



# CONSTRUCTION EQUIPMENT

## 23853 VOLVO EC350E 314354 - DIESEL ENGINE



**Sample No:** VCP426946  
**Oil Type:** VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3  
**Job No:** 23853



### SAMPLE INFORMATION

Sample Number	<b>VCP426946</b>	VCP426840	VCP383505	---
Sample Date	<b>12 Aug 2023</b>	24 Mar 2023	05 Oct 2022	---
Machine Hours	<b>1796</b>	1308	731	---
Oil Hours	<b>1000</b>	1000	0	---
Oil Changed	<b>Changed</b>	Changed	Changed	---
Sample Status	<b>ATTENTION</b>	ABNORMAL	ABNORMAL	---

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### OIL CONDITION

Visc @ 100°C	cSt	<b>▲ 11.8</b>	▲ 12.0	▲ 10.1	---
Base Number (BN)	mg KOH/g	<b>■ 8.5</b>	■ 8.6	■ 6.2	---
Oxidation (PA)	%	<b>75</b>	73	70	---

### 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. 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.



### CONTAMINATION

Soot %	%	<b>■ 0.1</b>	■ 0.1	■ 0.1	---
Nitration (PA)	%	<b>65</b>	79	90	---
Sulfation (PA)	%	<b>58</b>	60	61	---
Glycol	%	<b>NEG</b>	NEG	NEG	---
Fuel	%	<b>&lt;1.0</b>	<1.0	■ 0.8	---
Silicon	ppm	<b>■ 7</b>	■ 10	■ 26	---
Sodium	ppm	<b>■ 3</b>	■ 2	■ 1	---
Potassium	ppm	<b>■ 0</b>	■ 0	■ 4	---



### WEAR METALS

Iron	ppm	<b>■ 5</b>	■ 6	■ 1	---
Copper	ppm	<b>■ 7</b>	▲ 47	▲ 283	---
Lead	ppm	<b>■ &lt;1</b>	■ 0	■ 1	---
Tin	ppm	<b>■ 1</b>	■ 1	■ 3	---
Aluminum	ppm	<b>■ 2</b>	■ 2	■ 2	---
Chromium	ppm	<b>■ &lt;1</b>	■ <1	■ 0	---
Molybdenum	ppm	<b>■ 44</b>	■ 48	■ 91	---
Nickel	ppm	<b>■ 0</b>	■ 0	■ 0	---
Titanium	ppm	<b>&lt;1</b>	0	0	---
Silver	ppm	<b>■ &lt;1</b>	■ 0	0	---
Manganese	ppm	<b>■ &lt;1</b>	■ 1	■ 3	---
Vanadium	ppm	<b>&lt;1</b>	<1	0	---



### ADDITIVES

Calcium	ppm	<b>■ 1778</b>	■ 1648	■ 2197	---
Magnesium	ppm	<b>■ 499</b>	■ 427	71	---
Zinc	ppm	<b>■ 1105</b>	■ 1107	■ 1167	---
Phosphorus	ppm	<b>■ 924</b>	■ 872	■ 979	---
Barium	ppm	<b>■ 0</b>	■ 0	■ <1	---
Boron	ppm	<b>■ 34</b>	■ 25	■ 38	---

**Depot:** VOLVO3387  
**Unique No:** 10608025  
**Signed:** Don Baldrige  
**Report Date:** 21 Aug 2023



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## GRAPHS

