



# CONSTRUCTION EQUIPMENT

SWA560078-10 VOLVO L180H 5412 - DIESEL ENGINE



**Sample No:** VCP430320  
**Oil Type:** VOLVO VDS-4.5 Premium Motor Oil 15W40  
**Job No:** SWA560078-10



## SAMPLE INFORMATION

Sample Number	<b>VCP430320</b>	VCP442816	VCP423025	VCP396097
Sample Date	<b>16 May 2024</b>	07 Feb 2024	30 Jun 2023	01 Feb 2023
Machine Hours	<b>9182</b>	7046	5936	6657
Oil Hours	<b>500</b>	0	0	700
Oil Changed	<b>Not Chngd</b>	N/A	N/A	Changed
Sample Status	<b>NORMAL</b>	NORMAL	NORMAL	NORMAL

**CALLANAN**  
 RT 32 677 FLATBUSH RD  
 EAST KINGSTON, NY  
 US 12401  
 Contact:

## OIL CONDITION

Visc @ 100°C	cSt	<b>12.4</b>	12.3	13.0	12.7
Base Number (BN)	mg KOH/g	<b>9.6</b>	10.2	10.1	9.3
Oxidation (PA)	%	<b>83</b>	80	84	82

T:  
F:

## 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

Water	%	<b>NEG</b>	NEG	NEG	NEG
Soot %	%	<b>0.1</b>	0.2	0.2	0.1
Nitration (PA)	%	<b>62</b>	56	51	67
Sulfation (PA)	%	<b>61</b>	61	63	61
Glycol	%	<b>NEG</b>	NEG	NEG	NEG
Fuel	%	<b>&lt;1.0</b>	0.8	<1.0	<1.0
Silicon	ppm	<b>4</b>	6	3	4
Sodium	ppm	<b>2</b>	2	3	3
Potassium	ppm	<b>2</b>	0	2	0

## WEAR METALS

Iron	ppm	<b>5</b>	2	3	6
Copper	ppm	<b>1</b>	<1	<1	<1
Lead	ppm	<b>&lt;1</b>	0	<1	<1
Tin	ppm	<b>&lt;1</b>	<1	<1	<1
Aluminum	ppm	<b>1</b>	<1	<1	<1
Chromium	ppm	<b>&lt;1</b>	<1	0	<1
Molybdenum	ppm	<b>40</b>	39	38	41
Nickel	ppm	<b>0</b>	0	0	<1
Titanium	ppm	<b>&lt;1</b>	0	0	0
Silver	ppm	<b>&lt;1</b>	0	0	0
Manganese	ppm	<b>&lt;1</b>	<1	<1	<1
Vanadium	ppm	<b>&lt;1</b>	0	<1	0

## ADDITIVES

Calcium	ppm	<b>1661</b>	1635	1757	1705
Magnesium	ppm	<b>540</b>	504	492	508
Zinc	ppm	<b>1106</b>	1097	1137	1099
Phosphorus	ppm	<b>998</b>	962	920	920
Barium	ppm	<b>0</b>	0	<1	0
Boron	ppm	<b>60</b>	54	56	46

**Depot:** CALEAS  
**Unique No:** 11048163  
**Signed:** Wes Davis  
**Report Date:** 29 May 2024



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## GRAPHS

