

# OIL ANALYSIS REPORT

# VOLVO PENTA

## HAL N. THESEN HAL WESTERBEKE 4-99 HAL N. THESEN - CENTER DIESEL ENGINE

Sample No: VPA060763

Oil Type: CHEVRON DELO 400 SAE 30

### SAMPLE INFORMATION

Sample Number	VPA060763	---	---	---
Sample Date	24 Apr 2024	---	---	---
Machine Hours	190	---	---	---
Oil Hours	20	---	---	---
Oil Changed	Changed	---	---	---
Sample Status	SEVERE	---	---	---

### OIL CONDITION

Visc @ 100°C	cSt	▲ 7.0	---	---	---
Base Number (BN)	mg KOH/g	■ 8.7	---	---	---
Oxidation (PA)	%	■ 30	---	---	---

### CONTAMINATION

Water	%	NEG	---	---	---
Soot %	%	■ 0.2	---	---	---
Nitration (PA)	%	■ 38	---	---	---
Sulfation (PA)	%	■ 42	---	---	---
Glycol	%	NEG	---	---	---
Fuel	%	▲ 18.3	---	---	---
Silicon	ppm	■ 5	---	---	---
Sodium	ppm	■ 2	---	---	---
Potassium	ppm	■ 0	---	---	---

### WEAR METALS

Iron	ppm	■ 13	---	---	---
Copper	ppm	■ 2	---	---	---
Lead	ppm	■ 2	---	---	---
Tin	ppm	■ <1	---	---	---
Aluminum	ppm	■ 3	---	---	---
Chromium	ppm	■ 3	---	---	---
Molybdenum	ppm	■ 38	---	---	---
Nickel	ppm	■ 0	---	---	---
Titanium	ppm	<1	---	---	---
Silver	ppm	■ 0	---	---	---
Manganese	ppm	■ <1	---	---	---
Vanadium	ppm	0	---	---	---

### ADDITIVES

Calcium	ppm	■ 2853	---	---	---
Magnesium	ppm	■ 86	---	---	---
Zinc	ppm	■ 977	---	---	---
Phosphorus	ppm	■ 876	---	---	---
Barium	ppm	■ 0	---	---	---
Boron	ppm	■ 348	---	---	---

**Northwest Diesel Power**  
1325 ROEDER AVE SUITE 103  
BELLINGHAM, WA  
US 98225  
Contact: BRANDON ROBERTSON  
parts@nwdieselpower.com  
T:  
F:

### Diagnosis

We advise that you check the fuel injection system. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition. All component wear rates are normal. There is a high amount of fuel present in the oil. Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

**Depot:** VP759009  
**Unique No:** 11002972  
**Signed:** Sean Felton  
**Report Date:** 01 May 2024

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## GRAPHS

