



# CONSTRUCTION EQUIPMENT

## SPM578836 VOLVO L180G 1930S - DIESEL ENGINE



**Sample No:** VCP417427  
**Oil Type:** VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3  
**Job No:** SPM578836



### SAMPLE INFORMATION

Sample Number	<b>VCP417427</b>	VCP405657	VCP401390	VCP300352
Sample Date	<b>08 Aug 2023</b>	03 May 2023	18 Mar 2023	28 Dec 2020
Machine Hours	<b>21063</b>	20781	20570	20208
Oil Hours	<b>0</b>	0	0	0
Oil Changed	<b>Changed</b>	Changed	Not Changd	N/A
Sample Status	<b>ATTENTION</b>	NORMAL	ABNORMAL	ATTENTION

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### OIL CONDITION

Visc @ 100°C	cSt	<b>▲ 11.5</b>	■ 12.1	■ 12.2	<b>▲ 10.3</b>
Base Number (BN)	mg KOH/g	<b>■ 8.9</b>	■ 8.8	■ 9.9	---
Oxidation (PA)	%	<b>78</b>	74	67	82



### CONTAMINATION

Soot %	%	<b>■ 0.3</b>	■ 0.2	■ 0.3	■ 0.2
Nitration (PA)	%	<b>47</b>	45	54	54
Sulfation (PA)	%	<b>62</b>	56	57	63
Glycol	%	<b>NEG</b>	NEG	NEG	NEG
Fuel	%	<b>■ 0.3</b>	<1.0	<1.0	■ 0.5
Silicon	ppm	<b>■ 11</b>	■ 12	<b>▲ 32</b>	■ 6
Sodium	ppm	<b>■ 3</b>	■ 2	■ 8	■ 2
Potassium	ppm	<b>■ 3</b>	■ 2	■ 11	■ 0



### WEAR METALS

Iron	ppm	<b>■ 15</b>	■ 8	■ 16	■ 52
Copper	ppm	<b>■ 6</b>	■ 4	■ 14	■ 1
Lead	ppm	<b>■ 0</b>	■ 0	■ <1	■ <1
Tin	ppm	<b>■ &lt;1</b>	■ <1	■ 2	■ <1
Aluminum	ppm	<b>■ 2</b>	■ 2	■ 3	■ 2
Chromium	ppm	<b>■ &lt;1</b>	■ <1	■ <1	■ <1
Molybdenum	ppm	<b>■ 35</b>	■ 38	■ 46	■ 30
Nickel	ppm	<b>■ 1</b>	■ 2	■ 2	■ <1
Titanium	ppm	<b>0</b>	<1	<1	0
Silver	ppm	<b>■ 0</b>	■ 0	■ 0	<1
Manganese	ppm	<b>■ 1</b>	■ <1	■ 2	■ <1
Vanadium	ppm	<b>0</b>	0	0	0



### ADDITIVES

Calcium	ppm	<b>■ 1477</b>	■ 1730	■ 1980	■ 1322
Magnesium	ppm	<b>■ 454</b>	■ 481	■ 410	■ 384
Zinc	ppm	<b>■ 1040</b>	■ 1054	■ 1151	■ 885
Phosphorus	ppm	<b>■ 893</b>	■ 920	■ 942	■ 770
Barium	ppm	<b>■ 0</b>	■ 0	■ 0	■ 0
Boron	ppm	<b>■ 59</b>	■ 63	97	■ 47

### Diagnosis

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor. All component wear rates are normal. Fuel content negligible. There is no indication of any contamination in the oil. The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

**Depot:** COVJAM  
**Unique No:** 10602706  
**Signed:** Don Baldrige  
**Report Date:** 15 Aug 2023



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## VOLVO GRAPHS

