



# CONSTRUCTION EQUIPMENT

SWO-06920 VOLVO A45G 352916 - DIESEL ENGINE



**Sample No:** VCP431068  
**Oil Type:** VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3  
**Job No:** SWO-06920



## SAMPLE INFORMATION

Sample Number	<b>VCP431068</b>	VCP432938	VCP418153	VCP404631
Sample Date	<b>26 Jan 2024</b>	11 Oct 2023	25 Jul 2023	04 May 2023
Machine Hours	<b>4034</b>	3517	3005	2493
Oil Hours	<b>0</b>	0	0	0
Oil Changed	<b>Changed</b>	Changed	Changed	Changed
Sample Status	<b>NORMAL</b>	NORMAL	NORMAL	NORMAL

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## OIL CONDITION

Visc @ 100°C	cSt	<b>12.8</b>	12.8	12.5	12.7
Base Number (BN)	mg KOH/g	<b>9.8</b>	10.1	9.8	9.7
Oxidation (PA)	%	<b>77</b>	79	76	80

## 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>0.6</b>	0.5	0.4	0.3
Nitration (PA)	%	<b>62</b>	59	57	61
Sulfation (PA)	%	<b>60</b>	62	60	63
Glycol	%	<b>NEG</b>	NEG	NEG	NEG
Fuel	%	<b>&lt;1.0</b>	<1.0	<1.0	<1.0
Silicon	ppm	<b>6</b>	7	6	6
Sodium	ppm	<b>2</b>	2	3	0
Potassium	ppm	<b>2</b>	0	0	1



## WEAR METALS

Iron	ppm	<b>11</b>	9	9	12
Copper	ppm	<b>1</b>	2	6	43
Lead	ppm	<b>1</b>	0	0	<1
Tin	ppm	<b>1</b>	<1	<1	1
Aluminum	ppm	<b>3</b>	<1	2	<1
Chromium	ppm	<b>&lt;1</b>	0	<1	<1
Molybdenum	ppm	<b>40</b>	39	48	43
Nickel	ppm	<b>5</b>	1	1	3
Titanium	ppm	<b>0</b>	0	0	<1
Silver	ppm	<b>0</b>	0	0	0
Manganese	ppm	<b>&lt;1</b>	<1	<1	<1
Vanadium	ppm	<b>&lt;1</b>	0	0	0



## ADDITIVES

Calcium	ppm	<b>1571</b>	1581	1804	1669
Magnesium	ppm	<b>518</b>	432	530	485
Zinc	ppm	<b>1129</b>	922	1002	1079
Phosphorus	ppm	<b>973</b>	783	832	908
Barium	ppm	<b>0</b>	0	0	0
Boron	ppm	<b>38</b>	33	40	46

**Depot:** SAIBIR  
**Unique No:** 10857566  
**Signed:** Don Baldrige  
**Report Date:** 01 Feb 2024



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## GRAPHS

