



# CONSTRUCTION EQUIPMENT

## SPM568012 LEHIGH CEM VOLVO EC380E 310561 - DIESEL ENGINE



**Sample No:** VCP425498  
**Oil Type:** VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3  
**Job No:** SPM568012 LEHIGH CEM



### SAMPLE INFORMATION

Sample Number	<b>VCP425498</b>	VCP366203	VCP321800	VCP234483
Sample Date	<b>28 Jun 2023</b>	21 Sep 2022	18 Jun 2021	31 May 2019
Machine Hours	<b>2220</b>	1868	1465	821
Oil Hours	<b>0</b>	0	0	821
Oil Changed	<b>Changed</b>	Changed	Changed	Changed
Sample Status	<b>NORMAL</b>	NORMAL	ABNORMAL	ABNORMAL

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### OIL CONDITION

Visc @ 100°C	cSt	<b>12.3</b>	12.2	12.7	12.6
Base Number (BN)	mg KOH/g	<b>9.6</b>	10.8	---	---
Oxidation (PA)	%	<b>86</b>	88	84	70

### 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.



### CONTAMINATION

Soot %	%	<b>0.1</b>	0.1	0.1	0.1
Nitration (PA)	%	<b>63</b>	72	55	61
Sulfation (PA)	%	<b>62</b>	66	67	55
Glycol	%	<b>NEG</b>	NEG	NEG	NEG
Fuel	%	<b>&lt;1.0</b>	0.9	<1.0	<1.0
Silicon	ppm	<b>6</b>	7	6	8
Sodium	ppm	<b>3</b>	2	2	<1
Potassium	ppm	<b>2</b>	<1	<1	0



### WEAR METALS

Iron	ppm	<b>5</b>	5	6	9
Copper	ppm	<b>3</b>	10	61	95
Lead	ppm	<b>&lt;1</b>	2	<1	2
Tin	ppm	<b>&lt;1</b>	1	<1	<1
Aluminum	ppm	<b>&lt;1</b>	1	1	2
Chromium	ppm	<b>0</b>	0	<1	<1
Molybdenum	ppm	<b>41</b>	37	41	39
Nickel	ppm	<b>&lt;1</b>	1	<1	2
Titanium	ppm	<b>0</b>	<1	0	0
Silver	ppm	<b>0</b>	0	0	0
Manganese	ppm	<b>&lt;1</b>	<1	<1	1
Vanadium	ppm	<b>&lt;1</b>	<1	0	0



### ADDITIVES

Calcium	ppm	<b>1759</b>	1690	1747	1628
Magnesium	ppm	<b>522</b>	507	514	472
Zinc	ppm	<b>1104</b>	1106	1083	940
Phosphorus	ppm	<b>897</b>	927	938	738
Barium	ppm	<b>&lt;1</b>	0	0	<1
Boron	ppm	<b>30</b>	20	42	39

**Depot:** VOLVO0093  
**Unique No:** 10546811  
**Signed:** Wes Davis  
**Report Date:** 06 Jul 2023



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## GRAPHS

