



# CONSTRUCTION EQUIPMENT

## WASTE CONNECTIONS VOLVO L110H 631413 - DIESEL ENGINE



**Sample No:** VCP425835  
**Oil Type:** VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3  
**Job No:** WASTE CONNECTIONS



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### SAMPLE INFORMATION

Sample Number	<b>VCP425835</b>	VCP268689	VCP259233	VCP251753
Sample Date	<b>27 Sep 2023</b>	14 Jan 2020	02 Oct 2019	13 Aug 2019
Machine Hours	<b>20428</b>	9458	8234	7603
Oil Hours	<b>250</b>	500	0	500
Oil Changed	<b>Changed</b>	Changed	Changed	Changed
Sample Status	<b>NORMAL</b>	ABNORMAL	ABNORMAL	NORMAL



### OIL CONDITION

Visc @ 100°C	cSt	<b>13.5</b>	14.3	13.5	13.3
Base Number (BN)	mg KOH/g	<b>10.6</b>	---	---	---
Oxidation (PA)	%	<b>78</b>	84	84	83



### CONTAMINATION

Soot %	%	<b>0.1</b>	0.6	0.5	0.7
Nitration (PA)	%	<b>47</b>	87	71	73
Sulfation (PA)	%	<b>62</b>	69	63	62
Glycol	%	<b>NEG</b>	NEG	NEG	NEG
Fuel	%	<b>&lt;1.0</b>	<1.0	<1.0	<1.0
Silicon	ppm	<b>10</b>	▲ 120	▲ 47	18
Sodium	ppm	<b>4</b>	39	11	5
Potassium	ppm	<b>1</b>	8	0	28



### WEAR METALS

Iron	ppm	<b>6</b>	▲ 148	45	24
Copper	ppm	<b>&lt;1</b>	12	2	2
Lead	ppm	<b>&lt;1</b>	8	<1	2
Tin	ppm	<b>&lt;1</b>	3	3	0
Aluminum	ppm	<b>3</b>	▲ 30	▲ 12	8
Chromium	ppm	<b>&lt;1</b>	▲ 10	5	1
Molybdenum	ppm	<b>57</b>	48	41	44
Nickel	ppm	<b>0</b>	2	<1	1
Titanium	ppm	<b>0</b>	1	<1	<1
Silver	ppm	<b>1</b>	0	0	0
Manganese	ppm	<b>&lt;1</b>	2	<1	<1
Vanadium	ppm	<b>&lt;1</b>	0	0	0



### ADDITIVES

Calcium	ppm	<b>1907</b>	1535	1665	1668
Magnesium	ppm	<b>576</b>	589	491	504
Zinc	ppm	<b>1369</b>	840	873	903
Phosphorus	ppm	<b>1137</b>	744	636	714
Barium	ppm	<b>0</b>	<1	0	0
Boron	ppm	<b>134</b>	89	22	30

### 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:** VOLVO0093  
**Unique No:** 10670932  
**Signed:** Wes Davis  
**Report Date:** 29 Sep 2023



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## VOLVO GRAPHS

