



# CONSTRUCTION EQUIPMENT

634065 VOLVO A45G 352411 - DIESEL ENGINE



**Sample No:** VCP430739  
**Oil Type:** VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3  
**Job No:** 634065



## SAMPLE INFORMATION

Sample Number	<b>VCP430739</b>	VCP427066	VCP381256	VCP377494
Sample Date	<b>22 Nov 2023</b>	19 Jun 2023	29 Oct 2022	30 Apr 2022
Machine Hours	<b>6275</b>	5591	4395	3478
Oil Hours	<b>0</b>	0	0	0
Oil Changed	<b>Changed</b>	Changed	Changed	Changed
Sample Status	<b>NORMAL</b>	NORMAL	NORMAL	NORMAL

**ORANGE COUNTY SOLID WASTE**  
 5901 YOUNG PINE ROAD  
 ORLANDO, FL  
 US 32829  
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## OIL CONDITION

Visc @ 100°C	cSt	<b>13.2</b>	13.7	13.3	13.4
Base Number (BN)	mg KOH/g	<b>7.1</b>	6.3	8.4	9.1
Oxidation (PA)	%	<b>93</b>	96	98	96

## CONTAMINATION

Water	%	<b>NEG</b>	NEG	NEG	NEG
Soot %	%	<b>0.5</b>	0.7	0.7	0.5
Nitration (PA)	%	<b>97</b>	106	107	94
Sulfation (PA)	%	<b>68</b>	73	71	70
Glycol	%	<b>NEG</b>	NEG	NEG	NEG
Fuel	%	<b>&lt;1.0</b>	<1.0	<1.0	<1.0
Silicon	ppm	<b>4</b>	6	5	6
Sodium	ppm	<b>3</b>	6	5	3
Potassium	ppm	<b>&lt;1</b>	3	1	0

## WEAR METALS

Iron	ppm	<b>10</b>	20	13	13
Copper	ppm	<b>4</b>	20	4	8
Lead	ppm	<b>3</b>	7	2	2
Tin	ppm	<b>1</b>	2	1	1
Aluminum	ppm	<b>2</b>	<1	2	2
Chromium	ppm	<b>&lt;1</b>	1	<1	<1
Molybdenum	ppm	<b>46</b>	52	46	47
Nickel	ppm	<b>1</b>	4	1	3
Titanium	ppm	<b>0</b>	<1	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>1832</b>	2000	1815	1878
Magnesium	ppm	<b>414</b>	396	471	543
Zinc	ppm	<b>1149</b>	1228	1152	1203
Phosphorus	ppm	<b>962</b>	971	940	999
Barium	ppm	<b>0</b>	<1	0	0
Boron	ppm	<b>20</b>	16	15	24

## 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.

**Depot:** ORAORL  
**Unique No:** 10764789  
**Signed:** Wes Davis  
**Report Date:** 30 Nov 2023



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## GRAPHS

