

# OIL ANALYSIS REPORT



## GEORGE KABATIN DILLON VOLVO PENTA A274740 - PORT DIESEL ENGINE

**Sample No:** VPA053108  
**Oil Type:** VOLVO VDS-4.5 Premium Motor Oil 15W40

### SAMPLE INFORMATION

Sample Number	<b>VPA053108</b>	VPA045697	VPA028115	VPA037073
Sample Date	<b>27 Mar 2024</b>	13 Apr 2023	22 Jun 2022	27 Aug 2021
Machine Hours	<b>463</b>	423	367	354
Oil Hours	<b>0</b>	0	0	0
Oil Changed	<b>Changed</b>	Changed	N/A	Not Changd
Sample Status	<b>NORMAL</b>	NORMAL	NORMAL	NORMAL

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### OIL CONDITION

Visc @ 100°C	cSt	<b>13.4</b>	13.5	13.7	13.6
Base Number (BN)	mg KOH/g	<b>10.7</b>	9.0	11.1	---
Oxidation (PA)	%	<b>69</b>	53	55	57

### CONTAMINATION

Water	%	<b>NEG</b>	NEG	NEG	NEG
Soot %	%	<b>0.2</b>	0.2	0.2	0.2
Nitration (PA)	%	<b>43</b>	42	57	49
Sulfation (PA)	%	<b>57</b>	47	52	55
Glycol	%	<b>NEG</b>	NEG	NEG	NEG
Fuel	%	<b>&lt;1.0</b>	<1.0	<1.0	<1.0
Silicon	ppm	<b>6</b>	5	6	6
Sodium	ppm	<b>&lt;1</b>	1	2	2
Potassium	ppm	<b>&lt;1</b>	<1	<1	9

### WEAR METALS

Iron	ppm	<b>6</b>	9	14	9
Copper	ppm	<b>&lt;1</b>	2	4	3
Lead	ppm	<b>0</b>	<1	1	<1
Tin	ppm	<b>0</b>	<1	1	0
Aluminum	ppm	<b>&lt;1</b>	0	1	1
Chromium	ppm	<b>0</b>	<1	<1	<1
Molybdenum	ppm	<b>50</b>	58	45	44
Nickel	ppm	<b>0</b>	<1	1	1
Titanium	ppm	<b>0</b>	0	<1	<1
Silver	ppm	<b>0</b>	0	<1	0
Manganese	ppm	<b>0</b>	<1	<1	<1
Vanadium	ppm	<b>0</b>	0	0	0

### ADDITIVES

Calcium	ppm	<b>1550</b>	1028	1183	1161
Magnesium	ppm	<b>750</b>	921	891	924
Zinc	ppm	<b>1066</b>	1184	1211	1063
Phosphorus	ppm	<b>934</b>	1008	952	939
Barium	ppm	<b>0</b>	0	0	0
Boron	ppm	<b>39</b>	2	24	20

### Diagnosis

Resample at the next service interval to monitor. Metal levels are typical for a new component breaking in. 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:** VP794951  
**Unique No:** 10953999  
**Signed:** Sean Felton  
**Report Date:** 03 Apr 2024

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# VOLVO PENTA

## GRAPHS

