



# CONSTRUCTION EQUIPMENT

## VOLVO L90H 05625448 - DIESEL ENGINE



**Sample No:** VCP430821  
**Oil Type:** VALVOLINE 15W40  
**Job No:**



### SAMPLE INFORMATION

Sample Number	<b>VCP430821</b>	VCP416427	VCP294687	VCP292962
Sample Date	<b>14 Dec 2023</b>	10 Oct 2023	23 Dec 2020	27 Oct 2020
Machine Hours	<b>5859</b>	5552	770	431
Oil Hours	<b>0</b>	0	0	0
Oil Changed	<b>Changed</b>	Changed	Changed	Changed
Sample Status	<b>NORMAL</b>	NORMAL	ATTENTION	NORMAL

**CITY CARTING**  
 221 OLD GATE LN  
 MILFORD, CT  
 US 06460  
 Contact: TAVINS BANKS  
 tavins@citycart.net  
 T: (203)223-3885  
 F:

### OIL CONDITION

Visc @ 100°C	cSt	<b>12.59</b>	13.2	▲ 11.7	12.4
Base Number (BN)	mg KOH/g	<b>7.1</b>	9.9	---	---
Oxidation (PA)	%	<b>43</b>	89	36	69

### 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	0.2
Nitration (PA)	%	<b>56</b>	66	55	57
Sulfation (PA)	%	<b>47</b>	62	46	59
Glycol	%	<b>NEG</b>	NEG	NEG	NEG
Fuel	%	<b>0.4</b>	<1.0	0.3	<1.0
Silicon	ppm	<b>7</b>	11	6	16
Sodium	ppm	<b>&lt;1</b>	2	2	4
Potassium	ppm	<b>2</b>	0	1	2

### WEAR METALS

Iron	ppm	<b>3</b>	10	12	28
Copper	ppm	<b>0</b>	<1	2	6
Lead	ppm	<b>0</b>	0	<1	1
Tin	ppm	<b>&lt;1</b>	<1	1	2
Aluminum	ppm	<b>3</b>	4	3	2
Chromium	ppm	<b>&lt;1</b>	<1	<1	2
Molybdenum	ppm	<b>53</b>	43	20	32
Nickel	ppm	<b>0</b>	0	0	0
Titanium	ppm	<b>0</b>	0	<1	<1
Silver	ppm	<b>0</b>	0	0	0
Manganese	ppm	<b>&lt;1</b>	<1	<1	4
Vanadium	ppm	<b>0</b>	0	0	0

### ADDITIVES

Calcium	ppm	<b>1932</b>	1754	2167	1457
Magnesium	ppm	<b>201</b>	512	170	531
Zinc	ppm	<b>979</b>	1175	1066	1073
Phosphorus	ppm	<b>763</b>	970	889	924
Barium	ppm	<b>&lt;1</b>	0	0	<1
Boron	ppm	<b>26</b>	30	21	36

**Depot:** CITMILCON  
**Unique No:** 10796396  
**Signed:** Jonathan Hester  
**Report Date:** 28 Dec 2023



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## GRAPHS

