



# CONSTRUCTION EQUIPMENT

622085 VOLVO A40G 35285 I - DIESEL ENGINE



**Sample No:** VCP429242  
**Oil Type:** VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3  
**Job No:** 622085



## SAMPLE INFORMATION

Sample Number	<b>VCP429242</b>	VCP411553	VCP420265	VCP386668
Sample Date	<b>06 Nov 2023</b>	12 Jul 2023	12 Apr 2023	07 Oct 2022
Machine Hours	<b>4099</b>	3635	3090	2036
Oil Hours	<b>500</b>	0	500	500
Oil Changed	<b>Changed</b>	Changed	Changed	Changed
Sample Status	<b>NORMAL</b>	NORMAL	NORMAL	ABNORMAL

**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>12.2</b>	12.4	12.3	13.1
Base Number (BN)	mg KOH/g	<b>9.7</b>	9.3	8.3	10.5
Oxidation (PA)	%	<b>77</b>	78	75	90



## CONTAMINATION

Water	%	<b>NEG</b>	NEG	NEG	NEG
Soot %	%	<b>0.2</b>	0.2	0.2	0.2
Nitration (PA)	%	<b>64</b>	67	64	75
Sulfation (PA)	%	<b>59</b>	58	54	69
Glycol	%	<b>NEG</b>	NEG	NEG	NEG
Fuel	%	<b>&lt;1.0</b>	<1.0	0.5	<1.0
Silicon	ppm	<b>4</b>	5	5	8
Sodium	ppm	<b>6</b>	6	4	2
Potassium	ppm	<b>3</b>	1	0	2

## 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.



## WEAR METALS

Iron	ppm	<b>2</b>	5	6	8
Copper	ppm	<b>3</b>	2	4	▲ 41
Lead	ppm	<b>0</b>	0	0	<1
Tin	ppm	<b>&lt;1</b>	<1	0	1
Aluminum	ppm	<b>1</b>	0	1	3
Chromium	ppm	<b>0</b>	<1	<1	<1
Molybdenum	ppm	<b>43</b>	45	45	45
Nickel	ppm	<b>1</b>	2	2	3
Titanium	ppm	<b>0</b>	<1	<1	<1
Silver	ppm	<b>0</b>	0	0	0
Manganese	ppm	<b>&lt;1</b>	<1	<1	<1
Vanadium	ppm	<b>0</b>	<1	0	<1



## ADDITIVES

Calcium	ppm	<b>1527</b>	1757	1618	1744
Magnesium	ppm	<b>499</b>	518	517	498
Zinc	ppm	<b>1090</b>	1127	1100	1169
Phosphorus	ppm	<b>907</b>	947	927	963
Barium	ppm	<b>0</b>	0	0	0
Boron	ppm	<b>32</b>	31	40	24

**Depot:** RIPTAM  
**Unique No:** 10764745  
**Signed:** Wes Davis  
**Report Date:** 30 Nov 2023



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## GRAPHS

