

# OIL ANALYSIS REPORT



**RICK MYERS DANIEL 502689 VOLVO PENTA D6-435D-A 2006011031 - STARBOARD DIESEL ENGINE**

**Sample No:** VPA059621

**Oil Type:** DIESEL ENGINE OIL SAE 15W40

## SAMPLE INFORMATION

Sample Number	<b>VPA059621</b>	VPA045937	VPA011767	---
Sample Date	<b>23 Jan 2024</b>	01 May 2023	10 Aug 2016	---
Machine Hours	<b>988</b>	955	558	---
Oil Hours	<b>0</b>	0	30	---
Oil Changed	<b>Changed</b>	Changed	N/A	---
Sample Status	<b>NORMAL</b>	ABNORMAL	NORMAL	---

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## OIL CONDITION

Visc @ 100°C	cSt	<b>13.0</b>	13.4	14.3	---
Base Number (BN)	mg KOH/g	<b>10.2</b>	8.7	---	---
Oxidation (PA)	%	<b>59</b>	61	44	---

## CONTAMINATION

Water	%	<b>NEG</b>	NEG	NEG	---
Soot %	%	<b>0.1</b>	0.1	0	---
Nitration (PA)	%	<b>52</b>	62	50	---
Sulfation (PA)	%	<b>52</b>	51	42	---
Glycol	%	<b>NEG</b>	NEG	NEG	---
Fuel	%	<b>&lt;1.0</b>	<1.0	<1.0	---
Silicon	ppm	<b>3</b>	5	5	---
Sodium	ppm	<b>2</b>	19	6	---
Potassium	ppm	<b>0</b>	2	1	---

## 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.

## WEAR METALS

Iron	ppm	<b>14</b>	42	5	---
Copper	ppm	<b>4</b>	10	4	---
Lead	ppm	<b>1</b>	2	2	---
Tin	ppm	<b>&lt;1</b>	<1	2	---
Aluminum	ppm	<b>24</b>	79	1	---
Chromium	ppm	<b>2</b>	4	<1	---
Molybdenum	ppm	<b>60</b>	53	43	---
Nickel	ppm	<b>&lt;1</b>	<1	<1	---
Titanium	ppm	<b>0</b>	0	0	---
Silver	ppm	<b>0</b>	0	<1	---
Manganese	ppm	<b>&lt;1</b>	<1	<1	---
Vanadium	ppm	<b>0</b>	0	0	---

## ADDITIVES

Calcium	ppm	<b>1030</b>	1028	1149	---
Magnesium	ppm	<b>967</b>	963	776	---
Zinc	ppm	<b>1246</b>	1269	1136	---
Phosphorus	ppm	<b>1061</b>	996	1024	---
Barium	ppm	<b>0</b>	0	0	---
Boron	ppm	<b>0</b>	3	16	---

**Depot:** VP794951  
**Unique No:** 10925647  
**Signed:** Don Baldrige  
**Report Date:** 14 Mar 2024

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# VOLVO PENTA

## GRAPHS

