

# OIL ANALYSIS REPORT



**TYLER/H.R. 1013720600 - PORT DIESEL ENGINE**

**Sample No:** VPA046646  
**Oil Type:** MOBIL DELVAC 1300 SUPER15W40

## SAMPLE INFORMATION

Sample Number	<b>VPA046646</b>	VPA028079	VPA035539	VPA033271
Sample Date	<b>19 Jun 2023</b>	28 Sep 2022	21 Apr 2022	12 Nov 2021
Machine Hours	<b>8194</b>	7106	6612	6072
Oil Hours	<b>582</b>	500	589	500
Oil Changed	<b>Changed</b>	Changed	Changed	Changed
Sample Status	<b>NORMAL</b>	NORMAL	NORMAL	NORMAL

## VIRGINIA PILOT ASSOCIATION

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## OIL CONDITION

Visc @ 100°C	cSt	<b>13.0</b>	13.0	13.5	13.8
Base Number (BN)	mg KOH/g	<b>7.8</b>	9.1	9.4	---
Oxidation (PA)	%	<b>98</b>	94	94	94

## CONTAMINATION

Soot %	%	<b>0.8</b>	0.7	0.6	0.8
Nitration (PA)	%	<b>83</b>	86	75	77
Sulfation (PA)	%	<b>75</b>	76	73	75
Glycol	%	<b>NEG</b>	NEG	NEG	NEG
Fuel	%	<b>&lt;1.0</b>	<1.0	<1.0	<1.0
Silicon	ppm	<b>5</b>	7	5	6
Sodium	ppm	<b>4</b>	6	13	34
Potassium	ppm	<b>4</b>	29	0	2

## WEAR METALS

Iron	ppm	<b>29</b>	17	21	24
Copper	ppm	<b>2</b>	4	2	4
Lead	ppm	<b>5</b>	6	2	7
Tin	ppm	<b>&lt;1</b>	1	<1	<1
Aluminum	ppm	<b>&lt;1</b>	13	2	0
Chromium	ppm	<b>1</b>	0	<1	<1
Molybdenum	ppm	<b>41</b>	37	41	39
Nickel	ppm	<b>1</b>	1	0	0
Titanium	ppm	<b>0</b>	<1	0	<1
Silver	ppm	<b>0</b>	<1	<1	0
Manganese	ppm	<b>&lt;1</b>	1	<1	<1
Vanadium	ppm	<b>0</b>	2	0	0

## ADDITIVES

Calcium	ppm	<b>1725</b>	1589	1794	1751
Magnesium	ppm	<b>503</b>	505	550	502
Zinc	ppm	<b>932</b>	850	868	879
Phosphorus	ppm	<b>722</b>	714	782	744
Barium	ppm	<b>0</b>	0	0	0
Boron	ppm	<b>32</b>	18	41	28

## 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:** VPVIRVIR  
**Unique No:** 10537688  
**Signed:** Jonathan Hester  
**Report Date:** 03 Jul 2023

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# VOLVO PENTA

## GRAPHS

