



# CONSTRUCTION EQUIPMENT

## VOLVO L120H 632540 - DIESEL ENGINE



**Sample No:** VCP445823  
**Oil Type:** VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3  
**Job No:**



### SAMPLE INFORMATION

Sample Number	<b>VCP445823</b>	VCP442670	VCP433507	VCP426724
Sample Date	<b>28 Feb 2024</b>	22 Jan 2024	09 Nov 2023	31 Jul 2023
Machine Hours	<b>15301</b>	14655	13618	12544
Oil Hours	<b>0</b>	0	0	0
Oil Changed	<b>Changed</b>	N/A	Changed	Changed
Sample Status	<b>NORMAL</b>	NORMAL	NORMAL	ABNORMAL

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### OIL CONDITION

Visc @ 100°C	cSt	<b>13.2</b>	13.0	13.9	15.2
Base Number (BN)	mg KOH/g	<b>9.8</b>	9.4	8.5	7.9
Oxidation (PA)	%	<b>83</b>	87	94	88



### CONTAMINATION

Water	%	<b>NEG</b>	NEG	NEG	NEG
Soot %	%	<b>0.4</b>	0.6	1.2	0.9
Nitration (PA)	%	<b>67</b>	80	98	78
Sulfation (PA)	%	<b>61</b>	63	69	66
Glycol	%	<b>NEG</b>	NEG	NEG	NEG
Fuel	%	<b>&lt;1.0</b>	<1.0	<1.0	<1.0
Silicon	ppm	<b>4</b>	5	6	9
Sodium	ppm	<b>2</b>	3	2	4
Potassium	ppm	<b>1</b>	2	<1	2



### WEAR METALS

Iron	ppm	<b>10</b>	17	33	▲ 83
Copper	ppm	<b>1</b>	3	1	5
Lead	ppm	<b>&lt;1</b>	2	2	13
Tin	ppm	<b>&lt;1</b>	<1	1	2
Aluminum	ppm	<b>6</b>	9	12	▲ 22
Chromium	ppm	<b>&lt;1</b>	<1	1	4
Molybdenum	ppm	<b>42</b>	49	64	72
Nickel	ppm	<b>&lt;1</b>	1	<1	1
Titanium	ppm	<b>0</b>	0	0	<1
Silver	ppm	<b>0</b>	0	0	<1
Manganese	ppm	<b>&lt;1</b>	<1	<1	1
Vanadium	ppm	<b>&lt;1</b>	<1	0	<1



### ADDITIVES

Calcium	ppm	<b>1651</b>	1676	1765	1923
Magnesium	ppm	<b>559</b>	536	615	772
Zinc	ppm	<b>1210</b>	1177	1297	1427
Phosphorus	ppm	<b>972</b>	1008	1049	1125
Barium	ppm	<b>0</b>	0	0	0
Boron	ppm	<b>26</b>	24	18	5

### 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:** 10903179  
**Signed:** Wes Davis  
**Report Date:** 01 Mar 2024



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## GRAPHS

