



CONSTRUCTION EQUIPMENT

SWO065755 VOLVO A45G 352982 - DIESEL ENGINE



Sample No: VCP415135
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No: SWO065755



SAMPLE INFORMATION

Sample Number	VCP415135	VCP423729	VCP354753	VCP358804
Sample Date	15 Sep 2023	26 Apr 2023	13 Jul 2022	18 Apr 2022
Machine Hours	3012	2479	1024	0
Oil Hours	0	0	0	0
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	NORMAL	NORMAL	NORMAL	ABNORMAL

COWIN EQUIPMENT COMPANY

7950 PITTMAN AVE
 PENSACOLA, FL
 US 32534

Contact: HUGH DOBBS
 HDOBBS@COWIN.COM
 T: (850)479-3004
 F: (850)474-1602



OIL CONDITION

Visc @ 100°C	cSt	12.6	12.7	12.5	▲ 10.4
Base Number (BN)	mg KOH/g	9.2	8.8	10.2	6.9
Oxidation (PA)	%	76	75	83	60



CONTAMINATION

Soot %	%	0.2	0.2	0.3	0.2
Nitration (PA)	%	53	52	67	85
Sulfation (PA)	%	58	56	67	55
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	0.4
Silicon	ppm	6	6	9	21
Sodium	ppm	5	2	2	4
Potassium	ppm	1	0	2	<1



WEAR METALS

Iron	ppm	6	5	11	20
Copper	ppm	2	1	165	▲ 481
Lead	ppm	0	0	<1	1
Tin	ppm	1	<1	2	5
Aluminum	ppm	1	1	2	3
Chromium	ppm	<1	0	<1	<1
Molybdenum	ppm	47	48	49	85
Nickel	ppm	2	2	3	3
Titanium	ppm	0	0	<1	0
Silver	ppm	0	0	<1	<1
Manganese	ppm	1	<1	<1	2
Vanadium	ppm	0	0	0	0



ADDITIVES

Calcium	ppm	1851	1795	1742	2199
Magnesium	ppm	564	582	410	11
Zinc	ppm	1028	1094	1114	1171
Phosphorus	ppm	869	893	928	1025
Barium	ppm	0	0	0	0
Boron	ppm	52	64	45	62

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 suitable for further service.

Depot: VOLVO8247
Unique No: 10662254
Signed: Don Baldrige
Report Date: 27 Sep 2023



CONSTRUCTION EQUIPMENT



GRAPHS

