



# CONSTRUCTION EQUIPMENT

## S999 I PULL U PULL VOLVO L90H 624459 - DIESEL ENGINE



**Sample No:** VCP368426  
**Oil Type:** VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3  
**Job No:** S999 I PULL U PULL



### SAMPLE INFORMATION

Sample Number	<b>VCP368426</b>	VCP379835	VCP378512	VCP326293
Sample Date	<b>27 Sep 2023</b>	03 Feb 2023	26 Sep 2022	11 May 2022
Machine Hours	<b>6700</b>	5434	4770	4108
Oil Hours	<b>0</b>	0	0	0
Oil Changed	<b>Changed</b>	Changed	Not Changd	Not Changd
Sample Status	<b>NORMAL</b>	NORMAL	NORMAL	NORMAL

### VCES- VOLVO CONSTRUCTION EQUIPMENT

8594 FRUITRIDGE ROAD  
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 US 95826  
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### OIL CONDITION

Visc @ 100°C	cSt	<b>15.4</b>	15.2	14.9	14.3
Base Number (BN)	mg KOH/g	<b>8.0</b>	10.0	11.2	9.1
Oxidation (PA)	%	<b>114</b>	100	106	150

### 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>1.5</b>	0.8	1	0.8
Nitration (PA)	%	<b>118</b>	94	97	45
Sulfation (PA)	%	<b>76</b>	70	74	109
Glycol	%	<b>NEG</b>	NEG	NEG	NEG
Fuel	%	<b>&lt;1.0</b>	<1.0	<1.0	<1.0
Silicon	ppm	<b>10</b>	8	6	6
Sodium	ppm	<b>2</b>	3	2	2
Potassium	ppm	<b>0</b>	2	<1	0



### WEAR METALS

Iron	ppm	<b>30</b>	18	17	17
Copper	ppm	<b>1</b>	1	1	<1
Lead	ppm	<b>3</b>	<1	2	<1
Tin	ppm	<b>1</b>	<1	2	1
Aluminum	ppm	<b>7</b>	6	6	8
Chromium	ppm	<b>2</b>	1	1	1
Molybdenum	ppm	<b>49</b>	48	46	42
Nickel	ppm	<b>0</b>	0	0	<1
Titanium	ppm	<b>0</b>	0	0	<1
Silver	ppm	<b>0</b>	0	0	12
Manganese	ppm	<b>&lt;1</b>	<1	<1	<1
Vanadium	ppm	<b>0</b>	0	0	0



### ADDITIVES

Calcium	ppm	<b>1907</b>	1926	1884	1848
Magnesium	ppm	<b>657</b>	564	561	590
Zinc	ppm	<b>1286</b>	1328	1256	1166
Phosphorus	ppm	<b>1038</b>	1080	1014	1009
Barium	ppm	<b>&lt;1</b>	<1	0	0
Boron	ppm	<b>23</b>	31	27	33

**Depot:** VOLVO4485  
**Unique No:** 10699466  
**Signed:** Don Baldridge  
**Report Date:** 19 Oct 2023



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## GRAPHS

