



# CONSTRUCTION EQUIPMENT

## IAA VOLVO L90H 624522 - DIESEL ENGINE



**Sample No:** VCP454171  
**Oil Type:** VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3  
**Job No:** IAA



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### SAMPLE INFORMATION

Sample Number	<b>VCP454171</b>	VCP400121	VCP354038	VCP335410
Sample Date	<b>16 Jan 2024</b>	28 Feb 2023	19 Jul 2022	20 Dec 2021
Machine Hours	<b>7651</b>	6925	6372	5461
Oil Hours	<b>0</b>	500	500	1000
Oil Changed	<b>N/A</b>	Changed	Changed	Changed
Sample Status	<b>NORMAL</b>	NORMAL	NORMAL	NORMAL



### OIL CONDITION

Visc @ 100°C	cSt	<b>12.5</b>	13.5	13.3	13.4
Base Number (BN)	mg KOH/g	<b>10.7</b>	9.8	11.8	11.4
Oxidation (PA)	%	<b>79</b>	62	87	84



### CONTAMINATION

Water	%	<b>NEG</b>	NEG	NEG	NEG
Soot %	%	<b>0.2</b>	0.2	0.2	0.3
Nitration (PA)	%	<b>69</b>	63	63	63
Sulfation (PA)	%	<b>56</b>	53	65	63
Glycol	%	<b>NEG</b>	NEG	NEG	NEG
Fuel	%	<b>&lt;1.0</b>	<1.0	<1.0	<1.0
Silicon	ppm	<b>5</b>	2	5	5
Sodium	ppm	<b>0</b>	0	<1	2
Potassium	ppm	<b>2</b>	2	<1	0



### WEAR METALS

Iron	ppm	<b>5</b>	4	4	6
Copper	ppm	<b>&lt;1</b>	<1	<1	<1
Lead	ppm	<b>0</b>	<1	<1	<1
Tin	ppm	<b>0</b>	<1	<1	0
Aluminum	ppm	<b>2</b>	4	3	2
Chromium	ppm	<b>&lt;1</b>	<1	<1	<1
Molybdenum	ppm	<b>46</b>	59	39	41
Nickel	ppm	<b>0</b>	<1	0	0
Titanium	ppm	<b>0</b>	0	0	<1
Silver	ppm	<b>0</b>	0	0	0
Manganese	ppm	<b>0</b>	<1	<1	<1
Vanadium	ppm	<b>0</b>	<1	0	0



### ADDITIVES

Calcium	ppm	<b>1573</b>	1254	1553	1686
Magnesium	ppm	<b>555</b>	880	441	497
Zinc	ppm	<b>1131</b>	1261	1037	1064
Phosphorus	ppm	<b>886</b>	1046	877	890
Barium	ppm	<b>5</b>	2	0	0
Boron	ppm	<b>30</b>	4	33	34

### 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.

**Depot:** VOLVO0093  
**Unique No:** 10863266  
**Signed:** Wes Davis  
**Report Date:** 06 Feb 2024



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## VOLVO GRAPHS

