



CONSTRUCTION EQUIPMENT

SWA559244 VOLVO EC220E 314027 - DIESEL ENGINE



Sample No: VCP416992
Oil Type: VOLVO VDS-4.5 Premium Motor Oil 15W40
Job No: SWA559244



SAMPLE INFORMATION

Sample Number	VCP416992	VCP424006	VCP404692	VCP323031
Sample Date	05 Jun 2024	30 Oct 2023	27 Apr 2023	21 Sep 2021
Machine Hours	8200	7650	6997	4100
Oil Hours	500	0	700	500
Oil Changed	Changed	N/A	Changed	Changed
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

ULSTER COUNTY RESOURCE RECOVERY AGENCY
 999 FLATBUSH AVE
 KINGSTON, NY
 US 12401
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OIL CONDITION

Visc @ 100°C	cSt	13.7	13.5	13.6	13.3
Base Number (BN)	mg KOH/g	9.4	8.9	8.7	---
Oxidation (PA)	%	92	96	88	90

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 %	%	0.2	0.2	0.2	0.2
Nitration (PA)	%	83	80	78	67
Sulfation (PA)	%	62	64	58	62
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	14	20	13	20
Sodium	ppm	4	2	3	3
Potassium	ppm	<1	0	1	0



WEAR METALS

Iron	ppm	15	17	12	8
Copper	ppm	1	<1	<1	<1
Lead	ppm	2	0	0	<1
Tin	ppm	<1	<1	0	<1
Aluminum	ppm	11	12	7	10
Chromium	ppm	1	1	2	<1
Molybdenum	ppm	51	43	48	45
Nickel	ppm	<1	<1	<1	<1
Titanium	ppm	<1	<1	<1	0
Silver	ppm	0	0	0	<1
Manganese	ppm	<1	<1	<1	<1
Vanadium	ppm	<1	0	0	0



ADDITIVES

Calcium	ppm	1932	1786	1708	1867
Magnesium	ppm	593	576	561	573
Zinc	ppm	1240	1255	1184	1033
Phosphorus	ppm	1055	1032	930	848
Barium	ppm	0	0	0	0
Boron	ppm	33	27	35	28

Depot: ULSKIN
Unique No: 11071690
Signed: Sean Felton
Report Date: 12 Jun 2024



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GRAPHS

