



# CONSTRUCTION EQUIPMENT

## VOLVO A40G 352787 - DIESEL ENGINE



**Sample No:** VCP429777  
**Oil Type:** VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3  
**Job No:**



### SAMPLE INFORMATION

Sample Number	<b>VCP429777</b>	VCP416194	VCP386098	VCP297932
Sample Date	<b>09 Nov 2023</b>	28 Aug 2023	13 Sep 2022	30 Jun 2022
Machine Hours	<b>4706</b>	4246	2439	1962
Oil Hours	<b>0</b>	500	500	500
Oil Changed	<b>N/A</b>	Changed	Changed	Changed
Sample Status	<b>NORMAL</b>	NORMAL	NORMAL	NORMAL

**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>12.8</b>	12.7	13.2	13.1
Base Number (BN)	mg KOH/g	<b>9.5</b>	9.0	11.2	10.9
Oxidation (PA)	%	<b>79</b>	86	88	83

### 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>	0.3	0.3	0.3
Nitration (PA)	%	<b>67</b>	78	71	72
Sulfation (PA)	%	<b>60</b>	63	66	65
Glycol	%	<b>NEG</b>	NEG	NEG	NEG
Fuel	%	<b>&lt;1.0</b>	<1.0	<1.0	<1.0
Silicon	ppm	<b>8</b>	5	5	4
Sodium	ppm	<b>11</b>	2	1	<1
Potassium	ppm	<b>3</b>	0	1	2



### WEAR METALS

Iron	ppm	<b>28</b>	7	5	6
Copper	ppm	<b>1</b>	4	1	4
Lead	ppm	<b>0</b>	<1	<1	<1
Tin	ppm	<b>0</b>	1	<1	1
Aluminum	ppm	<b>4</b>	4	0	2
Chromium	ppm	<b>&lt;1</b>	0	<1	0
Molybdenum	ppm	<b>29</b>	42	42	47
Nickel	ppm	<b>0</b>	1	0	0
Titanium	ppm	<b>0</b>	0	0	0
Silver	ppm	<b>0</b>	0	0	0
Manganese	ppm	<b>&lt;1</b>	<1	<1	<1
Vanadium	ppm	<b>0</b>	0	0	0



### ADDITIVES

Calcium	ppm	<b>2705</b>	1768	1722	1604
Magnesium	ppm	<b>170</b>	538	494	595
Zinc	ppm	<b>1354</b>	1177	1123	1179
Phosphorus	ppm	<b>1197</b>	949	943	992
Barium	ppm	<b>0</b>	0	0	0
Boron	ppm	<b>31</b>	17	32	31

**Depot:** RIPTAM  
**Unique No:** 10777237  
**Signed:** Wes Davis  
**Report Date:** 08 Dec 2023



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## GRAPHS

