



# CONSTRUCTION EQUIPMENT

## D13125 WE ENERGIES VOLVO L220H 3482 - DIESEL ENGINE



**Sample No:** VCP381286  
**Oil Type:** VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3  
**Job No:** D13125 WE ENERGIES



### SAMPLE INFORMATION

Sample Number	<b>VCP381286</b>	VCP414069	VCP418966	---
Sample Date	<b>13 Dec 2023</b>	27 Sep 2023	28 Jul 2023	---
Machine Hours	<b>1417</b>	947	582	---
Oil Hours	<b>470</b>	379	582	---
Oil Changed	<b>Changed</b>	Changed	Changed	---
Sample Status	<b>NORMAL</b>	ABNORMAL	ABNORMAL	---

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### OIL CONDITION

Visc @ 100°C	cSt	<b>12.4</b>	12.2	11.2	---
Base Number (BN)	mg KOH/g	<b>9.9</b>	8.1	5.7	---
Oxidation (PA)	%	<b>81</b>	77	61	---

### 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	---
Soot %	%	<b>0.1</b>	0.1	0.1	---
Nitration (PA)	%	<b>59</b>	68	81	---
Sulfation (PA)	%	<b>63</b>	61	53	---
Glycol	%	<b>NEG</b>	NEG	NEG	---
Fuel	%	<b>&lt;1.0</b>	<1.0	0.7	---
Silicon	ppm	<b>5</b>	13	23	---
Sodium	ppm	<b>1</b>	2	0	---
Potassium	ppm	<b>0</b>	0	6	---



### WEAR METALS

Iron	ppm	<b>3</b>	5	11	---
Copper	ppm	<b>19</b>	141	387	---
Lead	ppm	<b>0</b>	0	<1	---
Tin	ppm	<b>&lt;1</b>	1	2	---
Aluminum	ppm	<b>&lt;1</b>	<1	2	---
Chromium	ppm	<b>0</b>	0	0	---
Molybdenum	ppm	<b>40</b>	57	94	---
Nickel	ppm	<b>0</b>	<1	1	---
Titanium	ppm	<b>0</b>	0	0	---
Silver	ppm	<b>0</b>	0	<1	---
Manganese	ppm	<b>&lt;1</b>	2	3	---
Vanadium	ppm	<b>0</b>	0	0	---



### ADDITIVES

Calcium	ppm	<b>1613</b>	1905	2253	---
Magnesium	ppm	<b>484</b>	365	17	---
Zinc	ppm	<b>1102</b>	1245	1218	---
Phosphorus	ppm	<b>881</b>	1022	1018	---
Barium	ppm	<b>0</b>	0	3	---
Boron	ppm	<b>48</b>	38	52	---

**Depot:** VOLVO0069  
**Unique No:** 10792836  
**Signed:** Jonathan Hester  
**Report Date:** 20 Dec 2023



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## GRAPHS

