



# CONSTRUCTION EQUIPMENT

## SW1028427 IAA 9 VOLVO L90H 625097 - DIESEL ENGINE



**Sample No:** VCP437525  
**Oil Type:** DIESEL ENGINE OIL SAE 15W40  
**Job No:** SW1028427 IAA 9



### SAMPLE INFORMATION

Sample Number	<b>VCP437525</b>	VCP415363	VCP425630	VCP354942
Sample Date	<b>04 Jan 2024</b>	14 Sep 2023	16 May 2023	12 Sep 2022
Machine Hours	<b>7758</b>	728	6764	6161
Oil Hours	<b>0</b>	0	0	0
Oil Changed	<b>Changed</b>	Changed	Changed	Changed
Sample Status	<b>ABNORMAL</b>	NORMAL	NORMAL	ABNORMAL

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### OIL CONDITION

Visc @ 100°C	cSt	<b>▲ 11.4</b>	■ 14.0	■ 14.8	■ 12.8
Base Number (BN)	mg KOH/g	<b>■ 8.6</b>	■ 9.2	■ 8.5	■ 10.1
Oxidation (PA)	%	<b>77</b>	84	81	74

### Diagnosis

The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition. All component wear rates are normal. There is a moderate amount of fuel present in the oil. Tests confirm the presence of fuel in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.



### CONTAMINATION

Water	%	<b>NEG</b>	NEG	NEG	NEG
Soot %	%	<b>■ 0.7</b>	■ 0.8	■ 0.9	■ 1
Nitration (PA)	%	<b>76</b>	83	92	84
Sulfation (PA)	%	<b>59</b>	63	63	69
Glycol	%	<b>NEG</b>	NEG	NEG	NEG
Fuel	%	<b>▲ 7.9</b>	<1.0	<1.0	<1.0
Silicon	ppm	<b>■ 5</b>	■ 6	■ 6	■ 7
Sodium	ppm	<b>■ 1</b>	■ 3	■ 2	■ 3
Potassium	ppm	<b>■ 0</b>	■ <1	■ 2	■ 1



### WEAR METALS

Iron	ppm	<b>■ 10</b>	■ 19	■ 25	■ 32
Copper	ppm	<b>■ 5</b>	■ 1	■ 4	<b>▲ 32</b>
Lead	ppm	<b>■ 0</b>	■ <1	■ <1	■ <1
Tin	ppm	<b>■ 0</b>	■ <1	■ <1	■ <1
Aluminum	ppm	<b>■ 2</b>	■ 4	■ 4	■ 5
Chromium	ppm	<b>■ 0</b>	■ 1	■ 1	■ 2
Molybdenum	ppm	<b>■ 45</b>	■ 54	■ 63	■ 47
Nickel	ppm	<b>■ 0</b>	■ <1	■ <1	■ 2
Titanium	ppm	<b>■ 0</b>	■ 0	■ <1	■ <1
Silver	ppm	<b>■ 0</b>	■ 0	■ 0	■ <1
Manganese	ppm	<b>■ 0</b>	■ <1	■ <1	■ <1
Vanadium	ppm	<b>0</b>	0	0	<1



### ADDITIVES

Calcium	ppm	<b>■ 1320</b>	■ 1572	■ 1527	■ 2064
Magnesium	ppm	<b>■ 639</b>	■ 679	■ 1007	■ 667
Zinc	ppm	<b>■ 1163</b>	■ 1274	■ 1469	■ 1474
Phosphorus	ppm	<b>■ 881</b>	■ 1037	■ 1137	■ 1175
Barium	ppm	<b>■ 0</b>	■ 0	■ 0	■ 0
Boron	ppm	<b>■ 14</b>	■ 17	■ 6	■ 17

**Depot:** VOLVO6174  
**Unique No:** 10823696  
**Signed:** Wes Davis  
**Report Date:** 12 Jan 2024



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## GRAPHS

