

# OIL ANALYSIS REPORT



## SUNBERNER VOLVO PENTA 701 1462833 - STARBOARD DIESEL ENGINE

**Sample No:** VPA055258  
**Oil Type:** NOT GIVEN

### SAMPLE INFORMATION

Sample Number	<b>VPA055258</b>	VPA056018	VPA055101	---
Sample Date	<b>10 Jul 2023</b>	05 Jul 2023	28 Jun 2023	---
Machine Hours	<b>413</b>	0	393	---
Oil Hours	<b>0</b>	0	0	---
Oil Changed	<b>N/A</b>	N/A	N/A	---
Sample Status	<b>MARGINAL</b>	MARGINAL	SEVERE	---

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### OIL CONDITION

Visc @ 100°C	cSt	<b>13.6</b>	13.49	12.04	---
Base Number (BN)	mg KOH/g	<b>9.2</b>	8.7	7.8	---
Oxidation (PA)	%	<b>42</b>	47	60	---

### CONTAMINATION

Soot %	%	<b>0.1</b>	0.1	0.2	---
Nitration (PA)	%	<b>37</b>	35	49	---
Sulfation (PA)	%	<b>54</b>	55	52	---
Glycol	%	<b>NEG</b>	NEG	NEG	---
Fuel	%	<b>4.4</b>	4.3	9.1	---
Silicon	ppm	<b>5</b>	6	13	---
Sodium	ppm	<b>0</b>	0	0	---
Potassium	ppm	<b>1</b>	<1	2	---

### WEAR METALS

Iron	ppm	<b>5</b>	4	9	---
Copper	ppm	<b>20</b>	16	39	---
Lead	ppm	<b>&lt;1</b>	<1	<1	---
Tin	ppm	<b>&lt;1</b>	<1	<1	---
Aluminum	ppm	<b>&lt;1</b>	0	0	---
Chromium	ppm	<b>0</b>	<1	<1	---
Molybdenum	ppm	<b>30</b>	28	46	---
Nickel	ppm	<b>&lt;1</b>	0	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>715</b>	669	1304	---
Magnesium	ppm	<b>400</b>	391	557	---
Zinc	ppm	<b>681</b>	630	1077	---
Phosphorus	ppm	<b>1116</b>	1086	918	---
Barium	ppm	<b>0</b>	2	0	---
Boron	ppm	<b>116</b>	137	17	---

### Diagnosis

No corrective action is recommended at this time. Resample at the next service interval to monitor. All component wear rates are normal. Light fuel dilution occurring. No other contaminants were detected 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:** VP867279  
**Unique No:** 10552500  
**Signed:** Doug Bogart  
**Report Date:** 13 Jul 2023

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**VOLVO  
PENTA**

## GRAPHS

