



CONSTRUCTION EQUIPMENT

RS0036496 VOLVO L180H 5355 - DIESEL ENGINE



Sample No: VCP430866
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No: RSO036496



SAMPLE INFORMATION

Sample Number	VCP430866	VCP426958	VCP402675	VCP345502
Sample Date	18 Dec 2023	06 Jul 2023	24 Mar 2023	07 Apr 2022
Machine Hours	4057	3338	2829	1523
Oil Hours	0	0	0	0
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	NORMAL	NORMAL	NORMAL	ABNORMAL

COWIN EQUIPMENT COMPANY

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OIL CONDITION

Visc @ 100°C	cSt	12.7	12.8	12.8	13.0
Base Number (BN)	mg KOH/g	9.1	9.9	9.2	11.2
Oxidation (PA)	%	82	82	84	84



CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Soot %	%	0.1	0.1	0.2	0.1
Nitration (PA)	%	63	59	75	56
Sulfation (PA)	%	60	61	61	66
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	5	6	6	7
Sodium	ppm	2	0	2	2
Potassium	ppm	<1	2	3	0



WEAR METALS

Iron	ppm	2	5	7	5
Copper	ppm	<1	1	2	33
Lead	ppm	0	<1	<1	3
Tin	ppm	0	<1	<1	2
Aluminum	ppm	2	2	2	2
Chromium	ppm	0	0	<1	0
Molybdenum	ppm	41	56	47	41
Nickel	ppm	0	0	0	1
Titanium	ppm	0	0	0	<1
Silver	ppm	0	<1	0	0
Manganese	ppm	<1	<1	<1	<1
Vanadium	ppm	<1	0	0	0



ADDITIVES

Calcium	ppm	1613	2190	1853	1771
Magnesium	ppm	504	637	574	538
Zinc	ppm	944	1301	1017	1121
Phosphorus	ppm	826	1113	840	973
Barium	ppm	0	2	0	0
Boron	ppm	35	49	31	52

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: VOLV08247
Unique No: 10803542
Signed: Wes Davis
Report Date: 26 Dec 2023



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GRAPHS

