



# CONSTRUCTION EQUIPMENT

## VOLVO A40G 342176 - DIESEL ENGINE



**Sample No:** VCP435550  
**Oil Type:** VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3  
**Job No:**



### SAMPLE INFORMATION

Sample Number	<b>VCP435550</b>	VCP411547	VCP424482	VCP310784
Sample Date	<b>19 Dec 2023</b>	01 Aug 2023	09 May 2023	09 Apr 2021
Machine Hours	<b>8257</b>	0	0	5949
Oil Hours	<b>0</b>	0	0	500
Oil Changed	<b>N/A</b>	N/A	Changed	Changed
Sample Status	<b>NORMAL</b>	NORMAL	NORMAL	SEVERE

**RIPA AND ASSOCIATES**  
 10149 FISHER AVENUE  
 TAMPA, FL  
 US 33619  
 Contact: PM Services  
 PMServices@ripaconstruction.com  
 T:  
 F:

### OIL CONDITION

Visc @ 100°C	cSt	<b>12.1</b>	12.3	12.4	12.5
Base Number (BN)	mg KOH/g	<b>9.3</b>	10.1	9.9	---
Oxidation (PA)	%	<b>79</b>	81	72	82

**Diagnosis**  
 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 BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

### CONTAMINATION

Water	%	<b>NEG</b>	NEG	NEG	NEG
Soot %	%	<b>0.2</b>	0.1	0.1	0.4
Nitration (PA)	%	<b>65</b>	62	68	98
Sulfation (PA)	%	<b>60</b>	61	57	70
Glycol	%	<b>NEG</b>	NEG	NEG	0.12
Fuel	%	<b>&lt;1.0</b>	<1.0	<1.0	<1.0
Silicon	ppm	<b>4</b>	7	11	6
Sodium	ppm	<b>4</b>	0	3	555
Potassium	ppm	<b>2</b>	4	9	831

### WEAR METALS

Iron	ppm	<b>8</b>	14	31	9
Copper	ppm	<b>&lt;1</b>	<1	1	1
Lead	ppm	<b>&lt;1</b>	<1	1	<1
Tin	ppm	<b>&lt;1</b>	<1	1	<1
Aluminum	ppm	<b>5</b>	4	3	0
Chromium	ppm	<b>0</b>	<1	<1	<1
Molybdenum	ppm	<b>40</b>	49	44	119
Nickel	ppm	<b>0</b>	<1	1	<1
Titanium	ppm	<b>0</b>	1	8	<1
Silver	ppm	<b>0</b>	0	0	0
Manganese	ppm	<b>0</b>	<1	<1	<1
Vanadium	ppm	<b>0</b>	0	0	0

### ADDITIVES

Calcium	ppm	<b>1546</b>	1941	1557	1437
Magnesium	ppm	<b>531</b>	588	537	499
Zinc	ppm	<b>1152</b>	1294	1094	920
Phosphorus	ppm	<b>879</b>	1111	932	753
Barium	ppm	<b>0</b>	2	0	0
Boron	ppm	<b>29</b>	35	32	15

**Depot:** RIPTAM  
**Unique No:** 10823687  
**Signed:** Wes Davis  
**Report Date:** 12 Jan 2024



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## GRAPHS

