



# CONSTRUCTION EQUIPMENT

RSO035504 VOLVO EC550EL 310082 - DIESEL ENGINE



**Sample No:** VCP422326  
**Oil Type:** VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3  
**Job No:** RSO035504



## SAMPLE INFORMATION

Sample Number	VCP422326	---	---	---
Sample Date	25 Sep 2023	---	---	---
Machine Hours	643	---	---	---
Oil Hours	0	---	---	---
Oil Changed	Changed	---	---	---
Sample Status	ABNORMAL	---	---	---

### COWIN EQUIPMENT COMPANY

7950 PITTMAN AVE  
 PENSACOLA, FL  
 US 32534

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## OIL CONDITION

Visc @ 100°C	cSt	▲ 10.3	---	---	---
Base Number (BN)	mg KOH/g	■ 4.9	---	---	---
Oxidation (PA)	%	65	---	---	---

## Diagnosis

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. The copper level is abnormal. In the absence of other significant wear metals, suspect copper due to sources other than wear (i.e. cooling core). All other metal levels are typical for a new component breaking in. Fuel content negligible. Elemental level of silicon (Si) above normal indicating ingress of seal material. The oil viscosity is lower than normal. Confirm oil type.



## CONTAMINATION

Soot %	%	■ 0.1	---	---	---
Nitration (PA)	%	84	---	---	---
Sulfation (PA)	%	57	---	---	---
Glycol	%	■ 0.0	---	---	---
Fuel	%	■ 0.7	---	---	---
Silicon	ppm	▲ 31	---	---	---
Sodium	ppm	■ 2	---	---	---
Potassium	ppm	■ <1	---	---	---



## WEAR METALS

Iron	ppm	■ 13	---	---	---
Copper	ppm	▲ 120	---	---	---
Lead	ppm	■ 3	---	---	---
Tin	ppm	■ 3	---	---	---
Aluminum	ppm	■ <1	---	---	---
Chromium	ppm	■ <1	---	---	---
Molybdenum	ppm	■ 87	---	---	---
Nickel	ppm	■ 4	---	---	---
Titanium	ppm	0	---	---	---
Silver	ppm	■ 0	---	---	---
Manganese	ppm	■ 3	---	---	---
Vanadium	ppm	<1	---	---	---



## ADDITIVES

Calcium	ppm	■ 2082	---	---	---
Magnesium	ppm	25	---	---	---
Zinc	ppm	■ 1181	---	---	---
Phosphorus	ppm	■ 955	---	---	---
Barium	ppm	■ 0	---	---	---
Boron	ppm	■ 18	---	---	---

**Depot:** VOLV08247  
**Unique No:** 10674110  
**Signed:** Doug Bogart  
**Report Date:** 08 Oct 2023



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## GRAPHS

