



CONSTRUCTION EQUIPMENT

VOLVO L180H 5717 - DIESEL ENGINE



Sample No: VCP416380
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No:



SAMPLE INFORMATION

Sample Number	VCP416380	VCP420011	VCP424760	VCP415985
Sample Date	13 Nov 2023	22 Sep 2023	02 Aug 2023	14 Jun 2023
Machine Hours	1568	1225	880	511
Oil Hours	0	0	0	0
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	NORMAL	ATTENTION	ATTENTION	ABNORMAL

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OIL CONDITION

Visc @ 100°C	cSt	12.6	12.3	12.2	11.4
Base Number (BN)	mg KOH/g	10.4	10.3	8.9	6.5
Oxidation (PA)	%	78	77	75	55



CONTAMINATION

Water	%	<0.1	<0.1	<0.1	<0.1
Soot %	%	0.1	0.1	0.2	0.1
Nitration (PA)	%	47	48	58	77
Sulfation (PA)	%	60	59	58	50
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	0.6
Silicon	ppm	5	5	8	22
Sodium	ppm	0	2	2	5
Potassium	ppm	2	0	<1	2



WEAR METALS

Iron	ppm	3	2	4	11
Copper	ppm	2	6	52	399
Lead	ppm	0	0	<1	4
Tin	ppm	0	<1	<1	2
Aluminum	ppm	1	2	<1	2
Chromium	ppm	0	<1	<1	0
Molybdenum	ppm	50	61	67	90
Nickel	ppm	0	0	0	<1
Titanium	ppm	<1	0	<1	<1
Silver	ppm	0	0	<1	0
Manganese	ppm	0	<1	<1	3
Vanadium	ppm	0	0	<1	<1



ADDITIVES

Calcium	ppm	1554	1643	1730	2281
Magnesium	ppm	469	524	453	38
Zinc	ppm	1044	1098	1093	1216
Phosphorus	ppm	883	909	902	1016
Barium	ppm	0	0	0	0
Boron	ppm	63	59	46	75

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: VOLVO0090
Unique No: 10750521
Signed: Wes Davis
Report Date: 20 Nov 2023



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GRAPHS

