



CONSTRUCTION EQUIPMENT

728449 VOLVO EC480 3 14300 - DIESEL ENGINE



Sample No: VCP439825
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No: 728449



SAMPLE INFORMATION

Sample Number	VCP439825	VCP395899	VCP418985	VCP357328
Sample Date	20 Jun 2024	05 Jun 2023	08 May 2023	27 May 2022
Machine Hours	6215	5483	5393	4025
Oil Hours	0	100	0	0
Oil Changed	Changed	Not Chngd	Changed	Changed
Sample Status	ABNORMAL	ATTENTION	NORMAL	NORMAL

FIVE STONES MINE
 MORNING STAR FARM RD
 CANAL POINT, FL
 US 33430
 Contact: Service Manager

OIL CONDITION

Visc @ 100°C	cSt	11.6	12.4	12.1	12.5
Base Number (BN)	mg KOH/g	7.3	9.8	7.0	8.7
Oxidation (PA)	%	88	84	88	67

T:
F:

CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Soot %	%	0.1	0.1	0.1	0.4
Nitration (PA)	%	81	48	90	78
Sulfation (PA)	%	62	61	63	58
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	0.2	<1.0	1.6	<1.0
Silicon	ppm	25	5	6	6
Sodium	ppm	1	2	3	2
Potassium	ppm	4	2	<1	1

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 copper level is abnormal. All other component wear rates are normal. Fuel content negligible. Elemental level of silicon (Si) above normal. The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

WEAR METALS

Iron	ppm	11	3	10	10
Copper	ppm	39	<1	1	1
Lead	ppm	1	<1	<1	<1
Tin	ppm	2	<1	<1	<1
Aluminum	ppm	2	<1	0	2
Chromium	ppm	<1	<1	<1	<1
Molybdenum	ppm	44	43	54	62
Nickel	ppm	6	<1	<1	0
Titanium	ppm	0	0	0	0
Silver	ppm	0	0	0	0
Manganese	ppm	1	<1	<1	<1
Vanadium	ppm	0	<1	0	0

ADDITIVES

Calcium	ppm	1777	1699	1543	1186
Magnesium	ppm	487	541	583	1009
Zinc	ppm	1234	1214	1127	1343
Phosphorus	ppm	949	982	907	1120
Barium	ppm	0	0	0	0
Boron	ppm	11	48	10	2

Depot: FIVCAN
Unique No: 11098945
Signed: Don Baldrige
Report Date: 29 Jun 2024



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GRAPHS

