIN
Unique No: 10735823
Signed: Angela Borella
Report Date: 10 Nov 2023



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VOLVO GRAPHS

