



# CONSTRUCTION EQUIPMENT

647499 STONE CO VOLVO L220H 3280 - DIESEL ENGINE



**Sample No:** VCP452377  
**Oil Type:** VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3  
**Job No:** 647499 STONE CO



## SAMPLE INFORMATION

Sample Number	<b>VCP452377</b>	VCP431992	VCP418195	VCP414120
Sample Date	<b>08 Jan 2024</b>	26 Oct 2023	23 Aug 2023	22 Jun 2023
Machine Hours	<b>7483</b>	7008	6479	6010
Oil Hours	<b>0</b>	500	500	510
Oil Changed	<b>N/A</b>	Changed	Changed	Changed
Sample Status	<b>NORMAL</b>	NORMAL	NORMAL	NORMAL

**ALTA EQUIPMENT COMPANY - METRO WEST**  
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## OIL CONDITION

Visc @ 100°C	cSt	<b>13.0</b>	13.2	14.1	14.1
Base Number (BN)	mg KOH/g	<b>9.0</b>	9.1	8.5	9.4
Oxidation (PA)	%	<b>57</b>	57	54	57

## CONTAMINATION

Water	%	<b>NEG</b>	NEG	NEG	NEG
Soot %	%	<b>0.3</b>	0.3	0.3	0.3
Nitration (PA)	%	<b>59</b>	57	58	58
Sulfation (PA)	%	<b>52</b>	53	51	53
Glycol	%	<b>NEG</b>	NEG	NEG	NEG
Fuel	%	<b>&lt;1.0</b>	<1.0	<1.0	<1.0
Silicon	ppm	<b>2</b>	2	2	2
Sodium	ppm	<b>1</b>	0	2	<1
Potassium	ppm	<b>&lt;1</b>	<1	<1	1

## WEAR METALS

Iron	ppm	<b>3</b>	<1	3	2
Copper	ppm	<b>&lt;1</b>	0	2	<1
Lead	ppm	<b>0</b>	0	0	0
Tin	ppm	<b>0</b>	<1	<1	0
Aluminum	ppm	<b>&lt;1</b>	1	<1	<1
Chromium	ppm	<b>0</b>	0	<1	0
Molybdenum	ppm	<b>55</b>	61	64	60
Nickel	ppm	<b>0</b>	0	0	0
Titanium	ppm	<b>0</b>	0	0	<1
Silver	ppm	<b>0</b>	0	0	0
Manganese	ppm	<b>&lt;1</b>	0	<1	0
Vanadium	ppm	<b>0</b>	0	0	0

## ADDITIVES

Calcium	ppm	<b>1052</b>	1060	1349	1100
Magnesium	ppm	<b>909</b>	938	833	1003
Zinc	ppm	<b>1162</b>	1258	1318	1341
Phosphorus	ppm	<b>989</b>	1021	1069	1053
Barium	ppm	<b>0</b>	0	0	14
Boron	ppm	<b>6</b>	15	9	2

## 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 acceptable for the time in service.

**Depot:** VOLVO2990  
**Unique No:** 10845916  
**Signed:** Sean Felton  
**Report Date:** 26 Jan 2024



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## GRAPHS

