

# OIL ANALYSIS REPORT

# VOLVO PENTA

## VALA RAD VOLVO PENTA 4012145131 - STARBOARD GASOLINE ENGINE

Sample No: VPA062008

Oil Type: CHEVRON DELO 400 SAE 30

### SAMPLE INFORMATION

Sample Number	VPA062008	---	---	---
Sample Date	06 May 2024	---	---	---
Machine Hours	475	---	---	---
Oil Hours	5	---	---	---
Oil Changed	Changed	---	---	---
Sample Status	SEVERE	---	---	---

### OIL CONDITION

Visc @ 100°C	cSt	█ 10.1	---	---	---
Base Number (BN)	mg KOH/g	█ 10.2	---	---	---
Oxidation (PA)	%	33	---	---	---

### CONTAMINATION

Water	%	▲ 0.361	---	---	---
Soot %	%	█ 0.1	---	---	---
Nitration (PA)	%	42	---	---	---
Sulfation (PA)	%	45	---	---	---
Glycol	%	NEG	---	---	---
Fuel	%	<1.0	---	---	---
Silicon	ppm	█ 49	---	---	---
Sodium	ppm	▲ 984	---	---	---
Potassium	ppm	▲ 39	---	---	---

### WEAR METALS

Iron	ppm	▲ 538	---	---	---
Copper	ppm	█ 75	---	---	---
Lead	ppm	█ 4	---	---	---
Tin	ppm	█ <1	---	---	---
Aluminum	ppm	▲ 40	---	---	---
Chromium	ppm	▲ 12	---	---	---
Molybdenum	ppm	█ 53	---	---	---
Nickel	ppm	▲ 6	---	---	---
Titanium	ppm	█ <1	---	---	---
Silver	ppm	█ 0	---	---	---
Manganese	ppm	█ 4	---	---	---
Vanadium	ppm	<1	---	---	---

### ADDITIVES

Calcium	ppm	█ 3359	---	---	---
Magnesium	ppm	█ 125	---	---	---
Zinc	ppm	█ 1124	---	---	---
Phosphorus	ppm	█ 1023	---	---	---
Barium	ppm	█ 2	---	---	---
Boron	ppm	█ 448	---	---	---

**Cogswell Marine & Motorsports, Inc**  
865 Stella Street  
CHULA VISTA, CA  
US 91911  
Contact: Mitchell Cogswell  
Cogswellmarinemotorsports@gmail.com  
T:  
F:

### Diagnosis

We advise that you check for the source of the coolant leak. Check for low coolant level. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition. Piston, ring and cylinder wear is indicated. Valve wear is indicated. Sodium and/or potassium levels are high. There is a moderate concentration of water present in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil.

Depot: VP152133  
Unique No: 11022477  
Signed: Jonathan Hester  
Report Date: 16 May 2024

# OIL ANALYSIS REPORT



## GRAPHS

