



# CONSTRUCTION EQUIPMENT

## VOLVO L180H 4940 - DIESEL ENGINE



**Sample No:** VCP408309  
**Oil Type:** VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3  
**Job No:**



### SAMPLE INFORMATION

Sample Number	<b>VCP408309</b>	VCP385669	VCP05213128	VCP296461
Sample Date	<b>27 Jun 2023</b>	16 Feb 2023	20 Mar 2021	11 Dec 2020
Machine Hours	<b>9638</b>	8806	4568	4012
Oil Hours	<b>1000</b>	689	0	0
Oil Changed	<b>Changed</b>	Changed	Changed	Changed
Sample Status	<b>NORMAL</b>	NORMAL	NORMAL	NORMAL

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### OIL CONDITION

Visc @ 100°C	cSt	<b>12.9</b>	12.9	12.5	12.2
Base Number (BN)	mg KOH/g	<b>8.1</b>	8.3	---	---
Oxidation (PA)	%	<b>84</b>	65	90	75

### CONTAMINATION

Soot %	%	<b>0.2</b>	0.1	0.1	0.1
Nitration (PA)	%	<b>78</b>	65	69	64
Sulfation (PA)	%	<b>61</b>	54	68	61
Glycol	%	<b>NEG</b>	NEG	NEG	NEG
Fuel	%	<b>&lt;1.0</b>	<1.0	<1.0	1.9
Silicon	ppm	<b>3</b>	4	4	5
Sodium	ppm	<b>&lt;1</b>	1	2	3
Potassium	ppm	<b>2</b>	<1	7	0

### WEAR METALS

Iron	ppm	<b>5</b>	4	4	4
Copper	ppm	<b>&lt;1</b>	<1	<1	<1
Lead	ppm	<b>&lt;1</b>	<1	1	0
Tin	ppm	<b>&lt;1</b>	<1	0	0
Aluminum	ppm	<b>0</b>	0	1	1
Chromium	ppm	<b>&lt;1</b>	<1	<1	0
Molybdenum	ppm	<b>49</b>	50	35	34
Nickel	ppm	<b>&lt;1</b>	<1	<1	1
Titanium	ppm	<b>0</b>	0	<1	<1
Silver	ppm	<b>0</b>	0	0	0
Manganese	ppm	<b>&lt;1</b>	<1	<1	<1
Vanadium	ppm	<b>0</b>	0	<1	0

### ADDITIVES

Calcium	ppm	<b>1398</b>	1361	1696	1513
Magnesium	ppm	<b>704</b>	716	530	563
Zinc	ppm	<b>1201</b>	1124	1032	969
Phosphorus	ppm	<b>962</b>	879	893	821
Barium	ppm	<b>0</b>	0	0	0
Boron	ppm	<b>14</b>	12	38	41

### 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:** VOLVO0264  
**Unique No:** 10537687  
**Signed:** Wes Davis  
**Report Date:** 02 Jul 2023



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## GRAPHS

