



# CONSTRUCTION EQUIPMENT

## VOLVO L110H 625924 - DIESEL ENGINE



**Sample No:** VCP438765  
**Oil Type:** VALVOLINE 15W40  
**Job No:**



### SAMPLE INFORMATION

Sample Number	<b>VCP438765</b>	VCP436564	VCP439482	VCP416398
Sample Date	<b>13 May 2024</b>	25 Mar 2024	19 Jan 2024	28 Sep 2023
Machine Hours	<b>2830</b>	0	0	1903
Oil Hours	<b>0</b>	0	0	558
Oil Changed	<b>Changed</b>	Changed	Changed	Changed
Sample Status	<b>ATTENTION</b>	NORMAL	NORMAL	ATTENTION

**CITY CARTING**  
 221 OLD GATE LN  
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### OIL CONDITION

Visc @ 100°C	cSt	<b>12.0</b>	12.4	11.7	12.3
Base Number (BN)	mg KOH/g	<b>6.6</b>	6.7	6.1	6.2
Oxidation (PA)	%	<b>35</b>	35	32	46



### CONTAMINATION

Water	%	<b>NEG</b>	NEG	NEG	NEG
Soot %	%	<b>0.2</b>	0.1	0.1	0.3
Nitration (PA)	%	<b>48</b>	49	45	60
Sulfation (PA)	%	<b>43</b>	44	42	51
Glycol	%	<b>NEG</b>	NEG	NEG	NEG
Fuel	%	<b>&lt;1.0</b>	<1.0	0.2	0.5
Silicon	ppm	<b>8</b>	4	4	8
Sodium	ppm	<b>3</b>	0	<1	3
Potassium	ppm	<b>4</b>	0	2	1



### WEAR METALS

Iron	ppm	<b>13</b>	9	8	35
Copper	ppm	<b>3</b>	0	<1	4
Lead	ppm	<b>3</b>	0	<1	0
Tin	ppm	<b>3</b>	0	<1	<1
Aluminum	ppm	<b>4</b>	2	2	10
Chromium	ppm	<b>3</b>	0	0	2
Molybdenum	ppm	<b>50</b>	24	21	30
Nickel	ppm	<b>3</b>	0	0	0
Titanium	ppm	<b>2</b>	0	0	0
Silver	ppm	<b>3</b>	0	0	0
Manganese	ppm	<b>2</b>	0	0	1
Vanadium	ppm	<b>2</b>	0	0	0



### ADDITIVES

Calcium	ppm	<b>1865</b>	2050	1824	2034
Magnesium	ppm	<b>189</b>	142	103	191
Zinc	ppm	<b>953</b>	988	888	1091
Phosphorus	ppm	<b>802</b>	880	772	880
Barium	ppm	<b>2</b>	0	0	0
Boron	ppm	<b>41</b>	27	15	8

### Diagnosis

The oil change at the time of sampling has been noted. 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 oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

**Depot:** CITMILCON  
**Unique No:** 11033697  
**Signed:** Don Baldrige  
**Report Date:** 20 May 2024



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## GRAPHS

