



# CONSTRUCTION EQUIPMENT

SWO-065063 VOLVO A45G 352734 - DIESEL ENGINE



**Sample No:** VCP427433  
**Oil Type:** DIESEL ENGINE OIL SAE 40  
**Job No:** SWO-065063



## SAMPLE INFORMATION

Sample Number	<b>VCP427433</b>	VCP382605	VCP380796	VCP390117
Sample Date	<b>21 Aug 2023</b>	27 Apr 2023	17 Jan 2023	12 Oct 2022
Machine Hours	<b>3997</b>	3463	2987	2471
Oil Hours	<b>0</b>	0	0	0
Oil Changed	<b>Changed</b>	Changed	Changed	Changed
Sample Status	<b>NORMAL</b>	NORMAL	NORMAL	ABNORMAL

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## OIL CONDITION

Visc @ 100°C	cSt	<b>12.5</b>	12.7	12.8	12.9
Base Number (BN)	mg KOH/g	<b>9.5</b>	9.0	9.9	9.6
Oxidation (PA)	%	<b>77</b>	75	78	74

## CONTAMINATION

Soot %	%	<b>0.2</b>	0.2	0.2	0.4
Nitration (PA)	%	<b>54</b>	53	61	73
Sulfation (PA)	%	<b>59</b>	56	61	62
Glycol	%	<b>NEG</b>	NEG	NEG	NEG
Fuel	%	<b>&lt;1.0</b>	<1.0	<1.0	<1.0
Silicon	ppm	<b>5</b>	5	5	5
Sodium	ppm	<b>3</b>	2	2	2
Potassium	ppm	<b>3</b>	<1	<1	10

## WEAR METALS

Iron	ppm	<b>6</b>	7	7	8
Copper	ppm	<b>7</b>	17	86	367
Lead	ppm	<b>2</b>	0	4	<1
Tin	ppm	<b>1</b>	0	1	1
Aluminum	ppm	<b>2</b>	1	<1	2
Chromium	ppm	<b>&lt;1</b>	<1	<1	<1
Molybdenum	ppm	<b>39</b>	39	43	36
Nickel	ppm	<b>2</b>	2	2	0
Titanium	ppm	<b>&lt;1</b>	<1	0	<1
Silver	ppm	<b>0</b>	0	0	0
Manganese	ppm	<b>1</b>	<1	<1	<1
Vanadium	ppm	<b>&lt;1</b>	0	0	0

## ADDITIVES

Calcium	ppm	<b>1670</b>	1579	1949	1604
Magnesium	ppm	<b>497</b>	492	574	521
Zinc	ppm	<b>1106</b>	1081	1196	935
Phosphorus	ppm	<b>899</b>	874	969	781
Barium	ppm	<b>0</b>	0	0	2
Boron	ppm	<b>52</b>	58	55	50

## 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:** SAIBIR  
**Unique No:** 10622175  
**Signed:** Sean Felton  
**Report Date:** 29 Aug 2023



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## GRAPHS

