



CONSTRUCTION EQUIPMENT

RSO035797 VOLVO A25G 752734 - DIESEL ENGINE



Sample No: VCP415165
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No: RSO035797



SAMPLE INFORMATION

Sample Number	VCP415165	---	---	---
Sample Date	17 Oct 2023	---	---	---
Machine Hours	637	---	---	---
Oil Hours	0	---	---	---
Oil Changed	Changed	---	---	---
Sample Status	ABNORMAL	---	---	---

COWIN EQUIPMENT COMPANY

7950 PITTMAN AVE
 PENSACOLA, FL
 US 32534

Contact: HUGH DOBBS
 HDOBBS@COWIN.COM
 T: (850)479-3004
 F: (850)474-1602



OIL CONDITION

Visc @ 100°C	cSt	▲ 10.9	---	---	---
Base Number (BN)	mg KOH/g	■ 6.1	---	---	---
Oxidation (PA)	%	57	---	---	---



CONTAMINATION

Soot %	%	■ 0.3	---	---	---
Nitration (PA)	%	76	---	---	---
Sulfation (PA)	%	52	---	---	---
Glycol	%	NEG	---	---	---
Fuel	%	■ 0.4	---	---	---
Silicon	ppm	■ 33	---	---	---
Sodium	ppm	■ 4	---	---	---
Potassium	ppm	■ 3	---	---	---



WEAR METALS

Iron	ppm	■ 23	---	---	---
Copper	ppm	▲ 359	---	---	---
Lead	ppm	■ 0	---	---	---
Tin	ppm	■ 2	---	---	---
Aluminum	ppm	■ 3	---	---	---
Chromium	ppm	■ <1	---	---	---
Molybdenum	ppm	■ 78	---	---	---
Nickel	ppm	■ <1	---	---	---
Titanium	ppm	<1	---	---	---
Silver	ppm	■ 2	---	---	---
Manganese	ppm	■ 5	---	---	---
Vanadium	ppm	<1	---	---	---



ADDITIVES

Calcium	ppm	■ 2152	---	---	---
Magnesium	ppm	70	---	---	---
Zinc	ppm	■ 1279	---	---	---
Phosphorus	ppm	■ 1056	---	---	---
Barium	ppm	■ 0	---	---	---
Boron	ppm	■ 40	---	---	---

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. 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: VOLV08247
Unique No: 10722510
Signed: Jonathan Hester
Report Date: 03 Nov 2023



CONSTRUCTION EQUIPMENT

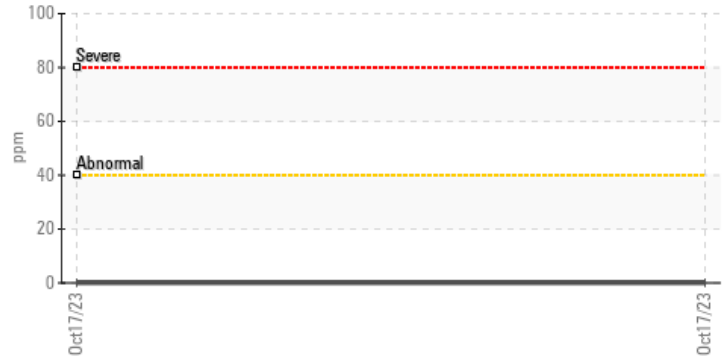


GRAPHS

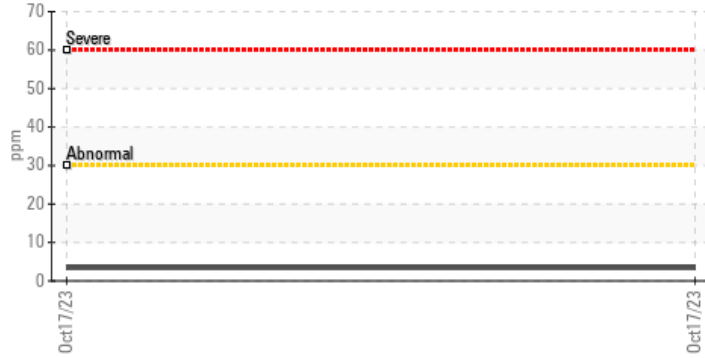
Iron (ppm)



Lead (ppm)



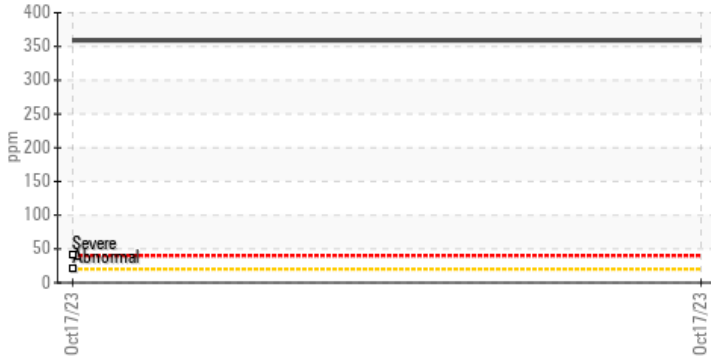
Aluminum (ppm)



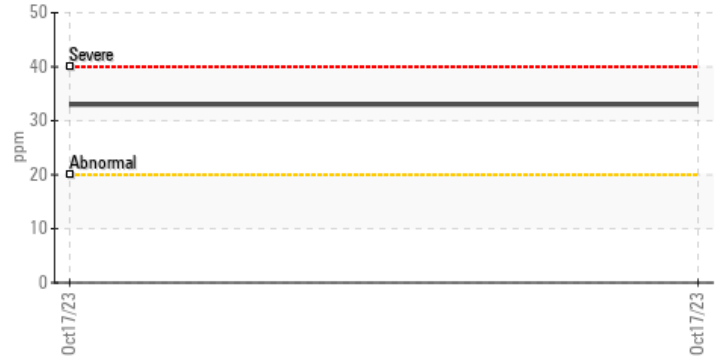
Chromium (ppm)



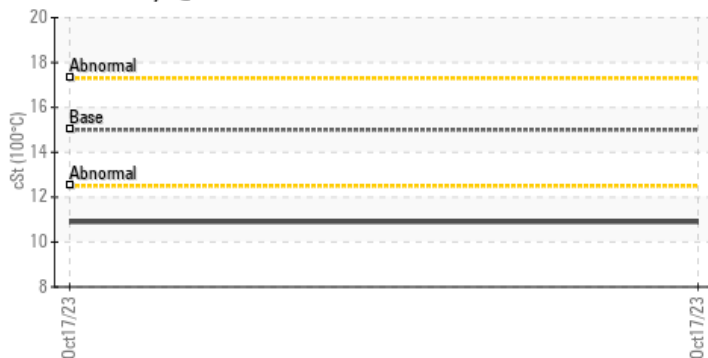
▲ Copper (ppm)



Silicon (ppm)



▲ Viscosity @ 100°C



Base Number

