

# OIL ANALYSIS REPORT

# VOLVO PENTA

## NADINE URCIUOLI NANCY HATTERSLEY VOLVO PENTA A1093658 - CENTER DIESEL ENGINE

Sample No: VPA051584

Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3

### SAMPLE INFORMATION

Sample Number	VPA051584	---	---	---
Sample Date	08 May 2024	---	---	---
Machine Hours	222	---	---	---
Oil Hours	222	---	---	---
Oil Changed	Changed	---	---	---
Sample Status	ATTENTION	---	---	---

### Helmut's Marine Service

619 Canal Street  
SAN RAFAEL, CA  
US 94901-3545  
Contact: NADINE URCIUOLI  
SERVICE@HELMUTSMARINE.COM

T: x:

F: x:

### OIL CONDITION

Visc @ 100°C	cSt	█ 12.8	---	---	---
Base Number (BN)	mg KOH/g	█ 9.8	---	---	---
Oxidation (PA)	%	59	---	---	---

### Diagnosis

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor. The aluminum level is abnormal. All other 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 acceptable for the time in service.

### CONTAMINATION

Water	%	NEG	---	---	---
Soot %	%	█ 0.1	---	---	---
Nitration (PA)	%	46	---	---	---
Sulfation (PA)	%	52	---	---	---
Glycol	%	NEG	---	---	---
Fuel	%	< 1.0	---	---	---
Silicon	ppm	█ 25	---	---	---
Sodium	ppm	█ 13	---	---	---
Potassium	ppm	█ 6	---	---	---

### WEAR METALS

Iron	ppm	█ 26	---	---	---
Copper	ppm	█ 16	---	---	---
Lead	ppm	█ 7	---	---	---
Tin	ppm	█ 4	---	---	---
Aluminum	ppm	● 50	---	---	---
Chromium	ppm	█ 6	---	---	---
Molybdenum	ppm	█ 56	---	---	---
Nickel	ppm	█ 5	---	---	---
Titanium	ppm	█ 2	---	---	---
Silver	ppm	█ 3	---	---	---
Manganese	ppm	█ 3	---	---	---
Vanadium	ppm	2	---	---	---

### ADDITIVES

Calcium	ppm	█ 1165	---	---	---
Magnesium	ppm	█ 836	---	---	---
Zinc	ppm	█ 1161	---	---	---
Phosphorus	ppm	█ 1000	---	---	---
Barium	ppm	█ 2	---	---	---
Boron	ppm	█ 12	---	---	---

Depot: VP152741

Unique No: 11033674

Signed: Don Baldrige

Report Date: 20 May 2024

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## GRAPHS

