



# CONSTRUCTION EQUIPMENT

## VOLVO L60E 60810 - DIESEL ENGINE



**Sample No:** VCP422224  
**Oil Type:** VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3  
**Job No:**



### SAMPLE INFORMATION

Sample Number	<b>VCP422224</b>	VCP303990	VC516978	VC316667
Sample Date	<b>26 Jan 2024</b>	08 Apr 2021	04 Jun 2007	01 Feb 2007
Machine Hours	<b>3609</b>	6133	2255	2126
Oil Hours	<b>0</b>	0	0	0
Oil Changed	<b>Changed</b>	Changed	Changed	Changed
Sample Status	<b>ATTENTION</b>	ABNORMAL	ABNORMAL	SEVERE

**ALTA EQUIPMENT COMPANY**  
 5151 DR MARTIN LUTHER KING BLVD  
 FORT MYERS, FL  
 US 33905  
 Contact: TODD LARK  
 tlark@altaequipfl.com  
 T:  
 F: (239)481-3302

### OIL CONDITION

Visc @ 100°C	cSt	<b>▲ 11.3</b>	▲ 11.0	▲ 11.5	▲ 10.7
Base Number (BN)	mg KOH/g	<b>■ 9.9</b>	---	---	---
Oxidation (PA)	%	<b>46</b>	82	■ 46	■ 34

### CONTAMINATION

Water	%	<b>NEG</b>	NEG	NEG	NEG
Soot %	%	<b>■ 0.1</b>	■ 0.2	■ 0	■ 0.1
Nitration (PA)	%	<b>48</b>	65	■ 55	■ 45
Sulfation (PA)	%	<b>45</b>	62	■ 47	■ 38
Glycol	%	<b>NEG</b>	NEG	NEG	NEG
Fuel	%	<b>■ 2.8</b>	▲ 6.2	▲ 4.2	■ 12.0
Silicon	ppm	<b>■ 5</b>	■ 8	■ 7	■ 3
Sodium	ppm	<b>■ &lt;1</b>	■ 4	■ <1	■ 5
Potassium	ppm	<b>■ 2</b>	■ 0	■ <1	■ 0

### WEAR METALS

Iron	ppm	<b>■ 2</b>	■ 8	■ 8	■ 10
Copper	ppm	<b>■ 0</b>	■ <1	■ 1	■ <1
Lead	ppm	<b>■ &lt;1</b>	■ <1	■ <1	■ 0
Tin	ppm	<b>■ &lt;1</b>	■ 0	■ <1	■ 1
Aluminum	ppm	<b>■ 2</b>	■ 2	■ 1	■ 1
Chromium	ppm	<b>■ 0</b>	■ <1	■ <1	■ <1
Molybdenum	ppm	<b>■ 52</b>	■ 37	■ 28	■ 16
Nickel	ppm	<b>■ 0</b>	■ 0	■ 0	■ <1
Titanium	ppm	<b>0</b>	<1	■ 0	■ 0
Silver	ppm	<b>■ 0</b>	0	■ <1	■ 0
Manganese	ppm	<b>■ &lt;1</b>	■ <1	<1	<1
Vanadium	ppm	<b>0</b>	0	0	0

### ADDITIVES

Calcium	ppm	<b>■ 1361</b>	■ 1650	■ 1788	■ 1461
Magnesium	ppm	<b>■ 787</b>	■ 502	■ 269	■ 138
Zinc	ppm	<b>■ 1016</b>	■ 836	■ 934	■ 748
Phosphorus	ppm	<b>■ 881</b>	■ 736	■ 1062	■ 692
Barium	ppm	<b>■ 0</b>	■ 0	■ <1	■ 0
Boron	ppm	<b>■ 98</b>	■ 49	■ 11	■ 14

### Diagnosis

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. All component wear rates are normal. Fuel content negligible. 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:** VOLVO0090  
**Unique No:** 10849245  
**Signed:** Jonathan Hester  
**Report Date:** 31 Jan 2024



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## GRAPHS

