



# CONSTRUCTION EQUIPMENT

## SEC VOLVO A30G 752815 - DIESEL ENGINE



**Sample No:** VCP420493  
**Oil Type:** VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3  
**Job No:** SEC



### SAMPLE INFORMATION

Sample Number	<b>VCP420493</b>	VCP395155	VCP370326	---
Sample Date	<b>17 Aug 2023</b>	10 May 2023	08 Jan 2023	---
Machine Hours	<b>1445</b>	964	430	---
Oil Hours	<b>500</b>	500	500	---
Oil Changed	<b>Changed</b>	Changed	Changed	---
Sample Status	<b>ABNORMAL</b>	ABNORMAL	ABNORMAL	---

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### OIL CONDITION

Visc @ 100°C	cSt	<b>▲ 12.2</b>	▲ 12.2	▲ 10.43	---
Base Number (BN)	mg KOH/g	<b>■ 9.9</b>	■ 9.4	■ 6.7	---
Oxidation (PA)	%	<b>78</b>	75	58	---

### CONTAMINATION

Soot %	%	<b>■ 0.2</b>	■ 0.2	■ 0.3	---
Nitration (PA)	%	<b>58</b>	72	81	---
Sulfation (PA)	%	<b>61</b>	61	52	---
Glycol	%	<b>NEG</b>	NEG	NEG	---
Fuel	%	<b>&lt;1.0</b>	<1.0	■ 0.7	---
Silicon	ppm	<b>■ 5</b>	■ 9	■ 43	---
Sodium	ppm	<b>■ 2</b>	■ <1	■ 3	---
Potassium	ppm	<b>■ 2</b>	■ 3	■ 7	---

### WEAR METALS

Iron	ppm	<b>■ 8</b>	■ 11	■ 21	---
Copper	ppm	<b>▲ 29</b>	▲ 155	▲ 507	---
Lead	ppm	<b>■ 0</b>	■ 0	■ 1	---
Tin	ppm	<b>■ &lt;1</b>	■ <1	■ 3	---
Aluminum	ppm	<b>■ 1</b>	■ <1	■ 5	---
Chromium	ppm	<b>■ &lt;1</b>	■ <1	■ <1	---
Molybdenum	ppm	<b>■ 39</b>	■ 45	■ 86	---
Nickel	ppm	<b>■ 0</b>	■ <1	■ 0	---
Titanium	ppm	<b>0</b>	0	0	---
Silver	ppm	<b>■ &lt;1</b>	■ <1	■ 2	---
Manganese	ppm	<b>■ &lt;1</b>	■ 2	■ 5	---
Vanadium	ppm	<b>0</b>	0	0	---

### ADDITIVES

Calcium	ppm	<b>■ 1768</b>	■ 1863	■ 2331	---
Magnesium	ppm	<b>■ 478</b>	■ 447	43	---
Zinc	ppm	<b>■ 1106</b>	■ 1175	■ 1213	---
Phosphorus	ppm	<b>■ 938</b>	■ 974	■ 1031	---
Barium	ppm	<b>■ 2</b>	■ 0	■ 0	---
Boron	ppm	<b>■ 54</b>	■ 60	■ 58	---

### Diagnosis

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. The copper level has decreased, but is still abnormal. In the absence of other significant wear metals, suspect copper due to sources other than wear (i.e. cooling core). All other 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:** VOLVO4596  
**Unique No:** 10633979  
**Signed:** Sean Felton  
**Report Date:** 08 Sep 2023



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## GRAPHS

