



# CONSTRUCTION EQUIPMENT

SWO-070857 VOLVO A45G 352704 - DIESEL ENGINE



**Sample No:** VCP445584  
**Oil Type:** VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3  
**Job No:** SWO-070857



## SAMPLE INFORMATION

Sample Number	<b>VCP445584</b>	VCP431880	VCP389125	VCP383498
Sample Date	<b>03 Apr 2024</b>	06 Nov 2023	17 Jul 2023	27 Apr 2023
Machine Hours	<b>5412</b>	4902	4405	3920
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>12.5</b>	12.7	12.7	12.9
Base Number (BN)	mg KOH/g	<b>7.0</b>	9.6	9.9	8.8
Oxidation (PA)	%	<b>67</b>	82	80	75



## CONTAMINATION

Water	%	<b>NEG</b>	NEG	NEG	NEG
Soot %	%	<b>0.3</b>	0.2	0.2	0.2
Nitration (PA)	%	<b>78</b>	56	57	54
Sulfation (PA)	%	<b>55</b>	62	61	57
Glycol	%	<b>NEG</b>	NEG	NEG	NEG
Fuel	%	<b>&lt;1.0</b>	<1.0	<1.0	<1.0
Silicon	ppm	<b>5</b>	4	5	5
Sodium	ppm	<b>2</b>	2	2	2
Potassium	ppm	<b>2</b>	0	0	<1



## WEAR METALS

Iron	ppm	<b>6</b>	2	5	5
Copper	ppm	<b>2</b>	2	8	14
Lead	ppm	<b>1</b>	<1	<1	0
Tin	ppm	<b>1</b>	<1	<1	0
Aluminum	ppm	<b>4</b>	2	0	<1
Chromium	ppm	<b>1</b>	0	<1	0
Molybdenum	ppm	<b>104</b>	36	40	38
Nickel	ppm	<b>1</b>	<1	<1	0
Titanium	ppm	<b>&lt;1</b>	0	<1	<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	<1	0



## ADDITIVES

Calcium	ppm	<b>1344</b>	1624	1740	1575
Magnesium	ppm	<b>633</b>	483	518	487
Zinc	ppm	<b>900</b>	902	1117	1072
Phosphorus	ppm	<b>787</b>	747	929	870
Barium	ppm	<b>&lt;1</b>	0	0	0
Boron	ppm	<b>102</b>	53	50	53

## 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 acceptable for the time in service.

**Depot:** SAIBIR  
**Unique No:** 10967643  
**Signed:** Don Baldrige  
**Report Date:** 11 Apr 2024

**VOLVO** **GRAPHS**

