

# OIL ANALYSIS REPORT

**VOLVO  
PENTA**

## MOSHE BEGIMK VOLVO PENTA A271549 - PORT DIESEL ENGINE

**Sample No:** VPA051156  
**Oil Type:** VOLVO PENTA SAE 15W40

### SAMPLE INFORMATION

Sample Number	<b>VPA051156</b>	VPA026333	VPA015095	VPA011880
Sample Date	<b>08 Jan 2024</b>	11 Aug 2020	15 Mar 2017	02 May 2016
Machine Hours	<b>643</b>	396	240	0
Oil Hours	<b>0</b>	0	0	0
Oil Changed	<b>Not Changd</b>	Not Changd	Not Changd	Changed
Sample Status	<b>ABNORMAL</b>	NORMAL	NORMAL	NORMAL

### ADMIRALTY MARINE

2775 KURTZ ST, STE 12  
SAN DIEGO, CA  
US 92110  
Contact: Terry Albee  
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### OIL CONDITION

Visc @ 100°C	cSt	<b>13.3</b>	13.4	13.23	14.1
Base Number (BN)	mg KOH/g	<b>9.8</b>	---	---	---
Oxidation (PA)	%	<b>55</b>	57	32	40

### CONTAMINATION

Water	%	<b>NEG</b>	NEG	NEG	NEG
Soot %	%	<b>0.2</b>	0.1	0	0
Nitration (PA)	%	<b>43</b>	47	33	42
Sulfation (PA)	%	<b>50</b>	53	36	42
Glycol	%	<b>NEG</b>	NEG	NEG	NEG
Fuel	%	<b>&lt;1.0</b>	<1.0	<1.0	<1.0
Silicon	ppm	<b>6</b>	6	6	12
Sodium	ppm	<b>▲ 153</b>	2	3	4
Potassium	ppm	<b>8</b>	<1	<1	2

### WEAR METALS

Iron	ppm	<b>79</b>	16	10	9
Copper	ppm	<b>5</b>	3	2	3
Lead	ppm	<b>5</b>	<1	0	<1
Tin	ppm	<b>&lt;1</b>	<1	<1	<1
Aluminum	ppm	<b>▲ 54</b>	2	2	2
Chromium	ppm	<b>4</b>	<1	<1	<1
Molybdenum	ppm	<b>51</b>	55	55	38
Nickel	ppm	<b>1</b>	1	<1	<1
Titanium	ppm	<b>&lt;1</b>	0	0	0
Silver	ppm	<b>0</b>	0	0	0
Manganese	ppm	<b>&lt;1</b>	<1	2	<1
Vanadium	ppm	<b>0</b>	0	0	0

### ADDITIVES

Calcium	ppm	<b>902</b>	1042	1017	1582
Magnesium	ppm	<b>848</b>	906	838	626
Zinc	ppm	<b>1093</b>	1013	1022	1069
Phosphorus	ppm	<b>1046</b>	981	916	1018
Barium	ppm	<b>0</b>	0	<1	0
Boron	ppm	<b>&lt;1</b>	4	17	74

### Diagnosis

No corrective action is recommended at this time. We recommend an early resample to monitor this condition. The aluminum level is abnormal. All other component wear rates are normal. The high sodium (Na) level indicates the possible presence of salt water. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

**Depot:** VP151529  
**Unique No:** 10821652  
**Signed:** Jonathan Hester  
**Report Date:** 10 Jan 2024

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## GRAPHS

