



# CONSTRUCTION EQUIPMENT

## VOLVO A40G 352512 - DIESEL ENGINE



**Sample No:** VCP313716  
**Oil Type:** VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3  
**Job No:**



### SAMPLE INFORMATION

Sample Number	VCP313716	---	---	---
Sample Date	03 Jun 2021	---	---	---
Machine Hours	1089	---	---	---
Oil Hours	1080	---	---	---
Oil Changed	Changed	---	---	---
Sample Status	ABNORMAL	---	---	---

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### OIL CONDITION

Visc @ 100°C	cSt	▲ 10.7	---	---	---
Oxidation (PA)	%	98	---	---	---



### CONTAMINATION

Water	%	NEG	---	---	---
Soot %	%	■ 0.6	---	---	---
Nitration (PA)	%	103	---	---	---
Sulfation (PA)	%	72	---	---	---
Glycol	%	NEG	---	---	---
Fuel	%	■ 1.3	---	---	---
Silicon	ppm	■ 26	---	---	---
Sodium	ppm	■ 4	---	---	---
Potassium	ppm	■ 4	---	---	---

### 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. Tests indicate that there is no fuel present in the oil. There is no indication of any contamination in the oil. The oil viscosity is lower than normal. Confirm oil type.



### WEAR METALS

Iron	ppm	■ 41	---	---	---
Copper	ppm	▲ 123	---	---	---
Lead	ppm	■ 2	---	---	---
Tin	ppm	■ 7	---	---	---
Aluminum	ppm	■ 2	---	---	---
Chromium	ppm	■ <1	---	---	---
Molybdenum	ppm	■ 41	---	---	---
Nickel	ppm	■ 4	---	---	---
Titanium	ppm	3	---	---	---
Silver	ppm	0	---	---	---
Manganese	ppm	■ 4	---	---	---
Vanadium	ppm	<1	---	---	---



### ADDITIVES

Calcium	ppm	■ 1607	---	---	---
Magnesium	ppm	■ 448	---	---	---
Zinc	ppm	■ 1033	---	---	---
Phosphorus	ppm	■ 861	---	---	---
Barium	ppm	■ 0	---	---	---
Boron	ppm	■ 30	---	---	---

**Depot:** VOLVO0093  
**Unique No:** 9565440  
**Signed:** Jonathan Hester  
**Report Date:** 01 Jul 2021



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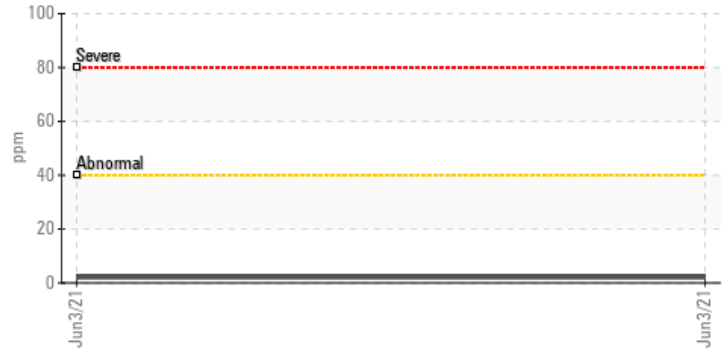


## GRAPHS

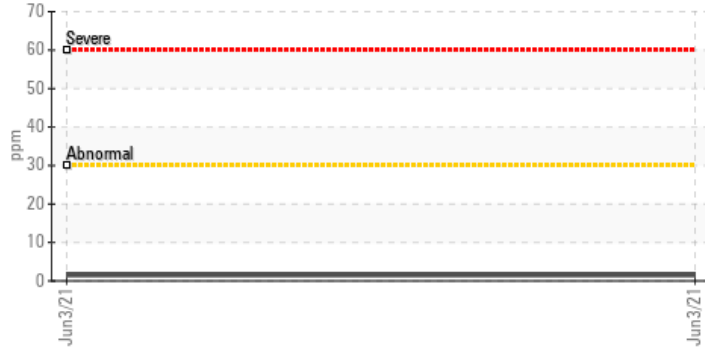
### Iron (ppm)



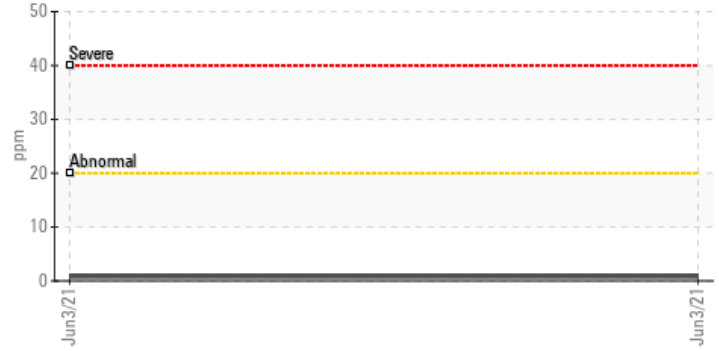
### Lead (ppm)



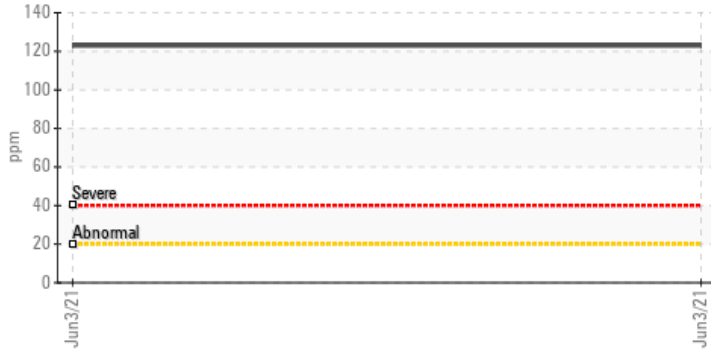
### Aluminum (ppm)



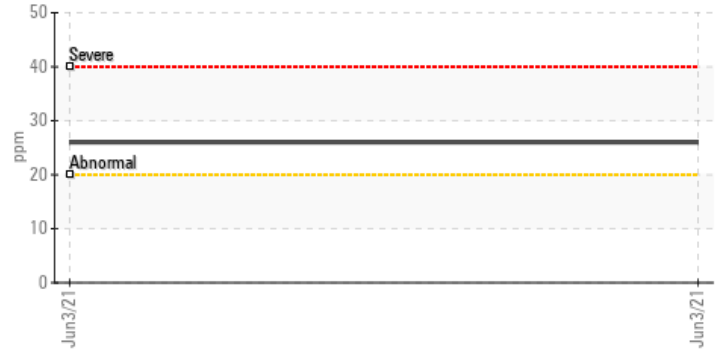
### Chromium (ppm)



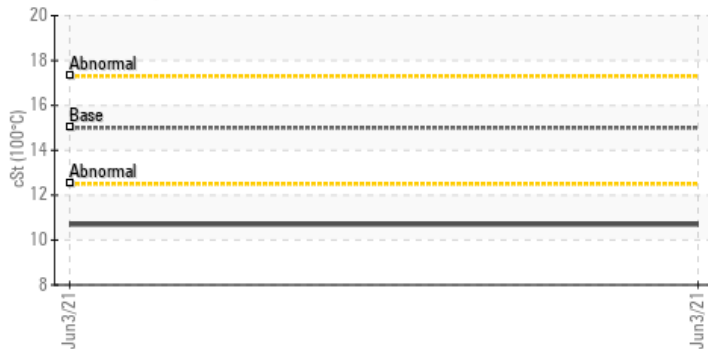
### ▲ Copper (ppm)



### Silicon (ppm)



### ▲ Viscosity @ 100°C



### Soot %

